

# **UNIVERSITY PROGRAM MANAGEMENT INFORMATION SYSTEM**

**FY 2001**

**Prepared by:**

**Office of Human Resources and Education  
Education Division/FE**

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## **IMPORTANT NOTICE**

This report is compiled primarily from information obtained from two internal NASA sources:

1. "CASE Report on Support of Colleges and Universities" (NASA Form 1356).
2. "Individual Procurement Action Report" (NASA Form 507).

Therefore, other sources should be used for completing Forms 507 and 1356.

Information in this publication is reviewed and revised for accuracy. Should any differences exist between publications, the latest edition should take precedence over earlier ones.

# **NASA's UNIVERSITY PROGRAM**

## **ACTIVE PROJECTS**

**FISCAL YEAR 2001**

**Gary Gans, Project Manager**

**National Aeronautics and Space Administration  
Office of Human Resources and Education  
Education Division/FE  
Washington, DC 20546-0001**

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## **FOREWORD**

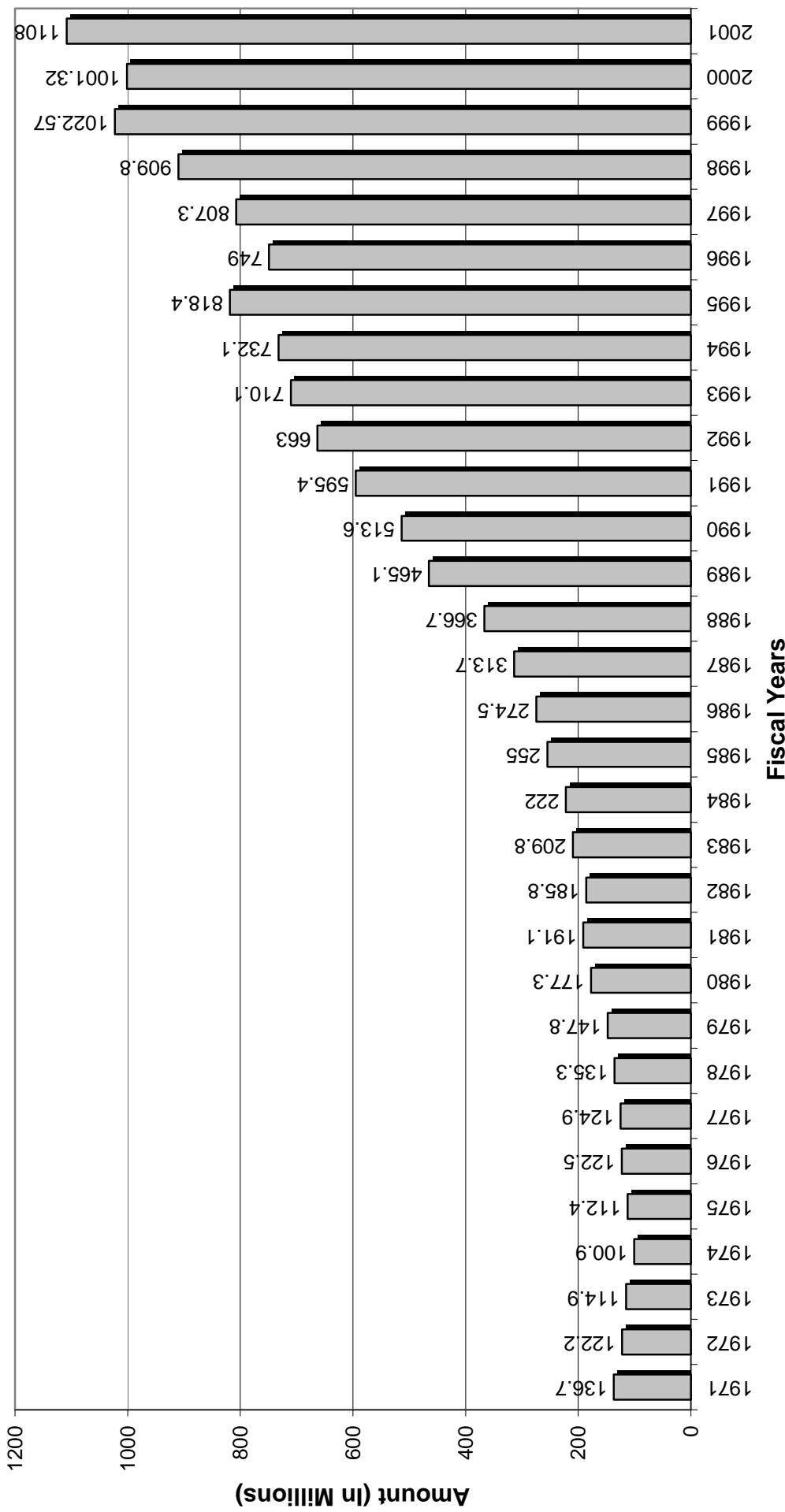
As basic policy, NASA believes that colleges and universities should be encouraged to participate in the nation's space and aeronautics program to the maximum extent practicable. Indeed, universities are considered as partners with government and industry in the nation's aerospace program. NASA's objective is to have them bring their scientific, engineering, and social research competence to bear on aerospace problems and on the broader social, economic, and international implications of NASA's technical and scientific programs. It is expected that, in so doing, universities will strengthen both their research and their educational capabilities to contribute more effectively to the national well-being.

This annual report is one means of documenting the NASA-university relationship, frequently denoted, collectively, as NASA's University Program. This report is consistent with agency accounting records, as the data is obtained from NASA's Financial and Contractual Status (FACS) System, operated by the Financial Management Division and the Procurement Office. However, in accordance with interagency agreements, the orientation differs from that required for financial or procurement purposes. Any apparent discrepancies between this report and other NASA procurement or financial reports stem from the selection criteria for the data.\*

This report was prepared by the Education Division/FE, Office of Human Resources and Education.

\* Agreements which meet active criteria definition and have deobligations may result in agreements having negative obligations in the body of this publication.

## NASA Obligations to Universities Fiscal Years 1971-2001



NOTE: Excludes awards to California Institute of Technology for operation of the Jet Propulsion Laboratory. This chart includes deobligations.

FY 1971 includes \$5.0M in awards to Draper Lab.  
FY 1972 includes \$5.7M in awards to Draper Lab.

FY 1973 includes \$5.2M in awards to Draper Lab.  
FY 1974 Draper Lab status changed from "university" to "nonprofit."

**FIFTY EDUCATIONAL INSTITUTIONS  
LISTED ACCORDING TO TOTAL OBLIGATIONS – FY 2001**

	INSTITUTION	OBLIGATIONS	PERCENT
<b>TOTALS*</b>		<b>1,108,005,020</b>	<b>100.00</b>
1	Johns Hopkins University .....	129,967,230	11.73
2	Stanford University.....	54,331,156	4.90
3	University of Colorado – Boulder .....	44,527,133	4.02
4	University of Maryland – College Park.....	41,925,149	3.78
5	Massachusetts Institute of Technology.....	31,363,846	2.83
6	Baylor College of Medicine .....	28,374,818	2.56
7	University of Alabama – Huntsville .....	28,288,990	2.55
8	California Institute of Technology .....	26,538,386	2.40
9	University of California – Berkeley.....	25,130,283	2.27
10	Pennsylvania State University – University Park.....	17,730,315	1.60
11	New Mexico State University – Las Cruces.....	16,833,405	1.52
12	University of Arizona .....	15,774,105	1.42
13	University of Missouri – Columbia .....	15,725,913	1.42
14	University of Alaska – Fairbanks .....	14,287,061	1.29
15	Columbia University .....	14,145,037	1.28
16	University of Maryland – Baltimore County.....	13,649,552	1.23
17	University of Hawaii – Honolulu .....	13,324,123	1.20
18	University of Alabama – Birmingham.....	12,884,176	1.16
19	University of California – San Diego.....	12,694,644	1.15
20	University of Wisconsin – Madison .....	12,541,084	1.13
21	University of Texas – Austin .....	11,193,695	1.01
22	University of California – Los Angeles .....	9,761,626	0.88
23	University of Washington .....	9,613,830	0.87
24	Wheeling Jesuit University.....	9,393,640	0.85
25	Montana State University .....	9,074,658	0.82
26	University of Houston – Clear Lake .....	9,042,491	0.82
27	Georgia Institute of Technology .....	8,533,057	0.77
28	University of New Hampshire – Durham.....	8,273,330	0.75
29	Mississippi State University .....	8,106,152	0.73
30	Carnegie-Mellon University .....	8,098,657	0.73
31	University of Michigan – Ann Arbor .....	8,072,957	0.73
32	George Mason University .....	7,824,354	0.71
33	Oklahoma State University .....	7,535,275	0.68
34	University of California – Santa Barbara.....	7,390,397	0.67
35	Texas A&M University – College Station .....	7,324,198	0.66
36	Old Dominion University .....	7,188,074	0.65
37	University of New Mexico – Albuquerque .....	6,887,204	0.62
38	Hampton University.....	6,591,090	0.59
39	San Jose State University .....	6,460,202	0.58
40	Harvard University .....	6,458,917	0.58
41	Oregon State University .....	6,420,974	0.58
42	Utah State University .....	6,234,239	0.56
43	University of California – Irvine .....	6,133,406	0.55
44	University of Houston – Houston .....	5,996,646	0.54
45	Cornell University .....	5,929,481	0.54
46	University of Miami.....	5,507,678	0.50
47	University of Illinois – Urbana .....	5,261,266	0.47
48	Case Western Reserve .....	5,184,079	0.47
49	University of Minnesota – Twin Cities.....	5,172,987	0.47
50	Colorado State University .....	4,971,167	0.45
	Other Colleges & Universities** .....	318,332,887	28.73

\* Excludes awards to California Institute of Technology for operation of the Jet Propulsion Laboratory.

Totals include de-obligations for this chart.

\*\* Includes both foreign and domestic universities and colleges.

**STATES AND U.S. TERRITORIES BY OBLIGATIONS**  
**FISCAL YEAR 2001 (October 1, 2000 through September 30, 2001)**

	STATE	OBLIGATIONS (WHOLE DOLLARS)	PERCENT
<b>TOTALS*</b>		<b>1,107,563,141</b>	<b>100.00</b>
1	Maryland .....	191,365,787 .....	17.28
2	California .....	178,347,204 .....	16.10
3	Texas .....	80,982,535 .....	7.31
4	Massachusetts .....	52,441,476 .....	4.73
5	Alabama .....	51,922,483 .....	4.69
6	Colorado .....	50,896,932 .....	4.60
7	New York .....	37,650,450 .....	3.40
8	Virginia .....	34,523,643 .....	3.12
9	Pennsylvania .....	32,357,715 .....	2.92
10	Ohio .....	26,296,437 .....	2.37
11	New Mexico .....	25,508,973 .....	2.30
12	Florida .....	25,206,039 .....	2.28
13	Arizona .....	21,686,898 .....	1.96
14	Missouri .....	21,440,255 .....	1.94
15	Georgia .....	18,670,276 .....	1.69
16	West Virginia .....	14,734,682 .....	1.33
17	Alaska .....	14,287,061 .....	1.29
18	Mississippi .....	14,125,119 .....	1.28
19	Montana .....	13,409,751 .....	1.21
20	Wisconsin .....	13,340,450 .....	1.20
21	Hawaii .....	13,323,984 .....	1.20
22	Michigan .....	12,421,719 .....	1.12
23	Illinois .....	12,105,363 .....	1.09
24	New Jersey .....	11,000,768 .....	0.99
25	Washington .....	10,689,480 .....	0.97
26	New Hampshire .....	9,784,585 .....	0.88
27	North Carolina .....	9,756,602 .....	0.88
28	Oklahoma .....	9,458,473 .....	0.85
29	Utah .....	8,878,640 .....	0.80
30	District of Columbia .....	8,120,950 .....	0.73
31	Tennessee .....	8,062,375 .....	0.73
32	Oregon .....	7,907,481 .....	0.71
33	Iowa .....	7,079,881 .....	0.64
34	Louisiana .....	6,911,111 .....	0.62
35	Indiana .....	6,158,303 .....	0.56
36	South Carolina .....	5,308,808 .....	0.48
37	Minnesota .....	5,227,958 .....	0.47
38	Kansas .....	4,962,967 .....	0.45
39	Connecticut .....	4,726,271 .....	0.43
40	North Dakota .....	4,015,975 .....	0.36
41	Puerto Rico .....	3,811,968 .....	0.34
42	Rhode Island .....	3,770,546 .....	0.34
43	Idaho .....	3,303,087 .....	0.30
44	Nebraska .....	2,507,037 .....	0.23
45	Kentucky .....	2,328,954 .....	0.21
46	Nevada .....	1,899,440 .....	0.17
47	South Dakota .....	1,412,937 .....	0.13
48	Delaware .....	1,297,051 .....	0.12
49	Maine .....	853,644 .....	0.08
50	Vermont .....	449,324 .....	0.04
51	Arkansas .....	420,285 .....	0.04
52	Wyoming .....	413,008 .....	0.04

\* Starting in FY 1993, Active Actions with de-obligations will be reported in this chart.

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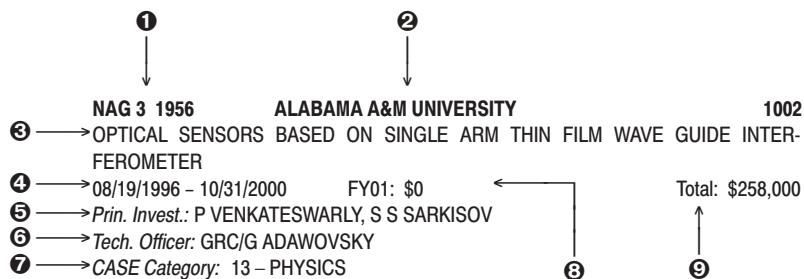
This report includes data on projects active during Fiscal Year 2001.

Alabama .....	1	Nebraska .....	340
Alaska .....	16	Nevada .....	341
Arizona .....	19	New Hampshire .....	343
Arkansas .....	40	New Jersey .....	350
California .....	41	New Mexico .....	360
Colorado .....	119	New York .....	367
Connecticut .....	144	North Carolina .....	394
Delaware .....	149	North Dakota .....	404
District of Columbia .....	152	Ohio .....	405
Florida .....	161	Oklahoma .....	428
Georgia .....	180	Oregon .....	430
Hawaii .....	191	Pennsylvania .....	435
Idaho .....	199	Rhode Island .....	457
Illinois .....	200	South Carolina .....	461
Indiana .....	214	South Dakota .....	466
Iowa .....	222	Tennessee .....	467
Kansas .....	227	Texas .....	474
Kentucky .....	230	Utah .....	501
Louisiana .....	233	Vermont .....	506
Maine .....	238	Virginia .....	507
Maryland .....	239	Washington .....	533
Massachusetts .....	276	West Virginia .....	544
Michigan .....	306	Wisconsin .....	546
Minnesota .....	320	Wyoming .....	555
Mississippi .....	326	Commonwealth of Puerto Rico .....	556
Missouri .....	329	Foreign Countries .....	558
Montana .....	337		
Appendix/Cross Index by Field of Science and Engineering .....	561		

# USER'S GUIDE

The University Program Report provides current information and related statistics for each grant/contract/cooperative agreement active during the report period. The following guidance is provided as an aid to the reader in readily locating material of interest and in optimizing the use of this document.

## I. Typical Citation



### KEY

1. Agreement number\*
2. Institution name
3. Brief work description
4. Approximate period of performance
5. Principal investigator(s) at the educational institution
6. NASA Technical Officer(s) and organizational location
7. CASE Field of Science and Engineering code and name
8. Amount (if any) actually provided during the indicated fiscal year
9. Total amount actually provided during the indicated period of performance

\* Uniquely identifies project. Prefixes denote type of instrument as follows:

Grants: NAG, NAGW, NGF, NGT, NGL, NGR, NSG

Cooperative Agreements: NCC, NCCW

Contracts: DEN, NAS, NASR, NASW, NSR

Space Act Agreements: NCA

## II. NASA Installations

NASA installations are included in the citation as abbreviations (item 7). The following listing of installations will be useful to those desiring further information on specific projects.

Mr. Gary Gans Code FE <b>NASA Headquarters</b> Office of Human Resources and Education Washington, DC 20546-0001 Phone: (202) 358-1110	HQ	Mr. Gregg Buckingham Mail Stop XA-D1 <b>John F. Kennedy Space Center</b> Kennedy Space Center, FL 32899 Phone: (321) 867-8777 Fax: (321) 867-2097 E-mail: Gregg.Buckingham-1@ksc.nasa.gov	KSC
Mr. Donn James (Acting) Mail Stop 204-14 <b>Ames Research Center</b> Moffett Field, CA 94035-1000 Phone: (650) 604-4967 Fax: (650) 604-0971 E-mail: djames@mail.arc.nasa.gov	ARC	Mr. Roger A. Hathaway Mail Stop 400 <b>Langley Research Center</b> Hampton, VA 23681-2199 Phone: (757) 864-4000 Fax: (757) 864-8835 E-mail: r.a.hathaway@larc.nasa.gov	LARC
Dr. Kajal K. Gupta <b>NASA Dryden Flight Research Center</b> P.O. Box 273, Mail Stop D2701 Edwards, CA 93523-0273 Phone: (661) 258-3710 Fax: (661) 258-3744 E-mail: kajal.gupta@mail.dfrc.nasa.gov	DFRC	Dr. Francis J. Montegani <b>NASA Glenn Research Center</b> Cleveland, OH 44135 Phone: (216) 433-2956 Fax: (216) 433-3687 E-mail: fjm@grc.nasa.gov	GRC
Ms. Mablelene Burrell Mail Code 160.0 <b>NASA Goddard Space Flight Center</b> Greenbelt, MD 20771 Phone: (301) 286-1122 Fax: (301) 286-1610 E-mail: mburrell@pop100.gsfc.nasa.gov	GSFC	Dr. Shelia Nash-Stevenson <b>George C. Marshall Space Flight Center</b> Mail Stop CD60 MSFC, AL 35812 Phone: (256) 544-3435 Fax: (256) 544-8899 E-mail: Shelia.Nash-Stevenson@msfc.nasa.gov	MSFC
Dr. Donn G. Sickorez Mail Code AH <b>Lyndon B. Johnson Space Center</b> Houston, TX 77058 Phone: (281) 483-4724 Fax: (281) 483-4876 E-mail: donn.g.sickorez1@jsc.nasa.gov	JSC	Dr. Ramona E. Pelletier Travis <b>John C. Stennis Space Center</b> Code FA00 Stennis Space Center, MS 39529 Phone: (228) 688-3832 Fax: (228) 688-7499 E-mail: Ramona.Travis@ssc.nasa.gov	SSC

A full listing of the suffix letters and information on NASA's organizational structure may be found in the NASA Headquarters Telephone Directory. The directory is for sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

### **III. CASE**

The National Science Foundation (NSF) operates a government-wide system originally designed by the Committee on Academic Science and Engineering (CASE) of the Federal Council for Science and Technology. Participating agencies report annually to NSF, which in turn issues the statistical report, Federal Science and Engineering Support to Universities, Colleges and Nonprofit Institutions.

Since its inception, this survey system has been the sole source of data on Federal funding to individual institutions for Science and Engineering (S&E) activities.

### **IV. Cross-Index**

The cross-indexed Appendix provides rapid access to all projects in a particular area of endeavor, and is also easily used to determine the institutions and principal investigators conducting NASA projects.

## ALABAMA

<b>NAG 2 1130</b>	<b>ALABAMA A&amp;M UNIV</b>	<b>1000</b>	<b>NAG 8 1390</b>	<b>ALABAMA A&amp;M UNIV</b>	<b>1008</b>
IRON-ION INDUCED LOW DOSE MUTAGENESIS			R/S "BULK AND THIN FILM ORGANIC NONLINEAR OPTICAL CRYSTALS FOR DEVICES AND MICROGRAVITY PROCESSING"		
06/11/1997 - 06/30/2002	FY01: \$0	Total: \$359,883	07/23/1997 - 07/22/2001	FY01: \$0	Total: \$200,000
<i>Prin. Invest.: P G KALE</i>			<i>Prin. Invest.: M D AGGARWAL</i>		
<i>Tech. Officer: ARC/B J COLLINS, ARC/P X CALLAHAN</i>			<i>Tech. Officer: MSFC/D FRAZIER, MSFC/W J LOVE</i>		
<i>CASE Category: 59 – LIFE SCIENCE, OTHER</i>			<i>CASE Category: 13 – PHYSICS</i>		
<b>NAG 2 1175</b>	<b>ALABAMA A&amp;M UNIV</b>	<b>1001</b>	<b>NAG 8 1400</b>	<b>ALABAMA A&amp;M UNIV</b>	<b>1009</b>
NEURAL NETWORK ANALYSIS OF LEAF MULTISPECTRAL REFL ECTANCE FOR DETECTION & DISCRIMINATION OF .....			EFFECT OF DOPANTS ON THE GROWTH & PROPERTIES OF MIXED ORGANIC CRYSTALS FOR NON-LINEAR OPTICAL APPS		
02/03/1998 - 04/30/2002	FY01: \$0	Total: \$299,752	09/19/1997 - 12/29/2000	FY01: -\$9,548	Total: \$200,197
<i>Prin. Invest.: C A BEYL</i>			<i>Prin. Invest.: B PENN</i>		
<i>Tech. Officer: ARC/M H KLISS, ARC/G S LEE</i>			<i>Tech. Officer: MSFC/B PENN</i>		
<i>CASE Category: 54 – ENVIRONMENTAL BIOLOGY</i>			<i>CASE Category: 19 – PHYSICAL SCIENCE, OTHER</i>		
<b>NAG 3 1956</b>	<b>ALABAMA A&amp;M UNIV</b>	<b>1002</b>	<b>NAG 8 1497</b>	<b>ALABAMA A&amp;M UNIV</b>	<b>1010</b>
OPTICAL SENSORS BASED ON SINGLE ARM THIN FILM WAVE GUIDE INTERFEROMETER			COMPUTER MODEL OF THE TVC ELECTROMECHANICAL ACTUATOR		
08/19/1996 - 10/31/2000	FY01: \$0	Total: \$258,000	06/10/1999 - 05/31/2002	FY01: \$87,709	Total: \$252,865
<i>Prin. Invest.: P VENKATESWARLY, S S SARKISOV</i>			<i>Prin. Invest.: A BOND</i>		
<i>Tech. Officer: GRC/G ADAWOVSKY</i>			<i>Tech. Officer: MSFC/J MONTENEGRO</i>		
<i>CASE Category: 13 – PHYSICS</i>			<i>CASE Category: 45 – ELECTRICAL ENGR</i>		
<b>NAG 3 2302</b>	<b>ALABAMA A&amp;M UNIV</b>	<b>1003</b>	<b>NAG 8 1498</b>	<b>ALABAMA A&amp;M UNIV</b>	<b>1011</b>
DEVELOPMENT OF IMPROVED HIGH TEMPERATURE SILICON C ARBIDE SENSORS			ELECTRO-OPTIC MODULATOR BASED ON ORGANIC PLANAR WAVEGUIDE INTEGRATED WITH PRISM COUPLER		
12/13/1999 - 11/02/2001	FY01: \$99,568	Total: \$199,136	06/24/1999 - 05/30/2002	FY01: \$0	Total: \$240,000
<i>Prin. Invest.: DILA, M A GEORGE</i>			<i>Prin. Invest.: S SARKISOV</i>		
<i>Tech. Officer: GRC/D J LARKIN, GRC/R LAWRENCE</i>			<i>Tech. Officer: MSFC/B PENN</i>		
<i>CASE Category: 45 – ELECTRICAL ENGR</i>			<i>CASE Category: 13 – PHYSICS</i>		
<b>NAG 5 9885</b>	<b>ALABAMA A&amp;M UNIV</b>	<b>1004</b>	<b>NAG 8 1541</b>	<b>ALABAMA A&amp;M UNIV</b>	<b>1012</b>
STUDENT REFLECTION GPS EXPERIMENT			CYTogenetic INVESTIGATIONS INTO RADIOSensitivity		
08/24/2000 - 02/14/2002	FY01: \$0	Total: \$100,000	07/17/1998 - 07/16/2002	FY01: \$0	Total: \$204,804
<i>Prin. Invest.: A MANU</i>			<i>Prin. Invest.: D KALE</i>		
<i>Tech. Officer: GSFC/C PERSON</i>			<i>Tech. Officer: MSFC/R C RICHMOND</i>		
<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>			<i>CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)</i>		
<b>NAG 5 10202</b>	<b>ALABAMA A&amp;M UNIV</b>	<b>1005</b>	<b>NAG 8 1560</b>	<b>ALABAMA A&amp;M UNIV</b>	<b>1013</b>
SPACE SCIENCE EDUCATION & THE SUN-EARTH CONNECTION			MATHEMATICAL SAFETY ANALYSIS		
12/22/2000 - 12/31/2001	FY01: \$225,000	Total: \$225,000	09/30/1999 - 09/30/2002	FY01: \$79,956	Total: \$199,912
<i>Prin. Invest.: A TAN</i>			<i>Prin. Invest.: M A ELSHAMY</i>		
<i>Tech. Officer: GSFC/P SAKIMOTO</i>			<i>Tech. Officer: MSFC/D O FRAZIER</i>		
<i>CASE Category: 31 – ATMOSPHERIC SCIENCE</i>			<i>CASE Category: 21 – MATHEMATICS</i>		
<b>NAG 5 10721</b>	<b>ALABAMA A&amp;M UNIV</b>	<b>1006</b>	<b>NAG 8 1614</b>	<b>ALABAMA A&amp;M UNIV</b>	<b>1014</b>
CENTER FOR HYDROLOGY, SOIL CLIMATOLOGY, AND REMOTE SENSING (HSCARS): CONTINUATION OF A GROUP 2 MINOR			RESEARCH ENTITLED: INVESTIGATION OF STRUCTURAL PROPERTIES OF COMPOSITE SMART MATERIALS.		
04/20/2001 - 04/14/2002	FY01: \$759,171	Total: \$759,171	09/09/1999 - 10/15/2002	FY01: \$98,582	Total: \$197,216
<i>Prin. Invest.: T COLEMAN</i>	<i>Prin. Invest.: NONE</i>		<i>Prin. Invest.: A SHARMA</i>		
<i>Tech. Officer: GSFC/M WEI</i>			<i>Tech. Officer: MSFC/G MYERS</i>		
<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>			<i>CASE Category: 46 – MECHANICAL ENGR</i>		
<b>NAG 8 1335</b>	<b>ALABAMA A&amp;M UNIV</b>	<b>1007</b>	<b>NAG 8 1620</b>	<b>ALABAMA A&amp;M UNIV</b>	<b>1015</b>
R/S "AN INNOVATIVE APPROACH FOR VORTEX TUBE FLOW ANALYSIS AND APPLICATION IN FILM COOLING"			FASAT REACTION SPATIAL-TEMPORAL LIGHT MODULATORS FOR OPTICAL RECOGNITION AND IMAGE PROCESSING.		
03/26/1997 - 05/25/2001	FY01: \$0	Total: \$300,000	08/25/1999 - 08/25/2001	FY01: \$0	Total: \$186,392
<i>Prin. Invest.: K HE</i>			<i>Prin. Invest.: N KUKHATAREV, T KUHTEREVA</i>		
<i>Tech. Officer: MSFC/A CHOW</i>			<i>Tech. Officer: MSFC/B G PENN</i>		
<i>CASE Category: 13 – PHYSICS</i>			<i>CASE Category: 13 – PHYSICS</i>		

**NAG 8 1623**           **ALABAMA A&M UNIV**           **1016**  
INNOVATIVE EXPLORATION OF SEMIORGANIC NONLINEAR OPTICAL MATERIALS FOR OPTICAL PROCESSING APPLIC.  
09/24/1999 - 09/23/2002     FY01: \$80,000           Total: \$200,000  
*Prin. Invest.:* M D AGGARWAL  
*Tech. Officer:* MSFC/B PENN  
*CASE Category:* 47 – METAL & MATERIALS ENGR

**NAG 8 1624**           **ALABAMA A&M UNIV**           **1017**  
INVESTIGATION OF MICROBIAL LIFE IN PLAR ICE AND PERMA FROST  
08/13/1999 - 09/14/2001     FY01: \$0           Total: \$100,000  
*Prin. Invest.:* M G TADROS  
*Tech. Officer:* MSFC/R HOOVER  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NAG 8 1626**           **ALABAMA A&M UNIV**           **1018**  
RESEARCH ENTITLED: "HYPERSONIC NON-EQUILIBRIUM FLOWS WITH LOW REYNOLDS EFFECT"  
09/16/1999 - 05/31/2002     FY01: \$99,775           Total: \$199,057  
*Prin. Invest.:* G S LIAW  
*Tech. Officer:* MSFC/L CHOU, MSFC/W J LOVE  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NAG 8 1642**           **ALABAMA A&M UNIV**           **1019**  
HIGH SCHOOL/HIGH-TECH CAREER DEVELOPMENT PROGRAM IN MATHEMATICS, SCIENCE ENGINEERING, ADN TECH.  
09/30/1999 - 09/29/2002     FY01: \$106,361           Total: \$195,360  
*Prin. Invest.:* B CADY  
*Tech. Officer:* MSFC/W LOVE  
*CASE Category:* 21 – MATHEMATICS

**NAG 8 1643**           **ALABAMA A&M UNIV**           **1020**  
ENHANCEMENT OF STUDENTS IN SCIENCE, ENGINEERING, AND MATHEMATICS.  
09/27/1999 - 03/26/2002     FY01: \$76,273           Total: \$195,592  
*Prin. Invest.:* E TEMPLE  
*Tech. Officer:* MSFC/J DOWDY  
*CASE Category:* 21 – MATHEMATICS

**NAG 8 1655**           **ALABAMA A&M UNIV**           **1021**  
PRODUCTION OF ULTRA-LIGHT MIRRORS  
03/20/2000 - 03/19/2003     FY01: \$0           Total: \$213,819  
*Prin. Invest.:* D ILA  
*Tech. Officer:* MSFC/W LOVE  
*CASE Category:* 49 – ENGINEERING, OTHER

**NAG 8 1800**           **ALABAMA A&M UNIV**           **1022**  
COMPUTATIONAL ANALYSIS OF ION TRAJECTORY IN PULSA MAGNETIC FLUX COMPRESSION REACTION  
06/07/2001 - 10/18/2001     FY01: \$29,719           Total: \$29,719  
*Prin. Invest.:* E W ROTHE, G P RECK  
*Tech. Officer:* GRC/R C ANDERSON  
*CASE Category:* 19 – PHYSICAL SCIENCE, OTHER

**NAG 8 1804**           **ALABAMA A&M UNIV**           **1023**  
RESEARCH, "NUMERICAL PREDUCTION OF DRAG OF AJAX TYPE VEHICLES  
05/17/2001 - 03/14/2005     FY01: \$60,000           Total: \$60,000  
*Prin. Invest.:* Z T DENG  
*Tech. Officer:* MSFC/A CHOW  
*CASE Category:* 46 – MECHANICAL ENGR

**NAG 8 1808**           **ALABAMA A&M UNIV**           **1024**  
RESEARCH, "WEAKLY IONIZED GAS CHARACTERISTICS AND EFFECT ON THE SHOCK WAVE STRUCTURE.  
05/02/2001 - 04/15/2004     FY01: \$95,000           Total: \$95,000  
*Prin. Invest.:* K X HO  
*Tech. Officer:* MSFC/A CHOW  
*CASE Category:* 46 – MECHANICAL ENGR

**NAG 9 1095**           **ALABAMA A&M UNIV**           **1025**  
MICROBIAL VIABILITY AND BIOCIDE EFFICIENCY STUDIES FOR THE INTER SPACE STATION  
03/31/1999 - 03/31/2002     FY01: \$81,916           Total: \$281,916  
*Prin. Invest.:* M TADROS  
*Tech. Officer:* JSC/D PIERSON, JSC/L AREMNDARIZ  
*CASE Category:* 13 – PHYSICS

**NAG10 245**           **ALABAMA A&M UNIV**           **1026**  
MISSION PLANNING AND RISK MANAGEMENT  
04/06/1998 - 05/15/2002     FY01: \$0           Total: \$292,002  
*Prin. Invest.:* M ELSHAMY  
*Tech. Officer:* KSC/R TILLEY  
*CASE Category:* 29 – MATH/COMPUTER SCI, OTHER

**NCC 3 736**           **ALABAMA A&M UNIV**           **1027**  
ALL OPTICAL MICRO MOTORS BASED ON MOVING GRATING IN PHOTO SENSITIVE MEDIA  
09/30/1999 - 09/30/2002     FY01: \$93,564           Total: \$187,128  
*Prin. Invest.:* D CURLEY  
*Tech. Officer:* GRC/G ADAMOVSKY  
*CASE Category:* 13 – PHYSICS

**NCC 8 140**           **ALABAMA A&M UNIV**           **1028**  
R/S "CENTER FOR HYDROLOGY, SOIL CLIMATOLOGY AND REMOTE SENSING (HSCARS)"  
07/21/1997 - 12/31/2000     FY01: \$440,747           Total: \$3,853,109  
*Prin. Invest.:* T L COLEMAN  
*Tech. Officer:* MSFC/R ARNOLD  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NCC 8 211**           **ALABAMA A&M UNIV**           **1029**  
STUDEN LAUNCH INITIATIVE  
03/23/2001 - 10/31/2001     FY01: \$49,997           Total: \$49,997  
*Prin. Invest.:* R B LAL, G SHARMA, M MANMOHAN  
*Tech. Officer:* MSFC/J R PRUITT  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NGT 8 52902**           **ALABAMA A&M UNIV**           **1030**  
FABRICATION & OPTICAL AND ELECTRICAL CHARACTERIZA- TION OF THE DIFFRACTIVE HOLOGRAPHIC OPTICAL ELEMN  
05/25/2001 - 06/30/2004     FY01: \$22,000           Total: \$22,000  
*Prin. Invest.:* J C WANG  
*Tech. Officer:* MSFC/S NASH-STEVENSON  
*CASE Category:* 13 – PHYSICS

**NAG 3 2120**           **AUBURN UNIV**           **1031**  
TIAL JOINING SCIENCE AND TECHNOLOGY FOR ADVANCED AEROPRO- PULSION SYSTEM  
02/11/1998 - 01/13/2002     FY01: \$0           Total: \$238,491  
*Prin. Invest.:* W F GALE, J W FERGUS  
*Tech. Officer:* GRC/R D NOEBE, GRC/M V NATHAL  
*CASE Category:* 47 – METAL & MATERIALS ENGR

**NAG 3 2597**           **AUBURN UNIV**           **1032**  
 DAMPING AND CONTROL OF MULTI-DIRECTION COMPOSITE FLYWHEELS  
 04/27/2001 - 04/05/2003      FY01: \$61,044      Total: \$61,044  
*Prin. Invest.:* D GOWAYED  
*Tech. Officer:* GRC/J TRUDELL  
*CASE Category:* 46 – MECHANICAL ENGR

**NAG 3 2639**           **AUBURN UNIV**           **1033**  
 A STUDY OF THE EFFECTS OF GAMMA AND CHARGED PARTICLE RADIATION ON SILICON CARBIDE DIODES AND METAL-  
 06/22/2001 - 04/30/2002      FY01: \$87,203      Total: \$87,203  
*Prin. Invest.:* J R WILLIAMS  
*Tech. Officer:* GRC/G E SCHWARZE  
*CASE Category:* 13 – PHYSICS

**NAG 5 8081**           **AUBURN UNIV**           **1034**  
 MAGNETIC RECONNECTION AND PARTICLE PRECIPITATION ACROSS THE MAGNETOPAUSE  
 01/21/1999 - 02/28/2002      FY01: \$60,593      Total: \$169,914  
*Prin. Invest.:* D LIN  
*Tech. Officer:* GSFC/D EVANS/5  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 11121**           **AUBURN UNIV**           **1035**  
 RADIATION EFFECTS IN SIGE HBT BICMOS TECHNOLOGY  
 07/13/2001 - 07/31/2002      FY01: \$65,000      Total: \$65,000  
*Prin. Invest.:* J D CRESSLER  
*Tech. Officer:* GSFC/R REED  
*CASE Category:* 13 – PHYSICS

**NAG 8 1617**           **AUBURN UNIV**           **1036**  
 A SYSTEM STUDY FOR POWER WITHOUT WIRES UNDER NRA8-23, SPACE SOLAR POWER  
 07/06/1999 - 09/30/2000      FY01: -\$27,118      Total: \$258,921  
*Prin. Invest.:* H BRANDHORST, JR.  
*Tech. Officer:* MSFC/J HOWELL  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NAG 8 1717**           **AUBURN UNIV**           **1037**  
 HIGH POWER ELECTRIC PROPULSION RESEARCH  
 04/25/2000 - 02/05/2001      FY01: \$10,000      Total: \$69,679  
*Prin. Invest.:* I HRBUD  
*Tech. Officer:* MSFC/C SHAFER  
*CASE Category:* 45 – ELECTRICAL ENGR

**NAG 8 1728**           **AUBURN UNIV**           **1038**  
 "GROUND SYSTEM-RECTENNA-SATELLITE INTERFACE ISSUES FOR SPACE SOLAR POWER SYSTEMS"  
 06/09/2000 - 10/31/2000      FY01: \$0      Total: \$54,474  
*Prin. Invest.:* S A MERRYMAN, NONE  
*Tech. Officer:* MSFC/J HOWELL  
*CASE Category:* 49 – ENGINEERING, OTHER

**NAG 8 1806**           **AUBURN UNIV**           **1039**  
 RESEARCH, "X-33 ADVANCED GUIDANCE AND CONTROL PROJECT: SOFTWARE REFINEMENTS FOR VERIFICATION..."  
 04/25/2001 - 03/15/2002      FY01: \$32,188      Total: \$32,188  
*Prin. Invest.:* A S HODEL  
*Tech. Officer:* MSFC/D R KRUP  
*CASE Category:* 42 – ASTRONAUTICAL ENGR

**NAS 3 99200**           **AUBURN UNIV**           **1040**  
 EFFECTS OF HYPERVELOCITY IMPACTS ON HIGH VOLTAGE SOLAR ARRAYS  
 09/17/1999 - 10/31/2000      FY01: \$0      Total: \$124,781  
*Prin. Invest.:* H W BRANDHORST  
*Tech. Officer:* GRC/P J GEORGE  
*CASE Category:* 19 – PHYSICAL SCIENCE, OTHER

**NAS 8 98249**           **AUBURN UNIV**           **1041**  
 DEVELOPMENT AND PACKAGING OF SUPERCAPACITORS FOR LAUNCH VEHICLE APPLICATIONS  
 09/10/1998 - 07/06/2002      FY01: \$0      Total: \$523,572  
*Prin. Invest.:* S A MERRYMAN, Z CHEN, NONE  
*Tech. Officer:* MSFC/D K HALL, MSFC/T M EDGE  
*CASE Category:* 45 – ELECTRICAL ENGR

**NCC 3 511**           **AUBURN UNIV**           **1042**  
 CENTER FOR THE COMMERCIAL DEVELOPMENT OF SPACE: SPACE POWER & ADVANCED ELECTRONICS  
 11/01/1996 - 10/31/2001      FY01: \$1,125,501      Total: \$4,620,501  
*Prin. Invest.:* D W BRANDHORST, JR., M F ROSE  
*Tech. Officer:* GRC/J E DUDENHOFER, GRC/R J SOVIE  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NCC 3 864**           **AUBURN UNIV**           **1043**  
 COUPLED RADIATION/THERMOPORES EFFECTS IN SOOTING MICROGRAVITY FLAMES  
 02/20/2001 - 12/20/2004      FY01: \$49,167      Total: \$49,167  
*Prin. Invest.:* D W MACKOWSKI  
*Tech. Officer:* GRC/K R SACKSTEDER  
*CASE Category:* 46 – MECHANICAL ENGR

**NCC 5 333**           **AUBURN UNIV**           **1044**  
 SOIL ORGANIC MATTER FLUXES IN AMAZONIAN FORESTS: NATURAL VS INTENSIVELY MANAGED SYSTEMS  
 06/17/1998 - 12/31/2001      FY01: \$51,438      Total: \$225,482  
*Prin. Invest.:* K MCNABB  
*Tech. Officer:* GSFC/D DEERING  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NCC 5 459**           **AUBURN UNIV**           **1045**  
 CENTER FOR SPACE POWER AND ADVANCED ELECTRONICS  
 03/01/2000 - 01/31/2002      FY01: \$0      Total: \$1,030,000  
*Prin. Invest.:* H W BRANDHORST  
*Tech. Officer:* GSFC/D BRUNNER  
*CASE Category:* 11 – ASTRONOMY

**NCC 8 128**           **AUBURN UNIV**           **1046**  
 FOR RESEARCH: "AUBURN COMMERCIAL SPACE CENTER FOR THE SOLIDIFICATION DESIGN/CASTNET PROGRAM"  
 01/28/1997 - 10/31/2001      FY01: \$2,400,000      Total: \$8,322,924  
*Prin. Invest.:* R A OVERFELT  
*Tech. Officer:* MSFC/S LAMBING  
*CASE Category:* 47 – METAL & MATERIALS ENGR

**NCC 8 151**           **AUBURN UNIV**           **1047**  
 GLOBAL CHANGE R/S EDUCATION & OUTREACH RELATED TO THE EARTH'S SURFACE RESOURCES AND HYDROLOGIC CYCLE  
 06/30/1998 – 03/31/2003      FY01: \$90,158      Total: \$493,343  
*Prin. Invest.: U HATCH*  
*Tech. Officer: MSFC/J R ARNOLD*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 1 52205**           **AUBURN UNIV**           **1048**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 09/04/1998 – 06/30/2001      FY01: \$0      Total: \$66,000  
*Prin. Invest.: M L WALLER, T H SHUMPERT, S M RAO*  
*Tech. Officer: LARC/F B BECK, LARC/M C BAILEY*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NGT 8 52851**           **AUBURN UNIV**           **1049**  
 ADVANCED METHOD FOR VIBRATION ANALYSIS OF HIGH SPEED ROTOR SYSTEMS  
 07/21/1998 – 12/31/2001      FY01: \$0      Total: \$60,500  
*Prin. Invest.: G T FLOWERS*  
*Tech. Officer: MSFC/J F DOWDY*  
*CASE Category: 46 – MECHANICAL ENGR*

**NGT 8 52870**           **AUBURN UNIV**           **1050**  
 OPTIMAL APPLICATION OF COMBUSTION TEST DATA TO FLAMABILITY ASSESSMENT IN GASEOUS OXYGEN  
 07/27/1998 – 08/15/2002      FY01: \$0      Total: \$66,000  
*Prin. Invest.: P D JONES*  
*Tech. Officer: MSFC/J F DOWDY*  
*CASE Category: 46 – MECHANICAL ENGR*

**NGT 8 52904**           **AUBURN UNIV**           **1051**  
 CLOSED LOOP ROBUST CONTROL ALLOCATION FOR AEROSPACE VEHICLE RELIABLE STABILITY AND PERFORMANCE  
 05/25/2001 – 06/30/2004      FY01: \$22,000      Total: \$22,000  
*Prin. Invest.: A S HODEL*  
*Tech. Officer: MSFC/S NASH-STEVENSON*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NAG 8 1280**           **BIRMINGHAM SOUTHERN COLLEGE**           **1052**  
 JOVE RESEARCH  
 01/21/1997 – 08/31/2000      FY01: -\$2,321      Total: \$22,679  
*Prin. Invest.: K B BACHMANN*  
*Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT*  
*CASE Category: 13 – PHYSICS*

**NAG 8 1600**           **OAKWOOD COLLEGE**           **1053**  
 R/S THE DEVELOPMENT, ASSESSMENT, VALIDATION AND ENHANCEMENT (DAVE) OF VIRTUAL REALITY FOR HUMAN...  
 01/22/1999 – 01/20/2000      FY01: \$0      Total: \$93,168  
*Prin. Invest.: K BENN-MARSHALL*  
*Tech. Officer: MSFC/G HAMILTON*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 8 1653**           **OAKWOOD COLLEGE**           **1054**  
 MINORITY STUDENT DEVELOPMENT PROGRAM IN SCIENCE & ENGINEERING  
 02/03/2000 – 02/04/2003      FY01: \$100,000      Total: \$200,000  
*Prin. Invest.: E GWEBU*  
*Tech. Officer: MSFC/W LOVE/A C BEAM*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 8 1734**           **OAKWOOD COLLEGE**           **1055**  
 DEVELOPMENT OF ULTRA-LIGHT NORMAL INCIDENCE MIRROR ELECTROCHEMICAL ASPECTS  
 08/18/2000 – 08/17/2003      FY01: \$0      Total: \$100,000  
*Prin. Invest.: A VOLKOV*  
*Tech. Officer: MSFC/W BRANTLEY*  
*CASE Category: 12 – CHEMISTRY*

**NGT 8 1610**           **TRENHOLM STATE TECHNICAL COLLEGE**           **1056**  
 NASA HIGH SCHOOL SCIENCE ENRICHMENT PROGRAM (HSSEP)  
 06/07/1999 – 06/06/2002      FY01: \$100,000      Total: \$300,000  
*Prin. Invest.: C THOMPSON*  
*Tech. Officer: MSFC/W LOVE, MSFC/A C BEAM*  
*CASE Category: 21 – MATHEMATICS*

**NAG 1 1865**           **TUSKEGEE UNIV**           **1057**  
 IDENTIFICATION OF SURFACE AND NEAR SURFACE DEFECTS AND DAMAGE EVALUATION BY LASER SPECKLE  
 09/10/1996 – 09/09/2000      FY01: -\$5,870      Total: \$286,765  
*Prin. Invest.: J N BHUYAN*  
*Tech. Officer: LARC/R ROGOSKI*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NAG 2 6049**           **TUSKEGEE UNIV**           **1058**  
 NASA'S SLSTP ACADEMIC PARTNER ALLIANCE (NSAPA)  
 04/16/2001 – 03/31/2002      FY01: \$180,691      Total: \$180,691  
*Prin. Invest.: W A HILL, C E MORRIS*  
*Tech. Officer: ARC/P X CALLAHAN, ARC/K A SOUZA*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NAG 3 2127**           **TUSKEGEE UNIV**           **1059**  
 STUDY OF ELECTRICAL CONTACTS AND DEVICES IN ADVANCED SEMICONDUCTORS  
 02/13/1998 – 07/31/2001      FY01: \$0      Total: \$299,637  
*Prin. Invest.: K K DAS*  
*Tech. Officer: GRC/S A ALTEROVITZ*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NAG 3 2347**           **TUSKEGEE UNIV**           **1060**  
 SPUTTERING EROSION IN THE ION THRUSTER SPUTTERING EROSION IN THE ION THRUSTER  
 03/09/2000 – 10/31/2001      FY01: \$20,000      Total: \$45,000  
*Prin. Invest.: D K RAY, NONE*  
*Tech. Officer: GRC/M A MANTENIEKS*  
*CASE Category: 13 – PHYSICS*

**NAG 3 2432**           **TUSKEGEE UNIV**           **1061**  
 POLYIMIDE BASED NANOCOMPOSITES FOR AFFORDABLE SPACE TRANSPORT  
 06/23/2000 – 04/16/2003      FY01: \$100,000      Total: \$200,000  
*Prin. Invest.: D DEAN*  
*Tech. Officer: GRC/S CAMPBELL*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 4 169**           **TUSKEGEE UNIV**           **1062**  
 EFFECTS OF ABOVE REAL TIME TRAINING  
 05/17/1999 – 05/31/2001      FY01: \$0      Total: \$68,711  
*Prin. Invest.: S FIRASAT ALI*  
*Tech. Officer: DFRC/K A NORLIN, DFRC/R BINKLEY*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NAG 4 201** TUSKEGEE UNIV 1063  
 DURABILITY ASSESSMENT OF AIRFRAME COMPOSITE REPAIR PATCHES  
 02/15/2000 - 09/30/2002 FY01: \$60,000 Total: \$120,000  
*Prin. Invest.: H A AGLAN*  
*Tech. Officer: DFRC/M W KEHOE*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 4 203** TUSKEGEE UNIV 1064  
 EFFECTS OF SELF-INSTRUCTIONAL METHODS AND ABOVE REAL TIME TRAINING (ARTT) FOR MANEUVERING TASKS ON  
 03/03/2000 - 02/28/2002 FY01: \$0 Total: \$52,447  
*Prin. Invest.: D ALI*  
*Tech. Officer: DFRC/K NORLIN*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 5 10535** TUSKEGEE UNIV 1065  
 SOY RESEARCH PILOT STUDY  
 03/08/2001 - 03/14/2002 FY01: \$20,000 Total: \$20,000  
*Prin. Invest.: R D PACE*  
*Tech. Officer: GSFC/M MATHEWS*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 8 1246** TUSKEGEE UNIV 1066  
 R/S ATOMIZATION IN IMPINGING-JET INJECTORS OF LIQUID-PROPELLANT ROCKET ENGINES  
 10/31/1996 - 08/31/2001 FY01: \$0 Total: \$252,147  
*Prin. Invest.: D A IBRAHIM*  
*Tech. Officer: MSFC/H TRINH*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG10 209** TUSKEGEE UNIV 1067  
 SWEETPOTATO STEM CUTTING DATABASE IN PREPARATION FOR FLIGHT  
 09/01/1997 - 02/28/2002 FY01: \$0 Total: \$295,346  
*Prin. Invest.: D MARTLEY*  
*Tech. Officer: KSC/R WHEELER*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NAG10 253** TUSKEGEE UNIV 1068  
 EVAL OF FIRE EXTINGUISHING HALON COMPOUNDS  
 02/01/1999 - 12/31/2001 FY01: \$104,887 Total: \$302,507  
*Prin. Invest.: N VAHDAT*  
*Tech. Officer: KSC/M COLLINS*  
*CASE Category: 43 – CHEMICAL ENGR*

**NAG10 256** TUSKEGEE UNIV 1069  
 TUSKEGEE UNIV GATEWAY ACHIEVEMENT PROGRAM  
 03/01/1999 - 03/01/2002 FY01: \$86,000 Total: \$257,306  
*Prin. Invest.: C DAVIS*  
*Tech. Officer: KSC/R MCKINNEY*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG10 281** TUSKEGEE UNIV 1070  
 NASA SPACEFLIGHT AND LIFE SCIENCES TRAINING PROGRAM  
 04/25/2000 - 03/07/2002 FY01: \$316,609 Total: \$620,025  
*Prin. Invest.: D HILL*  
*Tech. Officer: KSC/S POTTER*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NAG10 298** TUSKEGEE UNIV 1071  
 STARSAT 12000 TESTING TACTICS AND STRATEGIES STARSAT 12000  
 TESTING TACTICS AND STRATEGIES  
 04/27/2001 - 02/28/2002 FY01: \$100,000 Total: \$100,000  
*Prin. Invest.: H J FINDLAY*  
*Tech. Officer: KSC/C D BLACK*  
*CASE Category: 79 – SOCIAL SCIENCE, OTHER*

**NAG13 50** TUSKEGEE UNIV 1072  
 NASA UNIV PARTNERSHIP AWARD WITH MINORITY INSTS PROGRAM  
 06/19/1997 - 06/30/2000 FY01: -\$6,185 Total: \$361,379  
*Prin. Invest.: E SHEPPARD*  
*Tech. Officer: SSC/B ST. CYR*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 3 591** TUSKEGEE UNIV 1073  
 HIGH TEMPERATURE FATIGUE AND CREEP BEHAVIOR OF CERA/MIC MATRIX COMPOSITES FOR EXHAUST NOZZLE APPLICATION  
 03/11/1998 - 06/30/2001 FY01: \$0 Total: \$362,435  
*Prin. Invest.: A HAQUE, H MAHFUZ, U VAIDA*  
*Tech. Officer: GRC/M J VERILLE, GRC/J E GRADY*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NCC 3 726** TUSKEGEE UNIV 1074  
 STUDY OF DESIGN PRINCIPLES AND SPARE PLASMA INTERACTION ON MODULAR HIGH VOLTAGE POWER DISTRIBUTION  
 08/05/1999 - 07/31/2000 FY01: -\$941 Total: \$1,934  
*Prin. Invest.: C V DORESWAMY*  
*Tech. Officer: GRC/D C FERGUSON*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NCC 5 346** TUSKEGEE UNIV 1075  
 CENTER FOR LIDAR AND ATMOSPHERIC SCIENCES STUDENTS  
 07/01/1998 - 07/31/2003 FY01: \$0 Total: \$1,488,578  
*Prin. Invest.: N O EGIEBOR*  
*Tech. Officer: HQ/B WHITE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 9 51** TUSKEGEE UNIV 1076  
 CENTER FOR FOOD & ENVIRON SYST...(CFESH)  
 07/31/1997 - 12/31/2001 FY01: \$1,225,000 Total: \$5,225,000  
*Prin. Invest.: W A HILL*  
*Tech. Officer: JSC/D BARTA*  
*CASE Category: 62 – PSYCHOLOGY SOCIAL ASPECTS*

**NAG 2 1348** UNIV OF ALABAMA - BIRMINGHAM 1077  
 MOLECULAR BASIS OF MECHANO-SIGNAL TRANSDUCTION IN VASCULAR ENDOTHELIAL CELLS  
 07/23/1999 - 07/31/2000 FY01: -\$40,370 Total: \$209,662  
*Prin. Invest.: V D DARLEY-USMAR*  
*Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 3 2560** UNIV OF ALABAMA - BIRMINGHAM 1078  
 MAGNETICALLY ASSISTED COMBUSTION EXPERIMENT (MACE)  
 03/22/2001 - 01/17/2005 FY01: \$20,000 Total: \$20,000  
*Prin. Invest.: J BAKER*  
*Tech. Officer: GRC/K R SACKSTEDER*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 5 4853**      **UNIV OF ALABAMA - BIRMINGHAM**      **1079**  
 FORMATION OF THE HYDROCARBONS OF CARBONACEOUS CHON  
 07/23/1997 – 03/31/2002      FY01: \$0      Total: \$130,412  
*Prin. Invest.: D WDOWIAK*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 6815**      **UNIV OF ALABAMA - BIRMINGHAM**      **1080**  
 INVESTIGATION OF THE CONTRIBUTION OF POLYCYCLIC AROMATIC HYDROCARBONS TO INTERSTELLAR ULTRAVIOLET E  
 01/05/1998 – 12/31/2001      FY01: \$0      Total: \$76,492  
*Prin. Invest.: T WDOWIAK*  
*Tech. Officer: GSFC/H HASAN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7079**      **UNIV OF ALABAMA - BIRMINGHAM**      **1081**  
 REPEATING IMPACT TOOL FOR IN-SITU GEOLOGY INVESTIGATIONS  
 03/06/1998 – 03/31/2001      FY01: \$0      Total: \$109,902  
*Prin. Invest.: T J WDOWIAK*  
*Tech. Officer: GSFC/B CAMPBELL*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8786**      **UNIV OF ALABAMA - BIRMINGHAM**      **1082**  
 DEVELOPMENT OF HIGH AFFINITY SENSORS FOR BIOLOGICAL PATHOGENS  
 09/02/1999 – 09/30/2001      FY01: \$0      Total: \$800,000  
*Prin. Invest.: L DELUCAS*  
*Tech. Officer: GSFC/E PAYLOR*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8819**      **UNIV OF ALABAMA - BIRMINGHAM**      **1083**  
 THE IR EMITTING AROMATIC COMPONENT OF THE INTERSTELLAR AND CIRCUMSTELLAR MEDIUMS  
 09/07/1999 – 07/31/2002      FY01: \$39,600      Total: \$115,460  
*Prin. Invest.: T WDOWIAK*  
*Tech. Officer: GSFC/M MEYER*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9424**      **UNIV OF ALABAMA - BIRMINGHAM**      **1084**  
 TOF MS IN SITU PLANETARY SCIENCE AND EXOBIOLOGY ON EUROPA  
 04/17/2000 – 04/29/2002      FY01: \$120,237      Total: \$248,738  
*Prin. Invest.: T WDOWIAK*  
*Tech. Officer: GSFC/B BETTS*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10694**      **UNIV OF ALABAMA - BIRMINGHAM**      **1085**  
 NEAR-CRITICAL WATER AQUEOUS ALTERATION PROCESSES IN PLANETESIMALS  
 04/16/2001 – 04/14/2002      FY01: \$15,000      Total: \$15,000  
*Prin. Invest.: T WDOWIAK*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 11146**      **UNIV OF ALABAMA - BIRMINGHAM**      **1086**  
 STRUCTURE-BASED DRUG DESIGN AND EVALUATION OF NATURAL COMPOUNDS AGAINST CHAGAS'DISEASE  
 08/09/2001 – 09/30/2002      FY01: \$997,800      Total: \$997,800  
*Prin. Invest.: L J DELUCAS*  
*Prin. Invest.: NONE*  
*Tech. Officer: GSFC/L P CHAMBERS*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 11267**      **UNIV OF ALABAMA - BIRMINGHAM**      **1087**  
 DEVELOPMENT OF HIGH AFFINITY SENSORS FOR BIOLOGICAL PATHOGENS  
 09/26/2001 – 09/30/2002      FY01: \$9,000      Total: \$9,000  
*Prin. Invest.: L DELUCAS, NONE*  
*Tech. Officer: GSFC/E PAYLOR*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 8 1228**      **UNIV OF ALABAMA - BIRMINGHAM**      **1088**  
 THE EFFECT OF CONVECTION ON MORPHOLOGICAL STABILITY  
 05/01/1996 – 11/30/2001      FY01: \$0      Total: \$420,000  
*Prin. Invest.: J B ANDREWS*  
*Tech. Officer: MSFC/P DOTY, MSFC/R POWER*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 8 1678**      **UNIV OF ALABAMA - BIRMINGHAM**      **1089**  
 RESEARCH "CONTROLLED SYNTHESIS OF NANOPARTICLES USING BLOCK COPOLYMERS: NANOREACTORS IN MICROGRAVITY  
 04/11/2000 – 10/10/2003      FY01: \$104,500      Total: \$154,500  
*Prin. Invest.: J W MAYS*  
*Tech. Officer: MSFC/P M DOTY*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAS 8 40189**      **UNIV OF ALABAMA - BIRMINGHAM**      **1090**  
 PROTEIN CRYSTAL GROWTH IN MICROGRAVITY  
 04/01/1994 – 06/30/2004      FY01: \$3,021,195      Total: \$22,629,136  
*Prin. Invest.: L J DELUCAS*  
*Tech. Officer: MSFC/D K COLLINS*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NAS 8 99059**      **UNIV OF ALABAMA - BIRMINGHAM**      **1091**  
 R/S COUPLED GROWTH IN HYPERMONOTECTICS  
 01/22/1999 – 03/31/2003      FY01: \$268,957      Total: \$968,323  
*Prin. Invest.: J B ANDREWS*  
*Tech. Officer: MSFC/R KING*  
*CASE Category: 13 – PHYSICS*

**NCC 8 126**      **UNIV OF ALABAMA - BIRMINGHAM**      **1092**  
 FOR RES."CONTINUATION OF SUPPORT FOR COMMERCIAL SPACE CTR, CTR FOR MACROMOLECULAR CRYSTALLOGRAPHY"  
 01/27/1997 – 10/31/2005      FY01: \$8,015,204      Total: \$37,500,247  
*Prin. Invest.: L J DELUCAS*  
*Tech. Officer: MSFC/S LIDE, MSFC/S LAMBIH*  
*CASE Category: 41 – AERONAUTICAL ENGNR*

**NCC 8 172**      **UNIV OF ALABAMA - BIRMINGHAM**      **1093**  
 "MICROGRAVITY CRYSTAL GROWTH STUDIES OF MEDICALLY RELEVANT MACROMOLECULES"  
 02/11/1999 – 09/30/2002      FY01: \$290,085      Total: \$799,512  
*Prin. Invest.: L J DELUCAS*  
*Tech. Officer: MSFC/T OWEN*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NCC 8 204**      **UNIV OF ALABAMA - BIRMINGHAM**      **1094**  
 STRUCTURAL FLUCTUATIONS & THERMOPHYSICAL PROPERTIES OF MOLTEN II – IV COMPOUNDS  
 07/14/2000 – 11/30/2003      FY01: \$22,968      Total: \$42,969  
*Prin. Invest.: R SCRIPPA*  
*Tech. Officer: MSFC/C HUA SU*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

<b>NGT 8 52845</b>	<b>UNIV OF ALABAMA - BIRMINGHAM</b>	<b>1095</b>	<b>NAG 5 4111</b>	<b>UNIV OF ALABAMA - HUNTSVILLE</b>	<b>1103</b>
GRADUATE STUDENT RESEARCH PROGRAM FELLOWSHIP			FAST SPECTROSCOPY OF Z SOURCES; OBSERVATIONS OF TH BURST		
09/12/1997 - 02/11/2001	FY01: \$0	Total: \$66,000	04/28/1997 - 04/14/2000	FY01: \$0	Total: \$26,000
<i>Prin. Invest.:</i> C M LAWSON			<i>Prin. Invest.:</i> W PACIESAS		
<i>Tech. Officer:</i> MSFC/J F DOWDY, MSFC/J R PRUITT			<i>Tech. Officer:</i> GSFC/J SWANK		
<i>CASE Category:</i> 13 - PHYSICS			<i>CASE Category:</i> 11 - ASTRONOMY		
<b>NAG 1 2026</b>	<b>UNIV OF ALABAMA - HUNTSVILLE</b>	<b>1096</b>	<b>NAG 5 4268</b>	<b>UNIV OF ALABAMA - HUNTSVILLE</b>	<b>1104</b>
AEROSOL RETRIEVALS FROM HIGH RESOLUTION BROADBAND ATMOS			THERMAL STRUCTURE AND COMPOSITION OF THE INNER MAG		
SOLAR OCCULTATION SPECTRA			03/25/1997 - 05/14/2001	FY01: \$0	Total: \$189,325
03/19/1998 - 12/31/2001	FY01: \$1	Total: \$201,001	<i>Prin. Invest.:</i> D H COMFORT		
<i>Prin. Invest.:</i> M J NEWCHURCH			<i>Tech. Officer:</i> GSFC/J BOHLIN		
<i>Tech. Officer:</i> LARC/G L MADDREA, LARC/L R POOLE			<i>CASE Category:</i> 13 - PHYSICS		
<i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE					
<b>NAG 1 2204</b>	<b>UNIV OF ALABAMA - HUNTSVILLE</b>	<b>1097</b>	<b>NAG 5 4608</b>	<b>UNIV OF ALABAMA - HUNTSVILLE</b>	<b>1105</b>
OZONE TRENDS IN SAGE, HALOE, TOMS, UMKEHR, AND LIDAR			ION ACCELERATION AND ABUNDANCE ENHANCEMENTS IN IMP		
MEASUREMENTS (NRA-98-OES-04)			05/20/1997 - 09/30/2001	FY01: \$0	Total: \$105,000
06/11/1999 - 06/30/2002	FY01: \$110,066	Total: \$275,066	<i>Prin. Invest.:</i> P A MILLER		
<i>Prin. Invest.:</i> M J NEWCHURCH			<i>Tech. Officer:</i> GSFC/J A LING		
<i>Tech. Officer:</i> LARC/G L MADDREA, LARC/L R POOLE			<i>CASE Category:</i> 11 - ASTRONOMY		
<i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE					
<b>NAG 1 01008</b>	<b>UNIV OF ALABAMA - HUNTSVILLE</b>	<b>1098</b>	<b>NAG 5 4893</b>	<b>UNIV OF ALABAMA - HUNTSVILLE</b>	<b>1106</b>
NUMERICAL STUDY OF BLAST WAVES GENERATED DURING LAUNCH			COUPLING OF MICRO-AND MESO-SCALE PROCESSES DURING IC REFIL-		
VEHICLE TAKE-OFF & SUPPRESSION BY WATER ADD			LING		
02/06/2001 - 01/31/2004	FY01: \$54,637	Total: \$54,637	06/20/1997 - 04/30/2000	FY01: -\$50	Total: \$69,950
<i>Prin. Invest.:</i> K FRENDI			<i>Prin. Invest.:</i> N SINGH		
<i>Tech. Officer:</i> LARC/B A SINGER, LARC/R J SILCOX			<i>Tech. Officer:</i> GSFC/J BOHLIN		
<i>CASE Category:</i> 41 - AERONAUTICAL ENGNR			<i>CASE Category:</i> 13 - PHYSICS		
<b>NAG 3 2285</b>	<b>UNIV OF ALABAMA - HUNTSVILLE</b>	<b>1099</b>	<b>NAG 5 4951</b>	<b>UNIV OF ALABAMA - HUNTSVILLE</b>	<b>1107</b>
STUDY OF THE STRUCTURE COMPOSITION AND ELECTRICAL PROPERTIES			ELECTRON ACCELERATION IN IMPULSIVE SOLAR FLARES		
OF SILICON CARBIDE DEEPITAXIAL FILMS FOR			06/23/1997 - 02/29/2000	FY01: -\$1,321	Total: \$166,679
08/04/1999 - 06/30/2002	FY01: \$0	Total: \$30,909	<i>Prin. Invest.:</i> J A MILLER		
<i>Prin. Invest.:</i> D A GEORGE			<i>Tech. Officer:</i> GSFC/W J WAGNER		
<i>Tech. Officer:</i> GRC/D J LARKIN			<i>CASE Category:</i> 13 - PHYSICS		
<i>CASE Category:</i> 45 - ELECTRICAL ENGR					
<b>NAG 5 3675</b>	<b>UNIV OF ALABAMA - HUNTSVILLE</b>	<b>1100</b>	<b>NAG 5 5112</b>	<b>UNIV OF ALABAMA - HUNTSVILLE</b>	<b>1108</b>
A STUDY OF TERRESTRIAL GAMMA-RAY FLASHES OBSERVED			DEVELOPMENT OF SIFTER WITH SIMULTANEOUS TRACKING AND		
01/02/1997 - 01/14/2000	FY01: -\$14	Total: \$33,987	CALORIMETRY		
<i>Prin. Invest.:</i> R MALLOZZI			02/12/1997 - 12/31/2000	FY01: -\$126	Total: \$277,874
<i>Tech. Officer:</i> GSFC/J P NORRIS			<i>Prin. Invest.:</i> G N PENDLETON		
<i>CASE Category:</i> 11 - ASTRONOMY			<i>Tech. Officer:</i> GSFC/H C NEEDLEMAN, GSFC/B A MERRITT		
			<i>CASE Category:</i> 13 - PHYSICS		
<b>NAG 5 4003</b>	<b>UNIV OF ALABAMA - HUNTSVILLE</b>	<b>1101</b>	<b>NAG 5 5273</b>	<b>UNIV OF ALABAMA - HUNTSVILLE</b>	<b>1109</b>
AUTOMATED IDENTIFICATION OF MORPHOLOGICAL SIGNATUR IMAGES			PHASE 1 OF THOR PROJECT PHAS 1 OF THOR PROJECT		
03/06/1997 - 08/31/2000	FY01: -\$70	Total: \$326,930	04/17/2000 - 04/13/2006	FY01: \$0	Total: \$281,000
<i>Prin. Invest.:</i> D G RICHARDS			<i>Prin. Invest.:</i> J DIMMOCK		
<i>Tech. Officer:</i> GSFC/J BREDEKAMP			<i>Tech. Officer:</i> GSFC/D L PIERCE		
<i>CASE Category:</i> 22 - COMPUTER SCIENCE			<i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER		
<b>NAG 5 4027</b>	<b>UNIV OF ALABAMA - HUNTSVILLE</b>	<b>1102</b>	<b>NAG 5 5298</b>	<b>UNIV OF ALABAMA - HUNTSVILLE</b>	<b>1110</b>
DIAGNOSTICS OF MASS MOTIONS IN SOLAR FLARES			SCINTILLATING FIBER TELESCOPE FOR ENERGETIC RADIATION,		
03/26/1997 - 03/31/2000	FY01: \$0	Total: \$208,000	GAMMA-RAY APPLICATIONS (SIFTER)		
<i>Prin. Invest.:</i> D EMSLIE			06/12/2000 - 12/31/2001	FY01: \$0	Total: \$130,000
<i>Tech. Officer:</i> GSFC/W J WAGNER			<i>Prin. Invest.:</i> PENDLETON		
<i>CASE Category:</i> 13 - PHYSICS			<i>Tech. Officer:</i> WFF/B A MERRITT		
			<i>CASE Category:</i> 13 - PHYSICS		

<b>NAG 5 6021</b>	<b>UNIV OF ALABAMA - HUNTSVILLE</b>	<b>1111</b>	<b>NAG 5 7811</b>	<b>UNIV OF ALABAMA - HUNTSVILLE</b>	<b>1119</b>
ACCRETING BLACK HOLES – AN ALL OUT EFFORT			A NEW GRB DURATION MEASURE AND ITS APPLICATIONS TO COSMOLOGICAL INVARIANT PARAMETERS		
08/19/1997 – 08/14/2000	FY01: \$0	Total: \$207,336	11/12/1998 – 11/30/2000	FY01: \$0	Total: \$15,000
<i>Prin. Invest.: J PACIESAS</i>			<i>Prin. Invest.: R PREECE</i>		
<i>Tech. Officer: GSFC/D K WEST</i>			<i>Tech. Officer: GSFC/J P NORRIS</i>		
<i>CASE Category: 11 – ASTRONOMY</i>			<i>CASE Category: 11 – ASTRONOMY</i>		
<b>NAG 5 6986</b>	<b>UNIV OF ALABAMA - HUNTSVILLE</b>	<b>1112</b>	<b>NAG 5 7844</b>	<b>UNIV OF ALABAMA - HUNTSVILLE</b>	<b>1120</b>
QUANTIFICATION OF CHANGES IN THEMOSPHERIC O/N2 FRO M OBSERVATIONS OF UV AIRGLOW AND AURORA			MODELING COUPLED KATABATIC/ICE/OCEAN PROCESSES RELATED TO THE ENERGY AND CARBON BUDGET IN THE HIGH L		
02/10/1998 – 03/31/2001	FY01: \$0	Total: \$228,256	11/18/1998 – 05/31/2000	FY01: -\$4	Total: \$119,580
<i>Prin. Invest.: G A GERMANY</i>			<i>Prin. Invest.: R T MCNIDER</i>		
<i>Tech. Officer: GSFC/M MELLOTT</i>			<i>Tech. Officer: GSFC/S GOGINENI</i>		
<i>CASE Category: 11 – ASTRONOMY</i>			<i>CASE Category: 39 – ENVIRONMENTAL SCI, OTHER</i>		
<b>NAG 5 7269</b>	<b>UNIV OF ALABAMA - HUNTSVILLE</b>	<b>1113</b>	<b>NAG 5 7927</b>	<b>UNIV OF ALABAMA - HUNTSVILLE</b>	<b>1121</b>
DERIVATION OF TROPOSPHERIC OZONE CLIMATOLOGY AND TRENDS FROM TOMS DATA			RELATIVISTIC ASTROPHYSICS IN BLACK HOLE AND LOW-MASS NEUTRON STAR X-RAY BINARIES – LTSA98		
05/07/1998 – 05/14/2002	FY01: \$0	Total: \$259,246	01/12/1999 – 01/14/2002	FY01: \$32,851	Total: \$96,600
<i>Prin. Invest.: M NEWCHURCH</i>			<i>Prin. Invest.: S ZHANG</i>		
<i>Tech. Officer: GSFC/S CHANDRA</i>			<i>Tech. Officer: GSFC/D K WEST</i>		
<i>CASE Category: 31 – ATMOSPHERIC SCIENCE</i>			<i>CASE Category: 11 – ASTRONOMY</i>		
<b>NAG 5 7270</b>	<b>UNIV OF ALABAMA - HUNTSVILLE</b>	<b>1114</b>	<b>NAG 5 7972</b>	<b>UNIV OF ALABAMA - HUNTSVILLE</b>	<b>1122</b>
VALIDATION AND INTERCOMPARISON OF TOMS AEROSOL PRODUCTS USING SATELLITE AND GROUND BASED MEASUREMENTS			TESTING THE PHYSICAL MECHANISMS OF GAMMA-RAY BURSTS WITH MULTI-INSTRUMENT TIME-RESOL		
04/22/1998 – 12/31/2001	FY01: \$23,000	Total: \$227,500	12/22/1998 – 12/31/2001	FY01: \$92,489	Total: \$267,013
<i>Prin. Invest.: S A CHRISTOPHER</i>			<i>Prin. Invest.: M S BRIGGS</i>		
<i>Tech. Officer: GSFC/J R HERMAN</i>			<i>Tech. Officer: GSFC/D K WEST</i>		
<i>CASE Category: 31 – ATMOSPHERIC SCIENCE</i>			<i>CASE Category: 11 – ASTRONOMY</i>		
<b>NAG 5 7494</b>	<b>UNIV OF ALABAMA - HUNTSVILLE</b>	<b>1115</b>	<b>NAG 5 7979</b>	<b>UNIV OF ALABAMA - HUNTSVILLE</b>	<b>1123</b>
XTE PROPOSAL (30062) A VARYING KHZ PEAK SEPARATION IN 4U 1608-52?			A SURVEY OF RING CURRENT DIRECT INJECTION EVENTS		
06/29/1998 – 06/30/2000	FY01: -\$12	Total: \$7,013	01/13/1999 – 01/14/2001	FY01: \$0	Total: \$40,037
<i>Prin. Invest.: W S PACIESAS</i>			<i>Prin. Invest.: R SHELDON</i>		
<i>Tech. Officer: GSFC/J SWANK</i>			<i>Tech. Officer: GSFC/M H ACUNA</i>		
<i>CASE Category: 11 – ASTRONOMY</i>			<i>CASE Category: 13 – PHYSICS</i>		
<b>NAG 5 7655</b>	<b>UNIV OF ALABAMA - HUNTSVILLE</b>	<b>1116</b>	<b>NAG 5 7991</b>	<b>UNIV OF ALABAMA - HUNTSVILLE</b>	<b>1124</b>
REMOTE SENSING OF MAGNETOSPHERIC STRUCTURE USING ( U,B,K) ANALYSIS OF ITP PARTICLE AND FIELD DATA			AN EMPIRICAL MODEL OF CORONAL HEATING DEDUCED FROM SOHO OBSERVATIONS OF TRANSITION REGION DYNAM		
09/15/1998 – 08/31/2000	FY01: -\$168	Total: \$43,538	01/05/1999 – 01/31/2002	FY01: \$0	Total: \$166,538
<i>Prin. Invest.: D SHELDON</i>			<i>Prin. Invest.: G EMSLIE</i>		
<i>Tech. Officer: GSFC/D EVANS</i>			<i>Tech. Officer: GSFC/J GURMAN</i>		
<i>CASE Category: 11 – ASTRONOMY</i>			<i>CASE Category: 19 – PHYSICAL SCIENCE, OTHER</i>		
<b>NAG 5 7772</b>	<b>UNIV OF ALABAMA - HUNTSVILLE</b>	<b>1117</b>	<b>NAG 5 8009</b>	<b>UNIV OF ALABAMA - HUNTSVILLE</b>	<b>1125</b>
STUDY OF GAMMA-RAY BURST MONITOR FOR GLAST MISSION TO FURTHER DEFINE THE ENGINEERING CHARACTERISTIC			GEOMAGNETIC CUTOFF RIGIDITY COMPUTER PROGRAM		
10/28/1998 – 06/30/2000	FY01: \$0	Total: \$20,000	01/13/1999 – 12/31/2000	FY01: \$0	Total: \$10,000
<i>Prin. Invest.: D KIPPEN</i>			<i>Prin. Invest.: M SHEA</i>		
<i>Tech. Officer: GSFC/M DIJOSEPH</i>			<i>Tech. Officer: GSFC/J H BREDEKAMP</i>		
<i>CASE Category: 49 – ENGINEERING, OTHER</i>			<i>CASE Category: 11 – ASTRONOMY</i>		
<b>NAG 5 7809</b>	<b>UNIV OF ALABAMA - HUNTSVILLE</b>	<b>1118</b>	<b>NAG 5 8011</b>	<b>UNIV OF ALABAMA - HUNTSVILLE</b>	<b>1126</b>
IMPROVED CHARACTERIZATION OF PAST AND FUTURE BATSE GAMMA-RAY BURST LOCATIONS			GROUND-LEVEL SOLAR COSMIC RAY DATA FROM SOLAR CYCLE 19		
11/10/1998 – 11/30/2000	FY01: \$0	Total: \$9,999	01/13/1999 – 12/31/2001	FY01: \$0	Total: \$57,000
<i>Prin. Invest.: R KIPPEN</i>			<i>Prin. Invest.: M SHEA</i>		
<i>Tech. Officer: GSFC/J P NORRIS</i>			<i>Tech. Officer: GSFC/J H BREDEKAMP</i>		
<i>CASE Category: 11 – ASTRONOMY</i>			<i>CASE Category: 11 – ASTRONOMY</i>		

**NAG 5 8034**      **UNIV OF ALABAMA - HUNTSVILLE**      **1127**  
 UAH ANALYSIS OF TIDE/PSI DATA FOR ISTP SOLAR MAXIM UM EXTENDED MISSION  
 01/19/1999 - 01/31/2002      FY01: \$90,000      Total: \$307,862  
*Prin. Invest.: H COMFORT*  
*Tech. Officer: GSFC/R HOFFMAN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8210**      **UNIV OF ALABAMA - HUNTSVILLE**      **1128**  
 TOWARDS AN UNDERSTANDING OF THE LUMINOUS SOFT EXCE SS EMIS-  
 SION FROM CLUSTERS OF GALAXIES (ADP9)  
 02/25/1999 - 02/28/2002      FY01: \$41,245      Total: \$118,486  
*Prin. Invest.: R LIEU*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8234**      **UNIV OF ALABAMA - HUNTSVILLE**      **1129**  
 BASTE TRIGGERED MULTIWAVELENGTH OBSERVATIONS OF TH E  
 GALACTIC SUPERLUMINAL SOURCES GRO J1655-40 AND  
 03/03/1999 - 02/14/2002      FY01: \$0      Total: \$23,779  
*Prin. Invest.: C ROBINSON*  
*Tech. Officer: GSFC/J SWANK*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8303**      **UNIV OF ALABAMA - HUNTSVILLE**      **1130**  
 RESTORATION, ENHANCEMENT, AND DISTRIBUTION OF THE ATLAS-1  
 IMAGING SPECTROMETRIC OBSERVATORY (ISO)  
 03/05/1999 - 09/14/2001      FY01: \$0      Total: \$221,869  
*Prin. Invest.: G A GERMANY*  
*Tech. Officer: GSFC/J BREDEKAMP*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8433**      **UNIV OF ALABAMA - HUNTSVILLE**      **1131**  
 ASCA PROPOSAL - X-RAY SPECTROSCOPY OF THE TWO GALACTIC  
 SUPERLUMINAL SOURCES: GRO J1655-40 &  
 04/01/1999 - 01/31/2000      FY01: \$0      Total: \$19,000  
*Prin. Invest.: S ZHANG*  
*Tech. Officer: GSFC/N WHITE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8440**      **UNIV OF ALABAMA - HUNTSVILLE**      **1132**  
 BROAD BAND LONG TERM MONITORING OF X-RAY BURSTERS  
 04/01/1999 - 01/31/2001      FY01: \$0      Total: \$14,700  
*Prin. Invest.: S ZHANG*  
*Tech. Officer: GSFC/J P NORRIS*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8480**      **UNIV OF ALABAMA - HUNTSVILLE**      **1133**  
 STOCHASTIC PARTICLE ACCELERATION IN IMPULSIVE SOLAR FLARES  
 04/29/1999 - 12/31/2000      FY01: \$0      Total: \$112,181  
*Prin. Invest.: J J MILLER*  
*Tech. Officer: GSFC/W J WAGNER*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8523**      **UNIV OF ALABAMA - HUNTSVILLE**      **1134**  
 MULTIWAVELENGTH EXAMINATION OF GALACTIC SUPERLUMIN AL JET  
 SOURCES (LTSA98)  
 05/27/1999 - 05/31/2002      FY01: \$77,090      Total: \$220,560  
*Prin. Invest.: S ZHANG*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8606**      **UNIV OF ALABAMA - HUNTSVILLE**      **1135**  
 GRB AFTERGLOW OBSERVATIONS WITH THE WHIPPLE OBSERVATORY  
 06/07/1999 - 06/14/2000      FY01: -\$1      Total: \$9,985  
*Prin. Invest.: W PACIESAS*  
*Tech. Officer: GSFC/J P NORRIS*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8620**      **UNIV OF ALABAMA - HUNTSVILLE**      **1136**  
 OBSERVATIONS OF BL LAC OBJECTS USING THE BATSE OCCULTATION  
 TECHNIQUE  
 06/18/1999 - 06/14/2000      FY01: \$0      Total: \$14,994  
*Prin. Invest.: W PACIESAS*  
*Tech. Officer: GSFC/J P NORRIS*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8646**      **UNIV OF ALABAMA - HUNTSVILLE**      **1137**  
 "STUDY OF THE EVOLUTION OF PRECIPITATION AND CLOUD STRUC-  
 TURES DURING THE LIFE CYCLES OF TROPICAL...  
 07/19/1999 - 07/31/2000      FY01: -\$394      Total: \$21,605  
*Prin. Invest.: Q HAN*  
*Tech. Officer: GSFC/W B ROSSOW*  
*CASE Category: 13 – PHYSICS*

**NAG 5 8690**      **UNIV OF ALABAMA - HUNTSVILLE**      **1138**  
 SYSTEMATIC STUDY OF PROPELLER EFFECTS IN NEUTRON STAR BINA-  
 RIES  
 07/26/1999 - 07/31/2000      FY01: -\$17      Total: \$8,588  
*Prin. Invest.: S N ZHANG*  
*Tech. Officer: GSFC/J SWANK*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8956**      **UNIV OF ALABAMA - HUNTSVILLE**      **1139**  
 SEARCH FOR UV EMISSION LINES FROM THE WARM INTRA CLUSTER  
 MEDIUM - FUSE  
 01/24/2000 - 01/31/2002      FY01: \$0      Total: \$36,200  
*Prin. Invest.: R LIEU*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9045**      **UNIV OF ALABAMA - HUNTSVILLE**      **1140**  
 STUDIES OF ACCRETING NEUTRON STARS WITH RXTE CYCLE 4 OBS, II:  
 TOO OBSERVATIONS OF TRANSIENT LOW-MAS  
 02/25/2000 - 02/28/2001      FY01: \$9,949      Total: \$42,293  
*Prin. Invest.: W PACIESAS*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9183**      **UNIV OF ALABAMA - HUNTSVILLE**      **1141**  
 DIAGNOSING THE SOFT EXCESS EMISSION OF A1795 CLUST ER OF  
 GALAXIES - BEPPOSAX BROAD BAND IMAGING  
 03/07/2000 - 03/14/2002      FY01: \$0      Total: \$40,482  
*Prin. Invest.: R LIEU*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9200**      **UNIV OF ALABAMA - HUNTSVILLE**      **1142**  
 INVESTIGATION OF THERMOSPHERIC & IONOSPHERIC CHANGES  
 DURNING IONOSPHERIC STORMSWITH SATELLITE  
 03/09/2000 - 03/14/2002      FY01: \$82,508      Total: \$157,408  
*Prin. Invest.: P RICHARDS*  
*Tech. Officer: GSFC/M MELLOTT*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 9244 UNIV OF ALABAMA - HUNTSVILLE 1143**  
 STUDIES OF ACCRETING NEUTRON STARS WITH RXTE (CYCLE 4 OBSERVATIONS), III: TOO OBSEVATIONS OF  
 03/13/2000 – 03/14/2001 FY01: \$0 Total: \$22,593  
*Prin. Invest.: W PACIESAS*  
*Tech. Officer: GSFC/R OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9292 UNIV OF ALABAMA - HUNTSVILLE 1144**  
 STUDIES OF ACCRETING BLACK HOLES WITH RXTE (CYCLE 4 OBSERVATIONS)-ADP99  
 03/20/2000 – 03/31/2001 FY01: \$0 Total: \$22,593  
*Prin. Invest.: W PACIESAS*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9397 UNIV OF ALABAMA - HUNTSVILLE 1145**  
 THREE-DIMENSIONAL KINETIC SIMULATIONS OF THE COMBI NED CROSS-CURRENT AND TEARING MODE INSTABILITIES  
 04/05/2000 – 09/30/2001 FY01: \$0 Total: \$16,500  
*Prin. Invest.: N SINGH*  
*Tech. Officer: GSFC/J SHARBER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9508 UNIV OF ALABAMA - HUNTSVILLE 1146**  
 ANALYSES OF EIT/LASCO OBSERVATIONS USING AVAILABLE MHD MODELS: INVESTIGATION OF CME INITIATION  
 04/25/2000 – 05/31/2001 FY01: \$0 Total: \$22,000  
*Prin. Invest.: S WU*  
*Tech. Officer: GSFC/W J WAGNER*  
*CASE Category: 13 – PHYSICS*

**NAG 5 9585 UNIV OF ALABAMA - HUNTSVILLE 1147**  
 EARTH SCIENCE MARKUP LANGUAGE  
 05/19/2000 – 05/14/2002 FY01: \$175,000 Total: \$335,000  
*Prin. Invest.: D GRAVES*  
*Tech. Officer: GSFC/J BEHNKE*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 5 9598 UNIV OF ALABAMA - HUNTSVILLE 1148**  
 PRODUCTION OF LOOP-TOP HARD X-RAY EMISSION  
 05/15/2000 – 04/30/2002 FY01: \$51,521 Total: \$68,695  
*Prin. Invest.: J K MILLER*  
*Tech. Officer: GSFC/W J WAGNER*  
*CASE Category: 13 – PHYSICS*

**NAG 5 9686 UNIV OF ALABAMA - HUNTSVILLE 1149**  
 BATSE/SAX & BATSE/RXTE-ASM JOINT SPECTRAL STUDIES OF GRBS  
 06/05/2000 – 06/14/2001 FY01: \$0 Total: \$10,000  
*Prin. Invest.: W PACIESAS*  
*Tech. Officer: GSFC/J P NORRIS*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9741 UNIV OF ALABAMA - HUNTSVILLE 1150**  
 PROPERTIES OF CUSP DIAMAGNETIC CAVITIES  
 06/21/2000 – 06/30/2002 FY01: \$0 Total: \$69,999  
*Prin. Invest.: R SHELDON*  
*Tech. Officer: GSFC/R HOFFMAN*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 9923 UNIV OF ALABAMA - HUNTSVILLE 1151**  
 THERMAL & NONTHERMAL EMISSION FROM THE INTRACLUST ER MEDIUM OF A 2199  
 09/05/2000 – 09/14/2001 FY01: \$0 Total: \$7,600  
*Prin. Invest.: R LIEU*  
*Tech. Officer: GSFC/P M ATKINS*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10009 UNIV OF ALABAMA - HUNTSVILLE 1152**  
 PULSARS OLD AND CLOSE IN SPACE: HOT POLAR-CAPS OR MAGNETO-SPHERIC EMISSION  
 09/25/2000 – 09/30/2001 FY01: \$0 Total: \$8,600  
*Prin. Invest.: S N ZHANG*  
*Tech. Officer: GSFC/R MUSHOTZKY*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10012 UNIV OF ALABAMA - HUNTSVILLE 1153**  
 PROBING THE X-RAY EMISSION MECHANISMS OF RECYCLED- PULSARS: PSRJ0034-0534  
 09/25/2000 – 09/30/2001 FY01: \$0 Total: \$6,600  
*Prin. Invest.: S N ZHANG*  
*Tech. Officer: GSFC/R MUSHOTZKY*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10099 UNIV OF ALABAMA - HUNTSVILLE 1154**  
 THE X-RAY PROPERTIES OF LOCAL GALAXIES: BRIDGING THE GAP TO HIGH-Z  
 11/20/2000 – 11/30/2001 FY01: \$18,547 Total: \$18,547  
*Prin. Invest.: E A RICHARDS*  
*Tech. Officer: GSFC/R MUSHOTZKY*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10134 UNIV OF ALABAMA - HUNTSVILLE 1155**  
 STUDY OF TEH EVOLUTION OF PRECIPITATION AND CLOUD STRUCTURES DURING THE LIFE CYCLE OF TROPICAL MEOSC  
 12/15/2000 – 07/31/2002 FY01: \$43,970 Total: \$43,970  
*Prin. Invest.: Q HAN*  
*Tech. Officer: GSFC/W B ROSSOW*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 10407 UNIV OF ALABAMA - HUNTSVILLE 1156**  
 ESML FOR EARTH SCIENCE DATA SET AND ANALYSIS.  
 04/02/2001 – 04/30/2002 FY01: \$300,000 Total: \$300,000  
*Prin. Invest.: D GRAVES*  
*Tech. Officer: GSFC/K L MOE*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 5 10743 UNIV OF ALABAMA - HUNTSVILLE 1157**  
 ONLINE SEARCH AND METADATA VISUALIZATION TOOL  
 04/12/2001 – 04/30/2002 FY01: \$124,702 Total: \$124,702  
*Prin. Invest.: G A GERMANY*  
*Tech. Officer: GSFC/P E HUNTER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10782 UNIV OF ALABAMA - HUNTSVILLE 1158**  
 INVESTIGATING THE INTERACTION-STARBURST CONNECTION (ADP 2000)  
 04/23/2001 – 05/31/2001 FY01: \$0 Total: \$0  
*Prin. Invest.: J W SULENTIC*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10785**      **UNIV OF ALABAMA - HUNTSVILLE**      **1159**  
 HISTORICAL EVIDENCE FOR MAJOR-SOLAR-TERRESTRIAL- OUTBURSTS  
 FOR PAST 150 YEARS FROM THE ANALYSIS OF  
 04/27/2001 - 04/30/2002      FY01: \$57,698      Total: \$57,698  
*Prin. Invest.: M A SHEA*  
*Tech. Officer: GSFC/W WAGNER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10943**      **UNIV OF ALABAMA - HUNTSVILLE**      **1160**  
 CHANGES IN GEOMAGNETIC CUTOFF RIGIDITIES OVER A 400-YEAR  
 INTERVAL  
 05/15/2001 - 06/30/2002      FY01: \$34,608      Total: \$34,608  
*Prin. Invest.: D F SMART*  
*Tech. Officer: GSFC/J F SPANN*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10949**      **UNIV OF ALABAMA - HUNTSVILLE**      **1161**  
 COMPTEL GRB SPECTRAL CATALOG (ADP 2000)  
 05/24/2001 - 05/31/2002      FY01: \$25,813      Total: \$25,813  
*Prin. Invest.: M R KIPPEN*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10965**      **UNIV OF ALABAMA - HUNTSVILLE**      **1162**  
 OZONE RETRIEVAL ERRORS ASSOCIATED WITH CLOUDS  
 06/01/2001 - 05/31/2002      FY01: \$60,000      Total: \$60,000  
*Prin. Invest.: M NEWCHURCH*  
*Tech. Officer: GSFC/R MCPETERS*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 11096**      **UNIV OF ALABAMA - HUNTSVILLE**      **1163**  
 CRITICAL ASSESSMENT OF TOMS-DERIVED TROPOSPHERIC OZONE:  
 COMPARISONS WITH OTHER MEASUREMENTS & MODEL  
 07/11/2001 - 08/31/2002      FY01: \$60,000      Total: \$60,000  
*Prin. Invest.: M NEWCHURCH*  
*Tech. Officer: GSFC/R MCPETERS*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 11100**      **UNIV OF ALABAMA - HUNTSVILLE**      **1164**  
 VALIDATING AIRS OZONE OBSERVATIONS WITH TOMS, DOBS ON, BREWER,  
 SAGE, MLS, HALOE AND OZONESONDE OBSERV  
 07/10/2001 - 08/31/2002      FY01: \$56,969      Total: \$56,969  
*Prin. Invest.: M J NEWCHURCH*  
*Tech. Officer: GSFC/D STARR*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 11209**      **UNIV OF ALABAMA - HUNTSVILLE**      **1165**  
 EARLY BATSE GRB AFTERGLOWS (ADP 2000)  
 09/10/2001 - 08/31/2002      FY01: \$10,000      Total: \$10,000  
*Prin. Invest.: V C CONNAUGHTON*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 11248**      **UNIV OF ALABAMA - HUNTSVILLE**      **1166**  
 OPTIMAL AEROSOL PARAMETERIZATION FOR REMOTE SENSING  
 RETRIEVALS  
 08/16/2001 - 08/14/2004      FY01: \$132,485      Total: \$132,485  
*Prin. Invest.: M NEWCHURCH*  
*Tech. Officer: GSFC/P DECOLA*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 8 1229**      **UNIV OF ALABAMA - HUNTSVILLE**      **1167**  
 A THEORETICAL & EXPERIMENTAL INVESTIGATION OF VIBRATIONAL  
 CONTROL OF BRIDGMAN CRYSTAL GROWTH TEC  
 05/31/1996 - 11/30/2000      FY01: -\$36      Total: \$339,943  
*Prin. Invest.: A FEDOSEYER*  
*Tech. Officer: MSFC/P DOTY*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 8 1354**      **UNIV OF ALABAMA - HUNTSVILLE**      **1168**  
 R/S PROTEIN PRECIPITANT SPECIFIC CRITERIA FOR THE IMPACT OF  
 REDUCED GRAVITY ON CRYSTAL PERFECTION  
 06/04/1997 - 07/31/2001      FY01: \$0      Total: \$619,406  
*Prin. Invest.: F ROSENBERGER*  
*Tech. Officer: MSFC/C R TALLEY, MSFC/J P DOWNEY*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 8 1355**      **UNIV OF ALABAMA - HUNTSVILLE**      **1169**  
 RESEARCH "INFRARED SIGNATURES FOR MAMMALIAN CELLS IN CULTURE"  
 06/26/1997 - 11/30/2001      FY01: \$0      Total: \$437,984  
*Prin. Invest.: K CHITTUR*  
*Tech. Officer: JSC/N PELLIS*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 8 1403**      **UNIV OF ALABAMA - HUNTSVILLE**      **1170**  
 THEORETICAL ANALYSIS FOR CONSTRUCTION OF A NON- GRAVITY  
 LABORATORY ON ORBIT  
 08/28/1997 - 12/31/2001      FY01: \$1,003      Total: \$86,000  
*Prin. Invest.: L SMALLEY*  
*Tech. Officer: MSFC/J CAMPBELL*  
*CASE Category: 12 – CHEMISTRY*

**NAG 8 1456**      **UNIV OF ALABAMA - HUNTSVILLE**      **1171**  
 GROUND BASED EXPERIMENTS IN SUPPORT OF MICRO- GRAVITY  
 RESEARCH RESULTS VAPOR GROWTH OF ORGANIC  
 03/31/1998 - 01/31/2002      FY01: \$85,500      Total: \$322,500  
*Prin. Invest.: M T ZUGRAV*  
*Tech. Officer: MSFC/P M DOTY*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NAG 8 1464**      **UNIV OF ALABAMA - HUNTSVILLE**      **1172**  
 REDUCTION OF CONVECTION IN CLOSED TUBE VAPOR GROWTH EXPERI-  
 MENTS  
 03/24/1998 - 01/31/2002      FY01: \$0      Total: \$200,000  
*Prin. Invest.: R J NAUMANN*  
*Tech. Officer: MSFC/P M DOTY*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NAG 8 1476**      **UNIV OF ALABAMA - HUNTSVILLE**      **1173**  
 THERMOPHYSICAL PROPERTY MEASUREMENTS OF TE-BASED II-VI SEMI-  
 CONDUCTOR COMPOUNDS  
 03/26/1998 - 09/30/2001      FY01: \$192,685      Total: \$637,935  
*Prin. Invest.: M BANISH*  
*Tech. Officer: MSFC/S SPEARMAN*  
*CASE Category: 56 – MEDICAL*

**NAG 8 1548 UNIV OF ALABAMA - HUNTSVILLE 1174**  
 STUDY OF INSPECTION OF CRITICAL SURFACES AND AEROSPACE SYSTEMS  
 09/24/1998 - 12/04/2002 FY01: \$19,884 Total: \$151,884  
*Prin. Invest.: G WORKMAN*  
*Tech. Officer: MSFC/S RUSSELL*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 8 1577 UNIV OF ALABAMA - HUNTSVILLE 1175**  
 CONTROL OF TRANSPORT IN PROTEIN CRYSTAL USING RESTRICTIVE GEOMETRIES  
 12/16/1998 - 11/30/2002 FY01: \$29,451 Total: \$251,450  
*Prin. Invest.: R J NAVMANN*  
*Tech. Officer: MSFC/B GUYNES*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 8 1598 UNIV OF ALABAMA - HUNTSVILLE 1176**  
 R/S SUPPORT OF G LIMIT FOR ISOLATION OF SPACE SCIENCE EXPERIMENTS  
 12/28/1998 - 12/31/2000 FY01: -\$1,372 Total: \$92,868  
*Prin. Invest.: R D HAMPTON*  
*Tech. Officer: MSFC/D C ALHORN*  
*CASE Category: 42 – ASTRONAUTICAL ENGR*

**NAG 8 1786 UNIV OF ALABAMA - HUNTSVILLE 1177**  
 2001 SUMMER FACULTY FELLOWSHIP PROGRAM  
 04/25/2001 - 04/24/2002 FY01: \$771,141 Total: \$771,141  
*Prin. Invest.: G KARR, M FREEMAN*  
*Tech. Officer: MSFC/J R PRUITT*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 8 1787 UNIV OF ALABAMA - HUNTSVILLE 1178**  
 IMPROVED RE-CONFIGURABLE SLIDING MODE CONTROLLER F FOR REUSABLE LAUNCH VEHICLE OF SECOND GENERATION  
 01/24/2001 - 11/30/2001 FY01: \$31,378 Total: \$31,378  
*Prin. Invest.: Y B SHTESSEL*  
*Tech. Officer: MSFC/K MCCALL*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NAG 8 1790 UNIV OF ALABAMA - HUNTSVILLE 1179**  
 R/S ENTITLED, "EFFECTS OF CONVECTIVE TRANSPORT OF SOLUTE IMPURITIES ON DEFECT-CAUSING KINETICS..."  
 02/14/2001 - 01/31/2003 FY01: \$266,000 Total: \$266,000  
*Prin. Invest.: P G VEKILOV*  
*Tech. Officer: MSFC/H K HIGGINBOTHAM*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 8 1815 UNIV OF ALABAMA - HUNTSVILLE 1180**  
 OPTICAL AMPLIFIER BASED SPACE SOLAR POWER SYSTEMS  
 05/08/2001 - 11/07/2001 FY01: \$24,998 Total: \$24,998  
*Prin. Invest.: R FORK*  
*Tech. Officer: MSFC/G W JOHNSON*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 8 1816 UNIV OF ALABAMA - HUNTSVILLE 1181**  
 MACROMOLECULE NUCLEATION AND GROWTH RATE DISPERSION STUDIES.  
 05/10/2001 - 12/31/2002 FY01: \$152,527 Total: \$152,527  
*Prin. Invest.: R JUDGE*  
*Tech. Officer: MSFC/H K HIGGINBOTHAM*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 8 1850 UNIV OF ALABAMA - HUNTSVILLE 1182**  
 NON-EQUILIBRIUM THERMODYNAMICS OF HGZNT E MELTS  
 09/10/2001 - 12/31/2001 FY01: \$15,000 Total: \$15,000  
*Prin. Invest.: J BAIRD*  
*Tech. Officer: MSFC/C H SU*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAS 1 98131 UNIV OF ALABAMA - HUNTSVILLE 1183**  
 CLOUDS AND THE EARTH'S RADIANT ENERGY SYSTEM SCIENTIFIC INVESTIGATIONS  
 11/01/1998 - 10/27/2001 FY01: \$257,611 Total: \$772,819  
*Prin. Invest.: R WELCH*  
*Tech. Officer: LARC/B A WIELICKI*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAS 2 00102 UNIV OF ALABAMA - HUNTSVILLE 1184**  
 REFINEMENT AND TESTING OF AN XML BASED SENSOR MODEL LANGUAGE  
 11/20/2000 - 11/19/2002 FY01: \$312,648 Total: \$312,648  
*Prin. Invest.: M BOTTI, A COOK*  
*Tech. Officer: ARC/S LAU, ARC/R CARVALHO*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAS 2 01003 UNIV OF ALABAMA - HUNTSVILLE 1185**  
 AIST PROGRAM RESEARCH PROJECT ENTITLED: "EVE: AN ENVIRONMENT FOR ON-BOARD PROCESSING"  
 12/18/2000 - 12/18/2003 FY01: \$746,414 Total: \$746,414  
*Prin. Invest.: S GRAVES*  
*Tech. Officer: ARC/S LAU, ARC/R CARVALHO*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAS 5 31718 UNIV OF ALABAMA - HUNTSVILLE 1186**  
 EOS ASTER/HIRIS INVESTIGATION  
 01/09/1992 - 12/14/2001 FY01: \$169,408 Total: \$1,784,661  
*Prin. Invest.: R WELCH*  
*Tech. Officer: GSFC/T BRAKE*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAS 5 99179 UNIV OF ALABAMA - HUNTSVILLE 1187**  
 DEVELOPMENT OF HDF-EOS SUBSETTER SOFTWARE FOR ESDIS.  
 02/12/1999 - 12/31/2000 FY01: \$0 Total: \$453,628  
*Prin. Invest.: M SUMMERLIN*  
*Tech. Officer: GSFC/R E HARBAUGH*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAS 8 00118 UNIV OF ALABAMA - HUNTSVILLE 1188**  
 THE ADJUSTABLE FOCUS OPTICAL CORRECTION LENS  
 05/10/2000 - 05/09/2001 FY01: \$0 Total: \$205,000  
*Prin. Invest.: B PETERS*  
*Tech. Officer: MSFC/J RAKOCZY, MSFC/W BRANTLY*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAS 8 00180 UNIV OF ALABAMA - HUNTSVILLE 1189**  
 INTERNATIONL SPACE STATION PROGRAM INDEPENDENT DATABASE ASSESSMENT  
 08/01/2000 - 07/31/2001 FY01: \$125,000 Total: \$185,000  
*Prin. Invest.: S J GRAVES*  
*Tech. Officer: MSFC/G HULLETT-SMITH, MSFC/G A WOOD*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAS 8 98226 UNIV OF ALABAMA - HUNTSVILLE 1190**  
 THE DESIGN AND DEVELOPMENT OF THE ORBITAL ARRAY OF WIDE ANGLE LENSES MISSION OPTICAL SYSTEM  
 07/01/1998 - 09/30/2001 FY01: \$0 Total: \$845,000  
*Prin. Invest.: Y TAKAHASHI*  
*Tech. Officer: MSFC/M WATSON*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 5 165 UNIV OF ALABAMA - HUNTSVILLE 1191**  
 TO SUPPORT RESEARCH ACTIVITIES UNDER THE NASA EXPE STIMULATE COMPETITIVE RESEARCH (EPSCOR)  
 11/02/1996 - 02/28/2002 FY01: \$0 Total: \$2,269,998  
*Prin. Invest.: J C GREGORY*  
*Prin. Invest.: NONE*  
*Tech. Officer: GSFC/L KEFFER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 5 391 UNIV OF ALABAMA - HUNTSVILLE 1192**  
 NASA EPSCOR: PREPARATORY GRANT PROPOSAL  
 05/13/1999 - 02/28/2002 FY01: \$0 Total: \$450,000  
*Prin. Invest.: J GREGORY*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 5 580 UNIV OF ALABAMA - HUNTSVILLE 1193**  
 ALABAMA NASA EPSCOR PROGRAM  
 08/22/2001 - 07/31/2004 FY01: \$316,814 Total: \$316,814  
*Prin. Invest.: J C GREGORY*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 8 65 UNIV OF ALABAMA - HUNTSVILLE 1194**  
 RESEARCH & APPLIED TECHNOLOGY & DEVELOPMENT OF FUTURE PROGRAMS  
 02/15/1995 - 08/21/2000 FY01: \$56,017 Total: \$13,377,794  
*Prin. Invest.: S T WU*  
*Tech. Officer: MSFC/U URBAN, MSFC/G J FISHMAN*  
*CASE Category: 13 – PHYSICS*

**NCC 8 97 UNIV OF ALABAMA - HUNTSVILLE 1195**  
 SPACE AND GROUND BASED CRYSTAL GROWTH USING MAGNETICALLY COUPLED BAFFLE  
 06/13/1996 - 09/29/2002 FY01: \$200,000 Total: \$796,247  
*Prin. Invest.: A G OSTROGORSKY*  
*Tech. Officer: MSFC/D SCHAEFER*  
*CASE Category: 11 – ASTRONOMY*

**NCC 8 99 UNIV OF ALABAMA - HUNTSVILLE 1196**  
 SELF-DIFFUSION IN LIQUID ELEMENTS  
 05/24/1996 - 12/31/2001 FY01: \$214,000 Total: \$1,596,612  
*Prin. Invest.: F ROSENBERGER*  
*Tech. Officer: MSFC/S SPEARMAN*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NCC 8 132 UNIV OF ALABAMA - HUNTSVILLE 1197**  
 FOR RESEARCH: "CONSORTIUM FOR MATERIALS DEVELOP- MEFNT IN SPACE."  
 01/29/1997 - 10/31/2001 FY01: \$2,586,964 Total: \$9,142,072  
*Prin. Invest.: G WORKMAN*  
*Tech. Officer: MSFC/J PRESSON*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 8 141 UNIV OF ALABAMA - HUNTSVILLE 1198**  
 GLOBAL CHANGE RESEARCH RELATED TO THE EARTH'S ENERGY AND HYDROLOGY CYCLE  
 09/22/1997 - 09/29/2002 FY01: \$23,308 Total: \$14,595,288  
*Prin. Invest.: R MCNIDER*  
*Tech. Officer: MSFC/R GREENWOOD, MSFC/J SIMON*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NCC 8 146 UNIV OF ALABAMA - HUNTSVILLE 1199**  
 R/S INVESTIGATION OF SPACE BASED SOLID STATE COHERENT LIDAR UNDER DR. FARZIN AMZAJERDIAN  
 10/02/1997 - 11/30/2001 FY01: \$0 Total: \$1,289,919  
*Prin. Invest.: J DIMMOCK*  
*Tech. Officer: MSFC/S C JOHNSON, MSFC/B F JONES*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 8 178 UNIV OF ALABAMA - HUNTSVILLE 1200**  
 SUPPORT FOR THE NEW ACCOUNTING SYSTEM, SPECIFIC- ALLY THE INTEGRATED FINANCIALMANAGEMENT SYSTEM.  
 04/05/1999 - 09/30/2000 FY01: -\$2,170 Total: \$249,600  
*Prin. Invest.: W MORSE*  
*Tech. Officer: MSFC/F MAYHALL*  
*CASE Category: 29 – MATH/COMPUTERSCI, OTHER*

**NCC 8 180 UNIV OF ALABAMA - HUNTSVILLE 1201**  
 INTERNATIONAL SPACE STATION MICROGRAVITY DATA AND INFORMATION SYSTEMS  
 03/19/1999 - 02/28/2002 FY01: \$56,520 Total: \$384,520  
*Prin. Invest.: S J GRAVES*  
*Tech. Officer: MSFC/C C LAPENTA*  
*CASE Category: 42 – ASTRONAUTICAL ENGR*

**NCC 8 200 UNIV OF ALABAMA - HUNTSVILLE 1202**  
 RESEARCH AND DEVELOPMENT  
 08/10/2000 - 08/09/2005 FY01: \$19,062,523 Total: \$30,330,921  
*Prin. Invest.: L R GREENWOOD, B J SCHROER, T D SHURTZ*  
*Tech. Officer: MSFC/S COLEMAN*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 8 203 UNIV OF ALABAMA - HUNTSVILLE 1203**  
 INVESTIGATION OF INTER-AND INTRA-MOLECULAR INTER- ACTIONS OF RECOMBINANT CANAVALIN /E. COLI  
 07/20/2000 - 06/30/2002 FY01: \$0 Total: \$77,337  
*Prin. Invest.: J D NG*  
*Tech. Officer: MSFC/M L PUSEY*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NCC 8 205 UNIV OF ALABAMA - HUNTSVILLE 1204**  
 STRUCTURAL FLUCTUATIONS & THERMOPHYSICAL PROPER- TIES OF MOLTEN II - IV COMPOUNDS  
 09/08/2000 - 11/30/2003 FY01: \$0 Total: \$22,730  
*Prin. Invest.: S FETH*  
*Tech. Officer: MSFC/P DOTY*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NCC 8 207 UNIV OF ALABAMA - HUNTSVILLE 1205**  
 MECHANIZATIONS FOR THE CRYSTALLIZATION OF ZBLAN  
 07/24/2000 - 11/30/2003 FY01: \$27,716 Total: \$44,603  
*Prin. Invest.: W KINKLER*  
*Tech. Officer: MSFC/E ETHRIDGE*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NCC 8 209**      **UNIV OF ALABAMA - HUNTSVILLE**      **1206**  
 THEORETICAL INVESTIGATION OF ULTRASONIC PROCESSING FOR  
 DIRECTIONAL SOLIDIFICATION OF HYPERMONOTECTIC  
 12/01/2000 - 09/30/2001      FY01: \$25,000      Total: \$25,000  
*Prin. Invest.:* A FEDOSEYEV  
*Tech. Officer:* MSFC/R N GRUGEL  
*CASE Category:* 19 – PHYSICAL SCIENCE, OTHER

**NCC 8 213**      **UNIV OF ALABAMA - HUNTSVILLE**      **1207**  
 STUDENT LAUNCH INITITATIVE  
 03/23/2001 - 12/31/2001      FY01: \$50,000      Total: \$50,000  
*Prin. Invest.:* C R KARR  
*Tech. Officer:* MSFC/J R PRUITT  
*CASE Category:* 41 – AERONAUTICAL ENGNR

**NCC 9 109**      **UNIV OF ALABAMA - HUNTSVILLE**      **1208**  
 COOPERATIVE AGREEMENT  
 06/22/2000 - 07/01/2001      FY01: \$0      Total: \$22,000  
*Prin. Invest.:* J RUPERT  
*Tech. Officer:* JSC/N QOURAISHI, JSC/D SICKOREZ  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NGT 2 52283**      **UNIV OF ALABAMA - HUNTSVILLE**      **1209**  
 EMBRYO DEVELOPMENT & HATCHING BEHAVIOR IN BOBWHITE &  
 COTUNIX QUAIL EXPOSED TO EARTH'S GRAVITY & HYP  
 08/09/2001 - 07/31/2002      FY01: \$20,650      Total: \$20,650  
*Prin. Invest.:* R F EATON  
*Tech. Officer:* ARC/A E RONCA, ARC/E HOTTON  
*CASE Category:* 51 – BIOLOGY(EXCLUDING ENVIR)

**NGT 5 30168**      **UNIV OF ALABAMA - HUNTSVILLE**      **1210**  
 IMPACT OF AEROSOLS ON THE CLEAR SKY SHORTWAVE RADIATIVE  
 FLUXES OVERBIOMASS BURNING REGIONS IN  
 09/01/1998 - 08/31/2000      FY01: -\$139      Total: \$43,861  
*Prin. Invest.:* D M WELCH, ZHANG  
*Tech. Officer:* GSFC/M Y WEI  
*CASE Category:* 39 – ENVIRONMENTALSCI, OTHER

**NGT 5 40018**      **UNIV OF ALABAMA - HUNTSVILLE**      **1211**  
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE  
 AND FELLOWSHIP PROGRAM.  
 01/09/1997 - 01/31/2001      FY01: \$30,836      Total: \$1,983,762  
*Prin. Invest.:* J GREGORY  
*Tech. Officer:* GSFC/D E DETROYE  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NGT 5 40077**      **UNIV OF ALABAMA - HUNTSVILLE**      **1212**  
 ALABAMA SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM  
 02/09/2001 - 01/31/2002      FY01: \$561,875      Total: \$561,875  
*Prin. Invest.:* J C GREGORY  
*Tech. Officer:* GSFC/D D DETROYE  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NGT 5 50163**      **UNIV OF ALABAMA - HUNTSVILLE**      **1213**  
 AN EMPIRICAL MODEL OF CORONAL HEATING DEDUCED FROM SOHO  
 OBSERVATIONS OF TRANSITION REGION DYNAMICS  
 06/02/1998 - 07/31/2001      FY01: \$0      Total: \$44,000  
*Prin. Invest.:* E EMSLIE  
*Tech. Officer:* HQ/A NURRIDIN  
*CASE Category:* 13 – PHYSICS

**NGT 8 52863**      **UNIV OF ALABAMA - HUNTSVILLE**      **1214**  
 DETERMINATION OF H FROM THE INTERFEROMETRIC OBSERVATIONS OF  
 THE SUNYAEV-DEL DOVICH EFFECT  
 07/24/1998 - 06/22/2001      FY01: -\$13,136      Total: \$52,864  
*Prin. Invest.:* J V PARADIJS  
*Tech. Officer:* MSFC/J F DOWDY  
*CASE Category:* 13 – PHYSICS

**NGT 8 52874**      **UNIV OF ALABAMA - HUNTSVILLE**      **1215**  
 1999 SUMMER FACULTY FELLOWSHIP PROGRAM  
 04/12/1999 - 06/30/2001      FY01: \$0      Total: \$867,809  
*Prin. Invest.:* G R KARR  
*Tech. Officer:* MSFC/J F DOWDY  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NGT 8 52878**      **UNIV OF ALABAMA - HUNTSVILLE**      **1216**  
 ION CYCLOTRON RESONANCE HEATING OF A PLASMA BY HELICON WAVES  
 FOR THE GASDYNAMICMIRROR FUSION...  
 08/31/1999 - 08/11/2002      FY01: \$22,000      Total: \$66,000  
*Prin. Invest.:* C HAWK  
*Tech. Officer:* MSFC/J DOWDY  
*CASE Category:* 46 – MECHANICAL ENGR

**NGT 8 52882**      **UNIV OF ALABAMA - HUNTSVILLE**      **1217**  
 GRADUATE STUDENT RESEARCH PROGRAM "OPTIMIZATION OF A  
 MAGNETIC MIRROR FUSION REACTOR FOR SPACE PROPUL  
 09/15/1999 - 08/14/2001      FY01: \$22,000      Total: \$66,000  
*Prin. Invest.:* S WU  
*Tech. Officer:* MSFC/J DOWDY  
*CASE Category:* 41 – AERONAUTICAL ENGNR

**NGT 8 52886**      **UNIV OF ALABAMA - HUNTSVILLE**      **1218**  
 DIFFRACTION LIMITED GRAZING INCIDENCE OPTICS  
 05/17/2000 - 08/22/2003      FY01: \$22,000      Total: \$44,000  
*Prin. Invest.:* W PACIESAS  
*Tech. Officer:* MSFC/S NASH-STEVENSON  
*CASE Category:* 19 – PHYSICAL SCIENCE, OTHER

**NGT 8 52891**      **UNIV OF ALABAMA - HUNTSVILLE**      **1219**  
 INTERACTION OF EXPANDING PLASMA WITH A COMPRESSED MAGNETIC  
 FIELD  
 06/22/2000 - 07/31/2003      FY01: \$22,000      Total: \$44,000  
*Prin. Invest.:* C HAWK  
*Tech. Officer:* MSFC/S NASH-STEVENSON  
*CASE Category:* 46 – MECHANICAL ENGR

**NGT 8 52908**      **UNIV OF ALABAMA - HUNTSVILLE**      **1220**  
 CERAMIC MATRIX COMPOSITE DEV FOR SPACE TRANS APPLI CATIONS  
 05/25/2001 - 07/01/2004      FY01: \$22,000      Total: \$22,000  
*Prin. Invest.:* R CERRO  
*Tech. Officer:* MSFC/S NASH-STEVENSON  
*CASE Category:* 43 – CHEMICAL ENGR

**NAG 2 1290**      **UNIV OF ALABAMA - UNIV**      **1221**  
 AUTOMATED MINING OF AVIATION ACCIDENT DATABASES US ING CARE  
 TECHNOLOGY  
 02/01/1999 - 12/31/2000      FY01: -\$6,894      Total: \$112,212  
*Prin. Invest.:* D B BROWN, A S PARRISH, B D DIXON  
*Tech. Officer:* ARC/I C STATLER  
*CASE Category:* 41 – AERONAUTICAL ENGRN

**NAG 2 1499** UNIV OF ALABAMA - UNIV 1222  
 CATECHOLAMINE REGULATION AND RESPONSE TO ENVIRONMENTAL CHANGE IN DROSOPHILA MELANOGASTER  
 07/11/2001 - 06/30/2002 FY01: \$107,541 Total: \$107,541  
*Prin. Invest.: J M O'DONNELL*  
*Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY*  
*CASE Category: 51 - BIOLOGY(EXCLUDING ENVIR)*

**NAG 3 2004** UNIV OF ALABAMA - UNIV 1223  
 INTELLIGENT ENGINE CONTROL  
 01/10/1997 - 09/30/2000 FY01: -\$2,005 Total: \$182,977  
*Prin. Invest.: K S KRISHNAKUMAR*  
*Tech. Officer: GRC/J R SAUS*  
*CASE Category: 49 - ENGINEERING, OTHER*

**NAG 5 2574** UNIV OF ALABAMA - UNIV 1224  
 ABUNDANCE GRADIENTS IN INTRACLUSTER GAS  
 04/12/1994 - 09/30/1999 FY01: -\$1 Total: \$73,908  
*Prin. Invest.: R E WHITE III*  
*Tech. Officer: GSFC/N WHITE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 4346** UNIV OF ALABAMA - UNIV 1225  
 PROJECT NOVA  
 05/01/1997 - 02/28/2001 FY01: \$0 Total: \$2,775,000  
*Prin. Invest.: M FREEMAN*  
*Tech. Officer: HQ/D V GALLAWAY*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 6174** UNIV OF ALABAMA - UNIV 1226  
 NUMERICAL AND THEORETICAL STUDIES OF THE INITIATION OF CORONAL MASS EJECTIONS (CMES)  
 08/05/1997 - 05/31/2000 FY01: -\$354 Total: \$186,104  
*Prin. Invest.: D WU*  
*Tech. Officer: GSFC/W J WAGNER*  
*CASE Category: 13 - PHYSICS*

**NAG 5 6314** UNIV OF ALABAMA - UNIV 1227  
 FAR-WING LINE SHAPE: APPLICATION TO THE VENUSIAN  
 09/11/1997 - 09/30/2000 FY01: -\$38 Total: \$135,962  
*Prin. Invest.: D TIPPING*  
*Tech. Officer: GSFC/S HOWARD*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 6934** UNIV OF ALABAMA - UNIV 1228  
 ASCA PROPOSAL - A SEARCH FOR HOT GAS IN MERGING CLUSTERS  
 01/30/1998 - 01/14/2000 FY01: -\$2,509 Total: \$23,491  
*Prin. Invest.: R E WHITE,II*  
*Tech. Officer: GSFC/N WHITE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 7702** UNIV OF ALABAMA - UNIV 1229  
 ESTIMATE THE INDIRECT AEROSOL EFFECT AND RETRIEVAL OF RELATED  
 PARAMETERS FROM SATELLITE MEASUREMENT  
 09/23/1998 - 09/30/2001 FY01: \$71,000 Total: \$228,407  
*Prin. Invest.: Q HAN*  
*Tech. Officer: GSFC/M MISHCHENKO*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 8269** UNIV OF ALABAMA - UNIV 1230  
 THEORETICAL CALCULATION OF CO<sub>2</sub> FAR-WING LINE SHAPES  
 02/25/1999 - 12/31/2001 FY01: \$0 Total: \$123,700  
*Prin. Invest.: R H TIPPING*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 8407** UNIV OF ALABAMA - UNIV 1231  
 MODELING AND COMPARISON OF FE + OPTICAL BALMER LINES (LTS 98)  
 03/15/1999 - 03/14/2001 FY01: \$0 Total: \$3,145  
*Prin. Invest.: J W SULENTIC*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 8959** UNIV OF ALABAMA - UNIV 1232  
 NEARBY GALAXIES IN THE FAR-UV: TOWARD COMPARISON WITH HIGH-REDSHIFT GALAXIES -FUSE  
 01/24/2000 - 01/31/2003 FY01: \$0 Total: \$29,600  
*Prin. Invest.: W C KEEL*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9388** UNIV OF ALABAMA - UNIV 1233  
 THE PROJECT NOVA CONSORTIUM  
 04/10/2000 - 03/31/2002 FY01: \$1,047,690 Total: \$2,092,690  
*Prin. Invest.: L FREEMAN*  
*Tech. Officer: GSFC/M PHELPS*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 9855** UNIV OF ALABAMA - UNIV 1234  
 TO EXPAND AND CONTINUE TO DISSEMINATE A HIGHER EDUCATION MODEL FOR CREATING IN-SERVICE EDUCATION  
 08/07/2000 - 07/31/2001 FY01: \$0 Total: \$118,581  
*Prin. Invest.: M FREEMAN*  
*Tech. Officer: GSFC/J HARRINGTON*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 10914** UNIV OF ALABAMA - UNIV 1235  
 INVESTIGATING THE INTERACTION-STARBURST CONNECTION (ADP 2000)  
 05/18/2001 - 04/30/2002 FY01: \$37,396 Total: \$37,396  
*Prin. Invest.: J W SULENTIC*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 11204** UNIV OF ALABAMA - UNIV 1236  
 SHOCKS IN GROUPS  
 08/08/2001 - 08/14/2002 FY01: \$8,700 Total: \$8,700  
*Prin. Invest.: J W SULENTIC*  
*Tech. Officer: GSFC/R MUSHOTZKY*  
*CASE Category: 11 - ASTRONOMY*

**NAG 8 1422** UNIV OF ALABAMA - UNIV 1237  
 MULTIPLE YEAR GRANT FOR THE PURPOSE OF AEROELASTICITY IN MULTIDISCIPLINARY ANALYSIS AND DESIGN  
 10/28/1997 - 08/31/2000 FY01: -\$10,919 Total: \$95,026  
*Prin. Invest.: T ZEILER, N D HENDRIX*  
*Tech. Officer: MSFC/C DILL*  
*CASE Category: 41 - AERONAUTICAL ENGRN*

<b>NAG 8 1724</b>	<b>UNIV OF ALABAMA - UNIV</b>	<b>1238</b>	<b>NAG 5 9085</b>	<b>UNIV OF NORTH ALABAMA</b>	<b>1246</b>
"2000 SUMMER FACULTY FELLOWSHIP PROGRAM"			EARTH SYS SCIENCE ON-LINE COURSE: ON OPPURTUNITY IN		
06/22/2000 - 03/30/2002	FY01: \$18,500	Total: \$733,392	GEOGRAPHY EDUCATION		
<i>Prin. Invest.: L M FREEMAN</i>			02/17/2000 - 01/31/2002	FY01: \$32,502	Total: \$65,076
<i>Tech. Officer: MSFC/J R PRUITT</i>			<i>Prin. Invest.: W R STRONG</i>		
<i>CASE Category: 99 - MULTI INTERDISCPL, OTHER</i>			<i>Tech. Officer: GSFC/N KHAZENIE</i>		
<i>CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</i>			<i>CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</i>		
<b>NAG 8 1753</b>	<b>UNIV OF ALABAMA - UNIV</b>	<b>1239</b>	<b>NAG 8 1397</b>	<b>UNIV OF SOUTH ALABAMA</b>	<b>1247</b>
RESEARCH THE APPLICATIONS THAT RESULTED IN SUCCESSFUL			R/S "DEVELOPMENT OF COUNTERMEASURES & EXERCISE PROTOCOLS		
PROJECT MANAGEMENT IN INDUSTRY.			TO REDUCE THE EFFECT OF MICROGRAVITY		
11/28/2000 - 09/29/2001	FY01: \$67,514	Total: \$67,514	07/23/1997 - 08/31/2000	FY01: -\$225	Total: \$37,689
<i>Prin. Invest.: P S RAY</i>			<i>Prin. Invest.: P KULKARNI</i>		
<i>Tech. Officer: MSFC/A DUARTE</i>			<i>Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT</i>		
<i>CASE Category: 49 - ENGINEERING, OTHER</i>			<i>CASE Category: 99 - MULTI INTERDISCPL, OTHER</i>		
<b>NAG 9 1419</b>	<b>UNIV OF ALABAMA - UNIV</b>	<b>1240</b>	<b>NAG 9 1282</b>	<b>UNIV OF SOUTH ALABAMA</b>	<b>1248</b>
DESIGN OF AN INTERGRATED HYBIRD SYSTEM			MATHEMATICAL MODELING OF FOOD SUPPLY FOR LONG TERM SPACE		
08/17/2000 - 08/17/2001	FY01: \$0	Total: \$99,999	MISSIONS USING LIFE SUPPORT		
<i>Prin. Invest.: G P, P S ROY, D J FONSECA</i>			02/12/2001 - 05/15/2001	FY01: \$12,228	Total: \$12,228
<i>Tech. Officer: JSC/F Y KUO</i>			<i>Prin. Invest.: J CRUTHIRDS</i>		
<i>CASE Category: 49 - ENGINEERING, OTHER</i>			<i>Tech. Officer: JSC/V L KLOERIS</i>		
<b>NAG10 305</b>	<b>UNIV OF ALABAMA - UNIV</b>	<b>1241</b>	<i>CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)</i>		
EVALUATION OF IONIC LIQUIDS FOR USE IN A PROPOSED LOW TEMPERA-					
TURE ELECTROLYSIS CELL FOR THE PROCESSI					
08/27/2001 - 08/31/2002	FY01: \$24,980	Total: \$24,980			
<i>Prin. Invest.: R D ROGERS</i>					
<i>Tech. Officer: KSC/D E LUECK</i>					
<i>CASE Category: 12 - CHEMISTRY</i>					
<b>NAS 8 00207</b>	<b>UNIV OF ALABAMA - UNIV</b>	<b>1242</b>	<b>NCC 8 161</b>	<b>UNIV OF SOUTH ALABAMA</b>	<b>1249</b>
PARTICLE ENGLUFMENT AND PUSHING BY SOLIDIFYING INT ERFACES			REGIONAL/INTERNATIONAL CHANGE ASSESSMENT		
(PEP)			RESEARCH AND TECHNOLOGY		
10/03/2000 - 09/30/2001	FY01: \$243,000	Total: \$243,000	01/19/1999 - 01/18/2004	FY01: \$80,000	Total: \$113,105
<i>Prin. Invest.: D M STEFANESCU</i>			<i>Prin. Invest.: M CARPENTER</i>		
<i>Tech. Officer: MSFC/M PURVEY</i>			<i>Tech. Officer: MSFC/R ARNOLD</i>		
<i>CASE Category: 19 - PHYSICAL SCIENCE, OTHER</i>			<i>CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</i>		
<b>NAS 8 39715</b>	<b>UNIV OF ALABAMA - UNIV</b>	<b>1243</b>	<b>NGT 8 52896</b>	<b>UNIV OF SOUTH ALABAMA</b>	<b>1250</b>
PARTICLE INGLUFMENT AND PUSHING BY SOLIDFYING INTE RFACES			STRUCTURE DETERMINATION OF PP5, A SENSOR OF CELL CYCLE		
02/17/1993 - 09/29/2000	FY01: \$0	Total: \$1,236,938	CONTROL CHECKPOINTS AND A PROGNOSTIC INDICAT		
<i>Prin. Invest.: D M STEFANESCU, P A CURRERI, B K DHINDAW</i>			05/25/2001 - 07/01/2004	FY01: \$22,000	Total: \$22,000
<i>Tech. Officer: MSFC/T DE LOACH</i>			<i>Prin. Invest.: R HONKANEN</i>		
<i>CASE Category: 19 - PHYSICAL SCIENCE, OTHER</i>			<i>Tech. Officer: MSFC/S NASH-STEVENSON</i>		
<b>NGT 4 52403</b>	<b>UNIV OF ALABAMA - UNIV</b>	<b>1244</b>	<i>CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)</i>		
GENETICS-BASED ADAPTIVE AGENTS FOR STRATEGY LEARNING IN					
AEROSPACE APPLICATIONS					
07/16/1996 - 08/01/2000	FY01: -\$1,623	Total: \$64,377			
<i>Prin. Invest.: R E SMITH</i>					
<i>Tech. Officer: DFRC/K GUPTA</i>					
<i>CASE Category: 41 - AERONAUTICAL ENGRN</i>					
<b>NGT 5 50129</b>	<b>UNIV OF ALABAMA - UNIV</b>	<b>1245</b>	<b>NAG 5 4068</b>	<b>UNIV OF ALASKA - FAIRBANKS</b>	<b>1251</b>
DETERMINING LYMPHOCYTE RESPONSIVENESS TO LOW GRAVI			SAR, INTEREROMETRY, AND GACIER DYNAMICS IN NW NORT		
09/09/1997 - 06/30/2000	FY01: \$0	Total: \$66,000	03/20/1997 - 02/28/2000	FY01: -\$545	Total: \$188,835
<i>Prin. Invest.: M ~ LEWIS</i>			<i>Prin. Invest.: C LINGLE</i>		
<i>Tech. Officer: HQ/A NURRIDDIN</i>			<i>Tech. Officer: GSFC/S H GOGINENI</i>		
<i>CASE Category: 41 - AERONAUTICAL ENGRN</i>			<i>CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</i>		
<b>NAG 5 4170</b>	<b>UNIV OF ALASKA - FAIRBANKS</b>	<b>1252</b>	<b>NAG 5 4170</b>	<b>UNIV OF ALASKA - FAIRBANKS</b>	<b>1252</b>
CLIMATE SENSITIVITY OF THAW LAKE SYSTEMS			CLIMATE SENSITIVITY OF THAW LAKE SYSTEMS		
03/27/1997 - 12/31/2000	FY01: \$0	Total: \$113,343	03/27/1997 - 12/31/2000	FY01: \$0	Total: \$113,343
<i>Prin. Invest.: D JEFFRIES</i>			<i>Prin. Invest.: D JEFFRIES</i>		
<i>Tech. Officer: GSFC/R H THOMAS</i>			<i>Tech. Officer: GSFC/R H THOMAS</i>		
<i>CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</i>			<i>CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</i>		

**ALASKA**

<b>NAG 5 4269</b>	<b>UNIV OF ALASKA - FAIRBANKS</b>	<b>1253</b>	<b>NAG 5 6338</b>	<b>UNIV OF ALASKA - FAIRBANKS</b>	<b>1261</b>
UNIQUE SIMULTANEOUS OBSERVATIONS OF THE CONJUGATE HEMISPHERES WITH THE DYNAMICS EXPLORER AND VIKING			VALIDATION OF MODIS SNOW & SEA ICE PRODUCTS IN THE SOUTHERN OCEAN		
03/25/1997 - 12/31/2001	FY01: \$0	Total: \$99,987	10/02/1997 - 03/31/2002	FY01: \$82,221	Total: \$468,742
<i>Prin. Invest.: D D CRAVEN</i>			<i>Prin. Invest.: S LI</i>		
<i>Tech. Officer: GSFC/D EVANS</i>			<i>Tech. Officer: GSFC/D O STARR</i>		
<i>CASE Category: 13 - PHYSICS</i>			<i>CASE Category: 19 - PHYSICAL SCIENCE, OTHER</i>		
<b>NAG 5 4981</b>	<b>UNIV OF ALASKA - FAIRBANKS</b>	<b>1254</b>	<b>NAG 5 6976</b>	<b>UNIV OF ALASKA - FAIRBANKS</b>	<b>1262</b>
ELEVATION CHANGES, INTERANNUAL VARIABILITY, AND AN DYNAMICS FROM ERS, GEOSTAT ANDSEASAT RADA ALTIME			COMBINED EFFECTS OF PHOTOELECTRONS, FIELD-ALIGNED CURRENTS, PRECIPITATION, THEPONDEROMOTIVE AND		
07/18/1997 - 07/14/2000	FY01: \$0	Total: \$193,055	03/31/1998 - 05/31/2001	FY01: -\$67,084	Total: \$145,021
<i>Prin. Invest.: C S LINGLE</i>			<i>Prin. Invest.: G V KHAZANOV</i>		
<i>Tech. Officer: GSFC/S GOGINENI</i>			<i>Tech. Officer: GSFC/M MELLOT</i>		
<i>CASE Category: 31 - ATMOSPHERIC SCIENCE</i>			<i>CASE Category: 11 - ASTRONOMY</i>		
<b>NAG 5 5125</b>	<b>UNIV OF ALASKA - FAIRBANKS</b>	<b>1255</b>	<b>NAG 5 7299</b>	<b>UNIV OF ALASKA - FAIRBANKS</b>	<b>1263</b>
GROUND AND BALLOON-BORNE OBSERVATIONS OF RED SPRITES AND BLUE JETS			RADARSAT IN SUPPORT OF THE ANTARCTIC COASTAL POLYNYA PILOT STUDY		
07/02/1997 - 01/31/2002	FY01: \$0	Total: \$343,690	04/24/1998 - 03/31/2001	FY01: \$0	Total: \$40,493
<i>Prin. Invest.: E WESTCOTT</i>			<i>Prin. Invest.: M O JEFFRIES</i>		
<i>Tech. Officer: GSFC/H NEEDLEMAN</i>			<i>Tech. Officer: GSFC/S GOGINENI</i>		
<i>CASE Category: 13 - PHYSICS</i>			<i>CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</i>		
<b>NAG 5 5153</b>	<b>UNIV OF ALASKA - FAIRBANKS</b>	<b>1256</b>	<b>NAG 5 7507</b>	<b>UNIV OF ALASKA - FAIRBANKS</b>	<b>1264</b>
AURORAL AIRCRAFT OBSERVATIONS CONJUGATE TO FAST FUNDING FOR BASIC GRANT			JERS-1 NORTH AMERICAN BOREAL FOREST MAPPING STUDY TASK PLAN UAFCOMPONENT		
01/14/1998 - 10/31/2000	FY01: -\$60	Total: \$342,061	06/26/1998 - 06/30/2001	FY01: \$18,500	Total: \$150,000
<i>Prin. Invest.: H NIELSEN</i>			<i>Prin. Invest.: C L WILLIAMS</i>		
<i>Tech. Officer: GSFC/W JOHNSON</i>			<i>Tech. Officer: GSFC/D WICKLAND</i>		
<i>CASE Category: 13 - PHYSICS</i>			<i>CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</i>		
<b>NAG 5 5218</b>	<b>UNIV OF ALASKA - FAIRBANKS</b>	<b>1257</b>	<b>NAG 5 7603</b>	<b>UNIV OF ALASKA - FAIRBANKS</b>	<b>1265</b>
CODA: COUPLING OF DYNAMICS AND AURORA-A CO- INVESTIGATION PROPOSAL WITH AEROSPACE PI COLLINS			THE INFLUENCE OF PROPAGATING EDDIES ON THE ENVIRONMENT OF THE CONTINENTAL SHELF IN THE NORTHERN G		
01/15/1999 - 01/14/2002	FY01: \$15,470	Total: \$29,267	07/21/1998 - 07/31/2002	FY01: \$28,952	Total: \$71,973
<i>Prin. Invest.: COLLINS</i>			<i>Prin. Invest.: S R OKONEN</i>		
<i>Tech. Officer: GSFC/W JOHNSON</i>			<i>Tech. Officer: GSFC/E LINDSTROM</i>		
<i>CASE Category: 13 - PHYSICS</i>			<i>CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</i>		
<b>NAG 5 5243</b>	<b>UNIV OF ALASKA - FAIRBANKS</b>	<b>1258</b>	<b>NAG 5 7659</b>	<b>UNIV OF ALASKA - FAIRBANKS</b>	<b>1266</b>
FIRST YEAR OF A TWO YEAR EFFORT NAG5-5243 PI DR. RICHARD COLLINS			'SPACE GEODETIC CASE STUDIES OF RECENT VOLCANIC EVENTS IN ALASKA'S ENH98-0028		
03/29/1999 - 03/31/2002	FY01: \$0	Total: \$38,624	09/09/1998 - 08/31/2002	FY01: \$40,000	Total: \$240,000
<i>Prin. Invest.: R COLLINS</i>			<i>Prin. Invest.: J T FREYMUELLER</i>		
<i>Tech. Officer: GSFC/W B JOHNSON</i>			<i>Tech. Officer: GSFC/H V FREY</i>		
<i>CASE Category: 13 - PHYSICS</i>			<i>CASE Category: 32 - GEOLOGICAL SCIENCE</i>		
<b>NAG 5 5316</b>	<b>UNIV OF ALASKA - FAIRBANKS</b>	<b>1259</b>	<b>NAG 5 7683</b>	<b>UNIV OF ALASKA - FAIRBANKS</b>	<b>1267</b>
MAPPING THE E-REGION VERTICAL AND ZONAL WINDS NEAR A STABLE AURORAL ARC USING A NEAR HORIZONTAL			MODELING OF THE ATMOSPHERE-MAGNETOSPHERE-IONOSPHERE SYSTEM: BASELINEEFFORT		
02/14/2001 - 02/11/2004	FY01: \$215,855	Total: \$215,855	09/15/1998 - 09/30/2001	FY01: \$0	Total: \$335,010
<i>Prin. Invest.: M CONDE</i>			<i>Prin. Invest.: M H REES</i>		
<i>Tech. Officer: GSFC/J C BRINTON</i>			<i>Tech. Officer: GSFC/S A CURTIS</i>		
<i>CASE Category: 13 - PHYSICS</i>			<i>CASE Category: 13 - PHYSICS</i>		
<b>NAG 5 6275</b>	<b>UNIV OF ALASKA - FAIRBANKS</b>	<b>1260</b>	<b>NAG 5 7799</b>	<b>UNIV OF ALASKA - FAIRBANKS</b>	<b>1268</b>
THE ROLE OF LAND-COVER CHANGE IN HIGH LATITUDE ECO FOR THE GLOBAL CARBON CYCLE			A STUDY OF THE INSTANTANEOUS DISTRIBUTION OF BIRKLAND CURRENTS USING POLAR UVI,SUPERDARN, IMP8		
08/27/1997 - 08/31/2001	FY01: \$0	Total: \$520,000	12/17/1998 - 09/30/2001	FY01: \$92,260	Total: \$275,081
<i>Prin. Invest.: D MCGUIRE</i>			<i>Prin. Invest.: W A BRISTOW</i>		
<i>Tech. Officer: GSFC/A JANETOS</i>			<i>Tech. Officer: GSFC/L ZANETTI</i>		
<i>CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</i>			<i>CASE Category: 11 - ASTRONOMY</i>		

**NAG 5 8042**      **UNIV OF ALASKA - FAIRBANKS**      **1269**  
 THERMOSPHERIC NEUTRAL WIND RESPONSE TO THE AURORA AT HIGH  
 RESOLUTION; SIMULTANEOUS GROUND-BASED AN  
 01/07/1999 - 09/30/2001      FY01: \$0      Total: \$58,510  
*Prin. Invest.: J D CRAVEN*  
*Tech. Officer: GSFC/M H ACUNA*  
*CASE Category: 13 – PHYSICS*

**NAG 5 8614**      **UNIV OF ALASKA - FAIRBANKS**      **1270**  
 APPLICATION OF SATELLITE SAR IMAGERY IN MAPPING THE ACTIVE  
 LAYER OF ARCTIC PERMAFROST  
 06/14/1999 - 06/30/2002      FY01: \$66,393      Total: \$186,618  
*Prin. Invest.: S LI*  
*Tech. Officer: GSFC/E T ENGMAN*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8722**      **UNIV OF ALASKA - FAIRBANKS**      **1271**  
 RUSSIAN-US PARTNERSHIP TO STUDY THE 23-KM-DIAMETER EL'GY-  
 GYTGYN IMPACT CRATER, NORTHEAST RUSSIA  
 08/25/1999 - 08/14/2002      FY01: \$24,000      Total: \$70,000  
*Prin. Invest.: V SHARPTON*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9315**      **UNIV OF ALASKA - FAIRBANKS**      **1272**  
 MONITORING BOREAL LANDCOVER AND ECOSYSTEM DYNAMICS AT  
 REGIONAL SCALES USING INTEGRATED SPACEBORNE  
 03/28/2000 - 04/30/2001      FY01: \$11,000      Total: \$33,000  
*Prin. Invest.: C WILLIAMS*  
*Tech. Officer: GSFC/G GUTMAN*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9457**      **UNIV OF ALASKA - FAIRBANKS**      **1273**  
 PLASMA PROCESSES AT THE EARTH'S MAGNETOSPHERIC BOUNDARY  
 AND CUSPS  
 04/24/2000 - 04/30/2002      FY01: \$54,829      Total: \$109,729  
*Prin. Invest.: A OTTO*  
*Tech. Officer: GSFC/J SHARBER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9513**      **UNIV OF ALASKA - FAIRBANKS**      **1274**  
 PHOTOTROPHIC ORGANISMS AT HYDROTHERMAL VENTS  
 04/25/2000 - 04/30/2002      FY01: \$80,000      Total: \$160,000  
*Prin. Invest.: G PLUMLEY*  
*Tech. Officer: GSFC/M MEYER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9859**      **UNIV OF ALASKA - FAIRBANKS**      **1275**  
 APPLICATION OF THE TERRESTRIAL ECOSYSTEM MODEL TO SIMULATE  
 CARBON DYNAMICS OF THEBOREAS REGIO  
 08/07/2000 - 08/31/2001      FY01: \$0      Total: \$25,000  
*Prin. Invest.: A D MCGUIRE*  
*Tech. Officer: GSFC/D E WICKLAND*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9915**      **UNIV OF ALASKA - FAIRBANKS**      **1276**  
 RETROSPECTIVE ANALYSIS OF SEA ICE CONDITIONS IN THE BERING &  
 CHUKCHI SEAS: 1973 TO 1983  
 08/30/2000 - 08/31/2001      FY01: \$0      Total: \$20,447  
*Prin. Invest.: L MCNUTT*  
*Tech. Officer: GSFC/E LINDSTROM*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 10069**      **UNIV OF ALASKA - FAIRBANKS**      **1277**  
 CEDARTIMED: THERMOSPHERIC VERTICAL WIND OBSERVATIONS FROM  
 THREE SITES IN THE NORTHERN AURORAL ZON  
 10/24/2000 - 02/28/2002      FY01: \$187,000      Total: \$187,000  
*Prin. Invest.: M CONDE*  
*Tech. Officer: GSFC/M MELLOTT*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 11142**      **UNIV OF ALASKA - FAIRBANKS**      **1278**  
 THE ROLE OF LAND-COVER CHANGE IN HIGH LATITUDE ECO SYSTEMS:  
 IMPLICATIONS FOR CARBON BUDGETS IN NORTH  
 07/31/2001 - 07/31/2002      FY01: \$87,359      Total: \$87,359  
*Prin. Invest.: D MCGUIRE*  
*Tech. Officer: GSFC/G GUTMAN*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 11213**      **UNIV OF ALASKA - FAIRBANKS**      **1279**  
 PERIGLACIAL GEOMORPHOLOGY ANALYSES ON UTOPIA PLANITIA  
 08/13/2001 - 08/31/2002      FY01: \$40,000      Total: \$40,000  
*Prin. Invest.: K YOSHIKAWA*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 11226**      **UNIV OF ALASKA - FAIRBANKS**      **1280**  
 INTERNATIONAL SYMPOSIUM ON FAST GLACIER FLOW  
 08/13/2001 - 08/31/2002      FY01: \$20,000      Total: \$20,000  
*Prin. Invest.: C LINGLE*  
*Tech. Officer: GSFC/W ABDALATI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAS 3 26401**      **UNIV OF ALASKA - FAIRBANKS**      **1281**  
 ACTS PROPAGATION EXPERIMENTS IN ALASKA  
 05/24/1993 - 09/01/2000      FY01: \$24      Total: \$916,676  
*Prin. Invest.: C E MAYER*  
*Tech. Officer: GRC/R J GUNDERMAN*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAS 5 01074**      **UNIV OF ALASKA - FAIRBANKS**      **1282**  
 MAINTENANCE/MISSION SUPPORT AT POKER FLAT RESERACH RANGE.  
 03/12/2001 - 03/11/2006      FY01: \$940,000      Total: \$940,000  
*Prin. Invest.: G W WALKER, R SHEFCHIK*  
*Tech. Officer: GSFC/W F LAU*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAS 5 32206**      **UNIV OF ALASKA - FAIRBANKS**      **1283**  
 MAINTENANCE/MISSION SUPPORT OF POKER FLAT RESEARCH RANGE  
 10/31/1994 - 02/28/2001      FY01: \$251,098      Total: \$8,890,796  
*Prin. Invest.: S SCHWATAL*  
*Tech. Officer: GSFC/M J FILLIS, GSFC/B J FLOWERS*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAS 5 98129**      **UNIV OF ALASKA - FAIRBANKS**      **1284**  
 OPERATION & MANAGEMENT OF ALASKA SAR FACILITY  
 03/30/1998 - 03/31/2003      FY01: \$10,943,305      Total: \$34,894,982  
*Prin. Invest.: N AVAILABLE*  
*Tech. Officer: GSFC/P J ONDRUS*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NCA 5 112**      **UNIV OF ALASKA - FAIRBANKS**      **1285**  
 PROCESSING SYNTHETIC APERTURE RADAR DATA  
 04/27/1988 – 02/28/2002      FY01: \$900,000      Total: \$22,045,886  
*Prin. Invest.: J MILLER, W F WEEKS, G WELLER*  
*Tech. Officer: GSFC/G H TROFFORD*  
*CASE Category: 11 – ASTRONOMY*

**NCC 5 379**      **UNIV OF ALASKA - FAIRBANKS**      **1286**  
 MODIS/SNOW MAPPING: IN-SITU MEASUREMENTS ON THE S ONW OF  
 INTERIOR& ARCTICALASKA  
 01/29/1999 – 09/30/2001      FY01: \$0      Total: \$30,000  
*Prin. Invest.: C S BENSON*  
*Tech. Officer: GSFC/S K HALL*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 30381**      **UNIV OF ALASKA - FAIRBANKS**      **1287**  
 GLACIAL UNLOADING: FORCINGS, RESPONSES & PROCESSES /CHRIS-  
 TOPHER LARSEN  
 08/13/2001 – 08/31/2004      FY01: \$21,984      Total: \$21,984  
*Prin. Invest.: J FREYMUELLER*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 40014**      **UNIV OF ALASKA - FAIRBANKS**      **1288**  
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE  
 AND FELLOWSHIP PROGRAM  
 02/10/1997 – 02/28/2001      FY01: -\$10,953      Total: \$796,547  
*Prin. Invest.: J G HAWKINS*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 40100**      **UNIV OF ALASKA - FAIRBANKS**      **1289**  
 ALASKA SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM  
 02/28/2001 – 02/28/2002      FY01: \$223,453      Total: \$223,453  
*Prin. Invest.: J G HAWKINS*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50191**      **UNIV OF ALASKA - FAIRBANKS**      **1290**  
 TIME-DEPENDENT TRANSPORT OF AURORAL ELECTRONS AND SMALL  
 SCALE AURORAL ARCS/STUDENT: LAURA PETICOLA  
 06/05/1998 – 06/30/2001      FY01: \$0      Total: \$41,537  
*Prin. Invest.: D LUMMERZHEIM*  
*Tech. Officer: HQ/A NURRIDIN*  
*CASE Category: 13 – PHYSICS*

**NGT 5 50324**      **UNIV OF ALASKA - FAIRBANKS**      **1291**  
 TREES, FIRE & CLIMATE: EVALUATING POTENTIAL FEED BACKS BETWEEN  
 DISTURBANCE REGIME/FOREST SUCCESSION  
 08/17/2000 – 08/31/2002      FY01: \$22,000      Total: \$44,000  
*Prin. Invest.: S F CHAPIN*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 7629**      **UNIV OF NORTH CAROLINA AT WILMINGTON**      **1292**  
 REMOTE SENSING AND MARINE ECOLOGY AT THE UNIVERSIT Y OF NORTH  
 CAROLINA AT WILMINGTON  
 08/28/1998 – 12/31/2000      FY01: \$0      Total: \$29,580  
*Prin. Invest.: S D EMSLIE*  
*Tech. Officer: GSFC/J W CAMPBELL*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**ARIZONA**

**NAG 1 1781**      **ARIZONA STATE UNIV**      **1293**  
 PENETRATION OF HIGH-INTENSITY RADIATED FIELDS INTO GENERAL  
 AVIATION AIRCRAFT  
 12/13/1995 – 12/31/2001      FY01: \$32,783      Total: \$641,878  
*Prin. Invest.: C BALANIS, P TIRKAS*  
*Tech. Officer: LARC/T X NGUYEN*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NAG 1 1988**      **ARIZONA STATE UNIV**      **1294**  
 DEVELOPMENT OF COMPREHENSIVE MODELING TECHNIQUES FOR  
 SMART COMPOSITE STRUCTURES  
 01/06/1998 – 01/14/2001      FY01: \$1,554      Total: \$128,403  
*Prin. Invest.: A CHATTOPADHYAY*  
*Tech. Officer: LARC/C D WIESEMAN, LARC/A R MCGOWAN*  
*CASE Category: 41 – AERONAUTICAL ENGNR*

**NAG 1 2233**      **ARIZONA STATE UNIV**      **1295**  
 DETERM & USE OF SENSITIVITIES FOR REDESIGN/ANAL OF MISTUNED  
 BLADED DISKS – NRA 98-LARC-8  
 09/27/1999 – 07/31/2002      FY01: \$72,264      Total: \$153,439  
*Prin. Invest.: M P MIGNOLET*  
*Tech. Officer: LARC/P W GOODE*  
*CASE Category: 29 – MATH/COMPUTER SCI, OTHER*

**NAG 1 2241**      **ARIZONA STATE UNIV**      **1296**  
 USING FORMAL APPROACH FOR REVERSE ENGR'G & DESIGN RECOVERY  
 TO SUPPORT SOFTWARE REUSE--NRA-98-LARC-8  
 09/27/1999 – 08/30/2002      FY01: \$96,604      Total: \$192,186  
*Prin. Invest.: G C GANNOD*  
*Tech. Officer: LARC/B L DI VITO*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 1 2283**      **ARIZONA STATE UNIV**      **1297**  
 A NONLINEAR THEORY FOR SMART COMPOSITE STRUCTURES  
 03/24/2000 – 03/14/2003      FY01: \$53,305      Total: \$98,305  
*Prin. Invest.: A CHATTOPADHYAY*  
*Tech. Officer: LARC/D R AMBUR*  
*CASE Category: 41 – AERONAUTICAL ENGNR*

**NAG 2 908**      **ARIZONA STATE UNIV**      **1298**  
 DEVELOPMENT OF A COMPOSITE TAILORING PROCEDURE FOR AIRPLANE  
 WING  
 06/15/1994 – 09/30/1999      FY01: -\$329      Total: \$174,688  
*Prin. Invest.: A CHATTOPADHYAY, NONE*  
*Tech. Officer: ARC/H MIURA, ARC/A SHAHN*  
*CASE Category: 41 – AERONAUTICAL ENGNR*

**NAG 2 1461**      **ARIZONA STATE UNIV**      **1299**  
 CONTINUAL PLANNING IN METRIC/TEMPORAL DOMAINS  
 03/13/2001 – 02/28/2002      FY01: \$161,928      Total: \$161,928  
*Prin. Invest.: S KAMBHAMPPATI*  
*Tech. Officer: ARC/R A MORRIS*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 3 2081**      **ARIZONA STATE UNIV**      **1300**  
 DECOUPLING THE ROLE OF INERTIA & GRAVITY ON PARTIC LE DISPER-  
 SION LSN000850-(NRA-94-OLMSA)  
 09/26/1997 – 09/16/2001      FY01: \$0      Total: \$49,456  
*Prin. Invest.: K D SQUIRES*  
*Tech. Officer: GRC/A CHAIT*  
*CASE Category: 41 – AERONAUTICAL ENGNR*

<b>NAG 3 2591</b>	<b>ARIZONA STATE UNIV</b>	<b>1301</b>	<b>NAG 5 6741</b>	<b>ARIZONA STATE UNIV</b>	<b>1309</b>
OPTIMIZATION OF ENGINEERED III-N MATERIAL FOR ELECTRON EMISSIVE DEVICES			SYSTEMATIC DETERMINATIONS OF ELEMENTAL ABUNDANCES FOR GALACTIC AND LMC NOVAE		
04/16/2001 - 02/28/2002	FY01: \$19,990	Total: \$19,990	12/19/1997 - 12/31/2001	FY01: \$0	Total: \$200,688
<i>Prin. Invest.: N NEWMAN</i>			<i>Prin. Invest.: S STARRFIELD</i>		
<i>Tech. Officer: GRC/I KRAINSKY</i>			<i>Tech. Officer: GSFC/D K WEST</i>		
<i>CASE Category: 13 - PHYSICS</i>			<i>CASE Category: 11 - ASTRONOMY</i>		
<b>NAG 5 3628</b>	<b>ARIZONA STATE UNIV</b>	<b>1302</b>	<b>NAG 5 7199</b>	<b>ARIZONA STATE UNIV</b>	<b>1310</b>
THERMAL-INFRARED LABORATORY STUDIES			SEARCH FOR EXTRA-SOLAR PLANETS FROM SOUTHERN HEMISPHERE		
02/25/1997 - 12/31/2001	FY01: \$97,200	Total: \$476,921	04/17/1998 - 04/14/2000	FY01: \$0	Total: \$40,000
<i>Prin. Invest.: D R CHRISTENSEN</i>			<i>Prin. Invest.: P A WEHINGER</i>		
<i>Tech. Officer: GSFC/P G ROGERS</i>			<i>Tech. Officer: HQ/J BOYCE</i>		
<i>CASE Category: 32 - GEOLOGICAL SCIENCE</i>			<i>CASE Category: 11 - ASTRONOMY</i>		
<b>NAG 5 3783</b>	<b>ARIZONA STATE UNIV</b>	<b>1303</b>	<b>NAG 5 7285</b>	<b>ARIZONA STATE UNIV</b>	<b>1311</b>
DETERMINING THE COMPOSITION OF MARTIAN AND VENUSIA			MINERALOGY AND MICROSTRUCTURES OF SHOCK-INDUCED METEIT VEINS INCHONDRITES		
02/21/1997 - 12/31/2001	FY01: \$73,000	Total: \$361,350	04/29/1998 - 10/30/2000	FY01: \$0	Total: \$81,000
<i>Prin. Invest.: D FINK</i>			<i>Prin. Invest.: T G SHARP</i>		
<i>Tech. Officer: GSFC/P G ROGERS</i>			<i>Tech. Officer: HQ/J BOYCE</i>		
<i>CASE Category: 32 - GEOLOGICAL SCIENCE</i>			<i>CASE Category: 11 - ASTRONOMY</i>		
<b>NAG 5 3908</b>	<b>ARIZONA STATE UNIV</b>	<b>1304</b>	<b>NAG 5 7540</b>	<b>ARIZONA STATE UNIV</b>	<b>1312</b>
STUDIES IN PLANETARY VOLCANOLOGY			INVESTIGATION OF NEBULAR PROCESSES THROUGH OXYGEN ISOTOPIC ANALYSIS OF PRIMITIVE METEORITE MATERIAL		
02/12/1997 - 02/28/2002	FY01: \$122,000	Total: \$919,053	06/18/1998 - 03/31/2002	FY01: \$31,000	Total: \$121,100
<i>Prin. Invest.: D GREELEY</i>			<i>Prin. Invest.: L LESHIN</i>		
<i>Tech. Officer: GSFC/P G ROGERS</i>			<i>Tech. Officer: HQ/J BOYCE</i>		
<i>CASE Category: 32 - GEOLOGICAL SCIENCE</i>			<i>CASE Category: 11 - ASTRONOMY</i>		
<b>NAG 5 3909</b>	<b>ARIZONA STATE UNIV</b>	<b>1305</b>	<b>NAG 5 7640</b>	<b>ARIZONA STATE UNIV</b>	<b>1313</b>
STUDIES OF MARTIAN AEOLIAN GEOLGY			ISOTOPIC CONSTRAINTS ON THE GENESIS OF CARBONATES IN MARTIAN METEORITE ALH84001		
02/12/1997 - 02/28/2001	FY01: \$0	Total: \$347,877	09/23/1998 - 07/31/2000	FY01: \$0	Total: \$35,000
<i>Prin. Invest.: R GREELEY</i>			<i>Prin. Invest.: D A LESHIN</i>		
<i>Tech. Officer: GSFC/P G ROGERS</i>			<i>Tech. Officer: HQ/J BOYCE</i>		
<i>CASE Category: 32 - GEOLOGICAL SCIENCE</i>			<i>CASE Category: 11 - ASTRONOMY</i>		
<b>NAG 5 4131</b>	<b>ARIZONA STATE UNIV</b>	<b>1306</b>	<b>NAG 5 8158</b>	<b>ARIZONA STATE UNIV</b>	<b>1314</b>
ORGANICS IN METEORITES			MICROBEAM INVESTIGATIONS OF PRESOLAR AND EARLY SOLAR SYSTEM MATERIALS		
03/15/1997 - 09/14/2001	FY01: \$0	Total: \$345,000	02/04/1999 - 01/31/2002	FY01: \$100,000	Total: \$299,000
<i>Prin. Invest.: D CRONIN</i>			<i>Prin. Invest.: D R HUSS</i>		
<i>Tech. Officer: GSFC/M MEYER</i>			<i>Tech. Officer: HQ/J BOYCE</i>		
<i>CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)</i>			<i>CASE Category: 11 - ASTRONOMY</i>		
<b>NAG 5 4280</b>	<b>ARIZONA STATE UNIV</b>	<b>1307</b>	<b>NAG 5 8173</b>	<b>ARIZONA STATE UNIV</b>	<b>1315</b>
CHEMICAL CONSTRASTS ON THE EARLY SOLAR NEBULA: MOLE ABUNDANCES IN CLOUDS, DISKS, AND COMETS			PRESOLAR GRAINS AS TRACERS OF NEBULA PROCESSES		
04/30/1997 - 06/30/2000	FY01: \$0	Total: \$135,000	02/03/1999 - 10/14/2001	FY01: \$0	Total: \$38,000
<i>Prin. Invest.: D WYCKOFF</i>			<i>Prin. Invest.: D R HUSS</i>		
<i>Tech. Officer: GSFC/J BOYCE</i>			<i>Tech. Officer: GSFC/J BOYCE</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 11 - ASTRONOMY</i>		
<b>NAG 5 4860</b>	<b>ARIZONA STATE UNIV</b>	<b>1308</b>	<b>NAG 5 8278</b>	<b>ARIZONA STATE UNIV</b>	<b>1316</b>
FOSSIL RECORD OF PRECAMBRIAN LIFE ON LAND			MULTIWAVELENGTH SPECTRAL SYNTHESES OF NOV ATMOSPHERES (ADP 98)		
06/19/1997 - 05/31/2000	FY01: \$0	Total: \$154,560	02/24/1999 - 02/28/2002	FY01: \$0	Total: \$98,991
<i>Prin. Invest.: P KNAUTH</i>			<i>Prin. Invest.: S G STARRFIELD</i>		
<i>Tech. Officer: GSFC/M A MEYER</i>			<i>Tech. Officer: GSFC/D K WEST</i>		
<i>CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)</i>			<i>CASE Category: 11 - ASTRONOMY</i>		

**NAG 5 8286** ARIZONA STATE UNIV 1317  
 ACQUISITION OF A CAMECA IMS 6F SECONDARY ION MASS SPECTROMETER FOR APPLICATIONS IN COSMOCHEMIST  
 02/22/1999 - 02/28/2001 FY01: \$0 Total: \$489,500  
*Prin. Invest.: L A LESHIN*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8453** ARIZONA STATE UNIV 1318  
 ANALYSIS OF AEOLIAN FEATURES AND PROCESSES ON MARS  
 04/14/1999 - 04/14/2002 FY01: \$80,000 Total: \$234,000  
*Prin. Invest.: R GREELEY*  
*Tech. Officer: HQ/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8481** ARIZONA STATE UNIV 1319  
 FORMATION & EVOLUTION OF BINARY SYSTEMS CONTAINING COLLAPSED STARS (ATP 98)  
 04/29/1999 - 04/30/2002 FY01: \$10,000 Total: \$29,420  
*Prin. Invest.: M POLITANO*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8721** ARIZONA STATE UNIV 1320  
 SMALL IMPACTS ON MARS: ATMOSPHERIC EFFECTS  
 08/03/1999 - 08/14/2002 FY01: \$24,000 Total: \$70,500  
*Prin. Invest.: R GREELEY*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8805** ARIZONA STATE UNIV 1321  
 PHASE-RESOLVED INVESTIGATION OF SUPERSOFT X-RAY BINARIES - FUSE  
 02/01/2000 - 02/14/2002 FY01: \$0 Total: \$23,900  
*Prin. Invest.: A P COWLEY*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8897** ARIZONA STATE UNIV 1322  
 GEOLOGICAL STUDIES OF THE GALILEAN SATELLITES  
 01/13/2000 - 01/14/2002 FY01: \$88,900 Total: \$176,600  
*Prin. Invest.: R GREELY*  
*Tech. Officer: GSFC/D BOGAN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8898** ARIZONA STATE UNIV 1323  
 MECHANISMS, MANIFESTATION AND IMPLICATIONS OF CRYO MAGMATISM ON EUROPA  
 01/13/2000 - 01/14/2002 FY01: \$42,700 Total: \$83,700  
*Prin. Invest.: S A FAGENTS*  
*Tech. Officer: GSFC/D BOGAN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8948** ARIZONA STATE UNIV 1324  
 STUDIES OF MARTIAN AEOLIAN GEOLGY  
 01/19/2000 - 02/28/2002 FY01: \$93,000 Total: \$181,350  
*Prin. Invest.: R GREELEY*  
*Tech. Officer: GSFC/J GRANT*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9070** ARIZONA STATE UNIV 1325  
 MONITORING THE HAZARDS OF SILICIC VOLCANOES WITH REMOTE SENSING  
 02/27/2000 - 02/28/2002 FY01: \$61,203 Total: \$98,703  
*Prin. Invest.: J FINK*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 9263** ARIZONA STATE UNIV 1326  
 MULTIDIMENSIONAL STUDIES OF THE CONSEQUENCES OF THERMONUCLEAR RUNAWAYS ON ACCRETING WHITEDWARFS  
 03/13/2000 - 03/14/2002 FY01: \$95,870 Total: \$186,581  
*Prin. Invest.: S STARRFIELD*  
*Tech. Officer: GSFC/R OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9352** ARIZONA STATE UNIV 1327  
 COSMOCHEMISTRY & MINERALOGY OF PRIMITIVE METEORITE  
 03/30/2000 - 03/31/2002 FY01: \$100,000 Total: \$194,000  
*Prin. Invest.: P R BUSECK*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9381** ARIZONA STATE UNIV 1328  
 HIGH PRESSURE MINERALS IN SHOCKED METEORITES: CONSTRAINTS ON SHOCK CONDITIONS AND DURATION  
 04/03/2000 - 03/31/2002 FY01: \$49,000 Total: \$98,000  
*Prin. Invest.: T G SHARP*  
*Tech. Officer: GSFC/D NAVA*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9395** ARIZONA STATE UNIV 1329  
 FUSE OBSERVATIONS OF GALACTIC AND LMC NOVAE IN OUTBURST - FUSE  
 04/05/2000 - 04/14/2002 FY01: \$0 Total: \$9,084  
*Prin. Invest.: S G STARRFIELD*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9430** ARIZONA STATE UNIV 1330  
 ENVIRONMENTS OF EARLY EVOLUTION AND THE SEARCH FOR AN EXTRATERRESTRIAL FOSSIL RECORD  
 04/13/2000 - 05/31/2002 FY01: \$100,000 Total: \$192,316  
*Prin. Invest.: P KNAUTH*  
*Tech. Officer: GSFC/M MEYER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9451** ARIZONA STATE UNIV 1331  
 CHIRAL ANALYSES OF ORGANIC COMPOUNDS IN CARBONACEOUS METEORITES  
 04/12/2000 - 04/14/2002 FY01: \$110,000 Total: \$213,620  
*Prin. Invest.: S PIZZARELLO*  
*Tech. Officer: GSFC/M MEYER*  
*CASE Category: 12 – CHEMISTRY*

**NAG 5 9507** ARIZONA STATE UNIV 1332  
 MICROBIAL PALEONTOLOGY, MINERALOGY & GEOCHEMISTRY OF MODERN & ANCIENT THERMAL SPRING DEPOSITS & THEI  
 05/23/2000 - 04/30/2002 FY01: \$124,000 Total: \$240,992  
*Prin. Invest.: J FARMER*  
*Tech. Officer: GSFC/M MEYER*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 5 9773** ARIZONA STATE UNIV 1333  
 GEOLOGY OF POTENTIAL LANDING SITES FOR MARTIAN SAM PLE RETURNS  
 07/05/2000 - 06/30/2002 FY01: \$41,900 Total: \$83,800  
*Prin. Invest.: R GREELY*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9838** ARIZONA STATE UNIV 1334  
 RADIATION SCIENCE PROGRAM TRANSMISSION ELECTRON MI CROSCOPY (TEM) STUDY OF SOUTHERN AFRICAN FIRE-ATM  
 11/20/2000 - 11/30/2001 FY01: \$124,000 Total: \$124,000  
*Prin. Invest.: P R BUSECK*  
*Tech. Officer: GSFC/R LAWRENCE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 10077** ARIZONA STATE UNIV 1335  
 CHEMICAL CONSTRAINTS ON THE EARLY SOLAR NEBULA: IRACING MOLECULAR & ISOTOPIC ABUNDANCES FROM INTE  
 11/15/2000 - 11/14/2001 FY01: \$40,000 Total: \$40,000  
*Prin. Invest.: S WYCKOFF*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10214** ARIZONA STATE UNIV 1336  
 THERMAL CONDUCTIVITY RELATIONSHIPS TO PHYSICAL PROPERTIES OF MARTIAN SURFICIAL MATERIALS: A TOOL FO  
 01/04/2001 - 01/14/2002 FY01: \$55,000 Total: \$55,000  
*Prin. Invest.: M A PRESLEY*  
*Tech. Officer: GSFC/D SENKE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10268** ARIZONA STATE UNIV 1337  
 RECENT VOLCANIC AND FLUVIAL ACTIVITY ON MARS  
 01/18/2001 - 04/30/2002 FY01: \$166,400 Total: \$166,400  
*Prin. Invest.: A S MCEWEN*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10310** ARIZONA STATE UNIV 1338  
 MAPPING MINERALOGY, ROCK ABUNDANCE, & THERMAL INERTIA USING MGS THERMALEMISSION SPECTROMETER (TES)  
 01/25/2001 - 01/31/2002 FY01: \$150,000 Total: \$150,000  
*Prin. Invest.: P R CHRISTIANSON*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10316** ARIZONA STATE UNIV 1339  
 OBSERVATIONS OF THE LISM WITH HOT WHITE DWARFS - FUSE - 2000  
 01/26/2001 - 01/31/2002 FY01: \$23,600 Total: \$23,600  
*Prin. Invest.: J B HOLBERG*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10449** ARIZONA STATE UNIV 1340  
 PRESOLAR GRAINS: PROBES OF PROCESS IN INTERSTELLAR SPACE, IN THE SOLAR NEBULA, & ON METEORITE PAREN  
 02/21/2001 - 02/28/2002 FY01: \$33,000 Total: \$33,000  
*Prin. Invest.: G HUSS*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10460** ARIZONA STATE UNIV 1341  
 REGIONAL PLANETARY IMAGE FACILITY-ARIZONA STATE UNIV  
 02/26/2001 - 02/28/2002 FY01: \$65,900 Total: \$65,900  
*Prin. Invest.: R GREEN*  
*Tech. Officer: GSFC/D SENKE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10523** ARIZONA STATE UNIV 1342  
 ISOTOPIC & PETROLOGIC INVESTIGATIONS OF EXTRATERRE STRIAL MATERIALS: CONSTRAINTS ON NEBULAR, ASTEROI  
 03/06/2001 - 03/14/2002 FY01: \$100,000 Total: \$100,000  
*Prin. Invest.: L A LESPIN*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 12 – CHEMISTRY*

**NAG 5 10524** ARIZONA STATE UNIV 1343  
 ASU/MICHIGAN COLLABORATION: THE ABUNDANCE & ISOTOP IC COMPOSITION OF HG IN EXTRATERRESTRIAL MATERIAL  
 03/05/2001 - 07/31/2001 FY01: \$3,158 Total: \$3,158  
*Prin. Invest.: D LAURETTA*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 12 – CHEMISTRY*

**NAG 5 10689** ARIZONA STATE UNIV 1344  
 THE EVOLUTIONARY DEVELOPMENT OF PHOTOSYNTHESIS & THE TRANSITION FROM AN ANAEROBIC TO AN AEROBIC  
 04/06/2001 - 03/31/2002 FY01: \$90,000 Total: \$90,000  
*Prin. Invest.: R BLANKENSHIP*  
*Tech. Officer: GSFC/M MEYER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10753** ARIZONA STATE UNIV 1345  
 CHEMICAL CONSTRAINTS ON THE EARLY SOLAR NEBULA  
 04/11/2001 - 04/14/2002 FY01: \$20,000 Total: \$20,000  
*Prin. Invest.: S WYCKOFF*  
*Tech. Officer: GSFC/J M BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10899** ARIZONA STATE UNIV 1346  
 THIRD INTERNATIONAL SYMPOSIUM ON ENVIRONMENTAL HYDRAULICS  
 05/04/2001 - 05/31/2002 FY01: \$15,000 Total: \$15,000  
*Prin. Invest.: D BOYER*  
*Tech. Officer: GSFC/A TUYAHOV*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 11199** ARIZONA STATE UNIV 1347  
 ORIGINS OF SMALL VOLCANIC CONES: ERUPTION MECHANISMS AND IMPLICATIONS FOR WATER ON MARS  
 08/07/2001 - 08/14/2004 FY01: \$49,926 Total: \$49,926  
*Prin. Invest.: S FAGENTS*  
*Tech. Officer: GSFC/J M BOYCE*  
*CASE Category: 11 – ASTRONOMY*

<b>NAG 8 1353</b>	<b>ARIZONA STATE UNIV</b>	<b>1348</b>	<b>NCC 2 1109</b>	<b>ARIZONA STATE UNIV</b>	<b>1356</b>
R/S "CRYSTALLIZATION MECHANISMS OF MEMBRANE PROTEINS UNDER THE DIRECTION OF DR. JAMES ALLEN"			OPERATION OF THE PLANETARY AEOLIAN LABORATORY		
05/19/1997 - 05/31/2001	FY01: \$0	Total: \$484,000	04/02/1999 - 04/30/2002	FY01: \$90,511	Total: \$280,800
<i>Prin. Invest.: J ALLEN</i>			<i>Prin. Invest.: R GREELEY</i>		
<i>Tech. Officer: MSFC/B GUYNES, MSFC/J MAYO</i>			<i>Tech. Officer: ARC/S G EDDLEMON, ARC/B F SMITH</i>		
<i>CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)</i>			<i>CASE Category: 32 – GEOLOGICAL SCIENCE</i>		
<b>NAG 9 815</b>	<b>ARIZONA STATE UNIV</b>	<b>1349</b>	<b>NCC 2 1225</b>	<b>ARIZONA STATE UNIV</b>	<b>1357</b>
DEVELOPE MICROFLOW BIOCHEMICAL SENSORS			HEURISTIC CONTROL OF PLANNING & EXECUTION IN METRIC TEMPORAL DOMAINS		
08/07/1995 - 11/14/2000	FY01: -\$77	Total: \$567,923	03/23/2001 - 02/28/2002	FY01: \$48,000	Total: \$48,000
<i>Prin. Invest.: B TOWE</i>			<i>Prin. Invest.: S KAMBHAMPATI</i>		
<i>Tech. Officer: JSC/N R PELLIS</i>			<i>Tech. Officer: ARC/R MORRIS</i>		
<i>CASE Category: 49 – ENGINEERING, OTHER</i>			<i>CASE Category: 22 – COMPUTER SCIENCE</i>		
<b>NAG 9 1331</b>	<b>ARIZONA STATE UNIV</b>	<b>1350</b>	<b>NCC 2 1232</b>	<b>ARIZONA STATE UNIV</b>	<b>1358</b>
GENESIS OF THE CRYSTALLIN HEMATITE DEPOSIT IN SINUS MERIDIANI MARS			AGENT DEVELOPMENT & CONTROL VERIFICATION USING DUAL CHARACTERIZATION		
07/05/2001 - 06/28/2002	FY01: \$22,000	Total: \$22,000	03/26/2001 - 11/30/2001	FY01: \$75,000	Total: \$75,000
<i>Prin. Invest.: P R CHRISTENSON</i>			<i>Prin. Invest.: C BARAL</i>		
<i>Tech. Officer: JSC/R V MORRIS</i>			<i>Tech. Officer: ARC/R MORRIS</i>		
<i>CASE Category: 59 – LIFE SCIENCE, OTHER</i>			<i>CASE Category: 22 – COMPUTER SCIENCE</i>		
<b>NAG 9 1359</b>	<b>ARIZONA STATE UNIV</b>	<b>1351</b>	<b>NCC 2 5331</b>	<b>ARIZONA STATE UNIV</b>	<b>1359</b>
A MICROFLUID BIO REPORTER FOR EXPLORATORY BIO ENGINEERING			MINIATURIZED BIOMONITOR BASED ON LIGHT EMITTING DIODE & PHOTO-DETECTOR ARRAY		
07/27/2001 - 09/30/2004	FY01: \$39,000	Total: \$39,000	07/14/1999 - 06/30/2001	FY01: \$0	Total: \$95,000
<i>Prin. Invest.: B C TOWE</i>			<i>Prin. Invest.: Y H ZHANG</i>		
<i>Tech. Officer: JSC/D RISEN</i>			<i>Tech. Officer: ARC/M MEYYAPPAN, ARC/T R GOVINDAN</i>		
<i>CASE Category: 54 – ENVIRONMENTAL BIOLOGY</i>			<i>CASE Category: 13 – PHYSICS</i>		
<b>NAS 1 00122</b>	<b>ARIZONA STATE UNIV</b>	<b>1352</b>	<b>NCC 2 5362</b>	<b>ARIZONA STATE UNIV</b>	<b>1360</b>
TO INVESTIGATE CONCEPTS FOR CONTROLLING ATTITUDE AND DYNAMICS OF SPACE SOLAR POWER SATELLITES			TERA-HERTZ MODULATION OF QUANTUM WELL LASERS WITH AN ELECTRICAL FIELD		
06/16/2000 - 11/15/2000	FY01: \$85	Total: \$115,151	01/19/2000 - 12/14/2001	FY01: \$0	Total: \$47,000
<i>Prin. Invest.: B WIE</i>			<i>Prin. Invest.: Y ZHANG</i>		
<i>Tech. Officer: LARC/C L MOORE, MSFC/C CARRINGTON</i>			<i>Tech. Officer: ARC/M MEYYAPPAN</i>		
<i>CASE Category: 42 – ASTRONAUTICAL ENGR</i>			<i>CASE Category: 13 – PHYSICS</i>		
<b>NAS 5 31371</b>	<b>ARIZONA STATE UNIV</b>	<b>1353</b>	<b>NCC 2 5411</b>	<b>ARIZONA STATE UNIV</b>	<b>1361</b>
EOS INVESTIGATION "ADVANCED SPACEBORNE THERMAL EMISSION AND REFLECTION"			ECOGENOMICS: MOLECULAR BIOLOGICAL ANALYSES OF HYPER SALINE BACTERIAL COMMUNITIES		
12/23/1991 - 12/22/2001	FY01: \$119,564	Total: \$1,676,837	11/22/2000 - 11/30/2001	FY01: \$59,970	Total: \$59,970
<i>Prin. Invest.: P CHRISTENSEN</i>			<i>Prin. Invest.: F G PICHEL</i>		
<i>Tech. Officer: GSFC/H BLODGET</i>			<i>Tech. Officer: ARC/D J DESMARais, ARC/B M BEBOUT</i>		
<i>CASE Category: 39 – ENVIRONMENTAL SCI, OTHER</i>			<i>CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)</i>		
<b>NCC 1 01051</b>	<b>ARIZONA STATE UNIV</b>	<b>1354</b>	<b>NGT 2 52284</b>	<b>ARIZONA STATE UNIV</b>	<b>1362</b>
PENETRATION OF HIGH INTENSITY RADIATED FIELDS(HIRF) INTO AIRCRAFT			THE PROTECTIVE ROLES OF THE ANTIOXIDANT ENZYME SUPER OXIDE DISMUTASE & CATALASE IN THE GREEN PHOTOS		
05/29/2001 - 05/31/2004	FY01: \$54,000	Total: \$54,000	08/09/2001 - 08/31/2002	FY01: \$22,000	Total: \$22,000
<i>Prin. Invest.: C BALANIS, NONE</i>			<i>Prin. Invest.: R E BLAKENSHIP</i>		
<i>Tech. Officer: LARC/T X NGUYEN</i>			<i>Tech. Officer: ARC/L ROTHSCHILD, ARC/E P CONDON</i>		
<i>CASE Category: 45 – ELECTRICAL ENGR</i>			<i>CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)</i>		
<b>NCC 2 1051</b>	<b>ARIZONA STATE UNIV</b>	<b>1355</b>	<b>NGT 5 30221</b>	<b>ARIZONA STATE UNIV</b>	<b>1363</b>
EXPLORING THE LIVING UNIVERSE: ORIGIN, EVOLUTION AND DISTRIBUTION OF LIFE IN THE SOLAR SYSTEM			EFFECTS OF TECTONIC PROCESSES AND CLIMATIC FLUCTUATIONS ON LANDSCAPE DEVELOPMENT		
09/22/1998 - 06/30/2003	FY01: \$1,158,092	Total: \$3,907,192	08/26/1999 - 08/31/2001	FY01: \$0	Total: \$44,000
<i>Prin. Invest.: J D FARMER</i>			<i>Prin. Invest.: J R ARROWSMITH</i>		
<i>Tech. Officer: ARC/R A GRIMES, ARC/W W DOLCI</i>			<i>Tech. Officer: GSFC/M WEI</i>		
<i>CASE Category: 59 – LIFE SCIENCE, OTHER</i>			<i>CASE Category: 39 – ENVIRONMENTAL SCI, OTHER</i>		

**NGT 5 50077 ARIZONA STATE UNIV 1364**  
 INVESTIGATION OF AEOLIAN FEATURES USING RADAR DATA TS, & FIELD WORK  
 08/26/1997 - 12/31/2000 FY01: \$0 Total: \$66,000  
*Prin. Invest.: R GREELEY*  
*Tech. Officer: HQ/A NURRIDDIN*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50276 ARIZONA STATE UNIV 1365**  
 PARTITIONING OF HIGHLY SIDEROPHILE ELEMENTS AT Elevated PRESSURE & TEMPERATURE: CONSTRAINTS ON  
 06/20/2000 - 06/30/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.: T SHARP*  
*Tech. Officer: GSFC/K BLANDING*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 9 21 ARIZONA STATE UNIV 1366**  
 VESTIBULAT INFO IN EYE HEAD HAND COORDINATION  
 05/13/1997 - 12/31/2000 FY01: -\$3,011 Total: \$62,989  
*Prin. Invest.: R D SEIDLER*  
*Tech. Officer: JSC/D G SICKCOREZ*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NAG 2 6012 DINE COLLEGE (FORMERLY NAVAJO COMM COLL) 1367**  
 THE AMERICAN INDIAN NETWORK INFORMATION CENTER  
 07/24/1997 - 08/31/2000 FY01: \$0 Total: \$399,990  
*Prin. Invest.: A SAM*  
*Tech. Officer: ARC/L K ALDERETE, ARC/G S LEE*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 5 10254 DINE COLLEGE (FORMERLY NAVAJO COMM COLL) 1368**  
 INTERNET-BASED EDUCATION & RESEARCH WITH ROBOTIC TELESCOPES FOR NATIVEAMERICAN & HISPANIC  
 01/10/2001 - 01/14/2002 FY01: \$218,000 Total: \$218,000  
*Prin. Invest.: S SEMKEN*  
*Tech. Officer: GSFC/P SAKIMOTO*  
*CASE Category: 11 – ASTRONOMY*

**NAG 9 968 DINE COLLEGE (FORMERLY NAVAJO COMM COLL) 1369**  
 STUDENT MATH & SCIENCE CAREERS INITIATIVES  
 09/24/1997 - 09/30/1999 FY01: -\$18,608 Total: \$373,704  
*Prin. Invest.: M C BAUER*  
*Tech. Officer: JSC/L ARMENDARIZ*  
*CASE Category: 29 – MATH/COMPUTER SCI, OTHER*

**NAG 9 1172 DINE COLLEGE (FORMERLY NAVAJO COMM COLL) 1370**  
 SCIENCE ENRICHMENT ACTIVITIES  
 09/28/1999 - 09/29/2001 FY01: \$60,360 Total: \$200,000  
*Prin. Invest.: M C BAUER*  
*Tech. Officer: JSC/L ARMEDARIZ*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG13 99028 DINE COLLEGE (FORMERLY NAVAJO COMM COLL) 1371**  
 EXPANDING THE POOL OF GIS PROFESSIONALS FOR THE NAVAJO NATION  
 09/02/1999 - 09/27/2001 FY01: \$76,540 Total: \$192,080  
*Prin. Invest.: D ISELY*  
*Tech. Officer: JSC/R TRAVIS*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 2 6003 NORTHERN ARIZONA UNIV 1372**  
 PATHWAYS LEADING TO SUCCESS (PALS)  
 08/29/1994 - 12/31/1999 FY01: \$0 Total: \$149,685  
*Prin. Invest.: G M BOYNE*  
*Tech. Officer: ARC/A R GROSS*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 5 4995 NORTHERN ARIZONA UNIV 1373**  
 MARS FLUIDIZED EJECTA CRATER STUDIES  
 07/23/1997 - 07/14/2000 FY01: -\$4,252 Total: \$38,548  
*Prin. Invest.: D BARNES*  
*Tech. Officer: GSFC/J BERGSTRALH*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 6790 NORTHERN ARIZONA UNIV 1374**  
 INFRARED SPECTROSCOPY OF PLANETARY SATELLITES  
 02/10/1998 - 09/14/2001 FY01: \$0 Total: \$164,147  
*Prin. Invest.: C A GRIFFITH*  
*Tech. Officer: GSFC/T MORGAN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7757 NORTHERN ARIZONA UNIV 1375**  
 A PHOTOMETRIC SURVEY OF TRANS-NEPTUNIAN OBJECTS  
 12/07/1998 - 09/30/2002 FY01: \$0 Total: \$126,030  
*Prin. Invest.: S C TEGLER*  
*Tech. Officer: GSFC/T MORGAN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8146 NORTHERN ARIZONA UNIV 1376**  
 SPECTROSCOPIC INVESTIGATIONS OF EXTRASOLAR PLANETS AND BROWN DWARFS  
 02/04/1999 - 09/30/2002 FY01: \$28,000 Total: \$58,000  
*Prin. Invest.: C A GRIFFITH*  
*Tech. Officer: HQ/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8203 NORTHERN ARIZONA UNIV 1377**  
 X-RAY PROCESSING OF COMETARY ICE MIXTURES  
 02/08/1999 - 01/31/2002 FY01: \$35,000 Total: \$102,000  
*Prin. Invest.: D M CORNELISON*  
*Tech. Officer: HQ/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8525 NORTHERN ARIZONA UNIV 1378**  
 FROM GIANT PLANETS TO COOL STARS  
 05/13/1999 - 09/30/2000 FY01: \$0 Total: \$12,875  
*Prin. Invest.: C GRIFFITH*  
*Tech. Officer: GSFC/J BERGSTRALH*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9214 NORTHERN ARIZONA UNIV 1379**  
 STRUCTURE AND COMPOSITION OF PLANETARY ATMOSPHERES  
 03/09/2000 - 03/14/2003 FY01: \$0 Total: \$80,000  
*Prin. Invest.: R YELLE*  
*Tech. Officer: GSFC/D BOGAN*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 11078** NORTHERN ARIZONA UNIV 1380  
 DYNAMICS, COMPOSITION, AND THERMAL STRUCTURE OF TITAN'S UPPER ATMOSPHERE  
 08/06/2001 - 08/14/2004 FY01: \$41,802 Total: \$41,802  
*Prin. Invest.: R YELLE*  
*Tech. Officer: GSFC/D J BOGAN*  
*CASE Category: 42 – ASTRONAUTICAL ENGR*

**NAG 5 11239** NORTHERN ARIZONA UNIV 1381  
 SPECTROSCOPIC INVESTIGATIONS OF TITAN'S ATMOSPHERE AND SURFACE  
 08/15/2001 - 08/31/2004 FY01: \$70,600 Total: \$70,600  
*Prin. Invest.: C GRIFFITH*  
*Tech. Officer: GSFC/J HILMAN*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 2 5356** NORTHERN ARIZONA UNIV 1382  
 STUDY OF THE HOST ROCKS OF CARBONACEOUS MATTER FRO M IMPACT DEPOSITS, METEORITES & EXPERIMENTAL PROD  
 09/29/1999 - 03/31/2001 FY01: \$0 Total: \$30,000  
*Prin. Invest.: J H WITTKE*  
*Tech. Officer: ARC/M L FONDA, ARC/T E BUNCH*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NCC 2 5429** NORTHERN ARIZONA UNIV 1383  
 AN UNSTEADY REYNOLDS-AVERAGED NAVIER-STOKES SIMULA TION OF THE FLOW AROUND AN UNCONFINED CUBOID AT H  
 03/22/2001 - 03/31/2002 FY01: \$38,361 Total: \$38,361  
*Prin. Invest.: E P DUQUE*  
*Tech. Officer: ARC/C TUNG, ARC/R STRAWN*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 2 1409** PRESCOTT COLLEGE 1384  
 STATE AND LOCAL GOVERNMENT APPLICATIONS PROGRAM  
 06/07/2000 - 12/31/2001 FY01: \$442,000 Total: \$872,000  
*Prin. Invest.: W W ORR*  
*Tech. Officer: ARC/E P CONDON*  
*CASE Category: 13 – PHYSICS*

**NAG 1 2023** UNIV OF ARIZONA 1385  
 SATELLITE DATA STUDIES OF STRATOSPHERIC OZONE MY 1/3  
 03/18/1998 - 04/30/2001 FY01: \$1 Total: \$279,690  
*Prin. Invest.: L L HOOD*  
*Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 1 2041** UNIV OF ARIZONA 1386  
 DEVELOPMENT OF ANALYSIS METHODS FOR DESIGNING WITH COMPONENTS  
 03/31/1998 - 03/31/2001 FY01: \$1 Total: \$270,002  
*Prin. Invest.: E MADENCI*  
*Tech. Officer: LARC/J H STARNES, LARC/D R AMBUR*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 1 2052** UNIV OF ARIZONA 1387  
 BOLTED DOUBLE-LAP JOINTS W/SANDWICH PANELS & LAMINATES UNDER MECH & THERMAL LOADING  
 04/08/1998 - 04/07/2001 FY01: \$1 Total: \$155,176  
*Prin. Invest.: E MADENCI*  
*Tech. Officer: LARC/S P WALKER*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 1 2218** UNIV OF ARIZONA 1388  
 IMPROVEMENT AND REFINEMENT OF THE GPS/MET (GLOBAL POSITIONING SYS/METEOROLOGY) DATA ANAL ALGORITHM  
 08/10/1999 - 07/31/2001 FY01: \$0 Total: \$124,000  
*Prin. Invest.: B M HERMAN, D S FENG*  
*Tech. Officer: LARC/V E DELMORE, LARC/J L RAPER*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 1 2317** UNIV OF ARIZONA 1389  
 TAILORING OF BONDED AND BOLTED LAP JOINTS AND PATC H REPAIR OF DAMAGED COMPOSITE PANELS  
 06/28/2000 - 10/31/2002 FY01: \$110,001 Total: \$198,450  
*Prin. Invest.: E MADENCI*  
*Tech. Officer: LARC/D R AMBUR*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 1 01124** UNIV OF ARIZONA 1390  
 SAGE II AND SAGE III SATELLITE VALIDATION AND SCIENCE STUDIES  
 09/18/2001 - 03/31/2004 FY01: \$43,700 Total: \$43,700  
*Prin. Invest.: B M HERMAN*  
*Tech. Officer: LARC/W P CHU*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 2 1187** UNIV OF ARIZONA 1391  
 INFLUENCE OF UNWEIGHTING ON INSULIN SIGNAL TRANSDU CTION IN MUSCLE  
 03/18/1998 - 04/30/2002 FY01: \$0 Total: \$425,994  
*Prin. Invest.: M E TISCHLER, E J HENRICKSEN*  
*Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 2 1369** UNIV OF ARIZONA 1392  
 EFFECT OF MICROGRAVITY ON THE DEVELOPMENT OF THE IMMUNE SYSTEM  
 08/02/1998 - 07/31/2002 FY01: \$184,859 Total: \$471,605  
*Prin. Invest.: D DELUCA*  
*Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 2 1446** UNIV OF ARIZONA 1393  
 CONSTRUCTION METHODS FOR VERY LARGE FORMAT FAR INF RARED ARRAYS  
 09/28/2000 - 08/31/2001 FY01: \$0 Total: \$50,000  
*Prin. Invest.: E T YOUNG*  
*Tech. Officer: ARC/C R MCCREIGHT, ARC/R E McMURRAY*  
*CASE Category: 11 – ASTRONOMY*

**NAG 3 1869** UNIV OF ARIZONA 1394  
 AN EXPERIMENTAL STUDY OF RICHTMYER  
 05/09/1996 - 05/08/2002 FY01: \$0 Total: \$414,000  
*Prin. Invest.: J JACOBS*  
*Tech. Officer: GRC/A T CHAI*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 3 2154** UNIV OF ARIZONA 1395  
 MODELING OF TRANSPORT PROCESSES IN A SOLID OXIDE ELECTROIZED GENERATING OXYGEN ON MARS  
 04/10/1998 - 01/31/2002 FY01: \$118,750 Total: \$343,750  
*Prin. Invest.: K R SRIDHAR*  
*Tech. Officer: GRC/J S LING, GRC/B S SINGH*  
*CASE Category: 13 – PHYSICS*

**NAG 3 2354**           **UNIV OF ARIZONA**           **1396**  
 RESONANCE EFFECTS IN SINGLE-AND DOUBLE-DIFFUSIVE SYSTEMS  
 UNDER GRAVITY MODULATION  
 03/15/2000 - 11/30/2003    FY01: \$95,000           Total: \$145,000  
*Prin. Invest.: C F CHEN*  
*Tech. Officer: GRC/C E NIEDERHAUS*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 5 637**           **UNIV OF ARIZONA**           **1397**  
 EUV SPECTRAL IMAGER  
 07/11/1986 - 09/30/2000    FY01: \$0               Total: \$1,411,282  
*Prin. Invest.: A L BROADFOOT*  
*Tech. Officer: GSFC/L J EARLY, GSFC/R H PLESS*  
*CASE Category: 13 – PHYSICS*

**NAG 5 2962**           **UNIV OF ARIZONA**           **1398**  
 X-RAY SPECTRUM OF THE HIGH REDSHIFT QUASAR B1422+23  
 06/09/1995 - 06/14/2000    FY01: -\$1,197           Total: \$53,744  
*Prin. Invest.: J BECHTOLD*  
*Tech. Officer: GSFC/N WHITE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 3436**           **UNIV OF ARIZONA**           **1399**  
 ABSOLUTE RADIOMETRIC CALIBRATION AND ATMOSPHERIC CORRECTION  
 OF LANDSAT-7 THEMATIC MAPPER.  
 10/07/1996 - 06/30/2001    FY01: \$44,817           Total: \$693,679  
*Prin. Invest.: C J THOME*  
*Tech. Officer: GSFC/D L WILLIAMS*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 3631**           **UNIV OF ARIZONA**           **1400**  
 PLANET FORMATION AND EVOLUTION: COLLISIONAL AND  
 02/12/1997 - 09/30/2001    FY01: \$86,200           Total: \$426,690  
*Prin. Invest.: R GREENBERG*  
*Tech. Officer: GSFC/P G ROGERS*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 3640**           **UNIV OF ARIZONA**           **1401**  
 UTILIZATION OF EOS DATA IN QUANTIFYING THE PROCESS HYDROLOGIC  
 CYCLE IN ARID/SEMI-ARID REGIONS  
 02/12/1997 - 03/31/2002    FY01: \$168,706           Total: \$2,809,008  
*Prin. Invest.: S SOROOSHAIN*  
*Tech. Officer: GSFC/E Y WOOD*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 3785**           **UNIV OF ARIZONA**           **1402**  
 SUB-MILLIMETER SPECTROSCOPY OF ASTROPHYSICALLY-IMPACTED  
 MOLECULES  
 03/28/1997 - 11/30/2000    FY01: \$0               Total: \$228,000  
*Prin. Invest.: L M ZIURYS*  
*Tech. Officer: GSFC/G STRINGFELLOW*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 3791**           **UNIV OF ARIZONA**           **1403**  
 A STUDY OF DUST JET EVOLUTION IN COMET HALLEY  
 03/07/1997 - 02/28/2002    FY01: \$59,900           Total: \$233,634  
*Prin. Invest.: M M LARSON*  
*Tech. Officer: GSFC/J BERGSTRAHL*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 3796**           **UNIV OF ARIZONA**           **1404**  
 RELATIVE ABUNDANCES OF  $^{13}\text{C}$ ,  $^{18}\text{O}$ ,  $^{15}\text{N}$  AND  $^{2}\text{H}$  ON TRI-B  
 MEASUREMENTS AND REFLECTANCE SPECTROSCOPY  
 03/11/1997 - 03/14/2002    FY01: \$85,100           Total: \$421,245  
*Prin. Invest.: D H BROWN*  
*Tech. Officer: GSFC/P G ROGERS*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 3914**           **UNIV OF ARIZONA**           **1405**  
 SUPPORT FOR THE SPACE IMAGERY CENTER  
 02/21/1997 - 12/31/2000    FY01: \$0               Total: \$78,601  
*Prin. Invest.: R G STROM*  
*Tech. Officer: GSFC/P G ROGERS*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 3937**           **UNIV OF ARIZONA**           **1406**  
 PLANETARY SPECTROSCOPY  
 03/26/1997 - 07/31/2001    FY01: \$0               Total: \$267,280  
*Prin. Invest.: D FINK*  
*Tech. Officer: GSFC/J BERGSTRAHL*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 4042**           **UNIV OF ARIZONA**           **1407**  
 STABILIZATION OF CCD QUANTUM EFFICIENCY IN THE ULTRAVIOLET  
 04/07/1997 - 09/14/2000    FY01: -\$28              Total: \$273,220  
*Prin. Invest.: D P LESSER*  
*Tech. Officer: GSFC/H HASAN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 4084**           **UNIV OF ARIZONA**           **1408**  
 GEOCHEMICAL EVOLUTION OF THE EARTH, MOON, IGNEOUS ERRESTRIAL  
 PLANETARY BODIES  
 03/10/1997 - 06/30/2000    FY01: -\$434            Total: \$659,566  
*Prin. Invest.: D J DRAKE*  
*Tech. Officer: HQ/J BOYCE*  
*CASE Category: 12 – CHEMISTRY*

**NAG 5 4124**           **UNIV OF ARIZONA**           **1409**  
 SAR INVESTIGATIONS OF LATE PLEISTOCENE PALEOFLOODS PALEOCЛИ-  
 MATES IN CENTRAL ASIA  
 03/05/1997 - 01/31/2001    FY01: -\$10              Total: \$178,855  
*Prin. Invest.: V R BAKER*  
*Tech. Officer: GSFC/R H THOMAS*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 4142**           **UNIV OF ARIZONA**           **1410**  
 INFRARED EMISSION SPECTROSCOPY OF ASTROPHYSICAL MOLECULES  
 04/22/1997 - 03/31/2000    FY01: -\$194            Total: \$224,806  
*Prin. Invest.: D F BERNATH*  
*Tech. Officer: GSFC/H THRONSON*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 4166**           **UNIV OF ARIZONA**           **1411**  
 OBSERVATIONAL STUDIES OF PLANETARY ATMOSPHERES  
 03/15/1997 - 03/14/2000    FY01: -\$1               Total: \$180,005  
*Prin. Invest.: D M HUNTER*  
*Tech. Officer: GSFC/W HUEBNER*  
*CASE Category: 11 – ASTRONOMY*

<b>NAG 5 4214</b>	<b>UNIV OF ARIZONA</b>	<b>1412</b>	<b>NAG 5 4984</b>	<b>UNIV OF ARIZONA</b>	<b>1421</b>
INTERIORS AND ATMOSPHERES OF THE OUTER PLANETS 03/24/1997 - 12/31/2001	UNIVERSITY OF ARIZONA FY01: \$71,291	Total: \$336,648	MEASURING MARTIAN ATMOSPHERIC WATER VAPOR 06/26/1997 - 03/14/2000	UNIVERSITY OF ARIZONA FY01: -\$333	Total: \$192,734
<i>Prin. Invest.: D B HUBBARD</i> <i>Tech. Officer: GSFC/J BERGSTRALH</i> <i>CASE Category: 11 - ASTRONOMY</i>			<i>Prin. Invest.: D L SPRAGUE</i> <i>Tech. Officer: GSFC/W HUEBNER</i> <i>CASE Category: 11 - ASTRONOMY</i>		
<b>NAG 5 4451</b>	<b>UNIV OF ARIZONA</b>	<b>1413</b>	<b>NAG 5 5143</b>	<b>UNIV OF ARIZONA</b>	<b>1422</b>
STUDIES IN PLANETARY RINGS 05/08/1997 - 06/30/2001	UNIVERSITY OF ARIZONA FY01: -\$22,474	Total: \$154,426	A TWO-DIMENSIONAL IMAGING FUV SPECTROGRAPH 06/23/1997 - 10/31/2000	UNIVERSITY OF ARIZONA FY01: -\$19	Total: \$672,970
<i>Prin. Invest.: D C PORCO</i> <i>Tech. Officer: GSFC/PROGERS</i> <i>CASE Category: 32 - GEOLOGICAL SCIENCE</i>			<i>Prin. Invest.: J HOLBERG</i> <i>Tech. Officer: GSFC/W JOHNSON</i> <i>CASE Category: 13 - PHYSICS</i>		
<b>NAG 5 4559</b>	<b>UNIV OF ARIZONA</b>	<b>1414</b>	<b>NAG 5 5180</b>	<b>UNIV OF ARIZONA</b>	<b>1423</b>
THEORY OF CHARGED-PARTICLE TRANSPORT AND ASTROPHYS 06/02/1997 - 01/31/2001	UNIVERSITY OF ARIZONA FY01: -\$6,961	Total: \$151,339	COSMIC RAY TRANSPORT AND WAVES IN ASTROPHYSICAL PLASMAS 03/09/1998 - 03/08/2001	UNIVERSITY OF ARIZONA FY01: \$0	Total: \$116,000
<i>Prin. Invest.: J JOKIPII</i> <i>Tech. Officer: GSFC/M A FORMAN</i> <i>CASE Category: 13 - PHYSICS</i>			<i>Prin. Invest.: G M WEBB</i> <i>Tech. Officer: GSFC/B A MERRITT</i> <i>CASE Category: 13 - PHYSICS</i>		
<b>NAG 5 4598</b>	<b>UNIV OF ARIZONA</b>	<b>1415</b>	<b>NAG 5 5336</b>	<b>UNIV OF ARIZONA</b>	<b>1424</b>
LONG TERM DOPPLER SHIFT AND LINE PROFILE STUDIES O TARGET STARS 05/20/1997 - 02/28/2002	UNIVERSITY OF ARIZONA FY01: \$0	Total: \$410,967	FULL FUNDING FOR THE 1ST YEAR OF THE GRANT FOR \$10 K, PI: G. G. WILLIAMS GRANT TITLE: LOTIS (W/ PARK 05/31/2001 - 03/31/2002	UNIVERSITY OF ARIZONA FY01: \$10,000	Total: \$10,000
<i>Prin. Invest.: D S MCMILLAN</i> <i>Tech. Officer: GSFC/J BOYCE</i> <i>CASE Category: 11 - ASTRONOMY</i>			<i>Prin. Invest.: G WILLIAMS</i> <i>Tech. Officer: WFF/B MERRITT</i> <i>CASE Category: 13 - PHYSICS</i>		
<b>NAG 5 4767</b>	<b>UNIV OF ARIZONA</b>	<b>1416</b>	<b>NAG 5 6339</b>	<b>UNIV OF ARIZONA</b>	<b>1425</b>
NOBLE GAS STUDIES OF EARLY SOLAR SYSTEM HISTORY 06/09/1997 - 05/31/2002	UNIVERSITY OF ARIZONA FY01: \$55,000	Total: \$228,000	VALIDATION AND CORRECTION FOR THE MODIS SPATIAL RE SPONSE 10/02/1997 - 09/30/2001	UNIVERSITY OF ARIZONA FY01: \$106,615	Total: \$593,294
<i>Prin. Invest.: D D SWINDLE</i> <i>Tech. Officer: GSFC/D NAVA</i> <i>CASE Category: 11 - ASTRONOMY</i>			<i>Prin. Invest.: R SCHOWENGERDT</i> <i>Tech. Officer: GSFC/D O STARR</i> <i>CASE Category: 19 - PHYSICAL SCIENCE, OTHER</i>		
<b>NAG 5 4832</b>	<b>UNIV OF ARIZONA</b>	<b>1417</b>	<b>NAG 5 6461</b>	<b>UNIV OF ARIZONA</b>	<b>1426</b>
COSMOGENIC 14C IN METEORITES AND LUNAR SAMPLES 06/17/1997 - 05/31/2002	UNIVERSITY OF ARIZONA FY01: \$35,000	Total: \$175,000	LIS VALIDATION STUDIES USING LIGHTNING AT THE KSC- ER 10/14/1997 - 09/30/2000	UNIVERSITY OF ARIZONA FY01: \$0	Total: \$225,560
<i>Prin. Invest.: D JULL</i> <i>Tech. Officer: GSFC/J BOYCE</i> <i>CASE Category: 11 - ASTRONOMY</i>			<i>Prin. Invest.: P KRIDER</i> <i>Tech. Officer: GSFC/D O STARR</i> <i>CASE Category: 19 - PHYSICAL SCIENCE, OTHER</i>		
<b>NAG 5 4834</b>	<b>UNIV OF ARIZONA</b>	<b>1418</b>	<b>NAG 5 6543</b>	<b>UNIV OF ARIZONA</b>	<b>1427</b>
TRANSPORT EQUATIONS OF COSMIC RAYS 06/17/1997 - 11/30/2000	UNIVERSITY OF ARIZONA FY01: \$0	Total: \$201,585	IMPACT CRATERING AND THE EVOLUTION OF THE TERRESTRAL PLANETS 12/08/1997 - 09/30/2001	UNIVERSITY OF ARIZONA FY01: \$150,000	Total: \$592,500
<i>Prin. Invest.: M KOTA</i> <i>Tech. Officer: GSFC/M AFORMAN</i> <i>CASE Category: 11 - ASTRONOMY</i>			<i>Prin. Invest.: H MELOSH</i> <i>Tech. Officer: GSFC/P ROGERS</i> <i>CASE Category: 19 - PHYSICAL SCIENCE, OTHER</i>		
<b>NAG 5 4845</b>	<b>UNIV OF ARIZONA</b>	<b>1419</b>	<b>NAG 5 6611</b>	<b>UNIV OF ARIZONA</b>	<b>1428</b>
GAS-GRAIN INTERACTIONS 06/27/1997 - 10/31/2001	UNIVERSITY OF ARIZONA FY01: \$38,000	Total: \$151,900	SPACEWATCH SURVEY OF THE SOLAR SYSTEM 02/12/1998 - 11/30/2000	UNIVERSITY OF ARIZONA FY01: \$0	Total: \$223,215
<i>Prin. Invest.: D L HOOD</i> <i>Tech. Officer: GSFC/J BOYCE</i> <i>CASE Category: 11 - ASTRONOMY</i>			<i>Prin. Invest.: R S MCMILLAN</i> <i>Tech. Officer: GSFC/T MORGAN</i> <i>CASE Category: 32 - GEOLOGICAL SCIENCE</i>		
<b>NAG 5 4944</b>	<b>UNIV OF ARIZONA</b>	<b>1420</b>			
MINERALOGIC AND TRACE-ELEMENT STUDIES OF METEORITE IMPACTS 06/23/1997 - 03/14/2001	UNIVERSITY OF ARIZONA FY01: \$0	Total: \$799,000			
<i>Prin. Invest.: D V BOYNTON</i> <i>Tech. Officer: GSFC/D NAVA</i> <i>CASE Category: 11 - ASTRONOMY</i>					

**NAG 5 6620**           **UNIV OF ARIZONA**           **1429**  
 THEORETICAL AND MODELLING SUPPORT FOR THE HELIOSPHERIC MISSIONS  
 11/18/1997 – 11/14/2000    FY01: -\$1,501           Total: \$283,499  
*Prin. Invest.: J JOKIPPI*  
*Tech. Officer: GSFC/J LING*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 6779**           **UNIV OF ARIZONA**           **1430**  
 ANALYSIS OF ICE CORES FOR ESTIMATING ACCUMULATION PATTERNS AND PAST ATMOSPHERIC CHEMISTRY IN GREECE  
 01/14/1998 – 06/30/2001    FY01: \$0               Total: \$465,595  
*Prin. Invest.: R BALES*  
*Tech. Officer: GSFC/S GOGINENI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 7073**           **UNIV OF ARIZONA**           **1431**  
 A COMPREHENSIVE THEORY FOR M DWARFS, BROWN DWARFS, AND GIANT PLANETS – ATP  
 02/24/1998 – 02/14/2002    FY01: \$0               Total: \$263,467  
*Prin. Invest.: A S BURROWS*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7083**           **UNIV OF ARIZONA**           **1432**  
 INFRARED OBSERVATIONS OF SMALL BODIES IN THE OUTER SOLAR SYSTEM  
 03/10/1998 – 03/31/2001    FY01: \$0               Total: \$149,939  
*Prin. Invest.: R H BROWN*  
*Tech. Officer: GSFC/T MORGAN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7089**           **UNIV OF ARIZONA**           **1433**  
 STRUCTURE OF THE HELIOSPHERE INFERRED FROM VOYAGER UVS MEASUREMENTS  
 02/23/1998 – 01/31/2002    FY01: \$0               Total: \$117,700  
*Prin. Invest.: B R SANDEL*  
*Tech. Officer: GSFC/J LING*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7151**           **UNIV OF ARIZONA**           **1434**  
 THE PHYSICAL ORIGIN OF GALAXY MORPHOLOGIES AND SCALING LAWS – ATP  
 03/04/1998 – 03/14/2001    FY01: \$0               Total: \$260,097  
*Prin. Invest.: M STEINMETZ*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7211**           **UNIV OF ARIZONA**           **1435**  
 COUPLED PHYSICAL AND CHEMICAL EVOLUTION OF THE SOLAR NEBULA  
 03/26/1998 – 01/31/2001    FY01: \$0               Total: \$115,000  
*Prin. Invest.: J LUNINE*  
*Tech. Officer: HQ/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7215**           **UNIV OF ARIZONA**           **1436**  
 INCORPORATION OF NOBLE GASES INTO INTERSTELLAR ICE ANALOGS  
 03/31/1998 – 05/31/2001    FY01: \$0               Total: \$87,300  
*Prin. Invest.: T D SWINDLE*  
*Tech. Officer: HQ/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7257**           **UNIV OF ARIZONA**           **1437**  
 ALGORITHM FOR FUTURE OZONE PROFILING USING LIMB SCATTERING MEASUREMENTS  
 04/14/1998 – 12/31/2001    FY01: \$0               Total: \$262,000  
*Prin. Invest.: B M HERMAN*  
*Tech. Officer: GSFC/R D MCPETERS*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 7364**           **UNIV OF ARIZONA**           **1438**  
 THERMAL HISTORY OF PLANETARY MATERIALS: EXPERIMENTAL & THEORETICAL STUDIES, AND APPLICATIONS  
 04/29/1998 – 04/30/2001    FY01: \$0               Total: \$179,000  
*Prin. Invest.: J GANGULY*  
*Tech. Officer: HQ/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7499**           **UNIV OF ARIZONA**           **1439**  
 THEORETICAL MODELS OF EXTRASOLAR GIANT PLANETS  
 06/01/1998 – 04/30/2001    FY01: \$0               Total: \$145,000  
*Prin. Invest.: A BURROWS*  
*Tech. Officer: HQ/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7509**           **UNIV OF ARIZONA**           **1440**  
 METEORITE IMPACT AND GLOBAL CHANGE: A NUMERICAL STUDY OF THE RESPONSE OF THE EARTH'S CLIMATE TO L  
 06/30/1998 – 08/31/2000    FY01: -\$2,300           Total: \$92,708  
*Prin. Invest.: H MELOSH*  
*Tech. Officer: GSFC/M MEYER*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7533**           **UNIV OF ARIZONA**           **1441**  
 MOSAIC OF CCDS TO SURVEY FOR ASTEROIDS AND COMETS  
 06/11/1998 – 12/31/2001    FY01: \$0               Total: \$730,006  
*Prin. Invest.: R S MCMILLAN*  
*Tech. Officer: GSFC/T MORGAN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7554**           **UNIV OF ARIZONA**           **1442**  
 PRECURSORY SIGNALS ASSOCIATED WITH REGIONAL AND INTEGRATIONAL VARIABILITY OF THE NORTH AMERICAN SUMMER  
 06/25/1998 – 06/30/2001    FY01: \$0               Total: \$399,999  
*Prin. Invest.: W SHUTTLEWORTH*  
*Tech. Officer: GSFC/E ENGMAN*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 7716**           **UNIV OF ARIZONA**           **1443**  
 IMPROVING SATELLITE RAIN ESTIMATION ALGORITHMS USING COMBINATION OF TRMM INSTANTANEOUS PRECIPITATION  
 10/27/1998 – 10/31/2000    FY01: -\$4               Total: \$307,701  
*Prin. Invest.: S SOROOOSHIAN*  
*Tech. Officer: GSFC/R J LAWRENCE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 7734**           **UNIV OF ARIZONA**           **1444**  
 HEAVY ELEMENT ABUNDANCES: CLUES TO THE EVOLUTION OF STAR  
 12/18/1998 – 10/31/2001    FY01: \$104,700       Total: \$342,731  
*Prin. Invest.: D GARNETT*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

<b>NAG 5 7758</b>	<b>UNIV OF ARIZONA</b>	<b>1445</b>	<b>NAG 5 7957</b>	<b>UNIV OF ARIZONA</b>	<b>1453</b>
2MASS ASTEROID AND COMET CATALOG 12/08/1998 - 09/30/2001	UNIV OF ARIZONA FY01: \$36,900	Total: \$110,700	TIDAL AND TECTONIC PROCESSES ON EUROPA 01/08/1999 - 12/31/2000	UNIV OF ARIZONA FY01: \$0	Total: \$88,184
<i>Prin. Invest.: M V SYKES</i>			<i>Prin. Invest.: D GREENBERG</i>		
<i>Tech. Officer: GSFC/T MORGAN</i>			<i>Tech. Officer: GSFC/R BEEBE</i>		
<i>CASE Category: 11 – ASTRONOMY</i>			<i>CASE Category: 11 – ASTRONOMY</i>		
<b>NAG 5 7763</b>	<b>UNIV OF ARIZONA</b>	<b>1446</b>	<b>NAG 5 7966</b>	<b>UNIV OF ARIZONA</b>	<b>1454</b>
NEXT GENERATION SPACE TELESCOPE (NGST) AD HOC SCIENCE WORKING GROUP (ASWG) ACTIVITY 01/14/1999 - 12/31/1999	UNIV OF ARIZONA FY01: \$0	Total: \$10,000	STUDY OF SOLAR AND HELIOSPHERIC ENERGETIC IONS VIA ENERGETIC NEUTRALATOMS USING CELIAS/SOHO 12/15/1998 - 12/31/2001	UNIV OF ARIZONA FY01: \$45,261	Total: \$135,784
<i>Prin. Invest.: M MEYER</i>			<i>Prin. Invest.: K HSIEH</i>		
<i>Tech. Officer: GSFC/E SMITH</i>			<i>Tech. Officer: GSFC/D C LING</i>		
<i>CASE Category: 11 – ASTRONOMY</i>			<i>CASE Category: 11 – ASTRONOMY</i>		
<b>NAG 5 7780</b>	<b>UNIV OF ARIZONA</b>	<b>1447</b>	<b>NAG 5 7994</b>	<b>UNIV OF ARIZONA</b>	<b>1455</b>
WORKSHOP ON SUN-TERRRESTRIAL CLIMATE CONNECTIONS 10/29/1998 - 07/31/2001	UNIV OF ARIZONA FY01: \$15,000	Total: \$84,017	THE MARS LOWER AND UPPER ATMOSPHERE: DETAILED COUP LING USING GENERALCIRCULATION MODELS 01/06/1999 - 01/14/2002	UNIV OF ARIZONA FY01: \$77,000	Total: \$249,896
<i>Prin. Invest.: W A SPRIGG</i>			<i>Prin. Invest.: S BOUGHER</i>		
<i>Tech. Officer: GSFC/J SHARBER</i>			<i>Tech. Officer: GSFC/J BERGSTRAHL</i>		
<i>CASE Category: 11 – ASTRONOMY</i>			<i>CASE Category: 31 – ATMOSPHERIC SCIENCE</i>		
<b>NAG 5 7793</b>	<b>UNIV OF ARIZONA</b>	<b>1448</b>	<b>NAG 5 8006</b>	<b>UNIV OF ARIZONA</b>	<b>1456</b>
THEORY AND MODELING OF ENERGETIC PARTICLE COMPOSIT ION SPECTRA ANDANISOTROPIES AND TIME VARIA 12/10/1998 - 10/31/2001	UNIV OF ARIZONA FY01: \$104,688	Total: \$280,414	OBSERVATIONS OF TWO COMET-ASTEROID TRANSITION OBJE CTS 01/06/1999 - 01/14/2001	UNIV OF ARIZONA FY01: \$0	Total: \$16,283
<i>Prin. Invest.: J GIACALONE</i>			<i>Prin. Invest.: D CAMPINS</i>		
<i>Tech. Officer: GSFC/D C LING</i>			<i>Tech. Officer: GSFC/T MORGAN</i>		
<i>CASE Category: 11 – ASTRONOMY</i>			<i>CASE Category: 11 – ASTRONOMY</i>		
<b>NAG 5 7834</b>	<b>UNIV OF ARIZONA</b>	<b>1449</b>	<b>NAG 5 8015</b>	<b>UNIV OF ARIZONA</b>	<b>1457</b>
A COMPARISON OF OBSERVATIONS AND GCM SIMULATIONS O F THE QUASI-DECADAL OSCILLATION 12/14/1998 - 12/14/2000	UNIV OF ARIZONA FY01: \$0	Total: \$84,444	CATALINA NEO SKY SURVEY 01/13/1999 - 12/31/2000	UNIV OF ARIZONA FY01: \$0	Total: \$582,600
<i>Prin. Invest.: L L HOOD</i>			<i>Prin. Invest.: S LARSON</i>		
<i>Tech. Officer: GSFC/R RIND</i>			<i>Tech. Officer: GSFC/T MORGAN</i>		
<i>CASE Category: 31 – ATMOSPHERIC SCIENCE</i>			<i>CASE Category: 11 – ASTRONOMY</i>		
<b>NAG 5 7854</b>	<b>UNIV OF ARIZONA</b>	<b>1450</b>	<b>NAG 5 8051</b>	<b>UNIV OF ARIZONA</b>	<b>1458</b>
SOLAR SYSTEM RESEARCH WITH THE SPACEWATCH 1.8-M TE LESCOPE 12/07/1998 - 11/30/2001	UNIV OF ARIZONA FY01: \$130,000	Total: \$382,450	GALILEO EUV OBSERVATIONS OF IO'S PLASMA TORUS AND JUPITER'S ATMOSPHERE 01/13/1999 - 01/14/2001	UNIV OF ARIZONA FY01: \$0	Total: \$114,918
<i>Prin. Invest.: D S McMILLAN</i>			<i>Prin. Invest.: D HERBERT</i>		
<i>Tech. Officer: GSFC/T MORGAN</i>			<i>Tech. Officer: GSFC/R BEEBE</i>		
<i>CASE Category: 11 – ASTRONOMY</i>			<i>CASE Category: 11 – ASTRONOMY</i>		
<b>NAG 5 7865</b>	<b>UNIV OF ARIZONA</b>	<b>1451</b>	<b>NAG 5 8095</b>	<b>UNIV OF ARIZONA</b>	<b>1459</b>
ACTIVE VOLCANISM ON IO 01/12/1999 - 12/31/2000	UNIV OF ARIZONA FY01: -\$1	Total: \$129,999	PRESERVATION AND ENHANCEMENT OF THE SPACEWATCH DAT A ARCHIVES 01/29/1999 - 01/31/2002	UNIV OF ARIZONA FY01: \$36,700	Total: \$127,278
<i>Prin. Invest.: D S MCEWEN</i>			<i>Prin. Invest.: J A LARSEN</i>		
<i>Tech. Officer: GSFC/R BEEBE</i>			<i>Tech. Officer: GSFC/P HUNTER</i>		
<i>CASE Category: 11 – ASTRONOMY</i>			<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>		
<b>NAG 5 7923</b>	<b>UNIV OF ARIZONA</b>	<b>1452</b>	<b>NAG 5 8117</b>	<b>UNIV OF ARIZONA</b>	<b>1460</b>
HUBBLE SPACE TELESCOPE ASTRONOMY 12/14/1998 - 09/30/2001	UNIV OF ARIZONA FY01: -\$1,633,017	Total: \$5,683,316	COMBINED LIDAR AND RASSIVE SENSING TECHNIQUES FOR CHARACTERIZATION OF AEROSOL RADIATIVE EFFECTS 01/26/1999 - 01/31/2002	UNIV OF ARIZONA FY01: \$105,000	Total: \$314,862
<i>Prin. Invest.: R THOMPSON</i>			<i>Prin. Invest.: J A REAGAN</i>		
<i>Tech. Officer: GSFC/J JELETIC</i>			<i>Tech. Officer: GSFC/M MISHCHENKO</i>		
<i>CASE Category: 11 – ASTRONOMY</i>			<i>CASE Category: 31 – ATMOSPHERIC SCIENCE</i>		

**NAG 5 8152**           **UNIV OF ARIZONA**           **1461**  
 MARS GLOBAL SURVEYOR AEROBRAKING: THERMOSPHERE- IONOSHERE  
 TRENDS & MTGCM INTERPRETATION  
 02/11/1999 - 03/31/2001      FY01: \$0            Total: \$125,300  
*Prin. Invest.: S W BOUGHER*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8157**           **UNIV OF ARIZONA**           **1462**  
 SUPPORT AN EXTENSION SPECIALIST IN GEOSPATIAL INFORMATION  
 TECHNOLOGYFOR THE STATE OF ARIZONA  
 02/05/1999 - 01/31/2002      FY01: \$149,400        Total: \$399,349  
*Prin. Invest.: D YOUNG*  
*Tech. Officer: GSFC/A TUYAHOV*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8185**           **UNIV OF ARIZONA**           **1463**  
 ANALYSIS OF THE CRUSTAL MAGNETIC FIELD OF MARS  
 02/17/1999 - 02/28/2002      FY01: \$42,000        Total: \$124,200  
*Prin. Invest.: L L HOOD*  
*Tech. Officer: HQ/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8214**           **UNIV OF ARIZONA**           **1464**  
 INFLUENCE OF SUBGRID-SCALE HETEROGENEITY ON REMOTELY  
 SENSED ESTIMATES OF THE AMAZONIAN SURFACE EN  
 03/01/1999 - 02/28/2002      FY01: \$20,276        Total: \$60,001  
*Prin. Invest.: J W SHUTTLEWORTH*  
*Tech. Officer: GSFC/E T ENGMAN*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8239**           **UNIV OF ARIZONA**           **1465**  
 A COMPREHENSIVE THEORETICAL STUDY OF THE INNER 10 PARSECS AT  
 THE GALACTIC CENTER (ATP98)  
 02/26/1999 - 02/28/2002      FY01: \$64,000        Total: \$182,404  
*Prin. Invest.: F MELIA*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8308**           **UNIV OF ARIZONA**           **1466**  
 QUANTITATIVE INTERPRETATION OF VOLCANIC FEATURES IN MOC  
 IMAGES  
 03/03/1999 - 11/30/2001      FY01: \$0            Total: \$94,300  
*Prin. Invest.: L KESZTHELYI*  
*Tech. Officer: HQ/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8340**           **UNIV OF ARIZONA**           **1467**  
 COLORIMETRY OF THE GALILEAN SATELLITES  
 04/07/1999 - 03/31/2001      FY01: \$0            Total: \$74,784  
*Prin. Invest.: D E GEISSLER*  
*Tech. Officer: GSFC/R BEEBE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8341**           **UNIV OF ARIZONA**           **1468**  
 MODELS AND MODES OF ENABLING THE USE OF NASA EARTH SCIENCE  
 AND DATAIN DECISION MAKING  
 04/07/1999 - 12/31/2001      FY01: \$240,000        Total: \$580,000  
*Prin. Invest.: S E MARSH*  
*Tech. Officer: GSFC/A TUYAHOV*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8349**           **UNIV OF ARIZONA**           **1469**  
 ACCURATE SPECTROPHOTOMETRY OF THE PATHFINDER LANDNG SITE  
 02/26/1999 - 02/28/2001      FY01: \$0            Total: \$145,000  
*Prin. Invest.: P H SMITH*  
*Tech. Officer: HQ/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8426**           **UNIV OF ARIZONA**           **1470**  
 MULTIWAVELENGTH DIAGNOSTICS OF GALAXY EVOLUTION AND STAR  
 FORMATIONLTSAS  
 04/26/1999 - 04/30/2002      FY01: \$125,168        Total: \$365,832  
*Prin. Invest.: R C KENNICUTT*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8502**           **UNIV OF ARIZONA**           **1471**  
 SUPPORT OF ACTIVITIES AND OPERATION OF THE GLOBAL ENERGY AND  
 WATERCYCLE EXPERIMENT SCIENCE STE  
 05/11/1999 - 05/14/2002      FY01: \$183,743        Total: \$507,641  
*Prin. Invest.: S ROROOSHIAN*  
*Tech. Officer: GSFC/R SCHIEFFER*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8503**           **UNIV OF ARIZONA**           **1472**  
 AN INTEGRATED INFORMATION SYSTEM FOR MULTI-PURPOSE USER-  
 ADAPTIVE ACCESS TO LAND SURFACE HYDROLOGIC  
 05/11/1999 - 05/14/2002      FY01: \$500,127        Total: \$1,052,325  
*Prin. Invest.: S SOROOSHIAN*  
*Tech. Officer: GSFC/E WOOD*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8509**           **UNIV OF ARIZONA**           **1473**  
 IMPLICATIONS OF VOLATILE ICE EMMISIVITY FOR GASSES AROUND  
 TRANS-NEPTUNIAN OBJECTS  
 06/02/1999 - 06/30/2000      FY01: -\$326            Total: \$30,874  
*Prin. Invest.: J STANSBERRY*  
*Tech. Officer: GSFC/R BEEBE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8660**           **UNIV OF ARIZONA**           **1474**  
 VALIDATION OF MODLAND PRODUCTS WITH LIGHT AIRCRAFT AT LBA AND  
 COMMUNITY SITES WITH MQUALS.  
 08/31/1999 - 08/31/2001      FY01: \$0            Total: \$30,000  
*Prin. Invest.: A HAUTE*  
*Tech. Officer: GSFC/J PRIVETTE*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8686**           **UNIV OF ARIZONA**           **1475**  
 MEMBERSHIP TO THE AEROSOL RADIATIVE FORCING SCIENCE TEAM  
 07/16/1999 - 07/14/2002      FY01: \$13,053        Total: \$39,297  
*Prin. Invest.: K J THOME*  
*Tech. Officer: GSFC/M I MISHCHENKO*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 8843**           **UNIV OF ARIZONA**           **1476**  
 THE PLANET-B NEUTRAL MASS SPECTROMETER: THERMOSPHERE RE-ION-  
 OSHERE STUDIES USING THE MTGCM  
 10/05/1999 - 10/14/2001      FY01: \$0            Total: \$50,000  
*Prin. Invest.: S W BOUGHER*  
*Tech. Officer: GSFC/J E RICHARDS*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

<b>NAG 5 8908</b>	<b>UNIV OF ARIZONA</b>	<b>1477</b>	<b>NAG 5 8995</b>	<b>UNIV OF ARIZONA</b>	<b>1485</b>
COMPARATIVE PLANETARY GEOMORPHOLOGY 12/29/1999 - 12/31/2000	FY01: -\$113	Total: \$19,887	THREE RELATED PROGRAMS ON WHITE DWARFS FUSE 01/24/2000 - 01/31/2001	FY01: \$0	Total: \$37,700
<i>Prin. Invest.: V R BAKER</i>			<i>Prin. Invest.: J B HOLBERG</i>		
<i>Tech. Officer: GSFC/J GRANT</i>			<i>Tech. Officer: GSFC/G SONNEBORN</i>		
<i>CASE Category: 11 – ASTRONOMY</i>			<i>CASE Category: 11 – ASTRONOMY</i>		
<b>NAG 5 8911</b>	<b>UNIV OF ARIZONA</b>	<b>1478</b>	<b>NAG 5 9072</b>	<b>UNIV OF ARIZONA</b>	<b>1486</b>
COPERNICAN CRATERS AND THE PHANEROZOIC IMPACT FLUX 12/29/1999 - 01/31/2002	FY01: \$43,000	Total: \$83,850	AN ALL-METAL CASSEGRAIN TELESCOPE FOR SPACE APPLICATIONS 02/15/2000 - 02/14/2003	FY01: \$80,000	Total: \$155,360
<i>Prin. Invest.: A S MCEWEN</i>			<i>Prin. Invest.: J HOLBERG</i>		
<i>Tech. Officer: GSFC/J GRANT</i>			<i>Tech. Officer: GSFC/P CRANE</i>		
<i>CASE Category: 11 – ASTRONOMY</i>			<i>CASE Category: 11 – ASTRONOMY</i>		
<b>NAG 5 8916</b>	<b>UNIV OF ARIZONA</b>	<b>1479</b>	<b>NAG 5 9079</b>	<b>UNIV OF ARIZONA</b>	<b>1487</b>
THE COMPOSITION OF HYDRATED M AND E-CLASS ASTEROID S: A SEARCH FOR ANALOGS 01/05/2000 - 12/31/2000	FY01: -\$4	Total: \$21,996	ELECTRON TEMPERATURE IN THE IO PLASMA TORUS: THE KEY TO UNDERSTANDING TORUS ENERGY FLOW 02/23/2000 - 02/28/2002	FY01: \$76,145	Total: \$128,945
<i>Prin. Invest.: A RIVKIN</i>			<i>Prin. Invest.: F L HERBERT</i>		
<i>Tech. Officer: GSFC/J A GRANT</i>			<i>Tech. Officer: GSFC/J SHARBER</i>		
<i>CASE Category: 11 – ASTRONOMY</i>			<i>CASE Category: 31 – ATMOSPHERIC SCIENCE</i>		
<b>NAG 5 8937</b>	<b>UNIV OF ARIZONA</b>	<b>1480</b>	<b>NAG 5 9081</b>	<b>UNIV OF ARIZONA</b>	<b>1488</b>
NUMERICAL MODELING OF TECTONIC PROCESSES AND METORITE IMPACTS ON THE GALILEAN SATELLITES 01/13/2000 - 01/14/2002	FY01: \$45,000	Total: \$85,000	NEO FOLLOWUP OBSERVATIONS TO THE NASA NEAR EARTH OBJECTS OBSERVATIONS PROGRAM 02/16/2000 - 02/14/2002	FY01: \$56,000	Total: \$142,664
<i>Prin. Invest.: E P TURTLE</i>			<i>Prin. Invest.: S M LARSON</i>		
<i>Tech. Officer: GSFC/D BOGAN</i>			<i>Tech. Officer: GSFC/T H MORGAN</i>		
<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>			<i>CASE Category: 11 – ASTRONOMY</i>		
<b>NAG 5 8941</b>	<b>UNIV OF ARIZONA</b>	<b>1481</b>	<b>NAG 5 9100</b>	<b>UNIV OF ARIZONA</b>	<b>1489</b>
CYCLODIAL LINEAMENTS AND TIDAL TECTONICS ON EUROPA 01/13/2000 - 01/14/2002	FY01: \$55,000	Total: \$105,000	MICROMACHINING OF THZ WAVEGUIDE AND QUASI-OPTICAL COMPONENTS FOR SUB-ORBITAL AND SPACE-BORNEDETE 02/24/2000 - 01/31/2002	FY01: \$125,000	Total: \$303,000
<i>Prin. Invest.: R GREENBERG</i>			<i>Prin. Invest.: C K WALKER</i>		
<i>Tech. Officer: GSFC/D BOGAN</i>			<i>Tech. Officer: GSFC/G STRINGFELLOW</i>		
<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>			<i>CASE Category: 31 – ATMOSPHERIC SCIENCE</i>		
<b>NAG 5 8949</b>	<b>UNIV OF ARIZONA</b>	<b>1482</b>	<b>NAG 5 9112</b>	<b>UNIV OF ARIZONA</b>	<b>1490</b>
THEORETICAL STUDIES OF VOLATILE PROCESSES IN SOLAR SYSTEM BODIES 01/19/2000 - 01/31/2002	FY01: \$30,000	Total: \$58,260	EFFECTS OF LITHOLOGIES ON IMPACT CRATERING: NUMERICAL MODELING OF KNOWN TERRESTRIAL CRATERS 02/28/2000 - 02/28/2002	FY01: \$42,000	Total: \$81,900
<i>Prin. Invest.: J I LUNINE</i>			<i>Prin. Invest.: E PIERAZZO</i>		
<i>Tech. Officer: GSFC/D BOGAN</i>			<i>Tech. Officer: GSFC/J GRANT</i>		
<i>CASE Category: 32 – GEOLOGICAL SCIENCE</i>			<i>CASE Category: 31 – ATMOSPHERIC SCIENCE</i>		
<b>NAG 5 8952</b>	<b>UNIV OF ARIZONA</b>	<b>1483</b>	<b>NAG 5 9174</b>	<b>UNIV OF ARIZONA</b>	<b>1491</b>
IO AND ITS PLASMA TORUS: ATMOSPHERE-MAGNETOSPHERE INTERACTIONS 01/21/2000 - 12/31/2001	FY01: \$56,400	Total: \$109,340	PLANNING, COORDINATION, MATERIALS PREPARATION & MARKET SURVEY FOR REGIONAL INFORMATIONAL WORKS 03/06/2000 - 12/31/2001	FY01: \$0	Total: \$375,493
<i>Prin. Invest.: F HERBERT</i>			<i>Prin. Invest.: C F HUTCHINSON</i>		
<i>Tech. Officer: GSFC/D BOGAN</i>			<i>Tech. Officer: GSFC/A TUYAHOV</i>		
<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>			<i>CASE Category: 39 – ENVIRONMENTAL SCI, OTHER</i>		
<b>NAG 5 8970</b>	<b>UNIV OF ARIZONA</b>	<b>1484</b>	<b>NAG 5 9176</b>	<b>UNIV OF ARIZONA</b>	<b>1492</b>
HYDROCARBONS IN JUPITER'S TROPOSPHERE 01/24/2000 - 01/14/2002	FY01: \$50,500	Total: \$101,000	INVESTIGATION OF EXTREME TEMPERATURE VOLCANISM ON IO 03/08/2000 - 03/31/2002	FY01: \$0	Total: \$47,500
<i>Prin. Invest.: D HUNTER</i>			<i>Prin. Invest.: L KESZTHELYI</i>		
<i>Tech. Officer: GSFC/D BOGAN</i>			<i>Tech. Officer: GSFC/J GRANT</i>		
<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>			<i>CASE Category: 32 – GEOLOGICAL SCIENCE</i>		

**NAG 5 9181**           **UNIV OF ARIZONA**           **1493**  
 ESTABLISHMENT OF ABSOLUTE SPECTROPHOTOMETRIC STANDARD  
 STARS FROM 100 A TO 10,000 A - ADP99  
 03/07/2000 - 03/14/2002      FY01: \$38,412      Total: \$86,434  
*Prin. Invest.: J HOLBERG*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9182**           **UNIV OF ARIZONA**           **1494**  
 ANALYSIS OF THE IUE LOW DISPERSION SPECTRA OF THE WHITE DWARF  
 STARS ADP99  
 03/07/2000 - 03/14/2002      FY01: \$41,727      Total: \$90,528  
*Prin. Invest.: J HOLBERG, NONE*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9198**           **UNIV OF ARIZONA**           **1495**  
 AN IN SITU GEOCHRONOLOGY SYSTEM BASED ON LASER-INDUCED  
 BREAKDOWN SPECTROSCOPY & NOBLE GAS MASS SPECTROMETRY  
 03/09/2000 - 03/14/2003      FY01: \$215,688      Total: \$415,884  
*Prin. Invest.: T SWINDLE*  
*Tech. Officer: GSFC/B BETTS*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9205**           **UNIV OF ARIZONA**           **1496**  
 A MULTI-WAVELENGTH STUDY OF THE INNER 50 PC-REGION AT THE  
 GALACTIC CENTER (LTS99)  
 03/14/2000 - 03/14/2002      FY01: \$31,724      Total: \$89,590  
*Prin. Invest.: F MELIA*  
*Tech. Officer: GSFC/R OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9208**           **UNIV OF ARIZONA**           **1497**  
 LIS VALIDATION STUDIES USING LIGHTNING AT THE KSC-ER  
 03/23/2000 - 03/31/2002      FY01: \$0      Total: \$99,754  
*Prin. Invest.: P KRIDER*  
*Tech. Officer: GSFC/D O STARR*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 9234**           **UNIV OF ARIZONA**           **1498**  
 MEASURING MARTIAN ATMOSPHERIC WATER VAPOR & CARBON DIOXIDE  
 03/23/2000 - 03/21/2001      FY01: \$0      Total: \$45,000  
*Prin. Invest.: A L SPRAGUE*  
*Tech. Officer: GSFC/T MORGAN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9293**           **UNIV OF ARIZONA**           **1499**  
 REMOTE SENSING FOR DEBRIS FLOODING HAZARD ASSESSMENT IN ARID  
 REGIONS.  
 03/24/2000 - 03/31/2002      FY01: \$93,750      Total: \$150,000  
*Prin. Invest.: V R BAKER*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 9306**           **UNIV OF ARIZONA**           **1500**  
 QUASARS AS PROBES (LTSA 99)  
 03/20/2000 - 03/31/2002      FY01: \$102,450      Total: \$200,872  
*Prin. Invest.: C D IMPEY*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9325**           **UNIV OF ARIZONA**           **1501**  
 NGST AD HOC SCIENCE WORKING GROUP (ASWG) SUPPORT  
 03/22/2000 - 03/14/2001      FY01: \$0      Total: \$15,150  
*Prin. Invest.: M MEYER*  
*Tech. Officer: GSFC/E P SMITH*  
*CASE Category: 42 – ASTRONAUTICAL ENGR*

**NAG 5 9405**           **UNIV OF ARIZONA**           **1502**  
 "PRECISION MINING" OF LARGE SPECTRAL DATA VOLUMES FOR RAPID  
 IDENTIFICATION OF PLANETARY RESOURCES  
 04/10/2000 - 10/14/2000      FY01: -\$119,299      Total: \$65,001  
*Prin. Invest.: E MERENYI*  
*Tech. Officer: GSFC/J BREDEKAMP*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9408**           **UNIV OF ARIZONA**           **1503**  
 A DATABASE OF THE WHITE DWARF STARS  
 04/11/2000 - 04/30/2002      FY01: \$125,200      Total: \$274,500  
*Prin. Invest.: J HOLBERG*  
*Tech. Officer: GSFC/J BREDEKAMP*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9425**           **UNIV OF ARIZONA**           **1504**  
 PENETRATOR-BASED SAMPLE COLLECTION OF COMETS AND OTHER  
 SMALL BODIES  
 04/17/2000 - 04/29/2002      FY01: \$240,116      Total: \$432,791  
*Prin. Invest.: W BOYNTON*  
*Tech. Officer: GSFC/B BETTS*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9435**           **UNIV OF ARIZONA**           **1505**  
 GEOCHEMICAL EVOLUTION OF THE EARTH, MOON, IGNEOUS METEORITES  
 & OTHER TERRESTRIAL PLANETARY BODIES  
 04/24/2000 - 12/31/2001      FY01: \$222,000      Total: \$444,000  
*Prin. Invest.: M J DRAKE*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9465**           **UNIV OF ARIZONA**           **1506**  
 A SOUTHERN HEMISPHERE NEO SURVEY  
 04/18/2000 - 03/31/2003      FY01: \$113,000      Total: \$213,323  
*Prin. Invest.: S LARSON*  
*Tech. Officer: GSFC/T MORGAN*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9549**           **UNIV OF ARIZONA**           **1507**  
 IMPROVING SATELLITE RAIN EST. ALGORITHMS USING A COMBO. OF  
 TRMM INSTANTANEOUS PRECIP. RETRIEVALS  
 06/19/2000 - 11/30/2001      FY01: \$107,000      Total: \$163,110  
*Prin. Invest.: S SOROOSHIAN*  
*Tech. Officer: GSFC/R J LAWRENCE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 9577**           **UNIV OF ARIZONA**           **1508**  
 INFRARED EMISSION SPECTROSCOPY OF ASTROPHYSICAL MOLECULES  
 05/17/2000 - 04/30/2001      FY01: \$0      Total: \$20,000  
*Prin. Invest.: D F BERNATH*  
*Tech. Officer: GSFC/G STRINGFELLOW*  
*CASE Category: 11 – ASTRONOMY*

<b>NAG 5 9609</b>	<b>UNIV OF ARIZONA</b>	<b>1509</b>	<b>NAG 5 10123</b>	<b>UNIV OF ARIZONA</b>	<b>1517</b>
STUDY OF STAR AND PLANETARY SYSTEM FORMATION 05/18/2000 - 03/14/2002			SAR INVESTIGATIONS OF LATE PLEISTOCENE PALEOFLOODS PALEO-LAKES, AND PALEOCLIMATE 11/28/2000 - 11/30/2001		
FY01: \$19,712		Total: \$54,712	FY01: \$50,000		Total: \$50,000
<i>Prin. Invest.: A CAMERON</i>			<i>Prin. Invest.: V BAKER</i>		
<i>Tech. Officer: GSFC/J BOYCE/N</i>			<i>Tech. Officer: GSFC/W ABDALATI</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 99 - MULTI INTERDISCPL, OTHER</i>		
<b>NAG 5 9691</b>	<b>UNIV OF ARIZONA</b>	<b>1510</b>	<b>NAG 5 10162</b>	<b>UNIV OF ARIZONA</b>	<b>1518</b>
A STUDY OF DUST IN AND AROUND GALAXIES 06/26/2000 - 11/14/2001			SURFACE CHANGES ON IO 12/20/2000 - 12/31/2001		
FY01: \$81,100		Total: \$181,283	FY01: \$45,000		Total: \$45,000
<i>Prin. Invest.: D F ZARITSKY</i>			<i>Prin. Invest.: P GEISSLER</i>		
<i>Tech. Officer: GSFC/R OLIVERSEN</i>			<i>Tech. Officer: GSFC/D SENSKE</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 99 - MULTI INTERDISCPL, OTHER</i>		
<b>NAG 5 9775</b>	<b>UNIV OF ARIZONA</b>	<b>1511</b>	<b>NAG 5 10166</b>	<b>UNIV OF ARIZONA</b>	<b>1519</b>
CHARACTERIZATION OF THE MARTIAN SURFACE FOR FUTURE MISSIONS 06/30/2000 - 06/30/2002			OBSERVATIONS AND NUMERICAL MODELING OF TECTONIC PROCESSES ON IO 01/04/2001 - 11/30/2001		
FY01: \$37,800		Total: \$75,600	FY01: \$50,000		Total: \$50,000
<i>Prin. Invest.: A S MCEWEN</i>			<i>Prin. Invest.: E TURTLE</i>		
<i>Tech. Officer: GSFC/J BOYCE</i>			<i>Tech. Officer: GSFC/D SENSKE</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 32 - GEOLOGICAL SCIENCE</i>		
<b>NAG 5 9790</b>	<b>UNIV OF ARIZONA</b>	<b>1512</b>	<b>NAG 5 10167</b>	<b>UNIV OF ARIZONA</b>	<b>1520</b>
IDENTIFICATION OF MARTIAN HYDROTHERMAL SITES: A GEOLOGIC INVESTIGATION UTILIZING MULTIPLE DATASETS 07/11/2000 - 07/31/2002			TIDAL TECTONIC PROCESSES ON EUROPA: DISPLACEMENTS, STRESS AND CYCLOIDS 01/04/2001 - 11/30/2001		
FY01: \$60,000		Total: \$120,000	FY01: \$50,000		Total: \$50,000
<i>Prin. Invest.: V R BAKER</i>			<i>Prin. Invest.: R TUFTS</i>		
<i>Tech. Officer: GSFC/J BOYCE</i>			<i>Tech. Officer: GSFC/D SENSKE</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 32 - GEOLOGICAL SCIENCE</i>		
<b>NAG 5 9796</b>	<b>UNIV OF ARIZONA</b>	<b>1513</b>	<b>NAG 5 10174</b>	<b>UNIV OF ARIZONA</b>	<b>1521</b>
REPRESENTING HETEROGENEOUS VEGETATION IN THE CPTEC ETA MODELS 07/20/2000 - 09/30/2002			IMPROVING REGIONAL AND GLOBAL RAINFALL ESTIMATES USING THE COMBINATIONS OF TRMM SATELLITE OBSERVATIONS 12/21/2000 - 12/31/2001		
FY01: \$47,768		Total: \$93,586	FY01: \$77,500		Total: \$77,500
<i>Prin. Invest.: W SHUTTLEWORTH</i>			<i>Prin. Invest.: S SOROOSHIAN</i>		
<i>Tech. Officer: GSFC/P R HOUSER</i>			<i>Tech. Officer: GSFC/A J NEGRI</i>		
<i>CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</i>			<i>CASE Category: 31 - ATMOSPHERIC SCIENCE</i>		
<b>NAG 5 9803</b>	<b>UNIV OF ARIZONA</b>	<b>1514</b>	<b>NAG 5 10205</b>	<b>UNIV OF ARIZONA</b>	<b>1522</b>
SO/GSFC SUPER-LOTIS PROJECT COLLABORATION 07/19/2000 - 07/31/2001			INFRARED & NEAR INFRARED SPECTROSCOPY OF ASTROPHYSICAL MOLECULES 12/28/2000 - 12/31/2001		
FY01: \$11,444		Total: \$31,444	FY01: \$80,000		Total: \$80,000
<i>Prin. Invest.: B PETERSON</i>			<i>Prin. Invest.: P BERNATH</i>		
<i>Tech. Officer: GSFC/N GEHRELS</i>			<i>Tech. Officer: GSFC/G STRINGFELLOW</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 99 - MULTI INTERDISCPL, OTHER</i>		
<b>NAG 5 9957</b>	<b>UNIV OF ARIZONA</b>	<b>1515</b>	<b>NAG 5 10245</b>	<b>UNIV OF ARIZONA</b>	<b>1523</b>
XMM OBSERVATIONS OF ISOLATED ELLIPTICAL GALAXIES 09/13/2000 - 09/14/2002			ACCRETION ONTO MAGNETIC WHITE DWARFS (FUSE 00) 02/12/2001 - 02/14/2002		
FY01: \$17,500		Total: \$45,500	FY01: \$7,455		Total: \$7,455
<i>Prin. Invest.: A I ZABLUDOFF</i>			<i>Prin. Invest.: G SCHMIDT</i>		
<i>Tech. Officer: GSFC/R MUSHOTZKY</i>			<i>Tech. Officer: GSFC/G SONNEBORN</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 11 - ASTRONOMY</i>		
<b>NAG 5 10007</b>	<b>UNIV OF ARIZONA</b>	<b>1516</b>	<b>NAG 5 10264</b>	<b>UNIV OF ARIZONA</b>	<b>1524</b>
ASSESSMENT OF GRANT PROGRAM UNDER CENTERS OF EXCELLENCE IN APPLICATIONS OF REMOTE SENSING IN REGION 09/20/2000 - 09/30/2002			ANALYSIS OF ICE CORES FOR ESTIMATING ACCUMULATION PATTERNS AND THE INFLUENCE OF ACCUMULATION ON ICE 01/09/2001 - 12/31/2001		
FY01: \$0		Total: \$59,410	FY01: \$149,978		Total: \$149,978
<i>Prin. Invest.: M W WALLENDORF</i>			<i>Prin. Invest.: R BALES</i>		
<i>Tech. Officer: GSFC/M WEI</i>			<i>Tech. Officer: GSFC/W ABDALATI</i>		
<i>CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</i>			<i>CASE Category: 99 - MULTI INTERDISCPL, OTHER</i>		

**NAG 5 10267**           **UNIV OF ARIZONA**           **1525**  
 RETRIEVING BI-REFLECTANCE SPECTRA OF ROCKS ILLUMINATED BY  
 DIRECT SUNLIGHT & BRIGHT SKY:A RE-E  
 01/08/2001 - 12/31/2001      FY01: \$114,200      Total: \$114,200  
*Prin. Invest.: P H SMITH*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10294**           **UNIV OF ARIZONA**           **1526**  
 EVOLUTION OF VOLATILES IN THE SOLAR SYSTEM  
 02/08/2001 - 02/14/2002      FY01: \$30,000      Total: \$30,000  
*Prin. Invest.: J I LUNINE*  
*Tech. Officer: GSFC/D SENSKE*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 10315**           **UNIV OF ARIZONA**           **1527**  
 A FUSE SEARCH FOR NITROGEN AND CARBON IN HOT WHITE DWARFS -  
 FUSE 2000  
 01/26/2001 - 01/31/2002      FY01: \$46,300      Total: \$46,300  
*Prin. Invest.: J B HOLBERG*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10332**           **UNIV OF ARIZONA**           **1528**  
 SUPPORT FOR SPACE IMAGERY CENTER NASA REGIONAL PLANETARY  
 IMAGE FACILITY  
 01/30/2001 - 01/31/2002      FY01: \$25,000      Total: \$25,000  
*Prin. Invest.: D KRING*  
*Tech. Officer: GSFC/D SENSKE*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 10333**           **UNIV OF ARIZONA**           **1529**  
 SUB-MILLIMETER SPECTROSCOPY OF ASTROPHYSICALLY IMPORTANT  
 METAL-CONTAINING MOLECULES  
 01/30/2001 - 01/31/2002      FY01: \$72,000      Total: \$72,000  
*Prin. Invest.: L ZIURYS*  
*Tech. Officer: GSFC/G STRINGFELLOW*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10346**           **UNIV OF ARIZONA**           **1530**  
 KUIPER BELT DYNAMICS  
 02/01/2001 - 02/14/2002      FY01: \$40,000      Total: \$40,000  
*Prin. Invest.: R MALHOTRA*  
*Tech. Officer: GSFC/D SENSKE*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 10441**           **UNIV OF ARIZONA**           **1531**  
 AN INFRARED STUDY OF SPACECRAFT TARGETED COMETS  
 02/16/2001 - 02/28/2002      FY01: \$49,400      Total: \$49,400  
*Prin. Invest.: H CAMPINS*  
*Tech. Officer: GSFC/T MORGAN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10442**           **UNIV OF ARIZONA**           **1532**  
 2MASS ASTEROIDS, COMETS & SATELLITES  
 02/16/2001 - 02/28/2002      FY01: \$30,900      Total: \$30,900  
*Prin. Invest.: M SYKES*  
*Tech. Officer: GSFC/T MORGAN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10446**           **UNIV OF ARIZONA**           **1533**  
 INFRARED OBSERVATIONS OF SMALL BODIES  
 02/20/2001 - 03/31/2002      FY01: \$79,400      Total: \$79,400  
*Prin. Invest.: R BROWN*  
*Tech. Officer: GSFC/T MORGAN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10447**           **UNIV OF ARIZONA**           **1534**  
 SPACEWATCH SURVEY OF THE SOLAR SYSTEM  
 02/20/2001 - 01/31/2002      FY01: \$80,000      Total: \$80,000  
*Prin. Invest.: R MCMILLAN*  
*Tech. Officer: GSFC/T MORGAN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10450**           **UNIV OF ARIZONA**           **1535**  
 COUPLED PHYSICAL & CHEMICAL PROCESSES IN THE SOLAR NEBULA &  
 EXTRASOLAR PLANETS  
 02/20/2001 - 01/31/2002      FY01: \$40,000      Total: \$40,000  
*Prin. Invest.: J LUNINE*  
*Tech. Officer: HQ/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10452**           **UNIV OF ARIZONA**           **1536**  
 MINERALOGIC & TRACE-ELEMENT STUDIES OF METEORITES &  
 METEORITE IMPACTS  
 02/21/2001 - 02/28/2002      FY01: \$180,000      Total: \$180,000  
*Prin. Invest.: W BOYNTON*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10486**           **UNIV OF ARIZONA**           **1537**  
 THERMAL HISTORY OF PLANETARY MATERIALS: THEORY, EXPERIMENTS &  
 APPLICATIONS  
 03/05/2001 - 04/30/2002      FY01: \$70,000      Total: \$70,000  
*Prin. Invest.: J GANGULY*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 12 – CHEMISTRY*

**NAG 5 10543**           **UNIV OF ARIZONA**           **1538**  
 SOUTHERN HEMISPHERE NEO SURVEY INSTRUMENTATION  
 03/14/2001 - 03/14/2002      FY01: \$500,000      Total: \$500,000  
*Prin. Invest.: S LARSON*  
*Tech. Officer: GSFC/T MORGAN*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 10592**           **UNIV OF ARIZONA**           **1539**  
 IMPACTS & ENVIRONMENTAL CATASTROPHES: A STUDY OF THE EFFECTS  
 OF IMPACT EVENTS ON THE CLIMATE SYST  
 03/21/2001 - 03/31/2002      FY01: \$60,000      Total: \$60,000  
*Prin. Invest.: E PIERAZZO*  
*Tech. Officer: GSFC/M MEYER*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10629**           **UNIV OF ARIZONA**           **1540**  
 THE CLASSIFICATION AND DETECTABILITYOF SUBSTELLAR- MASS  
 OBJECTS  
 03/17/2001 - 03/31/2002      FY01: \$45,000      Total: \$45,000  
*Prin. Invest.: A BURROWS*  
*Tech. Officer: GSFC/J M BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10643**           **UNIV OF ARIZONA**           **1541**  
 CODES & DECODERS FOR BANDWIDTH-EFFICIENT COMMUNICATIONS IN NEAR-EARTH MISSIONS.  
 03/21/2001 - 03/31/2002      FY01: \$87,273      Total: \$87,273  
*Prin. Invest.:* W RYAN  
*Tech. Officer:* GSFC/P YEH  
*CASE Category:* 49 – ENGINEERING, OTHER

**NAG 5 10660**           **UNIV OF ARIZONA**           **1542**  
 IMPROVED MARS UPPER ATMOSPHERE CLIMATOLOGY  
 03/21/2001 - 03/31/2002      FY01: \$80,000      Total: \$80,000  
*Prin. Invest.:* S BOUGHER  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 10700**           **UNIV OF ARIZONA**           **1543**  
 TEMPERATURE, GRAVITY AND COMPOSITION OF DAO WHITE DWARFS - FUSE 2000  
 04/13/2001 - 04/14/2002      FY01: \$18,300      Total: \$18,300  
*Prin. Invest.:* J B HOLBERG  
*Tech. Officer:* GSFC/G SONNEBORN  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 10734**           **UNIV OF ARIZONA**           **1544**  
 INCORPORATION OF NOBLE GASES INTO ANALOGS FOR INTERSTELLAR CARBONACEOUS AND METALLIC MATERIALS  
 04/18/2001 - 04/30/2002      FY01: \$20,000      Total: \$20,000  
*Prin. Invest.:* T SWINDLE  
*Tech. Officer:* GSFC/J M BOYCE  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 10749**           **UNIV OF ARIZONA**           **1545**  
 CAPTURING PLANETARY SCIENCE DATA FROM NASA SUPPORTED RESEARCH  
 04/13/2001 - 04/14/2002      FY01: \$126,000      Total: \$126,000  
*Prin. Invest.:* M V SYKES  
*Tech. Officer:* GSFC/P E HUNTER  
*CASE Category:* 22 – COMPUTER SCIENCE

**NAG 5 10760**           **UNIV OF ARIZONA**           **1546**  
 THEORY OF BROWN DWARFS & GIANT PLANETS (ATP-2000)  
 04/23/2001 - 04/30/2002      FY01: \$80,000      Total: \$80,000  
*Prin. Invest.:* A S BURROWS  
*Tech. Officer:* GSFC/R J OLIVERSEN  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 10827**           **UNIV OF ARIZONA**           **1547**  
 THE SMALL SCALE STRUCTURE OF THE UNIVERSE (ATP 2000)  
 05/01/2001 - 05/14/2002      FY01: \$88,244      Total: \$88,244  
*Prin. Invest.:* M STEINMETZ  
*Tech. Officer:* GSFC/R OLIVERSON  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 10843**           **UNIV OF ARIZONA**           **1548**  
 RECALIBRATION OF THE NEAR INFRARED CAMERA & MULTI- OBJECT SPECTROMETER (NICMOS) & ANALYSIS OF  
 05/04/2001 - 06/14/2002      FY01: \$1,127,294     Total: \$1,127,294  
*Prin. Invest.:* R THOMPSON  
*Tech. Officer:* GSFC/J JELETIC  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 10853**           **UNIV OF ARIZONA**           **1549**  
 OPERATION & OPTIMIZATION OF THE CATALINA SKY SURVEY FOR NEOS  
 05/02/2001 - 04/30/2002      FY01: \$456,500      Total: \$456,500  
*Prin. Invest.:* S LARSEN  
*Tech. Officer:* GSFC/T MORGAN  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NAG 5 10884**           **UNIV OF ARIZONA**           **1550**  
 ENERGETIC PARTICLES AND THE EARTH'S ENVIRONMENT IN SPACE  
 05/03/2001 - 04/30/2002      FY01: \$96,451      Total: \$96,451  
*Prin. Invest.:* J KOTA  
*Tech. Officer:* GSFC/W J WAGNER  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NAG 5 10893**           **UNIV OF ARIZONA**           **1551**  
 MODELING SUPPORT FOR SEC OBSERVATIONS  
 05/10/2001 - 05/31/2002      FY01: \$100,000      Total: \$100,000  
*Prin. Invest.:* J JOKIPII  
*Tech. Officer:* GSFC/J GURMAN  
*CASE Category:* 19 – PHYSICAL SCIENCE, OTHER

**NAG 5 10961**           **UNIV OF ARIZONA**           **1552**  
 INSTRUMENT UPGRADE: OFFNER SPECTROMETER VISIBLE UPGRADE & EXTENSION DESIGN TO 2.5 MICR  
 05/23/2001 - 06/30/2002      FY01: \$74,200      Total: \$74,200  
*Prin. Invest.:* U FINK  
*Tech. Officer:* GSFC/T MORGAN  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NAG 5 10974**           **UNIV OF ARIZONA**           **1553**  
 WAVES, TURBULENCE AND ENERGETIC PARTICLES IN THE HELIOSPHERE  
 05/29/2001 - 05/31/2002      FY01: \$77,566      Total: \$77,566  
*Prin. Invest.:* G M WEBB  
*Tech. Officer:* GSFC/W J WAGNER  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NAG 5 10990**           **UNIV OF ARIZONA**           **1554**  
 THEORY OF ENERGETIC PARTICLE TRANSPORT IN HELIO- SPHERIC & SOLAR PLASMAS  
 06/05/2001 - 06/14/2002      FY01: \$75,000      Total: \$75,000  
*Prin. Invest.:* J R JOKIPII  
*Tech. Officer:* GSFC/W J WAGNER  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NAG 5 11044**           **UNIV OF ARIZONA**           **1555**  
 MONITORING & PREDICTION OF WATER DISTRIBUTION/ AVAILABILITY IN SEMI-ARID REGIONS  
 07/05/2001 - 06/14/2002      FY01: \$525,000      Total: \$525,000  
*Prin. Invest.:* S SOROOSHIAN  
*Tech. Officer:* GSFC/M JASINSKI  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NAG 5 11108**           **UNIV OF ARIZONA**           **1556**  
 CONSTRAINING THE DARK MATTER HALOS OF GIANT ELLIPTICAL GALAXIES  
 07/13/2001 - 08/31/2002      FY01: \$99,861      Total: \$99,861  
*Prin. Invest.:* A I ZABLUDOFF  
*Tech. Officer:* GSFC/R J OLIVERSEN  
*CASE Category:* 11 – ASTRONOMY

<b>NAG 5 11153</b>	<b>UNIV OF ARIZONA</b>	<b>1557</b>	<b>NAG 5 11316</b>	<b>UNIV OF ARIZONA</b>	<b>1565</b>
STUDIES OF COSMOGENIC PROCESSES 08/02/2001 - 07/31/2002	FY01: \$25,000	Total: \$25,000	USE OF AIRBORNE REMOTE SENSING FOR UNCERTAINTY ASSESSMENTS IN REGIONAL EXTRAPOLATIONS OF GROUND 09/17/2001 - 09/14/2004	FY01: \$87,368	Total: \$87,368
<i>Prin. Invest.: A CAMERON</i> <i>Tech. Officer: GSFC/J M BOYCE</i> <i>CASE Category: 11 - ASTRONOMY</i>			<i>Prin. Invest.: A R HUETE</i> <i>Tech. Officer: GSFC/D W DEERING</i> <i>CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</i>		
<b>NAG 5 11163</b>	<b>UNIV OF ARIZONA</b>	<b>1558</b>	<b>NAG 5 11339</b>	<b>UNIV OF ARIZONA</b>	<b>1566</b>
ASSIMILATION OF GPS METEOROLOGICAL DATA INTO WEATHER AND CLIMATE ANALYSES. 08/07/2001 - 08/14/2002	FY01: \$33,801	Total: \$33,801	LANDSAT RADIOMETRIC CALIBRATION: TOWARDS A 20 YEAR RECORD OF CALIBRATED THEMATIC MAPPER CLASS DATA 09/14/2001 - 09/14/2004	FY01: \$114,999	Total: \$114,999
<i>Prin. Invest.: E KURINSKI</i> <i>Tech. Officer: GSFC/J JOINER</i> <i>CASE Category: 31 - ATMOSPHERIC SCIENCE</i>			<i>Prin. Invest.: K THOME</i> <i>Tech. Officer: GSFC/B L MARKHAM</i> <i>CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</i>		
<b>NAG 5 11166</b>	<b>UNIV OF ARIZONA</b>	<b>1559</b>	<b>NAG 5 11348</b>	<b>UNIV OF ARIZONA</b>	<b>1567</b>
INTER-CALIBRATION AND UTILIZATION OF GROUND-BASED AND TES DATA TO STUDY MARTIAN WATER VAPOR 08/07/2001 - 08/14/2003	FY01: \$67,500	Total: \$67,500	STEWARD OBSERVATORY'S GSFC GCN/SUPERLOTIS PROJECT COLLABORATION 09/26/2001 - 07/31/2002	FY01: \$23,063	Total: \$23,063
<i>Prin. Invest.: A L SPRAGUE</i> <i>Tech. Officer: GSFC/J M BOYCE</i> <i>CASE Category: 41 - AERONAUTICAL ENGR</i>			<i>Prin. Invest.: B PETERSON</i> <i>Tech. Officer: GSFC/S D BARTHELOMY</i> <i>CASE Category: 11 - ASTRONOMY</i>		
<b>NAG 5 11168</b>	<b>UNIV OF ARIZONA</b>	<b>1560</b>	<b>NAG 5 11355</b>	<b>UNIV OF ARIZONA</b>	<b>1568</b>
PALEOMAGNETIC INVESTIGATION OF POLAR REORIENTATION ON MARS 08/07/2001 - 08/14/2004	FY01: \$48,728	Total: \$48,728	ASU/MICHIGAN COLLABORATION: THE ABUNDANCE & ISOTOPIC COMPOSITION OF HG IN EXTRATERRESTRIALMATERIA 09/21/2001 - 02/28/2004	FY01: \$16,842	Total: \$16,842
<i>Prin. Invest.: L L HOOD</i> <i>Tech. Officer: GSFC/J BOYCE</i> <i>CASE Category: 11 - ASTRONOMY</i>			<i>Prin. Invest.: D LAURETTA</i> <i>Tech. Officer: GSFC/J BOYCE</i> <i>CASE Category: 12 - CHEMISTRY</i>		
<b>NAG 5 11169</b>	<b>UNIV OF ARIZONA</b>	<b>1561</b>	<b>NAG 8 1234</b>	<b>UNIV OF ARIZONA</b>	<b>1569</b>
MONITORING THE GEOLOGICAL ACTIVITY OF MARS 08/07/2001 - 08/14/2004	FY01: \$54,000	Total: \$54,000	NON-EQUILIBRIUM PHASE TRANSFORMATION 04/25/1996 - 04/30/2000	FY01: \$0	Total: \$579,500
<i>Prin. Invest.: P E GEISSLER</i> <i>Tech. Officer: GSFC/J M BOYCE</i> <i>CASE Category: 11 - ASTRONOMY</i>			<i>Prin. Invest.: K A JACKSON</i> <i>Tech. Officer: MSFC/C R TALLEY</i> <i>CASE Category: 13 - PHYSICS</i>		
<b>NAG 5 11183</b>	<b>UNIV OF ARIZONA</b>	<b>1562</b>	<b>NAG 8 1469</b>	<b>UNIV OF ARIZONA</b>	<b>1570</b>
MGS RADIO SCIENCE ELECTRON DENSITY PROFILES AND IMPLICTIONS FOR THE NEUTRAL ATMOSPHERE 08/13/2001 - 08/14/2003	FY01: \$45,000	Total: \$45,000	DEVELOPMENT OF SUPERIOR MATERIALS FOR LAYERED SOLID OXIDE ELECTROLYZERS BASED ON MECHANICAL 04/17/1998 - 01/31/2002	FY01: \$71,250	Total: \$268,750
<i>Prin. Invest.: S W BOUGHER</i> <i>Tech. Officer: GSFC/J M BOYCE</i> <i>CASE Category: 11 - ASTRONOMY</i>			<i>Prin. Invest.: J R SRIDHAR</i> <i>Tech. Officer: MSFC/P M DOTY</i> <i>CASE Category: 46 - MECHANICAL ENGR</i>		
<b>NAG 5 11188</b>	<b>UNIV OF ARIZONA</b>	<b>1563</b>	<b>NAG 8 1520</b>	<b>UNIV OF ARIZONA</b>	<b>1571</b>
RETRIEVAL OF CLOUD PRESSURE FROM OMI MEASUREMENTS USING ROTATIONAL RAMAN SCATTERING 08/07/2001 - 08/14/2002	FY01: \$29,000	Total: \$29,000	QUANTIFYING THE EFFECTS OF SUB-GRID TOPOGRAPHY & VEGETATION ON SEASONAL SNOW COVER, RELATED SNOWMLT 05/29/1998 - 03/31/2002	FY01: \$0	Total: \$347,829
<i>Prin. Invest.: D FLITTLER</i> <i>Tech. Officer: GSFC/J JOINER</i> <i>CASE Category: 31 - ATMOSPHERIC SCIENCE</i>			<i>Prin. Invest.: Z YANG, R BALES, R E DICKINSON</i> <i>Tech. Officer: MSFC/J ARNOLD</i> <i>CASE Category: 31 - ATMOSPHERIC SCIENCE</i>		
<b>NAG 5 11195</b>	<b>UNIV OF ARIZONA</b>	<b>1564</b>			
COOPERATIVE CENTER FOR ATMOSPHERIC SCIENCE AND TECHNOLOGY 08/30/2001 - 09/30/2004	FY01: \$91,223	Total: \$91,223			
<i>Prin. Invest.: R LOUGHMAN</i> <i>Tech. Officer: GSFC/W HOEGY</i> <i>CASE Category: 31 - ATMOSPHERIC SCIENCE</i>					

**NAG 8 1523**           **UNIV OF ARIZONA**           **1572**  
 IMPROVING GCM MODELING THRU HYDROLOGICALLY REALISTIC SUBGRID REPRESENTATION OF LAND-ATMOSPHERE  
 05/26/1998 - 05/31/2001    FY01: \$0               Total: \$519,764  
*Prin. Invest.:* S SOROOSHIAN, H GUPTA, X GAO  
*Tech. Officer:* MSFC/J ARNOLD  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NAG 8 1531**           **UNIV OF ARIZONA**           **1573**  
 INFLUENCE OF SUBGRID SCALE HETEROGENEITY ON REMOTELY SENSED SURFACE TEMPERATURES  
 06/01/1998 - 12/31/2001    FY01: \$0               Total: \$600,000  
*Prin. Invest.:* W J SHUTTLEWORTH, J J TOTH  
*Tech. Officer:* MSFC/J ARNOLD  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NAG 8 1542**           **UNIV OF ARIZONA**           **1574**  
 ALDF NETWORK INSTALLATION IN SUPPORT OF LIS VALIDATION  
 07/22/1998 - 07/31/2001    FY01: \$0               Total: \$49,300  
*Prin. Invest.:* C D WEIDMAN  
*Tech. Officer:* MSFC/R J BLAKESLEE, MSFC/S J GOODMAN  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NAG 8 1654**           **UNIV OF ARIZONA**           **1575**  
 MARS ATMOSPHERE AND DUST IN OPTICAL AND RADIO (MATADOR)  
 01/19/2000 - 09/30/2001    FY01: \$251,070       Total: \$328,175  
*Prin. Invest.:* P H SMITH  
*Tech. Officer:* MSFC/C A DARBY  
*CASE Category:* 54 – ENVIRONMENTAL BIOLOGY

**NAG 8 1667**           **UNIV OF ARIZONA**           **1576**  
 GROWTH OF ROD EUTECTICS  
 05/24/2000 - 11/30/2003    FY01: \$85,500       Total: \$125,500  
*Prin. Invest.:* K J JACKSON  
*Tech. Officer:* MSFC/P DOTY  
*CASE Category:* 19 – PHYSICAL SCIENCE, OTHER

**NAG 8 1754**           **UNIV OF ARIZONA**           **1577**  
 A PHYSICALLY BASED INVESTIGATION OF TROPICAL CONVECTIVE REGIMES  
 01/23/2001 - 01/29/2004    FY01: \$50,000       Total: \$50,000  
*Prin. Invest.:* D J BOCCIPPIO  
*Tech. Officer:* MSFC/J D ARNOLD  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NAG 8 1775**           **UNIV OF ARIZONA**           **1578**  
 ATOM OPTICS IN CONTROLLED AND MICROGRAVITY ENVIRIONNETS  
 04/24/2001 - 04/30/2005    FY01: \$80,000       Total: \$80,000  
*Prin. Invest.:* P MEYSTRE  
*Tech. Officer:* MSFC/D HUBBARD  
*CASE Category:* 19 – PHYSICAL SCIENCE, OTHER

**NAG 9 923**           **UNIV OF ARIZONA**           **1579**  
 POLYCRYSTALLINE ZIRCONIA ELEC CELL STACK FOR CO<sub>2</sub> ELECTROLYSIS  
 01/29/1997 - 05/31/2002    FY01: \$0               Total: \$380,749  
*Prin. Invest.:* K R SRIDHAR  
*Tech. Officer:* JSC/R S BAIRD  
*CASE Category:* 51 – BIOLOGY (EXCLUDING ENVIR)

**NAG 9 1175**           **UNIV OF ARIZONA**           **1580**  
 SIMULTANEOUS PRODUCTION OF OXYGEN AND METHANE USING ZIRCONIA ELECTROLYSIS  
 11/03/1999 - 11/09/2001    FY01: \$0               Total: \$89,869  
*Prin. Invest.:* K R SRIDHAR  
*Tech. Officer:* JSC/R S BAIRD  
*CASE Category:* 43 – CHEMICAL ENGR

**NAG 9 1212**           **UNIV OF ARIZONA**           **1581**  
 ULTRA HIGH SPATIAL RESOLUTION HARD X-RAY DETECTORS  
 06/30/2000 - 06/30/2003    FY01: \$0               Total: \$99,919  
*Prin. Invest.:* H B  
*Tech. Officer:* JSC/L C SHACKELFORD  
*CASE Category:* 13 – PHYSICS

**NAG 9 1229**           **UNIV OF ARIZONA**           **1582**  
 DEFINITION PHASE STUDY REPORT FOR END TO END ISRU MARS FLIGHT EXPERIMENT  
 05/10/2000 - 02/09/2001    FY01: \$0               Total: \$850,000  
*Prin. Invest.:* K R SRIDHAR  
*Tech. Officer:* JSC/J CONNOLY  
*CASE Category:* 47 – METAL & MATERIALS ENGR

**NAG 9 1307**           **UNIV OF ARIZONA**           **1583**  
 SCANNING CHEMICAL MICROSCOPY USING SURFACE ENHANCED RAMAN SCATTERING  
 05/23/2001 - 02/28/2003    FY01: \$222,000       Total: \$222,000  
*Prin. Invest.:* D SARID  
*Tech. Officer:* JSC/D MCKAY  
*CASE Category:* 42 – ASTRONAUTICAL ENGR

**NAG 9 1378**           **UNIV OF ARIZONA**           **1584**  
 TESTING OF COMPACT & ROBUST HIGH INTENSITY WATER JACKETED PLANT LIGHTING SYSTEM  
 08/24/2001 - 07/31/2004    FY01: \$10,550       Total: \$10,550  
*Prin. Invest.:* G GIACOMELLI  
*Tech. Officer:* JSC/D BARTA  
*CASE Category:* 55 – AGRICULTURE

**NAG10 255**           **UNIV OF ARIZONA**           **1585**  
 RESEARCH HYBRID SOLAR AND ARTIFICIAL LIGHTING FOR SPACE LIFE SUPPORT  
 03/17/1999 - 03/15/2002    FY01: \$0               Total: \$212,031  
*Prin. Invest.:* J L CUENLO  
*Tech. Officer:* KSC/R WHEELER  
*CASE Category:* 59 – LIFE SCIENCE, OTHER

**NAG10 286**           **UNIV OF ARIZONA**           **1586**  
 STUDIES OF ATMOSPHERIC ELECTRICITY AT THE KENNEDY SPACE CENTER AND EASTERN RANGE  
 06/05/2000 - 12/31/2001    FY01: \$113,638       Total: \$222,638  
*Prin. Invest.:* E KRIDER  
*Tech. Officer:* KSC/J MADURA  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NAG10 302**           **UNIV OF ARIZONA**           **1587**  
 SAFELY REDUCE THE IMPACT OF LIGHTNING ON GROUND PROCESSING, LAUNCH, FLIGHT AND LANDING ON OPERATION  
 06/22/2001 - 06/30/2006    FY01: \$63,000       Total: \$63,000  
*Prin. Invest.:* E KRIDER  
*Tech. Officer:* KSC/J MADURA  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NAG13 99005**      **UNIV OF ARIZONA**      **1588**  
 NASA SOUTHWEST EARTH SCIENCE APPLICATIONS CENTER SAME  
 02/19/1999 - 02/18/2002      FY01: \$0      Total: \$1,499,981  
*Prin. Invest.: R DAVIS*  
*Tech. Officer: SSC/C HILL*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAS 1 18939**      **UNIV OF ARIZONA**      **1589**  
 SAGE III SCIENCE INVESTIGATION SUPPORT – P.I. – B. HERMAN  
 02/28/1990 – 01/31/2005      FY01: \$150,000      Total: \$1,074,500  
*Prin. Invest.: B M HERMAN*  
*Tech. Officer: LARC/G L MADDREA JR, LARC/L R MCMASTER*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAS 1 99055**      **UNIV OF ARIZONA**      **1590**  
 ACTIVE TROPOSPHERIC OZONE AND MOISTURE SOUNDER (ATOMS)  
 04/21/1999 – 05/31/2002      FY01: \$150,641      Total: \$462,641  
*Prin. Invest.: B M HERMAN*  
*Tech. Officer: LARC/J R HILL, LARC/F PERI*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAS 1 99102**      **UNIV OF ARIZONA**      **1591**  
 PICASSO-CENA SCIENCE TEAM SUPPORT FOR AEROSOL AND CLOUD  
 STUDIES  
 05/17/1999 – 05/16/2002      FY01: \$184,652      Total: \$257,302  
*Prin. Invest.: J A REAGAN*  
*Tech. Officer: LARC/G GIBSON*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAS 2 00117**      **UNIV OF ARIZONA**      **1592**  
 RESEARCH PROJECT-DEVEL AND TEST ULTRA HIGH DENSITY FAST  
 READOUT OPTICAL STORAGE  
 10/31/2000 – 10/31/2003      FY01: \$660,834      Total: \$660,834  
*Prin. Invest.: T MILSTER, F AKHAVAN*  
*Tech. Officer: ARC/S LAU, ARC/R CARVALLHO*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAS 5 00197**      **UNIV OF ARIZONA**      **1593**  
 R & D TO SUPPORT GSFC'S SIMBIOS PROJECT  
 12/21/2000 – 11/30/2001      FY01: \$137,909      Total: \$137,909  
*Prin. Invest.: J ZALEWSKI*  
*Tech. Officer: GSFC/C R MCCCLAIN*  
*CASE Category: 33 – OCEANOGRAPHY*

**NAS 5 31364**      **UNIV OF ARIZONA**      **1594**  
 EOS/MODIS INVESTIGATION FROM DR. HUETE  
 01/24/1992 – 12/14/2001      FY01: \$437,000      Total: \$3,943,109  
*Prin. Invest.: A HUETE*  
*Tech. Officer: GSFC/H OSEROFF*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAS 5 31717**      **UNIV OF ARIZONA**      **1595**  
 EOS INVESTIGATION  
 01/03/1992 – 12/14/2001      FY01: \$845,226      Total: \$8,457,134  
*Prin. Invest.: P N SLATER*  
*Tech. Officer: GSFC/L STUART*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAS 8 97309**      **UNIV OF ARIZONA**      **1596**  
 FABRICATION, TEST, AND DELIVERY OF PRIMARY MIRROR SYSTEM  
 DEMONSTRATOR.  
 07/17/1997 – 06/29/2001      FY01: \$967,299      Total: \$6,462,490  
*Prin. Invest.: J H BURGE, NONE*  
*Tech. Officer: MSFC/D JACOBSON*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAS 9 97224**      **UNIV OF ARIZONA**      **1597**  
 MARS FLIGHT DEMONSTRATION OXYGEN GENERATORY SUBSYS  
 12/13/1997 – 09/30/2000      FY01: \$292      Total: \$1,252,893  
*Prin. Invest.: K R SRIDHAR*  
*Tech. Officer: JSC/S BAIRD*  
*CASE Category: 42 – ASTRONAUTICAL ENGR*

**NCC 2 5239**      **UNIV OF ARIZONA**      **1598**  
 DEVELOPMENT OF THE COUPLED LEAFMOD/SART CANOPY- LEVEL  
 RADIATIVE TRANSFER MODEL  
 09/15/1997 – 06/30/2000      FY01: -\$1      Total: \$49,999  
*Prin. Invest.: B D GANAPOL*  
*Tech. Officer: ARC/D L PETERSON*  
*CASE Category: 54 – ENVIRONMENTAL BIOLOGY*

**NCC 2 5316**      **UNIV OF ARIZONA**      **1599**  
 TECHNOLOGY DEVELOPMENT FOR ASTROBIOLOGY SAMPLE ACQ USI-  
 TION, STORAGE & ANALYSIS  
 04/12/1999 – 12/31/2000      FY01: \$0      Total: \$74,711  
*Prin. Invest.: K R SRIDHAR*  
*Tech. Officer: ARC/M H KAASS*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NCC 2 5357**      **UNIV OF ARIZONA**      **1600**  
 ISRU TECHNOLGIES FOR MARS LIFE SUPPORT  
 09/29/1999 – 09/30/2001      FY01: -\$15,711      Total: \$103,049  
*Prin. Invest.: K R SRIDHAR*  
*Tech. Officer: ARC/J E FINN*  
*CASE Category: 46 – MECHANICAL ENGR*

**NCC 2 5375**      **UNIV OF ARIZONA**      **1601**  
 DEVELOPMENT OF A SYSTEM FOR QUANTIFYING IN VIVO BONE STRAINS  
 IN RODENTS IN NORMAL AND ALTERED GRAVI  
 03/31/2000 – 03/31/2001      FY01: \$0      Total: \$10,208  
*Prin. Invest.: J SZIVEK*  
*Tech. Officer: ARC/J SCHONFELD/W LIN*  
*CASE Category: 56 – MEDICAL*

**NCC 2 5385**      **UNIV OF ARIZONA**      **1602**  
 SOLID STATE SENSORS FOR AEROASSIST TECHNOLOGY APPLEGATIONS  
 06/01/2000 – 09/30/2002      FY01: \$25,800      Total: \$73,300  
*Prin. Invest.: K R SRIDHAR*  
*Tech. Officer: ARC/G A RACHE, ARC/P F WERCINSKI*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NCC 5 355**      **UNIV OF ARIZONA**      **1603**  
 PROPOSAL FOR GRADUATE STUDENT SUPPORT UNDER CCAST. NOW  
 INCLUDES ADDITIONAL SUPP  
 08/04/1998 – 09/30/2001      FY01: \$144,288      Total: \$539,798  
*Prin. Invest.: B M HERMAN*  
*Tech. Officer: GSFC/A J NEGRI*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 5 460** **UNIV OF ARIZONA** **1604**  
 RADIOMETRIC CALIBRATION, SPATIAL CHARACTERIZATION, AND SPECTRAL EVALUATION OF THE ADVANCED LAND IMAG  
 03/03/2000 – 12/31/2001 FY01: \$231,026 Total: \$416,005  
*Prin. Invest.: S F BIGGAR Prin. Invest.: NONE*  
*Tech. Officer: GSFC/S G UNGAR*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NCC 5 478** **UNIV OF ARIZONA** **1605**  
 INTER-SENSOR CALIBRATION OF VEGETATION INDICES FOR MONITORING AND CONTINUITY STUDIES  
 03/22/2000 – 12/31/2001 FY01: \$194,054 Total: \$285,624  
*Prin. Invest.: A R HUETE*  
*Tech. Officer: GSFC/S G UNGER*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NCC 8 96** **UNIV OF ARIZONA** **1606**  
 COMPARISON OF STRUCTURE AND SEGREGATION IN ALLOYS  
 06/07/1996 – 05/31/2001 FY01: \$213,943 Total: \$843,943  
*Prin. Invest.: D R POIRIER*  
*Tech. Officer: MSFC/M HUBBARD*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 8 160** **UNIV OF ARIZONA** **1607**  
 REMOTE SENSING INVESTIGATION OF THE ANCIENT MAYA LANDSCAPE  
 12/08/1998 – 12/07/2001 FY01: \$77,380 Total: \$234,787  
*Prin. Invest.: T P CULBERT*  
*Tech. Officer: MSFC/T SEVER*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NGT 1 52176** **UNIV OF ARIZONA** **1608**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 08/25/1997 – 07/31/2001 FY01: \$12,000 Total: \$88,000  
*Prin. Invest.: J A REAGAN, M A RUBIE*  
*Tech. Officer: LARC/C A HOSTETLER, LARC/D M WINKER*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NGT 1 52206** **UNIV OF ARIZONA** **1609**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 09/14/1998 – 12/31/2001 FY01: \$9,167 Total: \$75,167  
*Prin. Invest.: H F FASEL, H F FASEL*  
*Tech. Officer: LARC/B A SINGER, LARC/B A SINGER*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NGT 2 52268** **UNIV OF ARIZONA** **1610**  
 ISRU TECHNOLOGIES FOR HUMAN MARS EXPLORATION  
 08/10/2000 – 07/31/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.: K R SRIDHAR*  
*Tech. Officer: ARC/J E FINN, ARC/M H KLASS*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NGT 4 52408** **UNIV OF ARIZONA** **1611**  
 GSRP INVESTIGATION OF ACTUATORS USED IN ACTIVE FLOW CONTROL  
 06/18/1998 – 06/30/2001 FY01: -\$200 Total: \$65,800  
*Prin. Invest.: H F FASEL, M LINNICK*  
*Tech. Officer: SSC/K GUPTA, SSC/L S VOELKER*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NGT 5 110** **UNIV OF ARIZONA** **1612**  
 CATASTROPHIC FLOODING ON ICELAND AND MARS STUDENT: DEVON M. BURR  
 06/20/2000 – 12/31/2000 FY01: \$0 Total: \$11,000  
*Prin. Invest.: A S MCEWEN*  
*Tech. Officer: GSFC/G A SOFFEN*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NGT 5 111** **UNIV OF ARIZONA** **1613**  
 MINIATURE DOPPLER AEROSOL BACKSCATTER LIDAR FOR DETECTION OF ATMOSPHERIC WINDS/STUDENT: JEREMY DOB  
 07/07/2000 – 08/31/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.: J A REAGAN*  
*Tech. Officer: GSFC/G A SOFFEN*  
*CASE Category: 13 – PHYSICS*

**NGT 5 114** **UNIV OF ARIZONA** **1614**  
 CATASTROPHIC FLOODING ON ICELAND AND MARS (STUDENT : DEVON BURR)  
 05/31/2001 – 06/30/2002 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: A S MCEWEN*  
*Tech. Officer: GSFC/M S BURRELL*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NGT 5 30013** **UNIV OF ARIZONA** **1615**  
 A STUDY OF 1993 USA FLOOD MECHANISM ON REGIONAL AN USING CLIMATE MODELS AND REMOTE-SENSING  
 10/23/1996 – 08/31/2000 FY01: \$0 Total: \$66,000  
*Prin. Invest.: R E DICKSON*  
*Tech. Officer: GSFC/M Y WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 30140** **UNIV OF ARIZONA** **1616**  
 ECOSYSTEM DEGRADATION AND HOUSEHOLD VULNERABILITY IN THE SEMI ARID REGION OF CHILE  
 08/27/1998 – 12/31/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.: C HUTCHINSON*  
*Tech. Officer: GSFC/M Y WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 30148** **UNIV OF ARIZONA** **1617**  
 SYNTHETIC LAHAR HAZARD MODELING USING ORBITAL DEM DATA/NASA EARTH SCI. SYSTEM\_PROGRAM/STUDENT: KLI  
 08/28/1998 – 03/31/2002 FY01: \$0 Total: \$66,000  
*Prin. Invest.: C E GLASS*  
*Tech. Officer: GSFC/M Y WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 30386** **UNIV OF ARIZONA** **1618**  
 SEASONAL ACCUMULATION & NITROGEN DEPOSITION MAPPING ON THE GREENLAND ICESHEET/JOHNNY BURKHART  
 08/13/2001 – 08/31/2004 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: R C BALES*  
*Tech. Officer: GSFC/M Y WEI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 40026** **UNIV OF ARIZONA** **1619**  
 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRA  
 12/30/1996 – 01/31/2001 FY01: -\$162,257 Total: \$1,654,616  
*Prin. Invest.: E H LEVY*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 40082**           **UNIV OF ARIZONA**           **1620**  
 ARIZONA SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM  
 02/09/2001 - 01/31/2002     FY01: \$649,132       Total: \$649,132  
*Prin. Invest.:* M J DRAKE  
*Tech. Officer:* GSFC/D D DETROYE  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NGT 5 50046**           **UNIV OF ARIZONA**           **1621**  
 ACHROMATIC NULLING BEAM COMBINER FOR A PLANET  
 07/17/1997 - 12/31/2000     FY01: -\$324       Total: \$65,676  
*Prin. Invest.:* M LLOYD-HART  
*Tech. Officer:* GSFC/A NURRIDDIN  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NGT 5 50190**           **UNIV OF ARIZONA**           **1622**  
 THEORETICAL & OBSERVATIONAL STUDY OF ORIGIN & EVOLUTION OF  
 PLANETS & PLANETARY SYSTEMS  
 06/05/1998 - 08/14/2001     FY01: \$0       Total: \$22,000  
*Prin. Invest.:* R H BROWN  
*Tech. Officer:* HQ/A NURRIDDIN  
*CASE Category:* 11 – ASTRONOMY

**NGT 5 50243**           **UNIV OF ARIZONA**           **1623**  
 PHYSICAL STUDIES OF NEA & TNO OBJECTS USING SPECTR OPHOTOMETRY STUDENT: RONALD FEVIG  
 06/02/1999 - 06/30/2002     FY01: \$22,000       Total: \$66,000  
*Prin. Invest.:* U FINK  
*Tech. Officer:* GSFC/L SMITH  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NGT 5 50246**           **UNIV OF ARIZONA**           **1624**  
 DEVELOPMENT OF LASER MICROMACHINED COMPONENTS FOR SUBMILLIMETER HETERODYNE RECEIVERS\_(STUDENT CHRIS  
 06/02/1999 - 06/30/2002     FY01: \$22,000       Total: \$66,000  
*Prin. Invest.:* C WALKER  
*Tech. Officer:* GSFC/K BLANDING  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NGT 5 50282**           **UNIV OF ARIZONA**           **1625**  
 SUBMILLIMETER LABORATORY AND OBSERVATIONAL STUDIES OF MOLECULAR ION CHEMISTRY IN PHOTON-DOMINATE  
 06/20/2000 - 07/31/2002     FY01: \$22,000       Total: \$44,000  
*Prin. Invest.:* L ZIURYS  
*Tech. Officer:* GSFC/L SMITH  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NGT 5 50283**           **UNIV OF ARIZONA**           **1626**  
 THE EVOLUTION OF GALAXIES IN 0.54  
 06/22/2000 - 07/31/2002     FY01: \$22,000       Total: \$44,000  
*Prin. Invest.:* D MCCARTHY  
*Tech. Officer:* GSFC/L SMITH  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NGT 5 50289**           **UNIV OF ARIZONA**           **1627**  
 THE COLLISIONAL EVOLUTION OF THE ASTEROID BELT: RECONCILING CONTRADICTORY EVIDENCE-STUDENT DOBRIE  
 06/26/2000 - 06/30/2002     FY01: \$22,000       Total: \$44,000  
*Prin. Invest.:* R GREENBERG  
*Tech. Officer:* GSFC/L SMITH  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NGT 5 50300**           **UNIV OF ARIZONA**           **1628**  
 NEUTRINO PROCESSES & R-PROCESS NUCLEOSYNTHESIS IN PROTO-NEUTRON STAR WINDS/ STUDENT: TODD THOMPSON  
 06/28/2000 - 06/30/2002     FY01: \$22,000       Total: \$44,000  
*Prin. Invest.:* A BURROWS  
*Tech. Officer:* GSFC/L SMITH  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NGT 5 50303**           **UNIV OF ARIZONA**           **1629**  
 THE EFFECTS OF MICROGRAVITY ON THE DEVELOPMENT OF THE IMMUNE SYSTEM/STUDENT: CHRIS C. WOODS  
 07/06/2000 - 06/30/2002     FY01: \$21,423       Total: \$41,748  
*Prin. Invest.:* D DELUCA  
*Tech. Officer:* GSFC/L SMITH  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

## ARKANSAS

**NAG 8 1284**           **ARKANSAS TECH UNIV**           **1630**  
 FOR RESEARCH "JOVE"  
 01/21/1997 - 09/28/2000     FY01: -\$9,710       Total: \$127,290  
*Prin. Invest.:* M CONNOR, R NELSON, S JORDAN  
*Tech. Officer:* MSFC/J F DOWDY, MSFC/J R PRUITT  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NAG13 99016**           **HENDRIX COLLEGE**           **1631**  
 DETECTION OF SMALL MOLECULES IN HYBRID ROCKET MOTOR COMBUSTION BY N EAR IR ABSORPTION  
 05/24/1999 - 04/30/2002     FY01: \$0       Total: \$20,000  
*Prin. Invest.:* M W TEAGUE  
*Tech. Officer:* SSC/B ST. CYR  
*CASE Category:* 49 – ENGINEERING, OTHER

**NAG 9 1061**           **UNIV OF ARKANSAS - LITTLE ROCK**           **1632**  
 EFFECTS OF RESISTANCE TRAINING  
 12/17/1998 - 07/31/2001     FY01: \$0       Total: \$532,137  
*Prin. Invest.:* P A TESCH  
*Tech. Officer:* JSC/C SAWIN  
*CASE Category:* 69 – PSYCHOLOGY, OTHER

**NAG10 277**           **UNIV OF ARKANSAS - LITTLE ROCK**           **1633**  
 SYNTHESIS AND CHARACTERIZATION OF CROSS-LINKABLE WATERBORNE CONDUCTING POLYMERS FOR CORROSION PROT  
 02/07/2000 - 01/18/2002     FY01: \$28,750       Total: \$115,000  
*Prin. Invest.:* T VISWANATHAN  
*Tech. Officer:* KSC/C J BRYAN  
*CASE Category:* 19 – PHYSICAL SCIENCE, OTHER

**NCC 5 260**           **UNIV OF ARKANSAS - LITTLE ROCK**           **1634**  
 ARKANSAS EPSCOR PROGRAM - THE ARKANSAS PLAN FOR ENHANCEMENT OF AERO-SPACE RESEARCH AND ECONOMIC  
 01/07/1998 - 07/31/2002     FY01: \$0       Total: \$1,800,000  
*Prin. Invest.:* M HUDSON  
*Tech. Officer:* HQ/D DETROYE  
*CASE Category:* 11 – ASTRONOMY

**NCC 5 404** UNIV OF ARKANSAS - LITTLE ROCK 1635  
 NASA EPSCOR: PREPARATORY GRANT PROPOSAL  
 05/14/1999 - 02/28/2002 FY01: \$0  
*Prin. Invest.:* K HUDSON  
*Tech. Officer:* GSFC/D DETROYE  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER  
 Total: \$450,000

**NCC 5 597** UNIV OF ARKANSAS - LITTLE ROCK 1636  
 ARKANSAS NASA EPSCOR PROGRAM  
 09/28/2001 - 08/14/2004 FY01: \$125,000  
*Prin. Invest.:* K HUDSON  
*Tech. Officer:* GSFC/D DETROYE  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER  
 Total: \$125,000

**NGT 2 52242** UNIV OF ARKANSAS - LITTLE ROCK 1637  
 VIRTUAL REALITY SIMULATION OF PHYSIOLOGICAL EFFECTS OF MICROGRAVITY  
 07/28/1998 - 12/31/2001 FY01: \$0  
*Prin. Invest.:* C M COMPADRE  
*Tech. Officer:* ARC/J D SMITH  
*CASE Category:* 56 – MEDICL  
 Total: \$66,000

**NGT 5 40063** UNIV OF ARKANSAS - LITTLE ROCK 1638  
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE AND FELLOWSHIP PROGRAM.  
 03/24/1997 - 02/28/2001 FY01: \$0  
*Prin. Invest.:* G M NORTHRUP  
*Tech. Officer:* GSFC/L KEFFER  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER  
 Total: \$973,750

**NGT 5 40119** UNIV OF ARKANSAS - LITTLE ROCK 1639  
 ARKANSAS SPACE GRANT COLLEGE & FELLOWSHIP PROGRAM  
 03/14/2001 - 02/28/2002 FY01: \$256,250  
*Prin. Invest.:* M HUDSON  
*Tech. Officer:* GSFC/D DETROYE  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER  
 Total: \$256,250

**NGT13 52718** UNIV OF ARKANSAS - LITTLE ROCK 1640  
 DESIGN OF HIGH TEMPERATURE PROBE FOR MASS SPECTROSCOPY OF HYBRID ROCKET PLUME  
 07/13/1998 - 07/31/2001 FY01: \$0  
*Prin. Invest.:* C MEADORS  
*Tech. Officer:* SSC/A JOYCE  
*CASE Category:* 41 – AERONAUTICAL ENGR  
 Total: \$66,000

**NGT13 52724** UNIV OF ARKANSAS - LITTLE ROCK 1641  
 INVESTIGATION OF METALLIC MOLECULAR BANDS IN HYBRID ROCKET PLUMES  
 12/01/1999 - 07/31/2000 FY01: -\$5  
*Prin. Invest.:* K MAXWELL  
*Tech. Officer:* SSC/R TRAVIS  
*CASE Category:* 47 – METAL & MATERIALS ENGR  
 Total: \$10,995

**NAG 5 4317** UNIV OF ARKANSAS MAIN CAMP - FAYETTEVILLE 1642  
 NATURAL THERMOLUMINESCENCE OF ANTARCTIC METEORITES  
 04/09/1997 - 02/28/2001 FY01: \$0  
*Prin. Invest.:* D H BENOIT  
*Tech. Officer:* GSFC/D NAVA  
*CASE Category:* 11 – ASTRONOMY  
 Total: \$150,000

**NAG 5 9496** UNIV OF ARKANSAS MAIN CAMP - FAYETTEVILLE 1643  
 THERMOLUMINESCENCE STUDIES OF METEORITES  
 04/21/2000 - 04/30/2001 FY01: \$0  
*Prin. Invest.:* P BENOIT  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER  
 Total: \$43,000

**NAG 5 10736** UNIV OF ARKANSAS MAIN CAMP - FAYETTEVILLE 1644  
 THERMOLUMINESCENCE STUDIES OF METEORITES  
 04/18/2001 - 04/30/2002 FY01: \$20,000  
*Prin. Invest.:* P BENOIT  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 12 – CHEMISTRY  
 Total: \$20,000

**NCC 2 5360** UNIV OF ARKANSAS MAIN CAMP - FAYETTEVILLE 1645  
 GROWTH OF METHANOGENS ON CARBON MONOXIDE  
 12/10/1999 - 11/30/2001 FY01: \$0  
*Prin. Invest.:* T KRAL  
*Tech. Officer:* ARC/M J LEON  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER  
 Total: \$15,000

**NGT 2 52243** UNIV OF ARKANSAS MAIN CAMP - FAYETTEVILLE 1646  
 METHANOGENIC METABOLISM: IMPLICATIONS FOR MARS & EARLY EARTH  
 07/28/1998 - 11/30/2001 FY01: \$0  
*Prin. Invest.:* T A KRAL  
*Tech. Officer:* ARC/C P MCKAY  
*CASE Category:* 54 – ENVIRONMENTAL BIOLOGY  
 Total: \$66,000

## CALIFORNIA

**NAG 1 1975** CALIFORNIA INST OF TECHNOLOGY 1647  
 GLOBAL FAILURE MODES IN HIGH TEMPERATURE COMPOSITE STRUCTURES  
 11/25/1997 - 05/14/2001 FY01: \$0  
*Prin. Invest.:* W G KNAUSS  
*Tech. Officer:* GSFC/J H STARNES  
*CASE Category:* 41 – AERONAUTICAL ENGRN  
 Total: \$190,188

**NAG 1 2151** CALIFORNIA INST OF TECHNOLOGY 1648  
 CHEMISTRY AND TRANSPORT IN A MULTI-DIMENSIONAL MODEL  
 02/23/1999 - 12/31/2001 FY01: \$119,762  
*Prin. Invest.:* Y L YUNG  
*Tech. Officer:* LARC/G L MADDREA, LARC/L R POOLE  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE  
 Total: \$354,542

**NAG 1 01038** CALIFORNIA INST OF TECHNOLOGY 1649  
 ULTRADENSE SILICON CMOS-BASED MERGED MULTISPECTRAL IMAGER/ NONVOLATILE MEMORY DEVICE BASED ON INJECTN  
 08/24/2001 - 05/30/2004 FY01: \$228,800  
*Prin. Invest.:* H A ATWATER  
*Tech. Officer:* LARC/C D ARMSTRONG  
*CASE Category:* 13 – PHYSICS  
 Total: \$228,800

**NAG 2 1316** CALIFORNIA INST OF TECHNOLOGY 1650  
 RASCAL CONTROL LAW DESIGN USING CONDUIT  
 04/02/1999 - 03/31/2001 FY01: -\$66  
*Prin. Invest.:* D J BIEZAD  
*Tech. Officer:* ARC/M B TISCHLER  
*CASE Category:* 41 – AERONAUTICAL ENGRN  
 Total: \$9,933

<b>NAG 2 1346</b>	<b>CALIFORNIA INST OF TECHNOLOGY</b>	<b>1651</b>	<b>NAG 5 3911</b>	<b>CALIFORNIA INST OF TECHNOLOGY</b>	<b>1660</b>
EVOLUTION OF NEURAL CREST & PLACODES			MOLECULAR BEAM STUDIES OF STRATOSPHERIC PHOTOCHEMI		
07/21/1999 - 07/14/2002	FY01: \$161,363	Total: \$380,459	02/26/1997 - 12/31/2001	FY01: \$71,599	Total: \$262,937
<i>Prin. Invest.:</i> M BRONNER-FRASER			<i>Prin. Invest.:</i> D OKUMURA		
Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY			Tech. Officer: GSFC/M J KURYLO		
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)			CASE Category: 31 – ATMOSPHERIC SCIENCE		
<b>NAG 2 1368</b>	<b>CALIFORNIA INST OF TECHNOLOGY</b>	<b>1652</b>	<b>NAG 5 4022</b>	<b>CALIFORNIA INST OF TECHNOLOGY</b>	<b>1661</b>
TRANSCRIPTIONAL REGULATION & EVOLUTION OF BILATERIAN BODY PLANS			PALEOENVIRONMENT ON MARS		
08/05/1999 - 07/31/2002	FY01: \$92,943	Total: \$554,324	03/25/1997 - 09/30/1999	FY01: -\$2,473	Total: \$87,527
<i>Prin. Invest.:</i> E M DAVIDSON			<i>Prin. Invest.:</i> D YUNG		
Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY			Tech. Officer: GSFC/M A MEYER		
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)			CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)		
<b>NAG 2 1370</b>	<b>CALIFORNIA INST OF TECHNOLOGY</b>	<b>1653</b>	<b>NAG 5 4076</b>	<b>CALIFORNIA INST OF TECHNOLOGY</b>	<b>1662</b>
TRANSCRIPTION FACTOR EVOLUTION & LYMPHOCYTE ORIGIN S			GEOCHEMICAL AND ISOTOPIC INVESTIGATIONS OF LUNAR A		
08/05/1999 - 09/30/2002	FY01: \$192,419	Total: \$385,362	03/26/1997 - 11/14/1999	FY01: -\$4,479	Total: \$1,601,521
<i>Prin. Invest.:</i> E V ROTHENBERG			<i>Prin. Invest.:</i> D J WASSERBURG		
Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY			Tech. Officer: GSFC/J BOYCE		
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)			CASE Category: 12 – CHEMISTRY		
<b>NAG 3 2166</b>	<b>CALIFORNIA INST OF TECHNOLOGY</b>	<b>1654</b>	<b>NAG 5 4083</b>	<b>CALIFORNIA INST OF TECHNOLOGY</b>	<b>1663</b>
INERTIAL EFFECTS IN SUSPENSION DYNAMICS			DEVELOPMENT AND APPLICATION OF THE ION MICROPROBE ERRESTRIAL MATERIAS		
05/08/1998 - 02/10/2002	FY01: \$95,000	Total: \$370,000	03/10/1997 - 05/31/2001	FY01: \$0	Total: \$1,037,000
<i>Prin. Invest.:</i> J F BRADY			<i>Prin. Invest.:</i> D J WASSERBURG		
Tech. Officer: GRC/F P CHIARAMONTE			Tech. Officer: HQ/J BOYCE		
CASE Category: 46 – MECHANICAL ENGR			CASE Category: 12 – CHEMISTRY		
<b>NAG 3 2358</b>	<b>CALIFORNIA INST OF TECHNOLOGY</b>	<b>1655</b>	<b>NAG 5 4093</b>	<b>CALIFORNIA INST OF TECHNOLOGY</b>	<b>1664</b>
GRANULAR MATERIAL FLOWS WITH INTERSTITIAL FLUID EFFECTS			RESEARCH IN GRAVITATION ASTROPHYSICS		
03/12/2000 - 11/30/2003	FY01: \$76,088	Total: \$126,185	03/10/1997 - 12/31/2001	FY01: \$44,000	Total: \$183,500
<i>Prin. Invest.:</i> M L HUNT			<i>Prin. Invest.:</i> P LINDBLOM		
Tech. Officer: GRC/J H AGUI			Tech. Officer: GSFC/H HASAN		
CASE Category: 49 – ENGINEERING, OTHER			CASE Category: 11 – ASTRONOMY		
<b>NAG 5 3239</b>	<b>CALIFORNIA INST OF TECHNOLOGY</b>	<b>1656</b>	<b>NAG 5 4097</b>	<b>CALIFORNIA INST OF TECHNOLOGY</b>	<b>1665</b>
STUDIES OF PERIODIC AND APERIODIC VARIABILITY IN ACCRETING NEUTRON STAR BINARY SYSTEMS			NOVEL, COMPACT UV/VIS & VUV COHERENT LIGHT SOURCES SPECTROSCOPY OF POTENTIAL DIB CARRIERS		
05/21/1996 - 04/30/2001	FY01: \$0	Total: \$440,000	03/10/1997 - 03/14/2000	FY01: \$0	Total: \$215,215
<i>Prin. Invest.:</i> T A PRINCE			<i>Prin. Invest.:</i> P A BLAKE		
Tech. Officer: GSFC/D WEST			Tech. Officer: GSFC/H HASAN		
CASE Category: 11 – ASTRONOMY			CASE Category: 11 – ASTRONOMY		
<b>NAG 5 3466</b>	<b>CALIFORNIA INST OF TECHNOLOGY</b>	<b>1657</b>	<b>NAG 5 4191</b>	<b>CALIFORNIA INST OF TECHNOLOGY</b>	<b>1666</b>
INNOVATIVE RESEARCH PROGRAM. SILICON RADIATION DET			DYNAMICS OF PLANETARY ATMOSPHERES		
01/31/1997 - 07/31/2000	FY01: \$0	Total: \$265,049	06/27/1997 - 11/30/2001	FY01: \$70,000	Total: \$376,230
<i>Prin. Invest.:</i> R A MEWALDT			<i>Prin. Invest.:</i> D P INGERSOLL		
Tech. Officer: GSFC/D HOLLAND			Tech. Officer: GSFC/J BERGSTRAHL		
CASE Category: 12 – CHEMISTRY			CASE Category: 31 – ATMOSPHERIC SCIENCE		
<b>NAG 5 3560</b>	<b>CALIFORNIA INST OF TECHNOLOGY</b>	<b>1658</b>	<b>NAG 5 4196</b>	<b>CALIFORNIA INST OF TECHNOLOGY</b>	<b>1667</b>
ISO BLOCK GRANT SUPPORT			DEVELOPMENT OF A SUBMILLIMETER-WAVELENGTH IMMERSIO		
01/15/1997 - 12/31/1999	FY01: -\$14,918	Total: \$499,569	03/17/1997 - 02/29/2000	FY01: -\$319	Total: \$174,164
<i>Prin. Invest.:</i> B T SOIFER			<i>Prin. Invest.:</i> D SERABYN		
Tech. Officer: GSFC/D K WEST			Tech. Officer: GSFC/H THRONSON		
CASE Category: 11 – ASTRONOMY			CASE Category: 11 – ASTRONOMY		
<b>NAG 5 3765</b>	<b>CALIFORNIA INST OF TECHNOLOGY</b>	<b>1659</b>	<b>NAG 5 4206</b>	<b>CALIFORNIA INST OF TECHNOLOGY</b>	<b>1668</b>
PLANETARY ORIGIN, EVOLUTION AND STRUCTURE			IMPACT CRATERING CALCULATIONS		
02/11/1997 - 04/30/2001	FY01: \$0	Total: \$349,514	03/15/1997 - 03/31/2000	FY01: -\$995	Total: \$223,005
<i>Prin. Invest.:</i> D J STEVENSON			<i>Prin. Invest.:</i> T J AHRENS		
Tech. Officer: GSFC/P G RODGERS			Tech. Officer: GSFC/J G GRANT		
CASE Category: 32 – GEOLOGICAL SCIENCE			CASE Category: 32 – GEOLOGICAL SCIENCE		

**NAG 5 4318 CALIFORNIA INST OF TECHNOLOGY 1669**  
 EXPERIMENTAL STUDIES OF PHASE EQUILIBRIA OF METEOR INTERIORS  
 04/04/1997 - 02/28/2001 FY01: \$0 Total: \$588,000  
*Prin. Invest.: D M STOLPER*  
*Tech. Officer: GSFC/D NAVA*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 4319 CALIFORNIA INST OF TECHNOLOGY 1670**  
 EXPERIMENTAL AND ANALYTICAL STUDIES OF SOLAR SYSTEM  
 04/04/1997 - 01/31/2002 FY01: \$125,000 Total: \$594,000  
*Prin. Invest.: D S BURNETT*  
*Tech. Officer: GSFC/D NAVA*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 4383 CALIFORNIA INST OF TECHNOLOGY 1671**  
 A LABORATORY AND OBSERVATIONAL STUDY OF THE CHEMIC STELLAR NEBULAE  
 05/06/1997 - 02/28/2000 FY01: -\$922 Total: \$119,078  
*Prin. Invest.: P A BLAKE*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 4437 CALIFORNIA INST OF TECHNOLOGY 1672**  
 PARTICIPATION OF D.O. MUHLEMAN AS A CO-INVESTIGATOR OBSERVER LASER ALTIMETER (MOLA) TEAM  
 04/28/1997 - 12/31/2001 FY01: \$26,290 Total: \$360,394  
*Prin. Invest.: D O MUHLEMAN*  
*Tech. Officer: GSFC/D E SMITH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 4599 CALIFORNIA INST OF TECHNOLOGY 1673**  
 MILLIMETER INTERFEROMETRY OF PROTO-PLANETARY DISKS  
 06/06/1997 - 12/31/2000 FY01: \$0 Total: \$305,914  
*Prin. Invest.: D I SARGENT*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 4692 CALIFORNIA INST OF TECHNOLOGY 1674**  
 LABORATORY STUDIES OF THE PHOTOPHYSICS AND PHOTOCHEMIS AND PAH CATIONS  
 06/20/1997 - 12/31/1999 FY01: \$0 Total: \$114,000  
*Prin. Invest.: P A BLAKE*  
*Tech. Officer: GSFC/G STRINGFELLOW*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 5052 CALIFORNIA INST OF TECHNOLOGY 1675**  
 GLOBAL MAPPING OF THE INTERSTELLAR MEDIUM IN THE FAR-ULTRAVIOLET  
 01/24/1996 - 06/30/2001 FY01: \$0 Total: \$1,281,913  
*Prin. Invest.: C MARTIN*  
*Tech. Officer: GSFC/R H PLESS*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 5166 CALIFORNIA INST OF TECHNOLOGY 1676**  
 INTEGRATED-CIRCUIT READOUT FOR THE ACCESS SILICON ARRAY  
 03/26/1998 - 06/30/2001 FY01: \$20,090 Total: \$112,710  
*Prin. Invest.: R A MEWALDT*  
*Tech. Officer: GSFC/B A MERRITT*  
*CASE Category: 13 – PHYSICS*

**NAG 5 5203 CALIFORNIA INST OF TECHNOLOGY 1677**  
 ULTRA HEAVY AND HEAVY COSMIC-RAY MEASUREMENTS ON ACCESS  
 08/29/1998 - 02/28/2002 FY01: \$0 Total: \$119,067  
*Prin. Invest.: R A MEWALDT*  
*Tech. Officer: GSFC/B A MERRITT*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 5 5207 CALIFORNIA INST OF TECHNOLOGY 1678**  
 TWO-DIMENSIONAL HILBERT-HUANG TRANSFORM METHOD FOR DATA ANALYSIS  
 08/27/1998 - 09/30/2001 FY01: \$0 Total: \$96,988  
*Prin. Invest.: T Y WU*  
*Tech. Officer: GSFC/S R LONG, GSFC/N E HUANG*  
*CASE Category: 33 – OCEANOGRAPHY*

**NAG 5 5216 CALIFORNIA INST OF TECHNOLOGY 1679**  
 A PROPOSAL FOR CONVERSION OF THE TRANS-IRON GALACTIC ELEMENT RECORDER (TIGER) PI STONE  
 12/01/1998 - 11/30/2001 FY01: \$0 Total: \$76,156  
*Prin. Invest.: E C STONE*  
*Tech. Officer: GSFC/B A MERRITT*  
*CASE Category: 13 – PHYSICS*

**NAG 5 5227 CALIFORNIA INST OF TECHNOLOGY 1680**  
 FIRST INCREMENTAL FUNDING FOR NAG5-5227 PI DR. EDWARD C. STONE  
 03/29/1999 - 11/30/2001 FY01: \$88,000 Total: \$480,200  
*Prin. Invest.: E C STONE*  
*Tech. Officer: GSFC/B A MERRITT*  
*CASE Category: 13 – PHYSICS*

**NAG 5 5228 CALIFORNIA INST OF TECHNOLOGY 1681**  
 FIRST YEAR FUNDING FOR NAG5-5228 PI DR. EDWARD C STONE  
 03/29/1999 - 11/30/2001 FY01: \$72,000 Total: \$215,632  
*Prin. Invest.: E C STONE*  
*Tech. Officer: GSFC/B A MERRITT*  
*CASE Category: 13 – PHYSICS*

**NAG 5 5286 CALIFORNIA INST OF TECHNOLOGY 1682**  
 HIGH SPECTRAL & SPATIAL RESOLUTION GE DETECTOR & READOUT TECHNOLOGIES FOR NUCLEAR SPECTROSCOPIC IMAGING  
 05/31/2000 - 05/17/2002 FY01: \$0 Total: \$44,000  
*Prin. Invest.: S BOOGES*  
*Tech. Officer: GSFC/B A MERRITT*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 5289 CALIFORNIA INST OF TECHNOLOGY 1683**  
 HIGH ENERGY FOCUSING TELESCOPE HIGH ENERGY FOCUSING TELESCOPE  
 06/02/2000 - 05/25/2003 FY01: \$725,000 Total: \$1,405,000  
*Prin. Invest.: F HARRISON*  
*Tech. Officer: GSFC/B A MERRITT*  
*CASE Category: 13 – PHYSICS*

**NAG 5 5303 CALIFORNIA INST OF TECHNOLOGY 1684**  
 GLOBAL MAPPING OF THE COSMIC UV BACKGROUND GLOBAL MAPPING OF THE COSMIC UV BACKGROUND  
 09/29/2000 - 09/27/2002 FY01: \$301,440 Total: \$301,440  
*Prin. Invest.: C MARTIN*  
*Tech. Officer: WFF/J C BRINTON*  
*CASE Category: 13 – PHYSICS*

**NAG 5 5322 CALIFORNIA INST OF TECHNOLOGY** 1685  
 THE PRESIDENTIAL EARLY CAREER AWARD (PECA)  
 03/21/2001 - 10/31/2006 FY01: \$100,000  
*Prin. Invest.: F HARRISON*  
*Tech. Officer: WFF/B A MERRITT*  
*CASE Category: 13 - PHYSICS*  
 Total: \$100,000

**NAG 5 5338 CALIFORNIA INST OF TECHNOLOGY** 1686  
 DETERMINATION OF THE CONFIDENCE LIMIT ON HHT RESULTS  
 07/09/2001 - 09/30/2002 FY01: \$30,992  
*Prin. Invest.: T WU*  
*Tech. Officer: WFF/S LONG*  
*CASE Category: 33 - OCEANOGRAPHY*  
 Total: \$30,992

**NAG 5 6173 CALIFORNIA INST OF TECHNOLOGY** 1687  
 PRECISION SOLAR DISK PHOTOMETRY -- A TOOL FOR UNDERRADING THE SUN'S  
 LUMINOSITY  
 08/26/1997 - 05/31/2000 FY01: \$0  
*Prin. Invest.: D G LIBBRECHT*  
*Tech. Officer: GSFC/W J WAGNER*  
*CASE Category: 11 - ASTRONOMY*  
 Total: \$134,912

**NAG 5 6263 CALIFORNIA INST OF TECHNOLOGY** 1688  
 PHOTOCHEMICAL STUDIES OF CHEMISTRY IN OUTER SOLAR  
 08/21/1997 - 12/31/2001 FY01: \$82,000  
*Prin. Invest.: D L YUNG*  
*Tech. Officer: GSFC/J BERGSTRAHL*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*  
 Total: \$401,012

**NAG 5 6402 CALIFORNIA INST OF TECHNOLOGY** 1689  
 5HE ORIGIN AND EVOLUTION OF NEUTRON STARS\_(LTSA)  
 10/15/1997 - 10/31/2001 FY01: \$109,000  
*Prin. Invest.: S KULKARNI*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 - ASTRONOMY*  
 Total: \$418,000

**NAG 5 6573 CALIFORNIA INST OF TECHNOLOGY** 1690  
 US PARTICIPATION IN PLANCK, HFI PORTION  
 11/18/1997 - 07/31/2001 FY01: \$0  
*Prin. Invest.: D E LANGE*  
*Tech. Officer: GSFC/H THRONSON*  
*CASE Category: 11 - ASTRONOMY*  
 Total: \$1,379,000

**NAG 5 6816 CALIFORNIA INST OF TECHNOLOGY** 1691  
 SUBMILLIMETER WAVELENGTH SPECTROSCOPY AND IMAGING OF THE  
 PLANETS  
 01/07/1998 - 12/31/2001 FY01: \$0  
*Prin. Invest.: E SERABYN, NONE*  
*Tech. Officer: GSFC/T MORGAN*  
*CASE Category: 11 - ASTRONOMY*  
 Total: \$137,405

**NAG 5 6840 CALIFORNIA INST OF TECHNOLOGY** 1692  
 LOW-FREQUENCY GRAVITATIONAL-WAVE SOURCES AND THEIR IMPLICA-  
 TIONS FOR FUTURE NASA MISSIONS  
 01/09/1998 - 12/31/2000 FY01: \$0  
*Prin. Invest.: K THORNE*  
*Tech. Officer: GSFC/H HASAN*  
*CASE Category: 11 - ASTRONOMY*  
 Total: \$200,000

**NAG 5 6912 CALIFORNIA INST OF TECHNOLOGY** 1693  
 MO&DA OF THE ADVANCED COMPOSITION EXPLORER MISSION  
 01/30/1998 - 01/31/2002 FY01: \$1,501,700  
*Prin. Invest.: E STONE*  
*Tech. Officer: GSFC/B WORRALL*  
*CASE Category: 11 - ASTRONOMY*  
 Total: \$13,828,115

**NAG 5 6941 CALIFORNIA INST OF TECHNOLOGY** 1694  
 THE ACCRETION HISTORY OF EXTRATERRESTRIAL MATTER OVER  
 GEOLOGIC TIME FROM THE SEAFLOOR SEDIMENTS  
 02/06/1998 - 03/31/2001 FY01: \$0  
*Prin. Invest.: K A FARLEY*  
*Tech. Officer: GSFC/P ROGERS*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*  
 Total: \$130,138

**NAG 5 6981 CALIFORNIA INST OF TECHNOLOGY** 1695  
 BROWN DWARFS: DETECTION AND DETAILED STUDIES  
 02/06/1998 - 08/14/2001 FY01: \$0  
*Prin. Invest.: S KULKARNI*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 - ASTRONOMY*  
 Total: \$181,000

**NAG 5 7007 CALIFORNIA INST OF TECHNOLOGY** 1696  
 BLACK HOLE ASTROPHYSICS - ATP  
 02/11/1998 - 08/31/2001 FY01: \$0  
*Prin. Invest.: R BLANDFORD*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 - ASTRONOMY*  
 Total: \$257,591

**NAG 5 7008 CALIFORNIA INST OF TECHNOLOGY** 1697  
 SPECTRAL ENERGY DISTRIBUTION OF T TAURI DISKS - ATP  
 02/18/1998 - 08/31/2000 FY01: -\$10  
*Prin. Invest.: P M GOLDREICH*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 - ASTRONOMY*  
 Total: \$87,135

**NAG 5 7034 CALIFORNIA INST OF TECHNOLOGY** 1698  
 ORIGIN AND EVOLUTION OF THE SPINS AND FIELDS OF WHITE DWARFS,  
 NEUTRON STARS AND BLACK HOLES - ATP  
 02/18/1998 - 08/14/2001 FY01: \$0  
*Prin. Invest.: E PHINNEY*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 - ASTRONOMY*  
 Total: \$243,017

**NAG 5 7081 CALIFORNIA INST OF TECHNOLOGY** 1699  
 ADVANCED SPACE PARTICLE ANALYSIS SYSTEM  
 03/10/1998 - 03/31/2002 FY01: \$121,585  
*Prin. Invest.: J BEAUCHAMP*  
*Tech. Officer: GSFC/B CAMPBELL*  
*CASE Category: 11 - ASTRONOMY*  
 Total: \$376,096

**NAG 5 7166 CALIFORNIA INST OF TECHNOLOGY** 1700  
 HIGHER FLUX FROM THE YOUNG SUN AS AN EXPLANATION FOR WARM  
 TEMPERATURES FOR EARLY EARTH AND MARS  
 03/16/1998 - 10/14/2001 FY01: \$37,076  
*Prin. Invest.: I SACKMANN*  
*Tech. Officer: GSFC/W WAGNER*  
*CASE Category: 11 - ASTRONOMY*  
 Total: \$236,261

**NAG 5 7230 CALIFORNIA INST OF TECHNOLOGY 1701**  
 STUDY OF TROPOSPHERIC OZONE AND UV REFLECTIVITY USING TOMS DATA  
 04/16/1998 - 05/31/2002 FY01: \$15,241 Total: \$222,474  
*Prin. Invest.: Y L YUNG*  
*Tech. Officer: GSFC/E HILSENRATH*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 7501 CALIFORNIA INST OF TECHNOLOGY 1702**  
 THE STELLAR POPULATIONS EMERGING FROM MOLECULAR CLOUDS AND THE SURVIVAL TIMES OF (PROTO)PLA  
 06/02/1998 - 05/31/2000 FY01: \$0 Total: \$31,100  
*Prin. Invest.: D HILLENBRAND*  
*Tech. Officer: HQ/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7680 CALIFORNIA INST OF TECHNOLOGY 1703**  
 VARIABILITY OF CLOUDS OVER A SOLAR CYCLE YEAR 1 OF A 3 YEAR GRANT  
 09/17/1998 - 12/31/2001 FY01: \$0 Total: \$242,005  
*Prin. Invest.: Y L YUNG*  
*Tech. Officer: GSFC/M CHOU*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 8049 CALIFORNIA INST OF TECHNOLOGY 1704**  
 ATMOSPHERIC DYNAMICS AND AURORAL PHENOMENA DERIVED FROM GALILEO IMAGES  
 01/15/1999 - 01/14/2001 FY01: \$0 Total: \$126,368  
*Prin. Invest.: D P INGERSOLL*  
*Tech. Officer: GSFC/R BEEBE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8217 CALIFORNIA INST OF TECHNOLOGY 1705**  
 STAR FORMATION IN GIANT MOLECULAR CLOUDS\_LTSA98  
 02/08/1999 - 02/14/2002 FY01: \$104,707 Total: \$206,841  
*Prin. Invest.: J M CARPENTER*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8251 CALIFORNIA INST OF TECHNOLOGY 1706**  
 GEOCHEMICAL AND ISOTOPIC INVESTIGATIONS OF LUNAR & PLANETARY MATERIALS  
 02/10/1999 - 02/14/2002 FY01: \$345,000 Total: \$1,030,000  
*Prin. Invest.: D A PAPANASTASSIOU*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8318 CALIFORNIA INST OF TECHNOLOGY 1707**  
 MILLISECOND PULSARS AND PLANETARY SYSTEMS  
 03/30/1999 - 09/30/2001 FY01: \$50,000 Total: \$145,000  
*Prin. Invest.: S R KULKARNI*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8463 CALIFORNIA INST OF TECHNOLOGY 1708**  
 LONG TERM MONITORING OF THE IO PLASMA TORUS DURING THE GALILEO ENCOUNTER PERIOD  
 04/19/1999 - 11/30/2000 FY01: \$0 Total: \$80,000  
*Prin. Invest.: M E BROWN*  
*Tech. Officer: GSFC/D VEANS*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8535 CALIFORNIA INST OF TECHNOLOGY 1709**  
 HIGH RESOLUTION, HIGH ENERGY FOCUSING OPTICS FOR THE NEXT GENERATION GAMMA RAY EXPLORER.  
 07/08/1999 - 07/14/2002 FY01: \$0 Total: \$541,664  
*Prin. Invest.: F A HARRISON*  
*Tech. Officer: GSFC/G MUCKLOW*  
*CASE Category: 13 – PHYSICS*

**NAG 5 8576 CALIFORNIA INST OF TECHNOLOGY 1710**  
 NEW GRANT: YEAR 1 OF 2 FOR "A BEOWULF SYSTEM SOFTWARE INITIATIVE"  
 05/27/1999 - 05/31/2001 FY01: \$0 Total: \$149,988  
*Prin. Invest.: T STERLING*  
*Tech. Officer: GSFC/J FISCHER*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 5 8743 CALIFORNIA INST OF TECHNOLOGY 1711**  
 VERY HIGH SPECTRAL & SPATIAL RESOLUTION GE DETECTORS & READOUT ELECTRONICS FOR HARD X-RAY ASTRONOMY  
 08/20/1999 - 08/31/2002 FY01: \$0 Total: \$221,519  
*Prin. Invest.: S BOOGES*  
*Tech. Officer: GSFC/F A HERRERO*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8822 CALIFORNIA INST OF TECHNOLOGY 1712**  
 SPECTROSCOPIC STUDIES OF PRE-BIOTIC CARBON CHEMISTRY  
 09/08/1999 - 08/31/2001 FY01: \$0 Total: \$106,520  
*Prin. Invest.: G BLAKE*  
*Tech. Officer: GSFC/M MEYER*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 5 8907 CALIFORNIA INST OF TECHNOLOGY 1713**  
 IMPACT & COLLISIONAL PROCESSES IN THE SOLAR SYSTEM  
 12/29/1999 - 09/30/2000 FY01: \$0 Total: \$152,000  
*Prin. Invest.: T J AHRENS*  
*Tech. Officer: GSFC/J A GRANT*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8915 CALIFORNIA INST OF TECHNOLOGY 1714**  
 IMPACT CRATERING CALCULATIONS  
 01/05/2000 - 09/30/2000 FY01: \$0 Total: \$30,000  
*Prin. Invest.: T AHRENS*  
*Tech. Officer: GSFC/J A GRANT*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8922 CALIFORNIA INST OF TECHNOLOGY 1715**  
 PARTICIPATION OF THE NITRIC ACID CIMS INSTRUMENT IN THE SAGE III OZONE LOSS & VALIDATION EXPERIMENT  
 01/06/2000 - 12/31/2001 FY01: \$179,057 Total: \$408,557  
*Prin. Invest.: P WENNBERG*  
*Tech. Officer: GSFC/P DECOLA*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9307 CALIFORNIA INST OF TECHNOLOGY 1716**  
 CLOSEOUT OF "LABORATORY STUDIES OF THE PHOTOCHEMISTRY OF PEROXYNITRIC ACID" ASSET FORTH IN THE ATT  
 03/22/2000 - 03/31/2002 FY01: \$53,125 Total: \$123,169  
*Prin. Invest.: D O WENNBERG, NONE*  
*Tech. Officer: GSFC/R LAWRENCE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 9344 CALIFORNIA INST OF TECHNOLOGY 1717**  
 BALLOON-BORNE OBSERVATIONS OF THE POLARIZATION OF THE COSMIC MICROWAVE BACKGROUND  
 03/27/2000 - 03/31/2003 FY01: \$167,580 Total: \$310,150  
*Prin. Invest.: A LANGE*  
*Tech. Officer: GSFC/G STRINGFELLOW*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9434 CALIFORNIA INST OF TECHNOLOGY 1718**  
 THE PHYSICAL & CHEMICAL STRUCTURE OF CIRCUMSTELLAR DISKS & ENVELOPES  
 04/24/2000 - 04/14/2001 FY01: \$0 Total: \$35,000  
*Prin. Invest.: G A BLAKE*  
*Tech. Officer: GSFC/J BOYCE/SR*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9462 CALIFORNIA INST OF TECHNOLOGY 1719**  
 USE OF SATELLITE FIRE PRODUCTS AND MODELS TO INVESTIGATE THE EFFECTS OF FIRE ON THE GLOBAL CARBON CYCLE  
 04/18/2000 - 04/30/2003 FY01: \$159,706 Total: \$283,253  
*Prin. Invest.: J RANDERSON*  
*Tech. Officer: GSFC/D WICKLAND*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9471 CALIFORNIA INST OF TECHNOLOGY 1720**  
 ATMOSPHERIC TRACE GAS ABUNDANCES & STABLE ISOTYPE RATIOS VIA INFRARED LASER INDUCED FLUORESCENCE (IR)  
 04/14/2000 - 04/30/2002 FY01: \$166,500 Total: \$323,343  
*Prin. Invest.: G BLAKE*  
*Tech. Officer: GSFC/B BETTS*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 9482 CALIFORNIA INST OF TECHNOLOGY 1721**  
 KNOWLEDGE DISCOVERY AND DATABASE TECHNOLOGIES FOR DIGITAL SKY SURVEYS AND VIRTUAL OBSERVATORIES  
 04/21/2000 - 04/30/2002 FY01: \$0 Total: \$100,000  
*Prin. Invest.: S DJORGOVSKI*  
*Tech. Officer: GSFC/J BREDEKAMP*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9487 CALIFORNIA INST OF TECHNOLOGY 1722**  
 INTERANNUAL VARIABILITY OF SNOW AND ICE AND IMPACT ON THE CARBON CYCLE  
 04/25/2000 - 04/30/2002 FY01: \$169,917 Total: \$278,162  
*Prin. Invest.: Y L YUNG*  
*Tech. Officer: GSFC/P Houser*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9493 CALIFORNIA INST OF TECHNOLOGY 1723**  
 DEVELOPMENT OF SUBMILLIMETER SIS MIXERS AND BROAD BAND HEMT AMPLIFIERS  
 04/18/2000 - 04/30/2003 FY01: \$170,000 Total: \$288,000  
*Prin. Invest.: J ZMUIDZINAS*  
*Tech. Officer: GSFC/G STRINGFELLOW*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9530 CALIFORNIA INST OF TECHNOLOGY 1724**  
 MILLIMETER-WAVE INTERFEROMETRY OF PROTO-PLANETARY DISKS  
 04/27/2000 - 04/30/2003 FY01: \$85,000 Total: \$170,000  
*Prin. Invest.: S SARGENT*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9601 CALIFORNIA INST OF TECHNOLOGY 1725**  
 MARTIAN ATMOSPHERIC CIRCULATION AND CLIMATE  
 05/17/2000 - 04/30/2002 FY01: \$67,100 Total: \$135,300  
*Prin. Invest.: A P INGERSOL*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9603 CALIFORNIA INST OF TECHNOLOGY 1726**  
 VIRTUAL OBSERVATORIES OF THE FUTURE  
 05/19/2000 - 05/14/2002 FY01: \$0 Total: \$25,000  
*Prin. Invest.: S DJORGOVSKI*  
*Tech. Officer: GSFC/J BREDEKAMP*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9606 CALIFORNIA INST OF TECHNOLOGY 1727**  
 IMPLICATIONS OF MARTIAN NORTH-SOUTH POLAR DIFFERENCES  
 05/12/2000 - 05/14/2002 FY01: \$52,000 Total: \$100,700  
*Prin. Invest.: B C MURRAY*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9687 CALIFORNIA INST OF TECHNOLOGY 1728**  
 IN SITU CHEMICAL IMAGER  
 06/05/2000 - 05/31/2001 FY01: \$0 Total: \$94,150  
*Prin. Invest.: J L KIRSCHVINK*  
*Tech. Officer: GSFC/B BETTS*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9821 CALIFORNIA INST OF TECHNOLOGY 1729**  
 COSMOLOGY & PARTICLE ASTROPHYSICS THEORY (ATP-98)  
 08/23/2000 - 04/30/2002 FY01: \$75,000 Total: \$190,107  
*Prin. Invest.: M P KAMIONKOWSKI*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9856 CALIFORNIA INST OF TECHNOLOGY 1730**  
 ROCKET-BORNE OBSERVATIONS OF SPATIAL FLUCTUATIONS IN THE COSMIC NEAR INFRARED BACKGROUND  
 08/07/2000 - 08/14/2001 FY01: \$0 Total: \$94,200  
*Prin. Invest.: A LANGE*  
*Tech. Officer: GSFC/G STRINGFELLOW*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9919 CALIFORNIA INST OF TECHNOLOGY 1731**  
 THE HOT PHASE OF THE VIOLENTISM OF NEARBY DWARF IRREGULAR GALAXIES  
 09/05/2000 - 09/30/2002 FY01: \$17,000 Total: \$46,300  
*Prin. Invest.: F WALTER*  
*Tech. Officer: GSFC/R F MUSHOTZKY*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9920 CALIFORNIA INST OF TECHNOLOGY 1732**  
 A DETAILED STUDY OF TWO OPTICALLY-SELECTED, HIGH- REDSHIFT CLUSTERS OF GALAXIES  
 09/05/2000 - 11/30/2000 FY01: -\$28,595 Total: \$0  
*Prin. Invest.: L M LUBIN*  
*Tech. Officer: GSFC/R F MUSHOTZKY*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10047 CALIFORNIA INST OF TECHNOLOGY 1733**  
 MEASURING THE MAGNETIC FIELD AND RELATIVISTIC PARTICLES IN RELIC RADIO GALAXIES  
 10/03/2000 - 09/30/2001 FY01: \$27,000 Total: \$27,000  
*Prin. Invest.: F A HARRISON*  
*Tech. Officer: GSFC/R MUSHOTZKY*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10189 CALIFORNIA INST OF TECHNOLOGY 1734**  
 PLANETARY ORIGIN, EVOLUTION AND STRUCTURE  
 01/03/2001 - 01/14/2002 FY01: \$88,400 Total: \$88,400  
*Prin. Invest.: D J STEVENSON*  
*Tech. Officer: GSFC/D SENSKE*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NAG 5 10198 CALIFORNIA INST OF TECHNOLOGY 1735**  
 IMPACT PROCESSES IN THE SOLAR SYSTEM  
 01/04/2001 - 12/31/2001 FY01: \$218,600 Total: \$218,600  
*Prin. Invest.: T AHRENS*  
*Tech. Officer: GSFC/D SENSKE*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 10208 CALIFORNIA INST OF TECHNOLOGY 1736**  
 IMPACT CRATERING CALCULATIONS  
 01/02/2001 - 09/30/2001 FY01: \$30,000 Total: \$30,000  
*Prin. Invest.: T AHRENS*  
*Tech. Officer: GSFC/D SENSKE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10293 CALIFORNIA INST OF TECHNOLOGY 1737**  
 APPLICATION OF ISOTOPIC AND CHEMICAL ANALYSES TO UNDERSTANDING THE ORIGIN OF EXTRATERRESTRIAL  
 02/06/2001 - 02/14/2002 FY01: \$100,000 Total: \$100,000  
*Prin. Invest.: G J WASSERBURG*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10317 CALIFORNIA INST OF TECHNOLOGY 1738**  
 LARGE-FORMAT, ANTENNA-COUPLED, MULTI-FREQUENCY, BOLOMETRIC (LAMB) FOCAL PLANE ARRAYS FOR MM & SUB  
 02/07/2001 - 01/31/2002 FY01: \$169,894 Total: \$169,894  
*Prin. Invest.: A E LANGE*  
*Tech. Officer: GSFC/E J WOLLACK*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10358 CALIFORNIA INST OF TECHNOLOGY 1739**  
 DEVELOPMENT OF SUPERCONDUCTING DETECTOR WITH MULTI PLEXED READOUTS-  
 02/01/2001 - 01/14/2002 FY01: \$218,870 Total: \$218,870  
*Prin. Invest.: J ZMUIZINAS*  
*Tech. Officer: GSFC/C STAHL*  
*CASE Category: 13 - PHYSICS*

**NAG 5 10406 CALIFORNIA INST OF TECHNOLOGY 1740**  
 A NEOTECTONIC MAP OF THE EARTH: A PILOT STUDY OF SRTM DATA  
 04/02/2001 - 03/31/2002 FY01: \$75,000 Total: \$75,000  
*Prin. Invest.: K E SIEH*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NAG 5 10410 CALIFORNIA INST OF TECHNOLOGY 1741**  
 MINIATURE IRON BIOMINERAL DETECTOR FOR MARTIAN EXO BIOLOGY  
 04/10/2001 - 04/14/2002 FY01: \$166,514 Total: \$166,514  
*Prin. Invest.: J KIRSCHVINK*  
*Tech. Officer: GSFC/B BETTS*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10423 CALIFORNIA INST OF TECHNOLOGY 1742**  
 EXPERIMENTAL STUDIES OF PHASE EQUILIBRIA OF METEORITES AND PLANETARYBODIES  
 02/20/2001 - 02/28/2002 FY01: \$150,000 Total: \$150,000  
*Prin. Invest.: E STOLPER*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 12 - CHEMISTRY*

**NAG 5 10467 CALIFORNIA INST OF TECHNOLOGY 1743**  
 THE STRUCTURE OF YOUNG STELLAR SYSTEMS: ESTABLISHING INITIAL CONDITIONS FOR PLANET FORMATION  
 02/22/2001 - 02/28/2002 FY01: \$45,000 Total: \$45,000  
*Prin. Invest.: G BLAKE*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10470 CALIFORNIA INST OF TECHNOLOGY 1744**  
 TEMPORAL VARIABILITY IN THE ACCRETION RATE OF INTERPLANETARY DUST USING 3HE ASA TRACER  
 02/27/2001 - 03/31/2002 FY01: \$48,900 Total: \$48,900  
*Prin. Invest.: K A FARLEY*  
*Tech. Officer: GSFC/D SENSKE*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NAG 5 10558 CALIFORNIA INST OF TECHNOLOGY 1745**  
 BROWN DWARFS: DISCOVERY AND DETAILED STUDIES  
 03/13/2001 - 03/14/2002 FY01: \$30,000 Total: \$30,000  
*Prin. Invest.: S KULKARNI*  
*Tech. Officer: GSFC/J M BOYCE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10587 CALIFORNIA INST OF TECHNOLOGY 1746**  
 MARS INTERNAL EVOLUTION CONSTRAINED BY MGS DATA  
 03/13/2001 - 03/14/2002 FY01: \$60,000 Total: \$60,000  
*Prin. Invest.: D STEVENSON*  
*Tech. Officer: GSFC/J M BOYCE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10602 CALIFORNIA INST OF TECHNOLOGY 1747**  
 SUPPORT FOR THE 2001 GORDON RESEARCH CONFERENCE ON THE ORIGINS OF SOLAR SYSTEMS  
 03/21/2001 - 02/28/2002 FY01: \$15,000 Total: \$15,000  
*Prin. Invest.: D STEVENSON*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10618 CALIFORNIA INST OF TECHNOLOGY 1748**  
 PALEOMAGNETIC CONSTRAINTS ON PANSPERMIA AND THE ALH84001 MAGNETOFOSILS  
 03/19/2001 - 03/31/2002 FY01: \$72,000 Total: \$72,000  
*Prin. Invest.: J L KIRSCHVINK*  
*Tech. Officer: GSFC/M MEYER*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10707 CALIFORNIA INST OF TECHNOLOGY 1749**  
 SOURCES OF LOW FREQUENCY GRAVITATIONAL WAVES (ATP 2000)  
 04/23/2001 - 04/30/2002 FY01: \$128,000 Total: \$128,000  
*Prin. Invest.: E PHINNEY*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10724 CALIFORNIA INST OF TECHNOLOGY 1750**  
 CIRRUS CLOUDS ON MARS: DATA ANALYSIS AND GCM MODELING  
 04/12/2001 - 04/14/2002 FY01: \$60,000 Total: \$60,000  
*Prin. Invest.: Y YUNG*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10761 CALIFORNIA INST OF TECHNOLOGY 1751**  
 UNDERSTANDING GAMMA-RAY BURSTS (ATP 2000)  
 04/23/2001 - 04/30/2002 FY01: \$28,373 Total: \$28,373  
*Prin. Invest.: R SARI*  
*Tech. Officer: GSFC/R OLIVERSEN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10804 CALIFORNIA INST OF TECHNOLOGY 1752**  
 CONCEPT STUDY FOR THE "THE HEAVY NUCLEI EXPLORER" (HDX)  
 MISSION AO-99-OSS-05  
 04/30/2001 - 04/30/2002 FY01: \$47,600 Total: \$47,600  
*Prin. Invest.: D A MEWALDT*  
*Tech. Officer: GSFC/J R BYRD*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10885 CALIFORNIA INST OF TECHNOLOGY 1753**  
 THE MULTI-WAVELENGTH EXTRAGALACTIC SKY (ADP 2000)  
 05/03/2001 - 05/14/2002 FY01: \$48,148 Total: \$48,148  
*Prin. Invest.: R J BRUNNER*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10901 CALIFORNIA INST OF TECHNOLOGY 1754**  
 A MECHANISM FOR SOLAR FORGING OF CLIMATE: DID THE MAUNDER  
 MINIMUM CAUSE THE LITTLE ICE AGE?  
 05/07/2001 - 05/14/2002 FY01: \$166,768 Total: \$166,768  
*Prin. Invest.: Y L YUNG*  
*Tech. Officer: GSFC/J F SPANN*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 10955 CALIFORNIA INST OF TECHNOLOGY 1755**  
 A STUDY OF EXTREMELY RED GALAXIES  
 05/30/2001 - 05/31/2002 FY01: \$64,879 Total: \$64,879  
*Prin. Invest.: D THOMPSON*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 11157 CALIFORNIA INST OF TECHNOLOGY 1756**  
 LABORATORY STUDIES OF THE PHOTOCHEMISTRY OF PEROXY NITRIC  
 ACID  
 08/01/2001 - 07/31/2004 FY01: \$17,000 Total: \$17,000  
*Prin. Invest.: P O WENNBERG*  
*Tech. Officer: GSFC/R J LAWRENCE*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 11214 CALIFORNIA INST OF TECHNOLOGY 1757**  
 OBSERVATIONAL AND MODELING STUDIES OF THE SOUTH PO LAR  
 RESIDUAL CAP  
 08/13/2001 - 08/14/2002 FY01: \$40,000 Total: \$40,000  
*Prin. Invest.: A P INGERSOLL*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 11257 CALIFORNIA INST OF TECHNOLOGY 1758**  
 AEOLIAN TRANSPORT PROCESSES ON MARS: SURFACE OBSERVATIONS  
 AND MESOSCALE MODELING  
 08/17/2001 - 08/31/2003 FY01: \$70,000 Total: \$70,000  
*Prin. Invest.: A ALBEE*  
*Tech. Officer: HQ/J BOYCE*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 11273 CALIFORNIA INST OF TECHNOLOGY 1759**  
 THE EXPLORATION OF THE OUTER SOLAR SYSTEM  
 08/22/2001 - 09/30/2004 FY01: \$100,000 Total: \$100,000  
*Prin. Invest.: M BROWN*  
*Tech. Officer: GSFC/T MORGAN*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 11288 CALIFORNIA INST OF TECHNOLOGY 1760**  
 DAILY WEATHER MAPS FROM MARS ORBITER IMAGES  
 08/20/2001 - 08/31/2004 FY01: \$71,900 Total: \$71,900  
*Prin. Invest.: A INGERSOLL*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 8 1237 CALIFORNIA INST OF TECHNOLOGY 1761**  
 DISPERSION MICROSTRUCTURE AND RHEOLOGY IN CERAMICS PROCESSING  
 04/22/1996 - 01/31/2001 FY01: -\$398 Total: \$299,358  
*Prin. Invest.: D F BRADY*  
*Tech. Officer: MSFC/P DOTY, MSFC/R POWER*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 8 1661 CALIFORNIA INST OF TECHNOLOGY 1762**  
 DISPERSION MICROSTRUCTURE AND PHEOLOGY IN CERAMICS PROCESSING  
 05/16/2000 - 11/30/2003 FY01: \$76,000 Total: \$120,994  
*Prin. Invest.: J BRADY, NONE*  
*Tech. Officer: MSFC/P DOTY*  
*CASE Category: 19 - PHYSICAL SCIENCE, OTHER*

**NAG 8 1743 CALIFORNIA INST OF TECHNOLOGY 1763**  
 MEASUREMENT OF THERMOPHYSICAL PROPERTIES OF MOLTEN SILICON  
 AND GERMANIUM  
 09/27/2000 - 09/30/2003 FY01: \$47,500 Total: \$197,500  
*Prin. Invest.: W K RHIM*  
*Tech. Officer: MSFC/P DOTY*  
*CASE Category: 59 - LIFE SCIENCE, OTHER*

**NAG 8 1744 CALIFORNIA INST OF TECHNOLOGY 1764**  
 MEASUREMENT OF THERMOPHYSICAL PROPERTIES OF MOLTEN SILICON  
 AND GERMANIUM  
 09/27/2000 - 09/30/2004 FY01: \$496,500 Total: \$596,500  
*Prin. Invest.: W L JOHNSON*  
*Tech. Officer: MSFC/P DOTY*  
*CASE Category: 59 - LIFE SCIENCE, OTHER*

**NAG 8 1763 CALIFORNIA INST OF TECHNOLOGY 1765**  
 THE CQ EXPERIMENT ENHANCED HEAT CAPACITY OF SUPERFLUID HELIUM IN A HEAT FLUX  
 05/01/2001 - 06/30/2001 FY01: \$120,000 Total: \$120,000  
*Prin. Invest.: D GOODSTEIN*  
*Tech. Officer: MSFC/D HUBBARD*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 8 1785 CALIFORNIA INST OF TECHNOLOGY 1766**  
 BIOMIMETIC SELF-ASSEMBLY OF MESOSTRUCTURES IN MIRO MICROGRAVITY: THE NATURE OF CAPILLARY BOND  
 04/30/2001 - 04/29/2005 FY01: \$68,000 Total: \$68,000  
*Prin. Invest.: A PONCE*  
*Tech. Officer: MSFC/D S HUBBARD*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 9 1013 CALIFORNIA INST OF TECHNOLOGY 1767**  
 GENESIS DISCOVERY MISSION PHASE B  
 05/13/1998 - 05/31/2002 FY01: \$163,800 Total: \$514,510  
*Prin. Invest.: D S BURNETT*  
*Tech. Officer: JSC/E K STANSBERY*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAS 5 98034 CALIFORNIA INST OF TECHNOLOGY 1768**  
 PHASE A STUDY FOR GALE X (GALAXY EVOLUTION EXPLORER) INVESTIGATION  
 12/05/1997 - 09/30/2004 FY01: \$16,640,000 Total: \$54,848,000  
*Prin. Invest.: C MARTIN*  
*Tech. Officer: GSFC/F SNOW*  
*CASE Category: 11 – ASTRONOMY*

**NAS 5 98152 CALIFORNIA INST OF TECHNOLOGY 1769**  
 CONSTELLATION X-RAY MISSION  
 06/22/1998 - 12/15/2001 FY01: \$47,500 Total: \$424,470  
*Prin. Invest.: F HARRISON*  
*Tech. Officer: GSFC/J GRADY*  
*CASE Category: 46 – MECHANICAL ENGR*

**NCC 2 5431 CALIFORNIA INST OF TECHNOLOGY 1770**  
 ADJOINT ERROR ANALYSIS: IMPROVING THE ACCURACY & RELIABILITY OF LIFT & DRAG ESTIMATES  
 03/28/2001 - 03/31/2002 FY01: \$29,335 Total: \$29,335  
*Prin. Invest.: N A PIERRE*  
*Tech. Officer: ARC/J J RENTHER*  
*CASE Category: 29 – MATH/COMPUTER SCI, OTHER*

**NGT 5 30096 CALIFORNIA INST OF TECHNOLOGY 1771**  
 THE ISOTOPIC COMPOSITION OF STATOSPHERE AND UPPER\_ AS A TRACER OF TROPOSPHER-STRATOSPHERE EXCHANGE/M  
 09/10/1997 - 08/31/2000 FY01: \$0 Total: \$22,000  
*Prin. Invest.: Y L YUNG*  
*Tech. Officer: GSFC/G ASRAR*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 30138 CALIFORNIA INST OF TECHNOLOGY 1772**  
 CRUCIAL DESERTIFICATION PROCESSES FOR MONITORING ARID LANDS  
 08/27/1998 - 11/30/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.: B C MURRAY, OKIN*  
*Tech. Officer: GSFC/M Y WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 30393 CALIFORNIA INST OF TECHNOLOGY 1773**  
 VOLCANIC HAZARDS ASSESSMENT USING REMOTE SENSING, BAJA, CALIFORNIA,MEXICO (STUDENT: JANE DMOCH)  
 08/14/2001 - 08/31/2004 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: J STOCK*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 30407 CALIFORNIA INST OF TECHNOLOGY 1774**  
 THE SUBDUCTION ZONE EARTHQUAKE CYCLE AS CONSTRAINED BY SPACE GEODESY AND SEISMOLOGY/STUDENT: MATTHE  
 08/15/2001 - 08/31/2004 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: M SIMONS*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50200 CALIFORNIA INST OF TECHNOLOGY 1775**  
 LABORATORY STUDY OF REACTIONS IMPORTANT IN THE FORMATION OF TROPOSPHERIC OZONE AND THE DEVELOPMENT  
 06/24/1998 - 09/30/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.: M OKUMURA*  
*Tech. Officer: HQ/A NURRIDDIN*  
*CASE Category: 12 – CHEMISTRY*

**NGT 5 50215 CALIFORNIA INST OF TECHNOLOGY 1776**  
 FROM EARTH TO ORBIT: UTILIZING THE DIGITIZED PALOMAR SKY SURVEY IN NASA MISSIONS\_(STUDENT: ROY GAL  
 07/22/1998 - 07/31/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.: S G DJORGOVSKI*  
*Tech. Officer: HQ/A NURRIDDIN*  
*CASE Category: 11 – ASTRONOMY*

**NGT 5 50231 CALIFORNIA INST OF TECHNOLOGY 1777**  
 CHEMICAL PROCESSES IN CIRCUMSTELLAR ACCRETION DISKS (STUDENT:  
 JACQUELINE KESSLER  
 05/27/1999 - 06/30/2002 FY01: \$22,000 Total: \$66,000  
*Prin. Invest.: G BLAKE*  
*Tech. Officer: GSFC/K BLANDING*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50249 CALIFORNIA INST OF TECHNOLOGY 1778**  
 OBSERVATIONS OF CMB ANISOTROPIES WITH THE ARCMINUTE COSMOLOGY BOLOMETRIC ARRAY RECEIVER (STUDENT: MA  
 06/04/1999 - 06/30/2002 FY01: \$22,000 Total: \$66,000  
*Prin. Invest.: A LANGE*  
*Tech. Officer: GSFC/L SMITH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50278 CALIFORNIA INST OF TECHNOLOGY 1779**  
 BOLOMETRIC POLARIMETRY FOR COSMOLOGY  
 06/20/2000 - 06/30/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.: A LANGE*  
*Tech. Officer: GSFC/L K SMITH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50280 CALIFORNIA INST OF TECHNOLOGY 1780**  
 INVESTIGATION OF VACUUM ARC ION THRUSTER FOR SPACE PROPULSION APPLICATIONS--STUDENT: MICHA  
 06/20/2000 - 06/30/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.: F CULICK*  
*Tech. Officer: GSFC/K BLANDING*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50308 CALIFORNIA INST OF TECHNOLOGY 1781**  
 DEVELOPMENT OF SUPERCONDUCTING CAVITY STABILIZED OSCILLATORS (SCSO) FOR FREQUENCY STANDARDS & PREC  
 07/06/2000 - 09/30/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.: N YEH*  
*Tech. Officer: GSFC/L SMITH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50339 CALIFORNIA INST OF TECHNOLOGY 1782**  
 GALAXY FORMATION AND EVOLUTION: MODELS FOR CURRENT AND FUTURE OBSERVATIONS (STUDENT: MICH)  
 05/04/2001 - 08/30/2002 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: M KAMIONKOWSKI*  
*Tech. Officer: GSFC/K BLANDING*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 60003 CALIFORNIA INST OF TECHNOLOGY 1783**  
 A SUMMER RESEARCH PROGRAM OF NASA SUMMER FACULTY F  
 09/23/1997 - 08/31/2001 FY01: \$0 Total: \$1,365,527  
*Prin. Invest.: A ALBEE*  
*Tech. Officer: GSFC/K BLANDING*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 1 2293 CALIFORNIA POLYTECHNIC STATE U-SAN LUIS 1784**  
 HIGHPOWER ROCKET DEMONSTRATOR OF A REUSABLE GLIDE- BACK BOOSTER  
 04/14/2000 - 09/01/2000 FY01: \$1 Total: \$3,798  
*Prin. Invest.: D J DETURRIS*  
*Tech. Officer: LARC/T A TALAY*  
*CASE Category: 42 – ASTRONAUTICAL ENGR*

**NAG 1 2327 CALIFORNIA POLYTECHNIC STATE U-SAN LUIS 1785**  
 SUBSONIC GLIDEBACK ROCKET DEMONSTRATOR FLIGHT TESTING  
 09/08/2000 - 08/31/2001 FY01: \$18,000 Total: \$24,000  
*Prin. Invest.: D DETURRIS*  
*Tech. Officer: LARC/T A TALAY*  
*CASE Category: 42 – ASTRONAUTICAL ENGR*

**NAG 1 01099 CALIFORNIA POLYTECHNIC STATE U-SAN LUIS 1786**  
 CONFIGURATION STUDIES OF PERSONAL AIR VEHICLE EXPLORATION  
 06/14/2001 - 01/13/2002 FY01: \$49,996 Total: \$49,996  
*Prin. Invest.: D HALL, NONE*  
*Tech. Officer: LARC/M D MOORE*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 2 1169 CALIFORNIA POLYTECHNIC STATE U-SAN LUIS 1787**  
 CONDUIT SPECIFICATIONS DEVELOPMENT FOR CRUSIE FLIG HT OPERATIONS  
 12/03/1997 - 10/31/1999 FY01: \$0 Total: \$70,000  
*Prin. Invest.: D J BIEZAD*  
*Tech. Officer: ARC/M B TISCHLER*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 2 1386 CALIFORNIA POLYTECHNIC STATE U-SAN LUIS 1788**  
 POTENTIAL BENEFITS FROM TMA AND SMS INTEGRATION  
 11/01/1999 - 06/30/2002 FY01: \$0 Total: \$118,758  
*Prin. Invest.: S HOCKADAY*  
*Tech. Officer: ARC/S ATKINS, ARC/L TOBIAS*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 4 202 CALIFORNIA POLYTECHNIC STATE U-SAN LUIS 1789**  
 INTEGRATING NASA DRYDEN RESEARCH ENEDEAVORS INTO THE TEACHING-LEARNING OF MATHEMATICS IN THE K-12 C  
 02/22/2000 - 01/03/2002 FY01: \$13,978 Total: \$28,909  
*Prin. Invest.: R A WARD, NONE*  
*Tech. Officer: DFRC/S YEE*  
*CASE Category: 21 – MATHEMATICS*

**NAG 5 8674 CALIFORNIA POLYTECHNIC STATE U-SAN LUIS 1790**  
 ADAPTIVE SAMPLING OF PHYTOPLANKTON RESPONSES TO EPISODIC PHYSICAL FORCING IN THE NEARSHORE COASTAL  
 07/08/1999 - 07/14/2002 FY01: \$84,747 Total: \$283,638  
*Prin. Invest.: M A MOLINE*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NCC 2 1149 CALIFORNIA POLYTECHNIC STATE U-SAN LUIS 1791**  
 DEVELOPMENT OF MULTIDISCIPLINARY FLIGHT CONTROL DESIGN PROCESSES USING CONDUIT  
 12/01/1999 - 07/31/2002 FY01: \$132,343 Total: \$242,343  
*Prin. Invest.: D J BIEZAD*  
*Tech. Officer: ARC/M TISCHLER*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 2 5392 CALIFORNIA POLYTECHNIC STATE U-SAN LUIS 1792**  
 INNOVATIVE VERTICAL & SHORT TAKEOFF & LANDING CONCEPTS & SUPPORTING TECHNOLOGIES  
 08/16/2000 - 06/30/2002 FY01: \$25,000 Total: \$45,000  
*Prin. Invest.: D W HALL*  
*Tech. Officer: ARC/J ZUK*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 2 5464 CALIFORNIA POLYTECHNIC STATE U-SAN LUIS 1793**  
 MARS AIRPLANE MISSION AND TECHNOLOGY DEVELOPMENT  
 09/27/2001 - 08/31/2002 FY01: \$71,980 Total: \$71,980  
*Prin. Invest.: D W HALL, D J BIEZAD*  
*Tech. Officer: ARC/L G LEMKE, ARC/A GONZALES*  
*CASE Category: 42 – ASTRONAUTICAL ENGR*

**NAG 4 171 CALIFORNIA ST. POLYTECHNIC U-POMONA 1794**  
 ENHANCEMENT OF RESEARCH & DESIGN CAPABILITIES  
 09/30/1999 - 09/30/2002 FY01: \$74,888 Total: \$195,028  
*Prin. Invest.: W E MORTENSEN*  
*Tech. Officer: DFRC/K GUPTA, DFRC/L VOEKLER*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 7 10 CALIFORNIA ST. POLYTECHNIC U-POMONA 1795**  
 ESTABLISHMENT OF A NEW BUSINESS INCUBATOR  
 08/06/1998 - 11/04/2001 FY01: \$0 Total: \$830,000  
*Prin. Invest.: V H GARNER, E L BARNES*  
*Tech. Officer: NMO/T J LLOYD*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 4 153 CALIFORNIA STATE UNIV - FRESNO 1796**  
 THERMO-MECNICAL CHARACTERISTICS OF COMPOSITE MATERIALS  
 03/26/1998 - 10/31/2001 FY01: \$0 Total: \$300,000  
*Prin. Invest.: S MAHANTY*  
*Tech. Officer: DFRC/J BRADEN, DFRC/K K GUPTA*  
*CASE Category: 41 - AERONAUTICAL ENGRN*

**NAG 4 172 CALIFORNIA STATE UNIV - FRESNO 1797**  
 PARTNERSHIP PROJECT EXPLORE  
 09/30/1999 - 10/31/2001 FY01: \$75,000 Total: \$184,914  
*Prin. Invest.: S MAHANTY, T MCCLANAHAN*  
*Tech. Officer: DFRC/K GUPTA, DFRC/L VOEKLER*  
*CASE Category: 41 - AERONAUTICAL ENGRN*

**NAG 5 4945 CALIFORNIA STATE UNIV - FULLERTON 1798**  
 METEORITE COMPACTATION AGES: ANCIENT ENERGETIC PARTI DISSIPATION  
 IN THE EARLY SOLAR NEBULA  
 06/23/1997 - 12/31/1999 FY01: -\$33,398 Total: \$116,605  
*Prin. Invest.: D WOOLUM*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9433 CALIFORNIA STATE UNIV - FULLERTON 1799**  
 SOLAR NEBULA THERMAL AND PHYSICAL EVOLUTION AS CON STRAINED  
 BY PLANETARY, METEORITIC AND ASTRONOMICA  
 04/21/2000 - 04/14/2002 FY01: \$0 Total: \$45,000  
*Prin. Invest.: D WOODLUM*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10312 CALIFORNIA STATE UNIV - FULLERTON 1800**  
 BETA PIC-LIKE CIRCUMSTELLAR GAS DISK AROUND 2 AND -- FUSE-00  
 01/26/2001 - 01/31/2002 FY01: \$20,000 Total: \$20,000  
*Prin. Invest.: K CHEN*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10695 CALIFORNIA STATE UNIV - FULLERTON 1801**  
 SOLAR NEBULA THERMAL AND PHYSICAL EVOLUTION AS CON STRAINED  
 BY PLANETARY,METEORITIC AND ASTRONOMICAL  
 04/16/2001 - 04/14/2002 FY01: \$45,000 Total: \$45,000  
*Prin. Invest.: D WOOLUM*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 9 1009 CALIFORNIA STATE UNIV - FULLERTON 1802**  
 GENESIS: DETECTORS CHARACTERIZATION/SELECTION AND EDUCATIONAL OUTREACH  
 05/05/1998 - 12/31/2001 FY01: \$56,000 Total: \$157,244  
*Prin. Invest.: D S WOOLUM*  
*Tech. Officer: JSC/E K STANSBERY*  
*CASE Category: 19 - PHYSICAL SCIENCE, OTHER*

**NAG 3 1830 CALIFORNIA STATE UNIV - LONG BEACH 1803**  
 MAGNETHEOLOGICAL FLUIDS: RHEOLOGY AND NONEQUILIBRIUM  
 PATTERN FORMATION  
 04/18/1996 - 05/16/2002 FY01: \$103,550 Total: \$844,550  
*Prin. Invest.: J LIU*  
*Tech. Officer: GRC/K HSIEH*  
*CASE Category: 13 - PHYSICS*

**NAG 5 9310 CALIFORNIA STATE UNIV - LONG BEACH 1804**  
 INTERNATIONAL, STATE & LOCAL WORKFORCE DEVELOPMENT &  
 CAPACITY BUILDING INSUPPORT OF NASA ESE PROGRA  
 04/12/2000 - 04/14/2002 FY01: \$149,989 Total: \$249,986  
*Prin. Invest.: C T LEE*  
*Tech. Officer: GSFC/A J TUYAHOV*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NCC 5 329 CALIFORNIA STATE UNIV - LONG BEACH 1805**  
 AUGMENTED LEARNING ENVIRONMENT FOR RENEWABLE TEACH ING  
 (ALERT)  
 05/07/1998 - 08/14/2002 FY01: \$0 Total: \$450,000  
*Prin. Invest.: E AMBOS*  
*Tech. Officer: GSFC/B MEESON*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 1 2029 CALIFORNIA STATE UNIV - LOS ANGELES 1806**  
 ACTIVE ISOLATION TECHNIQUES FOR MITIGATING EARTH- QUAKE  
 EFFECTS  
 03/17/1998 - 03/16/2001 FY01: \$1 Total: \$300,001  
*Prin. Invest.: H HASEMIAN*  
*Tech. Officer: LARC/H M ADELMAN*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 4 127 CALIFORNIA STATE UNIV - LOS ANGELES 1807**  
 THE SCIENCE AMBASSADOR DISTANCE LEARNING PROJECT NEW AWARD  
 05/23/1997 - 03/31/2001 FY01: \$0 Total: \$781,930  
*Prin. Invest.: T ADENIKA-MORROW*  
*Tech. Officer: DFRC/E L DUKE, DFRC/E COX*  
*CASE Category: 41 - AERONAUTICAL ENGRN*

**NAG 4 151 CALIFORNIA STATE UNIV - LOS ANGELES 1808**  
 FAR STUDY OF CINTROL STRUCTURE INERACTION IN LARGE FLEXIBLE  
 SPACE STRUCTURE  
 03/26/1998 - 06/30/2001 FY01: \$0 Total: \$300,000  
*Prin. Invest.: L - HSIA*  
*Tech. Officer: DFRC/J BRADEN, DFRC/K K GUPTA*  
*CASE Category: 41 - AERONAUTICAL ENGRN*

**NAG 4 173 CALIFORNIA STATE UNIV - LOS ANGELES 1809**  
 PATNERSHIP AN INQUIRY AERONAUTICAL SCIENCE DISTANC E LEARNING  
 ED PROJECT  
 09/16/1999 - 09/17/2002 FY01: \$74,999 Total: \$199,998  
*Prin. Invest.: T ADENIKA-MORROW*  
*Tech. Officer: DFRC/M MCCARTY, DFRC/J LARSON*  
*CASE Category: 99 - MULTI INTERDISCPL,OTHER*

**NAG 4 174 CALIFORNIA STATE UNIV - LOS ANGELES 1810**  
 PARTNERSHIP INTEGRATION OF CONFIGURATION  
 09/16/1999 - 09/17/2001 FY01: \$90,104 Total: \$200,000  
*Prin. Invest.: C WU*  
*Tech. Officer: DFRC/K GUPTA, DFRC/L VOELKER*  
*CASE Category: 41 - AERONAUTICAL ENGRN*

**NAG 4 175 CALIFORNIA STATE UNIV - LOS ANGELES 1811**  
 PARTNERSHIP CONTROL HYPersonic VEHICLES  
 09/15/1999 - 09/17/2001 FY01: \$90,633 Total: \$199,980  
*Prin. Invest.: M MIRMIRANI*  
*Tech. Officer: DFRC/K GUPTA, DFRC/L VOELKER*  
*CASE Category: 41 - AERONAUTICAL ENGRN*

**NAG 5 6757 CALIFORNIA STATE UNIV - LOS ANGELES 1812**  
 USE OF DECENTRALIZED CONTROL IN DESIGN OF A LARGE SEGMENTED SPACEREFLECTOR  
 04/06/1998 – 12/31/1999 FY01: -\$14,655 Total: \$1,985,345  
*Prin. Invest.: H R BOUSSALIS*  
*Tech. Officer: GSFC/J MALONE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 7401 CALIFORNIA STATE UNIV - LOS ANGELES 1813**  
 INTEGRATING MODELS WITH NARROW-BAND, MULTI-SCALE, REMOTELY SENSED DATA FOR IMPROVED ASSESSMENT OF P  
 05/20/1998 – 06/30/2000 FY01: \$0 Total: \$260,338  
*Prin. Invest.: J A GAMON, NONE*  
*Tech. Officer: GSFC/D E WICKLAND*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8889 CALIFORNIA STATE UNIV - LOS ANGELES 1814**  
 USE OF DECENTRALIZED CONTROL IN DESIGN OF A SEGMENTED SPACE  
 01/03/2000 – 12/31/2001 FY01: \$500,000 Total: \$1,000,000  
*Prin. Invest.: H R BOUSSALIS*  
*Tech. Officer: GSFC/J MALONE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 8945 CALIFORNIA STATE UNIV - LOS ANGELES 1815**  
 ASYMMETRIES AND VARIATIONS IN JUPITER'S MAGNETO SPHERE  
 01/28/2000 – 01/14/2002 FY01: \$65,900 Total: \$128,600  
*Prin. Invest.: K KHURANA*  
*Tech. Officer: GSFC/D BOGAN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9160 CALIFORNIA STATE UNIV - LOS ANGELES 1816**  
 UNIV PREPARATORY PROGRAM  
 03/06/2000 – 06/30/2002 FY01: \$100,000 Total: \$200,000  
*Prin. Invest.: M EPSTEIN*  
*Tech. Officer: GSFC/M STOUTSENBERGER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 5 439 CALIFORNIA STATE UNIV - LOS ANGELES 1817**  
 EXCELLENCE IN SCIENCE AND MATH EDUCATION FOR HARD TO STAFF URBAN SCHOOLS  
 03/03/2000 – 02/28/2002 FY01: \$199,940 Total: \$399,880  
*Prin. Invest.: T ADENIKA-MORROW*  
*Tech. Officer: GSFC/B WHITE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 6529 CALIFORNIA STATE UNIV - MONTERY BAY 1818**  
 DEVELOPMENT OF A REGIONAL-SCALE ECOSYSTEM PROCESS MODEL FOR EVALUATING THE IMPACTS OF DEVELOPMENT A  
 12/08/1997 – 10/31/2001 FY01: \$0 Total: \$700,000  
*Prin. Invest.: L PIERCE*  
*Tech. Officer: GSFC/A JANETOS*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG13 99020 CALIFORNIA STATE UNIV - MONTERY BAY 1819**  
 APPLICATION OF REMOTE SENSING AND ECOSYSTEM MODEL- ING TO VINEYARD MANAGEMENT IN CA NAPA VALLEY  
 08/13/1999 – 11/01/2001 FY01: \$177,879 Total: \$318,986  
*Prin. Invest.: L F JOHNSON*  
*Tech. Officer: SSC/R MCKELLIP*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NCC 2 1186 CALIFORNIA STATE UNIV - MONTERY BAY 1820**  
 REMOTE SENSING, ECOSYSTEM MODELING, & GEOSPATIAL ANALYSIS FOR EARTH SYSTEMS SCIENCE & HEALTH  
 06/28/2000 – 06/30/2002 FY01: \$1,049,100 Total: \$1,522,246  
*Prin. Invest.: S E ALEXANDER*  
*Tech. Officer: ARC/J C COUGHLAN*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 4 162 CALIFORNIA STATE UNIV - NORTHRIDGE 1821**  
 NASA EXPLORERS  
 02/24/1999 – 12/31/2001 FY01: \$75,397 Total: \$258,150  
*Prin. Invest.: W FURUMOTO, M LIPSCHUTZ, G MASSEY*  
*Tech. Officer: DFRC/M MCCARTHY, DFRC/J LARSON*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 4973 CALIFORNIA STATE UNIV - NORTHRIDGE 1822**  
 PRECISE GROUND-BASED PHOTOMETRIC OBSERVATIONS AND SOLAR TOTAL AND SPECTRAL IRRADIANCE OBSERVATIONS B  
 06/23/1997 – 10/31/2000 FY01: \$0 Total: \$150,003  
*Prin. Invest.: G A CHAPMAN*  
*Tech. Officer: GSFC/W J WAGNER*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7191 CALIFORNIA STATE UNIV - NORTHRIDGE 1823**  
 ACQUISITION AND ANALYSIS OF PRECISE GROUND-BASED PHOTOMETRIC FULL-DISK IMAGES FOR THE UNDERSTANDING OF SOLAR TOTAL AND SPECTRAL IRRADIANCE VARIABILITY  
 03/25/1998 – 07/31/2002 FY01: \$16,469 Total: \$143,599  
*Prin. Invest.: G A CHAPMAN*  
*Tech. Officer: GSFC/W J WAGNER*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7778 CALIFORNIA STATE UNIV - NORTHRIDGE 1824**  
 A PROPOSAL TO CHARACTERIZE AND UNDERSTAND THE SOURCES OF SOLAR TOTAL AND SPECTRAL IRRADIANCE VARIABILITY  
 10/28/1998 – 01/31/2002 FY01: \$77,800 Total: \$114,487  
*Prin. Invest.: D A CHAPMAN*  
*Tech. Officer: GSFC/J SHARBER*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7878 CALIFORNIA STATE UNIV - NORTHRIDGE 1825**  
 A PROPOSAL TO COMPARE GROUND-BASED PHOTOMETRIC IMAGES WITH IRRADIANCE DATA FROM SOHO  
 12/01/1998 – 12/14/2001 FY01: \$11,970 Total: \$35,810  
*Prin. Invest.: G A CHAPMAN*  
*Tech. Officer: GSFC/J GURMAN*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 9726 CALIFORNIA STATE UNIV - NORTHRIDGE 1826**  
 MICROSTRIP ANTENNA DEVELOPMENT FOR SPACECRAFT APPLICATIONS  
 07/10/2000 – 08/31/2001 FY01: \$0 Total: \$100,000  
*Prin. Invest.: S RENGARAJAN*  
*Tech. Officer: GSFC/C PERSON*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10880 CALIFORNIA STATE UNIV - NORTHRIDGE 1827**  
 STUDY OF THE POWER INPUT TO THE SOLAR CORONA FROM INTERMITTENT MAGNETIC FOOTPRINT MOTIONS  
 05/14/2001 – 05/31/2002 FY01: \$62,896 Total: \$62,896  
*Prin. Invest.: A CADAVID*  
*Tech. Officer: GSFC/J GURMAN*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NCC 2 1021 CALIFORNIA STATE UNIV - NORTHRIDGE 1828**  
 EXAMINING THE EFFECTS OF HIGH-LEVEL INTERRUPTIONS ON PART 121  
 AIRCREW PERFORMANCE  
 02/25/1998 - 01/31/2000 FY01: \$0 Total: \$78,707  
*Prin. Invest.: B TABACHIVIDE, D DAMIS*  
*Tech. Officer: ARC/R K DISMUKES*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 5 381 CALIFORNIA STATE UNIV - NORTHRIDGE 1829**  
 SPECTRO-POLARIMETRY OF PLANETARY OBJECTS  
 02/19/1999 - 08/31/2000 FY01: -\$3 Total: \$13,787  
*Prin. Invest.: M J PENN*  
*Tech. Officer: GSFC/J E ALLEN*  
*CASE Category: 11 – ASTRONOMY*

**NCC 5 489 CALIFORNIA STATE UNIV - NORTHRIDGE 1830**  
 ANALYZING DATA SETS  
 04/06/2000 - 02/28/2002 FY01: \$298,512 Total: \$596,534  
*Prin. Invest.: C SHUBIN*  
*Tech. Officer: GSFC/M MATTHEWS*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 5 513 CALIFORNIA STATE UNIV - NORTHRIDGE 1831**  
 FAILURE ANALYSIS PREVENTION, AND RELIABILITY MODELING FOR SUB-MICRON ELECTRONICS TECHNOLOGY, A RESEARCH  
 08/29/2000 - 08/31/2002 FY01: \$898,380 Total: \$998,380  
*Prin. Invest.: B BAVARIAN*  
*Tech. Officer: GSFC/C PERSON*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 8 1220 CALIFORNIA STATE UNIV - SACRAMENTO 1832**  
 JOVE  
 11/30/1995 - 08/31/2000 FY01: -\$4,842 Total: \$84,758  
*Prin. Invest.: B HAUSBACK, Z NDLELA*  
*Tech. Officer: MSFC/DSIX*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 4 200 CALIFORNIA STATE UNIV-BAKERSFIELD 1833**  
 METRIC ANALYSIS AND EVALUATION FOR NASA/DRYDEN FLIGHT RESEARCH  
 01/31/2000 - 02/06/2003 FY01: \$18,598 Total: \$73,041  
*Prin. Invest.: K L NYBERG*  
*Tech. Officer: DFRC/K S SHY*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 4 161 CALIFORNIA STATE UNIV, DOMINQUEZ HILLS 1834**  
 STEP PACE SCIENCE TECH PROJECT  
 02/17/1999 - 12/31/2001 FY01: \$99,886 Total: \$299,869  
*Prin. Invest.: E KRINSKY*  
*Tech. Officer: DFRC/M MC CARTHY, DFRC/J LARSON*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG13 99010 CALIFORNIA STATE UNIV, DOMINQUEZ HILLS 1835**  
 SOUTHERN CALIFORNIA CENTER FOR MANAGING FIRE HAZARDS AT THE URBAN WILDLANDS INTERFACE  
 03/03/1999 - 03/02/2002 FY01: \$500,000 Total: \$1,587,523  
*Prin. Invest.: C LEE*  
*Tech. Officer: JSC/C HILL*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 8017 CLAREMONT MCKENNA COLLEGE 1836**  
 THE COSMIC RAY PATH LENGTH DISTRIBUTION EXPECTED FROM THE LOCAL SPACE AND TIME DEPENDENT SUPERNOVA  
 01/06/1999 - 12/31/2001 FY01: \$38,862 Total: \$113,112  
*Prin. Invest.: D C HIGDON*  
*Tech. Officer: GSFC/M C GUHATHAKURTA*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 4883 COLLEGE OF SAN MATEO 1837**  
 DEVELOP REMOTE SENSING EDUCATIONAL MATERIALS TO BEITY COLLEGES ACROSS THE US.  
 08/01/1997 - 12/31/1999 FY01: -\$15,952 Total: \$208,048  
*Prin. Invest.: K D KENNEDY*  
*Tech. Officer: GSFC/N KHAZENIE*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 2 1001 FOOTHILL-DE ANZA COM COLL SYSTEM OFF 1838**  
 SCIENTIFIC-TECHNICAL & BUSINESS CAREERS TRAINING GRANT  
 07/07/1993 - 08/31/2001 FY01: \$640,028 Total: \$9,788,648  
*Prin. Invest.: M CONWAY*  
*Tech. Officer: ARC/M E LOPEZ, ARC/J M MCCULLOUGH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 2 52280 FOOTHILL-DE ANZA COM COLL SYSTEM OFF 1839**  
 EXPERIMENTAL INTERNSHIPS SUPPORTING ASTROBIOLOGY AEROSPACE TECHNOLOGY & INFORMATION TECHNOLOGY  
 07/03/2001 - 06/30/2002 FY01: \$836,324 Total: \$836,324  
*Prin. Invest.: M P CONRAD, NONE*  
*Tech. Officer: ARC/G JAMES*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9700 GLENDALE COMMUNITY COLLEGE 1840**  
 CIMMARUSTI SCIENCE CENTER  
 07/18/2000 - 08/14/2004 FY01: \$0 Total: \$3,831,000  
*Prin. Invest.: L SEROT*  
*Tech. Officer: GSFC/H KASS*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 9 79 LOMA LINDA UNIV 1841**  
 PROTON SPACE RESEARCH  
 01/13/1999 - 09/30/2000 FY01: \$0 Total: \$12,000,000  
*Prin. Invest.: G A NELSON*  
*Tech. Officer: JSC/F A CUCINOTTA*  
*CASE Category: 13 – PHYSICS*

**NCC 9 118 LOMA LINDA UNIV 1842**  
 COOPERATIVE RESEARCH IN PROTON SPACE RADIATION  
 02/02/2001 - 09/30/2001 FY01: \$3,661,000 Total: \$3,661,000  
*Prin. Invest.: G NELSON, J ARCHAMBEAU, J SLATER*  
*Tech. Officer: JSC/F CUCINOTTA*  
*CASE Category: 13 – PHYSICS*

**NAG 5 7050 LOYOLA MARYMOUNT UNIV 1843**  
 TRACKING TRANSIENT EVENTS FROM THE SOLAR WIND TO THE MAGNETOSPHERE  
 03/23/1998 - 03/31/2001 FY01: \$19,989 Total: \$62,929  
*Prin. Invest.: J SANNY*  
*Tech. Officer: GSFC/D EVANS*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 11197 PASADENA CITY COLLEGE 1844**  
 SMARTT: SCIENTISTS MENTORING ASTRONOMY RESEARCH TEAMS OF TOMORROW: A PROPOSAL FOR DOING RESEARCH  
 09/13/2001 - 12/31/2003 FY01: \$60,000 Total: \$60,000  
*Prin. Invest.: J SEPIKAS*  
*Tech. Officer: GSFC/P J SAKIMOTO*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9618 POMONA COLLEGE 1845**  
 THERMAL AND MECHANICAL ANALYSIS OF SMALL, SHALLOW MAGMA RESERVOIRS ON MARS  
 05/18/2000 - 05/14/2002 FY01: \$0 Total: \$38,400  
*Prin. Invest.: E GROSFILS*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 10157 POMONA COLLEGE 1846**  
 VOLCANIC & TECTONIC HISTORY OF THE NEMESIS TESSERA REGION ON VENUS  
 12/18/2000 - 12/31/2001 FY01: \$24,800 Total: \$24,800  
*Prin. Invest.: E GROSFILS*  
*Tech. Officer: GSFC/D SENSKA*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10498 POMONA COLLEGE 1847**  
 THERMOMECHANICAL ANALYSIS OF SMALL, SHALLOW MAGMA RESERVOIRS ON MARS: IMPLICATIONS FOR RESERVOIR FAIL  
 03/09/2001 - 03/14/2003 FY01: \$30,000 Total: \$30,000  
*Prin. Invest.: E GROSFILS*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8560 SAN DIEGO STATE UNIV 1848**  
 ENVIRONMENTAL CHANGE AND NATURAL HAZARD ASSESSMENT IN WESTERN TURKMENIS-TAN USING INTERFEROMETRIC SY  
 07/14/1999 - 06/30/2002 FY01: \$41,304 Total: \$127,864  
*Prin. Invest.: R MELLORS*  
*Tech. Officer: GSFC/M Y WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9301 SAN DIEGO STATE UNIV 1849**  
 OPERATIONAL MONITORING OF ALTERATION IN REGIONAL FOREST COVER USING MULTITEMPORAL REMOTE SENSING  
 03/20/2000 - 04/30/2002 FY01: \$92,873 Total: \$158,396  
*Prin. Invest.: J FRANKLIN*  
*Prin. Invest.: NONE*  
*Tech. Officer: GSFC/G GUTMAN*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 10376 SAN DIEGO STATE UNIV 1850**  
 PROBING SHOCKS & WINDS IN THE PECULIAR BINARY STAR VSAGITTAE (FUSE 00)  
 02/08/2001 - 02/14/2002 FY01: \$44,100 Total: \$44,100  
*Prin. Invest.: J WOOD*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 11141 SAN DIEGO STATE UNIV 1851**  
 FIRE, LAND COVER AND CLIMATE CHANGE: IMPACTS ON RIVER FLOWS IN SEMI-ARID SHRUBLAND WATERSHEDS  
 07/26/2001 - 07/31/2002 FY01: \$76,249 Total: \$76,249  
*Prin. Invest.: A HOPE*  
*Tech. Officer: GSFC/G GUTMAN*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG13 99017 SAN DIEGO STATE UNIV 1852**  
 REGIONAL CHANGE MONITORING OF HABITAT RESERVE SYSTEMS WITH VERY HIGH RESOLUTION REMOTELY SENSED  
 07/19/1999 - 07/18/2002 FY01: \$215,000 Total: \$430,000  
*Prin. Invest.: D STOW*  
*Tech. Officer: JSC/R MCKELLIP*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAS 5 00199 SAN DIEGO STATE UNIV 1853**  
 R & D TO SUPPORT GSFC'S SIMBIOS PROJECT  
 01/26/2001 - 11/30/2001 FY01: \$112,600 Total: \$112,600  
*Prin. Invest.: J L MUELLER*  
*Tech. Officer: GSFC/C R CRANE*  
*CASE Category: 33 – OCEANOGRAPHY*

**NAS 5 00202 SAN DIEGO STATE UNIV 1854**  
 R & D TO SUPPORT GSFC'S SIMBIOS PROJECT  
 02/07/2001 - 11/30/2001 FY01: \$171,476 Total: \$171,476  
*Prin. Invest.: C C TREES*  
*Tech. Officer: GSFC/C R MCCLAIN*  
*CASE Category: 33 – OCEANOGRAPHY*

**NAS 5 97126 SAN DIEGO STATE UNIV 1855**  
 SIMBIOS NORMALIZED WATER-LEAVING RADIANCE CAL/VAL  
 08/18/1997 - 11/30/2000 FY01: \$0 Total: \$779,480  
*Prin. Invest.: J L MUELLER*  
*Tech. Officer: GSFC/C R MCCLAIN*  
*CASE Category: 33 – OCEANOGRAPHY*

**NCC 3 842 SAN DIEGO STATE UNIV 1856**  
 DYNAMICS OF FLAME SPREAD IN MICROGRAVITY ENVIRONMENT  
 01/05/2001 - 11/30/2004 FY01: \$115,000 Total: \$115,000  
*Prin. Invest.: S BHATTACHARJEE*  
*Tech. Officer: GRC/S L OLSON*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC13 00002 SAN DIEGO STATE UNIV 1857**  
 AFFILIATED RESEARCH CENTE (ARC) PROGRAM AT SAN DIEGO STATE UNIV  
 02/11/2000 - 02/10/2005 FY01: \$224,999 Total: \$374,999  
*Prin. Invest.: D STOWE*  
*Tech. Officer: SSC/A PEEK*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 30335 SAN DIEGO STATE UNIV 1858**  
 LONG-TERM IMPACTS OF FIRE ON STREAMFLOW IN CALIFORNIA MEDITERRANEAN-TYPE SHRUB LANDS: AN INTEGRATED  
 08/21/2000 - 08/31/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.: A S HOPE*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 30367** SAN DIEGO STATE UNIV 1859  
ASSESSING THE AFFECTS OF VARIATIONS IN SOIL MOISTURE ON THE SURFACE ENERGY BALANCE AND CARBON/R  
08/13/2001 - 08/31/2004 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: A HOPE*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 2 1285** SAN FRANCISCO STATE UNIV 1860  
FREE FLIGHT INFORMATION & AUTOMATION ISSUES  
02/08/1999 - 02/14/2002 FY01: \$104,081 Total: \$266,337  
*Prin. Invest.: K L MOSIER, E A LYALL*  
*Tech. Officer: ARC/J M ORASANU*  
*CASE Category: 69 – PSYCHOLOGY, OTHER*

**NAG 5 7511** SAN FRANCISCO STATE UNIV 1861  
THE SEASONAL AND INTERANNUAL VARIABILITY OF PHYTOPLANKTON IN THE BERING SEA AS INFLUENCED BY SEA IC  
07/24/1998 - 07/31/2002 FY01: \$58,250 Total: \$326,863  
*Prin. Invest.: D H ROBINSON*  
*Tech. Officer: GSFC/J W MARRA*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8013** SAN FRANCISCO STATE UNIV 1862  
A COUPLED ICE-OCEAN MODEL OF MESOSCALE PHYSICAL/BIOLOGICAL INTERACTIONS IN THE SOUTHERN OCEAN  
01/20/1999 - 01/31/2002 FY01: \$0 Total: \$115,840  
*Prin. Invest.: D H ROBINSON*  
*Tech. Officer: GSFC/J W CAMPBELL*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAS 9 19410** SAN FRANCISCO STATE UNIV 1863  
ANALYSIS OF VOLATILE ORGANIC COMPOUNDS ON MIR STATION  
10/27/1995 - 01/31/2000 FY01: \$0 Total: \$396,735  
*Prin. Invest.: D PALMER*  
*Tech. Officer: JSC/A PLAZA*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NCC 2 1128** SAN FRANCISCO STATE UNIV 1864  
CONSTRUCTION OF A LONG-TERM CLIMATOLOGY OF ANTARCTIC & ARTIC POLAR STRATOSPHERIC CLOUDS BY AN AUTOM  
07/01/1999 - 12/31/2001 FY01: \$0 Total: \$105,000  
*Prin. Invest.: K L PAGAN*  
*Tech. Officer: ARC/R S HIPSKE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 2 1277** SAN FRANCISCO STATE UNIV 1865  
EFFECTS OF CENTRIFUGATION ON THE IMMUNE RESPONSE OF MACROPHAGES & DIFFERENTIATION INTO OSTEOCLASTS  
08/15/2001 - 07/31/2002 FY01: \$10,427 Total: \$10,427  
*Prin. Invest.: S WEINSTEIN*  
*Tech. Officer: ARC/N D SEARBY*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NCC 2 1278** SAN FRANCISCO STATE UNIV 1866  
MODELING THE ONSET EXTENT & DURATION OF DEHYDRATION IN THE WINTER POLAR VORTEX, USING IMPACT, AVHRR  
08/15/2001 - 07/31/2002 FY01: \$80,000 Total: \$80,000  
*Prin. Invest.: P FOSCHI*  
*Tech. Officer: ARC/S HIPSKE, ARC/A TABAZADEH*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 2 5301** SAN FRANCISCO STATE UNIV 1867  
AERONAUTICAL TELECOMMUNICATION NETWORK MODELING & SIMULATION  
12/04/1998 - 11/30/2001 FY01: \$0 Total: \$59,973  
*Prin. Invest.: H SHAHINASSER*  
*Tech. Officer: ARC/P R GRAMS, ARC/J WANG*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NCC 2 5324** SAN FRANCISCO STATE UNIV 1868  
THE CHEMISTRY, MINERALOGY & SPECTROSCOPY OF THE BIogenic ELEMENTS IN MARS SOIL ANALOGS  
05/17/1999 - 11/30/1999 FY01: \$0 Total: \$26,120  
*Prin. Invest.: J B ORENBERG*  
*Tech. Officer: ARC/T L ROUSH*  
*CASE Category: 12 – CHEMISTRY*

**NAG 1 2205** SAN JOSE STATE UNIV 1869  
CHARACTERIZING STRATOSPHERIC & TROPOSPHERIC AEROSOL: THEORETICAL STUDIES & ANALYSIS OF SATELLITE DATA (NRA)  
06/15/1999 - 05/31/2002 FY01: \$30,000 Total: \$84,103  
*Prin. Invest.: P HAMILTON*  
*Prin. Invest.: NONE*  
*Tech. Officer: LARC/G L MADDREAU, LARC/L R POOLE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 2 1421** SAN JOSE STATE UNIV 1870  
WEB-BASED INTEGRATION OF DATA BASES & APPLICATIONS FOR NATIONAL AIRSPACE SYSTEM ANALYSIS  
07/14/2000 - 07/14/2002 FY01: \$0 Total: \$40,000  
*Prin. Invest.: G POUR, K CORKER*  
*Tech. Officer: ARC/D KOZARSKY*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 2 1435** SAN JOSE STATE UNIV 1871  
SHARED CONTROL AMONG AIR TRAFFIC CONTROL, FLIGHT DECK, & DECISION AIDING SYSTEMS: PERFORMANCE PARAM  
09/13/2000 - 08/31/2001 FY01: \$0 Total: \$150,943  
*Prin. Invest.: K CORKER*  
*Tech. Officer: ARC/I STATLER*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NAG 2 1454** SAN JOSE STATE UNIV 1872  
PROPOSAL STATEMENT OF WORK FOR THE MODELING & SYSTEM SAFETY & STABILITY SUB-ELEMENT-ELEMENT SYSTEM  
02/01/2001 - 01/31/2002 FY01: \$95,028 Total: \$95,028  
*Prin. Invest.: K CORKER*  
*Prin. Invest.: NONE*  
*Tech. Officer: ARC/I STATLER, ARC/M M CONNORS*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 4372** SAN JOSE STATE UNIV 1873  
RADIO OCCULTATION INVESTIGATION OF THE RINGS OF SATURN  
04/25/1997 - 02/28/2002 FY01: \$0 Total: \$142,400  
*Prin. Invest.: D A MAROUF*  
*Tech. Officer: GSFC/J GRANT*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 9500** SAN JOSE STATE UNIV 1874  
NUMERICAL SIMULATION OF MARS' CONVECTIVE BOUNDARY LAYER AND DUST DEVILS  
05/09/2000 - 05/31/2002 FY01: \$55,000 Total: \$114,200  
*Prin. Invest.: S C RAFKIN*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9751** SAN JOSE STATE UNIV 1875  
 MESOSCALE & LES MODELING OF THE MARTIAN ATMOSPHERE WIND  
 STREAKS AND DUST DEVILS  
 06/27/2000 - 06/30/2002 FY01: \$55,000 Total: \$102,100  
*Prin. Invest.: S RAFKIN*  
*Tech. Officer: GSFC/D BOGAN*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 9766** SAN JOSE STATE UNIV 1876  
 LARGE-SCALE WAVE ACTIVITY IN A MARS GENERAL CIRCULATION  
 MODEL: CHARACTERIZATION & COMPARISON WITH  
 06/29/2000 - 06/30/2002 FY01: \$25,000 Total: \$62,900  
*Prin. Invest.: A BRIDGER*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 11184** SAN JOSE STATE UNIV 1877  
 CLIMATOLOGY AND NUMERICAL SIMULATION OF CONDENSATE CLOUDS  
 DETECTED BY MGS  
 09/05/2001 - 09/14/2004 FY01: \$45,077 Total: \$45,077  
*Prin. Invest.: S RAFKIN*  
*Tech. Officer: GSFC/J M BOYCE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 11185** SAN JOSE STATE UNIV 1878  
 AVP GRADUATE STUDIES AND RESEARCH  
 08/21/2001 - 08/31/2003 FY01: \$34,300 Total: \$34,300  
*Prin. Invest.: A BRIDGER*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 8 1735** SAN JOSE STATE UNIV 1879  
 URBAN EFFECT ON THUNDERSTORMS  
 08/04/2000 - 12/31/2001 FY01: \$0 Total: \$50,000  
*Prin. Invest.: R BORNSTEIN*  
*Tech. Officer: MSFC/D QUATTROCHI*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 2 798** SAN JOSE STATE UNIV 1880  
 FLIGHT HUMAN FACTORS  
 05/12/1993 - 05/31/2000 FY01: -\$1 Total: \$10,321,667  
*Prin. Invest.: K P JORDAN, D*  
*Tech. Officer: ARC/R K DISMUKES*  
*CASE Category: 69 – PSYCHOLOGY, OTHER*

**NCC 2 984** SAN JOSE STATE UNIV 1881  
 DYNAMIS OF RINGS & SMALL BODIES  
 04/01/1997 - 04/30/2001 FY01: \$0 Total: \$220,335  
*Prin. Invest.: P J HAMILL*  
*Tech. Officer: ARC/K ZAHALE*  
*CASE Category: 11 – ASTRONOMY*

**NCC 2 1015** SAN JOSE STATE UNIV 1882  
 INTEGRATING LEGACY APPLICATIONS WITHIN A MIDDLEWARE ENVIRONMENT  
 02/01/1998 - 07/31/2001 FY01: \$20,000 Total: \$189,814  
*Prin. Invest.: R FATOOGHI, D HARKEY, NONE*  
*Tech. Officer: ARC/M E LIVINGSTON, ARC/D KAWAKA*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NCC 2 1045** SAN JOSE STATE UNIV 1883  
 AIRBORNE MEASUREMENT RESEARCH  
 06/30/1998 - 06/30/2002 FY01: \$0 Total: \$141,145  
*Prin. Invest.: J GOODMAN*  
*Tech. Officer: ARC/PBUI*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 2 1059** SAN JOSE STATE UNIV 1884  
 RESEARCH ON PLANETARY ATMOSPHERES & STMSOPHERE PRO BES  
 07/27/1998 - 09/14/2000 FY01: \$0 Total: \$224,021  
*Prin. Invest.: A SEIFF, J GOODMAN*  
*Tech. Officer: ARC/R E YOUNG*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 2 1060** SAN JOSE STATE UNIV 1885  
 SOLAR WIND STUDIES & AI TECHNOLOGIES  
 08/11/1998 - 10/31/2001 FY01: \$130,584 Total: \$370,550  
*Prin. Invest.: P J HAMILL*  
*Tech. Officer: ARC/A BARNES*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NCC 2 1071** SAN JOSE STATE UNIV 1886  
 ASSESSMENT OF DISTRIBUTED OBJECT MIDDLEWARE  
 11/16/1998 - 04/30/2001 FY01: \$0 Total: \$174,997  
*Prin. Invest.: R FATOOGHI*  
*Tech. Officer: ARC/T A LASINSKI*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NCC 2 1091** SAN JOSE STATE UNIV 1887  
 REGIONAL & GLOBAL MODELING OF ATMOSPHERIC TRACE SPECIES  
 03/01/1999 - 09/30/2001 FY01: \$0 Total: \$140,236  
*Prin. Invest.: P A HAMILL*  
*Tech. Officer: ARC/R B CHATFIELD, ARC/E P CONDON*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 2 1095** SAN JOSE STATE UNIV 1888  
 HUMAN FACTORS RESEARCH, TEHCNOLOGY & SAFETY  
 03/11/1999 - 01/31/2002 FY01: \$2,759,106 Total: \$6,678,686  
*Prin. Invest.: K P JORDAN*  
*Tech. Officer: ARC/R K DISMUKES, ARC/C H NULL*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 2 1096** SAN JOSE STATE UNIV 1889  
 EFFECTS OF CHRONIC EXPOSURE TO HYPER GRAVITY ON DIFFERENT STRAINS OF YOUNG & MATURE RATS  
 03/11/1999 - 01/31/2002 FY01: \$0 Total: \$169,868  
*Prin. Invest.: R A FOX*  
*Tech. Officer: ARC/N G DAUNTON*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NCC 2 1097** SAN JOSE STATE UNIV 1890  
 FLIGHT MANAGEMENT & AIR TRAFFIC MODELING  
 03/19/1999 - 03/14/2002 FY01: \$548,306 Total: \$1,843,773  
*Prin. Invest.: K P JORDAN*  
*Tech. Officer: ARC/M B TISCHLER, ARC/B D MCNALLY*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NCC 2 1106** SAN JOSE STATE UNIV 1891  
 EXPERIMENTAL STUDIES OF THE DISTRIBUTION OF & INTERACTION  
 BETWEEN REACTIVE TRACE CHEMICALS WITH DYN  
 04/12/1999 - 03/31/2002 FY01: \$176,590 Total: \$655,961  
*Prin. Invest.: J GOODMAN*  
*Tech. Officer: ARC/P BUI, ARC/E P CONDON*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 2 1132** SAN JOSE STATE UNIV 1892  
 THE INFLUENCE OF THE ATMOSPHERE ON POLARIZED BI-DIRECTIONAL  
 REFLECTANCE DATA OF BOREAL WETLANDS  
 08/17/1999 - 12/31/2001 FY01: \$0 Total: \$31,000  
*Prin. Invest.: P A HAMILL, U BOTTGER*  
*Tech. Officer: ARC/V VANDERBILT*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NCC 2 1155** SAN JOSE STATE UNIV 1893  
 FLIGHT HUMAN FACTORS  
 02/02/2000 - 01/31/2002 FY01: \$1,662,924 Total: \$3,034,917  
*Prin. Invest.: K JORDON*  
*Tech. Officer: ARC/RJ DISMUKES*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 2 1168** SAN JOSE STATE UNIV 1894  
 PLANETARY ATMOSPHERIC STRUCTURE FROM SPACECRAFT DATA  
 03/29/2000 - 12/31/2001 FY01: \$23,000 Total: \$113,429  
*Prin. Invest.: A BRIDGER*  
*Tech. Officer: ARC/R E YOUNG*  
*CASE Category: 11 – ASTRONOMY*

**NCC 2 1248** SAN JOSE STATE UNIV 1895  
 RINGS NODE DATA ARCHIVE MANAGEMENT  
 03/27/2001 - 03/31/2002 FY01: \$96,360 Total: \$96,360  
*Prin. Invest.: P J HAMIL*  
*Tech. Officer: ARC/J N CUZZI*  
*CASE Category: 11 – ASTRONOMY*

**NCC 2 1284** SAN JOSE STATE UNIV 1896  
 A PROPOSAL TO SUPPORT FUTURE FLIGHT RESEARCH AT NASA AMES  
 RESEARCH CENTER  
 09/17/2001 - 11/30/2001 FY01: \$16,098 Total: \$16,098  
*Prin. Invest.: M S PATANKAR*  
*Tech. Officer: ARC/N S DORGHI, ARC/B SULLIVAN*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 2 1285** SAN JOSE STATE UNIV 1897  
 ARTIFICIAL INTELLIGENCE STUDIES OF SPACE SCIENCE DATA  
 09/27/2001 - 09/30/2002 FY01: \$52,330 Total: \$52,330  
*Prin. Invest.: P A HAMILL*  
*Tech. Officer: ARC/T L ROUSH, ARC/J SCARGLE*  
*CASE Category: 11 – ASTRONOMY*

**NCC 2 1286** SAN JOSE STATE UNIV 1898  
 RESEARCH COLLABORATIVE WITH COMPUTATIONAL SCIENCES DIVISION  
 (CSD)  
 09/28/2001 - 09/30/2002 FY01: \$93,000 Total: \$93,000  
*Prin. Invest.: J MURPHY*  
*Tech. Officer: ARC/N MUSCETTOLA, ARC/D CLANCY*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 2 5311** SAN JOSE STATE UNIV 1899  
 EXOMYCETIC ECOLOGY IN YELLOWSTONE PARK  
 03/17/1999 - 01/31/2002 FY01: \$0 Total: \$78,220  
*Prin. Invest.: C A BRINEGAR*  
*Tech. Officer: ARC/K W CULLINGS, ARC/M L FONDA*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NCC 2 5326** SAN JOSE STATE UNIV 1900  
 ASSIMILATION OF MGS DATA INTO A COUPLED GCM-MESOSCALE MODEL  
 OF THE MARTIAN ATMOSPHERE  
 06/01/1999 - 02/28/2001 FY01: \$0 Total: \$26,209  
*Prin. Invest.: S S RAFKIN*  
*Tech. Officer: ARC/R M HABERLE*  
*CASE Category: 11 – ASTRONOMY*

**NCC 2 5330** SAN JOSE STATE UNIV 1901  
 INVESTIGATION OF MARS' ATMOSPHERIC CONDITIONS IN CONNECTION  
 WITH AEROBRAKING & AEROCAPTURE ACTIVITIES  
 07/08/1999 - 06/30/2002 FY01: \$1,984 Total: \$41,002  
*Prin. Invest.: A C BRIDGER*  
*Tech. Officer: ARC/R M HABERLE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 2 5336** SAN JOSE STATE UNIV 1902  
 AN INVESTIGATION OF CYCLOFRONTOGENESIS MARS' ATMOSPHERE  
 07/20/1999 - 07/14/2001 FY01: \$48,800 Total: \$169,405  
*Prin. Invest.: J L HOLLINGSWORTH*  
*Tech. Officer: ARC/R M HABERLE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 2 5338** SAN JOSE STATE UNIV 1903  
 FAR INFRARED EMISSION FROM GALACTIC & EXTRAGALACTIC  
 INTERSTELLAR GAS  
 07/23/1999 - 07/31/2001 FY01: \$1,400 Total: \$48,434  
*Prin. Invest.: M J KAUFMAN, NONE*  
*Tech. Officer: ARC/D J HOLLEN*  
*CASE Category: 11 – ASTRONOMY*

**NCC 2 5344** SAN JOSE STATE UNIV 1904  
 ASTROBIOLOGY RAPID RATES OF CHANGE  
 08/12/1999 - 07/31/2002 FY01: \$10,000 Total: \$30,000  
*Prin. Invest.: E P METZGER*  
*Tech. Officer: ARC/H L D'ANTONI*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NCC 2 5347** SAN JOSE STATE UNIV 1905  
 VOLATILE OXYGENATED HYDROCARBONS - ANALYTICAL SYSTEM  
 DEVELOPMENT & TROPOSPHERIC ATMOSPHERIC CHEMIST  
 09/01/1999 - 01/31/2002 FY01: \$0 Total: \$30,000  
*Prin. Invest.: P A HAMMILL*  
*Tech. Officer: ARC/H B SINGH, ARC/E P CONDON*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 2 5353** SAN JOSE STATE UNIV 1906  
 CLOUD TRANSPORT OF TROPICAL GASES & AEROSOLS  
 09/21/1999 - 05/31/2001 FY01: \$0 Total: \$57,905  
*Prin. Invest.: S C RAFKIN*  
*Tech. Officer: ARC/R B CHATFIELD*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 2 5402** SAN JOSE STATE UNIV 1907  
 IDENTIFICATION & CHARACTERIZATION OF NON-INVENTORI ED TERRESTRIAL IMPACT CRATERS  
 10/05/2000 - 09/30/2001 FY01: \$10,000 Total: \$10,000  
*Prin. Invest.: P MESSINA*  
*Tech. Officer: ARC/H L D'ANTONI, ARC/E P CONDON*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NCC 2 5435** SAN JOSE STATE UNIV 1908  
 AVP GRADUATE STUDIES & RESEARCH  
 05/15/2001 - 04/30/2002 FY01: \$8,293 Total: \$8,293  
*Prin. Invest.: P HAMILL*  
*Tech. Officer: ARC/K ZAHNLE*  
*CASE Category: 11 – ASTRONOMY*

**NCC 2 5450** SAN JOSE STATE UNIV 1909  
 ANALYSIS OF SATELLITE DATA AND PREPARATION OF REPO RTS ON A SRATOSPHERIC AEROSOL CLIMATOLOGY  
 07/30/2001 - 08/14/2002 FY01: \$6,765 Total: \$6,765  
*Prin. Invest.: P A HAMILL*  
*Tech. Officer: ARC/P B RUSSELL*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 2 5451** SAN JOSE STATE UNIV 1910  
 EXTREME ATMOSPHERIC ENVIRONMENTS AND HABITABLE CLIMATES  
 07/30/2001 - 07/31/2002 FY01: \$46,000 Total: \$46,000  
*Prin. Invest.: J L HOLLINGSWORTH*  
*Tech. Officer: ARC/R E YOUNG*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 2 5452** SAN JOSE STATE UNIV 1911  
 ANALYSIS OF THE INTERACTION OF HALOGENATED AND ORGANIC GASES WITH ATMOSPHERIC PARTICULATES  
 08/03/2001 - 07/31/2002 FY01: \$10,175 Total: \$10,175  
*Prin. Invest.: P J HAMILL*  
*Tech. Officer: ARC/L T IRACI, ARC/A TABAZADEH*  
*CASE Category: 12 – CHEMISTRY*

**NCC 2 5460** SAN JOSE STATE UNIV 1912  
 IONIZED, NEUTRAL & MOLECULAR GAS DIAGNOSTICS IN GALAXIES: MODELS FOR SIRTF  
 09/17/2001 - 08/31/2002 FY01: \$19,666 Total: \$19,666  
*Prin. Invest.: M J KAUFMAN*  
*Tech. Officer: ARC/D J HOLLENBACH, ARC/R E YOUNG*  
*CASE Category: 11 – ASTRONOMY*

**NCC 2 5465** SAN JOSE STATE UNIV 1913  
 COMPOSITION & DYNAMICS OF SATURN'S RINGS  
 09/26/2001 - 04/14/2002 FY01: \$10,000 Total: \$10,000  
*Prin. Invest.: P A HAMILL*  
*Tech. Officer: ARC/J N CUZZI, ARC/J J LISSAUER*  
*CASE Category: 11 – ASTRONOMY*

**NCC 2 6042** SAN JOSE STATE UNIV 1914  
 STELLAR 2000  
 03/03/2000 - 04/30/2001 FY01: \$0 Total: \$195,500  
*Prin. Invest.: M M AVERNER*  
*Tech. Officer: ARC/R D MACELROY*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NGT 2 52262** SAN JOSE STATE UNIV 1915  
 SUMMER FACULTY RESEARCH FELLOWSHIP PROGRAM  
 03/31/2000 - 04/30/2002 FY01: \$369,417 Total: \$774,968  
*Prin. Invest.: B STONE*  
*Tech. Officer: ARC/M MOORE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9736** SANTA CLARA UNIV 1916  
 DISTRIBUTED SPACE SYSTEM TECHNOLOGY DEMONSTRATIONS WITH THE EMERALD NANOSATELLITE  
 06/22/2000 - 06/30/2002 FY01: \$55,000 Total: \$80,000  
*Prin. Invest.: C A KITTS*  
*Tech. Officer: GSFC/K LUU*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 2 1025** SANTA CLARA UNIV 1917  
 EVALUATING THE EFFECTS OF MAINTENANCE RESOURCE MANAGEMENT IN AIR SAFETY  
 03/02/1998 - 01/31/2000 FY01: -\$39,079 Total: \$360,908  
*Prin. Invest.: J C TAYLOR*  
*Tech. Officer: ARC/B G KANKI, ARC/M M CONNORS*  
*CASE Category: 62 – PSYCHOLOGY SOCIAL ASPECTS*

**NCC 2 1156** SANTA CLARA UNIV 1918  
 EVALUATING BEHAVIORIAL-BASED APPROACHES TO CHANGING SAFETY CULTURE IN AVIATION MAINTENANCE  
 02/25/2000 - 01/31/2002 FY01: \$180,000 Total: \$325,524  
*Prin. Invest.: J TAYLOR*  
*Tech. Officer: ARC/B KANKI*  
*CASE Category: 62 – PSYCHOLOGY SOCIAL ASPECTS*

**NCC 2 1195** SANTA CLARA UNIV 1919  
 SHARP DEMONSTRATION FLIGHT: VIDEO BROADCAST SYSTEM FOR RESEARCH IN INTELLIGENT FLIGHT CHARACTERIZATION  
 08/24/2000 - 09/30/2001 FY01: \$0 Total: \$13,300  
*Prin. Invest.: C A KITTS*  
*Tech. Officer: ARC/P KOLODZIEJ, ARC/S M JOHNSON*  
*CASE Category: 42 – ASTRONAUTICAL ENGR*

**NAG 5 7267** SONOMA STATE UNIV 1920  
 GLAST MISSION CONCEPT STUDY AND PUBLIC OUTREACH  
 06/29/1998 - 01/31/2000 FY01: -\$46 Total: \$44,954  
*Prin. Invest.: D COMINSKY*  
*Tech. Officer: GSFC/N GEHRELS*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8603** SONOMA STATE UNIV 1921  
 SWIFT EDUCATION AND PUBLIC OUTREACH  
 06/23/1999 - 12/31/2000 FY01: -\$15 Total: \$61,921  
*Prin. Invest.: L R COMINSKY*  
*Tech. Officer: GSFC/N GEHRELS*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9495** SONOMA STATE UNIV 1922  
 SWIFT: A PANCHROMATIC GAMMA RAY BURST MIDEX MISSION  
 04/19/2000 - 01/31/2002 FY01: \$284,644 Total: \$487,078  
*Prin. Invest.: L WHITLOCK*  
*Tech. Officer: GSFC/A PARSONS*  
*CASE Category: 11 – ASTRONOMY*

<b>NAG 5 9782</b>	<b>SONOMA STATE UNIV</b>	<b>1923</b>	<b>NAG 2 1337</b>	<b>STANFORD UNIV</b>	<b>1931</b>
SWIFT PUBLIC RELATIONS - PART 1 07/06/2000 - 09/30/2001	FY01: \$27,898	Total: \$39,970	ENVIRONMENTAL MONITORING FOR SITUATION ASSESSMENT USING MOBILE & FIXED SENSORS 07/13/1999 - 07/14/2002	FY01: \$35,000	Total: \$365,973
<i>Prin. Invest.: L R COMINSKY</i> <i>Tech. Officer: GSFC/N GEHRELS</i> <i>CASE Category: 11 - ASTRONOMY</i>			<i>Prin. Invest.: R E FIKES</i> <i>Tech. Officer: ARC/J A KURIEN, ARC/S LAU</i> <i>CASE Category: 22 - COMPUTER SCIENCE</i>		
<b>NAG 5 11328</b>	<b>SONOMA STATE UNIV</b>	<b>1924</b>	<b>NAG 2 1354</b>	<b>STANFORD UNIV</b>	<b>1932</b>
SWIFT AND GLAST PRESS OFFICER FUNDS- FY02 09/18/2001 - 09/30/2006	FY01: \$11,600	Total: \$11,600	ROLE OF ADRENERGIC RECEPTORS IN ADAPTATION TO MICR OBRAVITY: GENE TARGETED MICE AS A MODEL OFMICRO 07/21/1999 - 07/14/2002	FY01: \$244,375	Total: \$641,171
<i>Prin. Invest.: L R COMINSKY</i> <i>Tech. Officer: GSFC/A M PARSONS</i> <i>CASE Category: 11 - ASTRONOMY</i>			<i>Prin. Invest.: D BERSTEIN, B K KOBILKA</i> <i>Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY</i> <i>CASE Category: 51 - BIOLOGY(EXCLUDING ENVIR)</i>		
<b>NCC 5 429</b>	<b>SONOMA STATE UNIV</b>	<b>1925</b>	<b>NAG 2 1373</b>	<b>STANFORD UNIV</b>	<b>1933</b>
SPACE MYSTERIES: INQUIRY-DRIVEN WEB EXPLORATIONS THAT TEACH PHYSICAL SCIENCE & MATHEMATICSSTANDARD 09/29/1999 - 09/30/2002	FY01: \$213,524	Total: \$462,992	HIGH SPEED JET NOISE PREDICTION USING LARGE EDDY S IMULATIONS 08/11/1999 - 12/31/2001	FY01: \$24,776	Total: \$99,478
<i>Prin. Invest.: L COMINSKY</i> <i>Prin. Invest.: NONE</i> <i>Tech. Officer: GSFC/D GABRYNS</i> <i>CASE Category: 99 - MULTI INTERDISCPL, OTHER</i>			<i>Prin. Invest.: S K LELE, B I VASHI</i> <i>Tech. Officer: ARC/D KWAK</i> <i>CASE Category: 41 - AERONAUTICAL ENGNR</i>		
<b>NAG 1 2107</b>	<b>STANFORD UNIV</b>	<b>1926</b>	<b>NAG 2 1397</b>	<b>STANFORD UNIV</b>	<b>1934</b>
DEVELOPMENT OF A COMPOSITE DAMAGE MODULE FOR THE STAGS FINITE ELEMENT CODE 09/03/1998 - 06/02/2001	FY01: \$0	Total: \$140,000	EVALUATION OF CHEMICAL KINETICS AND PHOTOCHEMICAL DATA FOR USE IN STRATOSPHERIC MODELING 02/17/2000 - 12/31/2001	FY01: \$62,500	Total: \$122,532
<i>Prin. Invest.: F K CHANG</i> <i>Tech. Officer: LARC/J H STARNES, JR., LARC/P B BOGERT</i> <i>CASE Category: 41 - AERONAUTICAL ENGNR</i>			<i>Prin. Invest.: C T BOWMAN</i> <i>Tech. Officer: ARC/E CONDON</i> <i>CASE Category: 31 - ATMOSPHERIC SCIENCE</i>		
<b>NAG 1 2144</b>	<b>STANFORD UNIV</b>	<b>1927</b>	<b>NAG 2 1464</b>	<b>STANFORD UNIV</b>	<b>1935</b>
BLENDED-WING-BODY DESIGN FOR ENHANCED ENVIEONMENT AL ACCEPTABILITY 03/23/1999 - 12/31/2001	FY01: \$118,000	Total: \$351,455	2-D SELF-CALIBRATING PSEUDOLITE ARRAYS FOR COOPERA TIVE ROVER/AERIAL VEHICLE NAVIGATION 03/23/2001 - 03/14/2002	FY01: \$160,149	Total: \$160,149
<i>Prin. Invest.: I KROO</i> <i>Tech. Officer: LARC/R R ANTCLIFF</i> <i>CASE Category: 41 - AERONAUTICAL ENGNR</i>			<i>Prin. Invest.: S M ROCK</i> <i>Tech. Officer: ARC/R MORRIS, ARC/S LAU</i> <i>CASE Category: 22 - COMPUTER SCIENCE</i>		
<b>NAG 2 1079</b>	<b>STANFORD UNIV</b>	<b>1928</b>	<b>NAG 2 1478</b>	<b>STANFORD UNIV</b>	<b>1936</b>
INFRARED SIGNATURE MASKING BY AIR PLASMA RADIATION 08/23/1996 - 10/31/2000	FY01: \$0	Total: \$221,719	COMPACT LASER-BASED SENSORS FOR MONITORING & CONTR OL OF GAS TURBINE COMUSTORS 04/20/2001 - 04/30/2002	FY01: \$180,000	Total: \$180,000
<i>Prin. Invest.: C H KRUGER, C O LAUX</i> <i>Tech. Officer: ARC/W M HUO</i> <i>CASE Category: 13 - PHYSICS</i>			<i>Prin. Invest.: R K HANSON</i> <i>Tech. Officer: ARC/N N MANSOUR, ARC/A A WRAY</i> <i>CASE Category: 46 - MECHANICAL ENGR</i>		
<b>NAG 2 1219</b>	<b>STANFORD UNIV</b>	<b>1929</b>	<b>NAG 3 1843</b>	<b>STANFORD UNIV</b>	<b>1937</b>
ACTIVE CONTROL OF COMBUSTION INSTABILITY IN AIR-BR EATHING PROPULSION SYSTEMS - A COMPUTATIONAL & .. 05/19/1998 - 04/30/2002	FY01: \$552,625	Total: \$1,889,910	DROP BREAKUP IN FLOW THROUGH FLIXED BEDS AS MODEL STOCHASTIC STRONG FLOWS 05/20/1996 - 04/18/2001	FY01: \$0	Total: \$480,000
<i>Prin. Invest.: C T BOWMAN, C F EDWARDS, G RVETSCH</i> <i>Tech. Officer: ARC/N N MANSOUR, ARC/A A WRAY</i> <i>CASE Category: 41 - AERONAUTICAL ENGNR</i>			<i>Prin. Invest.: E G SHAQTEH</i> <i>Tech. Officer: GRC/B S SINGH</i> <i>CASE Category: 13 - PHYSICS</i>		
<b>NAG 2 1257</b>	<b>STANFORD UNIV</b>	<b>1930</b>			
GENERATION & CONSERVATION OF DESIGN KNOWLEDGE: NE W MILLEN- NIUM 08/24/1998 - 02/14/2000	FY01: -\$147	Total: \$149,853			
<i>Prin. Invest.: L J LEIFFER</i> <i>Tech. Officer: ARC/W J CLANCY</i> <i>CASE Category: 22 - COMPUTER SCIENCE</i>					

**NAG 3 1943** STANFORD UNIV 1938  
 PROBLEMS IN MICROGRAVITY FLUID MECHANICS: THERMO CAPILLARY INSTABILITIES & G-JITTER CONVECTION  
 09/03/1996 - 02/28/2001 FY01: \$0 Total: \$385,000  
*Prin. Invest.: G M HOMSY*  
*Tech. Officer: GRC/J C DUH*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 3 2398** STANFORD UNIV 1939  
 ANISOTROPIC COLLOIDAL SELF ASSEMBLY ANISOTROPIC COLLOIDAL SELF ASSEMBLY  
 04/19/2000 - 11/30/2003 FY01: \$95,000 Total: \$170,000  
*Prin. Invest.: A P GAST*  
*Tech. Officer: GRC/J H AGUI*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 3 2446** STANFORD UNIV 1940  
 MICROGRAVITY FLUID MECHANICS: G-JITTER CONVECTION AND THE MECHANICS OF FLUIDIZED BEDS  
 05/26/2000 - 11/30/2003 FY01: -\$60,000 Total: \$0  
*Prin. Invest.: G M HOMSY*  
*Tech. Officer: GRC/F P CHIARAMONTE*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 3 2579** STANFORD UNIV 1941  
 IP INFRASTRUCTURE FOR DISTRIBUTED SPACE SYSTEM  
 04/13/2001 - 01/30/2004 FY01: \$157,710 Total: \$157,710  
*Prin. Invest.: A FOX*  
*Tech. Officer: GRC/K BHASIN*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NAG 3 2615** STANFORD UNIV 1942  
 HIGH REGRESSION RATE HYBRID COMBUSTION HIGH REGRESSION RATE HYBRID COMBUSTION  
 06/19/2001 - 09/30/2001 FY01: \$46,500 Total: \$46,500  
*Prin. Invest.: B J CANTWELL*  
*Tech. Officer: GRC/D M VENTO*  
*CASE Category: 42 – ASTRONAUTICAL ENGR*

**NAG 5 3077** STANFORD UNIV 1943  
 SOLAR OSCILLATIONS INVESTIGATION – MISSION OBSERVATIONS AND DATA ANALYSIS  
 09/25/1995 - 03/14/2000 FY01: \$0 Total: \$22,111,632  
*Prin. Invest.: P SCHERRER*  
*Tech. Officer: GSFC/J GURMAN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 3102** STANFORD UNIV 1944  
 RELATIVISTIC DISKSEISMOLOGY  
 10/05/1995 - 09/30/1999 FY01: -\$14 Total: \$179,986  
*Prin. Invest.: R V WAGONER*  
*Tech. Officer: GSFC/D WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 3263** STANFORD UNIV 1945  
 HIGH ENERGY RADIATION FROM ROTATION – POWERED PULSARS (NO COST TIME EXTENSION)  
 07/01/1996 - 04/30/2000 FY01: -\$302 Total: \$130,781  
*Prin. Invest.: R W ROMANI*  
*Tech. Officer: GSFC/D WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 3441** STANFORD UNIV 1946  
 DIGITAL TOPOGRAPHY PROPOSAL: LONG TERM MONITORING OF EARTH SURFACE CHANGE WITH ERS-1 AND ERS-2....  
 01/11/1997 - 10/14/2001 FY01: \$0 Total: \$164,472  
*Prin. Invest.: H ZEBKER*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 3732** STANFORD UNIV 1947  
 TOPOGRAPHIC MAPPING IN THE ANTARCTIC ENVIRONMENT U INTERFEROMETRY  
 02/14/1997 - 02/28/2001 FY01: \$0 Total: \$170,406  
*Prin. Invest.: D ZEBKER*  
*Tech. Officer: GSFC/R H THOMAS*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 3775** STANFORD UNIV 1948  
 DEVELOPMENT OF LOW TEMPERATURE WIDE BAND HIGH SPEED  
 02/13/1997 - 02/14/2000 FY01: \$0 Total: \$348,000  
*Prin. Invest.: P CABRERA*  
*Tech. Officer: GSFC/H HASAN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 3906** STANFORD UNIV 1949  
 RADAR STUDIES OF LUNAR AND PLANETARY SURFACES  
 02/21/1997 - 10/31/2001 FY01: \$63,000 Total: \$302,850  
*Prin. Invest.: G TYLER*  
*Tech. Officer: GSFC/P G ROGERS*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 3985** STANFORD UNIV 1950  
 THE EFFECTS OF CHARGED PARTICLE RADIATION ON GRAVI SPACE  
 03/03/1997 - 02/14/2000 FY01: -\$332 Total: \$103,413  
*Prin. Invest.: D A LIPA*  
*Tech. Officer: GSFC/H HASAN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 4038** STANFORD UNIV 1951  
 PHYSICS OF SOLAR ACTIVITY  
 02/26/1997 - 08/31/2000 FY01: -\$2 Total: \$226,775  
*Prin. Invest.: D A STURROCK*  
*Tech. Officer: GSFC/W WAGNER*  
*CASE Category: 13 – PHYSICS*

**NAG 5 4554** STANFORD UNIV 1952  
 PITCH ANGLE SCATTERING AND PRECIPITATION OF RADIAT OBLIQUE WHISTLER WAVES  
 05/05/1997 - 11/14/2000 FY01: \$0 Total: \$188,000  
*Prin. Invest.: D S INAN*  
*Tech. Officer: GSFC/D EVANS*  
*CASE Category: 13 – PHYSICS*

**NAG 5 5200** STANFORD UNIV 1953  
 INVESTIGATION OF THE CORONA/CHROMOSPHERE INTERFACE WITH THE CHROMOSPHERIC/CORONAL SPECTROHELIOPHOTOGRAPH  
 05/28/1998 - 05/31/2002 FY01: \$0 Total: \$466,460  
*Prin. Invest.: A B WALKER*  
*Tech. Officer: GSFC/W B JOHNSON*  
*CASE Category: 13 – PHYSICS*

<b>NAG 5 5300</b>	<b>STANFORD UNIV</b>	<b>1954</b>	<b>NAG 5 7609</b>	<b>STANFORD UNIV</b>	<b>1962</b>
INVESTIGATION OF CHROMOSPHERIC AND CORONAL STRUCTURES WITH ADVANCED TECHNOLOGY SOLAR IMAGER			ABUNDANCES OF CALCIUM-41 AND HAFNIUM-182 IN THE EARLY SOLAR SYSTEM		
07/18/2000 - 07/17/2003	FY01: \$404,138	Total: \$638,954	07/27/1998 - 07/31/2000	FY01: \$0	Total: \$80,000
<i>Prin. Invest.: B C WALKER</i>			<i>Prin. Invest.: T IRELAND</i>		
<i>Tech. Officer: HQ/J C BRINTON</i>			<i>Tech. Officer: HQ/J BOYCE</i>		
<i>CASE Category: 13 - PHYSICS</i>			<i>CASE Category: 11 - ASTRONOMY</i>		
<b>NAG 5 6112</b>	<b>STANFORD UNIV</b>	<b>1955</b>	<b>NAG 5 7835</b>	<b>STANFORD UNIV</b>	<b>1963</b>
STRUCTURE OF SOLAR MAGNETIC AND VELOCITY FIELDS			THE INTERFACE OF TRANSITION REGION AND CORONAL PLASMAS WITH THE CHROMOSPHERIC NETWORK		
07/28/1997 - 06/30/2000	FY01: -\$92	Total: \$263,484	12/14/1998 - 12/14/2001	FY01: \$83,659	Total: \$241,451
<i>Prin. Invest.: D H SCHERRER</i>			<i>Prin. Invest.: D B GALARCE</i>		
<i>Tech. Officer: GSFC/W J WAGNER</i>			<i>Tech. Officer: GSFC/J GURMAN</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 19 - PHYSICAL SCIENCE, OTHER</i>		
<b>NAG 5 6148</b>	<b>STANFORD UNIV</b>	<b>1956</b>	<b>NAG 5 8025</b>	<b>STANFORD UNIV</b>	<b>1964</b>
SURFACE DEFORMATION AND TOPOGRAPHIC MEASUREMENTS FROM THE PRESENCE OF VEGETATION			SEPS/CEPPAD SCIENCE INVESTIGATION		
08/21/1997 - 08/31/2001	FY01: \$0	Total: \$196,919	01/12/1999 - 12/31/2001	FY01: \$30,000	Total: \$160,000
<i>Prin. Invest.: H A ZEBKER</i>			<i>Prin. Invest.: M WALT</i>		
<i>Tech. Officer: GSFC/H V FREY</i>			<i>Tech. Officer: GSFC/R HOFFMAN</i>		
<i>CASE Category: 32 - GEOLOGICAL SCIENCE</i>			<i>CASE Category: 19 - PHYSICAL SCIENCE, OTHER</i>		
<b>NAG 5 6167</b>	<b>STANFORD UNIV</b>	<b>1957</b>	<b>NAG 5 8040</b>	<b>STANFORD UNIV</b>	<b>1965</b>
INVERSION OF TIME DEPENDENT SPACE GEODETIC DATA			MESOSPHERIC AND IONOSPHERIC EFFECTS OF RELATIVISTIC ELECTRON PRECIPITATION OBSERVED BY THE SAMPEX A		
08/01/1997 - 06/30/2001	FY01: \$0	Total: \$306,043	01/11/1999 - 01/14/2001	FY01: \$0	Total: \$52,340
<i>Prin. Invest.: P SEGALL</i>			<i>Prin. Invest.: U S INAN</i>		
<i>Tech. Officer: GSFC/H V FREY</i>			<i>Tech. Officer: GSFC/M H ACUNA</i>		
<i>CASE Category: 32 - GEOLOGICAL SCIENCE</i>			<i>CASE Category: 13 - PHYSICS</i>		
<b>NAG 5 6615</b>	<b>STANFORD UNIV</b>	<b>1958</b>	<b>NAG 5 8563</b>	<b>STANFORD UNIV</b>	<b>1966</b>
LAND-USE AND LAND-COVER CHANGE IN SONORA, MEXICO			URBANIZATION, LAND USE AND BIOLOGICAL RESOURCES		
11/17/1997 - 05/14/2001	FY01: \$0	Total: \$334,383	05/24/1999 - 05/31/2002	FY01: \$0	Total: \$47,001
<i>Prin. Invest.: P MATSON</i>			<i>Prin. Invest.: M L IMHOFF</i>		
<i>Tech. Officer: GSFC/A JANETOS</i>			<i>Tech. Officer: GSFC/M L IMHOFF</i>		
<i>CASE Category: 59 - LIFE SCIENCE, OTHER</i>			<i>CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</i>		
<b>NAG 5 7144</b>	<b>STANFORD UNIV</b>	<b>1959</b>	<b>NAG 5 8600</b>	<b>STANFORD UNIV</b>	<b>1967</b>
STUDIES OF THE IMPULSIVE PHASE OF SOLAR FLARE: BASIC MECHANISM AND PARAMETER DISTRIBUTIONS			X-RAY AND MICROWAVE MODELS IN SUPPORT OF HESSI SOLAR FLARE OBSERVATIONS		
04/20/1998 - 10/14/2001	FY01: \$34,747	Total: \$229,184	06/14/1999 - 06/14/2002	FY01: \$88,820	Total: \$135,080
<i>Prin. Invest.: V PETROSIAN</i>			<i>Prin. Invest.: V PETROSIAN</i>		
<i>Tech. Officer: GSFC/W WAGNER</i>			<i>Tech. Officer: GSFC/G D HOLMAN</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 11 - ASTRONOMY</i>		
<b>NAG 5 7208</b>	<b>STANFORD UNIV</b>	<b>1960</b>	<b>NAG 5 8645</b>	<b>STANFORD UNIV</b>	<b>1968</b>
CHEMICAL AND ISOTOPIC ANALYSIS OF TRACE ORGANIC MATTER ON METEORITES AND INTERSTELLAR DUST USING			STUDYING THE EFFECTS OF CA, MG, AND K ON AEROSOL SIZE & COMPOSITION, NOX & RADIATIVE TRANSFER		
03/25/1998 - 07/31/2001	FY01: \$0	Total: \$239,000	07/13/1999 - 07/31/2002	FY01: \$105,143	Total: \$317,184
<i>Prin. Invest.: R ZARE</i>			<i>Prin. Invest.: M Z JACOBSON</i>		
<i>Tech. Officer: HQ/J BOYCE</i>			<i>Tech. Officer: GSFC/M WEI</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</i>		
<b>NAG 5 7464</b>	<b>STANFORD UNIV</b>	<b>1961</b>	<b>NAG 5 8714</b>	<b>STANFORD UNIV</b>	<b>1969</b>
A TRANSITION EDGE MICROCALORIMETER SPECTROMETER FOR THE EUV AND FUV			VARIATIONS OF THE SOLAR MAGNETIC FIELDS		
11/30/1998 - 12/31/2001	FY01: \$78,000	Total: \$232,708	08/03/1999 - 08/31/2002	FY01: \$24,000	Total: \$70,500
<i>Prin. Invest.: A C WALKER, JR., NONE</i>			<i>Prin. Invest.: P H SCHERRER</i>		
<i>Tech. Officer: GSFC/H HASAN</i>			<i>Tech. Officer: GSFC/J BOYCE</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 11 - ASTRONOMY</i>		

**NAG 5 8802** **STANFORD UNIV** **1970**  
 "ORION: A LOW-COST DEMONSTRATION OF FORMATION FLYING"  
 12/16/1999 - 07/31/2001 FY01: \$4,512 Total: \$654,512  
*Prin. Invest.: R BYER*  
*Tech. Officer: GSFC/J O BRISTOW*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NAG 5 8866** **STANFORD UNIV** **1971**  
 A COUPLED ICE-OCEAN MODEL OF MESOSCALE PHYSICAL/ BIOLOGICAL  
 INTERACTIONS IN THE ROSS SEA  
 12/08/1999 - 12/31/2001 FY01: \$0 Total: \$169,598  
*Prin. Invest.: K ARRIGO*  
*Tech. Officer: GSFC/J MARRA*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8878** **STANFORD UNIV** **1972**  
 SOLAR OSCILLATIONS INVESTIGATION-MISSION OBSERVATIONS AND  
 DATA ANALYSIS – CONTINUATION OF NAG5-3077  
 01/04/2000 - 06/30/2001 FY01: \$1,564,961 Total: \$4,499,996  
*Prin. Invest.: P SCHERRER*  
*Tech. Officer: GSFC/J GURMAN*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 9040** **STANFORD UNIV** **1973**  
 VALIDATION & IMPROVEMENT OF SRTM PERFORMANCE OVER RUGGED  
 TERRAIN.  
 02/10/2000 - 02/14/2002 FY01: \$50,000 Total: \$100,000  
*Prin. Invest.: H A ZEBKER*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 9087** **STANFORD UNIV** **1974**  
 SUPERCONDUCTING WIDE-BAND FAST SPECTROPHOTOMETERS  
 02/17/2000 - 12/31/2001 FY01: \$320,000 Total: \$621,440  
*Prin. Invest.: B CABRERA*  
*Tech. Officer: GSFC/P CRANE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9494** **STANFORD UNIV** **1975**  
 UPLINK MICRO-RADIO INSTRUMENT DEVELOPMENT  
 04/18/2000 - 04/30/2001 FY01: \$0 Total: \$147,682  
*Prin. Invest.: L TYLER*  
*Tech. Officer: GSFC/B BETTS*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9556** **STANFORD UNIV** **1976**  
 RESEARCH INTO RADIO OCCULTATION METHODS FOR STUDY OF PLANETARY ATMOSPHERES  
 05/04/2000 - 04/30/2003 FY01: \$75,000 Total: \$150,000  
*Prin. Invest.: G TYLER*  
*Tech. Officer: GSFC/D BOGAN*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9737** **STANFORD UNIV** **1977**  
 DISTRIBUTED SPACE SYSTEM TECHNOLOGY DEMONSTRATIONS WITH THE  
 EMERALD NANOSATELLITE  
 06/22/2000 - 06/30/2002 FY01: \$80,000 Total: \$130,000  
*Prin. Invest.: DEBRA*  
*Tech. Officer: GSFC/K LUU*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NAG 5 9760** **STANFORD UNIV** **1978**  
 MEASURING HUMAN IMPACTS ON BIODIVERSITY & CARRYING CAPACITY  
 OF ECO-SYSTEMS: COMBINING REMOTELY-SENSE  
 06/29/2000 - 08/31/2002 FY01: \$51,619 Total: \$102,105  
*Prin. Invest.: P EHRLICH*  
*Tech. Officer: GSFC/M L IMHOFF*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9784** **STANFORD UNIV** **1979**  
 STRUCTURE OF SOLAR VELOCITY AND MAGNETIC FIELDS  
 07/06/2000 - 06/30/2002 FY01: \$45,512 Total: \$169,744  
*Prin. Invest.: P T SCHERER*  
*Tech. Officer: GSFC/W J WAGNER*  
*CASE Category: 13 – PHYSICS*

**NAG 5 9842** **STANFORD UNIV** **1980**  
 COMPOSITION, PALEOENVIRONMENTAL DISTRIBUTION, AND  
 PALEOECOLOGY OF ARCHEAN BACTERIAL COMMUNITIES  
 07/31/2000 - 07/31/2002 FY01: \$88,400 Total: \$171,673  
*Prin. Invest.: D R LOWE*  
*Tech. Officer: GSFC/M MEYER*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9853** **STANFORD UNIV** **1981**  
 ANTARCTIC ICE SHEET PENETRATION DEPTHS, GRAIN SIZE & ACCUMULATION RATES FROM INSAR & SAR ANALYSIS OF  
 07/31/2000 - 03/31/2002 FY01: \$42,416 Total: \$84,832  
*Prin. Invest.: H ZEBKER*  
*Tech. Officer: GSFC/W ABDALATI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9862** **STANFORD UNIV** **1982**  
 SUPPORT FOR PUBLICATION COSTS FOR PRODUCT OF NASA- FUNDED  
 MEETING  
 08/09/2000 - 07/31/2001 FY01: \$0 Total: \$10,000  
*Prin. Invest.: H A MOONEY*  
*Tech. Officer: GSFC/D E WICKLAND*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9887** **STANFORD UNIV** **1983**  
 CHEMICAL AND ISOTOPIC SYSTEMATICS OF EARLY SOLAR SYSTEM  
 PRECURSORS & PRODUCTS  
 08/21/2000 - 08/31/2001 FY01: \$42,000 Total: \$42,000  
*Prin. Invest.: T IRELAND*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10483** **STANFORD UNIV** **1984**  
 SOLAR OSCILLATIONS INVESTIGATION – MICHELSON DOPPLER IMAGER  
 FOR THE SOHO SOLAR MAXIMUM MISSION  
 03/05/2001 - 03/14/2002 FY01: \$2,242,239 Total: \$2,242,239  
*Prin. Invest.: P H SCHERRER*  
*Tech. Officer: GSFC/J GURMAN*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 10519** **STANFORD UNIV** **1985**  
 THE 15TH NATIONAL CONFERENCE OF THE BLACK PHYSICS STUDENTS  
 03/09/2001 - 03/14/2002 FY01: \$84,800 Total: \$84,800  
*Prin. Invest.: B CABRERA*  
*Tech. Officer: GSFC/D MENCHAN*  
*CASE Category: 13 – PHYSICS*

**NAG 5 10534** STANFORD UNIV 1986  
 MONITORING & MODELING LAND-USE CHANGE: INTEGRATING REMOTE SENSING WITH SOCIOECONOMIC DRIVERS  
 03/12/2001 - 02/28/2002 FY01: \$115,238 Total: \$115,238  
*Prin. Invest.:* K SETO  
*Tech. Officer:* GSFC/M Y WEI  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NAG 5 10544** STANFORD UNIV 1987  
 UNDERSTANDING ORGANICS IN METEORITES & THE PRE-BIOCENIC ENVIRONMENT  
 03/09/2001 - 07/31/2002 FY01: \$45,000 Total: \$45,000  
*Prin. Invest.:* R ZARE  
*Tech. Officer:* GSFC/J M BOYCE  
*CASE Category:* 12 – CHEMISTRY

**NAG 5 10576** STANFORD UNIV 1988  
 INFERENCE OF SURFACE PROPERTIES FROM MARS GLOBAL SURVEYOR 3.6 CM WAVELENGTH OBLIQUE SCATTERING  
 03/21/2001 - 02/28/2002 FY01: \$50,000 Total: \$50,000  
*Prin. Invest.:* G TYLER  
*Tech. Officer:* GSFC/J M BOYCE  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 10719** STANFORD UNIV 1989  
 ORION: A LOW-COST DEMONSTRATION OF FORMATION FLYING  
 04/24/2001 - 01/31/2002 FY01: \$298,830 Total: \$298,830  
*Prin. Invest.:* R L BYER  
*Tech. Officer:* GSFC/S P HUGHES  
*CASE Category:* 42 – ASTRONAUTICAL ENGR

**NAG 5 10799** STANFORD UNIV 1990  
 CONCEPT STUDY FOR THE "SATELLITE TEST OF THE EQUIVALENCE PRINCIPLE" (STEP) MISSION AO-99-OSS-0  
 05/01/2001 - 04/30/2002 FY01: \$285,990 Total: \$285,990  
*Prin. Invest.:* C EVERITT  
*Tech. Officer:* GSFC/J R BYRD  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 10976** STANFORD UNIV 1991  
 INVESTIGATION OF HELIOSEISMIC WAVES AND MAGNETIC VARIATIONS ASSOCIATED WITH SOLAR FLARES  
 05/29/2001 - 05/31/2002 FY01: \$27,684 Total: \$27,684  
*Prin. Invest.:* V PETROSIAN  
*Tech. Officer:* GSFC/W J WAGNER  
*CASE Category:* 13 – PHYSICS

**NAG 5 11264** STANFORD UNIV 1992  
 MODELLING CHANGE IN THE SOUTHERN OCEAN: BIOCHEMISTRY OF CARBON UPTAKE AND EXPORT IN THE ROSS SEA,  
 08/31/2001 - 09/30/2004 FY01: \$80,683 Total: \$80,683  
*Prin. Invest.:* K ARRIGO  
*Tech. Officer:* GSFC/J MARRA  
*CASE Category:* 33 – OCEANOGRAPHY

**NAG 8 1151** STANFORD UNIV 1993  
 LASER SCATTERING TECTONOGRAPHY  
 08/18/1995 - 04/30/2001 FY01: \$0 Total: \$730,000  
*Prin. Invest.:* R S FEIGELSON  
*Tech. Officer:* MSFC/D A REISS  
*CASE Category:* 19 – PHYSICAL SCIENCE, OTHER

**NAG 8 1431** STANFORD UNIV 1994  
 R/S HIGH RESOLUTION STUDY OF THE CRITICAL REGION OF OXYGEN USING MAGNETIC LEVITATION  
 03/05/1998 - 01/31/2003 FY01: \$142,500 Total: \$432,455  
*Prin. Invest.:* J A LIPA  
*Tech. Officer:* MSFC/D HUBBARD  
*CASE Category:* 13 – PHYSICS

**NAG 8 1436** STANFORD UNIV 1995  
 R/S A TEST OF SUPERSYMMETRY THEORY BY SEARCHING FOR ANOMALOUS SHORT RANGE FORCES  
 02/06/1998 - 07/31/2001 FY01: \$0 Total: \$124,856  
*Prin. Invest.:* J A LIPA, NONE  
*Tech. Officer:* MSFC/D HUBBARD  
*CASE Category:* 13 – PHYSICS

**NAG 8 1439** STANFORD UNIV 1996  
 R/S FUNDAMENTAL PHYSICS EXPERIMENTS WITH SUPER-CONDUCTING CAVITY-STABILIZED OSCILLATORS ON SPACE  
 02/01/1998 - 01/31/2003 FY01: \$237,500 Total: \$827,542  
*Prin. Invest.:* J A LIPA  
*Tech. Officer:* MSFC/J W POE  
*CASE Category:* 13 – PHYSICS

**NAG 8 1457** STANFORD UNIV 1997  
 R/S INVESTIGATION OF THE CRYSTAL GROWTH OF DIELECTRIC MATERIALS BY THE BRIDGMAN TECHNIQUE  
 02/01/1998 - 01/31/2002 FY01: \$124,450 Total: \$484,450  
*Prin. Invest.:* R S FEIGELSON  
*Tech. Officer:* MSFC/C TALLEY  
*CASE Category:* 19 – PHYSICAL SCIENCE, OTHER

**NAG 8 1692** STANFORD UNIV 1998  
 "SOLID STATE ELECTROCHEMICAL OXYGEN CONVERSITON FOR MARTIAN & LUNAR ENVIRONMENTS..."  
 06/02/2000 - 11/30/2003 FY01: \$55,000 Total: \$100,000  
*Prin. Invest.:* G M HOMSY  
*Tech. Officer:* MSFC/P DOTY  
*CASE Category:* 12 – CHEMISTRY

**NAG 8 1772** STANFORD UNIV 1999  
 THE EFFECTS OF LARGE-SCALE ONE-DIMENSIONAL CONFINEMENT ON THE SPECIFIC HEAT OF HELIUM...  
 05/04/2001 - 02/28/2003 FY01: \$150,000 Total: \$150,000  
*Prin. Invest.:* J A LIPA  
*Tech. Officer:* MSFC/D HUBBARD  
*CASE Category:* 19 – PHYSICAL SCIENCE, OTHER

**NAG 8 1777** STANFORD UNIV 2000  
 TEST OF FUNDAMENTAL PHYSICS THROUGH STUDIES OF SUPERFLUID HELIUM THREE  
 04/27/2001 - 09/30/2005 FY01: \$100,000 Total: \$100,000  
*Prin. Invest.:* D D OSHEROFF, NONE  
*Tech. Officer:* MSFC/D HUBBARD  
*CASE Category:* 19 – PHYSICAL SCIENCE, OTHER

**NAS 1 00104** STANFORD UNIV 2001  
 AWARD CONTRACT RESULTING FROM NRA-99-OES-07  
 05/25/2000 - 05/24/2002 FY01: \$303,922 Total: \$520,922  
*Prin. Invest.:* R L BYER  
*Tech. Officer:* LARC/F PERI  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

<b>NAS 1 98139</b>	<b>STANFORD UNIV</b>	<b>2002</b>	<b>NCC 2 1074</b>	<b>STANFORD UNIV</b>	<b>2010</b>
SAL: SYMBOLIC ANALYSIS LABORATORY 10/30/1998 - 10/29/2001	FY01: \$100,181	Total: \$575,251	THE RESEARCH & TRAINING ACTIVITIES FOR THE JOINT INSTITUTE FOR AERONAUTICS AND ACOUSTICS 12/21/1998 - 10/31/1999	FY01: -\$1,243	Total: \$68,757
Prin. Invest.: D L DILL Tech. Officer: LARC/P S MINER CASE Category: 22 – COMPUTER SCIENCE			Prin. Invest.: B J CANTWELL Tech. Officer: ARC/R A MEHTA CASE Category: 41 – AERONAUTICAL ENGR		
<b>NAS 5 00147</b>	<b>STANFORD UNIV</b>	<b>2003</b>	<b>NCC 2 1151</b>	<b>STANFORD UNIV</b>	<b>2011</b>
GAMMA RAY LARGE AREA SPACE TELESCOPE (GLAST) 05/03/2000 - 11/30/2001	FY01: \$1,235,552	Total: \$2,046,552	CENTER FOR TURBULENCE RESEARCH 01/07/2000 - 01/31/2002	FY01: \$1,250,000	Total: \$2,570,000
Prin. Invest.: P MICHELSON Tech. Officer: GSFC/S LAMBROSS CASE Category: 11 – ASTRONOMY			Prin. Invest.: P MOIN Tech. Officer: ARC/N N MANSOUR, ARC/M M ROGER CASE Category: 46 – MECHANICAL ENGR		
<b>NAS 5 31726</b>	<b>STANFORD UNIV</b>	<b>2004</b>	<b>NCC 2 1154</b>	<b>STANFORD UNIV</b>	<b>2012</b>
EOS - "BIOSPHERE-ATMOSPHERE INTERACTIONS" STUDY 10/24/1991 - 06/30/2000	FY01: -\$29,446	Total: \$1,310,754	MULTIPLE COOPERATING ROBOTS 01/20/2000 - 06/30/2001	FY01: \$0	Total: \$569,999
Prin. Invest.: H MOONEY, P VITOUSEK Tech. Officer: GSFC/P SELLERS CASE Category: 31 – ATMOSPHERIC SCIENCE			Prin. Invest.: S ROCK Tech. Officer: ARC/M G BUALAT/S LAU CASE Category: 22 – COMPUTER SCIENCE		
<b>NAS 5 98151</b>	<b>STANFORD UNIV</b>	<b>2005</b>	<b>NCC 2 1172</b>	<b>STANFORD UNIV</b>	<b>2013</b>
CONSTELLATION - X PROGRAM 11/27/1998 - 12/15/2001	FY01: \$0	Total: \$60,000	HIGH REGRESSION RATE HYBRID COMBUSTION 04/10/2000 - 09/30/2001	FY01: \$0	Total: \$198,240
Prin. Invest.: B CABRERA Tech. Officer: GSFC/J GRADY CASE Category: 11 – ASTRONOMY			Prin. Invest.: B J CANTWELL Tech. Officer: ARC/G G ZILLIAC CASE Category: 42 – ASTRONAUTICAL ENGR		
<b>NAS 8 39225</b>	<b>STANFORD UNIV</b>	<b>2006</b>	<b>NCC 2 1175</b>	<b>STANFORD UNIV</b>	<b>2014</b>
GRAVITY PROBE B SCIENCE MISSION INTERIM CONTRACT 01/18/1995 - 09/30/2004	FY01: \$38,963,519	Total: \$321,212,206	THE DEVELOPMENT OF A SOLID WASTE TREATMENT TECHNOLOGY FOR THE NEAR TERM HUMAN EXPLORATION OF MARS 04/27/2000 - 09/30/2001	FY01: \$118,116	Total: \$228,710
Prin. Invest.: C W EVERITT, B PARKINSON Tech. Officer: MSFC/R/S GEVEDEN, MSFC/B RANDOLPH CASE Category: 13 – PHYSICS			Prin. Invest.: M REINHARD Tech. Officer: ARC/M T FLYNN CASE Category: 42 – ASTRONAUTICAL ENGR		
<b>NCC 2 721</b>	<b>STANFORD UNIV</b>	<b>2007</b>	<b>NCC 2 1208</b>	<b>STANFORD UNIV</b>	<b>2015</b>
THE STRUCTURE, FACIES & DEPOSITION OF SILICEOUS SINTER AROUND THERMAL SPRINGS: IMPLICATIONS FOR... 07/03/1991 - 12/31/2001	FY01: \$0	Total: \$539,229	DOES MECHANICAL STIMULATION ALTER GENE EXPRESSION IN C. ELEGANS 11/24/2000 - 11/14/2001	FY01: \$40,000	Total: \$40,000
Prin. Invest.: D R LOWE Tech. Officer: ARC/D J DES MARAIS, ARC/S CHANG CASE Category: 32 – GEOLOGICAL SCIENCE			Prin. Invest.: S K KIM Tech. Officer: ARC/C A CONLEY, ARC/E M HOLTON CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)		
<b>NCC 2 908</b>	<b>STANFORD UNIV</b>	<b>2008</b>	<b>NCC 2 5186</b>	<b>STANFORD UNIV</b>	<b>2016</b>
STUDIES OF PLANETARY RING SYSTEMS 06/26/1995 - 05/31/2002	FY01: \$147,990	Total: \$839,827	HIGHLY ACCURATE RECONSTRUCTION OF COMPUTED TOMOGRAPHY VOLUME SCANS FOR THE DETERMINATION OF LOCAL BONE 07/25/1996 - 06/30/2000	FY01: -\$30	Total: \$128,970
Prin. Invest.: A L TYLER, M R SHOWALTER Tech. Officer: ARC/J N CUZZI CASE Category: 11 – ASTRONOMY			Prin. Invest.: S A NAPEL Tech. Officer: ARC/R T WHALEN CASE Category: 56 – MEDICAL		
<b>NCC 2 1010</b>	<b>STANFORD UNIV</b>	<b>2009</b>	<b>NCC 2 5261</b>	<b>STANFORD UNIV</b>	<b>2017</b>
DEVELOPMENT OF 3-D BIOMEDICAL COMPUTATION 01/07/1998 - 03/31/2002	FY01: \$2,236,303	Total: \$3,586,724	INVESTIGATION OF ATTENTIONAL BOTTLENECKS USING FUNCTIONAL MAGNETIC RESONANCE IMAGING 06/17/1998 - 02/28/2001	FY01: \$0	Total: \$76,258
Prin. Invest.: S A SCHENDEL Tech. Officer: ARC/K A SOUZA CASE Category: 56 – MEDICAL			Prin. Invest.: J E GABRIELI Tech. Officer: ARC/R W REMINGTON, ARC/J C JOHNSTON CASE Category: 61 – PSYCHOLOGY/BIOLOGY		

**NCC 2 5270** STANFORD UNIV 2018  
 EXPLORING CARBON NANOTUBES FOR FUTURE 1NM NANOLITHOGRAPHY  
 06/12/1998 - 05/31/2001 FY01: \$0 Total: \$70,000  
*Prin. Invest.: H DAI*  
*Tech. Officer: ARC/T R GOVINDAN*  
*CASE Category: 12 – CHEMISTRY*

**NCC 2 5278** STANFORD UNIV 2019  
 ARCHITECTURE FOR ACCESS & MUNIPULATION OF HETEROGENEOUS INFORMATION  
 07/16/1998 - 06/30/2001 FY01: \$0 Total: \$190,000  
*Prin. Invest.: H GARCIA-MOLINA*  
*Tech. Officer: ARC/M GERALD-YAMASAKI*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NCC 2 5298** STANFORD UNIV 2020  
 THEORETICAL MODELING OF AUTOCATALYTIC MOLECULAR SYSTEMS  
 10/22/1998 - 03/31/2000 FY01: \$0 Total: \$30,000  
*Prin. Invest.: R B LAUGHLIN*  
*Tech. Officer: ARC/J D SCARGLE, ARC/S P COLOMBANO*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NCC 2 5335** STANFORD UNIV 2021  
 SHARP SOUNDING ROCKET EXPERIMENT & ENTRY SIMULATION  
 07/23/1999 - 12/31/2000 FY01: \$0 Total: \$122,275  
*Prin. Invest.: B CANTWELL, R TWIGGS*  
*Tech. Officer: ARC/P KOLODZIEJ, ARC/D J RASKY*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NCC 2 5350** STANFORD UNIV 2022  
 SIMULATION-BASED PROTOTYPING OF SOLID-STATE QUANTUM COMPUTERS  
 09/15/1999 - 03/31/2001 FY01: \$0 Total: \$60,000  
*Prin. Invest.: K CHO*  
*Tech. Officer: ARC/T R GOVINDAN*  
*CASE Category: 13 – PHYSICS*

**NCC 2 5352** STANFORD UNIV 2023  
 THE STRUCTURE & CHEMISTRY OF HIGH DENSITY INDUCTIVELY COUPLED PLASMA DISCHARGES USED IN MICROELECTRONICS  
 09/22/1999 - 04/14/2000 FY01: -\$49 Total: \$45,463  
*Prin. Invest.: M A CAPPELLI*  
*Tech. Officer: ARC/S P SHARMA*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NCC 2 5359** STANFORD UNIV 2024  
 INVESTIGATION OF CONVOLUTION SEGMENT PAIR DYADS IN BACTERIAL GENOMES  
 10/26/1999 - 10/14/2001 FY01: \$65,000 Total: \$115,500  
*Prin. Invest.: R B LAUGHLIN*  
*Tech. Officer: ARC/M L FONDA*  
*CASE Category: 13 – PHYSICS*

**NCC 2 5363** STANFORD UNIV 2025  
 DEVELOPMENT OF FUNDAMENTAL TECHNOLOGIES FOR FLUID FLOW CALCULATIONS  
 01/25/2000 - 01/31/2002 FY01: \$76,165 Total: \$187,415  
*Prin. Invest.: T HUGHES*  
*Tech. Officer: ARC/T J BARTH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 2 5371** STANFORD UNIV 2026  
 FABRICATION OF SILICON SUBSTRATES FOR CONTROLLED SYNTHESIS OF CARBON NANOTUBES  
 03/23/2000 - 02/28/2001 FY01: \$0 Total: \$45,050  
*Prin. Invest.: Z SHEN*  
*Tech. Officer: ARC/M MEYYAPPAN/H PARTRIDGE*  
*CASE Category: 13 – PHYSICS*

**NCC 2 5377** STANFORD UNIV 2027  
 DEVELOPMENT AND APPLICATION OF NOVEL DIAGNOSTICS FOR ARC-JET CHARACTERIZATION  
 04/03/2000 - 03/31/2002 FY01: \$95,000 Total: \$189,896  
*Prin. Invest.: R K HANSON*  
*Tech. Officer: ARC/G A RAICHE, ARC/J H GRINSTEAD*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NCC 2 5381** STANFORD UNIV 2028  
 IN VIVO CHARACTERIZATION OF BREAST TUMOR TISSUE USING THE NASA SMART PROBE  
 04/28/2000 - 11/30/2000 FY01: \$0 Total: \$23,708  
*Prin. Invest.: S JEFFREY*  
*Tech. Officer: ARC/R MAH*  
*CASE Category: 56 – MEDICAL*

**NCC 2 5400** STANFORD UNIV 2029  
 SIMULATION-BASED DESIGN OF SMART NANOTUBE COMPOSITES MATERIALS  
 09/25/2000 - 09/30/2002 FY01: \$42,902 Total: \$81,549  
*Prin. Invest.: K J CHO*  
*Tech. Officer: ARC/H PARTIDGE, ARC/M MEYYAPPAN*  
*CASE Category: 12 – CHEMISTRY*

**NCC 2 5422** STANFORD UNIV 2030  
 DESIGN OF PREDICTIVE MODELS OF NASA  
 03/09/2001 - 02/28/2002 FY01: \$45,000 Total: \$45,000  
*Prin. Invest.: C TOMLIN*  
*Tech. Officer: ARC/G MEYER, ARC/R BACH*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 2 5434** STANFORD UNIV 2031  
 NONINVASIVE INVESTIGATION OF BONE ADAPTATION IN HUMANS TO CUMULATIVE DAILY MECHANICAL LOADING  
 04/26/2001 - 04/30/2002 FY01: \$61,145 Total: \$61,145  
*Prin. Invest.: N J PELC*  
*Tech. Officer: ARC/R T WHALEN, ARC/S B ARNAUD*  
*CASE Category: 56 – MEDICAL*

**NCC 2 5439** STANFORD UNIV 2032  
 SIMULATION BASED PROTOTYPED OF SOLID-STATE QUANTUM COMPUTERS: A PATHWAY FOR REVOLUTIONARY COMPUTING  
 07/17/2001 - 05/31/2002 FY01: \$42,719 Total: \$42,719  
*Prin. Invest.: K CHO*  
*Tech. Officer: ARC/H PARTIDGE, ARC/T R GORINDAN*  
*CASE Category: 13 – PHYSICS*

**NCC 2 5444** STANFORD UNIV 2033  
 THREE DIMENSIONAL NUMERICAL SIMULATION OF NASA STUDIED MFD-BYPASS SCRAMJET ENGINES  
 07/12/2001 - 05/31/2002 FY01: \$35,000 Total: \$35,000  
*Prin. Invest.: R W MACCORMICK*  
*Tech. Officer: ARC/U B MANTA*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NCC 2 5446** **STANFORD UNIV** **2034**  
 FABRICATION OF SILICON SUBSTRATES FOR CONTROLLED SYNTHESIS OF CARBON NANOTUBES  
 07/16/2001 - 05/14/2002 FY01: \$49,120 Total: \$49,120  
*Prin. Invest.:* Z X SHEN  
*Tech. Officer:* ARC/H PATRIDGE, ARC/M MEYYAPPAN  
*CASE Category:* 12 – CHEMISTRY

**NCC 2 5457** **STANFORD UNIV** **2035**  
 DEVELOPMENT OF FUNDAMENTAL TECHNOLOGIES FOR COMPLEX MULTI-SCALE FLUID FLOW CALCULATIONS  
 08/17/2001 - 08/14/2002 FY01: \$50,000 Total: \$50,000  
*Prin. Invest.:* T J HUGHES  
*Tech. Officer:* ARC/N MANSOUR, ARC/T BARTH  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NCC 2 5467** **STANFORD UNIV** **2036**  
 MOLECULAR DYNAMICS ON MASSIVELY PARALLEL COMPUTERS : TOWARDS BIOLOGICAL TIME SCALES  
 09/28/2001 - 09/30/2002 FY01: \$60,133 Total: \$60,133  
*Prin. Invest.:* E F DARVE  
*Tech. Officer:* ARC/N N MANSOUR  
*CASE Category:* 22 – COMPUTER SCIENCE

**NCC 3 640** **STANFORD UNIV** **2037**  
 ATTENUATION OF GAS TURBULENCE BY A NEARLY STATIONARY DISPERSION OF FINE PARTICLES  
 08/18/1998 - 12/31/2001 FY01: \$95,000 Total: \$375,000  
*Prin. Invest.:* J K EATON  
*Tech. Officer:* GRC/F CHARIMONTE  
*CASE Category:* 46 – MECHANICAL ENGR

**NCC 8 197** **STANFORD UNIV** **2038**  
 ACTIVE SENSING MONITORING OF CRYOGENIC COMPOSITE STRUCTURES FOR SPACE TRANSPORTATION APPLICATIONS.  
 03/09/2000 - 03/05/2002 FY01: \$130,000 Total: \$290,000  
*Prin. Invest.:* F CHANG  
*Tech. Officer:* MSFC/A KELLEY  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NGT 2 52246** **STANFORD UNIV** **2039**  
 ADVANCED LIFE SUPPORT POWER REDUCTION  
 08/20/1998 - 09/30/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.:* B LUSIGNAN  
*Tech. Officer:* ARC/R T WHALEN  
*CASE Category:* 59 – LIFE SCIENCE, OTHER

**NGT 2 52267** **STANFORD UNIV** **2040**  
 AN ALTERNATIVE TO PNEUMATIC CONTROL TECHNIQUES FOR ROLL-YAW CONTROL OF FLIGHT VEHICLES  
 07/28/2000 - 08/31/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.:* S M ROCK  
*Tech. Officer:* ARC/R D MEHTA, ARC/J C ROSS  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NGT 2 52282** **STANFORD UNIV** **2041**  
 VESTIBULO-OCULAR REFLEXES IN NORMAL AND OTOCONIA-DEFICIENT HEAD TILT (HET) MICE  
 08/09/2001 - 06/30/2002 FY01: \$21,000 Total: \$21,000  
*Prin. Invest.:* J RAYMOND  
*Tech. Officer:* ARC/R D BOYLE, ARC/T INTRAVIA  
*CASE Category:* 51 – BIOLOGY (EXCLUDING ENVIR)

**NGT 5 92** **STANFORD UNIV** **2042**  
 RADIO DIAGNOSTICS OF AURORAL HISS AND ASSOCIATED PLASMA DENSITY STRUCTURES/STUDENT: MARIA SALVATI  
 06/09/1999 - 09/14/2002 FY01: \$22,000 Total: \$66,000  
*Prin. Invest.:* U UMRAN  
*Tech. Officer:* GSFC/M S BURRELL  
*CASE Category:* 45 – ELECTRICAL ENGR

**NGT 5 103** **STANFORD UNIV** **2043**  
 ADVANCED SOLAR EUV & X-RAY SPECTROHELIOGRAPHY WITH THE TRANSITION EDGE SENSOR MICROCALORIMETER/STUDEN  
 05/25/2000 - 08/31/2000 FY01: -\$22,000 Total: \$0  
*Prin. Invest.:* A B WALKER  
*Tech. Officer:* GSFC/G A SOFFEN  
*CASE Category:* 13 – PHYSICS

**NGT 5 30204** **STANFORD UNIV** **2044**  
 LAND-USE CHANGE, AGRICULTURAL RUNOFF, & GREENHOUSE GASES IN TWO ESTUARIES OF SOUTHERN SONORA MEXICO  
 08/19/1999 - 08/31/2002 FY01: \$22,000 Total: \$66,000  
*Prin. Invest.:* P MATSON  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NGT 5 30216** **STANFORD UNIV** **2045**  
 PHYSIO-CHEMICAL AND BIOLOGICAL CONTROL OVER THE FATE OF NITROGEN AND PHOSPHORUS IN TROPICAL SOIL  
 08/24/1999 - 08/31/2002 FY01: \$22,000 Total: \$66,000  
*Prin. Invest.:* P M VITOUSEK  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NGT 5 30342** **STANFORD UNIV** **2046**  
 HYDROLOGIC APPLICATIONS OF SATELLITE RADAR INTERFEROMETRY: LAND SUBSIDENCE OVER EXPLOITED AQUIFER SYS  
 08/21/2000 - 08/31/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.:* H ZEBKER  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NGT 5 30360** **STANFORD UNIV** **2047**  
 THE COCCIDIOIDES IMMITS FUNGUS: EXPOSURE MODELING & PUBLIC POLICY THROUGH FAVERED SOIL HABITAT  
 08/23/2000 - 08/31/2001 FY01: \$0 Total: \$22,000  
*Prin. Invest.:* G W ERNST  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NGT 5 30392** **STANFORD UNIV** **2048**  
 RESOLVING THE RED SEA PARADOX: INTERANNUAL TO DECadal VARIABILITY IN PRIMARY PRODUCTION AND CORA  
 08/14/2001 - 08/31/2004 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.:* K ARRIGO  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NGT 5 50044** **STANFORD UNIV** **2049**  
 THE SEARCH FOR A DEFINITIVE BLACK HOLE SIGNATURE: PREDICTED MODES OF DISK OSCILLATION  
 07/17/1997 - 08/31/2000 FY01: \$0 Total: \$66,000  
*Prin. Invest.:* R WAGONER  
*Tech. Officer:* GSFC/A NURRIDIN  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NGT 5 50075** STANFORD UNIV 2050  
 SENSING AND CONTROL TECHNOOGIES FOR FORMATION FLYI  
 08/26/1997 - 12/31/2000 FY01: -\$447 Total: \$65,553  
*Prin. Invest.: J HOW*  
*Tech. Officer: HQ/A NURRIDIN*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50101** STANFORD UNIV 2051  
 ASSESSING LINKS BETWEEN BIODIVERSITY AND ECOSYSTEM FORESTS  
 09/06/1997 – 08/31/2000 FY01: \$0 Total: \$66,000  
*Prin. Invest.: C FIELD*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50227** STANFORD UNIV 2052  
 GLOBAL LIGHTNING DETECTION AND LOCATION USING LONG RANGE VLF  
 SFERICMEASUREMENTS  
 09/29/1998 – 08/31/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.: U INAN, WOOD*  
*Tech. Officer: HQ/A NURRIDIN*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NGT 5 50254** STANFORD UNIV 2053  
 MULTI-SPECTRAL OBSERVATIONS OF THE SOLAR CORONA, CHROMO-  
 SPHERE AND TRANSITION REGION  
 06/10/1999 – 06/30/2002 FY01: \$22,000 Total: \$66,000  
*Prin. Invest.: A B WALKER, JR.*  
*Tech. Officer: GSFC/L SMITH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50351** STANFORD UNIV 2054  
 NONLINEAR BEAM-PLASMA COUPLING OF THUNDERSTORM- GENERATED  
 RELATIVISTIC ELECTRONS TO THE MAGNETOSPHE  
 05/10/2001 – 06/30/2002 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: U S INAN*  
*Tech. Officer: GSFC/J SHARBER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50358** STANFORD UNIV 2055  
 IP INFRASTRUCTURE FOR DISTRIBUTED SPACE SYSTEMS  
 05/14/2001 – 07/31/2002 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: A FOX*  
*Tech. Officer: HQ/K BLANDING*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 9 28** STANFORD UNIV 2056  
 TASK-LEVEL CONTROL FOR SPACE ROBOTIC MANIPULATORS  
 09/25/1997 – 09/30/2000 FY01: -\$5,035 Total: \$60,965  
*Prin. Invest.: J HOW*  
*Tech. Officer: JSC/D G SICKOREZ*  
*CASE Category: 42 – ASTRONAUTICAL ENGR*

**NGT10 52619** STANFORD UNIV 2057  
 GSRP TRAINING GRANT  
 01/20/1999 – 07/30/2000 FY01: -\$3,948 Total: \$34,719  
*Prin. Invest.: C S CRIDDLE*  
*Tech. Officer: KSC/R M WHEELER*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 5 5191** THE SCRIPPS REASERCH INST (TSRI) -LA JOLLA 2058  
 SATELLITE REMOTE SENSING STUDIES OF BIOLOGICAL AND  
 BIOGEOCHEMICAL PROCESSES IN THE OCEAN  
 04/21/1998 – 03/31/2001 FY01: \$0 Total: \$38,852  
*Prin. Invest.: M VERNET*  
*Tech. Officer: GSFC/F E HOGE*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9386** THE SCRIPPS REASERCH INST (TSRI) -LA JOLLA 2059  
 EVOLUTION OF CATALYIC RNA IN THE LABORATORY  
 04/07/2000 – 03/31/2002 FY01: \$288,600 Total: \$560,461  
*Prin. Invest.: G JOYCE*  
*Tech. Officer: HQ/M MEYER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9604** THE SCRIPPS REASERCH INST (TSRI) -LA JOLLA 2060  
 A REGIONAL REAL-TIME, INTERACTIVE, GIS-BASED COMPUTERATIONAL  
 ENVIRONMENT FOR NASA'S DIRECT BROADCAST  
 05/31/2000 – 05/31/2002 FY01: \$350,000 Total: \$450,000  
*Prin. Invest.: J J SIMPSON*  
*Tech. Officer: GSFC/J DODGE*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 8 1834** THE SCRIPPS REASERCH INST (TSRI) -LA JOLLA 2061  
 CRYSTALLIZATION OF INTEGRAL MEMBRANE PROTEINS USING MOLECULAR BIOLOGY  
 09/19/2001 – 11/30/2004 FY01: \$52,000 Total: \$52,000  
*Prin. Invest.: G A CHANG*  
*Tech. Officer: MSFC/B GUYNES*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NCC 2 1055** THE SCRIPPS REASERCH INST (TSRI) -LA JOLLA 2062  
 SELF-REPRODUCING MOLECULAR SYSTEMS & DARWINIAN CHEMISTRY  
 08/27/1998 – 06/30/2003 FY01: \$1,129,733 Total: \$3,263,033  
*Prin. Invest.: R GHADIRI*  
*Tech. Officer: ARC/L J CAROFF, ARC/S CHANG*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NAG 1 2191** UNIV OF CALIFORNIA - BERKELEY 2063  
 MODELING ISOTOPE FRACTIONATION IN STRATOSP C02/N20/ CH4&03, INVEST  
 STRATOS CHEM/TRANSPORT, STRAT/TROPOS  
 05/17/1999 – 03/30/2002 FY01: \$95,076 Total: \$282,801  
*Prin. Invest.: K A BOERING*  
*Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 2 1135** UNIV OF CALIFORNIA - BERKELEY 2064  
 ALGORITHMS FOR VISUAL SEARCH AND THE PATHFINDER ROVER  
 06/25/1997 – 11/30/1999 FY01: \$0 Total: \$175,000  
*Prin. Invest.: L W STARK*  
*Tech. Officer: ARC/M M SIMS*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 2 1210** UNIV OF CALIFORNIA - BERKELEY 2065  
 FORMAL METHODS FOR SOFTWARE EVOLUTION MODELING INTERFACE  
 05/07/1998 – 07/31/2001 FY01: \$0 Total: \$449,999  
*Prin. Invest.: A AOLEM*  
*Tech. Officer: ARC/M R LOWRY*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 2 1214**      **UNIV OF CALIFORNIA - BERKELEY**      **2066**  
 MOCHA-MODULARITY IN MODEL CHECKING  
 05/05/1998 - 10/31/2000      FY01: -\$643  
*Prin. Invest.: T A HENZINGER*  
*Tech. Officer: ARC/M R LOWREY*  
*CASE Category: 22 – COMPUTER SCIENCE*  
 Total: \$849,357

**NAG 2 1351**      **UNIV OF CALIFORNIA - BERKELEY**      **2067**  
 EARLY GRAVITROPIC EVENTS IN ROOTS OF ARABIDOPSIS: CA2+ & H+  
 FLUXES IN THE COLUMELLA CELLS  
 07/21/1999 - 07/31/2002      FY01: \$112,044  
*Prin. Invest.: L J FELDMAN*  
*Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY*  
*CASE Category: 51 – BIOLOGY(EXCLUDING ENVIR)*  
 Total: \$346,437

**NAG 2 1359**      **UNIV OF CALIFORNIA - BERKELEY**      **2068**  
 COMPARATIVE ANALYSIS OF SEGMENTATION, DURING EMBRY OGENESIS,  
 POSTEMBRYONIC GROWTH & REGENERATION, AM  
 07/23/1999 - 07/31/2001      FY01: \$186,050  
*Prin. Invest.: D A WEISBLAT*  
*Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*  
 Total: \$458,243

**NAG 2 1361**      **UNIV OF CALIFORNIA - BERKELEY**      **2069**  
 HEMICHORDATES & THE ORIGIN OF CHORDATES  
 07/27/1999 - 07/14/2001      FY01: \$170,579  
*Prin. Invest.: J C GERHART*  
*Tech. Officer: ARC/M M AVERNER, ARC/G C JAHNS*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*  
 Total: \$446,868

**NAG 2 1398**      **UNIV OF CALIFORNIA - BERKELEY**      **2070**  
 SUPERCONDUCTING BOLOMETERS OF INFRARED AND MILLIMETER  
 WAVELENGTHS  
 03/16/2000 - 03/14/2002      FY01: \$65,000  
*Prin. Invest.: P L RICHARDS*  
*Tech. Officer: ARC/C MCCREIGHT*  
*CASE Category: 13 – PHYSICS*  
 Total: \$155,000

**NAG 2 1479**      **UNIV OF CALIFORNIA - BERKELEY**      **2071**  
 DETERMINISTIC & PROBABILISTIC HYBRID CONTROL OF A TM  
 05/01/2001 - 04/30/2002      FY01: \$40,000  
*Prin. Invest.: S S SAstry*  
*Tech. Officer: ARC/G MEYER, ARC/M J BONDI*  
*CASE Category: 49 – ENGINEERING, OTHER*  
 Total: \$40,000

**NAG 2 1483**      **UNIV OF CALIFORNIA - BERKELEY**      **2072**  
 STABLE ISOTOPE MEASUREMENTS OF CO2 & NO2 FOR SOLVE :  
 CONSTRAINTS ON OBSERVED OZONE CHANGES DUE TO CH  
 06/04/2001 - 04/30/2002      FY01: \$25,000  
*Prin. Invest.: K A BOERING, NONE*  
*Tech. Officer: ARC/R S HIPSKIN, ARC/C SCOFIELD*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*  
 Total: \$25,000

**NAG 2 1523**      **UNIV OF CALIFORNIA - BERKELEY**      **2073**  
 BIOGEOCHEMICAL MARS-LIKE ENVIRONMENTS (BIOMES)  
 09/17/2001 - 08/31/2002      FY01: \$250,000  
*Prin. Invest.: J F BANFIELD*  
*Tech. Officer: ARC/R GRYMES, ARC/W DOLCI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*  
 Total: \$250,000

**NAG 3 2026**      **UNIV OF CALIFORNIA - BERKELEY**      **2074**  
 A FUNDAMENTAL STUDY OF SMOLDERING COMBUSTION IN MI  
 CROGRAVITY  
 03/14/1997 - 03/15/2002      FY01: \$105,500  
*Prin. Invest.: A C FERNANDEZ-PELLO*  
*Tech. Officer: GRC/D L URBAN*  
*CASE Category: 49 – ENGINEERING, OTHER*  
 Total: \$680,526

**NAG 3 2103**      **UNIV OF CALIFORNIA - BERKELEY**      **2075**  
 LOW EMISSION, HIGH PERFORMANCE GAS TURBINE ENGINES EXPERIMENT  
 AND MODEL RESEARCH AND DEVELOPMENT  
 03/04/1998 - 01/06/2002      FY01: \$127,603  
*Prin. Invest.: R DIBBLE*  
*Tech. Officer: GRC/R R TACINA, GRC/N S LIU*  
*CASE Category: 41 – AERONAUTICAL ENGNR*  
 Total: \$386,026

**NAG 3 2105**      **UNIV OF CALIFORNIA - BERKELEY**      **2076**  
 MICROGRAVITY EFFECTS ON NEAR - BUBBLE MICROSCALE TRANSPORT  
 DURING BOILING OF BINARY FLUID MIXTURES  
 02/26/1998 - 12/31/2001      FY01: \$0  
*Prin. Invest.: V P CAREY*  
*Tech. Officer: GRC/B J MOTIL*  
*CASE Category: 13 – PHYSICS*  
 Total: \$279,761

**NAG 3 2152**      **UNIV OF CALIFORNIA - BERKELEY**      **2077**  
 WEAKLY NONLINEAR DESCRIPTION OF PARAMETRIC INSTABILITIES  
 06/09/1998 - 12/31/2002      FY01: \$119,500  
*Prin. Invest.: E KNOBLOCK*  
*Tech. Officer: GRC/J R SKARDA*  
*CASE Category: 13 – PHYSICS*  
 Total: \$419,500

**NAG 3 2221**      **UNIV OF CALIFORNIA - BERKELEY**      **2078**  
 NUMERICAL STUDY OF BUOYANCY AND DIFFERENTIAL DIFFUSION  
 EFFECTS ON THE STRUCTURE AND DYNAMICS OF TRI  
 12/29/1998 - 11/11/2001      FY01: \$65,224  
*Prin. Invest.: J CHEN*  
*Tech. Officer: GRC/K SACKSTEDER*  
*CASE Category: 49 – ENGINEERING, OTHER*  
 Total: \$173,490

**NAG 5 696**      **UNIV OF CALIFORNIA - BERKELEY**      **2079**  
 A PROPOSAL TO FLY THE EUV/FUV SPECTROMETER ON ORFEUS FOR  
 ASTRO-SPAS I & II  
 12/18/1992 - 02/28/2001      FY01: \$0  
*Prin. Invest.: M V HURWITZ*  
*Tech. Officer: GSFC/W B JOHNSON*  
*CASE Category: 13 – PHYSICS*  
 Total: \$2,839,678

**NAG 5 959**      **UNIV OF CALIFORNIA - BERKELEY**      **2080**  
 ELECTRON REFLECTOMETER ADDITION TO THE MAGNETIC FIELDS INVESTIGATION  
 ON THE MARS OBSERVER MISSION  
 08/01/1987 - 06/30/2001      FY01: \$0  
*Prin. Invest.: R P LIN, C F MCKEE*  
*Tech. Officer: GSFC/M H ACUNA*  
*CASE Category: 13 – PHYSICS*  
 Total: \$1,778,915

**NAG 5 3280**      **UNIV OF CALIFORNIA - BERKELEY**      **2081**  
 HIGH RESOLUTION OBSERVATIONS FROM SPACE: NEW INSIGHTS INTO  
 DARK MATTER AND GALAXY FORMATION  
 07/03/1996 - 07/14/2000      FY01: \$0  
*Prin. Invest.: T BROADHURST*  
*Tech. Officer: GSFC/D WEST*  
*CASE Category: 11 – ASTRONOMY*  
 Total: \$406,700

<b>NAG 5 3499</b>	<b>UNIV OF CALIFORNIA - BERKELEY</b>	<b>2082</b>	<b>NAG 5 4202</b>	<b>UNIV OF CALIFORNIA - BERKELEY</b>	<b>2090</b>
COSMOLOGICAL STUDIES OF THE COSMIC MICROWAVE BACKG			JOVIAN RING SYSTEM		
11/27/1996 - 11/30/2001	FY01: \$0	Total: \$335,762	03/17/1997 - 03/31/2001	FY01: \$0	Total: \$111,000
<i>Prin. Invest.: M I DAVIS</i>			<i>Prin. Invest.: D DE PATER</i>		
<i>Tech. Officer: GSFC/D K WEST</i>			<i>Tech. Officer: GSFC/W HUEBNER</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 11 - ASTRONOMY</i>		
<b>NAG 5 3500</b>	<b>UNIV OF CALIFORNIA - BERKELEY</b>	<b>2083</b>	<b>NAG 5 4454</b>	<b>UNIV OF CALIFORNIA - BERKELEY</b>	<b>2091</b>
ADDING THE MARS '96 GAMMA-RAY BURST EXPERIMENT TO RY NETWORK			BALLOON-BORNE OBSERVATIONS OF THE ANISOTROPY OF TH KGROUND		
11/27/1996 - 11/30/2001	FY01: \$37,650	Total: \$176,650	ON ANGULAR SCALES OF 0.2 TO 40 DEGREES		
<i>Prin. Invest.: K C HURLEY</i>			06/16/1997 - 01/31/2001	FY01: \$0	Total: \$450,000
<i>Tech. Officer: GSFC/D K WEST</i>			<i>Prin. Invest.: D L RICHARD</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>Tech. Officer: GSFC/H THRONSON</i>		
<b>NAG 5 3556</b>	<b>UNIV OF CALIFORNIA - BERKELEY</b>	<b>2084</b>	<i>CASE Category: 11 - ASTRONOMY</i>		
A MULTI-WAVELENGTH STUDY OF A COMPLETE SAMPLE OF N			<b>NAG 5 4521</b>	<b>UNIV OF CALIFORNIA - BERKELEY</b>	<b>2092</b>
01/04/1997 - 12/14/2001	FY01: \$134,000	Total: \$636,000	CARBON AND SILICON CARBIDE CLUSTERS AND THEIR RELA DUST/		
<i>Prin. Invest.: A V FILIPPIKENO</i>			LABORATORY INVESTIGATION OF THE UNIDENTIFI		
<i>Tech. Officer: GSFC/D K WEST</i>			05/08/1997 - 04/30/2000	FY01: \$0	Total: \$460,000
<i>CASE Category: 11 - ASTRONOMY</i>			<i>Prin. Invest.: D J SAYKALLY</i>		
<b>NAG 5 3596</b>	<b>UNIV OF CALIFORNIA - BERKELEY</b>	<b>2085</b>	<i>Tech. Officer: GSFC/G STRINGFELLOW</i>		
MISSION OPERATIONS AND DATA ANALYSIS FOR THE FAST AURORAL			<i>CASE Category: 11 - ASTRONOMY</i>		
SNAPSHOT EXPLORER (FAST) MISSION			<b>NAG 5 4884</b>	<b>UNIV OF CALIFORNIA - BERKELEY</b>	<b>2093</b>
01/25/1997 - 03/14/2002	FY01: \$756,500	Total: \$11,913,500	PAH EMISSION BANDS IN SELECTED PNE		
<i>Prin. Invest.: C W CARLSON</i>			07/28/1997 - 07/31/2000	FY01: -\$1	Total: \$74,999
<i>Tech. Officer: GSFC/R F PFAFF, JR.</i>			<i>Prin. Invest.: M COHEN</i>		
<i>CASE Category: 12 - CHEMISTRY</i>			<i>Tech. Officer: GSFC/D WEST</i>		
<b>NAG 5 3913</b>	<b>UNIV OF CALIFORNIA - BERKELEY</b>	<b>2086</b>	<i>CASE Category: 11 - ASTRONOMY</i>		
PHOTOCATHODE, MICROCHANNEL PLATE AND DELAY LINE TE D UV-VIS-			<b>NAG 5 4898</b>	<b>UNIV OF CALIFORNIA - BERKELEY</b>	<b>2094</b>
IBLE DETECTOR SYSTEMS			KINETIC ANALYSIS OF LANGMUIR WAVE PACKETS IN THE E		
02/21/1997 - 06/14/2001	FY01: \$0	Total: \$785,100	06/20/1997 - 06/30/2000	FY01: -\$10	Total: \$125,990
<i>Prin. Invest.: D H SIEGMUND</i>			<i>Prin. Invest.: D E ERGUN</i>		
<i>Tech. Officer: GSFC/H HASAN</i>			<i>Tech. Officer: GSFC/D EVANS</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 13 - PHYSICS</i>		
<b>NAG 5 3916</b>	<b>UNIV OF CALIFORNIA - BERKELEY</b>	<b>2087</b>	<b>NAG 5 4979</b>	<b>UNIV OF CALIFORNIA - BERKELEY</b>	<b>2095</b>
DEVELOPMENT OF A RADIO TOMOGRAPHY MISSION FOR INVE 'S MAGNE-			MARS/TITAN/MOON SOLAR WIND INTERACTIONS		
TOSPHERE			07/09/1997 - 07/14/2000	FY01: \$0	Total: \$50,000
02/21/1997 - 08/14/2000	FY01: \$0	Total: \$160,000	<i>Prin. Invest.: D G LUHMANN</i>		
<i>Prin. Invest.: F S MOZER</i>			<i>Tech. Officer: GSFC/S HOWARD</i>		
<i>Tech. Officer: GSFC/R HOWARD</i>			<i>CASE Category: 31 - ATMOSPHERIC SCIENCE</i>		
<i>CASE Category: 13 - PHYSICS</i>			<b>NAG 5 4992</b>	<b>UNIV OF CALIFORNIA - BERKELEY</b>	<b>2096</b>
<b>NAG 5 3941</b>	<b>UNIV OF CALIFORNIA - BERKELEY</b>	<b>2088</b>	HISTORICAL STUDIES ON EXTRATERRESTRIAL MATERIALS		
DEVELOPMENT OF DATA ANALYSIS, COMPRESSION AND VISU LARGE DATA			06/27/1997 - 12/31/2001	FY01: \$160,000	Total: \$832,000
SETS IN ASTROPHYSICS AND COSMOLOGY			<i>Prin. Invest.: D NISHIZUMI</i>		
03/03/1997 - 02/28/2001	FY01: \$0	Total: \$423,000	<i>Tech. Officer: GSFC/J F BOYCE</i>		
<i>Prin. Invest.: G SMOOTH</i>			<i>CASE Category: 12 - CHEMISTRY</i>		
<i>Tech. Officer: GSFC/J BREDEKAMP</i>			<b>NAG 5 5102</b>	<b>UNIV OF CALIFORNIA - BERKELEY</b>	<b>2097</b>
<i>CASE Category: 22 - COMPUTER SCIENCE</i>			ASTROPHYSICAL GAMMA-RAY SPECTROSCOPY WITH THE HIGH RESOLU-		
<b>NAG 5 4194</b>	<b>UNIV OF CALIFORNIA - BERKELEY</b>	<b>2089</b>	TION GAMMA-RAY (HIREGS)		
SILICON DIFFRACTION GRATINGS FOR ULTRAVIOLET APPLI			02/11/1997 - 10/31/2000	FY01: \$0	Total: \$1,492,600
03/25/1997 - 03/31/2002	FY01: \$96,000	Total: \$468,848	<i>Prin. Invest.: R W LIN</i>		
<i>Prin. Invest.: D V HURWITZ</i>			<i>Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT</i>		
<i>Tech. Officer: GSFC/H HASAN</i>			<i>CASE Category: 13 - PHYSICS</i>		
<i>CASE Category: 11 - ASTRONOMY</i>					

**NAG 5 5146**      **UNIV OF CALIFORNIA - BERKELEY**      **2098**  
 DEVELOPMENT OF GAS MICROSTRUCTURE DETECTORS (GMSD) FOR  
 GAMMA-RAY TELESCOPES  
 07/02/1997 - 07/02/2001      FY01: \$0      Total: \$248,130  
*Prin. Invest.: C HAILEY*  
*Tech. Officer: GSFC/H NEEDLEMAN*  
*CASE Category: 13 - PHYSICS*

**NAG 5 5197**      **UNIV OF CALIFORNIA - BERKELEY**      **2099**  
 PECASE PROGRAM FUNDING FOR THE FIRST YEAR OF RESEARCH;  
 SELECTED  
 05/21/1998 - 05/31/2001      FY01: \$0      Total: \$100,000  
*Prin. Invest.: M V HURWITZ*  
*Tech. Officer: GSFC/W B JOHNSON*  
*CASE Category: 13 - PHYSICS*

**NAG 5 5213**      **UNIV OF CALIFORNIA - BERKELEY**      **2100**  
 FUNDING FOR PHASE A OF THE CHIPS PROJECT P. I. - DR. M HURWITZ  
 10/08/1998 - 10/31/2003      FY01: \$5,041,228      Total: \$8,777,808  
*Prin. Invest.: M HURWITZ*  
*Tech. Officer: GSFC/D PIERCE*  
*CASE Category: 13 - PHYSICS*

**NAG 5 5231**      **UNIV OF CALIFORNIA - BERKELEY**      **2101**  
 TECHNOLOGY DEVELOPMENT FOR THE EXTREMELY-HEAVY GALACTIC  
 COSMIC-RAY COMPOSITION OBSERVER (ECCO)  
 05/17/1999 - 11/30/2003      FY01: \$100,000      Total: \$719,900  
*Prin. Invest.: A J WESTPHAL*  
*Tech. Officer: GSFC/B A MERRITT*  
*CASE Category: 13 - PHYSICS*

**NAG 5 5285**      **UNIV OF CALIFORNIA - BERKELEY**      **2102**  
 DEVELOPMENT OF GERMANIUM DETECTORS WITH LESS THAN 3D SPATIAL  
 RESOLUTION FOR NUCLEAR GAMMA-RAY ASTRO  
 06/12/2000 - 06/07/2002      FY01: \$195,000      Total: \$373,500  
*Prin. Invest.: R P LIN*  
*Tech. Officer: WFF/B MERRITT*  
*CASE Category: 13 - PHYSICS*

**NAG 5 5312**      **UNIV OF CALIFORNIA - BERKELEY**      **2103**  
 SOUNDING ROCKET EXPERIMENT TO EXPLORE ELECTRODYNAMICS  
 COUPLING PULSATIONS IN THE CUSP  
 02/06/2001 - 02/05/2003      FY01: \$42,000      Total: \$42,000  
*Prin. Invest.: G T DELORY*  
*Tech. Officer: GSFC/J C BRINTON*  
*CASE Category: 13 - PHYSICS*

**NAG 5 6103**      **UNIV OF CALIFORNIA - BERKELEY**      **2104**  
 NEW DIRECTIONS IN COMETARY SPECTROSCOPY  
 07/24/1997 - 07/31/2001      FY01: \$0      Total: \$83,000  
*Prin. Invest.: D SPINRAD*  
*Tech. Officer: GSFC/J BERGSTRAHL*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 6551**      **UNIV OF CALIFORNIA - BERKELEY**      **2105**  
 ORIGIN AND EVOLUTION OF WHITE DWARF STARS: THE EARLY YEARS  
 (LTSA)  
 11/21/1997 - 11/30/2001      FY01: \$106,000      Total: \$389,900  
*Prin. Invest.: S VENNES*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 6552**      **UNIV OF CALIFORNIA - BERKELEY**      **2106**  
 FOREGROUND ANALYSIS & REMOVAL FOR FUTURE CMB EXPERIMENTS  
 (LTSA)  
 11/21/1997 - 11/30/2001      FY01: \$109,700      Total: \$426,800  
*Prin. Invest.: G F SMOOTH*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 6593**      **UNIV OF CALIFORNIA - BERKELEY**      **2107**  
 LAND-USE AND LAND-COVER CHANGE IN SONORA, MEXICO  
 11/18/1997 - 11/14/2000      FY01: \$0      Total: \$215,069  
*Prin. Invest.: T L BENNING*  
*Tech. Officer: GSFC/A C JANETOS*  
*CASE Category: 59 - LIFE SCIENCE, OTHER*

**NAG 5 6748**      **UNIV OF CALIFORNIA - BERKELEY**      **2108**  
 DETERMINATION OF THE PROPERTIES OF HE IN THE LOCAL  
 INTERSTELLAR MEDIUM FROM THE EUVE ALL-SKY SURVEY  
 01/12/1998 - 12/31/2000      FY01: \$0      Total: \$65,555  
*Prin. Invest.: B FLYNN*  
*Tech. Officer: GSFC/D WEST*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 6890**      **UNIV OF CALIFORNIA - BERKELEY**      **2109**  
 VLA MONITORING OF JUPITER IN 3-D AT =6-90CM: 1981 - 1996  
 01/21/1998 - 12/31/2001      FY01: \$0      Total: \$190,439  
*Prin. Invest.: I DE PATER*  
*Tech. Officer: GSFC/J HILLMAN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 6928**      **UNIV OF CALIFORNIA - BERKELEY**      **2110**  
 ANALYSIS OF DATA FROM THE 3-D PLASMA AND ENERGETIC PARTICLE  
 EXPERIMENT ON THE GGS WIND SPACECRAFT  
 02/04/1998 - 01/31/2002      FY01: \$0      Total: \$2,408,000  
*Prin. Invest.: R P LIN*  
*Tech. Officer: GSFC/K OBILVIE*  
*CASE Category: 13 - PHYSICS*

**NAG 5 7173**      **UNIV OF CALIFORNIA - BERKELEY**      **2111**  
 AN ISOTOPIC APPROACH FOR DETERMINING THE INDUSTRIAL FRACTION  
 OF THE TOTAL CH3BR SOURCE TO THE A  
 03/24/1998 - 02/28/2002      FY01: \$0      Total: \$210,000  
*Prin. Invest.: A GOLDSTEIN*  
*Tech. Officer: GSFC/P DECOLA*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 7265**      **UNIV OF CALIFORNIA - BERKELEY**      **2112**  
 GALACTIC BLACK HOLES AND POSITRON ANNIHILATION RADIATION  
 04/29/1998 - 11/30/2000      FY01: \$0      Total: \$102,000  
*Prin. Invest.: D M SMITH*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 7311**      **UNIV OF CALIFORNIA - BERKELEY**      **2113**  
 A STUDY OF CIRCUMSTELLAR GAS IN BETA PIC-LIKE PROTOPLANETARY  
 DISKS  
 04/22/1998 - 04/30/2001      FY01: \$0      Total: \$30,000  
*Prin. Invest.: B Y WELSH*  
*Tech. Officer: HQ/J BOYCE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 7343**      **UNIV OF CALIFORNIA - BERKELEY**      **2114**  
 IDENTIFYING SGR1900+14, THE THIRD SOFT GAMMA REPEATER, WITH  
 ASCA  
 05/07/1998 – 05/14/2000      FY01: -\$3      Total: \$20,397  
*Prin. Invest.:* K C HURLEY  
*Tech. Officer:* GSFC/J SWANK  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 7356**      **UNIV OF CALIFORNIA - BERKELEY**      **2115**  
 EXTENSION OF "SCIENCE INFORMATION INFRASTRUCTURE" GRANT  
 NAG5-2875.CONTINUED DEVELOPMENT AND DI  
 05/21/1998 – 01/31/2001      FY01: \$0      Total: \$450,000  
*Prin. Invest.:* I HAWKINS  
*Tech. Officer:* GSFC/A F HASLER  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 7457**      **UNIV OF CALIFORNIA - BERKELEY**      **2116**  
 CARBON IN THE UNIVERSE: PAHS AND CLUSTERS  
 09/18/1998 – 06/30/2001      FY01: \$0      Total: \$335,940  
*Prin. Invest.:* R SAYKALLY  
*Tech. Officer:* GSFC/M MEYER  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NAG 5 7580**      **UNIV OF CALIFORNIA - BERKELEY**      **2117**  
 "SEISMIC HAZARD ASSESSMENT OF THE HAYWARD FAULT, C A, FROM  
 GPS AND INSAR MEASUREMENT" (SE  
 08/04/1998 – 07/31/2002      FY01: \$37,000      Total: \$224,000  
*Prin. Invest.:* R BURGMANN, NONE  
*Tech. Officer:* GSFC/H V FREY  
*CASE Category:* 32 – GEOLOGICAL SCIENCE

**NAG 5 7615**      **UNIV OF CALIFORNIA - BERKELEY**      **2118**  
 ADVANCE THE STATE OF THE ART IN MICROCHANNEL PLATE  
 TECHNOLOGY TO SIGNIFICANTLY IMPROVE DETECS  
 08/24/1998 – 08/31/2002      FY01: \$0      Total: \$265,206  
*Prin. Invest.:* D SIEGMUND  
*Tech. Officer:* GSFC/F S HERRERO  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NAG 5 7755**      **UNIV OF CALIFORNIA - BERKELEY**      **2119**  
 DIRECT IMMERSION PROCESS FOR MCP PERFORMANCE IMPROVEMENTS  
 12/08/1998 – 12/31/2001      FY01: \$100,000      Total: \$293,258  
*Prin. Invest.:* D EDELSTEIN  
*Tech. Officer:* GSFC/H HASAN  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 7833**      **UNIV OF CALIFORNIA - BERKELEY**      **2120**  
 STUDIES OF DUST EMISSION AS MEASURED BY DIRBE AND IRAS ADP 98  
 12/14/1998 – 12/14/2001      FY01: \$87,776      Total: \$234,369  
*Prin. Invest.:* M DAVIS  
*Tech. Officer:* GSFC/R K OLIVERSEN  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 7929**      **UNIV OF CALIFORNIA - BERKELEY**      **2121**  
 INFLUENCE OF NONEQUILIBRIUM IONIZATION ON TEMPERATURE AND  
 EMISSION MEASURE DIAGNOSTICS  
 12/14/1998 – 12/14/2001      FY01: \$0      Total: \$116,700  
*Prin. Invest.:* D T WOODS  
*Tech. Officer:* GSFC/J GURMAN  
*CASE Category:* 19 – PHYSICAL SCIENCE, OTHER

**NAG 5 7936**      **UNIV OF CALIFORNIA - BERKELEY**      **2122**  
 PROBING THE MORPHOLOGY, DYNAMICS AND INTERFACES OF THE  
 INTERSTELLARMEDIUM (LTSA 98)  
 12/23/1998 – 12/31/2001      FY01: \$81,000      Total: \$230,000  
*Prin. Invest.:* M COHEN  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 7951**      **UNIV OF CALIFORNIA - BERKELEY**      **2123**  
 CMES AND SOLAR MAGNETIC FIELD EVOLUTION: A SOHO G 1 PROPOSAL  
 12/21/1998 – 12/31/2001      FY01: \$82,400      Total: \$248,800  
*Prin. Invest.:* J G LUHMANN  
*Tech. Officer:* GSFC/J LING  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 7961**      **UNIV OF CALIFORNIA - BERKELEY**      **2124**  
 A MULTI-INSTRUMENT INVESTIGATION OF WAVE AND PARTICLE  
 PROCESSES IN THE SOLARWIND AND AT THE BOW SHOCK  
 12/23/1998 – 12/14/2000      FY01: -\$86      Total: \$62,514  
*Prin. Invest.:* S D BALE  
*Tech. Officer:* GSFC/J LING  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 8078**      **UNIV OF CALIFORNIA - BERKELEY**      **2125**  
 016LYSIS OF DATA FROM ELECTRIC FIELD EXPERIMENT ON POLAR11  
 01/22/1999 – 02/28/2002      FY01: \$382,000      Total: \$1,422,500  
*Prin. Invest.:* F MOZER  
*Tech. Officer:* GSFC/R HOFFMAN  
*CASE Category:* 19 – PHYSICAL SCIENCE, OTHER

**NAG 5 8098**      **UNIV OF CALIFORNIA - BERKELEY**      **2126**  
 THE MAGNETIC FIELDS OF T TAURI STARS  
 02/04/1999 – 02/14/2002      FY01: \$40,000      Total: \$115,000  
*Prin. Invest.:* C M JOHNS-KRULL  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 8206**      **UNIV OF CALIFORNIA - BERKELEY**      **2127**  
 RXTE SEARCH FOR LONG-LIVED AFTERFLOWS FROM GAMMA RAY  
 BURSTS  
 02/11/1999 – 02/14/2000      FY01: -\$4      Total: \$4,121  
*Prin. Invest.:* K C HURLEY  
*Tech. Officer:* GSFC/J SWANK  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 8209**      **UNIV OF CALIFORNIA - BERKELEY**      **2128**  
 ACCRETION ONTO T TAURI STARS (ADP98)  
 02/25/1999 – 02/28/2001      FY01: -\$3      Total: \$123,697  
*Prin. Invest.:* C M JOHNS-KRULL  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 8262**      **UNIV OF CALIFORNIA - BERKELEY**      **2129**  
 THE PRIMORDIAL UNIVERSE  
 02/18/1999 – 08/31/2000      FY01: -\$1,638      Total: \$23,058  
*Prin. Invest.:* J SILK  
*Tech. Officer:* GSFC/H SMITH  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 8410 UNIV OF CALIFORNIA - BERKELEY 2130**  
ANNUAL MEETING OF THE NATIONAL CONFERENCE OF BLACK PHYSICS STUDENTS  
03/15/1999 - 02/29/2000 FY01: -\$1 Total: \$82,999  
*Prin. Invest.: G BASRI*  
*Tech. Officer: GSFC/D MENCHAN*  
*CASE Category: 13 - PHYSICS*

**NAG 5 8468 UNIV OF CALIFORNIA - BERKELEY 2131**  
THE PHYSICS OF ACTIVE REGIONS  
05/04/1999 - 04/30/2002 FY01: \$119,300 Total: \$293,850  
*Prin. Invest.: G H FISHER*  
*Tech. Officer: GSFC/W WAGNER*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 8489 UNIV OF CALIFORNIA - BERKELEY 2132**  
IMPLEMENTATION OF ALGORITHMS FOR HIGH SPEED AUTONOMOUS CCD DATAREDUCTION  
05/03/1999 - 09/30/2000 FY01: -\$10,534 Total: \$20,866  
*Prin. Invest.: D L BUZASI*  
*Tech. Officer: GSFC/J BREDEKAMP*  
*CASE Category: 29 - MATH/COMPUTER SCI, OTHER*

**NAG 5 8510 UNIV OF CALIFORNIA - BERKELEY 2133**  
EVALUATING MODEL PREDICTIONS OF CO<sub>2</sub> & WATER VAPOR EXCHANGE WITH FLUX MEASUREMENTS IN A PONDEROSA  
06/02/1999 - 06/30/2001 FY01: \$0 Total: \$84,090  
*Prin. Invest.: D BALDOCCHI*  
*Tech. Officer: GSFC/D E WICKLAND*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 8667 UNIV OF CALIFORNIA - BERKELEY 2134**  
AN ADVANCED PHOTON COUNTING UV IMAGING DETECTOR  
07/08/1999 - 07/14/2002 FY01: \$0 Total: \$299,600  
*Prin. Invest.: O H SIEGMUND*  
*Tech. Officer: GSFC/G MUCKLOW*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 8737 UNIV OF CALIFORNIA - BERKELEY 2135**  
THE ROLE OF MULTI-SCALE LAND SURFACE HETEROGENEITY IN PRECIPITATIONRECYCLING AND LAND ATMOSPHERE  
08/17/1999 - 08/14/2002 FY01: \$40,000 Total: \$120,000  
*Prin. Invest.: X LIANG*  
*Tech. Officer: GSFC/P T HOUSER*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 8753 UNIV OF CALIFORNIA - BERKELEY 2136**  
FLUXNET: UNIFYING A GLOBAL ARRAY OF TOWER FLUX NETWORKS FOR VALIDATING EOS TERRESTRIAL CARBON, WATER  
08/12/1999 - 12/31/2001 FY01: \$238,599 Total: \$552,574  
*Prin. Invest.: D BALDOCCHI*  
*Tech. Officer: GSFC/D STARR*  
*CASE Category: 19 - PHYSICAL SCIENCE, OTHER*

**NAG 5 8861 UNIV OF CALIFORNIA - BERKELEY 2137**  
DETECTING EXTRASOLAR PLANETS  
10/07/1999 - 06/30/2002 FY01: \$126,000 Total: \$466,247  
*Prin. Invest.: D W MARCY*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 8962 UNIV OF CALIFORNIA - BERKELEY 2138**  
FUSE SPECTROSCOPY OF HOT POST-AGB STARS IN GLOBULAR CLUSTERS - FUSE  
01/24/2000 - 03/31/2001 FY01: -\$31,540 Total: \$60  
*Prin. Invest.: W V DIXON*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 8984 UNIV OF CALIFORNIA - BERKELEY 2139**  
CORONAL HEATING DURING STELLAR FLARES & THE SEARCH FOR PROTON BEAMS - FUSE  
02/03/2000 - 01/31/2002 FY01: \$0 Total: \$63,300  
*Prin. Invest.: G H FISHER*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9091 UNIV OF CALIFORNIA - BERKELEY 2140**  
RESEARCH IN FUV INTERFEROMETRIC SPECTROSCOPY III  
02/17/2000 - 02/14/2002 FY01: \$200,000 Total: \$294,200  
*Prin. Invest.: J EDELSTEIN*  
*Tech. Officer: GSFC/P CRANE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9115 UNIV OF CALIFORNIA - BERKELEY 2141**  
PHASE-A AND BRIDGE PHASE STUDY OF STEREO/WAVES ACCOMODATION  
03/02/2000 - 12/31/2001 FY01: \$110,925 Total: \$191,725  
*Prin. Invest.: S BAILE*  
*Tech. Officer: GSFC/M L KAISER*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9126 UNIV OF CALIFORNIA - BERKELEY 2142**  
ANALYSIS OF ASCA, BEPPOSAX, AND RXTE DATA ON GAMMA-RAY BURSTS AND SOFT GAMMA REPEATERS - ADP 99  
03/14/2000 - 03/14/2001 FY01: \$0 Total: \$100,000  
*Prin. Invest.: K H HURLEY*  
*Tech. Officer: GSFC/R OLIVERSEN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9130 UNIV OF CALIFORNIA - BERKELEY 2143**  
CORONAL STRUCTURE IN THE RS CVN BINARY AR LACERTAE ADP99  
02/28/2000 - 02/28/2002 FY01: \$0 Total: \$35,000  
*Prin. Invest.: O H SIEGMUND*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9149 UNIV OF CALIFORNIA - BERKELEY 2144**  
ADVANCED MCP UV/VISIBLE DETECTOR SYSTEMS  
03/03/2000 - 03/14/2002 FY01: \$200,000 Total: \$250,000  
*Prin. Invest.: O H SIEGMUND*  
*Tech. Officer: GSFC/P CRANE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9210 UNIV OF CALIFORNIA - BERKELEY 2145**  
SWIFT PHASE B AND C/D  
03/10/2000 - 09/30/2001 FY01: \$75,000 Total: \$135,000  
*Prin. Invest.: K HURLEY*  
*Tech. Officer: GSFC/N GEHRELS*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9231**      **UNIV OF CALIFORNIA - BERKELEY**      **2146**  
 DEVELOPMENT OF A LONG-TERM INVENTORY OF FIRE BURNED AREAS &  
 EMISSIONS OF NORTH AMERICA'S BOREAL AN  
 03/22/2000 - 04/30/2002      FY01: \$43,344      Total: \$113,749  
*Prin. Invest.: P GONG*  
*Tech. Officer: GSFC/G GUTMAN*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9260**      **UNIV OF CALIFORNIA - BERKELEY**      **2147**  
 AN EXPERIMENTAL INVESTIGATION OF THE REACTION CHEMISTRY OF  
 ORGANIC MOLECULES IN COMETARY IMPACT  
 03/17/2000 - 03/14/2001      FY01: \$0      Total: \$84,780  
*Prin. Invest.: J BLANK*  
*Prin. Invest.: NONE*  
*Tech. Officer: GSFC/M MEYER*  
*CASE Category: 12 – CHEMISTRY*

**NAG 5 9305**      **UNIV OF CALIFORNIA - BERKELEY**      **2148**  
 DATA CALIBRATION AND SCIENTIFIC DEFINITION OF THE NEAR, LUNAR  
 PROSPECTOR AND MGS MAGNETOMETERS  
 03/20/2000 - 02/28/2002      FY01: \$0      Total: \$65,641  
*Prin. Invest.: R LIN*  
*Tech. Officer: GSFC/M H ACUNA*  
*CASE Category: 42 – ASTRONAUTICAL ENGR*

**NAG 5 9317**      **UNIV OF CALIFORNIA - BERKELEY**      **2149**  
 ENHANCEMENT OF THE GLOBAL SYSTEMS SCIENCE STUDENT GUIDE  
 SERIES FOR THE DIGITAL EARTH INITIATIVE  
 03/22/2000 - 03/31/2002      FY01: \$119,958      Total: \$219,956  
*Prin. Invest.: A GOULD*  
*Tech. Officer: GSFC/N KHAZENIE*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9318**      **UNIV OF CALIFORNIA - BERKELEY**      **2150**  
 ASTROSEISMOLOGY WITH THE WIRE SATELLITE: TAKING ADVANTAGE OF  
 A UNIQUE OPPORTUNITY  
 03/22/2000 - 09/30/2000      FY01: -\$30,329      Total: \$14,671  
*Prin. Invest.: D BUZASI*  
*Tech. Officer: GSFC/P CRANE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9384**      **UNIV OF CALIFORNIA - BERKELEY**      **2151**  
 MOLECULAR CARBON IN THE GALAXY  
 04/04/2000 - 03/31/2002      FY01: \$160,000      Total: \$310,720  
*Prin. Invest.: R J SAYKALLY*  
*Tech. Officer: GSFC/G STRINGFELLOW*  
*CASE Category: 13 – PHYSICS*

**NAG 5 9398**      **UNIV OF CALIFORNIA - BERKELEY**      **2152**  
 BALLOON BORNE OBSERVATIONS OF THE POLARIZATION AND SOTROPY  
 OF THE COSMIC MICROWAVE BACKGROUND RADIATION  
 04/06/2000 - 03/31/2002      FY01: \$164,478      Total: \$336,178  
*Prin. Invest.: P L RICHARDS*  
*Tech. Officer: GSFC/G STRINGFELLOW*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9503**      **UNIV OF CALIFORNIA - BERKELEY**      **2153**  
 ADDING NEAR TO THE 3RD INTERPLANETARY NETWORK OF GAMMA-RAY  
 BURST DETECTORS  
 04/24/2000 - 04/30/2001      FY01: \$0      Total: \$65,000  
*Prin. Invest.: K C HURLEY*  
*Tech. Officer: GSFC/T MORGAN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9514**      **UNIV OF CALIFORNIA - BERKELEY**      **2154**  
 BIOSPHERE-ATMOSPHERE INTERACTIONS  
 04/25/2000 - 04/30/2002      FY01: \$310,000      Total: \$516,667  
*Prin. Invest.: I FUNG*  
*Tech. Officer: GSFC/D WICKLAND*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9523**      **UNIV OF CALIFORNIA - BERKELEY**      **2155**  
 QTHE FEASIBILITY OF DETECTING ELECTRIC FIELDS ON THE MARS 03  
 PROMISE ELELECTRICAL SUBPACKAGE  
 07/31/2000 - 07/31/2001      FY01: \$0      Total: \$27,000  
*Prin. Invest.: G T DELORY*  
*Prin. Invest.: NONE*  
*Tech. Officer: GSFC/W M FARRELL*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 9626**      **UNIV OF CALIFORNIA - BERKELEY**      **2156**  
 NEW SOLAR MAX GRANT STUDIES OF GEOTAIL ELECTRIC FIELDS &  
 PLASMA FIELDS  
 05/22/2000 - 09/30/2001      FY01: \$50,000      Total: \$95,034  
*Prin. Invest.: F MOZER*  
*Tech. Officer: GSFC/D FAIRFIELD*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 9629**      **UNIV OF CALIFORNIA - BERKELEY**      **2157**  
 CASSANDRA: A STORM BASED MODEL FOR FORECASTING THE INITIATION  
 & RUNOUT OF DEBRIS FLOWS  
 05/30/2000 - 05/31/2001      FY01: \$25,000      Total: \$100,000  
*Prin. Invest.: W E DIETRICH*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 9650**      **UNIV OF CALIFORNIA - BERKELEY**      **2158**  
 NEW ISTP SOLAR MAX GRANT: DUAL SPACECRAFT OBSERVATIONS OF  
 DAYSIDE RECONNECTION  
 05/30/2000 - 05/31/2002      FY01: \$0      Total: \$70,000  
*Prin. Invest.: C CARLSON*  
*Tech. Officer: GSFC/M ACUNA*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 9701**      **UNIV OF CALIFORNIA - BERKELEY**      **2159**  
 MAINTAINING AND EXPANDING THE 3RD INTERPLANETARY NETWORK  
 06/15/2000 - 06/14/2001      FY01: \$0      Total: \$5,000  
*Prin. Invest.: K C HURLEY*  
*Tech. Officer: GSFC/J P NORRIS*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9864**      **UNIV OF CALIFORNIA - BERKELEY**      **2160**  
 GEOLOGICAL ANALYSIS OF MARTIAN CRUSTAL MAGNETIC ANOMALIES  
 08/25/2000 - 08/14/2002      FY01: \$12,853      Total: \$21,653  
*Prin. Invest.: M RICHARDS*  
*Tech. Officer: GSFC/P TAYLOR*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 9909**      **UNIV OF CALIFORNIA - BERKELEY**      **2161**  
 SOLIDS IN EARLY SOLAR SYSTEM  
 08/31/2000 - 08/31/2001      FY01: \$0      Total: \$45,000  
*Prin. Invest.: F H SHU*  
*Tech. Officer: GSFC/J M BOYCE*  
*CASE Category: 11 – ASTRONOMY*

<b>NAG 5 9926</b>	<b>UNIV OF CALIFORNIA - BERKELEY</b>	<b>2162</b>	<b>NAG 5 10428</b>	<b>UNIV OF CALIFORNIA - BERKELEY</b>	<b>2170</b>
DATA SYSTEM PREPARATIONS FOR LONG-BASELINE INFRA RED			3-D PLASMA AND ENERGETIC PARTICLES INVESTIGATION ON THE WIND		
09/14/2000 - 08/31/2001	FY01: \$0	Total: \$25,000	SPACECRAFT		
<i>Prin. Invest.:</i> C TOWNES			02/23/2001 - 02/28/2002	FY01: \$788,000	Total: \$788,000
<i>Tech. Officer:</i> GSFC/B DANCHI			<i>Prin. Invest.:</i> R P LIN		
<i>CASE Category:</i> 11 - ASTRONOMY			<i>Tech. Officer:</i> GSFC/K OGILVIE		
<i>CASE Category:</i> 19 - PHYSICAL SCIENCE, OTHER					
<b>NAG 5 9973</b>	<b>UNIV OF CALIFORNIA - BERKELEY</b>	<b>2163</b>	<b>NAG 5 10433</b>	<b>UNIV OF CALIFORNIA - BERKELEY</b>	<b>2171</b>
DISTRIBUTION OF ARGON IN THE DAYSIDE LUNAR ATMOSPHERE - FUSE			CHONDRTIC METEORITES AND PLANETESMALS		
09/14/2000 - 09/14/2001	FY01: \$0	Total: \$20,700	02/16/2001 - 01/31/2002	FY01: \$25,000	Total: \$25,000
<i>Prin. Invest.:</i> B C FLYNN			<i>Prin. Invest.:</i> F SHU		
<i>Tech. Officer:</i> GSFC/G SONNEBORN			<i>Tech. Officer:</i> GSFC/J BOYCE		
<i>CASE Category:</i> 11 - ASTRONOMY			<i>CASE Category:</i> 11 - ASTRONOMY		
<b>NAG 5 9975</b>	<b>UNIV OF CALIFORNIA - BERKELEY</b>	<b>2164</b>	<b>NAG 5 10466</b>	<b>UNIV OF CALIFORNIA - BERKELEY</b>	<b>2172</b>
CLUSTER ELECTRIC FIELD DATA ANALYSIS			UVI DATA ANALYSIS		
09/14/2000 - 03/31/2002	FY01: \$483,773	Total: \$783,773	03/08/2001 - 03/14/2002	FY01: \$448,000	Total: \$448,000
<i>Prin. Invest.:</i> F MOZER			<i>Prin. Invest.:</i> G PARKS		
<i>Tech. Officer:</i> GSFC/M GOLDSTEIN			<i>Tech. Officer:</i> GSFC/R HOFFMAN		
<i>CASE Category:</i> 19 - PHYSICAL SCIENCE, OTHER			<i>CASE Category:</i> 19 - PHYSICAL SCIENCE, OTHER		
<b>NAG 5 10131</b>	<b>UNIV OF CALIFORNIA - BERKELEY</b>	<b>2165</b>	<b>NAG 5 10471</b>	<b>UNIV OF CALIFORNIA - BERKELEY</b>	<b>2173</b>
CLUSTER ION COMPOSITION (CIS) EXPERIMENT			DUAL-SPACECRAFT INVESTIGATION OF SUBSTANTIAL SOLAR WIND		
12/27/2000 - 12/31/2001	FY01: \$850,000	Total: \$850,000	PLASMA ENTRY ACROSS THE TAIL FLANK MAGENTOPA		
<i>Prin. Invest.:</i> G K PARKS			02/27/2001 - 02/28/2002	FY01: \$76,500	Total: \$76,500
<i>Tech. Officer:</i> GSFC/M GOLDSTEIN			<i>Prin. Invest.:</i> T PHAN		
<i>CASE Category:</i> 19 - PHYSICAL SCIENCE, OTHER			<i>Tech. Officer:</i> GSFC/J SPANN		
<i>CASE Category:</i> 99 - MULTI INTERDISCPL, OTHER			<i>CASE Category:</i> 99 - MULTI INTERDISCPL, OTHER		
<b>NAG 5 10300</b>	<b>UNIV OF CALIFORNIA - BERKELEY</b>	<b>2166</b>	<b>NAG 5 10657</b>	<b>UNIV OF CALIFORNIA - BERKELEY</b>	<b>2174</b>
ELECTRON DYNAMICS IS SHOCK RAMPS			THE STRUCTURE AND DYNAMICS OF GIANT HERBIG-HARO FLOWS		
01/30/2001 - 01/14/2002	FY01: \$73,800	Total: \$73,800	03/20/2001 - 03/31/2002	FY01: \$35,000	Total: \$35,000
<i>Prin. Invest.:</i> L MUSCHIETTI			<i>Prin. Invest.:</i> W WELCH		
<i>Tech. Officer:</i> GSFC/J SHARBER			<i>Tech. Officer:</i> GSFC/J M BOYCE		
<i>CASE Category:</i> 99 - MULTI INTERDISCPL, OTHER			<i>CASE Category:</i> 11 - ASTRONOMY		
<b>NAG 5 10314</b>	<b>UNIV OF CALIFORNIA - BERKELEY</b>	<b>2167</b>	<b>NAG 5 10664</b>	<b>UNIV OF CALIFORNIA - BERKELEY</b>	<b>2175</b>
THE SCIENCE EDUCATION GATEWAY II			NUMERICAL SIMULATION OF 3D COMPACT EDDIES IN A PROTOPLANETARY ACCRETION DISK; THEIR ROBUSTNESS AND		
02/01/2001 - 01/31/2002	FY01: \$150,000	Total: \$150,000	03/21/2001 - 02/28/2002	FY01: \$50,000	Total: \$50,000
<i>Prin. Invest.:</i> I HAWKINS			<i>Prin. Invest.:</i> P MARCUS		
<i>Tech. Officer:</i> GSFC/P E HUNTER			<i>Tech. Officer:</i> GSFC/J M BOYCE		
<i>CASE Category:</i> 99 - MULTI INTERDISCPL, OTHER			<i>CASE Category:</i> 11 - ASTRONOMY		
<b>NAG 5 10393</b>	<b>UNIV OF CALIFORNIA - BERKELEY</b>	<b>2168</b>	<b>NAG 5 10673</b>	<b>UNIV OF CALIFORNIA - BERKELEY</b>	<b>2176</b>
A SEARCH FOR TRACE ELEMENTS IN ULTRAMASSIVE WHITE DWARF PHOTOSPHERES(FUSE 00)			ESTIMATING SOIL MOISTURE CHANGES USING RADARSAT & IT'S APPLICATION IN HYDROLOGICAL MODELING		
02/12/2001 - 02/14/2002	FY01: \$39,800	Total: \$39,800	03/27/2001 - 03/14/2002	FY01: \$57,988	Total: \$57,988
<i>Prin. Invest.:</i> J DUPUIS			<i>Prin. Invest.:</i> X LIANG <i>Prin. Invest.:</i> NONE		
<i>Tech. Officer:</i> GSFC/G SONNEBORN			<i>Tech. Officer:</i> GSFC/W ABDALATI		
<i>CASE Category:</i> 11 - ASTRONOMY			<i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER		
<b>NAG 5 10411</b>	<b>UNIV OF CALIFORNIA - BERKELEY</b>	<b>2169</b>	<b>NAG 5 10710</b>	<b>UNIV OF CALIFORNIA - BERKELEY</b>	<b>2177</b>
DEVELOPMENT OF CALORIMETRIC AEROGEL FOR CAPTURE OF INTERPLANETARY & INTERSTELLAR GRAINS IN LOW EARTH			BEPOSAX GRBS (ADP 2000)		
04/10/2001 - 04/15/2002	FY01: \$52,500	Total: \$52,500	04/23/2001 - 04/30/2002	FY01: \$33,880	Total: \$33,880
<i>Prin. Invest.:</i> A WESTPHAL			<i>Prin. Invest.:</i> K C HURLEY		
<i>Tech. Officer:</i> GSFC/B BETTS			<i>Tech. Officer:</i> GSFC/R J OLIVERSEN		
<i>CASE Category:</i> 11 - ASTRONOMY			<i>CASE Category:</i> 11 - ASTRONOMY		

**NAG 5 10713**      **UNIV OF CALIFORNIA - BERKELEY**      **2178**  
 ADVANCED ADIABATIC DEMAGNETIZATION REFRIGERATORS FOR CONTINUOUS COOLING FROM 10K TO 50MK  
 04/20/2001 - 04/30/2002      FY01: \$57,190      Total: \$57,190  
*Prin. Invest.:* P L RICHARDS  
*Tech. Officer:* GSFC/P J SHIRRON  
*CASE Category:* 19 – PHYSICAL SCIENCE, OTHER

**NAG 5 10715**      **UNIV OF CALIFORNIA - BERKELEY**      **2179**  
 MATADOR IDPU & DCE TESTS  
 04/12/2001 - 03/14/2002      FY01: \$124,000      Total: \$124,000  
*Prin. Invest.:* D T DELORY  
*Tech. Officer:* GSFC/W M FARREL  
*CASE Category:* 13 – PHYSICS

**NAG 5 10800**      **UNIV OF CALIFORNIA - BERKELEY**      **2180**  
 CONCEPT STUDY FOR THE "STUDY OF GALACTIC PLASMA EVOLUTION WITH SPEAR" (SPEAR) MISSION AO-99-OSS-0  
 04/30/2001 - 04/30/2002      FY01: \$251,179      Total: \$251,179  
*Prin. Invest.:* D EDELSTEIN, NONE  
*Tech. Officer:* GSFC/J R BYRD  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 10803**      **UNIV OF CALIFORNIA - BERKELEY**      **2181**  
 CONCEPT STUDY FOR THE "THE HEAVY NUCLEI EXPLORER" (HMX) MISSIONAO-99-OSS-05  
 04/30/2001 - 04/30/2002      FY01: \$57,700      Total: \$57,700  
*Prin. Invest.:* D WESTPHAL  
*Tech. Officer:* GSFC/J R BYRD  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 10839**      **UNIV OF CALIFORNIA - BERKELEY**      **2182**  
 3-D MHD TURBULENT DYNAMOS (ATP 2000)  
 05/10/2001 - 06/30/2002      FY01: \$80,000      Total: \$80,000  
*Prin. Invest.:* G H FISHER  
*Tech. Officer:* GSFC/R J OLIVERSEN  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 10851**      **UNIV OF CALIFORNIA - BERKELEY**      **2183**  
 CONTINUING THE CHALLENGE OF EUV ASTRONOMY: CURRENT ANALYSIS AND PROSPECTS FOR THE FUTURE  
 04/30/2001 - 04/30/2002      FY01: \$30,003      Total: \$30,003  
*Prin. Invest.:* J DUPUIS  
*Tech. Officer:* GSFC/D GOLOMBEK  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 10866**      **UNIV OF CALIFORNIA - BERKELEY**      **2184**  
 ENRICHMENTS OF 3HE IN PLANETARY NEBULAE  
 05/08/2001 - 05/14/2002      FY01: \$24,000      Total: \$24,000  
*Prin. Invest.:* I ROTH  
*Tech. Officer:* GSFC/R J OLIVERSEN  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 10925**      **UNIV OF CALIFORNIA - BERKELEY**      **2185**  
 CORONAL MODELS AND APPLICATIONS FOR LWS  
 05/11/2001 - 05/14/2002      FY01: \$80,534      Total: \$80,534  
*Prin. Invest.:* J G LUHMANN  
*Tech. Officer:* GSFC/W WAGNER  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NAG 5 11055**      **UNIV OF CALIFORNIA - BERKELEY**      **2186**  
 EFFECT OF IMF BY COPMPONENT ON THERMOSPHERIC COMPOSITION  
 06/18/2001 - 06/30/2002      FY01: \$100,399      Total: \$100,399  
*Prin. Invest.:* T IMMEL  
*Tech. Officer:* GSFC/M MELLOTT  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NAG 5 11179**      **UNIV OF CALIFORNIA - BERKELEY**      **2187**  
 ORIGINS OF RECENT EROSIONAL FEATURES ON MARS: QUAN TITATIVE ANALYSIS OF MOC AND MOLA DATA, PHYSICAL  
 08/14/2001 - 08/14/2004      FY01: \$55,000      Total: \$55,000  
*Prin. Invest.:* W DIETRICH  
*Tech. Officer:* GSFC/J M BOYCE  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 11200**      **UNIV OF CALIFORNIA - BERKELEY**      **2188**  
 INFERENCE OF REGIONAL CARBON EXCHANGE PROCESSES & THEIR VARIABILITY SINCE 1980  
 08/10/2001 - 08/14/2004      FY01: \$287,077      Total: \$287,077  
*Prin. Invest.:* I FUNG  
*Tech. Officer:* GSFC/D WICKLAND  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NAG 6 10**      **UNIV OF CALIFORNIA - BERKELEY**      **2189**  
 SOUNDING ROCKET RESEARCH PROGRAM  
 11/01/1980 - 12/31/2001      FY01: \$0      Total: \$3,619,476  
*Prin. Invest.:* C W CARLSON, F S MOZER, K A ANDERSON  
*Tech. Officer:* GSFC/W B JOHNSON, GSFC/R H PLESS  
*CASE Category:* 19 – PHYSICAL SCIENCE, OTHER

**NAG 8 1432**      **UNIV OF CALIFORNIA - BERKELEY**      **2190**  
 R/S SUPERFLUID GYROSCOPES FOR SPACE  
 03/02/1998 - 01/31/2003      FY01: \$118,750      Total: \$405,750  
*Prin. Invest.:* R E PACKARD  
*Tech. Officer:* MSFC/D HUBBARD  
*CASE Category:* 13 – PHYSICS

**NAG 8 1458**      **UNIV OF CALIFORNIA - BERKELEY**      **2191**  
 R/S EXPLOITING THE TEMPERATURE DEPENDENCE OF MAGNETIC SUSCEPTIBILITY TO CONTROL CONVECTION  
 02/15/1998 - 01/31/2002      FY01: \$44,000      Total: \$281,000  
*Prin. Invest.:* J W EVANS, F SZOFTRAN  
*Tech. Officer:* MSFC/P M DOTY  
*CASE Category:* 19 – PHYSICAL SCIENCE, OTHER

**NAG 9 1051**      **UNIV OF CALIFORNIA - BERKELEY**      **2192**  
 GENESIS DISCOVERY MISSION  
 08/19/1998 - 05/31/2002      FY01: \$17,000      Total: \$85,600  
*Prin. Invest.:* K NISHIZUMI  
*Tech. Officer:* JSC/K E CYR  
*CASE Category:* 19 – PHYSICAL SCIENCE, OTHER

**NAS 1 99053**      **UNIV OF CALIFORNIA - BERKELEY**      **2193**  
 NEXT GENERATION TECHNOLOGIES FOR THE IN SITU DETEC TION OF NOX RADICALS AND RESERVOIRS FROM AIRCRAFT  
 02/10/1999 - 02/09/2002      FY01: \$198,436      Total: \$762,187  
*Prin. Invest.:* R COHEN  
*Tech. Officer:* LARC/J HILL  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NAS 5 00133**      **UNIV OF CALIFORNIA - BERKELEY**      **2194**  
 STEREO PHASE A CONCEPT STUDY FOR INSITU MEASUREMENTS OF  
 PARTICLES & CME TRANSIENTS(IMPACT)  
 02/22/2000 - 07/30/2006      FY01: \$656,000      Total: \$1,705,985  
*Prin. Invest.: J LUHMAN, E STONE*  
*Tech. Officer: GSFC/A HARPER*  
*CASE Category: 13 – PHYSICS*

**NAS 5 30801**      **UNIV OF CALIFORNIA - BERKELEY**      **2195**  
 ISTP PROJECT'S ELECTRIC FIELDS & WAVES  
 07/02/1990 - 12/31/2000      FY01: \$0      Total: \$6,450,700  
*Prin. Invest.: F MOZER*  
*Tech. Officer: GSFC/L CHRISTENSEN*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAS 5 96092**      **UNIV OF CALIFORNIA - BERKELEY**      **2196**  
 EOS-BIOSPHERE ATMOSPHERIC INTERACTIONS STUDY  
 10/11/1996 - 06/30/2000      FY01: \$0      Total: \$325,000  
*Prin. Invest.: P MATSON*  
*Tech. Officer: GSFC/P SELLERS*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAS 5 98033**      **UNIV OF CALIFORNIA - BERKELEY**      **2197**  
 PHASE A CONCEPT STUDY FOR HESSI INVESTIGATION  
 11/19/1997 - 10/19/2003      FY01: \$6,037,214      Total: \$42,946,214  
*Prin. Invest.: R P LIN*  
*Tech. Officer: GSFC/F SNOW*  
*CASE Category: 11 – ASTRONOMY*

**NAS 5 99242**      **UNIV OF CALIFORNIA - BERKELEY**      **2198**  
 FAST FLIGHT OPERATIONS  
 10/01/1999 - 09/30/2001      FY01: \$194,992      Total: \$489,892  
*Prin. Invest.: C W CARLSON*  
*Tech. Officer: GSFC/R PFAFF*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 2 142**      **UNIV OF CALIFORNIA - BERKELEY**      **2199**  
 DETECTION IDENTIFICATION AND PRECISE LOCATION OF INFRARED  
 OBJECTS  
 07/01/1981 - 05/31/2001      FY01: \$0      Total: \$1,439,572  
*Prin. Invest.: C E HEILES, M COHEN*  
*Tech. Officer: ARC/D GOORVITCH*  
*CASE Category: 11 – ASTRONOMY*

**NCC 2 909**      **UNIV OF CALIFORNIA - BERKELEY**      **2200**  
 HUMAN PERFORMANCE IN COORDINATED HAPTIC-VISUAL VIRTUAL ENVIRONMENTS  
 06/26/1995 - 02/29/2000      FY01: \$0      Total: \$984,336  
*Prin. Invest.: H KAZERAONI*  
*Tech. Officer: ARC/S R ELLIS*  
*CASE Category: 46 – MECHANICAL ENGR*

**NCC 2 1080**      **UNIV OF CALIFORNIA - BERKELEY**      **2201**  
 THE CENTER FOR STAR FORMATION STUDIES  
 01/25/1999 - 02/14/2001      FY01: \$10,767      Total: \$387,972  
*Prin. Invest.: F H SHU*  
*Tech. Officer: ARC/D J HOLLENBACH, ARC/P CASSEN*  
*CASE Category: 11 – ASTRONOMY*

**NCC 2 1125**      **UNIV OF CALIFORNIA - BERKELEY**      **2202**  
 THE EXTRACTION OF POINT SOURCES FROM THE NIRSPEC TROMETER  
 ABOARD THE INFRARED TELESCOPE IN SPACE  
 06/14/1999 - 05/31/2002      FY01: \$0      Total: \$28,000  
*Prin. Invest.: M COHEN*  
*Tech. Officer: ARC/D GOORVITCH*  
*CASE Category: 11 – ASTRONOMY*

**NCC 2 1171**      **UNIV OF CALIFORNIA - BERKELEY**      **2203**  
 3DOF HAPTIC SIMULATION AND PSYCHOPHYSICAL EXPERIMENTS  
 04/11/2000 - 11/30/2001      FY01: \$0      Total: \$120,000  
*Prin. Invest.: H KAZEROONI*  
*Tech. Officer: ARC/S R ELLIS*  
*CASE Category: 46 – MECHANICAL ENGR*

**NCC 2 1255**      **UNIV OF CALIFORNIA - BERKELEY**      **2204**  
 2-DOF HAPTIC SIMULATION & PSYCHOPHYSICAL EXPERIMENTS  
 05/03/2001 - 03/31/2002      FY01: \$70,000      Total: \$70,000  
*Prin. Invest.: H KAZEROONI*  
*Tech. Officer: ARC/B ADELSTEIN, ARC/S R ELLIS*  
*CASE Category: 46 – MECHANICAL ENGR*

**NCC 2 5289**      **UNIV OF CALIFORNIA - BERKELEY**      **2205**  
 THE EVOLUTION OF DUST IN THE MULTIPHASE INTERSTELLAR MEDIUM  
 08/13/1998 - 09/30/2000      FY01: \$0      Total: \$132,599  
*Prin. Invest.: C F MCKEE*  
*Tech. Officer: ARC/D J HOLLENBACH*  
*CASE Category: 11 – ASTRONOMY*

**NCC 2 5334**      **UNIV OF CALIFORNIA - BERKELEY**      **2206**  
 A STUDY OF THE STATIC & DYNAMIC AERODYNAMICS CHARACTERISTICS  
 OF BLUNT PLANETARY PROBES  
 07/19/1999 - 07/14/2001      FY01: \$0      Total: \$80,000  
*Prin. Invest.: G T CHAPMAN, M BROWN, A RAMSEY*  
*Tech. Officer: ARC/P F WERCINSKI, ARC/T C TAM*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 2 5388**      **UNIV OF CALIFORNIA - BERKELEY**      **2207**  
 TOW-TANK STUDIES OF HELICOPTER VORTEX WAKE  
 07/14/2000 - 06/30/2002      FY01: \$40,000      Total: \$65,000  
*Prin. Invest.: O SAVAS*  
*Tech. Officer: ARC/F CARADONNA, ARC/C TUNG*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 2 5416**      **UNIV OF CALIFORNIA - BERKELEY**      **2208**  
 MASSIVE STAR FORMATION  
 01/26/2001 - 02/14/2002      FY01: \$58,000      Total: \$58,000  
*Prin. Invest.: F H SHU*  
*Tech. Officer: ARC/D J HOLLENBACH, ARC/G LAUGHLIN*  
*CASE Category: 11 – ASTRONOMY*

**NCC 2 5455**      **UNIV OF CALIFORNIA - BERKELEY**      **2209**  
 LONG TERM EXTREMEN ENVIRONMENT AND MARS ANALOG STUDIES IN  
 THE ATACAMA DESERT  
 08/09/2001 - 07/31/2002      FY01: \$40,000      Total: \$40,000  
*Prin. Invest.: R ADMUNDSON*  
*Tech. Officer: ARC/C MCKAY*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NCC 2 5461**      **UNIV OF CALIFORNIA - BERKELEY**      **2210**  
 TOW-TANK STUDIES OF AIRCRAFT WAKE VORTEX INSTABILITIES  
 09/26/2001 - 08/31/2002      FY01: \$30,000      Total: \$30,000  
*Prin. Invest.: O SAVAS*  
*Tech. Officer: ARC/D A DURSTON*  
*CASE Category: 41 - AERONAUTICAL ENGR*

**NCC 3 478**      **UNIV OF CALIFORNIA - BERKELEY**      **2211**  
 FLAMMABILITY DIAGRAMS OF COMBUSTIBLE MATERIALS IN MICROGRAVITY  
 05/29/1996 - 05/31/2000      FY01: -\$2,658      Total: \$217,442  
*Prin. Invest.: A C FERNANDEZ-PELLO*  
*Tech. Officer: GRC/H D ROSS*  
*CASE Category: 46 - MECHANICAL ENGR*

**NCC 3 803**      **UNIV OF CALIFORNIA - BERKELEY**      **2212**  
 FLAMMABILITY DIAGRAMS OF COMBUSTIBLE MATERIALS IN MICROGRAVITY  
 05/31/2000 - 04/30/2004      FY01: \$74,000      Total: \$127,000  
*Prin. Invest.: D FERNANDEZ-PELLO*  
*Tech. Officer: GRC/H D ROSS*  
*CASE Category: 46 - MECHANICAL ENGR*

**NCC 3 833**      **UNIV OF CALIFORNIA - BERKELEY**      **2213**  
 MICROGRAVITY PRODUCTION OF NANOPARTICLES OF NOVEL MATERIALS  
 USING PLASMA SYNTHESIS  
 12/13/2000 - 10/31/2004      FY01: \$80,000      Total: \$80,000  
*Prin. Invest.: M FRENKLACH*  
*Tech. Officer: GRC/N D PILTCHE*  
*CASE Category: 49 - ENGINEERING, OTHER*

**NCC 3 874**      **UNIV OF CALIFORNIA - BERKELEY**      **2214**  
 TWO DIMENSIONAL SMOLDERING & ITS TRANSITION TO FLAMING IN  
 MICROGRAVITY  
 03/14/2001 - 11/30/2004      FY01: \$120,000      Total: \$120,000  
*Prin. Invest.: C F PELLO*  
*Tech. Officer: GRC/D L URBAN*  
*CASE Category: 49 - ENGINEERING, OTHER*

**NCC 3 896**      **UNIV OF CALIFORNIA - BERKELEY**      **2215**  
 CARBON MONOXIDE AND SOOT FORMATION IN INVERSE DIFFUSION  
 FLAMES  
 06/06/2001 - 04/30/2003      FY01: \$30,000      Total: \$30,000  
*Prin. Invest.: C FERNANDEZ-PELLO*  
*Tech. Officer: GRC/K R SACKSTEDER*  
*CASE Category: 49 - ENGINEERING, OTHER*

**NCC 5 138**      **UNIV OF CALIFORNIA - BERKELEY**      **2216**  
 EXTENDED EUVE MISSION  
 08/21/1996 - 10/01/2001      FY01: \$300,000      Total: \$8,784,582  
*Prin. Invest.: R MALINA*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 - ASTRONOMY*

**NCC 5 253**      **UNIV OF CALIFORNIA - BERKELEY**      **2217**  
 THE SUN-EARTH CONNECTION EDUCATION FORUM.  
 10/30/1997 - 11/14/2001      FY01: \$1,391,318      Total: \$3,844,651  
*Prin. Invest.: I HAWKINS*  
*Tech. Officer: GSFC/J THIEMAN*  
*CASE Category: 13 - PHYSICS*

**NCC 5 352**      **UNIV OF CALIFORNIA - BERKELEY**      **2218**  
 SOIL BIOGEOCHEMISTRY OF CARBON, NUTRIENTS, & TRACE GASES IN  
 THE AMAZON REGION OF BRAZIL: FIELD & MOD  
 07/28/1998 - 12/31/2001      FY01: \$21,617      Total: \$218,967  
*Prin. Invest.: W SILVER*  
*Tech. Officer: GSFC/D E WICKLAND*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NCC 5 492**      **UNIV OF CALIFORNIA - BERKELEY**      **2219**  
 EO-1 & LANDSAT IMAGERY FOR MONITORING CALIFORNIA'S CONIFER  
 FOREST & HARDWOOD RANGELAND  
 04/12/2000 - 12/31/2001      FY01: \$67,129      Total: \$125,722  
*Prin. Invest.: P GONG*  
*Tech. Officer: GSFC/S G UNGAR*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NGT 2 52233**      **UNIV OF CALIFORNIA - BERKELEY**      **2220**  
 CHARACTERIZATION OF MICROBIAL DIVERSITY IN YELLOWSTONE FUMEROLES:  
 THE SEARCH FOR PRIMITIVE LIFE IN.  
 08/26/1997 - 07/31/2001      FY01: \$0      Total: \$66,000  
*Prin. Invest.: N R PACE*  
*Tech. Officer: ARC/D J DES MARAIS*  
*CASE Category: 54 - ENVIRONMENTAL BIOLOGY*

**NGT 2 52258**      **UNIV OF CALIFORNIA - BERKELEY**      **2221**  
 HIGH-RESOLUTION GROUND-BASED MAPPING OF TITAN'S SURFACE &  
 HAZE LAYER  
 08/11/1999 - 07/31/2002      FY01: \$22,000      Total: \$66,000  
*Prin. Invest.: I DEPATER*  
*Tech. Officer: ARC/C P MCKAY*  
*CASE Category: 11 - ASTRONOMY*

**NGT 2 52259**      **UNIV OF CALIFORNIA - BERKELEY**      **2222**  
 A SURGICAL AUGMENTED REALITY VISUALIZATION SYSTEM  
 09/07/1999 - 08/31/2001      FY01: \$0      Total: \$44,000  
*Prin. Invest.: S S SASTRY*  
*Tech. Officer: ARC/J D SMITH/E M HOLTON*  
*CASE Category: 22 - COMPUTER SCIENCE*

**NGT 2 52278**      **UNIV OF CALIFORNIA - BERKELEY**      **2223**  
 COMPUTATIONAL INVESTIGATIONS OF MASSIVE STAR FORMATION  
 06/19/2001 - 06/14/2002      FY01: \$22,000      Total: \$22,000  
*Prin. Invest.: C F MCKEE*  
*Tech. Officer: ARC/D J HOLLENBACH*  
*CASE Category: 11 - ASTRONOMY*

**NGT 5 83**      **UNIV OF CALIFORNIA - BERKELEY**      **2224**  
 SUPERFLUID ANALOG OF THE DC-SQUID FOR MEASURING ABSOLUTE  
 ROTATION (STUDENT - RAYMOND SIMONDS)  
 05/18/1999 - 06/30/2001      FY01: \$0      Total: \$44,000  
*Prin. Invest.: J C DAVIS*  
*Prin. Invest.: NONE*  
*Tech. Officer: GSFC/M S BURRELL*  
*CASE Category: 13 - PHYSICS*

**NGT 5 30044**      **UNIV OF CALIFORNIA - BERKELEY**      **2225**  
 THE RELATIONSHIP BETWEEN SOIL AGE, LAND USE AND C VALLEY OF  
 CALIFORNIA  
 12/12/1996 - 08/31/2000      FY01: \$0      Total: \$66,000  
*Prin. Invest.: D G AMUNDSON*  
*Tech. Officer: GSFC/G ASRAR*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NGT 5 30071 UNIV OF CALIFORNIA - BERKELEY 2226**  
 PREDICTING WHEN VEGETATION CHANGE MATTERS TO ECOSYSTEMING  
 09/09/1997 - 08/31/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.: M FIRESTONE*  
*Tech. Officer: GSFC/G ASRAR*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NGT 5 30110 UNIV OF CALIFORNIA - BERKELEY 2227**  
 A STUDY OF MEV TERRESTRIAL X-RAY BURSTS  
 05/11/1998 - 07/31/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.: R P LIN/MILLAN*  
*Tech. Officer: GSFC/D EVANS*  
*CASE Category: 11 - ASTRONOMY*

**NGT 5 30141 UNIV OF CALIFORNIA - BERKELEY 2228**  
 PHOSPHORUS CYCLING OF LAND USE GRADIENT ON TWO SOIL  
 TEXTURES IN A LOWLAND TROPICAL FOREST  
 08/27/1998 - 02/28/2002 FY01: \$0 Total: \$66,000  
*Prin. Invest.: W L SILVER, MCGRODDY*  
*Prin. Invest.: NONE*  
*Tech. Officer: GSFC/M Y WEI*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NGT 5 30183 UNIV OF CALIFORNIA - BERKELEY 2229**  
 MEASUREMENT & MODELING OF CARBON, WATER & ENERGY OVER A  
 CALIFORNIA OAK SAVANNA: LINKING THE BIOPHYS  
 08/19/1999 - 08/31/2002 FY01: \$22,000 Total: \$66,000  
*Prin. Invest.: T L BENNING*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NGT 5 30219 UNIV OF CALIFORNIA - BERKELEY 2230**  
 ATMOSPHERIC NO<sub>2</sub>: LASER-INDUCED FLUORESCENCE DETECT ION AT  
 THE PART PER TRILLION LEVEL FROM AIRCRAFT  
 08/24/1999 - 08/31/2002 FY01: \$22,000 Total: \$66,000  
*Prin. Invest.: R C COHEN*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NGT 5 30351 UNIV OF CALIFORNIA - BERKELEY 2231**  
 THE IMPLICATIONS OF MICROBIAL DECOMPOSITION ON THE DISTRIBUTION  
 OF STABLEC & N ISOTOPES IN TERRESTRIA  
 08/24/2000 - 08/31/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.: I CHAPELA*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NGT 5 30361 UNIV OF CALIFORNIA - BERKELEY 2232**  
 INTEGRATING REMOTELY SENSED AFFORESTATION POTENTIA L WITH  
 CREDIT TRADING & TECHNICAL LEARNING IN MOD  
 08/24/2000 - 08/31/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.: D M KAMMEN*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NGT 5 30380 UNIV OF CALIFORNIA - BERKELEY 2233**  
 THE GLOBAL IRON GEOCHEMICAL CYCLE: CHARACTERIZING AEOLIAN  
 IRON SOURCES TO THE OCEAN AND THE EFFECT  
 08/13/2001 - 08/31/2004 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: D DE PAOLO*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NGT 5 30383 UNIV OF CALIFORNIA - BERKELEY 2234**  
 GLOBAL TRENDS IN SOIL ORGANIC CARBON RESIDENCE TIME/JONATHAN  
 SANDERMAN  
 08/13/2001 - 08/31/2004 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: R AMUNDSON*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NGT 5 30403 UNIV OF CALIFORNIA - BERKELEY 2235**  
 ECOSYSTEM LEVEL IMPACTS OF CLIMATE WARMING & LOSS OF BIODIV-  
 ERSITY IN MONTANE MEADOW HABITAT/STUDENT  
 08/14/2001 - 08/31/2004 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: J HARTE*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NGT 5 30424 UNIV OF CALIFORNIA - BERKELEY 2236**  
 ANOMALOUS FRACTIONATION OF TROPOSPHERIC CO<sub>2</sub> AS A POTENTIAL  
 TRACER OF BIOSPHERE PRODUCTIVITY  
 09/07/2001 - 09/14/2004 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: K BOERING*  
*Tech. Officer: GSFC/\_ WEI*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NGT 5 50048 UNIV OF CALIFORNIA - BERKELEY 2237**  
 CONTINUOUS WAVE OPERATION OF FAR-INFRARED GERMANIUMS  
 07/17/1997 - 07/31/2000 FY01: -\$100 Total: \$65,900  
*Prin. Invest.: E HALLER*  
*Tech. Officer: GSFC/A NURRIDDIN*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NGT 5 50061 UNIV OF CALIFORNIA - BERKELEY 2238**  
 ION OUTFLOW FROM THE AURORAL IONOSPHERE  
 08/04/1997 - 12/31/2000 FY01: \$0 Total: \$66,000  
*Prin. Invest.: CHARLES*  
*Tech. Officer: HQ/A NURRIDDIN*  
*CASE Category: 41 - AERONAUTICAL ENGRN*

**NGT 5 50066 UNIV OF CALIFORNIA - BERKELEY 2239**  
 DEVELOPMENT OF A SUPERFLUID HELIUM-4 GYROSCOPE  
 09/05/1997 - 06/30/2000 FY01: \$0 Total: \$66,000  
*Prin. Invest.: D PACKARD*  
*Tech. Officer: HQ/A NURRIDDIN*  
*CASE Category: 41 - AERONAUTICAL ENGRN*

**NGT 5 50157 UNIV OF CALIFORNIA - BERKELEY 2240**  
 THE COMPOSITION OF THE ACTINIDES IN GALACTIC COSMI  
 09/11/1997 - 09/30/2000 FY01: \$0 Total: \$66,000  
*Prin. Invest.: P PRICE*  
*Tech. Officer: HQ/A NURRIDDIN*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NGT 5 50188 UNIV OF CALIFORNIA - BERKELEY 2241**  
 DIAMONDS IN GIANT PLANETS? EXPERIMENTS ON "PLANETARY ICES" AT  
 HIGH PRESSURES AND TEMPERATURES  
 05/27/1998 - 12/31/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.: R JEANLOZ*  
*Prin. Invest.: NONE*  
*Tech. Officer: HQ/A NURRIDDIN*  
*CASE Category: 13 - PHYSICS*

**NGT 5 50189**      **UNIV OF CALIFORNIA - BERKELEY**      **2242**  
DETERMINATION OF COSMOLOGICAL PARAMETERS THROUGH C OSMIC  
MICROWAVE BACKGROUND OBSERVATIONS WITH THE  
05/27/1998 - 06/30/2001      FY01: \$0      Total: \$66,000  
*Prin. Invest.: G SMOOTH*  
*Tech. Officer: HQ/A NURRIDDIN*  
*CASE Category: 13 - PHYSICS*

**NGT 5 50195**      **UNIV OF CALIFORNIA - BERKELEY**      **2243**  
BALLOON-BORNE OBSERVATIONS OF THE ANISOTROPY OF TH E COSMIC  
MICROWAVE BACKGROUND ON ANGULAR SCALES O  
06/04/1998 - 06/30/2002      FY01: \$0      Total: \$66,000  
*Prin. Invest.: P L RICHARDS*  
*Tech. Officer: HQ/A NURRIDDIN*  
*CASE Category: 13 - PHYSICS*

**NGT 5 50196**      **UNIV OF CALIFORNIA - BERKELEY**      **2244**  
FRAGMENTATION IN COLLAPSING NON-ISOTHERMAL MOLECUL AR  
CLOUDS  
06/04/1998 - 09/30/2001      FY01: \$0      Total: \$66,000  
*Prin. Invest.: C F MCKEE*  
*Tech. Officer: HQ/A NURRIDDIN*  
*CASE Category: 13 - PHYSICS*

**NGT 5 50216**      **UNIV OF CALIFORNIA - BERKELEY**      **2245**  
ABOVEGROUND AND BELOWGROUND PLANT SPECIES FUNCTION AL  
TRAITS AND THEIR RELATION TO ECOSYSTEM FUNCT  
09/15/1998 - 08/31/2001      FY01: \$0      Total: \$58,667  
*Prin. Invest.: F S CHAPIN, 111*  
*Tech. Officer: GSFC/M Y WEI*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NGT 5 50223**      **UNIV OF CALIFORNIA - BERKELEY**      **2246**  
REGIONAL CHANGES IN EXTREME EVENT FREQUENCIES WITH IN THE  
UNITED STATES (STUDENT: DIANA DERUBERTIS)  
09/29/1998 - 08/31/2001      FY01: \$0      Total: \$66,000  
*Prin. Invest.: O E GRANGER, D DERUBERTIS*  
*Tech. Officer: HQ/A NURRIDDIN*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NGT 5 50245**      **UNIV OF CALIFORNIA - BERKELEY**      **2247**  
INFRARED SPECTROSCOPY OF STAR FORMATION IN SUPER STAR CLUS-  
TERS WITH KECK/NIRSPEC (STUDENT: ANDRE  
06/02/1999 - 06/30/2002      FY01: \$22,000      Total: \$66,000  
*Prin. Invest.: J GRAHAM*  
*Tech. Officer: GSFC/L SMITH*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NGT 5 50253**      **UNIV OF CALIFORNIA - BERKELEY**      **2248**  
X-RAY SPECTROSCOPY OF EVOLVED SUPERNOVA REMNANTS  
06/07/1999 - 06/30/2002      FY01: \$22,000      Total: \$66,000  
*Prin. Invest.: C F MCKEE*  
*Tech. Officer: GSFC/L SMITH*  
*CASE Category: 11 - ASTRONOMY*

**NGT 5 50331**      **UNIV OF CALIFORNIA - BERKELEY**      **2249**  
EFFECTS OF OXIC-ANOXIC DYNAMICS ON METHANE EFLUX & STABLE  
ISOTOPE COMPOSITIONIN HUMID TROPICA  
08/17/2000 - 08/31/2002      FY01: \$22,000      Total: \$44,000  
*Prin. Invest.: W SILVER*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NGT 5 50338**      **UNIV OF CALIFORNIA - BERKELEY**      **2250**  
LUNAR MAGNETIC AND ELECTRIC FIELDS(STUDENT: JASPER HALEKAS)  
05/04/2001 - 06/30/2002      FY01: \$22,000      Total: \$22,000  
*Prin. Invest.: R LIN*  
*Tech. Officer: GSFC/K BLANDING*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NGT 5 50342**      **UNIV OF CALIFORNIA - BERKELEY**      **2251**  
DETERMINATION OF EVOLUTIONARY PARAMETERS IN POPULA TIONS OF  
THERMOPHIC ARCHAEO(STUDENT: RACHEL WHITA  
05/14/2001 - 06/30/2002      FY01: \$22,000      Total: \$22,000  
*Prin. Invest.: J TAYLOR*  
*Tech. Officer: GSFC/K BLANDING*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NGT 5 50365**      **UNIV OF CALIFORNIA - BERKELEY**      **2252**  
AN ELECTRON EDM MEASUREMENT UTILIZING A SLOW-BEAM ATOMIC  
FOUNTAIN/STUDENT: JASON AMINI  
06/12/2001 - 06/30/2002      FY01: \$22,000      Total: \$22,000  
*Prin. Invest.: S FREEDMAN*  
*Tech. Officer: GSFC/K BLANDING*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 1 2215**      **UNIV OF CALIFORNIA - DAVIS**      **2253**  
AERO-MECHANICAL DESIGN METHODOLOGY FOR SUBSONIC CIVIL  
TRANSPORT HIGH-LIFT SYSTEMS  
07/20/1999 - 12/31/2000      FY01: \$1      Total: \$54,972  
*Prin. Invest.: C P VAN-DAM*  
*Tech. Officer: LARC/P A GELHAUSEN*  
*CASE Category: 41 - AERONAUTICAL ENGR*

**NAG 1 01045**      **UNIV OF CALIFORNIA - DAVIS**      **2254**  
FURTHER DEVELOPMENT IN AERO-MECHANICAL DESIGN METHODOL-  
OGIES FOR HIGH-LIFT SYSTEMS  
04/11/2001 - 04/10/2002      FY01: \$77,593      Total: \$77,593  
*Prin. Invest.: C P VAN DAM*  
*Tech. Officer: LARC/P A GELHAUSEN*  
*CASE Category: 41 - AERONAUTICAL ENGR*

**NAG 1 01116**      **UNIV OF CALIFORNIA - DAVIS**      **2255**  
MODELING AND DESIGN ANALYSIS METHODOLOGY FOR TAYLORED  
COMPOSITE AIRCRAFT STRUCTURES  
09/21/2001 - 01/20/2004      FY01: \$18,806      Total: \$18,806  
*Prin. Invest.: L W REHFIELD*  
*Tech. Officer: LARC/D R AMBUR*  
*CASE Category: 47 - METAL & MATERIALS ENGR*

**NAG 2 944**      **UNIV OF CALIFORNIA - DAVIS**      **2256**  
CNS CONTROL OF RHYTHMS & HOMEOSTASIS DURING SPACE FLIGHT  
12/21/1994 - 12/31/2000      FY01: \$0      Total: \$624,482  
*Prin. Invest.: C A FULLER*  
*Tech. Officer: ARC/W E HINDS, ARC/C M WINGET*  
*CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)*

**NAG 2 1019**      **UNIV OF CALIFORNIA - DAVIS**      **2257**  
MICROGRAVITY EFFECTS ON DEVELOPING VESTIBULAR AFFE REENTS  
(NEUROLAB)  
01/22/1996 - 03/31/2001      FY01: \$0      Total: \$577,426  
*Prin. Invest.: B CHAPMAN*  
*Tech. Officer: ARC/W E HINDS, ARC/C M WINGET*  
*CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)*

**NAG 2 1216**      **UNIV OF CALIFORNIA - DAVIS**      **2258**  
 TOWARDS REAL-TIME VECTOR FIELD VISUALIZATION FOR MASSIVE &  
 MULTI-SOURCE DATA USING HIERARCHIES  
 05/04/1998 – 12/31/2000      FY01: \$0      Total: \$199,193  
*Prin. Invest.:* B HAMANN  
*Tech. Officer:* ARC/A VAZIRI, ARC/M G YAMASAKI  
*CASE Category:* 22 – COMPUTER SCIENCE

**NAG 2 1251**      **UNIV OF CALIFORNIA - DAVIS**      **2259**  
 DENIAL OF SERVICE IN THE INFRASTRUCTURE  
 08/19/1998 – 09/30/1999      FY01: \$0      Total: \$98,873  
*Prin. Invest.:* M BISHOP  
*Tech. Officer:* ARC/C M FALSETTI, ARC/B H WHITAKER  
*CASE Category:* 22 – COMPUTER SCIENCE

**NAG 2 1265**      **UNIV OF CALIFORNIA - DAVIS**      **2260**  
 ADAPTATION OF RHESUS MACAQUES TO A HYPERDYNAMIC ENVIRONMENT  
 09/14/1998 – 12/31/2000      FY01: \$0      Total: \$757,146  
*Prin. Invest.:* C A FULLER  
*Tech. Officer:* ARC/R E GRINDELAND, ARC/K L SOUZA  
*CASE Category:* 59 – LIFE SCIENCE, OTHER

**NAG 2 1404**      **UNIV OF CALIFORNIA - DAVIS**      **2261**  
 EFFECTS OF GRAVITY ON INSECT CIRCADIAN RHYTHMICITY  
 04/27/2000 – 06/30/2001      FY01: \$222,618      Total: \$419,569  
*Prin. Invest.:* T M HOBAN-HIGGINS  
*Tech. Officer:* ARC/R D MACELROY, ARC/M M AVERNER  
*CASE Category:* 51 – BIOLOGY (EXCLUDING ENVIR)

**NAG 2 1442**      **UNIV OF CALIFORNIA - DAVIS**      **2262**  
 REMOTE AGRICULTURAL MONITORING HYPERSPECTRAL IMAGE BY WITH  
 AN UPDATED AERIAL VEHICLE  
 09/27/2000 – 12/31/2000      FY01: \$0      Total: \$90,000  
*Prin. Invest.:* S USTIN  
*Tech. Officer:* ARC/S S WEGENER, ARC/R S HIPSKEIN  
*CASE Category:* 55 – AGRICULTURE

**NAG 2 1451**      **UNIV OF CALIFORNIA - DAVIS**      **2263**  
 EFFECTS OF HYPERGRAVITY ON RAT CIRCADIAN CLOCK GENES,  
 REGULATION & EXPRESSION  
 12/19/2000 – 12/14/2001      FY01: \$238,307      Total: \$238,307  
*Prin. Invest.:* C A FULLER  
*Tech. Officer:* ARC/M M AVERNER, ARC/R D MACELROY  
*CASE Category:* 51 – BIOLOGY (EXCLUDING ENVIR)

**NAG 2 1459**      **UNIV OF CALIFORNIA - DAVIS**      **2264**  
 FIRST INTERNATIONAL CONFERENCE ON COMPUTATIONAL FLUID  
 DYNAMICS  
 03/05/2001 – 01/31/2002      FY01: \$25,000      Total: \$25,000  
*Prin. Invest.:* J J CHATTOT  
*Tech. Officer:* ARC/W R VAN DALSEM  
*CASE Category:* 22 – COMPUTER SCIENCE

**NAG 2 1494**      **UNIV OF CALIFORNIA - DAVIS**      **2265**  
 EFFECTS OF THE HYPERGRAVITY ON EXPRESSION OF GENES INVOLVED  
 IN REGULATION OF FEEDING  
 07/05/2001 – 06/30/2002      FY01: \$88,698      Total: \$88,698  
*Prin. Invest.:* B A HORWITZ  
*Tech. Officer:* ARC/M M AVERNER, ARC/R D MACELROY  
*CASE Category:* 51 – BIOLOGY (EXCLUDING ENVIR)

**NAG 3 2153**      **UNIV OF CALIFORNIA - DAVIS**      **2266**  
 EXPERIMENTAL STUDIES OF MULTIPHASE MATERIALS USING NUCLEAR  
 MAGNETIC RESONANCE  
 05/13/1998 – 03/08/2002      FY01: \$71,250      Total: \$242,250  
*Prin. Invest.:* B L POWELL, S DUGAN, R PHILLIPS  
*Tech. Officer:* GRC/F P CHIARAMONTE  
*CASE Category:* 43 – CHEMICAL ENGR

**NAG 5 3001**      **UNIV OF CALIFORNIA - DAVIS**      **2267**  
 AIRBORNE LASER ALTIMETRIC MONITORING OF THE RAPID EVOLUTION OF  
 TOPOGRAPHY IN LONGVALLEY, CALIF....  
 07/14/1995 – 07/31/2000      FY01: \$0      Total: \$194,646  
*Prin. Invest.:* J MINSTER  
*Tech. Officer:* GSFC/H V FREY  
*CASE Category:* 32 – GEOLOGICAL SCIENCE

**NAG 5 6440**      **UNIV OF CALIFORNIA - DAVIS**      **2268**  
 EFFECT OF GRAVITY ON THE REGULATION OF CIRCADIAN RHYTHMS  
 11/03/1997 – 06/30/2000      FY01: \$0      Total: \$118,910  
*Prin. Invest.:* D MURAKAMI  
*Tech. Officer:* GSFC/V SCHNEIDER  
*CASE Category:* 59 – LIFE SCIENCE, OTHER

**NAG 5 7216**      **UNIV OF CALIFORNIA - DAVIS**      **2269**  
 USE OF HYPER-SPECTRAL IMAGERY TO IDENTIFY AND MAP LEAFY  
 SPURGE INFESTATIONS AT THEODORE ROOSEVELT  
 03/31/1998 – 03/31/2000      FY01: \$0      Total: \$115,123  
*Prin. Invest.:* S L USTIN  
*Tech. Officer:* GSFC/D E WICKLAND  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NAG 5 7441**      **UNIV OF CALIFORNIA - DAVIS**      **2270**  
 GEOMETRIC PARAMETERIZATION OF RAINFALL FIELDS  
 06/02/1998 – 06/14/2002      FY01: \$0      Total: \$131,000  
*Prin. Invest.:* C E PUENTE  
*Tech. Officer:* GSFC/R W LAWRENCE  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NAG 5 8258**      **UNIV OF CALIFORNIA - DAVIS**      **2271**  
 ION IMAGING STUDIES OF VUV PHOTODISOCIATION OF COMETARY  
 PARENTMOLECULES  
 02/17/1999 – 03/31/2002      FY01: \$81,364      Total: \$309,885  
*Prin. Invest.:* W JACKSON  
*Tech. Officer:* GSFC/R BEEBE  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 8391**      **UNIV OF CALIFORNIA - DAVIS**      **2272**  
 X-RAY PROPERTIES OF DEEP-RADIO-SELECTED QUASARS (A DP98)  
 03/05/1999 – 03/14/2002      FY01: \$0      Total: \$102,548  
*Prin. Invest.:* R H BECKER  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 8430**      **UNIV OF CALIFORNIA - DAVIS**      **2273**  
 THE FORMATION OF GALAXY CLUSTERS (LTS 98)  
 05/10/1999 – 05/14/2002      FY01: \$89,765      Total: \$269,295  
*Prin. Invest.:* S STANFORD  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 8586** UNIV OF CALIFORNIA - DAVIS 2274  
 SUPPORT OF THE INTERNATIONAL CONGRESS MANAGING FOR ECOYSTEM HEALTH, 15-20 AUGUST 1999, SACRAMENTO  
 06/28/1999 - 06/30/2000 FY01: \$0 Total: \$48,500  
*Prin. Invest.: C O QUALSET*  
*Tech. Officer: GSFC/B W MEESON*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 9025** UNIV OF CALIFORNIA - DAVIS 2275  
 "ERROR CONTROL CODING TECHNIQUES FOR SPACE & SATEL LITE COMMUNICATIONS"  
 02/09/2000 - 02/28/2001 FY01: \$0 Total: \$70,000  
*Prin. Invest.: S LIN, NONE*  
*Tech. Officer: GSFC/W H MILLER*  
*CASE Category: 49 - ENGINEERING, OTHER*

**NAG 5 9360** UNIV OF CALIFORNIA - DAVIS 2276  
 NEW EOS DATA PRODUCTS TO IMPROVE BIOGEOCHEMICAL ESTIMATES  
 04/06/2000 - 04/30/2002 FY01: \$199,135 Total: \$375,960  
*Prin. Invest.: S USTIN*  
*Tech. Officer: GSFC/D E WICKLAND*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 9540** UNIV OF CALIFORNIA - DAVIS 2277  
 X-RAY PROPERTIES OF DEEP-RADIO-SELECTED QUASARS (A DP98)  
 05/02/2000 - 05/31/2002 FY01: \$0 Total: \$50,000  
*Prin. Invest.: N ARAV*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9897** UNIV OF CALIFORNIA - DAVIS 2278  
 A JOINT DEEP XMM/AXAF SURVEY IN THE LYNX.3A FIELD  
 09/06/2000 - 09/14/2001 FY01: \$0 Total: \$7,900  
*Prin. Invest.: S A STANFORD*  
*Tech. Officer: GSFC/R F MUSHOTZKY*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9947** UNIV OF CALIFORNIA - DAVIS 2279  
 X-RAYS FROM RADIO-LOUD BROAD ABSORPTION LINE QSOS  
 09/06/2000 - 09/14/2002 FY01: \$15,000 Total: \$30,500  
*Prin. Invest.: R H BECKER*  
*Tech. Officer: GSFC/R F MUSHOTZKY*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10480** UNIV OF CALIFORNIA - DAVIS 2280  
 ERROR CONTROL CODING TECHNIQUES FOR SPACE AND SATELLITE COMMUNICATIONS  
 02/27/2001 - 02/28/2002 FY01: \$70,000 Total: \$70,000  
*Prin. Invest.: S LIN*  
*Tech. Officer: GSFC/P YEH*  
*CASE Category: 49 - ENGINEERING, OTHER*

**NAG 5 10591** UNIV OF CALIFORNIA - DAVIS 2281  
 BIOGEOCHEMICAL CHARACTERIZATION OF LATE ARCHEAN FE NESTRATE MICROBIALITES FROM THE GAMOHAAN FORMATION  
 03/20/2001 - 03/31/2002 FY01: \$89,200 Total: \$89,200  
*Prin. Invest.: D Y SUMNER*  
*Tech. Officer: GSFC/M MEYER*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 11098** UNIV OF CALIFORNIA - DAVIS 2282  
 ANALYSIS & INTERPRETATION OF CMB DATA (LTSA 2000)  
 07/12/2001 - 07/14/2002 FY01: \$76,646 Total: \$76,646  
*Prin. Invest.: L KNOX*  
*Tech. Officer: GSFC/R OLIVERSEN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 11260** UNIV OF CALIFORNIA - DAVIS 2283  
 WESTERN CENTER FOR ESTUARINE ECOSYSTEM INDICATOR RESEARCH  
 08/20/2001 - 08/31/2005 FY01: \$76,055 Total: \$76,055  
*Prin. Invest.: S USTIN*  
*Tech. Officer: GSFC/E LINDSTROM*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 8 1143** UNIV OF CALIFORNIA - DAVIS 2284  
 THE GLOBAL ATMOSPHERIC RESPONSE TO LOCALIZED LOW FREQUENCY FORCING  
 05/24/1995 - 03/31/2001 FY01: \$0 Total: \$177,000  
*Prin. Invest.: T R NATHAN*  
*Tech. Officer: MSFC/T L MILLER, MSFC/S H CHOW*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 9 1048** UNIV OF CALIFORNIA - DAVIS 2285  
 MESOSCOPIC INSTRUMENTATION MINIURE FTIR FOR ENVIRONMENTAL MONITORING  
 08/13/1998 - 08/04/2002 FY01: \$218,917 Total: \$401,700  
*Prin. Invest.: S D COLLINS*  
*Tech. Officer: HQ/D L JAN*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG13 99023** UNIV OF CALIFORNIA - DAVIS 2286  
 USING REMOTE SENSING TO MONITOR THE IMPACTS OF FLOOD-IRRIGATION OF MEADOWS IN EAST WALKER RIVER  
 08/25/1999 - 11/01/2001 FY01: \$173,619 Total: \$345,192  
*Prin. Invest.: D W TATE*  
*Tech. Officer: SSC/R MCKELLIP*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NAS 5 31359** UNIV OF CALIFORNIA - DAVIS 2287  
 EOS-BIOSPHERE-ATMOSPHERE INTERACTIONS STUDY  
 11/05/1991 - 12/31/1999 FY01: \$0 Total: \$533,400  
*Prin. Invest.: S USTIN*  
*Tech. Officer: GSFC/P SELLERS*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NCC 1 345** UNIV OF CALIFORNIA - DAVIS 2288  
 DEVELOPMENT OF A DESIGN METHODOLOGY FOR RECONFIGURABLE FLIGHT CONTROL SYSTEMS  
 07/06/1999 - 07/14/2000 FY01: \$1 Total: \$50,243  
*Prin. Invest.: R A HESS*  
*Tech. Officer: GSFC/B J BACON*  
*CASE Category: 41 - AERONAUTICAL ENGRN*

**NCC 1 01007** UNIV OF CALIFORNIA - DAVIS 2289  
 SIMULATION OF FOREBODY FLOWS AT HIGH-ANGLE-OF-ATTACH DYNAMIC CONDITIONS  
 12/27/2000 - 10/31/2001 FY01: \$55,752 Total: \$55,752  
*Prin. Invest.: C P VAN DAM*  
*Tech. Officer: LARC/C M FREMAUX*  
*CASE Category: 41 - AERONAUTICAL ENGRN*

**NCC 2 1011** UNIV OF CALIFORNIA - DAVIS **2290**  
EFFICIENT PARALLEL ALGORITHMS FOR INVISCID & VISCO US FLOW SIMULATION  
01/27/1998 - 01/31/2002 FY01: \$0 Total: \$215,662  
*Prin. Invest.: M HAFEZ, J CHATTAT*  
*Tech. Officer: ARC/D KWAK*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 2 1131** UNIV OF CALIFORNIA - DAVIS **2291**  
EYE MOVEMENT VISUAL PERCEPTION& CONTROL  
07/23/1999 - 02/28/2002 FY01: \$12,222 Total: \$57,444  
*Prin. Invest.: R A HESS*  
*Tech. Officer: ARC/L S SROUE, ARC/B SWEET*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 2 1183** UNIV OF CALIFORNIA - DAVIS **2292**  
MODELING ROTORCRAFT INTERACTION WITH ATMOSPHERIC TURBULENCE IN LOW-SPEED AND HOVERING FLIGHT  
06/07/2000 - 05/31/2002 FY01: \$32,700 Total: \$85,117  
*Prin. Invest.: R HESS*  
*Tech. Officer: ARC/M B TISCHER*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 2 1271** UNIV OF CALIFORNIA - DAVIS **2293**  
GRAVITATIONAL BIOLOGY: COMPARISON OF MAMMALIAN ADA PTATIONS TO GROUND-BASED MODELS  
07/31/2001 - 06/30/2002 FY01: \$250,658 Total: \$250,658  
*Prin. Invest.: C A FULLER, D M MURAKAMI*  
*Tech. Officer: ARC/E M HOLTON, ARC/M M AVERNER*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NCC 2 5308** UNIV OF CALIFORNIA - DAVIS **2294**  
NUMERICAL SIMULATION OF TIME-DEPENDENT VISCOS FLO WS ABOUT WIND TURBINES  
02/23/1999 - 04/30/2001 FY01: \$0 Total: \$85,173  
*Prin. Invest.: C P VANDAM*  
*Tech. Officer: ARC/E N DUQUE*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 2 5313** UNIV OF CALIFORNIA - DAVIS **2295**  
DEVELOPING & VALIDATING ROTORCRAFT SIMULATION MODE LS  
04/02/1999 - 12/31/2000 FY01: \$0 Total: \$58,981  
*Prin. Invest.: J DONGARRA*  
*Tech. Officer: ARC/S DAINI*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NCC 2 5343** UNIV OF CALIFORNIA - DAVIS **2296**  
EXPLORING THE BRDF POTENTIAL OF POLARIZED REFLECTA NCE  
08/11/1999 - 11/30/2000 FY01: \$0 Total: \$108,500  
*Prin. Invest.: S L USTIN*  
*Tech. Officer: ARC/V C VANDERBILT, ARC/E P CONDON*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NCC 2 5369** UNIV OF CALIFORNIA - DAVIS **2297**  
DEVELOPMENTOF FLIGHT SIMULATOR FIDELITY ASSESSMENT TOOLS  
03/21/2000 - 12/31/2000 FY01: \$0 Total: \$23,648  
*Prin. Invest.: R A HESS*  
*Tech. Officer: ARC/D TRAN*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 2 5387** UNIV OF CALIFORNIA - DAVIS **2298**  
DEVELOPMENT & APPLICATION OF A DATA MANAGEMENT TEC HNIQUE WITHIN A DISTRIBUTED COMPUTING ENVIRONMENT  
06/23/2000 - 06/30/2001 FY01: \$35,000 Total: \$95,000  
*Prin. Invest.: M HAFEZ, J S DACLES-MARIANI*  
*Tech. Officer: ARC/D KWAK*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NCC 2 5406** UNIV OF CALIFORNIA - DAVIS **2299**  
PREDICTION OF THE AERODYNAMIC CHARACTERISTICS OF A HELICOPTER ROTOR AIRFOIL WITHACTIVELY-CONTOLLED  
10/27/2000 - 10/31/2001 FY01: \$17,879 Total: \$17,879  
*Prin. Invest.: C P VANDAM*  
*Tech. Officer: ARC/M V FULTON, ARC/C TUNG*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 2 5425** UNIV OF CALIFORNIA - DAVIS **2300**  
COMPUTER AIDED FLIGHT SIMULATOR ASSESSMENT  
03/09/2001 - 02/28/2002 FY01: \$30,870 Total: \$30,870  
*Prin. Invest.: R A*  
*Tech. Officer: ARC/D T TRAN, ARC/W B CLEVELAND*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 2 5426** UNIV OF CALIFORNIA - DAVIS **2301**  
METACOMPUTATIONS & SIMULATIONS OF SEPARATED FLOWS WITH APPLICATIONS TO AEROSPACE & BIOFLUID DYNAMICS  
03/08/2001 - 02/28/2002 FY01: \$90,000 Total: \$90,000  
*Prin. Invest.: M HAFEZ, J J CHATTOT*  
*Tech. Officer: ARC/D KWAK*  
*CASE Category: 29 – MATH/COMPUTER SCI, OTHER*

**NCC 2 5447** UNIV OF CALIFORNIA - DAVIS **2302**  
DATA COMPRESSION VIA WAVELETS  
08/14/2001 - 07/31/2002 FY01: \$95,000 Total: \$95,000  
*Prin. Invest.: M HAFEZ*  
*Tech. Officer: ARC/D KWAK, ARC/C KIRIS*  
*CASE Category: 21 – MATHEMATICS*

**NCC 3 353** UNIV OF CALIFORNIA - DAVIS **2303**  
ELECTROHYDRODYNAMIC POOLING IN REDUCED GRAVITY  
06/29/1994 - 08/31/2002 FY01: \$0 Total: \$100,000  
*Prin. Invest.: B D SHAW*  
*Tech. Officer: GRC/F P CHIARAMONTE*  
*CASE Category: 46 – MECHANICAL ENGR*

**NCC 3 477** UNIV OF CALIFORNIA - DAVIS **2304**  
COMBUSTION EXPERIMENTS IN REDUCED GRAVITY WITH TWO - COMPONENT MISCELLY DROPLETS  
05/21/1996 - 05/20/2001 FY01: \$0 Total: \$361,585  
*Prin. Invest.: B SHAW*  
*Tech. Officer: GRC/D DIETRICH*  
*CASE Category: 13 – PHYSICS*

**NCC 3 668** UNIV OF CALIFORNIA - DAVIS **2305**  
THE IMPACT OF BUOYANCY AND FLAME STRUCTURE ON SOOT , RADIATION AND NOX EMISSIONS FROM A TURBULENT DI  
02/12/1999 - 11/30/2002 FY01: \$89,117 Total: \$203,033  
*Prin. Invest.: I M KENNEDY*  
*Tech. Officer: GRC/K R SACKSTEDER*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 3 683**            **UNIV OF CALIFORNIA - DAVIS**            **2306**  
 COMBUSTION OF HAN-BASED MONOPROPELLANT IN REDUCED GRAVITY  
 03/08/1999 - 01/03/2003      FY01: \$103,250      Total: \$301,250  
*Prin. Invest.: B D SHAW*  
*Tech. Officer: GRC/D L DIETRICH*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 3 845**            **UNIV OF CALIFORNIA - DAVIS**            **2307**  
 FLAME PROPAGATION IN LOW INTENSITY TURBULENCE UNDE R  
 MICROGRAVITY CONDITIONS  
 01/05/2001 - 11/30/2004      FY01: \$90,000      Total: \$90,000  
*Prin. Invest.: R C ALDRIDGE*  
*Tech. Officer: GRC/K R SACKSTEDER*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 3 859**            **UNIV OF CALIFORNIA - DAVIS**            **2308**  
 MECHANISM OF CREEP OF CU-CR-NB ALLOYS MECHANISM OF CREEP OF  
 CU-CR-NB ALLOYS  
 02/08/2001 - 12/27/2001      FY01: \$30,000      Total: \$30,000  
*Prin. Invest.: J GIBELING*  
*Tech. Officer: GRC/M NATHAL*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NCC 3 872**            **UNIV OF CALIFORNIA - DAVIS**            **2309**  
 ELECTRIC FIELD EFFECTS IN SELF-PRO PAGATING HIGH T EMPERATURE  
 COMBUSTION SYNTHESIS UNDER MICROGRAVIT  
 03/19/2001 - 11/30/2004      FY01: \$100,000      Total: \$100,000  
*Prin. Invest.: Z A MUNIR*  
*Tech. Officer: GRC/K R SACKSTEDER*  
*CASE Category: 41 – AERONAUTICAL ENGNR*

**NCC 3 890**            **UNIV OF CALIFORNIA - DAVIS**            **2310**  
 COMBUSTION EXPERIMENTS IN REDUCED GRAVITY WITH TWO  
 COMPONENT MISCELLY DROPLETS  
 05/01/2001 - 02/28/2002      FY01: \$170,650      Total: \$170,650  
*Prin. Invest.: B D SHAW*  
*Tech. Officer: GRC/D L DIETRICH*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 4 120**            **UNIV OF CALIFORNIA - DAVIS**            **2311**  
 APPLICATION OF REMOTE INFRARED THERMOGRAPHY  
 01/27/1999 - 02/25/2001      FY01: \$0      Total: \$58,597  
*Prin. Invest.: C P VAN DAM*  
*Tech. Officer: DFRC/D BANKS*  
*CASE Category: 41 – AERONAUTICAL ENGNR*

**NCC 4 151**            **UNIV OF CALIFORNIA - DAVIS**            **2312**  
 SUPERSONIC FLIGHT EXPERIMENTATION USING INFRARED T HERMO-  
 GRAPHY  
 01/30/2001 - 10/31/2001      FY01: \$26,799      Total: \$26,799  
*Prin. Invest.: C VAN DAM, NONE*  
*Tech. Officer: DFRC/D W BANKS*  
*CASE Category: 41 – AERONAUTICAL ENGNR*

**NCC 5 287**            **UNIV OF CALIFORNIA - DAVIS**            **2313**  
 MICROFABRICATED QUADRUPOLE FOR A MINITURIZED MASS SPECTROM-  
 ETER  
 01/06/1998 - 11/30/1999      FY01: -\$38      Total: \$30,247  
*Prin. Invest.: R SMITH*  
*Tech. Officer: GSFC/D HARPOLD*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NGT 2 52238**            **UNIV OF CALIFORNIA - DAVIS**            **2314**  
 RELATIONSHIP BETWEEN DYNAMIC BAROREFLEX RESPONSE C HARATER-  
 ISTICS & STATIC BAROREFLEX FUNCTION IN....  
 01/26/1998 - 09/30/2000      FY01: \$0      Total: \$66,000  
*Prin. Invest.: P MOLE*  
*Prin. Invest.: NONE*  
*Tech. Officer: ARC/J E GREENLEAF*  
*CASE Category: 56 – MEDICAL*

**NGT 5 30073**            **UNIV OF CALIFORNIA - DAVIS**            **2315**  
 CLIMATE CONTROL OF VEGETATION AND GROWTH FORM DIST WATER  
 AND ENERGY BALANCE AT LANDSCAPE SCALES  
 09/09/1997 - 08/31/2001      FY01: \$0      Total: \$66,000  
*Prin. Invest.: S G USTIN-KENNEDY*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 30187**            **UNIV OF CALIFORNIA - DAVIS**            **2316**  
 FORMATION, DETECTION & QUANTIFICATION OF OXIDIZED HALOGEN  
 SPECIES IN AEROSOLS FROM THE MARINE BOUND  
 08/19/1999 - 08/31/2002      FY01: \$22,000      Total: \$66,000  
*Prin. Invest.: C ANASTASIO*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 30352**            **UNIV OF CALIFORNIA - DAVIS**            **2317**  
 ECOLOGICAL & ECONOMIC INFLUENCES ON SMALL-SCALE TROPICAL  
 RAINFOREST SUCCESSION: AREMOTE SENSING  
 08/24/2000 - 08/31/2002      FY01: \$22,000      Total: \$44,000  
*Prin. Invest.: S USTIN*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 30373**            **UNIV OF CALIFORNIA - DAVIS**            **2318**  
 HYPERSPECTRAL REMOTE SENSING OF CORAL REEFS IN THE HAWAIIAN  
 ISLANDS  
*STUDENT: JAMES GOODMAN*  
 08/13/2001 - 08/31/2002      FY01: \$22,000      Total: \$22,000  
*Prin. Invest.: S USTIN*  
*Prin. Invest.: NONE*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 30411**            **UNIV OF CALIFORNIA - DAVIS**            **2319**  
 EVALUATION BRDF MODELING STRATEGIES FOR BIOPHYSICA L  
 PARAMETER RETRIEVAL THROUGH INVERSION, .../STUD  
 08/15/2001 - 08/31/2004      FY01: \$22,000      Total: \$22,000  
*Prin. Invest.: S USTIN*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50204**            **UNIV OF CALIFORNIA - DAVIS**            **2320**  
 FATNESS, FOOD INTAKE AND HYPERGRAVITY: MECHANISMS OF REGULA-  
 TION  
 07/01/1998 - 06/30/2001      FY01: \$0      Total: \$66,000  
*Prin. Invest.: C A FULLER*  
*Tech. Officer: HQ/A NURRIDIN*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50230**      **UNIV OF CALIFORNIA - DAVIS**      **2321**  
 UTILIZING SCIGN VELOCITY SOLUTIONS TO MODEL LITHOS PHERIC PROCESSES IN THE WESTERN TRANSVERSE RANGE  
 05/24/1999 - 06/30/2002      FY01: \$22,000      Total: \$66,000  
*Prin. Invest.: L H KELLOGG, GLASCO*  
*Tech. Officer: GSFC/K BLANDING*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50281**      **UNIV OF CALIFORNIA - DAVIS**      **2322**  
 NEW APPROACHES TO CALCULATING GRAVITATIONAL RADIAT ION & RADIATION REACTION/STUDENT: JAMES R VAN MET  
 06/20/2000 - 06/30/2002      FY01: \$22,000      Total: \$44,000  
*Prin. Invest.: S CARLIP*  
*Tech. Officer: GSFC/L SMITH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 1 1906**      **UNIV OF CALIFORNIA - IRVINE**      **2323**  
 COUPLING ATMOSPHERIC CIRCULATION AND CHEMISTRY: DEVELOPING CTMS FOR CLIMATE SIMULATIONS  
 02/28/1997 - 06/30/2000      FY01: -\$1      Total: \$282,506  
*Prin. Invest.: M J PRANTHER*  
*Tech. Officer: LARC/G L MADREA, LARC/L R POOLE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 1 2104**      **UNIV OF CALIFORNIA - IRVINE**      **2324**  
 EXPERIMENTAL INVESTIGATION OF SUPERSONIC COPLANAR JETS WITHIN EJECTORS  
 09/02/1998 - 07/31/2001      FY01: \$1      Total: \$103,890  
*Prin. Invest.: D PAPAMOSCHOU*  
*Tech. Officer: LARC/J M SEINER, LARC/M K PONTON*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 1 2308**      **UNIV OF CALIFORNIA - IRVINE**      **2325**  
 DEVELOPMENT OF CHEMISTRY-TRANSPORT MODELS IN SUPPORT OF CLIMATE STUDIES AND ASSESSMENTS  
 06/15/2000 - 03/14/2003      FY01: \$133,000      Total: \$182,979  
*Prin. Invest.: M J PRATHER*  
*Tech. Officer: LARC/G L MADDREA*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 1 01001**      **UNIV OF CALIFORNIA - IRVINE**      **2326**  
 REGIONAL CHEMISTRY FROM GLOBAL CTMS W/EC-MODELED MET-FIELDS FOR THE TRACE-P MISSION  
 03/08/2001 - 03/14/2003      FY01: \$25,001      Total: \$25,001  
*Prin. Invest.: M J PRATHER*  
*Tech. Officer: LARC/J L RAPER, SR*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 1 01006**      **UNIV OF CALIFORNIA - IRVINE**      **2327**  
 COMPACT AIRBORNE SYS FOR SO2 & DMS MEAS FOR USE OF FUTURE GTE MISSIONS ABOARD P-3 OR DC-8  
 03/01/2001 - 03/31/2002      FY01: \$81,988      Total: \$81,988  
*Prin. Invest.: E S SALTZMAN*  
*Tech. Officer: LARC/J L RAPER, SR*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 2 942**      **UNIV OF CALIFORNIA - IRVINE**      **2328**  
 NEURAL-THYROID INTERACTION ON SKELETAL ISOMYOSIS EXPRESSION IN OG (ZERO GRAVITY)  
 12/22/1994 - 11/30/1999      FY01: \$0      Total: \$520,201  
*Prin. Invest.: K M BALDWIN*  
*Tech. Officer: ARC/W E HINDS, ARC/C M WINGET*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 3 1831**      **UNIV OF CALIFORNIA - IRVINE**      **2329**  
 EFFECTS OF GRAVITY ON SHEARED TURBULENCE LADEN WITH BUBBLES OR DROPLETS  
 05/02/1996 - 11/01/2000      FY01: -\$996      Total: \$399,004  
*Prin. Invest.: S ELGHOBASHI, J LA SHERAS*  
*Tech. Officer: GRC/S LA SHERAS*  
*CASE Category: 13 – PHYSICS*

**NAG 3 2024**      **UNIV OF CALIFORNIA - IRVINE**      **2330**  
 IGNITION AND FLAME SPREAD ABOVE LIQUID FUEL POOLS: GRAVITY EFFECTS  
 03/01/1997 - 03/30/2002      FY01: \$92,150      Total: \$436,415  
*Prin. Invest.: W A SIRIGNANO*  
*Tech. Officer: GRC/H D ROSS*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 3 2226**      **UNIV OF CALIFORNIA - IRVINE**      **2331**  
 APPLICATIONS OF ELECTRIC FIELD IN MICROGRAVITY COMBUSTION  
 02/01/1999 - 11/29/2002      FY01: \$83,600      Total: \$259,600  
*Prin. Invest.: D DUNN-RANKIN*  
*Tech. Officer: GRC/H D ROSS*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 3 2345**      **UNIV OF CALIFORNIA - IRVINE**      **2332**  
 MIXING ENHANCEMENT AND NOISE REDUCTION IN HIGH-SPEED JETS  
 03/07/2000 - 01/31/2002      FY01: \$64,655      Total: \$128,331  
*Prin. Invest.: D PAPAMOSCHOU*  
*Tech. Officer: GRC/K Q ZAMAN*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 3 2389**      **UNIV OF CALIFORNIA - IRVINE**      **2333**  
 SUPERFLUID CONTACT LINE DYNAMICS SUPERFLUID CONTACT LINE DYNAMICS  
 04/13/2000 - 11/30/2003      FY01: \$95,000      Total: \$145,000  
*Prin. Invest.: P TABOREK*  
*Tech. Officer: GRC/R WILKINSON*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 4 166**      **UNIV OF CALIFORNIA - IRVINE**      **2334**  
 ROBUST NONLINEAR FLIGHT CONTROL  
 02/25/1999 - 11/30/2000      FY01: \$0      Total: \$80,000  
*Prin. Invest.: K MEASE*  
*Tech. Officer: DFRC/J CARTER*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 4 217**      **UNIV OF CALIFORNIA - IRVINE**      **2335**  
 ROBUST FLIGHT CONTROL WITH GOOD HANDLING QUALITIES ROBUST FLIGHT CONTROL WITH GOOD HANDLING QUALITIES  
 01/17/2001 - 09/30/2001      FY01: \$30,000      Total: \$30,000  
*Prin. Invest.: K D MEASE*  
*Tech. Officer: DFRC/C O LEE*  
*CASE Category: 41 – AERONAUTICAL ENGR*

<b>NAG 5 5069</b>	<b>UNIV OF CALIFORNIA - IRVINE</b>	<b>2336</b>	<b>NAG 5 9955</b>	<b>UNIV OF CALIFORNIA - IRVINE</b>	<b>2344</b>
HIGH ENERGY ANTIMATTER TELESCOPE - HEAT 07/18/1996 - 09/30/2000	UNIV OF CALIFORNIA - IRVINE FY01: \$0	Total: \$150,000	"STABLE ISOTOPES AND RADIOCARBON IN ATMOSPHERIC HYDROCARBONS AND THEIR SOURCES" 09/21/2000 - 11/30/2001	UNIV OF CALIFORNIA - IRVINE FY01: \$192,681	Total: \$242,681
Prin. Invest.: S W BARWICK Tech. Officer: WFF/H C NEEDLEMAN, WFF/B A MERRITT CASE Category: 13 - PHYSICS			Prin. Invest.: S C TYLER Tech. Officer: GSFC/D STARR CASE Category: 31 - ATMOSPHERIC SCIENCE		
<b>NAG 5 5149</b>	<b>UNIV OF CALIFORNIA - IRVINE</b>	<b>2337</b>	<b>NAG 5 10147</b>	<b>UNIV OF CALIFORNIA - IRVINE</b>	<b>2345</b>
DEVELOPMENT OF EMPIRICAL MODE DECOMPOSITION METHOD & HILBERT SPECTRAL ANALYSIS FOR ENGR APPLICATIONS 09/09/1997 - 02/28/2002	UNIV OF CALIFORNIA - IRVINE FY01: \$0	Total: \$160,924	EFFECTS OF LAND-USE ON CLIMATE AND WATER RESOURCES :APPLICATION OF A LAND-USE MANAGEMENT 12/08/2000 - 09/30/2001	UNIV OF CALIFORNIA - IRVINE FY01: \$19,490	Total: \$19,490
Prin. Invest.: J N YANG, Z SHEN Tech. Officer: GSFC/S R LONG, GSFC/N E HUANG CASE Category: 33 - OCEANOGRAPHY			Prin. Invest.: C ZENDER Tech. Officer: GSFC/G GUTMAN CASE Category: 99 - MULTI INTERDISCPL, OTHER		
<b>NAG 5 7137</b>	<b>UNIV OF CALIFORNIA - IRVINE</b>	<b>2338</b>	<b>NAG 5 10546</b>	<b>UNIV OF CALIFORNIA - IRVINE</b>	<b>2346</b>
DEVELOPING A CHEMICAL TRANSPORT MODEL FOR ASSESSING GLOBAL CHANGE IN ATMOSPHERIC COMPOSITION 03/24/1998 - 03/31/2001	UNIV OF CALIFORNIA - IRVINE FY01: \$0	Total: \$221,212	INFLUENCE OF MINERAL DUST AEROSOL ON THE CHEMICAL COMPOSITION OF THE ATMOSPHERE 03/14/2001 - 03/14/2002	UNIV OF CALIFORNIA - IRVINE FY01: \$99,603	Total: \$99,603
Prin. Invest.: M J PRATHER Tech. Officer: GSFC/R W STEWART CASE Category: 31 - ATMOSPHERIC SCIENCE			Prin. Invest.: ZENDER Tech. Officer: GSFC/M WEI CASE Category: 39 - ENVIRONMENTAL SCI, OTHER		
<b>NAG 5 7301</b>	<b>UNIV OF CALIFORNIA - IRVINE</b>	<b>2339</b>	<b>NAG 5 10748</b>	<b>UNIV OF CALIFORNIA - IRVINE</b>	<b>2347</b>
ASSESSING ROLE OF FIRE & SOIL DRAINAGE IN DETERMINING NET C FLUXES IN BOREAL ECOSYSTEMS 05/27/1998 - 04/30/2001	UNIV OF CALIFORNIA - IRVINE FY01: \$0	Total: \$162,372	X-RAY ISOPHOTE SHAPES AND THE DARK MATTER HALO OF NGC 3923 04/18/2001 - 09/30/2002	UNIV OF CALIFORNIA - IRVINE FY01: \$32,700	Total: \$32,700
Prin. Invest.: S TRUMBORE Tech. Officer: GSFC/D WICKLAND CASE Category: 39 - ENVIRONMENTAL SCI, OTHER			Prin. Invest.: D BUOTE Tech. Officer: GSFC/R MUSHOTZKY CASE Category: 11 - ASTRONOMY		
<b>NAG 5 8223</b>	<b>UNIV OF CALIFORNIA - IRVINE</b>	<b>2340</b>	<b>NAG 5 10758</b>	<b>UNIV OF CALIFORNIA - IRVINE</b>	<b>2348</b>
"TOOLS AND DIAGNOSTICS FOR THE AEAP/GMI STRATOSPHERIC ASSESSMENT" 02/10/1999 - 05/14/2000	UNIV OF CALIFORNIA - IRVINE FY01: \$0	Total: \$50,000	FE K-ALPHA EMISSION IN THE BRIGHT ELLIPTICAL GALAXY NGC 1399 04/18/2001 - 09/30/2002	UNIV OF CALIFORNIA - IRVINE FY01: \$31,500	Total: \$31,500
Prin. Invest.: M J PRATHER Tech. Officer: GSFC/R W STEWART CASE Category: 31 - ATMOSPHERIC SCIENCE			Prin. Invest.: D BUOTE Tech. Officer: GSFC/R MUSHOTZKY CASE Category: 11 - ASTRONOMY		
<b>NAG 5 8685</b>	<b>UNIV OF CALIFORNIA - IRVINE</b>	<b>2341</b>	<b>NAG 5 11272</b>	<b>UNIV OF CALIFORNIA - IRVINE</b>	<b>2349</b>
PHOTOCHEMICAL APPLICATIONS OF AEROSOL CLIMATOLOGIES 07/16/1999 - 07/14/2002	UNIV OF CALIFORNIA - IRVINE FY01: \$18,500	Total: \$55,486	ADDING NEW CAPABILITY TO CHEMISTRY-CLIMATE ASSESSMENTS THROUGH THE GLOBAL MODELLING INITIATIVE 08/22/2001 - 08/31/2004	UNIV OF CALIFORNIA - IRVINE FY01: \$45,000	Total: \$45,000
Prin. Invest.: M J PRATHER Tech. Officer: GSFC/M I MISHCHENKO CASE Category: 31 - ATMOSPHERIC SCIENCE			Prin. Invest.: M PRATHER Tech. Officer: GSFC/P DECOLA CASE Category: 99 - MULTI INTERDISCPL, OTHER		
<b>NAG 5 8935</b>	<b>UNIV OF CALIFORNIA - IRVINE</b>	<b>2342</b>	<b>NAG 8 1437</b>	<b>UNIV OF CALIFORNIA - IRVINE</b>	<b>2350</b>
CONTINUED MONITORING & TRENDS OF SELECTED TRACE GASES AT REMOTE LOCATIONS BETWEEN 71 DEGREES 01/13/2000 - 02/28/2003	UNIV OF CALIFORNIA - IRVINE FY01: \$210,000	Total: \$420,000	RESEARCH/3HE-4HE MIXTURES AND DROPLETS STABILIZED IN CESIATED CONTAINERS 03/23/1998 - 01/31/2003	UNIV OF CALIFORNIA - IRVINE FY01: \$71,250	Total: \$221,250
Prin. Invest.: D R BLAKE Tech. Officer: GSFC/M KURYLO CASE Category: 39 - ENVIRONMENTAL SCI, OTHER			Prin. Invest.: P TABOREK, J RUTLEDGE Tech. Officer: MSFC/D HUBBARD CASE Category: 12 - CHEMISTRY		
<b>NAG 5 9695</b>	<b>UNIV OF CALIFORNIA - IRVINE</b>	<b>2343</b>	<b>NAG 8 1569</b>	<b>UNIV OF CALIFORNIA - IRVINE</b>	<b>2351</b>
RESOURCE MANAGEMENT IN TIGHTLY COUPLED MULTIPROCESSORS. 07/03/2000 - 07/14/2002	UNIV OF CALIFORNIA - IRVINE FY01: \$49,999	Total: \$99,999	GROWTH PROCESSES AND DEFECT STRUCTURE OF MACRO-MOLECULAR CRYSTALS. 03/04/1999 - 11/30/2002	UNIV OF CALIFORNIA - IRVINE FY01: \$94,900	Total: \$368,900
Prin. Invest.: I SCHERSON Tech. Officer: GSFC/J DORBAND CASE Category: 19 - PHYSICAL SCIENCE, OTHER			Prin. Invest.: A J MALKIN Tech. Officer: MSFC/B GUYNES CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)		

**NAG 8 1572** UNIV OF CALIFORNIA - IRVINE 2352  
 R/S STABILIZATION AND PRESERVATION OF CRYSTALS FOR X-RAY DIFFRACTION EXPERIMENTS  
 02/18/1999 - 11/30/2002 FY01: \$149,150 Total: \$407,150  
*Prin. Invest.:* F JURNAK  
*Tech. Officer:* MSFC/B GUYNES  
*CASE Category:* 49 – ENGINEERING, OTHER

**NAG 8 1652** UNIV OF CALIFORNIA - IRVINE 2353  
 RESEARCH ENTITLED: "REDUCEAD-ORDER PREDICTIVE/ TRACKING ENTRY GUIDANCE"  
 12/20/1999 - 01/15/2002 FY01: \$35,000 Total: \$105,000  
*Prin. Invest.:* K D MEASE  
*Tech. Officer:* MSFC/J HANSON  
*CASE Category:* 46 – MECHANICAL ENGR

**NAG 9 1149** UNIV OF CALIFORNIA - IRVINE 2354  
 MECHANISMS OF MICROACTIVITY EFFECT ON VASULAR FUNCTIONS  
 09/15/1999 - 09/14/2002 FY01: \$304,613 Total: \$568,864  
*Prin. Invest.:* R E PURDY  
*Tech. Officer:* JSC/C W LLOYD  
*CASE Category:* 51 – BIOLOGY (EXCLUDING ENVIR)

**NAS 8 00017** UNIV OF CALIFORNIA - IRVINE 2355  
 OPCGA PHASE C/D FLIGHT HARDWARE DEVELOPMENT  
 02/16/2000 - 07/31/2004 FY01: \$2,708,000 Total: \$5,967,171  
*Prin. Invest.:* A MCPHERSON  
*Tech. Officer:* MSFC/S ROBBINS  
*CASE Category:* 59 – LIFE SCIENCE, OTHER

**NAS 8 00019** UNIV OF CALIFORNIA - IRVINE 2356  
 ENHANCED GASEOUS NITROGEN DEWAR  
 03/30/2000 - 11/19/2004 FY01: \$520,000 Total: \$920,000  
*Prin. Invest.:* A MCPHERSON  
*Tech. Officer:* MSFC/S ROBBINS  
*CASE Category:* 59 – LIFE SCIENCE, OTHER

**NAS 8 39763** UNIV OF CALIFORNIA - IRVINE 2357  
 CRYSTAL GROWTH FLIGHT APPARATUS  
 10/30/1992 - 02/18/2000 FY01: \$0 Total: \$15,895,061  
*Prin. Invest.:* A MCPHERSON  
*Tech. Officer:* MSFC/S ROBBINS  
*CASE Category:* 59 – LIFE SCIENCE, OTHER

**NCC 1 299** UNIV OF CALIFORNIA - IRVINE 2358  
 WHOLE AIR SAMPLING FROM THE DC-8 AND P-3B AIRCRAFT DURING PEM-TROPICS-B, REF NRA-97-MTPE-13  
 06/09/1998 - 05/31/2001 FY01: -\$1 Total: \$901,269  
*Prin. Invest.:* D R BLAKE  
*Tech. Officer:* LARC/J M HOELL, JR., LARC/R J BENDURA  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NCC 1 413** UNIV OF CALIFORNIA - IRVINE 2359  
 WHOLE AIR SAMPLING FROM THE DC-8 AND P3-B AIRCRAFT DURING TRACE-P  
 09/21/2000 - 06/30/2002 FY01: \$273,114 Total: \$616,693  
*Prin. Invest.:* D R BLAKE  
*Tech. Officer:* LARC/J L RAPER, SR  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NCC 2 5333** UNIV OF CALIFORNIA - IRVINE 2360  
 LABORATORY MODELS OF PROTOCELLS  
 07/19/1999 - 10/31/2000 FY01: \$8,448 Total: \$68,448  
*Prin. Invest.:* J K LANYI  
*Tech. Officer:* ARC/A POHORILLE, ARC/M H NEW  
*CASE Category:* 59 – LIFE SCIENCE, OTHER

**NCC 2 5378** UNIV OF CALIFORNIA - IRVINE 2361  
 OPTIMIZATION OF PERCEPTUAL TRANSPARENCY IN SYNTHETIC VISION DISPLAYS  
 04/05/2000 - 03/31/2002 FY01: \$5,000 Total: \$20,791  
*Prin. Invest.:* T M DZMURA  
*Tech. Officer:* ARC/J MULLIGAN  
*CASE Category:* 69 – PSYCHOLOGY, OTHER

**NCC 2 5404** UNIV OF CALIFORNIA - IRVINE 2362  
 LABORATORY MODELS OF PROTOCELLS  
 10/17/2000 - 10/31/2001 FY01: \$60,000 Total: \$60,000  
*Prin. Invest.:* J K LANYI  
*Tech. Officer:* ARC/A POHORILLE, ARC/M FONDA  
*CASE Category:* 51 – BIOLOGY (EXCLUDING ENVIR)

**NCC 5 280** UNIV OF CALIFORNIA - IRVINE 2363  
 MEASURING THE EFFECTS OF LOGGING ON THE CO2 AND EN ERGY EXCHANGE OF APPRIARYFOREST IN TAPAJOS N  
 06/24/1998 - 12/31/2001 FY01: \$253,383 Total: \$1,228,960  
*Prin. Invest.:* M L GOULDEN  
*Tech. Officer:* GSFC/D W DEERING  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NCC 5 336** UNIV OF CALIFORNIA - IRVINE 2364  
 CARBON DYNAMICS IN VEGETATION AND SOILS ALONG THE EASTERN LBA TRANSECT  
 06/16/1998 - 12/31/2001 FY01: \$258,712 Total: \$884,733  
*Prin. Invest.:* S TRUMBORE  
*Tech. Officer:* GSFC/D DEERING  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NGT 5 30127** UNIV OF CALIFORNIA - IRVINE 2365  
 TIMESCALES OF TERRESTRIAL ECOSYSTEM RESPONSE TO GL OBAL CHANGE  
 10/10/1997 - 08/31/2000 FY01: -\$34 Total: \$65,966  
*Prin. Invest.:* M PRATHER  
*Tech. Officer:* GSFC/G ASRAR  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NGT 5 30203** UNIV OF CALIFORNIA - IRVINE 2366  
 LOW LATITUDE NONLINEAR BEHAVIOR OF ROSSBY WAVES COMPOSED OF A SPECTRUM OF PHASE SPEEDS/STUDENT  
 08/19/1999 - 08/31/2002 FY01: \$22,000 Total: \$66,000  
*Prin. Invest.:* G MAGNUSDOTTIR  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NGT 5 30409** UNIV OF CALIFORNIA - IRVINE 2367  
 AN INVESTIGATION OF THE RELATIONSHIP BETWEEN CARBO N STORAGE AND METHANE EMISSION IN RICE PADDIES/ST  
 08/15/2001 - 08/31/2004 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.:* S TYLER  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NGT 5 50226**      **UNIV OF CALIFORNIA - IRVINE**      **2368**  
 SIGMA D MEASUREMENT OF METHANE AND MOLECULAR HYDRO GEN IN  
 THE ATMOSPHERE  
 09/29/1998 - 08/31/2001      FY01: \$0      Total: \$66,000  
*Prin. Invest.: R J RICE, RICE*  
*Tech. Officer: HQ/A NURRIDDIN*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 50317**      **UNIV OF CALIFORNIA - IRVINE**      **2369**  
 SIMULATED MICROGRAVITY ALTERS VASCULAR CONTRACTILITY: ROLE  
 OF CALCIUM DEPENDENT PKC-MEDIATED NON-  
 07/11/2000 - 06/30/2002      FY01: \$22,000      Total: \$44,000  
*Prin. Invest.: R E PURDY*  
*Tech. Officer: GSFC/L SMITH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50325**      **UNIV OF CALIFORNIA - IRVINE**      **2370**  
 METHYL HALIDE EMISSIONS: THE ATMOSPHERIC IMPACT OF AGRICUL-  
 TURE  
 08/17/2000 - 08/31/2002      FY01: \$22,000      Total: \$44,000  
*Prin. Invest.: R J CICERONE*  
*Tech. Officer: GSFC/M W WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 1 1899**      **UNIV OF CALIFORNIA - LOS ANGELES**      **2371**  
 STRATOSPHERIC AEROSOL MICROPHYSICS AND PHYSICAL CHEMISTRY:  
 MODELING AND OBSERVATIONS  
 04/01/1997 - 03/31/2001      FY01: \$0      Total: \$356,960  
*Prin. Invest.: R P TURCO*  
*Tech. Officer: LARC/G MADDERA, LARC/M M POTEAT*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 1 1966**      **UNIV OF CALIFORNIA - LOS ANGELES**      **2372**  
 RADIATIVE TRANSFER AND SATELLITE REMOTE SOUNDING OF CIRRUS  
 CLOUDS USING FIRE-II-IFO DATA  
 09/08/1997 - 05/07/2000      FY01: -\$1      Total: \$205,000  
*Prin. Invest.: K N LIU, S C OU*  
*Prin. Invest.: NONE*  
*Tech. Officer: LARC/D S McDUGAL*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 1 2097**      **UNIV OF CALIFORNIA - LOS ANGELES**      **2373**  
 AIRCRAFT AEROSOLS AND CONTRAILS: MICROPHYSICAL PROCESS AND  
 EVOLUTION  
 09/10/1998 - 09/09/2001      FY01: \$0      Total: \$162,189  
*Prin. Invest.: R P TURCO*  
*Tech. Officer: LARC/W L GROSE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 1 2274**      **UNIV OF CALIFORNIA - LOS ANGELES**      **2374**  
 DEVELOPMENT OF MLPG AND LBIE METHODS FOR NONLINEAR PROB-  
 LEMS OF FRACTURE  
 03/01/2000 - 12/14/2000      FY01: \$0      Total: \$65,000  
*Prin. Invest.: S N ATLURI*  
*Tech. Officer: LARC/I S RAJU*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 1 01082**      **UNIV OF CALIFORNIA - LOS ANGELES**      **2375**  
 MESHLESS (MLPG AND LBIE) METHODS FOR NONLINEAR ANALYSES  
 05/22/2001 - 05/31/2002      FY01: \$65,005      Total: \$65,005  
*Prin. Invest.: S N ATTURE, NONE*  
*Tech. Officer: LARC/J S RAJA*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 2 1193**      **UNIV OF CALIFORNIA - LOS ANGELES**      **2376**  
 MECHANICAL SIGNAL TRANSDUCTION IN COUNTERMEASURES OF  
 PHYSIOLOGICAL SCIENCE  
 03/25/1998 - 04/30/2002      FY01: \$0      Total: \$536,583  
*Prin. Invest.: T J TIDBALL*  
*Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 2 1222**      **UNIV OF CALIFORNIA - LOS ANGELES**      **2377**  
 HYPERGRAVITY-INDUCED MODIFICATIONS IN SPATIO-TEMPO RAL CODING  
 AMONG UTRICULAR PRIMARY AFFERENT NEURO  
 05/22/1998 - 12/31/2001      FY01: \$197,057      Total: \$539,538  
*Prin. Invest.: L F HOFFMAN*  
*Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 2 1238**      **UNIV OF CALIFORNIA - LOS ANGELES**      **2378**  
 SCALABLE NUMERICAL ALGORITHMS ON NON-HETEROGENEOUS  
 COMPUTING ENVIRONMENTS WITH DYNAMIC ROUTING & LOAD  
 07/17/1998 - 06/30/2001      FY01: \$0      Total: \$120,000  
*Prin. Invest.: T F CHAN*  
*Tech. Officer: ARC/T J BARTH*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 2 1249**      **UNIV OF CALIFORNIA - LOS ANGELES**      **2379**  
 NEXT GENERATION INTERNET BANDWIDTH & TRAFFIC MANAG EMENT  
 08/19/1998 - 05/31/2001      FY01: \$0      Total: \$280,418  
*Prin. Invest.: M GERLA*  
*Tech. Officer: ARC/B H WHITAKER, ARC/B H WHITAKER*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 2 1270**      **UNIV OF CALIFORNIA - LOS ANGELES**      **2380**  
 NEUROMUSCULAR ADAPTATIONS OF RHESUS MACAQUES TO A HYPERDY-  
 NAMIC ENVIRONMENT  
 09/18/1998 - 12/31/2000      FY01: \$0      Total: \$257,004  
*Prin. Invest.: V R EDGERTON, J HODGSON, R ROY*  
*Tech. Officer: ARC/R E GRINDELAND, ARC/K L SOUZA*  
*CASE Category: 51 – BIOLOGY (EXCLUDINGENVIR)*

**NAG 2 1324**      **UNIV OF CALIFORNIA - LOS ANGELES**      **2381**  
 COMPUTATION OF HIGH-SPEED JET NOISE  
 05/20/1999 - 05/14/2001      FY01: \$0      Total: \$40,000  
*Prin. Invest.: J B FREUND*  
*Tech. Officer: ARC/D KWAK*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 2 1484**      **UNIV OF CALIFORNIA - LOS ANGELES**      **2382**  
 MANAGEMENT OF AIR CEHICLE SYSTEMS  
 05/14/2001 - 05/14/2002      FY01: \$66,000      Total: \$66,000  
*Prin. Invest.: J L SPEYER*  
*Tech. Officer: ARC/L TOBIAS, ARC/Y C JUNG*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 3 1819** UNIV OF CALIFORNIA - LOS ANGELES 2383  
 STUDIES IN THERMOCAPILLARY CONVECTION OF THE MARAN GONI-BERNARD TYPE  
 05/06/1996 – 05/05/2001 FY01: \$0 Total: \$320,000  
*Prin. Invest.: R E KELLY*  
*Tech. Officer: GRC/B S SINGH*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 3 1832** UNIV OF CALIFORNIA - LOS ANGELES 2384  
 INVESTIGATION OF MECHANISMS ASSOCIATED WITH NUCLEATE BOILING UNDER MICROGRAVITY CONDITIONS  
 05/06/1996 – 08/30/2000 FY01: \$0 Total: \$764,880  
*Prin. Invest.: V K DHIR*  
*Prin. Invest.: NONE*  
*Tech. Officer: GRC/D F SHAO*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 3 1849** UNIV OF CALIFORNIA - LOS ANGELES 2385  
 THE MELTING OF AQUEOUS FOAMS  
 05/06/1996 – 05/31/2000 FY01: \$0 Total: \$640,000  
*Prin. Invest.: D J DURIAN*  
*Tech. Officer: GRC/B SINGH*  
*CASE Category: 13 – PHYSICS*

**NAG 3 1862** UNIV OF CALIFORNIA - LOS ANGELES 2386  
 FINITE SIZE EFFECTS NEAR THE LIQUID-GAS CRITICAL POINT OF 3HE  
 05/08/1996 – 05/22/2001 FY01: \$0 Total: \$308,200  
*Prin. Invest.: J RUDNICK*  
*Tech. Officer: GRC/B S SINGH*  
*CASE Category: 13 – PHYSICS*

**NAG 3 1889** UNIV OF CALIFORNIA - LOS ANGELES 2387  
 CONTAINERLESS RIPPLE TURBULENCE  
 05/31/1996 – 05/30/2000 FY01: \$0 Total: \$300,000  
*Prin. Invest.: S PUTTERMAN*  
*Tech. Officer: GRC/R ROGERS*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NAG 3 2108** UNIV OF CALIFORNIA - LOS ANGELES 2388  
 DIFFUSING LIGHT PHOTOGRAPHY OF CONTAINERLESS RIPPLE TURBULENCE  
 03/01/1998 – 01/07/2002 FY01: \$215,000 Total: \$615,000  
*Prin. Invest.: S J PUTTERMAN*  
*Tech. Officer: GRC/W M DUVAL*  
*CASE Category: 13 – PHYSICS*

**NAG 3 2344** UNIV OF CALIFORNIA - LOS ANGELES 2389  
 EVALUATION AND IMPROVEMENT OF JET NOISE MODELS AND EXPERIMENTAL TECHNIQUES USING HIGH FIDELITY SIMULATIONS  
 03/07/2000 – 09/30/2001 FY01: \$40,001 Total: \$106,001  
*Prin. Invest.: J B FREUND*  
*Tech. Officer: GRC/J BRIDGES*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 3 2397** UNIV OF CALIFORNIA - LOS ANGELES 2390  
 TRANSITION FROM POOL TO FLOW BOILING – THE EFFECT OF REDUCED GRAVITY  
 04/18/2000 – 11/30/2003 FY01: \$95,010 Total: \$144,999  
*Prin. Invest.: V K DHIR*  
*Tech. Officer: GRC/D F CHAO*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 3 2467** UNIV OF CALIFORNIA - LOS ANGELES 2391  
 A MECHANISTIC STUDY OF NUCLEATE BOILING HEAT TRANSFER UNDER MICROGRAVITY CONDITIONS  
 06/21/2000 – 05/15/2005 FY01: \$190,000 Total: \$300,000  
*Prin. Invest.: V K DHIR*  
*Tech. Officer: GRC/D F CHAO*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 3 2481** UNIV OF CALIFORNIA - LOS ANGELES 2392  
 THE MELTING OF AQUEOUS FOAMS  
 08/01/2000 – 05/31/2005 FY01: \$190,000 Total: \$328,000  
*Prin. Invest.: D J DURIAN*  
*Tech. Officer: GRC/F P CHARIAMONTE*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 5 713** UNIV OF CALIFORNIA - LOS ANGELES 2393  
 ESTIMATION THEORY SATELLITE DATA ASSIMILATION AND ATMOSPHERIC PREDICTABILITY  
 09/15/1985 – 12/31/1999 FY01: \$5 Total: \$1,682,999  
*Prin. Invest.: M GHIL*  
*Tech. Officer: GSFC/J PFAENDTNER*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 3235** UNIV OF CALIFORNIA - LOS ANGELES 2394  
 THE COUPLED MAGNETOSPHERE-IONOSPHERE: AURORAL ARCS AND SUBSTORM BREAKUP  
 05/16/1996 – 05/31/2000 FY01: \$0 Total: \$715,000  
*Prin. Invest.: F V CORONITI*  
*Tech. Officer: GSFC/J GREBOWSKY, HQ/J D BOHLIN*  
*CASE Category: 13 – PHYSICS*

**NAG 5 3764** UNIV OF CALIFORNIA - LOS ANGELES 2395  
 SOURCE DETERMINATION FOR SUBSTORM-RELATED ION INJECTION  
 02/13/1997 – 04/14/2001 FY01: \$0 Total: \$165,000  
*Prin. Invest.: R J STRANGEWAY*  
*Tech. Officer: GSFC/J BOHLIN*  
*CASE Category: 13 – PHYSICS*

**NAG 5 3863** UNIV OF CALIFORNIA - LOS ANGELES 2396  
 THERMAL AND DYNAMICAL PROCESSES IN THE EVOLUTION OF SATELLITES  
 02/14/1997 – 11/30/2001 FY01: \$80,000 Total: \$396,000  
*Prin. Invest.: G SCHUBERT*  
*Tech. Officer: GSFC/P G ROGERS*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 3956** UNIV OF CALIFORNIA - LOS ANGELES 2397  
 VENUS TECTONICS AND EVOLUTION  
 03/12/1997 – 02/14/2002 FY01: \$39,000 Total: \$183,780  
*Prin. Invest.: W M KAULA*  
*Tech. Officer: GSFC/P G ROGERS*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 4117** UNIV OF CALIFORNIA - LOS ANGELES 2398  
 DYNAMICAL STUDIES OF PLANETARY AND SATELLITE ATMOSPHERES  
 02/28/1997 – 01/31/2002 FY01: \$0 Total: \$304,781  
*Prin. Invest.: P SCHUBERT*  
*Tech. Officer: GSFC/J BERGSTRAHL*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

<b>NAG 5 4215</b>	<b>UNIV OF CALIFORNIA - LOS ANGELES</b>	<b>2399</b>	<b>NAG 5 6265</b>	<b>UNIV OF CALIFORNIA - LOS ANGELES</b>	<b>2407</b>
PRISTINE IGNEOUS ROCKS AND THE EARLY DIFFERENTIATED MATERIALS			ASSYM. AURORAL PROCESSES		
03/19/1997 - 12/14/2001	FY01: \$135,000	Total: \$744,000	08/21/1997 - 06/30/2001	FY01: \$0	Total: \$246,911
<i>Prin. Invest.:</i> D H WARREN			<i>Prin. Invest.:</i> D M THORNE		
<i>Tech. Officer:</i> GSFC/J BOYCE			<i>Tech. Officer:</i> GSFC/J BERGSTRAHL		
<i>CASE Category:</i> 12 - CHEMISTRY			<i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE		
<b>NAG 5 4270</b>	<b>UNIV OF CALIFORNIA - LOS ANGELES</b>	<b>2400</b>	<b>NAG 5 6272</b>	<b>UNIV OF CALIFORNIA - LOS ANGELES</b>	<b>2408</b>
ELECTRON PRECIPITATION FROM THE INNER MAGNETOSPHERE THE MIDDLE ATMOSPHERE			CONDENSATION OF THE MARTIAN ATMOSPHERE DURING POLAR DYNAMICS & MICROPHYSICS		
04/04/1997 - 04/30/2001	FY01: \$0	Total: \$216,557	08/27/1997 - 08/31/2000	FY01: \$0	Total: \$60,400
<i>Prin. Invest.:</i> D M THORNE			<i>Prin. Invest.:</i> D PAIGE		
<i>Tech. Officer:</i> GSFC/M M MELLOTT			<i>Tech. Officer:</i> GSFC/R BEEBE		
<i>CASE Category:</i> 13 - PHYSICS			<i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE		
<b>NAG 5 4331</b>	<b>UNIV OF CALIFORNIA - LOS ANGELES</b>	<b>2401</b>	<b>NAG 5 6332</b>	<b>UNIV OF CALIFORNIA - LOS ANGELES</b>	<b>2409</b>
COSMOCHEMICAL STUDIES: CHONDRITE COMPONENTS AND METEORITES			OBSERVATIONAL AND THEORETICAL STUDIES OF SOLAR STR		
04/16/1997 - 01/31/2001	FY01: \$0	Total: \$599,000	09/30/1997 - 10/31/2000	FY01: \$0	Total: \$627,807
<i>Prin. Invest.:</i> D T WASSON			<i>Prin. Invest.:</i> D K ULRICH		
<i>Tech. Officer:</i> GSFC/D F NAVA			<i>Tech. Officer:</i> GSFC/W J WAGNER		
<i>CASE Category:</i> 12 - CHEMISTRY			<i>CASE Category:</i> 11 - ASTRONOMY		
<b>NAG 5 4339</b>	<b>UNIV OF CALIFORNIA - LOS ANGELES</b>	<b>2402</b>	<b>NAG 5 6377</b>	<b>UNIV OF CALIFORNIA - LOS ANGELES</b>	<b>2410</b>
THE ROLE OF THIN CURRENT SHEETS IN PLASMA SHEET CO DISRUPTION			SUBSTORM BREAK-UP AS A COUPLED MAGNETOSPHERE-IONOSPHERE INSTABILITY		
04/12/1997 - 10/31/2001	FY01: \$0	Total: \$324,270	10/08/1997 - 08/31/2000	FY01: \$0	Total: \$126,000
<i>Prin. Invest.:</i> D L PRITCHETT			<i>Prin. Invest.:</i> D PELLAT		
<i>Tech. Officer:</i> GSFC/J D BOHLIN			<i>Tech. Officer:</i> GSFC/J BOHLIN		
<i>CASE Category:</i> 13 - PHYSICS			<i>CASE Category:</i> 13 - PHYSICS		
<b>NAG 5 4420</b>	<b>UNIV OF CALIFORNIA - LOS ANGELES</b>	<b>2403</b>	<b>NAG 5 6680</b>	<b>UNIV OF CALIFORNIA - LOS ANGELES</b>	<b>2411</b>
NUMERICAL MODELING OF THE GLOBAL ATMOSPHERE			SPECTRAL DISTRIBUTION OF SOLAR IRRADIANCE VARIABILITY		
05/01/1997 - 12/31/2000	FY01: \$0	Total: \$300,000	12/08/1997 - 11/30/2000	FY01: \$0	Total: \$124,624
<i>Prin. Invest.:</i> A ARAKAWA			<i>Prin. Invest.:</i> D M PAP		
<i>Tech. Officer:</i> GSFC/M SUAREZ			<i>Tech. Officer:</i> GSFC/C JACKMAN		
<i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE			<i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE		
<b>NAG 5 4688</b>	<b>UNIV OF CALIFORNIA - LOS ANGELES</b>	<b>2404</b>	<b>NAG 5 6689</b>	<b>UNIV OF CALIFORNIA - LOS ANGELES</b>	<b>2412</b>
TOWARD OTHER SOLAR SYSTEMS: GAS, DUST, BROWN DWARF			THEORETICAL TECHNOLOGY RESEARCH FOR THE INTERNATIONAL SOLAR TERRESTRIAL PHYSICS (ISTP) PROGRAM.		
06/17/1997 - 04/30/2002	FY01: \$0	Total: \$147,000	12/01/1997 - 09/30/2001	FY01: \$0	Total: \$1,514,500
<i>Prin. Invest.:</i> D M ZUCKERMAN			<i>Prin. Invest.:</i> M ABDALLA		
<i>Tech. Officer:</i> GSFC/J BOYCE			<i>Tech. Officer:</i> GSFC/S CURTIS		
<i>CASE Category:</i> 11 - ASTRONOMY			<i>CASE Category:</i> 99 - MULTI INTERDISCPL, OTHER		
<b>NAG 5 4704</b>	<b>UNIV OF CALIFORNIA - LOS ANGELES</b>	<b>2405</b>	<b>NAG 5 6965</b>	<b>UNIV OF CALIFORNIA - LOS ANGELES</b>	<b>2413</b>
ISOTOPIC INVESTIGATIONS OF NEBULAR AND PARENT-BODY SENSITIVITY			PICK-UP ION INSTABILITIES AT PLANETARY MAGNETOSPHERE		
ION MICROPROBE			03/03/1998 - 03/31/2001	FY01: \$0	Total: \$96,968
08/13/1997 - 07/14/2000	FY01: \$0	Total: \$325,700	<i>Prin. Invest.:</i> R J STRANGEWAY		
<i>Prin. Invest.:</i> D D MCKEEGAN			<i>Tech. Officer:</i> GSFC/D EVANS		
<i>Tech. Officer:</i> HQ/J F BOYCE			<i>CASE Category:</i> 11 - ASTRONOMY		
<i>CASE Category:</i> 11 - ASTRONOMY					
<b>NAG 5 4766</b>	<b>UNIV OF CALIFORNIA - LOS ANGELES</b>	<b>2406</b>	<b>NAG 5 6975</b>	<b>UNIV OF CALIFORNIA - LOS ANGELES</b>	<b>2414</b>
CHONDRITIC METEORITES: NEBULAR AND PARENT-BODY FO			THE ROLE OF COMPANION STARS IN PLANETARY FORMATION		
06/05/1997 - 05/31/2002	FY01: \$54,000	Total: \$253,000	03/25/1998 - 06/30/2002	FY01: \$0	Total: \$116,600
<i>Prin. Invest.:</i> D E RUBIN			<i>Prin. Invest.:</i> A GHEZ		
<i>Tech. Officer:</i> GSFC/D NAVA			<i>Tech. Officer:</i> HQ/J BOYCE		
<i>CASE Category:</i> 11 - ASTRONOMY			<i>CASE Category:</i> 11 - ASTRONOMY		

**NAG 5 7123 UNIV OF CALIFORNIA - LOS ANGELES 2415**  
 LIGHT SCATTERING AND REMOTE SENSING OF CIRRUS CLOUDS USING MODIS CHANNELS  
 04/16/1998 - 09/30/2000 FY01: \$0 Total: \$123,000  
*Prin. Invest.: K N LIOU*  
*Tech. Officer: GSFC/M D KING*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 7555 UNIV OF CALIFORNIA - LOS ANGELES 2416**  
 REAL-TIME FORECASTING AND RAPID POST-EVENT ASSESSMENT OF EROSIONAL AND DEPOSITIONAL FLOOD DAMAGE  
 06/25/1998 - 08/31/2002 FY01: \$0 Total: \$330,915  
*Prin. Invest.: L C SMITH*  
*Tech. Officer: GSFC/E T ENGMAN*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NAG 5 7721 UNIV OF CALIFORNIA - LOS ANGELES 2417**  
 POLAR MAGNETIC FIELD EXPERIMENT  
 09/23/1998 - 09/30/2001 FY01: \$380,000 Total: \$1,377,000  
*Prin. Invest.: C T RUSSELL*  
*Tech. Officer: GSFC/R HOFFMAN*  
*CASE Category: 19 - PHYSICAL SCIENCE, OTHER*

**NAG 5 7738 UNIV OF CALIFORNIA - LOS ANGELES 2418**  
 RADIATIVE TRANSFER AND REMOTE SENSING IN AEROSOL ATMOSPHERE.  
 10/02/1998 - 09/30/2002 FY01: \$85,000 Total: \$245,000  
*Prin. Invest.: K LIOU*  
*Tech. Officer: GSFC/M I MISHCHENKO*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 7899 UNIV OF CALIFORNIA - LOS ANGELES 2419**  
 QUASI-CONTINUOUS ROSAT MONITORING OF THE EXTREME N ARROW-LINE SEYFERT 1 GALAXY IRAS 13224-3809 ADP 9  
 01/03/1999 - 12/31/2000 FY01: \$0 Total: \$38,000  
*Prin. Invest.: R A EDELSON*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 7907 UNIV OF CALIFORNIA - LOS ANGELES 2420**  
 STUDY OF TOTAL SOLAR AND SPECTRAL IRRADIANCE VARIATIONS BASED ON THESOHO/VIRGO AND MDI MEASUREMENTS  
 12/04/1998 - 05/14/2001 FY01: \$0 Total: \$205,228  
*Prin. Invest.: J M PAP*  
*Tech. Officer: GSFC/J GURMAN*  
*CASE Category: 19 - PHYSICAL SCIENCE, OTHER*

**NAG 5 7924 UNIV OF CALIFORNIA - LOS ANGELES 2421**  
 EVOLUTION OF DUST AROUND MAIN SEQUENCE STARS (LTSA - 98)  
 01/06/1999 - 12/14/2001 FY01: \$69,118 Total: \$201,354  
*Prin. Invest.: M A JURA*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 7959 UNIV OF CALIFORNIA - LOS ANGELES 2422**  
 THE GALILEAN MOONS OF JUPITER: INFERRING INTERNAL PROPERTIES OF NEWWORLDS FROM THEIR INTERACTI  
 01/08/1999 - 11/30/2001 FY01: \$0 Total: \$178,006  
*Prin. Invest.: D G KIVELSON, NONE*  
*Tech. Officer: GSFC/R BEEBE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 7962 UNIV OF CALIFORNIA - LOS ANGELES 2423**  
 DYNAMICS OF THE R=10-30 RE MAGNETOTAIL DURING GEOMAGNETIC DISTURBANCES  
 12/23/1998 - 12/14/2001 FY01: \$84,000 Total: \$247,000  
*Prin. Invest.: L R LYONS*  
*Tech. Officer: GSFC/L ZANETTI*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 7995 UNIV OF CALIFORNIA - LOS ANGELES 2424**  
 CALIBRATION AND COMPARISON BETWEEN MDI, GOLF, AND MT. WILSON DATA 11  
 01/05/1999 - 12/31/2001 FY01: \$255,000 Total: \$751,562  
*Prin. Invest.: R K ULRICH*  
*Tech. Officer: GSFC/J GURMAN*  
*CASE Category: 19 - PHYSICAL SCIENCE, OTHER*

**NAG 5 8050 UNIV OF CALIFORNIA - LOS ANGELES 2425**  
 SOME STUDIES OF STRUCTURE AND DYNAMICS OF JUPITER'S MAGNETOSPHERE  
 01/15/1999 - 11/30/2001 FY01: \$0 Total: \$123,696  
*Prin. Invest.: D K KHURANA*  
*Tech. Officer: GSFC/R BEEBE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 8055 UNIV OF CALIFORNIA - LOS ANGELES 2426**  
 A GLOBAL MAGNETOHYDRODYNAMIC MODEL OF THE JOVIAN MAGNETOSPHERE  
 01/15/1999 - 01/31/2001 FY01: \$0 Total: \$60,000  
*Prin. Invest.: R J WALKER*  
*Tech. Officer: GSFC/R BEEBE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 8059 UNIV OF CALIFORNIA - LOS ANGELES 2427**  
 MULTIPLE SCALE STRUCTURE OF AURORAL ARCS  
 01/14/1999 - 01/31/2002 FY01: \$72,468 Total: \$207,418  
*Prin. Invest.: F V CORONITI*  
*Tech. Officer: GSFC/M MELLOTT*  
*CASE Category: 13 - PHYSICS*

**NAG 5 8060 UNIV OF CALIFORNIA - LOS ANGELES 2428**  
 THE PHYSICAL NATURE OF THE ELECTRON CYCLOTRON MACH R INSTABILITY IN THE AKR SOURCE REGION  
 01/14/1999 - 01/31/2002 FY01: \$61,569 Total: \$177,301  
*Prin. Invest.: P L PRITCHETT*  
*Tech. Officer: GSFC/M MELLOTT*  
*CASE Category: 19 - PHYSICAL SCIENCE, OTHER*

**NAG 5 8064 UNIV OF CALIFORNIA - LOS ANGELES 2429**  
 JOVIAN SUBSTORMS: A STUDY OF PROCESSES LEADING TO TRANSIENT BEHAVIOR IN THE JOVIAN MAGNETOSPHERE  
 01/11/1999 - 12/31/2000 FY01: \$0 Total: \$100,000  
*Prin. Invest.: C T RUSSELL*  
*Tech. Officer: GSFC/R BEEBE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 8065 UNIV OF CALIFORNIA - LOS ANGELES 2430**  
 NON-ADIABATIC PLASMA PROCESSES IN THE JOVIAN MAGNETOSPHERE AND COUPLING TO THE ATMOSPHERE  
 01/11/1999 - 06/30/2002 FY01: \$0 Total: \$105,000  
*Prin. Invest.: D M THORNE*  
*Prin. Invest.: NONE*  
*Tech. Officer: GSFC/R BEEBE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 8066 UNIV OF CALIFORNIA - LOS ANGELES 2431**  
ANALYSIS AND INTERPRETATION OF JOVIAN ATMOSPHERE AND SATELLITE DATA FROM THE GALILEO MISSION  
01/12/1999 – 12/31/2001 FY01: \$0 Total: \$105,000  
*Prin. Invest.: D SCHUBERT*  
*Tech. Officer: GSFC/R BEEBE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8085 UNIV OF CALIFORNIA - LOS ANGELES 2432**  
ELECTRON DYNAMICS IN THE MAGNETOTAIL  
01/21/1999 – 12/31/2001 FY01: \$80,230 Total: \$230,315  
*Prin. Invest.: D SCHRIVER*  
*Tech. Officer: GSFC/D EVANS*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8132 UNIV OF CALIFORNIA - LOS ANGELES 2433**  
RESEARCH: "SUBSTORM EXPANSION PHASE DYNAMICS", 1-YEAR FUNDING TO SUPPORT COMPLETION OF PI'S STUDY FU  
02/04/1999 – 05/31/2001 FY01: \$0 Total: \$108,000  
*Prin. Invest.: F CORONITE*  
*Tech. Officer: GSFC/J GREBOWSKY*  
*CASE Category: 13 – PHYSICS*

**NAG 5 8335 UNIV OF CALIFORNIA - LOS ANGELES 2434**  
EVOLUTION OF DUST AROUND YOUNG MAIN SEQUENCE STARS  
02/24/1999 – 02/28/2002 FY01: \$23,000 Total: \$65,400  
*Prin. Invest.: D JURA*  
*Tech. Officer: HQ/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8470 UNIV OF CALIFORNIA - LOS ANGELES 2435**  
BIOMARKERS FOR MARS EXPLORATION  
05/06/1999 – 07/31/2002 FY01: \$0 Total: \$84,287  
*Prin. Invest.: D F KERRIDGE*  
*Tech. Officer: GSFC/M MEYER*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 8507 UNIV OF CALIFORNIA - LOS ANGELES 2436**  
STUDY OF THE TERRESTRIAL EFFECTS OF SOLAR IRRADIANCE VARIATIONS FROM EUVTOINFRARED: A NEW APPROACH  
05/10/1999 – 04/30/2002 FY01: \$96,259 Total: \$175,541  
*Prin. Invest.: J M PAP*  
*Tech. Officer: GSFC/W WAGNER*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8530 UNIV OF CALIFORNIA - LOS ANGELES 2437**  
MINING LUNAR PROSPECTOR'S GRAVITY DATA FOR INSIGHTS INTO THE MECHANICAL AND THERMAL EVOLUTION OF THE MOON  
06/15/1999 – 06/30/2002 FY01: \$15,000 Total: \$76,000  
*Prin. Invest.: G SCHUBERT*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8540 UNIV OF CALIFORNIA - LOS ANGELES 2438**  
PRIOR GRANT NAG5-3252 CONTINUATION OF MAP SCIENCE SUPPORT ACTIVITIES BEING IMPLEMENTED BY THE MAP  
08/19/1999 – 08/14/2002 FY01: \$96,702 Total: \$216,263  
*Prin. Invest.: E L WRIGHT, NONE*  
*Tech. Officer: GSFC/C BENNET*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8693 UNIV OF CALIFORNIA - LOS ANGELES 2439**  
BLACK HOLES IN EARLY TYPE GALAXIES: INCIDENCE, FORMATION AND EVOLUTION (LTSA 98)  
09/08/1999 – 08/31/2000 FY01: \$0 Total: \$109,333  
*Prin. Invest.: L FERRARESE*  
*Tech. Officer: GSFC/D WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8694 UNIV OF CALIFORNIA - LOS ANGELES 2440**  
DECENTRALIZED ESTIMATION & CONTROL OF DISTRIBUTED SPACECRAFT  
07/29/1999 – 07/31/2001 FY01: \$0 Total: \$253,525  
*Prin. Invest.: J SPEYER*  
*Tech. Officer: GSFC/J CARPENTER*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 5 8812 UNIV OF CALIFORNIA - LOS ANGELES 2441**  
HIGH RESOLUTION SOLAR TRANSMISSION MEASUREMENTS FOR THE DETECTION OF AEROSOLS AND CLOUDS  
09/15/1999 – 09/30/2001 FY01: \$0 Total: \$198,326  
*Prin. Invest.: A ELDERING*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8879 UNIV OF CALIFORNIA - LOS ANGELES 2442**  
PRECISE RELATIVE STATE ESTIMATION & CONTROL OF DISTRIBUTED SATELLITE NETWORKS  
11/15/1999 – 11/14/2001 FY01: \$204,430 Total: \$386,230  
*Prin. Invest.: J L SPEYER*  
*Tech. Officer: GSFC/R CARPENTER*  
*CASE Category: 42 – ASTRONAUTICAL ENGR*

**NAG 5 8938 UNIV OF CALIFORNIA - LOS ANGELES 2443**  
MAGNETIC FLUCTUATIONS IN THE JOVIAN MAGNETOSPHERE  
01/13/2000 – 01/14/2002 FY01: \$70,600 Total: \$137,900  
*Prin. Invest.: C T RUSSELL*  
*Tech. Officer: GSFC/D BOGAN*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9014 UNIV OF CALIFORNIA - LOS ANGELES 2444**  
INTERACTION OF LAND SURFACE COVER/CHARACTERISTICS & SURFACE HYDROCLIMATOLOGY AT SEASONAL/INTERANNUAL  
02/03/2000 – 07/31/2001 FY01: -\$11,308 Total: \$217,819  
*Prin. Invest.: Y XUE*  
*Tech. Officer: GSFC/E T ENGMAN*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 9023 UNIV OF CALIFORNIA - LOS ANGELES 2445**  
DETERMINING THE LONG TERM VARIABILITY AND CHARACTERISTIC TIME SCALES OF AGN – ADP 99  
02/22/2000 – 02/28/2001 FY01: \$0 Total: \$56,000  
*Prin. Invest.: R A EDELSON*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9027 UNIV OF CALIFORNIA - LOS ANGELES 2446**  
GLOBAL SURFACE GEOCHEMISTRY & THE DIFFERENTIATION, BULK COMPOSITION, & ORIGIN OF THE MOON  
02/04/2000 – 02/14/2002 FY01: \$23,000 Total: \$45,000  
*Prin. Invest.: P H WARREN*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9071 UNIV OF CALIFORNIA - LOS ANGELES 2447**  
 CONSEQUENCES OF HIGH-LATITUDE RECONNECTION  
 02/15/2000 - 02/14/2003 FY01: \$80,828 Total: \$153,828  
*Prin. Invest.: J P BERCHEM*  
*Tech. Officer: GSFC/J SHARBER*  
*CASE Category: 13 - PHYSICS*

**NAG 5 9074 UNIV OF CALIFORNIA - LOS ANGELES 2448**  
 PARTICLE TRANSPORT IN THE IO TORUS AND NEAR THE MOONS IO AND EUROPA  
 02/15/2000 - 03/31/2002 FY01: \$55,000 Total: \$100,000  
*Prin. Invest.: R THORNE*  
*Tech. Officer: GSFC/D BOGAN*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 9111 UNIV OF CALIFORNIA - LOS ANGELES 2449**  
 MHD TURBULENCE SIMULATION OF THE DYNAMICS OF THE MAGNETOTAIL  
 02/23/2000 - 02/28/2002 FY01: \$48,420 Total: \$89,920  
*Prin. Invest.: C WU*  
*Tech. Officer: GSFC/J SHARBER*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 9207 UNIV OF CALIFORNIA - LOS ANGELES 2450**  
 ANALYSIS AND VALIDATION OF THE UARS/ACRIM II DATA  
 03/10/2000 - 10/14/2001 FY01: \$0 Total: \$24,740  
*Prin. Invest.: J PAP*  
*Tech. Officer: GSFC/R CAHALAN*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 9255 UNIV OF CALIFORNIA - LOS ANGELES 2451**  
 THE INTERPLANETARY MAGNETIC FIELD AND THE MAGNETOSPHERIC CURRENT SYSTEMS  
 03/15/2000 - 02/28/2002 FY01: \$79,737 Total: \$150,737  
*Prin. Invest.: M EL-ALAOUI*  
*Tech. Officer: GSFC/J SHARBER*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NAG 5 9294 UNIV OF CALIFORNIA - LOS ANGELES 2452**  
 SEQUENTIAL ESTIMATION & PREDICTABILITY STUDIES FOR THE ATMOSPHERE & OCEANS  
 04/10/2000 - 04/14/2002 FY01: \$120,000 Total: \$220,000  
*Prin. Invest.: M GHIL*  
*Tech. Officer: GSFC/S COHN*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 9299 UNIV OF CALIFORNIA - LOS ANGELES 2453**  
 NEW GRANT EXTEND SOLAR MAX: INVESTIGATION OF HIGH LATITUDE PHENOMENA USING POLAR DATA  
 05/04/2000 - 05/14/2001 FY01: \$0 Total: \$50,000  
*Prin. Invest.: C RUSSEL*  
*Tech. Officer: GSFC/R HOFFMAN*  
*CASE Category: 19 - PHYSICAL SCIENCE, OTHER*

**NAG 5 9358 UNIV OF CALIFORNIA - LOS ANGELES 2454**  
 SENSITIVITY OF PRECIPITATION IN COUPLED LAND-ATMOS SPHERE MODELS  
 04/06/2000 - 06/30/2002 FY01: \$100,000 Total: \$150,000  
*Prin. Invest.: D J NEELIN*  
*Tech. Officer: GSFC/K BERGMAN*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 9431 UNIV OF CALIFORNIA - LOS ANGELES 2455**  
 TO CONSTRUCT A MODEL STELLAR POPULATION SCALED TO THE SURFACE BRIGHTNESS OF DISK, HALO, AND BULGE FILE  
 04/14/2000 - 04/14/2001 FY01: \$0 Total: \$10,000  
*Prin. Invest.: D RICH*  
*Tech. Officer: GSFC/E P SMITH*  
*CASE Category: 42 - ASTRONAUTICAL ENGR*

**NAG 5 9441 UNIV OF CALIFORNIA - LOS ANGELES 2456**  
 THE METEORITIC COMPONENT IN IMPACT DEPOSITS  
 04/13/2000 - 04/14/2002 FY01: \$55,000 Total: \$110,000  
*Prin. Invest.: F T KYTE*  
*Tech. Officer: GSFC/D NAVA*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9546 UNIV OF CALIFORNIA - LOS ANGELES 2457**  
 DEVELOPMENT OF GLOBAL MAGNETOSPHERIC FIELD MODELS OF JUPITER  
 05/15/2000 - 05/14/2002 FY01: \$84,428 Total: \$160,528  
*Prin. Invest.: K K KHURANA*  
*Tech. Officer: GSFC/J SHARBER*  
*CASE Category: 13 - PHYSICS*

**NAG 5 9573 UNIV OF CALIFORNIA - LOS ANGELES 2458**  
 TOWARD OTHER PLANETARY SYSTEMS: IMAGING OF MASSIVE PLANETS AND DUSTY DEBRIS DISKS  
 05/08/2000 - 04/30/2001 FY01: \$0 Total: \$22,000  
*Prin. Invest.: B ZUCKERMAN*  
*Tech. Officer: HQ/J M BOYCE*  
*CASE Category: 13 - PHYSICS*

**NAG 5 9667 UNIV OF CALIFORNIA - LOS ANGELES 2459**  
 REMOTE SENSING OF THE OPTICAL & MICROPHYSICAL PROPERTIES OF CIRRUS CLOUDS USING MODIS CHANNELS  
 05/30/2000 - 08/31/2001 FY01: \$40,000 Total: \$80,000  
*Prin. Invest.: K N LIOU*  
*Tech. Officer: GSFC/M KING*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 9693 UNIV OF CALIFORNIA - LOS ANGELES 2460**  
 NEW ISTP SOLAR MAX: INTERACTIVE LEARNING DURING SOLAR MAX  
 06/27/2000 - 06/30/2001 FY01: \$0 Total: \$50,313  
*Prin. Invest.: M ASHOUR-ABDALLA*  
*Tech. Officer: GSFC/S CURTIS*  
*CASE Category: 19 - PHYSICAL SCIENCE, OTHER*

**NAG 5 9713 UNIV OF CALIFORNIA - LOS ANGELES 2461**  
 INFLUENCE OF LAND SURFACE PROCESSES/LAND COVER CHANGES IN AMAZON ON REGIONAL HYDROLOGICAL CYCLES  
 07/06/2000 - 03/14/2002 FY01: \$104,242 Total: \$246,426  
*Prin. Invest.: Y XUE*  
*Tech. Officer: GSFC/P R HOUSER*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 9772 UNIV OF CALIFORNIA - LOS ANGELES 2462**  
 SOLAR MAX EXTENDED SCIENCE PROGRAM  
 06/30/2000 - 06/30/2002 FY01: \$50,000 Total: \$100,000  
*Prin. Invest.: M ASHOUR-ABDALLA*  
*Tech. Officer: GSFC/S CURTIS*  
*CASE Category: 19 - PHYSICAL SCIENCE, OTHER*

**NAG 5 9789**      **UNIV OF CALIFORNIA - LOS ANGELES**      **2463**  
 ISOTOPIC INVESTIGATIONS OF NEBULAR AND PARENT BODY PROCESSES  
 WITH HIGH SENSITIVITY ION MICROPROBE  
 07/11/2000 – 07/14/2002      FY01: \$109,000      Total: \$218,000  
*Prin. Invest.: K D MCKEEGAN*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9826**      **UNIV OF CALIFORNIA - LOS ANGELES**      **2464**  
 THE LOCAL DISTANCE SCALE: APPLICATION OF THE TIP OF THE RED  
 GIANT BRANCH DISTANCE INDICATOR – LTSA  
 08/23/2000 – 08/31/2002      FY01: \$81,200      Total: \$159,900  
*Prin. Invest.: S SAKAI*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9860**      **UNIV OF CALIFORNIA - LOS ANGELES**      **2465**  
 OCEAN CARBON FLUX: TRANSPORT, & BURIAL WITHIN THE WESTERN &  
 EASTERN U.S.COASTAL ZONES  
 08/07/2000 – 06/30/2002      FY01: \$126,200      Total: \$208,200  
*Prin. Invest.: J MCWILLIAMS*  
*Tech. Officer: GSFC/E LINDSTROM*  
*CASE Category: 39 – ENVIRONMENTALSCI, OTHER*

**NAG 5 10032**      **UNIV OF CALIFORNIA - LOS ANGELES**      **2466**  
 AN XMM LONG-LOOK AT NGC5548  
 09/26/2000 – 09/30/2002      FY01: \$16,000      Total: \$46,500  
*Prin. Invest.: R EDELSON*  
*Tech. Officer: GSFC/R MUSHOTZKY*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10282**      **UNIV OF CALIFORNIA - LOS ANGELES**      **2467**  
 MAGNETOHYDRODYNAMIC MODELING OF THE JOVIAN MAGNETO SPHERE  
 01/23/2001 – 01/31/2002      FY01: \$89,771      Total: \$89,771  
*Prin. Invest.: R WALKER, NONE*  
*Tech. Officer: GSFC/J SHARBER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10287**      **UNIV OF CALIFORNIA - LOS ANGELES**      **2468**  
 KINETIC PHYSICS OF THE STRESSED NEAR-EARTH PLASMA SHEET  
 01/23/2001 – 01/31/2002      FY01: \$90,784      Total: \$90,784  
*Prin. Invest.: P L PRITCHETT*  
*Tech. Officer: GSFC/J SHARBER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10351**      **UNIV OF CALIFORNIA - LOS ANGELES**      **2469**  
 SEARCH FOR MOLECULAR HYDROGEN AROUND VEGA-TYPE STARS  
 02/08/2001 – 02/14/2002      FY01: \$69,500      Total: \$69,500  
*Prin. Invest.: M A JURA*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10354**      **UNIV OF CALIFORNIA - LOS ANGELES**      **2470**  
 UCLA CLUSTER-II MISSION PARTICIPATION  
 02/15/2001 – 02/14/2002      FY01: \$200,000      Total: \$200,000  
*Prin. Invest.: D G KIVELSON*  
*Tech. Officer: GSFC/M ACUNA*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 10421**      **UNIV OF CALIFORNIA - LOS ANGELES**      **2471**  
 COSMOCHEMICAL STUDIES: METEORITES AND THEIR PARENT ASTEROIDS  
 02/15/2001 – 01/31/2002      FY01: \$155,000      Total: \$155,000  
*Prin. Invest.: J WASSON*  
*Tech. Officer: GSFC/D NAVA*  
*CASE Category: 12 – CHEMISTRY*

**NAG 5 10473**      **UNIV OF CALIFORNIA - LOS ANGELES**      **2472**  
 MAGNETOSPHERE-IONOSPHERE COUPLING IN THE AURORAL ZONE  
 02/27/2001 – 02/28/2002      FY01: \$75,407      Total: \$75,407  
*Prin. Invest.: D SCHRIVER*  
*Tech. Officer: GSFC/J SPANN*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 10490**      **UNIV OF CALIFORNIA - LOS ANGELES**      **2473**  
 ACQUISITION OF A NEW ELECRON MICROPROBE AT UCLA  
 03/01/2001 – 02/28/2002      FY01: \$168,000      Total: \$168,000  
*Prin. Invest.: P WARREN*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 12 – CHEMISTRY*

**NAG 5 10609**      **UNIV OF CALIFORNIA - LOS ANGELES**      **2474**  
 DETECTION AND MODELING OF MECHANICAL ICE BREAKUP I N LARGE  
 POLAR RIVERS WITH SAR INTERFEROMETRY  
 03/15/2001 – 03/14/2002      FY01: \$71,332      Total: \$71,332  
*Prin. Invest.: L SMITH*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10615**      **UNIV OF CALIFORNIA - LOS ANGELES**      **2475**  
 LOCAL INVERSIONS OF THE MARTIAN GRAVITY FIELD AND INTERPRETA-  
 TIONS OF REGIONAL TECTONICS  
 03/16/2001 – 03/14/2002      FY01: \$49,000      Total: \$49,000  
*Prin. Invest.: W MOORE*  
*Tech. Officer: GSFC/J M BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10663**      **UNIV OF CALIFORNIA - LOS ANGELES**      **2476**  
 ADAPTIVE OPTICS IMAGING OF MASSIVE PLANETARY COMPA NIONS TO  
 YOUNG STARS  
 03/22/2001 – 06/30/2002      FY01: \$40,000      Total: \$40,000  
*Prin. Invest.: B ZUCKERMAN*  
*Tech. Officer: GSFC/J M BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10685**      **UNIV OF CALIFORNIA - LOS ANGELES**      **2477**  
 APPLICATIONS AND VALIDATION OF THE SRTM DEM IN THE AMAZON  
 BASIN: HYDROLOGICAL AND GEOMORPHOLOGICAL  
 03/30/2001 – 02/28/2002      FY01: \$150,000      Total: \$150,000  
*Prin. Invest.: D E ALSDORF*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 10834**      **UNIV OF CALIFORNIA - LOS ANGELES**      **2478**  
 SOLAR CYCLE VARIATION AND MULTI-POINT STUDIES OF ICME PRO-  
 PERTIES  
 04/27/2001 – 04/30/2002      FY01: \$77,870      Total: \$77,870  
*Prin. Invest.: C T RUSSELL*  
*Tech. Officer: GSFC/W J WAGNER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

<b>NAG 5 10905</b>	<b>UNIV OF CALIFORNIA - LOS ANGELES</b>	<b>2479</b>	<b>NAG 9 1252</b>	<b>UNIV OF CALIFORNIA - LOS ANGELES</b>	<b>2487</b>
TIME DEPENDENCE OF SOLAR MAGNETIC FIELDS			OPTICAL BIOSENSORS FOR IN FLIGHT MEASUREMENT OF HORMONES		
05/22/2001 - 05/31/2002	FY01: \$95,500	Total: \$95,500	LEVELS		
<i>Prin. Invest.:</i> R K ULRICH			08/15/2000 - 07/31/2003	FY01: \$73,120	Total: \$87,744
<i>Tech. Officer:</i> GSFC/W J WAGNER			<i>Prin. Invest.:</i> B		
<i>CASE Category:</i> 11 - ASTRONOMY			<i>Tech. Officer:</i> JSC/C W LLOYD		
<b>NAG 5 10973</b>	<b>UNIV OF CALIFORNIA - LOS ANGELES</b>	<b>2480</b>	<b>NAS 4 00051</b>	<b>UNIV OF CALIFORNIA - LOS ANGELES</b>	<b>2488</b>
MARS POLAR PROPERTIES AND CLIMATE HISTORY			FORMATION FLIGHT TECHNOLOGY		
05/24/2001 - 06/30/2002	FY01: \$75,000	Total: \$75,000	09/18/2000 - 09/30/2003	FY01: \$425,000	Total: \$460,000
<i>Prin. Invest.:</i> D PAIGE			<i>Prin. Invest.:</i> J L SPEYER		
<i>Tech. Officer:</i> GSFC/J M BOYCE			<i>Tech. Officer:</i> DFRC/G L SPEYER		
<i>CASE Category:</i> 11 - ASTRONOMY			<i>CASE Category:</i> 41 - AERONAUTICAL ENGRN		
<b>NAG 5 10986</b>	<b>UNIV OF CALIFORNIA - LOS ANGELES</b>	<b>2481</b>	<b>NAS 5 00247</b>	<b>UNIV OF CALIFORNIA - LOS ANGELES</b>	<b>2489</b>
SOLAR EFFECTS ON GLOBAL CLIMATE DUE TO COSMIC RAYS AND SOLAR			DESIGN, FABRICATION, & DELIVERY OF MAGNETOMETER SYSTEM FOR		
ENERGETIC PARTICLES			THE ST-5 MISSION.		
05/15/2001 - 05/14/2002	FY01: \$102,067	Total: \$102,067	02/13/2001 - 08/01/2002	FY01: \$230,000	Total: \$230,000
<i>Prin. Invest.:</i> J RAEDER			<i>Prin. Invest.:</i> R J STRANGeway		
<i>Tech. Officer:</i> GSFC/J F SPANN			<i>Tech. Officer:</i> GSFC/A RUSSO		
<i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE			<i>CASE Category:</i> 41 - AERONAUTICAL ENGRN		
<b>NAG 5 11102</b>	<b>UNIV OF CALIFORNIA - LOS ANGELES</b>	<b>2482</b>	<b>NCC 2 1050</b>	<b>UNIV OF CALIFORNIA - LOS ANGELES</b>	<b>2490</b>
TECTONICS AND VOLCANISM IN AFAR USING RADARSAT INT ERFERO-			ASTROBIOLOGY @ UCLA AN INTEGRATED MULTIDISCIPLINARY APPROACH		
METRY DATA			TO RESEARCH & EDUCATION		
07/10/2001 - 06/30/2002	FY01: \$84,285	Total: \$84,285	08/19/1998 - 06/30/2003	FY01: \$1,035,025	Total: \$2,523,373
<i>Prin. Invest.:</i> G PELETZER			<i>Prin. Invest.:</i> B RUNNEGAR		
<i>Tech. Officer:</i> GSFC/W ABDALATI			<i>Tech. Officer:</i> ARC/R A GRYMES, ARC/W W DOLCI		
<i>CASE Category:</i> 32 - GEOLOGICAL SCIENCE			<i>CASE Category:</i> 59 - LIFE SCIENCE, OTHER		
<b>NAG 5 11210</b>	<b>UNIV OF CALIFORNIA - LOS ANGELES</b>	<b>2483</b>	<b>NCC 3 690</b>	<b>UNIV OF CALIFORNIA - LOS ANGELES</b>	<b>2491</b>
DYNAMICAL STUDIES OF PLANETARY AND SATELLITE ATMO- SPHERES			ACOUSTICALLY FORCED CONDENSED PHASE FUEL COMBUSTION UNDER		
08/09/2001 - 08/14/2003	FY01: \$70,000	Total: \$70,000	MICRGRAVITY CONDITIONS		
<i>Prin. Invest.:</i> G SCHUBERT			03/22/1999 - 12/29/2001	FY01: \$145,897	Total: \$359,059
<i>Tech. Officer:</i> GSFC/D J BOGAN			<i>Prin. Invest.:</i> O I SMITH		
<i>CASE Category:</i> 99 - MULTI INTERDISCPL, OTHER			<i>Tech. Officer:</i> GRC/K SACKSTEDER		
<b>NAG 5 11216</b>	<b>UNIV OF CALIFORNIA - LOS ANGELES</b>	<b>2484</b>	<i>CASE Category:</i> 49 - ENGINEERING, OTHER		
MAGNETOSPHERE-IONOSPHERE COUPLING IN THE JOVIAN AU RORAL			<b>NCC 4 121</b>	<b>UNIV OF CALIFORNIA - LOS ANGELES</b>	<b>2492</b>
ZONE			FLIGHT SYSTEMS RESEARCH CENTER		
08/13/2001 - 08/31/2004	FY01: \$80,000	Total: \$80,000	02/17/1999 - 10/31/2001	FY01: \$1,379,000	Total: \$3,869,530
<i>Prin. Invest.:</i> R THORNE			<i>Prin. Invest.:</i> A V BALAKRISHNAN		
<i>Tech. Officer:</i> GSFC/D BOGAN			<i>Tech. Officer:</i> SSC/K W IIIFF, SSC/R R MEYER		
<i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE			<i>CASE Category:</i> 49 - ENGINEERING, OTHER		
<b>NAG 5 11363</b>	<b>UNIV OF CALIFORNIA - LOS ANGELES</b>	<b>2485</b>	<b>NCC 5 149</b>	<b>UNIV OF CALIFORNIA - LOS ANGELES</b>	<b>2493</b>
APPLICATIONS OF REMOTELY SENSED LAND SURFACE DATA FOR			GRAND CHALLENGE RESEARCH		
SEASONAL AND LONG-TERM HYDROCLIMATE PREDICTION			08/09/1996 - 06/30/2000	FY01: \$0	Total: \$2,000,000
09/28/2001 - 09/30/2003	FY01: \$206,667	Total: \$206,667	<i>Prin. Invest.:</i> C MECHOSO		
<i>Prin. Invest.:</i> J KIM			<i>Tech. Officer:</i> GSFC/J R FISCHER		
<i>Tech. Officer:</i> GSFC/M JACKSON			<i>CASE Category:</i> 29 - MATH/COMPUTER SCI, OTHER		
<i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER					
<b>NAG 9 1020</b>	<b>UNIV OF CALIFORNIA - LOS ANGELES</b>	<b>2486</b>	<b>NCC 5 301</b>	<b>UNIV OF CALIFORNIA - LOS ANGELES</b>	<b>2494</b>
GENESIS DISCOVERY MISSION			EARTH PARTNERS' PRIVATE NETWORK		
07/16/1998 - 03/04/2002	FY01: \$41,000	Total: \$213,600	04/03/1998 - 02/28/2002	FY01: \$161,200	Total: \$2,443,600
<i>Prin. Invest.:</i> K D MCKEEGAN			<i>Prin. Invest.:</i> R MUNTZ		
<i>Tech. Officer:</i> JSC/E K STANSBERY			<i>Tech. Officer:</i> GSFC/M MAIDEN		
<i>CASE Category:</i> 19 - PHYSICAL SCIENCE, OTHER			<i>CASE Category:</i> 99 - MULTI INTERDISCPL, OTHER		

**NCC 5 385 UNIV OF CALIFORNIA - LOS ANGELES 2495**  
 REMOTE SENSING OF CIRRUS CLOUDS AND RADIATION EFFECTS IN THE  
 EVOLUTION OF CIRRUS CLOUDS  
 04/01/1999 - 04/14/2002 FY01: \$0 Total: \$75,000  
*Prin. Invest.: K N LIOU*  
*Tech. Officer: GSFC/W LAU*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NGT 1 01039 UNIV OF CALIFORNIA - LOS ANGELES 2496**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) YR.2  
 08/29/2001 - 06/30/2003 FY01: \$12,000 Total: \$12,000  
*Prin. Invest.: G CARMEN*  
*Tech. Officer: LARC/R G BRYANT*  
*CASE Category: 41 - AERONAUTICAL ENGR*

**NGT 1 52240 UNIV OF CALIFORNIA - LOS ANGELES 2497**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 05/10/2000 - 06/30/2001 FY01: \$12,001 Total: \$22,001  
*Prin. Invest.: G P CARMEN*  
*Tech. Officer: LARC/R G BRYANT, LARC/J S HARRISON*  
*CASE Category: 47 - METAL & MATERIALS ENGR*

**NGT 2 52265 UNIV OF CALIFORNIA - LOS ANGELES 2498**  
 EFFECT OF SIMULATED MICROGRAVITY ON NT-3 EXPRESSION IN  
 PROPRIOCEPTIVE AFFERENT NEURONS IN RATS  
 07/14/2000 - 08/31/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.: V R EDGERTON, A J BIGBEE*  
*Tech. Officer: ARC/R E GRINDELAND, ARC/E M HOLTON*  
*CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)*

**NGT 5 112 UNIV OF CALIFORNIA - LOS ANGELES 2499**  
 DECENTRALIZED CONTROL OF DISTRIBUTED SATELLITE NETWORKS,  
 GSRP TRAINING GRANT. STUDENT: GENE BELAN  
 08/18/2000 - 08/31/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.: J L SPEYER*  
*Tech. Officer: GSFC/G A SOFFEN*  
*CASE Category: 41 - AERONAUTICAL ENGR*

**NGT 5 117 UNIV OF CALIFORNIA - LOS ANGELES 2500**  
 COMBINING SPACE AND GROUND BASED PLASMAPHERIC OBSERVA-  
 TIONS FOR UNDERSTANDING PLASMA MASS DENSITY  
 06/04/2001 - 08/31/2002 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: M MOLDWIN*  
*Tech. Officer: GSFC/M S BURRELL*  
*CASE Category: 13 - PHYSICS*

**NGT 5 30133 UNIV OF CALIFORNIA - LOS ANGELES 2501**  
 REMOTE SENSING OF CIRRUS CLOUDS USING MODIS AIRBORNE  
 SIMULATOR (MAS) CHANNELS  
 06/24/1998 - 08/31/2000 FY01: \$0 Total: \$44,000  
*Prin. Invest.: K LIOU*  
*Tech. Officer: GSFC/M Y WEI*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NGT 5 30215 UNIV OF CALIFORNIA - LOS ANGELES 2502**  
 INVESTIGATION OF AEROSOL/CLOUD INTERACTIONS USING A COUPLED  
 HIGH-RESOLUTION DYNAMICS/MICROPHY  
 08/24/1999 - 08/31/2000 FY01: \$0 Total: \$22,000  
*Prin. Invest.: R P TURCO*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NGT 5 30338 UNIV OF CALIFORNIA - LOS ANGELES 2503**  
 ESTIMATION OF THE TERRESTRIAL CARBON POOL & HYDROLOGIC SENSITIVITY  
 OF THE WEST SIBERIAN LOWLAND/STUDY  
 08/21/2000 - 08/31/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.: L SMITH*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NGT 5 30372 UNIV OF CALIFORNIA - LOS ANGELES 2504**  
 AN INVESTIGATION OF CLOUD FEATURES IN HIGH-RESOLVED INFRARED EMISSION  
 SPECTRA: UNDERSTANDING RADIATIVE EFFECTS  
 08/13/2001 - 08/31/2002 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: A ELDERING*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NGT 5 50187 UNIV OF CALIFORNIA - LOS ANGELES 2505**  
 A SEARCH FOR GIANT PLANETS ORBITING NEARBY STARS  
 05/27/1998 - 06/30/2001 FY01: \$0 Total: \$65,625  
*Prin. Invest.: B ZUCKERMAN*  
*Tech. Officer: GSFC/K BLANDING*  
*CASE Category: 11 - ASTRONOMY*

**NGT 5 50202 UNIV OF CALIFORNIA - LOS ANGELES 2506**  
 NEUROMUSCULAR AND ENDOCRINE FACTORS IN WEIGHTLESSNESS-INDUCED ATROPHY/  
 07/02/1998 - 07/31/2001 FY01: \$0 Total: \$63,333  
*Prin. Invest.: V EDGERTON*  
*Tech. Officer: HQ/A NURRIDIN*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NGT 5 50220 UNIV OF CALIFORNIA - LOS ANGELES 2507**  
 HEALTH MANAGEMENT SYSTEM DESIGN & INTELLIGENT CONTROL OF FUTURE  
 MINIATURE AUTONOMOUS SPACECRAFTS UTIL  
 09/23/1998 - 09/30/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.: P WANG, ESHAGHI*  
*Tech. Officer: HQ/S MCGEE*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NGT 5 50310 UNIV OF CALIFORNIA - LOS ANGELES 2508**  
 PROXIMO-DISTAL PATTERNING IN MOLLUSCS AND ANNELIDS: IMPLICATIONS  
 FOR LIMB EVOLUTION-STUDENT: SHANNON  
 07/07/2000 - 06/30/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.: D K JACOBS*  
*Tech. Officer: GSFC/L SMITH*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NGT 5 50322 UNIV OF CALIFORNIA - LOS ANGELES 2509**  
 A STUDY OF UNRESOLVED ISSUES REGARDING STRATOSPHERIC IC  
 AEROSOL FORMATION, EVOLUTION & COMPOSITION BY STUDENT:  
 ELIZABETH JENSEN  
 08/17/2000 - 08/31/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.: R TURCO*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NGT 5 50359 UNIV OF CALIFORNIA - LOS ANGELES 2510**  
 CASSINI MEASUREMENT OF MAGNETIC FIELDS WITHIN 2 SOLAR RADII-STUDENT:  
 ELIZABETH JENSEN  
 05/23/2001 - 08/30/2002 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: C RUSSELLI*  
*Tech. Officer: GSFC/K BLANDING*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 8 52844**      **UNIV OF CALIFORNIA - LOS ANGELES**      **2511**  
 GRADUATE STUDENT RESEARCH PROGRAM FELLOWSHIP  
 08/22/1997 - 08/14/2000      FY01: \$0  
*Prin. Invest.:* M A ABDOU  
*Tech. Officer:* MSFC/J DOWDY  
*CASE Category:* 46 – MECHANICAL ENGR

Total: \$66,000

**NAG 5 5116**      **UNIV OF CALIFORNIA - RIVERSIDE**      **2512**  
 THE TIGRE INSTRUMENT FOR INTERMEDIATE - ENERGY GAMMA-RAY  
 ASTRONOMY FROM 0.3 TO 100MEV  
 04/09/1997 - 11/30/2002      FY01: \$712,510      Total: \$1,761,528  
*Prin. Invest.:* A D ZYCH  
*Prin. Invest.:* NONE  
*Tech. Officer:* GSFC/H C NEEDLEMAN, GSFC/B A MERRITT  
*CASE Category:* 13 – PHYSICS

**NAG 5 5118**      **UNIV OF CALIFORNIA - RIVERSIDE**      **2513**  
 AN ARCSSECOND RESOLUTION: AXGAM  
 04/09/1997 - 06/30/2001      FY01: \$0      Total: \$600,000  
*Prin. Invest.:* O T TUMER  
*Tech. Officer:* GSFC/H C NEEDLEMAN, GSFC/B A MERRITT  
*CASE Category:* 13 – PHYSICS

**NAG 5 5211**      **UNIV OF CALIFORNIA - RIVERSIDE**      **2514**  
 ULDB COMPTON TELESCOPE MISSION ULDB COMPTON TELESCOPE  
 MISSION  
 09/17/1998 - 12/31/2001      FY01: \$0      Total: \$70,067  
*Prin. Invest.:* A D ZYCHE  
*Tech. Officer:* WFF/A B MERRITT  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 5288**      **UNIV OF CALIFORNIA - RIVERSIDE**      **2515**  
 A HIGH RESOLUTION ALL-SKY X-RAY & GAMMA-RAY MONITOR (AXGAM)  
 05/31/2000 - 05/17/2003      FY01: -\$20,600      Total: \$119,400  
*Prin. Invest.:* T O TUMER  
*Tech. Officer:* GSFC/B A MERRITT  
*CASE Category:* 13 – PHYSICS

**NAG 5 8682**      **UNIV OF CALIFORNIA - RIVERSIDE**      **2516**  
 SPACE-TIME DYNAMICS OF SOIL MOISTURE & TEMPERATURE -SCALE  
 ISSUES  
 07/15/1999 - 07/14/2002      FY01: \$92,493      Total: \$270,340  
*Prin. Invest.:* B P MOHANTY  
*Tech. Officer:* GSFC/E T ENGMAN  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NAG 5 9812**      **UNIV OF CALIFORNIA - RIVERSIDE**      **2517**  
 NON-ENZYMATIC OLIGOMERIZATION OF MONONUCLEOTIDES USING NON-  
 STANDARD OLIGONUCLEOTIDE TEMPLATES  
 07/19/2000 - 07/14/2002      FY01: \$70,000      Total: \$135,940  
*Prin. Invest.:* C Y SWITZER  
*Tech. Officer:* GSFC/M MEYER  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 10932**      **UNIV OF CALIFORNIA - RIVERSIDE**      **2518**  
 PARTICLE ACCELERATION AND TRANSPORT  
 05/30/2001 - 06/30/2002      FY01: \$123,311      Total: \$123,311  
*Prin. Invest.:* G ZANK  
*Tech. Officer:* GSFC/J GURMAN  
*CASE Category:* 19 – PHYSICAL SCIENCE, OTHER

**NAG 1 2044**      **UNIV OF CALIFORNIA - SAN DIEGO**      **2519**  
 RADIATIVE CHARACTER'S OF THE SURFACE & CLOUDS IN THE ARCTIC  
 USING RESEARCH AIRCRAFT--NRA-94-MTPE-04  
 04/03/1998 - 03/31/2002      FY01: \$60,000      Total: \$418,823  
*Prin. Invest.:* F P VALERO, S K POPE, P J FLATAU  
*Tech. Officer:* LARC/D S MCDOUGAL, LARC/I RAPER  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NAG 2 1313**      **UNIV OF CALIFORNIA - SAN DIEGO**      **2520**  
 THE DEVELOPMENT OF PILOT EXPERTISE IN THE AIRBUS A 320 AIRCRAFT  
 04/01/1999 - 01/31/2002      FY01: \$121,238      Total: \$297,084  
*Prin. Invest.:* E L HUTCHINS  
*Tech. Officer:* ARC/S M CASNER  
*CASE Category:* 41 – AERONAUTICAL ENGNR

**NAG 2 1376**      **UNIV OF CALIFORNIA - SAN DIEGO**      **2521**  
 EVOLUTION OF NEURAL CREST & PLACODES: AMPHIOPUS AS A MODEL  
 FOR THE ANCESTROOF THE VERTEBRATES  
 08/17/1999 - 06/30/2002      FY01: \$75,228      Total: \$188,632  
*Prin. Invest.:* L Z HOLLAND  
*Tech. Officer:* ARC/M M AVERNER, ARC/R D MACELROY  
*CASE Category:* 51 – BIOLOGY (EXCLUDING ENVIR)

**NAG 3 1888**      **UNIV OF CALIFORNIA - SAN DIEGO**      **2522**  
 MATERIAL INSTABILITIES IN PARTICULATE SYSTEMS: UC SD 95-647R  
 05/31/1996 - 06/30/2000      FY01: -\$3,259      Total: \$316,741  
*Prin. Invest.:* J D GODDARD  
*Tech. Officer:* GRC/M E HILL  
*CASE Category:* 19 – PHYSICAL SCIENCE, OTHER

**NAG 3 2117**      **UNIV OF CALIFORNIA - SAN DIEGO**      **2523**  
 DYNAMICS OF ACCELERATED INTERFACES: PARAMETRIC EXCITATION  
 AND FLUID SLOSHING IN CLOSED CONTAINERS A  
 01/28/1998 - 12/18/2001      FY01: \$20,000      Total: \$233,000  
*Prin. Invest.:* C POZRIKIDIS  
*Tech. Officer:* GRC/J R SKARDA  
*CASE Category:* 13 – PHYSICS

**NAG 3 2465**      **UNIV OF CALIFORNIA - SAN DIEGO**      **2524**  
 VIBRATORY DYNAMICS AND TRANSPORT OF GRANULAR MEDIA AT  
 VARIOUS G LEVELS  
 06/19/2000 - 11/30/2003      FY01: \$76,000      Total: \$126,000  
*Prin. Invest.:* J D GODDARD  
*Tech. Officer:* GRC/M E HILL  
*CASE Category:* 49 – ENGINEERING, OTHER

**NAG 3 2554**      **UNIV OF CALIFORNIA - SAN DIEGO**      **2525**  
 STRETCHED DIFFUSION FLAMES IN VON KARMAN SWIRLING FLOWS  
 03/15/2001 - 11/30/2004      FY01: \$9,900      Total: \$9,900  
*Prin. Invest.:* F WILLIAMS  
*Tech. Officer:* GRC/K R SACKSTEDER  
*CASE Category:* 49 – ENGINEERING, OTHER

**NAG 5 3528**      **UNIV OF CALIFORNIA - SAN DIEGO**      **2526**  
 ASSESSMENT OF CLIMATIC AND ANTHROPOGENIC IMPACTS ON CYCLE  
 CONSTRAINED BY ATMOSPHERIC MEASUREMENTS AND  
 11/18/1996 - 07/31/2000      FY01: \$0      Total: \$609,000  
*Prin. Invest.:* D D KEELING  
*Tech. Officer:* GSFC/D E WICKLAND  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NAG 5 3944 UNIV OF CALIFORNIA - SAN DIEGO 2527**  
 DEVELOPMENT OF A PIXON-BASED IMAGE RECONSTRUCTION USER  
 COMMUNITY  
 03/04/1997 - 02/29/2000 FY01: \$0 Total: \$335,000  
*Prin. Invest.: D C PUETTER*  
*Tech. Officer: GSFC/J BREDEKAMP*  
*CASE Category: 22 - COMPUTER SCIENCE*

**NAG 5 4023 UNIV OF CALIFORNIA - SAN DIEGO 2528**  
 ADVANCED GLOBAL ATMOSPHERIC GASES EXPERIMENT (AGAG)  
 03/25/1997 - 12/31/2001 FY01: \$487,435 Total: \$2,337,919  
*Prin. Invest.: R F WEISS*  
*Tech. Officer: GSFC/M J KURYLO*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 4284 UNIV OF CALIFORNIA - SAN DIEGO 2529**  
 THE ORION PHENOMENON: PARTICLE FLUENCES IN THE SO  
 04/01/1997 - 02/29/2000 FY01: \$0 Total: \$100,000  
*Prin. Invest.: D MARTI*  
*Tech. Officer: GSFC/D NAVA*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 4546 UNIV OF CALIFORNIA - SAN DIEGO 2530**  
 NASA SPECIALIZED CENTER OF RESEARCH AND TRAINING I THE CHEM-  
 ISTRY OF EARLY SELF-REPLICATING SYSTEMS  
 05/06/1997 - 03/31/2002 FY01: \$950,000 Total: \$4,716,000  
*Prin. Invest.: P L BADA, NONE*  
*Tech. Officer: HQ/M MEYER*  
*CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)*

**NAG 5 4574 UNIV OF CALIFORNIA - SAN DIEGO 2531**  
 METEORITIC SULFUR ISOTOPIC ANALYSIS  
 07/07/1997 - 02/28/2002 FY01: \$35,000 Total: \$172,000  
*Prin. Invest.: D H THIEMENS*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 4648 UNIV OF CALIFORNIA - SAN DIEGO 2532**  
 MICROGRAVITY IN VITRO MODEL OF BONE: FLOW EFFECTS  
 06/11/1997 - 05/31/2000 FY01: \$0 Total: \$421,536  
*Prin. Invest.: J A FRANGOS*  
*Tech. Officer: GSFC/M AVERNER*  
*CASE Category: 59 - LIFE SCIENCE, OTHER*

**NAG 5 4658 UNIV OF CALIFORNIA - SAN DIEGO 2533**  
 THEORETICAL STUDIES OF MAGNETIC RECONNECTION  
 06/09/1997 - 05/14/2001 FY01: \$0 Total: \$243,248  
*Prin. Invest.: D B QUEST*  
*Tech. Officer: GSFC/J BOHLIN*  
*CASE Category: 13 - PHYSICS*

**NAG 5 4775 UNIV OF CALIFORNIA - SAN DIEGO 2534**  
 AN INTEGRATED SYSTEM FOR WATER BUDGET CLOSURE OVER MASS: A  
 TRMM VALIDATION EFFORT  
 07/15/1997 - 06/30/2001 FY01: \$0 Total: \$173,000  
*Prin. Invest.: J O ROADS*  
*Tech. Officer: GSFC/O W THIELE*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 4938 UNIV OF CALIFORNIA - SAN DIEGO 2535**  
 MICRO-DETECTION SYSTEM FOR DETERMINATION OF THE BI OF AMINO  
 ACIDS  
 06/23/1997 - 05/31/2001 FY01: \$0 Total: \$130,000  
*Prin. Invest.: P L BADA*  
*Tech. Officer: GSFC/B CAMPBELL*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NAG 5 5111 UNIV OF CALIFORNIA - SAN DIEGO 2536**  
 BALLOON-BORNE HIGH ENERGY X-RAY SPECTROMETER (HEXIS) BASED  
 ON CZT TECHNOLOGY  
 04/07/1997 - 04/30/2001 FY01: \$0 Total: \$1,072,750  
*Prin. Invest.: J L MATTESON*  
*Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT*  
*CASE Category: 13 - PHYSICS*

**NAG 5 5176 UNIV OF CALIFORNIA - SAN DIEGO 2537**  
 GLOBAL BATHYMETRIC PREDICTION FOR OCEAN MODELING A  
 07/17/1997 - 07/14/2001 FY01: \$0 Total: \$148,524  
*Prin. Invest.: D T SANDWELL*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NAG 5 5266 UNIV OF CALIFORNIA - SAN DIEGO 2538**  
 CRYOGENIC WHOLE AIR SAMPLING OF CARBON DIOXIDE IN THE UPPER  
 ATMOSPHERE  
 06/01/2000 - 05/24/2003 FY01: \$55,900 Total: \$106,600  
*Prin. Invest.: M H THIEMENS*  
*Tech. Officer: GSFC/J C BRINTON*  
*CASE Category: 13 - PHYSICS*

**NAG 5 5287 UNIV OF CALIFORNIA - SAN DIEGO 2539**  
 BALLOON-BORNE HIGH ENERGY X-RAY IMAGING SPECTROMETER  
 (HEXIS) BASED ON CZT TECHNOLOGY  
 05/31/2000 - 05/17/2003 FY01: \$0 Total: \$145,000  
*Prin. Invest.: J L MATTESON*  
*Tech. Officer: GSFC/B A MERRITT*  
*CASE Category: 13 - PHYSICS*

**NAG 5 5332 UNIV OF CALIFORNIA - SAN DIEGO 2540**  
 FULL FUNDING FOR THE 1ST YEAR, GRANT AMOUNT IS 70K , PI:LINGEN-  
 FELTERTITLE: NEW THEORETICAL STUD  
 05/30/2001 - 02/28/2004 FY01: \$70,000 Total: \$70,000  
*Prin. Invest.: D LINGENFELTER*  
*Tech. Officer: WFF/B MERRITT*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 6135 UNIV OF CALIFORNIA - SAN DIEGO 2541**  
 VALIDATING THE USEFULNESS OF THE COMBINED GMS & GO FOR LONG-  
 TERM GLOBAL CLIMATE CHANGE STUDIES  
 08/13/1997 - 06/30/2001 FY01: \$0 Total: \$485,000  
*Prin. Invest.: J J SIMPSON*  
*Tech. Officer: GSFC/J C DODGE*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 6149 UNIV OF CALIFORNIA - SAN DIEGO 2542**  
 OCEAN TIDE LOADING COMPUTATION  
 08/21/1997 - 08/31/2001 FY01: \$0 Total: \$41,810  
*Prin. Invest.: D C AGNEW*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NAG 5 6150**      **UNIV OF CALIFORNIA - SAN DIEGO**      **2543**  
 SEAFLOOR GEODETIC MONITORING USING GPS AND ACOUSTI ATION TO  
 NATURAL HAZARDS ON THE SE FLANK OF HAWAI  
 08/21/1997 - 08/31/2000      FY01: \$0      Total: \$524,757  
*Prin. Invest.: J B RAND*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 6179**      **UNIV OF CALIFORNIA - SAN DIEGO**      **2544**  
 CONTINUOUS REMOTE MEASUREMENTS OF ATMOSPHERIC O2 C RELA  
 TION TO INTERANNUAL VARIATIONS IN BIOLOGICAL  
 08/19/1997 - 08/14/2001      FY01: \$0      Total: \$407,349  
*Prin. Invest.: R KEELING*  
*Tech. Officer: GSFC/J A YODER*  
*CASE Category: 33 – OCEANOGRAPHY*

**NAG 5 6202**      **UNIV OF CALIFORNIA - SAN DIEGO**      **2545**  
 EFFECTS OF WHITECAPS ON SATELLITE-DERIVED OCEAN COLOR  
 10/02/1997 - 12/31/2000      FY01: \$0      Total: \$490,000  
*Prin. Invest.: R FROUIN*  
*Tech. Officer: GSFC/J A YODER*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 6375**      **UNIV OF CALIFORNIA - SAN DIEGO**      **2546**  
 BIOGEOCHEMICAL RESPONSE TO MESOSCALE PHYSICAL FORC ING IN  
 THE CALIFORNIA CURRENT SYSTEM  
 10/03/1997 - 03/31/2001      FY01: \$0      Total: \$424,978  
*Prin. Invest.: P NILLER*  
*Tech. Officer: GSFC/J A YODER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 6414**      **UNIV OF CALIFORNIA - SAN DIEGO**      **2547**  
 MODELING UV-B EFFECTS ON PRIMARY PRODUCTION THROUG HOUT THE  
 SOUTHERNOCEAN USING MULTI-SENSOR SA  
 10/29/1997 - 10/31/2001      FY01: \$0      Total: \$396,868  
*Prin. Invest.: D LUBIN*  
*Tech. Officer: GSFC/K ARRIGO*  
*CASE Category: 54 – ENVIRONMENTAL BIOLOGY*

**NAG 5 6466**      **UNIV OF CALIFORNIA - SAN DIEGO**      **2548**  
 OPTICAL AND ANCILLARY MEASUREMENTS AT HIGH LATITUD ES IN  
 SUPPORT OFTHE MODIS OCEAN VALIDATION  
 11/04/1997 - 09/30/2001      FY01: \$0      Total: \$224,288  
*Prin. Invest.: D STRAMSKI*  
*Tech. Officer: GSFC/D STARR*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 6497**      **UNIV OF CALIFORNIA - SAN DIEGO**      **2549**  
 PREDICTABILITY OF THE CALIFORNIA CURRENT SYSTEM  
 10/08/1997 - 10/14/2001      FY01: \$0      Total: \$633,198  
*Prin. Invest.: D MILLER*  
*Tech. Officer: GSFC/E LINDSTORM*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 6559**      **UNIV OF CALIFORNIA - SAN DIEGO**      **2550**  
 SEASONAL TO DECADAL-SCALE VARIABILITY IN SATELLITE OCEAN  
 COLOR AND SEA SURFACE TEMPERATURE FOR THE  
 10/27/1997 - 04/30/2001      FY01: \$0      Total: \$352,860  
*Prin. Invest.: B MITCHELL*  
*Tech. Officer: GSFC/J YODER*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 6668**      **UNIV OF CALIFORNIA - SAN DIEGO**      **2551**  
 SOUTHERN OCEAN SEASONAL NET PRODUCTION FROM ATMOSPHERE  
 AND OCEANDATASETS  
 11/26/1997 - 06/30/2001      FY01: \$0      Total: \$311,173  
*Prin. Invest.: R F KEELING*  
*Tech. Officer: GSFC/J CAMPBELL*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 6947**      **UNIV OF CALIFORNIA - SAN DIEGO**      **2552**  
 NUMERICAL AND ANALYTICAL STUDIES OF THE SHOCKED SOLAR WIND  
 INTERACTION WITH THE DAYSIDE MANTLE OF V  
 02/26/1998 - 03/31/2002      FY01: \$0      Total: \$235,914  
*Prin. Invest.: K QUEST*  
*Tech. Officer: GSFC/D EVANS*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7000**      **UNIV OF CALIFORNIA - SAN DIEGO**      **2553**  
 HIGH RESOLUTION STUDY OF THE X-RAY TURN-ON IN HER X-1  
 02/06/1998 - 08/14/2001      FY01: \$0      Total: \$14,739  
*Prin. Invest.: D GRUBER*  
*Tech. Officer: GSFC/J SWANK*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7045**      **UNIV OF CALIFORNIA - SAN DIEGO**      **2554**  
 THEORETICAL STUDIES IN COSMIC RAY AND GAMMA RAY AS TROPHYSICS  
 AND LIGHT ELEMENT NUCLEOSYNTHESIS –  
 03/18/1998 - 02/28/2001      FY01: \$0      Total: \$188,290  
*Prin. Invest.: R E LINGENFELTER*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7096**      **UNIV OF CALIFORNIA - SAN DIEGO**      **2555**  
 ANOMALOUS HEAT BUDGETS IN INTERIOR PACIFIC OCEAN ON SEASONAL  
 TO INTERANNUAL TIMESCALES  
 05/27/1998 - 03/31/2002      FY01: \$33,470      Total: \$379,886  
*Prin. Invest.: W WHITE*  
*Tech. Officer: GSFC/E LINDSTROM*  
*CASE Category: 33 – OCEANOGRAPHY*

**NAG 5 7100**      **UNIV OF CALIFORNIA - SAN DIEGO**      **2556**  
 OPTICAL MEASUREMENTS AND MODELING TO ESTIMATE CONC ENTRA  
 TIONS AND FLUXES OF ORGANIC MATTER IN THE SO  
 06/04/1998 - 05/31/2001      FY01: \$0      Total: \$469,864  
*Prin. Invest.: D STRAMSKI*  
*Tech. Officer: GSFC/J W CAMPBELL*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 7119**      **UNIV OF CALIFORNIA - SAN DIEGO**      **2557**  
 ANALYSIS OF SKY FLUCTUATIONS FROM HEXTE III; EXAMI NATION OF THE  
 CYCLOTRON LINES IN THE SPECTRUM OF  
 04/16/1998 - 03/31/2001      FY01: \$0      Total: \$26,128  
*Prin. Invest.: D E GRIBER*  
*Tech. Officer: GSFC/K SWANK*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7295**      **UNIV OF CALIFORNIA - SAN DIEGO**      **2558**  
 CORONAL RECONSTRUCTION USING LASCO AND UVCS OBSERVATIONS  
 04/13/1998 - 10/31/1999      FY01: -\$108      Total: \$79,892  
*Prin. Invest.: P HICK*  
*Tech. Officer: GSFC/W WAGNER*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7362** UNIV OF CALIFORNIA - SAN DIEGO 2559  
 ASCA PROPOSAL - ASCA AND HST OBSERVATIONS OF BL LA C 0236+164  
 AND THE INTERVENING SYSTEM  
 05/05/1998 - 04/30/2002 FY01: \$0 Total: \$14,000  
*Prin. Invest.: R D COHEN*  
*Tech. Officer: GSFC/N WHITE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 7612** UNIV OF CALIFORNIA - SAN DIEGO 2560  
 IMPROVED SPECTRAL CHARACTERIZATION OF THE GEOMAGNETIC FIELD(SENH98-0124)  
 07/24/1998 - 05/31/2002 FY01: \$37,000 Total: \$224,000  
*Prin. Invest.: R L PARKER*  
*Prin. Invest.: NONE*  
*Tech. Officer: GSFC/H B FREY*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NAG 5 7614** UNIV OF CALIFORNIA - SAN DIEGO 2561  
 FUNDING FOR "EARTH CONDUCTIVITY FROM SATELLITE MAGNETIC DATA"(SENH98-0123)  
 07/24/1998 - 07/14/2002 FY01: \$42,000 Total: \$254,000  
*Prin. Invest.: C G CONSTABLE*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NAG 5 7637** UNIV OF CALIFORNIA - SAN DIEGO 2562  
 CO2 BUDGET AND ATMOSPHERIC RECTIFICATION OVER NORTH AMERICA (CO2BAR)  
 11/30/1998 - 11/30/2001 FY01: \$20,000 Total: \$65,000  
*Prin. Invest.: R F KEELING*  
*Tech. Officer: GSFC/D E WICKLANS*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 7653** UNIV OF CALIFORNIA - SAN DIEGO 2563  
 QUANTITATIVE ASSESSMENT OF THE INTEGRATED RESPONSE IN GLOBAL HEAT AND MOISTURE BUDGETS TO CHANGING  
 08/25/1998 - 08/31/2001 FY01: \$0 Total: \$210,000  
*Prin. Invest.: W WHITE*  
*Tech. Officer: HQ/D EVANS*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 7836** UNIV OF CALIFORNIA - SAN DIEGO 2564  
 CORONAL SPEEDS DETERMINED FROM CORRELATION TECHNIQUES APPLIED TO LASCO IMAGES  
 12/14/1998 - 12/14/2000 FY01: \$0 Total: \$80,000  
*Prin. Invest.: B V JACKSON*  
*Tech. Officer: GSFC/J GURMAN*  
*CASE Category: 19 - PHYSICAL SCIENCE, OTHER*

**NAG 5 7887** UNIV OF CALIFORNIA - SAN DIEGO 2565  
 SPECTRAL TESTS OF THE HOMOGENEITY OF BRIGHT GRBS  
 12/02/1998 - 11/30/1999 FY01: \$0 Total: \$5,000  
*Prin. Invest.: J SISTERSON*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 8167** UNIV OF CALIFORNIA - SAN DIEGO 2566  
 FRAGMENTARY SOLAR SYSTEM HISTORY  
 02/10/1999 - 01/31/2002 FY01: \$120,000 Total: \$359,000  
*Prin. Invest.: D MARTI*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 8172** UNIV OF CALIFORNIA - SAN DIEGO 2567  
 ISOTOPIC, CHEMICAL AND MINERALOGICAL INVESTIGATION OF EXTRATERRESTRIAL MATERIALS  
 02/24/1999 - 02/28/2002 FY01: \$280,000 Total: \$775,000  
*Prin. Invest.: G W LUNGMAIR*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 8180** UNIV OF CALIFORNIA - SAN DIEGO 2568  
 ADVANCED GLOBAL ATMOSPHERIC GASES EXPERIMENT (AGAGE)  
 02/12/1999 - 12/31/2001 FY01: \$86,003 Total: \$264,192  
*Prin. Invest.: R F WEISS*  
*Tech. Officer: GSFC/P DECOLA*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 8252** UNIV OF CALIFORNIA - SAN DIEGO 2569  
 ANTARCTIC ULTRAVIOLET RADIATION CLIMATOLOGY FROM THE TOTAL ZONE MAPPING SPECTROMETER  
 02/19/1999 - 02/28/2002 FY01: \$95,000 Total: \$285,000  
*Prin. Invest.: D LUBIN*  
*Tech. Officer: GSFC/J R HERMAN*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 8272** UNIV OF CALIFORNIA - SAN DIEGO 2570  
 A SEARCH FOR EXTRASOLAR PLANETS IN OPEN CLUSTERS  
 03/05/1999 - 02/28/2002 FY01: \$49,000 Total: \$133,400  
*Prin. Invest.: D GUIRRENBACK*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 8292** UNIV OF CALIFORNIA - SAN DIEGO 2571  
 SEASONAL ATMOSPHERIC AND OCEANIC PREDICTIONS  
 02/25/1999 - 02/28/2002 FY01: \$140,000 Total: \$420,000  
*Prin. Invest.: J O ROADS*  
*Tech. Officer: GSFC/M REINECKER*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 8322** UNIV OF CALIFORNIA - SAN DIEGO 2572  
 BAYESIAN HIERARCHICAL AIR-SEA INTERACTION MODELING: APPLICATION TO THE LABRADOR SEA  
 04/13/1999 - 05/31/2002 FY01: \$6,322 Total: \$62,574  
*Prin. Invest.: P NILER*  
*Tech. Officer: GSFC/E LINDSTROM*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 8351** UNIV OF CALIFORNIA - SAN DIEGO 2573  
 THE APPLICATION OF JASON-1 MEASUREMENTS TO ESTIMATE THE GLOBAL NEARSURFACE OCEAN CIRCULATION F  
 03/01/1999 - 03/31/2002 FY01: \$102,000 Total: \$354,000  
*Prin. Invest.: P P NILER*  
*Tech. Officer: GSFC/C KOBLYNSKY*  
*CASE Category: 33 - OCEANOGRAPHY*

**NAG 5 8498** UNIV OF CALIFORNIA - SAN DIEGO 2574  
 THE HIGH ENERGY X-RAY IMAGING SURVEY (HEXIS)  
 05/27/1999 - 11/30/2001 FY01: \$0 Total: \$755,000  
*Prin. Invest.: R E ROTHSCHILD*  
*Tech. Officer: GSFC/L KALUZIENSKI*  
*CASE Category: 49 - ENGINEERING, OTHER*

**NAG 5 8504 UNIV OF CALIFORNIA - SAN DIEGO 2575**  
 RECONSTRUCTION OF THE PLASMA DISTRIBUTION IN CORON A AND HELIOSPHERER  
 05/11/1999 – 04/30/2002 FY01: \$129,251 Total: \$249,053  
*Prin. Invest.: B V JACKSON*  
*Tech. Officer: GSFC/W WAGNER*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8551 UNIV OF CALIFORNIA - SAN DIEGO 2576**  
 ORGANIC CONSTITUENTS OF SHORT-PERIOD COMETS  
 06/04/1999 – 05/31/2001 FY01: \$0 Total: \$144,722  
*Prin. Invest.: M N FOMENKOVA*  
*Tech. Officer: GSFC/M MEYER*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8610 UNIV OF CALIFORNIA - SAN DIEGO 2577**  
 ANALYSIS & INTERPRETATION OF LUNAR PROSPECTOR GRS/ NS DATA  
 06/10/1999 – 06/30/2000 FY01: \$0 Total: \$15,000  
*Prin. Invest.: J R ARNOLD*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8623 UNIV OF CALIFORNIA - SAN DIEGO 2578**  
 NUMERICAL CLIMATE OBSERVING NETWORK DESIGN STUDY  
 08/09/1999 – 08/31/2002 FY01: \$147,924 Total: \$341,722  
*Prin. Invest.: D STAMMER*  
*Tech. Officer: GSFC/E LINDSTROM*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8731 UNIV OF CALIFORNIA - SAN DIEGO 2579**  
 ADVANCED CADMIUM-ZINC-TELLURIDE DETECTORS FOR RESE ARCH IN ASTROPHYSICS  
 08/17/1999 – 08/14/2002 FY01: \$103,315 Total: \$260,577  
*Prin. Invest.: J L MATTESON*  
*Tech. Officer: GSFC/F A HERRERO*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8768 UNIV OF CALIFORNIA - SAN DIEGO 2580**  
 DYNAMIC HUMAN-CENTERED INTERFACES: MONITORING ATTE NTIONAL PROCESSES IN CONTROL OF CRITICAL SYSTEMS  
 08/26/1999 – 08/31/2001 FY01: \$116,334 Total: \$315,345  
*Prin. Invest.: T JUNG*  
*Tech. Officer: GSFC/R CROUCH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 8780 UNIV OF CALIFORNIA - SAN DIEGO 2581**  
 ROUTINE HIGH-RESOLUTION, ATMOSPHERIC FORCAST/ANALY SIS MODELING SYSTEMS FOR THE PACIFIC DISASTER CE  
 08/30/1999 – 08/31/2001 FY01: \$0 Total: \$575,555  
*Prin. Invest.: J ROADS*  
*Tech. Officer: GSFC/E PAYLOR*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8901 UNIV OF CALIFORNIA - SAN DIEGO 2582**  
 ESTIMATING THE OCEAN FLOW FIELD FROM COMBINED SEA SURFACE TEMPERATURE AND SEASURFACE HEIGHT DATA  
 01/04/2000 – 01/14/2002 FY01: \$18,380 Total: \$161,672  
*Prin. Invest.: D STAMMER*  
*Tech. Officer: GSFC/E LINDSTROM*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9005 UNIV OF CALIFORNIA - SAN DIEGO 2583**  
 ANALYSIS AND INTERPRETATION OF NEAR XGRS DATA  
 01/27/2000 – 01/31/2002 FY01: \$0 Total: \$15,000  
*Prin. Invest.: J R ARNOLD*  
*Tech. Officer: GSFC/T MORGAN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9036 UNIV OF CALIFORNIA - SAN DIEGO 2584**  
 MEASUREMENT OF ELECTRIC FIELDS WITH MULTIPLE SPREAD ELECTRON BEAMS  
 02/10/2000 – 02/14/2002 FY01: \$0 Total: \$92,500  
*Prin. Invest.: C MCILWAIN*  
*Tech. Officer: GSFC/J SHARBER*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9122 UNIV OF CALIFORNIA - SAN DIEGO 2585**  
 PROBING THE SPECTRAL EVOLUTION OF PARTICLES IN THE BLAZAR MKN 421 \_ADP99  
 03/07/2000 – 03/14/2002 FY01: \$0 Total: \$49,592  
*Prin. Invest.: R ROTHSCHILD*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9224 UNIV OF CALIFORNIA - SAN DIEGO 2586**  
 COSMOLOGICAL PARAMETERS FROM THE LYMAN-ALPHA FOREST (LTSA 99)  
 03/14/2000 – 03/14/2001 FY01: \$0 Total: \$87,973  
*Prin. Invest.: D TYTLER*  
*Tech. Officer: GSFC/R OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9247 UNIV OF CALIFORNIA - SAN DIEGO 2587**  
 THERMAL & NONTHERMAL COMPONENTS IN THE SPECTRA OF A2319 & A1367 FROM RXTE & SAX OBSERVATIONS (ADP 99)  
 03/14/2000 – 03/14/2002 FY01: \$0 Total: \$49,739  
*Prin. Invest.: Y REPHAEI*  
*Tech. Officer: GSFC/R OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9314 UNIV OF CALIFORNIA - SAN DIEGO 2588**  
 3-D GLOBAL KINETIC SIMULATIONS OF SOLAR WIND INTER ACTION WITH ASTEROIDS:DETERMINATION OF MAGNETIC P  
 03/23/2000 – 09/14/2001 FY01: \$0 Total: \$89,723  
*Prin. Invest.: N OMIDI*  
*Tech. Officer: GSFC/T MORGAN*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9423 UNIV OF CALIFORNIA - SAN DIEGO 2589**  
 TOMOGRAPHIC ANALYSIS AND VISUALIZATION OF REMOTELY -SENSED HELIOSPHERIC DATA  
 04/13/2000 – 04/30/2002 FY01: \$99,400 Total: \$197,400  
*Prin. Invest.: B V JACKSON*  
*Tech. Officer: GSFC/P HUNTER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9506 UNIV OF CALIFORNIA - SAN DIEGO 2590**  
 THE PIXON METHOD FOR DATA COMPRESSION, IMAGE CLASSIFICATION, AND IMAGE RECONSTRUCTION  
 04/26/2000 - 04/30/2002 FY01: \$0 Total: \$100,000  
*Prin. Invest.: R P PUETTER*  
*Tech. Officer: GSFC/J BREDEKAMP*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9566 UNIV OF CALIFORNIA - SAN DIEGO 2591**  
 EMERGENCE OF RNA AND EARLY LIFE; EXPERIMENTAL MODELING AND GEOCHEMICAL CONSTRAINTS  
 05/05/2000 - 05/14/2001 FY01: \$0 Total: \$80,000  
*Prin. Invest.: G ARRHENIUS*  
*Tech. Officer: GSFC/M MEYER*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 5 9623 UNIV OF CALIFORNIA - SAN DIEGO 2592**  
 TOPOGRAPHIC RECOVERY FROM SPACEBORN RADAR & LASER RANGING: VALIDATION & INVESTIGATION OF PLATE BOUNDARIES  
 06/12/2000 - 05/31/2002 FY01: \$40,000 Total: \$80,000  
*Prin. Invest.: D T SANDWELL*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 9659 UNIV OF CALIFORNIA - SAN DIEGO 2593**  
 MICRO-DETECTION SYSTEM FOR DETERMINATION OF THE BIOTIC OR ABIOTIC ORIGIN OF AMINO ACIDS  
 05/31/2000 - 05/31/2002 FY01: \$0 Total: \$100,000  
*Prin. Invest.: J L BADA*  
*Tech. Officer: GSFC/B BETTS*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9679 UNIV OF CALIFORNIA - SAN DIEGO 2594**  
 ISOTOPIC FRACTIONATION PROCESSES DURING PRE-SOLAR GRAIN FORMATION  
 06/15/2000 - 06/14/2001 FY01: \$0 Total: \$35,000  
*Prin. Invest.: M H THIEMENS*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9721 UNIV OF CALIFORNIA - SAN DIEGO 2595**  
 A PHYSICALLY BASED APPROACH TO CONSTRUCTION OF A CLIMATE-QUALITY SST RECORD FROM COMPLEMENTARY SP  
 06/22/2000 - 06/30/2002 FY01: \$157,500 Total: \$270,000  
*Prin. Invest.: J J SIMPSON, NONE*  
*Tech. Officer: GSFC/J DODGE*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9788 UNIV OF CALIFORNIA - SAN DIEGO 2596**  
 OCEAN CARBON FLUX: TRANSPORTS & BURIAL WITHIN THE WESTERN & EASTERN U.S. COASTAL ZONES  
 07/28/2000 - 07/31/2002 FY01: \$97,500 Total: \$191,250  
*Prin. Invest.: A MILLER*  
*Tech. Officer: GSFC/E LINSTROM*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9825 UNIV OF CALIFORNIA - SAN DIEGO 2597**  
 RXTE OBSERVATIONS OF AGN (ADP 99)  
 08/15/2000 - 08/14/2001 FY01: \$0 Total: \$20,000  
*Prin. Invest.: P R BLANCO*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10065 UNIV OF CALIFORNIA - SAN DIEGO 2598**  
 INVESTIGATING THE GROUNDING ZONE & TIDAL RESPONSE OF THE AMERY ICE SHELF, EAST ANTARCTICA, USING  
 11/20/2000 - 11/30/2001 FY01: \$63,619 Total: \$63,619  
*Prin. Invest.: D SANDWELL*  
*Tech. Officer: GSFC/K PARTINGTON*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10276 UNIV OF CALIFORNIA - SAN DIEGO 2599**  
 SEASONAL TO DECADAL-SCALE VARIABILITY IN SATELLITE OCEAN COLOR & SEA SURFACE TEMPERATURE FOR CALIFORNIA  
 01/19/2001 - 04/30/2002 FY01: \$111,000 Total: \$111,000  
*Prin. Invest.: B MITCHELL*  
*Tech. Officer: GSFC/J MARRA*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10487 UNIV OF CALIFORNIA - SAN DIEGO 2600**  
 ISOTOPIC FRACTIONATION PROCESSES DURING PRE-SOLAR GRAIN FORMATION  
 02/27/2001 - 04/30/2002 FY01: \$35,000 Total: \$35,000  
*Prin. Invest.: M H THIEMENS*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10644 UNIV OF CALIFORNIA - SAN DIEGO 2601**  
 PENETRATION OF UV RADIATION IN THE EARTH'S OCEANS (YR 1 OF 3)  
 03/21/2001 - 03/31/2002 FY01: \$87,554 Total: \$87,554  
*Prin. Invest.: G MITCHELL*  
*Tech. Officer: GSFC/J R HERMAN*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 10667 UNIV OF CALIFORNIA - SAN DIEGO 2602**  
 NITROGEN, CARBON AND PHOSPHATE IN THE OLDEST PRESEVED CRUST OF THE EARTH  
 03/21/2001 - 03/31/2002 FY01: \$125,500 Total: \$125,500  
*Prin. Invest.: G ARRHENIUS*  
*Tech. Officer: GSFC/M MEYER*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10669 UNIV OF CALIFORNIA - SAN DIEGO 2603**  
 NATIONAL SUMMIT ON INNOVATION WEBCAST  
 03/23/2001 - 03/31/2002 FY01: \$94,285 Total: \$94,285  
*Prin. Invest.: E FURTEK*  
*Tech. Officer: GSFC/J GASCH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10691 UNIV OF CALIFORNIA - SAN DIEGO 2604**  
 A UNIFORM STUDY OF X-RAY PULSAR MAGNETIC FIELDS  
 04/09/2001 - 04/14/2002 FY01: \$67,669 Total: \$67,669  
*Prin. Invest.: W HEINDL*  
*Tech. Officer: GSFC/R OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10737 UNIV OF CALIFORNIA - SAN DIEGO 2605**  
 TIME SERIES OF CONTINUOUS MEASUREMENTS OF ATMOSPHERIC O2 AND CO2 CONCENTRATIONS FOR ELUCIDATING  
 04/20/2001 - 04/30/2002 FY01: \$238,308 Total: \$238,308  
*Prin. Invest.: R KEELING*  
*Tech. Officer: GSFC/J MARRA*  
*CASE Category: 33 - OCEANOGRAPHY*

**NAG 5 10871 UNIV OF CALIFORNIA - SAN DIEGO 2606**  
 NONTHERMAL PHENOMENA IN CLUSTERS OF GALAXIES (LTSA 2000)  
 05/10/2001 - 05/31/2002 FY01: \$58,954 Total: \$58,954  
*Prin. Invest.: Y REPHAEILI, NONE*  
*Tech. Officer: GSFC/R OLIVERSON*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10874 UNIV OF CALIFORNIA - SAN DIEGO 2607**  
 SOLAR WIND FLOWS FROM ACTIVE REGIONS  
 05/14/2001 - 05/31/2002 FY01: \$80,102 Total: \$80,102  
*Prin. Invest.: P HICK*  
*Tech. Officer: GSFC/J GURMAN*  
*CASE Category: 19 - PHYSICAL SCIENCE, OTHER*

**NAG 5 10886 UNIV OF CALIFORNIA - SAN DIEGO 2608**  
 STATE TRANSITIONS AND QPOS IN X-RAY TRANSIENTS (ADP 00)  
 05/03/2001 - 05/14/2002 FY01: \$37,558 Total: \$37,558  
*Prin. Invest.: J TOMSICK*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10968 UNIV OF CALIFORNIA - SAN DIEGO 2609**  
 THE RESPONSE TO CZT DETECTORS TO X-RAYS  
 06/06/2001 - 06/14/2002 FY01: \$51,827 Total: \$51,827  
*Prin. Invest.: R E ROTHSCHILD*  
*Tech. Officer: GSFC/F HERRERO*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10993 UNIV OF CALIFORNIA - SAN DIEGO 2610**  
 KINETIC INTERACTION OF THE PLASMA MANTLES OF UNMAGNETIZED PLANETS WITH THE SOLAR WIND  
 05/31/2001 - 05/31/2002 FY01: \$39,000 Total: \$39,000  
*Prin. Invest.: K QUEST*  
*Tech. Officer: GSFC/J SHARBER*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 11123 UNIV OF CALIFORNIA - SAN DIEGO 2611**  
 MODEL HELIOSPHERIC DISTURBANCE PROPAGATION USING REMOTE SENSING OBSERVATIONS  
 07/18/2001 - 07/14/2002 FY01: \$100,000 Total: \$100,000  
*Prin. Invest.: B V JACKSON*  
*Tech. Officer: GSFC/W J WAGNER*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 11217 UNIV OF CALIFORNIA - SAN DIEGO 2612**  
 USE OF ATMOSPHERIC CO2, VEGETATIVE INDEX, AND DAILY CLIMATIC DATA IN A COORDINATED DIAGNOSTIC INVE  
 08/13/2001 - 08/31/2004 FY01: \$241,182 Total: \$241,182  
*Prin. Invest.: C KEELING*  
*Tech. Officer: GSFC/D E WICKLAND*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 8 1516 UNIV OF CALIFORNIA - SAN DIEGO 2613**  
 VARIABILITY AND PREDICTABILITY OF LAND-ATMOSPHERE OBSERVATIONAL AND MODELING STUDIES  
 05/12/1998 - 04/30/2002 FY01: \$0 Total: \$161,023  
*Prin. Invest.: J ROADS*  
*Tech. Officer: MSFC/J ARNOLD*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 8 1571 UNIV OF CALIFORNIA - SAN DIEGO 2614**  
 CARTILAGE TISSUE ENGINEERING: CIRCUMFERENTIAL SEEDING OF CHONDROCYTES USING ROTATING BIOREACTORS  
 01/12/1999 - 11/30/2002 FY01: \$141,550 Total: \$402,550  
*Prin. Invest.: R L SAH*  
*Tech. Officer: JSC/D R MORRISON*  
*CASE Category: 56 - MEDICAL*

**NAG 8 1589 UNIV OF CALIFORNIA - SAN DIEGO 2615**  
 NOVEL STRATEGY FOR TRI-DIMENSIONAL IN VITRO BONE INDUCTION  
 02/25/1999 - 11/30/2002 FY01: \$120,650 Total: \$333,650  
*Prin. Invest.: J A FRANGOS*  
*Tech. Officer: MSFC/B GUYNES*  
*CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)*

**NAG 9 1002 UNIV OF CALIFORNIA - SAN DIEGO 2616**  
 DETERMINING OXYGEN BLANK & SUITABILITY CVD DIAMOND  
 04/30/1998 - 05/31/2002 FY01: \$54,000 Total: \$394,000  
*Prin. Invest.: M H THIEMENS*  
*Tech. Officer: JSC/E K STANSBERY*  
*CASE Category: 19 - PHYSICAL SCIENCE, OTHER*

**NAS 1 98141 UNIV OF CALIFORNIA - SAN DIEGO 2617**  
 A STUDY OF CLOUD RADIATIVE FORCING AND FEEDBACK (CERES)  
 10/30/1998 - 10/29/2002 FY01: \$246,563 Total: \$701,579  
*Prin. Invest.: V RAMANATHAN*  
*Tech. Officer: LARC/B A WIELICKI, LARC/R L HUFFMAN*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAS 5 00194 UNIV OF CALIFORNIA - SAN DIEGO 2618**  
 SIMBIOS II - SATELLITE OCEAN COLOR VALIDATION USING  
 01/23/2001 - 11/30/2001 FY01: \$200,742 Total: \$200,742  
*Prin. Invest.: R FROUIN*  
*Tech. Officer: GSFC/C R MCCAIN*  
*CASE Category: 33 - OCEANOGRAPHY*

**NAS 5 01002 UNIV OF CALIFORNIA - SAN DIEGO 2619**  
 SIMBIOS II-BIO OPTICAL MEASUREMENT AND MODELING OF THE NORTH PACIFIC & SOUTHERN OCEANS  
 01/23/2001 - 11/30/2001 FY01: \$276,619 Total: \$276,619  
*Prin. Invest.: B G MITCHELL*  
*Tech. Officer: GSFC/C R MCCLAIN*  
*CASE Category: 33 - OCEANOGRAPHY*

**NAS 5 30720 UNIV OF CALIFORNIA - SAN DIEGO 2620**  
 HIGH ENERGY X-RAY TIMING EXPERIMENT FOR XTE PROJECT  
 11/01/1989 - 09/30/2002 FY01: \$460,000 Total: \$30,488,322  
*Prin. Invest.: R E ROTHSCHILD*  
*Tech. Officer: GSFC/W D DAVIS*  
*CASE Category: 11 - ASTRONOMY*

**NAS 5 97121**      **UNIV OF CALIFORNIA - SAN DIEGO**      **2621**  
 PULSE SHAPE DISCRIMINATOR FOR INTEGRAL SPECTROMETER (LETTER CONTRACT)  
 01/24/1997 - 09/30/2001      FY01: \$556,956      Total: \$5,706,068  
*Prin. Invest.: J L MATTESON, R P LIN*  
*Tech. Officer: GSFC/J P MURPHY*  
*CASE Category: 11 - ASTRONOMY*

**NAS 5 97130**      **UNIV OF CALIFORNIA - SAN DIEGO**      **2622**  
 BIO-OPTIONAL MEASUREMENT-MODELING OF CA CURRENT & POLAR OCEAN  
 08/18/1997 - 11/30/2000      FY01: \$0      Total: \$858,048  
*Prin. Invest.: B G MITCHELL*  
*Tech. Officer: GSFC/C R MCCLAIN*  
*CASE Category: 33 - OCEANOGRAPHY*

**NAS 5 97135**      **UNIV OF CALIFORNIA - SAN DIEGO**      **2623**  
 SATELLITE OCEAN COLOR VALIDATION USING MERCHANT SHIP  
 09/22/1997 - 11/30/2000      FY01: \$0      Total: \$486,989  
*Prin. Invest.: R FROUIN*  
*Tech. Officer: GSFC/J L MUELLER*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAS 5 97139**      **UNIV OF CALIFORNIA - SAN DIEGO**      **2624**  
 RESEARCH--ATMOSPHERIC CORRECTION ALGORITHMS FOR OCEAN COLOR REMOTE SENSING  
 09/23/1997 - 05/22/2000      FY01: \$0      Total: \$220,000  
*Prin. Invest.: K STAMNES*  
*Tech. Officer: GSFC/J MUELLER*  
*CASE Category: 33 - OCEANOGRAPHY*

**NAS 5 99006**      **UNIV OF CALIFORNIA - SAN DIEGO**      **2625**  
 GLAS SCIENCE TEAM LEADER.  
 11/25/1998 - 12/01/2002      FY01: \$370,000      Total: \$900,000  
*Prin. Invest.: J B MINSTER*  
*Tech. Officer: GSFC/G SMITH*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAS 5 99120**      **UNIV OF CALIFORNIA - SAN DIEGO**      **2626**  
 TRIANA SCIENCE INVESTIGATION  
 12/09/1998 - 09/30/2003      FY01: \$2,646,852      Total: \$25,585,524  
*Prin. Invest.: F VALCRO*  
*Tech. Officer: GSFC/J WATZIM, GSFC/C TOOLEY*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAS 9 98124**      **UNIV OF CALIFORNIA - SAN DIEGO**      **2627**  
 EFFECT OF EVA & LONG-TERM EXPOSURE TO MICROGRAVITY ON PULMONARY FUNCTION  
 03/02/1999 - 06/30/2003      FY01: \$379,083      Total: \$1,344,412  
*Prin. Invest.: J B WEST*  
*Tech. Officer: JSC/S M MCCULLUM*  
*CASE Category: 59 - LIFE SCIENCE, OTHER*

**NCC 2 978**      **UNIV OF CALIFORNIA - SAN DIEGO**      **2628**  
 NONINVASIVE MEASUREMENT OF INTERCRANIAL PRESSURE U SING ULTRASOUND  
 02/04/1997 - 12/31/1999      FY01: \$0      Total: \$609,667  
*Prin. Invest.: R A PEDOWITZ*  
*Tech. Officer: ARC/C M WINGET, ARC/G C JAHNS*  
*CASE Category: 56 - MEDICAL*

**NCC 2 1133**      **UNIV OF CALIFORNIA - SAN DIEGO**      **2629**  
 LOWER BODY NEGATIVE PRESSURE AS A COUNTERMEASURE F OR SPACEFLIGHT DECONDITIONING  
 08/02/1999 - 04/30/2002      FY01: \$88,000      Total: \$632,363  
*Prin. Invest.: A R HARGENS*  
*Tech. Officer: ARC/E M HOLTON*  
*CASE Category: 56 - MEDICAL*

**NCC 2 1196**      **UNIV OF CALIFORNIA - SAN DIEGO**      **2630**  
 NON-INVASIVE INTRACRANIAL PRESSURE MEASUREMENT FOR SPACE FLIGHT - SPACE PHYSIOLOGY & COUNTERMEASURE  
 09/29/2000 - 04/30/2002      FY01: \$40,000      Total: \$117,000  
*Prin. Invest.: C ROGERS*  
*Tech. Officer: ARC/E M HOLTON, ARC/B P DALTON*  
*CASE Category: 56 - MEDICAL*

**NCC 2 5302**      **UNIV OF CALIFORNIA - SAN DIEGO**      **2631**  
 TECHNOLOGY FOR MOLECULAR-LEVEL COMPUTER MODELING O F PROTOCELLULAR  
 12/22/1998 - 10/14/2000      FY01: \$0      Total: \$153,259  
*Prin. Invest.: V GALINSKY*  
*Tech. Officer: ARC/A POHORILLE, ARC/M H NEW*  
*CASE Category: 29 - MATH/COMPUTER SCI, OTHER*

**NCC 2 5448**      **UNIV OF CALIFORNIA - SAN DIEGO**      **2632**  
 ADVANCE ALGORITHMS FOR MOLECULAR-LEVEL COMPUTER MO DELING OF PROTOCELLULAR SYSTEMS  
 08/03/2001 - 01/31/2002      FY01: \$47,656      Total: \$47,656  
*Prin. Invest.: V GALLINSKY*  
*Tech. Officer: ARC/M H NEW*  
*CASE Category: 29 - MATH/COMPUTER SCI, OTHER*

**NCC 3 506**      **UNIV OF CALIFORNIA - SAN DIEGO**      **2633**  
 STRETCHED DIFFUSION FLAMES IN VON KARMAN SWIRLING FLOWS  
 09/25/1996 - 01/01/2001      FY01: \$0      Total: \$170,709  
*Prin. Invest.: F A WILLIAMS*  
*Tech. Officer: GRC/K R SACKSTEDER, GRC/H D ROSS*  
*CASE Category: 19 - PHYSICAL SCIENCE, OTHER*

**NCC 3 569**      **UNIV OF CALIFORNIA - SAN DIEGO**      **2634**  
 NEW APPROACHES FOR INTEGRALLY DAMPED COMPOSIT FAN BLADES  
 07/25/1997 - 10/17/2000      FY01: -\$25      Total: \$98,411  
*Prin. Invest.: J KOSMATKA*  
*Tech. Officer: GRC/O MEHMED*  
*CASE Category: 46 - MECHANICAL ENGR*

**NCC 3 693**      **UNIV OF CALIFORNIA - SAN DIEGO**      **2635**  
 HIGH-PRESSURE COMBUSTION OF BINARY FUEL SPRAYS HIGH-PRES-SURE COMBUSTION OF BINARY FUEL SPRAYS  
 03/25/1999 - 01/03/2003      FY01: \$44,446      Total: \$124,022  
*Prin. Invest.: F A WILLIAMS*  
*Tech. Officer: GRC/D L DIETRICH*  
*CASE Category: 49 - ENGINEERING, OTHER*

**NCC 3 695**      **UNIV OF CALIFORNIA - SAN DIEGO**      **2636**  
 DYNAMICS OF DROPLETS EXTINCTION IN SLOW CONVECTIVE FLOWS  
 03/25/1999 - 01/13/2003      FY01: \$7,847      Total: \$23,203  
*Prin. Invest.: F A WILLIAMS*  
*Tech. Officer: GRC/D L URBAN*  
*CASE Category: 49 - ENGINEERING, OTHER*

**NCC 3 769 UNIV OF CALIFORNIA - SAN DIEGO 2637**  
SCIENTIFIC SUPPORT FOR A PROPOSED SPACE SHUTTLE DR OPLET  
BURNING EXPERIMENT  
02/08/2000 - 12/13/2002 FY01: \$123,437 Total: \$242,437  
*Prin. Invest.: F A WILLIAMS*  
*Tech. Officer: GRC/D L URBAN*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 3 819 UNIV OF CALIFORNIA - SAN DIEGO 2638**  
INTEGRAL DAMPING OF A TRAILING EDGE BLOWING FAN BLADE  
07/31/2000 - 02/28/2001 FY01: \$0 Total: \$40,000  
*Prin. Invest.: D KOSMATKA*  
*Tech. Officer: GRC/O MEHMED*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 3 902 UNIV OF CALIFORNIA - SAN DIEGO 2639**  
STRUCTURAL ANALYSIS OF AN INTEGRAL DAMPED FAN STRUCTURAL  
ANALYSIS OF AN INTEGRAL DAMPED FAN  
07/13/2001 - 04/30/2002 FY01: \$79,194 Total: \$79,194  
*Prin. Invest.: D KOSMATKA*  
*Tech. Officer: GRC/O MEHMED*  
*CASE Category: 46 – MECHANICAL ENGR*

**NCC 5 230 UNIV OF CALIFORNIA - SAN DIEGO 2640**  
CORRELATED NOISE IN GPS TIME SERIES AND ITS EFFECT MODELS  
08/22/1997 - 08/31/2001 FY01: \$0 Total: \$92,292  
*Prin. Invest.: D C AGNEW*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NCC 5 257 UNIV OF CALIFORNIA - SAN DIEGO 2641**  
EARTHKAM (EARTH KNOWLEDGE ACQUIRED BY MIDDLE SCHOOLS)  
11/25/1997 - 10/31/2001 FY01: \$0 Total: \$2,274,999  
*Prin. Invest.: D K RIDE*  
*Tech. Officer: HQ/P MOUMLTJOY*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 5 540 UNIV OF CALIFORNIA - SAN DIEGO 2642**  
EARTHKAM BRIDGE FUNDING REQUEST  
02/20/2001 - 01/31/2002 FY01: \$500,000 Total: \$500,000  
*Prin. Invest.: S RIDE*  
*Tech. Officer: GSFC/P L MOUNTJOY*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 5 585 UNIV OF CALIFORNIA - SAN DIEGO 2643**  
INTERNATIONAL SPACE STATION MIDDLE SCHOOL EDUC./ISS EARTHKAM  
08/31/2001 - 08/31/2005 FY01: \$320,196 Total: \$320,196  
*Prin. Invest.: S RIDE*  
*Tech. Officer: GSFC/P MOUNTJOY*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 9 105 UNIV OF CALIFORNIA - SAN DIEGO 2644**  
CHARACTERIZATION OF AUTONOMIC FUNCTION  
02/21/2000 - 02/20/2003 FY01: \$21,608 Total: \$42,668  
*Prin. Invest.: P J MILLS*  
*Tech. Officer: JSC/J MECK*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NCC 9 106 UNIV OF CALIFORNIA - SAN DIEGO 2645**  
CHARACTERIZATION OF AUTONOMIC FUNCTION  
02/16/2000 - 03/31/2003 FY01: \$123,068 Total: \$243,188  
*Prin. Invest.: M G ZEIGLER*  
*Tech. Officer: JSC/J MECK*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NGT 2 52251 UNIV OF CALIFORNIA - SAN DIEGO 2646**  
ACHIEVING APPLICATION PERFORMANCE ON THE INFORMATION POWER  
GRID  
09/18/1998 - 03/31/2001 FY01: \$12,000 Total: \$66,000  
*Prin. Invest.: F BERMAN*  
*Tech. Officer: ARC/C H SCHULBACK*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NGT 3 52333 UNIV OF CALIFORNIA - SAN DIEGO 2647**  
GRADUATE STUDENT RESEARCHES PROGRAM  
06/11/1997 - 12/31/2000 FY01: -\$1,839 Total: \$64,161  
*Prin. Invest.: J KOSMATKA*  
*Tech. Officer: GRC/F J MONTEGANI*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NGT 4 52429 UNIV OF CALIFORNIA - SAN DIEGO 2648**  
CONTROL ORIENTED MODELING AND VALIDATION OF AEROSE RVOE-  
LASTIC SYSTEMS  
07/20/2001 - 06/30/2002 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: R D CALLAFON*  
*Tech. Officer: DFRC/K K GUPTA*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NGT 5 106 UNIV OF CALIFORNIA - SAN DIEGO 2649**  
THE INFLUENCES OF LIGHT ON PHYTOPLANKTON FLUORESCENCE AND  
PRODUCTIVITY (STUDENT: JESSICA NOLAN)  
05/30/2000 - 08/31/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.: B G MITCHELL, NONE*  
*Tech. Officer: GSFC/G A SOFFEN*  
*CASE Category: 33 – OCEANOGRAPHY*

**NGT 5 30122 UNIV OF CALIFORNIA - SAN DIEGO 2650**  
LONG-TERM VARIABILITY IN PHYTOPLANKTON GROWTH RATE S &  
PRIMARY PRODUCTIVITY (SSRF RECIPIENT: AMY SHAN)  
10/01/1997 - 08/31/2000 FY01: \$0 Total: \$66,000  
*Prin. Invest.: R GOERICKE*  
*Tech. Officer: GSFC/G ASRAR*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NGT 5 30368 UNIV OF CALIFORNIA - SAN DIEGO 2651**  
NEAR-FIELD FAULT DEFORMATION IN SOUTHERN CALIFORNIA AND BAJA,  
MEXICO FROM THE GLOBAL POSITIONING  
08/13/2001 - 08/31/2004 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: D SANDWELL*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 40007 UNIV OF CALIFORNIA - SAN DIEGO 2652**  
SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATIONAL COLLEGE  
AND FELLOWSHIP PROGRAM.  
01/24/1997 - 01/31/2001 FY01: \$0 Total: \$1,836,750  
*Prin. Invest.: J A ARNOLD*  
*Tech. Officer: GSFC/L KEFFER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 40085**      **UNIV OF CALIFORNIA - SAN DIEGO**      **2653**  
 CALIFORNIA SPACE GRANT COLLEGE & FELLOWSHIP PROGRAM  
 02/12/2001 - 01/31/2002      FY01: \$460,750      Total: \$460,750  
*Prin. Invest.: J ARNOLD*  
*Tech. Officer: GSFC/D D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50131**      **UNIV OF CALIFORNIA - SAN DIEGO**      **2654**  
 IMPROVING SCIENTIFIC APPLICATION PERFORMANCE BY DY  
 09/10/1997 - 06/30/2000      FY01: \$0      Total: \$66,000  
*Prin. Invest.: F BERMAN*  
*Tech. Officer: HQ/A NURRIDDIN*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50183**      **UNIV OF CALIFORNIA - SAN DIEGO**      **2655**  
 THREE ASTROPHYSICAL GRAILS: THE ORIGINS OF DARK MATTER, GAMMA-RAY BURSTS, AND HEAVY ELEMENTS  
 05/27/1998 - 06/30/2001      FY01: \$0      Total: \$66,000  
*Prin. Invest.: G M FULLER*  
*Tech. Officer: HQ/A NURRIDDIN*  
*CASE Category: 13 – PHYSICS*

**NGT 5 50234**      **UNIV OF CALIFORNIA - SAN DIEGO**      **2656**  
 PARADIGM SHIFTS IN THE GAMMA-RAY BURST MYSTERY AND COSMOLOGY: WORKING TOWARDS FIRM GROUND  
 05/27/1999 - 06/30/2001      FY01: \$0      Total: \$44,000  
*Prin. Invest.: G FULLER*  
*Tech. Officer: GSFC/L SMITH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 9 1261**      **UNIV OF CALIFORNIA - SAN FRANCISCO**      **2657**  
 TELOMERE REPAIR & CHROMOSOME INSTABILITY AFTER HIGH LINEAR ENERGY TRANSFER PARTICLE RADIATION  
 09/25/2000 - 07/31/2002      FY01: \$242,854      Total: \$291,425  
*Prin. Invest.: J P MURNANE, B FOULADI*  
*Tech. Officer: JSC/C W LLOYD*  
*CASE Category: 56 – MEDICAL*

**NAS 9 99055**      **UNIV OF CALIFORNIA - SAN FRANCISCO**      **2658**  
 LIFE SCIENCE FLIGHT EXPERIMENT  
 01/29/1999 - 12/31/2002      FY01: \$125,000      Total: \$355,000  
*Prin. Invest.: T LANG*  
*Tech. Officer: JSC/D BAUMANN*  
*CASE Category: 56 – MEDICAL*

**NCC 2 993**      **UNIV OF CALIFORNIA - SAN FRANCISCO**      **2659**  
 EVOLUTIONARY CELL COMPUTING  
 05/16/1997 - 06/30/2000      FY01: \$0      Total: \$158,786  
*Prin. Invest.: M A WILSON*  
*Tech. Officer: ARC/M H NEW, ARC/S CHANG*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NCC 2 1126**      **UNIV OF CALIFORNIA - SAN FRANCISCO**      **2660**  
 MEMBRANCE-BASED FUNCTIONS IN THE ORIGINS OF CELLULAR LIFE  
 06/14/1999 - 12/31/2001      FY01: \$100,622      Total: \$197,114  
*Prin. Invest.: M A WILSON*  
*Tech. Officer: ARC/M H NEW, ARC/M L FONDA*  
*CASE Category: 12 – CHEMISTRY*

**NCC 2 1194**      **UNIV OF CALIFORNIA - SAN FRANCISCO**      **2661**  
 DO INTEGRINS MEDIATE THE SKELETAL RESPONSES TO ALT ERRED LOADING IN VIVI? (SBUPROJECT A)  
 08/28/2000 - 09/30/2002      FY01: \$100,034      Total: \$199,422  
*Prin. Invest.: C H DAMSKY*  
*Tech. Officer: ARC/R K GLOBUS, ARC/E M HOLTON*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NCC 2 5294**      **UNIV OF CALIFORNIA - SAN FRANCISCO**      **2662**  
 MOLECULAR MODELING IN BIO-NANOTECHNOLOGY: COMPUTE R AIDED GENETIC ENGINEERING OF A PROTEIN-BASED ..  
 09/21/1998 - 09/30/2000      FY01: \$0      Total: \$147,817  
*Prin. Invest.: M A WILSON, NONE*  
*Tech. Officer: ARC/R L JAFFE*  
*CASE Category: 12 – CHEMISTRY*

**NCC 2 5295**      **UNIV OF CALIFORNIA - SAN FRANCISCO**      **2663**  
 TOWARDS A PHYLOGENY OF BIOLOGICAL FUNCTIONS  
 09/25/1998 - 03/31/2001      FY01: \$0      Total: \$175,533  
*Prin. Invest.: M A WILSON*  
*Tech. Officer: ARC/M H NEW, ARC/M L FONDA*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NCC 2 5389**      **UNIV OF CALIFORNIA - SAN FRANCISCO**      **2664**  
 RESEARCH IN COMPUTATIONAL ASTROBIOLOGY  
 07/07/2000 - 06/30/2001      FY01: \$0      Total: \$42,856  
*Prin. Invest.: M A WILSON*  
*Tech. Officer: ARC/M H NEW, ARC/A POHORILLE*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NCC 2 5412**      **UNIV OF CALIFORNIA - SAN FRANCISCO**      **2665**  
 COMPUTER MODELING OF NUCLEIC ACID INTERACTIONS FOR IN VIVA DNA SEQUENCE DETECTION  
 11/30/2000 - 11/30/2001      FY01: \$61,496      Total: \$61,496  
*Prin. Invest.: M A WILSON, A HERMONE*  
*Tech. Officer: ARC/R L JAFFE, ARC/H PARTRIDGE*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NCC 2 5453**      **UNIV OF CALIFORNIA - SAN FRANCISCO**      **2666**  
 RESEARCH IN COMPUTATIONAL ASTROBIOLOGY  
 08/08/2001 - 07/31/2002      FY01: \$56,780      Total: \$56,780  
*Prin. Invest.: M A WILSON*  
*Tech. Officer: ARC/M NEW, ARC/A POHORILLE*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 1 01003**      **UNIV OF CALIFORNIA - SANTA BARBARA**      **2667**  
 BIOMIMETIC, SELF-HEALING NANOCOMPOSITES FOR AEROSPACE APPLICATIONS: 1.UCSB COMPONENTS  
 12/29/2000 - 09/30/2003      FY01: \$145,833      Total: \$145,833  
*Prin. Invest.: D E MORSE*  
*Tech. Officer: LARC/E J SIOCHI*  
*CASE Category: 12 – CHEMISTRY*

**NAG 2 1140**      **UNIV OF CALIFORNIA - SANTA BARBARA**      **2668**  
 MODELING & PREDICTION OF WILDFIRE HAZARD IN SOUTHERN CALIFORNIA, INTEGRATION OF MODELS WITH.....  
 07/21/1997 - 06/30/2001      FY01: \$0      Total: \$245,000  
*Prin. Invest.: D A ROBERTS, S L USTIN, R CHURCH*  
*Tech. Officer: ARC/G A SHELTON, ARC/J A BRASS*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 3 1847 UNIV OF CALIFORNIA - SANTA BARBARA 2669**  
 THE SUPERFLUID TRANSITION OF HE4 UNDER UNUSUAL CONDITION  
 05/02/1996 – 07/31/2001 FY01: \$30,000 Total: \$821,000  
*Prin. Invest.: P AHLERS*  
*Tech. Officer: GRC/B S SINGH*  
*CASE Category: 13 – PHYSICS*

**NAG 3 1857 UNIV OF CALIFORNIA - SANTA BARBARA 2670**  
 NUMERICAL SIMULATION OF ELECTROCHEMICAL TRANSPORT PROCESS  
 IN MICROGRAVITY ENVIRONMENTS  
 05/06/1996 – 11/06/2000 FY01: -\$86 Total: \$319,914  
*Prin. Invest.: S BAMERJEE*  
*Prin. Invest.: NONE*  
*Tech. Officer: GRC/J C DUH*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 3 2115 UNIV OF CALIFORNIA - SANTA BARBARA 2671**  
 INTERACTION FORCES AND THE FLOW-INDUCED COALESCENCE OF  
 DROPS AND BUBBLES  
 02/19/1998 – 12/31/2002 FY01: \$166,250 Total: \$616,250  
*Prin. Invest.: L G LEAL*  
*Tech. Officer: GRC/B S SINGH*  
*CASE Category: 43 – CHEMICAL ENGR*

**NAG 3 2119 UNIV OF CALIFORNIA - SANTA BARBARA 2672**  
 POOL BOILING CIRCUITS FROM FLAT PLATES: MECHANISM(S) AND  
 ENHANCEMENT  
 02/26/1998 – 12/31/2001 FY01: \$133,850 Total: \$481,850  
*Prin. Invest.: T G THEOFANOUS, Y BUYEVIAH*  
*Tech. Officer: GRC/J B MCQUILLEN*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 3 2414 UNIV OF CALIFORNIA - SANTA BARBARA 2673**  
 DIRECT NUMERICAL SIMULATION OF TURBULENT FLOWS WITH PHASE  
 CHANGE IN MICROGRAVITY  
 06/02/2000 – 11/30/2003 FY01: \$47,500 Total: \$87,500  
*Prin. Invest.: P BANERJEE*  
*Tech. Officer: LARC/J H AGUI*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 3 2439 UNIV OF CALIFORNIA - SANTA BARBARA 2674**  
 GRADIENT DRIVEN FLUCTUATIONS GRADIENT DRIVEN FLUCTUATIONS  
 04/20/2000 – 11/30/2003 FY01: \$133,000 Total: \$183,000  
*Prin. Invest.: D S CANNELL*  
*Tech. Officer: GRC/F P CHIARAMONTE*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 3 2466 UNIV OF CALIFORNIA - SANTA BARBARA 2675**  
 THE DYNAMICS OF PARTICULATE DEPOSITIONED RESUSPENSION  
 PROCESSES AT MODERATE TO HIGH REYNOLDS NUMBER  
 06/20/2000 – 11/30/2003 FY01: \$31,739 Total: \$48,845  
*Prin. Invest.: E MEIBURG*  
*Tech. Officer: GRC/F P CHIARAMONTE*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 3 2493 UNIV OF CALIFORNIA - SANTA BARBARA 2676**  
 THE DYNAMICS OF MISCELLANEOUS INTERFACES: SIMULATIONS THEY  
 DYNAMICS OF MISCELLANEOUS INTERFACES: SIMULATIONS  
 10/11/2000 – 12/31/2001 FY01: \$107,500 Total: \$107,500  
*Prin. Invest.: E H MEIBURG*  
*Tech. Officer: GRC/F P CHIARAMONTE*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 3 2513 UNIV OF CALIFORNIA - SANTA BARBARA 2677**  
 PROBLEMS IN MICROGRAVITY FLUID MECHANICS: G-JETTE R CONVECTION  
 12/19/2000 – 11/30/2003 FY01: \$150,250 Total: \$150,250  
*Prin. Invest.: G M HOMSY*  
*Tech. Officer: GRC/F P CHIARAMONTE III*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 5 3620 UNIV OF CALIFORNIA - SANTA BARBARA 2678**  
 "REMOTE SENSING INFORMATION SCIENCES RESEARCH GROUP  
 02/07/1997 – 06/30/2001 FY01: \$0 Total: \$2,384,434  
*Prin. Invest.: D C CLARKE*  
*Tech. Officer: GSFC/A J TUYAHOV*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 3646 UNIV OF CALIFORNIA - SANTA BARBARA 2679**  
 SOLAR SYSTEM PHYSICS  
 02/25/1997 – 04/30/2002 FY01: \$85,000 Total: \$335,750  
*Prin. Invest.: S J PEALE*  
*Tech. Officer: GSFC/J G GRANT*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 4629 UNIV OF CALIFORNIA - SANTA BARBARA 2680**  
 PARAMETERIZATION OF CLOUD 3-D EFFECTS ON SURFACE SGET ESTIMATED  
 FROM SATELLITE MEASUREMENTS  
 05/21/1997 – 11/30/2001 FY01: \$0 Total: \$380,000  
*Prin. Invest.: C GAUTHIER*  
*Tech. Officer: GSFC/R CAHALAN*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 4814 UNIV OF CALIFORNIA - SANTA BARBARA 2681**  
 HYDROLOGY, HYDROCHEMICAL MODELING AND REMOTE SENSING  
 COVERED ALPINE DRAINAGE BASINS  
 06/19/1997 – 12/31/2001 FY01: \$0 Total: \$2,394,535  
*Prin. Invest.: J C DOZIER*  
*Tech. Officer: GSFC/S GOGINENI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 4963 UNIV OF CALIFORNIA - SANTA BARBARA 2682**  
 PROGRAM IS PART OF A LONG TERM EFFORT ICCESS IS DEV RGRADUATE  
 STUDENTS, EARLY ON IN THEIR ACADEMIC LI  
 06/27/1997 – 12/31/2000 FY01: \$0 Total: \$225,000  
*Prin. Invest.: C GAUTIER*  
*Tech. Officer: GSFC/N KHAZENIE*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 6120 UNIV OF CALIFORNIA - SANTA BARBARA 2683**  
 THE EOS AMAZON PROJECT  
 08/13/1997 – 06/30/2002 FY01: \$0 Total: \$623,394  
*Prin. Invest.: T DUNNE*  
*Tech. Officer: GSFC/T JANETOS*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 6288 UNIV OF CALIFORNIA - SANTA BARBARA 2684**  
 DEVELOPMENT AND APPLICATION OF THE NEXT GENERATION FOR THE  
 UNDERSTANDING OF MARINE PROCESSES ON REGI  
 09/10/1997 – 08/31/2001 FY01: \$0 Total: \$579,515  
*Prin. Invest.: D SIEGEL*  
*Tech. Officer: GSFC/J YODER*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 6434 UNIV OF CALIFORNIA - SANTA BARBARA 2685**  
 BIO-OPTICS IN THE WESTERN ANTARCTIC PENINSULA REGION  
 10/16/1997 - 06/30/2002 FY01: \$0 Total: \$492,438  
*Prin. Invest.: R C SMITH*  
*Tech. Officer: GSFC/J A MARRA*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 6465 UNIV OF CALIFORNIA - SANTA BARBARA 2686**  
 INVESTIGATION OF SNOW PROPERTIES USING MODIS AND ASTER DATA  
 10/24/1997 - 09/30/2001 FY01: \$0 Total: \$310,053  
*Prin. Invest.: J SHI*  
*Tech. Officer: GSFC/D STARR*  
*CASE Category: 19 - PHYSICAL SCIENCE, OTHER*

**NAG 5 6478 UNIV OF CALIFORNIA - SANTA BARBARA 2687**  
 INFRASTRUCTURE FOR TRAINING AND PARTNERSHIPS-CALIFORNIA WATER AND COASTAL OCEAN RESOURCES  
 11/18/1997 - 09/30/1999 FY01: -\$1 Total: \$395,479  
*Prin. Invest.: D SIEGEL*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 6911 UNIV OF CALIFORNIA - SANTA BARBARA 2688**  
 A REQUEST FOR SCIENCE READINESS FUNDS FOR THE OPTICAL MONITOR PROGRAM OF THE X-RAY MULTI-MIRROR MISSION  
 01/28/1998 - 10/31/2001 FY01: \$0 Total: \$201,479  
*Prin. Invest.: D CORDOVA*  
*Tech. Officer: GSFC/R DONNELLY*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 7075 UNIV OF CALIFORNIA - SANTA BARBARA 2689**  
 DETAILED THEORETICAL MODELING OF THE SPECTRUM AND POLARIZATION OF ACCRETION DISKS IN ACTIVE GALAXIES  
 02/25/1998 - 02/28/2002 FY01: \$0 Total: \$223,024  
*Prin. Invest.: O M BLAES*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 7177 UNIV OF CALIFORNIA - SANTA BARBARA 2690**  
 PROBABILITY OF DETECTING PLANETS WITH MICROLENSING  
 03/16/1998 - 03/14/2002 FY01: \$33,000 Total: \$121,100  
*Prin. Invest.: S J PEALE*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 7248 UNIV OF CALIFORNIA - SANTA BARBARA 2691**  
 SIMPLE AND MULTIPLE ENDMEMBER SPECTRAL MIXTURE ANALYSIS IN THE BOREAL FOREST  
 04/24/1998 - 06/30/2000 FY01: \$0 Total: \$40,000  
*Prin. Invest.: D A ROBERTS*  
*Tech. Officer: GSFC/D E WICKLAND*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 7714 UNIV OF CALIFORNIA - SANTA BARBARA 2692**  
 POSTLAUNCH: STATEMENT OF WORK U.S. OPTICAL MONITOR TEAM  
 10/05/1998 - 03/31/2002 FY01: \$433,796 Total: \$994,063  
*Prin. Invest.: D A CORDOVA*  
*Tech. Officer: GSFC/N E WHITE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 7940 UNIV OF CALIFORNIA - SANTA BARBARA 2693**  
 OUTREACH PROJECT  
 01/19/1999 - 03/31/2002 FY01: \$128,619 Total: \$253,850  
*Prin. Invest.: D FOSTER*  
*Tech. Officer: GSFC/N E WHITE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 7981 UNIV OF CALIFORNIA - SANTA BARBARA 2694**  
 ATMOSPHERIC EXCITATION OF PLANETARY NORMAL MODES  
 01/13/1999 - 12/31/2001 FY01: \$0 Total: \$68,250  
*Prin. Invest.: D TANIMOTO*  
*Tech. Officer: GSFC/J A GRANT*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 8319 UNIV OF CALIFORNIA - SANTA BARBARA 2695**  
 PLUMES AND BLOOMS: MODELING THE CASE II WATERS OF THE SANTA BARBARA CHANNEL  
 04/01/1999 - 03/31/2001 FY01: \$0 Total: \$180,000  
*Prin. Invest.: D A SIEGEL*  
*Tech. Officer: GSFC/J W CAMPBELL*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 8396 UNIV OF CALIFORNIA - SANTA BARBARA 2696**  
 MESOSCALE EFFECTS OF CLIMATE AND LAND-COVER CHANGE ON RIVER-BASIN HYDROLOGY IN AMAZONIA  
 04/01/1999 - 03/31/2002 FY01: \$100,000 Total: \$300,000  
*Prin. Invest.: T DUNNE*  
*Tech. Officer: GSFC/E T ENGMAN*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 8542 UNIV OF CALIFORNIA - SANTA BARBARA 2697**  
 GAZETTEER IMPLEMENTATION FOR INDIRECT SPATIAL REFERENCING  
 05/20/1999 - 08/31/2000 FY01: \$0 Total: \$100,000  
*Prin. Invest.: L L HILL*  
*Tech. Officer: GSFC/K MOE*  
*CASE Category: 22 - COMPUTER SCIENCE*

**NAG 5 8616 UNIV OF CALIFORNIA - SANTA BARBARA 2698**  
 EVALUATING USAGE OF SAR IN MEASURING SNOW PROPERTIES  
 06/14/1999 - 06/30/2002 FY01: \$129,107 Total: \$320,177  
*Prin. Invest.: J SHI*  
*Tech. Officer: GSFC/E T ENGMAN*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 8658 UNIV OF CALIFORNIA - SANTA BARBARA 2699**  
 ROTATIONAL INSTABILITIES AND NUCLEOSYNTHESIS IN ACCRETING NEUTRON STARS  
 08/31/1999 - 06/30/2002 FY01: \$40,000 Total: \$117,680  
*Prin. Invest.: L BILDSTEN*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 8669 UNIV OF CALIFORNIA - SANTA BARBARA 2700**  
 NANOSCALE BOLOMETERS AND EVAPORATIVE ELECTRONIC REFRIGERATION  
 07/09/1999 - 07/14/2002 FY01: \$0 Total: \$432,592  
*Prin. Invest.: A CLELAND*  
*Tech. Officer: GSFC/G MUCKLOW*  
*CASE Category: 13 - PHYSICS*

**NAG 5 8680 UNIV OF CALIFORNIA - SANTA BARBARA 2701**  
 ATMOSPHERIC MINERAL DUST AND CHLOROPHYLL BLOOMS  
 07/19/1999 - 07/14/2002 FY01: \$118,691 Total: \$350,379  
*Prin. Invest.: N M MAHOWALD*  
*Tech. Officer: GSFC/M Y WEI*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 9055 UNIV OF CALIFORNIA - SANTA BARBARA 2702**  
 APPLICATIONS AND VALIDATION OF THE SRTM DEM IN THE AMAZON:  
 HYDROLOGICAL AND GEOMORPHOLOGICAL ANALYSIS  
 02/14/2000 - 05/31/2001 FY01: \$25,000 Total: \$100,000  
*Prin. Invest.: D E ALSDORF*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NAG 5 9073 UNIV OF CALIFORNIA - SANTA BARBARA 2703**  
 BALLOON BORNE MILLIMETER WAVELENGTH SKY STUDIES &  
 TECHNOLOGY DEVELOPMENT  
 02/15/2000 - 02/14/2002 FY01: \$379,972 Total: \$738,482  
*Prin. Invest.: P LUBIN*  
*Tech. Officer: GSFC/G STRINGFELLOW*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9251 UNIV OF CALIFORNIA - SANTA BARBARA 2704**  
 BALLOON BORNE OBSERVATIONS OF THE POLARIZATION OF THE COSMIC  
 MICROWAVE BACKGROUND  
 03/31/2000 - 03/31/2002 FY01: \$166,220 Total: \$350,530  
*Prin. Invest.: J E RUHL*  
*Tech. Officer: GSFC/G STRINGFELLOW*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9671 UNIV OF CALIFORNIA - SANTA BARBARA 2705**  
 THE ROLE OF NORTH AFRICAN MINERAL AEROSOLS IN CLIMATE AND  
 BIOGEOCHEMISTRY  
 06/12/2000 - 05/31/2002 FY01: \$227,385 Total: \$423,333  
*Prin. Invest.: N M MAHOWALD*  
*Tech. Officer: GSFC/P DECOLA*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 9811 UNIV OF CALIFORNIA - SANTA BARBARA 2706**  
 GLOBALLY CONSISTENT TOPOGRAPHIC CHARACTERIZATION OF LARGE  
 RIVER FLOODPLAINS BASED ON THE SRT  
 07/21/2000 - 07/31/2002 FY01: \$95,001 Total: \$134,998  
*Prin. Invest.: L K MERTES*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NAG 5 9818 UNIV OF CALIFORNIA - SANTA BARBARA 2707**  
 DEVELOPMENT AND APPLICATION OF THE NEXT GENERATION OF OCEAN  
 COLOR MODELS FOR THE UNDERSTANDING OF MA  
 07/26/2000 - 08/31/2002 FY01: \$150,000 Total: \$200,000  
*Prin. Invest.: D A SIEGEL*  
*Tech. Officer: GSFC/J MARRA*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 9844 UNIV OF CALIFORNIA - SANTA BARBARA 2708**  
 HYDROLOGY, HYDROCHEMICAL MODELING & REMOTE SENSING IN  
 SEASONALLY SNOW-COVERED ALPINE DRAINAGE  
 08/07/2000 - 07/31/2002 FY01: \$0 Total: \$750,000  
*Prin. Invest.: J C DOZIER*  
*Tech. Officer: GSFC/E LINDSTROM*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 9941 UNIV OF CALIFORNIA - SANTA BARBARA 2709**  
 DISTORTIONS OF THE CMB FROM VARIOUS PROCESSES OF THE EARLY  
 UNIVERSE  
 09/08/2000 - 09/30/2001 FY01: \$0 Total: \$40,791  
*Prin. Invest.: P M LUBIN*  
*Tech. Officer: GSFC/A J KOGUT*  
*CASE Category: 13 - PHYSICS*

**NAG 5 9971 UNIV OF CALIFORNIA - SANTA BARBARA 2710**  
 SPECTROSCOPY OF DIPS AND FLARES IN CIR X-1  
 09/13/2000 - 09/14/2002 FY01: \$16,800 Total: \$43,800  
*Prin. Invest.: R E SHIREY*  
*Tech. Officer: GSFC/R MUSHOTZKY*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10146 UNIV OF CALIFORNIA - SANTA BARBARA 2711**  
 REMOTE SENSING ASSESSMENT OF BIOGEOCHEMICAL PROCESSES IN  
 THE SARGASSO SEA  
 01/04/2001 - 11/30/2001 FY01: \$97,934 Total: \$97,934  
*Prin. Invest.: N NELSON*  
*Tech. Officer: GSFC/J MARRA*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 10299 UNIV OF CALIFORNIA - SANTA BARBARA 2712**  
 QUANTUM LTD.-TERAHERTZ DETECTION WITHOUT LIQUID CRYOGENS  
 PROPOSAL #1138  
 01/31/2001 - 12/31/2001 FY01: \$245,251 Total: \$245,251  
*Prin. Invest.: M SHERWIN*  
*Tech. Officer: GSFC/T DOIRON*  
*CASE Category: 45 - ELECTRICAL ENGR*

**NAG 5 10457 UNIV OF CALIFORNIA - SANTA BARBARA 2713**  
 REMOTE SENSING INFORMATION SCIENCE RESEARCH  
 02/26/2001 - 02/28/2002 FY01: \$390,000 Total: \$390,000  
*Prin. Invest.: J E ESTES*  
*Tech. Officer: GSFC/A TUYAHOV*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 10520 UNIV OF CALIFORNIA - SANTA BARBARA 2714**  
 TECTONIC-CLIMATE INTERACTIONS IN ACTIVE OROGENIC BELTS: QUAN-  
 TIFICATION OF DYNAMIC TOPOGRAPHY WITH  
 03/30/2001 - 02/14/2002 FY01: \$146,532 Total: \$146,532  
*Prin. Invest.: D W BURBANK*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NAG 5 10671 UNIV OF CALIFORNIA - SANTA BARBARA 2715**  
 ESTIMATING SOIL MOISTURE CHANGES USING RADARSAT & ITS APPLICA-  
 TION IN HYDROLOGICAL MODELING  
 03/27/2001 - 03/14/2002 FY01: \$71,282 Total: \$71,282  
*Prin. Invest.: J SHI*  
*Tech. Officer: GSFC/W ABDALATI*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 11249 UNIV OF CALIFORNIA - SANTA BARBARA 2716**  
 MULTI-MEDIA FLUID MECHANICS: FLUIDS IN MICROGRAVITY  
 08/16/2001 - 08/31/2002 FY01: \$150,000 Total: \$150,000  
*Prin. Invest.: G HOMSY*  
*Tech. Officer: GSFC/D SPEARS*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 8 1429 UNIV OF CALIFORNIA - SANTA BARBARA 2717**  
 R/S BOUNDARY EFFECTS ON TRANSPORT PROPERTIES AND DYNAMIC  
 FINITE-SIZE SCALING NEAR THE SUPERFLUID  
 02/23/1998 - 01/31/2003 FY01: \$161,500 Total: \$628,121  
*Prin. Invest.: G AHLERS, V DOHM, F C LIU*  
*Tech. Officer: MSFC/J POE, JPL/D STRAYER*  
*CASE Category: 13 - PHYSICS*

**NAG 8 1757 UNIV OF CALIFORNIA - SANTA BARBARA 2718**  
 RESEARCH ENTITLED, THE SUPERFLUID TRANSITION OF HE UNDER  
 UNUSUAL CONDITIONS  
 04/26/2001 - 04/29/2005 FY01: \$100,000 Total: \$100,000  
*Prin. Invest.: G AHLERS*  
*Tech. Officer: GSFC/D HUBBARD*  
*CASE Category: 13 - PHYSICS*

**NAG 9 1329 UNIV OF CALIFORNIA - SANTA BARBARA 2719**  
 QUANTITATIVE MODELING OF HUMAN SACADIC TARGETING DURING VISUAL  
 RESEARCH  
 06/29/2001 - 12/23/2002 FY01: \$167,146 Total: \$167,146  
*Prin. Invest.: M ECKSTIEN*  
*Tech. Officer: JSC/C LLOYD*  
*CASE Category: 59 - LIFE SCIENCE, OTHER*

**NAG13 99025 UNIV OF CALIFORNIA - SANTA BARBARA 2720**  
 IMPLEMENTATION OF PREDICTIVE SOIL MODELING IN THE NATIONAL  
 COOPERATIVE SOIL SURVEY  
 08/27/1999 - 11/01/2001 FY01: \$121,343 Total: \$235,149  
*Prin. Invest.: O CHADWICK*  
*Tech. Officer: JSC/R MCKELLIP*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NAS 5 00196 UNIV OF CALIFORNIA - SANTA BARBARA 2721**  
 SIMBIOS II-OPTIMIZATION OF OCEAN COLOR ALGORITHMS: APPLICATION  
 TO SATELLITE & IN SITU DATA MERGING.  
 01/10/2001 - 11/30/2001 FY01: \$133,635 Total: \$133,635  
*Prin. Invest.: S MARITORENA*  
*Tech. Officer: GSFC/C R MCCLAIN*  
*CASE Category: 33 - OCEANOGRAPHY*

**NAS 5 00200 UNIV OF CALIFORNIA - SANTA BARBARA 2722**  
 SIMBIOS II - THE BERMUDA BIO-OPTICS PROJECT (BBPO) YEARS 9 THRU  
 11.  
 01/26/2001 - 11/30/2001 FY01: \$237,559 Total: \$237,559  
*Prin. Invest.: D A SIEGEL*  
*Tech. Officer: GSFC/C R MCCLAIN*  
*CASE Category: 33 - OCEANOGRAPHY*

**NAS 5 00201 UNIV OF CALIFORNIA - SANTA BARBARA 2723**  
 SIMBIOS II - PLUMES & BLOOMS: OBSERVATIONS, ANALYSIS & MODELING  
 FOR SIMBIOS.  
 01/26/2001 - 11/30/2001 FY01: \$208,287 Total: \$208,287  
*Prin. Invest.: D A SIEGEL*  
*Tech. Officer: GSFC/C R MCCLAIN*  
*CASE Category: 33 - OCEANOGRAPHY*

**NAS 5 31370 UNIV OF CALIFORNIA - SANTA BARBARA 2724**  
 EOS INVESTIGATION  
 12/23/1991 - 12/14/2001 FY01: \$541,000 Total: \$4,303,402  
*Prin. Invest.: Z WAN*  
*Tech. Officer: GSFC/H OSEROFF*  
*CASE Category: 33 - OCEANOGRAPHY*

**NAS 5 31374 UNIV OF CALIFORNIA - SANTA BARBARA 2725**  
 EOS INVESTIGATION - ATMOSPHERIC INFRARED SOUNDER (AIRS) TEAM  
 MEMBER INVESTIGATION  
 03/04/1992 - 12/14/2001 FY01: \$185,000 Total: \$1,695,000  
*Prin. Invest.: C GAUTIER*  
*Tech. Officer: GSFC/E KRIENS*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAS 5 31710 UNIV OF CALIFORNIA - SANTA BARBARA 2726**  
 EOS INVESTIGATION/HIRIS TEAM MEMBER  
 09/17/1992 - 12/14/2001 FY01: \$0 Total: \$137,461  
*Prin. Invest.: D DOZLER*  
*Tech. Officer: GSFC/T BRAKKE*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NAS 5 31713 UNIV OF CALIFORNIA - SANTA BARBARA 2727**  
 EOS INVESTIGATION/HIRIS TEAM MEMBER  
 02/25/1992 - 12/14/2001 FY01: \$0 Total: \$331,783  
*Prin. Invest.: J M MELACK*  
*Tech. Officer: GSFC/T BRAKE*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAS 5 97125 UNIV OF CALIFORNIA - SANTA BARBARA 2728**  
 BERMUDA BIOOPTICS PROGRAM FOR SIMBIOS  
 07/11/1997 - 11/30/2000 FY01: \$0 Total: \$922,676  
*Prin. Invest.: D A SIEGEL*  
*Tech. Officer: GSFC/C MCCLAIN*  
*CASE Category: 33 - OCEANOGRAPHY*

**NAS 5 97127 UNIV OF CALIFORNIA - SANTA BARBARA 2729**  
 BERMUDA TESTBED MOORING IN SUPPORT OF SIMBIDS  
 07/15/1997 - 10/31/2001 FY01: \$0 Total: \$519,274  
*Prin. Invest.: T D DICKEY*  
*Tech. Officer: GSFC/C MCCLAIN*  
*CASE Category: 33 - OCEANOGRAPHY*

**NAS 5 99083 UNIV OF CALIFORNIA - SANTA BARBARA 2730**  
 SPECTRAL DATA ASSIMILATION FOR MERGING SATELLITE OCEAN COLOR  
 IMAGERY  
 01/26/1999 - 10/31/1999 FY01: \$0 Total: \$299,610  
*Prin. Invest.: D SIEGEL*  
*Tech. Officer: GSFC/C R MCCLAIN*  
*CASE Category: 33 - OCEANOGRAPHY*

**NCC 2 1049 UNIV OF CALIFORNIA - SANTA BARBARA 2731**  
 CHARACTERIZATION OF LIGHTWEIGHT CERAMIC ABLATOR MATERIALS  
 07/16/1998 - 12/14/2000 FY01: \$0 Total: \$147,088  
*Prin. Invest.: F MILSTEIN*  
*Tech. Officer: ARC/H K TRAN*  
*CASE Category: 49 - ENGINEERING, OTHER*

**NCC 2 5368 UNIV OF CALIFORNIA - SANTA BARBARA 2732**  
 INTRA-AND INTERSUBBAND ELECTRON-ELECTRON-PHONON SCATTERINGS IN QUANTUM CONFINED STRUCTURES FOR ....  
 02/28/2000 - 02/28/2001 FY01: \$0 Total: \$59,304  
*Prin. Invest.:* M W WU  
*Tech. Officer:* ARC/T R GOVINDAN  
*CASE Category:* 45 – ELECTRICAL ENGR

**NCC 5 281 UNIV OF CALIFORNIA - SANTA BARBARA 2733**  
 MULTI-SCALE ANALYSIS OF INUNDATION WITH MICROWAVE AND OPTICAL REMOTESENSING IN THE AMAZON BASIN:  
 06/16/1998 - 12/31/2001 FY01: \$189,058 Total: \$688,772  
*Prin. Invest.:* J MELACK  
*Tech. Officer:* GSFC/D DEERING  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NCC 5 282 UNIV OF CALIFORNIA - SANTA BARBARA 2734**  
 LAND-COVER CONVERSION IN AMAZONIA, THE ROLE OF ENV IRONMENT AND SUBSTRATECOMPOSITION IN MODIFYING SO  
 06/12/1998 - 12/31/2001 FY01: \$176,726 Total: \$706,442  
*Prin. Invest.:* O A CHADWICK  
*Tech. Officer:* GSFC/D W DEERING  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NCC 5 302 UNIV OF CALIFORNIA - SANTA BARBARA 2735**  
 THE EARTH SYSTEM SCIENCE WORKBENCH: A SCALABLE INFRASTRUCTURE FOR ESIP'S  
 04/09/1998 - 11/30/2001 FY01: \$673,000 Total: \$3,398,000  
*Prin. Invest.:* J FREW  
*Tech. Officer:* GSFC/M MAIDEN  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NCC 5 496 UNIV OF CALIFORNIA - SANTA BARBARA 2736**  
 HYPERION APPLICATIONS & VALIDATION FOR FIRE HAZARD ASSESSMENT IN THE SANTA MONICA MOUNTAINS, CALIF  
 04/19/2000 - 12/31/2001 FY01: \$39,854 Total: \$74,343  
*Prin. Invest.:* D A ROBERTS  
*Tech. Officer:* GSFC/S G UNGAR  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NCC 5 589 UNIV OF CALIFORNIA - SANTA BARBARA 2737**  
 HYPERSPECTRAL ANALYSIS OF LAND-COVER IN RONDONIA  
 09/20/2001 - 09/30/2004 FY01: \$20,864 Total: \$20,864  
*Prin. Invest.:* D A ROBERTS  
*Tech. Officer:* GSFC/D W DEERING  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NGT 3 52317 UNIV OF CALIFORNIA - SANTA BARBARA 2738**  
 GRADUATE STUDENT RESEARCHERS PROGRAM  
 08/05/1996 - 11/30/1999 FY01: -\$4,000 Total: \$58,781  
*Prin. Invest.:* S BANERJEE  
*Tech. Officer:* GRC/D MONTEGANI  
*CASE Category:* 43 – CHEMICAL ENGR

**NGT 4 52407 UNIV OF CALIFORNIA - SANTA BARBARA 2739**  
 GSRP ANALYSIS OF ADAPTIVE CONTROL OF AEROELASTIC STRUCTURES USING MULTIDISCIPLINARY STARS PROGRAMS  
 06/18/1998 - 07/31/2002 FY01: \$0 Total: \$66,000  
*Prin. Invest.:* J C BRUCH, DR., J TARANTINO  
*Tech. Officer:* SSC/K GUPTA, SSC/L S VOELKER  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NGT 4 52423 UNIV OF CALIFORNIA - SANTA BARBARA 2740**  
 DEVELOPMENT OF THE EIGENVECTOR ORIENTATION METHOD FOR FLUTTER PREDICTIONS  
 06/02/2000 - 06/30/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.:* H T YANG  
*Tech. Officer:* DFRC/K K KUPTA  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NGT 4 52428 UNIV OF CALIFORNIA - SANTA BARBARA 2741**  
 DETERMINING MECHANICAL PROPERTIES OF NANO MATERIAL S USING NANOINDENTATION AND A FINITE ELEMENT METH  
 07/20/2001 - 06/30/2002 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.:* H YANG, NONE  
*Tech. Officer:* DFRC/K K GUPTA  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NGT 5 30063 UNIV OF CALIFORNIA - SANTA BARBARA 2742**  
 BIO-OPTICAL ANALYSIS OF PRIMARY PRODUCTIVITY AND G CHANGE IN ANTARCTIC COASTAL WATERS  
 09/10/1997 - 08/31/2000 FY01: \$0 Total: \$66,000  
*Prin. Invest.:* R SMITH  
*Tech. Officer:* GSFC/G ASRAR  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NGT 5 30173 UNIV OF CALIFORNIA - SANTA BARBARA 2743**  
 MASS BALANCE OF SEDIMENT TRANSPORT ACROSS COASTAL MARGIN FILTERS AT THE BASE OF THE TRANSVERSE RANGE  
 09/22/1998 - 08/31/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.:* MERTES, WARRICK  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NGT 5 30194 UNIV OF CALIFORNIA - SANTA BARBARA 2744**  
 A TOP-DOWN APPROACH TO UNDERSTANDING & PREDICTING DIMETHYL-SULFIDE VARIABILITY IN THE SARGASSO SEA  
 08/18/1999 - 08/31/2002 FY01: \$22,000 Total: \$66,000  
*Prin. Invest.:* D A SIEGEL, TOOLE  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NGT 5 30201 UNIV OF CALIFORNIA - SANTA BARBARA 2745**  
 MONITORING POPULATION AND THE EXTENT OF HUMAN SETTLEMENT IN THEBRAZILIAN AMAZON WITH SYNTH  
 08/24/1999 - 08/31/2002 FY01: \$22,000 Total: \$66,000  
*Prin. Invest.:* K C CLARKE  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NGT 5 30225 UNIV OF CALIFORNIA - SANTA BARBARA 2746**  
 REGIONAL BIOGEOCHEMISTRY OF LAND USE CHANGE IN THE HUMID TROPICS: DETECTION & MODELING OF THE  
 08/14/2000 - 08/31/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.:* T DUNNE  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NGT 5 30332 UNIV OF CALIFORNIA - SANTA BARBARA 2747**  
 INTERACTIONS OF LAND COVER CHANGE & TOPOGRAPHY IN THE HYDROLOGIC RESPONSE OF MESOSCALE TROPIC  
 08/14/2000 - 08/31/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.: T DUNNE*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NGT 5 30357 UNIV OF CALIFORNIA - SANTA BARBARA 2748**  
 THE ROLE OF TOPOGRAPHY & PROXIMITY TO BEDROCK IN DETERMINING NUTRIENT SUPPLY TO A SEASONAL AMAZONI  
 08/22/2000 - 08/31/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.: O CHADWICK*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NGT 5 30400 UNIV OF CALIFORNIA - SANTA BARBARA 2749**  
 REMOTE SENSING OF ANTHROPOGENIC BIOMASS BURNING & FOREST DEGRADATION IN MADAGASCAR: THE DEVELOPMENT  
 08/14/2001 - 08/31/2004 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: D ROBERTS*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NGT 5 30406 UNIV OF CALIFORNIA - SANTA BARBARA 2750**  
 SATELLITE DETECTION OF TRICHODESMIUM spp. AND ITS RELATION TO ATMOSPHERIC DUST DEPOSITIONS  
 08/15/2001 - 08/31/2004 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: D SIEGEL*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NGT 5 30413 UNIV OF CALIFORNIA - SANTA BARBARA 2751**  
 ROLES OF REGIONAL CLIMATOLOGY IN THE NORTH AFRICAN DESERT DUST. STUDENT: MASARU YOSHIOKA  
 08/14/2001 - 08/31/2004 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: N MAHOWALD*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NGT 5 50192 UNIV OF CALIFORNIA - SANTA BARBARA 2752**  
 MEASUREMENT OF CMB ANISOTROPIES FOR DETERMINATION OF COSMOLOGICAL PARAMETERS  
 06/05/1998 - 06/30/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.: P LUBIN*  
*Tech. Officer: HQ/A NURRIDIN*  
*CASE Category: 13 - PHYSICS*

**NGT 5 50269 UNIV OF CALIFORNIA - SANTA BARBARA 2753**  
 B2K, AN EXPERIMENT TO MEASURE THE POLARIZATION OF THE CMB  
 06/22/2000 - 06/30/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.: J RUHL, NONE*  
*Tech. Officer: GSFC/L SMITH*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NGT 5 50327 UNIV OF CALIFORNIA - SANTA BARBARA 2754**  
 MAPPING WILDLAND FUELS USING COMBINED HYPERSPEC TRAL & SYNTHETIC APERTURE RADAR FOR FIRE HAZARD  
 08/17/2000 - 08/31/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.: D A ROBERTS*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 2 1239 UNIV OF CALIFORNIA - SANTA CRUZ 2755**  
 ACCELERATED TIME-VARYING FLOW VISUALIZATION WITH FEATURE PRESERVATION  
 07/17/1998 - 10/31/2000 FY01: \$0 Total: \$117,000  
*Prin. Invest.: A VANGELDER, J WILHELM*  
*Tech. Officer: ARC/A VAZIRI, ARC/M GERALD-YAMASAKI*  
*CASE Category: 22 - COMPUTER SCIENCE*

**NAG 5 3232 UNIV OF CALIFORNIA - SANTA CRUZ 2756**  
 THE PROPERTIES OF INTERSTELLAR DUST GRAINS IN CIRRUS CLOUDS  
 05/08/1996 - 04/30/2000 FY01: -\$599 Total: \$245,296  
*Prin. Invest.: P GUATHAKURTA*  
*Tech. Officer: GSFC/D WEST*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 3507 UNIV OF CALIFORNIA - SANTA CRUZ 2757**  
 ISO DEEP SURVEY  
 10/31/1996 - 11/14/2000 FY01: -\$1 Total: \$39,999  
*Prin. Invest.: D C KOO*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 4445 UNIV OF CALIFORNIA - SANTA CRUZ 2758**  
 PHOTON-WEIGHTED MIDPOINT EXPOSURE METER FOR KECK/H RESEARCH  
 04/25/1997 - 04/30/2001 FY01: \$0 Total: \$205,494  
*Prin. Invest.: D S VOGT*  
*Tech. Officer: GSFC/S HOWARD*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 4494 UNIV OF CALIFORNIA - SANTA CRUZ 2759**  
 FORMATION AND EARLY EVOLUTION OF SOLAR AND EXTRA-S  
 04/30/1997 - 03/31/2001 FY01: \$0 Total: \$112,776  
*Prin. Invest.: D H BODENHEIMER*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 4610 UNIV OF CALIFORNIA - SANTA CRUZ 2760**  
 MAJOR UNRESOLVED PROBLEMS IN FU ORIONIS SYSTEMS  
 05/20/1997 - 05/31/2000 FY01: \$0 Total: \$150,000  
*Prin. Invest.: D H BODENHEIMER*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 4665 UNIV OF CALIFORNIA - SANTA CRUZ 2761**  
 STRUCTURE AND FUNCTION OF ENCAPSULATED REPLICATING  
 06/05/1997 - 12/31/1999 FY01: -\$712 Total: \$340,201  
*Prin. Invest.: D DEAMER*  
*Tech. Officer: GSFC/M MEYER*  
*CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)*

**NAG 5 7245 UNIV OF CALIFORNIA - SANTA CRUZ 2762**  
 GEOPHYSICS OF SMALL PLANETARY BODIES  
 04/15/1998 - 10/14/1999 FY01: -\$208 Total: \$156,192  
*Prin. Invest.: E ASPHAUG*  
*Tech. Officer: GSFC/P ROGERS*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 7515** UNIV OF CALIFORNIA - SANTA CRUZ 2763  
 TIDALLY DRIVEN G-MODE OSCILLATION IN SOLAR-TYPE ST ARS BY CLOSEPLANETARY COMPANIONS  
 05/29/1998 – 05/31/2001 FY01: \$0 Total: \$135,000  
*Prin. Invest.: D LIN*  
*Tech. Officer: HQ/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8128** UNIV OF CALIFORNIA - SANTA CRUZ 2764  
 THREE DIMENSIONAL MODELS FOR GAMMA-RAY BURSTS AND SUPER-NOVAE\_(ATP98)  
 02/05/1999 – 02/14/2002 FY01: \$96,000 Total: \$273,606  
*Prin. Invest.: S E WOOSLEY*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8196** UNIV OF CALIFORNIA - SANTA CRUZ 2765  
 THE GROWTH OF PROTOGIANT PLANETS IN PROTOSTELLAR DISKS  
 02/04/1999 – 01/31/2002 FY01: \$45,000 Total: \$130,000  
*Prin. Invest.: D N LIN*  
*Tech. Officer: HQ/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8218** UNIV OF CALIFORNIA - SANTA CRUZ 2766  
 TESTING INFLATION AND DARK MATTER WITH NEW DATA, MODELS, AND METHODS(ATP98)  
 02/08/1999 – 02/14/2002 FY01: \$228,138 Total: \$665,901  
*Prin. Invest.: J R PRIMACK*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8348** UNIV OF CALIFORNIA - SANTA CRUZ 2767  
 THE PROPERTIES OF INTERSTELLAR DUST GRAINS IN IRAS 'CIRRUS' CLOUDS(ATP98)  
 03/01/1999 – 04/30/2002 FY01: \$55,901 Total: \$159,572  
*Prin. Invest.: P GUHATHAKURTA*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8409** UNIV OF CALIFORNIA - SANTA CRUZ 2768  
 EVOLUTION OF HOT GAS IN ELLIPTICAL GALAXIES (ATP 9 8)  
 03/15/1999 – 03/31/2002 FY01: \$43,000 Total: \$121,622  
*Prin. Invest.: W G MATHEWS*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8750** UNIV OF CALIFORNIA - SANTA CRUZ 2769  
 MONITORING ECOSYSTEM CONDITION AND STRESS IN THE SAN PABLO BAY, CA REGION  
 09/08/1999 – 09/14/2002 FY01: \$61,210 Total: \$190,492  
*Prin. Invest.: R KUDELA*  
*Tech. Officer: GSFC/J W MARRA*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8855** UNIV OF CALIFORNIA - SANTA CRUZ 2770  
 COMPOUND REMOTE SENSING FOR THE DETERMINATION OF NEW PRIMARY PRODUCTION IN COASTAL WATERS  
 11/23/1999 – 11/30/2001 FY01: \$79,639 Total: \$157,149  
*Prin. Invest.: R KUDELA*  
*Tech. Officer: GSFC/J MARRA*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8914** UNIV OF CALIFORNIA - SANTA CRUZ 2771  
 SMALL BODIES ANE PLANETARY COLLISIONS  
 01/27/2000 – 12/31/2001 FY01: \$114,000 Total: \$222,300  
*Prin. Invest.: E ASPHAUG*  
*Tech. Officer: GSFC/J A GRANT*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9391** UNIV OF CALIFORNIA - SANTA CRUZ 2772  
 WORKSTATION CLUSTER FOR SMALL BODIES AND PLANETARY COLLISIONS  
 04/04/2000 – 04/14/2001 FY01: \$0 Total: \$25,000  
*Prin. Invest.: E ASPHAUG*  
*Tech. Officer: GSFC/J A GRANT*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 9403** UNIV OF CALIFORNIA - SANTA CRUZ 2773  
 STRUCTURE AND FUNCTION OF ENCAPSULATED REPLICATING SYSTEMS  
 04/06/2000 – 03/31/2002 FY01: \$117,000 Total: \$227,214  
*Prin. Invest.: D DEAMER*  
*Tech. Officer: GSFC/M MEYER*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9526** UNIV OF CALIFORNIA - SANTA CRUZ 2774  
 MULTIDIMENSIONAL MODELING OF THE SOLAR NEBULA: A BETTER TOOL FOR UNDERSTANDING OBSERVATIONS  
 04/28/2000 – 05/31/2002 FY01: \$0 Total: \$45,000  
*Prin. Invest.: P BODENHEIMER*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9661** UNIV OF CALIFORNIA - SANTA CRUZ 2775  
 FORMATION AND EARLY EVOLUTION OF SOLAR AND EXTRA- SOLAR GIANT PLANETS  
 06/01/2000 – 06/14/2002 FY01: \$38,000 Total: \$66,000  
*Prin. Invest.: P BODENHEIMER*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9711** UNIV OF CALIFORNIA - SANTA CRUZ 2776  
 OBSERVATIONS OF ROTATION POWERED PULSARS IN SUPPORT OF GLAST  
 06/15/2000 – 06/14/2002 FY01: \$37,000 Total: \$50,903  
*Prin. Invest.: D E THORSETT*  
*Tech. Officer: GSFC/S LAMBROS*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9956** UNIV OF CALIFORNIA - SANTA CRUZ 2777  
 HOT GAS ENRICHMENT BY DRAWF GALAXIES IN THE 5044 GALAXY GROUP  
 09/13/2000 – 09/14/2001 FY01: \$0 Total: \$16,000  
*Prin. Invest.: W G MATHEWS*  
*Tech. Officer: GSFC/R MUSHOTZKY*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9966** UNIV OF CALIFORNIA - SANTA CRUZ 2778  
 FE K-ALPHA EMISSION IN THE BRIGHT ELLIPTICAL GALAXY NGC 1399  
 09/26/2000 – 12/31/2000 FY01: -\$18,000 Total: \$0  
*Prin. Invest.: D BUOTE*  
*Tech. Officer: GSFC/R MUSHOTZKY*  
*CASE Category: 11 – ASTRONOMY*

<b>NAG 5 10039</b>	<b>UNIV OF CALIFORNIA - SANTA CRUZ</b>	<b>2779</b>	<b>NCC 2 1037</b>	<b>UNIV OF CALIFORNIA - SANTA CRUZ</b>	<b>2787</b>
X-RAY ISOPHOTE SHAPES AND THE DARK MATTER HALO OF NGC 3923 10/03/2000 - 12/31/2000	FY01: \$0	Total: \$0	(NAS) AMES EDUCATION ASSOCIATES PROGRAM 05/08/1998 - 06/30/2002	FY01: \$1,396,962	Total: \$3,348,045
Prin. Invest.: D BUOTE			Prin. Invest.: D L STANSBURY		
Tech. Officer: GSFC/R MUSHOTZKY			Tech. Officer: ARC/S . PARKHUST, ARC/R G O'BRIEN III		
CASE Category: 11 - ASTRONOMY			CASE Category: 99 - MULTI INTERDISCPL, OTHER		
<b>NAG 5 10053</b>	<b>UNIV OF CALIFORNIA - SANTA CRUZ</b>	<b>2780</b>	<b>NCC 2 1081</b>	<b>UNIV OF CALIFORNIA - SANTA CRUZ</b>	<b>2788</b>
THE X-RAY HALOS OF EXTREMELY LUMINOUS GIANT LSB & HSB DISK GALAXIES 12/06/2000 - 12/14/2001	FY01: \$13,526	Total: \$13,526	STAR & PLANET FORMATION 01/15/1999 - 02/28/2002	FY01: \$16,378	Total: \$365,251
Prin. Invest.: B J WEINER			Prin. Invest.: P H BODENHEIMER		
Tech. Officer: GSFC/R MUSHOTZKY			Tech. Officer: ARC/D J HOLLENBACH, ARC/P CASSEN		
CASE Category: 11 - ASTRONOMY			CASE Category: 11 - ASTRONOMY		
<b>NAG 5 10232</b>	<b>UNIV OF CALIFORNIA - SANTA CRUZ</b>	<b>2781</b>	<b>NCC 2 1260</b>	<b>UNIV OF CALIFORNIA - SANTA CRUZ</b>	<b>2789</b>
THE IONIZATION HISTORY OF THE INTERGALACTIC MEDIUM 01/24/2001 - 11/30/2002	FY01: \$67,957	Total: \$67,957	COMPARING & UNDERSTANDING DATA DISTRIBUTIONS IN EO S APPLICATIONS 04/26/2001 - 02/28/2002	FY01: \$67,301	Total: \$67,301
Prin. Invest.: P MADAU			Prin. Invest.: A PANG		
Tech. Officer: GSFC/R OLIVERSEN			Tech. Officer: ARC/D L KAO, ARC/V R WATSON		
CASE Category: 11 - ASTRONOMY			CASE Category: 22 - COMPUTER SCIENCE		
<b>NAG 5 10612</b>	<b>UNIV OF CALIFORNIA - SANTA CRUZ</b>	<b>2782</b>	<b>NCC 2 5254</b>	<b>UNIV OF CALIFORNIA - SANTA CRUZ</b>	<b>2790</b>
GROWTH OF PLANETESIMALS IN A PROTOSTELLAR DISK ENV IRONMENT 03/17/2001 - 03/14/2002	FY01: \$55,000	Total: \$55,000	PLANETARY RING/MOON SYSTEMS 02/10/1998 - 08/31/2000	FY01: \$0	Total: \$99,202
Prin. Invest.: D LIN			Prin. Invest.: P BODENHEIMER, D LIN		
Tech. Officer: GSFC/J M BOYCE			Tech. Officer: ARC/J N CUZZI		
CASE Category: 11 - ASTRONOMY			CASE Category: 11 - ASTRONOMY		
<b>NAG 5 10676</b>	<b>UNIV OF CALIFORNIA - SANTA CRUZ</b>	<b>2783</b>	<b>NCC 2 5281</b>	<b>UNIV OF CALIFORNIA - SANTA CRUZ</b>	<b>2791</b>
BEOWULF CLUSTER FOR SMALL BODIES AND PLANETARY COLLISIONS 03/30/2001 - 03/31/2002	FY01: \$51,700	Total: \$51,700	COMPARATIVE VISUALIZATION OF EXPERIMENTAL WIND TUNNEL DATA & COMPUTATIONAL FLUID DYNAMICS SIMULATIO 07/23/1998 - 06/30/2001	FY01: \$0	Total: \$155,413
Prin. Invest.: E ASPHAUG			Prin. Invest.: A PANG		
Tech. Officer: GSFC/D SENSKA			Tech. Officer: ARC/A VAZIRI, ARC/M YAMASAKI		
CASE Category: 32 - GEOLOGICAL SCIENCE			CASE Category: 22 - COMPUTER SCIENCE		
<b>NAG 5 10683</b>	<b>UNIV OF CALIFORNIA - SANTA CRUZ</b>	<b>2784</b>	<b>NCC 2 5297</b>	<b>UNIV OF CALIFORNIA - SANTA CRUZ</b>	<b>2792</b>
PHYSICAL PROPERTIES OF A Z < 1 LYMAN LIMIT SYSTEM - FUSE 2000 03/29/2001 - 03/31/2002	FY01: \$2,250	Total: \$2,250	DISTRIBUTION OF WATER & WATER-ROCK INTERACTION DU RING PLANET EVOLUTION 10/19/1998 - 08/31/2000	FY01: -\$293	Total: \$39,707
Prin. Invest.: B J WEINER			Prin. Invest.: N ROSENBERG		
Tech. Officer: GSFC/G SONNEBORN			Tech. Officer: ARC/J N CUZZI		
CASE Category: 11 - ASTRONOMY			CASE Category: 11 - ASTRONOMY		
<b>NAG 5 10727</b>	<b>UNIV OF CALIFORNIA - SANTA CRUZ</b>	<b>2785</b>	<b>NCC 2 5309</b>	<b>UNIV OF CALIFORNIA - SANTA CRUZ</b>	<b>2793</b>
TIDAL INTERACTION BETWEEN SHORT-PERIOD PLANETS AND THEIR HOST STARS 04/09/2001 - 04/14/2002	FY01: \$40,000	Total: \$40,000	FROM PREBIOTIC CHEMISTRY TO AN RNA WORLD 02/23/1999 - 01/31/2000	FY01: -\$56	Total: \$58,004
Prin. Invest.: D LIN			Prin. Invest.: A KANAVARIOTI		
Tech. Officer: GSFC/J BOYCE			Tech. Officer: ARC/A POHORILLE, ARC/M L FONDA		
CASE Category: 11 - ASTRONOMY			CASE Category: 12 - CHEMISTRY		
<b>NAG 5 11220</b>	<b>UNIV OF CALIFORNIA - SANTA CRUZ</b>	<b>2786</b>	<b>NCC 2 5339</b>	<b>UNIV OF CALIFORNIA - SANTA CRUZ</b>	<b>2794</b>
CONVECTION AND MAGNETIC FIELD GENERATION IN GIANT AND EXTRA- SOLARPLANETS: NUMERICAL SIMULATI 08/13/2001 - 08/31/2004	FY01: \$107,000	Total: \$107,000	COLLABORATIVE RESEARCH IN STABLE ISOTOPE BIOGEOCHE MISTRY 07/30/1999 - 07/31/2001	FY01: \$11,358	Total: \$89,768
Prin. Invest.: G A GLATZMAIER			Prin. Invest.: G H RAU		
Tech. Officer: GSFC/D J BOGAN			Tech. Officer: ARC/D J DES MARAIS, ARC/L JAHNKE		
CASE Category: 99 - MULTI INTERDISCPL, OTHER			CASE Category: 39 - ENVIRONMENTAL SCI, OTHER		

**NCC 2 5351** UNIV OF CALIFORNIA - SANTA CRUZ 2795  
 SEARCH FOR THE UPPER TEMPERATURE LIMIT FOR EUKARYA - IS THERE COMPLEX LIFE BEYOND EARTH?  
 09/03/1999 - 08/31/2001 FY01: \$0 Total: \$20,000  
*Prin. Invest.: J PEARSE, J TRENT*  
*Tech. Officer: ARC/M FONDA*  
*CASE Category: 59 - LIFE SCIENCE, OTHER*

**NCC 2 5358** UNIV OF CALIFORNIA - SANTA CRUZ 2796  
 THE MOLECULAR BASIS OF HYPERTHERMOPHYL  
 10/18/1999 - 10/14/2001 FY01: \$0 Total: \$65,540  
*Prin. Invest.: G MILLHAUSER, R A BOGOMOLNI, J D TRENT*  
*Tech. Officer: ARC/M KLASS*  
*CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)*

**NCC 2 5367** UNIV OF CALIFORNIA - SANTA CRUZ 2797  
 NUCLEOTIDE CHEMISTRY ON PREBIOTIC EARTH  
 02/04/2000 - 01/31/2001 FY01: -\$4 Total: \$62,396  
*Prin. Invest.: A KANAvariOTI*  
*Tech. Officer: ARC/M L FONDA*  
*CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)*

**NCC 2 5370** UNIV OF CALIFORNIA - SANTA CRUZ 2798  
 COLLABORATIVE RESEARCH ON MICROBIAL MAT NITROGEN CYCLING  
 03/16/2000 - 03/14/2002 FY01: \$91,906 Total: \$183,855  
*Prin. Invest.: J P ZEHR, NONE*  
*Tech. Officer: ARC/B N BEBOUT/M L FONDA*  
*CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)*

**NCC 2 5418** UNIV OF CALIFORNIA - SANTA CRUZ 2799  
 GIANT MOLECULAR CLOUD STRUCTURE & EVOLUTION  
 02/01/2001 - 02/28/2002 FY01: \$61,450 Total: \$61,450  
*Prin. Invest.: P BODENHEIMER*  
*Tech. Officer: ARC/D J HOLLENBACH, LARC/G LAUGHLIN*  
*CASE Category: 11 - ASTRONOMY*

**NCC 2 5428** UNIV OF CALIFORNIA - SANTA CRUZ 2800  
 THREE-DIMENSIONAL MODELING OF ASTEROID & CORNET IMPACTS INTO PLANETARY ATMOSPHERES  
 03/14/2001 - 08/31/2001 FY01: \$30,222 Total: \$30,222  
*Prin. Invest.: E I ASPHAUGH*  
*Tech. Officer: ARC/K J ZAHNLE, ARC/R E YOUNG*  
*CASE Category: 11 - ASTRONOMY*

**NCC 2 5436** UNIV OF CALIFORNIA - SANTA CRUZ 2801  
 ORIGINS & STRUCTURES OF PLANETARY & SATELLITE SYSTEMS  
 05/18/2001 - 04/30/2002 FY01: \$49,383 Total: \$49,383  
*Prin. Invest.: P BODENHEIMER, A R DOBROVOLSKI*  
*Tech. Officer: ARC/J N CUZZI*  
*CASE Category: 11 - ASTRONOMY*

**NCC 2 5456** UNIV OF CALIFORNIA - SANTA CRUZ 2802  
 C/C VARIATIONS IN AQUATIC PHOTOAUTOTROPHS: THE POSSIBLE CONTRIBUTION OF PHOTORESPIRATORY CARBON EX  
 08/15/2001 - 07/31/2002 FY01: \$21,423 Total: \$21,423  
*Prin. Invest.: G H RAU*  
*Tech. Officer: ARC/D DESMARais, ARC/L JAHNKE*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NGT 2 52230** UNIV OF CALIFORNIA - SANTA CRUZ 2803  
 EFFECTS OF WATER IMMERSION (WEIGHTLESSNESS) ON THE REGULATION OF RENEAL FUNCTION IN SEALS EXPOSED..  
 08/19/1997 - 08/31/2001 FY01: \$0 Total: \$88,000  
*Prin. Invest.: C L ORTIZ*  
*Tech. Officer: ARC/C E WADE, ARC/B J CORBIN*  
*CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)*

**NGT 2 52260** UNIV OF CALIFORNIA - SANTA CRUZ 2804  
 VIOLENT VAGABONDS: THE EFFECT OF LARGE IMPACTS & MIGRATION ON GIANT PLANET EVOLUTION  
 10/26/1999 - 10/14/2001 FY01: \$0 Total: \$44,000  
*Prin. Invest.: P H*  
*Tech. Officer: ARC/K J ZAHNLE*  
*CASE Category: 11 - ASTRONOMY*

**NGT 5 43** UNIV OF CALIFORNIA - SANTA CRUZ 2805  
 MULTIWAVELENGTH STUDY OF THE EVOLUTION OF GALAXIES NMENT  
 06/23/1997 - 06/30/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.: P GUATHAKURTA*  
*Tech. Officer: GSFC/M S BURRELL*  
*CASE Category: 11 - ASTRONOMY*

**NGT 5 108** UNIV OF CALIFORNIA - SANTA CRUZ 2806  
 MULTI-WAVELENGTH STUDY OF GRBS USING BATSE, HETE II & MILAGRO (STUDENT: MIGUEL MORALES)  
 06/12/2000 - 06/30/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.: D A WILLIAMS*  
*Tech. Officer: GSFC/G A SOFFEN*  
*CASE Category: 13 - PHYSICS*

**NGT 5 30074** UNIV OF CALIFORNIA - SANTA CRUZ 2807  
 THE EVOLUTION OF STREAM CHANNELS IN A PROGRESSIVE N: THE FINISTERRE RANGE, PAUA NEW GUINEA  
 09/09/1997 - 02/28/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.: D SILVER*  
*Tech. Officer: GSFC/G ASRAR*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NGT 5 30112** UNIV OF CALIFORNIA - SANTA CRUZ 2808  
 EROSION AND SEDIMENT FLUXES BY VALLEY GLACIERS THROUGH THE CLIMATECYCLE: LINKS BETWEEN ALPINE  
 08/28/1998 - 08/31/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.: R S ANDERSON*  
*Tech. Officer: GSFC/M Y WEI*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NGT 5 30415** UNIV OF CALIFORNIA - SANTA CRUZ 2809  
 MODELING REEF ACCRETION RATES USING HYPERSPECTRAL REMOTE SENSING ANDFIELD MEASUREMENTS IN THE NO  
 08/16/2001 - 08/31/2004 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: D POTTS*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NGT 5 90077** UNIV OF CALIFORNIA - SANTA CRUZ 2810  
 GRPS: PHYSICAL MECHANISMS FOR LONG-TERM CLIMATE VA  
 09/08/1997 - 08/31/2000 FY01: -\$823 Total: \$65,177  
*Prin. Invest.: G VALLIS*  
*Tech. Officer: GSFC/G ASRAR*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

<b>NAG 5 9570</b>	<b>UNIV OF REDLANDS</b>	<b>2811</b>	<b>NAG 2 1489</b>	<b>UNIV OF SOUTHERN CALIFORNIA</b>	<b>2819</b>
TECHNOLOGY INFRASTRUCTURE FOR TEACHING, RESEARCH, AND INFORMATION SHARING			INVESTIGATING TEAMWORK AMONG SPACECRAFT (NEWAMES)		
05/15/2000 - 04/30/2001	FY01: \$0	Total: \$3,228,000	06/28/2001 - 11/30/2001	FY01: \$50,000	Total: \$50,000
<i>Prin. Invest.: P DOOLITTLE</i>			<i>Prin. Invest.: M TAMBE</i>		
<i>Tech. Officer: HQ/M PHELPS</i>			<i>Tech. Officer: ARC/C J PLAUNT, ARC/J BRESINA</i>		
<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>			<i>CASE Category: 22 – COMPUTER SCIENCE</i>		
<b>NAG 5 11366</b>	<b>UNIV OF REDLANDS</b>	<b>2812</b>	<b>NAG 3 1842</b>	<b>UNIV OF SOUTHERN CALIFORNIA</b>	<b>2820</b>
SCIENCE AND MATHEMATICS BUILDING PROJECT			GROUND BASED STUDIES OF INTERNAL FLOWS IN LEVITATED LASER – HEATED DROPS		
09/28/2001 - 09/30/2002	FY01: \$1,831,000	Total: \$1,831,000	05/03/1996 - 10/31/2000	FY01: \$0	Total: \$554,999
<i>Prin. Invest.: J R APPLETON</i>			<i>Prin. Invest.: S S SADHAL</i>		
<i>Tech. Officer: GSFC/M V PHELPS</i>			<i>Tech. Officer: GRC/B S SINGH</i>		
<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>			<i>CASE Category: 46 – MECHANICAL ENGR</i>		
<b>NAG 5 10049</b>	<b>UNIV OF SAN DIEGO</b>	<b>2813</b>	<b>NAG 3 1877</b>	<b>UNIV OF SOUTHERN CALIFORNIA</b>	<b>2821</b>
INNOVATIVE CURRICULAR REVISION & RESEARCH IN FIELD OF EARTH-SYSTEM & SPACE SCIENCE			DETAILED STUDIES ON THE STRUCTURE AND DYNAMICS OF REACTING DUSTING FLOWS IN NORMAL AND MICROGRAVITY		
10/13/2000 - 09/30/2001	FY01: \$458,000	Total: \$458,000	06/01/1996 - 01/01/2001	FY01: \$0	Total: \$393,615
<i>Prin. Invest.: S LOWERY</i>			<i>Prin. Invest.: P N EGOLFOPOULOS, P S CAMPBELL</i>		
<i>Tech. Officer: GSFC/M PHELPS</i>			<i>Tech. Officer: GRC/D D ROSS, GRC/M A SOCKSTEILER</i>		
<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>			<i>CASE Category: 46 – MECHANICAL ENGR</i>		
<b>NAG 9 1354</b>	<b>UNIV OF SAN DIEGO</b>	<b>2814</b>	<b>NAG 3 2124</b>	<b>UNIV OF SOUTHERN CALIFORNIA</b>	<b>2822</b>
FABRICATION AND GROWTH OF ENGINEERED TISSUES: ARTICULAR CARTILAGE W/BIOLOGICAL FUNCTIONAL STRAT			STRUCTURE OF FLAME BALLS IN LOW LEWIS NUMBER STRUCTURE OF FLAME BALLS IN LOW LEWIS NUMBER		
08/17/2001 - 09/30/2004	FY01: \$59,000	Total: \$59,000	02/10/1998 - 04/30/2003	FY01: \$214,709	Total: \$843,809
<i>Prin. Invest.: R SAH, A HOGER, S N BHATIA</i>			<i>Prin. Invest.: P D RONNEY</i>		
<i>Tech. Officer: JSC/D RISIN</i>			<i>Tech. Officer: GRC/K J WEILAND</i>		
<i>CASE Category: 56 – MEDICL</i>			<i>CASE Category: 46 – MECHANICAL ENGR</i>		
<b>NCC 5 308</b>	<b>UNIV OF SAN DIEGO</b>	<b>2815</b>	<b>NAG 3 2125</b>	<b>UNIV OF SOUTHERN CALIFORNIA</b>	<b>2823</b>
CREATIVE & INNOVATIVE WORKING PHOTOTYPE EARTH SCIENCE INFOR. PARTNERSHIP IN SUPPORT OF EARTH			THE DYNAMICS OF MISCELLY INTERFACES: A SPACE FLIG HT EXPERIMENT		
01/15/1998 - 11/30/2001	FY01: \$250,000	Total: \$1,375,000	02/25/1998 - 12/31/2002	FY01: \$127,848	Total: \$575,847
<i>Prin. Invest.: J J SIMPSON</i>			<i>Prin. Invest.: T MAXWORTHY, E H MEIBURG</i>		
<i>Tech. Officer: GSFC/M MAIDEN</i>			<i>Tech. Officer: GRC/B SIGH</i>		
<i>CASE Category: 39 – ENVIRONMENTAL SCI, OTHER</i>			<i>CASE Category: 46 – MECHANICAL ENGR</i>		
<b>NCC 2 893</b>	<b>UNIV OF SAN FRANCISCO</b>	<b>2816</b>	<b>NAG 3 2478</b>	<b>UNIV OF SOUTHERN CALIFORNIA</b>	<b>2824</b>
ENVIRONMENTAL RADIATION MEASUREMENTS ON THE MIR SP ACE STATION			THE DYNAMICS OF PARTICULATE DEPOSITION AND RESUSPE NSION PROCESSES AT MODERATE TO HIGH REYNOLDS NUMB		
03/27/1995 - 08/31/2000	FY01: \$0	Total: \$601,588	08/09/2000 - 11/30/2003	FY01: \$59,115	Total: \$92,026
<i>Prin. Invest.: E V BENTON, A L FRANK, R P KEEGAN</i>			<i>Prin. Invest.: D MAXWORTHY</i>		
<i>Tech. Officer: ARC/C M WINGET, ARC/G C JAHNS</i>			<i>Tech. Officer: GRC/F P CHARIAMONTE</i>		
<i>CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)</i>			<i>CASE Category: 49 – ENGINEERING, OTHER</i>		
<b>NCC 2 1282</b>	<b>UNIV OF SAN FRANCISCO</b>	<b>2817</b>	<b>NAG 3 2559</b>	<b>UNIV OF SOUTHERN CALIFORNIA</b>	<b>2825</b>
DOES GRAVITY INFLUENCE MATRIX SURVIVAL SIGNALING			INTEGRATED MICROPHONIC RECEIVER FOR KA-BAND INTEGRATED MICR- PHONIC RECEIVER FOR KA-BAND		
09/10/2001 - 09/30/2002	FY01: \$13,021	Total: \$13,021	03/10/2001 - 01/15/2004	FY01: \$262,500	Total: \$262,500
<i>Prin. Invest.: C H DAMSKY</i>			<i>Prin. Invest.: A LEVI</i>		
<i>Tech. Officer: ARC/E A ALMEIDA, ARC/E M HOLTON</i>			<i>Tech. Officer: GRC/J POUCH</i>		
<i>CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)</i>			<i>CASE Category: 45 – ELECTRICAL ENGR</i>		
<b>NAG 1 1996</b>	<b>UNIV OF SOUTHERN CALIFORNIA</b>	<b>2818</b>	<b>NAG 5 2313</b>	<b>UNIV OF SOUTHERN CALIFORNIA</b>	<b>2826</b>
TURBULENCE EFFECTS ON VERY LARGE FLIGHT VEHICLES.			LONG-TERM FUV FLUX AND WIND VARIABILITY IN BE STAR S AND MULTI- WAVELENGTH OBS. ATEQUATOR-ON . . .		
01/23/1998 - 01/31/2002	FY01: \$0	Total: \$226,000	07/12/1993 - 07/14/2000	FY01: \$670	Total: \$25,000
<i>Prin. Invest.: P B LISSAMAN</i>			<i>Prin. Invest.: G J PETERS</i>		
<i>Tech. Officer: LARC/J R CURZ</i>			<i>Tech. Officer: GSFC/R OLIVERSEN</i>		
<i>CASE Category: 41 – AERONAUTICAL ENGR</i>			<i>CASE Category: 11 – ASTRONOMY</i>		

**NAG 5 3429**      **UNIV OF SOUTHERN CALIFORNIA**      **2827**  
 THE ABUNDANCES OF THE IRON GROUP ELEMENTS IN EARLY B STARS  
 10/21/1996 - 10/31/2001      FY01: \$0      Total: \$65,300  
*Prin. Invest.: G J PETERS*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 4488**      **UNIV OF SOUTHERN CALIFORNIA**      **2828**  
 EUVE OBSERVATIONS OF ACTIVE B STARS  
 06/04/1997 - 05/31/2000      FY01: -\$77      Total: \$17,289  
*Prin. Invest.: G J PETERS*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 5018**      **UNIV OF SOUTHERN CALIFORNIA**      **2829**  
 ROCKET UNDERFLIGHTS FOR SOHO CROSS-CALIBRATION AND SOLAR  
 ATMOSPHERE INVESTIGATIONS  
 02/28/1994 - 08/31/2001      FY01: \$0      Total: \$1,669,385  
*Prin. Invest.: D J JUDGE*  
*Tech. Officer: GSFC/W B JOHNSON*  
*CASE Category: 13 - PHYSICS*

**NAG 5 5333**      **UNIV OF SOUTHERN CALIFORNIA**      **2830**  
 FIRST OF 3 YEAR EFFORT IN BASIC SCIENTIFIC RESEARCH WITH USC  
 06/25/2001 - 06/18/2004      FY01: \$289,969      Total: \$289,969  
*Prin. Invest.: D JUDGE*  
*Tech. Officer: WFF/J BRINTON*  
*CASE Category: 13 - PHYSICS*

**NAG 5 6360**      **UNIV OF SOUTHERN CALIFORNIA**      **2831**  
 OCEAN COLOR ALGORITHMS FOR PHOTOSYNTHETIC RATE AND BIO-OP-  
 TICAL COMPONENT  
 10/24/1997 - 03/14/2001      FY01: \$0      Total: \$508,091  
*Prin. Invest.: D A KIEFER*  
*Tech. Officer: GSFC/J A YODER*  
*CASE Category: 33 - OCEANOGRAPHY*

**NAG 5 6512**      **UNIV OF SOUTHERN CALIFORNIA**      **2832**  
 OPTICAL AND ANCILLARY MEASUREMENTS AT HIGH LATITUDES IN  
 SUPPORT OF THE MODIS OCEAN VALIDATION PROG  
 12/05/1997 - 03/31/2002      FY01: \$62,354      Total: \$310,372  
*Prin. Invest.: M STRAMSKA*  
*Tech. Officer: GSFC/D O STARR*  
*CASE Category: 19 - PHYSICALSCIENCE, OTHER*

**NAG 5 6696**      **UNIV OF SOUTHERN CALIFORNIA**      **2833**  
 AN INVESTIGATION OF THE HIGH TEMPERATURE CIRCUMSTELLAR  
 PLASMA IN ALGOL-TYPE INTERACTING BINARIES  
 12/17/1997 - 12/31/2001      FY01: \$0      Total: \$40,000  
*Prin. Invest.: G J PETERS*  
*Tech. Officer: GSFC/R POLIDAN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 6966**      **UNIV OF SOUTHERN CALIFORNIA**      **2834**  
 PHYSICAL PROCESSES AT THE HELIOSPHERIC BOUNDARY AND THEIR  
 DETECTABLE SIGNATURES AT 1 AU. A THEORETICAL  
 03/05/1998 - 12/31/2001      FY01: \$0      Total: \$68,300  
*Prin. Invest.: M A GRUNTMAN*  
*Tech. Officer: GSFC/J LING*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 7117**      **UNIV OF SOUTHERN CALIFORNIA**      **2835**  
 EUV OBSERVATIONS OF EARLY B STARS: EUV FLUX VARIABILITY IN BETA  
 CMA THROUGHTHROUGH ITS BEAT PERIOD  
 04/13/1998 - 04/14/2001      FY01: \$0      Total: \$11,520  
*Prin. Invest.: G J PETERS*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 7147**      **UNIV OF SOUTHERN CALIFORNIA**      **2836**  
 MINIATURIZED OPTICS FREE EUV ARRAY SPECTROMETER TO PROVIDE  
 STABLE SOLAR EUV SPECTRA  
 03/23/1998 - 04/14/2001      FY01: \$0      Total: \$228,255  
*Prin. Invest.: D L JUDGE*  
*Tech. Officer: GSFC/W WAGNER*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 7222**      **UNIV OF SOUTHERN CALIFORNIA**      **2837**  
 CROSS-CORRELATION ANALYSIS OF UV PROFILE VARIATIONS AND  
 NONRADIAL PULSATIONS IN BE STARS  
 04/10/1998 - 04/14/2000      FY01: -\$17      Total: \$22,383  
*Prin. Invest.: G PETERS*  
*Prin. Invest.: NONE*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 7816**      **UNIV OF SOUTHERN CALIFORNIA**      **2838**  
 APPLICATIONS OF THE FILTER DIAGONALIZATION SPECTRAL ESTIMATOR  
 IN HELIOSEISMOLOGY  
 12/14/1998 - 06/14/2000      FY01: \$0      Total: \$49,706  
*Prin. Invest.: W DAPPEN*  
*Tech. Officer: GSFC/J GURMAN*  
*CASE Category: 19 - PHYSICAL SCIENCE, OTHER*

**NAG 5 7902**      **UNIV OF SOUTHERN CALIFORNIA**      **2839**  
 EQUATION OF STATE STUDIES USING SOHO DATA  
 12/10/1998 - 12/31/2000      FY01: \$0      Total: \$45,728  
*Prin. Invest.: W DAPPEN*  
*Tech. Officer: GSFC/J GURMAN*  
*CASE Category: 19 - PHYSICAL SCIENCE, OTHER*

**NAG 5 8021**      **UNIV OF SOUTHERN CALIFORNIA**      **2840**  
 STUDIES OF SOLAR INTERNAL STRUCTURE AND DYNAMICS USING HIGH  
 DEGREE-P-MODE OBSERVATIONS FROM THE  
 01/22/1999 - 03/31/2002      FY01: \$72,000      Total: \$203,000  
*Prin. Invest.: E J RHODES*  
*Tech. Officer: GSFC/J GURMAN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 8274**      **UNIV OF SOUTHERN CALIFORNIA**      **2841**  
 PHOTON ABSORPTION STUDIES OF ATMOSPHERIC GASES UNDER  
 IN-SITU CONDITIONS  
 04/06/1999 - 12/31/2001      FY01: \$55,000      Total: \$154,455  
*Prin. Invest.: D JUDGE*  
*Tech. Officer: GSFC/R BEEBE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 8309**      **UNIV OF SOUTHERN CALIFORNIA**      **2842**  
 REMOTE OPTICAL MEASUREMENTS OF NEAR-SURFACE TURBULENCE  
 FOR THE OCEAN-AIRGAS EXCHANGE: A THEORETICAL  
 03/08/1999 - 04/30/2000      FY01: -\$2,575      Total: \$27,425  
*Prin. Invest.: D BOGUCKI*  
*Tech. Officer: GSFC/J CAMPBELL*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8367**      **UNIV OF SOUTHERN CALIFORNIA**      **2843**  
 THE ABUNDANCES OF THE IRON GROUP ELEMENTS IN EARLY B STARS  
 (ADP98)  
 03/01/1999 - 02/28/2002      FY01: \$0      Total: \$38,889  
*Prin. Invest.: G PETERS, NONE*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8445**      **UNIV OF SOUTHERN CALIFORNIA**      **2844**  
 REMOTE SENSING DETECTION AND ANALYSIS OF STORMWATER PLUMES  
 IN SANTAMONICA BAY, CALIFORNIA  
 04/07/1999 - 03/31/2000      FY01: -\$235      Total: \$100,796  
*Prin. Invest.: B H JONES*  
*Tech. Officer: GSFC/J W CAMPBELL*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8545**      **UNIV OF SOUTHERN CALIFORNIA**      **2845**  
 STUDIES OF TEMPORAL CHANGES IN SOLAR INTERNAL STRUCTURE &  
 DYNAMICS USING OBSERVATIONS OF INTERM  
 05/13/1999 - 04/30/2002      FY01: \$168,205      Total: \$423,448  
*Prin. Invest.: E J RHODES*  
*Tech. Officer: GSFC/W J WAGNER*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8884**      **UNIV OF SOUTHERN CALIFORNIA**      **2846**  
 MODELING N2 AND CO2 FIXATION BY THE OCEAN DIAZOTROPHIC CYANOBACTERIUM, TRICHODESMIUM  
 11/24/1999 - 09/30/2001      FY01: \$0      Total: \$59,027  
*Prin. Invest.: D CAPONE*  
*Tech. Officer: GSFC/J MARRA*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8939**      **UNIV OF SOUTHERN CALIFORNIA**      **2847**  
 OUTER PLANET UPPER ATMOSPHERE/MAGNETOSPHERE RESEARCH  
 01/14/2000 - 01/14/2002      FY01: \$75,000      Total: \$145,650  
*Prin. Invest.: D SHEMANSKY*  
*Tech. Officer: GSFC/D BOGAN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8978**      **UNIV OF SOUTHERN CALIFORNIA**      **2848**  
 OBSERVATION OF THE ACCRETION-DRIVEN BIPOLAR FLOWS IN THE  
 INTERACTING BINARIES TTHYA & V356 SGR FUSE  
 01/24/2000 - 01/31/2002      FY01: \$0      Total: \$29,000  
*Prin. Invest.: G J PETERS*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9124**      **UNIV OF SOUTHERN CALIFORNIA**      **2849**  
 CIRCUMSTELLAR MATERIAL & STELLAR COMPONENTS IN HR 2142, A  
 MASSIVE INTERACTING BINARY IN A LATE EVOLU  
 03/07/2000 - 03/14/2002      FY01: \$0      Total: \$29,378  
*Prin. Invest.: G PETERS*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9740**      **UNIV OF SOUTHERN CALIFORNIA**      **2850**  
 VALIDATION OF THE SEMI-DIURNAL TIDAL FLUCTUATIONS IN THE  
 COMPUTATIONS OF WATER LEAVING RADIANCE FROM  
 08/31/2000 - 08/31/2001      FY01: \$0      Total: \$27,125  
*Prin. Invest.: R ITURRIAGA*  
*Tech. Officer: GSFC/J MARRA*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 10399**      **UNIV OF SOUTHERN CALIFORNIA**      **2851**  
 MICROSOURCE, MILLIWATT VACUUM PUMPS FOR SAMPLING INSTRUMENTATION  
 02/13/2001 - 01/31/2002      FY01: \$174,272      Total: \$174,272  
*Prin. Invest.: G SHIFFLETT*  
*Tech. Officer: GSFC/M DUTTA*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 5 10930**      **UNIV OF SOUTHERN CALIFORNIA**      **2852**  
 INVESTIGATING THE EXCITATION MECHANISM FOR COMETARY X-RAY,  
 EUV, & FUV EMISSIONS (FUSE 2000)  
 05/17/2001 - 06/30/2002      FY01: \$10,000      Total: \$10,000  
*Prin. Invest.: D E SHEMANSKY*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10989**      **UNIV OF SOUTHERN CALIFORNIA**      **2853**  
 EXPLORATION OF THE HELIOSPHERIC INTERFACE BY SOLAR BACKSCATTERED LYMAN ALPHA RADIATION: INTERPREATIO  
 06/05/2001 - 05/31/2002      FY01: \$76,041      Total: \$76,041  
*Prin. Invest.: P K GANGOPADHAY*  
*Tech. Officer: GSFC/W J WAGNER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 11001**      **UNIV OF SOUTHERN CALIFORNIA**      **2854**  
 IMPLEMENTATION OF A NEW METHOD FOR THE COMPUTATION OF THE  
 FREQUENCIES & FREQUENCY SPLITTINGS OF THE  
 06/06/2001 - 05/31/2002      FY01: \$88,000      Total: \$88,000  
*Prin. Invest.: E J RHODES*  
*Tech. Officer: GSFC/W J WAGNER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 11042**      **UNIV OF SOUTHERN CALIFORNIA**      **2855**  
 TEMPERATURE-DEPENDENT CROSS SECTION MEASUREMENT OF LIGHT  
 HYDROCARBONS, IN SUPPORT OF OUTER PLANET  
 06/13/2001 - 06/14/2002      FY01: \$53,000      Total: \$53,000  
*Prin. Invest.: C WU*  
*Tech. Officer: GSFC/D J BOGAN*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 11218**      **UNIV OF SOUTHERN CALIFORNIA**      **2856**  
 IMPROVE ESTIMATE OF GAS TRANSFER USING SCATTEROMETER  
 08/13/2001 - 08/31/2004      FY01: \$103,971      Total: \$103,971  
*Prin. Invest.: D BOGUCKI*  
*Tech. Officer: GSFC/J MARRA*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 11304**      **UNIV OF SOUTHERN CALIFORNIA**      **2857**  
 MICROGRAVITY TRANSPORT PROCESSES IN FLUID, THERMAL MATERIALS  
 AND BIOLOGICAL SCIENCES CONFERENCE  
 08/30/2001 - 08/31/2002      FY01: \$15,000      Total: \$15,000  
*Prin. Invest.: S SADHAL*  
*Tech. Officer: GSFC/D SPEARS*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 8 1240 UNIV OF SOUTHERN CALIFORNIA 2858**  
 NUMERICAL & LABORATORY EXPERIMENTS ON INTERACTIVE DYNAMICS  
 OF CONVECTION & DIRECTIONAL SOLIDIFICATION  
 04/15/1996 - 04/30/2001 FY01: \$0 Total: \$499,997  
*Prin. Invest.: T MAXWORTHY, E MEIBURG*  
*Tech. Officer: MSFC/P DOTY*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 8 1663 UNIV OF SOUTHERN CALIFORNIA 2859**  
 NON-INTRUSIVE MEASUREMENT OF THERMOPHYSICAL PROPERTIES OF  
 LIQUIDS BY ELECTROSTATIC LEVITATION  
 06/16/2000 - 11/30/2003 FY01: \$85,500 Total: \$300,500  
*Prin. Invest.: S SADHAL*  
*Tech. Officer: MSFC/P DOTY*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 8 1701 UNIV OF SOUTHERN CALIFORNIA 2860**  
 EXTINCTION AND INSTABILITY MECHANISMS OF POLYMERIZATION  
 FRONTS  
 07/19/2000 - 11/30/2003 FY01: \$95,000 Total: \$135,000  
*Prin. Invest.: P RONNEY*  
*Tech. Officer: MSFC/P DOTY*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 9 1165 UNIV OF SOUTHERN CALIFORNIA 2861**  
 AUGMENTED REALITY FOR SPACE FLIGHT  
 12/07/1999 - 12/09/2002 FY01: \$208,525 Total: \$413,559  
*Prin. Invest.: U NEUMANN*  
*Tech. Officer: JSC/B J WOOLFORD*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NAS 2 00091 UNIV OF SOUTHERN CALIFORNIA 2862**  
 OPERATION / MGMT OF NASA FAR WEST RTTC  
 12/21/2000 - 12/31/2002 FY01: \$1,202,845 Total: \$1,202,845  
*Prin. Invest.: K DOZIER*  
*Tech. Officer: ARC/C COSTELLANO, ARC/B ROBINSON*  
*CASE Category: 42 – ASTRONAUTICAL ENGR*

**NAS 5 99232 UNIV OF SOUTHERN CALIFORNIA 2863**  
 SENSOR INTERCOMPARISON & MERGER FOR BIOLOGICAL & INTERDISCIPLINARY STUDIES.  
 08/31/1999 - 08/30/2000 FY01: \$118 Total: \$110,818  
*Prin. Invest.: D G CAPONE*  
*Tech. Officer: GSFC/C MCCLAIN*  
*CASE Category: 33 – OCEANOGRAPHY*

**NAS 8 97115 UNIV OF SOUTHERN CALIFORNIA 2864**  
 USC RTTC  
 01/30/1997 - 12/31/2000 FY01: \$167,075 Total: \$5,333,164  
*Prin. Invest.: G BEKEY*  
*Tech. Officer: ARC/C CASTELLANO*  
*CASE Category: 42 – ASTRONAUTICAL ENGR*

**NCC 2 1224 UNIV OF SOUTHERN CALIFORNIA 2865**  
 BIOLOGICAL ASPECTS OF COMPUTATION  
 04/05/2001 - 02/28/2002 FY01: \$250,000 Total: \$250,000  
*Prin. Invest.: L ADLEMAN*  
*Tech. Officer: ARC/T R GOVINDAN, ARC/S LAU*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NCC 2 1242 UNIV OF SOUTHERN CALIFORNIA 2866**  
 ROBUST SPEECH RECOGNITION USING DYNAMIC SYNAPSE NEURAL NETWORKS  
 04/25/2001 - 02/28/2002 FY01: \$125,000 Total: \$125,000  
*Prin. Invest.: T W BERGER*  
*Tech. Officer: ARC/L STONE, ARC/M SHAFTO*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NCC 2 5420 UNIV OF SOUTHERN CALIFORNIA 2867**  
 CARBON NANOTUBE MOLECULAR ELECTROCINS  
 02/09/2001 - 02/28/2002 FY01: \$94,999 Total: \$94,999  
*Prin. Invest.: C ZHOU*  
*Tech. Officer: ARC/M MEYYAPPAN, ARC/H PARTRIDGE*  
*CASE Category: 13 – PHYSICS*

**NCC 2 5454 UNIV OF SOUTHERN CALIFORNIA 2868**  
 MOLECULAR WIRES AND TRANSISTORS  
 08/08/2001 - 07/31/2002 FY01: \$40,000 Total: \$40,000  
*Prin. Invest.: C ZHOU*  
*Tech. Officer: ARC/M MEYYAPPAN, ARC/H PARRISAGE*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NCC 3 501 UNIV OF SOUTHERN CALIFORNIA 2869**  
 THE HIGH-LEWIS NUMBER DIFFUSIVE-THERMAL INSTABILITY IN PREMIXED GAS COMBUSTION & LOW TEMPERATURE HYDROGEN  
 09/05/1996 - 03/31/2001 FY01: -\$2,078 Total: \$457,329  
*Prin. Invest.: H G PEARLMAN, NONE*  
*Tech. Officer: GRC/D W GRIFFIN*  
*CASE Category: 46 – MECHANICAL ENGR*

**NCC 3 671 UNIV OF SOUTHERN CALIFORNIA 2870**  
 TRANSPORT AND CHEMICAL EFFECTS ON CONCURRENT AND OPPOSED-FLOW FLAME SPREAD AT MICROGRAVITY  
 02/12/1999 - 01/03/2003 FY01: \$201,500 Total: \$486,500  
*Prin. Invest.: P D RONNEY*  
*Tech. Officer: GRC/S A GOKOGLU*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 3 678 UNIV OF SOUTHERN CALIFORNIA 2871**  
 QUANTITATIVE STUDIES ON THE PROPAGATION AND EXTINCTION OF NEAR-LIMIT FLAMES UNDER NORMAL AND MICROGRAVITY  
 03/01/1999 - 11/29/2002 FY01: \$95,000 Total: \$300,000  
*Prin. Invest.: F N EGOLPOLOUOS*  
*Tech. Officer: GRC/K R SACKSTEDER*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 3 827 UNIV OF SOUTHERN CALIFORNIA 2872**  
 ACOUSTIC BUBBLE REMOVAL FROM BOILING SURFACES AND ITS OPTIMIZATION  
 09/29/2000 - 11/30/2003 FY01: \$80,249 Total: \$80,249  
*Prin. Invest.: K OHSAKA*  
*Tech. Officer: GRC/M M HASAN*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 3 834 UNIV OF SOUTHERN CALIFORNIA 2873**  
 DETAILED STUDIES ON THE STRUCTURE AND DYNAMICS OF REACTING DUSTY FLOWS AT NORMAL- AND MICRO-GRAVITY  
 12/18/2000 - 10/31/2004 FY01: \$99,999 Total: \$99,999  
*Prin. Invest.: P N EGOLPOULOS*  
*Tech. Officer: GRC/K R SACKSTEDER*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 3 841**      **UNIV OF SOUTHERN CALIFORNIA**      **2874**  
 HIGH PRESSURE TRANSPORT PROPERTIES OF FLUIDS: THE ORY AND  
 DATA FROM LEVITATED DROPS AT COMBUSTION-R  
 12/22/2000 – 11/30/2003      FY01: \$45,000      Total: \$45,000  
*Prin. Invest.: K OHSAKA*  
*Tech. Officer: GRC/K R SACKSTEDER*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 3 854**      **UNIV OF SOUTHERN CALIFORNIA**      **2875**  
 DETERMINATION OF COOL FLAME QUENCHING DISTANCES AT  
 MICROGRAVITY  
 01/24/2001 – 11/30/2004      FY01: \$47,467      Total: \$47,467  
*Prin. Invest.: H PEARLMAN*  
*Tech. Officer: GRC/J E BROOKER*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 3 871**      **UNIV OF SOUTHERN CALIFORNIA**      **2876**  
 THE HIGH-LEWIS NUMBER DIFFUSIVE-THERMAL INSTABILITY IN  
 PREMIXED GAS COMBUSTION AND LOW TEMPERATURE  
 03/01/2001 – 11/30/2004      FY01: \$109,485      Total: \$109,485  
*Prin. Invest.: H PEARLMAN*  
*Tech. Officer: GRC/D L URBAN*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NSG 5108**      **UNIV OF SOUTHERN CALIFORNIA**      **2877**  
 ROCKET EXPERIMENTS TO MEASURE THE SOLAR SPECTRAL PROFILE &  
 INTENSITY  
 04/01/1976 – 10/31/2000      FY01: \$0      Total: \$3,316,267  
*Prin. Invest.: D L JUDGE, H S OGAWA*  
*Tech. Officer: GSFC/L J EARLY, GSFC/R H PLESS*  
*CASE Category: 13 – PHYSICS*

## COLORADO

**NCC 2 5337**      **ADAMS STATE COLLEGE**      **2878**  
 ENHANCEMENT OF AMPHION  
 07/23/1999 – 12/31/2000      FY01: -\$3,587      Total: \$46,457  
*Prin. Invest.: S ROACH*  
*Tech. Officer: ARC/M R LOWRY, ARC/S LAU*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 3 1970**      **COLORADO SCHOOL OF MINES**      **2879**  
 NMRI MEASUREMENTS & GRANULAR DYNAMICS SIMULATIONS OF  
 SEGREGATION OF GRANULAR MIXTURES  
 09/25/1996 – 10/31/1999      FY01: \$0      Total: \$478,034  
*Prin. Invest.: M NAKAGAWA, E FUKUSHIMA*  
*Tech. Officer: GRC/B SINGH*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 5 9684**      **COLORADO SCHOOL OF MINES**      **2880**  
 LUNAR DATA ANALYSIS PROGRAM PROPOSAL: ECONOMIC EVALUATION  
 OF POLAR REGIONS USING LUNAR PROSPECT  
 06/29/2000 – 06/30/2002      FY01: \$32,000      Total: \$64,000  
*Prin. Invest.: M B DUKE*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 9 1207**      **COLORADO SCHOOL OF MINES**      **2881**  
 EXTRACTION OF VOLATILES FROM LUNAR AND MARTIAN REGOLITHS  
 03/01/2000 – 02/28/2003      FY01: \$50,000      Total: \$229,997  
*Prin. Invest.: M B DUKE*  
*Tech. Officer: JSC/D MCKAY*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 9 1364**      **COLORADO SCHOOL OF MINES**      **2882**  
 A NOVEL COLLOIDAL MICROFULIDES PLATFORM FOR SPACE BORNE  
 MICRO TOTAL  
 07/27/2001 – 09/30/2002      FY01: \$81,000      Total: \$81,000  
*Prin. Invest.: D W. M. MARR*  
*Tech. Officer: JSC/D RISIN*  
*CASE Category: 56 – MEDICL*

**NCC 3 659**      **COLORADO SCHOOL OF MINES**      **2883**  
 A FUNDAMENTAL STUDY OF THE COMBUSTION SYNTHESIS OF CERAMIC-METAL COMPOSITE MATERIALS UNDER MICROGRAVITY  
 01/05/1999 – 11/11/2002      FY01: \$118,750      Total: \$358,750  
*Prin. Invest.: D J MOORE*  
*Tech. Officer: GRC/S A GOKOGLU*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCCW 96**      **COLORADO SCHOOL OF MINES**      **2884**  
 THE CENTER FOR COMMERCIAL APPLICATIONS OF COMBUSTION IN SPACE  
 05/01/1996 – 10/31/2001      FY01: \$0      Total: \$9,036,613  
*Prin. Invest.: F SCHOWENGERDT*  
*Tech. Officer: MSFC/J R WEST*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 1 2045**      **COLORADO STATE UNIV**      **2885**  
 LARGE EDDY SIMULATION OF CIRRUS CLOUDS  
 04/02/1998 – 10/31/2001      FY01: \$0      Total: \$142,463  
*Prin. Invest.: W COTTON*  
*Tech. Officer: LARC/D S McDougal, LARC/J RAPER*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 1 2063**      **COLORADO STATE UNIV**      **2886**  
 STUDIES OF ICE NUCLEATING AEROSOL PARTICLES IN ARCTIC CLOUD SYSTEMS  
 05/19/1998 – 02/28/2001      FY01: -\$19,438      Total: \$214,468  
*Prin. Invest.: D C ROGERS, J P DEMOTT*  
*Tech. Officer: LARC/D S McDougal, LARC/J RAPER*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 1 2081**      **COLORADO STATE UNIV**      **2887**  
 INTERACTIONS OF THE CLOUDY ARCTIC BOUNDARY LAYER WITH VARIABLE SURFACE CONDITIONS  
 06/23/1998 – 04/30/2001      FY01: -\$1      Total: \$265,000  
*Prin. Invest.: D A RANDALL*  
*Tech. Officer: LARC/D S McDougal, LARC/J RAPER*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 1 2247**      **COLORADO STATE UNIV**      **2888**  
 RETRIEVAL OF PROPERTIES OF HIGH CLOUDS FROM LITE DATA  
 10/21/1999 – 09/30/2002      FY01: \$75,740      Total: \$218,143  
*Prin. Invest.: G STEPHENS*  
*Tech. Officer: LARC/V DELNORE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

<b>NAG 3 1801</b>	<b>COLORADO STATE UNIV</b>	<b>2889</b>	<b>NAG 5 7558</b>	<b>COLORADO STATE UNIV</b>	<b>2897</b>
ADVANCED ELECTRIC PROPULSION RESEARCH 01/23/1996 - 10/31/2001	FY01: \$45,028	Total: \$205,107	SNOW HYDROLOGY-THE PARAMETERIZATION OF SUBGRID PROCESSES WITHIN A PHYSICALLY BASED SNOW ENERGY 07/02/1998 - 06/30/2001	FY01: \$0	Total: \$51,313
<i>Prin. Invest.: P J WILBUR</i>			<i>Prin. Invest.: K ELDER</i>		
<i>Tech. Officer: GRC/V K RAWLIN</i>			<i>Tech. Officer: GSFC/E T ENGMAN</i>		
<i>CASE Category: 13 - PHYSICS</i>			<i>CASE Category: 32 - GEOLOGICAL SCIENCE</i>		
<b>NAG 5 4073</b>	<b>COLORADO STATE UNIV</b>	<b>2890</b>	<b>NAG 5 7560</b>	<b>COLORADO STATE UNIV</b>	<b>2898</b>
CLIMATE SENSITIVITY OF THAW LAKE SYSTEMS ON THE AL 03/17/1997 - 12/31/1999	FY01: \$10,199	Total: \$25,335	A SNOW-EVOLUTION MODELING-SYSTEM FOR WEATHER, CLIMATE, AND HYDROLOGIC APPLICATIONS 06/29/1998 - 06/30/2001	FY01: \$0	Total: \$320,000
<i>Prin. Invest.: D LISTON</i>			<i>Prin. Invest.: G E LISTON</i>		
<i>Tech. Officer: GSFC/R H THOMAS</i>			<i>Tech. Officer: GSFC/E T ENGMAN</i>		
<i>CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</i>			<i>CASE Category: 32 - GEOLOGICAL SCIENCE</i>		
<b>NAG 5 4646</b>	<b>COLORADO STATE UNIV</b>	<b>2891</b>	<b>NAG 5 7717</b>	<b>COLORADO STATE UNIV</b>	<b>2899</b>
TITLE: USING MULTI-SENSOR DATA TO MODEL FACTORS IN GLOBAL ARID & SEMIARID LANDS 06/17/1997 - 05/31/2002	FY01: \$0	Total: \$2,212,780	IMPROVING TRMM GV & FC GOALS USING POLARIMETRIC RADAR ANALYSES WITHIN-SITU GROUND-BASED AND AIRCRAFT P 10/27/1998 - 10/31/2002	FY01: \$100,644	Total: \$306,488
<i>Prin. Invest.: D OJIMA</i>			<i>Prin. Invest.: V N BRINGI</i>		
<i>Tech. Officer: GSFC/G C GUTMAN</i>			<i>Tech. Officer: GSFC/O W THIELE</i>		
<i>CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</i>			<i>CASE Category: 31 - ATMOSPHERIC SCIENCE</i>		
<b>NAG 5 4749</b>	<b>COLORADO STATE UNIV</b>	<b>2892</b>	<b>NAG 5 7719</b>	<b>COLORADO STATE UNIV</b>	<b>2900</b>
ANALYSIS OF THE DIURNAL CYCLE OF PRECIPITATION AND RADIATIVE FORCING USING TRMM PRODUCTS 06/26/1997 - 06/30/2000	FY01: -\$10	Total: \$357,524	TOWARDS A MULTISENSOR APPROACH TO IMPROVE ON CURRENT TRMM RETRIEVALS OF CLOUDS AND PRECIPITATION 10/27/1998 - 10/31/2001	FY01: \$83,395	Total: \$257,201
<i>Prin. Invest.: D RANDALL</i>			<i>Prin. Invest.: G L STEPHENS</i>		
<i>Tech. Officer: GSFC/O W THIELE</i>			<i>Tech. Officer: GSFC/O W THIELE</i>		
<i>CASE Category: 31 - ATMOSPHERIC SCIENCE</i>			<i>CASE Category: 31 - ATMOSPHERIC SCIENCE</i>		
<b>NAG 5 4754</b>	<b>COLORADO STATE UNIV</b>	<b>2893</b>	<b>NAG 5 7783</b>	<b>COLORADO STATE UNIV</b>	<b>2901</b>
VALIDATION STUDIES AND ALGORITHM REFINEMENT IN SUP 06/17/1997 - 05/31/2000	FY01: -\$3,674	Total: \$528,295	MODELED AEROSOL OPTICAL PROPERTIES FROM MEASUREMENT-BASED MIXTURES OF CHEMICAL SPECIES-ASSESSING TH 11/03/1998 - 12/31/2001	FY01: \$0	Total: \$100,000
<i>Prin. Invest.: S A RUTLEDGE</i>			<i>Prin. Invest.: S M KREIDENWEIS</i>		
<i>Tech. Officer: GSFC/R A ALDER</i>			<i>Tech. Officer: GSFC/M MISHCHENKO</i>		
<i>CASE Category: 31 - ATMOSPHERIC SCIENCE</i>			<i>CASE Category: 31 - ATMOSPHERIC SCIENCE</i>		
<b>NAG 5 4983</b>	<b>COLORADO STATE UNIV</b>	<b>2894</b>	<b>NAG 5 7876</b>	<b>COLORADO STATE UNIV</b>	<b>2902</b>
THE BIO-ATMOSPHERIC CYCLES OF NITROGEN AND CARBON: POLLUTION AND TERRESTRIAL ECOSYSTEMS 08/29/1997 - 07/31/2000	FY01: -\$23	Total: \$82,477	TRMM PRECIPITATION RADAR AND MICROPHYSICS: INTERPRETATION AND PRECIPITATION ESTIMATION 11/30/1998 - 11/30/2000	FY01: \$0	Total: \$137,976
<i>Prin. Invest.: W PARTON</i>			<i>Prin. Invest.: V CHANDRASEKAR</i>		
<i>Tech. Officer: HQ/D WICKLAND</i>			<i>Tech. Officer: GSFC/O W THIELE</i>		
<i>CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</i>			<i>CASE Category: 31 - ATMOSPHERIC SCIENCE</i>		
<b>NAG 5 6228</b>	<b>COLORADO STATE UNIV</b>	<b>2895</b>	<b>NAG 5 8705</b>	<b>COLORADO STATE UNIV</b>	<b>2903</b>
VEMAP PHASE II 09/11/1997 - 06/30/2001	FY01: \$0	Total: \$377,912	NET CARBON & ENERGY BALANCE OF SAVANNA ECOSYSTEMS AT EOS VALIDATION SITES IN SOUTHERN AFRICA 07/21/1999 - 06/30/2000	FY01: \$0	Total: \$192,159
<i>Prin. Invest.: D OJIMA</i>			<i>Prin. Invest.: N HANAN</i>		
<i>Tech. Officer: GSFC/J RANSON</i>			<i>Tech. Officer: GSFC/D E WICKLAND</i>		
<i>CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</i>			<i>CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</i>		
<b>NAG 5 6637</b>	<b>COLORADO STATE UNIV</b>	<b>2896</b>			
ASSESSING THE IMPACT OF REMOTE SENSING DATA ON CLOUDINESS PREDICTION IN SHORT-TERM FORECASTS 11/18/1997 - 04/30/2001	FY01: \$0	Total: \$544,049			
<i>Prin. Invest.: P L STEPHENS</i>					
<i>Tech. Officer: GSFC/J C DODGE</i>					
<i>CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</i>					

**NAG 5 9308** COLORADO STATE UNIV 2904  
 FUNDING FOR THE CLOSEOUT OF "FREEZING CHARACTERISTICS OF SOOT/SULFATE AEROSOLS IN RESPONSE TO NRA-  
 03/28/2000 - 03/31/2002 FY01: \$57,000 Total: \$73,040  
*Prin. Invest.: D J DEMOTT*  
*Tech. Officer: GSFC/R LAWRENCE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 9642** COLORADO STATE UNIV 2905  
 ANALYSIS OF DATA FROM TRMM/LBA TO VALIDATE TRMM SATELLITE ALGORITHMS & MODELS  
 06/19/2000 - 11/30/2001 FY01: \$262,311 Total: \$355,984  
*Prin. Invest.: S A RUTLEDGE*  
*Tech. Officer: GSFC/R J LAWRENCE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 9647** COLORADO STATE UNIV 2906  
 USE OF TRMM DATA TO TEST AN IMPROVED PARAMETERIZATION OF STRATIFORM PRECIPITATION  
 06/20/2000 - 11/30/2001 FY01: \$261,000 Total: \$336,432  
*Prin. Invest.: D A RANDALL*  
*Tech. Officer: GSFC/R J LAWRENCE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 9655** COLORADO STATE UNIV 2907  
 TRMM PRECIPITATION RADAR AND MICROPHYSICS: INTERP RETENTION AND PRECIPITATION ESTIMATION  
 06/09/2000 - 11/30/2001 FY01: \$136,000 Total: \$193,239  
*Prin. Invest.: V CHANDRASEKAR*  
*Tech. Officer: GSFC/R J LAWRENCE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 9665** COLORADO STATE UNIV 2908  
 TRMM SOUNDING STUDIES  
 06/06/2000 - 06/14/2002 FY01: \$109,000 Total: \$175,500  
*Prin. Invest.: R H JOHNSON*  
*Tech. Officer: GSFC/R J LAWRENCE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 10076** COLORADO STATE UNIV 2909  
 TWO-BEAM SODIUM LIDAR OBSERVATION OF TEMPERATURE & WINDS & PASSIVE OPTICAL MEASUREMENT CLUSTER IN THE  
 10/24/2000 - 04/30/2002 FY01: \$202,000 Total: \$202,000  
*Prin. Invest.: C SHE*  
*Tech. Officer: GSFC/M MELLOTT*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10482** COLORADO STATE UNIV 2910  
 THE EFFECTS OF CLIMATE REGIME ON TRMM RETRIEVALS  
 03/01/2001 - 05/31/2002 FY01: \$151,000 Total: \$151,000  
*Prin. Invest.: W K BERG*  
*Tech. Officer: GSFC/R J LAWRENCE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 10593** COLORADO STATE UNIV 2911  
 AN INTERGRATED MULTI-SCALE INVESTIGATION OF GRASS- LAND MANAGEMENT: IMPLICATIONS FOR CARBON CYCLING  
 03/22/2001 - 02/28/2002 FY01: \$115,866 Total: \$115,866  
*Prin. Invest.: R CONANT*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 11010** COLORADO STATE UNIV 2912  
 OBSERVATIONAL, THEORETICAL, AND MODELING RESEARCH IN SUPPORT OF CAMEX  
 06/06/2001 - 06/14/2002 FY01: \$85,000 Total: \$85,000  
*Prin. Invest.: W H SCHUBERT*  
*Tech. Officer: GSFC/R J LAWRENCE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 11018** COLORADO STATE UNIV 2913  
 VALIDATE SATELLITE MEASUREMENTS OF UV RADIATION BY TOMS  
 06/21/2001 - 06/14/2002 FY01: \$69,728 Total: \$69,728  
*Prin. Invest.: J SLUSSER*  
*Tech. Officer: GSFC/J R HERMAN*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 11073** COLORADO STATE UNIV 2914  
 LAND-USE CHANGE IN TEMPERATE EAST ASIA: LAND COVER CHANGES IMPACTS ON CARBON FLUXES AND LAND PRODUCT  
 07/19/2001 - 08/14/2002 FY01: \$43,225 Total: \$43,225  
*Prin. Invest.: D OJIMA*  
*Tech. Officer: GSFC/G GUTMAN*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 11109** COLORADO STATE UNIV 2915  
 VALIDATION AND ENHANCEMENT OF AMSR-E CLOUD AND PRECIPITATION PRODUCTS AQUA-0070-0047  
 07/13/2001 - 08/31/2002 FY01: \$56,819 Total: \$56,819  
*Prin. Invest.: G L STEPHENS*  
*Tech. Officer: GSFC/D STARR*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 11140** COLORADO STATE UNIV 2916  
 ENERGY & WATER CYCLES WITHIN HURRICANES DETERMINED FROM HIGH-RESOLUTIONS SIMULATIONS  
 08/08/2001 - 08/14/2002 FY01: \$44,999 Total: \$44,999  
*Prin. Invest.: M T MONTGOMERY*  
*Tech. Officer: GSFC/A J NEGRI*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 11189** COLORADO STATE UNIV 2917  
 THE EXTENSION OF THE TRMM MICROWAVE RAINFALL AND VERTICAL STRUCTURE ALGORITHM TO OTHER RADIOMETERS  
 08/07/2001 - 08/14/2002 FY01: \$313,617 Total: \$313,617  
*Prin. Invest.: C D KUMMEROW*  
*Tech. Officer: GSFC/R L LAWRENCE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 11280** COLORADO STATE UNIV 2918  
 MARS SOIL MECHANICS INVESTIGATION  
 08/20/2001 - 08/31/2002 FY01: \$59,200 Total: \$59,200  
*Prin. Invest.: J NELSON*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 8 1511** COLORADO STATE UNIV 2919  
 COUPLING ATMOSPHERIC, ECOLOGIC, AND HYDROLOGIC PROCESSES IN A REGIONAL CLIMATE MODEL  
 03/05/1998 - 03/01/2001 FY01: \$0 Total: \$348,133  
*Prin. Invest.: R A PIELKE, G E LISTON*  
*Tech. Officer: MSFC/J ARNOLD*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 8 1801** COLORADO STATE UNIV 2920  
 MINI-MAGNETOSPHERIC PLASMA PROPULSION FOR PLANT-ETARY EXPLORATION  
 04/25/2001 - 03/15/2004 FY01: \$101,101 Total: \$101,101  
*Prin. Invest.: P J WILBUR*  
*Tech. Officer: GRC/V K RAWLIN*  
*CASE Category: 13 – PHYSICS*

**NAG10 234** COLORADO STATE UNIV 2921  
 GRAVITY INDUCED CHANGES IN GENE EXPRESSION  
 09/22/1997 – 12/31/2000 FY01: \$0 Total: \$353,340  
*Prin. Invest.: A N REDDY*  
*Tech. Officer: KSC/W M KNOTT*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NAS 1 98125** COLORADO STATE UNIV 2922  
 CLOUDS AND THE EARTH'S ENERGY SYSTEM (CERES) SCIENTIFIC INVESTIGATION  
 10/28/1998 – 10/31/2001 FY01: \$355,370 Total: \$694,407  
*Prin. Invest.: D A*  
*Tech. Officer: LARC/B A WIELICKI*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAS 1 99103** COLORADO STATE UNIV 2923  
 ALGORITHM AND INSTRUMENT SUPPORT ACTIVITIES FOR PICASSO-CENA  
 05/17/1999 – 05/16/2002 FY01: \$70,000 Total: \$133,250  
*Prin. Invest.: G L STEPHENS, C PLATT*  
*Tech. Officer: LARC/G GIBSON*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAS 5 99237** COLORADO STATE UNIV 2924  
 CLOUDSAT MISSION AS A PART OF EARTH SYSTEM SCIENCE PATHFINDER (ESSP) PROJECT.  
 12/17/1999 – 03/31/2005 FY01: \$907,216 Total: \$1,126,327  
*Prin. Invest.: G STEPHENS*  
*Tech. Officer: GSFC/D LEWIS*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAS 8 97082** COLORADO STATE UNIV 2925  
 A STUDY OF THE ROLE OF CLOUDS IN THE RELATIONSHIP BETWEEN LAND USE/LAND COVER AND THE CLIMATE  
 11/21/1996 – 03/20/2001 FY01: \$0 Total: \$172,624  
*Prin. Invest.: S Q KIDDER*  
*Tech. Officer: MSFC/T MILLER*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 2 1099** COLORADO STATE UNIV 2926  
 AN EXTENDED ANALYSIS OF SCIENCE OUTREACH PROGRAMS IN THE SPACE LIFE SCIENCES IMPLEMENTED NASA IN PAR  
 03/16/1999 – 06/30/2002 FY01: \$472,308 Total: \$1,881,516  
*Prin. Invest.: G R COULTER*  
*Tech. Officer: ARC/S POTTER, ARC/M M AVERNER*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NCC 2 1268** COLORADO STATE UNIV 2927  
 NASA WORKSHOP: WHEN ECOLOGIES COLLIDE? PLANETARY PROTECTION ISSUES IN THE HUMAN EXPOLARTION OF MARS  
 05/31/2001 – 02/28/2002 FY01: \$53,050 Total: \$53,050  
*Prin. Invest.: M CRISWELL*  
*Tech. Officer: ARC/D F BLAKE, ARC/M L FONDA*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NCC 5 284** COLORADO STATE UNIV 2928  
 SPATIAL INTEGRATION OF REGIONAL CARBON BALANCE IN AMAZONIA  
 06/25/1998 – 12/31/2001 FY01: \$355,497 Total: \$961,362  
*Prin. Invest.: A DENNING*  
*Tech. Officer: GSFC/D W DEERING*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NCC 5 288** COLORADO STATE UNIV 2929  
 JOINT RESEARCH STUDIES ON EARTH-ATMOSPHERIC PROBLEMS  
 06/05/1998 – 03/31/2002 FY01: \$310,000 Total: \$992,434  
*Prin. Invest.: G L STEPHENS*  
*Tech. Officer: GSFC/A J NEGRI*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NGT 5 30182** COLORADO STATE UNIV 2930  
 THE EFFECTS OF REMOTELY SENSED DATA ON MODELED LAND SURFACE-ATMOSPHERE INTERACTIONS: CONSEQUENCES  
 08/13/1999 – 08/31/2000 FY01: \$0 Total: \$22,000  
*Prin. Invest.: A DENNING*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 30218** COLORADO STATE UNIV 2931  
 LIGHTNING & RADAR OBSERVATIONS FROM GROUND-BASED & SPACEBORNE PLATFORMS: APPLICATIONS FOR TRMM  
 08/24/1999 – 08/31/2002 FY01: \$22,000 Total: \$66,000  
*Prin. Invest.: S A RUTLEDGE*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 30344** COLORADO STATE UNIV 2932  
 THE RESPONSE OF THE NORTH AMERICAN MONSOON TO BOUNDARY AND REGIONAL FORCING MECHANISMS AS SIMULAR  
 08/21/2000 – 08/31/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.: R PIELKE*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 30421** COLORADO STATE UNIV 2933  
 SPACEBORNE OBSERVATIONS OF PRECIPITATION USING NASA TRMM AND GPM MISSION(STUDENT: KONRAD GOJARA)  
 09/07/2001 – 08/31/2004 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: V CHANDRAEKAR*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 50164** COLORADO STATE UNIV 2934  
 PROPERTIES OF COMET MANTLE DUST  
 06/03/1999 – 06/30/2002 FY01: \$22,000 Total: \$66,000  
*Prin. Invest.: J NELSON*  
*Tech. Officer: GSFC/K BLANDING*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 9 49** COLORADO STATE UNIV 2935  
 EVALUATION OF GRAVITY-INDEPENDENT CONSTANT FORCE RESISTIVE EXERCISE UNIT  
 06/29/2000 – 06/30/2001 FY01: \$0 Total: \$21,986  
*Prin. Invest.: S P JAMES*  
*Tech. Officer: JSC/M C GREENNISEN*  
*CASE Category: 46 – MECHANICAL ENGR*

<b>NAG 1 1927</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>2936</b>	<b>NAG 1 01074</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>2944</b>
REFLECTED GPS SIGNALS: THEORY AND EXPERIMENTS MY 1/2 05/23/1997 - 05/31/2001	FY01: -\$1	Total: \$315,000	ADVANCED CROSS ENTERPRISE TECHNOLOGY DEVELOPMENT FOR NASA MISSIONS 06/07/2001 - 01/31/2004	FY01: \$271,000	Total: \$271,000
Prin. Invest.: I B BORN, P AXELRAD			Prin. Invest.: A BETY		
Tech. Officer: LARC/S J KATZBERG, LARC/M J FERESEE			Tech. Officer: LARC/C MOORE		
CASE Category: 41 - AERONAUTICAL ENGR			CASE Category: 42 - ASTRONAUTICAL ENGR		
<b>NAG 1 2021</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>2937</b>	<b>NAG 1 01081</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>2945</b>
THEORETICAL INVESTIGATIONS OF CLOUDS AND AEROSOLS IN THE STRATOSPHERE AND UPPER TROPOSPHERE 03/12/1998 - 03/11/2001	FY01: \$0	Total: \$326,000	ESTIMATES OF NUMBER OF YEARS TO DETECT FUTURE CHANGES IN CLOUDS AND RADIATION 05/15/2001 - 04/30/2003	FY01: \$65,414	Total: \$65,414
Prin. Invest.: O B TOON			Prin. Invest.: E C		
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE			Tech. Officer: LARC/B A WIELICKI		
CASE Category: 31 - ATMOSPHERIC SCIENCE			CASE Category: 39 - ENVIRONMENTAL SCI, OTHER		
<b>NAG 1 2047</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>2938</b>	<b>NAG 2 1124</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>2946</b>
APPLICATION OF LES TO UNDERSTANDING AND PARAMETER- IZING THE ARCTIC CLOUDY BOUNDARY LAYER 04/02/1998 - 04/30/2001	FY01: \$0	Total: \$463,000	MEASUREMENTS OF LONG LIVED TRACE GASES FROM COMMERCIAL AIRCRAFT PLATFORMS: INSTRUMENT DEVELOPMENT 04/08/1997 - 02/28/2002	FY01: \$0	Total: \$730,343
Prin. Invest.: J A CURRY			Prin. Invest.: L M AVALONE		
Tech. Officer: LARC/D J MCDOUGAL, LARC/J RAPER			Tech. Officer: ARC/E P CONDON, ARC/S S WEGENER		
CASE Category: 31 - ATMOSPHERIC SCIENCE			CASE Category: 31 - ATMOSPHERIC SCIENCE		
<b>NAG 1 2068</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>2939</b>	<b>NAG 2 1258</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>2947</b>
EXPERIMENTAL AND ANALYTICAL CHARACTERIZATION OF THE NONLINEAR BEHAVIOR OF MEMBRANE STRUCTURES 05/11/1998 - 11/10/2000	FY01: \$0	Total: \$305,000	CONTRAIL PERSISTENCE & AIRCRAFT EXHAUST IMPACTS ON CIRRUS 08/25/1998 - 04/30/2001	FY01: \$0	Total: \$170,254
Prin. Invest.: M M MIKULAS, JR.			Prin. Invest.: O B TOON		
Tech. Officer: LARC/M S LAKE			Tech. Officer: ARC/R P HIPS KIND, ARC/E P CONDON		
CASE Category: 42 - ASTRONAUTICAL ENGR			CASE Category: 31 - ATMOSPHERIC SCIENCE		
<b>NAG 1 2165</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>2940</b>	<b>NAG 2 1306</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>2948</b>
COMPARISONS OF THREE DIMENSIONAL NUMERICAL SIMULATIONS OF AMBIENT AND VOLCANIC STRATOSPHERIC 04/28/1999 - 05/31/2002	FY01: \$75,000	Total: \$225,000	MEASURMENTS OF CIO & CO2 FOR ACCENT 03/17/1999 - 02/29/2000	FY01: -\$1,608	Total: \$23,395
Prin. Invest.: O B TOON			Prin. Invest.: D W TOOHEY		
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE			Tech. Officer: ARC/E P CONDON, ARC/R S HIPS KIND		
CASE Category: 31 - ATMOSPHERIC SCIENCE			CASE Category: 31 - ATMOSPHERIC SCIENCE		
<b>NAG 1 2187</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>2941</b>	<b>NAG 2 1307</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>2949</b>
IMPACT OF DESCENDING POLAR MESOSPHERIC NOX ON STRATOSPHERIC OZONE, NRA-98-OES-04 04/27/1999 - 01/31/2002	FY01: \$42,000	Total: \$115,000	IN SITU MEASUREMENTS OF HALOGEN OXIDES FROM THE DC -8 FOR SOLVE 03/19/1999 - 03/31/2002	FY01: \$0	Total: \$174,603
Prin. Invest.: C E RANDALL			Prin. Invest.: D W TOOHEY		
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE			Tech. Officer: ARC/E P CONDON, ARC/S R HIPS KIND		
CASE Category: 31 - ATMOSPHERIC SCIENCE			CASE Category: 31 - ATMOSPHERIC SCIENCE		
<b>NAG 1 2231</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>2942</b>	<b>NAG 2 1315</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>2950</b>
CIRRUS CLOUD RETRIEVAL ANALYSIS IN SUPPORT OF FIRSC SUBMILLI-METER-WAVE SPECTROMETER 08/17/1999 - 05/31/2000	FY01: -\$2,287	Total: \$17,713	THEORETICAL STUDIES OF STRATOSPHERIC CLOUDS & AERO SOLS IN SUPPORT OF SOLVE 04/01/1999 - 03/31/2002	FY01: \$40,000	Total: \$100,400
Prin. Invest.: K F EVANS			Prin. Invest.: O B TOON		
Tech. Officer: LARC/I G NOLT			Tech. Officer: ARC/E P CONDON, ARC/R S HIPS KIND		
CASE Category: 31 - ATMOSPHERIC SCIENCE			CASE Category: 31 - ATMOSPHERIC SCIENCE		
<b>NAG 1 01053</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>2943</b>	<b>NAG 2 1445</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>2951</b>
APPLICATION OF LES TO UNDERSTANDING AND PARAMET- ERIZING THE ARCTIC CLOUDY BOUNDARY LAYER 03/30/2001 - 04/30/2002	FY01: \$155,000	Total: \$155,000	APPLICATION OF AEROSONDE, CLUSTERS TO EVALUATING THE MESOC-SCALE VARIABILITY IN TROPICAL STORMS 09/28/2000 - 03/14/2001	FY01: \$0	Total: \$90,000
Prin. Invest.: J A CURRY, C A GELLILAN, R R REEDER			Prin. Invest.: P J WEBSTER		
Tech. Officer: LARC/V E DELNORE			Tech. Officer: ARC/S S WEGENER, ARC/R S HIPS KIND		
CASE Category: 31 - ATMOSPHERIC SCIENCE			CASE Category: 31 - ATMOSPHERIC SCIENCE		

**NAG 2 1506**      **UNIV OF COLORADO - BOULDER**      **2952**  
 APPLICATIONS OF THE AEROSONDE TO CAMEX-4  
 07/17/2001 - 06/30/2002      FY01: \$566,807  
*Prin. Invest.:* G J HOLLAND  
*Tech. Officer:* ARC/C P SCOFIELD, ARC/R S HIPSCHILD  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE  
 Total: \$566,807

**NAG 3 1846**      **UNIV OF COLORADO - BOULDER**      **2953**  
 STRUCTURE HYDRODYNAMICS AND PHASE TRANSITIONS OF FREELY  
 SUSPENDED LIQUID CRYSTALS  
 05/02/1996 - 05/01/2001      FY01: \$0  
*Prin. Invest.:* N A CLARK  
*Tech. Officer:* GRC/J S LING, GRC/B S SINGH  
*CASE Category:* 13 – PHYSICS  
 Total: \$435,000

**NAG 3 1848**      **UNIV OF COLORADO - BOULDER**      **2954**  
 WAVES IN RADIAL GRAVITY USING MAGNETIC FLUID  
 06/25/1996 - 06/24/2001      FY01: \$0  
*Prin. Invest.:* D R OHLSEN, J E HART, P D WEIDMAN  
*Tech. Officer:* GRC/N R HALL  
*CASE Category:* 11 – ASTRONOMY  
 Total: \$340,000

**NAG 3 1850**      **UNIV OF COLORADO - BOULDER**      **2955**  
 CELL AND PARTICLE INTERACTIONS AND AGGREGATION DURING ELECTROPHORETIC MOTION  
 05/02/1996 - 08/31/2000      FY01: \$0  
*Prin. Invest.:* R H DAVIS  
*Tech. Officer:* GRC/J S LING, GRC/B S SINGH  
*CASE Category:* 13 – PHYSICS  
 Total: \$300,000

**NAG 3 2116**      **UNIV OF COLORADO - BOULDER**      **2956**  
 THERMOCAPILLARY-INDUCED PHASE SEPARATION OF DISPERSED SYSTEMS WITH COALESCENCE  
 01/28/1998 - 12/31/2001      FY01: \$71,250  
*Prin. Invest.:* R H DAVIS  
*Tech. Officer:* GRC/B S SINGH  
*CASE Category:* 43 – CHEMICAL ENGR  
 Total: \$281,250

**NAG 3 2136**      **UNIV OF COLORADO - BOULDER**      **2957**  
 DUSTY PLASMA DYNAMICS NEAR SURFACES IN SPACE. DUSTY PLASMA DYNAMICS NEAR SURFACES IN SPACE.  
 03/05/1998 - 01/05/2002      FY01: \$95,000  
*Prin. Invest.:* J E COLWELL, S ROBERTSON, M HORANYI  
*Tech. Officer:* GRC/H K NAHRA  
*CASE Category:* 13 – PHYSICS  
 Total: \$355,000

**NAG 3 2220**      **UNIV OF COLORADO - BOULDER**      **2958**  
 COMBUSTION OF METALS IN REDUCED-GRAVITY AND EXTRATERRESTRIAL ENVIRONMENTS  
 12/29/1998 - 11/11/2002      FY01: \$113,875  
*Prin. Invest.:* M C BRANCH  
*Tech. Officer:* GRC/R FRIEDMAN  
*CASE Category:* 49 – ENGINEERING, OTHER  
 Total: \$303,001

**NAG 3 2267**      **UNIV OF COLORADO - BOULDER**      **2959**  
 COLLISIONS INTO DUST EXPERIMENT II COLLISIONS INTO DUST EXPERIMENT II  
 05/14/1999 - 04/30/2002      FY01: \$41,759  
*Prin. Invest.:* J E COLWELL  
*Tech. Officer:* GRC/B J MOTIL  
*CASE Category:* 49 – ENGINEERING, OTHER  
 Total: \$113,579

**NAG 3 2400**      **UNIV OF COLORADO - BOULDER**      **2960**  
 PHYSICS OF REGOLITH IMPACTS IN MICROGRAVITY EXPERIMENT (PRIME)  
 04/19/2000 - 11/30/2003      FY01: \$85,500  
*Prin. Invest.:* J E COLWELL  
*Tech. Officer:* GRC/B J MOTIL  
*CASE Category:* 49 – ENGINEERING, OTHER  
 Total: \$135,500

**NAG 3 2402**      **UNIV OF COLORADO - BOULDER**      **2961**  
 STRATIFIED TAYLOR-COETTE FLOW WITH RADIAL BUOYANCY  
 04/19/2000 - 11/30/2003      FY01: \$95,000  
*Prin. Invest.:* J E HART  
*Tech. Officer:* GRC/F P CHIARAMONTE  
*CASE Category:* 49 – ENGINEERING, OTHER  
 Total: \$125,000

**NAG 3 2457**      **UNIV OF COLORADO - BOULDER**      **2962**  
 STRUCTURE AND DYNAMICS OF FREELY SUSPENDED LIQUID CRYSTALS  
 06/07/2000 - 11/30/2003      FY01: \$113,408  
*Prin. Invest.:* N A CLARK  
*Tech. Officer:* GRC/F P CHIARAMONTE  
*CASE Category:* 49 – ENGINEERING, OTHER  
 Total: \$190,153

**NAG 3 2587**      **UNIV OF COLORADO - BOULDER**      **2963**  
 MULTI-BEAM ANTENNA ARRAYS FOR SATELLITE COMMUNICATIONS  
 04/04/2001 - 12/31/2001      FY01: \$100,000  
*Prin. Invest.:* Z POPOVIC  
*Tech. Officer:* GRC/R Q LEE  
*CASE Category:* 45 – ELECTRICAL ENGR  
 Total: \$100,000

**NAG 3 2643**      **UNIV OF COLORADO - BOULDER**      **2964**  
 VIRTUAL MISSION OPERATIONS USING INTERNET PROTOCOLS  
 08/23/2001 - 07/31/2004      FY01: \$38,000  
*Prin. Invest.:* E HANSEN  
*Tech. Officer:* GRC/D CAREK  
*CASE Category:* 22 – COMPUTER SCIENCE  
 Total: \$38,000

**NAG 3 2651**      **UNIV OF COLORADO - BOULDER**      **2965**  
 NEW MATERIALS FOR PROTON-CONDUCTING MEMBRANES  
 NEW MATERIALS FOR PROTON-CONDUCTING MEMBRANES  
 09/27/2001 - 08/31/2002      FY01: \$20,000  
*Prin. Invest.:* J MICHL  
*Tech. Officer:* GRC/P L LOYSELLE  
*CASE Category:* 12 – CHEMISTRY  
 Total: \$20,000

**NAG 5 1853**      **UNIV OF COLORADO - BOULDER**      **2966**  
 GODDARD HIGH RESOLUTION SPECTROGRAPH (GHRS) INCLUDING ACTIVITIES AS A GHRS GUARANTEED TIME OBSERV.  
 01/02/1992 - 11/14/1999      FY01: -\$226  
*Prin. Invest.:* J C BRANDT  
*Tech. Officer:* GSFC/A SMITH  
*CASE Category:* 11 – ASTRONOMY  
 Total: \$2,320,726

**NAG 5 2256**      **UNIV OF COLORADO - BOULDER**      **2967**  
 GLOBAL-SCALE TURBULENT SOLAR CONVECTION COUPLED TO ROTATION AND MAGNETIC FIELDS  
 04/27/1993 - 12/31/2000      FY01: \$0  
*Prin. Invest.:* J TOOMRE  
*Tech. Officer:* GSFC/T J BIRMINGHAM, GSFC/J D BOHLIN  
*CASE Category:* 13 – PHYSICS  
 Total: \$1,405,000

<b>NAG 5 2259</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>2968</b>	<b>NAG 5 3763</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>2976</b>
CONTEMPORANEOUS EUVE AND GHRS OBSERVATIONS OF THE OUTER ATMOSPHERIC STRUCTURE OF RS CVN . . . .			REMOTE SENSING OF PLANETARY SURFACES		
04/30/1993 - 09/30/1999	FY01: \$0	Total: \$144,037	02/21/1997 - 01/31/2001	FY01: \$0	Total: \$215,823
<i>Prin. Invest.:</i> A BROWN			<i>Prin. Invest.:</i> B M JAKOSKY		
<i>Tech. Officer:</i> GSFC/R OLIVERSEN			<i>Tech. Officer:</i> GSFC/P G ROGERS		
<i>CASE Category:</i> 11 - ASTRONOMY			<i>CASE Category:</i> 32 - GEOLOGICAL SCIENCE		
<b>NAG 5 3143</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>2969</b>	<b>NAG 5 3794</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>2977</b>
TEMPORAL VARIATIONS OF THE GEOPOTENTIAL			LIQUID CRYSTAL FOCAL-PLANE SHUTTERS		
11/09/1995 - 11/14/1999	FY01: -\$211	Total: \$224,789	03/25/1997 - 07/31/2002	FY01: \$0	Total: \$58,941
<i>Prin. Invest.:</i> J WAHR			<i>Prin. Invest.:</i> P T STOCKE		
<i>Tech. Officer:</i> GSFC/P T TAYLOR			<i>Tech. Officer:</i> GSFC/H HASAN		
<i>CASE Category:</i> 32 - GEOLOGICAL SCIENCE			<i>CASE Category:</i> 11 - ASTRONOMY		
<b>NAG 5 3224</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>2970</b>	<b>NAG 5 3847</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>2978</b>
X-RAY EMISSION FROM PRE-MAIN SEQUENCE STARS-TEST- ING THE SOLAR ANALOGY			MAPPING RICE PRODUCTION IN CHINA WITH AVHRR IMAGER		
05/07/1996 - 12/31/2000	FY01: \$0	Total: \$338,976	01/30/1997 - 11/14/2000	FY01: -\$2,186	Total: \$327,985
<i>Prin. Invest.:</i> S L SKINNER			<i>Prin. Invest.:</i> W EMERY		
<i>Tech. Officer:</i> GSFC/D WEST			<i>Tech. Officer:</i> GSFC/D J KAHLER		
<i>CASE Category:</i> 11 - ASTRONOMY			<i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER		
<b>NAG 5 3225</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>2971</b>	<b>NAG 5 3949</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>2979</b>
SPECTRAL AND TEMPORAL PROPERTIES OF BLACK HOLE CANDIDATES			LOWER IONOSPHERE THERMOSPHERE EXPLORER		
05/07/1996 - 08/31/2001	FY01: \$0	Total: \$328,000	02/21/1997 - 02/14/2001	FY01: \$0	Total: \$199,777
<i>Prin. Invest.:</i> M A NOWAK			<i>Prin. Invest.:</i> D C SOLOMON		
<i>Tech. Officer:</i> GSFC/D WEST			<i>Tech. Officer:</i> GSFC/R HOWARD		
<i>CASE Category:</i> 11 - ASTRONOMY			<i>CASE Category:</i> 13 - PHYSICS		
<b>NAG 5 3226</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>2972</b>	<b>NAG 5 3967</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>2980</b>
THE FUNDAMENTAL PHYSICAL PROCESSES PRODUCING AND CONTROLLING STELLAR CORONAL/TRANSITION			INTEGRATED ANALYSIS OF COLUMELLA CELL STRUCTURE AN		
05/07/1996 - 04/30/2002	FY01: \$0	Total: \$553,000	03/03/1997 - 02/28/2002	FY01: \$0	Total: \$499,236
<i>Prin. Invest.:</i> T A AYRES			<i>Prin. Invest.:</i> A STAHELIN		
<i>Tech. Officer:</i> GSFC/D WEST			<i>Tech. Officer:</i> GSFC/M AVERNER		
<i>CASE Category:</i> 11 - ASTRONOMY			<i>CASE Category:</i> 59 - LIFE SCIENCE, OTHER		
<b>NAG 5 3394</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>2973</b>	<b>NAG 5 3997</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>2981</b>
CHARACTERIZING AND QUANTIFYING THE X-RAY VARIABLE SKY			WAVELET-BASED INTERPOLATION AND REPRESENTATION OF SPACE-CRAFT MISSION DATA		
09/06/1996 - 09/14/2002	FY01: \$0	Total: \$205,188	03/13/1997 - 05/31/2000	FY01: -\$1,864	Total: \$188,136
<i>Prin. Invest.:</i> G S STRINGFELLOW			<i>Prin. Invest.:</i> M M LIGHTNER		
<i>Tech. Officer:</i> GSFC/D WEST			<i>Tech. Officer:</i> GSFC/J BREDEKAMP		
<i>CASE Category:</i> 11 - ASTRONOMY			<i>CASE Category:</i> 22 - COMPUTER SCIENCE		
<b>NAG 5 3437</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>2974</b>	<b>NAG 5 4061</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>2982</b>
LAND AND LAND-USE CHANGE IN THE CLIMATE SENSITIVE HIGH PLAINS: AN AUTOMATED APPROACH WITH LANDSAT			WARPING AND PRECESSION OF ACCRETION DISKS IN XRAY		
10/07/1996 - 12/31/2001	FY01: \$51,685	Total: \$863,197	03/18/1997 - 03/31/2001	FY01: \$0	Total: \$271,500
<i>Prin. Invest.:</i> A GOETZ			<i>Prin. Invest.:</i> M C BEGELMAN		
<i>Tech. Officer:</i> GSFC/D L WILLIAMS			<i>Tech. Officer:</i> GSFC/D K WEST		
<i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER			<i>CASE Category:</i> 11 - ASTRONOMY		
<b>NAG 5 3438</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>2975</b>	<b>NAG 5 4063</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>2983</b>
ENHANCED ANTARCTIC RESEARCH WITH LANDSAT: ICE SHEET DYNAMICS, HISTORY AND CARTOGRAPHY			ASTROPHYSICS AT THE DISK-HALO INTERFACE		
10/07/1996 - 06/30/2002	FY01: \$16,978	Total: \$263,523	03/18/1997 - 03/31/2002	FY01: \$0	Total: \$293,400
<i>Prin. Invest.:</i> T SCAMBOS			<i>Prin. Invest.:</i> M J SHULL		
<i>Tech. Officer:</i> GSFC/D L WILLIAMS			<i>Tech. Officer:</i> GSFC/D K WEST		
<i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER			<i>CASE Category:</i> 11 - ASTRONOMY		

**NAG 5 4095**      **UNIV OF COLORADO - BOULDER**      **2984**  
 EVENT RATE FOR LISA GRAVITATIONAL WAVE SIGNALS FRO BLACK HOLE  
 COALESCENCES  
 03/12/1997 - 03/31/2002      FY01: \$46,000      Total: \$192,500  
*Prin. Invest.: D L BENDER*  
*Tech. Officer: GSFC/H HASAN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 4163**      **UNIV OF COLORADO - BOULDER**      **2985**  
 DYNAMICAL MODELS OF THE SOLAR SYSTEM FORMATION AND  
 03/26/1997 - 02/28/2001      FY01: \$0      Total: \$161,900  
*Prin. Invest.: D R STEWART*  
*Tech. Officer: GSFC/P ROGERS*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NAG 5 4218**      **UNIV OF COLORADO - BOULDER**      **2986**  
 SEA ICE AND OCEAN PROCESSES IN BAFFIN BAY: A STUD DATA AND  
 NUMERICAL MODELING  
 04/15/1997 - 03/31/2000      FY01: \$0      Total: \$228,436  
*Prin. Invest.: D STEFFEN*  
*Tech. Officer: GSFC/R H THOMAS*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 4248**      **UNIV OF COLORADO - BOULDER**      **2987**  
 GREENLAND ICE SHEET CLIMATOLOGY AND SURFACE ENERGY GREEN-  
 LAND CLIMATE NETWORK (GCNET)  
 03/26/1997 - 03/31/2001      FY01: \$0      Total: \$853,239  
*Prin. Invest.: D STEFFEN*  
*Tech. Officer: GSFC/R THOMAS*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 4312**      **UNIV OF COLORADO - BOULDER**      **2988**  
 ORIGINS CONFERENCE-1997  
 04/18/1997 - 12/31/2000      FY01: \$0      Total: \$68,473  
*Prin. Invest.: D M SHULL*  
*Tech. Officer: GSFC/H THRONSON*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 4314**      **UNIV OF COLORADO - BOULDER**      **2989**  
 LABORATORY STUDIES OF LOW TEMPERATURE RATE COEFFIC CHEM-  
 ISTRY OF THE OUTER PLANETS  
 04/16/1997 - 12/31/1999      FY01: -\$157      Total: \$404,441  
*Prin. Invest.: D R LEONE*  
*Tech. Officer: GSFC/D BOGAN*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 4343**      **UNIV OF COLORADO - BOULDER**      **2990**  
 DUST PLASMA INTERACTION  
 04/17/1997 - 05/14/2001      FY01: \$0      Total: \$236,500  
*Prin. Invest.: D HORANYI*  
*Tech. Officer: GSFC/J BOHLIN*  
*CASE Category: 13 - PHYSICS*

**NAG 5 4440**      **UNIV OF COLORADO - BOULDER**      **2991**  
 RADARSAT ANTARACTIC MAPPING PROJECT  
 05/13/1997 - 06/30/2002      FY01: \$11,404      Total: \$50,939  
*Prin. Invest.: R G BARRY*  
*Tech. Officer: GSFC/S GOGINENI*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 4446**      **UNIV OF COLORADO - BOULDER**      **2992**  
 THE DIURNAL CYCLE OF CONVECTION AND ITS INTERACTIO CIRCULATION  
 04/28/1997 - 06/30/2000      FY01: \$0      Total: \$100,000  
*Prin. Invest.: D L SALBY*  
*Tech. Officer: GSFC/R A SCHIFFER*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 4467**      **UNIV OF COLORADO - BOULDER**      **2993**  
 NATURAL OSCILLATIONS OF THE THERMOSPHERE-IONOSPHER  
 05/27/1997 - 04/30/2002      FY01: \$0      Total: \$271,054  
*Prin. Invest.: P FORBES*  
*Tech. Officer: GSFC/M MELLOTT*  
*CASE Category: 13 - PHYSICS*

**NAG 5 4506**      **UNIV OF COLORADO - BOULDER**      **2994**  
 PROPOSAL FOR COLLABORATION ON THE DEVELOPMENT AND AMSR  
 SNOW WATER EQUIVALENT ALGORITHM  
 05/07/1997 - 04/30/2001      FY01: \$0      Total: \$116,604  
*Prin. Invest.: R L ARMSTRONG*  
*Tech. Officer: GSFC/A T CHANG*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NAG 5 4526**      **UNIV OF COLORADO - BOULDER**      **2995**  
 CHARGED PARTICULATES IN THE POLAR MESOSPHERE/INSTR  
 05/07/1997 - 11/30/2000      FY01: \$0      Total: \$228,000  
*Prin. Invest.: D ROBERTSON*  
*Tech. Officer: GSFC/M M MELLOTT*  
*CASE Category: 13 - PHYSICS*

**NAG 5 4783**      **UNIV OF COLORADO - BOULDER**      **2996**  
 COORDINATED ASCA OBSERVATIONS OF CORONAL STRUCTURE CVN  
 BINARY SIGMA CRB  
 06/20/1997 - 06/30/2000      FY01: \$0      Total: \$17,800  
*Prin. Invest.: A BROWN*  
*Tech. Officer: GSFC/N WHITE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 4804**      **UNIV OF COLORADO - BOULDER**      **2997**  
 A UNIFIED ANALYSIS OF NON-RADIATIVE HEATING AND WI  
 07/30/1997 - 07/31/2002      FY01: \$108,500      Total: \$497,100  
*Prin. Invest.: G HARPER*  
*Tech. Officer: GSFC/D WEST*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 4901**      **UNIV OF COLORADO - BOULDER**      **2998**  
 DOCUMENTING, UNDERSTANDING, AND PREDICTING THE AGG RADIATION  
 FLUX FOR SHEBA  
 06/19/1997 - 12/14/2000      FY01: \$0      Total: \$284,507  
*Prin. Invest.: D CURRY*  
*Tech. Officer: GSFC/S GOGINENI*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 4918**      **UNIV OF COLORADO - BOULDER**      **2999**  
 PENETRATIVE DYNAMICS OF THE SOLAR INTERIOR  
 07/07/1997 - 11/30/2000      FY01: \$0      Total: \$261,809  
*Prin. Invest.: D JULIEN*  
*Tech. Officer: GSFC/W G WAGNER*  
*CASE Category: 13 - PHYSICS*

**NAG 5 5020 UNIV OF COLORADO - BOULDER 3000**  
 HIGH RESOLUTION X-RAY SPECTROSCOPY FROM SOUNDING ROCKETS  
 03/11/1994 - 10/31/2001 FY01: \$0 Total: \$1,793,373  
*Prin. Invest.: W C CASH*  
*Tech. Officer: GSFC/L J EARLY, GSFC/R H PLESS*  
*CASE Category: 13 - PHYSICS*

**NAG 5 5027 UNIV OF COLORADO - BOULDER 3001**  
 ENERGY TRANSFER IN THE THERMOSPHERE AND MESOSPHERE FUNDING  
 FOR A ONE-YEAR EFFORT IN BASIC RESEARCH  
 03/03/1995 - 02/29/2004 FY01: \$0 Total: \$383,148  
*Prin. Invest.: S SOLOMON*  
*Tech. Officer: GSFC/L J EARLY*  
*CASE Category: 13 - PHYSICS*

**NAG 5 5028 UNIV OF COLORADO - BOULDER 3002**  
 TIDES, PLANETARY WAVES, AND EDDY FORCING OF THE MEAN MLT  
 CIRCULATION FOR THE TIMED SCIENCE...  
 03/03/1995 - 03/05/2005 FY01: \$159,450 Total: \$835,576  
*Prin. Invest.: J FORBES*  
*Tech. Officer: GSFC/L J EARLY, GSFC/R H PLESS*  
*CASE Category: 13 - PHYSICS*

**NAG 5 5096 UNIV OF COLORADO - BOULDER 3003**  
 HIGH RESOLUTION SPECTROSCOPY IN THE FAR AND EXTREME  
 ULTRAVIOLET  
 12/02/1996 - 05/31/2003 FY01: \$529,078 Total: \$2,325,978  
*Prin. Invest.: E WILKINSON*  
*Tech. Officer: GSFC/W JOHNSON*  
*CASE Category: 13 - PHYSICS*

**NAG 5 5168 UNIV OF COLORADO - BOULDER 3004**  
 ANALYSIS OF TIME DEPENDENT FAULT INTERACTIONS AND CALIFORNIA  
 07/17/1997 - 07/14/2001 FY01: \$0 Total: \$236,922  
*Prin. Invest.: J B RUNDLE*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NAG 5 5274 UNIV OF COLORADO - BOULDER 3005**  
 FUNDING FOR PHASE 1 AWARD OF THE OWLS/MARE PROJECT UNESS  
 06/21/2000 - 04/13/2006 FY01: \$0 Total: \$370,000  
*Prin. Invest.: W EMERY*  
*Tech. Officer: WFF/D L PIERCE*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 5331 UNIV OF COLORADO - BOULDER 3006**  
 YEAR 1 OF A 3 YEAR GRANT IN BASIC SCIENTIFIC RESEARCH WITH U OF  
 COLORADO FOR X-RAY  
 04/18/2001 - 04/17/2004 FY01: \$100,000 Total: \$100,000  
*Prin. Invest.: D CASH*  
*Tech. Officer: GSFC/J BRINTON*  
*CASE Category: 13 - PHYSICS*

**NAG 5 6048 UNIV OF COLORADO - BOULDER 3007**  
 LATE STAGES OF ACCRETION OF URANUS AND NEPTUNE  
 07/25/1997 - 06/30/2002 FY01: \$27,300 Total: \$164,470  
*Prin. Invest.: D STEWART*  
*Tech. Officer: HQ/J BOYCE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 6051 UNIV OF COLORADO - BOULDER 3008**  
 ASSESSING FUTURE STABILITY OF US HIGH PLAINS LANDC PROCESS  
 MODELING WITH LANDSAT IN SITU MODERN, AND  
 07/28/1997 - 09/30/2001 FY01: \$0 Total: \$530,000  
*Prin. Invest.: D WEBB*  
*Tech. Officer: GSFC/G C GUTMIN*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 6134 UNIV OF COLORADO - BOULDER 3009**  
 QUANTIFYING GRASSLAND-TO-WOODLAND TRANSITIONS AND CARBON  
 AND NITROGEN DYNAMICS IN THE SOUTHWEST UNIT  
 09/08/1997 - 01/31/2002 FY01: \$0 Total: \$548,190  
*Prin. Invest.: D A WEISSMAN*  
*Tech. Officer: GSFC/A C JANETOS*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 6147 UNIV OF COLORADO - BOULDER 3010**  
 VARIATIONS IN GPS TIME SERIES: A STUDY OF HYDROLO  
 08/21/1997 - 08/31/2001 FY01: \$0 Total: \$225,526  
*Prin. Invest.: K M LARSON*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NAG 5 6198 UNIV OF COLORADO - BOULDER 3011**  
 MODELING SUBSTORM DYNAMICS WITH A LOW-DIMENSIONAL E SPACE  
 SYSTEM  
 08/20/1997 - 12/31/2000 FY01: \$0 Total: \$152,068  
*Prin. Invest.: D DOXAS*  
*Tech. Officer: GSFC/J BOHLIEN*  
*CASE Category: 13 - PHYSICS*

**NAG 5 6337 UNIV OF COLORADO - BOULDER 3012**  
 X-RAY REPROCESSING IN ACTIVE GALACTIC NUCLEI  
 10/30/1997 - 10/31/2001 FY01: \$108,900 Total: \$421,000  
*Prin. Invest.: M BEGELMAN*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 6462 UNIV OF COLORADO - BOULDER 3013**  
 VALIDATION STUDIES AND SENSITIVITY ANALYSES FOR RETRIEVALS OF  
 SNOW ALBEDO & SNOWCOVERED AREA FROM  
 10/14/1997 - 03/31/2003 FY01: \$12,646 Total: \$288,279  
*Prin. Invest.: A NOLIN*  
*Tech. Officer: GSFC/D STARR*  
*CASE Category: 19 - PHYSICAL SCIENCE, OTHER*

**NAG 5 6474 UNIV OF COLORADO - BOULDER 3014**  
 IMAGING INTERPLANETARY HYDROGEN WITH ULYSSES  
 11/13/1997 - 10/31/2001 FY01: \$0 Total: \$120,000  
*Prin. Invest.: D PRYOR*  
*Tech. Officer: GSFC/L LING*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 6521 UNIV OF COLORADO - BOULDER 3015**  
 IMPROVING THE ACCURACY OF SATELLITE SEA SURFACE TEMPERATURE  
 MEASUREMENTS BY EXPLICITLY ACCOUNTING F  
 12/05/1997 - 09/30/2001 FY01: \$0 Total: \$526,369  
*Prin. Invest.: D EMERY*  
*Tech. Officer: GSFC/J C DODGE*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

<b>NAG 5 6627</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3016</b>	<b>NAG 5 6820</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3023</b>
CYCCLIC AND LONG TERM TRENDS IN THE MESOSPHERE 11/18/1997 - 11/30/2000		FY01: \$0	ARTIC REGIONAL SEA-ICE ANOMALIES: A DIAGNOSIS OF ICE-ATMOSPHERE OCEAN INTERACTIONS AND LINKAGES TO 01/09/1998 - 12/31/2001	FY01: \$0	Total: \$257,503
Prin. Invest.: D E THOMAS			Prin. Invest.: A LYNCH		
Tech. Officer: GSFC/C JACKMAN			Tech. Officer: GSFC/S GOGINENI		
CASE Category: 31 - ATMOSPHERIC SCIENCE			CASE Category: 39 - ENVIRONMENTAL SCI, OTHER		
<b>NAG 5 6629</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3017</b>	<b>NAG 5 6850</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3024</b>
STUDIES OF TROPICAL/MID-LATITUDE EXCHANGE USING UARS OBSERVATIONS 11/18/1997 - 11/30/2001		FY01: \$0	UARS - SOLSTICE 01/12/1998 - 12/14/2001	FY01: \$0	Total: \$723,000
Prin. Invest.: D AVALLONE			Prin. Invest.: D ROTTMAN		
Tech. Officer: GSFC/A DOUGLASS			Tech. Officer: GSFC/C JACKMAN		
CASE Category: 31 - ATMOSPHERIC SCIENCE			CASE Category: 31 - ATMOSPHERIC SCIENCE		
<b>NAG 5 6636</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3018</b>	<b>NAG 5 6875</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3025</b>
PASSIVE MICROWAVE SNOW COVER ALGORITHM INTERCOMPARISON AND VALIDATION 11/18/1997 - 10/31/2001		FY01: \$0	ABSOLUTE GRAVITY/GPS MEASUREMENTS IN GREENLAND 02/17/1998 - 12/31/2001	FY01: \$0	Total: \$57,574
Prin. Invest.: D L ARMSTRONG			Prin. Invest.: J WAHR		
Tech. Officer: GSFC/J C DODGE			Tech. Officer: GSFC/S GOGINENI		
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER			CASE Category: 39 - ENVIRONMENTAL SCI, OTHER		
<b>NAG 5 6666</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3019</b>	<b>NAG 5 6880</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3026</b>
AVHRR-BASED POLAR PATHFINDER PRODUCTS - EVALUATION , ENHANCEMENT AND TRANSITION TO MODIS 11/25/1997 - 11/30/2000		FY01: \$0	LASER INTERFEROMETRY TECHNIQUES FOR ACCURATE MEASUREMENT OF DISTANCE CHANGES BETWEEN WIDELY SEPARATED POINTS 02/17/1998 - 12/31/2000	FY01: \$0	Total: \$285,000
Prin. Invest.: D FOWLER			Prin. Invest.: R T STEBBINS		
Tech. Officer: GSFC/J C DODGE			Tech. Officer: GSFC/P CRANE		
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER			CASE Category: 11 - ASTRONOMY		
<b>NAG 5 6683</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3020</b>	<b>NAG 5 6900</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3027</b>
MODELING AND ANALYSIS OF UARS DATA IN THE STRATOSPHERE, MESOSPHERE, AND LOWER THERMOSPHERE 12/08/1997 - 11/30/2001		FY01: \$0	INVESTIGATIONS OF CLOUDS AND AEROSOLS ON MARS AND VENUS 01/21/1998 - 09/30/2001	FY01: \$78,800	Total: \$300,239
Prin. Invest.: S BAILEY			Prin. Invest.: O TOON		
Tech. Officer: GSFC/C JACKMAN			Tech. Officer: GSFC/R BEEBE		
CASE Category: 31 - ATMOSPHERIC SCIENCE			CASE Category: 11 - ASTRONOMY		
<b>NAG 5 6758</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3021</b>	<b>NAG 5 6901</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3028</b>
LABORATORY STUDIES OF THE VISIBLE SPECTROSCOPY AND CHEMISTRY OF POLYCYCLIC AROMATIC HYDROCARBON (PA 12/24/1997 - 12/31/2001		FY01: \$148,000	CHROMOSPHERIC STRUCTURE AND WIND ACCELERATION IN ZETA AURIGAE 02/04/1998 - 02/14/2001	FY01: -\$3,018	Total: \$36,982
Prin. Invest.: T P SNOW			Prin. Invest.: P BENNETT		
Tech. Officer: GSFC/H HASAN			Tech. Officer: GSFC/D K WEST		
CASE Category: 11 - ASTRONOMY			CASE Category: 11 - ASTRONOMY		
<b>NAG 5 6791</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3022</b>	<b>NAG 5 6936</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3029</b>
EXTRACTION OF TIDES AND PLANETARY WAVES FROM SATELLITE OBSERVATIONS 02/17/1998 - 02/28/2002		FY01: \$0	THE EVOLUTION AND X-RAY MORPHOLOGY OF DISTANT CLUSTERS OF GALAXIES 02/04/1998 - 02/14/2002	FY01: \$0	Total: \$80,000
Prin. Invest.: S PALO			Prin. Invest.: J T STOCKE		
Tech. Officer: GSFC/M MELLOTT			Tech. Officer: GSFC/D K WEST		
CASE Category: 11 - ASTRONOMY			CASE Category: 11 - ASTRONOMY		
<b>NAG 5 6794</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3023</b>	<b>NAG 5 6984</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3030</b>
MEDIUM ENERGY PARTICLE PRECIPITATION EFFECTS ON THE MESOSPHERE AND LOWER THERMOSPHERE 02/27/1998 - 03/31/2002		FY01: \$0			
Prin. Invest.: M CODRESCU					
Tech. Officer: GSFC/M MELLOTT					
CASE Category: 11 - ASTRONOMY					

**NAG 5 7021**      **UNIV OF COLORADO - BOULDER**      **3031**  
 SATELLITE REMOTE SENSING OF TROPICAL ICE CLOUDS AND PRECIPITATION FOR GCM VERIFICATION  
 03/19/1998 - 12/31/2000      FY01: \$0      Total: \$97,981  
*Prin. Invest.: D EVANS*  
*Tech. Officer: GSFC/K H BERGMAN*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 7088**      **UNIV OF COLORADO - BOULDER**      **3032**  
 MHD SIMULATIONS OF THE COUPLING BETWEEN IO AND JUPITER  
 02/23/1998 - 03/31/2002      FY01: \$0      Total: \$199,346  
*Prin. Invest.: F BAGENAL*  
*Tech. Officer: GSFC/D EVANS*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7128**      **UNIV OF COLORADO - BOULDER**      **3033**  
 PRECISION MEASUREMENT OF LARGE SCALE STRUCTURE-ATP  
 03/24/1998 - 02/14/2002      FY01: \$0      Total: \$207,289  
*Prin. Invest.: A J HAMILTON*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7223**      **UNIV OF COLORADO - BOULDER**      **3034**  
 A SEARCH FOR CORONAL EMISSION AT THE BOTTOM OF THE MAIN SEQUENCE  
 04/09/1998 - 04/14/2002      FY01: \$0      Total: \$9,920  
*Prin. Invest.: G S STRINGFELLOW*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7262**      **UNIV OF COLORADO - BOULDER**      **3035**  
 THE INTERGALACTIC MEDIUM AND QSO ABSORPTION SYSTEMS (LTSA - NEW)  
 04/28/1998 - 04/30/2002      FY01: \$114,300      Total: \$427,900  
*Prin. Invest.: J SHULL*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7329**      **UNIV OF COLORADO - BOULDER**      **3036**  
 XTE PROPOSAL - RXTE OBSERVATIONS OF M87: INVESTIGATING THE NON-THERMAL CONTINUUM  
 04/24/1998 - 04/14/2001      FY01: \$0      Total: \$8,000  
*Prin. Invest.: C REYNOLDS*  
*Tech. Officer: GSFC/J SWANK*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7365**      **UNIV OF COLORADO - BOULDER**      **3037**  
 RELATIONSHIPS BETWEEN THE BULK-SKIN SEA SURFACE TEMPERATURE DIFFERENCE, WIND AND NET AIR-SEA HEAT F  
 04/29/1998 - 04/30/2001      FY01: \$35,000      Total: \$317,444  
*Prin. Invest.: W EMERY*  
*Tech. Officer: GSFC/E LINDSTROM*  
*CASE Category: 33 – OCEANOGRAPHY*

**NAG 5 7398**      **UNIV OF COLORADO - BOULDER**      **3038**  
 XTE PROPOSAL - COORDINATED XTE OBSERVATIONS OF FLARES AND CORONAL STRUCTURES ON THE RS CVN BINARY  
 05/13/1998 - 05/31/2000      FY01: -\$97      Total: \$5,968  
*Prin. Invest.: A BROWN*  
*Tech. Officer: GSFC/J SWANK*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7402**      **UNIV OF COLORADO - BOULDER**      **3039**  
 INTEGRATED USE OF EXPERIMENTAL MODELING & REMOTE SENSING TECHNIQUES TO INVESTIGATE CARBON ISOTOPE  
 05/15/1998 - 11/30/1999      FY01: -\$252      Total: \$201,285  
*Prin. Invest.: A TOWNSEND*  
*Tech. Officer: GSFC/D E WICKLAND*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 7449**      **UNIV OF COLORADO - BOULDER**      **3040**  
 RELATIONSHIPS BETWEEN INTERSTELLAR AND INTERPLANETARY GRAINS  
 07/02/1998 - 06/30/2002      FY01: \$0      Total: \$83,500  
*Prin. Invest.: T P SNOW*  
*Tech. Officer: HQ/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7465**      **UNIV OF COLORADO - BOULDER**      **3041**  
 NARROW BAND IMAGING WITH HOLOGRAPHIC TELESCOPES  
 11/25/1998 - 12/31/2001      FY01: \$82,000      Total: \$182,810  
*Prin. Invest.: D WILKINSON*  
*Tech. Officer: GSFC/H HASAN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7466**      **UNIV OF COLORADO - BOULDER**      **3042**  
 AEROSOL-CLOUD-CLIMATE INTERACTIONS  
 05/28/1998 - 05/31/2000      FY01: \$0      Total: \$122,473  
*Prin. Invest.: K STEFFEN*  
*Tech. Officer: GSFC/J ZWALLY*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 7496**      **UNIV OF COLORADO - BOULDER**      **3043**  
 EVALUATION OF SNOW WATER EQUIVALENT ACROSS GRASSLAND REGIONS  
 06/29/1998 - 01/31/2001      FY01: -\$48,187      Total: \$65,140  
*Prin. Invest.: A FREI*  
*Tech. Officer: GSFC/E T ENGMAN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7541**      **UNIV OF COLORADO - BOULDER**      **3044**  
 THE USE OF CASES OBSERVATIONS TO ASSESS AND parameterize THE IMPACT OF LAND-SURFACE HETEROGENEITY  
 06/18/1998 - 08/31/2001      FY01: \$0      Total: \$100,351  
*Prin. Invest.: D YATES*  
*Tech. Officer: GSFC/E ENGMAN*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 7543**      **UNIV OF COLORADO - BOULDER**      **3045**  
 INVESTIGATING DOWNSCALING METHODS AND EVALUATING CLIMATE MODELS FOR USE IN ESTIMATING REGIONAL WATER  
 06/23/1998 - 07/31/2001      FY01: \$0      Total: \$270,000  
*Prin. Invest.: A FREI*  
*Tech. Officer: GSFC/E T ENGMAN*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 7638**      **UNIV OF COLORADO - BOULDER**      **3046**  
 INTERFEROMETRIC TECHNIQUES FOR GRAVITATIONAL WAVE DETECTION IN SPACE  
 12/08/1998 - 12/31/2001      FY01: \$94,000      Total: \$138,000  
*Prin. Invest.: D T STEBBINS*  
*Tech. Officer: GSFC/H HASAN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7652 UNIV OF COLORADO - BOULDER 3047**  
AN INVESTIGATION OF THE EFFECT OF PARTICLE IONIZATION ON THE EARTH'S MIDDLE ATMOSPHERE AND ITS R  
08/25/1998 - 09/30/2001 FY01: \$0 Total: \$195,000  
*Prin. Invest.: D W RUSCH*  
*Tech. Officer: HQ/J SHARBER*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 7679 UNIV OF COLORADO - BOULDER 3048**  
CLOUD STRUCTURE RECONSTRUCTION AND SHORTWAVE RADIA TIVE TRANSFER MODELING FOR ARMYEAR 1 OF A 3 YEAR  
09/17/1998 - 02/28/2002 FY01: \$0 Total: \$143,000  
*Prin. Invest.: K EVANS*  
*Tech. Officer: GSFC/W WISCOMBE*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 7703 UNIV OF COLORADO - BOULDER 3049**  
FUNDING FOR 'TEMPORAL VARIATIONS OF THE GEOPOTENTIAL AL' (SENH98-0102)  
09/23/1998 - 09/30/2001 FY01: \$48,000 Total: \$286,000  
*Prin. Invest.: J M WAHR*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NAG 5 7723 UNIV OF COLORADO - BOULDER 3050**  
THE DISK WIND MODEL OF THE BROAD LINE REGIONS IN ACTIVE GALACTIC NUCLEI AND CATAclysmic VARI  
09/23/1998 - 09/30/2002 FY01: \$90,630 Total: \$174,047  
*Prin. Invest.: M C BEGELMAN*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 7725 UNIV OF COLORADO - BOULDER 3051**  
MODEL PREDICTIONS OF INTERACTIONS BETWEEN SOLAR AN D ANTHROPOGENIC PERTURBATIONS IN THE EARTH'  
09/23/1998 - 09/30/2001 FY01: \$20,500 Total: \$62,000  
*Prin. Invest.: D RUSCH*  
*Tech. Officer: GSFC/D EVANS*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 7760 UNIV OF COLORADO - BOULDER 3052**  
CHARACTERIZING THE SIPLE COAST ICE STREAM SYSTEM U SING SATELLITE IMAGES, IMPROVED TOPOGRAPHY, AND IN  
12/21/1998 - 12/31/2001 FY01: \$39,461 Total: \$119,876  
*Prin. Invest.: T A SCAMBOS*  
*Tech. Officer: GSFC/S GOGINENI*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 7784 UNIV OF COLORADO - BOULDER 3053**  
SOLAR MESOSPHERE EXPLORER MEASUREMENTS OF EL CHICHON AEROSOLS  
11/09/1998 - 10/31/2001 FY01: \$58,000 Total: \$173,850  
*Prin. Invest.: C E RANDALL*  
*Tech. Officer: GSFC/M MISHCHENKO*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 7838 UNIV OF COLORADO - BOULDER 3054**  
STUDY OF ANOMALOUS VARIATION OF THE TOTAL SOLAR IR RADIANCE AT THE BEGINNING OF SOLAR CYCLE 23  
12/16/1998 - 12/14/2001 FY01: \$0 Total: \$125,020  
*Prin. Invest.: G DE TOMA*  
*Tech. Officer: GSFC/J GURMAN*  
*CASE Category: 19 - PHYSICAL SCIENCE, OTHER*

**NAG 5 7851 UNIV OF COLORADO - BOULDER 3055**  
MULTIWAVELENGTH TESTING OF BROADBAND EUV GRATINGS  
11/30/1998 - 12/31/2000 FY01: \$0 Total: \$52,000  
*Prin. Invest.: D WILKINSON*  
*Tech. Officer: GSFC/H HASAN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 7996 UNIV OF COLORADO - BOULDER 3056**  
GLOBAL AND LOCAL HELIOSEISMIC STUDIES OF SOLAR CONVECTION-ZONE DYNAMICS USING SOI-MDI  
01/05/1999 - 12/31/2001 FY01: \$210,000 Total: \$685,000  
*Prin. Invest.: J TOOMRE*  
*Tech. Officer: GSFC/J GURMAN*  
*CASE Category: 19 - PHYSICAL SCIENCE, OTHER*

**NAG 5 8047 UNIV OF COLORADO - BOULDER 3057**  
A COMPARATIVE ANALYSIS OF THE GALILEO-ERA IO TORUS & ATMOSPHERE  
01/15/1999 - 01/14/2001 FY01: \$0 Total: \$105,000  
*Prin. Invest.: N M SCHNEIDER*  
*Tech. Officer: GSFC/R BEEBE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 8096 UNIV OF COLORADO - BOULDER 3058**  
ULTRAVIOLET STUDIES OF JUPITER'S HYDROCARBONS AND AEROSOLS FROM GALILEO  
01/29/1999 - 01/31/2002 FY01: \$0 Total: \$110,000  
*Prin. Invest.: D R PRYOR*  
*Tech. Officer: GSFC/D BOGAN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 8108 UNIV OF COLORADO - BOULDER 3059**  
THE YOUNGEST STARS - LTSA 98  
02/11/1999 - 02/14/2002 FY01: \$98,190 Total: \$295,256  
*Prin. Invest.: J BALLY*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 8127 UNIV OF COLORADO - BOULDER 3060**  
"INFRARED OPTICAL CONSTANTS OF PARTICLES IN THE LOWER STRATOSPHERE AND UPPER TROPOSPHERE"  
02/04/1999 - 11/30/2001 FY01: \$105,052 Total: \$318,188  
*Prin. Invest.: M A TOLBERT*  
*Tech. Officer: GSFC/M D KING*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 8133 UNIV OF COLORADO - BOULDER 3061**  
GLOBAL MODELS OF SOLAR CONVECTION, ROTATION AND MAGNETIC ACTIVITY  
03/02/1999 - 04/30/2002 FY01: \$316,000 Total: \$896,788  
*Prin. Invest.: J TOOMRE*  
*Tech. Officer: GSFC/J M GREBOWSKY*  
*CASE Category: 11 - ASTRONOMY*

<b>NAG 5 8178</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3062</b>	<b>NAG 5 8338</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3070</b>
ULTRAVIOLET PHOTOMETRIC PARAMETERS OF THE ICY GALILEAN SATELLITES AND THE MOON			PHOTOMETRIC ANALYSIS OF THE JOVIAN RING SYSTEM AND MODELING OF RINGORIGIN AND EVOLUTION		
02/11/1999 - 02/14/2001	FY01: \$0	Total: \$64,800	03/23/1999 - 04/30/2002	FY01: \$0	Total: \$122,874
<i>Prin. Invest.: A HENDRIX</i>			<i>Prin. Invest.: L W ESPOSITO</i>	<i>Prin. Invest.: NONE</i>	
<i>Tech. Officer: GSFC/R BEEBE</i>			<i>Tech. Officer: GSFC/D BOGAN</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 11 - ASTRONOMY</i>		
<b>NAG 5 8236</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3063</b>	<b>NAG 5 8362</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3071</b>
SN1987A: THE BIRTH OF A SUPERNOVA REMNANT (ATP 98)			THEORETICAL STUDIES OF MICROPHYSICAL MARINE BOUNDARY-LAYER CLOUDS		
02/25/1999 - 02/28/2001	FY01: \$200,750	Total: \$299,308	03/15/1999 - 03/14/2002	FY01: \$0	Total: \$105,532
<i>Prin. Invest.: R A MCCRAY</i>			<i>Prin. Invest.: O B TOON</i>		
<i>Tech. Officer: GSFC/D K WEST</i>			<i>Tech. Officer: GSFC/M MISCHENKO</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 31 - ATMOSPHERIC SCIENCE</i>		
<b>NAG 5 8247</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3064</b>	<b>NAG 5 8399</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3072</b>
GGS CEPPAD SUPPLEMENT			POLAR PATHFINDER HDF-EOS PILOT PROJECT		
02/24/1999 - 01/31/2002	FY01: \$75,000	Total: \$276,000	05/14/1999 - 05/14/2001	FY01: \$0	Total: \$92,006
<i>Prin. Invest.: D BAKER</i>			<i>Prin. Invest.: R L WEAVER</i>		
<i>Tech. Officer: GSFC/R HOFFMAN</i>			<i>Tech. Officer: GSFC/K MOE</i>		
<i>CASE Category: 19 - PHYSICAL SCIENCE, OTHER</i>			<i>CASE Category: 22 - COMPUTER SCIENCE</i>		
<b>NAG 5 8256</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3065</b>	<b>NAG 5 8442</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3073</b>
JOVIAN AURORAL CHEMISTRY			NONLINEAR MODELING OF HIGH-LATITUDE ELECTRODYNAMIC S AND MID-LATITUDE CURRENTS AND PREDICTION FROM R		
02/11/1999 - 02/14/2002	FY01: \$12,000	Total: \$35,304	04/08/1999 - 04/30/2002	FY01: \$17,410	Total: \$50,418
<i>Prin. Invest.: W PRYOR</i>			<i>Prin. Invest.: D N BAKER</i>		
<i>Tech. Officer: GSFC/D BOGAN</i>			<i>Tech. Officer: GSFC/A J KLIMAS</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 13 - PHYSICS</i>		
<b>NAG 5 8259</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3066</b>	<b>NAG 5 8538</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3074</b>
MULTISPECTRAL MAPPING OF THE MARTIAN POLAR ICE CAPS			SUPERCONDUCTING MIXERS FOR FAR INFRARED SPECTROSCOPY.		
02/16/1999 - 02/28/2002	FY01: \$69,000	Total: \$217,000	08/11/1999 - 08/14/2002	FY01: \$0	Total: \$203,000
<i>Prin. Invest.: A W NOLIN</i>			<i>Prin. Invest.: A L BETZ</i>		
<i>Tech. Officer: HQ/J BOYCE</i>			<i>Tech. Officer: GSFC/F HERRERO</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 11 - ASTRONOMY</i>		
<b>NAG 5 8266</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3067</b>	<b>NAG 5 8615</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3075</b>
WAVE STRUCTURES AND VERTICAL COUPLING IN THE MARTIAN ATMOSPHERE			APPLICATION OF SATELLITE SAR IMAGERY IN MAPPING THE ACTIVE LAYER OF ARCTIC PERMAFROST		
02/24/1999 - 05/31/2002	FY01: \$44,000	Total: \$125,900	06/14/1999 - 06/30/2001	FY01: \$0	Total: \$66,015
<i>Prin. Invest.: J M FORBES</i>			<i>Prin. Invest.: T ZHANG</i>		
<i>Tech. Officer: HQ/J BOYCE</i>			<i>Tech. Officer: GSFC/P R Houser</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</i>		
<b>NAG 5 8311</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3068</b>	<b>NAG 5 8643</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3076</b>
THE DIURNAL CYCLE OF CONVECTION AND ITS INTERACTION WITH THE LARGE SCALE CIRCULATION			DISTRIBUTION & AUTOMATION TECHNOLOGY APPLICATION, "DATA"		
03/12/1999 - 02/28/2002	FY01: \$116,977	Total: \$159,769	07/08/1999 - 06/30/2001	FY01: \$0	Total: \$568,626
<i>Prin. Invest.: M L SALBY</i>			<i>Prin. Invest.: E R HANSEN</i>		
<i>Tech. Officer: GSFC/J R CURRAN</i>			<i>Tech. Officer: GSFC/G MUCKLOW</i>		
<i>CASE Category: 31 - ATMOSPHERIC SCIENCE</i>			<i>CASE Category: 22 - COMPUTER SCIENCE</i>		
<b>NAG 5 8320</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3069</b>	<b>NAG 5 8697</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3077</b>
INTEGRATING MICROWAVE AND HYPERSPECTRAL REMOTE SENSING FOR ESTIMATING VEGETATION STRUCTURE AND BI			ALGORITHMS FOR AUTONOMOUS GPS ORBIT DETERMINATION & FORMATION FLYING		
04/06/1999 - 03/31/2002	FY01: \$48,552	Total: \$135,131	08/18/1999 - 08/14/2001	FY01: \$0	Total: \$146,780
<i>Prin. Invest.: G P ASNER</i>			<i>Prin. Invest.: P AXELRAD</i>		
<i>Tech. Officer: GSFC/D C WICKLAND</i>			<i>Tech. Officer: GSFC/J LEITNER</i>		
<i>CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</i>			<i>CASE Category: 41 - AERONAUTICAL ENGR</i>		

**NAG 5 8709**      **UNIV OF COLORADO - BOULDER**      **3078**  
 LAND USE IMPACTS ON SUBTROPICAL BIOGEOCHEMICAL CYCLES: AN INTEGRATED FIELD-PROCESSING MODELING-REMO  
 07/29/1999 - 07/31/2002      FY01: \$100,566      Total: \$366,582  
*Prin. Invest.: G ASNER*  
*Tech. Officer: GSFC/M Y WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8755**      **UNIV OF COLORADO - BOULDER**      **3079**  
 INTERCALIBRATION OF MESOSPHERE/LOWER THERMOSPHERE WINDS FROM SPACE-BASED & GROUND-BASED MEASUREMENTS  
 08/12/1999 - 08/14/2002      FY01: \$16,000      Total: \$46,500  
*Prin. Invest.: J M FORBES*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8840**      **UNIV OF COLORADO - BOULDER**      **3080**  
 INTERNATIONAL RESEARCH WORKSHOP ON INTEGRATING GIS & ENVIRONMENTAL MODELING: PROBLEMS, PROSPECTS,&  
 09/22/1999 - 09/30/2000      FY01: -\$2,560      Total: \$7,440  
*Prin. Invest.: B O PARKS*  
*Tech. Officer: GSFC/B W MEESON*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 8910**      **UNIV OF COLORADO - BOULDER**      **3081**  
 SMALL-SCALE POLYGONS AND THE HISTORY OF GROUND ICE ON MARS  
 12/29/1999 - 02/14/2001      FY01: \$0      Total: \$58,900  
*Prin. Invest.: M T MELLON*  
*Tech. Officer: GSFC/J GRANT*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 8912**      **UNIV OF COLORADO - BOULDER**      **3082**  
 BOOK ON HYPERSPECTRAL IMAGING  
 01/03/2000 - 05/31/2000      FY01: -\$3      Total: \$76,277  
*Prin. Invest.: A GOETZ*  
*Tech. Officer: GSFC/D WICKLAND*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8923**      **UNIV OF COLORADO - BOULDER**      **3083**  
 LABORATORY STUDIES OF LOW TEMPERATURE RATE COEFFICIENTS: THE ATMOSPHERIC CHEMISTRY OF THE OUTER PLAN  
 01/06/2000 - 12/31/2002      FY01: \$110,200      Total: \$214,008  
*Prin. Invest.: D R LEONE*  
*Tech. Officer: GSFC/R B BEEBE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 8940**      **UNIV OF COLORADO - BOULDER**      **3084**  
 GALILEO MULTI-SPECTRAL ANALYSIS  
 01/13/2000 - 09/30/2001      FY01: -\$19,359      Total: \$8,241  
*Prin. Invest.: K SIMMONS*  
*Tech. Officer: GSFC/D BOGAN*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9007**      **UNIV OF COLORADO - BOULDER**      **3085**  
 SATELLITE ATMOSPHERE & IO TORUS OBSERVATIONS  
 01/28/2000 - 01/31/2002      FY01: \$99,500      Total: \$192,475  
*Prin. Invest.: N M SCHNEIDER*  
*Tech. Officer: GSFC/T H MORGAN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9010**      **UNIV OF COLORADO - BOULDER**      **3086**  
 FUV SPECTRA OF EVOLVED LATE-K AND M STARS: MASS LOSS REVISITED AND STELLAR ACTIVITY - FUSE  
 02/02/2000 - 01/31/2002      FY01: \$0      Total: \$67,000  
*Prin. Invest.: G HARPER*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9018**      **UNIV OF COLORADO - BOULDER**      **3087**  
 HIGH VELOCITY CLOUDS: ORIGIN & ENVIRONMENT - FUSE  
 02/03/2000 - 01/31/2001      FY01: \$0      Total: \$24,540  
*Prin. Invest.: J SHULL*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9026**      **UNIV OF COLORADO - BOULDER**      **3088**  
 SIMULATION & THEORETICAL MODELING OF OBSERVATIONS OF BIPOLAR STRUCTURE & LOW FREQUENCY WAVES IN THE  
 02/03/2000 - 02/28/2002      FY01: \$87,918      Total: \$167,218  
*Prin. Invest.: M V GOLDMAN*  
*Tech. Officer: GSFC/M MELLOTT*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9041**      **UNIV OF COLORADO - BOULDER**      **3089**  
 STELLAR WINDS, HYDROGEN WALLS, AND THE LOCAL INTER STELLAR MEDIUM -LTS99  
 02/22/2000 - 02/28/2002      FY01: \$178,996      Total: \$228,346  
*Prin. Invest.: B WOOD*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9043**      **UNIV OF COLORADO - BOULDER**      **3090**  
 CLIMATOLOGY OF ARCTIC CANADA  
 02/22/2000 - 02/28/2002      FY01: \$37,822      Total: \$74,066  
*Prin. Invest.: K STEFFEN*  
*Tech. Officer: GSFC/W ABDALATI*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 9092**      **UNIV OF COLORADO - BOULDER**      **3091**  
 ION ETCHED HOLOGRAPHIC GRATINGS  
 02/17/2000 - 01/31/2002      FY01: \$90,000      Total: \$165,360  
*Prin. Invest.: J GREEN*  
*Tech. Officer: GSFC/P CRANE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9114**      **UNIV OF COLORADO - BOULDER**      **3092**  
 PHASE-A AND BRIDGE PHASE STUDY OF STEREO/WAVES ACCOMMODATION  
 03/01/2000 - 12/31/2001      FY01: \$30,000      Total: \$58,206  
*Prin. Invest.: R ERGUN*  
*Tech. Officer: GSFC/M L KAISER*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9172**      **UNIV OF COLORADO - BOULDER**      **3093**  
 DUSTY PLASMAS IN PLANETARY MAGNETOSPHERES  
 03/08/2000 - 02/28/2002      FY01: \$74,194      Total: \$148,094  
*Prin. Invest.: M HORANYI*  
*Tech. Officer: GSFC/J SHARBER*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

<b>NAG 5 9201</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3094</b>	<b>NAG 5 9448</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3102</b>
THERMOSPHERIC ODD-NITROGEN RESPONSE TO AURORAL ENERGY			KLE ANALYSIS OF SCIGN GPS DATA		
03/09/2000 - 09/14/2001	FY01: \$0	Total: \$41,400	04/12/2000 - 04/14/2002	FY01: \$40,000	Total: \$80,000
<i>Prin. Invest.: S SOLOMON</i>			<i>Prin. Invest.: J B RUNDLE</i>		
<i>Tech. Officer: GSFC/J SCHARBER</i>			<i>Tech. Officer: GSFC/H V FREY</i>		
<i>CASE Category: 32 – GEOLOGICAL SCIENCE</i>			<i>CASE Category: 32 – GEOLOGICAL SCIENCE</i>		
<b>NAG 5 9304</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3095</b>	<b>NAG 5 9450</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3103</b>
CLOSEOUT OF "LABORATORY STUDIES OF THE NUCLEATION, COMPOSITION & REACTIVITY OF AIRCRAFT CONDENSATION			USE OF SATELLITE GRAVIMETRY TO DEVELOP AND TEST A LAND WATER-AND ENERGY-BALANCE MODEL		
03/22/2000 - 03/31/2002	FY01: \$64,000	Total: \$154,236	04/12/2000 - 04/30/2002	FY01: \$49,051	Total: \$72,266
<i>Prin. Invest.: D A TOLBERT</i>			<i>Prin. Invest.: J WAHR</i>		
<i>Tech. Officer: GSFC/R LAWRENCE</i>			<i>Tech. Officer: GSFC/P Houser</i>		
<i>CASE Category: 31 – ATMOSPHERIC SCIENCE</i>			<i>CASE Category: 39 – ENVIRONMENTAL SCI, OTHER</i>		
<b>NAG 5 9336</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3096</b>	<b>NAG 5 9474</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3104</b>
INVESTIGATION OF RADIO TOMOGRAPHY IMAGING OF THE MAGNETOSPHERE			THERMOSPHERIC OXYGEN MAPPER (TOM)		
03/27/2000 - 02/28/2002	FY01: \$79,100	Total: \$151,700	04/17/2000 - 04/30/2002	FY01: \$181,773	Total: \$361,021
<i>Prin. Invest.: R ERGUN</i>			<i>Prin. Invest.: A L BETZ</i>		
<i>Tech. Officer: GSFC/J SHARBER</i>			<i>Tech. Officer: GSFC/B BETTS</i>		
<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>			<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>		
<b>NAG 5 9353</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3097</b>	<b>NAG 5 9477</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3105</b>
CHARACTERIZATION AND NUMERICAL SIMULATION OF FAST SOLITARY WAVES IN THE AURORAL IONOSPHERE			ADVANCING GLACIOLOGICAL APPLICATIONS OF REMOTE SENSING WITH EO-1		
03/30/2000 - 03/31/2002	FY01: \$0	Total: \$72,600	04/24/2000 - 04/30/2001	FY01: \$0	Total: \$58,580
<i>Prin. Invest.: R ERGUN</i>			<i>Prin. Invest.: T SCAMBOS</i>		
<i>Tech. Officer: GSFC/M MELLOTT</i>			<i>Tech. Officer: GSFC/R BINDSCHADLER</i>		
<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>			<i>CASE Category: 19 – PHYSICAL SCIENCE, OTHER</i>		
<b>NAG 5 9404</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3098</b>	<b>NAG 5 9491</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3106</b>
GLOBAL & REGIONAL IMPACTS OF MESOSCALE VARIABILITY IN AIR-SEA FLUXES			LITHOSPHERIC DYNAMICS OF MARS: WATER, FLOW, AND FAILURE		
04/10/2000 - 04/30/2002	FY01: \$364,045	Total: \$615,712	05/17/2000 - 04/14/2002	FY01: \$42,400	Total: \$84,830
<i>Prin. Invest.: P J WEBSTER</i>			<i>Prin. Invest.: R E GRIMM</i>		
<i>Tech. Officer: GSFC/J DODGE</i>			<i>Tech. Officer: GSFC/J A GRANT</i>		
<i>CASE Category: 39 – ENVIRONMENTAL SCI, OTHER</i>			<i>CASE Category: 32 – GEOLOGICAL SCIENCE</i>		
<b>NAG 5 9412</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3099</b>	<b>NAG 5 9537</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3107</b>
STANDARD GLOBAL SNOW COVER PRODUCTS FROM SATELLITE REMOTE SENSING			FORMATION OF MAGNETIC STRUCTURES AT THE BASE OF THE SOLAR CONVECTION ZONE		
05/08/2000 - 05/14/2002	FY01: \$132,415	Total: \$226,805	05/04/2000 - 05/14/2002	FY01: \$132,073	Total: \$183,523
<i>Prin. Invest.: R ARMSTRONG</i>			<i>Prin. Invest.: N H BRUMMELL</i>		
<i>Tech. Officer: GSFC/J DODGE</i>			<i>Tech. Officer: GSFC/W J WAGNER</i>		
<i>CASE Category: 39 – ENVIRONMENTAL SCI, OTHER</i>			<i>CASE Category: 13 – PHYSICS</i>		
<b>NAG 5 9421</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3100</b>	<b>NAG 5 9568</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3108</b>
ENERGIZATION AND LOSS OF OUTER RADIATION BELT ELECTRONS			REGIONAL INTEGRATED MONITORING SYSTEM FOR THE HYDROLOGY OF THE PAN-ARCTIC LAND MASS		
04/11/2000 - 04/30/2002	FY01: \$43,277	Total: \$92,277	05/17/2000 - 05/31/2002	FY01: \$176,373	Total: \$296,121
<i>Prin. Invest.: X LI</i>			<i>Prin. Invest.: M SERREZE</i>		
<i>Tech. Officer: GSFC/J SHARBER</i>			<i>Tech. Officer: GSFC/P HAUSER</i>		
<i>CASE Category: 31 – ATMOSPHERIC SCIENCE</i>			<i>CASE Category: 39 – ENVIRONMENTAL SCI, OTHER</i>		
<b>NAG 5 9443</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3101</b>	<b>NAG 5 9590</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3109</b>
CHARGED AEROSOLS			CHARACTERIZING THE OXIDIZING PROPERTIES OF MARS' POLAR REGIONS		
04/13/2000 - 05/31/2001	FY01: \$0	Total: \$36,800	05/15/2000 - 05/14/2002	FY01: \$0	Total: \$85,000
<i>Prin. Invest.: S ROBERTSON</i>			<i>Prin. Invest.: A R HENDRIX</i>		
<i>Tech. Officer: GSFC/M MELLOTT</i>			<i>Tech. Officer: GSFC/J BOYCE</i>		
<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>			<i>CASE Category: 32 – GEOLOGICAL SCIENCE</i>		

**NAG 5 9602 UNIV OF COLORADO - BOULDER 3110**  
 EVALUATION AND ERROR ASSESSMENT OF OPERATIONAL PASSIVE  
 MICROWAVE ALGORITHMS  
 05/17/2000 - 12/31/2001 FY01: \$0 Total: \$72,723  
*Prin. Invest.: J STROEVE*  
*Tech. Officer: GSFC/E LINDSTROM*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9631 UNIV OF COLORADO - BOULDER 3111**  
 MULTI-DECADE OBSERVATIONS OF MARTIAN SURFACE VARIABILITY &  
 SEDIMENT TRANSPORT: INTEGRATED ANALYSES  
 05/26/2000 - 05/31/2002 FY01: \$60,000 Total: \$120,000  
*Prin. Invest.: S W LEE*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9666 UNIV OF COLORADO - BOULDER 3112**  
 THE EFFECTS OF CLIMATE REGIME ON TRMM RETRIEVALS  
 05/30/2000 - 11/14/2000 FY01: -\$46,667 Total: \$0  
*Prin. Invest.: W K BERG*  
*Tech. Officer: GSFC/R J/L*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 9692 UNIV OF COLORADO - BOULDER 3113**  
 AEROSOL-CLOUD-CLIMATE INTERACTIONS  
 06/21/2000 - 08/31/2001 FY01: \$0 Total: \$122,990  
*Prin. Invest.: K STEFFEN*  
*Tech. Officer: GSFC/J ZWALLY*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9694 UNIV OF COLORADO - BOULDER 3114**  
 ATMOSPHERIC MODELING AND INFRARED OBSERVATIONS OF A TRANSITING EXTRA-SOLAR PLANET  
 06/27/2000 - 09/30/2002 FY01: \$40,469 Total: \$46,914  
*Prin. Invest.: L W ESPOSITO*  
*Tech. Officer: GSFC/L D DEMING*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9722 UNIV OF COLORADO - BOULDER 3115**  
 GLOBAL LAND ICE MEASUREMENTS FROM SPACE  
 06/22/2000 - 06/30/2002 FY01: \$89,997 Total: \$200,000  
*Prin. Invest.: G R SCHAFEREN*  
*Tech. Officer: GSFC/J DODGE*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9727 UNIV OF COLORADO - BOULDER 3116**  
 COMPARISON OF QUICKSCAT AND GPS-DERIVED OCEAN SURFACE WINDS  
 07/11/2000 - 07/31/2001 FY01: \$0 Total: \$74,683  
*Prin. Invest.: P AXELRAD*  
*Tech. Officer: GSFC/E LINDSTROM*  
*CASE Category: 33 – OCEANOGRAPHY*

**NAG 5 9753 UNIV OF COLORADO - BOULDER 3117**  
 RETRIEVAL OF HYDROMETER SIZE DISTRIBUTIONS FROM TRMM FIELD  
 CAMPAIGN PROFILER DOPPLER VELOCITY SPEC  
 06/23/2000 - 06/30/2002 FY01: \$68,000 Total: \$111,156  
*Prin. Invest.: C R WILLIAMS*  
*Tech. Officer: GSFC/R J LAWRENCE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 9779 UNIV OF COLORADO - BOULDER 3118**  
 ORIGIN OF MAGNETIC LINEATIONS ON MARS  
 07/10/2000 - 06/30/2002 FY01: \$50,000 Total: \$100,500  
*Prin. Invest.: R E GRIMM*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 9861 UNIV OF COLORADO - BOULDER 3119**  
 IMPROVING THE SIMULATION OF SEA ICE LEAD CONDITION & TURBULENT  
 FLUXES USING RGPS PRODUCTS & MERGED  
 08/09/2000 - 07/31/2002 FY01: \$118,928 Total: \$234,058  
*Prin. Invest.: J MASLANIK*  
*Tech. Officer: GSFC/E LINDSTROM*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 10000 UNIV OF COLORADO - BOULDER 3120**  
 DYNAMICS OF PLANETESIMALS AND PLANETARY ACCRETION  
 09/20/2000 - 08/31/2001 FY01: \$0 Total: \$70,000  
*Prin. Invest.: G STEWART*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10083 UNIV OF COLORADO - BOULDER 3121**  
 CONTEMPORANEOUS XMM & HST OBSERVATIONS OF SEYFERT GALAXIES  
 11/06/2000 - 11/14/2001 FY01: \$14,495 Total: \$14,495  
*Prin. Invest.: C S REYNOLDS*  
*Tech. Officer: GSFC/R MUSHOTZKY*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10106 UNIV OF COLORADO - BOULDER 3122**  
 STUDENT NITRIC OXIDE EXPERIEMNT (SNOE) - EXTENDED MISSION  
 11/24/2000 - 12/31/2001 FY01: \$100,000 Total: \$100,000  
*Prin. Invest.: C A BARTH*  
*Tech. Officer: GSFC/C P HOLMES*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10155 UNIV OF COLORADO - BOULDER 3123**  
 SMALL-SCALE POLYGONS AND THE HISTORY OF GROUND ICE ON MARS  
 12/18/2000 - 12/31/2001 FY01: \$62,000 Total: \$62,000  
*Prin. Invest.: M T MELLON*  
*Tech. Officer: GSFC/D SENSKA*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 10211 UNIV OF COLORADO - BOULDER 3124**  
 ABSOLUTE GRAVITY/GPS MEASUREMENTS IN GREENLAND  
 01/03/2001 - 12/31/2001 FY01: \$19,278 Total: \$19,278  
*Prin. Invest.: J WAHR*  
*Tech. Officer: GSFC/W ABDALATI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10213 UNIV OF COLORADO - BOULDER 3125**  
 FAR INFRARED FOCAL PLANE ARRAYS  
 01/04/2001 - 01/14/2002 FY01: \$290,000 Total: \$290,000  
*Prin. Invest.: A L BETZ*  
*Tech. Officer: GSFC/P CRANE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

<b>NAG 5 10259</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3126</b>	<b>NAG 5 10340</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3134</b>
STUDIES FOR IMPROVED GRAVITATIONAL WAVE SENSITIVITY			MAGNETOSPHERES AND WINDS IN THE RAPID BRAKING ZONE (FUSE 00)		
01/09/2001 - 12/31/2001	FY01: \$35,000	Total: \$35,000	02/05/2001 - 02/14/2002	FY01: \$83,900	Total: \$83,900
<i>Prin. Invest.: P L BENDER</i>			<i>Prin. Invest.: T R AYRES</i>		
<i>Tech. Officer: GSFC/P CRANE</i>			<i>Tech. Officer: GSFC/G SONNEBORN</i>		
<i>CASE Category: 13 - PHYSICS</i>			<i>CASE Category: 11 - ASTRONOMY</i>		
<b>NAG 5 10265</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3127</b>	<b>NAG 5 10362</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3135</b>
DISTRUBUTION OF NEAR-SURFACE GROUND ICE ON MARS			X-RAY EMISSION IN WOLF-RAYET STARS: XMM REVEALS THE SHOCKING		
01/09/2001 - 12/31/2001	FY01: \$65,000	Total: \$65,000	TRUTH		
<i>Prin. Invest.: M MELLON</i>			02/06/2001 - 02/14/2002	FY01: \$15,078	Total: \$15,078
<i>Tech. Officer: GSFC/D SENSK</i>			<i>Prin. Invest.: S L SKINNER</i>		
<i>CASE Category: 99 - MULTI INTERDISCPL, OTHER</i>			<i>Tech. Officer: GSFC/R MUSHOTZKY</i>		
<b>NAG 5 10288</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3128</b>	<i>CASE Category: 11 - ASTRONOMY</i>		
IMPROVING THE ACCURACY OF SATELLITE SEA SURFACE TEMPERATURE			<b>NAG 5 10368</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3136</b>
MEASUREMENTS BY EXPLICITLY ACCOUNTING			WIDELY TUNABLE OPTICAL LOCAL OSCILLATORS WITH 1 E-15 STABILITY:		
01/29/2001 - 01/31/2002	FY01: \$125,000	Total: \$125,000	ULTRASTABLE LASER SYSTEMS		
<i>Prin. Invest.: W EMERY</i>			02/12/2001 - 01/14/2002	FY01: \$392,722	Total: \$392,722
<i>Tech. Officer: GSFC/J C DODGE</i>			<i>Prin. Invest.: J L HALL</i>		
<i>CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</i>			<i>Tech. Officer: GSFC/W HEAPS</i>		
<b>NAG 5 10309</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3129</b>	<i>CASE Category: 45 - ELECTRICAL ENGR</i>		
STUDY OF THE INFLUENCE OF SMALL SCALE E-FIELD VARIABILITY ON			<b>NAG 5 10413</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3137</b>
THE DISTRIBUTION OF GEOMAGNETIC			REMOTE SENSING OF PLANETARY SURFACES		
01/24/2001 - 04/30/2002	FY01: \$41,000	Total: \$41,000	02/14/2001 - 02/14/2002	FY01: \$45,000	Total: \$45,000
<i>Prin. Invest.: M CODRESCU</i>			<i>Prin. Invest.: B JAKOSKY</i>		
<i>Tech. Officer: GSFC/M MELLOTT</i>			<i>Tech. Officer: GSFC/D SENSK</i>		
<i>CASE Category: 99 - MULTI INTERDISCPL, OTHER</i>			<i>CASE Category: 32 - GEOLOGICAL SCIENCE</i>		
<b>NAG 5 10319</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3130</b>	<b>NAG 5 10418</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3138</b>
EXCITATION AND ABUNDANCES IN N132D - FUSE.			GEOMORPHOLOGY AND GEODYNAMICS AT CRUSTAL BOUNDARIES WITHIN ASIA AND AFRICA.		
01/29/2001 - 01/31/2002	FY01: \$25,500	Total: \$25,500	02/22/2001 - 02/28/2002	FY01: \$30,000	Total: \$30,000
<i>Prin. Invest.: J A MORSE</i>			<i>Prin. Invest.: R G BILHAM</i>		
<i>Tech. Officer: GSFC/G SONNEBORN</i>			<i>Tech. Officer: GSFC/H V FREY</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 32 - GEOLOGICAL SCIENCE</i>		
<b>NAG 5 10325</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3131</b>	<b>NAG 5 10461</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3139</b>
THE UNUSUAL WOLF-RAYET STAR EZ CMA			LITHOSPHERIC DYNAMICS OF MARS: WATER, FLOW, & FAILURE		
01/31/2001 - 01/31/2002	FY01: \$14,328	Total: \$14,328	02/26/2001 - 07/20/2001	FY01: \$0	Total: \$0
<i>Prin. Invest.: S L SKINNER</i>			<i>Prin. Invest.: R E GRIMM</i>		
<i>Tech. Officer: GSFC/R MUSHOTZKY</i>			<i>Tech. Officer: GSFC/D SENSK</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 11 - ASTRONOMY</i>		
<b>NAG 5 10326</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3132</b>	<b>NAG 5 10474</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3140</b>
DECIPHERING THE X-RAY EMISSION OF THE NEAREST HERBIG AE STAR			SOLAR WIND FLUCTUATIONS & THEIR CONSEQUENCES ON THE MAGNETOSPHERE		
01/31/2001 - 01/31/2002	FY01: \$15,000	Total: \$15,000	02/27/2001 - 02/28/2002	FY01: \$82,080	Total: \$82,080
<i>Prin. Invest.: S L SKINNER, NONE</i>			<i>Prin. Invest.: X LI</i>		
<i>Tech. Officer: GSFC/R MUSHOTZKY</i>			<i>Tech. Officer: GSFC/J SPANN</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 32 - GEOLOGICAL SCIENCE</i>		
<b>NAG 5 10339</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3133</b>	<b>NAG 5 10508</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3141</b>
FUV SPECTRA OF EVOLVED LATE-K & M STARS: MASS LOSS REVISITED &			DYNAMICS OF PLANETESIMALS AND PLANETARY ACCRETION		
STELLAR ACTIVITY - FUSE			03/05/2001 - 02/28/2002	FY01: \$82,000	Total: \$82,000
02/05/2001 - 02/14/2002	FY01: \$56,500	Total: \$56,500	<i>Prin. Invest.: G HARPER</i>		
<i>Prin. Invest.: G HARPER</i>			<i>Tech. Officer: GSFC/G SONNEBORN</i>		
<i>Tech. Officer: GSFC/G SONNEBORN</i>			<i>CASE Category: 11 - ASTRONOMY</i>		
<i>CASE Category: 11 - ASTRONOMY</i>					

**NAG 5 10556 UNIV OF COLORADO - BOULDER 3142**  
 INVESTIGATION OF THE ASSIMILATION OF ICE MOTION DATA IN SEA ICE MODELS  
 03/12/2001 - 03/14/2002 FY01: \$96,593 Total: \$96,593  
*Prin. Invest.: T ARBETTER*  
*Tech. Officer: GSFC/W ABDALATI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10581 UNIV OF COLORADO - BOULDER 3143**  
 HIGH-RESOLUTION THERMAL INERTIA OF MARS  
 03/19/2001 - 02/28/2002 FY01: \$88,000 Total: \$88,000  
*Prin. Invest.: M MELON*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10600 UNIV OF COLORADO - BOULDER 3144**  
 ASSESSMENT OF GREENLAND OUTLET GLACIER ALBEDO VARIABILITY  
 03/14/2001 - 03/14/2002 FY01: \$46,013 Total: \$46,013  
*Prin. Invest.: J STROEVE*  
*Tech. Officer: GSFC/W ABDALATI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 10601 UNIV OF COLORADO - BOULDER 3145**  
 COMPARISON OF INTERSTELLAR & INTERPLANETARY GRAINS  
 03/19/2001 - 02/28/2002 FY01: \$15,000 Total: \$15,000  
*Prin. Invest.: T SNOW*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10616 UNIV OF COLORADO - BOULDER 3146**  
 PHYSICAL PROPERTIES OF POTENTIAL MARS LANDING SITE S  
 03/16/2001 - 03/14/2002 FY01: \$39,000 Total: \$39,000  
*Prin. Invest.: B JAKOSKY*  
*Tech. Officer: GSFC/J M BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10698 UNIV OF COLORADO - BOULDER 3147**  
 CONTRAIL PERSISTENCE AND AIRCRAFT EXHAUST IMPACTS ON CIRRUS  
 04/18/2001 - 11/30/2001 FY01: \$42,025 Total: \$42,025  
*Prin. Invest.: O TOON*  
*Tech. Officer: GSFC/R LAWRENCE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 10763 UNIV OF COLORADO - BOULDER 3148**  
 COSMOLOGICAL PARAMETERS FROM LARGE SCALE STRUCTURE (ATP 2000)  
 04/23/2001 - 04/30/2002 FY01: \$79,425 Total: \$79,425  
*Prin. Invest.: A J HAMILTON*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10790 UNIV OF COLORADO - BOULDER 3149**  
 DETERMINING THE STRUCTURE OF LOW-LEVEL JETS IN MARITIME STORMS USING QUIKSCAT  
 04/25/2001 - 04/30/2002 FY01: \$120,012 Total: \$120,012  
*Prin. Invest.: O PERSSON*  
*Tech. Officer: GSFC/E LINDSTROM*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 10791 UNIV OF COLORADO - BOULDER 3150**  
 INFARED AND PASSIVE MICROWAVE RADIOMETRIC SSTS AND THEIR RELATIONSHIPS TO ATMOSPHERIC FORCING  
 04/25/2001 - 04/30/2002 FY01: \$115,618 Total: \$115,618  
*Prin. Invest.: W EMERY*  
*Tech. Officer: GSFC/E LINDSTROM*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 10797 UNIV OF COLORADO - BOULDER 3151**  
 CONCEPT STUDY FOR THE "JUPITER MAGNETOSPHERIC EXPLORER" (JMEX) MISSION AO-99-OSS-05  
 04/30/2001 - 04/30/2002 FY01: \$423,472 Total: \$423,472  
*Prin. Invest.: D M SCHNEIDER*  
*Tech. Officer: GSFC/J R BYRD*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10857 UNIV OF COLORADO - BOULDER 3152**  
 VARIABILITY AND FORCING OF CLIMATIC PARAMETERS ON THE GREENLAND ICE SHEET: GREENLAND CLIMATE NETWORK  
 05/03/2001 - 04/30/2002 FY01: \$150,000 Total: \$150,000  
*Prin. Invest.: K STEFFEN*  
*Tech. Officer: GSFC/A*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 10892 UNIV OF COLORADO - BOULDER 3153**  
 HARD X-RAY, SPECTROSCOPIC MICROWAVE, AND H-ALPHA LINEAR POLARIZATION STUDIES WITH HARD X-RAY OBSERVATION  
 05/10/2001 - 05/31/2002 FY01: \$75,905 Total: \$75,905  
*Prin. Invest.: A KIPLINGER*  
*Tech. Officer: GSFC/J GURMAN*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 10917 UNIV OF COLORADO - BOULDER 3154**  
 SPATIAL VARIATION OF HELIOSEISMIC FREQUENCY SHIFTS  
 05/14/2001 - 05/31/2002 FY01: \$84,404 Total: \$84,404  
*Prin. Invest.: B HINDMAN*  
*Tech. Officer: GSFC/J GURMAN*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 10937 UNIV OF COLORADO - BOULDER 3155**  
 LWS PROPOSAL TO PROVIDE SCIENTIFIC GUIDANCE AND MODELING SUPPORT FOR THE IONOSPHERIC MAPPER MISSION  
 05/15/2001 - 05/14/2002 FY01: \$169,737 Total: \$169,737  
*Prin. Invest.: T FULLER-ROWELL*  
*Tech. Officer: GSFC/J F SPANN*  
*CASE Category: 99 – MULTIINTERDISCPL, OTHER*

**NAG 5 10948 UNIV OF COLORADO - BOULDER 3156**  
 MOLECULE FORMATION AT HIGH EXTINCTION AND LOW METALLICITY IN THE MAGELLANIC CLOUDS - FUSE 2000  
 05/24/2001 - 05/31/2002 FY01: \$62,500 Total: \$62,500  
*Prin. Invest.: J SHULL*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10950 UNIV OF COLORADO - BOULDER 3157**  
 FOSSIL FUEL IN THE LOCAL GROUP (FUSE 00)  
 05/24/2001 - 05/31/2002 FY01: \$26,500 Total: \$26,500  
*Prin. Invest.: M GIROUX*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10954**      **UNIV OF COLORADO - BOULDER**      **3158**  
 SCALING AND ALLOMETRY IN RIVER NETWORKS: COUPLING RAINFALL,  
 TOPOGRAPHY, AND VEGETATION WITH HYDROLOG  
 05/18/2001 - 05/31/2002      FY01: \$55,963      Total: \$55,963  
*Prin. Invest.: V GUPTA*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 10966**      **UNIV OF COLORADO - BOULDER**      **3159**  
 AEROSOL-CLOUD-CLIMATE INTERACTIONS  
 06/04/2001 - 05/31/2002      FY01: \$68,374      Total: \$68,374  
*Prin. Invest.: K STEFFEN*  
*Tech. Officer: GSFC/J ZWALLY*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 10967**      **UNIV OF COLORADO - BOULDER**      **3160**  
 POLAR TIMAS OPERATIONS AND DATA ANALYSIS  
 06/06/2001 - 11/30/2001      FY01: \$100,000      Total: \$100,000  
*Prin. Invest.: W K PETERSON*  
*Tech. Officer: GSFC/R HOFFMAN*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 10970**      **UNIV OF COLORADO - BOULDER**      **3161**  
 DYNAMICAL MODELS OF SOLAR SYSTEM FORMATION AND EVOLUTION  
 05/22/2001 - 05/31/2002      FY01: \$40,000      Total: \$40,000  
*Prin. Invest.: G R STEWART*  
*Tech. Officer: GSFC/D A SENSKA*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 10983**      **UNIV OF COLORADO - BOULDER**      **3162**  
 PRODUCT DISTRIBUTION FOR THE RAMP AMM-1 VERSION 2 AT THE  
 NATIONAL SNOW AND ICE DATA CENTER  
 06/12/2001 - 06/14/2002      FY01: \$19,631      Total: \$19,631  
*Prin. Invest.: T SCAMBOS*  
*Tech. Officer: GSFC/W ABDALATI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 11022**      **UNIV OF COLORADO - BOULDER**      **3163**  
 A STUDY OF UNCERTAINTIES FOR MODIS CLOUD RETRIEVAL OF OPTICAL  
 THICKNESS & EFFECTIVE RADIUS  
 06/07/2001 - 03/31/2002      FY01: \$49,408      Total: \$49,408  
*Prin. Invest.: D PINCUS*  
*Tech. Officer: GSFC/D STARR*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 11028**      **UNIV OF COLORADO - BOULDER**      **3164**  
 CONTINUATION OF THE SCIENCE ANALYSIS AND DATA VALIDATION OF  
 THE UARS SOLSTICE.  
 06/25/2001 - 06/30/2002      FY01: \$100,000      Total: \$100,000  
*Prin. Invest.: G J ROTTMAN*  
*Tech. Officer: GSFC/C JACKSON*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 11069**      **UNIV OF COLORADO - BOULDER**      **3165**  
 INVESTIGATIONS OF DESERT DUST & SMOKE IN THE NORTH ATLANTIC IN  
 SUPPORT OF THE TOMS INSTRUMENT.  
 07/20/2001 - 07/14/2002      FY01: \$100,000      Total: \$100,000  
*Prin. Invest.: O B TOON*  
*Tech. Officer: GSFC/P K BHARTIA*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 11107**      **UNIV OF COLORADO - BOULDER**      **3166**  
 VALIDATION OF AMSR-E SNOW PRODUCTS AQUA-0090-0026 /  
 NRA-00-OES-  
 07/24/2001 - 08/31/2002      FY01: \$75,774      Total: \$75,774  
*Prin. Invest.: R L ARMSTRONG*  
*Tech. Officer: GSFC/D STARR*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 11110**      **UNIV OF COLORADO - BOULDER**      **3167**  
 BALLOON BORNE SOUNDINGS FOR VALIDATION OF UPPER TROPO-  
 SPHERIC HUMIDITY AND TEMPERATURE (NRA-00-OES-  
 07/12/2001 - 08/31/2002      FY01: \$100,523      Total: \$100,523  
*Prin. Invest.: H W VOEMEL*  
*Tech. Officer: GSFC/D STARR*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 11167**      **UNIV OF COLORADO - BOULDER**      **3168**  
 DENSITY STRUCTURES IN THE THERMOSPHERE OF MARS: ASSIMILATIVE  
 ANALYSES OF MGS ACCELEROMETER AND TES  
 08/07/2001 - 08/14/2003      FY01: \$45,000      Total: \$45,000  
*Prin. Invest.: J FORBES*  
*Tech. Officer: GSFC/J M BOYCE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 11177**      **UNIV OF COLORADO - BOULDER**      **3169**  
 ANALYSIS OF MGS MAGNETOMETER DATA & COMPARISSONS WITH MODELS  
 OF MARS' MAGNETIC FIELD & SOLAR WIND  
 08/13/2001 - 08/14/2003      FY01: \$61,000      Total: \$61,000  
*Prin. Invest.: F BAGENAL*  
*Tech. Officer: GSFC/J M BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 11192**      **UNIV OF COLORADO - BOULDER**      **3170**  
 MEASUREMENT & INTERPRETATION ON TEMPORAL VARIATION OF THE  
 EARTH'S GRAVITY FIELD USING GPS & SLR DATA  
 08/30/2001 - 08/31/2002      FY01: \$25,000      Total: \$25,000  
*Prin. Invest.: S R NEREM*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 11205**      **UNIV OF COLORADO - BOULDER**      **3171**  
 DETECTING FUTURE TRENDS IN OZONE-LOOKING FOR INITIAL SIGNS OF  
 RECOVERY IN TOMS AND SBUV/2 RECORDS  
 08/09/2001 - 08/14/2004      FY01: \$40,915      Total: \$40,915  
*Prin. Invest.: E WEATHERHEAD*  
*Tech. Officer: GSFC/R MCPETERS*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 11224**      **UNIV OF COLORADO - BOULDER**      **3172**  
 INVESTIGATING THE FORMATION OF THE THARSIS RISE AND CRUSTAL  
 DICHOTOMY BY MODELING THE MGS DATA AND M  
 08/13/2001 - 08/14/2004      FY01: \$57,000      Total: \$57,000  
*Prin. Invest.: S ZHONG*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 11238 UNIV OF COLORADO - BOULDER 3173**  
 REGIONAL NPP & CARBON STOCKS IN SW USA RANGELANDS: LAND USE  
 IMPACTS ON THE GRASSLAND-WOODLAND BALANC  
 09/17/2001 - 08/31/2004 FY01: \$365,301 Total: \$365,301  
*Prin. Invest.: C WESSMAN*  
*Tech. Officer: GSFC/G GUTMAN*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 11241 UNIV OF COLORADO - BOULDER 3174**  
 12TH CAMBRIDGE WORKSHOP ON COOL STARS, STELLAR SYS TEMS AND  
 THE SUN: THE FUTURE OF COOL-STAR ASTROPH  
 08/15/2001 - 09/30/2001 FY01: \$15,000 Total: \$15,000  
*Prin. Invest.: T AYRES*  
*Tech. Officer: GSFC/P CRANE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 11243 UNIV OF COLORADO - BOULDER 3175**  
 THEORETICAL INVESTIGATIONS OF CLOUDS AND AEROSOLS IN THE  
 STRATOSPHERE AND UPPERTROPOSPHERE  
 08/16/2001 - 08/31/2004 FY01: \$139,160 Total: \$139,160  
*Prin. Invest.: O B TOON*  
*Tech. Officer: GSFC/P DECOLA*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 11279 UNIV OF COLORADO - BOULDER 3176**  
 OVERSIGHT AND DEVELOPMENT OF A COMMUNITY MONTE CAR LO RADIA-  
 TIVEONE YEARGRANT  
 08/21/2001 - 08/31/2002 FY01: \$12,300 Total: \$12,300  
*Prin. Invest.: R PINCUS*  
*Tech. Officer: GSFC/R CAHALAN*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 11292 UNIV OF COLORADO - BOULDER 3177**  
 QUALITY DATA VISUALIZATION TOOL FOR MODIS  
 08/22/2001 - 08/31/2002 FY01: \$77,600 Total: \$77,600  
*Prin. Invest.: R L WEAVER*  
*Tech. Officer: GSFC/K L MOE*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 5 11294 UNIV OF COLORADO - BOULDER 3178**  
 SIMPLE MODELS OF THE SPATIAL DISTRIBUTION OF CLOUD RADIATIVE  
 PROPERTIES FOR REMOTE SENSING STUDIES  
 08/22/2001 - 09/30/2002 FY01: \$42,593 Total: \$42,593  
*Prin. Invest.: R PINCUS*  
*Tech. Officer: GSFC/W WISCOMBE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 11299 UNIV OF COLORADO - BOULDER 3179**  
 INVESTIGATION OF THE OFF-PLANE GRATING TECHNOLOGY FOR X-RAYS-  
 PECTROSCOPY. DELIVERABLE I  
 08/29/2001 - 11/30/2001 FY01: \$15,000 Total: \$15,000  
*Prin. Invest.: D CASH*  
*Tech. Officer: GSFC/D T NGUYEN*  
*CASE Category: 13 – PHYSICS*

**NAG 5 11308 UNIV OF COLORADO - BOULDER 3180**  
 ICE SHELVES AND LANDFAST ICE ON THE ANTARCTIC PERI METER: CHAR-  
 ACTERISTICSAND THE EFFECTS OF CLIMATE  
 08/30/2001 - 08/31/2003 FY01: \$20,632 Total: \$20,632  
*Prin. Invest.: T SCAMBOS*  
*Tech. Officer: GSFC/W ABDALATI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 8 1446 UNIV OF COLORADO - BOULDER 3181**  
 FUNDAMENTAL PHYSICS USING FREQUENCY STABILIZED LASERS AS  
 OPTICAL ATOMIC CLOCKS  
 02/05/1998 - 01/31/2001 FY01: \$0 Total: \$195,000  
*Prin. Invest.: J HALL*  
*Tech. Officer: MSFC/D HUBBARD*  
*CASE Category: 13 – PHYSICS*

**NAG 8 1475 UNIV OF COLORADO - BOULDER 3182**  
 INFLUENCE OF SOLUTOCAPILLARY CONVECTION ON MACRO- VOID  
 DEFECT FORMATION IN POLYMERIC MEMBRANES  
 02/03/1998 - 01/31/2002 FY01: \$68,400 Total: \$258,000  
*Prin. Invest.: A GREENBERG*  
*Tech. Officer: MSFC/P M DOTY*  
*CASE Category: 13 – PHYSICS*

**NAG 8 1551 UNIV OF COLORADO - BOULDER 3183**  
 R/S DESIGN AND CALIBRATION OF AUTONOUMOUS COHERENT DOPPLER  
 LIDAR FOR SPACE MISSIONS  
 12/01/1998 - 11/30/2001 FY01: \$0 Total: \$126,185  
*Prin. Invest.: R FREHLICH*  
*Tech. Officer: MSFC/M KAVAYA*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 9 1209 UNIV OF COLORADO - BOULDER 3184**  
 MULTI WAVELENGHT ANALYSIS OF ASTEROIDS  
 03/01/2000 - 12/31/2001 FY01: \$0 Total: \$14,880  
*Prin. Invest.: A R HENDRIX*  
*Tech. Officer: JSC/F VILAS*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAS 5 97045 UNIV OF COLORADO - BOULDER 3185**  
 EXTENSION OF SOLSTICE PHASE B EFFORT  
 02/21/1997 - 07/31/2007 FY01: \$15,887,963 Total: \$59,333,364  
*Prin. Invest.: G ROTTMAN*  
*Tech. Officer: GSFC/N GRIFFIN*  
*CASE Category: 42 – ASTRONAUTICAL ENGR*

**NAS 5 97046 UNIV OF COLORADO - BOULDER 3186**  
 LETTER CONTRACT FOR HIRDIS PHASE C/D/E  
 01/17/1997 - 03/31/2008 FY01: \$2,781,900 Total: \$76,070,995  
*Prin. Invest.: J GILLE*  
*Tech. Officer: GSFC/L MILAN*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAS 5 97145 UNIV OF COLORADO - BOULDER 3187**  
 MISSION OPERATIONS, DATA ANALYSIS, AND ALGORITHM MAINTENANCE  
 FOR UARS SOLSTICE  
 03/31/1997 - 11/30/2001 FY01: \$262,052 Total: \$1,558,799  
*Prin. Invest.: G J ROTTMAN*  
*Tech. Officer: GSFC/C H JACKMAN*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAS 5 98043 UNIV OF COLORADO - BOULDER 3188**  
 SCIENCE MANAGEMENT FOR COS  
 03/04/1998 - 08/15/2003 FY01: \$2,341,600 Total: \$12,609,600  
*Prin. Invest.: J GREEN*  
*Tech. Officer: GSFC/L FEINBERG*  
*CASE Category: 11 – ASTRONOMY*

<b>NAS 5 98070</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3189</b>	<b>NCC 2 1145</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3197</b>
OPERATION OF SNOW AND ICE DISTRIBUTED ACTIVE ARCHIVE			THE APPLICATION OF ADVANCED CULTIVATION TECHNIQUES IN THE LONG		
01/29/1998 - 01/31/2003	FY01: \$4,440,000	Total: \$14,307,345	TERM MAINTENANCE OF SPACE FLIGHT....		
<i>Prin. Invest.:</i> R G BARRY, V TROISI			12/01/1999 - 01/14/2002	FY01: \$86,337	Total: \$119,337
<i>Tech. Officer:</i> GSFC/Q A BARKER			<i>Prin. Invest.:</i> G HEYENGA		
<i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER			<i>Tech. Officer:</i> ARC/M KLISS		
			<i>CASE Category:</i> 51 - BIOLOGY (EXCLUDING ENVIR)		
<b>NAS 8 38779</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3190</b>	<b>NCC 2 5300</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3198</b>
MECHANICS OF GRANULAR MARTERIALS MICROGRAVITY			THE ROLE OF CLOUDS IN LONG-TERM HABITABILITY OF PLA NETS		
09/24/1992 - 10/31/2002	FY01: \$475,852	Total: \$4,240,513	11/18/1998 - 12/31/2000	FY01: \$0	Total: \$146,001
<i>Prin. Invest.:</i> S STURE			<i>Prin. Invest.:</i> O B TOON		
<i>Tech. Officer:</i> MSFC/B V GUYNES			<i>Tech. Officer:</i> ARC/R E YOUNG, ARC/R M HABERLE		
<i>CASE Category:</i> 47 - METAL & MATERIALS ENGR			<i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE		
<b>NCC 1 281</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3191</b>	<b>NCC 2 5391</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3199</b>
NANOMECHANICS OF ACTIVELY CONTROLLED DEPLOYABLE OPTICS			INTEGRATION & SUPPORT OF NIH-B1 DROSOPHILA MELANOGEN ASTER		
03/11/1998 - 03/10/2001	FY01: -\$1	Total: \$262,924	NEURAL DEVELOPMENT EXPERIMENT ON SHUTTLE 10		
<i>Prin. Invest.:</i> L D PETERSON			08/15/2000 - 02/14/2001	FY01: \$0	Total: \$25,000
<i>Tech. Officer:</i> LARC/M S LAKE			<i>Prin. Invest.:</i> L STODIECK		
<i>CASE Category:</i> 42 - ASTRONAUTICAL ENGR			<i>Tech. Officer:</i> ARC/D REISS-BEBENHEIM		
			<i>CASE Category:</i> 51 - BIOLOGY (EXCLUDING ENVIR)		
<b>NCC 1 01046</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3192</b>	<b>NCC 2 5401</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3200</b>
VERY LARGE EFFICIENT SPACE STRUCTURES			THE PROPERTIES OF CLOUDS IN THE ATMOSPHERES OF EARLY EARTH,		
06/22/2001 - 01/21/2002	FY01: \$60,000	Total: \$60,000	MARS, & TITAN		
<i>Prin. Invest.:</i> M M MIKULAS, JR			09/29/2000 - 10/31/2002	FY01: \$94,128	Total: \$109,801
<i>Tech. Officer:</i> LARC/W K BELVIN			<i>Prin. Invest.:</i> O B TOON		
<i>CASE Category:</i> 42 - ASTRONAUTICAL ENGR			<i>Tech. Officer:</i> ARC/R E YOUNG		
			<i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE		
<b>NCC 1 01048</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3193</b>	<b>NCC 3 773</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3201</b>
EVA & ROBOTIC ASSEMBLY OF LARGE SPACE STRUCTURES			MICROELECTROMECHANICAL LINEAR ACTUATOR MICROELECTROME-		
08/20/2001 - 12/19/2002	FY01: \$20,000	Total: \$20,000	CHANICAL LINEAR ACTUATOR		
<i>Prin. Invest.:</i> E C WEATHERHEAD			02/15/2000 - 12/31/2001	FY01: \$100,000	Total: \$149,998
<i>Tech. Officer:</i> LARC/B A WIELICKI			<i>Prin. Invest.:</i> Y LEE		
<i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER			<i>Tech. Officer:</i> GRC/H NGUYEN		
			<i>CASE Category:</i> 45 - ELECTRICAL ENGR		
<b>NCC 2 1052</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3194</b>	<b>NCC 3 796</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3202</b>
CENTER FOR ASTROBIOLOGY			SURFACE COLLISIONS INVOLVING PARTICLES AND MOISTURE (SCIP'M)		
08/28/1998 - 06/30/2003	FY01: \$922,526	Total: \$1,975,492	05/16/2000 - 05/30/2004	FY01: \$26,000	Total: \$76,000
<i>Prin. Invest.:</i> B JAKOSKI			<i>Prin. Invest.:</i> R H DAVIS		
<i>Tech. Officer:</i> ARC/R A GRYMES, ARC/W W DOLCI			<i>Tech. Officer:</i> GRC/F P CHARIAMONTE 111		
<i>CASE Category:</i> 59 - LIFE SCIENCE, OTHER			<i>CASE Category:</i> 49 - ENGINEERING, OTHER		
<b>NCC 2 1104</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3195</b>	<b>NCC 5 458</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3203</b>
A COMPREHENSIVE-BASED ANALYSIS OF SHARED CONCEPTUAL MODELS OF AVIONICS SYSTEMS			E0-1 EVALUATION & VERIFICATION FOR APPLICATION TO LAND-USE		
04/02/1999 - 03/31/2002	FY01: \$91,059	Total: \$232,978	CHANGE: ATMOSPHERIC CORRECTION, SOIL &		
<i>Prin. Invest.:</i> P POISON			02/25/2000 - 12/31/2001	FY01: \$240,950	Total: \$404,728
<i>Tech. Officer:</i> ARC/E A PALMER, ARC/N SMITH			<i>Prin. Invest.:</i> A F GOETZ		
<i>CASE Category:</i> 21 - MATHEMATICS			<i>Tech. Officer:</i> GSFC/S G UNGAR		
			<i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER		
<b>NCC 2 1112</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3196</b>	<b>NCC 5 480</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3204</b>
COMPREHENSION OF NAVIGATION DIRECTIONS			ANALYSIS OF EO-1, LANDSAT 7, AND AVIRIS FOR ESTIMATING VEGETATION STRUCTURE AND FUNCTION IN ARID EC		
04/14/1999 - 09/30/2002	FY01: \$37,618	Total: \$103,051	03/20/2000 - 12/31/2001	FY01: \$6,035	Total: \$87,920
<i>Prin. Invest.:</i> A F HEALY			<i>Prin. Invest.:</i> G P ASNER		
<i>Tech. Officer:</i> ARC/I BARSHI			<i>Tech. Officer:</i> GSFC/S G UNGAR		
<i>CASE Category:</i> 69 - PSYCHOLOGY, OTHER			<i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER		

**NCC 5 481**      **UNIV OF COLORADO - BOULDER**      **3205**  
 LOW-COST EVALUATION OF EO-1 HYPERION AND ALI FOR DETECTION &  
 BIOPHYSICAL CHARACTERIZATION OF FOREST  
 03/20/2000 - 03/31/2002      FY01: \$4,788      Total: \$128,617  
*Prin. Invest.: G P ASNER*  
*Tech. Officer: GSFC/S G UNGAR*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NCC 5 564**      **UNIV OF COLORADO - BOULDER**      **3206**  
 ALGORITHMS FOR AUTONOMOUS GPS ORBIT DETERMINATION AND  
 FORMATION FLYING  
 06/12/2001 - 12/31/2001      FY01: \$25,000      Total: \$25,000  
*Prin. Invest.: P AXELRAD*  
*Tech. Officer: GSFC/J A LEITNER*  
*CASE Category: 42 – ASTRONAUTICAL ENGR*

**NCC 8 131**      **UNIV OF COLORADO - BOULDER**      **3207**  
 BIONERVE SPACE TECHNOLOGIES  
 01/31/1997 - 10/31/2001      FY01: \$2,865,245      Total: \$12,113,345  
*Prin. Invest.: G MORGENTHALER*  
*Tech. Officer: MSFC/S J LAMBING*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NCC 9 65**      **UNIV OF COLORADO - BOULDER**      **3208**  
 SPACE STATION BASED MIRON ACURACY DEPLOYMENT EXPERIMENT  
 07/01/1997 - 10/31/2001      FY01: \$0      Total: \$1,475,362  
*Prin. Invest.: L PETERSON*  
*Tech. Officer: JSC/C PARRA*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NGT 40008**      **UNIV OF COLORADO - BOULDER**      **3209**  
 NATIONAL SPACE GRANT COLLEGE & FELLOWSHIP PROGRAM  
 10/19/1989 - 02/28/2000      FY01: \$0      Total: \$2,773,666  
*Prin. Invest.: E R HANSEN*  
*Tech. Officer: HQ/E T SCHWARTZ*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 1 01023**      **UNIV OF COLORADO - BOULDER**      **3210**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) MY 1/3  
 06/06/2001 - 06/30/2004      FY01: \$12,000      Total: \$12,000  
*Prin. Invest.: T O MANN*  
*Tech. Officer: LARC/W K BELVIN*  
*CASE Category: 42 – ASTRONAUTICAL ENGR*

**NGT 1 52182**      **UNIV OF COLORADO - BOULDER**      **3211**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 12/01/1998 - 08/31/2001      FY01: \$12,001      Total: \$66,001  
*Prin. Invest.: M J ARMATYS, P AXELRAD*  
*Tech. Officer: LARC/S J KATZBERG*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NGT 2 52264**      **UNIV OF COLORADO - BOULDER**      **3212**  
 MODELING AEROSOL NUCLEATION IN THE PRESENCE OF CLOUDS  
 06/23/2000 - 06/30/2002      FY01: \$22,000      Total: \$44,000  
*Prin. Invest.: O TOON*  
*Tech. Officer: ARC/A S ACKERMAN*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NGT 2 52270**      **UNIV OF COLORADO - BOULDER**      **3213**  
 HYDROCARBON NUCLEATION ON THOLINS: APPLICATIONS TO TITAN  
 08/29/2000 - 08/31/2002      FY01: \$22,000      Total: \$44,000  
*Prin. Invest.: M A TOLBERT*  
*Tech. Officer: ARC/C P MCKAY*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NGT 2 52279**      **UNIV OF COLORADO - BOULDER**      **3214**  
 COLD SALINE SPRINGS IN PERMAFROST ON EARTH AND MARS  
 06/22/2001 - 06/30/2002      FY01: \$22,000      Total: \$22,000  
*Prin. Invest.: B TOON*  
*Tech. Officer: ARC/C P MCKAY*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NGT 5 47**      **UNIV OF COLORADO - BOULDER**      **3215**  
 INVESTIGATION OF HARDWARE AND ALGORITHM ARCHITECTURE GEO AND  
 HEO ORBITS  
 06/23/1997 - 06/30/2001      FY01: \$0      Total: \$88,000  
*Prin. Invest.: P AXELRAD*  
*Tech. Officer: GSFC/M S BURRELL*  
*CASE Category: 46 – MECHANICAL ENGR*

**NGT 5 49**      **UNIV OF COLORADO - BOULDER**      **3216**  
 OUTER ELECTRON BELT MODELING BY ASSIMILATION OF RE DATA  
 06/23/1997 - 06/30/2000      FY01: \$0      Total: \$66,000  
*Prin. Invest.: D N BAKER*  
*Tech. Officer: GSFC/M S BURRELL*  
*CASE Category: 11 – ASTRONOMY*

**NGT 5 80**      **UNIV OF COLORADO - BOULDER**      **3217**  
 THE STRUCTURE AND DEVELOPMENT OF SUPERNOVA REMNANT 1987A  
 (STUDENT): ELI MICHAEL  
 05/12/1999 - 06/30/2002      FY01: \$22,000      Total: \$66,000  
*Prin. Invest.: R MCCRAY*  
*Tech. Officer: GSFC/M S BURRELL*  
*CASE Category: 13 – PHYSICS*

**NGT 5 93**      **UNIV OF COLORADO - BOULDER**      **3218**  
 USE OF REMOTE SENSING IMAGERY IN BIOGEOCHEMICAL MODELS TO  
 PREDICT TRACE GAS EMISSIONS & CROP YIELD  
 06/15/1999 - 06/30/2001      FY01: \$0      Total: \$44,000  
*Prin. Invest.: N KHATIB*  
*Prin. Invest.: NONE*  
*Tech. Officer: GSFC/J L PRIVETTE*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 123**      **UNIV OF COLORADO - BOULDER**      **3219**  
 INVESTIGATION OF GPS BISTATIC RADAR FOR SOIL MOISTURE REMOTE  
 SENSING (STUDENT): DALLAS MASTERS  
 06/07/2001 - 06/30/2002      FY01: \$22,000      Total: \$22,000  
*Prin. Invest.: D AXELRAD*  
*Tech. Officer: GSFC/M S BURRELL*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 30026**      **UNIV OF COLORADO - BOULDER**      **3220**  
 SCALABLE AND ADAPTIVE FILE MANAGEMENT IN NETWORKS  
 10/17/1996 - 03/31/2000      FY01: \$655      Total: \$67,310  
*Prin. Invest.: D WEISMAN*  
*Tech. Officer: HQ/G ASRAR*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

<b>NGT 5 30072</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3221</b>	<b>NGT 5 30345</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3229</b>
PASSIVE MICROWAVE MEASUREMENTS OF ARCTIC CLOUDS 09/09/1997 - 08/31/2000			LINKING LANDSAT TM DATA & EVAPOTRANSPIRATION IN TWO HUMID TROPICAL WATERSHEDS IN PANAMA/STUDENT AL 08/21/2000 - 08/31/2002		
FY01: \$0	Total: \$66,000		FY01: \$22,000	Total: \$44,000	
Prin. Invest.: J CURRY			Prin. Invest.: G ASNER		
Tech. Officer: GSFC/M WEI			Tech. Officer: GSFC/M WEI		
CASE Category: 99 – MULTI INTERDISCPL, OTHER			CASE Category: 99 – MULTI INTERDISCPL, OTHER		
<b>NGT 5 30076</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3222</b>	<b>NGT 5 30348</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3230</b>
ATMOSPHERIC LIFETIMES OF PEROXY NITRATES _STUDENT - EDW 09/09/1997 - 02/28/2001	FY01: \$0	Total: \$66,000	REGIONAL IMPACTS OF WOODLAND EXPANSION ON NITROGEN OXIDE EMISSIONS FROM TEXAS SAVANNAS: COMBINING 08/21/2000 - 08/31/2002	FY01: \$22,000	Total: \$44,000
Prin. Invest.: A R RAVISHANKARA			Prin. Invest.: G ASNER		
Tech. Officer: GSFC/M WEI			Tech. Officer: GSFC/M WEI		
CASE Category: 99 – MULTI INTERDISCPL, OTHER			CASE Category: 39 – ENVIRONMENTAL SCI, OTHER		
<b>NGT 5 30128</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3223</b>	<b>NGT 5 30363</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3231</b>
SPATIAL VARIABILITY OF CLOUD CHARACTERISTICS & SUR FACE RADIA- TION FLUXES FOR SHEBA/FIRE III 10/01/1997 - 08/31/2000	FY01: \$0	Total: \$66,000	LABORATORY STUDIES OF ICE NUCLEATION FROM INTERNAL LY MIXED SULFURIC ACID/MINERALAEROSOL PARTICLES/ 08/24/2000 - 08/31/2002	FY01: \$22,000	Total: \$44,000
Prin. Invest.: J CURRY			Prin. Invest.: M A TOLBERT		
Tech. Officer: GSFC/G ASRAR			Tech. Officer: GSFC/M WEI		
CASE Category: 99 – MULTI INTERDISCPL, OTHER			CASE Category: 39 – ENVIRONMENTAL SCI, OTHER		
<b>NGT 5 30136</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3224</b>	<b>NGT 5 30376</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3232</b>
LABORATORY STUDIES OF CIRRUS CLOUD FORMATION MECHA NISMS/ STUDENT:FORTIN 09/04/1998 - 08/31/2001	FY01: \$0	Total: \$66,000	A HIGH-RESOLUTION ABLATION STUDY NEAR JAKOBSHAVN O N THE GREENLAND ICE SHEET/TODD H. ALBERT 08/13/2001 - 08/31/2004	FY01: \$22,000	Total: \$22,000
Prin. Invest.: M TOLBERT			Prin. Invest.: K STEFFEN		
Tech. Officer: GSFC/M Y WEI			Tech. Officer: GSFC/M WEI		
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER			CASE Category: 99 – MULTI INTERDISCPL, OTHER		
<b>NGT 5 30155</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3225</b>	<b>NGT 5 30394</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3233</b>
COMPARISONS OF THREE-DIMENSIONAL GENERAL CIRCULATI ON MODEL SIMULATIONS OF THE DESERT AEROSOL LIFE 08/28/1998 - 08/31/2001	FY01: \$0	Total: \$66,000	IMPROVEMENTS IN THE ESTIMATION OF THE EARTH'S GRAV ITY FIELD USING GRACE MISSION DATA (STUDENT: DON 08/14/2001 - 08/31/2004	FY01: \$22,000	Total: \$22,000
Prin. Invest.: B TOON, COLARCO			Prin. Invest.: S NEREM		
Tech. Officer: GSFC/M Y WEI			Tech. Officer: GSFC/M WEI		
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER			CASE Category: 99 – MULTI INTERDISCPL, OTHER		
<b>NGT 5 30170</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3226</b>	<b>NGT 5 30399</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3234</b>
ATMOSPHERIC CIRCULATION AND REGIONAL SEA ICE SENSI TIVITY IN THE ARCTIC STUDENT:LYNCH CULLATHER 09/04/1998 - 08/31/2001	FY01: \$0	Total: \$66,000	CLIMATIC VARIABILITY, HUMAN AGENCY & ENVIRONMENTAL CHANGE ACROSS AN ALTITUINAL TRANSECT, ANDES-AMAZ 08/14/2001 - 08/31/2004	FY01: \$22,000	Total: \$22,000
Prin. Invest.: A H LYNCH			Prin. Invest.: R BARRY		
Tech. Officer: GSFC/M Y WEI			Tech. Officer: GSFC/M WEI		
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER			CASE Category: 99 – MULTI INTERDISCPL, OTHER		
<b>NGT 5 30180</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3227</b>	<b>NGT 5 30416</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3235</b>
SPATIAL AND TEMPORAL RESPONSE TO ANTHROPOGENIC NIT ROGEN DEPOSITION IN A HETEROGENEOUS ROCKY MOUNTAI 08/12/1999 - 08/31/2002	FY01: \$22,000	Total: \$66,000	SNOW SLOPE STABILITY: MODELING AND INVESTIGA- TIONS(STUDENT:HANS-PETER MARSHA 08/17/2001 - 08/31/2005	FY01: \$9,317	Total: \$9,317
Prin. Invest.: C A WEISSMAN			Prin. Invest.: T PFEFFER		
Tech. Officer: GSFC/L SMITH			Tech. Officer: GSFC/M WEI		
CASE Category: 99 – MULTI INTERDISCPL, OTHER			CASE Category: 99 – MULTI INTERDISCPL, OTHER		
<b>NGT 5 30209</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3228</b>			
IN SITU MEASUREMENTS OF CARBON DIOXIDE IN THE UPPER TROPO- SPHERE & LOWER STRATOSPHERE/STUDENT GAT 08/18/1999 - 08/31/2002	FY01: \$22,000	Total: \$66,000			
Prin. Invest.: L M AVALLONE					
Tech. Officer: GSFC/M WEI					
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER					
<b>NGT 5 30416</b>	<b>UNIV OF COLORADO - BOULDER</b>	<b>3235</b>			
SNOW SLOPE STABILITY: MODELING AND INVESTIGA- TIONS(STUDENT:HANS-PETER MARSHA 08/17/2001 - 08/31/2005	FY01: \$9,317	Total: \$9,317			
Prin. Invest.: T PFEFFER					
Tech. Officer: GSFC/M WEI					
CASE Category: 99 – MULTI INTERDISCPL, OTHER					

**NGT 5 30422 UNIV OF COLORADO - BOULDER 3236**  
 HETEROGENEOUS N2O5 HYDROLYSIS ON MIXED (NH4)2SO4/O RGANIC THIN FILMS  
 REPRESENTATIVE OF TROPOSPHE  
 09/07/2001 - 08/31/2004 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: M A TOLBERT*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 40028 UNIV OF COLORADO - BOULDER 3237**  
 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRA  
 12/31/1996 - 01/31/2001 FY01: -\$60,118 Total: \$1,807,630  
*Prin. Invest.: E R HANSEN*  
*Tech. Officer: GSFC/D D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 40072 UNIV OF COLORADO - BOULDER 3238**  
 COLORADO SPACE GRANT COLLEGE & FELLOWSHIP PROGRAM  
 02/09/2001 - 01/31/2002 FY01: \$535,118 Total: \$535,118  
*Prin. Invest.: E R HANSEN*  
*Tech. Officer: GSFC/D D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50102 UNIV OF COLORADO - BOULDER 3239**  
 PROPOSAL FOR THE DEVELOPMENT, EXPLORATION, AND VAL , FULLY THREE-DIMENSIONAL EARTHQUAKE MODEL  
 09/06/1997 - 02/28/2001 FY01: -\$40 Total: \$65,960  
*Prin. Invest.: J RUNDLE*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50106 UNIV OF COLORADO - BOULDER 3240**  
 DETERMINATION OF OPTICAL CONSTANTS FOR THE REMOTE STRATOSPHERIC CLOUDS AND GLOBALAEROSOLS  
 09/06/1997 - 08/31/2000 FY01: -\$496 Total: \$65,504  
*Prin. Invest.: M TOLBERT*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50176 UNIV OF COLORADO - BOULDER 3241**  
 A STUDY OF THE HOT COMPONENT OF THE LOCAL INTERSTE LLAR MEDIUM  
 05/22/1998 - 06/30/2001 FY01: \$0 Total: \$44,000  
*Prin. Invest.: J C GREEN/MCLEAN*  
*Tech. Officer: HQ/A NURRIDDIN*  
*CASE Category: 11 – ASTRONOMY*

**NGT 5 50194 UNIV OF COLORADO - BOULDER 3242**  
 STELLAR EVOLUTION IN STARBURST GALAXIES  
 06/05/1998 - 07/31/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.: P S CONTI*  
*Tech. Officer: HQ/A NURRIDDIN*  
*CASE Category: 11 – ASTRONOMY*

**NGT 5 50197 UNIV OF COLORADO - BOULDER 3243**  
 MARTIAN SURFACE MAGNETIC FIELD  
 06/11/1998 - 06/30/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.: F BAGENAL*  
*Tech. Officer: HQ/A NURRIDDIN*  
*CASE Category: 11 – ASTRONOMY*

**NGT 5 50232 UNIV OF COLORADO - BOULDER 3244**  
 TIDES AND ZONAL MEAN FROM SATELLITE-BASED MEASUREMENTS: ANALYSIS TECHNIQUES  
 05/27/1999 - 06/30/2002 FY01: \$22,000 Total: \$66,000  
*Prin. Invest.: J FORBES*  
*Tech. Officer: GSFC/L SMITH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50237 UNIV OF COLORADO - BOULDER 3245**  
 MODELING THE POST-RUNAWAY GROWTH OF TERRESTRIAL PLANETS (STUDENT: CRAIG AGNOR)  
 05/27/1999 - 06/30/2002 FY01: \$22,000 Total: \$66,000  
*Prin. Invest.: R CANUP*  
*Tech. Officer: GSFC/L SMITH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50241 UNIV OF COLORADO - BOULDER 3246**  
 PROBING CORONAL STRUCTURE & VARIABILITY IN ACTIVE BINARY SYSTEMS  
 06/03/1999 - 06/30/2002 FY01: \$22,000 Total: \$66,000  
*Prin. Invest.: A BROWN, NONE*  
*Tech. Officer: GSFC/L SMITH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50242 UNIV OF COLORADO - BOULDER 3247**  
 MAPPING THE DETAILED STRUCTURE OF THE LOCAL INTERS TELLAR MEDIUM  
 06/03/1999 - 06/30/2002 FY01: \$22,000 Total: \$66,000  
*Prin. Invest.: J LINSKY*  
*Tech. Officer: GSFC/L SMITH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50271 UNIV OF COLORADO - BOULDER 3248**  
 LANDSCAPE DYNAMICS IN THE ARID SOUTHWEST: INTERACT IONS OF ECOSYSTEM PATTERN & PROCESS THROUGH TIME  
 08/12/1999 - 08/31/2000 FY01: \$0 Total: \$22,000  
*Prin. Invest.: C WESSMAN*  
*Tech. Officer: GSFC/L SMITH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50273 UNIV OF COLORADO - BOULDER 3249**  
 ATMOSPHERIC MODELING AND INFRARED OBSERVATIONS OF TRANSITING EXTRASOLAR PLANET/STUDENT: L. JEREMY RI  
 06/08/2000 - 06/30/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.: L LESPOSITO*  
*Tech. Officer: GSFC/L SMITH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50294 UNIV OF COLORADO - BOULDER 3250**  
 DUST DYNAMICS IN PHOTOELECTRON LAYERS NEAR SURFACE IN SPACE/ STUDENT: AMANDA SICKAFOOSE  
 06/26/2000 - 06/30/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.: J E COLDWELL*  
*Tech. Officer: GSFC/L SMITH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50320**      **UNIV OF COLORADO - BOULDER**      **3251**  
 SATELLITE GRAVITY & LARGE-SCALE HYDROLOGY/STUDENT: SEAN SWENSON  
 08/17/2000 - 08/31/2002      FY01: \$22,000      Total: \$44,000  
*Prin. Invest.: J WAHR*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 50337**      **UNIV OF COLORADO - BOULDER**      **3252**  
 ASTROBIOLOGICAL AND GEOLOGICAL IMPLICATIONS OF DIAPIRIC TRANSPORT WITHIN EUROPA AND GANYMEDE  
 05/04/2001 - 06/30/2002      FY01: \$22,000      Total: \$22,000  
*Prin. Invest.: R RAPPALARDO*  
*Tech. Officer: GSFC/K BLANDING*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50340**      **UNIV OF COLORADO - BOULDER**      **3253**  
 A NARROW BAND FAR ULTRAVIOLET IMAGING SPECTROGRAPH FOR INTERSTELLAR SHOCKS (STUDENT: MATTHEW BEASLEY)  
 05/14/2001 - 06/30/2002      FY01: \$22,000      Total: \$22,000  
*Prin. Invest.: J GREEN*  
*Tech. Officer: GSFC/K BLANDING*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50341**      **UNIV OF COLORADO - BOULDER**      **3254**  
 NEW METHODS FOR HYPERSPECTRAL IMAGING IN THE VACCUM ULTRAVIOLET STUDENT: NATHANIEL CUNNINGHA  
 05/14/2001 - 07/30/2002      FY01: \$22,000      Total: \$22,000  
*Prin. Invest.: J GREEN*  
*Tech. Officer: GSFC/K E BLANDING*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50345**      **UNIV OF COLORADO - BOULDER**      **3255**  
 ELECTROSTATIC DISCHARGES NEAR THE MARIAN SURFACE (STUDENT: CORINNE KRAUSS)  
 05/14/2001 - 07/30/2002      FY01: \$22,000      Total: \$22,000  
*Prin. Invest.: M HORANYI*  
*Tech. Officer: GSFC/K BLANDING*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50350**      **UNIV OF COLORADO - BOULDER**      **3256**  
 NUMERICAL ALGORITHMS FOR ALGORITHMS COMPUTING STUDENT: JULIA ZUEV  
 05/08/2001 - 06/30/2002      FY01: \$22,000      Total: \$22,000  
*Prin. Invest.: E ZWEIBEL*  
*Tech. Officer: GSFC/K BLANDING*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50352**      **UNIV OF COLORADO - BOULDER**      **3257**  
 PLANETARY-SCALE WAVES AND IONOSPHERE 'WEATHER' (STUDENT: GILBERT LICHSTEIN)  
 05/09/2001 - 06/30/2002      FY01: \$22,000      Total: \$22,000  
*Prin. Invest.: J FORBES*  
*Tech. Officer: GSFC/K BLANDING*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 9 22**      **UNIV OF COLORADO - BOULDER**      **3258**  
 REMOTELY DETERMINING MATERIAL TYPE OF ORBITAL DEB  
 05/30/1997 - 06/30/2000      FY01: -\$5      Total: \$65,995  
*Prin. Invest.: L NELSON*  
*Tech. Officer: JSC/D G SICKOREZ*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NGT10 52624**      **UNIV OF COLORADO - BOULDER**      **3259**  
 GRADUATE STUDENT RESEARCH PROGRAM GRADUATE STUDENT RESEARCH PROGRAM  
 07/19/2000 - 07/31/2002      FY01: \$22,000      Total: \$44,000  
*Prin. Invest.: D HOEHN*  
*Tech. Officer: KSC/R WHEELER*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NAG 5 10521**      **UNIV OF COLORADO - DENVER**      **3260**  
 IONOSPHERIC ELECTRODYNAMICS OF PLANETARY-SCALE OSCILLATIONS  
 03/03/2001 - 04/30/2002      FY01: \$37,000      Total: \$37,000  
*Prin. Invest.: J M FORBES*  
*Tech. Officer: GSFC/M MELLOTT*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 2 1176**      **UNIV OF COLORADO AT COLORADO SPRINGS**      **3261**  
 DEVELOPMENT OF THE PSUEDO PILOTED AIRCRAFT SIMULATION (PPAS)  
 05/05/2000 - 12/31/2001      FY01: \$125,979      Total: \$165,979  
*Prin. Invest.: P J GORDOR*  
*Tech. Officer: ARC/T F ROMER*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NAG 2 1297**      **UNIV OF DENVER**      **3262**  
 IN SITU AEROSOL SIZE DISTRIBUTION MEASUREMENTS FROM THE ER-2 SAGE III VALIDATION & STUDIES OF OZONE  
 03/09/1999 - 03/31/2002      FY01: \$200,824      Total: \$647,824  
*Prin. Invest.: J C WILSON*  
*Tech. Officer: ARC/E P CONDON, ARC/R S HIPSKE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 2 1301**      **UNIV OF DENVER**      **3263**  
 MEASUREMENTS OF PARTICLE SIZE DISTRIBUTIONS FROM 4 -2000NM DIAMETER ON THE DC-8 FOR THE SAGE III OZO  
 03/06/1999 - 01/14/2001      FY01: -\$1,509      Total: \$96,052  
*Prin. Invest.: J M REEVES, J C WILSON*  
*Tech. Officer: ARC/E P CONDON, ARC/R S HIPSKE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 2 1391**      **UNIV OF DENVER**      **3264**  
 INFRARED REMOTE SENSING OF ATMOSPHERIC CONSTITUENTS  
 01/19/2000 - 12/31/2002      FY01: \$427,143      Total: \$804,271  
*Prin. Invest.: F MURCRAY*  
*Tech. Officer: ARC/E CONDON*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 3386**      **UNIV OF DENVER**      **3265**  
 CALIBRATION AND SCIENTIFIC SUPPORT OF LENA FOR THE IMAGE SATELLITE PROGRAM  
 09/04/1996 - 07/31/2000      FY01: \$0      Total: \$264,598  
*Prin. Invest.: T A STEPHEN*  
*Tech. Officer: GSFC/M SMITH*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 6467**           **UNIV OF DENVER**           **3266**  
 NEAR IR BALLOON-BORNE MEASUREMENTS IN SUPPORT OF S AGE III  
 AND MOPITT  
 11/12/1997 - 09/30/2000    FY01: \$0               Total: \$161,254  
*Prin. Invest.: F J MURCRAY*  
*Tech. Officer: GSFC/D O STARR*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 6679**           **UNIV OF DENVER**           **3267**  
 GROUND BASED FTIR SOLAR SPECTRAL MEASUREMENTS IN SUPPORT  
 OF MOPITT &SAGE III  
 12/12/1997 - 12/31/2001    FY01: \$0               Total: \$179,938  
*Prin. Invest.: F J MURCRAY*  
*Tech. Officer: GSFC/D O STARR*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAS 1 96017**           **UNIV OF DENVER**           **3268**  
 COMPARISON OF INSITU AEROSOL SIZE DISTRIBUTIONS ACQUIRED IN THE  
 UPPER TROPOSPHERE AND LOWER  
 08/02/1996 - 08/08/2000    FY01: \$0               Total: \$71,000  
*Prin. Invest.: J C WILSON*  
*Tech. Officer: LARC/G MADDREA*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 1 313**           **UNIV OF DENVER**           **3269**  
 ANALYSIS OF ATMOSPHERIC MEASUREMENTS IN SUPPORT OF THE  
 NETWORK FOR THE DETECTION OF STRATOSPHERIC CH  
 07/22/1998 - 09/30/2001    FY01: \$2               Total: \$20,988  
*Prin. Invest.: F J MURCRAY*  
*Tech. Officer: LARC/C P RINSLAND*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 1 365**           **UNIV OF DENVER**           **3270**  
 COLLABORATIVE STUDY FOR ANALYSIS OF HI RESOLUTION INFRARED  
 ATMOSPHERIC SPECTRA BETW LARC & U DENVER  
 01/10/2000 - 11/30/2001    FY01: \$53,000       Total: \$105,000  
*Prin. Invest.: A GOLDMAN*  
*Tech. Officer: LARC/C P RINSLAND*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 1 01061**           **UNIV OF DENVER**           **3271**  
 COLLABORATIVE STUDY FOR ANALYSIS OF HI RESOLUTION INFRARED  
 ATMOSPHERIC SPECTRA BETW LARC & U DENVER  
 09/10/2001 - 09/14/2003    FY01: \$54,000       Total: \$54,000  
*Prin. Invest.: A GOLDMAN*  
*Tech. Officer: LARC/C P RINSLAND*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 5 506**           **UNIV OF DENVER**           **3272**  
 "THE LENA INSTRUMENT ABOARD THE IMAGE SATELLITE"  
 07/20/2000 - 07/31/2002    FY01: \$31,000       Total: \$51,006  
*Prin. Invest.: T M STEPHEN*  
*Tech. Officer: GSFC/T MOORE*  
*CASE Category: 11 – ASTRONOMY*

**NCC 8 176**           **UNIV OF DENVER**           **3273**  
 INTERNATIONAL SPACE STATION METEROID/ORBITAL DEBRIS HAZARD  
 ASSESSMENT AND SOFTWARE DEVELOPMENT.  
 12/22/1998 - 12/21/2001    FY01: \$171,029      Total: \$653,740  
*Prin. Invest.: J E WILLIAMS*  
*Tech. Officer: MSFC/G D OLSEN*  
*CASE Category: 42 – AERONAUTICAL ENGR*

**NGT 8 52894**           **UNIV OF DENVER**           **3274**  
 TEMPERATURE EFFECTS ON METEOROID DEBRIS PROTECTIVE STRUCTURES  
 08/29/2000 - 08/31/2003    FY01: \$22,000       Total: \$44,000  
*Prin. Invest.: R AMME*  
*Tech. Officer: MSFC/S NASH-STEVENSON*  
*CASE Category: 11 – ASTRONOMY*

**NAG 9 1257**           **UNIV OF SOUTHERN COLORADO**           **3275**  
 DEVELOPMENT OF MULTI CHANNEL HIGH FREQUENCY QRS ELECTROCARDIOGRAPH  
 08/25/2000 - 05/25/2001    FY01: \$0               Total: \$15,000  
*Prin. Invest.: J DEPALMA*  
*Tech. Officer: JSC/T T SCHLEGEL*  
*CASE Category: 56 – MEDICAL*

**NGT 1 52209**           **UNIV OF SOUTHERN COLORADO**           **3276**  
 GRADUATE STUDENT RESEARCH PROGRAM (GSRP) YEAR 1  
 05/25/1999 - 06/30/2001    FY01: \$1               Total: \$44,001  
*Prin. Invest.: L M GARRETT*  
*Tech. Officer: LARC/A E MOTLEY, LARC/L D THOMAS*  
*CASE Category: 41 – AERONAUTICAL ENGR*

## CONNECTICUT

**NAG 5 8650**           **FAIRFIELD UNIV**           **3277**  
 OPTIMIZING PERFORMANCE OF FAR-INFRARED PHOTOCONDUCTORS:  
 NEW APPROACH FOR INTERPRETATION & CALIBRATION  
 07/29/1999 - 01/31/2002    FY01: \$0               Total: \$151,146  
*Prin. Invest.: N HAEGEL*  
*Tech. Officer: GSFC/G MUCKLOW*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8048**           **TRINITY COLLEGE**           **3278**  
 RETRIEVAL OF JOVIAN ATMOSPHERIC STRUCTURE FROM GALILEO NIMS  
 01/14/1999 - 06/30/2001    FY01: \$0               Total: \$47,205  
*Prin. Invest.: D WEIR*  
*Tech. Officer: GSFC/R BEEBE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 2 1434**           **UNIV. OF CONNECTICUT HEALTH CENTER**           **3279**  
 USE OF GFP TRANSGENES TO ASSESS OSTEOPROGENITOR PROGRESSION IN INTACT BONE  
 08/29/2000 - 08/31/2002    FY01: \$166,250       Total: \$253,750  
*Prin. Invest.: D ROWE*  
*Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 5 6316**           **UNIV. OF CONNECTICUT HEALTH CENTER**           **3280**  
 TRANSGENIC MARKERS OF BONE CELL LINEAGE PROGRESSION  
 09/29/1997 - 03/31/2001    FY01: \$0               Total: \$369,456  
*Prin. Invest.: D ROWE*  
*Tech. Officer: GSFC/M AVERNER*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NAG 1 01113**           **UNIV OF CONNECTICUT**           **3281**  
 PREDICTIONS OF FATIGUE LIFE AND DELAMINATION IN LIGHTWEIGHT  
 AEROSPACE COMPONENTS  
 08/16/2001 - 08/31/2003    FY01: \$17,000       Total: \$17,000  
*Prin. Invest.: K D MURPHY*  
*Tech. Officer: LARC/J H ROBINSON*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 3 1870** UNIV OF CONNECTICUT 3282  
 EVAPORATION, BOILING AND CONDENSATION ON/IN CAPILARY STRUCTURES OF HIGH HEAT FLUX TWO-PHASE DEVICES  
 05/09/1996 – 05/31/2001 FY01: \$0 Total: \$360,000  
*Prin. Invest.: A FAGHRI*  
*Tech. Officer: GRC/B S SINGH*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 5 7654** UNIV OF CONNECTICUT 3283  
 ECOPHYSIOLOGY OF SUBPOPULATIONS OF ALEXANDRUM TAM ARENSE  
 08/25/1998 – 08/31/2001 FY01: \$0 Total: \$150,000  
*Prin. Invest.: C ROESLER*  
*Tech. Officer: GSFC/J W MARRA*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 7813** UNIV OF CONNECTICUT 3284  
 CALIBRATION OF GROUND-BASED WEATHER RADAR SYSTEMS FROM TRMM SPACE-BASED RADAR OBSERVATIONS: A DEMON  
 11/12/1998 – 12/31/2000 FY01: \$0 Total: \$157,845  
*Prin. Invest.: E N ANAGNOSTOU*  
*Tech. Officer: GSFC/R J LAWRENCE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 7915** UNIV OF CONNECTICUT 3285  
 DECIPHERING THE MOLECULAR RECORD OF EARLY EVOLUTION  
 12/09/1998 – 07/31/2002 FY01: \$50,000 Total: \$147,100  
*Prin. Invest.: P J GOGARTEN*  
*Tech. Officer: GSFC/M MEYER*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8602** UNIV OF CONNECTICUT 3286  
 DEVELOPMENT OF PLANETARY REMOTE SENSING TECHNOLOGY FOR APPLICATIONS TO TELEFORENSICS  
 06/21/1999 – 06/30/2002 FY01: \$119,120 Total: \$140,620  
*Prin. Invest.: J S SCHWEITZER*  
*Tech. Officer: GSFC/J I TROMBKA*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8636** UNIV OF CONNECTICUT 3287  
 UNDERSTANDING THE ERROR CHARACTERISTICS OF PRECIPITATION ESTIMATES FROM SPACE-BASED OBSERVING SYSTEM  
 07/10/1999 – 09/30/2001 FY01: \$108,013 Total: \$232,441  
*Prin. Invest.: E N ANAGNOSTOU*  
*Tech. Officer: GSFC/M Y WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9639** UNIV OF CONNECTICUT 3288  
 INVESTIGATING THE ADEQUACY OF TRMM PRECIPITATION RADAR OBSERVATIONS FOR CALIBRATING GROUND-BASED WE  
 06/02/2000 – 11/30/2001 FY01: \$162,207 Total: \$219,362  
*Prin. Invest.: E N ANAGNOSTOU*  
*Tech. Officer: GSFC/R J LAWRENCE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 10599** UNIV OF CONNECTICUT 3289  
 NASA PLANNING GRANT: LEARNING COMMUNITY OF TODAY & TOMORROW  
 03/14/2001 – 06/15/2002 FY01: \$25,000 Total: \$25,000  
*Prin. Invest.: D MOSS*  
*Tech. Officer: GSFC/M PHELPS*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 11143** UNIV OF CONNECTICUT 3290  
 DEPLOYMENT OF A MOBILE POLARIMETRIC X-BAND RADAR & IN SITU INSTRUMENTATION TO SUPPORT QPE....STUDIES  
 08/01/2001 – 07/31/2004 FY01: \$90,000 Total: \$90,000  
*Prin. Invest.: E N ANAGNOSTOU*  
*Tech. Officer: GSFC/R J LAWRENCE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 11307** UNIV OF CONNECTICUT 3291  
 CREATION OF AN EARTH GRANT GEOSPATIAL TECHNOLOGY EXTENSION PROGRAM(ENVIRONMENTAL RESEARCH INS  
 08/30/2001 – 08/31/2004 FY01: \$25,000 Total: \$25,000  
*Prin. Invest.: D CIVCO*  
*Tech. Officer: GSFC/E SHEFFNER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 8 1428** UNIV OF CONNECTICUT 3292  
 BOSE-EINSTEIN CONDENSATE AND ATOM LASER: COHERENCE AND OPTICAL PROPERTIES  
 02/02/1998 – 01/31/2003 FY01: \$80,750 Total: \$256,750  
*Prin. Invest.: J JAVANAINEN*  
*Tech. Officer: MSFC/D HUBBARD*  
*CASE Category: 13 – PHYSICS*

**NAG 9 1243** UNIV OF CONNECTICUT 3293  
 RESEARCH GRANT  
 07/07/2000 – 09/01/2001 FY01: \$0 Total: \$21,998  
*Prin. Invest.: M MOREAU*  
*Tech. Officer: JSC/F MARTIN, JSC/D SICKOREZ*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG13 99001** UNIV OF CONNECTICUT 3294  
 BETTER LAND USE PLANNING FOR SUBURBANIZING NE, CREATING NETWORK OF GEOSPATIAL INFORMATION  
 02/19/1999 – 02/18/2002 FY01: \$0 Total: \$1,099,576  
*Prin. Invest.: D CIVCO*  
*Tech. Officer: SSC/C HILL*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 2 1067** UNIV OF CONNECTICUT 3295  
 PRODUCTION & CONSUMPTION OF BIOGENIC GASES IN MICROBIAL MATS  
 07/17/2000 – 09/30/2002 FY01: \$41,667 Total: \$150,026  
*Prin. Invest.: P T VISSCHER*  
*Tech. Officer: ARC/B M BEBOUT, ARC/D J DES MARIAS*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NCC 3 789** UNIV OF CONNECTICUT 3296  
 HEAT TRANSFER IN ROTATING THIN LIQUID FILMS INCLUDING NUCLEATE BOILING  
 04/07/2000 – 11/30/2003 FY01: \$95,000 Total: \$135,000  
*Prin. Invest.: D FAGHRI*  
*Tech. Officer: GRC/F P CHIARAMONTE*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NGT 1 01025** UNIV OF CONNECTICUT 3297  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) MY 1/3  
 06/22/2001 – 06/30/2004 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: K D MURPHY*  
*Tech. Officer: LARC/W K BELVIN*  
*CASE Category: 42 – ASTRONAUTICAL ENGR*

**NGT 5 82** **UNIV OF CONNECTICUT** **3298**  
 PREDICTING THE DISTRIBUTION OF BIODIVERSITY: INTE GRATING  
 REMOTE SENSING TECHNOLOGY ANDFIELD-BASED  
 05/11/1999 – 07/31/2001 FY01: \$0 Total: \$44,000  
*Prin. Invest.: R COLWELL*  
*Tech. Officer: GSFC/M S BURRELL*  
*CASE Category: 54 – ENVIRONMENTAL BIOLOGY*

**NGT 5 30369** **UNIV OF CONNECTICUT** **3299**  
 INVESTIGATION OF CONTINUOUS THUNDERSTORM MONITORIN G OVER  
 LARGE REGIONS USING SATELLITEINFARED OBS  
 08/13/2001 – 08/31/2004 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: E ANAGNOSTOU*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 5 390** **UNIV OF HARTFORD** **3300**  
 NASA EPSCOR: PREPARATORY GRANT PROPOSAL  
 05/13/1999 – 08/31/2001 FY01: \$0 Total: \$450,000  
*Prin. Invest.: S TOWNSEND*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 40031** **UNIV OF HARTFORD** **3301**  
 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRA  
 12/30/1996 – 02/28/2001 FY01: \$0 Total: \$807,500  
*Prin. Invest.: S L TOWNSEND*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 40093** **UNIV OF HARTFORD** **3302**  
 CONNECTICUT SPACE GRANT COLLEGE AND FELLOWSHIP PRO GRAM  
 02/28/2001 – 02/28/2002 FY01: \$212,500 Total: \$212,500  
*Prin. Invest.: S TOWNSEND*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 4821** **WESLEYAN UNIV** **3303**  
 PHOTOMETRIC STUDIES OF T TAURI STARS  
 06/18/1997 – 05/31/2002 FY01: \$54,000 Total: \$254,400  
*Prin. Invest.: D HERBST*  
*Tech. Officer: GSFC/D NAVA*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9064** **WESLEYAN UNIV** **3304**  
 MEASURING THE GALACTIC POTENTIAL WITH NASA'S SPACE INTERFER-  
 OMETRY MISSION - LTSA 99  
 02/29/2000 – 02/14/2002 FY01: \$32,310 Total: \$77,480  
*Prin. Invest.: K V JOHNSTON*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 21 – MATHEMATICS*

**NAG 2 948** **YALE UNIV** **3305**  
 SYNAPTOGENESIS IN MICROGRAVITY  
 12/20/1994 – 08/31/2001 FY01: \$0 Total: \$672,933  
*Prin. Invest.: H S KESHISHIAN*  
*Tech. Officer: ARC/D REISS-BUBENHEIM, ARC/W E HINDS*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 2 1433** **YALE UNIV** **3306**  
 EFFECTS OF SPACE FLIGHT ON DROSOPHILA NEURAL DEVEL OPMENT  
 08/29/2000 – 09/30/2001 FY01: \$28,195 Total: \$209,415  
*Prin. Invest.: H S KESHISHIAN*  
*Tech. Officer: ARC/D R BUBENHEIM, ARC/M F VASQUEZ*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 2 1504** **YALE UNIV** **3307**  
 MECHANISMS OF GRAVITY-EVOKED NEURONAL PLASTICITY  
 07/16/2001 – 09/30/2002 FY01: \$75,000 Total: \$75,000  
*Prin. Invest.: R G KALB*  
*Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 3 1935** **YALE UNIV** **3308**  
 RHEOLOGY OF CONCENTRATED EMULSIONS  
 08/05/1996 – 05/31/2001 FY01: \$0 Total: \$470,000  
*Prin. Invest.: M LOEWENBERG*  
*Tech. Officer: GRC/B SINGH*  
*CASE Category: 43 – CHEMICAL ENGR*

**NAG 3 1939** **YALE UNIV** **3309**  
 COMPUTATIONAL & EXPERIMENTAL STUDY OF LAMINAR DIFF USION  
 FLAMES IN A MICROGRAVITY ENVIRONMENT  
 08/05/1996 – 11/30/2000 FY01: \$0 Total: \$444,000  
*Prin. Invest.: M B LONG, M D SMOKE*  
*Tech. Officer: GRC/K J WEILAND, GRC/H D ROSS*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 3 1951** **YALE UNIV** **3310**  
 DESING/INTERPRETATION OF MICROGRAVITY EXPERIMENT T O OBTAIN  
 FLUID/SOLID BOUNDARY CONDITIONS IN NON-I  
 08/14/1996 – 12/31/2001 FY01: \$0 Total: \$400,000  
*Prin. Invest.: D E ROSNER*  
*Tech. Officer: GRC/B S SINGH*  
*CASE Category: 43 – CHEMICAL ENGR*

**NAG 3 2262** **YALE UNIV** **3311**  
 COMPUTATIONAL AND EXPERIMENTAL STUDY OF ENERGETIC MATERIALS  
 IN A COUNTERFLOW MICROGRAVITY ENVIRONMEN  
 04/27/1999 – 04/06/2003 FY01: \$77,773 Total: \$204,910  
*Prin. Invest.: M D SMOKE*  
*Tech. Officer: GRC/D L URBAN*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 3 2377** **YALE UNIV** **3312**  
 STUDIES OF THE DYNAMIC CONTROL AND EVAPORATION OF THREE  
 DIMENSIONAL DROPLET ARRAYS  
 04/07/2000 – 11/30/2003 FY01: \$92,000 Total: \$142,000  
*Prin. Invest.: R E APFEL*  
*Tech. Officer: GRC/R ROGERS*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 3 2425** **YALE UNIV** **3313**  
 EFFECT OF STRUCTURE – DEPENDENT INTERACTIONS ON TH E FORMA-  
 TION OF COLLOIDAL AGGREGATES AND NUCLEI  
 05/17/2000 – 06/30/2001 FY01: -\$6,842 Total: \$43,158  
*Prin. Invest.: D L GRANT*  
*Tech. Officer: GRC/B MOTIL*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 3 2477**            **YALE UNIV**            **3314**  
 FLOWS OF WET FOAMS AND CONCENTRATED EMULSIONS FLOWS OF WET  
 FOAMS AND CONCENTRATED EMULSIONS  
 07/24/2000 - 11/30/2003      FY01: \$76,000      Total: \$176,000  
*Prin. Invest.: D LOEWENBERG*  
*Tech. Officer: GRC/F P CHIARAMONTE*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 5 3853**            **YALE UNIV**            **3315**  
 CLIMATE CHANGE AND HUMAN RESPONSE IN THE SEMI-ARID  
 (148-65-80-27)  
 12/16/1996 - 07/31/2000      FY01: \$0      Total: \$1,195,852  
*Prin. Invest.: R B SMITH*  
*Tech. Officer: GSFC/A J TUYAHOV*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 5255**            **YALE UNIV**            **3316**  
 X-RAY SINGLE-PHOTON SPECTROMETERS      X-RAY SINGLE-PHOTON  
 SPECTROMETERS  
 02/18/2000 - 02/03/2003      FY01: \$175,000      Total: \$340,000  
*Prin. Invest.: D E PROBER*  
*Tech. Officer: GSFC/W B JOHNSON*  
*CASE Category: 13 – PHYSICS*

**NAG 5 6404**            **YALE UNIV**            **3317**  
 YBSERVATIONAL STUDIES OF DYNAMICAL EFFECTS IN GLOBULAR CLUS-  
 TERS  
 11/04/1997 - 08/31/2001      FY01: \$111,640      Total: \$424,000  
*Prin. Invest.: C BAILYN*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7074**            **YALE UNIV**            **3318**  
 STAR FORMATION IN THE EARLY UNIVERSE-ATP  
 03/03/1998 - 02/14/2002      FY01: \$0      Total: \$277,032  
*Prin. Invest.: P COPPI*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8406**            **YALE UNIV**            **3319**  
 MODELING CONVECTION IN STARS; IMPROVING STELLAR MODELS FOR  
 STELLAR POPULATION SYNTHESIS (ATP-  
 03/15/1999 - 03/14/2002      FY01: \$186,864      Total: \$298,261  
*Prin. Invest.: P F DEMARQUE*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8589**            **YALE UNIV**            **3320**  
 PHOTON-COUNTING DETECTORS FOR SUBMILLIMETER IMAGING AND  
 SPECTROSCOPY.  
 07/08/1999 - 07/14/2001      FY01: \$0      Total: \$505,559  
*Prin. Invest.: R J SCHOEKOPF*  
*Tech. Officer: GSFC/G MUCKLOW*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8813**            **YALE UNIV**            **3321**  
 FROM RNA TO CONTEMPORARY METABOLISM: THE M1 RIBOZYME AS A  
 MODEL SYSTEM  
 09/23/1999 - 08/31/2001      FY01: \$70,000      Total: \$140,000  
*Prin. Invest.: R L DORIT*  
*Tech. Officer: GSFC/M MEYER*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9123**            **YALE UNIV**            **3322**  
 ANALYSIS OF NEW & ARCHIVAL DATA TO STUDY & CHARACTERIZE RAPID  
 X-RAY VARIABILITY IN BLAZARS - ADP 99  
 03/28/2000 - 03/31/2001      FY01: \$0      Total: \$43,548  
*Prin. Invest.: P COPPI*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9168**            **YALE UNIV**            **3323**  
 GLOBULAR CLUSTER FORMATION (ATP 99)  
 03/27/2000 - 03/31/2002      FY01: \$103,267      Total: \$205,430  
*Prin. Invest.: S ZEPF*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9316**            **YALE UNIV**            **3324**  
 LANDSCAPE CHANGES IN THE MIDDLE EAST: A REGIONAL ASSESSMENT  
 USING REMOTE SENSING  
 03/28/2000 - 03/31/2002      FY01: \$385,000      Total: \$635,000  
*Prin. Invest.: R SMITH*  
*Tech. Officer: GSFC/G GUTMAN*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9437**            **YALE UNIV**            **3325**  
 CHARACTERIZATION OF HUMID-FOREST & SAVANNA ECO-REGIONS OF  
 WEST & CENTRAL AFRICA USING SATELLITE SEN  
 04/13/2000 - 04/30/2002      FY01: \$197,558      Total: \$329,573  
*Prin. Invest.: M ASHTON*  
*Tech. Officer: GSFC/J DODGE*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9554**            **YALE UNIV**            **3326**  
 RNA MODIFYING ENZYMES: DETERMINANTS OF DESIGN AND EVOLUTION  
 OF BIOLOGICAL INFORMATION PROCESSING  
 05/04/2000 - 04/30/2001      FY01: \$0      Total: \$103,620  
*Prin. Invest.: D SOLL*  
*Tech. Officer: GSFC/M MEYER*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 5 9595**            **YALE UNIV**            **3327**  
 SINGLE-PHOTON STJ DETECTORS WITH RF-SINGLE-ELECTRON TRANS-  
 ISTOR READOUTS FOR VISIBLE-THRU-UV  
 06/09/2000 - 06/30/2001      FY01: \$0      Total: \$100,000  
*Prin. Invest.: D E PROBER*  
*Tech. Officer: GSFC/C STAHL*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 9651**            **YALE UNIV**            **3328**  
 THE FORMATION AND EVOLUTION OF GLOBULAR CLUSTER SYSTEMS AND  
 IMPLICATIONS FOR THE FORMATION HISTORY  
 06/22/2000 - 06/14/2002      FY01: \$117,520      Total: \$231,620  
*Prin. Invest.: S ZEPF*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9839**            **YALE UNIV**            **3329**  
 INVESTIGATIONS OF THE TROPICAL TROPOPAUSE REGION  
 11/16/2000 - 12/31/2001      FY01: \$126,276      Total: \$126,276  
*Prin. Invest.: S SHERWOOD*  
*Tech. Officer: GSFC/M R SCHOEBERL*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 10439**           **YALE UNIV**           **3330**  
 DEVELOPMENT OF AN ATOM INTERFEROMETER GRAVITY GRAD IOMETER  
 FOR SPACE FLIGHT, PROPOSAL 1258  
 03/13/2001 - 03/14/2002      FY01: \$281,175      Total: \$281,175  
*Prin. Invest.: P KASEVICH*  
*Tech. Officer: GSFC/N J DENNEHY*  
*CASE Category: 13 – PHYSICS*

**NAG 5 10755**           **YALE UNIV**           **3331**  
 FABRICATION AND CHARACTERIZATION OF SUBMILLIMETER SINGLE-  
 PHONON COUNTERS  
 04/20/2001 - 04/30/2002      FY01: \$175,000      Total: \$175,000  
*Prin. Invest.: R J SCHOELKOPF, NONE*  
*Tech. Officer: GSFC/F HERRERO*  
*CASE Category: 13 – PHYSICS*

**NAG 5 10912**           **YALE UNIV**           **3332**  
 RING-DIAGRAM ANALYSIS OF THE SOLAR SURFACE LAYERS  
 05/14/2001 - 05/31/2002      FY01: \$57,221      Total: \$57,221  
*Prin. Invest.: S BASU*  
*Tech. Officer: GSFC/J GURMAN*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 11335**           **YALE UNIV**           **3333**  
 CHANGES INFLUENCE OF HUMANS, CLIMATE, AND FIRE ON FOREST  
 ECOSYSTEMS AND CARBON DYNAMICS IN INDONESIA  
 09/06/2001 - 09/14/2004      FY01: \$253,107      Total: \$253,107  
*Prin. Invest.: L M CURRAN*  
*Tech. Officer: GSFC/G GUTMAN*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 8 1351**           **YALE UNIV**           **3334**  
 NOVEL CONCEPTS IN ACOUSTROPHORESIS FOR BIO- TECHNOLOGY  
 APPLICATIONS UNDER DIRECTION DR. APFEL.  
 05/23/1997 - 09/30/2001      FY01: \$0      Total: \$248,000  
*Prin. Invest.: R E APFEL*  
*Tech. Officer: MSFC/B GUYNES, MSFC/J MAYO*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 8 1443**           **YALE UNIV**           **3335**  
 R/S ATOM INTEFEROMETRY IN A MICROGRAVITY ENVIRON- MENT  
 02/06/1998 - 01/31/2003      FY01: \$95,000      Total: \$370,000  
*Prin. Invest.: M A KASEVICH*  
*Tech. Officer: MSFC/D HUBBARD*  
*CASE Category: 13 – PHYSICS*

**NAG 8 1449**           **YALE UNIV**           **3336**  
 INVESTIGATION OF FUTURE MICROGRAVITY ATOMIC CLOCKS  
 03/09/1998 - 03/01/2003      FY01: \$190,000      Total: \$740,000  
*Prin. Invest.: K GIBBLE*  
*Tech. Officer: MSFC/D HUBBARD*  
*CASE Category: 13 – PHYSICS*

**NAG 8 1461**           **YALE UNIV**           **3337**  
 NUCLEATION AND GROWTH MECHANISMS UNDERLYING THE MICRO-  
 STRUCTURE OF POLYMER FOAMS PRODUCED  
 02/18/1998 - 01/31/2002      FY01: \$145,000      Total: \$358,333  
*Prin. Invest.: R E APFEL, D WU*  
*Tech. Officer: MSFC/C TALLEY*  
*CASE Category: 13 – PHYSICS*

**NAG 8 1767**           **YALE UNIV**           **3338**  
 ATOM INTERFEROMETER TEST OF THE EQUIVALENCE PRINCIPLE  
 05/14/2001 - 05/13/2005      FY01: \$150,000      Total: \$150,000  
*Prin. Invest.: M A KASEVICH, L MALEKI*  
*Tech. Officer: MSFC/D HUBBARD*  
*CASE Category: 13 – PHYSICS*

**NCC 2 1229**           **YALE UNIV**           **3339**  
 DOMAIN-SPECIFIC SELF-ADAPTIVE SOFTWARE  
 03/26/2001 - 11/30/2001      FY01: \$50,000      Total: \$50,000  
*Prin. Invest.: P HUDAK*  
*Tech. Officer: ARC/R MORRIS*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NCC 3 691**           **YALE UNIV**           **3340**  
 COMBUSTION OF INDIVIDUAL BUBBLES AND SUBMERGED GAS JETS IN  
 LIQUID FUELS  
 03/24/1999 - 01/11/2003      FY01: \$125,700      Total: \$303,700  
*Prin. Invest.: D E ROSNER*  
*Tech. Officer: GRC/K SACKSTEDER*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NGT 3 52347**           **YALE UNIV**           **3341**  
 RHEOLOGY AND STATISTICAL MICROSTRUCTURE OF CONCENT RATED  
 EMULSIONS AND FOAMS  
 08/11/1998 - 07/01/2001      FY01: \$0      Total: \$66,000  
*Prin. Invest.: M LOEWENGBERG*  
*Tech. Officer: GRC/F MONTEGANI*  
*CASE Category: 43 – CHEMICAL ENGR*

**NGT 5 121**           **YALE UNIV**           **3342**  
 NOISE & SENSITIVITY OF SQPC SUBMILLIMETER DETECTORS/STUDENT:  
 JOHN D. TEUFEL  
 05/31/2001 - 06/30/2002      FY01: \$22,000      Total: \$22,000  
*Prin. Invest.: D SCHOELKOPF*  
*Tech. Officer: GSFC/M S BURRELL*  
*CASE Category: 13 – PHYSICS*

**NGT 5 30371**           **YALE UNIV**           **3343**  
 ENVIRONMENTAL ASSESSMENT OF HUMAN HEALTH RISK: SPATIAL AND  
 TEMPORAL MODELS OF LYME DISEASE  
 08/14/2001 - 08/31/2002      FY01: \$22,000      Total: \$22,000  
*Prin. Invest.: D FISH*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50042**           **YALE UNIV**           **3344**  
 TERAHERTZ SUPERCONDUCTING HETERODYNE RECEIVERS  
 08/04/1997 - 06/30/2000      FY01: \$0      Total: \$66,000  
*Prin. Invest.: PROBER*  
*Tech. Officer: HQ/A NURRIDIN*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50067**           **YALE UNIV**           **3345**  
 SPACE BASED LASER-COOLED ATOMIC CLOCKS  
 08/26/1997 - 06/30/2001      FY01: \$0      Total: \$65,060  
*Prin. Invest.: K GIBBLE*  
*Tech. Officer: HQ/A NURRIDIN*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NGT 5 50287**            **YALE UNIV**            **3346**  
 GLOBAL CLUSTER SYSTEMS AS PROBES OF GALAXY FORMATION  
 (STUDENT: KATHERINE RHODE)  
 06/22/2000 - 06/30/2002      FY01: \$22,000      Total: \$44,000  
*Prin. Invest.: C E BAILYN*  
*Tech. Officer: GSFC/K BLANDING*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**DELAWARE**

**NAG 1 2030**            **DELAWARE STATE UNIV**            **3347**  
 INVESTIGATION OF OPTICAL PHASE DISTORTIONS IN SOLID STATE  
 PULSED LASER AMPLIFIER  
 03/23/1998 - 12/31/2001      FY01: \$0      Total: \$297,207  
*Prin. Invest.: N MELIKECHI*  
*Tech. Officer: LARC/W C EDWARDS, LARC/N P BANRES*  
*CASE Category: 13 – PHYSICS*

**NAG 5 8240**            **DELAWARE STATE UNIV**            **3348**  
 DELAWARE STATE UNIV CENTER FOR EXCELLENCE IN MATHEMATICS,  
 SCIENCE, AND TECHNOLOGY  
 02/19/1999 - 02/28/2002      FY01: \$100,000      Total: \$299,998  
*Prin. Invest.: G OFOSU*  
*Tech. Officer: GSFC/D MENCHAN*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 3 1920**            **UNIV OF DELAWARE**            **3349**  
 FREE-SURFACE AND CONTACT-LINE MOTION OF LIQUIDS IN A  
 MICROGRAVITY ENVIRONMENT  
 07/07/1996 - 07/10/2001      FY01: \$0      Total: \$355,000  
*Prin. Invest.: L W SCHWARTZ*  
*Tech. Officer: GRC/M W WEISLOGEL*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 3 1955**            **UNIV OF DELAWARE**            **3350**  
 SURFACTANT-BASED CRITICAL PHENOMENA IN MICROGRAVITY  
 08/19/1996 - 08/31/2001      FY01: \$0      Total: \$241,500  
*Prin. Invest.: E W KALER, M E PAULATIS*  
*Tech. Officer: GRC/B S SINGH*  
*CASE Category: 43 – CHEMICAL ENGR*

**NAG 5 4829**            **UNIV OF DELAWARE**            **3351**  
 AN INTEGRATED SYSTEM FOR WATER BUDGET CLOSURE OVER MASS: A  
 TRMM VALIDATION EFFORT  
 07/03/1997 - 06/30/2001      FY01: \$0      Total: \$160,000  
*Prin. Invest.: C J WILLMOTT*  
*Tech. Officer: GSFC/O W THIELE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 5181**            **UNIV OF DELAWARE**            **3352**  
 PROTON/ANTI-PROTON RATIO AS A PROBE OF SOLAR MODULATION  
 03/26/1998 - 08/31/2001      FY01: \$0      Total: \$201,604  
*Prin. Invest.: T K GAISSER*  
*Tech. Officer: GSFC/B A MERRITT*  
*CASE Category: 13 – PHYSICS*

**NAG 5 5221**            **UNIV OF DELAWARE**            **3353**  
 GRANT NAG5-5221 BALLOON AIR CHERENKOV (BACH) PI PROF PAUL  
 EVENSON  
 03/16/1999 - 03/11/2004      FY01: \$0      Total: \$475,000  
*Prin. Invest.: P A EVENSON*  
*Tech. Officer: GSFC/B A MERRITT*  
*CASE Category: 13 – PHYSICS*

**NAG 5 6553**            **UNIV OF DELAWARE**            **3354**  
 THE INFLUENCE OF COUPLING WITH THE IONOSPHERE AND  
 ATMOSPHERE ON ROTATIONAL DYNAMICS IN THE JOVIAN MA  
 10/17/1997 - 08/31/2000      FY01: \$0      Total: \$120,992  
*Prin. Invest.: D PONTIUS*  
*Tech. Officer: GSFC/J BOHLIN*  
*CASE Category: 13 – PHYSICS*

**NAG 5 7009**            **UNIV OF DELAWARE**            **3355**  
 NATURE AND ORIGIN OF THE HIGHEST ENERGY COSMIC RAY S – ATP  
 02/12/1998 - 02/14/2002      FY01: \$0      Total: \$293,484  
*Prin. Invest.: T STANOV*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7949**            **UNIV OF DELAWARE**            **3356**  
 APPLICATION OF SATELLITE ALTIMETER DATA TO STUDIES OF OCEAN  
 SURFACE HEATFLUX AND UPPER OCEAN THERMA  
 12/23/1998 - 12/14/2001      FY01: \$80,000      Total: \$225,000  
*Prin. Invest.: X YAN*  
*Tech. Officer: GSFC/E LINDSTROM*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8556**            **UNIV OF DELAWARE**            **3357**  
 A DATA COORDINATOR FOR CLIVAR AND G30S  
 06/23/1999 - 06/30/2001      FY01: \$0      Total: \$125,242  
*Prin. Invest.: F WEBSTER*  
*Tech. Officer: GSFC/E LINDSTROM*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8696**            **UNIV OF DELAWARE**            **3358**  
 OBSERVATIONAL STUDIES OF THE SOLAR CORONA  
 08/17/1999 - 12/31/2000      FY01: \$0      Total: \$25,030  
*Prin. Invest.: D R WEBSTER*  
*Tech. Officer: GSFC/E T ENGMAN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9116**            **UNIV OF DELAWARE**            **3359**  
 MARS GLOBAL SURVEYOR DATA ANALYSIS AND INTERPRETATION  
 02/28/2000 - 02/28/2002      FY01: \$0      Total: \$20,000  
*Prin. Invest.: N F NESS*  
*Tech. Officer: GSFC/M H ACUNA*  
*CASE Category: 13 – PHYSICS*

**NAG 5 10416**            **UNIV OF DELAWARE**            **3360**  
 LMC 1995, THE THIRD SUPERSOFT X-RAY NOVA  
 02/22/2001 - 02/28/2002      FY01: \$5,000      Total: \$5,000  
*Prin. Invest.: J McDONALD*  
*Tech. Officer: GSFC/R MUSHOTZKY*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10911**      **UNIV OF DELAWARE**      **3361**  
 COMPARATIVE STUDY OF INTERPLANETARY MAGNETIC FIELD TURBULENCE  
 05/11/2001 – 05/31/2002      FY01: \$91,560      Total: \$91,560  
*Prin. Invest.: C W SMITH*  
*Tech. Officer: GSFC/J GURMAN*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 10919**      **UNIV OF DELAWARE**      **3362**  
 HIGHEST ENERGY COSMIC RAYS  
 05/17/2001 – 05/31/2002      FY01: \$90,000      Total: \$90,000  
*Prin. Invest.: T STANLEV*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 11006**      **UNIV OF DELAWARE**      **3363**  
 HEATING OF THE LOWER CORONA: TRANSPORT, CASCADE & RECONNECTION  
 06/05/2001 – 05/31/2002      FY01: \$31,000      Total: \$31,000  
*Prin. Invest.: W H MATHAEUS*  
*Tech. Officer: GSFC/W WAGNER*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 11095**      **UNIV OF DELAWARE**      **3364**  
 FUV DIAGNOSTICS OF STRUCTURE IN HOT-STAR WINDS (FUSE 1999)  
 07/24/2001 – 07/31/2002      FY01: \$20,750      Total: \$20,750  
*Prin. Invest.: S P OWOCKI*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 11228**      **UNIV OF DELAWARE**      **3365**  
 MAGNETIC FIELDS ON OB STARS (ATP 2000)  
 08/15/2001 – 08/14/2004      FY01: \$10,655      Total: \$10,655  
*Prin. Invest.: D MULLAN*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 11232**      **UNIV OF DELAWARE**      **3366**  
 THE SPACE INFORMATION NETWORKING ARCHITECTURE FOR FUTURE  
 NASA SCIENCE MISSIONS  
 08/15/2001 – 08/14/2002      FY01: \$30,000      Total: \$30,000  
*Prin. Invest.: C SHEN*  
*Tech. Officer: GSFC/J RASH*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 8 1346**      **UNIV OF DELAWARE**      **3367**  
 PROTEIN CRYSTALLIZATION IN COMPLEX FLUIDS  
 05/23/1997 – 11/30/2001      FY01: \$0      Total: \$540,000  
*Prin. Invest.: E W KALER, D*  
*Tech. Officer: MSFC/D SMITH*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 8 1427**      **UNIV OF DELAWARE**      **3368**  
 DROPLETS OF 3HE-4HE MIXTURES  
 02/11/1998 – 01/31/2003      FY01: \$95,000      Total: \$324,000  
*Prin. Invest.: S T CHUI*  
*Tech. Officer: MSFC/J W POE*  
*CASE Category: 13 – PHYSICS*

**NAG 9 989**      **UNIV OF DELAWARE**      **3369**  
 PROPOSAL TO DEVELOPE ASTRONAUT TRAINING  
 02/08/1998 – 06/30/2002      FY01: \$0      Total: \$20,000  
*Prin. Invest.: V KLEMAS, Q ZHEN*  
*Tech. Officer: JSC/S K RUNCO*  
*CASE Category: 33 – OCEANOGRAPHY*

**NCC 3 784**      **UNIV OF DELAWARE**      **3370**  
 A PRELIMINARY INVESTIGATION OF THE E-BEAM INDUCED POLYMERIZATION OF MALEIMIDE AND NORBORNENE END-CAP  
 03/14/2000 – 01/26/2001      FY01: -\$35,075      Total: \$819  
*Prin. Invest.: G R PALMESE*  
*Tech. Officer: GRC/M A MEADOR*  
*CASE Category: 12 – CHEMISTRY*

**NCC 3 843**      **UNIV OF DELAWARE**      **3371**  
 SOOT FORMATION IN PURELY-CURVED PREMIXED FLAMES AN D LAMINAR FLAME SPEEDS OF SOOT-FORMING FLAMES  
 12/28/2000 – 11/30/2004      FY01: \$30,000      Total: \$30,000  
*Prin. Invest.: D WANG*  
*Tech. Officer: GRC/K R SACKSTER*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NGT 5 50367**      **UNIV OF DELAWARE**      **3372**  
 SENSOR DESIGN AND CONTROL FOR THE REAL-TIME OPTIMI ZATION OF CULTURING CONDITIONS, ANALYSISAND CONT  
 06/12/2001 – 08/31/2002      FY01: \$22,000      Total: \$22,000  
*Prin. Invest.: P DHUJATI*  
*Tech. Officer: GSFC/K BLANDING*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 3530**      **UNIV OF DELAWARE – BARTOL RESEARCH INST**      **3373**  
 MULTI-SPECTRAL DIAGNOSTICS AND DYNAMICAL MODELLING STAR WINDS  
 12/13/1996 – 11/30/2001      FY01: \$105,600      Total: \$489,078  
*Prin. Invest.: S P OWOCKI*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 4065**      **UNIV OF DELAWARE – BARTOL RESEARCH INST**      **3374**  
 RADIATION HYDRODYNAMICS OF INTERACTING WINDS IN MA  
 03/26/1997 – 03/31/2001      FY01: \$0      Total: \$192,000  
*Prin. Invest.: K GAYLEY*  
*Tech. Officer: GSFC/R K OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 5063**      **UNIV OF DELAWARE – BARTOL RESEARCH INST**      **3375**  
 BALLOON AIR CHERENKOV (BACH) MEASUREMENTS OF HIGH ENERGY COSMICRAY COMPOSITION  
 05/03/1996 – 04/30/2000      FY01: \$0      Total: \$737,000  
*Prin. Invest.: P EVENSON*  
*Prin. Invest.: NONE*  
*Tech. Officer: GSFC/H NEEDLEMAN*  
*CASE Category: 13 – PHYSICS*

**NAG 5 6061**      **UNIV OF DELAWARE – BARTOL RESEARCH INST**      **3376**  
 EXPERIMENTAL RESEARCH ON ANISOTROPY OF THE COSMIC BACKGROUND RADIATION FROM A BALLOON-BORNE PLATFORM  
 08/01/1997 – 06/30/2000      FY01: \$0      Total: \$100,000  
*Prin. Invest.: PICCIRILLO*  
*Tech. Officer: GSFC/R SILVERBERG*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 6469 UNIV OF DELAWARE - BARTOL RESEARCH INST 3377**  
 USING ULYSSES OBSERVATIONS TO CONSTRAIN GLOBAL MODELS OF THE HELIOSPHERE  
 10/31/1997 – 10/31/2001 FY01: \$0 Total: \$302,042  
*Prin. Invest.: G ZANK*  
*Tech. Officer: GSFC/J LING*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 6470 UNIV OF DELAWARE - BARTOL RESEARCH INST 3378**  
 ULYSSES-SWICS CONSTRAINTS ON NON-MAXWELLIAN ELECTRONS ON DISTRIBUTIONS AND UNEQUAL ION FLOW SPEEDS IN A  
 11/14/1997 – 10/31/2001 FY01: \$0 Total: \$165,275  
*Prin. Invest.: S OWOCKI*  
*Tech. Officer: HQ/J LING*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 6570 UNIV OF DELAWARE - BARTOL RESEARCH INST 3379**  
 INVESTIGATION OF INTERPLANETARY TURBULENCE AT HIGH LATITUDE USING THE ULYSSES SPACECRAFT  
 11/13/1997 – 10/31/2001 FY01: \$0 Total: \$248,199  
*Prin. Invest.: C SMITH*  
*Tech. Officer: HQ/J LING*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 6905 UNIV OF DELAWARE - BARTOL RESEARCH INST 3380**  
 ORIGINS OF COOL STAR MASS LOSS: A UNIFIED AND EFFICIENT APPROACH TO ANALYZE FLUCTUATING WIND L  
 02/09/1998 – 01/31/2000 FY01: \$0 Total: \$44,000  
*Prin. Invest.: D MULLAN*  
*Tech. Officer: HQ/D WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 6969 UNIV OF DELAWARE - BARTOL RESEARCH INST 3381**  
 ENERGETIC PARTICLE PROCESSES IN THE HELIOSPHERE  
 03/12/1998 – 10/31/2001 FY01: \$0 Total: \$276,500  
*Prin. Invest.: J A LE ROUX*  
*Tech. Officer: GSFC/J LING*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7142 UNIV OF DELAWARE - BARTOL RESEARCH INST 3382**  
 TURBULENCE AND PARTICLE TRANSPORT IN SPACE PLASMAS  
 03/23/1998 – 02/28/2002 FY01: \$0 Total: \$205,200  
*Prin. Invest.: J BIEBER*  
*Tech. Officer: HQ/J LING*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7164 UNIV OF DELAWARE - BARTOL RESEARCH INST 3383**  
 TURBULENCE, RECONNECTION, AND HEATING IN THE LOWER CORONA  
 03/13/1998 – 04/14/2002 FY01: \$42,394 Total: \$275,851  
*Prin. Invest.: W H MATTHAEUS*  
*Tech. Officer: GSFC/W WAGNER*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7545 UNIV OF DELAWARE - BARTOL RESEARCH INST 3384**  
 EVALUATION OF SNOW WATER EQUIVALENT ACROSS GRASSLAND REGIONS  
 06/22/1998 – 06/30/2001 FY01: \$0 Total: \$110,144  
*Prin. Invest.: D LEATHERS, W SHUTTLEWORTH*  
*Tech. Officer: GSFC/E T ENGMAN*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 7796 UNIV OF DELAWARE - BARTOL RESEARCH INST 3385**  
 COMPOSITION AND ABUNDANCE RATIOS OF ANOMALOUS AND GALACTIC COSMIC RAYS: IMPLICATIONS OF ACE OBSERVATIONS  
 12/14/1998 – 09/30/2001 FY01: \$85,000 Total: \$241,000  
*Prin. Invest.: G P ZANK*  
*Tech. Officer: GSFC/D C LING*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8014 UNIV OF DELAWARE - BARTOL RESEARCH INST 3386**  
 GROUND-LEVEL SOLAR COSMIC RAY DATA FROM SOLAR CYCLE 19  
 01/13/1999 – 12/31/2001 FY01: \$0 Total: \$22,500  
*Prin. Invest.: R PYLE*  
*Tech. Officer: GSFC/J H BREDEKAMP*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8134 UNIV OF DELAWARE - BARTOL RESEARCH INST 3387**  
 RESEARCH IN "TURBULENCE AND TRANSPORT PROCESSES" THIS IS THE FIRST YEAR OF A 3-YEAR FUNDING CYCLE.  
 02/04/1999 – 02/14/2002 FY01: \$222,605 Total: \$526,954  
*Prin. Invest.: W H MATTAEUS*  
*Tech. Officer: GSFC/J GREBOWSKY*  
*CASE Category: 13 – PHYSICS*

**NAG 5 8827 UNIV OF DELAWARE - BARTOL RESEARCH INST 3388**  
 PARTICIPATION IN NASA-GSFC MAGNETOMETER EXPERIMENT ON MARS GLOBAL SURVEYOR  
 09/07/1999 – 09/30/2002 FY01: \$0 Total: \$28,836  
*Prin. Invest.: N F NESS*  
*Tech. Officer: GSFC/M H ACUNA*  
*CASE Category: 13 – PHYSICS*

**NGT 5 40024 UNIV OF DELAWARE - BARTOL RESEARCH INST 3389**  
 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM  
 12/19/1996 – 08/31/2001 FY01: -\$160,861 Total: \$805,201  
*Prin. Invest.: N F NESS*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 40122 UNIV OF DELAWARE - BARTOL RESEARCH INST 3390**  
 DELAWARE SPACE GRANT COLLEGE & FELLOWSHIP PROGRAM  
 03/26/2001 – 03/31/2002 FY01: \$409,423 Total: \$409,423  
*Prin. Invest.: N F NESS*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50167 UNIV OF DELAWARE - BARTOL RESEARCH INST 3391**  
 PROTEIN CRYSTALLIZATION OF BINARY MIXTURES  
 07/08/1999 – 06/30/2002 FY01: \$22,000 Total: \$66,000  
*Prin. Invest.: A M LENHOFF/TESSIER*  
*Tech. Officer: GSFC/L SMITH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**DISTRICT OF COLUMBIA**

**NAG 1 1353**      **GEORGE WASHINGTON UNIV**      **3392**  
 RESEARCH AND EDUCATION PROGRAM FOR NON-TRADITIONAL ENGINEERING STUDENTS IN THE JIAFS  
 10/09/1991 – 11/30/1999      FY01: -\$1,771      Total: \$535,617  
*Prin. Invest.:* J L WHITESIDES  
*Tech. Officer:* LARC/R L YANG, LARC/E J PRIOR  
*CASE Category:* 49 – ENGINEERING, OTHER

**NAG 1 1972**      **GEORGE WASHINGTON UNIV**      **3393**  
 A PROGRAM OF RESEARCH AND EDUCATION IN AERO-SPACE VEHICLE DESIGN, SYNTHESIS, AND OPTIMIZATION.  
 10/31/1997 – 11/30/1999      FY01: -\$2,128      Total: \$350,434  
*Prin. Invest.:* R R SANDUSKY  
*Tech. Officer:* LARC/C V ECKSTROM  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NAG 2 1456**      **GEORGE WASHINGTON UNIV**      **3394**  
 ADAPTIVE UNSTRUCTURED GRID PARALLEL BENCHMARK  
 02/05/2001 – 01/31/2002      FY01: \$36,499      Total: \$36,499  
*Prin. Invest.:* M MYERS  
*Tech. Officer:* ARC/R BISWAS, ARC/J YAN  
*CASE Category:* 22 – COMPUTER SCIENCE

**NAG 5 697**      **GEORGE WASHINGTON UNIV**      **3395**  
 MATHEMATICAL MODELING OF ENERGY MINIMIZING OFF- DESIGN SHAPES OF LARGE SCIENTIFIC BALLOONS  
 01/25/1993 – 11/30/2000      FY01: \$0      Total: \$572,414  
*Prin. Invest.:* F BAGINSKI  
*Tech. Officer:* GSFC/H C NEEDLEMAN, GSFC/I S SMITH  
*CASE Category:* 21 – MATHEMATICS

**NAG 5 3957**      **GEORGE WASHINGTON UNIV**      **3396**  
 ENVIRONMENTAL SECURITY, SUSTAINABLE DEVELOPMENT, A GLOBAL OBSERVING STRATEGY  
 03/03/1997 – 12/31/2000      FY01: \$0      Total: \$390,228  
*Prin. Invest.:* D WILLIAMSON  
*Tech. Officer:* GSFC/J GASCH  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NAG 5 5292**      **GEORGE WASHINGTON UNIV**      **3397**  
 THE SHAPE OF A DESCENDING BALLOON THE SHAPE OF A DESCENDING BALLOON  
 06/14/2000 – 11/30/2001      FY01: \$0      Total: \$49,948  
*Prin. Invest.:* F BAGINSKI  
*Tech. Officer:* WFF/B A MERRITT  
*CASE Category:* 13 – PHYSICS

**NAG 5 6081**      **GEORGE WASHINGTON UNIV**      **3398**  
 STUDY OF VENUS NEUTRAL UPPER ATMOSPHERE USING MAGE  
 08/11/1997 – 09/30/2000      FY01: \$0      Total: \$100,000  
*Prin. Invest.:* D M KEATING  
*Tech. Officer:* GSFC/S HOWARD  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NAG 5 8068**      **GEORGE WASHINGTON UNIV**      **3399**  
 IMPROVED NUMERICAL MODELING OF LOW-DENSITY ATMOSPH ERIC FLOW ON IO  
 01/29/1999 – 12/31/2001      FY01: \$31,231      Total: \$73,856  
*Prin. Invest.:* D A LEVIN, NONE  
*Tech. Officer:* GSFC/R BEEBE  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 8287**      **GEORGE WASHINGTON UNIV**      **3400**  
 MARS GLOBAL SURVEYOR ACCELEROMETER EXPERIMENT: STU DY OF MARSTHERMOSPHEREAND COUPLING  
 02/22/1999 – 03/31/2002      FY01: \$72,000      Total: \$146,500  
*Prin. Invest.:* G M KEATING  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 9550**      **GEORGE WASHINGTON UNIV**      **3401**  
 PRECIPITATION STUDIES USING THE TRMM MICROWAVE LINK FACILITY  
 05/30/2000 – 05/31/2002      FY01: \$93,000      Total: \$150,167  
*Prin. Invest.:* R H LANG  
*Tech. Officer:* GSFC/R J LAWRENCE  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NAG 5 10417**      **GEORGE WASHINGTON UNIV**      **3402**  
 DETECTION OF GUNPOWDER RESIDUE USING X-RAY FLUORESCENCE AND ELECTRON MICROSCOPY.  
 02/21/2001 – 02/28/2002      FY01: \$31,915      Total: \$31,915  
*Prin. Invest.:* D A ROWLEY  
*Tech. Officer:* GSFC/J I TROMBKA  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NAG 5 10539**      **GEORGE WASHINGTON UNIV**      **3403**  
 SOCIOECONOMIC BENEFITS OF NASA'S EARTH SCIENCE AND APPLICATIONSRESEARCH. PROPOSAL, JAUP, C  
 03/16/2001 – 03/14/2002      FY01: \$182,761      Total: \$182,761  
*Prin. Invest.:* D A WILLIAMSON  
*Tech. Officer:* GSFC/E TORREZ-MARTINEZ  
*CASE Category:* 22 – COMPUTER SCIENCE

**NAG 5 11101**      **GEORGE WASHINGTON UNIV**      **3404**  
 PARALLEL DIMENSION REDUCTION OF HYPERSPECTRAL DATA  
 07/26/2001 – 07/31/2004      FY01: \$31,000      Total: \$31,000  
*Prin. Invest.:* T EL-GHAZAWI  
*Tech. Officer:* GSFC/J LE MOIGNE  
*CASE Category:* 22 – COMPUTER SCIENCE

**NAG 5 11175**      **GEORGE WASHINGTON UNIV**      **3405**  
 DATA ANALYSIS OF MGS ACCELEROMETER EXPERIMENT TO CHARACTERIZE THE MARS ATMOSPHERE AT AERO BRAKING A  
 08/30/2001 – 08/14/2003      FY01: \$60,000      Total: \$60,000  
*Prin. Invest.:* G KEATING  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NAG 5 11343**      **GEORGE WASHINGTON UNIV**      **3406**  
 DEVELOPMENT OF INDIVIDUALLY ADDRESSABLE MICRO-MIRR OR ARRAYS FOR SPACE APPLICATIONS  
 09/27/2001 – 09/30/2002      FY01: \$53,686      Total: \$53,686  
*Prin. Invest.:* M ZAGHLoul  
*Tech. Officer:* GSFC/M DUTTA  
*CASE Category:* 45 – ELECTRICAL ENGR

<b>NAG 9 1185</b>	<b>GEORGE WASHINGTON UNIV</b>	<b>3407</b>	<b>NCC 1 384</b>	<b>GEORGE WASHINGTON UNIV</b>	<b>3415</b>
DEVELOP TUNABLE DIODE LASER/CAVITY RING-DOWN SENSO R 01/11/2000 - 01/09/2003	FY01: \$0	Total: \$101,249	A RESEARCH PROGRAM IN FLIGHT SCIENCES AT THE NASA Langley Research Center - JIAFS 03/07/2000 - 11/30/2001	FY01: \$141,248	Total: \$375,303
Prin. Invest.: J H MILLER			Prin. Invest.: J L WHITESIDES		
Tech. Officer: NMO/D JAN			Tech. Officer: LARC/E WAGGONER		
CASE Category: 99 - MULTI INTERDISCPL, OTHER			CASE Category: 41 - AERONAUTICAL ENGR		
<b>NCC 1 14</b>	<b>GEORGE WASHINGTON UNIV</b>	<b>3408</b>	<b>NCC 1 387</b>	<b>GEORGE WASHINGTON UNIV</b>	<b>3416</b>
AEROACOUSTICS RESEARCH PROGRAM IN JIAFS 05/16/1979 - 11/30/1999	FY01: -\$3,264	Total: \$3,601,667	A PROGRAM OF RESEARCH AND EDUCATION IN AERO-SPACE VEHICLE DESIGN, SYNTHESIS, AND OPTIMIZATION 03/13/2000 - 11/30/2001	FY01: \$193,368	Total: \$370,227
Prin. Invest.: H LIEBOWITZ, M K MYERS			Prin. Invest.: R R SANDUSKY		
Tech. Officer: LARC/L R CLARK, LARC/D G STEPHENS			Tech. Officer: LARC/M D MOORE		
CASE Category: 41 - AERONAUTICAL ENGR			CASE Category: 41 - AERONAUTICAL ENGR		
<b>NCC 1 24</b>	<b>GEORGE WASHINGTON UNIV</b>	<b>3409</b>	<b>NCC 1 01017</b>	<b>GEORGE WASHINGTON UNIV</b>	<b>3417</b>
PROGRAMS OF RESEARCH IN FLIGHT SCIENCES 08/08/1979 - 11/30/1999	FY01: -\$1,397	Total: \$3,793,710	PROGRAM OF RESEARCH AND EDUCATION IN AEROSPACE STRUCTURES AT THE JOINT INST FOR ADVANCEMENT 01/18/2001 - 11/30/2001	FY01: \$344,890	Total: \$344,890
Prin. Invest.: H LIEBOWITZ, J L WHITESIDES			Prin. Invest.: P A COOPER, R H TOLSON		
Tech. Officer: LARC/R T BRIGHT			Tech. Officer: LARC/K L BRINKLEY		
CASE Category: 41 - AERONAUTICAL ENGR			CASE Category: 42 - ASTRONAUTICAL ENGR		
<b>NCC 1 47</b>	<b>GEORGE WASHINGTON UNIV</b>	<b>3410</b>	<b>NCC 1 01020</b>	<b>GEORGE WASHINGTON UNIV</b>	<b>3418</b>
CORE PROGRAM IN THE JOINT INST FOR ADVANCEMENT OF FLIGHT SCIENCES AT THE NASA-LANGLEY RESEARCH 11/05/1980 - 11/30/2000	FY01: -\$20,223	Total: \$5,461,231	A CORE PROGRAM IN JIAFS 02/02/2001 - 11/30/2001	FY01: \$133,706	Total: \$133,706
Prin. Invest.: J L WHITESIDES, H W LIEBOWITZ			Prin. Invest.: J WHITESIDES		
Tech. Officer: LARC/R L YANG, LARC/M F CARD			Tech. Officer: LARC/R A HATHAWAY/E J PRIOR		
CASE Category: 41 - AERONAUTICAL ENGR			CASE Category: 99 - MULTI INTERDISCPL, OTHER		
<b>NCC 1 326</b>	<b>GEORGE WASHINGTON UNIV</b>	<b>3411</b>	<b>NCC 5 51</b>	<b>GEORGE WASHINGTON UNIV</b>	<b>3419</b>
A PROGRAM OF RESEARCH IN FLIGHT DYNAMICS IN JIAFS 01/27/1999 - 11/30/2001	FY01: \$70,000	Total: \$279,239	PROGRAM FOR RESEARCH AND EDUCATION IN SPACE TECHNOLOGY 12/14/1992 - 09/30/1999	FY01: \$1,961	Total: \$2,849,048
Prin. Invest.: V KLEIN			Prin. Invest.: G FRIEDER, N BEDEWI		
Tech. Officer: LARC/J G BATTERSON			Tech. Officer: GSFC/T E HUBER, GSFC/J R ROBINSON		
CASE Category: 41 - AERONAUTICAL ENGR			CASE Category: 42 - ASTRONAUTICAL ENGR		
<b>NCC 1 331</b>	<b>GEORGE WASHINGTON UNIV</b>	<b>3412</b>	<b>NCC 5 436</b>	<b>GEORGE WASHINGTON UNIV</b>	<b>3420</b>
A COOPERATIVE PROGRAM OF RESEARCH & EDUCATION IN AEROSPACE VEHICLE MECHANICS AT JIAFS 03/22/1999 - 12/31/2002	FY01: \$265,000	Total: \$825,992	PROGRAM FOR RESEARCH AND EDUCATION IN SPACE TECHNOLOGY (PREST) 10/04/1999 - 09/30/2001	FY01: \$124,117	Total: \$192,253
Prin. Invest.: R H TOLSON			Prin. Invest.: S A SARKANI, NONE		
Tech. Officer: LARC/R W BUCHANAN			Tech. Officer: GSFC/D ASATO		
CASE Category: 42 - ASTRONAUTICAL ENGR			CASE Category: 41 - AERONAUTICAL ENGR		
<b>NCC 1 370</b>	<b>GEORGE WASHINGTON UNIV</b>	<b>3413</b>	<b>NGT 40056</b>	<b>GEORGE WASHINGTON UNIV</b>	<b>3421</b>
EXPERIMENTS IN THE FLUID AND THERMAL SCIENCES 02/10/2000 - 11/30/2001	FY01: \$118,000	Total: \$251,857	NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM 03/01/1995 - 02/28/2000	FY01: -\$43,188	Total: \$270,552
Prin. Invest.: A D CUTLER			Prin. Invest.: J M LOGSDON		
Tech. Officer: LARC/G S DISKIN, LARC/M W SMITH			Tech. Officer: HQ/E T SCHWARTZ		
CASE Category: 41 - AERONAUTICAL ENGR			CASE Category: 99 - MULTI INTERDISCPL, OTHER		
<b>NCC 1 374</b>	<b>GEORGE WASHINGTON UNIV</b>	<b>3414</b>	<b>NGT 2 52223</b>	<b>GEORGE WASHINGTON UNIV</b>	<b>3422</b>
AEROACOUSTICS RESEARCH PROGRAM JIAFS 02/15/2000 - 11/30/2001	FY01: \$56,790	Total: \$144,801	SCIENCE & ENG. APPRENTICE PROGRAM; TRANSFER FR AMES 10/2000; ENTERED 5/2001; GSFC STARTS SUPP 3 06/05/1997 - 05/15/2000	FY01: \$0	Total: \$72,199
Prin. Invest.: M K MYERS			Prin. Invest.: M KRUPSAW		
Tech. Officer: LARC/C A POWELL			Tech. Officer: ARC/G D BLANEY, ARC/D S OZBURN		
CASE Category: 41 - AERONAUTICAL ENGR			CASE Category: 29 - MATH/COMPUTER SCI, OTHER		

**NGT 2 52263**      **GEORGE WASHINGTON UNIV**      **3423**  
 SCI & ENG. APPRENTICE PROGRAM; TRANS GSFC FR AMES GSFC STARTS  
 SUPP. #2  
 06/30/2000 - 06/14/2001      FY01: \$0      Total: \$27,837  
*Prin. Invest.: M KRUPSAW*  
*Tech. Officer: ARC/G D BLANEY, ARC/D S OZBORN*  
*CASE Category: 29 – MATH/COMPUTER SCI, OTHER*

**NGT 5 30**      **GEORGE WASHINGTON UNIV**      **3424**  
 IMAGE RESTORATION AND NOISE REMOVAL IN HOLOGRAPHIC DATA  
 07/15/1996 - 08/14/2000      FY01: \$0      Total: \$66,000  
*Prin. Invest.: M H LOEW*  
*Tech. Officer: GSFC/G A SOFFEN, GSFC/J DORBAND*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NGT 5 40058**      **GEORGE WASHINGTON UNIV**      **3425**  
 THE NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PR  
 02/14/1997 - 02/28/2000      FY01: \$0      Total: \$595,000  
*Prin. Invest.: J M LOGSDON*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 9 1058**      **GEORGETOWN UNIV**      **3426**  
 CALCIUM KINETIC DURING SPACE FLIGHT  
 12/16/1998 - 12/31/2000      FY01: \$0      Total: \$39,339  
*Prin. Invest.: E WASTNEY*  
*Tech. Officer: JSC/S M SMITH*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 9 1366**      **GEORGETOWN UNIV**      **3427**  
 AWARD BASIC GRANT IN THE AMOUNT  
 08/16/2001 - 09/30/2004      FY01: \$43,000      Total: \$43,000  
*Prin. Invest.: J M JESSUP*  
*Tech. Officer: JSC/D RISIN*  
*CASE Category: 43 – CHEMICAL ENGR*

**NAG 1 2019**      **HOWARD UNIV**      **3428**  
 STRUCTURE-FUNCTION RELATIONSHIPS OF IMPACT-MODIFIED CYANATE  
 ESTER RESINS  
 03/13/1998 - 03/15/2002      FY01: \$0      Total: \$300,000  
*Prin. Invest.: W E COLLINS*  
*Tech. Officer: LARC/H L BELVIN, LARC/J W CONNELL*  
*CASE Category: 43 – CHEMICAL ENGR*

**NAG 1 2124**      **HOWARD UNIV**      **3429**  
 INVESTIGATION OF WAKE-VORTEX/AIRCRAFT ENCOUNTERS  
 12/14/1998 - 08/31/2000      FY01: -\$1,767      Total: \$14,387  
*Prin. Invest.: S T SMITH, C ROBERTS, K PETE*  
*Tech. Officer: LARC/D D VICROY*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 1 2148**      **HOWARD UNIV**      **3430**  
 CONTRIBUTION OF FLAP-SIDE EDGE VORTEX BURSTING TO AIRFRAME  
 NOISE (NRA 98-LARC-5)  
 02/05/1999 - 11/04/2001      FY01: \$63,415      Total: \$217,274  
*Prin. Invest.: S T SMITH*  
*Tech. Officer: LARC/R R ANTOLIFF*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 2 1526**      **HOWARD UNIV**      **3431**  
 A SEARCH FOR PORPHYRINS & METALLOPORPHYRINS IN THE  
 MURCHISON METEORITE USING MALDI-TOF MASS SPECTRO  
 09/27/2001 - 09/30/2002      FY01: \$60,778      Total: \$60,778  
*Prin. Invest.: P HAMBRIGHT*  
*Tech. Officer: ARC/G COOPER, ARC/B J COLLINS*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 3 1978**      **HOWARD UNIV**      **3432**  
 AEROSPACE POWER SYSTEM AUTOMATION  
 10/25/1996 - 12/31/2000      FY01: \$0      Total: \$300,000  
*Prin. Invest.: J A MOMOH*  
*Tech. Officer: GRC/J L DOLCE*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NAG 3 2030**      **HOWARD UNIV**      **3433**  
 EXPERIMENTAL IMPLEMENTATION OF HIGH PERFORMANCE AC DRIVES  
 USING NERAL DESIGNS  
 04/04/1997 - 08/31/2000      FY01: \$0      Total: \$140,000  
*Prin. Invest.: A RUBARI*  
*Tech. Officer: GRC/D F NOGA, GRC/D M KAW KAM*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NAG 3 2287**      **HOWARD UNIV**      **3434**  
 EXPERIMENTAL VERIFICATION OF ELECTRIC DRIVE TECHNOLOGIES  
 BASED ON ARTIFICIAL INTELLIGENCE TOOLS  
 08/23/1999 - 06/01/2002      FY01: \$76,000      Total: \$152,000  
*Prin. Invest.: D RUBAAI*  
*Tech. Officer: GRC/D F NOGA*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NAG 3 2429**      **HOWARD UNIV**      **3435**  
 A TRANSPORT OPERATION AND CONTROL OF HIGH PERFORMANCE,  
 POWER MANAGEMENT AND DISTRIBUTION (PMAD)  
 05/23/2000 - 12/31/2001      FY01: \$0      Total: \$58,065  
*Prin. Invest.: D A MOMOH*  
*Tech. Officer: GRC/R M BUTTON*  
*CASE Category: 29 – MATH/COMPUTER SCI, OTHER*

**NAG 3 2621**      **HOWARD UNIV**      **3436**  
 DETECTION, DIAGNOSIS, LOCATION AND RECOMMENDATION OF REMEDIAL  
 ACTIONS FOR CORONA/SOFT FAULTS  
 05/24/2001 - 04/05/2003      FY01: \$57,517      Total: \$57,517  
*Prin. Invest.: D A MOMOH*  
*Tech. Officer: GRC/R M BUTTON*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NAG 5 6066**      **HOWARD UNIV**      **3437**  
 THE DEVELOPMENT OF A NEW GENERATION TRAPPED RADIAT  
 07/28/1997 - 01/31/2001      FY01: \$0      Total: \$290,959  
*Prin. Invest.: R BOURGIN*  
*Tech. Officer: GSFC/S FUNG*  
*CASE Category: 21 – MATHEMATICS*

**NAG 5 6835**      **HOWARD UNIV**      **3438**  
 LABORATORY STUDIES OF NITRILES IN TITAN'S ATMOSPHERE: CYANOACETYLENES AND C3N  
 01/07/1998 - 12/31/2000      FY01: \$0      Total: \$189,368  
*Prin. Invest.: J HALPERN*  
*Tech. Officer: GSFC/R BEEBE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7384** HOWARD UNIV 3439  
 PUBLIC SERVICE INTERN PROGRAM  
 05/13/1998 - 05/14/2000 FY01: \$0  
*Prin. Invest.:* D WOODARD  
*Tech. Officer:* GSFC/D MENCHAN  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER  
 Total: \$161,300

**NAG 5 8790** HOWARD UNIV 3440  
 QUALITY SOFTWARE: KNOWLEDGE ACQUISITION IN SOFTWARE ENGINEERING RESEARCH  
 08/31/1999 - 08/31/2001 FY01: \$0  
*Prin. Invest.:* J TRIMBLE  
*Tech. Officer:* GSFC/W TRUSZKOWSKI  
*CASE Category:* 22 – COMPUTER SCIENCE  
 Total: \$200,000

**NAG 5 9279** HOWARD UNIV 3441  
 TO PROVIDE 7 ON-SITE INTERNSHIPS AT GODDARD FOR GRADUATE STUDENTS IN ADMINISTRATIVE DISCIPLINES  
 03/21/2000 - 03/31/2001 FY01: \$0  
*Prin. Invest.:* W WOODARD  
*Tech. Officer:* GSFC/D MENCHAN  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER  
 Total: \$73,700

**NAG 5 10371** HOWARD UNIV 3442  
 NANOCOMPOSITE-BASED COMPACT THERMOMAGNETIC CRYOCOOLERS  
 NRA PROPOSAL#1319  
 02/09/2001 - 01/14/2002 FY01: \$126,399  
*Prin. Invest.:* T HUBER  
*Tech. Officer:* GSFC/J TUTTLE  
*CASE Category:* 13 – PHYSICS  
 Total: \$126,399

**NAG 5 10675** HOWARD UNIV 3443  
 SUPPLEMENT TO THE CENTER FOR THE STUDY OF TERRESTRIAL AND EXTRATERRESTRIAL ATMOSPHERES (CSTEA)  
 03/27/2001 - 03/14/2002 FY01: \$200,000  
*Prin. Invest.:* A N THORPE  
*Tech. Officer:* GSFC/C PERSON  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER  
 Total: \$200,000

**NAG 5 10838** HOWARD UNIV 3444  
 PUBLIC SERVICE INTERN PROGRAM  
 05/11/2001 - 05/31/2002 FY01: \$73,700  
*Prin. Invest.:* M C WOODARD  
*Tech. Officer:* GSFC/D MENCHAN  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER  
 Total: \$73,700

**NAG 5 11118** HOWARD UNIV 3445  
 TECHNOLOGY ASSESSMENT AND RELIABILITY CHARACTERIZATION OF III-VSEMICONDUCTOR MODFET DEVICE  
 08/07/2001 - 08/14/2002 FY01: \$50,000  
*Prin. Invest.:* D MOHAMMAD  
*Tech. Officer:* GSFC/A SHARMA  
*CASE Category:* 45 – ELECTRICAL ENGR  
 Total: \$50,000

**NAG 9 977** HOWARD UNIV 3446  
 CAFFEINE METBOLISM-THE PHARMACOKINETICS OF SPACE FLIGHT  
 09/30/1997 - 06/30/2001 FY01: \$0  
*Prin. Invest.:* M W COOMES  
*Tech. Officer:* JSC/L PUTCHA  
*CASE Category:* 51 – BIOLOGY (EXCLUDING ENVIR)  
 Total: \$394,052

**NAS 5 00214** HOWARD UNIV 3447  
 HIERARCHICAL ALGORITHMS & THEIR EMBEDDED COMPUTATIONAL REALIZATION IN RECONFIGURABLE H/W.  
 09/29/2000 - 09/28/2002 FY01: \$234,354  
*Prin. Invest.:* C GLOTZER  
*Tech. Officer:* GSFC/J STEPHENS  
*CASE Category:* 22 – COMPUTER SCIENCE  
 Total: \$234,354

**NCC 5 184** HOWARD UNIV 3448  
 TERRESTRIAL AND EXTRATERRESTRIAL ATMOSPHERES  
 03/12/1997 - 02/28/2002 FY01: \$999,422  
*Prin. Invest.:* A N THORPE  
*Tech. Officer:* GSFC/G A SOFFEN  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER  
 Total: \$4,997,706

**NCC 5 197** HOWARD UNIV 3449  
 CSTE A HBCU ACADEMIC AND RESEARCH CONSORTIUM (CHARC)  
 05/22/1997 - 05/31/2000 FY01: \$0  
*Prin. Invest.:* A N THORPE  
*Tech. Officer:* GSFC/W R HOEGY  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE  
 Total: \$2,200,000

**NCC 5 387** HOWARD UNIV 3450  
 CENTER FOR THE STUDY OF TERRESTRIAL AND EXTRATERRESTRIAL ATMOSPHERES(CSTEA)  
 04/16/1999 - 07/31/2001 FY01: \$23,362  
*Prin. Invest.:* S T SMITH  
*Tech. Officer:* GSFC/W R HOEGY  
*CASE Category:* 13 – PHYSICS  
 Total: \$223,362

**NCC 5 420** HOWARD UNIV 3451  
 CSTE A-HBCU ACADEMIC AND RESEARCH CONSORTIUM (CHARC)  
 08/30/1999 - 08/31/2002 FY01: \$0  
*Prin. Invest.:* A THORPE  
*Tech. Officer:* GSFC/W R HOEGY  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE  
 Total: \$1,125,000

**NCC 5 424** HOWARD UNIV 3452  
 GSFC/HU FELLOWSHIP IN ATMOSPHERIC SCIENCE (GOHFAS)  
 08/27/1999 - 08/31/2001 FY01: \$0  
*Prin. Invest.:* S T SMITH  
*Tech. Officer:* GSFC/W R HOEGY  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE  
 Total: \$175,000

**NCC 5 556** HOWARD UNIV 3453  
 GODDARD SPACE FLIGHT CENTER/HOWARD UNIV FELLOWSHIP IN ATMOSPHERIC SCIENCE (GOHFAS)  
 05/24/2001 - 04/30/2002 FY01: \$295,000  
*Prin. Invest.:* S T SMITH  
*Tech. Officer:* GSFC/W R HOEGY  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE  
 Total: \$295,000

**NCC 8 184** HOWARD UNIV 3454  
 IMPORT OF IMPAIRED POLYADP-RIBOSYLATION AND FREE RADICAL STRESS IN ATAXIA-TELANGIECTASIA  
 09/01/1999 - 08/31/2001 FY01: \$0  
*Prin. Invest.:* R SRIDHAR  
*Tech. Officer:* MSFC/R SRIDHAR  
*CASE Category:* 56 – MEDICAL  
 Total: \$99,349

**NGT 5 77** HOWARD UNIV 3455  
 SUPPORT OF THE 1999 ASEE-NASA SUMMER FACULTY FELLOWSHIP PROGRAM(AERONAUTICS AND SPACE RESEARCH)  
 03/25/1999 - 12/31/2000 FY01: \$0 Total: \$431,500  
*Prin. Invest.: J B HALPERN*  
*Tech. Officer: GSFC/M S BURRELL*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 113** HOWARD UNIV 3456  
 SUPPORT OF THE 2001 ASEE-NASA SUMMER FACULTY FELLOWSHIP PROGRAM (AERONAUTICS & SPACE RESEARCH)  
 04/13/2001 - 03/31/2002 FY01: \$354,000 Total: \$354,000  
*Prin. Invest.: J B HALPERN*  
*Tech. Officer: GSFC/M S BURRELL*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10027** THE AMERICAN UNIV 3457  
 DEEP LITHOSPHERIC STRUCTURE.  
 10/02/2000 - 09/30/2001 FY01: \$7,740 Total: \$7,740  
*Prin. Invest.: J KUTINA*  
*Tech. Officer: GSFC/P TAYLOR*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NCC 5 269** THE AMERICAN UNIV 3458  
 DEVELOPMENT OF STATE OF THE ART SOLID STATE LASERS FOR ALTIMETRY AND OTHER LIDAR APPLICATIONS  
 02/11/1998 - 06/30/2000 FY01: \$0 Total: \$473,454  
*Prin. Invest.: R B KAY*  
*Tech. Officer: GSFC/J L BUFTON*  
*CASE Category: 13 – PHYSICS*

**NCC 5 482** THE AMERICAN UNIV 3459  
 DEVELOPMENT OF STATE-OF-THE-ART SOLID STATE LASERS FOR ALTIMETRY & OTHER LIDAR APPLICATIONS  
 03/23/2000 - 04/30/2002 FY01: \$90,621 Total: \$343,682  
*Prin. Invest.: R B KAY*  
*Tech. Officer: GSFC/J L BUFTON*  
*CASE Category: 13 – PHYSICS*

**NGT 5 79** THE AMERICAN UNIV 3460  
 YEAR 1 OF GSRP GRANT FOR MR. SAMUEL GOMPERS OF THE AMERICAN UNIVERSITY IN SUPPORT OF MICROLASER DE  
 05/04/1999 - 12/31/2000 FY01: -\$4,115 Total: \$25,218  
*Prin. Invest.: J KAY*  
*Tech. Officer: GSFC/G SOFFEN*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NGT 5 40068** THE AMERICAN UNIV 3461  
 DISTRICT OF COLUMBIA/NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM  
 03/29/2000 - 02/28/2002 FY01: \$212,500 Total: \$425,000  
*Prin. Invest.: R BERENDZEN*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 1 01066** THE CATHOLIC UNIV OF AMERICA 3462  
 REAL-TIME ADAPTIVE AUTOMATION OF FLIGHT TASKS  
 04/18/2001 - 12/31/2001 FY01: \$38,837 Total: \$38,837  
*Prin. Invest.: R PARASURAMAN*  
*Tech. Officer: LARC/L J PRINZEL*  
*CASE Category: 69 – PSYCHOLOGY, OTHER*

**NAG 2 1096** THE CATHOLIC UNIV OF AMERICA 3463  
 DYNAMIC AUTOMATION TOOLS FOR AIR TRAFFIC MANAGEMENT  
 12/09/1996 - 02/28/2001 FY01: \$0 Total: \$959,796  
*Prin. Invest.: R PARASURAMAN*  
*Tech. Officer: ARC/W JOHNSON, ARC/M R ROSEKEND*  
*CASE Category: 69 – PSYCHOLOGY, OTHER*

**NAG 5 1413** THE CATHOLIC UNIV OF AMERICA 3464  
 OBSERVATIONS OBTAINED W/ GODDARD HIGH RESOLUTION  
 08/02/1990 - 09/30/1999 FY01: -\$111 Total: \$280,895  
*Prin. Invest.: F C BRUHWILER, C A GRADY*  
*Tech. Officer: GSFC/A SMITH*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 3378** THE CATHOLIC UNIV OF AMERICA 3465  
 OBSERVATIONS AND ANALYSIS OF DATA OBTAINED BY THE SPACE TELESCOPE IMAGING SPECTROGRAPH  
 08/28/1996 - 09/30/2001 FY01: \$0 Total: \$453,665  
*Prin. Invest.: A BOGESS*  
*Tech. Officer: GSFC/T R GULL*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 3487** THE CATHOLIC UNIV OF AMERICA 3466  
 MEASURING BORON ABUNDANCES WITH IUE SPECTRA USING LINES  
 11/25/1996 - 11/14/2000 FY01: \$0 Total: \$31,905  
*Prin. Invest.: F C BRUNHWEILER*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 4103** THE CATHOLIC UNIV OF AMERICA 3467  
 OBSERVATIONS AND ANALYSIS OF SEYFERT GALAXIES WITH THE SPACE TELESCOPE IMAGING SPECTROGRAPH  
 03/31/1997 - 08/31/2002 FY01: \$20,000 Total: \$812,607  
*Prin. Invest.: S KRAMER*  
*Tech. Officer: GSFC/T GULL*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 4345** THE CATHOLIC UNIV OF AMERICA 3468  
 EXPERIMENTAL STUDIES OF INGENIOUS PROCESSES IN ENST  
 04/09/1997 - 04/30/2001 FY01: \$0 Total: \$159,000  
*Prin. Invest.: D DICKINSON*  
*Tech. Officer: GSFC/D NAVA*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 4362** THE CATHOLIC UNIV OF AMERICA 3469  
 SPATIAL-SPECTRAL MAPPING OF CO EMISSION IN COMETS HALE-BOPP, AND COMPARISON WITH OTHER ORGANICS  
 04/21/1997 - 09/30/2001 FY01: \$0 Total: \$89,765  
*Prin. Invest.: D DISANTI*  
*Prin. Invest.: NONE*  
*Tech. Officer: GSFC/T MORGAN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 4940** THE CATHOLIC UNIV OF AMERICA 3470  
 INTERPRETIVE TOOLS FOR ANALYSIS OF CORONAL IMAGES  
 06/23/1997 - 09/30/2001 FY01: \$0 Total: \$192,800  
*Prin. Invest.: D GUHATHAKURTA*  
*Tech. Officer: GSFC/W J WAGNER*  
*CASE Category: 13 – PHYSICS*

<b>NAG 5 6026</b>	<b>THE CATHOLIC UNIV OF AMERICA</b>	<b>3471</b>	<b>NAG 5 7905</b>	<b>THE CATHOLIC UNIV OF AMERICA</b>	<b>3479</b>
DEVELOPMENT OF VERY LIGHT WEIGHT ACTIVE OPTICS 09/04/1997 - 06/30/2001	FY01: \$0	Total: \$66,714	SPATIAL-SPECTRAL MAPPING OF COMETARY CO EMISSION, AND COMPARISON WITH OTHER ORGANICS 12/10/1998 - 09/30/2002	FY01: \$83,500	Total: \$238,350
<i>Prin. Invest.: F BRUHWEILER</i>			<i>Prin. Invest.: D A DISANTI</i>		
<i>Tech. Officer: GSFC/C BOWERS</i>			<i>Tech. Officer: GSFC/T MORGAN</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 11 - ASTRONOMY</i>		
<b>NAG 5 6139</b>	<b>THE CATHOLIC UNIV OF AMERICA</b>	<b>3472</b>	<b>NAG 5 8018</b>	<b>THE CATHOLIC UNIV OF AMERICA</b>	<b>3480</b>
NEAR-SURFACE MANIFESTATIONS OF GEO-EFFECTIVE SOLAR 09/08/1997 - 09/14/2002	FY01: \$0	Total: \$198,827	INTERPRETATION OF SOHO/LASCO,EIT, UVCS OBSERVATION S USING A MULTI-DIMENSIONAL MHD MODEL 01/06/1999 - 12/31/2001	FY01: \$62,000	Total: \$172,276
<i>Prin. Invest.: D GOPALSWAMY</i>			<i>Prin. Invest.: M GUATHAKURTA</i>		
<i>Tech. Officer: GSFC/W J WAGNER</i>			<i>Tech. Officer: GSFC/J GURMAN</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 19 - PHYSICAL SCIENCE, OTHER</i>		
<b>NAG 5 6239</b>	<b>THE CATHOLIC UNIV OF AMERICA</b>	<b>3473</b>	<b>NAG 5 8276</b>	<b>THE CATHOLIC UNIV OF AMERICA</b>	<b>3481</b>
A STUDY OF PHYSICAL PROCESSES IN THE ATMOSPHERE OF 09/08/1997 - 09/30/2002	FY01: \$0	Total: \$268,375	RADIATIVE ACCELERATION CALCULATIONS FOR B STAR ENV ELOPES AND ATMOSPHERES(ATP 98) 02/19/1999 - 02/28/2002	FY01: \$60,000	Total: \$157,491
<i>Prin. Invest.: R D ROBINSON</i>			<i>Prin. Invest.: C R PROFFITT</i>		
<i>Tech. Officer: GSFC/K G CARPENTER</i>			<i>Tech. Officer: GSFC/R K OLIVERSEN</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 11 - ASTRONOMY</i>		
<b>NAG 5 6674</b>	<b>THE CATHOLIC UNIV OF AMERICA</b>	<b>3474</b>	<b>NAG 5 8312</b>	<b>THE CATHOLIC UNIV OF AMERICA</b>	<b>3482</b>
THE NATURE AND ORIGIN OF THE HGMN PHENOMENA 11/21/1997 - 05/31/2000	FY01: -\$9,370	Total: \$80,630	LABORATORY PREPARATION AND REACTIONS OF DIRADICAL SPECIES RELEVANT TO HYDROCARBON PHOTOCHEMISTRY O 03/22/1999 - 02/28/2000	FY01: -\$4,825	Total: \$65,375
<i>Prin. Invest.: F BRUHWEILER</i>			<i>Prin. Invest.: D J BOGAN</i>		
<i>Tech. Officer: GSFC/D LECKRONE</i>			<i>Tech. Officer: GSFC/R BEEBE</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 11 - ASTRONOMY</i>		
<b>NAG 5 7078</b>	<b>THE CATHOLIC UNIV OF AMERICA</b>	<b>3475</b>	<b>NAG 5 8357</b>	<b>THE CATHOLIC UNIV OF AMERICA</b>	<b>3483</b>
MAPPING OF HIGH-ALTITUDE OZONE IN THE ATMOSPHERE O F MARS 02/25/1998 - 02/28/2001	FY01: \$0	Total: \$114,700	GRANT FUNDS FOR UNIV SUPPORT OF ELEANOR ROOS EVELT HIGH SCHOOL INVOLVEMENT IN US FIRST ROB 03/11/1999 - 01/31/2000	FY01: -\$1,326	Total: \$18,674
<i>Prin. Invest.: V A KRASNOPOLSKY</i>			<i>Prin. Invest.: D NGUYEN</i>		
<i>Tech. Officer: GSFC/T MORGAN</i>			<i>Tech. Officer: GSFC/L PURVES</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 99 - MULTI INTERDISCPL, OTHER</i>		
<b>NAG 5 7132</b>	<b>THE CATHOLIC UNIV OF AMERICA</b>	<b>3476</b>	<b>NAG 5 8508</b>	<b>THE CATHOLIC UNIV OF AMERICA</b>	<b>3484</b>
STUDIES OF THE DISTRIBUTION OF AEROSOLS AND THEIR EFFECT ON MARTIAN ATMOSPHERIC DYNAMICS USING M			EXPERIMENTAL STUDIES OF IGNEOUS PROCESSES IN ENSTATITE METEORITES 05/21/1999 - 04/30/2002	FY01: \$10,000	Total: \$20,000
03/06/1998 - 02/29/2000	FY01: -\$431	Total: \$59,269	<i>Prin. Invest.: T DICKINSON</i>		
<i>Prin. Invest.: D D SMITH</i>			<i>Tech. Officer: GSFC/J BOYCE</i>		
<i>Tech. Officer: GSFC/J PEARL</i>			<i>CASE Category: 11 - ASTRONOMY</i>		
<i>CASE Category: 11 - ASTRONOMY</i>					
<b>NAG 5 7413</b>	<b>THE CATHOLIC UNIV OF AMERICA</b>	<b>3477</b>	<b>NAG 5 8529</b>	<b>THE CATHOLIC UNIV OF AMERICA</b>	<b>3485</b>
INVESTIGATION OF THE SOLAR CORONA WITH THE SPARTAN 201 WHITE- LIGHTCORONAGRAPH SYSTEM 06/05/1998 - 05/14/2000	FY01: \$0	Total: \$74,528	LUNAR ABUNDANCES OF RADIOACTIVE ELEMENTS AND IMPLICATIONS FOR LUNAR EVOLUTION 06/15/1999 - 06/30/2001	FY01: \$0	Total: \$49,000
<i>Prin. Invest.: S GIBSON</i>			<i>Prin. Invest.: R D STARR</i>		
<i>Tech. Officer: GSFC/R R FISCHER</i>			<i>Tech. Officer: GSFC/J BOYCE</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 11 - ASTRONOMY</i>		
<b>NAG 5 7753</b>	<b>THE CATHOLIC UNIV OF AMERICA</b>	<b>3478</b>	<b>NAG 5 8619</b>	<b>THE CATHOLIC UNIV OF AMERICA</b>	<b>3486</b>
QUANTITATIVE ANALYSIS OF ETHANE AND METHANE IN COMETS HYAKU- TAKE AND HALE-BOPP: DETERMINATION O			RESEARCH SUPPORT OF WIND MAGNETIC FIELD INSTRUMENT 06/18/1999 - 12/31/2000	FY01: \$0	Total: \$25,000
12/08/1998 - 12/31/2001	FY01: \$34,100	Total: \$98,174	<i>Prin. Invest.: Y C WHANG</i>		
<i>Prin. Invest.: N RUSSO</i>			<i>Tech. Officer: GSFC/J A SLAVIN</i>		
<i>Tech. Officer: GSFC/R BEEBE</i>			<i>CASE Category: 19 - PHYSICAL SCIENCE, OTHER</i>		
<i>CASE Category: 11 - ASTRONOMY</i>					

**NAG 5 8622 THE CATHOLIC UNIV OF AMERICA 3487**  
 CONTINUED DEVELOPMENT OF A FABRY-PEROT AND LYOT NARROW  
 BAND IMAGING SYSTEM.  
 06/22/1999 - 06/30/2002 FY01: \$0 Total: \$58,180  
*Prin. Invest.: F C BRUHWEILER*  
*Tech. Officer: GSFC/B WOODGATE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8631 THE CATHOLIC UNIV OF AMERICA 3488**  
 ATOMIC & MOLECULAR ABUNDANCES IN THE INTERSTELLAR MEDIUM OF  
 THE MILKY WAY AND THE MAGELLANIC  
 06/25/1999 - 08/14/2001 FY01: \$0 Total: \$228,786  
*Prin. Invest.: F C BRUHWEILER*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8691 THE CATHOLIC UNIV OF AMERICA 3489**  
 A SEARCH FOR ROTATIONAL MODULATION OF X-RAY CTRS ON GAMMA  
 CAS (BO.5E)  
 07/21/1999 - 01/31/2001 FY01: \$0 Total: \$9,810  
*Prin. Invest.: R D ROBINSON*  
*Tech. Officer: GSFC/J SWANK*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8752 THE CATHOLIC UNIV OF AMERICA 3490**  
 LARGE SCALE STRUCTURE IN THE DISTANT UNIVERSE  
 08/17/1999 - 12/31/2000 FY01: \$0 Total: \$91,366  
*Prin. Invest.: F C BRUHWEILER*  
*Tech. Officer: GSFC/B E WOODGATE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8761 THE CATHOLIC UNIV OF AMERICA 3491**  
 HUMAN BIOLOGY-BASED ADAPTIVE SYSTEMS IN SUPPORT OF SPACE  
 EXPLORATION  
 09/03/1999 - 08/31/2002 FY01: \$207,567 Total: \$472,334  
*Prin. Invest.: R D PARASURAMAN*  
*Tech. Officer: GSFC/R CROUCH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 8793 THE CATHOLIC UNIV OF AMERICA 3492**  
 ULTRAVIOLET DIAGNOSTICS OF MAGNETIC AND RELATED ACTIVITY IN  
 MAIN SEQUENCE B STARS (ADP 98)  
 09/07/1999 - 11/30/2001 FY01: \$29,424 Total: \$65,760  
*Prin. Invest.: M SMITH*  
*Tech. Officer: GSFC/D WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8968 THE CATHOLIC UNIV OF AMERICA 3493**  
 CORONAL EMISSION AND MASS LOSS IN THE HOTTEST STAR OF THE H-R  
 DIAGRAM - FUSE  
 01/24/2000 - 01/31/2002 FY01: \$0 Total: \$48,100  
*Prin. Invest.: F C BRUHWEILER*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8998 THE CATHOLIC UNIV OF AMERICA 3494**  
 THE DRIVERS OF CORONAL AND INTERPLANETARY SHOCKS.  
 02/02/2000 - 02/14/2002 FY01: \$0 Total: \$110,000  
*Prin. Invest.: N GOPALSWAMY*  
*Tech. Officer: GSFC/M L KAISER*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9394 THE CATHOLIC UNIV OF AMERICA 3495**  
 VOYAGER CROSSING OF THE TERMINATION SHOCK  
 04/06/2000 - 04/14/2001 FY01: \$0 Total: \$25,000  
*Prin. Invest.: Y C WHANG*  
*Tech. Officer: GSFC/L F BURLQGA*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9400 THE CATHOLIC UNIV OF AMERICA 3496**  
 MAPPING OF HIGH-ALTITUDE OZONE IN THE ATMOSPHERE OF MARS  
 04/10/2000 - 03/31/2001 FY01: \$0 Total: \$30,000  
*Prin. Invest.: V A KRASNOPOLSKY*  
*Tech. Officer: GSFC/T MORGAN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9502 THE CATHOLIC UNIV OF AMERICA 3497**  
 GLOBAL MEASUREMENT OF SOLAR WIND SPEED AND TEMPERA TURE IN  
 THE SUN'S CORONA USING GROUNDBASED VISIBL  
 06/06/2000 - 06/14/2002 FY01: \$203,801 Total: \$251,639  
*Prin. Invest.: O ST.CYR*  
*Tech. Officer: GSFC/W J WAGNER*  
*CASE Category: 13 – PHYSICS*

**NAG 5 9539 THE CATHOLIC UNIV OF AMERICA 3498**  
 ABUNDANCES OF VERY HEAVY ELEMENTS IN LATE-B AND EARLY-A STARS  
 (ADP 99)  
 05/09/2000 - 05/14/2002 FY01: \$31,241 Total: \$60,458  
*Prin. Invest.: G W WAHLGREN*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9600 THE CATHOLIC UNIV OF AMERICA 3499**  
 MICROWAVE ENHANCEMENT IN CORONAL HOLES: STRUCTURE, VARI-  
 ABILITY & MAGNETIC NATURE  
 05/19/2000 - 09/14/2001 FY01: \$0 Total: \$22,000  
*Prin. Invest.: N GOPALSWAMY*  
*Tech. Officer: GSFC/W J WAGNER*  
*CASE Category: 13 – PHYSICS*

**NAG 5 9696 THE CATHOLIC UNIV OF AMERICA 3500**  
 HOT POPULATIONS IN NEARBY ELLIPTICAL GALAXIES - FUSE  
 07/18/2000 - 07/31/2002 FY01: \$0 Total: \$58,879  
*Prin. Invest.: T BROWN*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9865 THE CATHOLIC UNIV OF AMERICA 3501**  
 REDUCTION AND SCIENTIFIC ANALYSIS OF INFRARED DATA OBTAINED  
 WITH THE NEAR INFRARED SPECTROMETER  
 08/17/2000 - 06/14/2001 FY01: \$0 Total: \$37,210  
*Prin. Invest.: F C BRUHWEILER*  
*Tech. Officer: GSFC/M M FRUEND*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9888 THE CATHOLIC UNIV OF AMERICA 3502**  
 A SPECTROSCOPIC STUDY OF ION MOTIONS IN CORONAL HOLES USING  
 SOHO/SUMER OBSERVATIONS  
 08/24/2000 - 08/31/2002 FY01: \$49,843 Total: \$99,686  
*Prin. Invest.: T MORAN*  
*Tech. Officer: GSFC/W WAGNER*  
*CASE Category: 11 – ASTRONOMY*

<b>NAG 5 10006</b>	<b>THE CATHOLIC UNIV OF AMERICA</b>	<b>3503</b>	<b>NAG 5 10492</b>	<b>THE CATHOLIC UNIV OF AMERICA</b>	<b>3511</b>
LARGE-SCALE STRUCTURE IN THE DISTANT UNIVERSE 09/22/2000 - 09/30/2002	FY01: \$0	Total: \$91,366	CONTINUED MAPPING OF HIGH-ALTITUDE OZONE & SEARCH FOR NIGHT-GLOW ON MARS 02/27/2001 - 02/28/2002	FY01: \$59,800	Total: \$59,800
<i>Prin. Invest.: F C BRUHWEILER</i> <i>Tech. Officer: GSFC/B WOODGATE</i> <i>CASE Category: 11 - ASTRONOMY</i>			<i>Prin. Invest.: V KRASNOPOLSKY</i> <i>Tech. Officer: GSFC/T MORGAN</i> <i>CASE Category: 11 - ASTRONOMY</i>		
<b>NAG 5 10013</b>	<b>THE CATHOLIC UNIV OF AMERICA</b>	<b>3504</b>	<b>NAG 5 10500</b>	<b>THE CATHOLIC UNIV OF AMERICA</b>	<b>3512</b>
RESEARCH EXPERIENCES FOR UNDERGRADUATES IN THE LABORATORY FOR ASTRONOMY & SOLARPHYSICS 09/25/2000 - 09/30/2001	FY01: \$90,265	Total: \$96,107	SCIENTIFIC WORKSHOP AT THE CATHOLIC UNIV OF AMERICA: MASSS OUTFLOWIN ACTIVE GALACTIC NUCLEI: N 03/09/2001 - 12/31/2001	FY01: \$10,000	Total: \$10,000
<i>Prin. Invest.: F C BRUHWEILER</i> <i>Tech. Officer: GSFC/C CRANNEL</i> <i>CASE Category: 11 - ASTRONOMY</i>			<i>Prin. Invest.: S KRAEMER</i> <i>Tech. Officer: GSFC/P CRANE</i> <i>CASE Category: 99 - MULTI INTERDISCPL, OTHER</i>		
<b>NAG 5 10033</b>	<b>THE CATHOLIC UNIV OF AMERICA</b>	<b>3505</b>	<b>NAG 5 10575</b>	<b>THE CATHOLIC UNIV OF AMERICA</b>	<b>3513</b>
SPACE QUALIFICATION OF LARGE LIGHTWEIGHT MIRROR TECHNOLOGY FOR USE AT VISIBLE &NEAR-IR WAVELENG 09/29/2000 - 12/31/2001	FY01: \$42,000	Total: \$84,000	CORRELATIVE PHOTOCHEMICAL STUDY OF THE IRTF-CSHELL MAPS OF 03, CO & H2O & THE MGS TES OBSERVATIONS O 03/13/2001 - 03/14/2002	FY01: \$55,000	Total: \$55,000
<i>Prin. Invest.: P C CHEN</i> <i>Tech. Officer: GSFC/S G NEFF</i> <i>CASE Category: 11 - ASTRONOMY</i>			<i>Prin. Invest.: V KRASNOPOLSKY</i> <i>Tech. Officer: GSFC/J BOYCE</i> <i>CASE Category: 11 - ASTRONOMY</i>		
<b>NAG 5 10095</b>	<b>THE CATHOLIC UNIV OF AMERICA</b>	<b>3506</b>	<b>NAG 5 10680</b>	<b>THE CATHOLIC UNIV OF AMERICA</b>	<b>3514</b>
DEVELOPMENT OF IR ARRAY SPECTROMETERS FOR GROUND- BASED & SPACE-BORNE PLANETARYASTRONOMY. 11/28/2000 - 11/30/2002	FY01: \$111,305	Total: \$111,305	DARK CLUSTERS AS GRAVITATIONAL LENSES 04/02/2001 - 03/31/2002	FY01: \$24,020	Total: \$24,020
<i>Prin. Invest.: F C BRUHWEILER</i> <i>Tech. Officer: GSFC/D C REUTER</i> <i>CASE Category: 11 - ASTRONOMY</i>			<i>Prin. Invest.: G WILLIGER</i> <i>Tech. Officer: GSFC/D KAZANAS</i> <i>CASE Category: 11 - ASTRONOMY</i>		
<b>NAG 5 10130</b>	<b>THE CATHOLIC UNIV OF AMERICA</b>	<b>3507</b>	<b>NAG 5 10795</b>	<b>THE CATHOLIC UNIV OF AMERICA</b>	<b>3515</b>
SOLAR WIND ELECTRON DATA ANALYSES 12/06/2000 - 06/14/2002	FY01: \$64,000	Total: \$64,000	GROUND-BASED INFRARED SPECTROSCOPY OF WATER IN COMETS: FLUORESCENCE MODELING AND QUANTITATIVE AN 04/25/2001 - 04/30/2002	FY01: \$42,300	Total: \$42,300
<i>Prin. Invest.: Y WHANG</i> <i>Tech. Officer: GSFC/K W OGILVIE</i> <i>CASE Category: 13 - PHYSICS</i>			<i>Prin. Invest.: N D RUSSO</i> <i>Tech. Officer: GSFC/T MORGAN</i> <i>CASE Category: 11 - ASTRONOMY</i>		
<b>NAG 5 10231</b>	<b>THE CATHOLIC UNIV OF AMERICA</b>	<b>3508</b>	<b>NAG 5 10837</b>	<b>THE CATHOLIC UNIV OF AMERICA</b>	<b>3516</b>
THE DRIVERS OF CORONAL AND INTERPLANETARY SHOCKS 01/22/2001 - 02/14/2002	FY01: \$97,270	Total: \$97,270	PROPAGATION OF CMES THROUGH THE INTERPLANETARY MEDIUM: INTERACTIONS WITH THE SOLAR WIND 04/27/2001 - 04/30/2002	FY01: \$50,880	Total: \$50,880
<i>Prin. Invest.: N GOPALSWAMY</i> <i>Tech. Officer: GSFC/M L KAISER</i> <i>CASE Category: 11 - ASTRONOMY</i>			<i>Prin. Invest.: N GOPALSWAMY</i> <i>Prin. Invest.: NONE</i> <i>Tech. Officer: GSFC/W J WAGNER</i> <i>CASE Category: 99 - MULTI INTERDISCPL, OTHER</i>		
<b>NAG 5 10307</b>	<b>THE CATHOLIC UNIV OF AMERICA</b>	<b>3509</b>	<b>NAG 5 10867</b>	<b>THE CATHOLIC UNIV OF AMERICA</b>	<b>3517</b>
DEVELOPMENT OF INSTRUMENTATION & MISSION OPERATION CONCEPTS FOR THE SOLAR TERRESTRIAL RELATIONS OBSE 01/31/2001 - 01/31/2002	FY01: \$128,250	Total: \$128,250	X-RAY & MICROWAVE MODELS IN SUPPORT OF HESSI SOLAR FLARE 05/07/2001 - 05/14/2002	FY01: \$10,800	Total: \$10,800
<i>Prin. Invest.: D ST. CYR</i> <i>Tech. Officer: GSFC/D ORWIG</i> <i>CASE Category: 31 - ATMOSPHERIC SCIENCE</i>			<i>Prin. Invest.: L OFMAN</i> <i>Tech. Officer: GSFC/G D HOLMAN</i> <i>CASE Category: 11 - ASTRONOMY</i>		
<b>NAG 5 10382</b>	<b>THE CATHOLIC UNIV OF AMERICA</b>	<b>3510</b>	<b>NAG 5 10870</b>	<b>THE CATHOLIC UNIV OF AMERICA</b>	<b>3518</b>
MONITORING THE VARIABLE ABSORPTION IN THE SEYFERT 1 GALAXY NGC 3783 WITH FUSE, HST, AND CHANDRA 02/06/2001 - 02/14/2002	FY01: \$85,600	Total: \$85,600	RXTE FLARES ON PROX CEN (ADP 00) 05/07/2001 - 05/14/2002	FY01: \$11,941	Total: \$11,941
<i>Prin. Invest.: D CRENSHAW</i> <i>Tech. Officer: GSFC/G SONNEBORN</i> <i>CASE Category: 11 - ASTRONOMY</i>			<i>Prin. Invest.: R D ROBINSON</i> <i>Tech. Officer: GSFC/R J OLIVERSEN</i> <i>CASE Category: 11 - ASTRONOMY</i>		

**NAG 5 10931 THE CATHOLIC UNIV OF AMERICA 3519**  
 INVESTIGATING THE EXCITATION MECHANISM FOR COMETARY X-RAY,  
 EUV, & FUV EMISSIONS(FUSE 2000)  
 05/16/2001 - 05/31/2002 FY01: \$10,000 Total: \$10,000  
*Prin. Invest.: V KRASNOPOLSKY*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10944 THE CATHOLIC UNIV OF AMERICA 3520**  
 JUST WHAT IS ETA CARINAE - FUSE 00  
 05/24/2001 - 05/31/2002 FY01: \$23,500 Total: \$23,500  
*Prin. Invest.: R IPING*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 11003 THE CATHOLIC UNIV OF AMERICA 3521**  
 PHYSICAL PROPERTIES OF THE SOLAR WIND IN CORONAL HOLES  
 DEDUCED FROM WAVES IN PLUMES  
 06/06/2001 - 05/31/2002 FY01: \$10,000 Total: \$10,000  
*Prin. Invest.: L OFMAN*  
*Tech. Officer: GSFC/W J WAGNER*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 11014 THE CATHOLIC UNIV OF AMERICA 3522**  
 SEARCH FOR H2 IN MARS' ATMOSPHERE (FUSE 1999)  
 06/25/2001 - 06/30/2002 FY01: \$25,900 Total: \$25,900  
*Prin. Invest.: V KRASNOPOLSKY*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 11131 THE CATHOLIC UNIV OF AMERICA 3523**  
 EVOLUTION OF THE BASTILLE DAY SHOCK AND MERGED INTERACTION  
 REGION  
 07/24/2001 - 07/31/2002 FY01: \$50,000 Total: \$50,000  
*Prin. Invest.: Y C WHANG*  
*Tech. Officer: GSFC/L F BURLAGA*  
*CASE Category: 19 - PHYSICAL SCIENCE, OTHER*

**NAG 5 11137 THE CATHOLIC UNIV OF AMERICA 3524**  
 CIRCUMSTELLAR ENVIRONMENTS OF EVOLVED STARS AND THEIR  
 INTERACTION WITH THE INTERSTELLAR MEDIUM  
 07/20/2001 - 07/31/2002 FY01: \$115,711 Total: \$115,711  
*Prin. Invest.: F C BRUHWELTER*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 11162 THE CATHOLIC UNIV OF AMERICA 3525**  
 CONSEQUENCES OF CME INTERACTION IN THE INTERPLANETARY  
 MEDIUM  
 08/07/2001 - 08/14/2002 FY01: \$60,000 Total: \$60,000  
*Prin. Invest.: N GOPALSWAMY*  
*Tech. Officer: GSFC/M ACUNA*  
*CASE Category: 19 - PHYSICAL SCIENCE, OTHER*

**NAG 5 11225 THE CATHOLIC UNIV OF AMERICA 3526**  
 SOLAR WIND INTERACTION WITH THE MARTIAN CRUSTAL MAGNETIC  
 FIELDS AND THE IMPLICATIONS FOR THE EVOLUT  
 08/13/2001 - 08/14/2003 FY01: \$75,000 Total: \$75,000  
*Prin. Invest.: D CRIDER*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 11327 THE CATHOLIC UNIV OF AMERICA 3527**  
 DEVELOPMENT OF GOSSAMER CLASS TELESCOPE MIRRORS  
 09/18/2001 - 03/31/2002 FY01: \$35,303 Total: \$35,303  
*Prin. Invest.: P C CHEN*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 11342 THE CATHOLIC UNIV OF AMERICA 3528**  
 NEW MODEL ATMOSPHERES AND SPECTRAL ENERGY DISTRIBUTIONS  
 FOR STARS IN THE UPPER H-R DIAGRAM  
 09/24/2001 - 09/30/2002 FY01: \$70,615 Total: \$70,615  
*Prin. Invest.: F C BRUHWELTER*  
*Tech. Officer: GSFC/S HEAP*  
*CASE Category: 11 - ASTRONOMY*

**NCC 2 1247 THE CATHOLIC UNIV OF AMERICA 3529**  
 HUMAN FACTORS IN DISTRIBUTED AIR-GROUND TRAFFIC MANAGEMENT  
 03/26/2001 - 03/31/2002 FY01: \$30,082 Total: \$30,082  
*Prin. Invest.: R PARASURAMAN*  
*Tech. Officer: ARC/R MOGFORD, ARC/P SNYDER*  
*CASE Category: 41 - AERONAUTICAL ENGR*

**NCC 5 68 THE CATHOLIC UNIV OF AMERICA 3530**  
 STUDIES OF ELEMENTARY REACTIONS OF CHEMICAL IMPORTANCE IN  
 THE ATMOSPHERES OF PLANETS  
 04/28/1994 - 04/30/2000 FY01: -\$2,063 Total: \$774,851  
*Prin. Invest.: F L NESBITT*  
*Tech. Officer: GSFC/L J STIEF*  
*CASE Category: 12 - CHEMISTRY*

**NCC 5 130 THE CATHOLIC UNIV OF AMERICA 3531**  
 HIGH RESOLUTION SPECTROSCOPY OF COMETARY COMAE AND PLANETARY ATMOSPHERES: IMPLEMENTATION OF THE NEW...  
 02/02/1996 - 03/31/2000 FY01: -\$3,014 Total: \$142,138  
*Prin. Invest.: M DISANTI, M A DI SANTI*  
*Tech. Officer: GSFC/M J MUMMA*  
*CASE Category: 11 - ASTRONOMY*

**NCC 5 210 THE CATHOLIC UNIV OF AMERICA 3532**  
 INFRARED SPECTROSCOPY OF COMETS: AN OBSERVATIONAL STUDY OF COMETARY COMPOSITION AND ORIGIN.  
 06/17/1997 - 05/31/2000 FY01: \$0 Total: \$158,760  
*Prin. Invest.: N RUSSO*  
*Tech. Officer: GSFC/M J MUMMA*  
*CASE Category: 11 - ASTRONOMY*

**NCC 5 376 THE CATHOLIC UNIV OF AMERICA 3533**  
 THE DRIVERS OF CORONAL AND INTERPLANETARY SHOCKS  
 01/19/1999 - 01/31/2001 FY01: \$0 Total: \$59,600  
*Prin. Invest.: N GOPALSWAMY*  
*Tech. Officer: GSFC/M ACUNA*  
*CASE Category: 11 - ASTRONOMY*

**NCC 5 377 THE CATHOLIC UNIV OF AMERICA 3534**  
 THE SUN-EARTH CONNECTION: SOLAR PHYSICS, PHYSICS OF THE HELIOSPHERE, AND SPACE WEATHER  
 01/27/1999 - 01/31/2001 FY01: \$0 Total: \$67,540  
*Prin. Invest.: V ANDRETTA*  
*Tech. Officer: GSFC/A I POLAND*  
*CASE Category: 11 - ASTRONOMY*

**NCC 5 380 THE CATHOLIC UNIV OF AMERICA 3535**  
 INVESTIGATION OF X-RAY AND GAMMA-RAYS FROM SOLAR FLARES AND  
 PLANETARY TYPE BODIES  
 02/12/1999 - 03/31/2002 FY01: \$202,000 Total: \$1,014,985  
*Prin. Invest.: R D STARR*  
*Tech. Officer: GSFC/L ORWIG*  
*CASE Category: 11 - ASTRONOMY*

**NCC 5 418 THE CATHOLIC UNIV OF AMERICA 3536**  
 MAINTENANCE OF THE ISTP/ACG CDAW DATA BASE  
 08/19/1999 - 08/14/2001 FY01: \$0 Total: \$35,500  
*Prin. Invest.: N GOPALSWAMY*  
*Tech. Officer: GSFC/J GURMAN*  
*CASE Category: 19 - PHYSICAL SCIENCE, OTHER*

**NCC 5 445 THE CATHOLIC UNIV OF AMERICA 3537**  
 INFRARED SPECTROSCOPY OF COMETS: AN OBSERVATIONAL AND  
 EXPERIMENTAL STUDY OF COMETARY COMPOSITION AND  
 04/20/2000 - 05/31/2001 FY01: \$34,140 Total: \$38,140  
*Prin. Invest.: N DELLO RUSSO, NONE*  
*Tech. Officer: GSFC/M J MUMMA*  
*CASE Category: 13 - PHYSICS*

**NCC 5 452 THE CATHOLIC UNIV OF AMERICA 3538**  
 CHEMICAL/PHYSICAL PROPERTIES OF PLANETARY & ASTRO- PHYSICAL  
 MOLECULES  
 02/03/2000 - 04/30/2005 FY01: \$377,341 Total: \$542,309  
*Prin. Invest.: T THORN*  
*Tech. Officer: GSFC/J E ALLEN*  
*CASE Category: 12 - CHEMISTRY*

**NCC 5 504 THE CATHOLIC UNIV OF AMERICA 3539**  
 SPATIAL-SPECTRAL MAPPING OF CO AND OTHER EMISSIONS IN COMETS,  
 AND OF WATER IN MARS ATMOSPHERE  
 06/27/2000 - 03/31/2002 FY01: \$9,180 Total: \$15,580  
*Prin. Invest.: M A DISANTI*  
*Tech. Officer: GSFC/M J MUMMA*  
*CASE Category: 13 - PHYSICS*

**NCC 5 512 THE CATHOLIC UNIV OF AMERICA 3540**  
 RENEWAL OF COOP AGREEMENT NCC-418 MAINTENANCE OF CDAW DATA  
 BASE.  
 08/24/2000 - 08/31/2001 FY01: \$0 Total: \$7,000  
*Prin. Invest.: N GOPALSWAMY*  
*Tech. Officer: GSFC/J GURMAN*  
*CASE Category: 19 - PHYSICAL SCIENCE, OTHER*

**NCC 5 548 THE CATHOLIC UNIV OF AMERICA 3541**  
 HESSI DATA ANALYSIS  
 04/06/2001 - 04/14/2002 FY01: \$61,400 Total: \$61,400  
*Prin. Invest.: D GOPALSWAMY*  
*Tech. Officer: GSFC/B DENNIS*  
*CASE Category: 13 - PHYSICS*

**NGT 1 01028 THE CATHOLIC UNIV OF AMERICA 3542**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) MY 1/3  
 06/12/2001 - 06/30/2004 FY01: \$12,000 Total: \$12,000  
*Prin. Invest.: R PARASUROMA*  
*Tech. Officer: LARC/D J WING*  
*CASE Category: 41 - AERONAUTICAL ENGRN*

**NGT 1 52190 THE CATHOLIC UNIV OF AMERICA 3543**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 05/20/1998 - 06/30/2001 FY01: \$0 Total: \$54,001  
*Prin. Invest.: S M GALSTER, R PARASUROMA*  
*Tech. Officer: LARC/P C SHUTTE, LARC/A T POPE*  
*CASE Category: 69 - PSYCHOLOGY, OTHER*

**NAG 5 4724 UNIV OF DISTRICT OF COLUMBIA 3544**  
 SATURDAY ACADEMY PROGRAM  
 06/19/1997 - 03/31/2001 FY01: \$0 Total: \$1,768,980  
*Prin. Invest.: W R COLEMAN*  
*Tech. Officer: GSFC/L RANDOLPH*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 9545 UNIV OF DISTRICT OF COLUMBIA 3545**  
 REMOTE SENSING SPECTRAL IDENTIFICATION OF FRESHWATER  
 PLANKTON  
 05/03/2000 - 01/14/2002 FY01: \$0 Total: \$72,143  
*Prin. Invest.: H L PHELPS*  
*Tech. Officer: GSFC/D MENCHAN*  
*CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)*

**NAG 5 10855 UNIV OF DISTRICT OF COLUMBIA 3546**  
 RETAINING HIGH POTENTIAL JUNIOR AND SENIOR HIGH SCHOOL  
 STUDENTS  
 05/02/2001 - 04/30/2002 FY01: \$295,047 Total: \$295,047  
*Prin. Invest.: W COLEMAN*  
*Tech. Officer: GSFC/C HOLLINSWORTH*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NCC 5 196 UNIV OF DISTRICT OF COLUMBIA 3547**  
 PARTNERSHIP AWARD WITH MINORITY UNIVERSITIES AND C  
 05/22/1997 - 06/30/2000 FY01: \$0 Total: \$400,000  
*Prin. Invest.: G WYCHE-MOORE*  
*Tech. Officer: GSFC/E ENGMAN*  
*CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)*

**NCC 5 421 UNIV OF DISTRICT OF COLUMBIA 3548**  
 ANACOSTIA RIVER INST FOR REMOTE SENSING: A COMMUNITY REMOTE-  
 SENSING PROGRAM  
 09/21/1999 - 09/30/2001 FY01: \$0 Total: \$100,000  
*Prin. Invest.: G WYCHE-MOORE*  
*Tech. Officer: GSFC/D T TOLL*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

## FLORIDA

**NAG10 195 BETHUNE - COOKMAN COLLEGE 3549**  
 OPERATION OF THE CNTR FOR SPACE EDUCATION  
 09/11/1996 - 09/30/2001 FY01: \$121,627 Total: \$1,691,580  
*Prin. Invest.: G W BECKLES, A E LONG*  
*Tech. Officer: KSC/S DUTCZAK*  
*CASE Category: 41 - AERONAUTICAL ENGRN*

**NAG10 269 BETHUNE - COOKMAN COLLEGE 3550**  
 NASA/FLORIDA MINORITY INST ENTREPRENEURIAL PARTNERSHIP  
 09/13/1999 - 10/31/2001 FY01: \$300,000 Total: \$1,200,000  
*Prin. Invest.: A D TAYLOR*  
*Tech. Officer: KSC/W B WILLIAMS*  
*CASE Category: 79 - SOCIAL SCIENCE, OTHER*

<b>NCC 5 426</b>	<b>BETHUNE - COOKMAN COLLEGE</b>	<b>3551</b>	<b>NCC 3 685</b>	<b>EMBRY-RIDDLE AERONAUTICAL UNIV</b>	<b>3559</b>
A BETTER, FASTER AND INEXPENSIVE PHOTOGRAMMETRY SYSTEM 09/07/1999 - 08/31/2002	FY01: \$0	Total: \$199,991	SILICON CARBIDE DIODE MIXERS FOR IMPROVED SAFETY IN AIRCRAFT RF AVIONICS 03/04/1999 - 01/26/2002	FY01: \$24,025	Total: \$73,025
Prin. Invest.: E F EKPO Tech. Officer: GSFC/S E HETHERINGTON CASE Category: 13 - PHYSICS			Prin. Invest.: A HELFRICK Tech. Officer: GRC/P G NEUDECK CASE Category: 45 - ELECTRICAL ENGR		
<b>NCC10 55</b>	<b>BETHUNE - COOKMAN COLLEGE</b>	<b>3552</b>	<b>NAG 2 1384</b>	<b>FLA INTERNATIONAL UNIV</b>	<b>3560</b>
OPERATION AT THE CENTER FOR SPACE EDUCATION 09/24/2001 - 09/24/2006	FY01: \$361,258	Total: \$361,258	DEVELOPING AN ADVANCED ENVIRONMENT FOR COLLABORATIVE COMPUTING BY AUGMENTING POSTDOC 09/15/1999 - 12/31/2001	FY01: \$57,000	Total: \$200,000
Prin. Invest.: A LONG Tech. Officer: KSC/S DUTCZAK, KSC/P SAILER CASE Category: 99 - MULTI INTERDISCPL, OTHER			Prin. Invest.: I R FERNANDEZ Tech. Officer: ARC/H T STEWART, ARC/S LAU CASE Category: 99 - MULTI INTERDISCPL, OTHER		
<b>NAG 5 11097</b>	<b>ECKERD COLLEGE</b>	<b>3553</b>	<b>NAG 2 1440</b>	<b>FLA INTERNATIONAL UNIV</b>	<b>3561</b>
INFRARED SPECTRA OF COSMIC-TYPE ICES CONTAINING NITROGEN 07/06/2001 - 07/14/2002	FY01: \$10,000	Total: \$10,000	SPECIFICATION & ANALYSIS OF SOFTWARE ARCHITECTURES OF HIGH ASSURANCE SYSTEMS 09/26/2000 - 09/14/2002	FY01: \$97,688	Total: \$194,845
Prin. Invest.: R L HUDSON Tech. Officer: GSFC/M H MOORE CASE Category: 12 - CHEMISTRY			Prin. Invest.: X HE, X HE Tech. Officer: ARC/B J COLLINS/D JAMES CASE Category: 99 - MULTI INTERDISCPL, OTHER		
<b>NAG 5 5199</b>	<b>EMBRY-RIDDLE AERONAUTICAL UNIV</b>	<b>3554</b>	<b>NAG 5 3826</b>	<b>FLA INTERNATIONAL UNIV</b>	<b>3562</b>
ICE CONTENT AND ODD-OXYGEN IN NOCTILUCENT-CLOUDS (ICON) 06/18/1998 - 03/31/2002	FY01: \$0	Total: \$313,791	BASIC RESEARCH IN ATOMIC, MOLECULAR AND OPTICAL PHYSICS IN SUPPORT OF NASA STRATEGIC ENTERPRISES 01/29/1997 - 01/31/2001	FY01: \$0	Total: \$298,794
Prin. Invest.: P J ESPY Tech. Officer: GSFC/W B JOHNSON CASE Category: 13 - PHYSICS			Prin. Invest.: K HARDY Tech. Officer: GSFC/R HARTLE CASE Category: 11 - ASTRONOMY		
<b>NAG 5 5265</b>	<b>EMBRY-RIDDLE AERONAUTICAL UNIV</b>	<b>3555</b>	<b>NAG 5 8156</b>	<b>FLA INTERNATIONAL UNIV</b>	<b>3563</b>
FIRST YEAR FUNDING/ CYROGENIC WHOLE AIR SAMPLING OF CARBON DIOXIDE IN THE UPPER MESOSPHERE 04/12/2000 - 03/23/2003	FY01: \$96,100	Total: \$218,300	AVIRIS IMAGE CLASSIFICATION USING PHYTOPLANKTON REFLECTANCE SPECTRA 02/02/1999 - 01/31/2001	FY01: \$0	Total: \$14,222
Prin. Invest.: P W ERDMAN Tech. Officer: GSFC/W B JOHNSON CASE Category: 13 - PHYSICS			Prin. Invest.: L L RICHARDSON Tech. Officer: GSFC/J W CAMPBELL CASE Category: 39 - ENVIRONMENTAL SCI, OTHER		
<b>NAG 5 10066</b>	<b>EMBRY-RIDDLE AERONAUTICAL UNIV</b>	<b>3556</b>	<b>NAG 5 8791</b>	<b>FLA INTERNATIONAL UNIV</b>	<b>3564</b>
ENERGETICS & DYNAMICS OF THE MESOSPHERE & LOWER THERMOSPHERE; TIMED/CEDAR COLLABORATIVE STUDIES 10/31/2000 - 04/30/2002	FY01: \$198,600	Total: \$198,600	A STUDY OF THE FINAL PRODUCT STATES OF THE DISSOCIATIVE RECOMBINATION REACTION BY TOFSPECTROSCOPY 08/31/1999 - 08/31/2002	FY01: \$41,056	Total: \$198,472
Prin. Invest.: G G SIVJEE Tech. Officer: GSFC/M MELLOTT CASE Category: 99 - MULTI INTERDISCPL, OTHER			Prin. Invest.: K HARDY Tech. Officer: GSFC/R HARTLE CASE Category: 13 - PHYSICS		
<b>NCA 1 133</b>	<b>EMBRY-RIDDLE AERONAUTICAL UNIV</b>	<b>3557</b>	<b>NAG 5 9478</b>	<b>FLA INTERNATIONAL UNIV</b>	<b>3565</b>
1996 AGATE - GENERAL AVIATION 07/23/1996 - 10/31/2001	FY01: \$506,800	Total: \$3,822,800	HIGH PERFORMANCE DATABASE MANAGEMENT WITH APPLICATION TO EARTH SCIENCE 04/25/2000 - 04/30/2002	FY01: \$500,000	Total: \$1,000,000
Prin. Invest.: S HAMPTON Tech. Officer: LARC/B J HOLMES, LARC/M H DURHAM CASE Category: 41 - AERONAUTICAL ENGR			Prin. Invest.: N RISHE Tech. Officer: GSFC/D MENCHAN CASE Category: 99 - MULTI INTERDISCPL, OTHER		
<b>NCA 1 01003</b>	<b>EMBRY-RIDDLE AERONAUTICAL UNIV</b>	<b>3558</b>	<b>NAG10 212</b>	<b>FLA INTERNATIONAL UNIV</b>	<b>3566</b>
SOUTHEAST SATSLAB 08/31/2001 - 04/30/2002	FY01: \$500,000	Total: \$500,000	APPLIED RESEARCH IN INDUSTRIAL & SYSTEMS ENGINEERING (ARISE) CENTER 08/29/1997 - 08/31/2001	FY01: \$0	Total: \$399,960
Prin. Invest.: S HAMPTON Tech. Officer: LARC/J R BURLEY CASE Category: 41 - AERONAUTICAL ENGR			Prin. Invest.: M A CENTENO Tech. Officer: KSC/A MITSKEVICH CASE Category: 49 - ENGINEERING, OTHER		

<b>NAG10 251</b>	<b>FLA INTERNATIONAL UNIV</b>	<b>3567</b>	<b>NAG 2 1439</b>	<b>FLORIDA A&amp;M UNIV</b>	<b>3575</b>
MATHEMATICS, SCIENCE & TECH ACHIEVEMENT (MSTA) 09/23/1998 - 09/22/2001	FY01: \$0	Total: \$299,994	INVESTIGATION OF THE ELECTRONIC PROPERTIES OF DISTORTED CARBON NANOTUBES 09/21/2000 - 08/31/2001	FY01: \$89,433	Total: \$186,755
Prin. Invest.: C MENDEZ Tech. Officer: KSC/R MC KINNEY CASE Category: 99 - MULTI INTERDISCPL, OTHER			Prin. Invest.: M ENCINOSA Tech. Officer: ARC/B J COLLINS, ARC/D JAMES CASE Category: 99 - MULTI INTERDISCPL, OTHER		
<b>NAG10 254</b>	<b>FLA INTERNATIONAL UNIV</b>	<b>3568</b>	<b>NAG 3 1759</b>	<b>FLORIDA A&amp;M UNIV</b>	<b>3576</b>
PROGRAM 05/01/1999 - 07/01/2002	FY01: \$200,000	Total: \$599,982	A GRADUATE FELLOWSHIP COMPONENT TO AUGMENT PROGRAM IMAGE 06/14/1995 - 12/14/2001	FY01: \$356,500	Total: \$1,522,879
Prin. Invest.: C MENDEZ Tech. Officer: KSC/R MCKINNEY CASE Category: 79 - SOCIAL SCIENCE, OTHER			Prin. Invest.: F S HUMPHRIES, F J FOREMAN, NONE Tech. Officer: GRC/J E BOYD CASE Category: 99 - MULTI INTERDISCPL, OTHER		
<b>NAG10 259</b>	<b>FLA INTERNATIONAL UNIV</b>	<b>3569</b>	<b>NAG 3 1971</b>	<b>FLORIDA A&amp;M UNIV</b>	<b>3577</b>
MSTA - MATH, SCIENCE & TECHNOLOGY ACHIEVEMENT 05/01/1999 - 08/14/2002	FY01: \$100,000	Total: \$300,000	CUBIC BORON NITRIDE ALPHAVOLTAIC DEVICES 09/21/1996 - 12/31/1999	FY01: -\$5,294	Total: \$254,211
Prin. Invest.: I BECCERA-FERNANDEZ Tech. Officer: KSC/S ROBERTS CASE Category: 22 - COMPUTER SCIENCE			Prin. Invest.: S M DURBIN Tech. Officer: GRC/G C RYBICKI CASE Category: 45 - ELECTRICAL ENGR		
<b>NAG10 268</b>	<b>FLA INTERNATIONAL UNIV</b>	<b>3570</b>	<b>NAG 3 2193</b>	<b>FLORIDA A&amp;M UNIV</b>	<b>3578</b>
PROJECT VISION: VERY INTENSIVE SCIENTIFIC INTERCULTURAL ON-SITE EDUCATION 09/09/1999 - 12/31/2001	FY01: \$298,026	Total: \$795,753	ROBUST FAULT DETECTION AND ISOLATION FOR NASA LAUNCH VEHICLES 09/01/1998 - 08/31/2001	FY01: \$80,129	Total: \$234,476
Prin. Invest.: G A ROIG Tech. Officer: KSC/R J MCKINNEY CASE Category: 29 - MATH/COMPUTER SCI, OTHER			Prin. Invest.: E G COLLINS Tech. Officer: GRC/T GUO CASE Category: 29 - MATH/COMPUTER SCI, OTHER		
<b>NAG10 292</b>	<b>FLA INTERNATIONAL UNIV</b>	<b>3571</b>	<b>NAG 3 2387</b>	<b>FLORIDA A&amp;M UNIV</b>	<b>3579</b>
SPACEPORT TECHNOLOGY CENTER AND WORK INSTRUCTION DELIVERY INITIATIVE 09/29/2000 - 08/31/2001	FY01: \$0	Total: \$60,238	LATTICE-BOLTZMANN TECHNIQUES FOR MULTIPHASE FLOW TRANSPORT IN MICROGRAVITY ENVIRONMENT 04/11/2000 - 11/15/2001	FY01: \$0	Total: \$0
Prin. Invest.: M CENTENO Tech. Officer: KSC/M GROH-HAMMOND CASE Category: 22 - COMPUTER SCIENCE			Prin. Invest.: D CHELLA Tech. Officer: GRC/F P CHIARAMONTE CASE Category: 49 - ENGINEERING, OTHER		
<b>NAG10 307</b>	<b>FLA INTERNATIONAL UNIV</b>	<b>3572</b>	<b>NAG 4 164</b>	<b>FLORIDA A&amp;M UNIV</b>	<b>3580</b>
ENHANCING THE SCOPE AND FUNCTIONALITY OF SAGE (SEARCHABLE ANSWER GENERATING ENVIRONMENT) 09/28/2001 - 02/28/2002	FY01: \$25,000	Total: \$25,000	EVOLUTIONARY ALGORITHMS 02/26/1999 - 02/25/2001	FY01: \$48,208	Total: \$225,000
Prin. Invest.: I BECERRA-FERNANDEZ Tech. Officer: KSC/O MELENDEZ CASE Category: 22 - COMPUTER SCIENCE			Prin. Invest.: M ABDULLAH, F HAMILTON Tech. Officer: DFRC/K GUPTA, DFRC/E COX CASE Category: 41 - AERONAUTICAL ENGRN		
<b>NAG10 309</b>	<b>FLA INTERNATIONAL UNIV</b>	<b>3573</b>	<b>NAG 5 7989</b>	<b>FLORIDA A&amp;M UNIV</b>	<b>3581</b>
BRINGING SCIENCE AND TECHNOLOGY TO HISPANIC YOUTH THROUGH TELEVISED, SPANISH-LANGUAGE MEDIA: BRIDGIN 09/28/2001 - 08/31/2002	FY01: \$154,667	Total: \$154,667	LINKAGES 2001 12/31/1998 - 02/29/2000	FY01: \$0	Total: \$200,000
Prin. Invest.: G ROIG Tech. Officer: KSC/J NUNEZ CASE Category: 41 - AERONAUTICAL ENGRN			Prin. Invest.: D H AMMONS Tech. Officer: GSFC/J L HARRINGTON, JR. CASE Category: 99 - MULTI INTERDISCPL, OTHER		
<b>NAG 1 01057</b>	<b>FLORIDA A&amp;M UNIV</b>	<b>3574</b>	<b>NAG 5 9119</b>	<b>FLORIDA A&amp;M UNIV</b>	<b>3582</b>
ACTIVE CONTROL OF BOUNDARY-LAYER SEPARATION AND FLOW DISTORTION IN ADVERSE PRESSURE GRADIENT FLOWS 03/27/2001 - 03/31/2004	FY01: \$80,981	Total: \$80,981	LINKAGES 2001 PROJECT 02/24/2000 - 01/31/2001	FY01: \$0	Total: \$500,000
Prin. Invest.: F S ALVI, C SHIH Tech. Officer: LARC/S A GORTON CASE Category: 41 - AERONAUTICAL ENGRN			Prin. Invest.: J H AMMONS Tech. Officer: GSFC/J MALONE CASE Category: 99 - MULTI INTERDISCPL, OTHER		

**NAG 5 9420** FLORIDA A&M UNIV 3583  
 ELECTROCHEMICAL CAPACITORS & HYBRID POWER SOURCES FOR SPACE APPLICATIONS  
 04/11/2000 – 04/30/2002 FY01: \$99,849 Total: \$197,835  
*Prin. Invest.: J ZHENG*  
*Tech. Officer: GSFC/J MALONE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10148** FLORIDA A&M UNIV 3584  
 COLLISION PROCESSES IN ASTROPHYSICAL PLASMAS  
 12/08/2000 – 12/31/2001 FY01: \$175,427 Total: \$175,427  
*Prin. Invest.: C A WEATHERFORD*  
*Tech. Officer: GSFC/P SAKIMOTO*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10726** FLORIDA A&M UNIV 3585  
 LINKAGES 2001 PROJECT  
 04/09/2001 – 03/31/2002 FY01: \$250,000 Total: \$250,000  
*Prin. Invest.: K H PHIFER-MCGHEE*  
*Tech. Officer: GSFC/J MALONE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG10 238** FLORIDA A&M UNIV 3586  
 MINORITY ACCESS TO GRAD ENGR PROGRAM  
 12/17/1997 – 12/16/2002 FY01: \$1,260,000 Total: \$5,733,056  
*Prin. Invest.: F S HUMPHRIES*  
*Tech. Officer: KSC/E SMITH*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG10 242** FLORIDA A&M UNIV 3587  
 MAPSTAP  
 05/13/1998 – 05/31/2002 FY01: \$0 Total: \$599,997  
*Prin. Invest.: B SAMUELS*  
*Tech. Officer: KSC/E JOHNSON*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG10 248** FLORIDA A&M UNIV 3588  
 PRODIGY 2000  
 09/23/1998 – 09/22/2001 FY01: \$0 Total: \$300,000  
*Prin. Invest.: B MCCUNE*  
*Tech. Officer: KSC/R MCKINNEY*  
*CASE Category: 62 – PSYCHOLOGY SOCIAL ASPECTS*

**NAG10 264** FLORIDA A&M UNIV 3589  
 ELECTROSTATIC CHARGING, PRECIPITATION, ADHESION, AND DISSIPATION IN THE MARTIAN ATMOSPHERE  
 08/01/1999 – 10/31/2001 FY01: \$93,577 Total: \$192,574  
*Prin. Invest.: F B GROSS*  
*Tech. Officer: KSC/R LEE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG10 267** FLORIDA A&M UNIV 3590  
 PROJECT DISCOVER II SBI/NASA INTERNSHIPS PROJECT DISCOVER II SBI/NASA INTERNSHIPS  
 09/09/1999 – 12/31/2001 FY01: \$204,265 Total: \$443,689  
*Prin. Invest.: S C MOBLEY*  
*Tech. Officer: KSC/R J MCKINNEY*  
*CASE Category: 79 – SOCIAL SCIENCE, OTHER*

**NAG10 272** FLORIDA A&M UNIV 3591  
 FAULT TOLERANT ROBOT ANALYSIS AND DESIGN  
 09/27/1999 – 09/20/2000 FY01: -\$145 Total: \$92,125  
*Prin. Invest.: R G ROBERTS*  
*Tech. Officer: KSC/W C JONES*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG10 289** FLORIDA A&M UNIV 3592  
 WIRELESS SPREAD-SPECTRUM INTERCOMMUNICATION SYSTEM WIRELESS SPREAD-SPECTRUM INTERCOMMUNICATION SYSTEM  
 07/11/2000 – 06/07/2003 FY01: \$97,315 Total: \$193,581  
*Prin. Invest.: B A HARVEY*  
*Prin. Invest.: NONE*  
*Tech. Officer: KSC/F MCKENZIE*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NAG13 41** FLORIDA A&M UNIV 3593  
 LABILE AND STABLE SOC POOLS REVEALED BY C-14 AND C-13 SIGNATURES  
 09/27/1996 – 06/26/2000 FY01: -\$5,599 Total: \$283,306  
*Prin. Invest.: Y P HSIEH*  
*Tech. Officer: SSC/A JOYCE*  
*CASE Category: 54 – ENVIRONMENTAL BIOLOGY*

**NCC 1 252** FLORIDA A&M UNIV 3594  
 CENTER FOR NONLINEAR AND NONEQUILIBRIUM AEROSCIENCES (CENNAs)  
 04/23/1997 – 12/31/2001 FY01: \$1,200,000 Total: \$5,200,000  
*Prin. Invest.: J JOHNSON*  
*Tech. Officer: LARC/W SELLERS*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 2 956** FLORIDA A&M UNIV 3595  
 A COOPERATIVE RESEARCH PROGRAM IN AERONAUTICAL INFORMATION SCIENCE TECHNOLOGIES  
 07/01/1996 – 02/28/2001 FY01: \$0 Total: \$1,316,338  
*Prin. Invest.: A KROTHAPALLI, L LOURENCO, S WALKER*  
*Tech. Officer: ARC/J C ROSS, ARC/P T SODERMAN*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 2 1005** FLORIDA A&M UNIV 3596  
 DEVELOPMENT OF A TRANSDERMAL DELIVERY DEVICE FOR MELATONIN IN VIVO  
 08/25/1997 – 07/31/2002 FY01: -\$54,931 Total: \$276,406  
*Prin. Invest.: M S SACHDEVA, NONE*  
*Tech. Officer: ARC/C M WINGET, ARC/G S LEE*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NCC 2 1018** FLORIDA A&M UNIV 3597  
 INTEGRATED DESIGN SYSTEMS TECHNOLOGY  
 02/12/1998 – 12/31/2000 FY01: \$0 Total: \$480,263  
*Prin. Invest.: A KROTHAPALLI*  
*Tech. Officer: ARC/M E LIVINGSTON, ARC/D J KOGA*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 2 1221** FLORIDA A&M UNIV 3598  
 A COOPERATIVE RESEARCH PROGRAM IN AERONAUTICAL INFORMATION SCIENCE TECHNOLOGIES  
 03/22/2001 – 03/15/2002 FY01: \$349,927 Total: \$349,927  
*Prin. Invest.: A KROTHAPALLI, C SHIH, L LOURENCO*  
*Tech. Officer: ARC/G K YAMAUCHI, ARC/J C ROSS*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 1 1993** FLORIDA ATLANTIC UNIV 3599  
 BROADBAND FAN NOISE FROM TURBULENT VORTICAL FLOWS INCIDENT  
 ON STATOR VANES  
 01/15/1998 - 04/14/2000 FY01: -\$1 Total: \$142,018  
*Prin. Invest.: S L GLEGG, M DHANAK*  
*Tech. Officer: LARC/J W POSEY, LARC/F FARASSAT*  
*CASE Category: 41 - AERONAUTICAL ENGR*

**NAG 1 2115** FLORIDA ATLANTIC UNIV 3600  
 FUNDAMENTAL ISSUES ON INTERRELATION BETWEEN SAFETY FACTORS  
 AND UNCERTAINITY ANALYSIS  
 10/29/1998 - 06/30/2000 FY01: -\$319 Total: \$49,681  
*Prin. Invest.: T ELISHAKOFF*  
*Tech. Officer: LARC/J H STARNES, JR.*  
*CASE Category: 41 - AERONAUTICAL ENGR*

**NAG 1 01079** FLORIDA ATLANTIC UNIV 3601  
 MODIFIED AND ADVANCED FORMULATIONS FOR UNCERTAINTY ANALYSIS  
 IN STRUCTURES ANALYSIS  
 06/01/2001 - 01/31/2002 FY01: \$33,095 Total: \$33,095  
*Prin. Invest.: I ELISHAKOFF*  
*Tech. Officer: LARC/W J STROUD, LARC/I S RAJU*  
*CASE Category: 46 - MECHANICAL ENGR*

**NAG 3 2023** FLORIDA ATLANTIC UNIV 3602  
 SPACE COMMUNICATIONS TECHNOLOGY CENTER  
 03/12/1997 - 01/15/2002 FY01: \$325,000 Total: \$1,404,999  
*Prin. Invest.: W E GLENN, H HELMKEN*  
*Tech. Officer: GRC/T P BIZON*  
*CASE Category: 45 - ELECTRICAL ENGR*

**NAG 3 2319** FLORIDA ATLANTIC UNIV 3603  
 MODELING OF THE UNSTEADY INTERNAL FLOWS IN AEROENGINES FOR  
 NOISE PREDICTION CODES  
 01/11/2000 - 03/31/2001 FY01: -\$1,001 Total: \$96,379  
*Prin. Invest.: S A GLEGG*  
*Tech. Officer: GRC/E ENVIA*  
*CASE Category: 41 - AERONAUTICAL ENGR*

**NAS 3 26956** FLORIDA ATLANTIC UNIV 3604  
 ACTS PROPAGATION EXPERIMENTS  
 06/21/1993 - 01/30/2002 FY01: \$40,000 Total: \$406,278  
*Prin. Invest.: H F HELMKEN*  
*Tech. Officer: GRC/R J GUDEMAN*  
*CASE Category: 19 - PHYSICAL SCIENCE, OTHER*

**NCC 2 1141** FLORIDA ATLANTIC UNIV 3605  
 ACHIEVING HIGH SOFTWARE RELIABILITY  
 09/17/1999 - 09/30/2000 FY01: \$139,000 Total: \$274,762  
*Prin. Invest.: T G KHOSOFTAR*  
*Tech. Officer: ARC/S YASSINI, ARC/D OZBURN*  
*CASE Category: 22 - COMPUTER SCIENCE*

**NCC 2 5264** FLORIDA ATLANTIC UNIV 3606  
 AN INVESTIGATION OF HINGELESS-ROTOR TRIM & STABILITY WITH  
 EXPERIMENTAL CORRELATION  
 04/23/1998 - 12/31/2000 FY01: -\$17 Total: \$20,126  
*Prin. Invest.: G H GEONKAR*  
*Tech. Officer: ARC/T H MAIER*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 1 2260** FLORIDA INST OF TECHNOLOGY 3607  
 MODELING COMPOSITES LAMINATE CRUSHING FOR CRASH ANALYSIS  
 01/12/2000 - 12/15/2001 FY01: \$31,066 Total: \$51,066  
*Prin. Invest.: D C FLEMING*  
*Tech. Officer: LARC/L E JONES*  
*CASE Category: 46 - MECHANICAL ENGR*

**NAG 2 1508** FLORIDA INST OF TECHNOLOGY 3608  
 GRAVITATIONAL IMPACTS ON THE CELL CYCLE  
 07/23/2001 - 07/31/2002 FY01: \$82,568 Total: \$82,568  
*Prin. Invest.: C E HELMSTETTER*  
*Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY*  
*CASE Category: 49 - ENGINEERING, OTHER*

**NAG 5 3103** FLORIDA INST OF TECHNOLOGY 3609  
 WHITE DWARF EVOLUTION AND AGE AND EVOLUTION OF THE GALAXY  
 10/11/1995 - 10/14/2000 FY01: -\$6,572 Total: \$166,428  
*Prin. Invest.: M A WOOD*  
*Tech. Officer: GSFC/D WEST*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10888** FLORIDA INST OF TECHNOLOGY 3610  
 COSMIC RAY INTERSTELLAR PROPAGATION (ATP 2000)  
 05/09/2001 - 05/14/2002 FY01: \$63,292 Total: \$63,292  
*Prin. Invest.: M ZHANG*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 11036** FLORIDA INST OF TECHNOLOGY 3611  
 STUDIES OF COSMIC RAY MODULATION & ENERGETIC PARTICLE PROP-  
 AGATION IN TIME-DEPENDENT 3-DIMENSION  
 06/12/2001 - 07/31/2002 FY01: \$101,160 Total: \$101,160  
*Prin. Invest.: M ZHANG*  
*Tech. Officer: GSFC/W WAGNER*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 8 1582** FLORIDA INST OF TECHNOLOGY 3612  
 "NEW CELL CULTURE TECHNOLOGY"  
 03/01/1999 - 11/30/2002 FY01: \$124,450 Total: \$351,450  
*Prin. Invest.: C HELMSTALTER*  
*Tech. Officer: MSFC/B GUYNES*  
*CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)*

**NGT 5 50257** FLORIDA INST OF TECHNOLOGY 3613  
 TECHNOLOGIES FOR ASSESSING THE EFFECTS OF LONG-TERM SPACE  
 HABITATION ON CELLULAR AGING\_ STUDENT: K  
 07/09/1999 - 06/30/2002 FY01: \$22,000 Total: \$66,000  
*Prin. Invest.: C HELMSTETTER*  
*Tech. Officer: GSFC/L SMITH*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NGT 5 50290** FLORIDA INST OF TECHNOLOGY 3614  
 THE LUMINOSITY FUNCTION & THE CHROMOSPHERIC ACTIVITY-AGE  
 RELATION FOR M DWARF STARS IN COMMON PROP  
 06/27/2000 - 06/30/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.: T OSWALT*  
*Tech. Officer: GSFC/L SMITH*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NGT10 52621** FLORIDA INST OF TECHNOLOGY 3615  
 TRAINING GRANT UNDER A GRADUATE STUDENT RESEARCHERS  
 PROGRAM  
 06/22/1999 - 08/05/2000 FY01: -\$5,963 Total: \$16,037  
*Prin. Invest.: R LANIER*  
*Tech. Officer: KSC/J MEDINA*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT10 52622** FLORIDA INST OF TECHNOLOGY 3616  
 TRAINING GRANT UNDER A GRADUATE STUDENT RESEARCHERS  
 PROGRAM  
 07/02/1999 - 10/31/2001 FY01: \$0 Total: \$22,000  
*Prin. Invest.: M BUSH*  
*Tech. Officer: KSC/R WHEELER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG10 247** FLORIDA MEMORIAL COLLEGE 3617  
 INITIATIVE FOR AFRICAN AMERICAN/UNDER REPRESENTED STUDENTS  
 08/01/1998 - 08/31/2001 FY01: \$0 Total: \$527,713  
*Prin. Invest.: H HUISSO*  
*Tech. Officer: KSC/R MC KINNEY*  
*CASE Category: 29 – MATH/COMPUTER SCI, OTHER*

**NAG 1 1889** FLORIDA STATE UNIV 3618  
 PREDICTION OF COMPRESSIBLE JET FLOW FIELDS AND AERODYNAMIC  
 SOUND\_FIELD  
 01/09/1997 - 12/31/2000 FY01: -\$1 Total: \$434,507  
*Prin. Invest.: M Y HUSSANI*  
*Tech. Officer: LARC/J M SEINER, LARC/M K PONTON*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 1 1986** FLORIDA STATE UNIV 3619  
 MICRO-AND MACRO-FLUID DYNAMICS AND ACOUSTICS OF RESONANT  
 LINERS  
 01/02/1998 - 12/31/2001 FY01: \$1 Total: \$225,001  
*Prin. Invest.: K W TAM*  
*Tech. Officer: LARC/W R WATSON, LARC/T L PARROTT*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 1 2078** FLORIDA STATE UNIV 3620  
 NOISE SUPPRESSION OF HEATED SUPERSONIC JETS BY WATER INJECTION  
 06/16/1998 - 04/30/2001 FY01: \$1 Total: \$219,422  
*Prin. Invest.: A KROTHAPALLI, L LOURENCO*  
*Tech. Officer: LARC/M K NORUM, LARC/M K PONTON*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 1 2127** FLORIDA STATE UNIV 3621  
 DYNAMICAL FACTORS CONTROLLING OZONE, OH AND AEROSOL LEVELS  
 OVER THE PEM-TROPICS B REGION  
 01/20/1999 - 12/31/2001 FY01: \$53,375 Total: \$203,000  
*Prin. Invest.: T N KRISHNAURTI*  
*Tech. Officer: LARC/J R RAPER*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 1 2145** FLORIDA STATE UNIV 3622  
 AIRFRAME-JET ENGINE INTEGRATION NOISE  
 03/30/1999 - 12/31/2001 FY01: \$100,000 Total: \$300,000  
*Prin. Invest.: C K TAM*  
*Tech. Officer: LARC/R R ANTCLIFF*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 1 01031** FLORIDA STATE UNIV 3623  
 DISCONTINUOUS SPECTRAL ELEMENT AEROACOUSTIC CODE FOR FAN  
 NOISE RADIATION  
 02/08/2001 - 11/30/2003 FY01: \$53,070 Total: \$53,070  
*Prin. Invest.: M Y HUSSAINI*  
*Tech. Officer: LARC/F FARASSAT, LARC/R H THOMAS*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 3 1841** FLORIDA STATE UNIV 3624  
 THEORETICAL STUDIES OF LIQUID HELIUM NEAR THE SUPER FLUID TRANSITION  
 05/01/1996 - 01/07/2002 FY01: \$11,000 Total: \$291,000  
*Prin. Invest.: E MANOUSAKIS, NONE*  
*Tech. Officer: GRC/B S SINGH*  
*CASE Category: 13 – PHYSICS*

**NAG 3 1885** FLORIDA STATE UNIV 3625  
 FLUID PHYSICS IN STOCHASTIC ACCELERATION ENVIRONMENT  
 06/17/1996 - 06/16/2001 FY01: \$0 Total: \$434,901  
*Prin. Invest.: J VINALS*  
*Tech. Officer: GRC/A CHAIT*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NAG 3 2102** FLORIDA STATE UNIV 3626  
 NUMERICAL SIMULATION OF SCREECH TONES FROM SUPERSONIC JETS:  
 PHYSICS & PREDICTIONS  
 12/24/1997 - 11/30/2001 FY01: \$0 Total: \$247,500  
*Prin. Invest.: C K TAM*  
*Tech. Officer: GRC/K Q ZAMAN*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 3 2327** FLORIDA STATE UNIV 3627  
 ADVANCED COMPUTATIONAL AEROACOUSTICS METHODS FOR FAN  
 NOISE PREDICTIONS  
 02/07/2000 - 01/11/2003 FY01: \$0 Total: \$100,000  
*Prin. Invest.: C K TAM*  
*Tech. Officer: GRC/E ENVIA*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 3 2445** FLORIDA STATE UNIV 3628  
 LATTICE-BOLTZMANN TECHNIQUES FOR MULTIPHASE FLOW TRANSPORT  
 IN MICROGRAVITY ENVIRONMENT  
 05/25/2000 - 05/18/2002 FY01: \$92,905 Total: \$132,828  
*Prin. Invest.: D CHELLA*  
*Tech. Officer: GRC/F P CHIARAMONTE*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 5 4729** FLORIDA STATE UNIV 3629  
 INITIALIZATION AND HIGH RESOLUTION GLOBAL PREDICTIVE DATA FROM  
 TRMM PROGRAM AREA: MODELING, ANALYSIS,  
 07/03/1997 - 06/30/2000 FY01: \$0 Total: \$378,445  
*Prin. Invest.: T N KRISHNAMURTI*  
*Tech. Officer: GSFC/O W THIELE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 4752** FLORIDA STATE UNIV 3630  
 VALIDATING TRMM-DERIVED LATENT HEATING DISTRIBUTION COMBINED-  
 INSTRU. RETRIEVAL ALGORITHM INCLUD. IMPA  
 06/18/1997 - 05/31/2000 FY01: \$0 Total: \$439,500  
*Prin. Invest.: E A SMITH*  
*Tech. Officer: GSFC/A J NEGRI*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 4873** FLORIDA STATE UNIV 3631  
 USING NASA FULL PHYSICS ADJOINT OF THE GEOS-1 GCM ANALYSIS,  
 SENSITIVITY ANALYSIS AND OPTIMAL SENSOR  
 07/03/1997 - 05/31/2002 FY01: \$140 Total: \$323,576  
*Prin. Invest.: I NAVON*  
*Tech. Officer: GSFC/M HALL*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 4921** FLORIDA STATE UNIV 3632  
 SIBERIAN PERMAFROST: APPLICATIONS TO MARS  
 07/07/1997 - 05/31/2000 FY01: \$0 Total: \$117,372  
*Prin. Invest.: D FRIEDMANN*  
*Tech. Officer: GSFC/M A MEYER*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 5 6258** FLORIDA STATE UNIV 3633  
 AN INTERCOMPARISON OF THE INFLUENCE OF VEGETATION SURFACE-AT-  
 MOSPHERE WATER EXCHANGE AND BOUNDARY LAY  
 08/27/1997 - 07/31/2001 FY01: \$0 Total: \$350,000  
*Prin. Invest.: E SMITH*  
*Tech. Officer: GSFC/D WICKLAND*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 6665** FLORIDA STATE UNIV 3634  
 COMBINING SSM/I/T<sub>1</sub>/T<sub>2</sub> AND GOES MEASUREMENTS FOR A SATELLITE-  
 BASED ATMOSPHERIC WATER BUDGET OF  
 11/25/1997 - 11/30/2001 FY01: \$0 Total: \$495,000  
*Prin. Invest.: E A SMITH*  
*Tech. Officer: GSFC/J C DODGE*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 7254** FLORIDA STATE UNIV 3635  
 ANOMALOUS HEAT BUDGETS IN THE INTERIOR PACIFIC OCEAN ON  
 SEASONAL-TO-INTERANNUAL TIMESCALES AND  
 05/14/1998 - 04/30/2001 FY01: \$0 Total: \$87,500  
*Prin. Invest.: J J O'BRIEN*  
*Tech. Officer: GSFC/E LINDSTROM*  
*CASE Category: 33 – OCEANOGRAPHY*

**NAG 5 7302** FLORIDA STATE UNIV 3636  
 RETRIEVAL OF SURFACE RADIATION FLUXES OVER BOREAS SNOW  
 REGIME FROM GOES 8 IMAGERY FOR APPLICATIONS T  
 05/04/1998 - 10/31/2000 FY01: \$0 Total: \$165,402  
*Prin. Invest.: E A SMITH*  
*Tech. Officer: GSFC/D E WICKLAND*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 7577** FLORIDA STATE UNIV 3637  
 "REDUCTION AND ANALYSIS OF LEO SATELLITE MAGNETIC FIELD  
 DATA"(SENH98-0077)  
 08/04/1998 - 07/31/2001 FY01: \$33,000 Total: \$196,000  
*Prin. Invest.: J C CAIN*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 7618** FLORIDA STATE UNIV 3638  
 ANNUAL MARINE PRIMARY PRODUCTION ALGORITHM DEVELOPMENT  
 AND APPLICATION TO MODIS DATA  
 09/08/1998 - 07/31/2001 FY01: \$0 Total: \$156,053  
*Prin. Invest.: R L IVERSON*  
*Tech. Officer: GSFC/W ESSIAS*  
*CASE Category: 33 – OCEANOGRAPHY*

**NAG 5 7630** FLORIDA STATE UNIV 3639  
 ZONAL PROPAGATION OF NONLINEAR OCEANIC ANOMALIES  
 08/10/1998 - 09/30/2001 FY01: \$118,959 Total: \$454,144  
*Prin. Invest.: W DEWAR*  
*Tech. Officer: GSFC/E LINDSTROM*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 7718** FLORIDA STATE UNIV 3640  
 VALIDATION OF TRMM LEVEL-3 PRECIPITATION DATA OVER AFRICA  
 10/27/1998 - 10/31/2001 FY01: \$71,804 Total: \$252,007  
*Prin. Invest.: S E NICHOLSON*  
*Tech. Officer: GSFC/O W THIELE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 8284** FLORIDA STATE UNIV 3641  
 ANALYSIS OF THE CRUSTAL MAGNETIC FIELD OF MARS  
 02/19/1999 - 02/28/2002 FY01: \$45,000 Total: \$128,200  
*Prin. Invest.: J C CAIN*  
*Tech. Officer: HQ/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8291** FLORIDA STATE UNIV 3642  
 THERMODYNAMICS IN LAYERED MODELS  
 02/25/1999 - 02/28/2002 FY01: \$59,370 Total: \$261,628  
*Prin. Invest.: W WEWAR*  
*Tech. Officer: GSFC/R RIENECKER*  
*CASE Category: 33 – OCEANOGRAPHY*

**NAG 5 8327** FLORIDA STATE UNIV 3643  
 ADVANCED DATA ASSIMILATION INTO OCEAN CIRCULATION MODELS  
 DRIVEN BY NSCAT DATA & ENSO IMPACTS NORTH  
 04/28/1999 - 04/30/2002 FY01: \$230,000 Total: \$564,000  
*Prin. Invest.: J J O'BRIEN*  
*Tech. Officer: GSFC/E LINDSTROM*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8598** FLORIDA STATE UNIV 3644  
 THE IMPACT OF VEGETATION CHANGES IN THE SAHEL ON REGIONAL  
 SCALE HYDROLOGY  
 06/14/1999 - 06/30/2002 FY01: \$88,004 Total: \$219,361  
*Prin. Invest.: S E NICHOLSON*  
*Tech. Officer: GSFC/E T ENGMAN*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8647** FLORIDA STATE UNIV 3645  
 "STUDY OF THE EVOLUTION OF PRECIPITATION AND CLOUD STRUCTURES  
 DURING THE LIFE CYCLE ... TRMM AND IS  
 07/19/1999 - 07/31/2002 FY01: \$28,000 Total: \$94,000  
*Prin. Invest.: G LIU*  
*Tech. Officer: GSFC/W B ROSSOW*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 9410** FLORIDA STATE UNIV 3646  
 STUDY THE IMPACT OF TOMS OZONE MEASUREMENTS ON MEAOSCALE PREDICTION USING MM5 4D-VAR SYSTEM  
 04/11/2000 – 04/30/2001 FY01: \$0 Total: \$46,772  
*Prin. Invest.: X ZOU*  
*Tech. Officer: GSFC/A J KRUEGER*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 9662** FLORIDA STATE UNIV 3647  
 SUPERENSEMBLE FORECASTS OF PRECIPITATION USING TRMM, TMI & PR ALGORITHMS  
 06/06/2000 – 11/30/2001 FY01: \$138,463 Total: \$193,713  
*Prin. Invest.: T N KRISHNAMURTI*  
*Tech. Officer: GSFC/R J LAWRENCE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 9845** FLORIDA STATE UNIV 3648  
 SIBERIAN PERMAFORST: APPLICATIONS TO MARS  
 08/07/2000 – 07/31/2001 FY01: \$0 Total: \$40,492  
*Prin. Invest.: I FRIEDMAN*  
*Tech. Officer: GSFC/M MEYER*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9866** FLORIDA STATE UNIV 3649  
 RETRIEVAL OF SURFACE RADIATION FLUXES OVER BOREAS SNOW REGIME FROM GOES 8 IMAGERY FOR APPLICATIONS T  
 08/07/2000 – 07/31/2001 FY01: \$0 Total: \$28,000  
*Prin. Invest.: E A SMITH*  
*Tech. Officer: GSFC/D E WICKLAND*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 10001** FLORIDA STATE UNIV 3650  
 016 OF TRMM FIELD CAMPAIGN DATA FOR VALIDATION-APP LICATION STUDIES WITH LEVEL 2 RAIN PROFILE ALGORI  
 09/21/2000 – 11/30/2001 FY01: \$115,000 Total: \$149,435  
*Prin. Invest.: H A COOPER*  
*Tech. Officer: GSFC/R J LAWRENCE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 10860** FLORIDA STATE UNIV 3651  
 VARIABILITY OF THE WESTERN INDIAN OCEAN & THE GULF OF ADEN  
 05/02/2001 – 04/30/2002 FY01: \$94,007 Total: \$94,007  
*Prin. Invest.: D NOF*  
*Tech. Officer: GSFC/E LINDSRDM*  
*CASE Category: 33 – OCEANOGRAPHY*

**NAG 5 11067** FLORIDA STATE UNIV 3652  
 APPLICATIONS OF TOMS OZONE DATA TO NUMERICAL WEATHER ANALYSIS AND FORECAST  
 07/09/2001 – 07/14/2002 FY01: \$70,000 Total: \$70,000  
*Prin. Invest.: X ZOU, NONE*  
*Tech. Officer: GSFC/P K BHARTA*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 8 1163** FLORIDA STATE UNIV 3653  
 ANALYSIS OF ELECTROPHORETIC TRANSPORT  
 08/30/1995 – 08/31/2000 FY01: -\$3,050 Total: \$526,585  
*Prin. Invest.: B R LOCKE*  
*Tech. Officer: MSFC/P H RHODES, MSFC/T Y MILLER*  
*CASE Category: 43 – CHEMICAL ENGR*

**NAG 8 1537** FLORIDA STATE UNIV 3654  
 IMPACT STUDIES OF NEWER DATA SETS (COMEX-3) ON VERY HIGH RESOLUTION GLOBAL FORECASTS  
 06/05/1998 – 10/30/2002 FY01: \$74,998 Total: \$273,035  
*Prin. Invest.: T N KRISHNAMURTI*  
*Tech. Officer: MSFC/J ARNOLD*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 8 1773** FLORIDA STATE UNIV 3655  
 PREDICTING DYNAMIC AND STATIC CRITICAL PROPERTIES OF BULK AND CONFINED HELIUM.  
 04/26/2001 – 04/30/2005 FY01: \$67,664 Total: \$67,664  
*Prin. Invest.: E MANOUSAKIS*  
*Tech. Officer: MSFC/D HUBBARD*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 8 1848** FLORIDA STATE UNIV 3656  
 ASSIMILATION, ENSEMBLE FORECASTS AND ADAPTIVE STRATEGIES USING CAMES-4 DATASETS  
 08/20/2001 – 09/02/2004 FY01: \$68,602 Total: \$68,602  
*Prin. Invest.: T N KRISHNAMURTI*  
*Tech. Officer: MSFC/J E ARNOLD*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 1 308** FLORIDA STATE UNIV 3657  
 NUMERICAL SIMULATIONS AND DIAGNOSTIC STUDIES OF METEOROLOGICAL CONDITIONS DURING PEM-TROPICS B  
 07/21/1998 – 07/31/2001 FY01: \$1 Total: \$183,118  
*Prin. Invest.: H E FUELBERG*  
*Tech. Officer: LARC/J M HOELL, JR., LARC/R J BENDURA*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 1 412** FLORIDA STATE UNIV 3658  
 NUMERICAL SIMULATIONS AND DIAGNOSTIC STUDIES RELATING METEOROLOGY TO ATMOSPHERIC CHEMISTRY DURING  
 09/18/2000 – 08/31/2003 FY01: \$98,837 Total: \$141,523  
*Prin. Invest.: H E FUELBERG*  
*Tech. Officer: LARC/J L RAPER, SR*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 1 01026** FLORIDA STATE UNIV 3659  
 AN INVESTIGATION OF THE FLOW PHYSICS OF ACOUSTIC LINERS BY DIRECT NUMERICAL SIMULATION  
 01/31/2001 – 12/31/2003 FY01: \$60,000 Total: \$60,000  
*Prin. Invest.: C K TAM*  
*Tech. Officer: LARC/W R WATSON, LARC/M G JONES*  
*CASE Category: 41 – AERONAUTICAL ENGNR*

**NCC 5 292** FLORIDA STATE UNIV 3660  
 HIGH RESOLUTION CARBON EXCHANGE OVER LARGE-SCALE AMAZONIA BASED ON MODELING AND GOES SATELLITE  
 06/25/1998 – 12/31/2001 FY01: \$109,913 Total: \$379,640  
*Prin. Invest.: E A SMITH*  
*Tech. Officer: GSFC/D W DEERING*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

<b>NCC 8 158</b>	<b>FLORIDA STATE UNIV</b>	<b>3661</b>	<b>NAG 2 1465</b>	<b>THE UNIV OF CENTRAL FLORIDA</b>	<b>3669</b>
SOUTHEAST REGIONAL EARTH SCIENCE APPLICATIONS CENTER			VERIFICATION TOOLS FOR KSC LAUNCH CONTROL SOFTWARE		
09/25/1998 - 09/24/2003	FY01: \$0	Total: \$90,000	03/22/2001 - 03/31/2002	FY01: \$50,000	Total: \$50,000
<i>Prin. Invest.: J J O'BRIEN</i>			<i>Prin. Invest.: G H WALTON</i>		
<i>Tech. Officer: MSFC/J ARNOLD</i>			<i>Tech. Officer: ARC/J PENIX</i>		
CASE Category: 31 – ATMOSPHERIC SCIENCE			CASE Category: 22 – COMPUTER SCIENCE		
<b>NGT 5 30116</b>	<b>FLORIDA STATE UNIV</b>	<b>3662</b>	<b>NAG 3 2311</b>	<b>THE UNIV OF CENTRAL FLORIDA</b>	<b>3670</b>
SATELLITE DERIVED LAND SURFACE TEMPERATURE & ADJOINT MODELING TECHNIQUES TO IMPROVE A SPATIAL BIOSP			IMPORTANCE OF CONJUGATE HEAT TRANSFER IN TURBINE BLADES AND VANES		
10/01/1997 - 08/31/2000	FY01: -\$1,672	Total: \$64,328	12/28/1999 - 06/01/2001	FY01: \$53,740	Total: \$103,740
<i>Prin. Invest.: E SMITH</i>			<i>Prin. Invest.: D KAPAT</i>		
<i>Tech. Officer: GSFC/G ASRAR</i>			<i>Tech. Officer: GRC/J D HEIDMANN</i>		
CASE Category: 99 – MULTI INTERDISCPL, OTHER			CASE Category: 49 – ENGINEERING, OTHER		
<b>NGT 5 30158</b>	<b>FLORIDA STATE UNIV</b>	<b>3663</b>	<b>NAG 5 8265</b>	<b>THE UNIV OF CENTRAL FLORIDA</b>	<b>3671</b>
DYNAMICS AND VARIABILITY OF THE NORTH HAWAIIAN RIDGE CURRENT FROM SATELLITE ALTIMETRY AND AN			INVESTIGATIONS OF MARTIAN IMPACT CRATER MORPHOLOGIES AND MORPHOMETRIES		
08/28/1998 - 12/31/2001	FY01: \$0	Total: \$66,000	02/23/1999 - 04/30/2002	FY01: \$50,000	Total: \$141,700
<i>Prin. Invest.: J J O'BRIEN, LEONARDI</i>			<i>Prin. Invest.: N G BARLOW</i>		
<i>Tech. Officer: GSFC/M Y WEI</i>			<i>Tech. Officer: HQ/J BOYCE</i>		
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER			CASE Category: 11 – ASTRONOMY		
<b>NGT 5 30164</b>	<b>FLORIDA STATE UNIV</b>	<b>3664</b>	<b>NGA 5 9548</b>	<b>THE UNIV OF CENTRAL FLORIDA</b>	<b>3672</b>
NONLINEAR EXCHANGE PROCESSES BETWEEN THE PACIFIC AND THE INDIAN OCEAN			TRMM VALIDATION: IMPROVED ZR RELATIONSHIP FROM TEFLUN-B & TROPICAL CYCLONE WINDS & PRECIPITATION		
08/31/1998 - 08/31/2002	FY01: \$0	Total: \$58,000	05/30/2000 - 05/31/2002	FY01: \$126,000	Total: \$193,667
<i>Prin. Invest.: D NOF, H SIMMONS</i>			<i>Prin. Invest.: W JONES</i>		
<i>Tech. Officer: GSFC/M Y WEI</i>			<i>Tech. Officer: GSFC/R J LAWRENCE</i>		
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER			CASE Category: 31 – ATMOSPHERIC SCIENCE		
<b>NGT 5 30186</b>	<b>FLORIDA STATE UNIV</b>	<b>3665</b>	<b>NAG 5 10308</b>	<b>THE UNIV OF CENTRAL FLORIDA</b>	<b>3673</b>
THE WATER BALANCE OF EASTERN AFRICAN GREAT LAKES STUDENT: XANGANG YIN			ANTENNA-COUPLED INFRARED SENSORS- PROPOSAL #215		
08/19/1999 - 08/31/2001	FY01: \$0	Total: \$44,000	02/02/2001 - 12/31/2001	FY01: \$179,596	Total: \$179,596
<i>Prin. Invest.: S E NICHOLSON</i>			<i>Prin. Invest.: G D BOREMAN</i>		
<i>Tech. Officer: GSFC/M Y WEI</i>			<i>Tech. Officer: GSFC/C STAHLER</i>		
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER			CASE Category: 13 – PHYSICS		
<b>NGT 5 30191</b>	<b>FLORIDA STATE UNIV</b>	<b>3666</b>	<b>NAG 5 10730</b>	<b>THE UNIV OF CENTRAL FLORIDA</b>	<b>3674</b>
INTER- AND INTRA-ANNUAL VARIABILITY OF THE NORTH AMERICAN MONSOON: A NUMERICAL MODELING STUDY/STU			FOURIER TRANSFORM IMAGING SPECTROMETER WITH HIGH- THROUGHPUT AND NO MOVING PARTS		
08/19/1999 - 08/31/2000	FY01: -\$7,112	Total: \$14,888	04/10/2001 - 04/14/2002	FY01: \$120,000	Total: \$120,000
<i>Prin. Invest.: T KRISHNAMURTI</i>			<i>Prin. Invest.: R G SELLAR</i>		
<i>Tech. Officer: GSFC/M Y WEI</i>			<i>Tech. Officer: GSFC/B BETTS</i>		
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER			CASE Category: 11 – ASTRONOMY		
<b>NGT 5 30370</b>	<b>FLORIDA STATE UNIV</b>	<b>3667</b>	<b>NAG10 215</b>	<b>THE UNIV OF CENTRAL FLORIDA</b>	<b>3675</b>
DEVELOPMENT OF SCATTEROMETER-DERIVED RESEARCH-QUALITY SURFACE PRESSURES STUDENT: KYLE HILBURN			DEVEL ELECTRONKINETIC TECHNIQUE		
08/13/2001 - 08/31/2002	FY01: \$22,000	Total: \$22,000	04/17/1997 - 08/31/2000	FY01: \$0	Total: \$225,000
<i>Prin. Invest.: J O'BRIEN</i>			<i>Prin. Invest.: C GEIGER</i>		
<i>Tech. Officer: GSFC/M Y WEI</i>			<i>Tech. Officer: KSC/J QUINN</i>		
CASE Category: 99 – MULTI INTERDISCPL, OTHER			CASE Category: 32 – GEOLOGICAL SCIENCE		
<b>NAG10 282</b>	<b>MIAMI-DADE COMMUNITY COLLEGE</b>	<b>3668</b>	<b>NAG10 258</b>	<b>THE UNIV OF CENTRAL FLORIDA</b>	<b>3676</b>
HOMESTEAD BUSINESS INCUBATOR HOMESTEAD BUSINESS INCUBATOR			NASA/UCF SPACE SCHOLARS PROGRAM		
05/18/2000 - 12/31/2001	FY01: \$0	Total: \$915,000	05/01/1999 - 06/30/2001	FY01: \$0	Total: \$75,937
<i>Prin. Invest.: E J PADRON</i>			<i>Prin. Invest.: J SMITH</i>		
<i>Tech. Officer: KSC/D CULBERTSON</i>			<i>Tech. Officer: KSC/R MCKINNEY</i>		
CASE Category: 79 – SOCIAL SCIENCE, OTHER			CASE Category: 49 – ENGINEERING, OTHER		

**NAG10 260 THE UNIV OF CENTRAL FLORIDA 3677**  
 NASA-ASEE SUMMER FACULTY FELLOWSHIP PROGRAM  
 04/16/1999 – 12/31/2000 FY01: \$0 Total: \$321,500  
*Prin. Invest.: E R HOSLER*  
*Tech. Officer: KSC/G BUCKINGHAM*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG10 273 THE UNIV OF CENTRAL FLORIDA 3678**  
 KNOWLEDGE EXTRACTION FROM TEXT FOR NASA APPLICATIONS  
 10/08/1999 – 12/30/2000 FY01: -\$11,530 Total: \$49,091  
*Prin. Invest.: F J GOMEZ*  
*Tech. Officer: KSC/C G STEVENSON*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG10 276 THE UNIV OF CENTRAL FLORIDA 3679**  
 DEVELOPMENT OF ADVANCE LIFE SUPPORT AUTOMATED REMOTE MANIPULATOR END-EFFECTOR (ALSARM) (PHASE II)  
 02/02/2000 – 11/15/2001 FY01: \$21,666 Total: \$41,259  
*Prin. Invest.: D W JOHNSON*  
*Tech. Officer: KSC/C D QUINCY*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NAG10 278 THE UNIV OF CENTRAL FLORIDA 3680**  
 FUNGAL DIVERSITY IN COMPOST STUDIED USING BOTH TRADITIONAL PLATTING AND MOLECULAR APPROACHES  
 02/14/2000 – 10/09/2001 FY01: \$45,000 Total: \$110,000  
*Prin. Invest.: J F WEISHAMPEL*  
*Tech. Officer: KSC/C QUINCY*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG10 280 THE UNIV OF CENTRAL FLORIDA 3681**  
 2000 NASA/ASEE SUMMER FACULTY FELLOWSHIP RESEARCH PROGRAM  
 04/10/2000 – 03/31/2002 FY01: \$0 Total: \$357,000  
*Prin. Invest.: D HOSIER*  
*Tech. Officer: KSC/J P GORDON*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG10 290 THE UNIV OF CENTRAL FLORIDA 3682**  
 ASSESSMENT OF TECHNOLOGIES FOR VISUAL GAS LEAK DETECTION  
 07/30/2000 – 10/31/2001 FY01: \$50,000 Total: \$65,043  
*Prin. Invest.: R SELLAR*  
*Tech. Officer: KSC/C DAVIS*  
*CASE Category: 13 – PHYSICS*

**NAG10 296 THE UNIV OF CENTRAL FLORIDA 3683**  
 INSTALIZING KENNEDY SPACE CENTER'S STRATEGIC LEARNING PROCESS  
 03/30/2001 – 02/01/2002 FY01: \$262,000 Total: \$262,000  
*Prin. Invest.: T KOTNOUR*  
*Tech. Officer: KSC/J LYONS*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG10 299 THE UNIV OF CENTRAL FLORIDA 3684**  
 NASA/ASEE SUMMER FACULTY FELLOWSHIP RESEARCH PROGRAM  
 05/16/2001 – 12/31/2001 FY01: \$346,141 Total: \$346,141  
*Prin. Invest.: R HOSLER*  
*Tech. Officer: KSC/C BLACK*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG10 301 THE UNIV OF CENTRAL FLORIDA 3685**  
 ULTRASOUND ENHANCEMENT OF A PERMEABLE REACTIVE BARriers  
 UNDERGOING ACCELERATE AGING  
 06/15/2001 – 04/30/2002 FY01: \$50,000 Total: \$50,000  
*Prin. Invest.: D R REINHART*  
*Tech. Officer: KSC/J W QUINN*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG10 306 THE UNIV OF CENTRAL FLORIDA 3686**  
 INTELLIGENT TEXT RETRIEVAL AND KNOWLEDGE ACQUISITION FROM TEXTS FOR NASA APPLICATIONS: PREPROCESSING  
 09/07/2001 – 03/31/2002 FY01: \$50,000 Total: \$50,000  
*Prin. Invest.: F GOMEZ*  
*Tech. Officer: KSC/C G STEVENSON*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCA10 35 THE UNIV OF CENTRAL FLORIDA 3687**  
 JOINT SPONSORED RESEARCH AGREEMENT THE VISION SPACEPORT PROJECT  
 09/15/1998 – 12/31/2000 FY01: \$0 Total: \$297,230  
*Prin. Invest.: R HOFER*  
*Tech. Officer: KSC/C M CLESKEY, KSC/C D SHELTON*  
*CASE Category: 29 – MATH/COMPUTER SCI, OTHER*

**NCA10 41 THE UNIV OF CENTRAL FLORIDA 3688**  
 FUNDED SPACE ACT AGREEMENT FOR SPACEPORT SYSTEM PROCESSING MODEL  
 02/25/2000 – 09/29/2000 FY01: \$0 Total: \$320,000  
*Prin. Invest.: M MOLLAGHASGEMI*  
*Tech. Officer: KSC/G CATES, KSC/D SHELTON*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 3 712 THE UNIV OF CENTRAL FLORIDA 3689**  
 ULTRA-LIGHT-WEIGHT, RADATION-RESISTANT, THIN-FILM SOLAR CELLS FOR SPACE ELECTRICPOWER  
 06/10/1999 – 04/30/2002 FY01: \$40,000 Total: \$160,000  
*Prin. Invest.: N G DHERE*  
*Tech. Officer: GRC/A F HEPP*  
*CASE Category: 13 – PHYSICS*

**NCC10 35 THE UNIV OF CENTRAL FLORIDA 3690**  
 NASA NOX3; PILOT SCALE EVALUATION OF NEW TECHNOLOGY FOR NOX CONTROL  
 02/22/2000 – 12/31/2001 FY01: \$55,000 Total: \$100,000  
*Prin. Invest.: D C COOPER*  
*Tech. Officer: KSC/M COLLINS*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 40069 THE UNIV OF CENTRAL FLORIDA 3691**  
 FLORIDA/NATIONAL SPACE GRANT COLLEGE & FELLOWSHIP PROGRAM  
 04/28/2000 – 04/29/2001 FY01: \$0 Total: \$475,000  
*Prin. Invest.: S DURRANCE*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 40071 THE UNIV OF CENTRAL FLORIDA 3692**  
 FLORIDA/NATIONAL SPACE GRANT COLLEGE & FELLOWSHIP PROGRAM  
 01/05/2001 – 08/31/2003 FY01: \$85,000 Total: \$85,000  
*Prin. Invest.: S DURRANCE*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 40107** THE UNIV OF CENTRAL FLORIDA 3693  
 FLORIDA SPACE GRANT CONSORTIUM  
 03/02/2001 - 02/28/2002 FY01: \$486,000 Total: \$486,000  
*Prin. Invest.: S DURRANCE*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT10 52615** THE UNIV OF CENTRAL FLORIDA 3694  
 EFFECTIVE ORGANIZATIONAL PERFORMANCE IMPROVEMENT TOOLS  
 USED IN AVIATION & AEROSPACE  
 07/14/1998 - 07/30/2000 FY01: -\$163 Total: \$43,837  
*Prin. Invest.: T KOTNOUR*  
*Tech. Officer: KSC/L GOSPER*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NGT10 52625** THE UNIV OF CENTRAL FLORIDA 3695  
 GRADUATE STUDENT RESEARCH PROGRAM GRADUATE STUDENT  
 RESEARCH PROGRAM  
 08/10/2000 - 06/30/2001 FY01: \$0 Total: \$22,000  
*Prin. Invest.: D G KOTNOUR*  
*Tech. Officer: KSC/L GOSPER*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NGT10 52627** THE UNIV OF CENTRAL FLORIDA 3696  
 INSTABILITIES IN MAGNETIC FLUIDS IN TERRESTRIAL AND MICROGRAVITY  
 ENVIRONMENTS  
 07/24/2000 - 06/13/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.: D LUO*  
*Tech. Officer: KSC/R YOUNGQUIST*  
*CASE Category: 13 – PHYSICS*

**NGT10 52630** THE UNIV OF CENTRAL FLORIDA 3697  
 GSRP: STRATEGIC IMPLEMENTATION THROUGH PROCESS ALIGNMENT  
 08/02/2001 - 06/13/2002 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.:*  
*Tech. Officer: KSC/L GOSPER*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 1 1809** UNIV OF FLORIDA 3698  
 DEVELOPMENT OF TEMPERATURE SENSITIVE PAINTS FOR WIND TUNNEL  
 03/04/1996 - 11/30/1999 FY01: -\$769 Total: \$299,444  
*Prin. Invest.: K S SCHANZE*  
*Tech. Officer: LARC/B T UPCHURCH, LARC/M MITCHELL*  
*CASE Category: 12 – CHEMISTRY*

**NAG 1 2060** UNIV OF FLORIDA 3699  
 WAVELET AND MULTIRESOLUTION ANALYSIS FOR FINITE ELEMENT  
 NETWORKING PARADIGMS  
 06/04/1998 - 04/30/2001 FY01: \$0 Total: \$19,726  
*Prin. Invest.: A L KURDILA, NONE*  
*Tech. Officer: LARC/J M HOUSNER*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 1 2092** UNIV OF FLORIDA 3700  
 DEV OF AN INNOVATIVE ALGORITHM FOR AERODYNAMICS- STRUCTURE  
 INTERACTION USING LATTICE BOLTZMANN METH  
 07/31/1998 - 07/14/2001 FY01: \$65,000 Total: \$297,500  
*Prin. Invest.: R MEI, W SHYY, L LUO*  
*Tech. Officer: LARC/D H RUDY, LARC/R T BIEDRON*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 1 2133** UNIV OF FLORIDA 3701  
 MEMS-BASED ACOUSTIC ARRAY TECHNOLOGY MY 1/3  
 02/11/1999 - 12/31/2001 FY01: \$151,125 Total: \$406,720  
*Prin. Invest.: M SHEPLAK*  
*Tech. Officer: LARC/R R ANTELIFF*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 1 2161** UNIV OF FLORIDA 3702  
 CHEMICALLY TAILEDOR PARTICLES FOR WIND-TUNNEL SEEDING  
 03/15/1999 - 05/04/2000 FY01: \$0 Total: \$50,003  
*Prin. Invest.: K S SCHANZE*  
*Tech. Officer: LARC/B T UPCHURCH, LARC/C J OBARA*  
*CASE Category: 12 – CHEMISTRY*

**NAG 1 2177** UNIV OF FLORIDA 3703  
 VARIABLE COMPLEXITY OPTIMIZATION OF COMPOSITE STRUCTURES  
 04/02/1999 - 01/27/2002 FY01: \$133,000 Total: \$367,163  
*Prin. Invest.: R T HAFTKA*  
*Tech. Officer: LARC/J H STARNES, JR.*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 1 2188** UNIV OF FLORIDA 3704  
 INFORMATION THEORETIC EXTRACTION OF ELECTROENCEPHALOGRAPHIC  
 (EEG) FEATURES FOR MONITORING SUBJECT ATTENTION  
 04/28/1999 - 09/30/2000 FY01: \$0 Total: \$59,923  
*Prin. Invest.: J C PRINCIPE*  
*Tech. Officer: LARC/M A MOTTER, LARC/A T POPE*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NAG 1 2198** UNIV OF FLORIDA 3705  
 REDUCED ORDER MODELS VIA MULTIRESOLUTION ANALYSIS FOR  
 CONTROL OF FLOW  
 05/19/1999 - 02/18/2002 FY01: \$55,000 Total: \$157,810  
*Prin. Invest.: A J KURDILA*  
*Tech. Officer: LARC/W A SILVA*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 1 2232** UNIV OF FLORIDA 3706  
 DAMAGE TOLERANCE OF SANDWICH PLATES WITH DEBONDED FACE  
 SHEETS  
 09/02/1999 - 10/31/2000 FY01: \$0 Total: \$48,673  
*Prin. Invest.: B V SANKAR*  
*Tech. Officer: LARC/D R AMBUR*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 1 2249** UNIV OF FLORIDA 3707  
 THE DEVELOPMENT OF DESIGN TOOLS FOR FLOW-CONTROL ACTUATORS  
 12/21/1999 - 01/02/2003 FY01: \$59,161 Total: \$122,315  
*Prin. Invest.: L N CATTAFESTA, A J KURDILA*  
*Tech. Officer: LARC/S A GORTON, LARC/R D JOSLIN*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 1 2261** UNIV OF FLORIDA 3708  
 ADVANCED TECHNOLOGY DEVELOPMENT FOR ACTIVE ACOUSTIC LINERS  
 01/21/2000 - 10/31/2000 FY01: \$0 Total: \$102,393  
*Prin. Invest.: M SHEPLAK*  
*Tech. Officer: LARC/M G JONES, LARC/T L PARROTT*  
*CASE Category: 49 – ENGINEERING, OTHER*

<b>NAG 1 01013</b>	<b>UNIV OF FLORIDA</b>	<b>3709</b>	<b>NAG 3 2461</b>	<b>UNIV OF FLORIDA</b>	<b>3717</b>
ELECTROMECHANICAL ACOUSTIC LINER TECHNOLOGY 02/07/2001 - 12/31/2003	UNIV OF FLORIDA FY01: \$80,000	Total: \$80,000	OPTIMIZATION OF THERMAL MANAGEMENT SYSTEM WEIGHT 06/13/2000 - 09/30/2000	UNIV OF FLORIDA FY01: -\$38	Total: \$9,962
Prin. Invest.: L N SHEPLAK, L N CATTAFESTA III Tech. Officer: LARC/M G JONES, LARC/T L PARROT CASE Category: 49 – ENGINEERING, OTHER			Prin. Invest.: D E LEAR Tech. Officer: GRC/E L GOLLIHER CASE Category: 46 – MECHANICAL ENGR		
<b>NAG 1 01024</b>	<b>UNIV OF FLORIDA</b>	<b>3710</b>	<b>NAG 3 2553</b>	<b>UNIV OF FLORIDA</b>	<b>3718</b>
COMPUTATIONAL MODELING & ANALYSIS SYNTHETIC JETS 03/09/2001 - 03/31/2004	UNIV OF FLORIDA FY01: \$45,000	Total: \$45,000	SUPersonic INLETS FOR PULSE DETONATION ENGINES 03/15/2001 - 01/01/2004	UNIV OF FLORIDA FY01: \$50,444	Total: \$50,444
Prin. Invest.: R MITTAL, L N CATTAFESTA III Tech. Officer: LARC/S A GORTON CASE Category: 41 – AERONAUTICAL ENGR			Prin. Invest.: C SEGAL Tech. Officer: GRC/R FERNANDEZ CASE Category: 41 – AERONAUTICAL ENGR		
<b>NAG 1 01088</b>	<b>UNIV OF FLORIDA</b>	<b>3711</b>	<b>NAG 3 2630</b>	<b>UNIV OF FLORIDA</b>	<b>3719</b>
ANALYSIS METHODS FOR FUNCTIONALLY GRADED MATERIALS AND STRUCTURES 06/14/2001 - 12/31/2001	UNIV OF FLORIDA FY01: \$30,000	Total: \$30,000	WEIGHT OPTIMIZATION OF ACTIVE THERMAL MANAGEMENT U SING A NOVEL HEAT PUMP 06/13/2001 - 05/31/2003	UNIV OF FLORIDA FY01: \$58,333	Total: \$58,333
Prin. Invest.: B V SANKAR Tech. Officer: LARC/D R AMBUR CASE Category: 47 – METAL & MATERIALS ENGR			Prin. Invest.: D E LEAR Tech. Officer: GRC/E L GOLLIHER CASE Category: 46 – MECHANICAL ENGR		
<b>NAG 1 01098</b>	<b>UNIV OF FLORIDA</b>	<b>3712</b>	<b>NAG 5 3772</b>	<b>UNIV OF FLORIDA</b>	<b>3720</b>
INTEGRATED SHEAR STRESS/TEMPERTURE MICROMACHINED SENSORS 06/14/2001 - 10/31/2001	UNIV OF FLORIDA FY01: \$52,091	Total: \$52,091	HUMAN DIMENSIONS OF DEFORESTATION & REGROWTH IN TH TEGRATING DATA FROM SATELLITES, DEMOGRAPHIC CENSU 03/11/1997 - 02/28/2001	UNIV OF FLORIDA FY01: \$0	Total: \$536,368
Prin. Invest.: M SHEPLAK, T NISHIDA, L N CATTAFESTA, III Tech. Officer: LARC/S K KAHNG CASE Category: 45 – ELECTRICAL ENGR			Prin. Invest.: D WOOD Tech. Officer: GSFC/N MAYNARD CASE Category: 39 – ENVIRONMENTAL SCI, OTHER		
<b>NAG 2 1179</b>	<b>UNIV OF FLORIDA</b>	<b>3713</b>	<b>NAG 5 4287</b>	<b>UNIV OF FLORIDA</b>	<b>3721</b>
DESIGN SPACE EXPLORATION FOR MDO ON A TERAFLOP COMPUTER 02/26/1998 - 01/31/2001	UNIV OF FLORIDA FY01: \$0	Total: \$104,340	CARBON SPECIES AS POSSIBLE CARRIERS OF THE UIRS 04/29/1997 - 12/31/2000	UNIV OF FLORIDA FY01: \$0	Total: \$197,000
Prin. Invest.: R T HAITKA Tech. Officer: ARC/G H KLOPITER CASE Category: 41 – AERONAUTICAL ENGR			Prin. Invest.: D T VALA Tech. Officer: GSFC/H THRONSON CASE Category: 11 – ASTRONOMY		
<b>NAG 3 2341</b>	<b>UNIV OF FLORIDA</b>	<b>3714</b>	<b>NAG 5 4531</b>	<b>UNIV OF FLORIDA</b>	<b>3722</b>
SHEET FLOWS, AVALANCHES, AND DUNE EVOLUTION ON EAR TH AND MARS 03/01/2000 - 11/21/2004	UNIV OF FLORIDA FY01: \$17,100	Total: \$22,860	DYNAMICS OF SOLAR SYSTYE DUST 05/08/1997 - 02/28/2002	UNIV OF FLORIDA FY01: \$85,300	Total: \$419,444
Prin. Invest.: D M HANES Tech. Officer: GRC/F P CHIARAMONTE CASE Category: 49 – ENGINEERING, OTHER			Prin. Invest.: D F DERMOTT Tech. Officer: HQ/P ROGERS CASE Category: 32 – GEOLOGICAL SCIENCE		
<b>NAG 3 2382</b>	<b>UNIV OF FLORIDA</b>	<b>3715</b>	<b>NAG 5 4547</b>	<b>UNIV OF FLORIDA</b>	<b>3723</b>
MICROGRAVITY DRIVEN INSTABILITIES IN GAS-FLUIDIZED BEDS 04/05/2000 - 11/30/2003	UNIV OF FLORIDA FY01: \$57,728	Total: \$77,987	PLANETARY AEROSOL MONITOR/INTEGRATED DUST ANALYZER 05/06/1997 - 05/31/2000	UNIV OF FLORIDA FY01: \$0	Total: \$282,390
Prin. Invest.: A L LADD Tech. Officer: GRC/B J MOTIL CASE Category: 49 – ENGINEERING, OTHER			Prin. Invest.: D GUSTAFSON Tech. Officer: GSFC/B CAMPBELL CASE Category: 99 – MULTI INTERDISCPL, OTHER		
<b>NAG 3 2415</b>	<b>UNIV OF FLORIDA</b>	<b>3716</b>	<b>NAG 5 6378</b>	<b>UNIV OF FLORIDA</b>	<b>3724</b>
SEPARATION OF SPECIES BY OSCILLATORY FLOW SEPARATION OF SPECIES BY OSCILLATORY FLOW 06/07/2000 - 11/30/2003	UNIV OF FLORIDA FY01: \$90,250	Total: \$130,250	OPTICAL PROPERTIES OF IRREGULAR DUST PARTICLES: EX PERIMENT AND THEORY 10/08/1997 - 04/30/2002	UNIV OF FLORIDA FY01: \$50,000	Total: \$261,944
Prin. Invest.: D NARAYANAN Tech. Officer: GRC/F P CHIARAMONTE III CASE Category: 49 – ENGINEERING, OTHER			Prin. Invest.: D GUSTAFSON Tech. Officer: GSFC/S HOWARD CASE Category: 31 – ATMOSPHERIC SCIENCE		

**NAG 5 6751**           **UNIV OF FLORIDA**           **3725**  
 TOWARDS A COMPLETE INVENTORY OF STAR AND PLANET FORMATION ACTIVITY IN NEARBY MOLECULAR CLOUDS  
 01/12/1998 - 01/14/2001    FY01: \$0               Total: \$139,800  
*Prin. Invest.: E LADA*  
*Tech. Officer: GSFC/D WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7559**           **UNIV OF FLORIDA**           **3726**  
 NITROGEN AND PHOSPHORUS DYNAMICS IN FORESTS AND CONVERTED FOREST SITES IN THE AMAZON BASIN: A REVIEW  
 06/26/1998 - 06/30/2000    FY01: \$0               Total: \$21,908  
*Prin. Invest.: H L GHOLZ*  
*Tech. Officer: GSFC/D W DEERING*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 7664**           **UNIV OF FLORIDA**           **3727**  
 "THE USE OF SATELLITE-GENERATED METEOROLOGICAL DATA TO PREDICT MOSQUITO-BORNE ENCEPHALITIS TRANSMISSION"  
 09/09/1998 - 09/30/2000    FY01: \$0               Total: \$36,000  
*Prin. Invest.: J F DAY*  
*Tech. Officer: GSFC/B W MESSON*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 8522**           **UNIV OF FLORIDA**           **3728**  
 CHEMICAL ABUNDANCES AND EVOLUTION IN QUASARS AND ACTIVE GALACTIC NUCLEI LISTS  
 05/12/1999 - 05/14/2002    FY01: \$0               Total: \$205,000  
*Prin. Invest.: F W HAMANN, NONE*  
*Tech. Officer: GSFC/R K OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8944**           **UNIV OF FLORIDA**           **3729**  
 COMPLEX SILICATE GRAINS WITH SUBLIMATING MANTLES: A SYSTEMATIC LABORATORY STUDY OF OPTICAL PROPERTIES  
 01/13/2000 - 01/14/2002    FY01: \$68,300          Total: \$133,769  
*Prin. Invest.: L KOLOKOLOVA*  
*Tech. Officer: GSFC/D BOGAN*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9280**           **UNIV OF FLORIDA**           **3730**  
 A GLOBAL, MULTI-WAVEBAND MODEL OF THE ZODIACAL CLOUD (ADP 99)  
 03/21/2000 - 03/31/2002    FY01: \$43,862          Total: \$86,446  
*Prin. Invest.: K GROGAN*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9331**           **UNIV OF FLORIDA**           **3731**  
 LAND-USE & LAND-COVER CHANGE: DECadal-SCALE DYNAMICS OF LAND OWNERSHIP LAND MANAGEMENT & CARBON  
 03/28/2000 - 04/30/2002    FY01: \$105,663          Total: \$196,662  
*Prin. Invest.: M W BINFORD*  
*Tech. Officer: GSFC/G GUTMAN*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 10567**           **UNIV OF FLORIDA**           **3732**  
 CHARACTERIZATION AND SIMULATION OF REMOTELY SENSED SOIL MOISTURE FOR RAINFALL-RUNOFF MODELING  
 03/12/2001 - 03/14/2002    FY01: \$78,853          Total: \$78,853  
*Prin. Invest.: J JACOBS*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 10670**           **UNIV OF FLORIDA**           **3733**  
 MOLTEN MORPHOLOGIES & NON-EQUILIBRIUM MINERAL COMPOSITIONS GENERATED BY A POLYMER-INDUCED LIQUID PRE  
 03/29/2001 - 04/30/2002    FY01: \$100,000          Total: \$100,000  
*Prin. Invest.: L B GOWER*  
*Tech. Officer: GSFC/M MEYER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 8 1243**           **UNIV OF FLORIDA**           **3734**  
 FOR RESEARCH ENTITLED AN ELECTROMECHANICAL METHOD TO VISUALIZE FLOW AND MEASURE DIFFUSIVITY  
 05/28/1996 - 05/27/2000    FY01: \$0               Total: \$600,000  
*Prin. Invest.: T J ANDERSON, R NARAYANAN*  
*Tech. Officer: MSFC/P R DOTY, MSFC/R POWER*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NAG 8 1244**           **UNIV OF FLORIDA**           **3735**  
 THE FEATURES OF SELF-ASSEMBLING ORGANIC BILAYERS  
 05/01/1996 - 04/30/2000    FY01: -\$342           Total: \$279,658  
*Prin. Invest.: D R TALHAM, J H ADAIR*  
*Tech. Officer: MSFC/P DOTY*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 8 1251**           **UNIV OF FLORIDA**           **3736**  
 R/S " CONFINEMENT AND PROPULSION CHARACTERISTICS OF THE GASDYNAMIC MIRROR FUSION ROCKET"  
 12/23/1996 - 05/15/2002    FY01: \$90,000          Total: \$419,878  
*Prin. Invest.: S ANGHZIE*  
*Tech. Officer: MSFC/W J EMRICH, JR.*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NAG 8 1673**           **UNIV OF FLORIDA**           **3737**  
 MORPHOLOGICAL STABILITY OF FACETED INTERFACES  
 05/16/2000 - 11/30/2003    FY01: \$85,500          Total: \$130,500  
*Prin. Invest.: R ABBASCHIAM*  
*Tech. Officer: MSFC/P DOTY*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 8 1675**           **UNIV OF FLORIDA**           **3738**  
 THE FEATURES OF SELF-ASSEMBLING ORGANIC BILAYERS IMPORTANT TO THE FORMATION OF INORGANIC MATERIALS.  
 05/11/2000 - 11/30/2003    FY01: \$85,500          Total: \$125,500  
*Prin. Invest.: D TALHAM*  
*Tech. Officer: MSFC/P DOTY*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 8 1679**           **UNIV OF FLORIDA**           **3739**  
 AN ELECTROCHEMICAL METHOD TO VISUALIZE FLOW IN LIQUID METALS  
 04/25/2000 - 11/30/2003    FY01: \$104,500          Total: \$149,500  
*Prin. Invest.: T J ANDERSON*  
*Tech. Officer: MSFC/P DOTY*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 8 1729**           **UNIV OF FLORIDA**           **3740**  
 DEVELOPMENT AND APPLICATION OF OPTIMIZATION TECHNIQUES FOR  
 ROCKET ENGINE COMPONENT DESIGN  
 06/16/2000 – 05/31/2001      FY01: \$0            Total: \$50,000  
*Prin. Invest.: W SHYY*  
*Tech. Officer: MSFC/L W GRIFFIN*  
*CASE Category: 42 – ASTRONAUTICAL ENGR*

**NAG 8 1742**           **UNIV OF FLORIDA**           **3741**  
 A GLOBAL OPTIMIZATION METHODOLOGY FOR ROCKET PRO – PULSION  
 09/06/2000 – 09/15/2001      FY01: \$0            Total: \$50,000  
*Prin. Invest.: W SHYY*  
*Tech. Officer: MSFC/K TUCKER*  
*CASE Category: 41 – AERONAUTICAL ENGNR*

**NAG 8 1791**           **UNIV OF FLORIDA**           **3742**  
 RESEARCH ENTITLED, "DEV. OF OPTIMIZATION STRATEGIE FOR FULL-  
 FLOW STAGED COMBUSTION INJECTORS  
 03/15/2001 – 03/14/2005      FY01: \$80,000        Total: \$80,000  
*Prin. Invest.: W SHYY*  
*Tech. Officer: MSFC/K TUCKER, MSFC/D CHAFFEE*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 8 1821**           **UNIV OF FLORIDA**           **3743**  
 APPLICATION OF PRESSURE SENSITIVE PAINT TO THEMMSFC 14 INCH  
 TRISONIC WIND TUNNEL  
 06/01/2001 – 05/30/2002      FY01: \$29,361        Total: \$29,361  
*Prin. Invest.: B CARROLL*  
*Tech. Officer: MSFC/A L FROST*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NAG10 145**           **UNIV OF FLORIDA**           **3744**  
 GENETICALLY ENGINEERED PLANT BIOMONITOR IN MICRO- GRAVITY  
 09/21/1994 – 08/31/2001      FY01: \$0            Total: \$711,208  
*Prin. Invest.: R J FERL*  
*Tech. Officer: KSC/W M KNOTT*  
*CASE Category: 55 – AGRICULTURE*

**NAG10 274**           **UNIV OF FLORIDA**           **3745**  
 MINIATURE LOW-POWER INTEGRATED CO/C02/02 SENSOR FO R ISRU  
 CONTROL AND VERIFICATION  
 12/03/1999 – 11/29/2000      FY01: \$0            Total: \$10,000  
*Prin. Invest.: E D WACHSMAN*  
*Tech. Officer: KSC/M BASSIGNANI*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NAG10 285**           **UNIV OF FLORIDA**           **3746**  
 CRYOGENICS R&T SUPPORT FOR KENNEDY SPACE CENTER CRYOGENICS  
 R&T SUPPORT FOR KENNEDY SPACE CENTER  
 06/05/2000 – 05/18/2002      FY01: \$95,000        Total: \$225,000  
*Prin. Invest.: C SEGAL*  
*Tech. Officer: KSC/M LONERGAN*  
*CASE Category: 43 – CHEMICAL ENGR*

**NAG10 291**           **UNIV OF FLORIDA**           **3747**  
 TIANGENIC PLANT BIOMONITORS TIANGENIC PLANT BIOMONITORS  
 09/29/2000 – 09/30/2003      FY01: \$125,399        Total: \$195,399  
*Prin. Invest.: R J FERL*  
*Tech. Officer: KSC/D R COX*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG10 293**           **UNIV OF FLORIDA**           **3748**  
 DEVELOPMENT OF AN OBJECT-ORIENTED ALS-CROP DATABASE SYSTEM  
 FOR DOCUMENTING RESEARCH AND MARS DEPLOY  
 12/08/2000 – 10/29/2003      FY01: \$45,000        Total: \$45,000  
*Prin. Invest.: R A BUCKLIN*  
*Tech. Officer: KSC/J C SAGER*  
*CASE Category: 55 – AGRICULTURE*

**NAG10 303**           **UNIV OF FLORIDA**           **3749**  
 ELECTROLYTIC REDUCTION OF CO-2 TO 0-2 AND CO FOR I SRU WITH  
 HIGH CONDUCTIVITY SOLID OXIDE ELECTROLYT  
 07/27/2001 – 04/30/2002      FY01: \$15,000        Total: \$15,000  
*Prin. Invest.: E D WACHSMAN*  
*Prin. Invest.: NONE*  
*Tech. Officer: KSC/D E LUECK*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NAS 8 97110**           **UNIV OF FLORIDA**           **3750**  
 OPERATION AND MANAGEMENT FOR THE NASA TECH TRANS- FER  
 CENTER  
 02/02/1997 – 12/30/2000      FY01: -\$369,173        Total: \$4,780,950  
*Prin. Invest.: J R THORNTON*  
*Tech. Officer: MSFC/J POE*  
*CASE Category: 42 – ASTRONAUTICAL ENGR*

**NAS10 96004**           **UNIV OF FLORIDA**           **3751**  
 ON-SITE MEDICAL SUPPORT DURING STS LAUNCH & LAND- ING OPERA-  
 TIONS  
 09/13/1996 – 09/30/2001      FY01: \$121,029        Total: \$512,555  
*Prin. Invest.: A H NEIMS*  
*Tech. Officer: KSC/D A TIPTON*  
*CASE Category: 56 – MEDICL*

**NCC 1 397**           **UNIV OF FLORIDA**           **3752**  
 FLEXIBLE WING BASED MICRO AERIAL VEHICLES  
 05/24/2000 – 09/30/2001      FY01: \$54,920        Total: \$74,920  
*Prin. Invest.: P G IFJU, D A JENKINS*  
*Tech. Officer: LARC/M R WASZAK*  
*CASE Category: 41 – AERONAUTICAL ENGNR*

**NCC 1 01023**           **UNIV OF FLORIDA**           **3753**  
 REAL-TIME FEEDBACK FLOW CONTROL  
 02/14/2001 – 01/31/2004      FY01: \$70,000        Total: \$70,000  
*Prin. Invest.: L N CATTAFESTA, III, M SHEPLAK*  
*Tech. Officer: LARC/A E WASHBURN, LARC/W L SELLERS*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NCC 1 01060**           **UNIV OF FLORIDA**           **3754**  
 CHARACTERIZATION OF MICROMACHINED THERMAL SHEAR STRESS  
 SENSOR FOR QUANTITATIVE TURBULENCE MEASUREM  
 08/30/2001 – 08/31/2003      FY01: \$5,000        Total: \$5,000  
*Prin. Invest.: M SHEPLAK, W SHYY, L N CATTAFESTA,III*  
*Tech. Officer: LARC/A E WASHBURN, LARC/A E WASHBURN*  
*CASE Category: 41 – AERONAUTICAL ENGNR*

**NCC 2 1197**           **UNIV OF FLORIDA**           **3755**  
 DO INTEGRINS MEDIATE THE SKELETAL RESPONSE TO ALTE RED  
 LOADING? (SUBPROJECT C)  
 08/28/2000 – 09/30/2002      FY01: \$24,158        Total: \$48,417  
*Prin. Invest.: T J WRONSKI*  
*Tech. Officer: ARC/R K GLOBUS, ARC/E M HOLTON*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

<b>NCC 2 5246</b>	<b>UNIV OF FLORIDA</b>	<b>3756</b>	<b>NGT 1 01022</b>	<b>UNIV OF FLORIDA</b>	<b>3764</b>
OPTIMIZATION OF INFRARED DETECTOR ARRAYS FOR AIRBORNE ASTRONOMY			GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)		
12/03/1997 - 02/28/2001	FY01: \$0	Total: \$142,822	06/01/2001 - 06/30/2003	FY01: \$22,000	Total: \$22,000
<i>Prin. Invest.:</i> C M TELESCO, R K PIKA			<i>Prin. Invest.:</i> M SHEPLAK		
<i>Tech. Officer:</i> ARC/E F ERICKSON, ARC/M R HAAS			<i>Tech. Officer:</i> LARC/K K TEDJOJUWONS		
<i>CASE Category:</i> 11 - ASTRONOMY			<i>CASE Category:</i> 41 - AERONAUTICAL ENGR		
<b>NCC 2 5403</b>	<b>UNIV OF FLORIDA</b>	<b>3757</b>	<b>NGT 1 52233</b>	<b>UNIV OF FLORIDA</b>	<b>3765</b>
COMPUTATIONAL INVESTIGATION OF CARBON NANOTUBE MATERIALS			GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)		
10/11/2000 - 10/14/2001	FY01: \$44,873	Total: \$44,873	04/24/2000 - 06/30/2001	FY01: \$12,000	Total: \$22,000
<i>Prin. Invest.:</i> S SINNOTT			<i>Prin. Invest.:</i> M SHEPHERD		
<i>Tech. Officer:</i> ARC/H PARTRIDGE, ARC/M MEYYAPPAN			<i>Tech. Officer:</i> LARC/K K TEDJOJIONO		
<i>CASE Category:</i> 22 - COMPUTER SCIENCE			<i>CASE Category:</i> 41 - AERONAUTICAL ENGR		
<b>NCC 2 5424</b>	<b>UNIV OF FLORIDA</b>	<b>3758</b>	<b>NGT 5 128</b>	<b>UNIV OF FLORIDA</b>	<b>3766</b>
UF PARTICIPATION IN THE AIRBORNE INFRARED ECHELLE SPECTROMETER PROJECT			ADAPTIVE SATELLITE ATTITUDE CONTROL/KEVIN J. WALCH KO		
02/27/2001 - 02/28/2002	FY01: \$36,167	Total: \$36,167	08/22/2001 - 07/31/2004	FY01: \$22,000	Total: \$22,000
<i>Prin. Invest.:</i> R K PINA			<i>Prin. Invest.:</i> P C MASON		
<i>Tech. Officer:</i> ARC/E F ERICKSON			<i>Tech. Officer:</i> GSFC/M S BURRELL		
<i>CASE Category:</i> 11 - ASTRONOMY			<i>CASE Category:</i> 46 - MECHANICAL ENGR		
<b>NCC 3 476</b>	<b>UNIV OF FLORIDA</b>	<b>3759</b>	<b>NGT 5 40025</b>	<b>UNIV OF FLORIDA</b>	<b>3767</b>
IN-SITU MONITORING OF CRYSTAL GROWTH USING MEPHISTO			THE NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PR		
05/22/1996 - 08/07/2000	FY01: \$0	Total: \$501,495	12/19/1996 - 09/30/2000	FY01: \$0	Total: \$1,404,996
<i>Prin. Invest.:</i> R ABBASCHIAN			<i>Prin. Invest.:</i> W SHYY		
<i>Tech. Officer:</i> GRC/C DEGON			<i>Tech. Officer:</i> GSFC/D DETROYE		
<i>CASE Category:</i> 13 - PHYSICS			<i>CASE Category:</i> 99 - MULTI INTERDISCPL, OTHER		
<b>NCC 8 149</b>	<b>UNIV OF FLORIDA</b>	<b>3760</b>	<b>NGT 5 50021</b>	<b>UNIV OF FLORIDA</b>	<b>3768</b>
RESEARCH IN COMMUNICATING SCIENTIFIC KNOWLEDGE			THE CHEM & PHY PROPERTIES OF COMETS HALE-BOPP (1996 B2)		
12/22/1997 - 12/21/2002	FY01: \$80,000	Total: \$1,039,917	07/17/1997 - 12/31/2000	FY01: \$0	Total: \$66,000
<i>Prin. Invest.:</i> D TREISE			<i>Prin. Invest.:</i> H CAMPINS		
<i>Tech. Officer:</i> MSFC/R KOCZOR			<i>Tech. Officer:</i> GSFC/A NURRIDDIN		
<i>CASE Category:</i> 99 - MULTI INTERDISCPL, OTHER			<i>CASE Category:</i> 41 - AERONAUTICAL ENGR		
<b>NCC 8 157</b>	<b>UNIV OF FLORIDA</b>	<b>3761</b>	<b>NGT 5 50031</b>	<b>UNIV OF FLORIDA</b>	<b>3769</b>
SOUTHEAST REGIONAL EARTH SCIENCE APPLICATIONS CENTER			DETECTING PLANETS IN CIRCUMSTELLAR DISKS		
10/20/1998 - 10/20/2003	FY01: \$0	Total: \$120,000	07/17/1997 - 01/31/2001	FY01: \$0	Total: \$66,000
<i>Prin. Invest.:</i> J W JONES, J W HANSEN			<i>Prin. Invest.:</i> S DERMOOTT		
<i>Tech. Officer:</i> MSFC/J ARNOLD			<i>Tech. Officer:</i> GSFC/K BLANDING		
<i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE			<i>CASE Category:</i> 41 - AERONAUTICAL ENGR		
<b>NCC 9 84</b>	<b>UNIV OF FLORIDA</b>	<b>3762</b>	<b>NGT 5 50074</b>	<b>UNIV OF FLORIDA</b>	<b>3770</b>
AUTOMATIC TEST ANALUPIS FOR ADA PROGRAMS			RAPID THERMAL PROCESSING OF INDIUM ARSENIDE USING RANSPORT		
03/18/1999 - 03/31/2001	FY01: \$0	Total: \$120,000	REACTORSTUDENT - DANIEL		
<i>Prin. Invest.:</i> Y H LEE			09/05/1997 - 08/31/2000	FY01: \$0	Total: \$64,960
<i>Tech. Officer:</i> JSC/A T LEE			<i>Prin. Invest.:</i> T ANDERSON		
<i>CASE Category:</i> 22 - COMPUTER SCIENCE			<i>Tech. Officer:</i> HQ/A NURRIDDIN		
<b>NCC 9 110</b>	<b>UNIV OF FLORIDA</b>	<b>3763</b>	<i>CASE Category:</i> 99 - MULTI INTERDISCPL, OTHER		
ENVIRONMENTAL SYSTEMS COMMERCIAL SPACE TECH CNTR			<b>NGT 5 50177</b>	<b>UNIV OF FLORIDA</b>	<b>3771</b>
09/22/2000 - 11/30/2005	FY01: \$675,000	Total: \$926,741	THE ORIGIN OF THE INFRARED EXCESS IN PRE-MAIN-SEQUENCE STARS(STUDENT - E. POLOMSKI)		
<i>Prin. Invest.:</i> J J WARWICK			05/26/1998 - 12/31/2000	FY01: -\$13,021	Total: \$52,979
<i>Tech. Officer:</i> JSC/K R DAUES			<i>Prin. Invest.:</i> C TELESCO		
<i>CASE Category:</i> 54 - ENVIRONMENTAL BIOLOGY			<i>Tech. Officer:</i> HQ/K BLANDING		
			<i>CASE Category:</i> 11 - ASTRONOMY		

**NGT 5 50233**           **UNIV OF FLORIDA**           **3772**  
 LOOKING FOR VARIATIONS IN THE INITIAL MASS FUNCTION: FIRST  
 COMPREHENSIVE NEAR-INFRARED SPECTROSCOPIC  
 05/27/1999 - 06/30/2002      FY01: \$0                Total: \$44,000  
*Prin. Invest.: E A LADA*  
*Tech. Officer: GSFC/L SMITH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 8 52890**           **UNIV OF FLORIDA**           **3773**  
 CRITICAL INITIAL FLAW (CIF) SIZE EVALUATION IN SINGLE CRYSTAL NICKEL-BASE (PWA 1493)  
 06/01/2000 - 06/30/2003      FY01: \$0                Total: \$22,000  
*Prin. Invest.: N ARAKERE*  
*Tech. Officer: MSFC/S NASH-STEVENSON*  
*CASE Category: 46 – MECHANICAL ENGR*

**NGT10 52626**           **UNIV OF FLORIDA**           **3774**  
 HIGH PERFORMANCE MASS SPECTROMETRY WITH A MINIATURE ION TRAP FOR BIOLOGICAL AND ENVIRONMENTAL MONITORING  
 07/20/2000 - 07/31/2002      FY01: \$22,000            Total: \$44,000  
*Prin. Invest.: R A YOST*  
*Tech. Officer: KSC/F ADAMS*  
*CASE Category: 12 – CHEMISTRY*

**NGT13 52710**           **UNIV OF FLORIDA**           **3775**  
 NASA GRADUATE PROGRAM-USING REMOTE SENSING TECHNIQUES TO ASSESS STRESS CONDITIONS  
 07/21/1997 - 01/31/2001      FY01: -\$18                Total: \$65,828  
*Prin. Invest.: S SHIH*  
*Tech. Officer: JSC/A JOYCE*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 1 2002**           **UNIV OF MIAMI**           **3776**  
 A COMPACT AIRBORNE SYSTEM FOR SO<sub>2</sub> & DMF MEAS FOR USE ON FUTURE MISSIONS  
 02/09/1998 - 07/14/2000      FY01: \$1                Total: \$238,701  
*Prin. Invest.: E S SALTZMAN*  
*Tech. Officer: LARC/J L RAPER, LARC/R J BENDURA*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 6033**           **UNIV OF MIAMI**           **3777**  
 AN INTEGRATED GPS SYSTEM FOR MONITORING ACTIVE VOLCANOES  
 10/02/1997 - 09/30/2000      FY01: \$0                Total: \$300,000  
*Prin. Invest.: T H DIXON*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 6576**           **UNIV OF MIAMI**           **3778**  
 SEAWIFS DATA COLLECTION, CALIBRATION AND PROCESSING FOR THE INDIAN OCEAN  
 12/15/1997 - 10/31/2000      FY01: \$0                Total: \$102,821  
*Prin. Invest.: R EVANS*  
*Tech. Officer: GSFC/J YODER*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 6577**           **UNIV OF MIAMI**           **3779**  
 HIGH ACCURACY INFRARED INTERFEROMETRIC VALIDATION OF SATELLITE SURFACE TEMPERATURE RETRIEVALS  
 12/12/1997 - 05/31/2001      FY01: \$0                Total: \$599,877  
*Prin. Invest.: P J MINNETT*  
*Tech. Officer: GSFC/J C DODGE*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 6659**           **UNIV OF MIAMI**           **3780**  
 A STUDY OF THE IMPACT OF OCEANIC BIOLOGICAL PROCESSES ON THE AIR-SEA EXCHANGE OF METHYL BROMIDE  
 11/20/1997 - 04/30/2002      FY01: \$0                Total: \$320,065  
*Prin. Invest.: E SALTZMAN*  
*Tech. Officer: GSFC/J W CAMPBELL*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7110**           **UNIV OF MIAMI**           **3781**  
 TOMS VALIDATION BASED ON PROFILES OF AEROSOL PROPERTIES IN THE LOWER TROPOSPHERE AS OBTAINED WITH  
 03/18/1998 - 03/31/2002      FY01: \$0                Total: \$452,904  
*Prin. Invest.: D M PROSPERO*  
*Tech. Officer: GSFC/J HERMAN*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 7674**           **UNIV OF MIAMI**           **3782**  
 INTEGRATION OF LONG TERM OCEANIC AEROSOL RECORDS FROM UNIVERSITY OF MIAMI NETWORK STATIONS WITH  
 09/09/1998 - 08/31/2001      FY01: \$40,000            Total: \$120,000  
*Prin. Invest.: J M PROSPERO*  
*Tech. Officer: GSFC/M I MISHCHENKO*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 8161**           **UNIV OF MIAMI**           **3783**  
 COORDINATION OF THE 4TH INTERNATIONAL SYMPOSIUM ON GAS TRANSFER AT WATER SURFACES, JUNE 5-8  
 02/05/1999 - 01/31/2001      FY01: \$0                Total: \$18,000  
*Prin. Invest.: M DONEGAN*  
*Tech. Officer: GSFC/J W CAMPBELL*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8222**           **UNIV OF MIAMI**           **3784**  
 ACTIVITIES AS PROJECT SCIENTIST OF GLOBAL MODELING INITIATIVE  
 02/10/1999 - 12/31/2000      FY01: \$0                Total: \$243,431  
*Prin. Invest.: J RODRIGUEZ*  
*Tech. Officer: GSFC/R W STEWART*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 8229**           **UNIV OF MIAMI**           **3785**  
 STUDIES OF WESTERN PACIFIC INTERANNUAL ANOMALY PATTERNS TOWARD IMPROVED ENSO PREDICTION  
 02/24/1999 - 03/31/2002      FY01: \$49,075            Total: \$175,623  
*Prin. Invest.: G HALIWELL*  
*Tech. Officer: GSFC/M RIENECKER*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8864**           **UNIV OF MIAMI**           **3786**  
 SEAWIFS DATA COLLECTION, CALIBRATION, & PROCESSING FOR THE INDIAN OCEAN  
 12/02/1999 - 01/31/2002      FY01: \$54,525            Total: \$107,010  
*Prin. Invest.: R H EVANS*  
*Tech. Officer: GSFC/J MARRA*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9066**           **UNIV OF MIAMI**           **3787**  
 PRESENT DAY TECTRONICS OF THE CENTRAL ANDES  
 02/18/2000 - 02/28/2002      FY01: \$16,500            Total: \$66,000  
*Prin. Invest.: T H DIXON*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 9068** UNIV OF MIAMI 3788  
 VOLCANO PLUME MONITORING USING UNMANNED AERIAL VEHICLES  
 02/17/2000 - 02/28/2002 FY01: \$113,510 Total: \$188,510  
*Prin. Invest.: T H DIXON*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 9627** UNIV OF MIAMI 3789  
 A SATELLITE DATA RECEPTION & ANALYSIS FACILITY FOR ENVIRONMENTAL MONITORING IN THE SOUTHEASTERN  
 08/10/2000 - 07/14/2002 FY01: \$997,800 Total: \$1,912,800  
*Prin. Invest.: T DIXON*  
*Tech. Officer: GSFC/A R TUYAHOV*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9739** UNIV OF MIAMI 3790  
 DERIVATION, VALIDATION, & EXPLOITATION OF SEA-SUR FACE TEMPERATURES MEASURED BY SENSORS ON TRMM  
 06/28/2000 - 05/31/2002 FY01: \$92,000 Total: \$151,500  
*Prin. Invest.: P J MINNETT*  
*Tech. Officer: GSFC/R J LAWRENCE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 10588** UNIV OF MIAMI 3791  
 CONTINUED PROCESSING & EXTENSION OF THE AVHRR PATH FINDER OCEANS GLOBALSEA SURFACE TEMPERATUREDATA  
 03/20/2001 - 03/31/2002 FY01: \$107,060 Total: \$107,060  
*Prin. Invest.: R EVANS*  
*Tech. Officer: GSFC/J DODGE*  
*CASE Category: 33 – OCEANOGRAPHY*

**NAG 5 10725** UNIV OF MIAMI 3792  
 ACTIVITIES AS PROJECT SCIENTIST OF THE GLOBAL MODE LING INITIATIVE.  
 04/09/2001 - 02/28/2002 FY01: \$162,267 Total: \$162,267  
*Prin. Invest.: J RODRIGUEZ*  
*Tech. Officer: GSFC/P DECOLA*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10928** UNIV OF MIAMI 3793  
 A SATELLITE DATA RECEPTION & ANALYSIS FACILITY FOR ENVIRONMENTAL MONITORING IN THE SOUTHEASTERN  
 05/11/2001 - 06/08/2001 FY01: \$0 Total: \$0  
*Prin. Invest.: T DIXON*  
*Tech. Officer: GSFC/T GUBBELS*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 10963** UNIV OF MIAMI 3794  
 IMPROVING TROPICAL CYCLONE QUANTITATIVE PRECIPITATION FORECASTS USING TRMM PRECIPITATION ESTIMATES  
 06/01/2001 - 05/31/2002 FY01: \$70,000 Total: \$70,000  
*Prin. Invest.: S S CHEN*  
*Tech. Officer: GSFC/R J LAWRENCE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 11104** UNIV OF MIAMI 3795  
 TRANS-OCEANIC MEASUREMENTS FOR EOS AQUA VALIDATION-AQUA-0058-0087  
 07/13/2001 - 08/31/2002 FY01: \$163,174 Total: \$163,174  
*Prin. Invest.: P J MINNETT*  
*Tech. Officer: GSFC/D Q STARR*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 11277** UNIV OF MIAMI 3796  
 ANALYSIS OF TROPOSPHERIC MEASUREMENTS UTILIZING A HIERARCHY OF MODELS  
 08/22/2001 - 08/31/2004 FY01: \$78,555 Total: \$78,555  
*Prin. Invest.: J RODRIGUEZ*  
*Tech. Officer: GSFC/P DECOLA*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 9 1346** UNIV OF MIAMI 3797  
 AWARD BASIC GRANT  
 07/27/2001 - 09/30/2004 FY01: \$66,000 Total: \$66,000  
*Prin. Invest.: L INVERARDI*  
*Tech. Officer: JSC/D RISEN*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAS 5 31361** UNIV OF MIAMI 3798  
 MODIS – INVESTIGATION  
 01/15/1992 - 03/14/2002 FY01: \$1,161,000 Total: \$8,314,000  
*Prin. Invest.: O B BROWN*  
*Tech. Officer: GSFC/H OSEROFF*  
*CASE Category: 33 – OCEANOGRAPHY*

**NAS 5 31362** UNIV OF MIAMI 3799  
 EOS/MODIS INVESTIGATION ENTITLED: "PROCESSING/ CALIBRATION FOR OCEAN OBSERVATION WITH EOS/MODIS"  
 12/13/1991 - 03/14/2002 FY01: \$1,377,000 Total: \$11,122,000  
*Prin. Invest.: R EVANS*  
*Tech. Officer: GSFC/H OSEROFF*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAS 5 31363** UNIV OF MIAMI 3800  
 MODERATE RESOLUTION IMAGING SPECTROMETER INVESTIGATION – OCEAN  
 01/15/1992 - 03/14/2002 FY01: \$836,000 Total: \$6,198,000  
*Prin. Invest.: H GORDON*  
*Tech. Officer: GSFC/H OSEROFF*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAS 5 31734** UNIV OF MIAMI 3801  
 DEVELOPMENT FOR SEAWIFS  
 11/22/1991 - 04/21/2001 FY01: \$51,252 Total: \$318,375  
*Prin. Invest.: H GORDON*  
*Tech. Officer: GSFC/C MCCLAIN*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 1 01021** UNIV OF MIAMI 3802  
 DEPLOY FAST-GAS GC/MS SYS TO MEAS C2&C5 CARBONYLS, METHANOL & ETHANOL ON NASA AIRCRAFT DURING TRACE-03/13/2001 - 10/14/2002 FY01: \$49,959 Total: \$49,959  
*Prin. Invest.: D D RIEMER*  
*Tech. Officer: LARC/J L RAPER*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NGT 5 30222**           **UNIV OF MIAMI**           **3803**  
 MID-OCEAN MESOSCALE VARIABILITY AS DEDUCED FROM TOPEX ALTIMETRY & HIGH-RESOLUTION NUMERICAL MODELI  
 08/26/1999 - 08/31/2000      FY01: \$0      Total: \$10,000  
*Prin. Invest.: O B BROWN*  
*Tech. Officer: GSFC/M Y WEI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 30425**           **UNIV OF MIAMI**           **3804**  
 A STUDY OF GLOBAL RAINFALL DISTRIBUTIONS IN TROPICAL CYCLONES USING NASA/TRMM DATA/STUDENT: MAN  
 09/19/2001 - 09/30/2004      FY01: \$22,000      Total: \$22,000  
*Prin. Invest.: S S CHEN*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 1 01046**           **UNIV OF SOUTH FLORIDA**           **3805**  
 COMBINED THERMAL AND STRUCTURAL OPTIMIZATION OF FUNCTIONALLY GRADED TILE  
 03/26/2001 - 12/31/2001      FY01: \$65,000      Total: \$65,000  
*Prin. Invest.: R T HAFTA, S VENKATARAMAN, B V SANKAR*  
*Tech. Officer: LARC/M L BLOSSER*  
*CASE Category: 42 – ASTRONAUTICAL ENGR*

**NAG 3 2614**           **UNIV OF SOUTH FLORIDA**           **3806**  
 DEVELOPMENT OF A FLEXIBLE II-VI-BASED HIGH PERFORMANCE HIGH BANDGAP DEVICE FOR THIN FILM TANDEM SOL  
 05/23/2001 - 04/30/2003      FY01: \$58,837      Total: \$58,837  
*Prin. Invest.: D MOREL*  
*Tech. Officer: GRC/A HEPP*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NAG 5 3446**           **UNIV OF SOUTH FLORIDA**           **3807**  
 BOTTOM-ASSESSMENT AND WATER-CONSTITUENT ALGORITHMS FOR THE ETM IN THE COASTAL ZONE  
 10/10/1996 - 06/30/2001      FY01: \$69,917      Total: \$782,681  
*Prin. Invest.: KARGER*  
*Tech. Officer: GSFC/D L WILLIAMS*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 5202**           **UNIV OF SOUTH FLORIDA**           **3808**  
 COLLABORATION ON A STUDY OF SIGMA NAUGHT BLOOM EFFECTS ON RADAR ALTIMETERS  
 06/18/1998 - 06/21/2002      FY01: \$35,000      Total: \$110,000  
*Prin. Invest.: G T MITCHUM*  
*Tech. Officer: GSFC/G S HAYNE*  
*CASE Category: 33 – OCEANOGRAPHY*

**NAG 5 6301**           **UNIV OF SOUTH FLORIDA**           **3809**  
 HYPERSPECTRAL CHARACTERIZATION FOR APPLICATION TO CARBON CYCLING IN COASTAL REGIONS  
 09/02/1997 - 08/14/2001      FY01: \$0      Total: \$335,571  
*Prin. Invest.: P COBLE*  
*Tech. Officer: GSFC/J YODER*  
*CASE Category: 33 – OCEANOGRAPHY*

**NAG 5 6448**           **UNIV OF SOUTH FLORIDA**           **3810**  
 SYNOPTIC ANALYSIS OF FACTORS INFLUENCING CARBON FLUXES AT THE CARIACO CONTINENTAL MARGIN TIME SER  
 10/24/1997 - 09/30/2001      FY01: \$0      Total: \$446,836  
*Prin. Invest.: F MULLER-KARGER*  
*Tech. Officer: GSFC/J MARRA*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 6449**           **UNIV OF SOUTH FLORIDA**           **3811**  
 A NUMERICAL ANALYSIS OF NEW NITROGEN SOURCES OF NO<sub>3</sub> AND N<sub>2</sub> EFFECTING CARBON CYCLING IN THE SOUTH  
 10/24/1997 - 10/14/2001      FY01: \$0      Total: \$582,965  
*Prin. Invest.: J WALSH*  
*Tech. Officer: GSFC/J MARRA*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8175**           **UNIV OF SOUTH FLORIDA**           **3812**  
 SOUTHEASTERN US X-BAND EOS DB RECEPTION FACILITY ( SEUS-X): INFRASTRUCTURE FOR ENVIRONMENTAL ASSESSMENT  
 02/04/1999 - 02/14/2001      FY01: -\$9,340      Total: \$490,660  
*Prin. Invest.: F E MULLER-KARGER*  
*Tech. Officer: GSFC/J DODGE*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 10532**           **UNIV OF SOUTH FLORIDA**           **3813**  
 SOUTHEASTERN US X-BAND EOS DB PROCESSING AND ANALYSIS FACILITY INFRASTRUCTURE FOR ENVIRONMENT  
 03/12/2001 - 02/28/2002      FY01: \$227,319      Total: \$227,319  
*Prin. Invest.: F MULLER-KARGER*  
*Tech. Officer: GSFC/J DODGE*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 10738**           **UNIV OF SOUTH FLORIDA**           **3814**  
 IMPACTS OF LARGE RIVER PLUMES ON CARBON AND SALT FLUXES IN THE SURFACE OCEAN  
 04/18/2001 - 04/30/2002      FY01: \$125,853      Total: \$125,853  
*Prin. Invest.: C CHU*  
*Tech. Officer: GSFC/J MARRA*  
*CASE Category: 33 – OCEANOGRAPHY*

**NAG 5 10908**           **UNIV OF SOUTH FLORIDA**           **3815**  
 A MILLENIUM GLOBAL SCALE CORAL REEF ECOSYSTEM ASSESSMENT USING HIGH RESOLUTION REMOTESENSING DATA  
 05/07/2001 - 05/31/2002      FY01: \$50,000      Total: \$50,000  
*Prin. Invest.: S ANDREFOUET*  
*Tech. Officer: GSFC/J MARRA*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 11254**           **UNIV OF SOUTH FLORIDA**           **3816**  
 AN ASSESSMENT OF GLOBAL ORGANIC CARBON FLUX ALONG CONTINENTAL MARGINS  
 08/20/2001 - 08/31/2004      FY01: \$133,545      Total: \$133,545  
*Prin. Invest.: F MULLER-KARGER*  
*Tech. Officer: GSFC/J MARRA*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 8 1381**           **UNIV OF SOUTH FLORIDA**           **3817**  
 RESEARCH "DEVELOPMENT OF AN INSULIN SECRETING IMMUNOPRIVILEGED CELL-CELL AGGREGATE UTILIZING  
 06/01/1997 - 12/31/2001      FY01: \$50,000      Total: \$426,000  
*Prin. Invest.: D CAMERON*  
*Tech. Officer: MSFC/B GUYNES, MSFC/J MAYO*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 9 648**           **UNIV OF SOUTH FLORIDA**           **3818**  
 EVALUATION OF OVARIAN TUMOR CELL GROWTH AND GENE EXPRESSION  
 10/28/1992 - 01/31/2002      FY01: \$0      Total: \$600,000  
*Prin. Invest.: J L BECKER*  
*Tech. Officer: JSC/S R GONDA*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 9 1341** UNIV OF SOUTH FLORIDA 3819  
 3D GROWTH EFFECTS ON DRUG RESISTANCE IN HUMAN OVARIAN TUMOR CELLS  
 08/01/2001 - 09/30/2004 FY01: \$35,000 Total: \$35,000  
*Prin. Invest.: J L BECKER, NONE*  
*Tech. Officer: JSC/D RISIN*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 9 1365** UNIV OF SOUTH FLORIDA 3820  
 CREATION AND TRANSPLANTATION OF IMMUNOPRIVILEGED SERTOLI-NUERON-AGGREGATED CELLS  
 07/27/2001 - 09/30/2002 FY01: \$68,000 Total: \$68,000  
*Prin. Invest.: S SAPORTA, D F CAMERON, A E WILLING*  
*Tech. Officer: JSC/D RISEN*  
*CASE Category: 56 – MEDICAL*

**NAG10 204** UNIV OF SOUTH FLORIDA 3821  
 EDUCATION GRANT ENTITLED "YES WE CARE"  
 01/07/1997 - 06/30/2002 FY01: \$0 Total: \$324,546  
*Prin. Invest.: R E HENNING*  
*Tech. Officer: KSC/J A DIGGS*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAS 3 26412** UNIV OF SOUTH FLORIDA 3822  
 ACTS PROPAGATION EXPERIMENTS  
 05/03/1993 - 09/30/2000 FY01: \$0 Total: \$376,895  
*Prin. Invest.: R E HENNING*  
*Tech. Officer: GRC/G J GUDEMAN*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAS 5 31716** UNIV OF SOUTH FLORIDA 3823  
 EARTH OBSERVING SYSTEM MODIS/HIRIS TEAM MEMBER INVESTIGATION  
 01/15/1992 - 12/14/2001 FY01: \$698,000 Total: \$5,511,168  
*Prin. Invest.: K R CARDER*  
*Tech. Officer: GSFC/H OSEROFF*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAS 5 97128** UNIV OF SOUTH FLORIDA 3824  
 CAL/VAL OF CARBON FLUXES FOR SIMBIOS  
 08/18/1997 - 10/17/2001 FY01: \$0 Total: \$616,988  
*Prin. Invest.: F E MULLER-KARGER*  
*Tech. Officer: GSFC/C R MCCLAIN*  
*CASE Category: 33 – OCEANOGRAPHY*

**NAS 5 97137** UNIV OF SOUTH FLORIDA 3825  
 STRAY LIGHT & ATMOSPHERIC ADJACENCY EFFECTS FOR LARGE FOV OCEAN VIEWING SPACE SENSORS  
 09/23/1997 - 03/22/2001 FY01: \$0 Total: \$520,841  
*Prin. Invest.: K CARTER*  
*Tech. Officer: GSFC/J L MUELLER*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NGT 5 30143** UNIV OF SOUTH FLORIDA 3826  
 EL NINO/SOUTHERN OSCILLATION IN THE ANTARCTIC CIRCUMPOLAR CURRENT  
 08/27/1998 - 08/31/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.: G T MITHCHUM, HAAN*  
*Tech. Officer: GSFC/M Y WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 30159** UNIV OF SOUTH FLORIDA 3827  
 FUNCTIONAL GROUPING OF PLANTS IN FLORIDA SCRUB HAB ITAT  
 08/28/1998 - 08/31/2000 FY01: \$0 Total: \$22,000  
*Prin. Invest.: J R BROOKS*  
*Tech. Officer: GSFC/M Y WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 30346** UNIV OF SOUTH FLORIDA 3828  
 CHARACTERIZATION OF CDOM RIVERINE CONTRIBUTION AND DISTRIBUTION THOROUGH REMOTE SENSING SATELLITE IMA  
 08/21/2000 - 08/31/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.: P COBLE*  
*Prin. Invest.: NONE*  
*Tech. Officer: GSFC/M Y WEI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 30354** UNIV OF SOUTH FLORIDA 3829  
 IMPACT OF LARGE & SMALL RIVERS ON ADJACENT OCEANIC ENVIRONMENTS/STUDENT: ANA ODRIOLLA  
 08/24/2000 - 08/31/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.: F MULLER-KARGER*  
*Tech. Officer: GSFC/M Y WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 30414** UNIV OF SOUTH FLORIDA 3830  
 MAPPING AND MONITORING OF CHANGE IN THE FLORIDA KEYS REEF TRACT FROM SPACE USING LANDSAT 7, MODI  
 08/15/2001 - 08/31/2004 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: F MULLER-KARGER*  
*Tech. Officer: GSFC/M Y WEI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 1 2236** UNIV OF WEST FLORIDA 3831  
 INTELLIGENT TACTILE SYSTEMS FOR IMPROVED SAFETY OF FLIGHT (NRA-98-LARC-8)  
 09/20/1999 - 12/31/2001 FY01: \$163,512 Total: \$395,962  
*Prin. Invest.: A K RAV*  
*Tech. Officer: LARC/W K GERDEN*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 2 1225** UNIV OF WEST FLORIDA 3832  
 ATTENTION DIRECTING PILOTING DISPLAY: OZ A COMPUTER BASED HUMAN-CENTERED SYSTEM  
 05/29/1998 - 01/31/2002 FY01: \$99,268 Total: \$472,427  
*Prin. Invest.: D L STILL*  
*Tech. Officer: ARC/D C FOYLE*  
*CASE Category: 69 – PSYCHOLOGY, OTHER*

**NGT 2 1226** UNIV OF WEST FLORIDA 3833  
 INTELLIGENT HUMAN COMPUTER TACTILE INTERFACES FOR ROTORCRAFT & CIVIL AVIATION  
 06/11/1998 - 12/31/2001 FY01: \$0 Total: \$485,906  
*Prin. Invest.: N SURI, F GUEDRY, A RAZ*  
*Tech. Officer: ARC/J DEMAIO, ARC/J V LEBACQZ*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 2 1332** UNIV OF WEST FLORIDA 3834  
 ADAPTING AN ATTENTION DIRECTION PILOTING DISPLAY FOR THE SPACE SHUTTLE  
 06/21/1999 - 09/30/2001 FY01: \$74,982 Total: \$222,596  
*Prin. Invest.: D STILL*  
*Tech. Officer: HQ/A R GROSS*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NAG 2 1490** UNIV OF WEST FLORIDA 3835  
 TACTILE INTERFACES TO ENHANCE SAFETY PERFORMANCE AND RELIABILITY IN AGRICULTURAL  
 07/02/2001 - 12/31/2001 FY01: \$54,000 Total: \$54,000  
*Prin. Invest.: A K RAJ*  
*Tech. Officer: ARC/J DEMAIO*  
*CASE Category: 69 – PSYCHOLOGY, OTHER*

**NAG 5 8782** UNIV OF WEST FLORIDA 3836  
 HAPTIC INTERFACES TO AUGMENT HUMAN/MACHINE INTERACTION IN SPACE ACTIVITES  
 08/30/1999 - 02/28/2002 FY01: \$154,987 Total: \$402,754  
*Prin. Invest.: A K RAJ*  
*Tech. Officer: GSFC/R CROUCH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 9 1386** UNIV OF WEST FLORIDA 3837  
 HUMAN CENTERED COMPUTING PERSPECTIVE ON MARS EXPLORATION  
 09/21/2001 - 09/30/2002 FY01: \$175,000 Total: \$175,000  
*Prin. Invest.: J HANSEN*  
*Tech. Officer: JSC/B WARD*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 2 1036** UNIV OF WEST FLORIDA 3838  
 EXPLANATION & COLLABORATION THROUGH CONCEPT MAPS  
 05/07/1998 - 06/30/2001 FY01: \$0 Total: \$604,499  
*Prin. Invest.: A J CANAS*  
*Tech. Officer: ARC/B H WHITAKER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 2 1191** UNIV OF WEST FLORIDA 3839  
 UNSOLICITED PROPOSAL TO ESTABLISH THE INFORMATION TECHNOLOGY ASSESSMENT CONSORTIUM (ITAC) & SUPPORT  
 08/07/2000 - 12/31/2001 FY01: \$793,849 Total: \$959,849  
*Prin. Invest.: K M FORD*  
*Tech. Officer: ARC/M E DUENAS*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NCC 2 1239** UNIV OF WEST FLORIDA 3840  
 POLISHING: ENHANCING DATA QUALITY BY REPAIRING IMPERFECTIONS  
 04/06/2001 - 02/28/2002 FY01: \$117,000 Total: \$117,000  
*Prin. Invest.: C M TENG*  
*Tech. Officer: ARC/J SKILES*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NCC 2 1254** UNIV OF WEST FLORIDA 3841  
 TEAMWORK IN PRACTICE: DESIGN FOR COLLABORATION IN MIXED HUMAN-ROBOTIC TEAMS  
 04/27/2001 - 02/28/2002 FY01: \$162,000 Total: \$162,000  
*Prin. Invest.: J M BRADSHAW*  
*Tech. Officer: ARC/R LALENA, ARC/M G SHAFTO*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NCC 2 1283** UNIV OF WEST FLORIDA 3842  
 MULTI-AGENT SOFTWARE DESIGN & ENGINEERING FOR HUMAN-CENTERED COLLABORATIVE AUTONOMOUS SPACE SYSTEMS  
 09/04/2001 - 08/31/2002 FY01: \$297,400 Total: \$297,400  
*Prin. Invest.: J M BRADSHAW*  
*Tech. Officer: ARC/D CLANCY*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG10 165** VALENCIA COMMUNITY COLLEGE 3843  
 HIGH TECH TRNG OF INDIVIDUALS W/DISABILITY  
 06/06/1995 - 08/31/2000 FY01: \$20,000 Total: \$135,043  
*Prin. Invest.: K WOODBERRY*  
*Tech. Officer: KSC/G BUCKINGHAM*  
*CASE Category: 22 – COMPUTER SCIENCE*

## GEORGIA

**NAG10 265** ALBANY STATE UNIV 3844  
 ALBANY STATE UNIV HIGH SCHOOL/HIGH TECH ALBANY STATE UNIV HIGH SCHOOL/HIGH TECH  
 09/10/1999 - 09/30/2002 FY01: \$75,000 Total: \$200,000  
*Prin. Invest.: D HODGES-TILLER*  
*Prin. Invest.: NONE*  
*Tech. Officer: KSC/R J MCKINNEY*  
*CASE Category: 79 – SOCIAL SCIENCE, OTHER*

**NAG 1 01091** CLARK ATLANTA UNIV 3845  
 COMMERCIAL PROCESS DEVELOPMENT FOR POLYIMIDE FOAMS  
 05/24/2001 - 05/24/2004 FY01: \$75,000 Total: \$75,000  
*Prin. Invest.: D R VEAZIE*  
*Tech. Officer: LARC/E S WEISER*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NAG 3 1973** CLARK ATLANTA UNIV 3846  
 GROWTH AND CHARACTERIZATION OF III-V SEMICONDUCTORS FOR DEVICE APPLICATIONS  
 09/26/1996 - 06/30/2000 FY01: \$0 Total: \$299,214  
*Prin. Invest.: M D WILLIAMS*  
*Tech. Officer: GRC/S A ALTERNOVITZ*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NAG 3 2292** CLARK ATLANTA UNIV 3847  
 TEST AND EVALUATION OF NONCHROMATE FINISHING AGENT  
 09/29/1999 - 08/23/2001 FY01: \$0 Total: \$199,998  
*Prin. Invest.: D OKHIO*  
*Tech. Officer: GRC/R LAWRENCE*  
*CASE Category: 43 – CHEMICAL ENGR*

**NAG 5 6889** CLARK ATLANTA UNIV 3848  
 ELECTRON EXCITATION CROSS SECTIONS OF ATOMS AND IONS RELEVANT TO PLANETARY ATMOSPHERES  
 01/21/1998 - 09/30/2001 FY01: \$0 Total: \$192,755  
*Prin. Invest.: S TAYAL*  
*Tech. Officer: GSFC/R BEEBE*  
*CASE Category: 11 – ASTRONOMY*

<b>NAG 5 8792</b>	<b>CLARK ATLANTA UNIV</b>	<b>3849</b>	<b>NCC 3 911</b>	<b>CLARK ATLANTA UNIV</b>	<b>3857</b>
DEVELOPMENT OF DISPERSION RELATIONS FOR SOLAR AND STELLAR DIAGNOSTICS			DEVELOPING NOVEL FLUORESCENT MATERIALS WITH NEAR I NFRARED EMISSION BY USING M-PHENYLENE		
09/02/1999 - 08/31/2001	FY01: \$0	Total: \$197,950	09/04/2001 - 08/19/2002	FY01: \$20,000	Total: \$20,000
<i>Prin. Invest.: A MSEZANE</i>			<i>Prin. Invest.: D PANG</i>		
<i>Tech. Officer: GSFC/A TEMKIN</i>			<i>Tech. Officer: GRC/M A MEADOR</i>		
<i>CASE Category: 13 - PHYSICS</i>			<i>CASE Category: 12 - CHEMISTRY</i>		
<b>NAG 8 1493</b>	<b>CLARK ATLANTA UNIV</b>	<b>3850</b>	<b>NCC 5 347</b>	<b>CLARK ATLANTA UNIV</b>	<b>3858</b>
MOBILE SCIENCE, MATHEMATICS EDUCATION UNIT			INTEGRATION OF RESEARCH AND EDUCATION IN THE AREA OF EARTH SYSTEMS SCIENCE		
06/01/1998 - 08/15/2001	FY01: \$0	Total: \$295,984	07/01/1998 - 06/30/2002	FY01: \$440,032	Total: \$1,929,914
<i>Prin. Invest.: A MSEZANE</i>			<i>Prin. Invest.: C H WILLIAMS</i>		
<i>Tech. Officer: MSFC/W LOVE</i>			<i>Tech. Officer: GSFC/M MATHEWS</i>		
<i>CASE Category: 21 - MATHEMATICS</i>			<i>CASE Category: 99 - MULTI INTERDISCPL, OTHER</i>		
<b>NAG 8 1535</b>	<b>CLARK ATLANTA UNIV</b>	<b>3851</b>	<b>NAG 8 1579</b>	<b>EMORY UNIV</b>	<b>3859</b>
MASTAP FOR SCIENCE TEACHERS OPEN SUPPORT SYSTEMS (S-TOSS)			DESIGN, SYNTHESIS, AND CHARACTERIZATION OF WELL-DEFINED, BIOMIMETIC POLYPEPTIDE NETWORKS"		
05/07/1998 - 05/01/2001	FY01: \$0	Total: \$600,000	01/05/1999 - 11/30/2002	FY01: \$115,900	Total: \$340,424
<i>Prin. Invest.: B E ALICK</i>			<i>Prin. Invest.: V CONTICELLO</i>		
<i>Tech. Officer: MSFC/A C BEAM</i>			<i>Tech. Officer: MSFC/B GUYNES</i>		
<i>CASE Category: 99 - MULTI INTERDISCPL, OTHER</i>			<i>CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)</i>		
<b>NAG 8 1814</b>	<b>CLARK ATLANTA UNIV</b>	<b>3852</b>	<b>NAG 1 1890</b>	<b>GEORGIA INST OF TECHNOLOGY</b>	<b>3860</b>
TRANSFER ICEMS INSPIRING CAREERS IN ENGINEERING, MATHEMATICS AND SCIENCE FROM MOORHOUSE TO CLARK AT			HIGH TEMPERATURE COMPOSITE/METAL LAMINATES		
05/21/2001 - 09/05/2001	FY01: \$19,864	Total: \$19,864	01/17/1997 - 08/31/2000	FY01: -\$1	Total: \$181,232
<i>Prin. Invest.: E MCDONALD</i>	<i>Prin. Invest.: NONE</i>		<i>Prin. Invest.: W S JOHNSON</i>		
<i>Tech. Officer: MSFC/E ORDONEZ</i>			<i>Tech. Officer: LARC/T L ST. CLAIR, LARC/S E LOWTHER</i>		
<i>CASE Category: 21 - MATHEMATICS</i>			<i>CASE Category: 47 - METAL &amp; MATERIALS ENGR</i>		
<b>NAS 3 01201</b>	<b>CLARK ATLANTA UNIV</b>	<b>3853</b>	<b>NAG 1 2014</b>	<b>GEORGIA INST OF TECHNOLOGY</b>	<b>3861</b>
RESIN TRANSFER MOLDING AND VACUUM ASSISTED RESIN TRANSFER MOLDING PROGRAM			TECHNIQUES FOR IMPROVING PILOT RECOVERY FROM SYSTEM FAILURES		
08/27/2001 - 07/31/2002	FY01: \$56,136	Total: \$56,136	03/02/1998 - 08/31/2001	FY01: \$1	Total: \$158,744
<i>Prin. Invest.: E A MINTZ</i>			<i>Prin. Invest.: A R PRITCHETT</i>		
<i>Tech. Officer: GRC/M A MEADOR</i>			<i>Tech. Officer: LARC/A C TRUJILLO</i>		
<i>CASE Category: 12 - CHEMISTRY</i>			<i>CASE Category: 41 - AERONAUTICAL ENGR</i>		
<b>NCC 3 552</b>	<b>CLARK ATLANTA UNIV</b>	<b>3854</b>	<b>NAG 1 2146</b>	<b>GEORGIA INST OF TECHNOLOGY</b>	<b>3862</b>
HIGH PERFORMANCE POLYMERS AND COMPOSITES CENTER			APPLIC OF CIRCULATION CONTROL TECHNOL TO AIRFRAME NOISE REDUCTION		
04/29/1997 - 02/28/2002	FY01: \$1,649,525	Total: \$4,999,438	03/09/1999 - 02/28/2002	FY01: \$215,000	Total: \$634,721
<i>Prin. Invest.: A A MINTZ</i>			<i>Prin. Invest.: K K AHUIA, L N SANKAR, R J ENGLAN</i>		
<i>Tech. Officer: GRC/S DUTTA, GRC/M A MEADOR</i>			<i>Tech. Officer: LARC/R R ANTCLIFF</i>		
<i>CASE Category: 47 - METAL &amp; MATERIALS ENGR</i>			<i>CASE Category: 41 - AERONAUTICAL ENGR</i>		
<b>NCC 3 707</b>	<b>CLARK ATLANTA UNIV</b>	<b>3855</b>	<b>NAG 1 2149</b>	<b>GEORGIA INST OF TECHNOLOGY</b>	<b>3863</b>
LIQUID FUELS: PYROLYtic DEGRADATION AND FIRE SPREAD BEHAVIOR AS INFLUENCED BY BUOYANCY			DEVELOPMENT FOR ADVANCED LIFE CYCLE COSTING METHOD FOR TECHNOLOGY BENEFITS/COSTS/RISK ASSESSMENT		
05/19/1999 - 03/14/2002	FY01: \$132,964	Total: \$367,234	03/26/1999 - 12/31/2001	FY01: \$108,342	Total: \$323,593
<i>Prin. Invest.: Y D YEBOAH</i>			<i>Prin. Invest.: D N MAVRIS</i>		
<i>Tech. Officer: GRC/H D ROSS</i>			<i>Tech. Officer: LARC/M D MOORE, LARC/P A GELHAUSEN</i>		
<i>CASE Category: 49 - ENGINEERING, OTHER</i>			<i>CASE Category: 41 - AERONAUTICAL ENGR</i>		
<b>NCC 3 910</b>	<b>CLARK ATLANTA UNIV</b>	<b>3856</b>	<b>NAG 1 2169</b>	<b>GEORGIA INST OF TECHNOLOGY</b>	<b>3864</b>
DEVELOPMENT OF THERMALLY STABLE AND HIGHLY FLUORESCENT IR DYES			PNEUMATIC AERODYNAMICS AND CONTROL FOR CHANNEL WING POWERED-LIFT AIRCRAFT		
08/21/2001 - 08/19/2002	FY01: \$20,000	Total: \$20,000	03/24/1999 - 02/28/2002	FY01: \$103,000	Total: \$298,000
<i>Prin. Invest.: D R BU</i>			<i>Prin. Invest.: R J ENGLAR</i>		
<i>Tech. Officer: GRC/M A MEADOR</i>			<i>Tech. Officer: LARC/W T HODGES</i>		
<i>CASE Category: 12 - CHEMISTRY</i>			<i>CASE Category: 41 - AERONAUTICAL ENGR</i>		

**NAG 1 2175 GEORGIA INST OF TECHNOLOGY 3865**  
 RAPIDLY RE-CONFIGURABLE FLIGHT SIMULATOR TOOLS FOR CREW VEHICLE INTEGRATION RESEARCH AND DESIGN  
 04/09/1999 - 03/29/2002 FY01: \$1 Total: \$85,820  
*Prin. Invest.: A R PRITCHETT*  
*Tech. Officer: LARC/P C SCHUTTE, LARC/A C TRUJILLO*  
*CASE Category: 22 – COMPUTERSCIENCE*

**NAG 1 2202 GEORGIA INST OF TECHNOLOGY 3866**  
 SAGE II OZONE (V6.0) ANAL W/EMPHASIS ON LONG TERM TRENDS IN THE LOWER STRATOSPHERE(NRA-98-OES-04)  
 06/11/1999 - 07/07/2002 FY01: \$98,000 Total: \$254,700  
*Prin. Invest.: D M CUNNOLD*  
*Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 1 2235 GEORGIA INST OF TECHNOLOGY 3867**  
 EXPLORATION OF ADVANCED PROBABILISTIC/STOCHASTIC DESIGN METHODS  
 08/26/1999 - 08/31/2002 FY01: \$65,000 Total: \$264,819  
*Prin. Invest.: D MAVRIS, NONE*  
*Tech. Officer: GRC/R E YACKOVETSKY, GRC/M D MOORE*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 1 2243 GEORGIA INST OF TECHNOLOGY 3868**  
 DEMO/EVAL OF INTELLIGENT FLT PROPULSION & CONTROL SYS UNDER UNANTICIPATED CRITICALFAILURE CONDITION  
 09/27/1999 - 09/30/2001 FY01: \$0 Total: \$162,846  
*Prin. Invest.: A J CALISE*  
*Tech. Officer: LARC/P W GOODE*  
*CASE Category: 29 – MATH/COMPUTER SCI, OTHER*

**NAG 1 2245 GEORGIA INST OF TECHNOLOGY 3869**  
 INCONEL HOLLOW SPHERE STRUCTURES FOR LIGHTWEIGHT PANELS -- NRA 99-LARC-1  
 09/22/1999 - 01/31/2002 FY01: \$0 Total: \$50,001  
*Prin. Invest.: J K COCHRAN, J K LEE, T H SANDERS*  
*Tech. Officer: LARC/W D BREWER, LARC/S J HALES*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NAG 1 2276 GEORGIA INST OF TECHNOLOGY 3870**  
 SIMPLE ELASTICITY OF MODELING AND FAILURE PREDICTION OF COMPOSITE FLEXBEAMS  
 03/06/2000 - 10/31/2000 FY01: \$0 Total: \$65,000  
*Prin. Invest.: E A ARMANIOS*  
*Tech. Officer: LARC/T K OBIEN/D R AMBUR*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 1 2280 GEORGIA INST OF TECHNOLOGY 3871**  
 IMPROVING CONCEPTUAL DESIGN FOR LAUNCH VEHICLES  
 03/20/2000 - 12/19/2000 FY01: -\$8 Total: \$53,992  
*Prin. Invest.: J R OLDS*  
*Tech. Officer: LARC/T A TALAY*  
*CASE Category: 42 – ASTRONAUTICAL ENGR*

**NAG 1 2312 GEORGIA INST OF TECHNOLOGY 3872**  
 NANOTUBE REINFORCEMENT OF ADHESIVELY BONDED JOINTS  
 06/20/2000 - 06/30/2003 FY01: \$1 Total: \$59,934  
*Prin. Invest.: W S JOHNSON*  
*Tech. Officer: LARC/B J JENSEN*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 1 01055 GEORGIA INST OF TECHNOLOGY 3873**  
 INTELLIGENT PILOT AIDS FOR FLIGHT RE-PLANNING IN EMERGENCIES  
 04/26/2001 - 04/25/2004 FY01: \$65,325 Total: \$65,325  
*Prin. Invest.: A R PRITCHETT, NONE*  
*Tech. Officer: LARC/A C TRUJILLO*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 1 01117 GEORGIA INST OF TECHNOLOGY 3874**  
 NEURAL NETWORK BASED ADAPTIVE CONTROL FOR NONLINEAR FLIGHT REGIMES NRA 01-LARC-1  
 08/16/2001 - 08/31/2004 FY01: \$50,000 Total: \$50,000  
*Prin. Invest.: A J CALISE, N HOVAKIMYAN*  
*Tech. Officer: LARC/M A MOTTER*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 2 1262 GEORGIA INST OF TECHNOLOGY 3875**  
 QUALITY-OF-SERVICE PROBLEMS OF REAL-TIME VBR TRAFF IC IN HYBRID NETWORKS  
 09/03/1998 - 08/31/2001 FY01: \$0 Total: \$302,434  
*Prin. Invest.: I F AKYILDIZ*  
*Tech. Officer: ARC/C M FALSETTI, ARC/B H WITHAKER*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 2 1291 GEORGIA INST OF TECHNOLOGY 3876**  
 SIMULATION OF THE NATIONAL AIRSPACE SYSTEM FOR SAF ETY ANALYSIS  
 02/02/1999 - 03/31/2002 FY01: \$82,811 Total: \$274,150  
*Prin. Invest.: D GOLDSMAN, A R PRITCHETT*  
*Tech. Officer: ARC/C I STATLER, ARC/M C CONNORS*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 2 1314 GEORGIA INST OF TECHNOLOGY 3877**  
 ENABLING CSPA OPERATIONS THROUGH PILOT DEVELOPMENT IN LONGITUDINAL APPROACH SPACING  
 04/01/1999 - 06/30/2002 FY01: \$30,000 Total: \$150,201  
*Prin. Invest.: A B PRITCHETT*  
*Tech. Officer: ARC/V BATTISTE, ARC/W W JOHNSON*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 2 1390 GEORGIA INST OF TECHNOLOGY 3878**  
 DYNAMIC STALL CHARACTERISTICS OF DROPPED LEADING EDGE AIRFOILS  
 01/07/2000 - 09/30/2000 FY01: -\$379 Total: \$20,544  
*Prin. Invest.: L N SANKAR*  
*Tech. Officer: ARC/C TUNG*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 2 1418 GEORGIA INST OF TECHNOLOGY 3879**  
 IN-FLIGHT DEMONSTRATION OF TACTILE CUEING ON RASCA L  
 07/13/2000 - 08/31/2002 FY01: \$49,922 Total: \$99,658  
*Prin. Invest.: J P PRASAD, A J CALISE*  
*Tech. Officer: ARC/M S WHALLEY, ARC/M B TISCHER*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 2 1431 GEORGIA INST OF TECHNOLOGY 3880**  
 MOLECULAR BASIS OF MECHANO-SIGNAL TRANSDUCTION IN VASCULAR ENDOTHELIAL CELL  
 08/15/2000 - 07/31/2002 FY01: \$287,858 Total: \$395,163  
*Prin. Invest.: H JO*  
*Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

<b>NAG 2 1488</b>	<b>GEORGIA INST OF TECHNOLOGY</b>	<b>3881</b>	<b>NAG 3 2431</b>	<b>GEORGIA INST OF TECHNOLOGY</b>	<b>3889</b>
REAL-TIME CONTROL OF LEAN BLOWOUT IN A TURBINE ENGINE FOR MINIMIZING NOX EMISSIONS			NON-COALESCENCE IN MICROGRAVITY: SCIENCE AND TECHNOLOGY		
06/27/2001 - 05/31/2002	FY01: \$349,978	Total: \$349,978	05/23/2000 - 11/30/2003	FY01: \$83,600	Total: \$133,600
<i>Prin. Invest.:</i> B ZINN			<i>Prin. Invest.:</i> D P NEITZEL		
<i>Tech. Officer:</i> ARC/N N MANSOUR			<i>Tech. Officer:</i> GRC/R SKARDA		
CASE Category: 41 – AERONAUTICAL ENGR			CASE Category: 49 – ENGINEERING, OTHER		
<b>NAG 3 1894</b>	<b>GEORGIA INST OF TECHNOLOGY</b>	<b>3882</b>	<b>NAG 3 2500</b>	<b>GEORGIA INST OF TECHNOLOGY</b>	<b>3890</b>
NON-COALESCENCE EFFECTS IN MICROGRAVITY			NONLINEAR DYNAMIC ANALYSIS OF DISORDERED BLADE-DISK ASSEMBLIES		
06/17/1996 - 06/16/2001	FY01: \$0	Total: \$487,015	11/03/2000 - 09/30/2001	FY01: \$73,412	Total: \$73,412
<i>Prin. Invest.:</i> G P NEITZEL			<i>Prin. Invest.:</i> D G MCGEE, NONE		
<i>Tech. Officer:</i> GRC/R S KARDA			<i>Tech. Officer:</i> GRC/J M LUCERO		
CASE Category: 46 – MECHANICAL ENGR			CASE Category: 41 – AERONAUTICAL ENGR		
<b>NAG 3 1949</b>	<b>GEORGIA INST OF TECHNOLOGY</b>	<b>3883</b>	<b>NAG 3 2580</b>	<b>GEORGIA INST OF TECHNOLOGY</b>	<b>3891</b>
THE DEVELOPMENT OF NOVEL, HIGH-FLUX, HEAT TRANSFER CELLS FOR THERMAL CONTROL IN MICROGRAVITY			MULTI-ACCESS & ROUTING PROTOCOLS FOR MULTICAST APPLICATIONS IN SATELITE IP NETWORKS		
09/17/1996 - 09/12/2001	FY01: \$0	Total: \$480,000	04/05/2001 - 03/07/2004	FY01: \$55,000	Total: \$55,000
<i>Prin. Invest.:</i> M K SMITH, A GLEZER			<i>Prin. Invest.:</i> I F AKYILDIZ		
<i>Tech. Officer:</i> GRC/B SINGH			<i>Tech. Officer:</i> GRC/C T RAMOS		
CASE Category: 46 – MECHANICAL ENGR			CASE Category: 29 – MATH/COMPUTER SCI, OTHER		
<b>NAG 3 2006</b>	<b>GEORGIA INST OF TECHNOLOGY</b>	<b>3884</b>	<b>NAG 3 2585</b>	<b>GEORGIA INST OF TECHNOLOGY</b>	<b>3892</b>
TERRESTRAL EXPERIMENTS ON G-GITTER EFFECTS ON TRANSPORT & PATTERN FORMATION			A MULTICAST PROTOCOL SUITE FOR SATELLITE IP NETWORKS		
01/24/1997 - 07/16/2001	FY01: \$0	Total: \$277,327	04/10/2001 - 02/28/2004	FY01: \$149,833	Total: \$149,833
<i>Prin. Invest.:</i> M F SCHATT, H L SWINNEY			<i>Prin. Invest.:</i> D F AKYILDIZ		
<i>Tech. Officer:</i> GRC/W DUVAL, GRC/T K GLASGOW			<i>Tech. Officer:</i> GRC/C T RAMOS		
CASE Category: 47 – METAL & MATERIALS ENGR			CASE Category: 45 – ELECTRICAL ENGR		
<b>NAG 3 2205</b>	<b>GEORGIA INST OF TECHNOLOGY</b>	<b>3885</b>	<b>NAG 3 2586</b>	<b>GEORGIA INST OF TECHNOLOGY</b>	<b>3893</b>
NONLINEAR DYNAMIC ANALYSIS OF DISORDERED BLADED-DISK ASSEMBLIES			AN INVESTIGATION OF APPLICATIONS FOR THERMODYNAMIC WORK POTENTIAL TO TURBOSHAFT ENGINE TECH EVALUATION		
10/07/1998 - 09/30/1999	FY01: -\$13,408	Total: \$1,591	04/06/2001 - 02/28/2002	FY01: \$60,000	Total: \$60,000
<i>Prin. Invest.:</i> O G MCGEE			<i>Prin. Invest.:</i> D N MAVRIS		
<i>Tech. Officer:</i> GRC/G L STEFKO			<i>Tech. Officer:</i> GRC/D THURMAN		
CASE Category: 41 – AERONAUTICAL ENGR			CASE Category: 41 – AERONAUTICAL ENGR		
<b>NAG 3 2329</b>	<b>GEORGIA INST OF TECHNOLOGY</b>	<b>3886</b>	<b>NAG 5 3855</b>	<b>GEORGIA INST OF TECHNOLOGY</b>	<b>3894</b>
SINGLE-/MULTI-LAYER MICROSTRIP AND COPLANAR WAVEGUIDE LINES CROSSTALK			THE YANGTZE DELTA OF CHINA AS AN EVOLVING METRO-AG (148-65-80-04)		
02/09/2000 - 01/31/2003	FY01: \$49,152	Total: \$98,233	02/03/1997 - 11/30/2000	FY01: \$0	Total: \$1,446,050
<i>Prin. Invest.:</i> D M TENTZERIS			<i>Prin. Invest.:</i> W L CHAMEIDES		
<i>Tech. Officer:</i> GRC/G E PONCHAK			<i>Tech. Officer:</i> GSFC/A J TUYAHOV		
CASE Category: 45 – ELECTRICAL ENGR			CASE Category: 39 – ENVIRONMENTAL SCI, OTHER		
<b>NAG 3 2352</b>	<b>GEORGIA INST OF TECHNOLOGY</b>	<b>3887</b>	<b>NAG 5 4190</b>	<b>GEORGIA INST OF TECHNOLOGY</b>	<b>3895</b>
DISTRIBUTED EXHAUST NOZZLES FOR JET NOISE REDUCTION			LABORATORY EVALUATION AND APPLICATION OF MICROWAVE UNDER SIMULATED CONDITIONS FOR PLANETARY ATMOSPHERE		
03/10/2000 - 09/30/2001	FY01: \$0	Total: \$149,991	06/10/1997 - 12/31/2001	FY01: \$92,417	Total: \$432,851
<i>Prin. Invest.:</i> D K AHULA			<i>Prin. Invest.:</i> D G STEFFES		
<i>Tech. Officer:</i> GRC/N H SAYIED			<i>Tech. Officer:</i> GSFC/J BERGSTRAHL		
CASE Category: 41 – AERONAUTICAL ENGR			CASE Category: 31 – ATMOSPHERIC SCIENCE		
<b>NAG 3 2373</b>	<b>GEORGIA INST OF TECHNOLOGY</b>	<b>3888</b>	<b>NAG 5 6022</b>	<b>GEORGIA INST OF TECHNOLOGY</b>	<b>3896</b>
NOVEL OPTICAL DIAGNOSTICS TECHNIQUES FOR STUDYING PARTICLE CONTACT AND DEPOSITION UPON A LARGE CYLINDER			RESEARCH PROPOSAL ENTITLED "MODELING AND DATA ANALYSIS OF SULFATE AEROSOL"		
03/28/2000 - 11/30/2003	FY01: \$75,904	Total: \$117,152	08/19/1997 - 02/14/2002	FY01: \$0	Total: \$278,358
<i>Prin. Invest.:</i> D YODA			<i>Prin. Invest.:</i> M CHIN		
<i>Tech. Officer:</i> GRC/F P CHIARAMONTE			<i>Tech. Officer:</i> GSFC/A THOMPSON		
CASE Category: 49 – ENGINEERING, OTHER			CASE Category: 31 – ATMOSPHERIC SCIENCE		

**NAG 5 7420 GEORGIA INST OF TECHNOLOGY 3897**  
ANALYSIS OF USER ASSISTANCE REQUESTS AT THE NASA G ODDARD  
DISTRIBUTEDACTIVE ARCHIVE CENTER  
06/09/1998 - 05/31/2002 FY01: \$0 Total: \$210,000  
*Prin. Invest.: C MITCHELL*  
*Tech. Officer: GSFC/W TRUSZOKWWSKI*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 5 7450 GEORGIA INST OF TECHNOLOGY 3898**  
RELATIONSHIPS BETWEEN INTERSTELLAR AND INTERPLANETARY GRAINS  
07/02/1998 - 06/30/2001 FY01: \$0 Total: \$86,500  
*Prin. Invest.: D P BRADLEY*  
*Tech. Officer: HQ/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7471 GEORGIA INST OF TECHNOLOGY 3899**  
POTENTIAL VORTICITY-BASED DIAGNOSES OF SEASONAL AND INTRASEASONAL VARIABILITY IN AN ASSIMILAT  
06/08/1998 - 03/31/2001 FY01: \$0 Total: \$144,300  
*Prin. Invest.: R X BLACK*  
*Tech. Officer: GSFC/S SCHUBERG*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 7519 GEORGIA INST OF TECHNOLOGY 3900**  
APPRENTICE - INCREMENTAL PASS AUTOMATION INITIAL PROTOTYPE AND EVALUATION WITH TRACE  
06/16/1998 - 05/31/2002 FY01: \$0 Total: \$90,000  
*Prin. Invest.: C MITCHELL*  
*Tech. Officer: GSFC/J CATENA*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 5 7682 GEORGIA INST OF TECHNOLOGY 3901**  
GLOBAL DISTRIBUTION OF TROPOSPHERIC AEROSOLS:A 3-D MODEL ANALYSIS OF SATELITE DATA.  
09/09/1998 - 08/31/2002 FY01: \$125,000 Total: \$287,506  
*Prin. Invest.: M CHIN*  
*Tech. Officer: GSFC/M I MISHCHENKO*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 8698 GEORGIA INST OF TECHNOLOGY 3902**  
QUANTIFYING THE RELATIONSHIP BETWEEN REMOTELY-SENSED & MODELED SOIL MOISTURE  
09/14/1999 - 06/30/2002 FY01: \$23,034 Total: \$142,030  
*Prin. Invest.: C D PETERS-LIDARD*  
*Tech. Officer: GSFC/E T ENGMAN*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8880 GEORGIA INST OF TECHNOLOGY 3903**  
PROJECT TO INTERFACE CLIMATE MODELING ON GLOBAL & REGIONAL SCALES WITH EARTH OBSERVING SYSTEM (EOS)  
11/24/1999 - 12/31/2001 FY01: \$0 Total: \$677,654  
*Prin. Invest.: R E DICKINSON*  
*Tech. Officer: GSFC/M Y WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8891 GEORGIA INST OF TECHNOLOGY 3904**  
PARTICIPATION OF THE HNO3 CIMS INSTRUMENT IN THE SAGE III OZONE LOSS AND VALIDATION EXPERIMENT (SOLV)  
12/06/1999 - 11/30/2000 FY01: \$0 Total: \$66,500  
*Prin. Invest.: F EISELE*  
*Tech. Officer: GSFC/P DECOLA*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8895 GEORGIA INST OF TECHNOLOGY 3905**  
USING UARS MLS TO INVESTIGATE THE IMPACTS OF TROPO SPHERE CONVECTION & PLANETARY-SCALE & SYMPTIC WA  
01/12/2000 - 11/30/2000 FY01: \$0 Total: \$132,725  
*Prin. Invest.: D FU*  
*Tech. Officer: GSFC/A DOUGLASS*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 8931 GEORGIA INST OF TECHNOLOGY 3906**  
LABORATORY INVESTIGATIONS OF STRATOSPHERIC & UPPER TROPOSPHERIC CHEMISTRY  
01/19/2000 - 12/31/2001 FY01: \$174,567 Total: \$340,826  
*Prin. Invest.: P H WINE*  
*Tech. Officer: GSFC/M KURYLO*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9868 GEORGIA INST OF TECHNOLOGY 3907**  
THE YANGTZE DELTA OF CHINA AS AN ENVOLVING METRO-AGRO-PLEX (MAP)  
08/09/2000 - 10/31/2001 FY01: \$0 Total: \$250,000  
*Prin. Invest.: W L CHAMEIDES*  
*Tech. Officer: GSFC/A J TUYAHOV*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 10209 GEORGIA INST OF TECHNOLOGY 3908**  
IMPROVING THE REPRESENTATION OF LAND IN CLIMATE MODELS BY APPLICATION OF EOS OBSERVATIONS  
12/29/2000 - 12/31/2001 FY01: \$500,000 Total: \$500,000  
*Prin. Invest.: R DICKINSON*  
*Tech. Officer: GSFC/Y SUD*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 10374 GEORGIA INST OF TECHNOLOGY 3909**  
DIAGNOSTIC STUDIES OF SHORT-TERM CLIMATE VARIABILITY IN NASA/GSFC GENERAL CIRCULATION MODELS  
03/17/2001 - 03/31/2002 FY01: \$85,000 Total: \$85,000  
*Prin. Invest.: R X BLACK*  
*Tech. Officer: GSFC/S SCHUBERT*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 10632 GEORGIA INST OF TECHNOLOGY 3910**  
COMPARISON OF INTERSTELLER AND INTERPLANETARY DUST  
03/17/2001 - 06/30/2002 FY01: \$50,000 Total: \$50,000  
*Prin. Invest.: J BRADLEY*  
*Tech. Officer: GSFC/J M BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 11063 GEORGIA INST OF TECHNOLOGY 3911**  
VARIABILITY OF AEROSOL DISTRIBUTION AND OPTICAL PROPERTIES SIMULATED BY GOCART MODEL USING TOMS  
06/26/2001 - 06/30/2002 FY01: \$61,170 Total: \$61,170  
*Prin. Invest.: P GINOIX*  
*Tech. Officer: GSFC/R MCPETERS*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 8 1245 GEORGIA INST OF TECHNOLOGY 3912**  
EFFECT OF GRAVITY ON THE EVOLUTION OF SPATIAL ARRANGEMENT OF FEATURES IN MICROSTRUCTURES  
05/10/1996 - 05/09/2001 FY01: \$0 Total: \$320,000  
*Prin. Invest.: A M GOKHALE*  
*Tech. Officer: MSFC/P DOTY, MSFC/R POWER*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

<b>NAG 8 1597</b>	<b>GEORGIA INST OF TECHNOLOGY</b>	<b>3913</b>	<b>NAS 5 00171</b>	<b>GEORGIA INST OF TECHNOLOGY</b>	<b>3921</b>
R/S CONCEPTUAL DESIGN FOR ADVANCED SPACE TRANS- PORTATION SYSTEMS			OZONE MONITORING INSTRUMENT (OMI) SCIENCE TEAM.		
12/16/1998 - 12/15/2001	FY01: -\$49,150	Total: \$389,850	06/07/2000 - 10/31/2004	FY01: \$100,015	Total: \$170,015
<i>Prin. Invest.:</i> J R OLDS			<i>Prin. Invest.:</i> D M CUNNOLD		
<i>Tech. Officer:</i> MSFC/J J HUTT			<i>Tech. Officer:</i> GSFC/J C RIVERA		
<i>CASE Category:</i> 41 – AERONAUTICAL ENGR			<i>CASE Category:</i> 31 – ATMOSPHERIC SCIENCE		
<b>NAG 8 1638</b>	<b>GEORGIA INST OF TECHNOLOGY</b>	<b>3914</b>	<b>NAS10 01025</b>	<b>GEORGIA INST OF TECHNOLOGY</b>	<b>3922</b>
RESEARACH ENTITLED: "FAULT TOLERANT NONLINEAR ADAPTATIVE FLIGHT CONTROL FOR THE X-33"			OPERATIONS/MAINT SOUTHEAST REGIONAL TECH TRANSFER CENTER		
09/24/1999 - 06/30/2002	FY01: \$72,361	Total: \$202,275	01/31/2001 - 01/31/2003	FY01: \$1,200,000	Total: \$1,200,000
<i>Prin. Invest.:</i> A CALISE			<i>Prin. Invest.:</i> D BRIDGES, J MILLS, B HILL		
<i>Tech. Officer:</i> MSFC/R DABNEY, MSFC/J HANSON			<i>Tech. Officer:</i> KSC/C GRIFFIN, KSC/D MAKUFKA		
<i>CASE Category:</i> 46 – MECHANICAL ENGR			<i>CASE Category:</i> 99 – MULTI INTERDISCPL, OTHER		
<b>NAG 8 1713</b>	<b>GEORGIA INST OF TECHNOLOGY</b>	<b>3915</b>	<b>NCA 1 163</b>	<b>GEORGIA INST OF TECHNOLOGY</b>	<b>3923</b>
STUDY OF DEPLOYMENT OPTIONS AND EXPLORATION USES F FOR SPACE SOLAR POWER			AGATE – HUMAN FACTORS AND SYSTEMS INTERFACE		
03/01/2000 - 11/15/2000	FY01: \$0	Total: \$149,999	01/28/1998 - 12/31/1999	FY01: -\$50	Total: \$49,950
<i>Prin. Invest.:</i> J OLDS			<i>Prin. Invest.:</i> N AVAILABLE		
<i>Tech. Officer:</i> MSFC/J HOWELL			<i>Tech. Officer:</i> LARC/N AVAILABLE		
<i>CASE Category:</i> 99 – MULTI INTERDISCPL, OTHER			<i>CASE Category:</i> 69 – PSYCHOLOGY, OTHER		
<b>NAG 8 1819</b>	<b>GEORGIA INST OF TECHNOLOGY</b>	<b>3916</b>	<b>NCC 1 296</b>	<b>GEORGIA INST OF TECHNOLOGY</b>	<b>3924</b>
PERMEABILITY TESTING OF IMPACTED COATED COMPOSITE LAMINATES			MEASUREMENTS OF NO AND NO2 OVER THE TROPICAL PACIFIC		
05/21/2001 - 07/31/2002	FY01: \$68,616	Total: \$68,616	04/28/1998 - 05/31/2001	FY01: \$0	Total: \$550,217
<i>Prin. Invest.:</i> W S JOHNSON			<i>Prin. Invest.:</i> S T SANDHOLM		
<i>Tech. Officer:</i> MSFC/A NETTLES			<i>Tech. Officer:</i> LARC/J M HOELL,JR., LARC/R J BENDURA		
<i>CASE Category:</i> 47 – METAL & MATERIALS ENGR			<i>CASE Category:</i> 31 – ATMOSPHERIC SCIENCE		
<b>NAS 1 00087</b>	<b>GEORGIA INST OF TECHNOLOGY</b>	<b>3917</b>	<b>NCC 1 301</b>	<b>GEORGIA INST OF TECHNOLOGY</b>	<b>3925</b>
RESEARCH IN ACOUSTICS & NOISE CONTROL FOR AIRCRAFT AND SPACE TRANSPORTATION VEHICLES			MEASUREMENT OF OH, H2SO4, MSA, NH3, AND DMSO ABOARD THE P-3B AIRCRAFT		
05/01/2000 - 04/30/2005	FY01: \$439,876	Total: \$522,876	05/27/1998 - 05/31/2001	FY01: \$0	Total: \$574,683
<i>Prin. Invest.:</i> K K AHUJA, D E PAREKH, R J ENGLAR			<i>Prin. Invest.:</i> F L EISELE, R L MAULDIN		
<i>Tech. Officer:</i> LARC/L R CLARK			<i>Tech. Officer:</i> LARC/J L ROPER, LARC/R J BENDURA		
<i>CASE Category:</i> 41 – AERONAUTICAL ENGR			<i>CASE Category:</i> 31 – ATMOSPHERIC SCIENCE		
<b>NAS 1 18938</b>	<b>GEORGIA INST OF TECHNOLOGY</b>	<b>3918</b>	<b>NCC 1 306</b>	<b>GEORGIA INST OF TECHNOLOGY</b>	<b>3926</b>
SAGE III EXPERIMENT SCIENTIFIC SUPPORT/CUNNOLD			TROPOSPHERIC DIAGNOSTIC MODELING STUDIES OF PEM- TROPICS B FIELD DATA: INVESTIGATION OF THE		
02/20/1990 - 01/31/2005	FY01: \$95,000	Total: \$657,700	07/10/1998 - 11/23/2001	FY01: \$124,246	Total: \$509,326
<i>Prin. Invest.:</i> D M CUNNOLD			<i>Prin. Invest.:</i> D D DAVIS, G CHEN		
<i>Tech. Officer:</i> LARC/G L MADDREA/L R MCMASTER			<i>Tech. Officer:</i> LARC/J M HOELL, JR., LARC/R J BENDURA		
<i>CASE Category:</i> 31 – ATMOSPHERIC SCIENCE			<i>CASE Category:</i> 31 – ATMOSPHERIC SCIENCE		
<b>NAS 1 99073</b>	<b>GEORGIA INST OF TECHNOLOGY</b>	<b>3919</b>	<b>NCC 1 317</b>	<b>GEORGIA INST OF TECHNOLOGY</b>	<b>3927</b>
R & D OF ELECTROMAGNETIC SYSTEMS			MODELING AND DATA ANALYSIS OF PEM-TROPICS B OBSERVATIONS		
02/17/1999 - 02/16/2004	FY01: \$795,410	Total: \$1,491,656	08/17/1998 - 07/31/2001	FY01: \$0	Total: \$391,852
<i>Prin. Invest.:</i> G GIMMESTAD			<i>Prin. Invest.:</i> S C LIU		
<i>Tech. Officer:</i> LARC/S D HARRAH			<i>Tech. Officer:</i> LARC/J M HOELL, LARC/R J BENDURA		
<i>CASE Category:</i> 45 – ELECTRICAL ENGR			<i>CASE Category:</i> 31 – ATMOSPHERIC SCIENCE		
<b>NAS 3 00179</b>	<b>GEORGIA INST OF TECHNOLOGY</b>	<b>3920</b>	<b>NCC 1 375</b>	<b>GEORGIA INST OF TECHNOLOGY</b>	<b>3928</b>
SYSTEM STUDIES FOR NASA AEROSPACE PROPULSION AND AIRFRAME TECHNOLOGY			DOWNSIZING OF GATECH'S AIRBORNE FLUORESCENCE (AFS) FOR THE MEASUREMENT OF NITROGENOXIDES		
09/28/2000 - 09/27/2005	FY01: \$0	Total: \$50,000	02/10/2000 - 05/18/2001	FY01: \$1	Total: \$247,809
<i>Prin. Invest.:</i> R E MCKINLEY, JR, J TAI, B ROTH			<i>Prin. Invest.:</i> H W GUAN, S T SANDHOLM		
<i>Tech. Officer:</i> LARC/C M MEYERS, LARC/M T TONG			<i>Tech. Officer:</i> LARC/J L RAPER		
<i>CASE Category:</i> 41 – AERONAUTICAL ENGR			<i>CASE Category:</i> 31 – ATMOSPHERIC SCIENCE		

**NCC 1 401**      **GEORGIA INST OF TECHNOLOGY**      **3929**  
 HUMAN FACTORS CONSIDERATIONS FOR SAFE RECOVERY FROM FAULTS  
 IN FLIGHT CONTROL SYSTEMS  
 06/08/2000 - 06/14/2003      FY01: \$92,006      Total: \$157,006  
*Prin. Invest.: A R PRITCHETT*  
*Tech. Officer: LARC/C M BELCASTRO*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 1 411**      **GEORGIA INST OF TECHNOLOGY**      **3930**  
 RAPID MEASUREMENTS OF AEROSOL IONIC COMPOSITION AND 3-10 NM  
 PARTICLE SIZE DISTRIBUTIONS ON THE NASA  
 09/14/2000 - 09/14/2002      FY01: \$172,669      Total: \$338,672  
*Prin. Invest.: R J WEBER*  
*Tech. Officer: LARC/J L RAPER, SR*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 1 417**      **GEORGIA INST OF TECHNOLOGY**      **3931**  
 MEASUREMENTS OF NO AND NO<sub>2</sub> FROM THE ASIAN OUTFLOW INTO THE  
 WESTERN PACIFIC  
 09/27/2000 - 09/30/2002      FY01: \$167,835      Total: \$361,919  
*Prin. Invest.: S T SANDHOLM*  
*Tech. Officer: LARC/J L RAPER, SR*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 1 421**      **GEORGIA INST OF TECHNOLOGY**      **3932**  
 MEASUREMENT OF OH, H<sub>2</sub>SO<sub>4</sub>, MSA, AND HNO<sub>3</sub> ABOARD THE P-3B  
 AIRCRAFT  
 09/26/2000 - 12/31/2002      FY01: \$158,101      Total: \$287,859  
*Prin. Invest.: F L EISELE*  
*Tech. Officer: LARC/J L RAPER, SR*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 1 01024**      **GEORGIA INST OF TECHNOLOGY**      **3933**  
 TROPOSPH MODELG STUDIES TRACE-P FIELD DATA: INVEST HOX/NOX/03  
 PHOTOCHM SYS COUPL'G TO SULFUR/AEROSO  
 01/29/2001 - 11/30/2003      FY01: \$149,710      Total: \$149,710  
*Prin. Invest.: D D DAVIS*  
*Tech. Officer: LARC/J L RAPERS*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 2 945**      **GEORGIA INST OF TECHNOLOGY**      **3934**  
 ROTORCRAFT CENTERS OF EXCELLENCE  
 05/03/1996 - 02/28/2001      FY01: \$0      Total: \$5,830,069  
*Prin. Invest.: D C SCHRAGE, D A PETERS, K B BOTA*  
*Tech. Officer: ARC/Y H YU, ARC/J M DAVIS*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 2 961**      **GEORGIA INST OF TECHNOLOGY**      **3935**  
 MODELING, TRAINING, AND AIDING IN AEROSPACE SYSTEM S  
 07/18/1996 - 05/31/2002      FY01: \$0      Total: \$571,333  
*Prin. Invest.: C M MITCHELL*  
*Tech. Officer: ARC/E A PALMER, ARC/K CORKER*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 2 1124**      **GEORGIA INST OF TECHNOLOGY**      **3936**  
 HOW PROFESSIONAL PILOTS PERCEIVE & RESPOND TO AMBIGUOUS &  
 UNCERTAIN DECISION SITUATIONS  
 07/01/1999 - 04/30/2002      FY01: \$120,045      Total: \$308,661  
*Prin. Invest.: U M FISCHER*  
*Tech. Officer: ARC/J M ORASANU*  
*CASE Category: 69 – PSYCHOLOGY, OTHER*

**NCC 2 1193**      **GEORGIA INST OF TECHNOLOGY**      **3937**  
 A PROBABILISTIC APPROACH TO TECHNOLOGY IDENTIFICATION, EVALUATION & SELECTION FOR LOW COST SPACE T  
 08/24/2000 - 09/14/2001      FY01: \$130,381      Total: \$178,381  
*Prin. Invest.: D N MAVRIS*  
*Tech. Officer: ARC/M E LIVINGSTON*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 2 5332**      **GEORGIA INST OF TECHNOLOGY**      **3938**  
 EVALUATION OF ADVANCED THERMAL PROTECTION TECHNIQUES FOR  
 FUTURE REUSABLE LAUNCH VEHICLES  
 07/20/1999 - 06/30/2001      FY01: \$0      Total: \$50,752  
*Prin. Invest.: R OLDS*  
*Tech. Officer: ARC/P KOLOZIEJ, ARC/D J RASKY*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 3 711**      **GEORGIA INST OF TECHNOLOGY**      **3939**  
 DAMAGE MECHANICS MODELING FOR LIFE PREDICTION OF ULTRA HIGH  
 TEMPERATURE POLYMER MATRIX COMPOSITES  
 06/07/1999 - 12/31/2001      FY01: \$79,973      Total: \$279,974  
*Prin. Invest.: D TALREJA*  
*Tech. Officer: GRC/J R ELLIS*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NCC 3 900**      **GEORGIA INST OF TECHNOLOGY**      **3940**  
 MICROMACHINED HIGH FREQUENCY CIRCUITS FOR SUBMILLIMETER-  
 WAVE SENSORS  
 06/28/2001 - 06/24/2002      FY01: \$39,918      Total: \$39,918  
*Prin. Invest.: D PAPAPOLYMEROU*  
*Tech. Officer: GRC/G E PONCHAK*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NGT 1 52132**      **GEORGIA INST OF TECHNOLOGY**      **3941**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 06/06/1996 - 08/31/2001      FY01: \$0      Total: \$99,000  
*Prin. Invest.: A GLEZER, A GLEZER (ADVISOR)*  
*Tech. Officer: LARC/R D JOSLIN*  
*CASE Category: 46 – MECHANICAL ENGR*

**NGT 1 52162**      **GEORGIA INST OF TECHNOLOGY**      **3942**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 06/11/1997 - 06/30/2001      FY01: \$0      Total: \$66,001  
*Prin. Invest.: B V GIBBENS*  
*Tech. Officer: LARC/J E GARDNER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 1 52163**      **GEORGIA INST OF TECHNOLOGY**      **3943**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 09/03/1997 - 09/02/2001      FY01: \$12,000      Total: \$88,001  
*Prin. Invest.: J R OLDS, D W WAY*  
*Tech. Officer: LARC/R A LEPSCH, LARC/L R ROWELL*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NGT 1 52167**      **GEORGIA INST OF TECHNOLOGY**      **3944**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 12/01/1997 - 11/30/2000      FY01: -\$18      Total: \$65,983  
*Prin. Invest.: K A CUNEFARE*  
*Tech. Officer: HQ/P BACON*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

<b>NGT 1 52170</b>	<b>GEORGIA INST OF TECHNOLOGY</b>	<b>3945</b>	<b>NGT 3 52338</b>	<b>GEORGIA INST OF TECHNOLOGY</b>	<b>3953</b>
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)			GRADUATE STUDENT RESEARCHERS PROGRAM	GRADUATE STUDENT	
04/15/1997 - 01/01/2001	FY01: \$0	Total: \$66,001	RESEARCHERS PROGRAM		
<i>Prin. Invest.: F MISTREE</i>			09/11/1997 - 08/03/2000	FY01: \$0	Total: \$66,000
<i>Tech. Officer: LARC/T A ZANG</i>			<i>Prin. Invest.: M LIU</i>		
<i>CASE Category: 46 – MECHANICAL ENGR</i>			<i>Tech. Officer: GRC/F J MONTEGANI</i>		
<i>CASE Category: 49 – ENGINEERING, OTHER</i>					
<b>NGT 1 52225</b>	<b>GEORGIA INST OF TECHNOLOGY</b>	<b>3946</b>	<b>NGT 3 52371</b>	<b>GEORGIA INST OF TECHNOLOGY</b>	<b>3954</b>
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) YEAR 1			GRADUATE STUDENT RESEARCHERS PROGRAM	GRADUATE STUDENT	
10/28/1999 - 09/30/2001	FY01: \$22,000	Total: \$42,400	RESEARCHERS PROGRAM		
<i>Prin. Invest.: W H REES</i>			06/26/2000 - 08/31/2002	FY01: \$9,600	Total: \$31,600
<i>Tech. Officer: LARC/E WEISER, LARC/T ST. CLARA</i>			<i>Prin. Invest.: J H GINSBERG</i>		
<i>CASE Category: 43 – CHEMICAL ENGR</i>			<i>Tech. Officer: GRC/F J MONTEGANI</i>		
<i>CASE Category: 46 – MECHANICAL ENGR</i>					
<b>NGT 2 52253</b>	<b>GEORGIA INST OF TECHNOLOGY</b>	<b>3947</b>	<b>NGT 4 52405</b>	<b>GEORGIA INST OF TECHNOLOGY</b>	<b>3955</b>
THERMAL ANALYSIS & TPS DESIGN OF ABLE/LEAD HPERSON IC VEHICLES			GRADUATE STUDENT RESEARCHERS PROGRAM	ROBUST LINEAR &	
07/20/1999 - 08/31/2000	FY01: -\$24,511	Total: \$19,489	NONLINEAR CONTROL FOR JET ENGINE		
<i>Prin. Invest.: S M RUFFIN, V S MCKAY</i>			06/25/1997 - 07/01/2000	FY01: -\$15	Total: \$65,845
<i>Tech. Officer: ARC/P F WERCINSKI, ARC/T C TAM</i>			<i>Prin. Invest.: J CORRADO, W HADDAD</i>		
<i>CASE Category: 41 – AERONAUTICAL ENGR</i>			<i>Tech. Officer: DFRC/K K GUPTA</i>		
<i>CASE Category: 41 – AERONAUTICAL ENGR</i>			<i>CASE Category: 41 – AERONAUTICAL ENGR</i>		
<b>NGT 2 52255</b>	<b>GEORGIA INST OF TECHNOLOGY</b>	<b>3948</b>	<b>NGT 5 30069</b>	<b>GEORGIA INST OF TECHNOLOGY</b>	<b>3956</b>
IMPLEMENTATION OF INTELLINET FLIGHT CONTROL ON TH E NASA			DEVELOPMENT OF A SELECT ION ATMOSPHERIC PRESSURE C S SPEC-		
STONE SOUP SIMULATOR			TROMETRY TECHNIQUE FOR THE MEASUREMENT OF T		
07/20/1999 - 01/31/2000	FY01: -\$7,586	Total: \$14,414	09/10/1997 - 08/31/2000	FY01: \$0	Total: \$65,950
<i>Prin. Invest.: A CALIS</i>			<i>Prin. Invest.: D WINE</i>		
<i>Tech. Officer: ARC/J KANESHIGE, ARC/S LAU</i>			<i>Tech. Officer: GSFC/G ASRAR</i>		
<i>CASE Category: 41 – AERONAUTICAL ENGR</i>			<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>		
<b>NGT 2 52266</b>	<b>GEORGIA INST OF TECHNOLOGY</b>	<b>3949</b>	<b>NGT 5 30384</b>	<b>GEORGIA INST OF TECHNOLOGY</b>	<b>3957</b>
FULLY AUTOMATED CARTESIAN GRID CFD APPLICATIONS FO R MDO IN			DEVELOPMENT OF A CHEMICAL IONIZATION MASS SPECTROM ETRY		
HIGH - SPEED FLOWS			TECHNIQUE FORMEASURINGATMOSPHERIC PERNI		
07/17/2000 - 08/14/2002	FY01: \$22,000	Total: \$44,000	08/13/2001 - 08/31/2004	FY01: \$22,000	Total: \$22,000
<i>Prin. Invest.: S M RUFFIN</i>			<i>Prin. Invest.: L HUEY</i>		
<i>Tech. Officer: ARC/M J AHOSMIS</i>			<i>Tech. Officer: GSFC/M WEI</i>		
<i>CASE Category: 41 – AERONAUTICAL ENGR</i>			<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>		
<b>NGT 2 52274</b>	<b>GEORGIA INST OF TECHNOLOGY</b>	<b>3950</b>	<b>NGT 5 40023</b>	<b>GEORGIA INST OF TECHNOLOGY</b>	<b>3958</b>
CENTERS OF EXCELLENCE IN ROTORCRAFT TECHNOLOGY			NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM		
02/12/2001 - 04/30/2002	FY01: \$780,000	Total: \$780,000	02/03/1997 - 01/31/2001	FY01: -\$205,352	Total: \$1,539,399
<i>Prin. Invest.: D P SCHRAGE, D A PETERS</i>			<i>Prin. Invest.: E ARMANIOS</i>		
<i>Tech. Officer: ARC/Y H YU, ARC/AWKERR</i>			<i>Tech. Officer: GSFC/D DETROYE</i>		
<i>CASE Category: 41 – AERONAUTICAL ENGR</i>			<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>		
<b>NGT 3 52329</b>	<b>GEORGIA INST OF TECHNOLOGY</b>	<b>3951</b>	<b>NGT 5 40116</b>	<b>GEORGIA INST OF TECHNOLOGY</b>	<b>3959</b>
GRADUATE STUDENT RESEARCHERS PROGRAM			GEORGIA SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM		
06/10/1997 - 05/30/2001	FY01: -\$10,867	Total: \$55,133	03/08/2001 - 02/28/2002	FY01: \$680,352	Total: \$680,352
<i>Prin. Invest.: E W ZEGURA</i>			<i>Prin. Invest.: E ARMANIOS</i>		
<i>Tech. Officer: GRC/F J MONTEGANI</i>			<i>Tech. Officer: GSFC/D DETROYE</i>		
<i>CASE Category: 22 – COMPUTER SCIENCE</i>			<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>		
<b>NGT 3 52334</b>	<b>GEORGIA INST OF TECHNOLOGY</b>	<b>3952</b>	<b>NGT 5 50284</b>	<b>GEORGIA INST OF TECHNOLOGY</b>	<b>3960</b>
GRADUATE STUDENT RESEARCHERS PROGRAM			EXPLOITING TEMPORAL UNCERTAINTY IN SIMULATION MODELS		
06/11/1997 - 08/31/2000	FY01: -\$27,041	Total: \$38,959	06/23/2000 - 07/31/2002	FY01: \$22,000	Total: \$44,000
<i>Prin. Invest.: G T ZHOU</i>			<i>Prin. Invest.: R FUJIMOTO</i>		
<i>Tech. Officer: GRC/F J MONTEGANI</i>			<i>Tech. Officer: GSFC/L SMITH</i>		
<i>CASE Category: 49 – ENGINEERING, OTHER</i>			<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>		

**NGT 5 50330      GEORGIA INST OF TECHNOLOGY      3961**  
 THE EFFECTS ON LAND SURFACE HETEROGENETIES ON AERO SOL CONCENTRATIONS IN CHINA & THEIR IMPACT ON REG  
 08/17/2000 - 08/31/2002      FY01: \$22,000      Total: \$44,000  
*Prin. Invest.: W L CHAMEIDES*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 50363      GEORGIA INST OF TECHNOLOGY      3962**  
 KINETIC FRICTION ON NON-COALESING AND NON-WETTING DROPS/ STUDENT: MARIA-ISABEL CARNASCIALI  
 06/12/2001 - 07/31/2002      FY01: \$22,000      Total: \$22,000  
*Prin. Invest.: P NEITZEL*  
*Tech. Officer: GSFC/K BLANDING*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 8 52854      GEORGIA INST OF TECHNOLOGY      3963**  
 DEVELOPMENT OF A TOOL FOR CONCEPTUAL DESIGN OF ROCKET BASED COMBINED CYCLE PROPULSION SYSTEMS  
 07/21/1998 - 08/14/2001      FY01: \$0      Total: \$66,000  
*Prin. Invest.: J R OLDS*  
*Tech. Officer: MSFC/J F DOWDY*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NGT 8 52881      GEORGIA INST OF TECHNOLOGY      3964**  
 QUANTITATIVE CHARACTERIZATION OF GRAVITATIONAL EFFECTS ON THE EVOLUTION OF MICROSTRUCTURE.  
 09/14/1999 - 03/14/2002      FY01: \$0      Total: \$44,000  
*Prin. Invest.: A GOKHALE*  
*Tech. Officer: MSFC/J DOWDY*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NGT 8 52887      GEORGIA INST OF TECHNOLOGY      3965**  
 DEV OF PREDICTIVE MODELS OF ADVANCED PROPULSION CONCEPTS FOR LOW COST SPACE TRANSPORTATION  
 05/24/2000 - 07/31/2003      FY01: \$22,000      Total: \$44,000  
*Prin. Invest.: J SEITZMAN*  
*Tech. Officer: MSFC/S NASH-STEVENSON*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NGT 8 52898      GEORGIA INST OF TECHNOLOGY      3966**  
 A CAPABILITY TO GENERATE PHYSICS-BASED MASS ESTIMATION RELATIONSHIPS FOR CONCEPTUAL SPACE VEHICLE  
 05/25/2001 - 06/30/2004      FY01: \$22,000      Total: \$22,000  
*Prin. Invest.: J OLDS*  
*Tech. Officer: MSFC/S NASH-STEVENSON*  
*CASE Category: 13 – PHYSICS*

**NGT13 52742      GEORGIA INST OF TECHNOLOGY      3967**  
 RAPID MEASUREMENTS OF AEROSOL BULK COMPOSITION USING A PARTICLE INTO LIQUID SAMPLING SYSTEM  
 07/12/2000 - 07/31/2001      FY01: \$22,000      Total: \$44,000  
*Prin. Invest.: K MAXWELL, R WEBER*  
*Tech. Officer: SSC/R TRAVIS*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT13 52750      GEORGIA INST OF TECHNOLOGY      3968**  
 DYNAMIC FLUID FLOW SIMULATION AND VALIDATION OF E- 1 AND E-2 LIQUID OXYGEN HYDRODENMODELS  
 06/18/2001 - 06/30/2003      FY01: \$22,000      Total: \$22,000  
*Prin. Invest.: R RIVERA*  
*Tech. Officer: SSC/R HOLLAND*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 5 254      GEORGIA SOUTHERN UNIV      3969**  
 "PHYSICAL PROPERTIES OF PLANETARY MOLECULES", GSFC CONTROL NUMBER 5-3326  
 10/30/1997 - 10/31/2000      FY01: \$0      Total: \$83,883  
*Prin. Invest.: R NELSON, NONE*  
*Tech. Officer: GSFC/J ALLEN*  
*CASE Category: 12 – CHEMISTRY*

**NAG 5 4950      GEORGIA STATE UNIV      3970**  
 WAVELENGTH-TUNABLE NOVEL SEMICONDUCTOR FIR DETECTO RESEARCH  
 06/23/1997 - 12/31/2001      FY01: \$0      Total: \$158,000  
*Prin. Invest.: D PERERA*  
*Tech. Officer: GSFC/H THRONSON*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 6904      GEORGIA STATE UNIV      3971**  
 CROSS-CORRELATION ANALYSIS OF UV PROFILE VARIATIONS AND NONRADIALPULSATIONS IN BESTARS  
 02/06/1998 - 12/31/2001      FY01: \$0      Total: \$65,300  
*Prin. Invest.: D GIES*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7752      GEORGIA STATE UNIV      3972**  
 PHOTOIONIZATION AND RELATED DIELECTRONIC/RADIATIVE RECOMBINATION ANDELASTIC SCATTERING CROSS SE  
 11/25/1998 - 12/31/2001      FY01: \$50,000      Total: \$146,100  
*Prin. Invest.: S T MANSON*  
*Tech. Officer: GSFC/H HASAN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 2 1416      MEDICAL COLLEGE OF GEORGIA      3973**  
 CELLULAR & MOLECULAR MECHANISMS MEDIATING RAPID RE SEALING OF GRAVITY-INDUCED PLASMA MEMBRANE DISRUPT  
 07/12/2000 - 06/30/2002      FY01: \$301,455      Total: \$457,166  
*Prin. Invest.: P L MCNEIL*  
*Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 5 6602      MOREHOUSE COLLEGE      3974**  
 AN INFRARED STUDY OF ORTHO AND PARA HYDROGEN ON IN TERSTELLAR GRAINS  
 11/13/1997 - 10/31/2000      FY01: \$0      Total: \$221,667  
*Prin. Invest.: J KING, JR.*  
*Tech. Officer: GSFC/J BERGSTRALH*  
*CASE Category: 11 – ASTRONOMY*

**NAG 8 1492      MOREHOUSE COLLEGE      3975**  
 INSPIRING CAREERS IN ENGINEERING, MATHEMATICS, AND SCIENCE (ICEMS)  
 06/04/1998 - 05/18/2001      FY01: -\$19,864      Total: \$277,547  
*Prin. Invest.: E MCDONALD*  
*Tech. Officer: MSFC/A BEAM*  
*CASE Category: 21 – MATHEMATICS*

**NAG 8 1636      MOREHOUSE COLLEGE      3976**  
 "USING THE NASA ROTATING BIOREACTOR TO STUDY ROLE OF NITRIC OXIDE IN BREAST-INDUCED ANGIOGENESIS"  
 09/30/1999 - 06/30/2002      FY01: \$72,811      Total: \$221,635  
*Prin. Invest.: G L SANFORD*  
*Tech. Officer: MSFC/R RICHMOND*  
*CASE Category: 61 – PSYCHOLOGY BIOLOGY*

<b>NAG 8 1711</b>	<b>MOREHOUSE COLLEGE</b>	<b>3977</b>	<b>NAG 9 971</b>	<b>MOREHOUSE SCHOOL MED</b>	<b>3985</b>
STRATEGIC PREPAREDNESS ADVANCING CAREERS IN INGINEERING/SCIENCES (SPACE)			EFFECT OF MICRO GRAV ON DISPO & BIOTRANS OF THREAPEUTIC AGENTS ...		
03/29/2000 - 03/28/2003	FY01: \$1,539,013	Total: \$3,040,303	09/25/1997 - 04/30/2000	FY01: \$0	Total: \$388,518
<i>Prin. Invest.: J KING</i>			<i>Prin. Invest.: D POTTER</i>		
<i>Tech. Officer: MSFC/W LOVE</i>			<i>Tech. Officer: JSC/L PUTCHA</i>		
<i>CASE Category: 49 – ENGINEERING, OTHER</i>			<i>CASE Category: 42 – ASTRONAUTICAL ENGR</i>		
<b>NAG 9 964</b>	<b>MOREHOUSE COLLEGE</b>	<b>3978</b>	<b>NAG 9 1164</b>	<b>MOREHOUSE SCHOOL MED</b>	<b>3986</b>
SIMULATED MOCROGRAVITY ...			TISSUE ENGINEERING OF HUMAN RETINA IN NASA BIOREATOR FOR TRANSPLANT		
09/25/1997 - 12/31/2001	FY01: \$0	Total: \$300,000	10/01/1999 - 09/30/2001	FY01: \$31,552	Total: \$199,999
<i>Prin. Invest.: K DUTT</i>			<i>Prin. Invest.: K DUTT</i>		
<i>Tech. Officer: JSC/K KRISHEN</i>			<i>Tech. Officer: JSC/C SAMS</i>		
<i>CASE Category: 56 – MEDICL</i>			<i>CASE Category: 59 – LIFE SCIENCE, OTHER</i>		
<b>NAG 2 1215</b>	<b>MOREHOUSE SCHOOL MED</b>	<b>3979</b>	<b>NCC 2 1262</b>	<b>MOREHOUSE SCHOOL MED</b>	<b>3987</b>
PRE-METASAL DIFFERENTIATION & MINERALIZATION			JOINT RESEARCH ON SPACE-RELATED BIOLOGICAL ISSUES		
05/04/1998 - 06/30/2001	FY01: \$0	Total: \$100,789	05/07/2001 - 04/30/2002	FY01: \$150,000	Total: \$150,000
<i>Prin. Invest.: B J KLEMENT</i>			<i>Prin. Invest.: G SONNENFELD, M THIERRY-PALMER</i>		
<i>Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY</i>			<i>Tech. Officer: ARC/S M HING, ARC/O SANTOS</i>		
<i>CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)</i>			<i>CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)</i>		
<b>NAG 2 1381</b>	<b>MOREHOUSE SCHOOL MED</b>	<b>3980</b>	<b>NCC 9 53</b>	<b>MOREHOUSE SCHOOL MED</b>	<b>3988</b>
BONE & CALCIUM METABOLISM IN DAHL SALT SENSITIVE & SALT RESISTANT RATS WITH UNLOADED HINDLIMBS			DEVELOP MINORITY UNIV SPACE MEDICINE CENTER		
09/03/1999 - 08/31/2002	FY01: \$37,901	Total: \$129,499	12/18/1997 - 01/01/2001	FY01: \$0	Total: \$3,129,072
<i>Prin. Invest.: M THIERRY-PALMER</i>			<i>Prin. Invest.: M THIERRY-PALMER</i>		
<i>Tech. Officer: ARC/B J COLLINS</i>			<i>Tech. Officer: JSC/L ARMENDARIZ</i>		
<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>			<i>CASE Category: 56 – MEDICL</i>		
<b>NAG 2 1448</b>	<b>MOREHOUSE SCHOOL MED</b>	<b>3981</b>	<b>NCC 9 112</b>	<b>MOREHOUSE SCHOOL MED</b>	<b>3989</b>
CHONDROCYTE DIFFERENTIATION & MATURATION IN HYPERGRAVITY			SPACE MEDICINE		
09/29/2000 - 09/30/2002	FY01: \$191,606	Total: \$191,606	09/26/2000 - 06/30/2005	FY01: \$904,658	Total: \$1,200,000
<i>Prin. Invest.: B J KLEMENT</i>			<i>Prin. Invest.: M THIERRY-PALMER</i>		
<i>Tech. Officer: ARC/C E WADE, ARC/B J COLLINS</i>			<i>Tech. Officer: JSC/C SAMS, JSC/G HENDERSEN</i>		
<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>			<i>CASE Category: 56 – MEDICL</i>		
<b>NAG 2 6029</b>	<b>MOREHOUSE SCHOOL MED</b>	<b>3982</b>	<b>NGT 2 52239</b>	<b>MOREHOUSE SCHOOL MED</b>	<b>3990</b>
THE NASASPACE BIOLOGY RESEARCH ASSOCIATE PROGRAM FOR THE 21ST CENTRUY			MINOTRY COMPONENT FOR THE SPACE BIOLOGY RESEARCH ASSOCIATES PROGRAM		
03/01/1999 - 12/31/1999	FY01: -\$1,629	Total: \$46,494	02/26/1998 - 12/31/1999	FY01: \$0	Total: \$149,394
<i>Prin. Invest.: G SONNENFELD</i>			<i>Prin. Invest.: G L SANFORD</i>		
<i>Tech. Officer: ARC/B LUNA, ARC/R GRYNES</i>			<i>Tech. Officer: ARC/B LUNA, ARC/R A GRYMES</i>		
<i>CASE Category: 59 – LIFE SCIENCE, OTHER</i>			<i>CASE Category: 59 – LIFE SCIENCE, OTHER</i>		
<b>NAG 3 2611</b>	<b>MOREHOUSE SCHOOL MED</b>	<b>3983</b>	<b>NAG 5 9157</b>	<b>PAINE COLLEGE</b>	<b>3991</b>
GRAVITATIONAL EFFECTS ON NUTRIENT DIFFUSION THROUGH CARTILAGE MATRIX			PRE-COLLEGE ENRICHMENT PROGRAM IN MATHEMATICS SCIENCE, ENGINEERING AND TECHNOLOGY		
05/22/2001 - 07/31/2005	FY01: \$30,000	Total: \$30,000	03/03/2000 - 02/28/2002	FY01: \$100,000	Total: \$200,000
<i>Prin. Invest.: D J KLEMENT</i>			<i>Prin. Invest.: R KESSLER</i>		
<i>Tech. Officer: GRC/D W GRIFFIN</i>			<i>Tech. Officer: GSFC/M STOUTSENBERGER</i>		
<i>CASE Category: 49 – ENGINEERING, OTHER</i>			<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>		
<b>NAG 9 963</b>	<b>MOREHOUSE SCHOOL MED</b>	<b>3984</b>	<b>NAG 3 2241</b>	<b>SAVANNAH STATE UNIV</b>	<b>3992</b>
GRAVITY-INDUCED CHANGES ON THE STERIDOGENSIS ...			RENEWABLE ENERGY SCADE/TRAINING USING ACTS RENEWABLE ENERGY SCADE/TRAINING USING ACTS		
09/25/1997 - 09/30/2001	FY01: \$0	Total: \$299,966	03/17/1999 - 10/29/2001	FY01: \$0	Total: \$212,086
<i>Prin. Invest.: R SRIDARAN</i>			<i>Prin. Invest.: D KALU</i>		
<i>Tech. Officer: JSC/K KRISHEN</i>			<i>Tech. Officer: GRC/R J ACOSTA</i>		
<i>CASE Category: 56 – MEDICL</i>			<i>CASE Category: 49 – ENGINEERING, OTHER</i>		

**NAG10 266**           **SAVANNAH STATE UNIV**           **3993**  
 HIGH SCHOOL/HIGH TECH PROGRAM A PARTNERSHIP OF SSU WITH THE  
 GEORGIA COMMITTEE ON EMPLOYMENT OF PEOP  
 09/01/1999 - 08/31/2001      FY01: \$74,971      Total: \$199,942  
*Prin. Invest.: D SAJWAN*  
*Tech. Officer: KSC/R J MCKINNEY*  
*CASE Category: 79 – SOCIAL SCIENCE, OTHER*

**NAG 3 2486**           **SPELMAN COLLEGE**           **3994**  
 DEVELOPMENT OF A PROBE FOR DETERMINING FUEL-TO-OXY GEN  
 RATIOS IN AIRPLANE FUEL TANKS  
 09/01/2000 - 08/31/2001      FY01: \$0      Total: \$42,000  
*Prin. Invest.: D CHEN*  
*Tech. Officer: GRC/Q NGUYEN*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 5 9313**           **SPELMAN COLLEGE**           **3995**  
 BUILDING CAPITAL IN THE SCIENCES: TECHNOLOGY-BASED  
 INSTRUCTIONAL LABORATORY DESIGN AND DISTANCE EDUC  
 03/22/2000 - 04/30/2001      FY01: \$0      Total: \$915,000  
*Prin. Invest.: S T BOZEMAN*  
*Tech. Officer: GSFC/C PERSON*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 8 1635**           **SPELMAN COLLEGE**           **3996**  
 FIFTH ANNUAL MODEL INST FOR EXCELLANCE CONFERENCE  
 09/29/1999 - 11/29/2000      FY01: \$0      Total: \$438,331  
*Prin. Invest.: E FALCONER*  
*Tech. Officer: MSFC/W LOVE, MSFC/A C BEAM*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 8 1712**           **SPELMAN COLLEGE**           **3997**  
 WOMEN IN SCIENCES AND ENGINEERING SCHOLARS PROGRAM  
 05/15/2000 - 03/31/2003      FY01: \$1,500,000      Total: \$3,000,000  
*Prin. Invest.: C GILLYARD*  
*Tech. Officer: MSFC/W LOVE*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 3 758**           **SPELMAN COLLEGE**           **3998**  
 DEVELOPMENT OF A NOVEL MULTI-COMPONENT PROBE FOR COMBUSTION  
 AND PROPULSION DIAGNOSTICS  
 12/30/1999 - 01/31/2002      FY01: \$78,420      Total: \$158,420  
*Prin. Invest.: D C CHEN*  
*Tech. Officer: GRC/Q NGUYEN*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 8 144**           **SPELMAN COLLEGE**           **3999**  
 INTEGRATED APPROACH TO THE PREDICTION OF HYPER-POLARIZABILITY  
 OF ORGANIC CRYSTALS  
 08/22/1997 - 06/30/2000      FY01: \$0      Total: \$291,363  
*Prin. Invest.: B CARDELINO, NONE*  
*Tech. Officer: MSFC/C MOORE*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NCC 8 179**           **SPELMAN COLLEGE**           **4000**  
 MODEL INSTS FOR EXCELLENCE (MIE)  
 03/22/1999 - 03/31/2001      FY01: \$198,781      Total: \$4,320,776  
*Prin. Invest.: E Z FALCONER, A THOMPSON*  
*Tech. Officer: MSFC/W J LOVE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 8 194**           **SPELMAN COLLEGE**           **4001**  
 CRYSTAL ENGINEERING OF NONLINEAR OPTICAL COMPOUNDS NEW  
 APPROACH FOR PREDICTING HYPERPOLARIZABILITIES  
 09/30/1999 - 09/30/2002      FY01: \$0      Total: \$298,134  
*Prin. Invest.: O SCRIVEN*  
*Tech. Officer: MSFC/D O FRAIZER*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NCC 8 227**           **SPELMAN COLLEGE**           **4002**  
 SPELMAN COLLEGE MODEL INSITUTIONS FOR EXCELLENCE  
 06/26/2001 - 06/26/2006      FY01: \$1,508,300      Total: \$1,508,300  
*Prin. Invest.: E FALCONER*  
*Tech. Officer: MSFC/W LOVE, MSFC/E ORDONEZ*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 5 3619**           **UNIV OF GEORGIA**           **4003**  
 MULTIWAVELENGTH MODELING OF NOVA ATMOSPHERES  
 12/06/1996 - 04/30/2001      FY01: \$0      Total: \$290,329  
*Prin. Invest.: P HAUSCHILD*  
*Tech. Officer: GSFC/D WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8376**           **UNIV OF GEORGIA**           **4004**  
 THE ROLE OF TRANSLUCENT CLOUDS IN GALACTIC STAR FORMATION  
 (LTS98)  
 03/09/1999 - 03/14/2002      FY01: \$0      Total: \$60,000  
*Prin. Invest.: L MAGNANI*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8425**           **UNIV OF GEORGIA**           **4005**  
 NLTE MODEL ATMOSPHERES FOR VERY LOW MASS STARS (LT SA98)  
 05/10/1999 - 05/14/2002      FY01: \$75,462      Total: \$212,115  
*Prin. Invest.: P H HAUSCHILD*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8469**           **UNIV OF GEORGIA**           **4006**  
 THE EVALUATION OF SNOW WATER EQUIVALENT ACROSS GRASSLAND  
 REGIONS  
 05/06/1999 - 06/30/2002      FY01: \$0      Total: \$90,185  
*Prin. Invest.: T L MOTE*  
*Tech. Officer: GSFC/E T ENGMAN*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 8951**           **UNIV OF GEORGIA**           **4007**  
 TEMPERATURE DEPENDENT ELECTRON RECOMBINATION RATES & SPEC-  
 TRAL SIGNATURES OF ION REACTIONS RELEVANT TO  
 01/21/2000 - 08/31/2002      FY01: \$45,000      Total: \$85,000  
*Prin. Invest.: N G ADAMS*  
*Tech. Officer: GSFC/D BOGAN*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9088**           **UNIV OF GEORGIA**           **4008**  
 ULTRAVIOLET & VISIBLE EMISSION MECHANISMS IN ASTRO PHYSICS  
 02/23/2000 - 01/31/2002      FY01: \$75,000      Total: \$143,766  
*Prin. Invest.: P C STANCIL*  
*Tech. Officer: GSFC/P CRANE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9222**      **UNIV OF GEORGIA**      **4009**  
 NON-LTE MODEL ATMOSPHERES OF HOT STARS WITH WINDS  
 04/05/2000 - 04/14/2002      FY01: \$74,491      Total: \$156,499  
*Prin. Invest.: P H HAUSCHILDT*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9396**      **UNIV OF GEORGIA**      **4010**  
 FUSE OBSERVATIONS OF GALACTIC AND LMC NOVAE IN OUT BURST -  
 FUSE  
 04/05/2000 - 04/30/2001      FY01: \$0      Total: \$9,084  
*Prin. Invest.: P H HAUSCHILDT*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10551**      **UNIV OF GEORGIA**      **4011**  
 MODELING OF EXTRASOLAR GIANT PLANETS WITH IMPROVED MOLEC-  
 ULEAR LINE OPACITIES, CONTINUUM OPACITIES, CO  
 03/09/2001 - 03/14/2002      FY01: \$60,000      Total: \$60,000  
*Prin. Invest.: P C STANCIL*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 8 1771**      **UNIV OF GEORGIA**      **4012**  
 COMPUTER SIULATIONS OF CONFINED QUANTUM SYSTEMS IN  
 MICROGRAVITY  
 05/01/2001 - 01/31/2004      FY01: \$60,000      Total: \$60,000  
*Prin. Invest.: D P LANDAU*  
*Tech. Officer: MSFC/D HUBBARD*  
*CASE Category: 19 - PHYSICAL SCIENCE, OTHER*

**NAG 9 1110**      **UNIV OF GEORGIA**      **4013**  
 CONTROLLED GROWTH OF BIOLOGIC AND ABIOTIC CARBONATES  
 ANDFEOXIDES  
 05/14/1999 - 05/13/2002      FY01: \$20,000      Total: \$30,000  
*Prin. Invest.: C S ROMANEK*  
*Tech. Officer: JSC/E K GIBSON*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAS 8 97081**      **UNIV OF GEORGIA**      **4014**  
 LAND USE/COVER AND LAND SURFACE TEMPERATURE CHANGE MAPPING  
 & NORMALIZED DIFFERENCE VEGETATION INDEX  
 11/04/1996 - 11/03/1999      FY01: \$0      Total: \$158,755  
*Prin. Invest.: D P LO*  
*Tech. Officer: MSFC/T MILLER*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NCC 8 233**      **UNIV OF GEORGIA**      **4015**  
 ONE SHARE OF SYNCHROTRON BEAM TIME FROM THE SOUTH EASTRE-  
 GIONAL COLLABROATIVE ACCESS TEAM (SER-CAT)  
 09/13/2001 - 09/30/2004      FY01: \$375,000      Total: \$375,000  
*Prin. Invest.: B WANG*  
*Tech. Officer: MSFC/C KUNDROT*  
*CASE Category: 59 - LIFE SCIENCE, OTHER*

**NGT 5 30017**      **UNIV OF GEORGIA**      **4016**  
 MEASUREMENT OF IN SITU GROWTH RATES OF TWO IMPORTA  
 PRODUCERS USING FLOW CYTOMETRY AND RRNA-TARGETED  
 10/23/1996 - 12/31/1999      FY01: -\$130      Total: \$65,870  
*Prin. Invest.: B BINDER*  
*Tech. Officer: GSFC/G ASRAR*  
*CASE Category: 33 - OCEANOGRAPHY*

**HAWAII**

**NAG 1 1850**      **UNIV OF HAWAII AT MANOA - HONOLULU**      **4017**  
 STRESS RECOVERY AND ERROR ESTIMATION FOR 3-D SHELL STRUC-  
 TURES  
 08/01/1996 - 04/30/2000      FY01: \$0      Total: \$152,211  
*Prin. Invest.: H R RIGGS*  
*Tech. Officer: LARC/J M HOUSNER*  
*CASE Category: 41 - AERONAUTICAL ENGRN*

**NAG 2 1374**      **UNIV OF HAWAII AT MANOA - HONOLULU**      **4018**  
 THE EVOLUTIONARY ORIGIN & DEPLOYMENT OF HOX & PARA HOX GENES  
 IN METAZOA  
 08/12/1999 - 07/31/2002      FY01: \$126,029      Total: \$317,888  
*Prin. Invest.: M Q MARTINDALE*  
*Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY*  
*CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)*

**NAG 2 1519**      **UNIV OF HAWAII AT MANOA - HONOLULU**      **4019**  
 THE EVOLUTION OF GRAVITY RECEPTION IN THE METAZOA  
 08/28/2001 - 08/31/2002      FY01: \$219,272      Total: \$219,272  
*Prin. Invest.: M Q MARTINDALE*  
*Tech. Officer: ARC/M M AVERNER*  
*CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)*

**NAG 3 1912**      **UNIV OF HAWAII AT MANOA - HONOLULU**      **4020**  
 GAS-PHASE COMBUSTION SYNTHESIS OF METAL AND CERAMI C NAN-  
 PARTICLES  
 07/09/1996 - 06/24/2000      FY01: \$0      Total: \$58,761  
*Prin. Invest.: B H CHAO*  
*Tech. Officer: GRC/S GOKOGLU*  
*CASE Category: 49 - ENGINEERING, OTHER*

**NAG 5 2663**      **UNIV OF HAWAII AT MANOA - HONOLULU**      **4021**  
 PARTICIPATION IN THE CONSOLIDATED INFRARED SPEC- TROMETER  
 (CIRS) AS CO-INVESTIGATOR  
 07/21/1994 - 07/31/2000      FY01: -\$1,478      Total: \$29,191  
*Prin. Invest.: T OWEN*  
*Tech. Officer: GSFC/V KUNDE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 3370**      **UNIV OF HAWAII AT MANOA - HONOLULU**      **4022**  
 TWO EXTREMELY RED GALAXIES  
 09/06/1996 - 08/14/2001      FY01: \$0      Total: \$578,500  
*Prin. Invest.: R D JOSEPH*  
*Tech. Officer: GSFC/R OLIVERSEN*  
*CASE Category: 22 - COMPUTER SCIENCE*

**NAG 5 3451**      **UNIV OF HAWAII AT MANOA - HONOLULU**      **4023**  
 ANALYSIS OF VOLCANIC ERUPTIONS AND FIRES USING LAN DSAT 7  
 10/07/1996 - 06/30/2002      FY01: \$23,500      Total: \$294,131  
*Prin. Invest.: FLYNN, NONE*  
*Tech. Officer: GSFC/D L WILLIAMS*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 3625**      **UNIV OF HAWAII AT MANOA - HONOLULU**      **4024**  
 SPECTRAL STUDIES OF POSSIBLE ASTEROIDAL MATERIALS  
 02/12/1997 - 10/31/2000      FY01: -\$4      Total: \$119,096  
*Prin. Invest.: J F BELL*  
*Tech. Officer: GSFC/P G ROGERS*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NAG 5 3635 UNIV OF HAWAII AT MANOA - HONOLULU** 4025  
 REMOTE SENSING AND GEOLOGIC STUDIES OF PLANETARY C  
 02/12/1997 - 10/31/2000 FY01: -\$807 Total: \$209,993  
*Prin. Invest.: B R HAWKE*  
*Tech. Officer: GSFC/P G ROGERS*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NAG 5 3731 UNIV OF HAWAII AT MANOA - HONOLULU** 4026  
 ADAPTIVE OPTICS IMAGING OF SOLAR SYSTEM OBJECTS  
 03/03/1997 - 12/31/1999 FY01: -\$447 Total: \$131,553  
*Prin. Invest.: D J RODDIER*  
*Tech. Officer: GSFC/J BERGSTRALH*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 3766 UNIV OF HAWAII AT MANOA - HONOLULU** 4027  
 MINERALOGICAL MAPPING OF THE MOON  
 02/20/1997 - 09/30/2001 FY01: \$120,000 Total: \$487,750  
*Prin. Invest.: P G LUCEY*  
*Tech. Officer: GSFC/P G ROGERS*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NAG 5 3782 UNIV OF HAWAII AT MANOA - HONOLULU** 4028  
 SHARING DISCOVERIES IN PLANETARY GEOSCIENCE ON THE -ROM  
 02/25/1997 - 06/30/2000 FY01: -\$242 Total: \$192,098  
*Prin. Invest.: G TAYLOR*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 3875 UNIV OF HAWAII AT MANOA - HONOLULU** 4029  
 REGIONAL PLANETARY IMAGE CENTER  
 02/10/1997 - 11/14/2001 FY01: \$0 Total: \$197,785  
*Prin. Invest.: E R HAWKE*  
*Tech. Officer: GSFC/P G ROGERS*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NAG 5 4024 UNIV OF HAWAII AT MANOA - HONOLULU** 4030  
 APPLICATIONS OF SARS TO URBAN CLIMATOLOGY: ESTIMATING MOISTURE  
 AVAILABILITY FROM RADARSAT IMAGES OF THE  
 03/17/1997 - 01/31/2001 FY01: -\$10 Total: \$130,563  
*Prin. Invest.: B M DOUSSET*  
*Tech. Officer: GSFC/R H THOMAS*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 4212 UNIV OF HAWAII AT MANOA - HONOLULU** 4031  
 ORIGIN OF METEORITE PARENT BODIES AND THE MOON  
 03/19/1997 - 11/30/2001 FY01: \$461,000 Total: \$1,812,200  
*Prin. Invest.: D KEIL*  
*Tech. Officer: GSFC/D NAVA*  
*CASE Category: 12 - CHEMISTRY*

**NAG 5 4223 UNIV OF HAWAII AT MANOA - HONOLULU** 4032  
 OBSERVATION AND ANALYSIS OF JOVIAN AND SATURNIAN S  
 03/26/1997 - 09/14/2001 FY01: \$0 Total: \$32,000  
*Prin. Invest.: D J THOLEN*  
*Tech. Officer: GSFC/W HUEBNER*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 4257 UNIV OF HAWAII AT MANOA - HONOLULU** 4033  
 MAPPING HAZARDOUS VOLCANOES WITH RADARSAT AND OTHE  
 04/10/1997 - 02/28/2001 FY01: \$0 Total: \$60,000  
*Prin. Invest.: P MOUGINIS-MARK*  
*Tech. Officer: GSFC/R H THOMAS*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NAG 5 4395 UNIV OF HAWAII AT MANOA - HONOLULU** 4034  
 A GLOBAL ASSESSMENT OF ACTIVE VOLCANISM, VOLCANIC INPUTS TO  
 THE ATMOSPHERE FROM THE EARTH OBSERVING  
 05/06/1997 - 12/31/2000 FY01: -\$55 Total: \$1,050,945  
*Prin. Invest.: P J MOUGINIS-MARK*  
*Tech. Officer: GSFC/M BALTUCK*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 4495 UNIV OF HAWAII AT MANOA - HONOLULU** 4035  
 DISTANT COMETS IN THE EARLY SOLAR SYSTEM  
 05/06/1997 - 03/31/2002 FY01: \$97,815 Total: \$430,185  
*Prin. Invest.: D J MEECH*  
*Tech. Officer: GSFC/J BERGSTRALH*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 4524 UNIV OF HAWAII AT MANOA - HONOLULU** 4036  
 OBSERVATIONS OF PLANET-CROSSING ASTEROIDS  
 05/28/1997 - 02/28/2002 FY01: \$56,500 Total: \$220,894  
*Prin. Invest.: D J THOLEN*  
*Tech. Officer: GSFC/T MORGAN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 4669 UNIV OF HAWAII AT MANOA - HONOLULU** 4037  
 THE SOLAR SYSTEM BEYOND NEPTUNE  
 06/17/1997 - 12/31/2001 FY01: \$58,000 Total: \$272,495  
*Prin. Invest.: D C JEWITT*  
*Tech. Officer: GSFC/D NAVA*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 4941 UNIV OF HAWAII AT MANOA - HONOLULU** 4038  
 OBSERVATIONAL INVESTIGATION OF THE SOLAR INTERIOR  
 06/23/1997 - 05/31/2001 FY01: \$88,349 Total: \$1,185,309  
*Prin. Invest.: B J LABONTE, NONE*  
*Tech. Officer: GSFC/W WAGNER*  
*CASE Category: 13 - PHYSICS*

**NAG 5 5276 UNIV OF HAWAII AT MANOA - HONOLULU** 4039  
 PHASE 1 OF CORAL REEF ECOSYSTEM PHASE 1 OF CORAL REEF  
 ECOSYSTEM  
 04/17/2000 - 04/13/2005 FY01: \$0 Total: \$291,000  
*Prin. Invest.: M ATKINSON*  
*Tech. Officer: GSFC/D L PIERCE*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 6336 UNIV OF HAWAII AT MANOA - HONOLULU** 4040  
 A COMPARATIVE STUDY OF X-RAY & LENSING MASS DETERMINATIONS  
 FOR THE MOST X-RAY LUMINOUS CLUSTERS IN  
 10/02/1997 - 03/14/2001 FY01: \$0 Total: \$17,800  
*Prin. Invest.: H EBELING*  
*Tech. Officer: GSFC/J SWANK*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 6340 UNIV OF HAWAII AT MANOA - HONOLULU 4041**  
 AIRCRAFT RADIATION & AEROSOL MSMTS. NEAR HAWAII: SATELLITE  
 VALIDATION AT THE MOBY BUOY & THE HOT SI  
 10/02/1997 - 05/31/2002 FY01: \$156,762 Total: \$846,282  
*Prin. Invest.: J N PORTER*  
*Tech. Officer: GSFC/D O STARR*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 6433 UNIV OF HAWAII AT MANOA - HONOLULU 4042**  
 A SYSTEM FOR ACQUISITION DISEMINATION OF EARTH SCI ENCE DATA VIA  
 THEINTERNET  
 10/17/1997 - 04/14/2000 FY01: -\$1,213 Total: \$828,810  
*Prin. Invest.: T NEILSEN*  
*Tech. Officer: GSFC/J DODGE*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 6442 UNIV OF HAWAII AT MANOA - HONOLULU 4043**  
 UNDERSTANDING SEASONAL-TO-INTERANNUAL FLUCTUATIONS OF THE  
 NORTH PACIFIC SUBTROPICAL GYRE THROUGH MO  
 11/13/1997 - 09/30/2000 FY01: -\$249 Total: \$126,971  
*Prin. Invest.: B QIU*  
*Tech. Officer: GSFC/E LINDSTROM*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 6561 UNIV OF HAWAII AT MANOA - HONOLULU 4044**  
 SPECTROSCOPIC OBSERVATIONS OF THE PLANETS  
 12/09/1997 - 03/31/2002 FY01: \$0 Total: \$159,000  
*Prin. Invest.: D OWEN*  
*Tech. Officer: GSFC/J BERGSTRAHL*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 6753 UNIV OF HAWAII AT MANOA - HONOLULU 4045**  
 A MG II SPECTRAL ATLAS AND FLUX CATALOG FOR LATE- TYPE STARS IN  
 THEHYADES CLUSTER  
 01/12/1998 - 01/14/2000 FY01: \$0 Total: \$45,066  
*Prin. Invest.: T SIMON*  
*Tech. Officer: GSFC/D WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 6829 UNIV OF HAWAII AT MANOA - HONOLULU 4046**  
 OUTER SOLAR SYSTEM NOMENCLATURE  
 01/15/1998 - 01/14/2002 FY01: \$0 Total: \$14,750  
*Prin. Invest.: T OWEN*  
*Tech. Officer: GSFC/P ROGERS*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 7038 UNIV OF HAWAII AT MANOA - HONOLULU 4047**  
 WEAK LENSING FROM SPACE \_ ATP  
 02/24/1998 - 03/31/2002 FY01: \$81,012 Total: \$246,327  
*Prin. Invest.: N KAISER*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7056 UNIV OF HAWAII AT MANOA - HONOLULU 4048**  
 SUBMILLIMETER STUDIES OF COMETS  
 02/27/1998 - 02/28/2002 FY01: \$0 Total: \$123,564  
*Prin. Invest.: D JEWITT*  
*Tech. Officer: GSFC/T MORGAN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7139 UNIV OF HAWAII AT MANOA - HONOLULU 4049**  
 REMOTE RAMAN ANALYSIS FOR PLANETARY LANDERS  
 03/04/1998 - 03/31/2002 FY01: \$0 Total: \$417,763  
*Prin. Invest.: S K SHARMA*  
*Tech. Officer: GSFC/B CAMPBELL*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7383 UNIV OF HAWAII AT MANOA - HONOLULU 4050**  
 "ARCHITECTURE AND IMPLEMENTATION CONSIDERATION OF A HIGH-  
 SPEED VIBERBI DECODER FOR REED-MULLER SUBC  
 05/12/1998 - 09/14/2001 FY01: \$50,000 Total: \$249,000  
*Prin. Invest.: G UEHARA*  
*Tech. Officer: GSFC/W H MILLER*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NAG 5 7485 UNIV OF HAWAII AT MANOA - HONOLULU 4051**  
 TO ESTABLISH SUPPORT FOR AN INTERNATIONAL PACIFIC RESEARCH  
 CENTER (IPRC) AT THE UNIV. SCHOOL OF OCEA  
 06/03/1998 - 04/30/2001 FY01: \$0 Total: \$1,000,000  
*Prin. Invest.: L MAGAARD*  
*Tech. Officer: GSFC/P GLOERSEN*  
*CASE Category: 33 – OCEANOGRAPHY*

**NAG 5 7513 UNIV OF HAWAII AT MANOA - HONOLULU 4052**  
 HYPERSPECTRAL REMOTE SENSING OF CORAL REEFS IN A TROPICAL  
 ESTUARY  
 07/28/1998 - 09/30/2001 FY01: \$0 Total: \$230,712  
*Prin. Invest.: M J ATKINSON*  
*Tech. Officer: GSFC/J W CAMPBELL*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 7578 UNIV OF HAWAII AT MANOA - HONOLULU 4053**  
 FUNDING FOR 'POST-ERUPTION HAZARDS AT MT. PINATUBO , PHIL-  
 IPPINES'(SENH98-0118)  
 08/04/1998 - 07/31/2002 FY01: \$262,000 Total: \$717,500  
*Prin. Invest.: P J MOUGINIS-MARK*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 7730 UNIV OF HAWAII AT MANOA - HONOLULU 4054**  
 INTERACTIVE TEACHING USING LANDSAT 5 AND LANDSAT 7 DATA  
 09/29/1998 - 06/14/2002 FY01: \$30,433 Total: \$90,533  
*Prin. Invest.: L P FLYNN*  
*Tech. Officer: GSFC/N KHAZENIE*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 7855 UNIV OF HAWAII AT MANOA - HONOLULU 4055**  
 THERMAL INFRARED MEASUREMENTS OF THE MOON AND MERCURY  
 12/07/1998 - 11/30/2001 FY01: \$63,499 Total: \$171,584  
*Prin. Invest.: D G LUCEY*  
*Tech. Officer: GSFC/T MORGAN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7868 UNIV OF HAWAII AT MANOA - HONOLULU 4056**  
 CHEMISTRY AND MINERALOGY OF SURFACE UNITS ON EUROPA AND IO  
 01/13/1999 - 12/31/2000 FY01: -\$581 Total: \$49,419  
*Prin. Invest.: D P FANALE*  
*Tech. Officer: GSFC/R BEEBE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7963 UNIV OF HAWAII AT MANOA - HONOLULU 4057**  
 THE FIFTH PLANETARY VOLCANOLOGY FIELD WORKSHOP  
 12/15/1998 – 10/31/2001 FY01: \$0 Total: \$46,000  
*Prin. Invest.: S K ROWLAND*  
*Tech. Officer: GSFC/J GRANT*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 8002 UNIV OF HAWAII AT MANOA - HONOLULU 4058**  
 SOLAR LIMB SHAPE, RADIUS AND OSCILLATION STUDIES USING SOHO/  
 MDI  
 01/12/1999 – 01/14/2002 FY01: \$124,811 Total: \$362,429  
*Prin. Invest.: J R KUHN*  
*Tech. Officer: GSFC/J GURMAN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8118 UNIV OF HAWAII AT MANOA - HONOLULU 4059**  
 A PRELIMINARY AEROSOL CLIMATOLOGY FOR THE PACIFIC BOUNDARY  
 LAYER & FREE TROPOSPHERE  
 01/29/1999 – 01/31/2002 FY01: \$111,000 Total: \$333,000  
*Prin. Invest.: A D CLARKE*  
*Tech. Officer: GSFC/M MISHCHENKO*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 8216 UNIV OF HAWAII AT MANOA - HONOLULU 4060**  
 FIP, FIT, OR MAD? ANALYSIS OF HIGH SIGNAL-TO-NOISE ASCA SPECTRA  
 OF CORONAL STARS (ADP98)  
 02/08/1999 – 02/14/2002 FY01: \$22,527 Total: \$67,497  
*Prin. Invest.: T SIMON*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8253 UNIV OF HAWAII AT MANOA - HONOLULU 4061**  
 FROM DETECTION TO COMPREHENSION: UNDERSTANDING THE  
 PHYSICAL MECHANISMS DRIVING CLUSTER X-RAY EVOLUTION  
 02/19/1999 – 12/31/2001 FY01: \$143,000 Total: \$405,000  
*Prin. Invest.: H EBELING*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8275 UNIV OF HAWAII AT MANOA - HONOLULU 4062**  
 NON-ICE CONSTITUENTS OF THE ICY GALILEAN SATELLITE SURFACES  
 03/25/1999 – 12/31/2000 FY01: -\$479 Total: \$176,521  
*Prin. Invest.: T B MCCORD*  
*Tech. Officer: GSFC/R BEEBE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8298 UNIV OF HAWAII AT MANOA - HONOLULU 4063**  
 A SURVEY FOR MASSIVE PLANETS BY DIRECT IMAGING WITH ADVANCED  
 ADAPTIVE OPTICS  
 02/23/1999 – 02/28/2002 FY01: \$135,000 Total: \$369,000  
*Prin. Invest.: D J RODDIER*  
*Tech. Officer: HQ/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8300 UNIV OF HAWAII AT MANOA - HONOLULU 4064**  
 RADIATIVE BALANCE & BEHAVIOR OF THE SEASONAL MARS POLAR CAPS  
 03/05/1999 – 03/14/2002 FY01: \$60,000 Total: \$177,000  
*Prin. Invest.: T MCCORD*  
*Tech. Officer: HQ/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8330 UNIV OF HAWAII AT MANOA - HONOLULU 4065**  
 SOLAR-C: SCATTER-FREE OBSERVATORY FOR LIMB ACTIVE REGIONS  
 AND CORONAE  
 04/30/1999 – 04/30/2002 FY01: \$199,167 Total: \$506,785  
*Prin. Invest.: J R KUHN*  
*Tech. Officer: GSFC/W WAGNER*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8421 UNIV OF HAWAII AT MANOA - HONOLULU 4066**  
 SCIENTIFIC RESEARCH FOR DESIGN REFERENCE MISSION FOR NEXT  
 GENERATION SPACE TELESCOPE  
 04/02/1999 – 04/14/2001 FY01: \$0 Total: \$20,000  
*Prin. Invest.: D N HALL*  
*Tech. Officer: GSFC/E SMITH*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8593 UNIV OF HAWAII AT MANOA - HONOLULU 4067**  
 1999 BIOASTRONOMY MEETING  
 06/04/1999 – 05/31/2001 FY01: \$0 Total: \$40,000  
*Prin. Invest.: T C OWEN*  
*Tech. Officer: GSFC/M MEYER*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8713 UNIV OF HAWAII AT MANOA - HONOLULU 4068**  
 MINERALOGY AND ISOTOPE CHEMISTRY OF CA-AL-RICH INCLUSIONS,  
 CHONDRULES & MATRIX IN THE CV CHONDRITE  
 08/04/1999 – 07/31/2002 FY01: \$24,000 Total: \$70,500  
*Prin. Invest.: K KEIL*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8745 UNIV OF HAWAII AT MANOA - HONOLULU 4069**  
 LOCAL TSUNAMIS IN HAWAII: HAZARD ASSESSMENT & EMERGENCY  
 RESPONSE  
 08/24/1999 – 08/31/2001 FY01: \$0 Total: \$100,000  
*Prin. Invest.: G J FRYER*  
*Tech. Officer: GSFC/E PAYLOR*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8748 UNIV OF HAWAII AT MANOA - HONOLULU 4070**  
 A REAL-TIME SIMULATION PACKAGE FOR STORM SURGE AND WAVE  
 RUNUP PACIFIC  
 08/25/1999 – 08/30/2002 FY01: \$0 Total: \$400,000  
*Prin. Invest.: K F CHEUNG*  
*Tech. Officer: GSFC/E PAYLOR*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8751 UNIV OF HAWAII AT MANOA - HONOLULU 4071**  
 DEVELOPMENT OF A UV/VISIBLE-OPTIMIZED CCD FOR WFC3 ON HST  
 09/08/1999 – 09/14/2001 FY01: \$0 Total: \$93,500  
*Prin. Invest.: G LUPPINI*  
*Tech. Officer: GSFC/E CHENG*  
*CASE Category: 13 – PHYSICS*

**NAG 5 8757 UNIV OF HAWAII AT MANOA - HONOLULU 4072**  
 IMAGING, GEOCODING AND ENVIRONMENTAL MONITORING IN HAWAII  
 AND THE WEST PACIFIC  
 08/24/1999 – 02/28/2002 FY01: \$0 Total: \$400,000  
*Prin. Invest.: M BEVIS*  
*Tech. Officer: GSFC/E PAYLOR*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

<b>NAG 5 8863</b>	<b>UNIV OF HAWAII AT MANOA - HONOLULU</b>	<b>4073</b>	<b>NAG 5 8991</b>	<b>UNIV OF HAWAII AT MANOA - HONOLULU</b>	<b>4081</b>
LABORATORY INVESTIGATIONS OF VOLATILE TRAPPING IN COMETS			ASTEROID PROCESSING ON EROS		
10/20/1999 - 09/30/2001	FY01: \$0	Total: \$80,000	01/24/2000 - 01/31/2001	FY01: \$0	Total: \$65,000
<i>Prin. Invest.: T C OWEN</i>			<i>Prin. Invest.: P G LUCEY</i>		
<i>Tech. Officer: GSFC/M MEYER</i>			<i>Tech. Officer: GSFC/T MORGAN</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 11 - ASTRONOMY</i>		
<b>NAG 5 8870</b>	<b>UNIV OF HAWAII AT MANOA - HONOLULU</b>	<b>4074</b>	<b>NAG 5 9038</b>	<b>UNIV OF HAWAII AT MANOA - HONOLULU</b>	<b>4082</b>
VOLATILE EVOLUTION			VALIDATION AND ANALYSIS OF SRTM AND VCL DATA OVER TROPICAL VOLCANOES.		
01/10/2000 - 06/30/2001	FY01: \$0	Total: \$72,347	02/10/2000 - 02/14/2002	FY01: \$74,000	Total: \$113,000
<i>Prin. Invest.: F P FANALE</i>			<i>Prin. Invest.: P J MOUGINIS-MARK</i>		
<i>Tech. Officer: GSFC/J GRANT</i>			<i>Tech. Officer: GSFC/H V FREY</i>		
<i>CASE Category: 99 - MULTI INTERDISCPL, OTHER</i>			<i>CASE Category: 32 - GEOLOGICAL SCIENCE</i>		
<b>NAG 5 8903</b>	<b>UNIV OF HAWAII AT MANOA - HONOLULU</b>	<b>4075</b>	<b>NAG 5 9042</b>	<b>UNIV OF HAWAII AT MANOA - HONOLULU</b>	<b>4083</b>
REMOTE SENSING AND GEOLOGIC STUDIES OF PLANETARY CRUSTS			ANALYSIS OF HIPPARCHOS MARGINAL PARALLAXES - ADP 99		
12/28/1999 - 12/31/2001	FY01: \$70,400	Total: \$137,280	02/22/2000 - 02/28/2002	FY01: \$0	Total: \$45,059
<i>Prin. Invest.: B HAWKE, NONE</i>			<i>Prin. Invest.: W D HEACOX</i>		
<i>Tech. Officer: GSFC/J GRANT</i>			<i>Tech. Officer: GSFC/R J OLIVERSEN</i>		
<i>CASE Category: 32 - GEOLOGICAL SCIENCE</i>			<i>CASE Category: 11 - ASTRONOMY</i>		
<b>NAG 5 8920</b>	<b>UNIV OF HAWAII AT MANOA - HONOLULU</b>	<b>4076</b>	<b>NAG 5 9166</b>	<b>UNIV OF HAWAII AT MANOA - HONOLULU</b>	<b>4084</b>
A GLOBAL ASSESSMENT OF ACTIVE VOLCANISM FROM THE EARTH OBSERVING SYSTEM			ORIGIN & EVOLUTION OF STURCTURE IN THE UNIVERSE DETERMINED FROM THE X-RAYEVOLUTION OF GALAXY		
01/24/2000 - 12/31/2001	FY01: \$0	Total: \$405,000	03/08/2000 - 03/15/2002	FY01: \$0	Total: \$67,564
<i>Prin. Invest.: P J MOUGINIS-MARK</i>			<i>Prin. Invest.: J HENRY</i>		
<i>Tech. Officer: GSFC/E D PAYLOR</i>			<i>Tech. Officer: GSFC/R OLIVERSEN</i>		
<i>CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</i>			<i>CASE Category: 11 - ASTRONOMY</i>		
<b>NAG 5 8921</b>	<b>UNIV OF HAWAII AT MANOA - HONOLULU</b>	<b>4077</b>	<b>NAG 5 9190</b>	<b>UNIV OF HAWAII AT MANOA - HONOLULU</b>	<b>4085</b>
THE FIFTH PLANETARY VOLCANOLOGY FIELD WORKSHOP			SHARING DISCOVERIES IN PLANETARY GEOSCIENCE ON THE WORLD WIDE WEB AND CD-ROM		
01/06/2000 - 12/31/2001	FY01: \$0	Total: \$10,000	03/07/2000 - 03/14/2002	FY01: \$65,000	Total: \$130,000
<i>Prin. Invest.: S K ROWLAND</i>			<i>Prin. Invest.: G TAYLOR</i>		
<i>Tech. Officer: GSFC/J GRANT</i>			<i>Tech. Officer: GSFC/J BOYCE</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 11 - ASTRONOMY</i>		
<b>NAG 5 8979</b>	<b>UNIV OF HAWAII AT MANOA - HONOLULU</b>	<b>4078</b>	<b>NAG 5 9238</b>	<b>UNIV OF HAWAII AT MANOA - HONOLULU</b>	<b>4086</b>
FINDING THE ONSET OF CONVECTION IN MAIN SEQUENCE STARS - FUSE			A CALIBRATION OF THE CLUSTER FLUX MEASUREMENTS IN THE ROSAT ALL-SKY SURVEY - ADP 99		
01/24/2000 - 01/31/2002	FY01: \$0	Total: \$68,700	03/09/2000 - 03/14/2002	FY01: \$0	Total: \$30,321
<i>Prin. Invest.: T SIMON, NONE</i>			<i>Prin. Invest.: H EBELING</i>		
<i>Tech. Officer: GSFC/G SONNEBORN</i>			<i>Tech. Officer: GSFC/R OLIVERSON</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 11 - ASTRONOMY</i>		
<b>NAG 5 8983</b>	<b>UNIV OF HAWAII AT MANOA - HONOLULU</b>	<b>4079</b>	<b>NAG 5 9252</b>	<b>UNIV OF HAWAII AT MANOA - HONOLULU</b>	<b>4087</b>
PROPERTIES OF ICE ON THE SURFACE OF EUROPA AND THE OTHER ICY GALILEAN SATELLITES			REAL-TIME LABORATORY FOR REMOTE SENSING		
01/24/2000 - 01/31/2002	FY01: \$45,000	Total: \$85,000	03/10/2000 - 02/28/2002	FY01: \$499,832	Total: \$748,199
<i>Prin. Invest.: G HANSEN</i>			<i>Prin. Invest.: T NIELSEN</i>		
<i>Tech. Officer: GSFC/D BOGAN</i>			<i>Tech. Officer: HQ/J DODGE</i>		
<i>CASE Category: 99 - MULTI INTERDISCPL, OTHER</i>			<i>CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</i>		
<b>NAG 5 8989</b>	<b>UNIV OF HAWAII AT MANOA - HONOLULU</b>	<b>4080</b>	<b>NAG 5 9354</b>	<b>UNIV OF HAWAII AT MANOA - HONOLULU</b>	<b>4088</b>
OBSERVATIONS OF THE PLUTO-CHARON SYSTEM			FULLERENES: A NEW CARRIER-PHASE FOR NOBLE GASES IN METEORITES		
01/27/2000 - 03/31/2001	FY01: \$0	Total: \$10,360	04/03/2000 - 10/31/2001	FY01: \$0	Total: \$40,000
<i>Prin. Invest.: D J THOLEN</i>			<i>Prin. Invest.: K KEIL</i>		
<i>Tech. Officer: GSFC/T H MORGAN</i>			<i>Tech. Officer: GSFC/J BOYCE</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 11 - ASTRONOMY</i>		

**NAG 5 9413 UNIV OF HAWAII AT MANOA - HONOLULU 4089**  
 TRACKING ERUPTIONS & FIRES WITHIN THE RING OF FIRE  
 04/07/2000 - 04/30/2002 FY01: \$175,666 Total: \$290,333  
*Prin. Invest.: L FLYNN*  
*Tech. Officer: GSFC/J DODGE*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9511 UNIV OF HAWAII AT MANOA - HONOLULU 4090**  
 INTERSTELLAR ORGANIC MOLECULES AND THE ORIGIN OF LIFE: THE  
 ROLE OF EXOGENOUS DELIVERY  
 05/03/2000 - 06/30/2002 FY01: \$90,000 Total: \$174,780  
*Prin. Invest.: K KEIL*  
*Tech. Officer: GSFC/M MEYER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9576 UNIV OF HAWAII AT MANOA - HONOLULU 4091**  
 THE DIVERSITY OF MARTIAN VOLCANIC FEATURES AS SEEN IN MOC  
 IMAGES AND MOLA TOPOGRAPHIC DATA  
 05/17/2000 - 04/30/2002 FY01: \$58,000 Total: \$115,700  
*Prin. Invest.: P MOUGINIS-MARK*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9580 UNIV OF HAWAII AT MANOA - HONOLULU 4092**  
 A VOLCANIC PLUME DISPERSION MONITORING AND PREDICTION  
 CAPABILITY  
 05/09/2000 - 09/30/2002 FY01: \$0 Total: \$213,210  
*Prin. Invest.: S BUSINGER*  
*Tech. Officer: GSFC/E PAYLOR*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9757 UNIV OF HAWAII AT MANOA - HONOLULU 4093**  
 CONTROLS ON THE VARIABILITY OF PHYTOPLANKTON BIO- MASS &  
 PRODUCTIVITY IN THE NORTHERN PACIFIC CENTRA  
 06/23/2000 - 12/31/2001 FY01: \$122,917 Total: \$198,558  
*Prin. Invest.: R R BIDIGARE*  
*Tech. Officer: GSFC/J MARRA*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9765 UNIV OF HAWAII AT MANOA - HONOLULU 4094**  
 GEOCHEMICAL STUDIES OF THE LUNAR CRUST  
 07/03/2000 - 06/30/2002 FY01: \$25,000 Total: \$49,000  
*Prin. Invest.: B HAWKE*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9896 UNIV OF HAWAII AT MANOA - HONOLULU 4095**  
 MAPPING THE STELLAR X-RAY EMISSION BEYOND 1 GYR IN SPACE AND  
 TIME  
 09/06/2000 - 09/14/2001 FY01: \$0 Total: \$7,000  
*Prin. Invest.: T SIMON*  
*Tech. Officer: GSFC/R F MUSHOTZKY*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9921 UNIV OF HAWAII AT MANOA - HONOLULU 4096**  
 X-RAY EMISSION FROM BROWN DWARFS: A SEQUENCE OF TEMPERA-  
 TURES AND AGES?  
 09/05/2000 - 09/14/2001 FY01: \$0 Total: \$7,800  
*Prin. Invest.: W BRANDNER*  
*Tech. Officer: GSFC/R F MUSHOTZKY*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9992 UNIV OF HAWAII AT MANOA - HONOLULU 4097**  
 SEARCH FOR X-RAY EMISSION IN THE NEAREST KNOWN BROWN DWARF  
 09/20/2000 - 08/31/2002 FY01: \$14,000 Total: \$30,000  
*Prin. Invest.: E MARTIN*  
*Tech. Officer: GSFC/R MUSHOTZKY*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9994 UNIV OF HAWAII AT MANOA - HONOLULU 4098**  
 RXJ1821+6828: TEMPERATURE DISTRIBUTION AND METALLI CITY FOR A  
 Z=0.81 CLUSTER  
 09/14/2000 - 08/31/2002 FY01: \$16,000 Total: \$38,500  
*Prin. Invest.: I M GIOIA*  
*Tech. Officer: GSFC/R MUSHOTZKY*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10025 UNIV OF HAWAII AT MANOA - HONOLULU 4099**  
 HARD X-RAYS FROM A COMPLETE SAMPLE OF THE BRIGHTEST ULTRALU-  
 MINOUS INFRARED GALAXIES  
 09/27/2000 - 09/30/2001 FY01: \$0 Total: \$32,400  
*Prin. Invest.: D B SANDERS*  
*Tech. Officer: GSFC/R MUSHOTZKY*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10041 UNIV OF HAWAII AT MANOA - HONOLULU 4100**  
 MEASURING THE MASS DISTRIBUTION IN Z>0.2 CLUSTER LENSES WITH  
 XMM, HST AND CFHT  
 10/03/2000 - 09/30/2001 FY01: \$11,000 Total: \$11,000  
*Prin. Invest.: H EBELING*  
*Tech. Officer: GSFC/R MUSHOTZKY*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10045 UNIV OF HAWAII AT MANOA - HONOLULU 4101**  
 DATA-INTENSIVE RESEARCH & MODEL DEVELOPMENT AT THE INTERNA-  
 TIONAL PACIFIC RESEARCH CENTER  
 09/28/2000 - 09/30/2001 FY01: \$750,000 Total: \$1,000,000  
*Prin. Invest.: J MCCREARY*  
*Tech. Officer: GSFC/E LINDSTROM*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 10085 UNIV OF HAWAII AT MANOA - HONOLULU 4102**  
 THE X-RAY TEMPERATURE FUNCTION AND STRUCTURE OF CLUSTERS AT  
 Z=0.6-1  
 11/07/2000 - 11/14/2001 FY01: \$5,162 Total: \$5,162  
*Prin. Invest.: H EBELING*  
*Tech. Officer: GSFC/R MUSHOTZKY*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10111 UNIV OF HAWAII AT MANOA - HONOLULU 4103**  
 MONITORING SURFACE DEFORMATION AT HAWAIIAN & OTHER BASALTIC  
 VOLCANOES WITH RADARSAT INTERFEROMETRY  
 11/20/2000 - 11/30/2001 FY01: \$20,185 Total: \$20,185  
*Prin. Invest.: F AMELUNG*  
*Tech. Officer: GSFC/K PARTINGTON*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10128 UNIV OF HAWAII AT MANOA - HONOLULU 4104**  
 AN XMM STUDY OF LOW-ACTIVITY CORONAL STARS OF 1-2 SOLAR  
 MASSES  
 11/28/2000 - 11/30/2001 FY01: \$4,500 Total: \$4,500  
*Prin. Invest.: T SIMON*  
*Tech. Officer: GSFC/R MUSHOTZKY*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10133 UNIV OF HAWAII AT MANOA - HONOLULU** 4105  
 PARTICIPATION IN PLANET-B NMS TEAM  
 12/12/2000 – 12/14/2001 FY01: \$15,000 Total: \$15,000  
*Prin. Invest.:* T C OWEN  
*Tech. Officer:* GSFC/J E RICHARDS  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NAG 5 10141 UNIV OF HAWAII AT MANOA - HONOLULU** 4106  
 NEW OPPORTUNITIES THROUGH MINORITY INITIATIVES IN SPACE SCIENCE  
 12/19/2000 – 12/31/2001 FY01: \$249,950 Total: \$249,950  
*Prin. Invest.:* R A CROWE  
*Tech. Officer:* HQ/P SAKIMOTO  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 10228 UNIV OF HAWAII AT MANOA - HONOLULU** 4107  
 THE SIXTH PLANETARY VOLCANOLOGY FIELD WORKSHOP  
 01/04/2001 – 01/14/2002 FY01: \$48,000 Total: \$48,000  
*Prin. Invest.:* S K ROWLAND  
*Tech. Officer:* GSFC/D SENSKY  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 10229 UNIV OF HAWAII AT MANOA - HONOLULU** 4108  
 VOLATILE EVOLUTION  
 01/04/2001 – 01/14/2002 FY01: \$76,000 Total: \$76,000  
*Prin. Invest.:* F P FANALE  
*Tech. Officer:* GSFC/D SENSKY  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NAG 5 10237 UNIV OF HAWAII AT MANOA - HONOLULU** 4109  
 REGIONAL PLANETARY IMAGE CENTER  
 01/08/2001 – 01/14/2002 FY01: \$50,300 Total: \$50,300  
*Prin. Invest.:* B R HAWKE  
*Tech. Officer:* GSFC/D SENSKY  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 10427 UNIV OF HAWAII AT MANOA - HONOLULU** 4110  
 EVOLUTION OF DUST AROUND STARS  
 02/16/2001 – 02/28/2002 FY01: \$35,000 Total: \$35,000  
*Prin. Invest.:* D JEWITT  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 10437 UNIV OF HAWAII AT MANOA - HONOLULU** 4111  
 PHYSICAL PROPERTIES OF COMETRAY NUCLEUS CANDIDATES  
 02/20/2001 – 02/28/2002 FY01: \$55,500 Total: \$55,500  
*Prin. Invest.:* D JEWITT  
*Tech. Officer:* GSFC/T MORGAN  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 10514 UNIV OF HAWAII AT MANOA - HONOLULU** 4112  
 STABILITY & BEHAVIOR OF HYDRATED/HYDROXYLATED MATE RIALS IN COLD SOLAR SYSTEM ENVIRONMENTS  
 03/05/2001 – 03/31/2002 FY01: \$75,000 Total: \$75,000  
*Prin. Invest.:* T MCCORD  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 12 – CHEMISTRY

**NAG 5 10564 UNIV OF HAWAII AT MANOA - HONOLULU** 4113  
 A DEEP X-RAY SURVEY OF LOW-MASS PMS STARS IN NGC 2264  
 03/15/2001 – 03/14/2002 FY01: \$19,133 Total: \$19,133  
*Prin. Invest.:* T SIMON  
*Tech. Officer:* GSFC/R MUSHOTZKY  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 10610 UNIV OF HAWAII AT MANOA - HONOLULU** 4114  
 CHRONOLOGY OF THE EARLY SOLAR NEBULA: DISTRIBUTIO N OF 26A1 INCHONDRULES FROM PRIMITIVE C  
 03/16/2001 – 03/14/2002 FY01: \$30,000 Total: \$30,000  
*Prin. Invest.:* A KROT, NONE  
*Tech. Officer:* GSFC/J M BOYCE  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 10640 UNIV OF HAWAII AT MANOA - HONOLULU** 4115  
 EFFECTS OF VOLCANIC ERUPTIONS ON THE NATURAL ENVIR ONMENT  
 03/20/2001 – 03/31/2002 FY01: \$250,000 Total: \$250,000  
*Prin. Invest.:* P MOUGINIS-MARK  
*Tech. Officer:* GSFC/E D PAYLOR, II  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NAG 5 10646 UNIV OF HAWAII AT MANOA - HONOLULU** 4116  
 HIGH TEMPERATURES AND DISKS AROUND PMS STARS FUSE SPECTRA OF THREE HERBIGAEBE STARS – FUSE 2000  
 03/27/2001 – 05/31/2002 FY01: \$23,500 Total: \$23,500  
*Prin. Invest.:* T SIMON  
*Tech. Officer:* GSFC/G SONNEBORN  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 10704 UNIV OF HAWAII AT MANOA - HONOLULU** 4117  
 A LIGHTWEIGHT FTIR SPECTROMETER FOR IN SITU GAS ANALYSIS  
 05/01/2001 – 03/31/2002 FY01: \$110,940 Total: \$110,940  
*Prin. Invest.:* P LUCEY  
*Tech. Officer:* GSFC/B BETTS  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 10750 UNIV OF HAWAII AT MANOA - HONOLULU** 4118  
 SPATIAL STATISTICS OF LARGE ASTRONOMICAL DATABASES AN ALGORITHMIC APPROACH  
 05/03/2001 – 04/14/2002 FY01: \$75,000 Total: \$75,000  
*Prin. Invest.:* I SZAPUDI  
*Tech. Officer:* GSFC/P E HUNTER  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NAG 5 10773 UNIV OF HAWAII AT MANOA - HONOLULU** 4119  
 A CALIBRATION OF THE CLUSTER FLUX MEASUREMENTS IN THE ROSAT ALL-SKYSURVEY  
 04/20/2001 – 04/30/2002 FY01: \$55,000 Total: \$55,000  
*Prin. Invest.:* H EBELING  
*Tech. Officer:* GSFC/R J OLIVERSEN  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 10909 UNIV OF HAWAII AT MANOA - HONOLULU** 4120  
 APPLICATION OF A THERMO-RHEOLOGICAL LAVA FLOW MODEL TO MARTIAN CONDITIONS  
 05/09/2001 – 05/14/2002 FY01: \$50,000 Total: \$50,000  
*Prin. Invest.:* S ROWLAND  
*Tech. Officer:* GSFC/J M BOYCE  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NAG 5 11138 UNIV OF HAWAII AT MANOA - HONOLULU 4121**  
 PARTICIPATION ON THE CASSINI-HUYGENS GAS CHROMATO- GRAPH-  
 MASS SPECTROMETER(GCMS) TEAM  
 07/25/2001 - 07/31/2005 FY01: \$15,000 Total: \$15,000  
*Prin. Invest.: T C OWEN* *Prin. Invest.: NONE*  
*Tech. Officer: GSFC/W T KASPRZAK*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 11362 UNIV OF HAWAII AT MANOA - HONOLULU 4122**  
 FLOW-EJECTA CRATER POPULATION ON MARS & CHRONOLOGY OF  
 MAJOR GEOLOGIC EVENTS  
 09/26/2001 - 09/30/2004 FY01: \$84,000 Total: \$84,000  
*Prin. Invest.: K KEIL*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 20704 UNIV OF HAWAII AT MANOA - HONOLULU 4123**  
 A LIGHTWEIGHT FTIR SPECTROMETER FOR IN SITU GAS ANALYSIS  
 04/09/2001 - 04/30/2001 FY01: \$0 Total: \$0  
*Prin. Invest.: P LUCEY*  
*Tech. Officer: GSFC/B BETTS*  
*CASE Category: 11 – ASTRONOMY*

**NAG 8 1798 UNIV OF HAWAII AT MANOA - HONOLULU 4124**  
 RESEARCH, "CURVATURE-BASED WAVEFRONT SENSOR FOR USE ON  
 EXTENDED, ARBITRARY, LOW CONTRAST SCENES"  
 04/25/2001 - 04/24/2004 FY01: \$215,000 Total: \$215,000  
*Prin. Invest.: B J LABONTE*  
*Tech. Officer: MSFC/A KEYS*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAS 2 98077 UNIV OF HAWAII AT MANOA - HONOLULU 4125**  
 DEVELOPMENT OF ADVANCED NEAR INFRARED FOCAL PLANE  
 TECHNOLOGY  
 08/04/1998 - 06/30/2003 FY01: \$2,706,106 Total: \$3,698,106  
*Prin. Invest.: D N HALL*  
*Tech. Officer: ARC/K W HODAPP*  
*CASE Category: 11 – ASTRONOMY*

**NAS 5 30951 UNIV OF HAWAII AT MANOA - HONOLULU 4126**  
 INTERPRETATION OF GALILEO PROBE MASS SPECTROMETER DATA  
 01/15/1991 - 04/30/2000 FY01: \$0 Total: \$280,168  
*Prin. Invest.: T C OWENS*  
*Tech. Officer: GSFC/J R RICHARDS*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAS 5 97136 UNIV OF HAWAII AT MANOA - HONOLULU 4127**  
 MEASUREMENTS OF AEROSOL, OCEAN & SKY PROPERTIES AT THE HOT  
 SITE IN THE CENTRAL PACIFIC  
 09/29/1997 - 03/28/2001 FY01: \$0 Total: \$396,097  
*Prin. Invest.: J PORTER*  
*Tech. Officer: GSFC/C MCCLAIN*  
*CASE Category: 33 – OCEANOGRAPHY*

**NAS 5 99180 UNIV OF HAWAII AT MANOA - HONOLULU 4128**  
 LASER RANGING OPERATION, REPAIR & MAINTENANCE OF LURE  
 OBSERVATORY FACILITY, MAUI, HI.  
 08/19/1999 - 08/18/2004 FY01: \$490,000 Total: \$1,150,000  
*Prin. Invest.: D O'GARA*  
*Tech. Officer: GSFC/J MCGARRY*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NASW 5062 UNIV OF HAWAII AT MANOA - HONOLULU 4129**  
 OPERATION AND MAINTENANCE OF THE INFRARED TELESCOPE FACILITY  
 01/31/1996 - 01/31/2001 FY01: \$0 Total: \$14,916,140  
*Prin. Invest.: D N HALL, R JOSEPH*  
*Tech. Officer: HQ/E BARKER*  
*CASE Category: 11 – ASTRONOMY*

**NCC 1 315 UNIV OF HAWAII AT MANOA - HONOLULU 4130**  
 SIZE RESOLVED AEROSOL NUCLEI AND PHYSICO-CHEMISTRY FOR PEM-  
 TROPICS B ABOARD P-3B, REF NRA-97-MTPE-13  
 08/17/1998 - 08/31/2002 FY01: \$0 Total: \$346,930  
*Prin. Invest.: A D CLARKE, V KAPUSTIN*  
*Tech. Officer: LARC/J M HOELL, LARC/R J BENDURA*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 1 416 UNIV OF HAWAII AT MANOA - HONOLULU 4131**  
 AEROSOL PHYSICOCHMISTRY: P-3B AIRCRAFT MEASURE- MENTS FOR  
 TRACE-P. NRA00-OES-01.  
 09/25/2000 - 09/30/2003 FY01: \$108,248 Total: \$217,825  
*Prin. Invest.: A D CLARKE*  
*Tech. Officer: LARC/J L RAPER, SR*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 3 696 UNIV OF HAWAII AT MANOA - HONOLULU 4132**  
 FLAME DESIGN - A NOVEL APPROACH TO CLEAN, EFFICIENT DIFFUSION  
 FLAMES  
 03/25/1999 - 01/13/2003 FY01: \$15,414 Total: \$46,016  
*Prin. Invest.: B CHAO*  
*Tech. Officer: GRC/D L URBAN*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 5 373 UNIV OF HAWAII AT MANOA - HONOLULU 4133**  
 PARTICIPATION IN THE COMPOSITE INFRARED SPECTROMETER (CIRS)  
 PROJECT AS CO-INVESTIGATOR  
 01/12/1999 - 01/14/2001 FY01: \$0 Total: \$18,000  
*Prin. Invest.: T C OWEN*  
*Tech. Officer: GSFC/G L BJORKAKER*  
*CASE Category: 11 – ASTRONOMY*

**NCC 5 461 UNIV OF HAWAII AT MANOA - HONOLULU 4134**  
 QUANTITATIVE ANALYSIS OF HOT SPOTS USING EO-1 & LAND SAT 7.  
 02/28/2000 - 12/31/2001 FY01: \$30,000 Total: \$54,365  
*Prin. Invest.: L P FLYNN*  
*Tech. Officer: GSFC/S G UNGAR*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NCC 5 538 UNIV OF HAWAII AT MANOA - HONOLULU 4135**  
 THE NASA INFRARED TELESCOPE FACILITY: SOLAR SYSTEM OBSERVA-  
 TIONS AND MISSION SUPPORT  
 02/12/2001 - 01/31/2002 FY01: \$3,198,459 Total: \$3,198,459  
*Prin. Invest.: R KUDRITZKI*  
*Tech. Officer: GSFC/T MORGAN*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 30179 UNIV OF HAWAII AT MANOA - HONOLULU 4136**  
 PHYSICAL MODELING OF MULTI-SPECTRAL DATA TO CHARAC TERIZE  
 DEPTH & BOTTOM-TYPE IN NEARSHORE MARINE CA  
 08/12/1999 - 08/31/2001 FY01: \$0 Total: \$22,000  
*Prin. Invest.: C FLETCHER*  
*Tech. Officer: GSFC/L SMITH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 30207 UNIV OF HAWAII AT MANOA - HONOLULU 4137**  
 SOURCES AND ISOTOPIC COMPOSITIONS OF NITROUS OXIDE FROM THE  
 SUBTROPIC NORTH PACIFIC & EASTERN TROPIC  
 08/19/1999 - 08/31/2002 FY01: \$22,000 Total: \$66,000  
*Prin. Invest.: B POPP, NONE*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 40021 UNIV OF HAWAII AT MANOA - HONOLULU 4138**  
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE  
 AND FELLOWSHIPPROGRAM.  
 02/13/1997 - 01/31/2001 FY01: -\$165,524 Total: \$1,433,254  
*Prin. Invest.: D TAYLOR*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 40076 UNIV OF HAWAII AT MANOA - HONOLULU 4139**  
 HAWAII SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM  
 02/08/2001 - 01/31/2002 FY01: \$588,324 Total: \$588,324  
*Prin. Invest.: G TAYLOR*  
*Tech. Officer: GSFC/D D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50017 UNIV OF HAWAII AT MANOA - HONOLULU 4140**  
 THE LINK BETWEEN INTERACTIONS, INFRARED EMISSION A OF GALAXIES:  
 A DETAILED STUDY OF A COMPLETE SAMP  
 07/14/1997 - 06/30/2000 FY01: \$0 Total: \$44,000  
*Prin. Invest.: J E BARMES*  
*Tech. Officer: GSFC/A NURRIDIN*  
*CASE Category: 99 – MULTIINTERDISCPL, OTHER*

**NGT 5 50175 UNIV OF HAWAII AT MANOA - HONOLULU 4141**  
 A COMPLETE SAMPLE OF X-RAY SELECTED GALAXY CLUSTER S FROM  
 THE ROSAT NORTHECLIPIC POLE SURVEY  
 05/22/1998 - 06/30/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.: J HENRY/MULLIS*  
*Tech. Officer: HQ/A NURRIDIN*  
*CASE Category: 11 – ASTRONOMY*

**NGT 5 50319 UNIV OF HAWAII AT MANOA - HONOLULU 4142**  
 THE CHANGING FACE OF A NEW VOLCANIC LANDSCAPE SYST EM: RATES,  
 CAUSES & HAZARDS/STUDENT: JOHN BAILEY  
 08/16/2000 - 08/31/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.: P MOUGINIS-MARK*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 50357 UNIV OF HAWAII AT MANOA - HONOLULU 4143**  
 A STUDY OF PLANETARY SYSTEM FORMATION & EVOLUTION WITH A DUAL  
 CHANNEL ADAPTIVE OPTICS IMAGING POLAR  
 05/14/2001 - 06/30/2002 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: D JEWITT*  
*Tech. Officer: GSFC/K E BLANDING*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 4828 UNIV OF HAWAII SYSTEM 4144**  
 X-RAY TEMPERATURES FOR A COMPLETE SAMPLE OF DISTAN  
 06/20/1997 - 06/30/2000 FY01: -\$59 Total: \$18,841  
*Prin. Invest.: J HENRY*  
*Tech. Officer: GSFC/N WHITE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 6799 UNIV OF HAWAII WINDWARD COMM COLLEGE 4145**  
 ESTABLISHING A RS/GIS EDUCATIONAL TRAINING AND ENV IRONMENTAL  
 MONITORING CENTER IN HAWAII  
 02/27/1998 - 02/29/2000 FY01: -\$80 Total: \$92,934  
*Prin. Invest.: J E CIOTTI*  
*Tech. Officer: GSFC/M Y WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**IDAHO**

**NAG 5 7537 BOISE STATE UNIV 4146**  
 INVESTIGATION OF PHYSICAL PROCESS DYNAMICS DURING COLD  
 SEASON FLOODING.  
 06/18/1998 - 06/30/2002 FY01: \$0 Total: \$109,909  
*Prin. Invest.: P DAWSON*  
*Tech. Officer: GSFC/E ENGMAN*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 10982 IDAHO STATE UNIV 4147**  
 WILDFIRE EFFECTS ON RANGELAND ECOSYSTEMS AND LIVE STOCK  
 GRAZING IN IDAHO  
 06/12/2001 - 06/14/2002 FY01: \$348,889 Total: \$348,889  
*Prin. Invest.: K T WEBER*  
*Tech. Officer: GSFC/W TURNER*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9052 UNIV OF IDAHO - MOSCOW, IDAHO 4148**  
 NOVA ONLINE ESS  
 02/14/2000 - 09/14/2002 FY01: \$74,835 Total: \$149,834  
*Prin. Invest.: M R ODELL*  
*Tech. Officer: GSFC/N KHAZENIE*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9846 UNIV OF IDAHO - MOSCOW, IDAHO 4149**  
 STUDY OF LAND-ATMOSPHERE INTERACTIONS USING SATELLITE DATA  
 ASSIMILATION  
 08/01/2000 - 07/31/2002 FY01: \$0 Total: \$19,084  
*Prin. Invest.: R J QUALLS*  
*Tech. Officer: GSFC/P R HOUSER*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9876 UNIV OF IDAHO - MOSCOW, IDAHO 4150**  
 LAND SURFACE MODELING & DATA ASSIMILATION WITH IN SITU & REMOTE  
 SENSING DATA FROM CASES-97  
 08/22/2000 - 07/14/2002 FY01: \$46,399 Total: \$121,988  
*Prin. Invest.: R QUALLS*  
*Tech. Officer: GSFC/P HOUSER*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 10210 UNIV OF IDAHO - MOSCOW, IDAHO 4151**  
 LEWIS & CLARK REDISCOVERY PROJECT: LIFE-LONG LEARNING ONLINE  
 (L3)  
 01/03/2001 - 12/31/2001 FY01: \$1,831,000 Total: \$1,831,000  
*Prin. Invest.: J A TEASDALE*  
*Tech. Officer: GSFC/M PHELPS*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 1112** UNIV OF IDAHO - MOSCOW, IDAHO 4152  
 VALIDATION OF THE ATMOSPHERIC INFRARED SOUNDER (AIRS) OVER  
 THE ANTARCTIC PLATEAU (AQUA-0080-033) NR  
 07/12/2001 - 08/31/2002 FY01: \$99,319 Total: \$99,319  
*Prin. Invest.: V P WALDEN*  
*Tech. Officer: GSFC/D STARR*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NCC 2 1174** UNIV OF IDAHO - MOSCOW, IDAHO 4153  
 ANALYZING THE IMPACT OF RISK AND TASK ANALYSIS AND HUMAN  
 FACTORS PRINCIPLES ON THE OUTCOME OF ....  
 04/24/2000 - 04/14/2002 FY01: \$135,867 Total: \$260,670  
*Prin. Invest.: L T OSTROM*  
*Tech. Officer: ARC/B G KANKE*  
*CASE Category: 69 – PSYCHOLOGY, OTHER*

**NCC 5 395** UNIV OF IDAHO - MOSCOW, IDAHO 4154  
 NASA EPSCOR: PREPARATORY GRANT PROPOSAL  
 05/13/1999 - 05/31/2002 FY01: \$11,500 Total: \$508,298  
*Prin. Invest.: R GILL*  
*Tech. Officer: HQ/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 5 577** UNIV OF IDAHO - MOSCOW, IDAHO 4155  
 IDAHO NASA EPSCOR PROGRAM  
 08/17/2001 - 07/31/2004 FY01: \$125,000 Total: \$125,000  
*Prin. Invest.: J TEASDALE*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 40056** UNIV OF IDAHO - MOSCOW, IDAHO 4156  
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE  
 AND FELLOWSHIP PROGRAM.  
 02/12/1997 - 02/28/2001 FY01: \$97,953 Total: \$1,329,787  
*Prin. Invest.: J TEASDALE*  
*Tech. Officer: GSFC/D E DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 40108** UNIV OF IDAHO - MOSCOW, IDAHO 4157  
 IDAHO SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM  
 03/02/2001 - 02/28/2002 FY01: \$532,325 Total: \$532,325  
*Prin. Invest.: J TEASDALE*  
*Tech. Officer: GSFC/D D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

## ILLINOIS

**NAG 1 2263** BRADLEY UNIV 4158  
 EFFECTS OF SELECTED TASK PERFORMANCE CRITERIA AT INITIATING  
 ADAPTIVE TASK REALLOCATIONS  
 01/24/2000 - 11/01/2000 FY01: -\$1,027 Total: \$24,727  
*Prin. Invest.: D A MONTGOMERY*  
*Tech. Officer: LARC/L J PRINZEL, LARC/A T POPE*  
*CASE Category: 69 – PSYCHOLOGY, OTHER*

**NAG 5 9734** CHICAGO STATE UNIV 4159  
 THUNDERSTORM OBSERVATIONS AND RESEARCH  
 06/27/2000 - 06/30/2001 FY01: \$0 Total: \$100,000  
*Prin. Invest.: R SOLAKIEWICZ*  
*Tech. Officer: GSFC/C PERSON*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 2 5414** DEPAUL UNIV 4160  
 DEVELOPING, EVALUATING & APPLYING A COMPUTATIONAL MODEL OF  
 INFORMATION NAVIGATION  
 12/19/2000 - 12/31/2001 FY01: \$16,920 Total: \$16,920  
*Prin. Invest.: C S MILLER*  
*Tech. Officer: ARC/R W REMINGTON*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NCC 5 272** DEPAUL UNIV 4161  
 OSS EDUCATION AND OUTREACH BROKER/FACILITATOR PROG RAM  
 02/24/1998 - 03/14/2002 FY01: \$245,000 Total: \$865,000  
*Prin. Invest.: C C NARASIMHAN*  
*Tech. Officer: GSFC/J ROSENDHAL*  
*CASE Category: 11 – ASTRONOMY*

**NAG 8 1827** FINCH UNIV HEALTH SCI / CHICAGO MED SCH 4162  
 CRYSTALLIZATION OF THE MITOCHONDRIAL METABOLITE TRANSPORT  
 PROTEINS  
 09/13/2001 - 11/30/2004 FY01: \$72,000 Total: \$72,000  
*Prin. Invest.: R S KAPLAN*  
*Tech. Officer: MSFC/B GUYNES*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NAG 8 1723** ILLINOIS INST OF TECHNOLOGY 4163  
 A WARNING SYSTEM FOR EARLY DETECTION OF COLLAPSE OF STRUC-  
 TURES DURING FIRE  
 06/05/2000 - 06/04/2001 FY01: -\$221 Total: \$19,779  
*Prin. Invest.: M OZBAY*  
*Tech. Officer: GRC/S GARG*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 3 798** ILLINOIS INST OF TECHNOLOGY 4164  
 MODELING NONLINEAR ACOUSTIC STANDING WAVES IN RESONATORS:  
 THEORY AND EXPERIMENT  
 05/16/2000 - 04/30/2003 FY01: \$50,000 Total: \$100,000  
*Prin. Invest.: D RAMAN*  
*Tech. Officer: GRC/B M STEINETZ*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 5 9584** ILLINOIS STATE UNIV 4165  
 DETERMINATION OF THE MAGNETOTAIL CURRENT SHEET STRUCTURE  
 USING NONLINEARDYNAMICS MODELING AND GEOTA  
 05/25/2000 - 05/31/2002 FY01: \$54,089 Total: \$103,989  
*Prin. Invest.: D HOLLAND*  
*Tech. Officer: GSFC/J SHARBER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 8 1262** ILLINOIS STATE UNIV 4166  
 RESEARCH JOVE  
 01/17/1997 - 08/31/2000 FY01: \$0 Total: \$51,000  
*Prin. Invest.: D HOLLAND*  
*Tech. Officer: MSFC/J F DOWNDY, MSFC/J R PRUITT*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 2 1512** JUDSON COLLEGE-ELGIN ILLINOIS 4167  
 EFFECTS OF OSCILLATORY ACCELERATIONS ON BACTERIAL PROLIFER-  
 ATION & RESPONSE TO ANTIBIOTICS  
 08/17/2001 - 07/31/2002 FY01: \$65,889 Total: \$65,889  
*Prin. Invest.: E A JUERGENSMAYER*  
*Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

<b>NAG 1 2269</b>	<b>KNOX COLLEGE</b>	<b>4168</b>	<b>NAG 3 1892</b>	<b>NORTHWESTERN UNIV</b>	<b>4176</b>
INVESTIGATION OF CHEMICALLY TREATED TEST-STRIPS FOR OZONE MEASUREMENT			THE MICROMECHANICS OF THE MOVING CONTACT LINE		
02/10/2000 - 09/30/2000	FY01: -\$818	Total: \$11,209	06/01/1996 - 05/31/2001	FY01: \$0	Total: \$320,000
<i>Prin. Invest.:</i> L C BUSH			<i>Prin. Invest.:</i> S LICHTER		
<i>Tech. Officer:</i> LARC/J FISHMAN, LARC/R J DE YOUNG			<i>Tech. Officer:</i> GRC/M WEISLOGEL		
<i>CASE Category:</i> 12 – CHEMISTRY			<i>CASE Category:</i> 13 – PHYSICS		
<b>NAG 1 2313</b>	<b>NORTHWESTERN UNIV</b>	<b>4169</b>	<b>NAG 3 1932</b>	<b>NORTHWESTERN UNIV</b>	<b>4177</b>
MECHANICS OF NANOTUBES & NANOTUBE/POLYMER COMPOSITES			NONLINEAR RELAXATION AND FLUCTUATIONS IN A NON-EQUILIBRIUM NEAR CRITICAL LIQ WITH A TEMP GRADIENT		
07/18/2000 - 07/19/2003	FY01: \$52,234	Total: \$105,234	07/29/1996 - 02/14/2001	FY01: \$8,000	Total: \$252,999
<i>Prin. Invest.:</i> R S RUOFF			<i>Prin. Invest.:</i> A Z PATASHINSKI, G A ZIMMERLI		
<i>Tech. Officer:</i> LARC/T S GATES			<i>Tech. Officer:</i> GRC/B S SINGH		
<i>CASE Category:</i> 47 – METAL & MATERIALS ENGR			<i>CASE Category:</i> 47 – METAL & MATERIALS ENGR		
<b>NAG 1 01058</b>	<b>NORTHWESTERN UNIV</b>	<b>4170</b>	<b>NAG 3 2113</b>	<b>NORTHWESTERN UNIV</b>	<b>4178</b>
SURFACE TEMPLATED GROWTH & ASSEMBLY OF CARBON NANOTUBE ARRAYS			COMPLEX DYNAMICS IN MARANGONI CONVECTION WITH ROTATION		
05/29/2001 - 05/28/2002	FY01: \$100,000	Total: \$100,000	03/04/1998 - 01/03/2002	FY01: \$95,000	Total: \$370,000
<i>Prin. Invest.:</i> C A MIRKIN			<i>Prin. Invest.:</i> H RIECKE		
<i>Tech. Officer:</i> LARC/J D JORDAN			<i>Tech. Officer:</i> GRC/F P CHIARAMONTE		
<i>CASE Category:</i> 11 – ASTRONOMY			<i>CASE Category:</i> 46 – MECHANICAL ENGR		
<b>NAG 2 1527</b>	<b>NORTHWESTERN UNIV</b>	<b>4171</b>	<b>NAG 3 2209</b>	<b>NORTHWESTERN UNIV</b>	<b>4179</b>
MATHEMATICAL AND COMPUTATIONAL ANALYSIS OF CENTRAL CARBON PATHWAYS FOR EFFICIENT METABOLIC ENGINEER			FILTRATION COMBUSTION FOR MICROGRAVITY APPLICATIONS: (1) SMOLDERING (2) COMBUSTION SYNTHESIS OF A		
09/14/2001 - 09/14/2002	FY01: \$62,587	Total: \$62,587	11/17/1998 - 11/11/2002	FY01: \$122,500	Total: \$386,500
<i>Prin. Invest.:</i> V HATZIMANIKATIS			<i>Prin. Invest.:</i> B J MATKOWSKY		
<i>Tech. Officer:</i> ARC/J HINES, ARC/P FUNG			<i>Tech. Officer:</i> GRC/S A GOGOKLU		
<i>CASE Category:</i> 43 – CHEMICAL ENGR			<i>CASE Category:</i> 49 – ENGINEERING, OTHER		
<b>NAG 3 1737</b>	<b>NORTHWESTERN UNIV</b>	<b>4172</b>	<b>NAG 3 2364</b>	<b>NORTHWESTERN UNIV</b>	<b>4180</b>
THEORY OF SOLIDIFICATION			COMPETING INSTABILITIES AND THE SPATIO-TEMPORAL DYNAMICS OF INTERFACIAL WAVE PATTERNS		
04/18/1995 - 05/31/2000	FY01: \$0	Total: \$754,000	03/20/2000 - 11/30/2003	FY01: \$90,250	Total: \$130,250
<i>Prin. Invest.:</i> S H DAVIS			<i>Prin. Invest.:</i> M SILBER		
<i>Tech. Officer:</i> GRC/A CHART			<i>Tech. Officer:</i> GRC/C E NIEDERHAUS		
<i>CASE Category:</i> 47 – METAL & MATERIALS ENGR			<i>CASE Category:</i> 49 – ENGINEERING, OTHER		
<b>NAG 3 1823</b>	<b>NORTHWESTERN UNIV</b>	<b>4173</b>	<b>NAG 3 2369</b>	<b>NORTHWESTERN UNIV</b>	<b>4181</b>
COARSENING IN SOLID-LIQUID MIXTURES			INTERFACIAL DYNAMICS INTERFACIAL DYNAMICS		
04/01/1996 - 05/31/2001	FY01: \$0	Total: \$837,375	04/03/2000 - 11/30/2003	FY01: \$72,451	Total: \$136,583
<i>Prin. Invest.:</i> P W VOORHEES			<i>Prin. Invest.:</i> D H DAVIS		
<i>Tech. Officer:</i> GRC/T K GLASGOW			<i>Tech. Officer:</i> GRC/H C DEGROH		
<i>CASE Category:</i> 47 – METAL & MATERIALS ENGR			<i>CASE Category:</i> 49 – ENGINEERING, OTHER		
<b>NAG 3 1855</b>	<b>NORTHWESTERN UNIV</b>	<b>4174</b>	<b>NAG 3 2474</b>	<b>NORTHWESTERN UNIV</b>	<b>4182</b>
CONTROLLING OF FLOWING LIQUID FILMS BY ELECTROSTATIC FIELDS IN SPACE			COARSENING IN SOLID-LIQUID MIXTURES-2 (CSLM-2) COARSENING IN SOLID-LIQUID MIXTURES-2 (CSLM-2)		
04/26/1996 - 05/31/2001	FY01: \$0	Total: \$480,000	07/24/2000 - 11/30/2005	FY01: \$169,074	Total: \$220,470
<i>Prin. Invest.:</i> S G BANKOFF, R A SCHLUTER, M J MIKSIS			<i>Prin. Invest.:</i> P W VOORHEES		
<i>Tech. Officer:</i> GRC/R A WILKINSON			<i>Tech. Officer:</i> GRC/W B DUVAL		
<i>CASE Category:</i> 19 – PHYSICAL SCIENCE, OTHER			<i>CASE Category:</i> 49 – ENGINEERING, OTHER		
<b>NAG 3 1863</b>	<b>NORTHWESTERN UNIV</b>	<b>4175</b>	<b>NAG 3 2485</b>	<b>NORTHWESTERN UNIV</b>	<b>4183</b>
COMBUSTION OF ROTATING SPHERICAL PREMIXED AND DIFFUSION FLAMES IN MICROGRAVITY			ATOMIC-SCALE STUDIES OF EVOLVING MICROSTRUCTURES OF NICKEL-BASED SUPERALLOYS: A GRADUATE TRAINING G		
07/02/1996 - 12/31/2000	FY01: \$0	Total: \$211,968	08/22/2000 - 08/31/2001	FY01: \$0	Total: \$25,000
<i>Prin. Invest.:</i> S H SOHRAB			<i>Prin. Invest.:</i> D N SEIDMAN		
<i>Tech. Officer:</i> GRC/N D PILTCH			<i>Tech. Officer:</i> GRC/R D NOEBE		
<i>CASE Category:</i> 46 – MECHANICAL ENGR			<i>CASE Category:</i> 47 – METAL & MATERIALS ENGR		

**NAG 3 2511**           **NORTHWESTERN UNIV**           **4184**  
 MODELING MICROGRAVITY NON-PREMIXED COMBUSTION SYST EMS  
 12/07/2000 - 11/15/2004      FY01: \$70,000      Total: \$70,000  
*Prin. Invest.:* D MATALON  
*Tech. Officer:* GRC/K R SACKSTEDER  
*CASE Category:* 49 – ENGINEERING, OTHER

**NAG 3 2628**           **NORTHWESTERN UNIV**           **4185**  
 DEVELOPMENT OF HIGH-CONDUCTIVE POLYELECTROLYTES FOR LI  
 BATTERIES  
 06/01/2001 - 12/31/2003      FY01: \$90,000      Total: \$90,000  
*Prin. Invest.:* D F SHRIVER  
*Tech. Officer:* GRC/R S BALDWIN  
*CASE Category:* 12 – CHEMISTRY

**NAG 5 4354**           **NORTHWESTERN UNIV**           **4186**  
 MARINER 10 COLOR AND ALBEDO OF MERCURY AND THE MOON  
 04/24/1997 - 03/31/2001      FY01: \$0      Total: \$181,679  
*Prin. Invest.:* D S ROBINSON  
*Tech. Officer:* GSFC/P ROGERS  
*CASE Category:* 32 – GEOLOGICAL SCIENCE

**NAG 5 5094**           **NORTHWESTERN UNIV**           **4187**  
 THE DEVELOPMENT OF A FOCUSING SYSTEM FOR 40-100 KEV X-RAYS  
 11/22/1996 - 03/31/2002      FY01: \$0      Total: \$497,000  
*Prin. Invest.:* M P ULMER  
*Tech. Officer:* GSFC/L W GURKIN  
*CASE Category:* 13 – PHYSICS

**NAG 5 7011**           **NORTHWESTERN UNIV**           **4188**  
 THEORETICAL STUDIES OF X-RAY BURSTS IN ACCRETING N EUTRON  
 STARS – ATP  
 02/18/1998 - 02/14/2001      FY01: \$0      Total: \$211,710  
*Prin. Invest.:* R E TAAM  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 8294**           **NORTHWESTERN UNIV**           **4189**  
 LESSER THARIS VOLCANOES: STYLES OF ERUPTION AND RELATIONS  
 TO THARIS FLOOD VOLCANISM  
 02/23/1999 - 03/31/2002      FY01: \$55,000      Total: \$132,200  
*Prin. Invest.:* M S ROBINSON  
*Tech. Officer:* HQ/J BOYCE  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 9188**           **NORTHWESTERN UNIV**           **4190**  
 A MULTI-WAVELENGTH STUDY OF THE INNER 50 PC-REGION AT THE  
 GALACTIC GALACTIC CENTER (LTS99)  
 03/07/2000 - 03/14/2002      FY01: \$46,907      Total: \$75,425  
*Prin. Invest.:* F YUSEF-ZADEH  
*Tech. Officer:* GSFC/R J OLIVERSEN  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 9272**           **NORTHWESTERN UNIV**           **4191**  
 SMALL-SCALE STRUCTURE IN THE DIFFUSE INTERSTELLAR MEDIUM  
 (LTSA 99)  
 03/16/2000 - 03/14/2002      FY01: \$92,183      Total: \$181,895  
*Prin. Invest.:* D MEYER  
*Tech. Officer:* GSFC/R OLIVERSEN  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 10306**           **NORTHWESTERN UNIV**           **4192**  
 ANDEAN MOUNTAIN BUILDING: AN INTEGRATED TOPOGRAPH IC, GPS,  
 SEISMOLOGICAL AND NUMERICAL STUDY (SENH99)  
 01/30/2001 - 03/14/2002      FY01: \$50,000      Total: \$50,000  
*Prin. Invest.:* S STEIN  
*Tech. Officer:* GSFC/H V FREY  
*CASE Category:* 32 – GEOLOGICAL SCIENCE

**NAG 5 10323**           **NORTHWESTERN UNIV**           **4193**  
 SMALL-SCALE INTERSTELLAR STRUCTURE TOWARD THE OPEN CLUSTER  
 CHI PERSEI (FUSE 00)  
 01/30/2001 - 01/31/2002      FY01: \$71,700      Total: \$71,700  
*Prin. Invest.:* D M MEYER  
*Tech. Officer:* GSFC/G SONNEBORN  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 10324**           **NORTHWESTERN UNIV**           **4194**  
 THE PHYSICAL CHARACTER OF SMALL-SCALE INTERSTELLAR STRUCTURES (FUSE 00)  
 01/30/2001 - 01/31/2002      FY01: \$45,100      Total: \$45,100  
*Prin. Invest.:* J T LAUROESCH  
*Tech. Officer:* GSFC/G SONNEBORN  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 10465**           **NORTHWESTERN UNIV**           **4195**  
 ANOMALOUS OXYGEN AND KRYPTON ABUNDANCES IN INTER- STELLAR GAS (FUSE 00)  
 03/02/2001 - 02/28/2002      FY01: \$66,200      Total: \$66,200  
*Prin. Invest.:* D M MEYER, NONE  
*Tech. Officer:* GSFC/G SONNEBORN  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 10598**           **NORTHWESTERN UNIV**           **4196**  
 COLLABORATIVE EFFORT BETWEEN NASA AND PROFESSOR MEL ULMER  
 03/16/2001 - 03/31/2002      FY01: \$40,000      Total: \$40,000  
*Prin. Invest.:* M ULMER  
*Tech. Officer:* GSFC/W ZHANG  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 10847**           **NORTHWESTERN UNIV**           **4197**  
 ALBEDO, COLOR, AND TOPOGRAPHIC STUDIES OF THE MOON AND MERCURY  
 05/03/2001 - 05/14/2002      FY01: \$31,000      Total: \$31,000  
*Prin. Invest.:* M S ROBINSON  
*Tech. Officer:* GSFC/D SENSKY  
*CASE Category:* 11 – ASTRONOMY

**NAG 8 1660**           **NORTHWESTERN UNIV**           **4198**  
 EVOLUTION OF DENDRITE MORPHOLOGY DURING ISOTHERMAL COARSENING  
 04/24/2000 - 11/30/2003      FY01: \$95,000      Total: \$135,000  
*Prin. Invest.:* J ALKEMPER  
*Tech. Officer:* MSFC/P DOTY  
*CASE Category:* 19 – PHYSICAL SCIENCE, OTHER

**NAG 9 1053**           **NORTHWESTERN UNIV**           **4199**  
 RESEARCH FOR ROTATION MEMBRANE WATER PURIFICATION  
 12/10/1998 - 12/14/2001      FY01: \$168,693      Total: \$520,029  
*Prin. Invest.:* R M LUEPTOW  
*Tech. Officer:* JSC/N PACKMAN  
*CASE Category:* 46 – MECHANICAL ENGR

<b>NAG 9 1297</b>	<b>NORTHWESTERN UNIV</b>	<b>4200</b>	<b>NGT 5 88</b>	<b>NORTHWESTERN UNIV</b>	<b>4208</b>
PILOT STUDY: ACOUSTIC ATTENUATION AS A REA-TIME GA SEOUS PROCESS CONTROL MONITOR			DEVELOPMENT OF A MOVING GRID RETARDER FOR SUBMILLI METER POLARIMETRY OF SGR B2 (STUDENT: DAVID CHUS)		
05/01/2001 - 04/30/2002	FY01: \$56,758	Total: \$56,758	05/26/1999 - 06/30/2002	FY01: \$22,000	Total: \$66,000
<i>Prin. Invest.: R M LUEPTOW</i>			<i>Prin. Invest.: G NOVAK</i>		
<i>Tech. Officer: JSC/D RUSSO</i>			<i>Tech. Officer: GSFC/M S BURRELL</i>		
CASE Category: 54 – ENVIRONMENTAL BIOLOGY			CASE Category: 13 – PHYSICS		
 <b>NAS 5 98153</b>	<b>NORTHWESTERN UNIV</b>	<b>4201</b>	 <b>NGT 5 90</b>	<b>NORTHWESTERN UNIV</b>	<b>4209</b>
CONSTELLATION X-RAY MISSION			HIGH DETECTION EFFICIENCY PHOTON COUNTERS AT 1064N M AND THEIR USE IN A NOVEL QUANTUM IMAGING SCHEME		
06/22/1998 - 12/15/2001	FY01: \$0	Total: \$120,047	06/03/1999 - 08/31/2002	FY01: \$22,000	Total: \$66,000
<i>Prin. Invest.: M P ULMER</i>			<i>Prin. Invest.: P KUMAR</i>		
<i>Tech. Officer: GSFC/J GRADY, GSFC/R MAUK</i>			<i>Tech. Officer: GSFC/M S BURRELL</i>		
CASE Category: 46 – MECHANICAL ENGR			CASE Category: 45 – ELECTRICAL ENGR		
 <b>NCC 1 01002</b>	<b>NORTHWESTERN UNIV</b>	<b>4202</b>	 <b>NGT 5 50172</b>	<b>NORTHWESTERN UNIV</b>	<b>4210</b>
NANO-, MICRO- & MACRO-MECHANICS OF NANOREINFORCED POLYMERIC MATERIALS			KILOHERTZ QPO NATURE AND ORIGINS USING RXTE		
12/13/2000 - 08/31/2003	FY01: \$73,467	Total: \$73,467	05/22/1998 - 06/30/2001	FY01: \$0	Total: \$66,000
<i>Prin. Invest.: L C BRINSON, NONE</i>			<i>Prin. Invest.: MILLER, D LEE</i>		
<i>Tech. Officer: LARC/T S GATES</i>			<i>Tech. Officer: HQ/A NURRIDIN</i>		
CASE Category: 47 – METAL & MATERIALS ENGR			CASE Category: 13 – PHYSICS		
 <b>NCC 2 1013</b>	<b>NORTHWESTERN UNIV</b>	<b>4203</b>	 <b>NGT 5 50198</b>	<b>NORTHWESTERN UNIV</b>	<b>4211</b>
PROPHESY: A HIERARCHICAL TOOL FOR MODELING & ANALYZING PARALLEL SCIENTIFIC APPLICATIONS			IMPROVED FEM DYNAMIC SUBSTRUCTURING THROUGH WAVE-BASED JOINT MODELS		
01/27/1998 - 09/30/2001	FY01: \$64,847	Total: \$269,931	06/18/1998 - 08/31/2001	FY01: \$0	Total: \$60,500
<i>Prin. Invest.: V E TAYLOR</i>			<i>Prin. Invest.: T IGUSA</i>		
<i>Tech. Officer: ARC/A GRADY</i>			<i>Tech. Officer: HQ/A NURRIDIN</i>		
CASE Category: 22 – COMPUTER SCIENCE			CASE Category: 46 – MECHANICAL ENGR		
 <b>NCC 2 1017</b>	<b>NORTHWESTERN UNIV</b>	<b>4204</b>	 <b>NGT 5 50211</b>	<b>NORTHWESTERN UNIV</b>	<b>4212</b>
ARTICULATE SOFTWARE FOR SPACE-RELATED OUTREACH ACTIVITIES			STABILITY OF DIFFUSION FLAMES IN MICROGRAVITY		
02/05/1998 - 01/31/2000	FY01: \$0	Total: \$222,130	07/10/1998 - 06/30/2001	FY01: \$0	Total: \$66,000
<i>Prin. Invest.: K D FORBUS</i>			<i>Prin. Invest.: M MATALON</i>		
<i>Tech. Officer: ARC/M H SHIRLEY</i>			<i>Tech. Officer: HQ/A NURRIDIN</i>		
CASE Category: 22 – COMPUTER SCIENCE			CASE Category: 49 – ENGINEERING, OTHER		
 <b>NCC 2 1098</b>	<b>NORTHWESTERN UNIV</b>	<b>4205</b>	 <b>NGT 5 50263</b>	<b>NORTHWESTERN UNIV</b>	<b>4213</b>
AN INVESTIGATION OF THE EFFECTS OF OUTSOURCING MAINTENANCE ON TASK PERFORMANCE			RAPIDLY PROPAGATING BUOYANT FILTRATION COMBUSTION WAVES WITH APPLICATIONS TO SMOLDERING & COMBUSTION		
03/15/1999 - 12/31/2001	FY01: \$123,564	Total: \$295,136	07/09/1999 - 06/30/2002	FY01: \$22,000	Total: \$66,000
<i>Prin. Invest.: E J CZEPIEL</i>			<i>Prin. Invest.: B J MATKOWSKY</i>		
<i>Tech. Officer: ARC/B G KANKI, ARC/M CONNORS</i>			<i>Tech. Officer: GSFC/L SMITH</i>		
CASE Category: 69 – PSYCHOLOGY, OTHER			CASE Category: 99 – MULTI INTERDISCPL, OTHER		
 <b>NCC 3 870</b>	<b>NORTHWESTERN UNIV</b>	<b>4206</b>	 <b>NGT 5 50368</b>	<b>NORTHWESTERN UNIV</b>	<b>4214</b>
SYNTHESIS, MICROSTRUCTURE AND PROPERTIES OF NICKEL ALUMINIDE FOAMS			THE EFFECT OF GRAIN BOUNDARIES DURING COARSENING IN SOLID-LIQUID MIXTURES (STUDENT: DAVID ROW		
02/28/2001 - 02/28/2002	FY01: \$49,967	Total: \$49,967	06/18/2001 - 08/31/2002	FY01: \$22,000	Total: \$22,000
<i>Prin. Invest.: D C DUNAND</i>			<i>Prin. Invest.: P VOORHEES</i>		
<i>Tech. Officer: GRC/M V NATHAL</i>			<i>Tech. Officer: GSFC/K BLANDING</i>		
CASE Category: 47 – METAL & MATERIALS ENGR			CASE Category: 99 – MULTI INTERDISCPL, OTHER		
 <b>NGT 3 52378</b>	<b>NORTHWESTERN UNIV</b>	<b>4207</b>	 <b>NAG 5 7662</b>	<b>SOUTHERN ILLINOIS UNIV - CARBONDALE</b>	<b>4215</b>
GRADUATE STUDENT RESEARCHERS PROGRAM GRADUATE STUDENT RESEARCHERS PROGRAM			'COMPREHENSIVE MODELS OF THE NEAR-EARTH MAGNETIC FIELD:INTERPRETATION OF THE LITHOSPHERE		
06/21/2001 - 08/31/2002	FY01: \$22,000	Total: \$22,000	09/09/1998 - 09/14/2002	FY01: \$18,500	Total: \$111,000
<i>Prin. Invest.: D N SEIDMAN</i>			<i>Prin. Invest.: D RAVAT</i>		
<i>Tech. Officer: GRC/F J MONTEGANI</i>			<i>Tech. Officer: GSFC/H V FREY</i>		
CASE Category: 49 – ENGINEERING, OTHER			CASE Category: 32 – GEOLOGICAL SCIENCE		

**NAG 5 7771 SOUTHERN ILLINOIS UNIV - CARBONDALE 4216**  
 GEOLOGIC INTERPRETATION OF SATELLITE ALTITUDE CRUS TAL  
 MAGNETIC ANOMALY DATA  
 11/12/1998 – 10/31/2001 FY01: \$22,500 Total: \$133,000  
*Prin. Invest.: D RAVAT*  
*Tech. Officer: GSFC/P T TAYLOR*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 9832 SOUTHERN ILLINOIS UNIV - CARBONDALE 4217**  
 GEOLOGICAL ANALYSIS IF THE MARTIAN CRUSTAL MAGNETIC ANOMALIES  
 07/26/2000 – 07/31/2002 FY01: \$24,000 Total: \$42,000  
*Prin. Invest.: D RAVAT*  
*Tech. Officer: GSFC/P TAYLOR*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 8 1812 SOUTHERN ILLINOIS UNIV - CARBONDALE 4218**  
 ANISOTROPIC EFFECT IN LAMINATE COMPOSITES USING LASER HEATING  
 05/08/2001 – 10/09/2001 FY01: \$38,000 Total: \$38,000  
*Prin. Invest.: T CHU*  
*Tech. Officer: MSFC/S RUSSELL*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NGT 1 01026 SOUTHERN ILLINOIS UNIV - CARBONDALE 4219**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) MY 1/3  
 06/12/2001 – 06/30/2004 FY01: \$12,000 Total: \$12,000  
*Prin. Invest.: J SCOTT*  
*Tech. Officer: LARC/R TRIPATHI, LARC/J WILSON*  
*CASE Category: 41 – AERONAUTICAL ENGNR*

**NGT 5 50321 SOUTHERN ILLINOIS UNIV - CARBONDALE 4220**  
 ASSESSING MASS WASTING & LANDSLIDE SUSCEPTIBILITY USING GIS &  
 REMOTELY SENSED IMAGERY, SANTA CRUZ IS  
 08/17/2000 – 08/31/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.: N PINTER*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 2 6050 UNIV OF CHICAGO 4221**  
 CONFERENCE: THE DEVELOPMENTAL BASIS OF EVOLUTIONARY CHANGE  
 05/25/2001 – 04/30/2002 FY01: \$18,583 Total: \$18,583  
*Prin. Invest.: N H PATEL*  
*Tech. Officer: ARC/R D MAC-ELROY*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 5 3228 UNIV OF CHICAGO 4222**  
 ABUNDANCES AND PHYSICAL CONDITIONS FOR INDIVIDUALS  
 INTERSTELLAR CLOUDS  
 05/07/1996 – 04/30/2001 FY01: \$0 Total: \$479,600  
*Prin. Invest.: D E WELTY*  
*Tech. Officer: GSFC/R OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 3687 UNIV OF CHICAGO 4223**  
 ACCRETION AND OUTFLOW PHENOMENA IN YOUNG STELLAR O  
 01/15/1997 – 01/14/2002 FY01: \$100,000 Total: \$557,400  
*Prin. Invest.: A KONIGL*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 3986 UNIV OF CHICAGO 4224**  
 ISOTOPIC STUDIES OF THE MOON AND METEORITES  
 02/26/1997 – 03/31/2001 FY01: \$0 Total: \$1,030,000  
*Prin. Invest.: D N CLAYTON*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 12 – CHEMISTRY*

**NAG 5 4462 UNIV OF CHICAGO 4225**  
 MILLIMETER APERTURE SYNTHESIS POLARIMETRY AND THE N OF  
 PROTO-PLANETARY DISKS  
 06/09/1997 – 09/30/2000 FY01: \$0 Total: \$158,776  
*Prin. Invest.: D E CARLSTROM*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 4476 UNIV OF CHICAGO 4226**  
 CHEMICAL ASPECTS OF THE ORIGIN OF THE SOLAR SYSTEM  
 06/09/1997 – 11/30/2001 FY01: \$220,000 Total: \$1,081,000  
*Prin. Invest.: D GROSSMAN*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 4777 UNIV OF CHICAGO 4227**  
 PHYSICAL INVESTIGATORS RELATED TO RAIN AND RETRIEV OF RAIN AND  
 LATENT HEATING  
 06/20/1997 – 06/30/2001 FY01: \$0 Total: \$278,668  
*Prin. Invest.: R C SRIVASTAVA*  
*Tech. Officer: GSFC/O W THIELE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 4953 UNIV OF CHICAGO 4228**  
 TURBULENT CONVECTION AND ITS ROLE IN ACOUSTIC EMIS  
 06/23/1997 – 04/30/2002 FY01: \$45,847 Total: \$364,844  
*Prin. Invest.: D CATTANEO*  
*Tech. Officer: GSFC/W J WAGNER*  
*CASE Category: 13 – PHYSICS*

**NAG 5 5072 UNIV OF CHICAGO 4229**  
 EXPERIMENTS IN HIGH ENERGY ASTROPHYSICS  
 05/03/1996 – 05/31/2001 FY01: -\$10,024 Total: \$1,930,000  
*Prin. Invest.: D MULLER*  
*Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT*  
*CASE Category: 13 – PHYSICS*

**NAG 5 5178 UNIV OF CHICAGO 4230**  
 STUDY OF A TRANSITION RADIATION DETECTOR FOR THE ACCESS  
 MISSION  
 03/30/1998 – 06/30/2001 FY01: \$0 Total: \$379,600  
*Prin. Invest.: S P SWORDY*  
*Tech. Officer: GSFC/B A MERRITT*  
*CASE Category: 13 – PHYSICS*

**NAG 5 5179 UNIV OF CHICAGO 4231**  
 ORIGINS OF GALACTIC COSMIC RADIATION: TESTING ALTERNATE MODELS  
 WITH RADIOACTIVE & STABLE ISOTOPE  
 03/09/1998 – 03/31/2002 FY01: \$0 Total: \$116,000  
*Prin. Invest.: J A SIMPSON*  
*Tech. Officer: GSFC/B A MERRITT*  
*CASE Category: 13 – PHYSICS*

<b>NAG 5 5223</b>	<b>UNIV OF CHICAGO</b>	<b>4232</b>	<b>NAG 5 7077</b>	<b>UNIV OF CHICAGO</b>	<b>4240</b>
GRANT NAG5-5223 - HIGH ENERGY ANTIMATTER TELESCOPE (HEAT) PI DR. DIETRICH MULLER	UNIVERSITY OF CHICAGO	02/23/1998 - 04/30/2001	BOUNDARY CONDITIONS OF THE HELIOSPHERE		
03/16/1999 - 11/30/2001	FY01: \$105,000	Total: \$485,000	02/23/1998 - 04/30/2001	FY01: \$0	Total: \$197,100
<i>Prin. Invest.:</i> D MULLER			<i>Prin. Invest.:</i> P C FRISCH		
<i>Tech. Officer:</i> GSFC/B A MERRITT			<i>Tech. Officer:</i> GSFC/J LING		
<i>CASE Category:</i> 13 – PHYSICS			<i>CASE Category:</i> 11 – ASTRONOMY		
<b>NAG 5 5229</b>	<b>UNIV OF CHICAGO</b>	<b>4233</b>	<b>NAG 5 7163</b>	<b>UNIV OF CHICAGO</b>	<b>4241</b>
GRANT NAG5-5229 STUDIES OF THE COSMIC RADIATION AT HIGH ENERGIES PI PROF SWORDY	UNIVERSITY OF CHICAGO	03/12/1998 - 04/14/2001	DEVELOPMENT OF A MINIATURIZED LOW-ENERGY SOLAR NEUTRON DETECTOR FOR APPLICATION TO NEAR-SUNEXPLORA		
03/16/1999 - 11/30/2001	FY01: \$304,000	Total: \$752,000	03/12/1998 - 04/14/2001	FY01: \$0	Total: \$109,823
<i>Prin. Invest.:</i> SWORDY			<i>Prin. Invest.:</i> R MCKIBBEN		
<i>Tech. Officer:</i> GSFC/B MERRITT			<i>Tech. Officer:</i> GSFC/W WAGNER		
<i>CASE Category:</i> 13 – PHYSICS			<i>CASE Category:</i> 11 – ASTRONOMY		
<b>NAG 5 5305</b>	<b>UNIV OF CHICAGO</b>	<b>4234</b>	<b>NAG 5 7212</b>	<b>UNIV OF CHICAGO</b>	<b>4242</b>
EXPERIMENTS IN HIGH ENERGY ASTROPHYSICS: THE TRACER PROJECT	UNIVERSITY OF CHICAGO	03/26/1998 - 03/31/2001	NUCLEOSYNTHETIC ISOTOPIC ANOMALIES		
01/09/2001 - 11/30/2001	FY01: \$400,000	Total: \$400,000	03/26/1998 - 03/31/2001	FY01: \$0	Total: \$75,000
<i>Prin. Invest.:</i> D MULLER			<i>Prin. Invest.:</i> R CLAYTON		
<i>Tech. Officer:</i> GSFC/B A MERRITT			<i>Tech. Officer:</i> HQ/J BOYCE		
<i>CASE Category:</i> 13 – PHYSICS			<i>CASE Category:</i> 11 – ASTRONOMY		
<b>NAG 5 6405</b>	<b>UNIV OF CHICAGO</b>	<b>4235</b>	<b>NAG 5 7307</b>	<b>UNIV OF CHICAGO</b>	<b>4243</b>
STRUCTURE, KINEMATICS & ABUNDANCES IN LOCAL ISM (LTSIA)	UNIVERSITY OF CHICAGO	04/22/1998 - 03/31/2001	KINETICS OF VOLATILIZATION OF INTERSTELLAR GRAINS		
10/10/1997 - 10/14/2001	FY01: \$70,700	Total: \$263,099	04/22/1998 - 03/31/2001	FY01: \$0	Total: \$158,800
<i>Prin. Invest.:</i> P FRISCH			<i>Prin. Invest.:</i> L GROSSMAN		
<i>Tech. Officer:</i> GSFC/D WEST			<i>Tech. Officer:</i> HQ/J BOYCE		
<i>CASE Category:</i> 11 – ASTRONOMY			<i>CASE Category:</i> 11 – ASTRONOMY		
<b>NAG 5 6489</b>	<b>UNIV OF CHICAGO</b>	<b>4236</b>	<b>NAG 5 7731</b>	<b>UNIV OF CHICAGO</b>	<b>4244</b>
DEVELOPMENT OF FREQUENCY SELECTIVE BOLOMETERS	UNIVERSITY OF CHICAGO	09/24/1998 - 09/30/2002	RADIATIVE-DYNAMIC PROBLEMS RELATED TO THE ATMOSPHERE OF EARLY MARS		
01/15/1998 - 10/31/2001	FY01: \$0	Total: \$339,295	09/24/1998 - 09/30/2002	FY01: \$70,352	Total: \$219,256
<i>Prin. Invest.:</i> D MEYER			<i>Prin. Invest.:</i> R PIERREHUMBERT		
<i>Tech. Officer:</i> GSFC/H THRONSON			<i>Tech. Officer:</i> GSFC/R BEEBE		
<i>CASE Category:</i> 11 – ASTRONOMY			<i>CASE Category:</i> 11 – ASTRONOMY		
<b>NAG 5 6625</b>	<b>UNIV OF CHICAGO</b>	<b>4237</b>	<b>NAG 5 7986</b>	<b>UNIV OF CHICAGO</b>	<b>4245</b>
WORKSHOP ON INTERSTELLAR DUST IN THE SOLAR SYSTEM	UNIVERSITY OF CHICAGO	01/03/1999 - 12/31/2001	GALAXY CLUSTERS AS COSMOLOGICAL PROBES: ANALYSES OF X-RAY, LENSING, AND SUNYAEV ZEL'DOVICH MEASUREMENTS		
11/19/1997 - 11/30/2000	FY01: \$0	Total: \$25,000	01/03/1999 - 12/31/2001	FY01: \$126,954	Total: \$381,902
<i>Prin. Invest.:</i> P D FRISCH			<i>Prin. Invest.:</i> J E CARLSTROM		
<i>Tech. Officer:</i> GSFC/H THRONSON			<i>Tech. Officer:</i> GSFC/D K WEST		
<i>CASE Category:</i> 11 – ASTRONOMY			<i>CASE Category:</i> 11 – ASTRONOMY		
<b>NAG 5 6693</b>	<b>UNIV OF CHICAGO</b>	<b>4238</b>	<b>NAG 5 8032</b>	<b>UNIV OF CHICAGO</b>	<b>4246</b>
THE PRACTICAL AND OBSERVATIONAL INVESTIGATIONS OF LAGRANGIAN-MEAN TRACER TRANSPORT IN THE STRATOSPHERE	UNIVERSITY OF CHICAGO	01/19/1999 - 12/31/2001	ASTROPHYSICAL STUDIES WITH IMP SATELLITE DATA		
12/04/1997 - 12/31/2000	FY01: \$0	Total: \$285,882	01/19/1999 - 12/31/2001	FY01: \$100,297	Total: \$240,297
<i>Prin. Invest.:</i> D NAKAMURA			<i>Prin. Invest.:</i> C LOPATEK		
<i>Tech. Officer:</i> GSFC/C JACKMAN			<i>Tech. Officer:</i> GSFC/J KING		
<i>CASE Category:</i> 31 – ATMOSPHERIC SCIENCE			<i>CASE Category:</i> 11 – ASTRONOMY		
<b>NAG 5 6972</b>	<b>UNIV OF CHICAGO</b>	<b>4239</b>	<b>NAG 5 8163</b>	<b>UNIV OF CHICAGO</b>	<b>4247</b>
MASS LOSS KINETICS AND ISOTOPE FRACTIONATION OF MOLE TEN CARBON COMPOSITIONS	UNIVERSITY OF CHICAGO	02/08/1999 - 01/31/2002	THE JOURNEY OF THE SUN - A VIRTUAL REALITY SIMULATION		
03/13/1998 - 05/31/2001	FY01: \$0	Total: \$100,000	02/08/1999 - 01/31/2002	FY01: \$130,100	Total: \$363,125
<i>Prin. Invest.:</i> F M RICHTER			<i>Prin. Invest.:</i> P C FRISCH		
<i>Tech. Officer:</i> HQ/J BOYCE			<i>Tech. Officer:</i> GSFC/P HUNTER		
<i>CASE Category:</i> 11 – ASTRONOMY			<i>CASE Category:</i> 11 – ASTRONOMY		

**NAG 5 8539**           **UNIV OF CHICAGO**           **4248**  
 PRIOR GRANT:NAG5-3253 CONTINUATION OF MAP SCIENCE SUPPORT  
 ACTIVITIES BEING IMPLEMENTED BY THE MAP  
 08/17/1999 - 08/14/2002      FY01: \$212,562      Total: \$307,723  
*Prin. Invest.: S MEYER*  
*Tech. Officer: GSFC/C BENNETT*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 8571**           **UNIV OF CHICAGO**           **4249**  
 PERIODIC, QUASI-PERIODIC, AND BURSTING BEHAVIOR OF NEUTRON  
 STAR X-RAY SOURCES  
 05/25/1999 - 12/31/1999      FY01: -\$2,790      Total: \$30,973  
*Prin. Invest.: M MILLER*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 8708**           **UNIV OF CHICAGO**           **4250**  
 RADIO INTERFEROMETRIC STUDIES OF COMETS AND ASTEROIDS  
 07/20/1999 - 12/31/2001      FY01: \$0      Total: \$60,000  
*Prin. Invest.: P PALMER*  
*Tech. Officer: GSFC/T MORGAN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9016**           **UNIV OF CHICAGO**           **4251**  
 PROPOSAL TO THE NASA ESS HPCC PROGRAM  
 02/01/2000 - 01/31/2001      FY01: \$0      Total: \$29,335  
*Prin. Invest.: D OLSON*  
*Tech. Officer: GSFC/D SPICER*  
*CASE Category: 22 - COMPUTER SCIENCE*

**NAG 5 9063**           **UNIV OF CHICAGO**           **4252**  
 DISK-DRIVEN OUTFLOWS IN ACTIVE GALACTIC NUCLEI - ATP-99  
 02/14/2000 - 02/14/2002      FY01: \$62,231      Total: \$119,145  
*Prin. Invest.: A KONIGL*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9083**           **UNIV OF CHICAGO**           **4253**  
 STATISTICAL METHODOLOGY FOR DETECTION OF OZONE TURNAROUND  
 UNDER DIFFERENT DATA CONDITIONS  
 02/16/2000 - 02/28/2001      FY01: \$0      Total: \$30,000  
*Prin. Invest.: G C TIAO*  
*Tech. Officer: GSFC/P K BHARTIA*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 9303**           **UNIV OF CHICAGO**           **4254**  
 LABORATORY STUDIES OF HETEROGENEOUS CHEMISTRY IN THE UPPER  
 TROPOSPHERE. NRA-97-OASTT-01 DATED JANUARY  
 03/22/2000 - 03/31/2002      FY01: \$0      Total: \$76,130  
*Prin. Invest.: D ABBATT*  
*Tech. Officer: GSFC/R LAWRENCEQ*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 9362**           **UNIV OF CHICAGO**           **4255**  
 SUPPORT FOR THE 63RD ANNUAL METEORITICAL SOCIETY MEETING  
 CHICAGO, AUGUST 28-SEPTEMBER  
 03/30/2000 - 03/31/2001      FY01: \$0      Total: \$23,000  
*Prin. Invest.: A M DAVIS*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9378**           **UNIV OF CHICAGO**           **4256**  
 MASS LOSS KINETICS AND ISOTOPE FRACTIONATION OF MOLTEN CAI  
 COMPOSITIONS  
 04/03/2000 - 03/31/2003      FY01: \$60,000      Total: \$117,000  
*Prin. Invest.: F RICHTER*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9510**           **UNIV OF CHICAGO**           **4257**  
 REFRACTORY INCLUSIONS IN CARBONACEOUS CHONDRITES  
 04/25/2000 - 04/30/2002      FY01: \$92,000      Total: \$180,000  
*Prin. Invest.: A M DAVIS*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 9583**           **UNIV OF CHICAGO**           **4258**  
 SEARCH FOR NEW VIBRATIONAL AND ELECTRONIC SPECTRA OF MOLECULAR  
 IONS OF ASTROPHYSICAL INTEREST  
 05/09/2000 - 05/14/2001      FY01: \$0      Total: \$65,940  
*Prin. Invest.: T OKA*  
*Tech. Officer: GSFC/P CRANE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9767**           **UNIV OF CHICAGO**           **4259**  
 PATHFINDER ALPHA PROTON X-RAY SPECTROMETER DATA ANALYSIS &  
 INTERPRETATION (ID#: 19963)  
 06/28/2000 - 06/30/2001      FY01: \$0      Total: \$70,000  
*Prin. Invest.: T ECONOMOU*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9800**           **UNIV OF CHICAGO**           **4260**  
 SIDEROPHILE ELEMENT MICROANALYSIS BY LASER ABLATION ICPMS  
 07/14/2000 - 06/30/2002      FY01: \$50,000      Total: \$100,000  
*Prin. Invest.: M HUMAYUN*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 10370**           **UNIV OF CHICAGO**           **4261**  
 ABUNDANCES AND PHYSICAL CONDITIONS IN THE SMC ISM (FUSE 00)  
 02/08/2001 - 04/30/2002      FY01: \$64,700      Total: \$64,700  
*Prin. Invest.: D E WELTY*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10634**           **UNIV OF CHICAGO**           **4262**  
 ISOTOPIC STUDIES OF THE MOON AND METEORITES  
 03/17/2001 - 03/14/2002      FY01: \$170,000      Total: \$170,000  
*Prin. Invest.: R CLAYTON*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 12 - CHEMISTRY*

**NAG 5 10759**           **UNIV OF CHICAGO**           **4263**  
 STUDIES OF GAMMA-RAY BURSTS (LTSA 2000)  
 04/23/2001 - 04/30/2002      FY01: \$63,000      Total: \$63,000  
*Prin. Invest.: D Q LAMB*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 - ASTRONOMY*

<b>NAG 5 10831</b>	<b>UNIV OF CHICAGO</b>	<b>4264</b>	<b>NGT 5 63</b>	<b>UNIV OF CHICAGO</b>	<b>4272</b>
FAST DYNAMOS AND THE ORIGIN OF SMALL SCALE PHOTO SPHERIC FIELDS	UNIVERSITY OF CHICAGO		USING POP-UP DETECTOR ARRAYS FOR POLARIMETRY		
04/26/2001 - 04/30/2002	FY01: \$107,051	Total: \$107,051	06/04/1998 - 06/30/2001	FY01: \$0	Total: \$66,000
<i>Prin. Invest.:</i> F CATTANEO			<i>Prin. Invest.:</i> R H HILDERBRAND		
<i>Tech. Officer:</i> GSFC/W J WAGNER			<i>Tech. Officer:</i> GSFC/M S BURRELL		
<i>CASE Category:</i> 99 – MULTI INTERDISCPL, OTHER			<i>CASE Category:</i> 13 – PHYSICS		
<b>NAG 5 10840</b>	<b>UNIV OF CHICAGO</b>	<b>4265</b>	<b>NGT 5 86</b>	<b>UNIV OF CHICAGO</b>	<b>4273</b>
CMB AND ITS RELATION TO LARGE-SCALE STRUCTURE (ATP 2000)	UNIVERSITY OF CHICAGO		MEASUREMENTS OF ANISOTROPY IN THE COSMIC MICROWAVE BACKGROUND WITH THE TOPHAT-SPINNER TELESCOPE/STU		
05/11/2001 - 05/14/2002	FY01: \$68,821	Total: \$68,821	05/20/1999 - 06/30/2002	FY01: \$22,000	Total: \$66,000
<i>Prin. Invest.:</i> W HU			<i>Prin. Invest.:</i> S MEYER		
<i>Tech. Officer:</i> GSFC/R J OLIVERSEN			<i>Tech. Officer:</i> GSFC/M S BURRELL		
<i>CASE Category:</i> 11 – ASTRONOMY			<i>CASE Category:</i> 13 – PHYSICS		
<b>NAG 5 10878</b>	<b>UNIV OF CHICAGO</b>	<b>4266</b>	<b>NGT 5 50173</b>	<b>UNIV OF CHICAGO</b>	<b>4274</b>
COSMIC RAY INTERSTELLAR PROPAGATION (ATP 2000)	UNIVERSITY OF CHICAGO		X-RAY AND SUNYAEV-ZEL'DOVICH IMAGING OF GALAXY CLUSTERS AS ACOSMOLOGICAL PROBE		
05/08/2001 - 05/31/2002	FY01: \$21,082	Total: \$21,082	05/22/1998 - 08/31/2001	FY01: \$0	Total: \$66,000
<i>Prin. Invest.:</i> J J CONNELL			<i>Prin. Invest.:</i> J E CARLSTROM/REESE		
<i>Tech. Officer:</i> GSFC/R J OLIVERSEN			<i>Tech. Officer:</i> HQ/A NURRIDDIN		
<i>CASE Category:</i> 11 – ASTRONOMY			<i>CASE Category:</i> 11 – ASTRONOMY		
<b>NAG 5 11005</b>	<b>UNIV OF CHICAGO</b>	<b>4267</b>	<b>NGT 8 52906</b>	<b>UNIV OF CHICAGO</b>	<b>4275</b>
BOUNDARY CONDITIONS OF THE HELIOSPHERE: FLUCTUATIONS IN NEARBY INTERSTELLAR GAS	UNIVERSITY OF CHICAGO		CONSTRAINING COSMOLOGY WITH THE CHANDRA AND XMM OBSERVATORIES		
06/05/2001 - 05/31/2002	FY01: \$79,908	Total: \$79,908	05/25/2001 - 07/01/2004	FY01: \$22,000	Total: \$22,000
<i>Prin. Invest.:</i> P C FRISCH			<i>Prin. Invest.:</i> J CARLSTROM		
<i>Tech. Officer:</i> GSFC/W J WAGNER			<i>Tech. Officer:</i> MSFC/S NASH-STEVENSON		
<i>CASE Category:</i> 31 – ATMOSPHERIC SCIENCE			<i>CASE Category:</i> 11 – ASTRONOMY		
<b>NAG 5 11043</b>	<b>UNIV OF CHICAGO</b>	<b>4268</b>	<b>NAG 1 01065</b>	<b>UNIV OF ILLINOIS - CHICAGO CIRCLE</b>	<b>4276</b>
PATHFINDER ALPHA PROTON X-RAY SPECTROMETER DATA ANALYSIS & INTERPRETATION	UNIVERSITY OF CHICAGO		TELECOLLABORATIVE DESIGN & SIMULATION IN IMMERSIVE VIRTUAL ENVIRONMENT		
06/13/2001 - 05/31/2002	FY01: \$110,000	Total: \$110,000	05/29/2001 - 11/30/2004	FY01: \$61,000	Total: \$61,000
<i>Prin. Invest.:</i> T ECONOMOU			<i>Prin. Invest.:</i> P BANERJEE		
<i>Tech. Officer:</i> GSFC/J M BOYCE			<i>Tech. Officer:</i> LARC/C A SANDRIDGE		
<i>CASE Category:</i> 11 – ASTRONOMY			<i>CASE Category:</i> 46 – MECHANICAL ENGR		
<b>NAG 9 1096</b>	<b>UNIV OF CHICAGO</b>	<b>4269</b>	<b>NAG 2 1172</b>	<b>UNIV OF ILLINOIS - CHICAGO CIRCLE</b>	<b>4277</b>
GENESIS PHASE C/D	UNIVERSITY OF CHICAGO		DATA INTENSIVE COMPUTING OF HYBRID SYSTEM DATA		
04/02/1999 - 04/11/2002	FY01: \$27,500	Total: \$69,100	01/12/1998 - 12/31/2000	FY01: \$0	Total: \$180,000
<i>Prin. Invest.:</i> M HUMAYYO			<i>Prin. Invest.:</i> R GROSSMAN		
<i>Tech. Officer:</i> JSC/K CYR			<i>Tech. Officer:</i> ARC/G MEYER		
<i>CASE Category:</i> 19 – PHYSICAL SCIENCE, OTHER			<i>CASE Category:</i> 49 – ENGINEERING, OTHER		
<b>NAG 9 1306</b>	<b>UNIV OF CHICAGO</b>	<b>4270</b>	<b>NAG 2 1358</b>	<b>UNIV OF ILLINOIS - CHICAGO CIRCLE</b>	<b>4278</b>
SUPPORT DATA ACQUISITION FROM SPADUS INSTRUMENT	UNIVERSITY OF CHICAGO		AN ULTRASTRUCTURAL STUDY OF DEVELOPMENT IN VESTIBULAR HAIR CELLS, & THEIR CELLULAR RESPONSES TO HYP		
05/23/2001 - 09/30/2001	FY01: \$29,413	Total: \$29,413	07/23/1999 - 06/30/2002	FY01: \$121,517	Total: \$308,883
<i>Prin. Invest.:</i> A J TUZZOLINO			<i>Prin. Invest.:</i> A LYSAKOWSKI		
<i>Tech. Officer:</i> JSC/E G STANSBERRY			<i>Tech. Officer:</i> ARC/M M AVERNER, ARC/R D MACELROY		
<i>CASE Category:</i> 39 – ENVIRONMENTAL SCI, OTHER			<i>CASE Category:</i> 51 – BIOLOGY (EXCLUDING ENVIR)		
<b>NCC 2 1103</b>	<b>UNIV OF CHICAGO</b>	<b>4271</b>	<b>NAG 3 1905</b>	<b>UNIV OF ILLINOIS - CHICAGO CIRCLE</b>	<b>4279</b>
NUMERICAL EXPERIMENTS ON THE DYNAMICS OF GALAXIES	UNIVERSITY OF CHICAGO		FLUID DYNAMICS AND SOLIDIFICATION OF MOLTEN SOLER DROPLETS IMPACTING ON A SUBSTRATE IN MICROGRAVITY		
04/01/1999 - 08/31/2001	FY01: \$0	Total: \$5,000	06/10/1996 - 08/25/2000	FY01: \$0	Total: \$358,020
<i>Prin. Invest.:</i> R N MILLER			<i>Prin. Invest.:</i> D POULIKAKOS, NONE		
<i>Tech. Officer:</i> ARC/B F SMITH			<i>Tech. Officer:</i> GRC/W DUVAL		
<i>CASE Category:</i> 11 – ASTRONOMY			<i>CASE Category:</i> 47 – METAL & MATERIALS ENGR		

**NAG 3 2450 UNIV OF ILLINOIS - CHICAGO CIRCLE 4280**  
 DESIGN OF GEAR DRIVES WITH HIGH GEAR RATIO DESIGN OF GEAR DRIVES WITH HIGHGEAR RATIO  
 06/09/2000 - 09/30/2002 FY01: \$80,000 Total: \$120,000  
*Prin. Invest.: D L LITVIN*  
*Tech. Officer: GRC/R F HANDSCHUH*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 3 2456 UNIV OF ILLINOIS - CHICAGO CIRCLE 4281**  
 MOLTEN-METAL DROPLET DEPOSITION ON A MOVING SUBSTRATE IN MICROGRAVITY: AIDING THE DEVELOPMENT OF NO  
 06/08/2000 - 11/30/2003 FY01: \$78,074 Total: \$116,276  
*Prin. Invest.: D M MEGARIDIS*  
*Tech. Officer: GRC/W B DUVAL*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 5 7600 UNIV OF ILLINOIS - CHICAGO CIRCLE 4282**  
 PARAMETERIZATION OF AN ANSIOTHERMAL VEGETATION  
 07/21/1998 - 07/14/2000 FY01: -\$7,866 Total: \$42,140  
*Prin. Invest.: R D CRAGO*  
*Tech. Officer: GSFC/E T ENGMAN*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 9209 UNIV OF ILLINOIS - CHICAGO CIRCLE 4283**  
 UNIV OF CHICAGO TOPHAT COLLABORATION  
 03/16/2000 - 03/14/2001 FY01: \$32,398 Total: \$82,398  
*Prin. Invest.: S MEYER*  
*Tech. Officer: GSFC/E CHENG*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9427 UNIV OF ILLINOIS - CHICAGO CIRCLE 4284**  
 ANTARCTIC DRY VALLEY LAKES: ANALOGS OF ANCIENT MARTIAN LACUS-TRINE SYSTEMS  
 04/11/2000 - 04/14/2003 FY01: \$67,200 Total: \$130,502  
*Prin. Invest.: P DORAN*  
*Tech. Officer: GSFC/M MEYER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10334 UNIV OF ILLINOIS - CHICAGO CIRCLE 4285**  
 CARRIER LIFE TIME ENHANCEMENT USING HGCDE/CDZNTE STRAINED-LAYER SUPERLATTICES FOR NEAR ROOM  
 01/31/2001 - 12/31/2001 FY01: \$257,233 Total: \$257,233  
*Prin. Invest.: C GREIN*  
*Tech. Officer: GSFC/R MARTINEAU*  
*CASE Category: 13 – PHYSICS*

**NAG 5 10398 UNIV OF ILLINOIS - CHICAGO CIRCLE 4286**  
 HIGH SPEED/HIGH ACCURACY MICRO-MIRRORS FOR ADAPTABLE SURFACES AND MULTIPLE SHUTTERS  
 02/13/2001 - 01/31/2002 FY01: \$167,383 Total: \$167,383  
*Prin. Invest.: A FEINERMAN*  
*Tech. Officer: GSFC/M DUTTA*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 8 1248 UNIV OF ILLINOIS - CHICAGO CIRCLE 4287**  
 THREE DIMENSIONAL VELOCITY FIELD CHARACTERIZATION IN A BRIDGMAN APPARATUS  
 04/30/1996 - 04/29/2001 FY01: \$0 Total: \$400,000  
*Prin. Invest.: S S CHA*  
*Tech. Officer: MSFC/P DOTY, MSFC/R POWER*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 8 1261 UNIV OF ILLINOIS - CHICAGO CIRCLE 4288**  
 RESEARCH "COMBUSTION SYNTHESIS OF MATERIALS IN MICROGRAVITY"  
 04/25/1996 - 04/30/2001 FY01: \$0 Total: \$483,531  
*Prin. Invest.: K BREZINSKY*  
*Tech. Officer: MSFC/P DOTY*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 8 1473 UNIV OF ILLINOIS - CHICAGO CIRCLE 4289**  
 MICROGRAVITY INVESTIGATION OF DYNAMIC OXYGEN ABSORPTION IN MOLTEN SOLDER JETTING  
 04/13/1998 - 01/31/2002 FY01: \$95,000 Total: \$358,333  
*Prin. Invest.: C MEGARIDIS*  
*Tech. Officer: MSFC/C TALLEY*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAS 3 99189 UNIV OF ILLINOIS - CHICAGO CIRCLE 4290**  
 DEFECT ENGINEERING & RELIABILITY STUDY OF SiC HIGH -POWER DEVICES  
 09/09/1999 - 12/31/2000 FY01: \$0 Total: \$260,034  
*Prin. Invest.: K SHENAI*  
*Tech. Officer: GRC/P J GEORGE*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NCC 3 655 UNIV OF ILLINOIS - CHICAGO CIRCLE 4291**  
 EXPERIMENTS AND MODEL DEVELOPMENT FOR INVESTIGATION OF SOOTING AND RADIATION EFFECTS IN MICROGRAVITY  
 12/29/1998 - 01/04/2003 FY01: \$5,846 Total: \$191,606  
*Prin. Invest.: Y CHOI*  
*Tech. Officer: GRC/D L URBAN*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 3 665 UNIV OF ILLINOIS - CHICAGO CIRCLE 4292**  
 INVESTIGATION OF SOOTING AND RADIATION EFFECTS IN MICROGRAVITY DROPLET COMBUSTION USING JAPAN'S JAMI  
 02/02/1999 - 01/03/2000 FY01: \$0 Total: \$25,155  
*Prin. Invest.: M Y CHOI*  
*Tech. Officer: GRC/D L URBAN*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 3 688 UNIV OF ILLINOIS - CHICAGO CIRCLE 4293**  
 GRAVITATIONAL EFFECTS ON PARTIALLY-PREMIXED FLAMES GRAVITATIONAL EFFECTS ON PARTIALLY-PREMIXED FLAME  
 03/16/1999 - 03/09/2003 FY01: \$104,500 Total: \$262,508  
*Prin. Invest.: D K PURI*  
*Tech. Officer: GRC/K R SACKSTEDER*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 3 694 UNIV OF ILLINOIS - CHICAGO CIRCLE 4294**  
 THE EXTINCTION OF LOW STRAIN RATE DIFFUSION FLAMES BY AN AGENT IN MICROGRAVITY  
 03/22/1999 - 03/21/2003 FY01: \$29,211 Total: \$72,476  
*Prin. Invest.: I K PURI*  
*Tech. Officer: GRC/S L OLSON*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NGT 5 50155 UNIV OF ILLINOIS - CHICAGO CIRCLE 4295**  
 MODELLING OF SOOTING AND RADIATION EFFECTS IN DROP SAMUEL MANZELLO  
 09/11/1997 - 08/31/2000 FY01: \$0 Total: \$66,000  
*Prin. Invest.: M CHOI*  
*Tech. Officer: HQ/A NURRIDIN*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50214 UNIV OF ILLINOIS - CHICAGO CIRCLE 4296**  
 EXPERIMENTAL INVESTIGATION OF ENVIRONMENT OXYGEN CONTENT IN SOLDER JET TECHNOLOGY (STUDENT: ERIC  
 07/22/1998 - 07/31/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.: C M MEGARIDIS, NONE*  
*Tech. Officer: HQ/A NURRIDIN*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 1 2221 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4297**  
 EVALUATION INTERACTIONS BETWEEN CHEMICAL AND CLIMATE PROCESSES IN THE TROPOSPHERE & STRATOSPHERE  
 08/20/1999 - 07/31/2002 FY01: \$57,538 Total: \$168,770  
*Prin. Invest.: D J WUBBLES*  
*Tech. Officer: LARC/G MADDREA, LARC/L R POOLE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 1 01026 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4298**  
 DEFINING THE RELATIONSHIP BETWEEN HUMAN ERROR CLASSES AND TECHNOLOGY INTERVENTION STRATEGIES  
 02/01/2001 - 12/31/2001 FY01: \$85,076 Total: \$85,076  
*Prin. Invest.: D A WIEGMANN, E M RANTANEN*  
*Tech. Officer: LARC/B J BOLAND*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 1 01035 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4299**  
 DEV OF NANOCRYSTALLINE TiAl ALLOYS FOR SPACE APPLICATIONS  
 02/21/2001 - 09/30/2001 FY01: \$67,196 Total: \$67,196  
*Prin. Invest.: R S AVERBACK*  
*Tech. Officer: LARC/S J HALES*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NAG 1 01114 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4300**  
 JOHN C. HOUBOLT PAPERS  
 08/16/2001 - 08/20/2002 FY01: \$33,560 Total: \$33,560  
*Prin. Invest.: W J MAHER*  
*Tech. Officer: LARC/R E MCKINLEY, LARC/W P GIBERT*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 2 1120 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4301**  
 SEAMLESS DISPLAYS FOR AIRCRAFT LANDING  
 03/27/1997 - 01/31/2002 FY01: \$93,250 Total: \$387,293  
*Prin. Invest.: C D WICKENS*  
*Tech. Officer: ARC/D C FOYLE*  
*CASE Category: 69 – PSYCHOLOGY, OTHER*

**NAG 2 1126 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4302**  
 ADVANCEMENTS IN 3-D NUMERICAL MODELING OF DUCTILE FRACTURE  
 04/11/1997 - 03/31/2001 FY01: \$0 Total: \$584,233  
*Prin. Invest.: R H DODDS, JR.*  
*Tech. Officer: ARC/R W HAMPTON, ARC/J C NEWMAN, JR.*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 2 1250 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4303**  
 APPLICATION/SYSTEM ZOS INTERFACE CAPABILITIES  
 08/14/1998 - 12/31/1999 FY01: -\$99 Total: \$99,901  
*Prin. Invest.: K NAHRSTEDT*  
*Tech. Officer: ARC/K A FREEMAN, ARC/B H WHITAKER*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 2 1282 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4304**  
 INCREMENTAL TRANSFER OF TRAINING EFFECTIVENESS OF AVIATION TRAINING DEVICES  
 01/13/1999 - 01/31/2002 FY01: \$79,154 Total: \$278,259  
*Prin. Invest.: H L TAYLOR, G L BRADSHAW, T W EMANUEL*  
*Tech. Officer: ARC/I BARSHI*  
*CASE Category: 69 – PSYCHOLOGY, OTHER*

**NAG 2 1406 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4305**  
 QOS PROGRAMMING AND DEVELOPMENT ENVIRONMENT  
 05/08/2000 - 03/31/2002 FY01: \$100,000 Total: \$200,000  
*Prin. Invest.: K NAHRSTEDT*  
*Tech. Officer: ARC/K A FREEMEN*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 2 1424 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4306**  
 NEXT GENERATION MODELING OF DAMAGE TOLERANCE FOR RISK ASSESSMENT & MITIGATION IN HIGH PERFORMANCE S  
 07/20/2000 - 07/14/2002 FY01: \$193,858 Total: \$268,858  
*Prin. Invest.: R H DODDS*  
*Tech. Officer: ARC/T L PANONTIN*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NAG 3 1926 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4307**  
 PREDICTION OF MACROSCOPIC PROPERTIES IN LIQUID HELIUM FROM COMPUTER SIMULATION  
 07/19/1996 - 06/08/2001 FY01: \$20,000 Total: \$495,000  
*Prin. Invest.: D M CEPERLEY, N GOLDENFIELD*  
*Tech. Officer: GRC/B S SINGH*  
*CASE Category: 13 – PHYSICS*

**NAG 3 1988 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4308**  
 A STUDY OF ICE ACCRETION PHYSICS TO IMPROVE THE PREDICTION OF ICE ACCRETION ON AIRCRAFTS  
 11/15/1996 - 10/31/2000 FY01: \$0 Total: \$294,988  
*Prin. Invest.: M B BRAGG*  
*Tech. Officer: GRC/D N ANDERSON*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 3 2122 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4309**  
 FLUID PHYSICS OF FOAM EVOLUTION AND FLOW FLUID PHYSICS OF FOAM EVOLUTION AND FLOW  
 02/13/1998 - 01/06/2002 FY01: \$119,090 Total: \$400,345  
*Prin. Invest.: H AREF*  
*Tech. Officer: GRC/B S SINGH*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 3 2135 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4310**  
 SMART ICING SYSTEMS SMART ICING SYSTEMS  
 03/05/1998 - 11/30/2002 FY01: \$445,000 Total: \$1,395,000  
*Prin. Invest.: M B BRAGG, P G VOUHARIS, N B SURTER*  
*Tech. Officer: GRC/T H BOND, GRC/M G PETAPCZUK*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 3 2236 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4311**  
 DEVELOPMENT OF GRID TECHNOLOGIES FOR SEMI-AUTOMATED ANALYSIS OF ICING EFFECTS ON AIR FOILS  
 02/22/1999 - 11/30/2000 FY01: \$0 Total: \$90,000  
*Prin. Invest.: K D LEE*  
*Tech. Officer: GRC/Y K CHOO*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 3 2263 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4312**  
 WIDEBAND CDMA FOR A SATCOM BASED AVIONICS NETWORK WIDEBAND  
 CDMA FOR A SATCOM BASED AVIONICS NETWORK  
 05/03/1999 - 03/31/2002 FY01: \$0 Total: \$108,598  
*Prin. Invest.: U MADHOW*  
*Tech. Officer: GRC/K S CHUN*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NAG 3 2271 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4313**  
 AERODYNAMICS FLOWFIELD CHARACTERIZATION FOR ICING AERODY-  
 NAMICS FLOWFIELD CHARACTERIZATION FOR ICING  
 06/28/1999 - 12/04/2000 FY01: -\$186 Total: \$87,140  
*Prin. Invest.: D B BRAGG*  
*Tech. Officer: GRC/H E ADDY*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 3 2314 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4314**  
 DEVELOPMENT OF A NEW SHAPE OPTIMIZATION TOOL FOR 3 D TRAN-  
 SONIC COMPRESSORS BASED ON NAVIER-STOKES PH  
 12/30/1999 - 03/31/2002 FY01: \$35,000 Total: \$89,808  
*Prin. Invest.: K D LEE*  
*Tech. Officer: GRC/E R MCFARLAND*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 3 2516 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4315**  
 SMOLDER-EDGE-WAVES AND EDGE-FLAMES SMOLDER-EDGE-WAVES  
 AND EDGE-FLAMES  
 12/22/2000 - 11/30/2004 FY01: \$64,911 Total: \$64,911  
*Prin. Invest.: J D BUCKMASTER*  
*Tech. Officer: GRC/M C HICKS*  
*CASE Category: 42 – ASTRONAUTICAL ENGR*

**NAG 3 2555 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4316**  
 RECONFIGURABLE ANTENNAS FOR HIGH DATA RATE MULTI-B EAM  
 COMMUNICATION SYSTEMS  
 03/01/2001 - 02/28/2004 FY01: \$101,749 Total: \$101,749  
*Prin. Invest.: D BERNHARD*  
*Tech. Officer: GRC/R R ROMANOFSKY*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NAG 3 2599 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4317**  
 DEEP ET CHING OF AIN USING INDUCTIVELY-COUPLED-PLA SMA REAC-  
 TIVE ION ETCHING METHOD  
 04/27/2001 - 07/31/2001 FY01: \$15,000 Total: \$15,000  
*Prin. Invest.: I ADESIDA*  
*Prin. Invest.: NONE*  
*Tech. Officer: GRC/R S OKOJE*  
*CASE Category: 12 – CHEMISTRY*

**NAG 3 2623 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4318**  
 VIRTUAL ICING RESEARCH TUNNEL VIRTUAL ICING RESEARCH TUNNEL  
 05/31/2001 - 05/31/2004 FY01: \$47,780 Total: \$47,780  
*Prin. Invest.: E LOTH*  
*Tech. Officer: GRC/M G POTAPCZUK*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 5 2040 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4319**  
 EOSDIS VERSION O STANDARD DATA FORMAT SUPPORT  
 07/16/1992 - 12/31/2001 FY01: \$889,852 Total: \$3,384,897  
*Prin. Invest.: M FOLK*  
*Tech. Officer: GSFC/C CARLISLE*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 5 3661 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4320**  
 THE LAND SURFACE COMPONENT OF THE CLIMATE SYSTEM: .....  
 12/19/1996 - 08/14/2000 FY01: \$0 Total: \$225,899  
*Prin. Invest.: P KUMAR*  
*Tech. Officer: GSFC/R D KOSTER, GSFC/E T ENGMAN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 3923 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4321**  
 RADIATION HYDRODYNAMICS AND THE CHEMICAL  
 02/19/1997 - 02/14/2000 FY01: \$0 Total: \$232,980  
*Prin. Invest.: M L NORMAN*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 4414 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4322**  
 "MODELING STUDIES TO REDUCE UNCERTAINTIES IN EVALU HSCT  
 AIRCRAFT EFFECTS ON THE GLOBAL ATMOSPHERE"  
 05/06/1997 - 08/31/2000 FY01: \$0 Total: \$182,681  
*Prin. Invest.: D J WUEBBLES*  
*Tech. Officer: GSFC/R W STEWART*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 4858 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4323**  
 REMOTE SENSING OF CANOPY PROPERTIES FOR A FOREST U CO2  
 ENRICHMENT  
 07/08/1997 - 05/31/2000 FY01: -\$241 Total: \$214,144  
*Prin. Invest.: D DELUCIA*  
*Tech. Officer: GSFC/D E WICKLAND*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 5241 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4324**  
 A SOUNDING ROCKET INVESTIGATION PI DR. C GARDNER  
 02/12/1999 - 02/08/2002 FY01: \$48,056 Total: \$105,690  
*Prin. Invest.: C GARDNER*  
*Tech. Officer: GSFC/W JOHNSON*  
*CASE Category: 13 – PHYSICS*

**NAG 5 6836 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4325**  
 ATMOSPHERIC FORCING OF GREENLAND ICE SHEET  
 01/08/1998 - 12/31/2000 FY01: \$0 Total: \$214,785  
*Prin. Invest.: J WALSH*  
*Tech. Officer: GSFC/S GOGINENI*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 7003 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4326**  
 ENERGETICS OF SUPERNOVA REMNANTS  
 02/09/1998 - 07/31/2000 FY01: \$0 Total: \$140,900  
*Prin. Invest.: Y CHU*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7152 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4327**  
 ROTATING AND BINARY NEUTRON STARS IN GENERAL RELAT IVITY - ATP  
 03/05/1998 - 03/14/2001 FY01: \$0 Total: \$166,136  
*Prin. Invest.: S L SHAPIRO*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7170 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4328**  
 CHARACTERIZING MULTISCALE INTERACTION OF HYDROLOGIC PROCESSES USING MULTISENSOR SATELLITE DATA  
 03/30/1998 – 12/31/2000 FY01: \$0 Total: \$113,658  
*Prin. Invest.:* P KUMAR  
*Tech. Officer:* GSFC/M Y WEI  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NAG 5 7404 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4329**  
 MODELLING X-RAY CLUSTERS: EVOLUTION AND REALISTIC PHYSICS  
 05/15/1998 – 05/31/2001 FY01: \$0 Total: \$51,460  
*Prin. Invest.:* M L NORMAN  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 8103 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4330**  
 ORIGIN OF X-RAY EMISSION FROM PLANETARY NEBULAE-AD P 98  
 02/05/1999 – 07/31/2000 FY01: \$0 Total: \$32,000  
*Prin. Invest.:* Y CHU  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 8104 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4331**  
 ORIGIN OF X-RAY EMISSION FROM PLANETARY NEBULAE-AD P 98  
 02/05/1999 – 01/31/2001 FY01: \$0 Total: \$78,000  
*Prin. Invest.:* U CHU  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 8221 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4332**  
 "REDUCING UNCERTAINTIES IN UNDERSTANDING THE POTENTIAL EFFECTS OF HSCT AIRCRAFT ON THE GLOBAL ATMOSPHERE  
 02/10/1999 – 02/14/2000 FY01: -\$11,684 Total: \$38,316  
*Prin. Invest.:* D J WUEBBLES  
*Tech. Officer:* GSFC/R W STEWART  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NAG 5 8418 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4333**  
 SUPERNOVA FALBACK AND THE EMERGENCE OF BLACK HOLES AND NEUTRON STARS (ATP 98)  
 03/25/1999 – 04/30/2002 FY01: \$81,000 Total: \$189,000  
*Prin. Invest.:* S L SHAPIRO *Prin. Invest.:* NONE  
*Tech. Officer:* GSFC/R J OLIVERSEN  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 8424 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4334**  
 X-RAY SPECTRA AND VARIABILITY OF ACCRETING NEUTRON STARS-ATP- 98  
 04/15/1999 – 04/14/2002 FY01: \$201,930 Total: \$298,030  
*Prin. Invest.:* F K LAMB  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 8479 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4335**  
 EARLY EVOLUTION: THE UNIVERSAL ANCESTOR AND ORIGIN OF MODERN CELL  
 05/04/1999 – 04/30/2002 FY01: \$170,000 Total: \$500,140  
*Prin. Invest.:* G OLSEN  
*Tech. Officer:* GSFC/M MEYER  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 8514 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4336**  
 ISAIA: INTEROPERABLE SYSTEMS FOR ARCHIVAL INFORMATION ACCESS  
 06/10/1999 – 05/31/2001 FY01: \$0 Total: \$39,996  
*Prin. Invest.:* R PLANTE  
*Tech. Officer:* GSFC/J BREDEKAMP  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 8521 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4337**  
 RADIO INTERFEROMETRIC STUDIES OF COMETS & ASTEROIDS  
 06/25/1999 – 06/30/2001 FY01: \$0 Total: \$60,000  
*Prin. Invest.:* L SYNDER  
*Tech. Officer:* GSFC/T MORGAN  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 8555 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4338**  
 MULTISCALE ESTIMATION, ERROR PROPAGATION AND SCALE EFFECTS IN THE DYNAMICAL RESPONSE OF SOIL-MOISTURE  
 06/21/1999 – 06/30/2001 FY01: \$65,367 Total: \$109,044  
*Prin. Invest.:* P KUMAR  
*Tech. Officer:* GSFC/E T ENGMAN  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NAG 5 8569 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4339**  
 THE WAVES EXPLORER  
 05/25/1999 – 08/31/2001 FY01: \$0 Total: \$800,000  
*Prin. Invest.:* G R SWENSON  
*Tech. Officer:* GSFC/M MELLOTT  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NAG 5 8740 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4340**  
 SIMULATION OF TURBULENT MIXING AND PROPAGATION OF NUCLEAR BURNING IN THE SURFACE LAYERS OF ACCRETING  
 08/12/1999 – 07/30/2001 FY01: \$0 Total: \$47,000  
*Prin. Invest.:* F LAMB  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 8781 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4341**  
 INTEGRATED BIOMIMETIC SENSORS USING ARTIFICIAL HAIR CELLS  
 08/27/1999 – 08/31/2002 FY01: \$137,459 Total: \$309,085  
*Prin. Invest.:* C LIU  
*Tech. Officer:* GSFC/S DAVIDSON  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NAG 5 8871 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4342**  
 CORE ANGULAR MOMENTUM & THE IERS COORDINATING CTR/ SUB-CENTERS ACTIVITY FOR MONITORING GLOBAL GEOPHYSICS  
 10/19/1999 – 08/31/2002 FY01: \$0 Total: \$59,200  
*Prin. Invest.:* X SONG  
*Tech. Officer:* GSFC/B F CHAO  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NAG 5 9020 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4343**  
 INTERFACES IN N51D - FUSE  
 02/03/2000 – 02/14/2001 FY01: \$0 Total: \$36,300  
*Prin. Invest.:* Y CHU  
*Tech. Officer:* GSFC/G SONNEBORN  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 9180 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4344**  
EVOLUTIONARY MODELS OF COLD, MAGNETIZED, INTERSTELLAR CLOUDS (ATP 99)  
03/07/2000 - 03/14/2002 FY01: \$50,566 Total: \$102,076  
*Prin. Invest.:* C F GAMMIE  
*Tech. Officer:* GSFC/R J OLIVERSEN  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 10011 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4345**  
HOT GAS IN AND AROUND THE SUPERGIANT SHELL LMC-2  
09/25/2000 - 09/30/2002 FY01: \$16,400 Total: \$49,400  
*Prin. Invest.:* Y CHU  
*Tech. Officer:* GSFC/R MUSHOTZKY  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 10037 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4346**  
HOT GAS IN WIND BLOWN BUBBLES  
09/27/2000 - 09/30/2002 FY01: \$16,000 Total: \$34,000  
*Prin. Invest.:* Y CHU  
*Tech. Officer:* GSFC/R MUSHOTZKY  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 10042 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4347**  
NGC 7009: TESTING THE WIND-WIND INTERACTION FORMATION OF PLANETARY NEBULAE  
09/27/2000 - 09/30/2002 FY01: \$16,200 Total: \$33,200  
*Prin. Invest.:* Y CHU  
*Tech. Officer:* GSFC/R MUSHOTZKY  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 10072 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4348**  
GRAVITY WAVE STUDIES AT ALBUQUERQUE, NM  
10/23/2000 - 10/31/2001 FY01: \$33,600 Total: \$33,600  
*Prin. Invest.:* G R SWENSON  
*Tech. Officer:* GSFC/M MELLOTT  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NAG 5 10182 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4349**  
HOT GAS IN PLANETARY NEBULAE FUSE 2000  
01/25/2001 - 01/31/2002 FY01: \$59,700 Total: \$59,700  
*Prin. Invest.:* R A GRUENDL  
*Tech. Officer:* GSFC/G SONNEBORN  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 10303 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4350**  
MAPPING HOT GAS IN A PRISTINE H, SC II REGION – FUSE – 2000  
01/25/2001 - 01/31/2002 FY01: \$68,100 Total: \$68,100  
*Prin. Invest.:* Y CHU  
*Tech. Officer:* GSFC/G SONNEBORN  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 10491 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4351**  
RADIO INTERFEROMETRIC IMAGING OF COMETS  
02/27/2001 - 02/28/2002 FY01: \$32,600 Total: \$32,600  
*Prin. Invest.:* L SNYDER  
*Tech. Officer:* GSFC/T MORGAN  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 10754 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4352**  
GRAVITY WAVES AND AIRGLOW PHASE MEASUREMENTS STUDY  
04/20/2001 - 04/30/2002 FY01: \$49,879 Total: \$49,879  
*Prin. Invest.:* G SWENSON  
*Tech. Officer:* GSFC/F HERREO  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NAG 5 10781 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4353**  
ROTATING AND BINARY STARS IN GENERAL RELATIVITY (ATP 2000)  
04/20/2001 - 04/30/2002 FY01: \$89,315 Total: \$89,315  
*Prin. Invest.:* S L SHAPIRO  
*Tech. Officer:* GSFC/R J OLIVERSON  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 10942 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4354**  
A TROPOSPHERE/STRATOSPHERE/MESOSPHERE GCM STUDY OF EEP ON ATMOSPHERIC CHEMICAL COMPOSITION & TROPOSPHERE  
05/15/2001 - 06/30/2002 FY01: \$112,796 Total: \$112,796  
*Prin. Invest.:* M E SCHLESINGER  
*Tech. Officer:* GSFC/J F SPANN  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NAG 5 11011 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4355**  
INTERFEROMETRIC OBSERVATIONS OF MID-LATITUDE SPORADIC-E RADAR ECHOES AT FT MACON, NC, & A STUDY  
06/07/2001 - 06/14/2002 FY01: \$50,000 Total: \$50,000  
*Prin. Invest.:* E KUDEKI  
*Tech. Officer:* GSFC/R PFAFF  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 11016 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4356**  
CONTACT BINARY STARS (ATP 2000)  
06/12/2001 - 06/14/2002 FY01: \$41,454 Total: \$41,454  
*Prin. Invest.:* R F WEBBINK  
*Tech. Officer:* GSFC/R J OLIVERSON  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 11159 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4357**  
HOT BUBBLES IN EVOLVED SUPERNOVA REMNANTS  
08/06/2001 - 08/14/2002 FY01: \$22,034 Total: \$22,034  
*Prin. Invest.:* J R DICKELE  
*Tech. Officer:* GSFC/R MUSHOTZKY  
*CASE Category:* 11 – ASTRONOMY

**NAG 8 1249 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4358**  
ADAPTIVE GRID METHODS FOR PHASE FIELD MODELS OF MICROSTRUCTURE DEVELOPMENT  
04/16/1996 - 08/15/2001 FY01: \$0 Total: \$490,000  
*Prin. Invest.:* J A DANTZIG  
*Tech. Officer:* MSFC/P DOTY, MSFC/R POWER  
*CASE Category:* 19 – PHYSICAL SCIENCE, OTHER

**NAG 8 1376 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4359**  
R/S "PARTICLE INTERACTION POTENTIALS & PROTEIN CRYSTAL QUALITY UNDER DR. CHARLES F. ZUKOSKI."  
07/01/1997 - 11/30/2000 FY01: \$0 Total: \$446,000  
*Prin. Invest.:* C F ZOKOSKI  
*Tech. Officer:* MSFC/J R ROGERS, MSFC/J P DOWNEY  
*CASE Category:* 59 – LIFE SCIENCE, OTHER

**NAG 8 1453 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4360**  
 MODELS OF MAGNETIC DAMPING FOR BRIDGMAN SEMI- CONDUTOR CRYSTAL GROWTH  
 05/20/1998 - 01/31/2002 FY01: \$95,000 Total: \$358,333  
*Prin. Invest.: J S WALKER*  
*Tech. Officer: MSFC/C TALLEY*  
*CASE Category: 13 – PHYSICS*

**NAG 8 1471 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4361**  
 COLLOIDAL STABILITY IN COMPLEX FLUIDS  
 04/23/1998 - 01/31/2002 FY01: \$95,000 Total: \$366,333  
*Prin. Invest.: J A LEWIS*  
*Tech. Officer: MSFC/P M DOTY*  
*CASE Category: 13 – PHYSICS*

**NAG 8 1657 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4362**  
 RESEARCH ENTITLED, "PHASE FIELD MODELING OF MICROSTRUCTURE IN MICROGRAVITY  
 06/14/2000 - 11/30/2003 FY01: \$57,000 Total: \$107,000  
*Prin. Invest.: J A DANTZIG, N D GOLDEFELD*  
*Tech. Officer: MSFC/P DOTY*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 8 1705 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4363**  
 MODELS TO OPTIMIZE THE BENEFITS OF ROTATING MAGNEC TIC FIELDS FOR SEMICONDUOTR CRYSTAL GROWTH IN SP  
 06/09/2000 - 11/30/2002 FY01: \$61,750 Total: \$91,750  
*Prin. Invest.: J S WALKER*  
*Tech. Officer: MSFC/P DOTY*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 8 1751 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4364**  
 ADVANCED MODELING OF LOW CYCLE FATIGUE CRACK GROWTH IN METALS  
 10/31/2000 - 10/30/2004 FY01: \$164,500 Total: \$164,500  
*Prin. Invest.: R H DODDS, JR, P SOFRONIS, K D HJELMSTAD*  
*Tech. Officer: MSFC/B MCGILL, MSFC/G R SWANSON*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 8 1760 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4365**  
 REDCTION OF PROPERTIES LIQUID HELIUM FROM COMPUTER SIMULATION  
 04/26/2001 - 04/30/2005 FY01: \$81,000 Total: \$81,000  
*Prin. Invest.: D M CEPELLEY*  
*Tech. Officer: MSFC/D HUBBARD*  
*CASE Category: 13 – PHYSICS*

**NAG 8 1803 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4366**  
 OPTIMAL TRAJECTORY ANALYSIS FOR FUTURE PROPULSION SYSTEMS  
 04/16/2001 - 04/14/2002 FY01: \$49,894 Total: \$49,894  
*Prin. Invest.: V L COVERSTON*  
*Tech. Officer: MSFC/K SORENSEN*  
*CASE Category: 13 – PHYSICS*

**NAG 9 1371 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4367**  
 YAW CONTROL OF A LIFTING BODY RE-ENTRY VEHICLE AT HIGH ANGLE OF ATTACK  
 07/27/2001 - 08/01/2002 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: M BRAGG*  
*Tech. Officer: JSC/R BURTON*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 1 309 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4368**  
 EVAL PEM-TROPICS B OBSERVAT: UNCERTAIN ANALYSES & EFFECTS ON DEEP CONVECTIVE MIX'G ON TROPOSPH CHEM  
 07/22/1998 - 07/31/2001 FY01: \$1 Total: \$108,369  
*Prin. Invest.: D WUEBBLER, D WUEBBLES*  
*Tech. Officer: LARC/J L RAPER, LARC/R J BENDURA*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 2 1214 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4369**  
 COMPUTATIONAL MODEL OF PILOT SITUATION AWARENESS E RRORS  
 02/08/2001 - 10/31/2001 FY01: \$55,525 Total: \$55,525  
*Prin. Invest.: C D WICKENS, J MCCARLEY*  
*Tech. Officer: ARC/B BEARD*  
*CASE Category: 69 – PSYCHOLOGY, OTHER*

**NCC 2 1230 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4370**  
 STOCHASTIC ANYTIME SEARCH WITH APPLICATIONS IN AUT ONOMOUS PLANNING & SCHEDULING  
 03/25/2001 - 11/30/2001 FY01: \$75,000 Total: \$75,000  
*Prin. Invest.: B J WAH*  
*Tech. Officer: ARC/R MORRIS*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NCC 3 780 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4371**  
 MICROSTRIP ANTENNAS WITH BROADBAND INTEGRATED PHAS E SHIFTING  
 03/09/2000 - 02/28/2001 FY01: \$0 Total: \$19,536  
*Prin. Invest.: D BERNHARD*  
*Tech. Officer: GRC/R R ROMANOFSKY*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NCC 3 852 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4372**  
 EXPERIMENTAL STUDY OF ICED AIRFOIL AERODYNAMICS  
 01/23/2001 - 12/17/2003 FY01: \$122,663 Total: \$122,663  
*Prin. Invest.: M BRAGG*  
*Tech. Officer: GRC/H E ADDY*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NGT 2 52244 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4373**  
 NON-LINEAR ALFVEN WAVES, AMBIPOLAR DIFFUSION & STA R FORMATION  
 08/05/1998 - 12/31/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.: T MOUSHOVIAS*  
*Tech. Officer: ARC/A BARNES*  
*CASE Category: 11 – ASTRONOMY*

**NGT 2 52271 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4374**  
 FUNCTIONALLY GRADED MATERIAL APPLICATIONS TO ADVAN CE THERMAL PROTECTION SYSTEMS  
 09/14/2000 - 09/14/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.: G H PAULINO*  
*Prin. Invest.: NONE*  
*Tech. Officer: ARC/T L PANONTIN*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NGT 3 52345 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4375**  
 GRADUATE STUDENT RESEARCHERS PROGRAM  
 07/28/1998 - 08/20/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.: J S MOORE*  
*Tech. Officer: GRC/F J MONTEGANI*  
*CASE Category: 43 – CHEMICAL ENGR*

**NGT 3 52357 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4376**  
 GRADUATE STUDENT RESEARCH PROGRAM GRADUATE STUDENT  
 RESEARCH PROGRAM  
 07/15/1999 - 09/30/2002 FY01: \$22,000 Total: \$66,000  
*Prin. Invest.: M BRAGGS*  
*Tech. Officer: GRC/F J MONTEGANI*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NGT 5 84 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4377**  
 NEW GRANT FOR GSRP STUDENT - DANIEL BULLOK  
 05/18/1999 - 06/30/2002 FY01: \$22,000 Total: \$66,000  
*Prin. Invest.: P SAYLOR*  
*Tech. Officer: GSFC/G A SOFFEN*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NGT 5 40030 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4378**  
 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRA  
 12/19/1996 - 01/31/2001 FY01: -\$8,894 Total: \$1,820,987  
*Prin. Invest.: W C SOLOMON*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 40073 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4379**  
 ILLINOIS SPACE GRANT COLLEGE & FELLOWSHIP PROGRAM  
 02/09/2001 - 01/31/2002 FY01: \$483,894 Total: \$483,894  
*Prin. Invest.: W C SOLOMON, NONE*  
*Tech. Officer: GSFC/D D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50228 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4380**  
 SOFTWARE-IMPLEMENTED ADAPTIVE FAULT TOLERANCE THRO UGH  
 DYNAMICALLYRECONFIGURABLE AGENTS  
 10/29/1998 - 08/31/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.: R K IYER*  
*Tech. Officer: HQ/S MC GEE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50238 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4381**  
 CAPILLARY ELECTROKINETIC TRANSPORT FOR CONVEYING SAMPLE TO  
 ANALYTICAL INSTRUMENTATION: DESIGN, DEV  
 05/28/1999 - 06/30/2000 FY01: -\$1,327 Total: \$20,673  
*Prin. Invest.: A SCHEELINE*  
*Tech. Officer: GSFC/L SMITH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50326 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4382**  
 BIOGEOCHEMICAL CYCLES & CLIMATE CHANGE; POTENTIAL FEEDBACKS  
 & INTERACTIONS/STUDENT: VAISHALI NAIK  
 08/17/2000 - 08/31/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.: D WUEBBLES*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 50343 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4383**  
 NUMERICAL STUDIES OF GENERAL RELATIVISTIC MAGNETO- HYDRODY-  
 NAMICS AS APPLIED TO ACTIVE GALACTIC NUCLE  
 05/14/2001 - 06/30/2002 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: R GAMMIE*  
*Tech. Officer: GSFC/K BLANDING*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 9 33 UNIV OF ILLINOIS AT URBANA-CHAMPAIGN 4384**  
 TRAINING GRANT  
 06/04/1998 - 08/31/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.: S R WHITE*  
*Tech. Officer: JSC/D G SICKOREZ*  
*CASE Category: 42 – ASTRONAUTICAL ENGR*

### INDIANA

**NAG 5 11261 BALL STATE UNIV 4385**  
 INNOVATIVE USES OF HYPERSPECTRAL IMAGERY FOR MONITORING  
 SPATIALLY DISTRIBUTED ECOSYSTEM  
 08/27/2001 - 08/31/2004 FY01: \$63,111 Total: \$63,111  
*Prin. Invest.: A F RAHMAN*  
*Tech. Officer: GSFC/D WICKLAND*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 3 2588 INDIANA STATE UNIV 4386**  
 NANOSTRUCTURED SINGLE-ION SOLID POLYMER ELECTROLYTES FOR  
 LITHIUM BATTERIES  
 04/30/2001 - 06/30/2004 FY01: \$95,000 Total: \$95,000  
*Prin. Invest.: D W ZWANZIGER*  
*Tech. Officer: GRC/D BRITTON*  
*CASE Category: 12 – CHEMISTRY*

**NAG 3 2207 INDIANA UNIV.-PURDUE U. AT INDIANAPOLIS 4387**  
 LOW-EMISSION SELF-COOLED COMBUSTION WAVE ROTOR LOW-EMI-  
 SION SELF-COOLED COMBUSTION WAVE ROTOR  
 11/13/1998 - 06/30/2001 FY01: \$0 Total: \$53,078  
*Prin. Invest.: R NALIM*  
*Tech. Officer: GRC/D E PAXON*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 3 2260 INDIANA UNIV.-PURDUE U. AT INDIANAPOLIS 4388**  
 IMPLEMENTATION OF LOAD BALANCING TECHNIQUES FOR PARALLEL  
 COMPUTATIONS WITH DISTRIBUTED SYSTEMS  
 04/20/1999 - 09/30/2001 FY01: \$110,000 Total: \$259,278  
*Prin. Invest.: A ECER*  
*Tech. Officer: GRC/T BABRAUCKAS*  
*CASE Category: 22 – COMPUTERSCIENCE*

**NAG 3 2325 INDIANA UNIV.-PURDUE U. AT INDIANAPOLIS 4389**  
 WAVE FAN AND HYBRID PULSE DETONATION ENGINE WAVE FAN AND  
 HYBRID PULSE DETONATION ENGINE  
 02/03/2000 - 02/28/2001 FY01: \$0 Total: \$61,426  
*Prin. Invest.: D NALIM*  
*Tech. Officer: GRC/G E WELSH*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NAG 3 2399 INDIANA UNIV.-PURDUE U. AT INDIANAPOLIS 4390**  
 NEW COMPUTATIONAL METHOD FOR MASSIVELY PARALLEL COMPUTATIONAL FLUID DYNAMICS  
 04/19/2000 - 05/23/2002 FY01: \$28,975 Total: \$122,772  
*Prin. Invest.: D HSU*  
*Tech. Officer: GRC/M LIOU*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NAG 8 1586 INDIANA UNIV.-PURDUE U. AT INDIANAPOLIS 4391**  
 SELF RENEWAL REPLICATION OF HEMATOPOIETIC STEM CELLS IN MICROGRAVITY  
 03/01/1999 - 11/30/2002 FY01: \$165,300 Total: \$465,300  
*Prin. Invest.: C M TRAYCOFF*  
*Tech. Officer: MSFC/B GUYNES*  
*CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)*

**NGT 5 50203 INDIANA UNIV.-PURDUE U. AT INDIANAPOLIS 4392**  
 PARATHYROID HORMONE MODULATES THE RESPONSE OF OSTE OBLAST-LIKE CELLS TO MECHANICAL STIMULATION  
 07/01/1998 - 06/30/2001 FY01: \$0 Total: \$39,600  
*Prin. Invest.: R L DUCN*  
*Tech. Officer: HQ/A NURRIDIN*  
*CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)*

**NGT 5 50291 INDIANA UNIV.-PURDUE U. AT INDIANAPOLIS 4393**  
 EFFECTS OF INTEGRIN-EXTRACELLULAR MATRIX ADHESION IN FLUID SHEAR-INDUCED PROSTAGLANDIN METABOLISM  
 07/06/2000 - 06/30/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.: F PAVALKO, NONE*  
*Tech. Officer: GSFC/L SMITH*  
*CASE Category: 59 - LIFE SCIENCE, OTHER*

**NGT 5 50366 INDIANA UNIV.-PURDUE U. AT INDIANAPOLIS 4394**  
 ACTIVATION, ADAPTATION AND RESTORATION OF THE MECH ANICAL RESPONSE OF OSTEOBLASTS TO FLUID SHEAR/STU  
 06/12/2001 - 06/30/2002 FY01: \$20,400 Total: \$20,400  
*Prin. Invest.: R DUNCAN*  
*Tech. Officer: GSFC/K BLANDING*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NGT 5 50373 INDIANA UNIV.-PURDUE U. AT INDIANAPOLIS 4395**  
 CAPILLARY FRACTAL PERfusion PATTERNS MAY PROTECT THE LUNG DURING MICROGRAVITY/STUDENT:ERIC JARYSZAK  
 06/26/2001 - 06/30/2002 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: W WAGNER, NONE*  
*Tech. Officer: GSFC/K BLANDING*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 2 1449 INDIANA UNIV - BLOOMINGTON 4396**  
 HYPERGRAVITY EFFECTS ON THE MATERNAL-FETAL SYSTEM  
 10/19/2000 - 10/14/2001 FY01: \$23,740 Total: \$23,740  
*Prin. Invest.: J R ALBERTS*  
*Tech. Officer: ARC/A E RONCA, ARC/E M HOLTON*  
*CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)*

**NAG 5 4295 INDIANA UNIV - BLOOMINGTON 4397**  
 3D SIMULATIONS OF GRAVITATIONAL INSTABILITIES IN P PROTOSTELLAR DISKS  
 04/04/1997 - 06/30/2002 FY01: \$53,000 Total: \$183,000  
*Prin. Invest.: D H DURISEN*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 5167 INDIANA UNIV - BLOOMINGTON 4398**  
 GPS MEASUREMENTS OF LOCALIZED DEFORMATION IN THE T  
 07/17/1997 - 07/14/2001 FY01: \$0 Total: \$81,000  
*Prin. Invest.: M W HAMBURGER*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NAG 5 5224 INDIANA UNIV - BLOOMINGTON 4399**  
 HEAT HIGH ENERGY ANTIMATTER TELESCOPE PI PROF. JAMES MUSSER  
 02/03/1999 - 11/30/2001 FY01: \$100,000 Total: \$419,200  
*Prin. Invest.: J MUSSER*  
*Tech. Officer: WFF/B MERRIT*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 6773 INDIANA UNIV - BLOOMINGTON 4400**  
 COBE AND THE STRUCTURE OF THE GALACTIC INTERSTELLAR MEDIUM  
 01/22/1998 - 01/31/2002 FY01: \$0 Total: \$125,600  
*Prin. Invest.: STEIMAN-CAMERON*  
*Tech. Officer: GSFC/D WEST*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 7619 INDIANA UNIV - BLOOMINGTON 4401**  
 FUNDING FOR "LITHOSPHERIC RHEOLOGY AND GEODYNAMIC PROCESSES FROM INTEGRATION OF GEODETIC, GRAVITY AND  
 07/24/1998 - 09/30/2001 FY01: \$0 Total: \$100,000  
*Prin. Invest.: M W HAMBURGER*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NAG 5 8582 INDIANA UNIV - BLOOMINGTON 4402**  
 GPS MEASUREMT OF CRUSTAL DEFORMATION AT TAAL VOLCA NO, PHILLIPINES  
 06/08/1999 - 12/14/2000 FY01: \$0 Total: \$20,000  
*Prin. Invest.: M W HAMBURGER*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NAG 5 9236 INDIANA UNIV - BLOOMINGTON 4403**  
 FUSE OBSERVATIONS OF GALACTIC AND LMC NOVAE IN OUT BURST - FUSE  
 03/09/2000 - 03/14/2002 FY01: \$0 Total: \$27,330  
*Prin. Invest.: S SHORE*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9369 INDIANA UNIV - BLOOMINGTON 4404**  
 PETROLOGIC EVOLUTION OF LUNAR AND METEORITE PARENT BODY REGOLITH  
 04/03/2000 - 03/31/2001 FY01: \$0 Total: \$14,000  
*Prin. Invest.: A BASU*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9852 INDIANA UNIV - BLOOMINGTON 4405**  
 MEETING IN THE MIDDLE: THE CHALLENGE OF MESO-LEVEL INTEGRATION  
 08/07/2000 - 07/31/2001 FY01: \$0 Total: \$16,000  
*Prin. Invest.: E F MORAN*  
*Tech. Officer: GSFC/G GUTMAN*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 10459 INDIANA UNIV - BLOOMINGTON 4406**  
 PETROLOGIC EVOLUTION OF LUNAR & METEORITE PARENT BODY REGOLITH  
 02/21/2001 - 02/28/2002 FY01: \$20,458 Total: \$20,458  
*Prin. Invest.: A BASU*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 12 - CHEMISTRY*

**NAG 8 1770 INDIANA UNIV - BLOOMINGTON 4407**  
 THEORETICAL STUDIES OF LORENTZ AND CPT SYMMETRY  
 05/01/2001 - 08/31/2005 FY01: \$48,000 Total: \$48,000  
*Prin. Invest.: V A KOSTELECKY*  
*Tech. Officer: MSFC/D HUBBARD*  
*CASE Category: 19 - PHYSICAL SCIENCE, OTHER*

**NAS 9 01103 INDIANA UNIV - BLOOMINGTON 4408**  
 CYCLOTRON FACILITY-HIGH ENERGY RADIATION EFFECTS TESTING  
 06/27/2001 - 09/28/2001 FY01: \$1,524,477 Total: \$1,524,477  
*Prin. Invest.: J CAMERON, NONE*  
*Tech. Officer: JSC/W CULPEPPER*  
*CASE Category: 49 - ENGINEERING, OTHER*

**NAS 9 98121 INDIANA UNIV - BLOOMINGTON 4409**  
 RADIATION TESTING & ANALYTICAL SUPPORT SERVICES  
 09/03/1998 - 09/02/2000 FY01: \$0 Total: \$150,250  
*Prin. Invest.: C FOSTER*  
*Tech. Officer: JSC/W CULPEPPER*  
*CASE Category: 19 - PHYSICAL SCIENCE, OTHER*

**NCC 2 1035 INDIANA UNIV - BLOOMINGTON 4410**  
 CASE-BASED CAPTURE & REUSE OF AEROSPACE DESIGN RAT IONALE  
 05/07/1998 - 07/31/2001 FY01: \$0 Total: \$392,092  
*Prin. Invest.: D B LEAKE*  
*Tech. Officer: ARC/M E LIVINGSTON, ARC/W VAN DALSEM*  
*CASE Category: 22 - COMPUTER SCIENCE*

**NCC 2 1216 INDIANA UNIV - BLOOMINGTON 4411**  
 INTEGRATED OINTELLIGENT SUPPORT FOR KNOWLEDGE CAPTURE,  
 REFINEMENT AND SHARING  
 03/08/2001 - 02/28/2002 FY01: \$148,000 Total: \$148,000  
*Prin. Invest.: D B LEAKE*  
*Tech. Officer: ARC/M G SHAFTO, ARC/W J CLANCEY*  
*CASE Category: 22 - COMPUTER SCIENCE*

**NCC 5 334 INDIANA UNIV - BLOOMINGTON 4412**  
 HUMAN AND PHYSICAL DIMENSIONS OF LAND USE/COVER CH ANGE IN  
 AMAZONIA: FOREST REGENERATION AND LANDSCA  
 06/16/1998 - 12/31/2001 FY01: \$90,090 Total: \$571,929  
*Prin. Invest.: E MORAN*  
*Tech. Officer: GSFC/D DEERING*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NGT 1 01009 INDIANA UNIV - BLOOMINGTON 4413**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) MY 1/3  
 06/05/2001 - 06/30/2004 FY01: \$12,000 Total: \$12,000  
*Prin. Invest.: S D JOHNSON*  
*Tech. Officer: LARC/P S MINER*  
*CASE Category: 22 - COMPUTER SCIENCE*

**NCC 3 873 MANCHESTER COLLEGE 4414**  
 INTERCALATION OF GRAPHITE FIBERS FOR SPACE POWER APPLICATIONS  
 03/13/2001 - 02/20/2002 FY01: \$15,668 Total: \$15,668  
*Prin. Invest.: G W CLARK*  
*Tech. Officer: GRC/C HUNG*  
*CASE Category: 45 - ELECTRICAL ENGR*

**NAG 1 2109 PURDUE UNIV 4415**  
 LASER SPOT HEATING SYSTEM FOR TRANSITION DETECTION IN CRYO-  
 GENIC WIND TUNNELS  
 09/14/1998 - 06/30/2000 FY01: -\$262 Total: \$99,738  
*Prin. Invest.: J P SULLIVAN, NONE*  
*Tech. Officer: LARC/B T UPCHURCH, LARC/C J OBARA*  
*CASE Category: 41 - AERONAUTICAL ENGNR*

**NAG 1 2119 PURDUE UNIV 4416**  
 GENETIC ALGORITHM APPROACHES FOR ACTUATOR PLACEMENT  
 12/09/1998 - 06/30/2000 FY01: -\$62 Total: \$20,519  
*Prin. Invest.: W A CROSSLEY*  
*Tech. Officer: LARC/S L PADULA*  
*CASE Category: 41 - AERONAUTICAL ENGNR*

**NAG 1 2262 PURDUE UNIV 4417**  
 ACTUATOR PLACEMENT VIA GENETIC ALGORITHM FOR AIRCRAFT  
 MORPHING  
 01/19/2000 - 03/31/2001 FY01: -\$46 Total: \$29,954  
*Prin. Invest.: W A CROSSLEY*  
*Tech. Officer: LARC/S L PADULA, LARC/J L ROGERS*  
*CASE Category: 41 - AERONAUTICAL ENGNR*

**NAG 1 01027 PURDUE UNIV 4418**  
 MECHANISMS OF BOUNDARY-LAYER TRANSITION ON RESUABLE LAUNCH  
 VEHICLES  
 02/05/2001 - 01/31/2002 FY01: \$50,000 Total: \$50,000  
*Prin. Invest.: S P SCHNEIDER*  
*Tech. Officer: LARC/S A BERRY, LARC/J N MOSS*  
*CASE Category: 41 - AERONAUTICAL ENGNR*

**NAG 1 01073 PURDUE UNIV 4419**  
 MODELING OF NANO MATERIALS MY 1/3  
 05/09/2001 - 12/31/2003 FY01: \$80,000 Total: \$80,000  
*Prin. Invest.: C T SUN*  
*Tech. Officer: LARC/T S GATES*  
*CASE Category: 47 - METAL & MATERIALS ENGR*

**NAG 1 01083 PURDUE UNIV 4420**  
 AUTONOMOUS NAVIGATION FOR ALTERNATE ACCESS TO THE INTERNATIONAL SPACE STATION  
 05/18/2001 - 05/17/2003 FY01: \$49,283 Total: \$49,283  
*Prin. Invest.: J L GARRISON*  
*Tech. Officer: LARC/J ANTOL*  
*CASE Category: 42 - ASTRONAUTICAL ENGR*

**NAG 1 01115 PURDUE UNIV 4421**  
 DESIGN METHODS AND OPTIMIZATION FOR MORPHING AIRCRAFT  
 08/15/2001 - 08/14/2004 FY01: \$20,000 Total: \$20,000  
*Prin. Invest.: W A CROSSLEY, T A WEISSHAAR*  
*Tech. Officer: LARC/S L PADULA, LARC/J L ROGERS*  
*CASE Category: 41 - AERONAUTICAL ENGNR*

**NAG 2 1344 PURDUE UNIV 4422**  
 A GRAVIRESPONSIVE TIME-KEEPING PROTEIN OF THE PLANT & ANIMAL  
 CELL SURFACE  
 07/21/1999 - 07/31/2002 FY01: \$241,842 Total: \$500,234  
*Prin. Invest.: D J MORRE*  
*Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY*  
*CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)*

**NAG 2 1389** PURDUE UNIV 4423  
 ELUCIDATING THE MECHANISM OF MECHANICAL-STRESS INHIBITION OF PLANT GROWTH  
 12/21/1999 - 06/30/2002 FY01: \$20,000 Total: \$41,407  
*Prin. Invest.: C MITCHELL*  
*Tech. Officer: ARC/R MACELROY*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 2 1403** PURDUE UNIV 4424  
 AERODYNAMIC SHAPE AND STRUCTURAL TOPOLOGY DESIGN O F ROTOR CROSS SECTIONS USING A GENETIC ALGORITHM  
 04/20/2000 - 06/30/2001 FY01: \$0 Total: \$29,999  
*Prin. Invest.: W A CROSSLEY*  
*Tech. Officer: ARC/S B KOTTAPALLI*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 3 1730** PURDUE UNIV 4425  
 3-D UNSTEADY AERODYNAMICS AND AEROELASTICITY OF AD VANCED TURBOPROPS  
 02/01/1995 - 06/30/2001 FY01: \$33,200 Total: \$533,235  
*Prin. Invest.: S FLEETER*  
*Tech. Officer: GRC/D H BUFFUM*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 3 2095** PURDUE UNIV 4426  
 ON THE DEVELOPMENT OF SUPERSONIC JET NOISE PREDICT ION METH-ODOLOGY  
 12/22/1997 - 11/30/2001 FY01: \$0 Total: \$104,186  
*Prin. Invest.: A S LYRINTZIS*  
*Tech. Officer: GRC/J R SCOTT*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 3 2169** PURDUE UNIV 4427  
 FORCED RESPONSE PREDICTIONS OF TURBOMACHINERY BLAD E ROWS  
 05/29/1998 - 08/01/2000 FY01: \$0 Total: \$62,732  
*Prin. Invest.: S FLEETER*  
*Tech. Officer: GRC/D C JANETZKE*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 3 2217** PURDUE UNIV 4428  
 SCRAMJET SCALING AND INTERATIONS TESTING SCRAMJET SCALING AND INTERACTIONS TESTING  
 12/15/1998 - 11/30/2001 FY01: \$0 Total: \$191,080  
*Prin. Invest.: S MURTHY, NONE*  
*Tech. Officer: GRC/S R THOMAS*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 3 2246** PURDUE UNIV 4429  
 THE 14TH SYMPOSIUM ON AIR BREATHING ENGINES THE 14TH SYMPOSIUM ON AIR BREATHING ENGINES  
 03/22/1999 - 09/30/2000 FY01: \$0 Total: \$5,100  
*Prin. Invest.: S MURTHY*  
*Tech. Officer: GRC/M THARP*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 3 2336** PURDUE UNIV 4430  
 INVESTIGATION OF CRITICAL HEAT FLUX IN REDUCED GRA VITY USING PHOTOMICROGRAPHIC TECHNIQUES  
 02/22/2000 - 11/30/2003 FY01: \$76,000 Total: \$116,000  
*Prin. Invest.: I MUDAWAR*  
*Tech. Officer: GRC/M HANSAN*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 3 2413** PURDUE UNIV 4431  
 MHD BYPASS ENERGY CYCLE FOR JET ENGINE MHD BYPASS ENERGY CYCLE FOR JET ENGINE  
 06/28/2000 - 12/31/2001 FY01: \$40,000 Total: \$70,000  
*Prin. Invest.: S MURTHY*  
*Tech. Officer: GRC/I BLANKSON*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 3 2453** PURDUE UNIV 4432  
 TECHNICAL SUPPORT FOR THE PUBLICATION OF THE AEROS PACE STRUCTURAL METALS HANDBOOK #ODF01  
 06/07/2000 - 03/31/2001 FY01: \$0 Total: \$10,000  
*Prin. Invest.: C GIBSON*  
*Tech. Officer: GRC/J REAGAN*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NAG 3 2532** PURDUE UNIV 4433  
 THE 15TH INTERNATIONAL SYMPOSIUM ON AIR BREATHING ENGINES (ISABE)  
 01/24/2001 - 06/30/2002 FY01: \$5,100 Total: \$5,100  
*Prin. Invest.: S MURTHY*  
*Tech. Officer: GRC/M THARP*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 3 2536** PURDUE UNIV 4434  
 THREE-DIMINSIONAL UNSTEADY AERODYNAMICS AND AEROEL ASTICITY OF ADVANCED TURBOPROPS  
 03/01/2001 - 02/28/2002 FY01: \$46,000 Total: \$46,000  
*Prin. Invest.: D FLEETER*  
*Tech. Officer: GRC/E MCFARLAND*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 3 2550** PURDUE UNIV 4435  
 ROBUST SATELLITE COMMUNICATIONS FOR AIR TRAFFIC CO NTROL SPS #D135  
 02/27/2001 - 09/30/2001 FY01: \$60,000 Total: \$60,000  
*Prin. Invest.: D S LEHNERT*  
*Tech. Officer: GRC/K CHUN*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NAG 3 2635** PURDUE UNIV 4436  
 A LASER SCANNING PSP/TSP SYSTEM FOR PROPULSION APP LICATIONS  
 06/20/2001 - 06/30/2002 FY01: \$49,242 Total: \$49,242  
*Prin. Invest.: D P SULLIVAN*  
*Tech. Officer: GRC/T BENCIC*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 5 3975** PURDUE UNIV 4437  
 RESEARCH ON METHODS FOR ANALYSIS OF MULTI-SPECTRAL DATA  
 02/26/1997 - 01/31/2000 FY01: -\$9 Total: \$535,671  
*Prin. Invest.: D A LANGREBE*  
*Tech. Officer: GSFC/D E WICKLAND*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 3992** PURDUE UNIV 4438  
 THE ANALYSIS AND PARAMETERIZATION OF SHORTWAVE RAD ATMOSPHERES  
 02/26/1997 - 05/31/2002 FY01: \$0 Total: \$296,000  
*Prin. Invest.: D HARSHVARDHAN*  
*Tech. Officer: GSFC/K H BERGMAN*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

<b>NAG 5 4304</b>	<b>PURDUE UNIV</b>	<b>4439</b>	<b>NAG 5 9098</b>	<b>PURDUE UNIV</b>	<b>4447</b>
CHEMICAL STUDIES OF METEORITES 04/14/1997 - 02/28/2001	FY01: \$0	Total: \$330,000	LONG-TERM X-RAY VARIABILITY OF CYG X-1: ORBITAL MODULATION, INTENSITY DIPS, FLARES, STATE TRANSIT 02/18/2000 - 02/28/2002	FY01: \$0	Total: \$19,999
Prin. Invest.: D E LIPSCHUTZ Tech. Officer: GSFC/D NAVA CASE Category: 11 - ASTRONOMY			Prin. Invest.: W CUI Tech. Officer: GSFC/R J OLIVERSEN CASE Category: 11 - ASTRONOMY		
<b>NAG 5 6971</b>	<b>PURDUE UNIV</b>	<b>4440</b>	<b>NAG 5 9822</b>	<b>PURDUE UNIV</b>	<b>4448</b>
MACHINE LEARNING TO IMPROVE LAND COVER CLASSIFICATIONS FROM MULTISENSOR AND MULTITEMPORAL DATA 03/12/1998 - 02/28/2001	FY01: \$0	Total: \$81,113	A COMPARISON OF THE IMPACT OF PRECIPITATION ON THE TROPICAL PACIFIC & NORTH INDIAN OCEAN MIXED LAYER 07/24/2000 - 11/30/2001	FY01: \$171,500	Total: \$194,194
Prin. Invest.: C E BRODLEY Tech. Officer: GSFC/D E WICKLAND CASE Category: 39 - ENVIRONMENTAL SCI, OTHER			Prin. Invest.: C A CLAYTON Tech. Officer: GSFC/R J LAWRENCE CASE Category: 31 - ATMOSPHERIC SCIENCE		
<b>NAG 5 7387</b>	<b>PURDUE UNIV</b>	<b>4441</b>	<b>NAG 5 9998</b>	<b>PURDUE UNIV</b>	<b>4449</b>
A SEARCH FOR PULSATIONS IN HMXB SYSTEMS 05/07/1998 - 05/31/2000	FY01: -\$86	Total: \$9,081	RELATIVISTIC ASTROPHYSICS IN BLACK HOLE & LOW-MASS NEUTRON STAR X-RAY BINARIES - LTSA98 09/21/2000 - 01/31/2002	FY01: \$52,149	Total: \$105,317
Prin. Invest.: J P FINLEY Tech. Officer: GSFC/J SWANK CASE Category: 11 - ASTRONOMY			Prin. Invest.: W CUI Tech. Officer: GSFC/R J OLIVERSEN CASE Category: 11 - ASTRONOMY		
<b>NAG 5 7388</b>	<b>PURDUE UNIV</b>	<b>4442</b>	<b>NAG 5 10061</b>	<b>PURDUE UNIV</b>	<b>4450</b>
THE ORBITAL DECAY RATE AND SYSTEM PARAMETERS OF 4U 1700-37 05/07/1998 - 05/31/2000	FY01: -\$121	Total: \$8,379	AN EXPERIMENTAL ECONOMIC ANALYSIS OF NASA'S MISSION ACQUISITION PROCESS 10/31/2000 - 10/31/2001	FY01: \$140,000	Total: \$140,000
Prin. Invest.: J P FINLEY Tech. Officer: GSFC/J SWANK CASE Category: 11 - ASTRONOMY			Prin. Invest.: C NOUSSAIR Tech. Officer: GSFC/P ULRICH CASE Category: 99 - MULTI INTERDISCPL, OTHER		
<b>NAG 5 7727</b>	<b>PURDUE UNIV</b>	<b>4443</b>	<b>NAG 5 10262</b>	<b>PURDUE UNIV</b>	<b>4451</b>
QUANTIFYING THE INDIRECT RADIATIVE FORCING OF SULFATE AEROSOLS BY A HYBRID TECHNIQUE. 10/21/1998 - 10/14/2001	FY01: \$89,000	Total: \$284,508	FORMATION & EARLY EVOLUTION OF THE SOLAR SYSTEM 01/09/2001 - 12/31/2001	FY01: \$22,400	Total: \$22,400
Prin. Invest.: H HARSHVARDHAN Tech. Officer: GSFC/M I MISHCHENKO CASE Category: 31 - ATMOSPHERIC SCIENCE			Prin. Invest.: B PICKETT Tech. Officer: GSFC/D SENSKE CASE Category: 99 - MULTI INTERDISCPL, OTHER		
<b>NAG 5 7741</b>	<b>PURDUE UNIV</b>	<b>4444</b>	<b>NAG 5 10422</b>	<b>PURDUE UNIV</b>	<b>4452</b>
OPTIMIZATION OF THE GODDARD PROFILING (GPROF) ALGORITHM FOR SUBTROPICAL AND EXTRATROPICAL RAINFALL 10/28/1998 - 08/14/2000	FY01: -\$34,641	Total: \$112,339	CHEMICAL STUDIES OF METEORITES 02/15/2001 - 02/28/2002	FY01: \$80,000	Total: \$80,000
Prin. Invest.: G W PETTY Tech. Officer: GSFC/R W LAWRENCE CASE Category: 31 - ATMOSPHERIC SCIENCE			Prin. Invest.: M LIPSCHUTZ Tech. Officer: GSFC/J BOYCE CASE Category: 11 - ASTRONOMY		
<b>NAG 5 7954</b>	<b>PURDUE UNIV</b>	<b>4445</b>	<b>NAG 5 10735</b>	<b>PURDUE UNIV</b>	<b>4453</b>
INCREASING PUBLIC BENEFITS OF EXISTING NASA EARTH SCIENCES DATA: MULTI-PURPOSE APPLICATIONS IN AN 12/31/1998 - 10/31/2000	FY01: -\$7,582	Total: \$152,418	PROBING PREBIOTIC PROCESSES WITH PEPTIDE SELF REPLICATION 04/19/2001 - 04/30/2002	FY01: \$130,000	Total: \$130,000
Prin. Invest.: B A ENGEL Tech. Officer: GSFC/A TUYAHOV CASE Category: 39 - ENVIRONMENTAL SCI, OTHER			Prin. Invest.: J A CHMIELEWSKI Tech. Officer: GSFC/M MEYER CASE Category: 99 - MULTI INTERDISCPL, OTHER		
<b>NAG 5 8155</b>	<b>PURDUE UNIV</b>	<b>4446</b>	<b>NAG 5 10747</b>	<b>PURDUE UNIV</b>	<b>4454</b>
LABORATORY STUDIES OF DIACETYLENE AND CYANOACETYLENE PHOTOCHEMISTRY: ROUTES TO COMPLEX MOLECULES 02/17/1999 - 05/31/2002	FY01: \$96,000	Total: \$324,406	OPTIMIZATION OF GPS TRACKING LOOPS FOR SPACECRAFT NAVIGATION IN HEO/GEO ORBITS. 04/17/2001 - 01/31/2002	FY01: \$20,000	Total: \$20,000
Prin. Invest.: T ZWIER Tech. Officer: GSFC/R BEEBE CASE Category: 11 - ASTRONOMY			Prin. Invest.: J L GARRISON Tech. Officer: GSFC/J A LEITNER CASE Category: 42 - ASTRONAUTICAL ENGR		

**NAG 5 11080** PURDUE UNIV 4455  
 MOLA-SUPPORTED PRECISION GEOSPATIAL PROCESSING OF MOCA IMAGES:MODELS, ALGORITHMS AND EVALUATION  
 08/06/2001 - 08/14/2003 FY01: \$53,000 Total: \$53,000  
*Prin. Invest.: J SHAN*  
*Tech. Officer: GSFC/J M BOYCE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 8 1147** PURDUE UNIV 4456  
 BIOLOGICAL PARTICLE SEPARATION IN LOW GRAVITY  
 08/03/1995 - 08/02/2000 FY01: -\$1,793 Total: \$534,421  
*Prin. Invest.: J MORRE*  
*Tech. Officer: MSFC/L KARR*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 8 1233** PURDUE UNIV 4457  
 RESEARCH "DEVELOPMENT OF ATMOSPHERIC PHYSICAL RET. USING SATELLITE DATA FROM MICROWAVE SOUNDING,ETC  
 12/04/1996 - 01/21/2002 FY01: \$0 Total: \$198,156  
*Prin. Invest.: G W PETTY*  
*Tech. Officer: MSFC/B L APENTA*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 8 1515** PURDUE UNIV 4458  
 VARIABILITY AND PREDICTABILITY OF LAND-ATMOSPHERE INTERACTIONS: OBSERVATIONAL AND MODELING STUDIES  
 05/15/1998 - 05/31/2001 FY01: \$0 Total: \$168,057  
*Prin. Invest.: R OGLESBY*  
*Tech. Officer: MSFC/J ARNOLD*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 8 1691** PURDUE UNIV 4459  
 EXPERIMENTAL AND NUMERICAL INVESTIGATIONS OF GROWTH MORPHOLOGIES OF PERITECTIC REACTIONS  
 06/01/2000 - 11/30/2003 FY01: \$76,000 Total: \$116,000  
*Prin. Invest.: D JOHNSON*  
*Tech. Officer: MSFC/P DOTY*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 8 1782** PURDUE UNIV 4460  
 RESEARCH GRANT ENTITLED "MAGNETIC FIELD GRADIENT LEVITATION SYSTEM FOR PHYSICS AND BIOPHYSICS"  
 04/30/2001 - 04/29/2005 FY01: \$110,000 Total: \$110,000  
*Prin. Invest.: N M LAVRENDEAN*  
*Tech. Officer: GRC/Y R HICKS*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 8 1833** PURDUE UNIV 4461  
 ENGINEERING A RIBOZYME FOR DIFFRACTIVE PROPERTIES  
 09/05/2001 - 11/30/2004 FY01: \$40,000 Total: \$40,000  
*Prin. Invest.: B L GOLDEN*  
*Tech. Officer: MSFC/B V GUYNES*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 9 1281** PURDUE UNIV 4462  
 HUMAN FACTORS RESEARCH/ORGANIZATIONAL LEARNING USING THE INTRANET  
 03/07/2001 - 12/31/2001 FY01: \$25,000 Total: \$25,000  
*Prin. Invest.: G SALVENDY*  
*Tech. Officer: JSC/B J WOOLFORD*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 9 1292** PURDUE UNIV 4463  
 CONTROL CREW NETWORK COMMUNICATIONS DURING ROUTINE & NON-ROUTINE EVENTS  
 05/14/2001 - 09/30/2002 FY01: \$145,618 Total: \$145,618  
*Prin. Invest.: B S CALDWELL, NONE*  
*Tech. Officer: JSC/B WOOLFORD*  
*CASE Category: 42 – ASTRONAUTICAL ENGR*

**NAG 9 1385** PURDUE UNIV 4464  
 COLD WIRE MEASUREMENTS IN THE BODY FLAP CAVITY OF AN X-38 MODEL  
 09/24/2001 - 09/30/2002 FY01: \$10,493 Total: \$10,493  
*Prin. Invest.: S P SCHNEIDER*  
*Tech. Officer: JSC/C H CAMPBELL, JSC/S M FITZGERALD*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG13 00001** PURDUE UNIV 4465  
 EVALUATING REMOTE SENSING TECHNOLOGY FOR SITE SPECIFIC AGRICULTURE AND NATIONAL RESOURCES  
 02/18/2000 - 03/19/2002 FY01: \$283,104 Total: \$482,343  
*Prin. Invest.: C J JOHANNSEN*  
*Tech. Officer: SSC/R MCKELLIP*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG13 00008** PURDUE UNIV 4466  
 SIMULATION AND VISUALIZATION OF CAVITATING VENTURI FLOWS – REF #SPSD086  
 01/29/2001 - 12/31/2001 FY01: \$50,000 Total: \$50,000  
*Prin. Invest.: D HEISTER*  
*Tech. Officer: SSC/R E FIELD*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAS 3 00132** PURDUE UNIV 4467  
 NRA 8-23 ADVANCED DESIGN CONCEPTS FOR SPACE SOLAR POWER  
 05/12/2000 - 12/31/2000 FY01: \$0 Total: \$75,000  
*Prin. Invest.: N AVAILABLE*  
*Tech. Officer: GRC/N AVAILABLE*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 1 01042** PURDUE UNIV 4468  
 COMBINATORIAL MULTIOBJECTIVE OPTIMIZATION USING GENETIC ALGORITHMS  
 04/10/2001 - 04/09/2002 FY01: \$30,003 Total: \$30,003  
*Prin. Invest.: W A CROSSLEY*  
*Tech. Officer: LARC/S L PADULA, LARC/J L ROGERS*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 2 1245** PURDUE UNIV 4469  
 MACHINE LEARNING & DATA MINING FOR IMPROVED INTELLIGENT DATA UNDERSTANDING OF HIGH DIMENSIONAL EARTH  
 04/05/2001 - 02/28/2002 FY01: \$133,000 Total: \$133,000  
*Prin. Invest.: C BRODLEY*  
*Tech. Officer: ARC/C A HLAVKA, ARC/J COUGHLAN*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NCC 5 358** PURDUE UNIV 4470  
 DYNAMICAL SYSTEMS THEORY, NUMERICAL METHODS, OPTIMIZATION STRATEGIES & THEIR APPLICATION TO TRAJEC  
 08/26/1998 - 07/31/2002 FY01: \$21,158 Total: \$299,347  
*Prin. Invest.: K C HOWELL*  
*Tech. Officer: GSFC/D FOLTA*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

<b>NGT 1 52198</b>	<b>PURDUE UNIV</b>	<b>4471</b>	<b>NGT 5 50222</b>	<b>PURDUE UNIV</b>	<b>4479</b>
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)			MODELING MULTITHREADING ON MIMD COMPUTERS		
07/08/1998 - 10/31/2001	FY01: \$12,001	Total: \$66,001	09/25/1998 - 08/31/2001	FY01: \$0	Total: \$66,000
<i>Prin. Invest.: G L ROTH</i>			<i>Prin. Invest.: L H JAMIESON, TEANY</i>		
<i>Tech. Officer: LARC/D W BARTLETT</i>			<i>Tech. Officer: HQ/A NURRIDIN</i>		
<i>CASE Category: 41 – AERONAUTICAL ENGNR</i>			<i>CASE Category: 22 – COMPUTER SCIENCE</i>		
<b>NGT 2 52225</b>	<b>PURDUE UNIV</b>	<b>4472</b>	<b>NGT 5 50275</b>	<b>PURDUE UNIV</b>	<b>4480</b>
TOPOLOGY DESIGN OF ROTOR BLADES FOR AERODYNAMICS & STRUCTURAL CONSIDERATIONS			LOW-THRUST GRAVITY-ASSIST TRAJECTORY DESIGN STUDENT:		
07/29/1997 - 06/30/2000	FY01: \$0	Total: \$66,000	TERESA J. DEBBAN		
<i>Prin. Invest.: W A CROSSLEY</i>			06/20/2000 - 07/31/2002	FY01: \$22,000	Total: \$44,000
<i>Tech. Officer: ARC/S R KOTTAPALLI</i>			<i>Prin. Invest.: J M LONGUSKI</i>		
<i>CASE Category: 41 – AERONAUTICAL ENGNR</i>			<i>Tech. Officer: GSFC/K BLANDING</i>		
<b>NGT 2 52285</b>	<b>PURDUE UNIV</b>	<b>4473</b>	<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>		
THE ROLE OF DIFFERENTIAL GENE EXPRESSION IN MECHAN O-DWARFING OF PLANTS			<b>NGT 5 50336</b>	<b>PURDUE UNIV</b>	<b>4481</b>
09/25/2001 - 09/14/2002	FY01: \$22,000	Total: \$22,000	SPECTROSCOPY & KINETICS OF METASTABLE DIACETYLENE: IMPROVING MODELS OF TITAN'S ATMOSPHERIC CHEMI		
<i>Prin. Invest.: C A MITCHELL</i>			05/04/2001 - 06/30/2002	FY01: \$22,000	Total: \$22,000
<i>Tech. Officer: ARC/C A CONLEY</i>			<i>Prin. Invest.: T ZWEIR</i>		
<i>CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)</i>			<i>Tech. Officer: GSFC/K BLANDING</i>		
<b>NGT 5 30040</b>	<b>PURDUE UNIV</b>	<b>4474</b>	<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>		
EFFECT OF ANTHROPOGENIC AEROSOL ON CLOUD OPTICAL PROPERTIES: A CASE STUDY OF THE EASTERN U.S.			<b>NAG 5 5184</b>	<b>TAYLOR UNIV</b>	<b>4482</b>
10/17/1996 - 02/28/2001	FY01: -\$22,034	Total: \$65,966	DROPPS: THE DISTRIBUTION AND ROLE OF PARTICLES IN THE POLAR SUMMER MESOSPHERE USING COORDINATED ROCK		
<i>Prin. Invest.: D HARSHVARDHAN</i>			03/13/1998 - 09/30/2001	FY01: \$0	Total: \$172,075
<i>Tech. Officer: GSFC/G ASRAR</i>			<i>Prin. Invest.: H D VOSS</i>		
<i>CASE Category: 31 – ATMOSPHERIC SCIENCE</i>			<i>Tech. Officer: GSFC/W B JOHNSON</i>		
<b>NGT 5 30163</b>	<b>PURDUE UNIV</b>	<b>4475</b>	<i>CASE Category: 13 – PHYSICS</i>		
DEVELOPMENT, EVALUATION, AND APPLICATION OF A FAST TIME RESPONSE MASS SPECTROMETRIC METHOD FOR QU			<b>NAG 5 8077</b>	<b>TAYLOR UNIV</b>	<b>4483</b>
08/31/1998 - 08/31/2001	FY01: \$0	Total: \$65,600	SOURCE-LOSS/CONE INVESTIGATION		
<i>Prin. Invest.: P B SHEPSON, BARKET</i>			01/20/1999 - 01/31/2002	FY01: \$25,000	Total: \$124,994
<i>Tech. Officer: GSFC/M Y WEI</i>			<i>Prin. Invest.: H D VOSS</i>		
<i>CASE Category: 39 – ENVIRONMENTAL SCI, OTHER</i>			<i>Tech. Officer: GSFC/R HOFFMAN</i>		
<b>NGT 5 40043</b>	<b>PURDUE UNIV</b>	<b>4476</b>	<i>CASE Category: 19 – PHYSICAL SCIENCE, OTHER</i>		
THE NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PR			<b>NAG 1 2179</b>	<b>UNIV OF NOTRE DAME</b>	<b>4484</b>
01/30/1997 - 02/28/2001	FY01: \$0	Total: \$973,750	WAKE DEVELOPMENT AND STRUCTURE IN ADVERSE PRESSURE GRADIENT		
<i>Prin. Invest.: D ANDRISANI</i>			04/06/1999 - 07/31/2000	FY01: \$0	Total: \$56,154
<i>Tech. Officer: GSFC/L KEFFER</i>			<i>Prin. Invest.: F O THOMAS, R C NELSON</i>		
<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>			<i>Tech. Officer: LARC/J B ANDERS</i>		
<b>NGT 5 40114</b>	<b>PURDUE UNIV</b>	<b>4477</b>	<i>CASE Category: 41 – AERONAUTICAL ENGNR</i>		
INDIANA SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM			<b>NAG 1 2214</b>	<b>UNIV OF NOTRE DAME</b>	<b>4485</b>
03/06/2001 - 02/28/2002	FY01: \$256,250	Total: \$256,250	COLLAPSE OF CRACKED RECTANGULAR PLATES UNDER BI- AXIAL LOADING		
<i>Prin. Invest.: D ANDRISANI</i>			07/21/1999 - 07/11/2000	FY01: -\$4,149	Total: \$17,067
<i>Tech. Officer: GSFC/D DETROYE</i>			<i>Prin. Invest.: E CORONA</i>		
<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>			<i>Tech. Officer: LARC/J H STARNES, JR., LARC/R D YOUNG</i>		
<b>NGT 5 50130</b>	<b>PURDUE UNIV</b>	<b>4478</b>	<i>CASE Category: 41 – AERONAUTICAL ENGNR</i>		
SEARCH FOR A SPECTROSCOPIC SIGNATURE OF TRIPLET ME			<b>NAG 1 2240</b>	<b>UNIV OF NOTRE DAME</b>	<b>4486</b>
09/10/1997 - 06/30/2000	FY01: \$0	Total: \$66,000	ADVANCED INFO TECHNOLOGY IN SIMULATION BASED LIFE CYCLE DESIGN UNDER UNCERTAINTY - NRA-98-LARC-8		
<i>Prin. Invest.: T ZWIER</i>			09/20/1999 - 09/30/2002	FY01: \$65,238	Total: \$143,270
<i>Tech. Officer: HQ/A NURRIDIN</i>			<i>Prin. Invest.: J E RENAUD</i>		
<i>CASE Category: 41 – AERONAUTICAL ENGNR</i>			<i>Tech. Officer: LARC/J L ROSEY</i>		
<i>CASE Category: 49 – ENGINEERING, OTHER</i>					

<b>NAG 1 2264</b>	<b>UNIV OF NOTRE DAME</b>	<b>4487</b>	<b>NAG 5 8099</b>	<b>UNIV OF NOTRE DAME</b>	<b>4495</b>
FREE-STREAM TURBULENCE LEVEL MEASUREMENTS 01/24/2000 - 08/31/2000			GEOCHEMICAL EVOLUTION OF THE MOON 02/03/1999 - 08/14/2001		
FY01: \$0		Total: \$59,645	FY01: \$0		Total: \$79,000
<i>Prin. Invest.: T C CORKE</i>			<i>Prin. Invest.: D R NEAL</i>		
<i>Tech. Officer: LARC/K D WRIGHT</i>			<i>Tech. Officer: HQ/JBOYCE</i>		
<i>CASE Category: 13 - PHYSICS</i>			<i>CASE Category: 11 - ASTRONOMY</i>		
<b>NAG 1 01020</b>	<b>UNIV OF NOTRE DAME</b>	<b>4488</b>	<b>NAG 5 8355</b>	<b>UNIV OF NOTRE DAME</b>	<b>4496</b>
ACOUSTIC SOURCE MODELING AND CONTROL FOR HIGH BY-PASS JET ENGINES 01/24/2001 - 01/31/2002			ERROR CONTROL CODING TECHNIQUES FOR SPACE AND SATELLITE COMMUNICATIONS; GSFC CONTROL #3453 03/18/1999 - 02/28/2002		
FY01: \$63,380		Total: \$63,380	FY01: \$0		Total: \$110,000
<i>Prin. Invest.: T C CORKE, F O THOMAS</i>			<i>Prin. Invest.: D J COSTELLO, JR.</i>		
<i>Tech. Officer: LARC/K W KINZIE</i>			<i>Tech. Officer: GSFC/W H MILLER</i>		
<i>CASE Category: 41 - AERONAUTICAL ENGR</i>			<i>CASE Category: 49 - ENGINEERING, OTHER</i>		
<b>NAG 3 2213</b>	<b>UNIV OF NOTRE DAME</b>	<b>4489</b>	<b>NAG 5 9364</b>	<b>UNIV OF NOTRE DAME</b>	<b>4497</b>
MECHANISTIC STUDIES OF COMBUSTION AND STRUCTURE FORMATION DURING SYNTHESIS OF ADVANCED MATERIALS 01/15/1999 - 11/17/2002			SUPERNOVAE AND THE UNIVERSE (LTSA - 99) 04/25/2000 - 04/30/2002		
FY01: \$92,625		Total: \$270,125	FY01: \$102,519		Total: \$221,152
<i>Prin. Invest.: A VARMA</i>			<i>Prin. Invest.: P GARNAVICH</i>		
<i>Tech. Officer: GRC/R FRIEDMAN</i>			<i>Tech. Officer: GSFC/R J OLIVERSEN</i>		
<i>CASE Category: 49 - ENGINEERING, OTHER</i>			<i>CASE Category: 11 - ASTRONOMY</i>		
<b>NAG 3 2366</b>	<b>UNIV OF NOTRE DAME</b>	<b>4490</b>	<b>NAG 5 9731</b>	<b>UNIV OF NOTRE DAME</b>	<b>4498</b>
DIFFUSIVE COARSENING OF LIQUID FOAMS IN MICROGRAVITY 03/28/2000 - 11/30/2003			THE MICROLENSING PLANET SEARCH PROJECT 06/20/2000 - 02/28/2002		
FY01: \$75,215		Total: \$125,215	FY01: \$48,000		Total: \$93,000
<i>Prin. Invest.: D A GLAZIER</i>			<i>Prin. Invest.: D BENNETT</i>		
<i>Tech. Officer: GRC/F P CHIARMONTE</i>			<i>Tech. Officer: GSFC/J BOYCE</i>		
<i>CASE Category: 49 - ENGINEERING, OTHER</i>			<i>CASE Category: 13 - PHYSICS</i>		
<b>NAG 3 2384</b>	<b>UNIV OF NOTRE DAME</b>	<b>4491</b>	<b>NAG 5 10503</b>	<b>UNIV OF NOTRE DAME</b>	<b>4499</b>
EXPERIMENTAL AND THEORETICAL STUDIES OF WET GRANULAR MEDIA 04/06/2000 - 11/30/2003			ERROR CONTROL CODING TECHNIQUES FOR SPACE & SATELLITE COMMUNICATIONS 03/01/2001 - 02/28/2002		
FY01: \$19,847		Total: \$69,847	FY01: \$70,000		Total: \$70,000
<i>Prin. Invest.: D BARBASI</i>			<i>Prin. Invest.: D J COSTELLO</i>		
<i>Tech. Officer: GRC/J H AGUI</i>			<i>Tech. Officer: GSFC/P YEH</i>		
<i>CASE Category: 49 - ENGINEERING, OTHER</i>			<i>CASE Category: 49 - ENGINEERING, OTHER</i>		
<b>NAG 3 2418</b>	<b>UNIV OF NOTRE DAME</b>	<b>4492</b>	<b>NAG 5 10638</b>	<b>UNIV OF NOTRE DAME</b>	<b>4500</b>
NASA GRADUATE STUDENT DOCTORAL BUDGET PROJECT NASA GRADUATE STUDENT DOCTORAL BUDGET PROJECT 05/09/2000 - 12/01/2001			GEOCHEMICAL EVOLUTION OF THE MOON & METEORITES 03/17/2001 - 03/14/2002		
FY01: \$0		Total: \$252,500	FY01: \$30,000		Total: \$30,000
<i>Prin. Invest.: S JOHNSON</i>			<i>Prin. Invest.: C NEAL</i>		
<i>Tech. Officer: GRC/R LAWRENCE</i>			<i>Tech. Officer: GSFC/J BOYCE</i>		
<i>CASE Category: 99 - MULTI INTERDISCPL, OTHER</i>			<i>CASE Category: 12 - CHEMISTRY</i>		
<b>NAG 4 206</b>	<b>UNIV OF NOTRE DAME</b>	<b>4493</b>	<b>NCC 1 395</b>	<b>UNIV OF NOTRE DAME</b>	<b>4501</b>
AN EXPERIMENTAL STUDY OF BOUNDARY LAYER RELAMINARIZATION 05/15/2000 - 09/30/2001			TURBULENT WAKE DEVELOPMENT IN PRESSURE GRADIENT 05/08/2000 - 07/14/2001		
FY01: \$0		Total: \$20,025	FY01: \$28,277		Total: \$48,277
<i>Prin. Invest.: D O THOMAS</i>			<i>Prin. Invest.: R C NELSON, F O THOMAS</i>		
<i>Tech. Officer: DFRC/D FISHER</i>			<i>Tech. Officer: LARC/J B ANDERS</i>		
<i>CASE Category: 41 - AERONAUTICAL ENGR</i>			<i>CASE Category: 41 - AERONAUTICAL ENGR</i>		
<b>NAG 5 4573</b>	<b>UNIV OF NOTRE DAME</b>	<b>4494</b>	<b>NCC 1 01054</b>	<b>UNIV OF NOTRE DAME</b>	<b>4502</b>
DETECTION OF EXTRA-SOLAR PLANETS VIA GRAVITATIONAL 09/05/1997 - 07/14/2001			TURBULENT WAKE DEVELOPMENT IN PRESSURE GRADIENT 06/25/2001 - 07/14/2002		
FY01: \$0		Total: \$140,000	FY01: \$22,000		Total: \$22,000
<i>Prin. Invest.: D BENNETT</i>			<i>Prin. Invest.: F O THOMAS, R C NELSON</i>		
<i>Tech. Officer: HQ/J BOYCE</i>			<i>Tech. Officer: LARC/J B ANDERS</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 41 - AERONAUTICAL ENGR</i>		

**NCC 2 1014**           **UNIV OF NOTRE DAME**           **4503**  
 EXPERIMENTAL INVESTIGATION OF UNSTEADY ASPECTS OF HIGH FLOWS  
 02/01/1998 - 01/14/2002      FY01: \$31,053      Total: \$199,080  
*Prin. Invest.:* F O THOMAS, S OLSON, R C NELSON  
*Tech. Officer:* ARC/J C ROSS, ARC/D SATRAN  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NCC 3 466**           **UNIV OF NOTRE DAME**           **4504**  
 FUNDAMENTAL PROCESSES OF ATOMIZATION IN FLUID-FLUID FLOWS  
 04/16/1996 - 04/15/2001      FY01: \$0      Total: \$519,994  
*Prin. Invest.:* M J MCCREADY, H C CHANG, D T LEIGHTON  
*Tech. Officer:* GRC/J B MCGUILLEN  
*CASE Category:* 49 – ENGINEERING, OTHER

**NCC 3 770**           **UNIV OF NOTRE DAME**           **4505**  
 EFFECTS OF NONUNIFORM FLOWS ON SOUND GENERATION AND PROPAGATION  
 02/10/2000 - 09/30/2001      FY01: \$0      Total: \$103,727  
*Prin. Invest.:* D ATASSI  
*Tech. Officer:* GRC/J R SCOTT  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NCC 3 775**           **UNIV OF NOTRE DAME**           **4506**  
 ENHANCED DESIGN OF TURBO-JET LPT BY ACTIVE SEPARATION CONTROL  
 02/16/2000 - 12/15/2002      FY01: \$110,372      Total: \$170,372  
*Prin. Invest.:* P C CORKE  
*Tech. Officer:* GRC/D ASHPIS  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NAG 5 8490**           **VALPARISO UNIV**           **4507**  
 VALIDATION OF H2O & O3 MEASUREMENTS FROM SAGE III USING TRAJECTORY MAPPING & CONSTITUENT RECONSTRUCT  
 05/19/1999 - 10/31/2001      FY01: \$0      Total: \$66,156  
*Prin. Invest.:* G A MORRIS  
*Tech. Officer:* GSFC/J C DODGE  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

## IOWA

**NAG 5 6854**           **DRAKE UNIV**           **4508**  
 WIRE OBSERVATIONS OF THE CIRCUMSTELLAR REGIONS OF EVOLVED MASSIVE STARS.  
 02/19/1998 - 02/14/2001      FY01: \$0      Total: \$49,000  
*Prin. Invest.:* A MARSTON  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 – ASTRONOMY

**NAG 1 1933**           **IOWA STATE UNIV**           **4509**  
 DEVELOPMENT OF ENHANCED X-RAY INSPECTION  
 05/21/1997 - 05/19/2001      FY01: \$1      Total: \$233,901  
*Prin. Invest.:* J GRAY, J BASART  
*Tech. Officer:* LARC/W P WINFREE, LARC/F R PARKER  
*CASE Category:* 19 – PHYSICAL SCIENCE, OTHER

**NAG 1 01040**           **IOWA STATE UNIV**           **4510**  
 NEW APPROACHES TO INVERTING NDE DATA MY 1/3  
 03/15/2001 - 12/31/2001      FY01: \$80,000      Total: \$80,000  
*Prin. Invest.:* S S UPDA, J R BOWLER  
*Tech. Officer:* LARC/W P WINFREE  
*CASE Category:* 45 – ELECTRICAL ENGR

**NAG 2 1471**           **IOWA STATE UNIV**           **4511**  
 VERIFICATION OF CONTROLLERS BASED ON ADAPTIVE NEURAL NETWORKS  
 05/01/2001 - 04/14/2002      FY01: \$66,301      Total: \$66,301  
*Prin. Invest.:* A KELKAR  
*Tech. Officer:* ARC/M R LOWRY, ARC/S LAU  
*CASE Category:* 22 – COMPUTER SCIENCE

**NAG 3 2342**           **IOWA STATE UNIV**           **4512**  
 MODELING SURFACE ICING ROUGHNESS AND SURFACE WATER TRANSPORT  
 03/01/2000 - 12/31/2000      FY01: \$0      Total: \$80,184  
*Prin. Invest.:* A ROTHMAYER  
*Tech. Officer:* GRC/M G POTAPCZUK  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NAG 3 2540**           **IOWA STATE UNIV**           **4513**  
 DEVELOPMENT OF CHEMICALLY AND THERMALLY ROBUST LIQUID FAST ION CONDUCTING CHALCAGENIDE GLASSES  
 02/08/2001 - 01/13/2002      FY01: \$75,000      Total: \$75,000  
*Prin. Invest.:* S W MARTIN  
*Tech. Officer:* GRC/N H HAGEDORN  
*CASE Category:* 12 – CHEMISTRY

**NAG 3 2571**           **IOWA STATE UNIV**           **4514**  
 MODELING SURFACE ICING ROUGHNESS & SURFACE WATER TRANSPORT  
 03/30/2001 - 02/25/2002      FY01: \$87,597      Total: \$87,597  
*Prin. Invest.:* A P ROTHMAYER  
*Tech. Officer:* GRC/M G POTAPCZUK  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NAG 5 7070**           **IOWA STATE UNIV**           **4515**  
 COORDINATED OBSERVATIONS OF TEV BL LAC OBJECTS  
 03/04/1998 - 03/14/2000      FY01: -\$31      Total: \$23,869  
*Prin. Invest.:* M A CATANESE  
*Tech. Officer:* GSFC/J SWANK  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 7133**           **IOWA STATE UNIV**           **4516**  
 ATMOSPHERIC DYNAMICS DEDUCED FROM UARS USING MIDDLE ATMOSPHERE ISAMSCARBON MONOXIDE AND UPPER T  
 03/16/1998 - 04/30/2002      FY01: \$0      Total: \$176,922  
*Prin. Invest.:* D L STANFORD  
*Tech. Officer:* GSFC/A DOUGLASS  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NAG 5 7271**           **IOWA STATE UNIV**           **4517**  
 SMALL SCALE TROPOAUSE DYNAMICS AND TOMS TOTAL OZONE  
 05/05/1998 - 05/14/2002      FY01: \$27,500      Total: \$239,000  
*Prin. Invest.:* S L STANFORD  
*Tech. Officer:* GSFC/S CHANDRA  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

<b>NAG 5 7423</b>	<b>IOWA STATE UNIV</b>	<b>4518</b>	<b>NAG 8 1637</b>	<b>IOWA STATE UNIV</b>	<b>4526</b>
XTE PROPOSAL (30260) - CORRELATED OBSERVATIONS OF MARKARIAN 501			AN ADVANCED ENTRY GUIDANCE CONCEPT BASED ON TRAJECTORY REGULATION		
05/26/1998 - 05/31/2000	FY01: -\$6	Total: \$9,161	10/28/1999 - 01/31/2002	FY01: \$35,692	Total: \$105,974
<i>Prin. Invest.:</i> M A CATANESE			<i>Prin. Invest.:</i> P LU		
<i>Tech. Officer:</i> GSFC/J SWANK			<i>Tech. Officer:</i> MSFC/G DUKEMAN		
<i>CASE Category:</i> 11 - ASTRONOMY			<i>CASE Category:</i> 46 - MECHANICAL ENGR		
<b>NAG 5 7530</b>	<b>IOWA STATE UNIV</b>	<b>4519</b>	<b>NAG 8 1681</b>	<b>IOWA STATE UNIV</b>	<b>4527</b>
ANALYSES FOR THE CLIMATOLOGY AND SHORT-TERM VARIABILITY OF THE ATMOSPHERIC GENERAL CIRCULATION			DYNAMICAL SELECTION OF THREE-DIMENSIONAL INTERFACE PATTERNS IN DIRECTIONAL SOLIDIFICATION.		
06/12/1998 - 06/14/2002	FY01: \$0	Total: \$216,000	05/25/2000 - 11/30/2003	FY01: \$165,300	Total: \$185,300
<i>Prin. Invest.:</i> T CHEN			<i>Prin. Invest.:</i> R K TRIVETI		
<i>Tech. Officer:</i> GSFC/S SCHUBERT			<i>Tech. Officer:</i> MSFC/A JACKSON		
<i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE			<i>CASE Category:</i> 47 - METAL & MATERIALS ENGR		
<b>NAG 5 7561</b>	<b>IOWA STATE UNIV</b>	<b>4520</b>	<b>NAG 9 1115</b>	<b>IOWA STATE UNIV</b>	<b>4528</b>
COUPLED ATMOSPHERE-SNOW MODEL EVALUATION OF REGIONAL SNOWMELT			EXAMINATION OF BACTERIA MATERIALS		
06/29/1998 - 06/30/2002	FY01: \$0	Total: \$270,000	05/10/1999 - 05/09/2004	FY01: \$15,000	Total: \$45,000
<i>Prin. Invest.:</i> W J GUTOWSKI, JR.			<i>Prin. Invest.:</i> P A BAZLINSKI		
<i>Tech. Officer:</i> GSFC/E T ENGMAN			<i>Tech. Officer:</i> JSC/E K GIBSON		
<i>CASE Category:</i> 32 - GEOLOGICAL SCIENCE			<i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER		
<b>NAG 5 7756</b>	<b>IOWA STATE UNIV</b>	<b>4521</b>	<b>NAG 9 1184</b>	<b>IOWA STATE UNIV</b>	<b>4529</b>
DYNAMICS OF THE ASTEROID ENVIRONMENT			EXPERIMENTS TO DETERMINE THE AERODYNAMIC COEFFICIENT OF THE X38 PARAFOIL		
12/09/1998 - 10/31/1999	FY01: -\$14	Total: \$17,986	01/28/2000 - 12/31/2001	FY01: \$13,200	Total: \$23,200
<i>Prin. Invest.:</i> D J SCHEERES			<i>Prin. Invest.:</i> L M LILLEGREN, NONE		
<i>Tech. Officer:</i> GSFC/J GRANT			<i>Tech. Officer:</i> JSC/R L BARTON, JSC/W D GOODRICH		
<i>CASE Category:</i> 11 - ASTRONOMY			<i>CASE Category:</i> 41 - AERONAUTICAL ENGR		
<b>NAG 5 8293</b>	<b>IOWA STATE UNIV</b>	<b>4522</b>	<b>NAG 9 1191</b>	<b>IOWA STATE UNIV</b>	<b>4530</b>
DIAGNOSIS AND SIMULATION OF THE SOUTHEAST ASIAN-INDUCED WAVE-TRAIN THAT OCCURS DURING TROPICAL PACIFIC CYCLONES			RAPID SPECIFIC CHEMICAL SENSORS AND TEST KIT		
02/25/1999 - 02/28/2002	FY01: \$35,242	Total: \$101,626	02/28/2000 - 01/31/2003	FY01: \$230,154	Total: \$491,761
<i>Prin. Invest.:</i> T C CHEN			<i>Prin. Invest.:</i> M D PORTER		
<i>Tech. Officer:</i> GSFC/M RIENECKER			<i>Tech. Officer:</i> JPL/D JAN		
<i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE			<i>CASE Category:</i> 59 - LIFE SCIENCE, OTHER		
<b>NAG 5 8352</b>	<b>IOWA STATE UNIV</b>	<b>4523</b>	<b>NCC 1 01038</b>	<b>IOWA STATE UNIV</b>	<b>4531</b>
THEORETICAL MODELS FOR SEISMOLOGICAL STUDIES OF HOT COMPACT STARS_(ATP98)			SYNTHESIS METHODS FOR RUST PASSIFICATION AND CONTROL - 11		
03/01/1999 - 02/28/2002	FY01: \$68,133	Total: \$194,059	03/20/2001 - 07/31/2001	FY01: \$9,132	Total: \$9,132
<i>Prin. Invest.:</i> S D KAWALER			<i>Prin. Invest.:</i> A G KELKAR		
<i>Tech. Officer:</i> GSFC/D K WEST			<i>Tech. Officer:</i> LARC/S M JOSHI		
<i>CASE Category:</i> 11 - ASTRONOMY			<i>CASE Category:</i> 41 - AERONAUTICAL ENGR		
<b>NAG 5 8465</b>	<b>IOWA STATE UNIV</b>	<b>4524</b>	<b>NCC 1 01039</b>	<b>IOWA STATE UNIV</b>	<b>4532</b>
THE RESPONSE OF THE SOLAR ATMOSPHERE TO TIME-VARYING AND SPATIALLY INHOMOGENEOUS BOUNDARY CONDITIONS			AN INTEGRATED APPROACH TO NOISE CONTROL WITH APPLICATIONS TO AIRCRAFT CABINS		
04/21/1999 - 03/31/2002	FY01: \$45,128	Total: \$130,214	03/28/2001 - 01/31/2004	FY01: \$68,063	Total: \$68,063
<i>Prin. Invest.:</i> L A WILLSON <i>Prin. Invest.:</i> NONE			<i>Prin. Invest.:</i> A G KELKAR		
<i>Tech. Officer:</i> GSFC/W WAGNER			<i>Tech. Officer:</i> LARC/S M JOSHI		
<i>CASE Category:</i> 11 - ASTRONOMY			<i>CASE Category:</i> 41 - AERONAUTICAL ENGR		
<b>NAG 5 8892</b>	<b>IOWA STATE UNIV</b>	<b>4525</b>	<b>NCC 1 01047</b>	<b>IOWA STATE UNIV</b>	<b>4533</b>
MINIATURIZED LIQUID CHROMATOGRAPHY			PREDICTIVE AND NEURAL PREDICTIVE CONTROL OF UNCERTAIN SYSTEMS - II		
12/07/1999 - 11/30/2000	FY01: \$0	Total: \$84,314	04/17/2001 - 02/28/2003	FY01: \$12,198	Total: \$12,198
<i>Prin. Invest.:</i> M PORTER			<i>Prin. Invest.:</i> A G KELKAR		
<i>Tech. Officer:</i> GSFC/G FOGLMAN			<i>Tech. Officer:</i> LARC/P J HALEY		
<i>CASE Category:</i> 99 - MULTI INTERDISCPL, OTHER			<i>CASE Category:</i> 21 - MATHEMATICS		

**NCC 2 5349**           **IOWA STATE UNIV**           **4534**  
 PROPOSAL FOR JOINT RESEARCH EXCHANGE BETWEEN NASA & ISU  
 09/03/1999 – 12/31/2000      FY01: \$0            Total: \$109,500  
*Prin. Invest.: M S GORDON*  
*Tech. Officer: ARC/W M HUO, ARC/R L JAFFE*  
*CASE Category: 12 – CHEMISTRY*

**NCC 2 5379**           **IOWA STATE UNIV**           **4535**  
 STOKES CODE FOR COMPUTING MAGNETO-HYDRODYNAMIC FLO  
 WFIELDS  
 04/07/2000 – 04/30/2002      FY01: \$30,000        Total: \$58,000  
*Prin. Invest.: J C TANNEHILL*  
*Tech. Officer: ARC/U B MEHTA*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 3 846**           **IOWA STATE UNIV**           **4536**  
 QUENCHING OF PARTIAL-GAS COMBUSTIBLE MIXTURES USIN G ELECTRIC  
 PARTICULATE SUSPENSION (EPS) AND DISPE  
 01/09/2001 – 12/07/2004      FY01: \$84,996        Total: \$84,996  
*Prin. Invest.: G M COLVER*  
*Tech. Officer: GRC/K R SACKSTEDER*  
*CASE Category: 46 – MECHANICAL ENGR*

**NCC 4 122**           **IOWA STATE UNIV**           **4537**  
 RECONFIGURABLE FLIGHT CONTROL SYSTEM DESIGN  
 04/28/1999 – 04/28/2001      FY01: -\$7            Total: \$48,993  
*Prin. Invest.: P LU*  
*Tech. Officer: DFRC/J BURKEN*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 8 98**           **IOWA STATE UNIV**           **4538**  
 INTERFACE PATTERN SELECTION CRITERION FOR CELLULAR STRUC-  
 TURES IN DIRECTIONAL SOLIDIFICATION  
 06/28/1996 – 06/30/2002      FY01: \$214,000        Total: \$1,024,543  
*Prin. Invest.: R K TRIVEDI*  
*Tech. Officer: MSFC/M HAMMOND*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NCC 9 100**           **IOWA STATE UNIV**           **4539**  
 60 DAY DEFINITION PHASE  
 08/01/1999 – 10/03/2004      FY01: \$425,000        Total: \$1,225,000  
*Prin. Invest.: D OLSEN*  
*Tech. Officer: JSC/H LANE*  
*CASE Category: 55 – AGRICULTURE*

**NGT 3 52332**           **IOWA STATE UNIV**           **4540**  
 GRADUATE STUDENT RESEARCHERS PROGRAM  
 06/11/1997 – 06/30/2000      FY01: -\$61            Total: \$65,939  
*Prin. Invest.: A ROTHMAYER*  
*Tech. Officer: GRC/F J MONTEGANI*  
*CASE Category: 46 – MECHANICAL ENGR*

**NGT 3 52380**           **IOWA STATE UNIV**           **4541**  
 GRADUATE STUDENT RESEARCHERS PROGRAM GRADUATE STUDENT  
 RESEARCHERS PROGRAM  
 06/29/2001 – 06/30/2002      FY01: \$22,000        Total: \$22,000  
*Prin. Invest.: D ROTHMAYER*  
*Tech. Officer: GRC/F J MONTGOMERY*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NGT 5 30419**           **IOWA STATE UNIV**           **4542**  
 INTERANNUAL VARIATION OF THE NORTH AMERICAN MONSOON RAIN-  
 FALLSTUDENT: JIN-HO YOON  
 09/06/2001 – 08/31/2004      FY01: \$22,000        Total: \$22,000  
*Prin. Invest.: T CHEN*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 40027**           **IOWA STATE UNIV**           **4543**  
 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM  
 01/09/1997 – 01/31/2001      FY01: -\$18,374        Total: \$1,796,026  
*Prin. Invest.: W J BYRD*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 40081**           **IOWA STATE UNIV**           **4544**  
 IOWA STATE GRANT COLLEGE AND FELLOWSHIP PROGRAM  
 02/08/2001 – 01/31/2002      FY01: \$493,374        Total: \$493,374  
*Prin. Invest.: W J BYRD*  
*Tech. Officer: GSFC/D D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 8 52895**           **IOWA STATE UNIV**           **4545**  
 OPTIMAL EARTH-MARS TRANSFER TRAJECTRIES USING ADVANCED  
 PROPULSION SYSTEM  
 05/25/2001 – 07/01/2004      FY01: \$22,000        Total: \$22,000  
*Prin. Invest.: P LU*  
*Tech. Officer: MSFC/S NASH-STEVENSON*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NGT 8 52903**           **IOWA STATE UNIV**           **4546**  
 MORPHOLOGICAL SELECTION DURING ALLOW SOLIDIFICATIO SOLIDIFICA-  
 TION.  
 05/25/2001 – 07/01/2004      FY01: \$22,000        Total: \$22,000  
*Prin. Invest.: R NAPOLITANO*  
*Tech. Officer: MSFC/S NASH-STEVENSON*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 1 1907**           **UNIV OF IOWA**           **4547**  
 IMPACT OF MINERAL AEROSOLS AND ASIAN EMISSIONS ON THE CHEM-  
 ISTRY OF THE TROPOSPHERE  
 03/19/1997 – 03/31/2000      FY01: -\$122,343        Total: \$216,471  
*Prin. Invest.: G R CAMICHAEL*  
*Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 1 2305**           **UNIV OF IOWA**           **4548**  
 IMPACT OF MINERAL AND OTHER AEROSOLS AND ASIAN EMISSIONS ON  
 THE CHEMISTRY OF THE TROPOSPHERE  
 06/15/2000 – 03/31/2003      FY01: \$121,000        Total: \$211,000  
*Prin. Invest.: G R CARMICHAEL, H LEVY*  
*Tech. Officer: LARC/G L MADDREA*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 2 571**           **UNIV OF IOWA**           **4549**  
 "CONTINUING ANALYSIS AND INTERPRETATION OF DATA FROM PIONEER  
 10 AND PIONEER 11"  
 05/23/1989 – 12/31/1999      FY01: \$0            Total: \$1,265,482  
*Prin. Invest.: J A VAN ALLEN*  
*Tech. Officer: ARC/L E LASHER, ARC/R O FIMMEL*  
*CASE Category: 11 – ASTRONOMY*

<b>NAG 2 1167</b>	<b>UNIV OF IOWA</b>	<b>4550</b>	<b>NAG 5 5051</b>	<b>UNIV OF IOWA</b>	<b>4558</b>
VIDEO ENGRAVING FOR MOBILE ROBOTICS 11/19/1997 - 08/31/2000	FY01: \$0	Total: \$77,199	PLASMA TURBULENCE IN THE INTERSTELLAR MEDIUM: SIMILARITY TO HELIOSPHERIC TURBULENCE & ROLE IN... 01/25/1996 - 09/30/2000	FY01: \$0	Total: \$152,000
Prin. Invest.: G W THOMAS Tech. Officer: ARC/M H SIMS CASE Category: 22 - COMPUTER SCIENCE			Prin. Invest.: S R SPANGLER Tech. Officer: GSFC/H C NEEDLEMAN CASE Category: 13 - PHYSICS		
<b>NAG 3 2128</b>	<b>UNIV OF IOWA</b>	<b>4551</b>	<b>NAG 5 5232</b>	<b>UNIV OF IOWA</b>	<b>4559</b>
PLASMA DUST CRYSTALLIZATION PLASMA DUST CRYSTALLIZATION 02/27/1998 - 12/31/2002	FY01: \$124,000	Total: \$459,000	ROCKET AURORAL CORRELATOR EXPERIMENT PI DR. CRAIG KLETZING 02/12/1999 - 02/09/2002	FY01: \$75,400	Total: \$373,657
Prin. Invest.: J A GOREE Tech. Officer: GRC/R B ROGERS CASE Category: 13 - PHYSICS			Prin. Invest.: C A KLETZING Tech. Officer: GSFC/W B JOHNSON CASE Category: 13 - PHYSICS		
<b>NAG 3 2368</b>	<b>UNIV OF IOWA</b>	<b>4552</b>	<b>NAG 5 5319</b>	<b>UNIV OF IOWA</b>	<b>4560</b>
RIVULET DYNAMICS WITH VARIABLE GRAVITY AND WIND SH EAR 04/03/2000 - 11/30/2003	FY01: \$75,951	Total: \$125,932	PLASMA DIAGNOSTIC FOR THE HIBAR EXPERIMENT PLASMA DIAGNOSTIC FOR THE HIBAR EXPERIMENT 03/19/2001 - 02/28/2004	FY01: \$78,966	Total: \$78,966
Prin. Invest.: D S MARSHALL Tech. Officer: GRC/C E NIEDERHAUS CASE Category: 49 - ENGINEERING, OTHER			Prin. Invest.: C A KLETZING Tech. Officer: GSFC/J C BRINTON CASE Category: 13 - PHYSICS		
<b>NAG 3 2375</b>	<b>UNIV OF IOWA</b>	<b>4553</b>	<b>NAG 5 6127</b>	<b>UNIV OF IOWA</b>	<b>4561</b>
THEORY AND SIMULATION OF GROUND-BASED AND MICROGRA VITY DUSTY PLASMA EXPERIMENTS 03/28/2000 - 11/30/2003	FY01: \$100,000	Total: \$140,000	THEORETICAL STUDIES OF TYPE III SOLAR RADIO BURSTS 08/04/1997 - 07/14/2001	FY01: \$0	Total: \$130,840
Prin. Invest.: A BHATTACHARJEE Tech. Officer: GRC/R B ROGERS CASE Category: 49 - ENGINEERING, OTHER			Prin. Invest.: D CAIRNS Tech. Officer: GSFC/W WAGNER CASE Category: 11 - ASTRONOMY		
<b>NAG 5 3716</b>	<b>UNIV OF IOWA</b>	<b>4554</b>	<b>NAG 5 6369</b>	<b>UNIV OF IOWA</b>	<b>4562</b>
BALLOONING INSTABILITIES OF THIN CURRENT SHEETS 01/24/1997 - 01/31/2001	FY01: \$0	Total: \$253,128	LANGMUIR-LIKE WAVES AND RADIATION IN PLANETARY FOR 09/25/1997 - 08/31/2001	FY01: \$0	Total: \$87,000
Prin. Invest.: A BHATTACHARJEE Tech. Officer: GSFC/J BOHLINE CASE Category: 13 - PHYSICS			Prin. Invest.: D H CAIRNS Tech. Officer: GSFC/J BOHLIN CASE Category: 13 - PHYSICS		
<b>NAG 5 4266</b>	<b>UNIV OF IOWA</b>	<b>4555</b>	<b>NAG 5 6525</b>	<b>UNIV OF IOWA</b>	<b>4563</b>
STUDY OF AURORAL ELECTRON ACCELERATION BY KINETIC 03/25/1997 - 05/14/2001	FY01: \$0	Total: \$261,100	KINETIC ALFVEN WAVE ELECTRON ACCELERATION ON AUROR AL FIELD LINES 11/25/1997 - 02/28/2001	FY01: \$0	Total: \$72,074
Prin. Invest.: D F OTANI Tech. Officer: GSFC/D EVANS CASE Category: 13 - PHYSICS			Prin. Invest.: D A KLETZING Tech. Officer: GSFC/M M MELLOTT CASE Category: 13 - PHYSICS		
<b>NAG 5 4497</b>	<b>UNIV OF IOWA</b>	<b>4556</b>	<b>NAG 5 7187</b>	<b>UNIV OF IOWA</b>	<b>4564</b>
COMPREHENSIVE INVESTIGATION OF 2FP RADIO EMISSIONS THE DAYSIDE AND NIGHTSIDE AURORAL REGIONS 05/06/1997 - 05/31/2000	FY01: \$0	Total: \$113,060	RESTORATION AND ARCHIVING OF THE ISEE 1 AND 2 PLAS MA WAVE INVESTIGATION DATA SETS 03/26/1998 - 03/31/2002	FY01: \$0	Total: \$134,117
Prin. Invest.: D MENIETTI Tech. Officer: GSFC/M M MELLOT CASE Category: 13 - PHYSICS			Prin. Invest.: D ANDERSON Tech. Officer: GSFC/J BREDEKAMP CASE Category: 11 - ASTRONOMY		
<b>NAG 5 4755</b>	<b>UNIV OF IOWA</b>	<b>4557</b>	<b>NAG 5 7390</b>	<b>UNIV OF IOWA</b>	<b>4565</b>
GROUND-BASED RADAR-RAINFALL ESTIMATION FOR THE GUA VALIDATION SITES 06/27/1997 - 08/30/2000	FY01: \$0	Total: \$820,786	GENERATION AND SCATTERING OF RADIATION OBSERVED BY VOYAGER IN THE OUTER HELIOSPHERE 05/07/1998 - 02/28/2002	FY01: \$0	Total: \$43,200
Prin. Invest.: W F KRAJEWSKI Tech. Officer: GSFC/G M HEYMSFIELD CASE Category: 31 - ATMOSPHERIC SCIENCE			Prin. Invest.: I H CAIRNS Tech. Officer: GSFC/J LING CASE Category: 11 - ASTRONOMY		

**NAG 5 7684**           **UNIV OF IOWA**           **4566**  
 FUNDING OF THE ANALYSIS OF PLASMA MEASUREMENTS FOR THE GEOTAIL EXTENDED MISSION / FUNDING FOR YR 1  
 09/09/1998 - 09/30/2002      FY01: \$103,333      Total: \$1,270,000  
*Prin. Invest.: L A FRANK*  
*Tech. Officer: GSFC/D H FAIRFIELD*  
*CASE Category: 13 – PHYSICS*

**NAG 5 7710**           **UNIV OF IOWA**           **4567**  
 A PROPOSAL FOR STUDYING GEOMAGNETIC STORMS FROM THE ANALYSES AND INTER. OF PLASMA WAVE DATA  
 09/23/1998 - 10/31/2001      FY01: \$0      Total: \$460,000  
*Prin. Invest.: R R ANDERSON*  
*Tech. Officer: GSFC/D H FAIRFIELD*  
*CASE Category: 13 – PHYSICS*

**NAG 5 7712**           **UNIV OF IOWA**           **4568**  
 FUNDING FOR VIS ON THE POLAR SPACECRAFT FOR THE EXTENDED MISSION  
 09/28/1998 - 03/31/2002      FY01: \$546,606      Total: \$1,978,606  
*Prin. Invest.: L A FRANK*  
*Tech. Officer: GSFC/R HOFFMAN*  
*CASE Category: 13 – PHYSICS*

**NAG 5 7943**           **UNIV OF IOWA**           **4569**  
 POLAR PLASMA WAVE INVESTIGATION DATA ANALYSIS IN THE EXTENDED MISSION  
 01/27/1999 - 11/30/2001      FY01: \$276,000      Total: \$1,018,757  
*Prin. Invest.: D GURNATT*  
*Tech. Officer: GSFC/R HOFFMAN*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 8119**           **UNIV OF IOWA**           **4570**  
 GGS-POLAR-HYDRA EXTENDED MISSION SCIENCE INVESTIGATION  
 01/29/1999 - 12/31/2001      FY01: \$446,000      Total: \$1,696,000  
*Prin. Invest.: J SCUDDER*  
*Tech. Officer: GSFC/R HOFFMAN*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 8873**           **UNIV OF IOWA**           **4571**  
 COUPLING SATELLITE REMOTE SENSING & UNSTEADY FLOW MODELING FOR DISCHARGE ESTIMATION  
 11/16/1999 - 10/31/2002      FY01: \$53,282      Total: \$141,702  
*Prin. Invest.: A BRADLEY*  
*Tech. Officer: GSFC/E T ENGMAN*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8918**           **UNIV OF IOWA**           **4572**  
 ANALYSIS AND MODELING OF JOVIAN RADIO EMISSIONS OBSERVED BY GALILEO  
 01/18/2000 - 06/30/2002      FY01: \$55,000      Total: \$105,000  
*Prin. Invest.: J MENIETTI*  
*Tech. Officer: GSFC/D BOGAN*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9499**           **UNIV OF IOWA**           **4573**  
 NEW GRANT EXTEND SOLAR MAX: COLLISIONLESS RECOMBINATION THEORY AND HIGH RESOLUTION SIMULATIONS  
 05/04/2000 - 05/14/2002      FY01: \$30,000      Total: \$100,000  
*Prin. Invest.: J SCUDDER*  
*Tech. Officer: GSFC/R HOFFMAN*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 9561**           **UNIV OF IOWA**           **4574**  
 WAVE AND PARTICLE INTERACTIONS IN THE HIGH AND LOW -ALTITUDE AURORAL REGION DURING RISING SOLAR ACTIVITY  
 05/04/2000 - 05/14/2002      FY01: \$20,000      Total: \$90,041  
*Prin. Invest.: D GURNATT*  
*Tech. Officer: GSFC/R HOFFMAN*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 9664**           **UNIV OF IOWA**           **4575**  
 GROUND-BASED RAINFALL ESTIMATION STUDIES FOR TRMM VALIDATION  
 06/08/2000 - 12/14/2001      FY01: \$198,000      Total: \$208,000  
*Prin. Invest.: W F KRAJEWSKI*  
*Tech. Officer: GSFC/R J LAWRENCE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 9964**           **UNIV OF IOWA**           **4576**  
 X-RAY EMISSION FROM SINGLE WOLF-RAYET STARS  
 09/25/2000 - 09/30/2002      FY01: \$14,000      Total: \$32,581  
*Prin. Invest.: R IGNACE*  
*Tech. Officer: GSFC/R MUSHOTZKY*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9974**           **UNIV OF IOWA**           **4577**  
 A PROPOSAL FOR CLUSTER II WIDEBAND (WBD) PLASMA WAVE INVESTIGATION MISSION OPERATIONS & DATA  
 09/21/2000 - 10/31/2001      FY01: \$486,130      Total: \$786,130  
*Prin. Invest.: D GURNATT*  
*Tech. Officer: GSFC/M GOLDSTEIN*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 10329**           **UNIV OF IOWA**           **4578**  
 BALLOONING INSTABILITIES OF COLLISIONLESS THIN CURRENT SHEETS: A MECHANISM FOR SUBSTORM ONSET  
 01/29/2001 - 01/31/2002      FY01: \$40,000      Total: \$40,000  
*Prin. Invest.: A BHATTACHARJEE*  
*Tech. Officer: GSFC/J SHARBER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 11117**           **UNIV OF IOWA**           **4579**  
 PLASMA MEASUREMENTS FOR GEOTAIL  
 08/08/2001 - 09/30/2002      FY01: \$400,000      Total: \$400,000  
*Prin. Invest.: L FRANK*  
*Tech. Officer: GSFC/DFAIRFIELD*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 8 1352**           **UNIV OF IOWA**           **4580**  
 FOR RESEARCH "REAL TIME MONITORING OF PROTEIN CONCENTRATION IN SOLUTION TO CONTROL NUCLEATION..."  
 06/02/1997 - 08/31/2001      FY01: \$82,899      Total: \$573,441  
*Prin. Invest.: M A ARNOLD*  
*Tech. Officer: MSFC/B GUYNES, MSFC/J MAYO*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 8 1386**           **UNIV OF IOWA**           **4581**  
 RESEARCH " THERMODYNAMICS OF PROTEIN CRYSTALLIZATION AND LINKS TO CRYSTAL QUALITY"  
 06/23/1997 - 10/31/2001    FY01: \$155,128       Total: \$716,126  
*Prin. Invest.: J M WIENCEK*  
*Tech. Officer: MSFC/B GUYNES, MSFC/J MAYO*  
*CASE Category: 12 – CHEMISTRY*

**NAG 8 1425**           **UNIV OF IOWA**           **4582**  
 R/S SHORT TERM QUANTITATIVE PRECIPITATION FORECASTING USING MULTI-SENSOR REMOTE SENSING AND ETA  
 01/14/1998 - 05/31/2001    FY01: \$0               Total: \$117,940  
*Prin. Invest.: W F KRAJEWSKI*  
*Tech. Officer: MSFC/J ARNOLD*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 8 1588**           **UNIV OF IOWA**           **4583**  
 REJUBENATION OF SPENT MEDIA VIA SUPPORTED EMULSION LIQUID MEMBRANES  
 03/19/1999 - 11/30/2002    FY01: \$177,650       Total: \$510,650  
*Prin. Invest.: J WIENECK*  
*Tech. Officer: MSFC/B GUYNES, MSFC/D CHAFFEE*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 8 1591**           **UNIV OF IOWA**           **4584**  
 EVALUATING OXIDATIVE STRESS IN VIRALLY-INFECTED CELLS IN SIMULATED MICROGRAVITY  
 03/19/1999 - 11/30/2002    FY01: \$135,850       Total: \$376,850  
*Prin. Invest.: V G RODGERS*  
*Tech. Officer: JSC/M ANDERSON*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 8 1592**           **UNIV OF IOWA**           **4585**  
 R/S MONITORING AND CONTROL OF ROTATING WALL VESSELS AND APPLICATION TO THE STUDY OF PROSTATE  
 03/30/1999 - 11/30/2002    FY01: \$266,950       Total: \$658,950  
*Prin. Invest.: D W MURHAMMER*  
*Tech. Officer: JSC/S GONDA*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 8 1593**           **UNIV OF IOWA**           **4586**  
 R/S EXTREMOPHILIC INTERFACIAL SYSTEMS FOR WASTE PROCESSING IN SPACE  
 03/15/1999 - 11/30/2002    FY01: \$105,450       Total: \$316,450  
*Prin. Invest.: T L PEEPLES*  
*Tech. Officer: MSFC/B GUYNES, MSFC/D CHAFFEE*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 8 1835**           **UNIV OF IOWA**           **4587**  
 NONINVASIVE NEAR-INFRARED MONITORS FOR PROTEIN CRYSTALLIZATION  
 08/30/2001 - 11/30/2004    FY01: \$124,000       Total: \$124,000  
*Prin. Invest.: M A ARNOLD*  
*Tech. Officer: MSFC/B GUYNES*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAS 5 30730**           **UNIV OF IOWA**           **4588**  
 ISTP PROJECT'S WIDEBAND PLASMA WAVE INVESTIGATION  
 01/30/1990 - 12/18/2000    FY01: \$0               Total: \$6,404,840  
*Prin. Invest.: D GURNETT*  
*Tech. Officer: GSFC/J L CHRISTENSEN*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 1 422**           **UNIV OF IOWA**           **4589**  
 REGIONAL SCALE FORCASTING AND EXPERIMENT-SPECIFIC EMISSION ESTIMATES OF GAS AND AEROSOL DISTRIBUTION  
 09/26/2000 - 06/30/2003    FY01: \$68,661       Total: \$105,551  
*Prin. Invest.: G R CARMICHAEL*  
*Prin. Invest.: NONE*  
*Tech. Officer: LARC/J L RAPER, SR*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 3 666**           **UNIV OF IOWA**           **4590**  
 REFLIGHT OF ELF (ENCLOSED LAMINAR FLAMES) INVESTIGATION  
 02/02/1999 - 01/03/2003    FY01: \$81,700       Total: \$225,575  
*Prin. Invest.: D CHEN*  
*Tech. Officer: GRC/D P STOCKER*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 8 94**           **UNIV OF IOWA**           **4591**  
 EQUIAXED DENDRITIC SOLIDIFICATION EXPERIMENT (EDSE)  
 05/31/1996 - 01/31/2005    FY01: \$199,500       Total: \$916,480  
*Prin. Invest.: C BECKERMAN*  
*Tech. Officer: MSFC/A JACKMAN, MSFC*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 8 199**           **UNIV OF IOWA**           **4592**  
 DENDRITIC ALLOY SOLIDIFICATION EXPERIMENT (DASE)  
 04/12/2000 - 11/30/2003    FY01: \$166,250       Total: \$186,250  
*Prin. Invest.: C BECKERMAN*  
*Tech. Officer: GSFC/P DOTY*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NGT 5 30199**           **UNIV OF IOWA**           **4593**  
 ASSESSMENT OF THE IMPACT OF ASIAN EMISSIONS ON A LOCAL, REGIONAL & GLOBAL SCALE/STUDENT: SARATHG  
 08/25/1999 - 08/31/2002    FY01: \$22,000       Total: \$66,000  
*Prin. Invest.: G CARMICHAEL*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 50156**           **UNIV OF IOWA**           **4594**  
 MICROVASCULAR ALTERATIONS IN SIMULATED MICROGRAVITY  
 09/11/1997 - 12/15/2000    FY01: \$0               Total: \$66,000  
*Prin. Invest.: C V GISOLFI*  
*Tech. Officer: GSFC/L SMITH*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NGT 5 50377**           **UNIV OF IOWA**           **4595**  
 ARCHAEL CHAPERONINS CAN BE USED TO EXTEND THE FUNCTIONAL RANGE OF CONDITIONS IN WHICH ENZYMES  
 09/05/2001 - 09/14/2004    FY01: \$22,000       Total: \$22,000  
*Prin. Invest.: T PEEPLES*  
*Tech. Officer: HQ/K BLANDING*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**KANSAS**

**NAG 5 8633**           **FORT HAYS STATE UNIV**           **4596**  
 A STUDY OF THE SEASONAL & INTERANNUAL VARIABILITY OF ICE PRODUCTION & HEAT TRANSPORT IN BAFFIN BAY  
 07/01/1999 - 06/30/2000    FY01: \$0               Total: \$39,542  
*Prin. Invest.: J HEINRICHS*  
*Tech. Officer: GSFC/E LINDSTROM*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 1 2234** KANSAS STATE UNIV 4597  
 FURTHER INVEST OF RECEDING HORIZON-BASED CON- TROLLERS &  
 NEURAL NETWORK-BASED GPC SYSTEMS  
 08/20/1999 - 06/12/2000 FY01: \$0 Total: \$21,884  
*Prin. Invest.: A G KELKAR*  
*Tech. Officer: LARC/P J HALEY*  
*CASE Category: 21 – MATHEMATICS*

**NAG 2 1209** KANSAS STATE UNIV 4598  
 MODEL CONSTRUCTION FOR FINITE STATE VERIFICATION: APPLICATION  
 OF ABSTRACT INTERPRETATION & PARTIAL  
 05/01/1998 - 03/31/2000 FY01: \$0 Total: \$443,064  
*Prin. Invest.: D A SCHMIDT*  
*Tech. Officer: ARC/M R LOWRY*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 2 1274** KANSAS STATE UNIV 4599  
 DIFFERENTIATION OF BONE MARROW MACROPHAGES IN SPAC E-PHASE  
 A  
 12/28/1998 - 05/31/2002 FY01: \$337,293 Total: \$586,604  
*Prin. Invest.: S K CHAPES*  
*Tech. Officer: ARC/W E HINDS*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 3 2360** KANSAS STATE UNIV 4600  
 GELATION IN AEROSOLS: NON-MEAN-FIELD AGGREGATION KINETICS  
 03/27/2000 - 11/30/2003 FY01: \$80,001 Total: \$120,000  
*Prin. Invest.: C SORENSEN*  
*Tech. Officer: GRC/F P CHIARAMONTE*  
*CASE Category: 13 – PHYSICS*

**NAG 5 6213** KANSAS STATE UNIV 4601  
 LAND-COVER CHANGE IN THE GREAT PLAINS: PREDICTING IMPACTS OF  
 REGIONAL FOREST EXPANSION ON BIOGECH  
 10/24/1997 - 07/31/2001 FY01: \$0 Total: \$485,000  
*Prin. Invest.: D JOHNSON*  
*Tech. Officer: GSFC/A JANETOS*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 11337** KANSAS STATE UNIV 4602  
 SCALING UP THE ECOSYSTEM CONSEQUENCES OF FOREST EX PANSION  
 IN THE GREAT PLAINS REGION  
 09/07/2001 - 09/14/2002 FY01: \$194,762 Total: \$194,762  
*Prin. Invest.: L JOHNSON*  
*Tech. Officer: GSFC/G GUTMAN*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 8 1687** KANSAS STATE UNIV 4603  
 RESEARCH ENTITLED, "NANOCRYSTAL SUPERLATTICES: SYNTHESIS AND  
 PROPERTIES"  
 06/01/2000 - 11/30/2003 FY01: \$66,500 Total: \$101,500  
*Prin. Invest.: C M KLABUNDE*  
*Tech. Officer: MSFC/P DOTY*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 8 1702** KANSAS STATE UNIV 4604  
 RESEARCH, "CRYSTAL GROWTH OF NEW FAMILIES OF FERROELASTIC  
 MATERIALS"  
 06/07/2000 - 11/30/2003 FY01: \$85,500 Total: \$125,500  
*Prin. Invest.: M D HOLLINGSWORTH*  
*Tech. Officer: MSFC/P DOTY*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NCC 1 225** KANSAS STATE UNIV 4605  
 GENERALIZED PREDICTIVE AND NEURAL GENERALIZED PREDICTIVE  
 CONTROL AEROSPACE SYSTEMS  
 05/07/1996 - 05/15/2000 FY01: -\$1 Total: \$127,618  
*Prin. Invest.: A G KELKAR*  
*Tech. Officer: LARC/P J HALEY, ARC/D I SOLOWAY*  
*CASE Category: 21 – MATHEMATICS*

**NCC 1 226** KANSAS STATE UNIV 4606  
 PASSIVITY-BASED ROBUST CONTROL OF AEROSPACE SYST  
 04/09/1996 - 04/08/2000 FY01: -\$1 Total: \$115,875  
*Prin. Invest.: D G KELKAR*  
*Tech. Officer: LARC/D M JOSHI*  
*CASE Category: 41 – AERONAUTICAL ENGNR*

**NCC 1 348** KANSAS STATE UNIV 4607  
 SYNTHESIS METHODS FOR ROBUST PASSIFICATION AND CONTROL OF  
 LINEAR, TIME-INVARIANT (LTI) SYSTEMS  
 06/29/1999 - 12/31/2000 FY01: -\$9,138 Total: \$18,362  
*Prin. Invest.: A G KELKAR*  
*Tech. Officer: LARC/S M JOSHI*  
*CASE Category: 41 – AERONAUTICAL ENGNR*

**NCC 1 400** KANSAS STATE UNIV 4608  
 PREDICTIVE AND NEURAL PREDICTIVE CONTROL OF UNCERTAIN  
 SYSTEMS  
 05/31/2000 - 12/31/2000 FY01: -\$12,198 Total: \$12,721  
*Prin. Invest.: A G KELKAR*  
*Tech. Officer: LARC/P J HALEY*  
*CASE Category: 21 – MATHEMATICS*

**NCC 5 234** KANSAS STATE UNIV 4609  
 ASPECTS AND CONTROL OF TIDAL SEDIMENTATION AND THE EXTRAC-  
 TION AND MODELING OF TIDAL PARAMETERS FROM  
 12/12/1997 - 09/30/2001 FY01: \$0 Total: \$75,000  
*Prin. Invest.: A ARCHER*  
*Tech. Officer: GSFC/B BILLS*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 1 01011** UNIV OF KANSAS 4610  
 ESTIMATION OF UNSTEADY AERODYNAMIC MODELS FROM FLIGHT TEST  
 DATA  
 12/08/2000 - 11/11/2002 FY01: \$62,572 Total: \$62,572  
*Prin. Invest.: C E LAN*  
*Tech. Officer: LARC/J M BRANDON*  
*CASE Category: 41 – AERONAUTICAL ENGNR*

**NAG 5 4358** UNIV OF KANSAS 4611  
 STUDIES IN PLANETARY AERONOMY  
 04/17/1997 - 08/31/2001 FY01: \$0 Total: \$273,759  
*Prin. Invest.: D E CRAVENS*  
*Tech. Officer: GSFC/D BOGAN*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 4990** UNIV OF KANSAS 4612  
 DEVELOPMENT OF LAND USE MAPPING AND PROTOCOL FOR T A MULTI-  
 TEMPORAL REMOTE SENSING APPLICATION  
 06/27/1997 - 09/30/2000 FY01: \$0 Total: \$440,431  
*Prin. Invest.: K P PRICE*  
*Tech. Officer: GSFC/A J TUYAHOV*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

<b>NAG 5 7053</b>	<b>UNIV OF KANSAS</b>	<b>4613</b>	<b>NAG13 99019</b>	<b>UNIV OF KANSAS</b>	<b>4621</b>
ANALYSIS OF AIRCRAFT LASER ALTIMETER DATA FROM GRE ENLAND 02/25/1998 - 02/28/2002	FY01: \$0	Total: \$90,772	REMOTE SENSING-BASED GEOSTATISTICAL MODELING FOR CONIFEROUS FOREST INVENTORY & CHARACTERIZATION 08/10/1999 - 08/09/2002	FY01: \$230,000	Total: \$430,000
<i>Prin. Invest.: D A BRAATEN</i>			<i>Prin. Invest.: M JAKUBAUSKAS</i>		
<i>Tech. Officer: GSFC/R THOMAS</i>			<i>Tech. Officer: SSC/R MCKALLIP</i>		
<i>CASE Category: 39 – ENVIRONMENTAL SCI, OTHER</i>			<i>CASE Category: 32 – GEOLOGICAL SCIENCE</i>		
<b>NAG 5 7516</b>	<b>UNIV OF KANSAS</b>	<b>4614</b>	<b>NAS 1 99052</b>	<b>UNIV OF KANSAS</b>	<b>4622</b>
TRACKING INTERNAL LAYERS OF THE GREENLAND ICE SHEET USING AIRBORNERADIO ECHO SOUNDER IMAGES 06/04/1998 - 05/31/2001	FY01: \$0	Total: \$49,291	DEVELOPMENT OF A HYBRID RF/LASER RADAR 03/08/1999 - 03/07/2002	FY01: \$177,606	Total: \$583,648
<i>Prin. Invest.: J GAUCH</i>			<i>Prin. Invest.: C ALLEN</i>		
<i>Tech. Officer: GSFC/W ABDALATI</i>			<i>Tech. Officer: LARC/J HILL</i>		
<i>CASE Category: 19 – PHYSICAL SCIENCE, OTHER</i>			<i>CASE Category: 31 – ATMOSPHERIC SCIENCE</i>		
<b>NAG 5 8758</b>	<b>UNIV OF KANSAS</b>	<b>4615</b>	<b>NAS 3 00162</b>	<b>UNIV OF KANSAS</b>	<b>4623</b>
MEASUREMENT OF THE THICKNESS OF THE GREENLAND ICE SHEET & HIGH RESOLUTION MAPPING OF INTERNALLAYERS 08/24/1999 - 12/31/2001	FY01: \$222,578	Total: \$547,701	NRA 99-OES-08 ESTO AIST SBI 08/01/2000 - 08/02/2002	FY01: \$198,000	Total: \$305,462
<i>Prin. Invest.: S GOGINENI</i>			<i>Prin. Invest.: G, J P EVANS</i>		
<i>Tech. Officer: GSFC/E LINDSTROM</i>			<i>Tech. Officer: GRC/K BHASIN</i>		
<i>CASE Category: 39 – ENVIRONMENTAL SCI, OTHER</i>			<i>CASE Category: 45 – ELECTRICAL ENGR</i>		
<b>NAG 5 9840</b>	<b>UNIV OF KANSAS</b>	<b>4616</b>	<b>NCC 5 168</b>	<b>UNIV OF KANSAS</b>	<b>4624</b>
REMOTE SENSING OF EAST ANTARCTIC ICE STREAMS 07/26/2000 - 03/31/2002	FY01: \$0	Total: \$113,221	KANSAS SPACE AND LIFE SCIENCES, GEOPHYSICAL INFORM AERONAUTICS AND FLIGHT ENGINEERING TECHNOLOGY (K- 01/27/1997 - 12/31/2001	FY01: \$500,000	Total: \$2,500,000
<i>Prin. Invest.: S GOGINENI</i>			<i>Prin. Invest.: D R DOWNING</i>		
<i>Tech. Officer: GSFC/E LINDSTROM</i>			<i>Tech. Officer: GSFC/D DETROYE</i>		
<i>CASE Category: 39 – ENVIRONMENTAL SCI, OTHER</i>			<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>		
<b>NAG 5 9841</b>	<b>UNIV OF KANSAS</b>	<b>4617</b>	<b>NCC 5 415</b>	<b>UNIV OF KANSAS</b>	<b>4625</b>
INCUBATING COMMERCIAL REMOTE SENSING PRODUCTS 07/28/2000 - 01/14/2002	FY01: \$75,000	Total: \$100,000	EPSCOR PREPARATION PROGRAM 06/24/1999 - 03/01/2002	FY01: \$0	Total: \$450,000
<i>Prin. Invest.: K P PRICE</i>			<i>Prin. Invest.: D DOWNING</i>		
<i>Tech. Officer: GSFC/A J TUYAHOV</i>			<i>Tech. Officer: GSFC/D DETROYE</i>		
<i>CASE Category: 19 – PHYSICAL SCIENCE, OTHER</i>			<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>		
<b>NAG 5 11106</b>	<b>UNIV OF KANSAS</b>	<b>4618</b>	<b>NGT 3 52361</b>	<b>UNIV OF KANSAS</b>	<b>4626</b>
VALIDATION OF AMSR-E & AMSU/HSB LEVEL 1 BRIGHTNESS TEMPERATURES & LEVEL 2 CLOUD & PRECIPITATION 07/13/2001 - 08/31/2002	FY01: \$84,273	Total: \$84,273	NASA GRADUATE STUDENT RESEARCHERS PROGRAM NASA GRADUATE STUDENT RESEARCHERS PROGRAM 08/18/1999 - 08/14/2002	FY01: \$27,500	Total: \$49,500
<i>Prin. Invest.: R BENNARTZ</i>			<i>Prin. Invest.: R TAGHAVI</i>		
<i>Tech. Officer: GSFC/D STARR</i>			<i>Tech. Officer: GRC/M MEYER</i>		
<i>CASE Category: 19 – PHYSICAL SCIENCE, OTHER</i>			<i>CASE Category: 41 – AERONAUTICAL ENGR</i>		
<b>NAG13 01008</b>	<b>UNIV OF KANSAS</b>	<b>4619</b>	<b>NGT 5 30404</b>	<b>UNIV OF KANSAS</b>	<b>4627</b>
LINKING REMOTE SENSING, LAND USE, AND CARBON SEQUESTRATION: INSIGHTS LEAF TO LANDSCAPE SCALE 09/18/2001 - 09/17/2003	FY01: \$997,800	Total: \$997,800	DETERMINATION OF THERMAL RESPONSE PATTERNS FROM LAND SURFACES & THEIR RELATIONSHIP WITH CLIMATIC 08/14/2001 - 08/31/2004	FY01: \$22,000	Total: \$22,000
<i>Prin. Invest.: K P PRICE</i>			<i>Prin. Invest.: S EGBERT</i>		
<i>Tech. Officer: SSC/B DAVIS</i>			<i>Tech. Officer: GSFC/M WEI</i>		
<i>CASE Category: 39 – ENVIRONMENTAL SCI, OTHER</i>			<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>		
<b>NAG13 99009</b>	<b>UNIV OF KANSAS</b>	<b>4620</b>	<b>NGT 5 40065</b>	<b>UNIV OF KANSAS</b>	<b>4628</b>
CONSORTIUM FOR PRODUCTS AND TECHNOLOGY TO SUPPORT THE GREAT PLAINS AGROECOSYSTEM 03/01/1999 - 03/01/2002	FY01: \$0	Total: \$1,550,000	KANSAS/NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM 09/16/1998 - 03/31/2001	FY01: \$0	Total: \$637,500
<i>Prin. Invest.: E A MARTINKO</i>			<i>Prin. Invest.: D R DOWNING</i>		
<i>Tech. Officer: SSC/C HILL</i>			<i>Tech. Officer: GSFC/D DETROYE</i>		
<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>			<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>		

**NGT 5 40121**           **UNIV OF KANSAS**           **4629**  
 KANSAS SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM  
 03/20/2001 - 03/31/2002      FY01: \$212,500      Total: \$212,500  
*Prin. Invest.: D R DOWNING*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50073**           **UNIV OF KANSAS**           **4630**  
 A HIGH RESOLUTION RADAR CHARACTERIZATION OF ICE IN TERRESTRIAL  
 LIFE  
 08/26/1997 - 07/31/2000      FY01: \$0      Total: \$66,000  
*Prin. Invest.: R G PLUMB*  
*Tech. Officer: HQ/A NURRIDIN*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50161**           **UNIV OF KANSAS**           **4631**  
 ESTIMATING SOIL MOISTURE OVER 4 TALLGRASS PRAIRIE USING ERS-2  
 SAR  
 10/02/1997 - 08/31/2000      FY01: \$0      Total: \$66,000  
*Prin. Invest.: J HARRINGTON*  
*Tech. Officer: HQ/A NURRIDIN*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50219**           **UNIV OF KANSAS**           **4632**  
 DEVELOPMENT OF RADAR SYSTEM FOR ACCUMULATION MEASUREMENT-  
 SESSF STUDENT: PANNIRSELVAM  
 09/17/1998 - 02/28/2002      FY01: \$7,839      Total: \$73,839  
*Prin. Invest.: G S PRASAD*  
*Tech. Officer: GSFC/M Y WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 2 1491**           **UNIV OF KANSAS MEDICAL CENTER**           **4633**  
 LONG-TERM SIMULATED MICROGRAVITY INHIBITS SPERMATO GENESIS IN  
 ADULT MALE RATS  
 07/11/2001 - 06/30/2002      FY01: \$111,762      Total: \$111,762  
*Prin. Invest.: J S TASH*  
*Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 5 11038**           **UNIV OF KANSAS MEDICAL CENTER**           **4634**  
 STUDIES IN PLANETARY AERONOMY  
 06/14/2001 - 08/31/2002      FY01: \$50,000      Total: \$50,000  
*Prin. Invest.: T E CRAVENS*  
*Tech. Officer: GSFC/D J BOGAN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 3 1985**           **WICHITA STATE UNIV**           **4635**  
 MODERNIZE AND EXPAND THE WATER IMPINGEMENT DATA BASE FOR  
 AIRCRAFT SURFACES  
 11/12/1996 - 03/15/2000      FY01: -\$82      Total: \$396,893  
*Prin. Invest.: M PAPADAKIS*  
*Tech. Officer: GRC/C S BIDWELL*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 3 2137**           **WICHITA STATE UNIV**           **4636**  
 PILOT SIMULATOR TRAINING FOR AIRCRAFT ICING PILOT SIMULATOR  
 TRAINING FOR AIRCRAFT ICING  
 03/06/1998 - 10/31/2001      FY01: \$202,060      Total: \$1,014,319  
*Prin. Invest.: D ELLIS, M PAOAKAKIS*  
*Tech. Officer: GRC/T H BOND*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 3 2324**           **WICHITA STATE UNIV**           **4637**  
 WATER DROPLET IMPINGEMENT PROGRAM - PHASE II WATER DROPLET  
 IMPINGEMENT PROGRAM - PHASE II  
 02/01/2000 - 11/30/2001      FY01: \$125,656      Total: \$201,434  
*Prin. Invest.: D PAPADAKIS*  
*Tech. Officer: GRC/C BIDWELL*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 5 3435**           **WICHITA STATE UNIV**           **4638**  
 SPECTROSCOPIC PROPERTIES OF SUB STELLAR OBJECTS  
 10/01/1996 - 09/30/2001      FY01: \$79,400      Total: \$303,500  
*Prin. Invest.: D ALEXANDER*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NCA 1 106**           **WICHITA STATE UNIV**           **4639**  
 GENERAL AVIATION PROGRAM/AGATE  
 02/24/1995 - 10/31/2001      FY01: \$795,833      Total: \$5,207,161  
*Prin. Invest.: H WILLIFORD, D ELLIS*  
*Tech. Officer: LARC/W E RICKS*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCA 3 111**           **WICHITA STATE UNIV**           **4640**  
 JOINT SPONSORED RESARCH AGREEMENT - ICHING RESEARC H  
 02/22/1996 - 03/31/2001      FY01: \$0      Total: \$374,101  
*Prin. Invest.: D ELLIS*  
*Tech. Officer: GRC/T H BOND*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 3 624**           **WICHITA STATE UNIV**           **4641**  
 TAILPLANE ICING PROGRAM - PHASE II TAILPLANE ICING PROGRAM -  
 PHASE II  
 06/08/1998 - 11/30/2001      FY01: \$37,952      Total: \$464,712  
*Prin. Invest.: M PAPADAKIS, D ELLIS*  
*Tech. Officer: GRC/T P RATVASKY*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 8 202**           **WICHITA STATE UNIV**           **4642**  
 "ROLE OF THE FILLER WIRE COMPOSITIONS IN CRACK NUCLEATION AND  
 PROPAGATION OF ALUMINUM WELDS"  
 06/08/2000 - 10/16/2001      FY01: \$0      Total: \$62,000  
*Prin. Invest.: G E TALIA*  
*Tech. Officer: MSFC/A C NUNES, MSFC/C K RUSSELL*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

## KENTUCKY

**NAG 1 01036**           **UNIV OF KENTUCKY**           **4643**  
 DEV/APPLIC OF MAGNETOELASTIC & MAGNETOACOUSTIC REMOTE  
 QUERY ENVIRONMENTAL SENSORS  
 06/05/2001 - 06/30/2004      FY01: \$157,770      Total: \$157,770  
*Prin. Invest.: V SINGH, E DICKEY, C A GRIMES*  
*Tech. Officer: LARC/C H ROLLINS*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 2 1121**           **UNIV OF KENTUCKY**           **4644**  
 CARBON NANOTUBULES: BUILDING BLOCKS FOR NANOMETER -SCALE  
 ENGINEERING  
 02/25/1997 – 10/31/1999      FY01: \$651            Total: \$137,576  
*Prin. Invest.: S B SINNOTT*  
*Tech. Officer: ARC/C LEVIT, ARC/D A BAILEY*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 2 1363**           **UNIV OF KENTUCKY**           **4645**  
 BIOMIMETIC DETECTION SCHEMES ON A MICROCENTRIFUGE PLATFORMS  
 (LABCD)  
 07/27/1999 – 07/14/2002      FY01: \$264,020        Total: \$698,526  
*Prin. Invest.: S DAUNERT*  
*Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 3 2099**           **UNIV OF KENTUCKY**           **4646**  
 LARGE EDDY SIMULATION OF FLOWS IN TURBINE CASCADES USING  
 CONSERVATIVE UPWIND-BIASED 5TH ORDER NUMBE  
 12/23/1997 – 11/30/2001      FY01: \$25,000        Total: \$275,277  
*Prin. Invest.: P G HVANG*  
*Tech. Officer: GRC/D E ASHPIS*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 3 2567**           **UNIV OF KENTUCKY**           **4647**  
 MAGNETICALLY ASSISTED COMBUSTION EXPERIMENT (MACE)  
 03/16/2001 – 12/31/2004      FY01: \$10,000        Total: \$10,000  
*Prin. Invest.: K SAITO*  
*Tech. Officer: GRC/K R SACKSTEDER*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 3 2613**           **UNIV OF KENTUCKY**           **4648**  
 AN EXPERIMENTAL AND COMPUTATIONAL INVESTIGATION OF OSCIL-  
 LATING AIRFOIL UNSTEADY AERODYNAMICS AT LAR  
 06/06/2001 – 05/31/2005      FY01: \$46,221        Total: \$46,221  
*Prin. Invest.: V CAPECE*  
*Tech. Officer: GRC/D MIN*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 5 3841**           **UNIV OF KENTUCKY**           **4649**  
 GAS DYNAMICS IN ACTIVE GALACTIC NUCLEI: BROAD LINE  
 02/28/1997 – 02/14/2001      FY01: \$0            Total: \$182,500  
*Prin. Invest.: I SHLOSMAN*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 4235**           **UNIV OF KENTUCKY**           **4650**  
 THEORETICAL STUDIES OF INFRARED EMISSION FROM STAR  
 03/24/1997 – 09/30/2001      FY01: \$0            Total: \$253,900  
*Prin. Invest.: D A VERNER*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 4594**           **UNIV OF KENTUCKY**           **4651**  
 IN-SITU, REMOTE CHEMICAL SENSORS BASED ON THIN MAG  
 05/12/1997 – 01/14/2001      FY01: \$0            Total: \$376,695  
*Prin. Invest.: C A GRIMES*  
*Tech. Officer: GSFC/D JAN*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NAG 5 6937**           **UNIV OF KENTUCKY**           **4652**  
 QUANTITATIVE X-RAY – UV LINE AND CONTINUUM SPECTRO SCOPY WITH  
 APPLICATION TO AGN  
 04/29/1998 – 06/30/2001      FY01: \$0            Total: \$64,700  
*Prin. Invest.: G FERLAND*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7031**           **UNIV OF KENTUCKY**           **4653**  
 DATA ANALYSIS OF SPECTRAL ENERGY DISTRIBUTIONS OF YOUNG  
 STELLAR OBJECTS  
 02/18/1998 – 02/14/2001      FY01: \$0            Total: \$220,473  
*Prin. Invest.: M ELITZUR*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8165**           **UNIV OF KENTUCKY**           **4654**  
 QUANTITATIVE X-RAY – UV LINE AND CONTINUUM SPECTRO SCOPY WITH  
 APPLICATION TO AGN  
 02/09/1999 – 09/30/2001      FY01: \$0            Total: \$116,805  
*Prin. Invest.: G J FERLAND*  
*Tech. Officer: GSFC/J BREDEKAMP*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8212**           **UNIV OF KENTUCKY**           **4655**  
 FUNDAMENTAL PROBLEMS IN ASTROPHYSICAL PLASMAS (LTS A98)  
 02/26/1999 – 02/28/2002      FY01: \$80,885        Total: \$233,719  
*Prin. Invest.: G J FERLAND*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10518**           **UNIV OF KENTUCKY**           **4656**  
 DUST EVOLUTION IN THE EARLY UNIVERSE AND GALACTIC SYSTEMS:  
 OBSERVATIONAL CONSEQUENCES & COSMOLOGICAL  
 03/07/2001 – 03/14/2003      FY01: \$168,387        Total: \$168,387  
*Prin. Invest.: M ELITZUR*  
*Prin. Invest.: NONE*  
*Tech. Officer: GSFC/E DWEK*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10823**           **UNIV OF KENTUCKY**           **4657**  
 CENTRAL REGIONS IN DISK GALAXIES (ATP 2000)  
 05/01/2001 – 05/14/2002      FY01: \$70,204        Total: \$70,204  
*Prin. Invest.: I SHLOSMAN*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAS 1 01099**           **UNIV OF KENTUCKY**           **4658**  
 A VERIFIED DESIGN TOOL FOR LARGE APERTURE MEMBRANE TELE-  
 SCOPE MIRRORS  
 07/11/2001 – 01/31/2002      FY01: \$126,594        Total: \$126,594  
*Prin. Invest.: S W SMITH*  
*Tech. Officer: LARC/R S PAPPA*  
*CASE Category: 46 – MECHANICAL ENGR*

**NCC 1 385**           **UNIV OF KENTUCKY**           **4659**  
 FIGURE CONTROL OF LIGHTWEIGHT OPTICAL STRUCTURES (NASA HQS  
 COMPETITION)  
 03/15/2000 – 12/31/2002      FY01: \$85,000        Total: \$185,000  
*Prin. Invest.: J A MAIN*  
*Tech. Officer: LARC/R S PAPPA*  
*CASE Category: 46 – MECHANICAL ENGR*

**NCC 2 5193**           **UNIV OF KENTUCKY**           **4660**  
 TEMPERATURE FLUCTUATIONS IN THE ORION NEBULA AND NEBULAR  
 ABUNDANCE SCALE  
 11/01/1996 – 05/31/2000      FY01: -\$1            Total: \$53,986  
*Prin. Invest.: D J FERLAND*  
*Tech. Officer: ARC/D GOORITCH*  
*CASE Category: 11 – ASTRONOMY*

**NCC 2 5383**           **UNIV OF KENTUCKY**           **4661**  
 COMPUTATIONAL INVESTIGATIONS OF CARBON NANOTUBE MATERIALS  
 05/22/2000 – 06/30/2000      FY01: -\$40,385        Total: \$4,487  
*Prin. Invest.: S SINNOT*  
*Tech. Officer: ARC/M MEYYA, ARC/H PARTRIDGE 111*  
*CASE Category: 43 – CHEMICAL ENGR*

**NCC 2 5386**           **UNIV OF KENTUCKY**           **4662**  
 SIMULATIONS OF CARBON NANOTUBES IN NANOELECTRONICS AND BIO-  
 MATERIALS APPLICATIONS  
 06/08/2000 – 08/31/2001      FY01: \$0            Total: \$25,000  
*Prin. Invest.: M MENON*  
*Tech. Officer: ARC/H PATRIDGE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 2 5405**           **UNIV OF KENTUCKY**           **4663**  
 FUNDAMENTAL PROBLEMS IN PLASMA ASTROPHYSICS: THE THERMAL  
 EQUILIBRIUM OF NGC 7009  
 10/24/2000 – 10/31/2001      FY01: \$10,250        Total: \$10,250  
*Prin. Invest.: G J FERLAND*  
*Tech. Officer: ARC/D GOORTVITCH*  
*CASE Category: 11 – ASTRONOMY*

**NCC 3 590**           **UNIV OF KENTUCKY**           **4664**  
 TURBULENCE & TRANSITION MODELING OF LOW PRESSURE TURBINE  
 FLOWS  
 12/17/1997 – 12/31/2002      FY01: \$80,000        Total: \$419,754  
*Prin. Invest.: G HUANG*  
*Tech. Officer: GRC/D E ASHPIS*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NGT 1 01006**           **UNIV OF KENTUCKY**           **4665**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) MY 1/3  
 06/05/2001 – 06/30/2004      FY01: \$12,000        Total: \$12,000  
*Prin. Invest.: S W SMETH*  
*Tech. Officer: LARC/R A HATHAWAY*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NGT 1 52223**           **UNIV OF KENTUCKY**           **4666**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 09/10/1999 – 08/23/2001      FY01: \$12,000        Total: \$44,000  
*Prin. Invest.: M ROCHE, J MAIN*  
*Tech. Officer: LARC/G C HORNER*  
*CASE Category: 46 – MECHANICAL ENGR*

**NGT 5 71**           **UNIV OF KENTUCKY**           **4667**  
 GSRP TRAINING GRANT – GEORGE NELSON – SHAPE TUNING OF  
 EXTREMELY LARGE ORBITAL TELESCOPE MIRRORS  
 06/09/1998 – 11/30/2001      FY01: \$0            Total: \$66,000  
*Prin. Invest.: J A MAIN*  
*Tech. Officer: GSFC/M S BURRELL*  
*CASE Category: 46 – MECHANICAL ENGR*

**NGT 8 52869**           **UNIV OF KENTUCKY**           **4668**  
 INVESTIGATING THE EFFECTS OF FOAM INFLATED DEPLOYABLE SPACE-  
 CRAFT STRUCTURES  
 07/27/1998 – 05/18/2000      FY01: -\$6,338        Total: \$37,662  
*Prin. Invest.: J A MAIN*  
*Tech. Officer: MSFC/J F DOWDY*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 5 11040**           **UNIV OF LOUISVILLE**           **4669**  
 GENERAL CIRCULATION OF PLANETARY ATMOSPHERES  
 06/13/2001 – 06/14/2002      FY01: \$91,000        Total: \$91,000  
*Prin. Invest.: T DOWLING*  
*Tech. Officer: GSFC/D J BOGAN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 8 1509**           **UNIV OF LOUISVILLE**           **4670**  
 SHORT TERM QUANTITATIVE PRECIPITATION FORECASTING USING MULTI-  
 SENSOR REMOTE SENSING AND ETA MODEL  
 03/04/1998 – 02/02/2000      FY01: -\$7,454        Total: \$77,070  
*Prin. Invest.: M N FRENCH*  
*Tech. Officer: MSFC/J SIMONDS*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 2 5373**           **UNIV OF LOUISVILLE**           **4671**  
 MICROARRAY ANALYSIS OF MICROGRAVITY-DEPENDENT GENE EXPRES-  
 SIONS IN NORMAL HUMAN FIBROBLASTS  
 03/30/2000 – 04/14/2002      FY01: \$90,250        Total: \$185,250  
*Prin. Invest.: E WANG*  
*Tech. Officer: ARC/J W HINES, ARC/M M AVERNER*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NCC 2 5374**           **UNIV OF LOUISVILLE**           **4672**  
 CLONING AND FUNCTIONAL CHARACTERIZATION OF NOVEL GENES  
 WHOSE EXPRESSIONS ARE MICROGRAVITY-DEPEN....  
 03/30/2000 – 04/14/2002      FY01: \$90,250        Total: \$185,250  
*Prin. Invest.: E WANG*  
*Tech. Officer: ARC/J W HINES, ARC/M M AVERNER*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 5 8762**           **WESTERN KENTUCKY UNIV**           **4673**  
 STARBASE NETWORK  
 08/27/1999 – 09/14/2002      FY01: \$0            Total: \$1,915,000  
*Prin. Invest.: C H MCGRUDER, 111*  
*Tech. Officer: GSFC/JD ROSENDHAL*  
*CASE Category: 11 – ASTRONOMY*

**NGT 5 222**           **WESTERN KENTUCKY UNIV**           **4674**  
 TO SUPPORT THE KENTUCKY NASA EXPERIMENTAL PROGRAM COMPETI-  
 TIVE RESEARCH  
 08/11/1997 – 06/30/2002      FY01: \$0            Total: \$1,800,000  
*Prin. Invest.: R HACKNEY*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 5 396**           **WESTERN KENTUCKY UNIV**           **4675**  
 NASA EPSCOR: PREPARATORY GRANT PROPOSAL  
 05/13/1999 – 05/31/2002      FY01: \$0            Total: \$450,000  
*Prin. Invest.: R HACKNEY*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 5 571** WESTERN KENTUCKY UNIV 4676  
 KENTUCKY NASA EPSCOR PROGRAM  
 07/16/2001 - 07/31/2002 FY01: \$700,000 Total: \$700,000  
*Prin. Invest.: R HACKNEY*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 3 52353** WESTERN KENTUCKY UNIV 4677  
 SYNTHESIS AND CHARACTERIZATION OF ELECTRON-BEAM CU RED AND THERMAL CURED BISMALEIMIDE-TRIAZINE COPOL  
 06/24/1999 - 07/31/2000 FY01: \$0 Total: \$22,000  
*Prin. Invest.: W PAN*  
*Tech. Officer: GRC/F J MONTEGANI*  
*CASE Category: 12 – CHEMISTRY*

**NGT 5 40051** WESTERN KENTUCKY UNIV 4678  
 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRA  
 01/30/1997 - 02/28/2002 FY01: \$0 Total: \$1,046,684  
*Prin. Invest.: R HACKNEY*  
*Tech. Officer: GSFC/L KEFFER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 40105** WESTERN KENTUCKY UNIV 4679  
 KENTUCKY SPACE GRANT COLLEGE & FELLOWSHIP PROGRAM  
 03/06/2001 - 02/28/2003 FY01: \$262,650 Total: \$262,650  
*Prin. Invest.: R HACKNEY*  
*Tech. Officer: GSFC/D D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

## LOUISIANA

**NAG 8 1392** GRAMBLING STATE UNIV 4680  
 R/S "NLO POLYMERS THAT HAVE ENHANCED THERMAL STABILITY AND LOW ALIGNMENT DECAY"  
 07/23/1997 - 10/31/2000 FY01: -\$2,203 Total: \$285,512  
*Prin. Invest.: C WALTON*  
*Tech. Officer: MSFC/B PENN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 2 1020** LOUISIANA STATE UNIV - BATON ROUGE 4681  
 DEVELOPMENTAL ANALYSIS OF SEEDS GROWN ON MIR  
 01/18/1996 - 11/30/1999 FY01: \$0 Total: \$371,575  
*Prin. Invest.: M E MUSGRAVE*  
*Tech. Officer: ARC/C M WINGET, ARC/G C JAHNS*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 2 1320** LOUISIANA STATE UNIV - BATON ROUGE 4682  
 A RADAPERTIZATION PROTOCOL FOR SAMPLES RETURNED TO EARTH FROM MARS  
 05/10/1999 - 04/14/2001 FY01: \$0 Total: \$58,800  
*Prin. Invest.: J R BATTISTA*  
*Tech. Officer: ARC/D L DEVINCENZI*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NAG 2 1460** LOUISIANA STATE UNIV - BATON ROUGE 4683  
 DEVELOPMENT OF A PROTOCOL FOR STERILING MINERAL SAMPLES RETURNED TO EARTH FROM MARS USING GAMMA RAD  
 03/08/2001 - 10/31/2001 FY01: \$42,446 Total: \$42,446  
*Prin. Invest.: J R BATTISTA*  
*Tech. Officer: ARC/L E BEBOUT, ARC/D DIVINCENZI*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 2 1511** LOUISIANA STATE UNIV - BATON ROUGE 4684  
 THE EFFECTS OF MICROGRAVITY ON PROTEIN-LIGAND INTE RACTAC-  
 TIONS  
 07/23/2001 - 07/31/2002 FY01: \$89,523 Total: \$89,523  
*Prin. Invest.: V J LICATA*  
*Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NGT 3 2361** LOUISIANA STATE UNIV - BATON ROUGE 4685  
 THEORETICAL AND EXPERIMENTAL INVESTIGATION OF THE STABILITY OF AN EVAPORATING CONSTRAINED VAPOR BUBB  
 04/03/2000 - 11/30/2003 FY01: \$43,700 Total: \$71,200  
*Prin. Invest.: H WONG, NONE*  
*Tech. Officer: GRC/J SKARDA*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 5 3082** LOUISIANA STATE UNIV - BATON ROUGE 4686  
 ACCRETION ONTO MAGNETIC DEGENERATE STARS  
 09/22/1995 - 09/30/1999 FY01: -\$3,262 Total: \$170,681  
*Prin. Invest.: G CHANMUGAM*  
*Tech. Officer: GSFC/D WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 5064** LOUISIANA STATE UNIV - BATON ROUGE 4687  
 THE ADVANCED THIN IONIZATION CALORIMETER (ATIC) BALLOON EXPERIMENT  
 05/03/1996 - 05/06/2001 FY01: \$75,000 Total: \$2,481,800  
*Prin. Invest.: J P WEFEL*  
*Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 5 5127** LOUISIANA STATE UNIV - BATON ROUGE 4688  
 MINUTE OF ARC RESOLUTION GAMMA-RAY IMAGING EXPERIMENT (MARGIE)  
 07/02/1997 - 09/30/2000 FY01: \$0 Total: \$149,825  
*Prin. Invest.: M CHERRY*  
*Tech. Officer: GSFC/H C NEEDLEMAN*  
*CASE Category: 13 – PHYSICS*

**NAG 5 5177** LOUISIANA STATE UNIV - BATON ROUGE 4689  
 TRANSITION RADIATION DETECTORS FOR HIGH ENERGY MEASUREMENTS ON ACCESS  
 04/24/1998 - 03/31/2002 FY01: \$0 Total: \$240,000  
*Prin. Invest.: M L CHERRY*  
*Tech. Officer: GSFC/B A MERRITT*  
*CASE Category: 13 – PHYSICS*

**NAG 5 5208** LOUISIANA STATE UNIV - BATON ROUGE 4690  
 ULTRA-LONG DURATION MISSION CONCEPT FOR PROPOSAL FOR A MINUTE-OF-ARC RESOLUTION GAMMA-RAY EXPERIMENT  
 09/24/1998 - 11/30/2001 FY01: \$99,430 Total: \$210,000  
*Prin. Invest.: M CHERRY*  
*Tech. Officer: WFF/B A MERRITT*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 5297** LOUISIANA STATE UNIV - BATON ROUGE 4691  
 SIFTER SIFTER  
 06/12/2000 - 12/31/2001 FY01: \$0 Total: \$41,500  
*Prin. Invest.: M L CHERRY*  
*Tech. Officer: WFF/B A MERRITT*  
*CASE Category: 13 – PHYSICS*

**NAG 5 5306 LOUISIANA STATE UNIV - BATON ROUGE 4692**  
 ADVANCED THIN IONIZATION CARLORIMETER BALLOON EXPERIMENT  
 01/09/2001 - 11/30/2003 FY01: \$345,000 Total: \$345,000  
*Prin. Invest.: J P WEFEL*  
*Tech. Officer: GSFC/B A MERRITT*  
*CASE Category: 13 - PHYSICS*

**NAG 5 5307 LOUISIANA STATE UNIV - BATON ROUGE 4693**  
 INITIAL FUNDING FOR THE ABOVE REFERENCED GRANT IN THE AMOUNT  
 OF 55KPI: FAZELY/LSU; GRANT TITLE:  
 06/05/2001 - 11/30/2003 FY01: \$55,000 Total: \$55,000  
*Prin. Invest.: D FAZELY*  
*Tech. Officer: WFF/B MERRITT*  
*CASE Category: 13 - PHYSICS*

**NAG 5 5323 LOUISIANA STATE UNIV - BATON ROUGE 4694**  
 A WIDE-FIELD HIGH-RESOLUTION HARD X-RAY/GAMMA-RAY IMAGING  
 TELESCOPE FOR ULTRA LONG BALLOON MISSION  
 03/21/2001 - 11/30/2003 FY01: \$132,500 Total: \$132,500  
*Prin. Invest.: M L CHERRY*  
*Tech. Officer: GSFC/B A MERRITT*  
*CASE Category: 13 - PHYSICS*

**NAG 5 7355 LOUISIANA STATE UNIV - BATON ROUGE 4695**  
 A CGRO TARGET OF OPPORTUNITY PROPOSAL FOR FLARING BLAZARS  
 04/29/1998 - 01/14/2000 FY01: -\$600 Total: \$1,900  
*Prin. Invest.: J STACY*  
*Tech. Officer: GSFC/J P NORRIS*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 7933 LOUISIANA STATE UNIV - BATON ROUGE 4696**  
 EXTRAGALACTIC INTERSTELLAR DUST\_ (LTSA - NEW)  
 12/14/1998 - 12/31/2001 FY01: \$59,162 Total: \$191,989  
*Prin. Invest.: G C CLAYATON*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 8100 LOUISIANA STATE UNIV - BATON ROUGE 4697**  
 A SURVEY OF ACTIVE GALAXIES AND HIGH-LATITUDE GAMMA-RAY  
 SOURCES USING COMPTEL ALL-SKY MAXIMUM-LIK  
 01/25/1999 - 01/31/2001 FY01: \$0 Total: \$7,500  
*Prin. Invest.: J STACY*  
*Tech. Officer: GSFC/J NORRIS*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 8497 LOUISIANA STATE UNIV - BATON ROUGE 4698**  
 NUMERICAL HYDRODYNAMICS OF MASS-TRANSFERRING BINARIES (ATP - 98)  
 05/18/1999 - 04/30/2002 FY01: \$60,000 Total: \$176,520  
*Prin. Invest.: J FRANK*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9203 LOUISIANA STATE UNIV - BATON ROUGE 4699**  
 MOVING BEYOND THE STANDARD PARADIGM/THE IMPORTANCE OF  
 INTERSTELLAR DUST FROM THE MILKY WAY TO HIGH R  
 03/16/2000 - 03/14/2002 FY01: \$43,804 Total: \$103,706  
*Prin. Invest.: G CLAYTON*  
*Tech. Officer: GSFC/R OLIVERSEN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9245 LOUISIANA STATE UNIV - BATON ROUGE 4700**  
 WORLD DELTAS: A BASELINE AND CHANGES.  
 03/14/2000 - 03/31/2002 FY01: \$124,357 Total: \$197,937  
*Prin. Invest.: O HUH*  
*Tech. Officer: GSFC/H FREY*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NAG 5 9709 LOUISIANA STATE UNIV - BATON ROUGE 4701**  
 USING IR EMISSION TO CONSTRAIN THE ROLE OF DUST IN GALAXIES  
 07/25/2000 - 06/30/2002 FY01: \$49,825 Total: \$98,726  
*Prin. Invest.: G C CLAYTON*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10185 LOUISIANA STATE UNIV - BATON ROUGE 4702**  
 FAR-ULTRAVIOLET INTERSTELLAR EXTINCTION IN THE LARGE MAGELLANIC CLOUD - FUSE-2000  
 01/25/2001 - 01/31/2002 FY01: \$73,200 Total: \$73,200  
*Prin. Invest.: G C CLAYTON*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 8 1731 LOUISIANA STATE UNIV - BATON ROUGE 4703**  
 ADVANCED LIGHT WEIGHT MAGNET PROGRAM  
 07/25/2000 - 07/31/2002 FY01: \$61,000 Total: \$94,256  
*Prin. Invest.: R G GOODRICH*  
*Tech. Officer: MSFC/T ROBERTSON*  
*CASE Category: 13 - PHYSICS*

**NAG 8 1845 LOUISIANA STATE UNIV - BATON ROUGE 4704**  
 SECOND GENERATION SPACE LAUNCH INITIATIVES: AN EXPLORATION AND  
 ROADMAP TOSOLVING PROBLEMS.  
 07/26/2001 - 08/29/2001 FY01: \$9,999 Total: \$9,999  
*Prin. Invest.: B SARKER*  
*Tech. Officer: MSFC/E SHAW*  
*CASE Category: 49 - ENGINEERING, OTHER*

**NAG10 139 LOUISIANA STATE UNIV - BATON ROUGE 4705**  
 PLANT REPRODUCTIVE DEVELOPMENT IN MICROGRAVITY  
 06/07/1994 - 12/31/2000 FY01: -\$44 Total: \$533,464  
*Prin. Invest.: M E MUSGRAVE*  
*Tech. Officer: KSC/W M KNOTT*  
*CASE Category: 55 - AGRICULTURE*

**NAS 8 01042 LOUISIANA STATE UNIV - BATON ROUGE 4706**  
 MECHANICS OF GRANULAR MATERIAL MGM III  
 03/23/2001 - 02/28/2003 FY01: \$120,000 Total: \$120,000  
*Prin. Invest.: K ALSHIBLI*  
*Tech. Officer: MSFC/B GUYNES*  
*CASE Category: 19 - PHYSICAL SCIENCE, OTHER*

**NCC 2 5320 LOUISIANA STATE UNIV - BATON ROUGE 4707**  
 SCALABLE SIMULATION& DATA MANAGEMENT FOR COMPUTATIONAL  
 NANOELECTRONICS ON THE INFORMATION POWER GRI  
 05/10/1999 - 08/31/2001 FY01: \$58,000 Total: \$190,000  
*Prin. Invest.: A NAKANO*  
*Tech. Officer: ARC/S SAINI*  
*CASE Category: 22 - COMPUTER SCIENCE*

<b>NCC 2 5440</b>	<b>LOUISIANA STATE UNIV - BATON ROUGE</b>	<b>4708</b>	<b>NAG 8 1206</b>	<b>SOUTHEASTERN LOUISIANA UNIV</b>	<b>4716</b>
MULTISCALE SIMULATIONS OF PROTEIN NANOTUBES ON A G RID			JOVE		
07/02/2001 - 06/30/2003	FY01: \$95,000	Total: \$95,000	09/25/1995 - 08/31/2000	FY01: -\$8,687	Total: \$97,498
<i>Prin. Invest.:</i> P VASHISTA, R K KALIA, A NAKANO			<i>Prin. Invest.:</i> W A PARKISON, W N NORTON, W N NORTON		
<i>Tech. Officer:</i> ARC/M MEYYAPPAN, ARC/H PATRIDGE			<i>Tech. Officer:</i> MSFC/J F DOWDY		
<i>CASE Category:</i> 51 - BIOLOGY (EXCLUDING ENVIR)			<i>CASE Category:</i> 19 - PHYSICAL SCIENCE, OTHER		
<b>NCC 5 167</b>	<b>LOUISIANA STATE UNIV - BATON ROUGE</b>	<b>4709</b>	<b>NAG 2 1159</b>	<b>SOUTHERN UNIV &amp; A&amp;M COLLEGE</b>	<b>4717</b>
NASA EPSCOR PROGRAM			AIR TRAFFIC CONTROL USING NEURAL NETWORKS		
11/02/1996 - 10/31/2001	FY01: \$0	Total: \$2,300,000	08/25/1997 - 03/31/2000	FY01: \$0	Total: \$204,000
<i>Prin. Invest.:</i> J P WEFEL			<i>Prin. Invest.:</i> S K TRIVEDI		
<i>Tech. Officer:</i> GSFC/D DETROYE			<i>Tech. Officer:</i> ARC/G S LEE		
<i>CASE Category:</i> 99 - MULTI INTERDISCPL, OTHER			<i>CASE Category:</i> 22 - COMPUTER SCIENCE		
<b>NCC 5 393</b>	<b>LOUISIANA STATE UNIV - BATON ROUGE</b>	<b>4710</b>	<b>NAG 2 1273</b>	<b>SOUTHERN UNIV &amp; A&amp;M COLLEGE</b>	<b>4718</b>
NASA EPSCOR PREPARATION PROGRAM			INTERACTIVE CLASSIFICATION TECHNOLOGY		
05/13/1999 - 08/14/2002	FY01: -\$485	Total: \$450,000	12/29/1998 - 12/31/2000	FY01: -\$30,434	Total: \$162,044
<i>Prin. Invest.:</i> J WEFEL			<i>Prin. Invest.:</i> C DEBESSONET		
<i>Tech. Officer:</i> HQ/D DETROY			<i>Tech. Officer:</i> ARC/P NORVIG		
<i>CASE Category:</i> 99 - MULTI INTERDISCPL, OTHER			<i>CASE Category:</i> 22 - COMPUTER SCIENCE		
<b>NCC 8 201</b>	<b>LOUISIANA STATE UNIV - BATON ROUGE</b>	<b>4711</b>	<b>NAG 2 1468</b>	<b>SOUTHERN UNIV &amp; A&amp;M COLLEGE</b>	<b>4719</b>
ADVANCED FLIGHT CONTROLLER DESIGN FOR X-33 USING TRAJECTORY LINEARIZATION			INTEGRATED APPROACH TO REASONING UNDER MULTIPLE PE RSPECTIVES		
04/24/2000 - 09/30/2000	FY01: -\$844	Total: \$50,938	03/28/2001 - 03/14/2002	FY01: \$88,670	Total: \$88,670
<i>Prin. Invest.:</i> J ZHU			<i>Prin. Invest.:</i> C DEBESSONER		
<i>Tech. Officer:</i> MSFC/C E HALL			<i>Tech. Officer:</i> ARC/R MORRIS, ARC/S LAU		
<i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER			<i>CASE Category:</i> 22 - COMPUTER SCIENCE		
<b>NGT 5 40035</b>	<b>LOUISIANA STATE UNIV - BATON ROUGE</b>	<b>4712</b>	<b>NAG 3 1825</b>	<b>SOUTHERN UNIV &amp; A&amp;M COLLEGE</b>	<b>4720</b>
TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE AND FELLOWSHIPPROGRAM.			DEVELOPMENT OF INTEGRATED METHODOLOGY FOR ENGINE C OMPONENT DESIGN AND DESIGN OPTIMIZATION		
02/13/1997 - 02/28/2001	FY01: -\$127,760	Total: \$845,990	04/17/1996 - 06/30/2000	FY01: -\$7	Total: \$359,993
<i>Prin. Invest.:</i> J P WEFEL	<i>Prin. Invest.:</i> NONE		<i>Prin. Invest.:</i> R A MIRSHAMS, B Q LI		
<i>Tech. Officer:</i> GSFC/D DETROYE			<i>Tech. Officer:</i> GRC/L BERKE		
<i>CASE Category:</i> 99 - MULTI INTERDISCPL, OTHER			<i>CASE Category:</i> 41 - AERONAUTICAL ENGNR		
<b>NGT 5 40115</b>	<b>LOUISIANA STATE UNIV - BATON ROUGE</b>	<b>4713</b>	<b>NAG 3 2076</b>	<b>SOUTHERN UNIV &amp; A&amp;M COLLEGE</b>	<b>4721</b>
LOUISIANA SPACE GRANT COLLEGE & FELLOWSHIP PROGRAM			KNOWLEDGE PRESERVATION FOR DESIGN OF ROCKET SYSTEM S		
03/06/2001 - 02/28/2002	FY01: \$384,010	Total: \$384,010	09/26/1997 - 09/15/2001	FY01: \$0	Total: \$100,000
<i>Prin. Invest.:</i> J WEFEL			<i>Prin. Invest.:</i> D MOREMAN, J DYER		
<i>Tech. Officer:</i> HQ/D DETROYE			<i>Tech. Officer:</i> GRC/D F NOGA		
<i>CASE Category:</i> 99 - MULTI INTERDISCPL, OTHER			<i>CASE Category:</i> 22 - COMPUTER SCIENCE		
<b>NGT13 52743</b>	<b>LOUISIANA STATE UNIV - BATON ROUGE</b>	<b>4714</b>	<b>NAG 5 5066</b>	<b>SOUTHERN UNIV &amp; A&amp;M COLLEGE</b>	<b>4722</b>
A TESTING OF REMOTE SENSING METHODS AT THE BROUSSARD MOUNDS ITE			THE ADVANCED THIN IONIZATION CALORIMETER (ATIC) BALLOON EXPERIMENT		
07/12/2000 - 07/31/2002	FY01: \$22,000	Total: \$44,000	06/17/1996 - 06/30/2001	FY01: \$0	Total: \$497,500
<i>Prin. Invest.:</i> B S GOODWIN			<i>Prin. Invest.:</i> A R FAZELY		
<i>Tech. Officer:</i> SSC/R TRAVIS			<i>Tech. Officer:</i> GSFC/H C NEEDLEMAN, GSFC/B A MERRITT		
<i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER			<i>CASE Category:</i> 13 - PHYSICS		
<b>NAG 5 4293</b>	<b>NORTHEAST LOUISIANA UNIV</b>	<b>4715</b>	<b>NAG 5 7157</b>	<b>SOUTHERN UNIV &amp; A&amp;M COLLEGE</b>	<b>4723</b>
ANCIENT CRUST AND LACUSTRINE PLAIN SITES FOR MARS			DEVELOPMENT OF BALLOON-BORNE X-RAY/GAMMA DETECTORS FOR STUDIES OF HIGH ENERGY ASTROPHYSICAL SOURCE		
04/18/1997 - 09/30/2001	FY01: \$0	Total: \$30,000	03/11/1998 - 02/28/2002	FY01: \$0	Total: \$297,660
<i>Prin. Invest.:</i> D A DE HON			<i>Prin. Invest.:</i> J STACY		
<i>Tech. Officer:</i> GSFC/J M BOYCE			<i>Tech. Officer:</i> GSFC/J TUELLER		
<i>CASE Category:</i> 11 - ASTRONOMY			<i>CASE Category:</i> 13 - PHYSICS		

**NAG 5 8552 SOUTHERN UNIV & A&M COLLEGE 4724**  
 PROGRAM TO INCREASE THE PURSUIT OF EDUCATION AND LEARNING IN  
 ENGINEERING AND SCIENCE  
 06/15/1999 - 09/30/2001 FY01: \$0 Total: \$1,000,000  
*Prin. Invest.: D BAGAYOKO*  
*Tech. Officer: GSFC/B WHITE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10253 SOUTHERN UNIV & A&M COLLEGE 4725**  
 PARTNERSHIPS IN ASTRONOMY & ASTROPHYSICS EDUCATION &  
 RESEARCH AT SOUTHERN UNIV  
 01/10/2001 - 01/14/2002 FY01: \$210,000 Total: \$210,000  
*Prin. Invest.: G STACY*  
*Tech. Officer: GSFC/P SAKIMOTO*  
*CASE Category: 11 – ASTRONOMY*

**NAG 8 1495 SOUTHERN UNIV & A&M COLLEGE 4726**  
 RELATIONSHIP BETWEEN STRUCTURE AND MAGNETIC AND ELECTRON  
 TRANSPORT PROPERTIES IN R1-AXMN03  
 06/01/1998 - 05/31/2002 FY01: \$0 Total: \$238,892  
*Prin. Invest.: H L LAWRENCE*  
*Tech. Officer: MSFC/D SCHMIDT*  
*CASE Category: 13 – PHYSICS*

**NAG 8 1536 SOUTHERN UNIV & A&M COLLEGE 4727**  
 MODELING AND ANALYSIS OF HEAT-ACTIVATED THERMAL COUPLES  
 06/08/1998 - 06/30/2001 FY01: \$0 Total: \$298,750  
*Prin. Invest.: M A STUNNLEFIELD*  
*Tech. Officer: MSFC/G GORDON*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 8 1625 SOUTHERN UNIV & A&M COLLEGE 4728**  
 FIBERGLAST INSTRUMENT DEVELOPMENT  
 09/22/1999 - 08/31/2001 FY01: \$99,510 Total: \$199,020  
*Prin. Invest.: J G STACY*  
*Tech. Officer: MSFC/G J FISHMAN*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NAG 8 1627 SOUTHERN UNIV & A&M COLLEGE 4729**  
 EDUCATION GRANT "AN INTEGRATED THEORY AND LAB LEARNING  
 EXPERIENCE  
 09/09/1999 - 09/08/2002 FY01: \$0 Total: \$140,582  
*Prin. Invest.: L L LAURENCE*  
*Tech. Officer: MSFC/W J LOVE, MSFC/A C BEAM*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 8 1633 SOUTHERN UNIV & A&M COLLEGE 4730**  
 VIRTUAL REALITY INNOVATIONS IN TRAINING AND SCIENCE, ENGINEERING  
 AND MATHEMATICS EDUCATION.  
 09/15/1999 - 07/31/2000 FY01: \$0 Total: \$99,354  
*Prin. Invest.: M C DUNN*  
*Tech. Officer: MSFC/A BEAM, MSFC/W LOVE*  
*CASE Category: 21 – MATHEMATICS*

**NAG10 210 SOUTHERN UNIV & A&M COLLEGE 4731**  
 RESEARCH & EDUCATION EXPERIENCES FOR MINORITY UNDERGRADUATES IN COMPOSITE MATERIAL  
 09/01/1997 - 01/31/2001 FY01: -\$9,909 Total: \$390,091  
*Prin. Invest.: S S CHEHL*  
*Tech. Officer: KSC/S McDANIELS*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG13 98003 SOUTHERN UNIV & A&M COLLEGE 4732**  
 NOISE REMOVAL DECONVOLUTION AND VIBRATION RELAXATION STUDIES  
 TO ENHANCE PLUME DIAGNOSTIC TECH.  
 03/11/1998 - 05/14/2002 FY01: \$0 Total: \$299,772  
*Prin. Invest.: A AMINI*  
*Tech. Officer: SSC/B ST. CYR*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG13 98013 SOUTHERN UNIV & A&M COLLEGE 4733**  
 MATHEMATICS AND SCIENCE ENRICHMENT ACTIVITES FOR MIDDLE AND  
 HIGH SCHOOL STUDENTS  
 07/15/1998 - 06/30/2002 FY01: \$0 Total: \$300,000  
*Prin. Invest.: M SUBBLEFIELD*  
*Tech. Officer: SSC/A JOYCE*  
*CASE Category: 21 – MATHEMATICS*

**NCC 8 138 SOUTHERN UNIV & A&M COLLEGE 4734**  
 RESEARCH "COMPOSITE TRUSS DESIGN OPTIMIZATION"  
 07/15/1997 - 07/14/2000 FY01: \$0 Total: \$331,966  
*Prin. Invest.: C WANG*  
*Tech. Officer: MSFC/D FORD*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 8 156 SOUTHERN UNIV & A&M COLLEGE 4735**  
 FOR RESEARCH ENTITLED: "STRUCTURAL MATERIALS FAILURE ANALYSIS  
 DATABASE"  
 09/28/1998 - 08/31/2001 FY01: \$48,638 Total: \$198,638  
*Prin. Invest.: J DYER*  
*Tech. Officer: MSFC/G JERMAN*  
*CASE Category: 29 – MATH/COMPUTER SCI, OTHER*

**NCC13 00010 SOUTHERN UNIV & A&M COLLEGE 4736**  
 PROGRAM TO INCREASE PURSUIT OF EDUCATION AND LEARNING IN ENGINEERING AND SCIENCES (PIPLINES)  
 09/25/2000 - 09/24/2002 FY01: \$913,800 Total: \$1,828,800  
*Prin. Invest.: D BAGAYOKO*  
*Prin. Invest.: NONE*  
*Tech. Officer: SSC/R TRAVIS*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT13 52720 SOUTHERN UNIV & A&M COLLEGE 4737**  
 1999 NASA/ASEE SUMMER FACILITY FELLOWSHIP PROGRAM AT STENNIS  
 SPACE CENTER  
 04/01/1999 - 09/30/2000 FY01: -\$2,778 Total: \$202,222  
*Prin. Invest.: E HILDRETH*  
*Tech. Officer: SSC/A JOYCE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT13 52744 SOUTHERN UNIV & A&M COLLEGE 4738**  
 RESEARCH DESIGN AND METHODOLOGY FOR A REMOTE SENSING  
 SYSTEM TO PROVIDE NASA/SSC SAFETY  
 07/12/2000 - 07/31/2001 FY01: -\$12,425 Total: \$9,575  
*Prin. Invest.: G M LANE*  
*Tech. Officer: SSC/R TRAVIS*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG13 52 SOUTHERN UNIV - NEW ORLEANS 4739**  
 NASA/SUNO PARTNERSHIP FOR EXCELLENCE IN MATH & SCIENCE EDUCATION  
 06/30/1997 - 04/30/2000 FY01: -\$58,748 Total: \$328,389  
*Prin. Invest.: P HEATH, R PERRY*  
*Tech. Officer: JSC/N SULLIVAN*  
*CASE Category: 21 – MATHEMATICS*

**NAG 2 1378** TULANE UNIV 4740  
 EFFECT OF SIMULATED MICROGRAVITY ON GENE EXPRESSION IN THE ENTERIC PATHOGEN SALMONELLA TYPHIMURIUM  
 08/19/1999 - 07/31/2002 FY01: \$130,416 Total: \$334,716  
*Prin. Invest.: C A NICKERSON*  
*Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 8 1362** TULANE UNIV 4741  
 FOR RESEARCH--PRODUCTION OF 125 DIOXID D3 BY RENAL EPITHELIAL CELLS IN SIMULATED MICROGRAVITY CULTURE  
 06/01/1997 - 11/30/2001 FY01: \$50,000 Total: \$740,000  
*Prin. Invest.: T HAMMOND*  
*Tech. Officer: JSC/S R GONDA*  
*CASE Category: 56 – MEDICAL*

**NAG 9 826** TULANE UNIV 4742  
 CELL CULTIVATION  
 08/09/1995 - 01/15/2001 FY01: \$0 Total: \$424,000  
*Prin. Invest.: K O'CONNOR*  
*Tech. Officer: JSC/N PELLIS*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 9 1344** TULANE UNIV 4743  
 GENETICALLY ENGINEERED COLLAGEN II FOR SMART BIOMATERIALS  
 08/22/2001 - 09/30/2004 FY01: \$44,000 Total: \$44,000  
*Prin. Invest.: T HAMMOND*  
*Tech. Officer: JSC/D RISEN*  
*CASE Category: 56 – MEDICAL*

**NAG 9 1350** TULANE UNIV 4744  
 NOVEL TISSUE ASSEMBLIES; MODELS FOR ENTERIC PATHOGENS  
 08/08/2001 - 09/30/2004 FY01: \$63,000 Total: \$63,000  
*Prin. Invest.: C A NICKERSON*  
*Tech. Officer: JSC/D RISEN*  
*CASE Category: 56 – MEDICAL*

**NAG 9 1351** TULANE UNIV 4745  
 SPATIAL ORGANIZATION WITHIN PROSTATE CANCER SPHEROIDS  
 08/01/2001 - 09/30/2004 FY01: \$74,000 Total: \$74,000  
*Prin. Invest.: K C O'CONNOR, S CLEJAN, D C.R. DE KEE*  
*Tech. Officer: JSC/D RIIN*  
*CASE Category: 56 – MEDICAL*

**NGT13 52722** TULANE UNIV 4746  
 DYNAMIC PARTICLE PROCESSES & BIOGEOCHEMICAL MATERIAL FLUX IN RIVER DOMINATED OCEAN MARGINS  
 07/28/1999 - 07/31/2001 FY01: \$22,000 Total: \$66,000  
*Prin. Invest.: B MCKEE*  
*Tech. Officer: JSC/R TRAVIS*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT13 52745** TULANE UNIV 4747  
 SOURCE AND TRANSPORT OF ORGANIC CARBON IN THE WATER COLUMN AND SEDIMENT OF THE MS PLUME  
 07/12/2000 - 07/31/2001 FY01: -\$14,637 Total: \$7,355  
*Prin. Invest.: J CORBINO, T BIANCHI*  
*Tech. Officer: SSC/R TRAVIS*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 3 1906** UNIV OF NEW ORLEANS 4748  
 GROWTH AND MORPHOLOGY OF PHASE SEPARATING SUPERCRITICAL FLUIDS  
 06/10/1996 - 06/09/2000 FY01: \$0 Total: \$474,998  
*Prin. Invest.: J P DROSKA*  
*Tech. Officer: GRC/W B ALSTON*  
*CASE Category: 12 – CHEMISTRY*

**NAG 3 2447** UNIV OF NEW ORLEANS 4749  
 GEOPHYSICAL FLOW EXPERIMENT IN A ROTATING SPHERICAL CAPACITOR  
 05/30/2000 - 11/30/2003 FY01: \$100,880 Total: \$135,015  
*Prin. Invest.: J HEGSETH*  
*Tech. Officer: GRC/F P CHIARAMONTEH*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 8 1116** UNIV OF NEW ORLEANS 4750  
 JOVE  
 01/10/1995 - 05/31/2000 FY01: -\$2,112 Total: \$141,852  
*Prin. Invest.: J J HEGSETH, M L JOHNSON, J J HOWARD*  
*Tech. Officer: MSFC/F SIX*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 2 5376** UNIV OF NEW ORLEANS 4751  
 LIFE IN EXTREME ENVIRONMENTS RESEARCH  
 03/30/2000 - 03/31/2001 FY01: \$0 Total: \$15,000  
*Prin. Invest.: Z ROSENZWEIG*  
*Tech. Officer: ARC/M T FLYNN, ARC/J HINES*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NCC 8 223** UNIV OF NEW ORLEANS 4752  
 DEVELOPMENT OF INNOVATIVE ADVANCED COMPOSITE MFG TECHNOLOGIES UTILIZING NCAM/LOUISIANA PARTNERSHIP  
 03/19/2001 - 03/18/2006 FY01: \$2,700,000 Total: \$2,700,000  
*Prin. Invest.: J N CRISP*  
*Tech. Officer: MSFC/J VICKERS, MSFC/M NIEDERMEYER*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NGT13 52714** UNIV OF NEW ORLEANS 4753  
 DIONNEI-MELISSA DEBOSE/USING SINDA/FLUINT TO DEVELOP COMPUTER MODEL APPLICATIONS FOR SSC  
 10/09/1997 - 07/31/2000 FY01: \$0 Total: \$55,000  
*Prin. Invest.: E RUSSO*  
*Tech. Officer: SSC/A JOYCE*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NGT13 52719** UNIV OF NEW ORLEANS 4754  
 THERMAL AND MECHANICAL ANALYSIS OF HYDROGEN TRANSFER VALVES  
 07/13/1998 - 07/31/2000 FY01: -\$2,419 Total: \$107,581  
*Prin. Invest.: Y TRAYHAM*  
*Tech. Officer: SSC/A JOYCE*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NGT13 52721** UNIV OF NEW ORLEANS 4755  
 NUMERICAL ANALYSIS OF THERMAL STRATIFICATION AND BEYSERING IN LIQUID PROPELLANT STORAGE TANKS  
 07/22/1999 - 07/31/2002 FY01: \$22,000 Total: \$66,000  
*Prin. Invest.: K M AKYUZLU*  
*Tech. Officer: SSC/R TRAVIS*  
*CASE Category: 21 – MATHEMATICS*

**NGT13 52740** UNIV OF NEW ORLEANS 4756  
 OPTIMIZATION OF SPACE FLIGHT SYSTEM GROUND-BASED PROCESSING  
 05/22/2000 – 05/31/2001 FY01: \$0 Total: \$22,000  
*Prin. Invest.: R SAXTON*  
*Tech. Officer: SSC/R TRAVIS*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NGT13 52749** UNIV OF NEW ORLEANS 4757  
 FACTORS AFFECTING THE EARLY LIFE HISTORY OF FISHES IN LAKE PONT-  
 CHATRAIN, LOUISIANA  
 06/08/2001 – 06/30/2004 FY01: \$21,650 Total: \$21,650  
*Prin. Invest.: J CORBINO*  
*Tech. Officer: SSC/R MILLER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 2 1423** UNIV OF SOUTHWESTERN LOUISIANA 4758  
 ANALYSIS OF THE GRAVISENSING SYSTEM IN CHARA  
 07/18/2000 – 06/30/2002 FY01: \$96,669 Total: \$148,994  
*Prin. Invest.: K H HASENSTEIN*  
*Tech. Officer: ARC/R D MACELROY, ARC/M M AVERNER*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG10 190** UNIV OF SOUTHWESTERN LOUISIANA 4759  
 RESPONSE SYSTEM OF PLANTS  
 03/25/1996 – 09/30/2002 FY01: \$135,000 Total: \$577,358  
*Prin. Invest.: K H HASENSTEIN*  
*Tech. Officer: KSC/W M KNOTT*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 8 1609** XAVIER UNIV – LOUISIANA 4760  
 "TEACHER AND CURRICULUM ENHANCEMENT PROGRAM"  
 05/25/1999 – 05/24/2002 FY01: \$200,000 Total: \$600,000  
*Prin. Invest.: R P HALE*  
*Tech. Officer: MSFC/W LOVE*  
*CASE Category: 21 – MATHEMATICS*

**NAG13 53** XAVIER UNIV – LOUISIANA 4761  
 PROJECT KAIZEN SAME  
 06/19/1997 – 06/17/2000 FY01: -\$24,724 Total: \$352,147  
*Prin. Invest.: R P HALE*  
*Tech. Officer: SSC/N SULLIVAN*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG13 98006** XAVIER UNIV – LOUISIANA 4762  
 SEEING THE EARTH: USING REMOTE SENSING TECHNOLOGIES TO STIR  
 IMAGINATION OF STUDENTS  
 04/20/1998 – 10/19/2001 FY01: \$0 Total: \$300,000  
*Prin. Invest.: S O'CONNOR*  
*Tech. Officer: JSC/R TRAVIS*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 90084** XAVIER UNIV – LOUISIANA 4763  
 SOAR 2 SUMMER BRIDGE PROGRAM  
 09/09/1997 – 04/30/2001 FY01: \$0 Total: \$590,023  
*Prin. Invest.: G BAKER*  
*Tech. Officer: GSFC/L RANDOLPH*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NGT 5 90086** XAVIER UNIV – LOUISIANA 4764  
 SOAR 2 SUMMER BRIDGE PROGRAM  
 05/07/2001 – 04/30/2002 FY01: \$150,000 Total: \$150,000  
*Prin. Invest.: A Z CHATTERS*  
*Tech. Officer: GSFC/C PERSON*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**MAINE**

**NAG 5 6002** UNIV OF MAINE – ORONO 4765  
 SOILS, WATER, PEOPLE, AND PIXELS: A STUDY OF NANG  
 09/11/1997 – 07/14/2000 FY01: \$0 Total: \$569,993  
*Prin. Invest.: R RINDEFUSS*  
*Tech. Officer: HQ/A JANETOS*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 6041** UNIV OF MAINE – ORONO 4766  
 TIME-SERIES FOREST CHANGE, LAND-COVER/LAND-USE CON ECONOMIC  
 DRIVING FORCES IN THE NORTHERN PETEN DIS  
 07/23/1997 – 07/31/2001 FY01: \$0 Total: \$232,000  
*Prin. Invest.: S SADER*  
*Tech. Officer: GSFC/A JANETOS*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 6558** UNIV OF MAINE – ORONO 4767  
 BIOLOGICAL-PHYSICAL COUPLING IN THE GULF OF MAINE: SATELLITE  
 AND MODEL SSTUDIES IN PHYTOPLANKTON VA  
 10/27/1997 – 10/31/2000 FY01: \$0 Total: \$351,586  
*Prin. Invest.: A C THOMAS*  
*Prin. Invest.: NONE*  
*Tech. Officer: GSFC/J A MARRA*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 6604** UNIV OF MAINE – ORONO 4768  
 PHYTOPLANKTON VARIABILITY IN EASTERN BOUNDARY CURR ENTS:  
 CONNECTIONS TO PHYSICAL FORCING  
 12/11/1997 – 11/30/2001 FY01: \$109,650 Total: \$498,939  
*Prin. Invest.: A THOMAS*  
*Tech. Officer: GSFC/J MARRA*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8712** UNIV OF MAINE – ORONO 4769  
 MONITORING THE MESOAMERICAN BIOLOGICAL CORRIDOR  
 07/26/1999 – 05/31/2002 FY01: \$90,054 Total: \$270,168  
*Prin. Invest.: S A SADER*  
*Tech. Officer: GSFC/G GUTMAN*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9913** UNIV OF MAINE – ORONO 4770  
 RASCAL-A REMOTE AUTONOMOUS SYSTEM FOR THE CONTROL OF ALTI-  
 METRY  
 09/14/2000 – 09/14/2002 FY01: \$0 Total: \$12,619  
*Prin. Invest.: G S HAMILTON*  
*Tech. Officer: GSFC/J ZWALLY*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9959** UNIV OF MAINE – ORONO 4771  
 CIS NET: IN SITU AND REMOTE MONITORING OF PRODUCTIVITY AND  
 NUTRIENT CYCLES IN PUGET SOUND  
 09/12/2000 – 12/31/2001 FY01: \$71,709 Total: \$147,267  
*Prin. Invest.: M PERRY*  
*Tech. Officer: GSFC/J MARRA*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 10035** UNIV OF MAINE – ORONO 4772  
 SURFACE GPS MEASUREMENTS FOR ICE SHEET MASS BALANCE & FIDU-  
 CIAL CONTROL OF ALTIMETRY  
 10/24/2000 – 12/31/2001 FY01: \$40,742 Total: \$40,742  
*Prin. Invest.: G HAMILTON*  
*Tech. Officer: GSFC/E LINDSTROM*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 10620** UNIV OF MAINE - ORONO 4773  
 MULTI-SENSOR & MODELING ANALYSES OF GULF OF MAINE PHYTO-PLANKTON VARIABILITY  
 03/19/2001 - 03/31/2002 FY01: \$120,823 Total: \$120,823  
*Prin. Invest.: A THOMAS*  
*Tech. Officer: GSFC/J MARRA*  
*CASE Category: 33 – OCEANOGRAPHY*

**NAG 5 11132** UNIV OF MAINE - ORONO 4774  
 ASTTEX VALIDATION MOORING  
 07/26/2001 - 07/31/2002 FY01: \$20,000 Total: \$20,000  
*Prin. Invest.: D A BYRNE*  
*Tech. Officer: GSFC/E LINDSTROM*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG13 98008** UNIV OF MAINE - ORONO 4775  
 FOREST MONITORING AND MULTISENSOR RESEARCH IN MAINE'S INDUSTRIAL FOREST  
 04/30/1998 - 04/29/2002 FY01: \$250,000 Total: \$650,000  
*Prin. Invest.: S SADER*  
*Tech. Officer: JSC/B GRAHAM*  
*CASE Category: 55 – AGRICULTURE*

**NGT 5 30353** UNIV OF MAINE - ORONO 4776  
 THE ROLE OF CLAY MINERALOGY ON SOIL C ACCUMULATION & LOSS ALONG A TROPICAL FOREST ELEVATION (CLIMATE)  
 08/24/2000 - 08/31/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.: L M MAYER*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 30426** UNIV OF MAINE - ORONO 4777  
 DISTRIBUTION OF SNOW ACCUMULATION AND MASS BALANCE ACROSS THE WESTANTARCTIC ICESHEET/STUDENT  
 09/19/2001 - 09/30/2004 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: G HAMILTON*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT13 52751** UNIV OF MAINE - ORONO 4778  
 NEURAL NETWORK MODELING OF CHLOROPHYLL-A CONCENTRATION FROM REMOTE SENSING DATA  
 06/08/2001 - 06/30/2004 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: W SLADE*  
*Tech. Officer: SSC/R MILLER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9128** UNIV OF SOUTHERN MAINE 4779  
 ACCESS EARTH: PROMOTING ACCESSIBILITY TO THE EARTH SYSTEM SCIENCES FOR PERSONS WITH DISABILITIES  
 03/01/2000 - 02/28/2002 FY01: \$84,666 Total: \$145,277  
*Prin. Invest.: S M LOCKE*  
*Tech. Officer: GSFC/N KHAZENIE*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**MARYLAND**

**NAG 5 2829** BOWIE STATE UNIV 4780  
 MODEL-BASED VQ FOR MULTISPECTRAL EARTH IMAGE DATA COMPRESSION  
 12/14/1994 - 06/30/2001 FY01: \$0 Total: \$164,231  
*Prin. Invest.: M MAREBOYANA*  
*Tech. Officer: GSFC/J TILTON*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 6476** BOWIE STATE UNIV 4781  
 ASSESSING THE IMPACT OF EXPANDING URBAN LAND USE ON AGRICULTURAL PRODUCTIVITY USING REMOTE S  
 12/08/1997 - 12/14/2001 FY01: \$0 Total: \$471,184  
*Prin. Invest.: W LAWRENCE*  
*Tech. Officer: GSFC/M L IMHOFF*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 7225** BOWIE STATE UNIV 4782  
 SIECA IS A PROGRAM FOR COLLEGE INTERNNS.  
 04/09/1998 - 06/14/2000 FY01: \$0 Total: \$386,129  
*Prin. Invest.: J LANGDON*  
*Tech. Officer: GSFC/D MENCHAN*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 5 7669** BOWIE STATE UNIV 4783  
 SUPPORT FOR DATA ANALYSIS, PRESENTATION, FIELD & MEETING TRAVEL NASA/DOD LEGACY CENTRAL AMERICA DEPL  
 09/28/1998 - 09/30/2001 FY01: \$0 Total: \$163,957  
*Prin. Invest.: W LAWRENCE*  
*Tech. Officer: GSFC/M L IMHOFF*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8370** BOWIE STATE UNIV 4784  
 A FAST TRACK PLAN TOWARD TEACHER CERTIFICATION FOR THE PUBLIC SCHOOL SYSTEM OF PRINCE GEORGE'S C  
 03/12/1999 - 02/28/2002 FY01: \$200,000 Total: \$600,000  
*Prin. Invest.: D W CRIM*  
*Tech. Officer: GSFC/D MENCHAN*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 8787** BOWIE STATE UNIV 4785  
 TRAINING UNDERGRADUATES IN SPACE SCIENCE AND SATELLITE OPERATION AND TECHNOLOGY  
 08/31/1999 - 11/30/2001 FY01: \$0 Total: \$200,000  
*Prin. Invest.: N WAKIM*  
*Tech. Officer: GSFC/P CROUSE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9458** BOWIE STATE UNIV 4786  
 A 2000 SUMMER INST IN ENGINEERING & COMPUTER  
 04/14/2000 - 10/31/2001 FY01: \$0 Total: \$207,900  
*Prin. Invest.: D LANGDON*  
*Tech. Officer: GSFC/D MENCHAN*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9544** BOWIE STATE UNIV 4787  
 GODDARD STUDENT INTERNSHIP PROGRAM (GSIP)  
 05/03/2000 - 05/14/2001 FY01: \$0 Total: \$49,868  
*Prin. Invest.: N T WAKIM*  
*Tech. Officer: GSFC/M S BURRELL*  
*CASE Category: 42 – ASTRONAUTICAL ENGR*

**NAG 5 9843**           **BOWIE STATE UNIV**           **4788**  
 PROJECT ACCESS (ACADEMY FOR THE COLLABORATIVE ENHANCEMENT  
 OF STUDENT SKILLS)  
 08/07/2000 - 09/30/2001      FY01: \$0            Total: \$100,000  
*Prin. Invest.: A L GASKINS-NEDD*  
*Tech. Officer: GSFC/C HOLLINGSWORTH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10034**           **BOWIE STATE UNIV**           **4789**  
 CONTINUED SUPPORT OF EOS-IDS URBAN IMPACTS ON GLOBAL  
 PRODUCTIVITY  
 10/10/2000 - 12/14/2001      FY01: \$59,901        Total: \$59,901  
*Prin. Invest.: W LAWRENCE*  
*Tech. Officer: GSFC/M L IMHOFF*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 10697**           **BOWIE STATE UNIV**           **4790**  
 TO MANAGE A 2001 SUMMER INST IN ENGINEERING & COMPUTER  
 APPLICATIONS PROGRAM  
 04/24/2001 - 04/30/2002      FY01: \$207,800        Total: \$207,800  
*Prin. Invest.: D LANGDON*  
*Tech. Officer: GSFC/D MENCHAN*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 11361**           **BOWIE STATE UNIV**           **4791**  
 BOWIE SEEKS TO INTEGRATE THE WIRE MISSION INTO ITS BSOCC  
 PROGRAM TO PROVIDE OPPORTUNITIES TO ST  
 09/27/2001 - 09/30/2003      FY01: \$64,000        Total: \$64,000  
*Prin. Invest.: N T WAKIM*  
*Tech. Officer: GSFC/P L CROUSE*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NCC 5 232**           **BOWIE STATE UNIV**           **4792**  
 MODEL INSTS FOR EXCELLENCE - PERIOD OF PERF  
 09/22/1997 - 09/30/2000      FY01: \$0            Total: \$4,765,804  
*Prin. Invest.: N WAKIM*  
*Tech. Officer: GSFC/L RANDOLPH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 5 235**           **BOWIE STATE UNIV**           **4793**  
 AN AGENT-BASED INFORMATION PROCESSING SYSTEM CO-OP AGREEMENT WITH BOWIE S  
 11/07/1997 - 06/14/2001      FY01: \$0            Total: \$150,000  
*Prin. Invest.: S SRIVASTAVA*  
*Tech. Officer: GSFC/W TRUSZKOWSKI*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NCC 5 446**           **BOWIE STATE UNIV**           **4794**  
 ANALYSIS & MODIFICATION OF NASA WEB BASED SOFTWARE  
 07/10/2000 - 07/14/2001      FY01: \$0            Total: \$70,082  
*Prin. Invest.: D CARVALO*  
*Tech. Officer: GSFC/H PARK*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NCC 5 507**           **BOWIE STATE UNIV**           **4795**  
 FOLIAR OPTICAL PROPERTY MEASUREMENTS OF BOREAL SPECIES (A  
 CONTINUATION OF THE BOREAL RESEARCH PROGR  
 08/07/2000 - 08/14/2002      FY01: \$0            Total: \$23,625  
*Prin. Invest.: W T LAWRENCE*  
*Tech. Officer: GSFC/E MIDDLETON*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NCC 5 516**           **BOWIE STATE UNIV**           **4796**  
 MODEL INSTS FOR EXCELLENCE  
 10/05/2000 - 09/30/2001      FY01: \$1,529,000        Total: \$1,529,000  
*Prin. Invest.: N T WAKIM*  
*Tech. Officer: GSFC/D MENCHAN*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9375**           **CAPITOL COLLEGE**           **4797**  
 SUMMER 2000 PRE-ENGINEERING PROGRAM AT CAPITOL COLLEGE  
 03/31/2000 - 04/30/2001      FY01: \$0            Total: \$53,900  
*Prin. Invest.: D JARRELL*  
*Tech. Officer: GSFC/D MENCHAN*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10560**           **CAPITOL COLLEGE**           **4798**  
 2001 PRE-ENGINEERING PROGRAM AT CAPTOL COLLEGE.  
 03/14/2001 - 09/30/2001      FY01: \$55,000        Total: \$55,000  
*Prin. Invest.: D MENCHAN*  
*Tech. Officer: GSFC/D JARRELL*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 5 400**           **CHARLES COUNTY COMMUNITY COLLEGE**           **4799**  
 LABORATORY INVESTIGATION OF THE FORMATION, PROPERTIES AND  
 METAMORPHISM OF PRE-SOLAR MATERIALS  
 05/14/1999 - 05/31/2002      FY01: \$25,464        Total: \$67,586  
*Prin. Invest.: G KRAUSE*  
*Tech. Officer: GSFC/J A NUTH*  
*CASE Category: 12 – CHEMISTRY*

**NAG 1 2043**           **JOHNS HOPKINS UNIV**           **4800**  
 INFERRING ASPECTS OF TRANSPORT AND MIXING IN THE STRATOSPHERE AND TROPOSPHERE FROM CHEMICAL TRACER  
 04/01/1998 - 09/30/2001      FY01: \$0            Total: \$208,022  
*Prin. Invest.: D W WAUGH*  
*Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 1 2194**           **JOHNS HOPKINS UNIV**           **4801**  
 DYNAMICAL COUPLING OF THE TROPOSPHERE WITH THE POLAR STRATOSPHERE  
 05/14/1999 - 04/30/2002      FY01: \$45,658        Total: \$124,376  
*Prin. Invest.: D W WAUGH*  
*Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 1 2257**           **JOHNS HOPKINS UNIV**           **4802**  
 METHODS FOR REFLECTED GLOBAL POSITIONING SYSTEM (GPS) DATA COLLECTION AND ANALYSIS  
 01/11/2000 - 09/30/2001      FY01: \$110,700        Total: \$339,000  
*Prin. Invest.: M S ASHER, R K RANEY, T ELFOUHAILY*  
*Tech. Officer: LARC/S J KATZBERG, GSFC/J L GARRISON*  
*CASE Category: 33 – OCEANOGRAPHY*

**NAG 1 2270**           **JOHNS HOPKINS UNIV**           **4803**  
 PHOTOLYSIS RATE COEFFICIENT CALCULATIONS IN SUPPORT OF SOLVE CAMPAIGN  
 02/17/2000 - 09/30/2001      FY01: \$0            Total: \$188,000  
*Prin. Invest.: S A LLOYD*  
*Tech. Officer: LARC/L R POOLE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 1 2304**            **JOHNS HOPKINS UNIV**            **4804**  
 NONDESTRUCTIVE EVALUATION OF SPACECRAFT & AIRCRAFT WIRING  
 06/06/2000 - 06/30/2003      FY01: \$100,000      Total: \$150,000  
*Prin. Invest.:* J M GREEN  
*Tech. Officer:* LARC/W P WINFREE  
*CASE Category:* 19 – PHYSICAL SCIENCE, OTHER

**NAG 1 2329**            **JOHNS HOPKINS UNIV**            **4805**  
 COMPREHENSIVE ASSESSMENT OF HEALTH AND THE AIR- CRAFT CABIN  
 ENVIRONMENT: PHASE I  
 09/26/2000 - 09/30/2002      FY01: \$0      Total: \$458,005  
*Prin. Invest.:* P S LEES  
*Tech. Officer:* LARC/R R ARTCLIFF  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NAG 1 01059**            **JOHNS HOPKINS UNIV**            **4806**  
 INTEGRATED POWER SOURCE DEVELOPMENT  
 04/12/2001 - 10/30/2001      FY01: \$25,000      Total: \$25,000  
*Prin. Invest.:* P D SCHWARTZ, A L LEW  
*Tech. Officer:* LARC/Q A SHAMS  
*CASE Category:* 45 – ELECTRICAL ENGR

**NAG 2 1392**            **JOHNS HOPKINS UNIV**            **4807**  
 NSTARS PROJECT SUPPORT AND RESEARCH ON NEARBY STAR S  
 02/01/2000 - 12/31/2001      FY01: \$0      Total: \$116,988  
*Prin. Invest.:* T HENRY  
*Tech. Officer:* ARC/L CAROFF  
*CASE Category:* 11 – ASTRONOMY

**NAG 2 1476**            **JOHNS HOPKINS UNIV**            **4808**  
 KNOWLEDGE RETENTION TOOLS FOR LONG DURATION MISSIONS  
 04/20/2001 - 04/14/2002      FY01: \$180,000      Total: \$180,000  
*Prin. Invest.:* K J HEERES  
*Tech. Officer:* ARC/H STEWART, ARC/M SHIRLEY  
*CASE Category:* 22 – COMPUTER SCIENCE

**NAG 2 1477**            **JOHNS HOPKINS UNIV**            **4809**  
 MINIME DIAGNOSTICS ENGINE DEVELOPMENT SUPPORT  
 04/20/2001 - 10/31/2001      FY01: \$150,000      Total: \$150,000  
*Prin. Invest.:* K J HEERES  
*Tech. Officer:* ARC/M SHIRLEY, ARC/H STEWART  
*CASE Category:* 22 – COMPUTER SCIENCE

**NAG 3 1815**            **JOHNS HOPKINS UNIV**            **4810**  
 EXPERIMENTAL INVESTIGATION; POOL BOILING HEAT TRANSFER  
 ENHANCEMENT IN THE PRESENCE OF ELECTRIC FIEL  
 03/25/1996 - 05/14/2002      FY01: \$0      Total: \$352,889  
*Prin. Invest.:* D HERMAN  
*Tech. Officer:* GRC/H K NAHRA, GRC/B MOTIL  
*CASE Category:* 46 – MECHANICAL ENGR

**NAG 3 1923**            **JOHNS HOPKINS UNIV**            **4811**  
 MARANGONI EFF ON DROP DEFORM & BREAK UP IN A EXTE N FLOW: THE  
 ROLE OF SURFACTANT PHYS CHEMISTRY  
 07/18/1996 - 07/17/2000      FY01: \$0      Total: \$305,955  
*Prin. Invest.:* K J STEBE  
*Tech. Officer:* GRC/B S SINGH  
*CASE Category:* 43 – CHEMICAL ENGR

**NAG 3 1924**            **JOHNS HOPKINS UNIV**            **4812**  
 ACOUSTIC BUBBLE REMOVAL FROM BOILING SURFACES  
 07/18/1996 - 12/31/2000      FY01: \$0      Total: \$377,518  
*Prin. Invest.:* A PROSPERETTI, H N OGUZ, E H TRINH  
*Tech. Officer:* GRC/B S SINGH  
*CASE Category:* 46 – MECHANICAL ENGR

**NAG 3 1954**            **JOHNS HOPKINS UNIV**            **4813**  
 SURFACTANT BASED CRITICAL PHENOMENA IN MICROGRAVITY  
 08/19/1996 - 08/31/2001      FY01: \$0      Total: \$241,500  
*Prin. Invest.:* M E PAULATIS  
*Tech. Officer:* GRC/B SINGH  
*CASE Category:* 43 – CHEMICAL ENGR

**NAG 3 2118**            **JOHNS HOPKINS UNIV**            **4814**  
 PRODUCTION AND REMOVAL OF GAS BUBBLES IN MICROGRAVITY  
 02/26/1998 - 01/07/2002      FY01: \$75,866      Total: \$296,198  
*Prin. Invest.:* H N OGUZ  
*Tech. Officer:* GRC/H K NAHRA  
*CASE Category:* 19 – PHYSICAL SCIENCE, OTHER

**NAG 3 2333**            **JOHNS HOPKINS UNIV**            **4815**  
 ANALYTICAL AND EXPERIMENTAL INVESTIGATIONS OF A HYDROCARBON  
 FUELED AIR-AUGMENTED ROCKET ENGINE CYCLE  
 02/16/2000 - 12/31/2001      FY01: \$246,612      Total: \$301,612  
*Prin. Invest.:* T RICE  
*Tech. Officer:* GRC/T D SMITH  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NAG 3 2362**            **JOHNS HOPKINS UNIV**            **4816**  
 ACOUSTIC BUBBLE REMOVAL FROM BOILING SURFACES AND ITS OPTIMIZATION  
 04/03/2000 - 11/30/2003      FY01: \$80,987      Total: \$126,252  
*Prin. Invest.:* A PROSPERETTI  
*Tech. Officer:* GRC/M M HASAN  
*CASE Category:* 49 – ENGINEERING, OTHER

**NAG 3 2460**            **JOHNS HOPKINS UNIV**            **4817**  
 DESIGN OF EXHAUST NOZZLES FOR THE RBCC-GTX CONCEPT DESIGN  
 OF EXHAUST NOZZLES FOR THE RBCC-GTX CONCEPT  
 06/09/2000 - 02/01/2002      FY01: \$48,033      Total: \$93,033  
*Prin. Invest.:* T RICE  
*Tech. Officer:* GRC/T D SMITH  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NAG 3 2569**            **JOHNS HOPKINS UNIV**            **4818**  
 PULSED DETONATION WAVE ENGINE COMPONENT DESIGN AND ANALYSIS  
 STUDY  
 03/23/2001 - 11/30/2002      FY01: \$180,000      Total: \$180,000  
*Prin. Invest.:* P WALTRUP  
*Tech. Officer:* GRC/H D PERKINS  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NAG 5 2232**            **JOHNS HOPKINS UNIV**            **4819**  
 RECEIVER DESIGN, PERFORMANCE ANALYSIS, AND EVALUATION FOR  
 SPACE-BORNE LASER ALTIMETERS AND . . .  
 04/08/1993 - 09/30/1999      FY01: -\$502      Total: \$829,305  
*Prin. Invest.:* M DAVIDSON, X SUN  
*Tech. Officer:* GSFC/P MILLAR  
*CASE Category:* 45 – ELECTRICAL ENGR

<b>NAG 5 3255</b>	JOHNS HOPKINS UNIV	4820	<b>NAG 5 4549</b>	JOHNS HOPKINS UNIV	4828
THE STRUCTURE OF ACTIVE GALACTIC NUCLEI 06/06/1996 - 12/31/2001	FY01: \$0	Total: \$317,700	ANALYSIS OF EMIC WAVE GENERATION AND PROPAGATION U 05/06/1997 - 04/30/2000	FY01: \$0	Total: \$210,000
<i>Prin. Invest.: G A KRISS</i>			<i>Prin. Invest.: D E ERLANDSON</i>		
<i>Tech. Officer: GSFC/D WEST</i>			<i>Tech. Officer: GSFC/J BOHLIN</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 13 - PHYSICS</i>		
 <b>NAG 5 3448</b>	JOHNS HOPKINS UNIV	4821	 <b>NAG 5 4664</b>	JOHNS HOPKINS UNIV	4829
FAR ULTRAVIOLET SPECTROSCOPIC EXPLORER (FUSE) OUTR EACH INITIATIVE. 10/04/1996 - 10/14/2000	FY01: \$0	Total: \$85,000	ION CYCLOTRON WAVES: AN ISTP STUDY 06/25/1997 - 05/31/2001	FY01: \$0	Total: \$131,931
<i>Prin. Invest.: D MOOS, D HOLMES</i>			<i>Prin. Invest.: D J ANDERSON</i>		
<i>Tech. Officer: GSFC/D R MENGERS, GSFC/O FINGUEROA</i>			<i>Tech. Officer: GSFC/J G GREBOWSKY</i>		
<i>CASE Category: 99 - MULTI INTERDISCPL, OTHER</i>			<i>CASE Category: 13 - PHYSICS</i>		
 <b>NAG 5 3485</b>	JOHNS HOPKINS UNIV	4822	 <b>NAG 5 5047</b>	JOHNS HOPKINS UNIV	4830
DIFFUSE IONIZED GAS IN GALACTIC ENVIRONMENTS 10/31/1996 - 10/31/2001	FY01: \$125,200	Total: \$561,400	WIND-WAVE-CURRENT COUPLED MODEL 08/22/1995 - 09/30/2002	FY01: \$0	Total: \$346,239
<i>Prin. Invest.: K R SEMBACH</i>			<i>Prin. Invest.: O PHILLIPS</i>		
<i>Tech. Officer: GSFC/D K WEST</i>			<i>Tech. Officer: GSFC/S R LONG, GSFC/N E HUANG</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 33 - OCEANOGRAPHY</i>		
 <b>NAG 5 3503</b>	JOHNS HOPKINS UNIV	4823	 <b>NAG 5 5122</b>	JOHNS HOPKINS UNIV	4831
THE EVOLUTION AND CLUSTERING OF GALAXIES AT Z=1 AN 11/27/1996 - 11/30/2001	FY01: \$253,900	Total: \$648,611	ROCKET AND LABORATORY EXPERIMENTS IN ASTRONOMY 02/21/1997 - 02/28/2002	FY01: \$0	Total: \$2,031,000
<i>Prin. Invest.: A S SZALAY</i>			<i>Prin. Invest.: P D FELDMAN</i>		
<i>Tech. Officer: GSFC/D K WEST</i>			<i>Tech. Officer: GSFC/B J FLOWERS</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 13 - PHYSICS</i>		
 <b>NAG 5 3542</b>	JOHNS HOPKINS UNIV	4824	 <b>NAG 5 5198</b>	JOHNS HOPKINS UNIV	4832
A MULTIWAVELENGTH STUDY OF MOLECULES IN THE INTERSTELLAR MEDIUM 11/27/1996 - 03/31/2000	FY01: \$3,693	Total: \$119,493	DENSITY TEMPERATURE & MEASUREMENTS FOR ICON ROCKET EXPERIMENT 05/21/1998 - 04/11/2001	FY01: \$0	Total: \$68,805
<i>Prin. Invest.: D A NEUFELD</i>			<i>Prin. Invest.: J H YEE</i>		
<i>Tech. Officer: GSFC/D WEST</i>			<i>Tech. Officer: GSFC/W B JOHNSON</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 13 - PHYSICS</i>		
 <b>NAG 5 4168</b>	JOHNS HOPKINS UNIV	4825	 <b>NAG 5 5301</b>	JOHNS HOPKINS UNIV	4833
PLANETARY AERONOMY 03/15/1997 - 02/28/2002	FY01: \$89,000	Total: \$426,943	GRANT ENTITLED: ALTIMETER SEA-STATE BIAS MODEL STUDY 07/18/2000 - 07/17/2003	FY01: \$24,967	Total: \$74,699
<i>Prin. Invest.: D F STROBEL</i>			<i>Prin. Invest.: D R THOMPSON</i>		
<i>Tech. Officer: GSFC/D BOGAN</i>			<i>Tech. Officer: WFF/D C VANDEMARK, WFF/D W HANCOCK</i>		
<i>CASE Category: 31 - ATMOSPHERIC SCIENCE</i>			<i>CASE Category: 45 - ELECTRICAL ENGR</i>		
 <b>NAG 5 4261</b>	JOHNS HOPKINS UNIV	4826	 <b>NAG 5 5314</b>	JOHNS HOPKINS UNIV	4834
WINDOWLESS FUV LAMPS 04/14/1997 - 12/31/2001	FY01: \$48,000	Total: \$202,316	SUPPORT OF THE INTERNATIONAL WORKSHOP ENTITLED: COUPLING COASTAL OCEAN, COASTAL ATMOSPHERE WIND 03/22/2001 - 12/31/2001	FY01: \$35,000	Total: \$35,000
<i>Prin. Invest.: D R MCCANDLISS</i>			<i>Prin. Invest.: E GROSS</i>		
<i>Tech. Officer: GSFC/H HASAN</i>			<i>Tech. Officer: GSFC/S R LONG, GSFC/N E HUANG</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 33 - OCEANOGRAPHY</i>		
 <b>NAG 5 4365</b>	JOHNS HOPKINS UNIV	4827	 <b>NAG 5 5315</b>	JOHNS HOPKINS UNIV	4835
CONTINUATION OF THE VOYAGER INTERSTELLAR MISSION: 04/23/1997 - 03/31/2002	FY01: \$0	Total: \$1,900,000	ROCKET AND LABORATORY STUDIES IN ASTRONOMY ROCKET AND LABORATORY STUDIES IN ASTRONOMY 02/14/2001 - 02/28/2004	FY01: \$420,000	Total: \$420,000
<i>Prin. Invest.: D M KRIMIGIS</i>			<i>Prin. Invest.: P D FELDMAN</i>		
<i>Tech. Officer: GSFC/C P HOLMES</i>			<i>Tech. Officer: GSFC/J C BRINTON</i>		
<i>CASE Category: 13 - PHYSICS</i>			<i>CASE Category: 13 - PHYSICS</i>		

<b>NAG 5 6113</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4836</b>	<b>NAG 5 7361</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4844</b>
PROJECT ULYSSES HI-SCALE DATA ANALYSIS PHASE ACTIV			MIDDLEWORLD TRANSPORT WITHIN THREE-DIMENSIONAL MOD ELS:		
07/28/1997 - 12/31/2001	FY01: \$402,000	Total: \$1,616,000	CHARACTERIZATIONAND SENSITIVITIES TO MODEL		
<i>Prin. Invest.: R E GOLD</i>			05/06/1998 - 09/30/2001	FY01: \$0	Total: \$140,918
<i>Tech. Officer: GSFC/V JONES</i>			<i>Prin. Invest.: D W WAUGH</i>		
<i>CASE Category: 13 - PHYSICS</i>			<i>Tech. Officer: GSFC/R W STEWART</i>		
<i>CASE Category: 31 - ATMOSPHERIC SCIENCE</i>					
<b>NAG 5 6178</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4837</b>	<b>NAG 5 7552</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4845</b>
CRITICAL COMPARISON OF SUBSTORM TRIGGER MODELS AGA HE NEAR-EARTH TAIL			TROPOSPHERIC AND STRATOSPHERIC COMPOSITION RETRIEVALS USING		
07/28/1997 - 05/14/2002	FY01: \$77,338	Total: \$296,538	THESTELLAR OCCULTATION TECHNIQU		
<i>Prin. Invest.: D OHTANI</i>			06/22/1998 - 08/31/2002	FY01: \$0	Total: \$482,813
<i>Tech. Officer: GSFC/D EVANS</i>			<i>Prin. Invest.: J YEE</i>		
<i>CASE Category: 13 - PHYSICS</i>			<i>Tech. Officer: GSFC/J A KAYE</i>		
<i>CASE Category: 59 - LIFE SCIENCE, OTHER</i>					
<b>NAG 5 6182</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4838</b>	<b>NAG 5 7697</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4846</b>
MAGNETIC FIELD-ALIGNED ELECTRODYNAMICS OF THE MIDD			PROPOSAL TITLED "A PROPOSAL TO INVESTGATE OUTSTANDING PROBLEMS IN ASTRONOMY BY THE INSTRUMENT DEFIN		
07/30/1997 - 12/31/2000	FY01: \$0	Total: \$120,000	09/17/1998 - 11/30/2001	FY01: \$3,467,002	Total: \$6,543,435
<i>Prin. Invest.: D H MAUK</i>			<i>Prin. Invest.: H FORD</i>		
<i>Tech. Officer: GSFC/J BOHLIN</i>			<i>Tech. Officer: GSFC/J JELETIC</i>		
<i>CASE Category: 13 - PHYSICS</i>			<i>CASE Category: 11 - ASTRONOMY</i>		
<b>NAG 5 6400</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4839</b>	<b>NAG 5 7724</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4847</b>
SPACE OBSERVATIONS OF STARBURST GALAXIES (LTSA)			QUANTITATIVE MAGNETOSHERIC DYNAMICS FROM POLAR UV AND		
10/10/1997 - 09/30/2002	FY01: \$142,700	Total: \$677,200	VISIBLE IMAGERS		
<i>Prin. Invest.: T HECKMAN</i>			09/24/1998 - 03/31/2002	FY01: \$230,000	Total: \$821,200
<i>Tech. Officer: GSFC/R J OLIVERSEN</i>			<i>Prin. Invest.: C I MENG, NONE</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>Tech. Officer: GSFC/R HOFFMAN</i>		
<i>CASE Category: 19 - PHYSICAL SCIENCE, OTHER</i>					
<b>NAG 5 6764</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4840</b>	<b>NAG 5 7769</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4848</b>
MONITORING OF NGC 4151			GRAVITY WAVES IN JUPITER'S UPPER ATMOSPHERE		
12/30/1997 - 12/31/2000	FY01: -\$1	Total: \$44,999	01/15/1998 - 08/31/2001	FY01: \$0	Total: \$125,000
<i>Prin. Invest.: G KRISS</i>			<i>Prin. Invest.: D STROBEL</i>		
<i>Tech. Officer: GSFC/R POLIDAN</i>			<i>Tech. Officer: GSFC/R BEEBE</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 11 - ASTRONOMY</i>		
<b>NAG 5 7080</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4841</b>	<b>NAG 5 7797</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4849</b>
PYROTECHNIC ROCK CHIPPER			TURBULENCE IN MAGNETOTAIL PLASMA SHEET		
03/10/1998 - 07/31/2002	FY01: \$81,602	Total: \$247,576	12/15/1998 - 12/31/2001	FY01: \$93,904	Total: \$272,087
<i>Prin. Invest.: A F CHENG</i>			<i>Prin. Invest.: D Y LUI</i>		
<i>Tech. Officer: GSFC/BCAMPBELL</i>			<i>Tech. Officer: GSFC/D EVANS</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 11 - ASTRONOMY</i>		
<b>NAG 5 7186</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4842</b>	<b>NAG 5 7863</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4850</b>
INFRARED INVESTIGATION OF COMETARY VOLATILES			SATELLITE BOMBARDMENT MODEL WITH DATA CONSTRAINTS		
03/25/1998 - 02/28/2002	FY01: \$0	Total: \$200,056	01/11/1999 - 12/31/2001	FY01: \$0	Total: \$174,228
<i>Prin. Invest.: H WEAVER</i>			<i>Prin. Invest.: C P PARANICAS</i>		
<i>Tech. Officer: GSFC/T MORGAN</i>			<i>Tech. Officer: GSFC/R BEEBE</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 11 - ASTRONOMY</i>		
<b>NAG 5 7227</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4843</b>	<b>NAG 5 7920</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4851</b>
TOMS VALIDATION AND UTLS PHOTOCHEMISTRY USING ER-2 AND			ISTP: SOLAR WIND, FORESHOCK, AND MAGNETOSHEATH PROCESSES		
GROUND BASED DATASETS			12/15/1998 - 02/28/2002	FY01: \$107,000	Total: \$311,000
04/14/1998 - 09/30/2001	FY01: \$74,966	Total: \$232,117	<i>Prin. Invest.: D G SIBECK</i>		
<i>Prin. Invest.: S A LLOYD</i>			<i>Tech. Officer: GSFC/D EVANS</i>		
<i>Tech. Officer: GSFC/E HILSENRATH</i>			<i>CASE Category: 11 - ASTRONOMY</i>		
<i>CASE Category: 31 - ATMOSPHERIC SCIENCE</i>					

<b>NAG 5 7921</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4852</b>	<b>NAG 5 8171</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4860</b>
SOLAR FILAMENTS AT 1 AU 12/10/1998 - 12/31/2001	FY01: \$96,319	Total: \$278,713	SPATIAL VARIATIONS IN ROCK SPECTRAL PROPERTIES AT THE SAGAN MEMORIALSTATION 02/22/1999 - 02/28/2002	FY01: \$42,000	Total: \$116,000
<i>Prin. Invest.: D M RUST</i> <i>Tech. Officer: GSFC/D CLING</i> <i>CASE Category: 11 - ASTRONOMY</i>			<i>Prin. Invest.: S L MURCHIE</i> <i>Tech. Officer: GSFC/J BOYCE</i> <i>CASE Category: 11 - ASTRONOMY</i>		
<b>NAG 5 8007</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4853</b>	<b>NAG 5 8191</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4861</b>
OPTIMIZED ANALYSIS OF RADAR ICE SOUNDER DATA 01/06/1999 - 12/31/2000	FY01: \$0	Total: \$100,000	ENERGETIC ION INTERACTIONS WITH THE GALILEAN SATEL LITES 04/21/1999 - 03/31/2001	FY01: \$0	Total: \$31,391
<i>Prin. Invest.: B L GOTWOLS</i> <i>Tech. Officer: GSFC/S GOGINENI</i> <i>CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</i>			<i>Prin. Invest.: D MAUK</i> <i>Tech. Officer: GSFC/R BEEBE</i> <i>CASE Category: 11 - ASTRONOMY</i>		
<b>NAG 5 8019</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4854</b>	<b>NAG 5 8279</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4862</b>
CORONAL MASS EJECTION EVENTS: COMPARATIVE GEoeffec TIVENESS FROM SOLAR MINIMUM THROUGH SOLAR MAXIMU 01/06/1999 - 12/31/2001	FY01: \$86,486	Total: \$238,636	RECONCILING STARBURSTS AND NORMAL STAR FORMATION (ADP98) 02/25/1999 - 05/14/2001	FY01: \$0	Total: \$48,051
<i>Prin. Invest.: N J FOX</i> <i>Tech. Officer: GSFC/M H ACUNA</i> <i>CASE Category: 13 - PHYSICS</i>			<i>Prin. Invest.: G R MEURER</i> <i>Tech. Officer: GSFC/D K WEST</i> <i>CASE Category: 11 - ASTRONOMY</i>		
<b>NAG 5 8037</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4855</b>	<b>NAG 5 8331</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4863</b>
HIGH-LATITUDE ELECTRIC FIELD MODELS REFERENCED TO IMF ORIENTA- TION AND AURORAL CONFIGURATION 01/11/1999 - 06/30/2000	FY01: \$0	Total: \$59,992	FLARE GENESIS EXPERIMENT 05/05/1999 - 12/31/2001	FY01: \$121,353	Total: \$520,789
<i>Prin. Invest.: R A GREENWALD</i> <i>Tech. Officer: GSFC/M H ACUNA</i> <i>CASE Category: 13 - PHYSICS</i>			<i>Prin. Invest.: D M RUST</i> <i>Tech. Officer: GSFC/WWAGNER</i> <i>CASE Category: 11 - ASTRONOMY</i>		
<b>NAG 5 8061</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4856</b>	<b>NAG 5 8347</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4864</b>
GPS-BASED FALLING SPHERE DEVELOPMENT 01/12/1999 - 06/30/2000	FY01: \$0	Total: \$83,461	OPTIMAL COADDITION OF DITHERED IMAGES USING THE KA RHUNEN- LOEVE TRANSFORM 02/25/1999 - 02/28/2001	FY01: \$0	Total: \$174,900
<i>Prin. Invest.: F MORGAN</i> <i>Tech. Officer: GSFC/M MELLOTT</i> <i>CASE Category: 13 - PHYSICS</i>			<i>Prin. Invest.: A S SZALAY, NONE</i> <i>Tech. Officer: GSFC/J BREDEDAMP</i> <i>CASE Category: 42 - ASTRONAUTICAL ENGR</i>		
<b>NAG 5 8062</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4857</b>	<b>NAG 5 8361</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4865</b>
ANALYSIS OF 3-D IMAGERY OF POLAR MESOSPHERIC CLOUD S OBSERVED FROM MSX 01/12/1999 - 01/14/2002	FY01: \$0	Total: \$185,500	ISTP MISSION DATA INTERFACES FOR DARN 03/12/1999 - 04/14/2001	FY01: \$0	Total: \$340,000
<i>Prin. Invest.: D MORRISON</i> <i>Tech. Officer: GSFC/M MELLOTT</i> <i>CASE Category: 13 - PHYSICS</i>			<i>Prin. Invest.: R GREEWALD</i> <i>Tech. Officer: GSFC/S CURTIS</i> <i>CASE Category: 11 - ASTRONOMY</i>		
<b>NAG 5 8122</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4858</b>	<b>NAG 5 8516</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4866</b>
ANALYSIS OF OPTICAL OBSERVATIONS OF TOPSIDE MOLECULAR IONS IN THEPOLAR REGIONS 02/03/1999 - 12/31/2001	FY01: \$0	Total: \$181,600	MINIATURIZED ENERGETIC PARTICLE DETECTOR DEVELOPMENT 06/14/1999 - 05/31/2002	FY01: \$160,881	Total: \$456,327
<i>Prin. Invest.: J J YEE</i> <i>Tech. Officer: GSFC/M M MELLOTT</i> <i>CASE Category: 13 - PHYSICS</i>			<i>Prin. Invest.: R L MCNUTT</i> <i>Tech. Officer: GSFC/B BETTS</i> <i>CASE Category: 11 - ASTRONOMY</i>		
<b>NAG 5 8149</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4859</b>	<b>NAG 5 8548</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4867</b>
DEV. OF MISSION INDEPENDENCE DATA FORMAT FOR PARTI CLE FIELD MEASUREMENT WITH APPLICATIONTO AMPTE/C 02/05/1999 - 12/31/2001	FY01: \$114,100	Total: \$356,989	IMPLEMENTATION OF ALGORITHMS FOR HIGH SPEED AUTONO MOUS CCD DATA REDUCTION 05/18/1999 - 05/14/2001	FY01: \$0	Total: \$21,250
<i>Prin. Invest.: S R NYLUND</i> <i>Tech. Officer: GSFC/P HUNTER</i> <i>CASE Category: 11 - ASTRONOMY</i>			<i>Prin. Invest.: G MURPHY</i> <i>Tech. Officer: GSFC/J BREDEKAMP</i> <i>CASE Category: 29 - MATH/COMPUTER SCI, OTHER</i>		

**NAG 5 8572**            **JOHNS HOPKINS UNIV**            **4868**  
 CLOUD & WATER VAPOR EFFECTS ON CLIMATE SENSITIVITY  
 06/02/1999 - 11/30/2001      FY01: \$180,000      Total: \$500,000  
*Prin. Invest.:* A ARKING  
*Tech. Officer:* GSFC/W LAU  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NAG 5 8590**            **JOHNS HOPKINS UNIV**            **4869**  
 STANDARDIZED SKY PARTITIONING FOR THE NEXT GENERATION  
 ASTRONOMY AND SPACE ARCHIVES  
 06/03/1999 - 05/31/2001      FY01: \$0      Total: \$190,828  
*Prin. Invest.:* A SZALAY  
*Tech. Officer:* GSFC/P E HUNTER  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NAG 5 8655**            **JOHNS HOPKINS UNIV**            **4870**  
 "CROSSLINK TRANSCEIVER DEVELOPMENT IN SUPPORT OF THE NASA/  
 DOD UNIV NANO-SATELLITE PROGRAM."  
 08/19/1999 - 05/31/2001      FY01: \$0      Total: \$370,119  
*Prin. Invest.:* P A STADTER  
*Tech. Officer:* GSFC/J BRISTOW  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NAG 5 8665**            **JOHNS HOPKINS UNIV**            **4871**  
 CROSSLINK NAVIGATION AND COMMUNICATION SYSTEM FOR MULTIPLE  
 DISTRIBUTED SPACECRAFT.  
 08/17/1999 - 08/31/2002      FY01: \$229,170      Total: \$474,781  
*Prin. Invest.:* P A STADTER  
*Tech. Officer:* GSFC/G H MUCKLOW  
*CASE Category:* 42 – ASTRONAUTICAL ENGR

**NAG 5 8687**            **JOHNS HOPKINS UNIV**            **4872**  
 ADVANCED TECHNIQUES FOR ENERGETIC ION AND NEUTRAL ATOM TOF/  
 IMAGING SENSORS  
 07/20/1999 - 07/31/2002      FY01: \$0      Total: \$139,443  
*Prin. Invest.:* D G MITCHELL  
*Tech. Officer:* GSFC/G H MUCKLOW  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 8688**            **JOHNS HOPKINS UNIV**            **4873**  
 DATA COMPRESSION FOR TIME SERIES AND SPECTRAL DATA  
 07/20/1999 - 07/31/2002      FY01: \$0      Total: \$204,374  
*Prin. Invest.:* S HAWKINS, 111  
*Tech. Officer:* GSFC/G H MUCKLOW  
*CASE Category:* 22 – COMPUTER SCIENCE

**NAG 5 8741**            **JOHNS HOPKINS UNIV**            **4874**  
 ADVANCED AUTOMATION CONCEPTS IN SPACEFLIGHT DYNAMICS & SPACE  
 NAVIGATION.  
 08/17/1999 - 02/28/2001      FY01: \$0      Total: \$147,275  
*Prin. Invest.:* P STADTER  
*Tech. Officer:* GSFC/J BRISTOW  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NAG 5 8800**            **JOHNS HOPKINS UNIV**            **4875**  
 GEOTAIL ENERGETIC PARTICLES AND ION COMPOSITION (EPIC)  
 PROGRAM.  
 11/29/1999 - 12/31/2000      FY01: \$0      Total: \$494,988  
*Prin. Invest.:* D WILLIAMS  
*Tech. Officer:* GSFC/D FAIRFIELD  
*CASE Category:* 19 – PHYSICAL SCIENCE, OTHER

**NAG 5 8841**            **JOHNS HOPKINS UNIV**            **4876**  
 ULTRA-BROAD BANDWIDTH ELECTRO-OPTIC MODULATOR WITH  
 CASCADED BRAGG GRATINGS.  
 09/22/1999 - 09/30/2000      FY01: \$0      Total: \$19,563  
*Prin. Invest.:* D B KHURGIN  
*Tech. Officer:* GSFC/H C SHAW  
*CASE Category:* 45 – ELECTRICAL ENGR

**NAG 5 8852**            **JOHNS HOPKINS UNIV**            **4877**  
 ADAPTIVE INSTRUMENT MODULE (AIM) GRANT NAG5-8403 BEGIN:9/1/99 -  
 END: 8/30/00  
 09/30/1999 - 07/31/2000      FY01: \$0      Total: \$116,308  
*Prin. Invest.:* R CONDE, NONE  
*Tech. Officer:* GSFC/P J LUERS  
*CASE Category:* 45 – ELECTRICAL ENGR

**NAG 5 8862**            **JOHNS HOPKINS UNIV**            **4878**  
 HIGH RESOLUTION IMAGING FROM THE STRATOSPHERE: AT MOSPHERIC  
 SEEING AND TETHER DYNAMICS  
 10/22/1999 - 10/14/2001      FY01: \$0      Total: \$10,000  
*Prin. Invest.:* H FORD  
*Tech. Officer:* GSFC/T GRUNER  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NAG 5 8955**            **JOHNS HOPKINS UNIV**            **4879**  
 ABUNDANCES IN OXYGEN-RICH SUPERNOVA REMNANTS: OBSERVATIONAL  
 TESTS OF U NUCLEOSYNTHESIS MODELS - FU  
 01/24/2000 - 01/31/2002      FY01: \$0      Total: \$38,500  
*Prin. Invest.:* J A MORSE  
*Tech. Officer:* GSFC/G SONNEBORN  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 8964**            **JOHNS HOPKINS UNIV**            **4880**  
 INVESTIGATION OF MAGNETOSPHERIC WAVEGUIDE MODE USING  
 SATELLITE & RADAR OBSERVATIONS  
 02/23/2000 - 02/28/2002      FY01: \$69,597      Total: \$132,997  
*Prin. Invest.:* K TAKAHASHI  
*Tech. Officer:* GSFC/J SHARBER  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NAG 5 8965**            **JOHNS HOPKINS UNIV**            **4881**  
 THE HOTTEST STARS IN M31 AND M33 - FUSE  
 01/24/2000 - 01/31/2002      FY01: \$0      Total: \$28,000  
*Prin. Invest.:* L BIANCHI  
*Tech. Officer:* GSFC/G SONNEBORN  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 8994**            **JOHNS HOPKINS UNIV**            **4882**  
 EMISSION AND ABSORPTION LINE STUDIES OF SYMBIOTIC BINARIES:  
 MASS LOSS AND SHOCK DIAGNOSTICS - FUSE  
 01/24/2000 - 01/31/2001      FY01: \$0      Total: \$40,800  
*Prin. Invest.:* S R MCCANDLISS  
*Tech. Officer:* GSFC/G SONNEBORN  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 9012**            **JOHNS HOPKINS UNIV**            **4883**  
 THE FAR UV-SPECTRA OF STARBURSTS - FUSE  
 02/08/2000 - 01/31/2002      FY01: \$0      Total: \$120,700  
*Prin. Invest.:* T M HECKMAN  
*Tech. Officer:* GSFC/G SONNEBORN  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 9078**            **JOHNS HOPKINS UNIV**            **4884**  
 INVESTIGATION OF THE MAGNETIC FIELD LINE STRETCHING AT  
 SUBSTORM ONSET  
 02/23/2000 - 02/28/2002      FY01: \$82,391      Total: \$148,291  
*Prin. Invest.: K LIOU*  
*Tech. Officer: GSFC/J SHARBER*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 9109**            **JOHNS HOPKINS UNIV**            **4885**  
 SIMULATING TRANSIENT PROCESSES AT THE MAGNETOPAUSE  
 02/23/2000 - 02/28/2003      FY01: \$77,388      Total: \$148,388  
*Prin. Invest.: H KU*  
*Tech. Officer: GSFC/J SHARBER*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 9113**            **JOHNS HOPKINS UNIV**            **4886**  
 CRYOSAT SCIENCE ADVISORY GROUP  
 02/28/2000 - 02/28/2001      FY01: \$0      Total: \$19,372  
*Prin. Invest.: K RANEY*  
*Tech. Officer: GSFC/E LINDSTROM*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9118**            **JOHNS HOPKINS UNIV**            **4887**  
 ELECTROMAGNETIC ION CYCLOTRON WAVES ON AURORAL FIELD LINES  
 02/24/2000 - 04/30/2002      FY01: \$0      Total: \$33,000  
*Prin. Invest.: R E ERLANDSON*  
*Tech. Officer: GSFC/M MELLOTT*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9186**            **JOHNS HOPKINS UNIV**            **4888**  
 THE CLUSTERING OF GALAXIES & DARK MATTER AT INTERMEDIATE  
 REDSHIFTS (ATP 99)  
 03/07/2000 - 03/14/2001      FY01: -\$13,076      Total: \$37,000  
*Prin. Invest.: A S SZALAY*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9187**            **JOHNS HOPKINS UNIV**            **4889**  
 PREDICTING THE SPECTRA OF GALACTIC BLACK HOLES (ATP 99)  
 03/07/2000 - 03/14/2002      FY01: \$91,354      Total: \$186,533  
*Prin. Invest.: J H KROLIK*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9219**            **JOHNS HOPKINS UNIV**            **4890**  
 HOT MASSIVE STARS IN LOCAL GROUP GALAXIES: A MULTI WAVELENGTH  
 SPECTRAL ANALYSIS.  
 03/13/2000 - 03/14/2002      FY01: \$103,294      Total: \$203,724  
*Prin. Invest.: L BIANCHI*  
*Tech. Officer: GSFC/R OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9220**            **JOHNS HOPKINS UNIV**            **4891**  
 MAPPING LARGE-SCALE STRUCTURE IN THE UNIVERSE  
 03/13/2000 - 03/14/2001      FY01: -\$28,728      Total: \$69,202  
*Prin. Invest.: B S JAIN*  
*Tech. Officer: GSFC/R OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9240**            **JOHNS HOPKINS UNIV**            **4892**  
 ANALYSIS OF POLAR MESOSPHERIC CLOUDS USING SPECTROGRAPHIC  
 IMAGES ON A SATELLITE  
 03/13/2000 - 02/28/2002      FY01: \$76,487      Total: \$146,387  
*Prin. Invest.: J CARBARY*  
*Tech. Officer: GSFC/M MELLOTT*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 9278**            **JOHNS HOPKINS UNIV**            **4893**  
 A SPECTRAL STUDY OF A NEW CLASS OF RADIO QUASARS  
 03/16/2000 - 07/14/2000      FY01: \$0      Total: \$663  
*Prin. Invest.: E PERLMAN*  
*Tech. Officer: GSFC/R OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9296**            **JOHNS HOPKINS UNIV**            **4894**  
 INNOVATIVE APPROACHES TO LITTORAL ALTIMETRY FOR PREDICTION &  
 MONITORING OF NEAR-SHORE SEA  
 04/13/2000 - 09/14/2001      FY01: \$18,750      Total: \$75,000  
*Prin. Invest.: R K RANEY*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 9367**            **JOHNS HOPKINS UNIV**            **4895**  
 LOW-COST PLANETARY MISSIONS  
 04/03/2000 - 03/31/2001      FY01: \$0      Total: \$35,000  
*Prin. Invest.: S KRIMIGIS*  
*Tech. Officer: GSFC/D GOLOMBEK*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9426**            **JOHNS HOPKINS UNIV**            **4896**  
 SENSITIVITY OF COUPLED LAND-ATMOSPHERE BOUNDARY LAYER  
 DYNAMICS TO SURFACE HETEROGENEITY USING  
 04/11/2000 - 04/30/2002      FY01: \$198,109      Total: \$334,300  
*Prin. Invest.: M B PARLANGE*  
*Tech. Officer: GSFC/K H BERGMAN*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9432**            **JOHNS HOPKINS UNIV**            **4897**  
 SPACE PHYSICS DATA MARKUP LANGUAGE  
 04/18/2000 - 04/14/2002      FY01: \$113,900      Total: \$223,900  
*Prin. Invest.: D MORRISON*  
*Tech. Officer: GSFC/J BREDEKAMP*  
*CASE Category: 13 – PHYSICS*

**NAG 5 9456**            **JOHNS HOPKINS UNIV**            **4898**  
 ADAPTIVE INSTRUMENT MODULE (AIM)  
 04/13/2000 - 01/31/2002      FY01: \$0      Total: \$78,692  
*Prin. Invest.: R F CONDE*  
*Tech. Officer: GSFC/P LUERS*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NAG 5 9533**            **JOHNS HOPKINS UNIV**            **4899**  
 A SPECTRAL STUDY OF A NEW CLASS OF RADIO QUASARS (ADP98)  
 04/28/2000 - 10/31/2000      FY01: \$0      Total: \$20,945  
*Prin. Invest.: E S PEARLMAN*  
*Tech. Officer: GSFC/R OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9558**            **JOHNS HOPKINS UNIV**            **4900**  
 SOLAR CYCLE UV VARIATION INFLUENCE ON SUBSTORM AURORAL SURGES  
 05/16/2000 - 05/14/2001      FY01: \$0      Total: \$49,995  
*Prin. Invest.:* P NEWELL  
*Tech. Officer:* GSFC/R HOFFMAN  
*CASE Category:* 19 – PHYSICAL SCIENCE, OTHER

**NAG 5 9569**            **JOHNS HOPKINS UNIV**            **4901**  
 NEW ISTP SOLAR MAX: CONTINUED INTEGRATION OF INTE RBALL INTO ISTP  
 05/08/2000 - 05/14/2001      FY01: \$0      Total: \$60,989  
*Prin. Invest.:* D G SIBECK  
*Tech. Officer:* GSFC/M DESCH  
*CASE Category:* 19 – PHYSICAL SCIENCE, OTHER

**NAG 5 9719**            **JOHNS HOPKINS UNIV**            **4902**  
 MOLECULAR AND ATOMIC LASER MASS ANALYSIS (MALMA) INSTRUMENTATION FOR IN-SITU STUDIES OF PLANETARY  
 06/20/2000 - 06/30/2001      FY01: \$0      Total: \$40,000  
*Prin. Invest.:* R W MCENTIRE  
*Tech. Officer:* GSFC/B BETTS  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 9837**            **JOHNS HOPKINS UNIV**            **4903**  
 CONTEMPORANEOUS XMM & HST OBSERVATIONS OF SEYFERT GALAXIES  
 11/06/2000 - 11/14/2001      FY01: \$14,505      Total: \$14,505  
*Prin. Invest.:* M E KAISER  
*Tech. Officer:* GSFC/R MUSHOTZKY  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 9872**            **JOHNS HOPKINS UNIV**            **4904**  
 A LOW POWER CROSSLINK TRANSCEIVER FOR NANOSAT COMMUNICATIONS EXPERIMENT  
 08/10/2000 - 09/30/2001      FY01: \$0      Total: \$400,000  
*Prin. Invest.:* P STADTER  
*Tech. Officer:* GSFC/J BRISTOW  
*CASE Category:* 41 – AERONAUTICAL ENGRN

**NAG 5 9878**            **JOHNS HOPKINS UNIV**            **4905**  
 ASTROPHYSICAL PROPERTIES OF ACCRETING BLACK HOLES IN NORMAL GALAXY NUCLEI (LTSA 99)  
 08/28/2000 - 08/31/2001      FY01: \$0      Total: \$40,000  
*Prin. Invest.:* E COLBERT  
*Tech. Officer:* GSFC/R J OLIVERSEN  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 9903**            **JOHNS HOPKINS UNIV**            **4906**  
 ACTIVITIES TO SUPPORT SCIENCE PLANNING AND COORDINATION IN ASSOCIATION WITH THE INTERNATIONAL SOLAR  
 08/30/2000 - 09/30/2001      FY01: \$62,817      Total: \$78,814  
*Prin. Invest.:* N J FOX  
*Tech. Officer:* GSFC/R A HOFFMAN  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 9910**            **JOHNS HOPKINS UNIV**            **4907**  
 THE X-RAY PROPERTIES OF ULTRALUMINOUS GALAXIES: COSMOLOGICAL IMPLICATIONS  
 09/05/2000 - 09/30/2002      FY01: \$16,600      Total: \$37,600  
*Prin. Invest.:* T HECKMAN  
*Tech. Officer:* GSFC/R M MUSHOTZKY  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 9948**            **JOHNS HOPKINS UNIV**            **4908**  
 STARBURST-DRIVEN OUTFLOWS & THE EVOLUTION OF DWARF GALAXIES  
 09/07/2000 - 08/31/2002      FY01: \$16,200      Total: \$39,200  
*Prin. Invest.:* T HECKMAN  
*Tech. Officer:* GSFC/R MUSHOTZKY  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 9963**            **JOHNS HOPKINS UNIV**            **4909**  
 CHARACTERIZING THE X-RAY SPECTRUM OF THE GALACTIC HALO  
 09/22/2000 - 09/30/2002      FY01: \$15,900      Total: \$39,900  
*Prin. Invest.:* W BLAIR  
*Tech. Officer:* GSFC/R MUSHOTZKY  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 9968**            **JOHNS HOPKINS UNIV**            **4910**  
 REMM, RADIATION ENVIRONMENT MINI-MONITOR. SUPPORT FOR NASA NANOSAT PROGRAM DEVELOPMENT OF ENVIRONME  
 10/30/2000 - 10/31/2001      FY01: \$130,000      Total: \$130,000  
*Prin. Invest.:* A GARRISON-DARRIN  
*Tech. Officer:* GSFC/J BARTH  
*CASE Category:* 13 – PHYSICS

**NAG 5 9988**            **JOHNS HOPKINS UNIV**            **4911**  
 VALIDATION OF MSX/UVISI STELLAR OCCULTATION RETRIE VALS OF LOWER STRATOSPHERE/UPPER TROPOSPHERE  
 10/04/2000 - 09/30/2002      FY01: \$155,000      Total: \$155,000  
*Prin. Invest.:* J YEE  
*Tech. Officer:* GSFC/A C AIKIN  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NAG 5 10060**            **JOHNS HOPKINS UNIV**            **4912**  
 SUPERDARN CONTRIBUTIONS TO TIMED/CEDAR COLLABORA- TIVE STUDIES  
 10/23/2000 - 04/30/2002      FY01: \$225,000      Total: \$225,000  
*Prin. Invest.:* R A GREENWALD  
*Tech. Officer:* GSFC/M MELLOTT  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NAG 5 10084**            **JOHNS HOPKINS UNIV**            **4913**  
 FLAT PLASMA SPECTROMETER  
 11/07/2000 - 11/14/2001      FY01: \$167,226      Total: \$167,226  
*Prin. Invest.:* J L CHAMPION  
*Tech. Officer:* GSFC/F HERRERO  
*CASE Category:* 13 – PHYSICS

**NAG 5 10176**            **JOHNS HOPKINS UNIV**            **4914**  
 THE PHYSICAL PROPERTIES OF THE INTRA-CLUSTERMEDIUM AT Z 1  
 12/18/2000 - 12/31/2001      FY01: \$8,300      Total: \$8,300  
*Prin. Invest.:* H FORD  
*Tech. Officer:* GSFC/R MUSHOTZKY  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 10234**            **JOHNS HOPKINS UNIV**            **4915**  
 A SELF-HEALING SPACECRAFT ARCHITECTURE FOR LONG DURATION  
 LOW POWER MISSION.  
 01/30/2001 - 12/31/2001      FY01: \$91,924      Total: \$91,924  
*Prin. Invest.: B ANDREWS*  
*Tech. Officer: GSFC/P LUERS*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NAG 5 10241**            **JOHNS HOPKINS UNIV**            **4916**  
 VARIABILITY EMISSIVITY CONTROLLER CONCEPTS & RISK MITIGATION  
 PATH  
 01/08/2001 - 01/14/2002      FY01: \$108,679      Total: \$108,679  
*Prin. Invest.: R OSIANDER*  
*Tech. Officer: GSFC/D DOUGLAS*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 5 10242**            **JOHNS HOPKINS UNIV**            **4917**  
 GEOTAIL ENERGETIC PARTICLE AND ION COMPOSITION (EPIC) PROGRAM  
 01/12/2001 - 12/31/2001      FY01: \$430,000      Total: \$430,000  
*Prin. Invest.: R MCENTIRE*  
*Tech. Officer: GSFC/M ACUNA*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 10248**            **JOHNS HOPKINS UNIV**            **4918**  
 INVESTIGATION OF SUPERNOVA REMNANT SHOCKS IN THE VELA-PUPPIIS  
 REGION  
 02/12/2001 - 02/14/2002      FY01: \$61,900      Total: \$61,900  
*Prin. Invest.: R SANKRIT*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10261**            **JOHNS HOPKINS UNIV**            **4919**  
 CONTINUED PARTICIPATION IN CRYOSAT SCIENCE ADVISORY GROUP  
 01/09/2001 - 12/31/2001      FY01: \$25,956      Total: \$25,956  
*Prin. Invest.: R RANEY*  
*Tech. Officer: GSFC/W ABDALATI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10281**            **JOHNS HOPKINS UNIV**            **4920**  
 COMPARATIVE MAGNETOSPHERES INVESTIGATION OF PLASMA INjec-  
 TION PHENOMENA  
 01/23/2001 - 01/31/2002      FY01: \$67,852      Total: \$67,852  
*Prin. Invest.: B MAUK*  
*Tech. Officer: GSFC/J SHARBER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10285**            **JOHNS HOPKINS UNIV**            **4921**  
 STRUCTURE OF THE MAGNETOPAUSE  
 01/23/2001 - 01/31/2002      FY01: \$69,449      Total: \$69,449  
*Prin. Invest.: D G SIBECK*  
*Tech. Officer: GSFC/J SHARBER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10302**            **JOHNS HOPKINS UNIV**            **4922**  
 THE FAR-UV SPECTRA OF POWERFUL STARBURSTS - FUSE- 00  
 01/25/2001 - 01/31/2002      FY01: \$103,210      Total: \$103,210  
*Prin. Invest.: T M HECKMAN*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10304**            **JOHNS HOPKINS UNIV**            **4923**  
 SEARCH FOR X-RAY SPECTRAL FEATURES IN BL LAC OBJECTS MKN 180  
 AND 1ES1517+656  
 01/29/2001 - 01/31/2002      FY01: \$500      Total: \$500  
*Prin. Invest.: J H KROLIK*  
*Tech. Officer: GSFC/R MUSHOTSKY*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10355**            **JOHNS HOPKINS UNIV**            **4924**  
 SMALL-SCALE INTERSTELLAR STRUCTURE TOWARD THE OPEN CLUSTER  
 CHI PERSEI - FUSE 00  
 02/13/2001 - 02/14/2002      FY01: \$10,000      Total: \$10,000  
*Prin. Invest.: S D FRIEDMAN*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10364**            **JOHNS HOPKINS UNIV**            **4925**  
 CENTRAL STARS OF PLANETARY NEBULAE IN THE LARGE MAGELLANIC  
 CLOUD-FUSE00  
 02/05/2001 - 02/14/2002      FY01: \$65,700      Total: \$65,700  
*Prin. Invest.: L BIANCHI*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10380**            **JOHNS HOPKINS UNIV**            **4926**  
 MOLECULAR HYDROGEN FLUORESCENCE IN IC 63 (FUSE 00)  
 02/08/2001 - 02/14/2002      FY01: \$72,500      Total: \$72,500  
*Prin. Invest.: R SANKRIT*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10394**            **JOHNS HOPKINS UNIV**            **4927**  
 O VI EMISSION FROM THE INTERSTELLAR MEDIUM (FUSE 00)  
 02/12/2001 - 02/14/2002      FY01: \$79,000      Total: \$79,000  
*Prin. Invest.: R L SHELTON*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10397**            **JOHNS HOPKINS UNIV**            **4928**  
 "PROGRAMMABLE CIRCUIT INTERCONNECT USING MEMS LIQUID-METAL  
 MICROSWITCHES".  
 02/12/2001 - 01/14/2002      FY01: \$376,889      Total: \$376,889  
*Prin. Invest.: R EDWARDS*  
*Tech. Officer: GSFC/P YEP*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 5 10402**            **JOHNS HOPKINS UNIV**            **4929**  
 DETECTOR ANALOG INTERFACE APPLICATION SPECIFIC INTEGRATED  
 CIRCUIT (ASIC)  
 02/27/2001 - 01/14/2002      FY01: \$147,012      Total: \$147,012  
*Prin. Invest.: D STROHBEHN*  
*Tech. Officer: GSFC/J F SUTTON*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 5 10403**            **JOHNS HOPKINS UNIV**            **4930**  
 SYMBIOTIC BINARIES LABORATORIES FOR WIND STUDIES (FUSE 00)  
 02/15/2001 - 02/14/2002      FY01: \$53,000      Total: \$53,000  
*Prin. Invest.: S R MCCANDLISS*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10405**            **JOHNS HOPKINS UNIV**            **4931**  
 FUSE SPECTROSCOPY OF HOT POST-AGB STARS IN GLOBULAR CLUSTERS - FUSE  
 03/28/2001 - 03/31/2002      FY01: \$31,540      Total: \$31,540  
*Prin. Invest.:* W V DIXON  
*Tech. Officer:* GSFC/G SONNEBORN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 10464**            **JOHNS HOPKINS UNIV**            **4932**  
 CONCEPT STUDY FOR INFRARED BASED BUS SYSTEM (IRCOM M)  
 03/05/2001 - 03/14/2002      FY01: \$160,000      Total: \$160,000  
*Prin. Invest.:* M G DARRIN  
*Tech. Officer:* GSFC/P J LUERS  
*CASE Category:* 45 - ELECTRICAL ENGR

**NAG 5 10475**            **JOHNS HOPKINS UNIV**            **4933**  
 ISTP: NONLINEAR DYNAMICS OF THE MAGNETOSPHERE FROM AURORAL ACTIVITY  
 02/27/2001 - 02/28/2002      FY01: \$91,138      Total: \$91,138  
*Prin. Invest.:* A LUI  
*Tech. Officer:* GSFC/J SPAN  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 10479**            **JOHNS HOPKINS UNIV**            **4934**  
 ISTP: TRANSIENT EVENTS AT THE MAGNETOPAUSE & IN THE IONOSPHERE  
 02/27/2001 - 02/28/2002      FY01: \$69,923      Total: \$69,923  
*Prin. Invest.:* D G SIBECK  
*Tech. Officer:* GSFC/J SPANN  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 10511**            **JOHNS HOPKINS UNIV**            **4935**  
 A DETAILED STUDY OF TWO OPTICALLY-SELECTED, HIGH- REDSHIFT CLUSTERS OF GALAXIES  
 03/02/2001 - 09/14/2002      FY01: \$42,635      Total: \$42,635  
*Prin. Invest.:* L M LUBIN  
*Tech. Officer:* GSFC/R MUSHOTZKY  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 10562**            **JOHNS HOPKINS UNIV**            **4936**  
 NANOSAT CROSSLINK TRANSCIEVER FOR NEAR-TERM DISTRIBUTED SPACECRAFT TECHNOLOGY DEMONSTRATION MI  
 03/16/2001 - 03/14/2002      FY01: \$350,000      Total: \$350,000  
*Prin. Invest.:* P A STADTER  
*Tech. Officer:* GSFC/S P HUGHES  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 5 10597**            **JOHNS HOPKINS UNIV**            **4937**  
 PROPOSED ACTIVITIES FOR SUPERDARN GROUND-BASED INVESTIGATION IN SUPPORT OF ISTP SOLAR MAX AND CLUST  
 03/19/2001 - 03/31/2002      FY01: \$140,000      Total: \$140,000  
*Prin. Invest.:* R GREENWALD  
*Tech. Officer:* GSFC/S CURTIS  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 10647**            **JOHNS HOPKINS UNIV**            **4938**  
 DIFFUSION & WEAK STELLAR WINDS IN HOT B SUBDWARFS - LTSA-2000  
 03/27/2001 - 06/30/2002      FY01: \$20,500      Total: \$20,500  
*Prin. Invest.:* P CHAYER  
*Tech. Officer:* GSFC/G SONNEBORN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 10650**            **JOHNS HOPKINS UNIV**            **4939**  
 CNO ABUNDANCES IN LMC BN AND BC SUPERGIANTS (FUSE 00)  
 04/04/2001 - 04/14/2002      FY01: \$10,824      Total: \$10,824  
*Prin. Invest.:* A FULLERTON  
*Tech. Officer:* GSFC/G SONNEBORN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 10693**            **JOHNS HOPKINS UNIV**            **4940**  
 LASER/EVOLVED-GAS TIME-OF-FLIGHT MASS SPECTROMETER AND SAMPLE HANDLING SYSTEM FOR IN SITU COMPOSITION  
 04/16/2001 - 04/14/2002      FY01: \$146,599      Total: \$146,599  
*Prin. Invest.:* W BRINCKERHOFF  
*Tech. Officer:* GSFC/B BETTS  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 10742**            **JOHNS HOPKINS UNIV**            **4941**  
 PARALLEL SCANNING FOR THE NVO.  
 04/12/2001 - 04/30/2002      FY01: \$100,000      Total: \$100,000  
*Prin. Invest.:* P Z KUNSZT  
*Tech. Officer:* GSFC/P E HUNTER  
*CASE Category:* 22 - COMPUTER SCIENCE

**NAG 5 10762**            **JOHNS HOPKINS UNIV**            **4942**  
 HIGH-REDSHIFT QUASAR HOSTS AND ENVIRONMENTS (LTSA 2000)  
 04/23/2001 - 04/30/2002      FY01: \$45,372      Total: \$45,372  
*Prin. Invest.:* S RIDGWAY  
*Tech. Officer:* GSFC/R J OLIVERSEN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 10769**            **JOHNS HOPKINS UNIV**            **4943**  
 BLACK HOLES IN ACTIVE GALACTIC NUCLEI (LTSA 2000)  
 04/23/2001 - 04/30/2002      FY01: \$95,000      Total: \$95,000  
*Prin. Invest.:* T YAQOOB  
*Tech. Officer:* GSFC/R J OLIVERSEN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 10778**            **JOHNS HOPKINS UNIV**            **4944**  
 STUDY FOR SPACE APPLICATION SWITCH/HUB FOR ETHERNET  
 05/18/2001 - 05/30/2002      FY01: \$100,000      Total: \$100,000  
*Prin. Invest.:* P EISENREICH  
*Tech. Officer:* GSFC/E WEBB  
*CASE Category:* 45 - ELECTRICAL ENGR

**NAG 5 10787**            **JOHNS HOPKINS UNIV**            **4945**  
 SOLAR ENERGETIC PARTICLE EVENTS IN THE INNER HELIOSPHERE AND DEEP SPACE: A MODEL FOR FORECASTING PRO  
 04/27/2001 - 04/30/2002      FY01: \$80,990      Total: \$80,990  
*Prin. Invest.:* D LARIO  
*Tech. Officer:* GSFC/W J WAGNER  
*CASE Category:* 99 - MULTI INTERDISCPL, OTHER

**NAG 5 10798**            **JOHNS HOPKINS UNIV**            **4946**  
 CONCEPT STUDY FOR THE "THE PRIMORDIAL EXPLORER" PRIME MISSION AO-99-OSS-05  
 04/30/2001 - 04/30/2002      FY01: \$418,500      Total: \$418,500  
*Prin. Invest.:* D ZHENG  
*Tech. Officer:* GSFC/J R BYRD  
*CASE Category:* 11 - ASTRONOMY

<b>NAG 5 10807</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4947</b>	<b>NAG 5 10941</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4955</b>
THE GALACTIC HALO AND LOCAL BUBBLE (LTSA 2000)			WINTER-SUMMER ASYMMETRY OF IONOSPHERIC ELECTRO- DYNAMICS		
04/23/2001 - 04/30/2002	FY01: \$68,854	Total: \$68,854	05/15/2001 - 05/14/2002	FY01: \$38,000	Total: \$38,000
<i>Prin. Invest.:</i> C A NORMAN			<i>Prin. Invest.:</i> S OHTANI		
<i>Tech. Officer:</i> GSFC/R J OLIVERSEN			<i>Tech. Officer:</i> GSFC/J SHARBER		
<i>CASE Category:</i> 11 – ASTRONOMY			<i>CASE Category:</i> 99 – MULTI INTERDISCPL, OTHER		
<b>NAG 5 10836</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4948</b>	<b>NAG 5 10957</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4956</b>
INTERPLANETARY SHOCK PREDICTION USING REAL TIME ENERGETIC			OBSERVATIONS OF O VI EMISSION IN THE HOT HALO OF NGC 891 (FUSE		
PARTICLE OBSERVATIONS			00)		
04/27/2001 - 04/30/2002	FY01: \$80,564	Total: \$80,564	05/30/2001 - 05/31/2002	FY01: \$12,006	Total: \$12,006
<i>Prin. Invest.:</i> G HO			<i>Prin. Invest.:</i> C HOWK		
<i>Tech. Officer:</i> GSFC/W J WAGNER			<i>Tech. Officer:</i> GSFC/G SONNEBORN		
<i>CASE Category:</i> 99 – MULTI INTERDISCPL, OTHER			<i>CASE Category:</i> 11 – ASTRONOMY		
<b>NAG 5 10849</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4949</b>	<b>NAG 5 10971</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4957</b>
GLOBAL MAGNETOSPHERE/IONOSPHERE SPECIFICATION: LOW EARTH			PREPARING FOR MULTI-SPACECRAFT MISSIONS: AURORAL SPACE-TIME		
ORBIT CONSTELLATION OBSERVATIONS& GLOBAL			SCALES AND MAGNETOTAIL ASSIMILATION MOD		
05/07/2001 - 05/14/2002	FY01: \$100,000	Total: \$100,000	05/25/2001 - 05/31/2002	FY01: \$59,900	Total: \$59,900
<i>Prin. Invest.:</i> B J ANDERSON			<i>Prin. Invest.:</i> S WING		
<i>Tech. Officer:</i> GSFC/J F SPANN			<i>Tech. Officer:</i> GSFC/J SPANN		
<i>CASE Category:</i> 31 – ATMOSPHERIC SCIENCE			<i>CASE Category:</i> 11 – ASTRONOMY		
<b>NAG 5 10900</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4950</b>	<b>NAG 5 10998</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4958</b>
SOLAR PROTON PENETRATION AT HIGH LATITUDES: MODEL CALCULATIONS OF CUTOFF LATITUDES & VARIATIONS WIT			A SOLAR BOLOMETRIC IMAGER FOR STUDYING SOLAR ENERGY INPUT TO		
05/07/2001 - 05/14/2002	FY01: \$68,242	Total: \$68,242	EARTH		
<i>Prin. Invest.:</i> R B DECKER			06/07/2001 - 05/31/2002	FY01: \$386,254	Total: \$386,254
<i>Tech. Officer:</i> GSFC/J F SPANN			<i>Prin. Invest.:</i> D M RUST		
<i>CASE Category:</i> 31 – ATMOSPHERIC SCIENCE			<i>Tech. Officer:</i> GSFC/W J WAGNER		
<i>CASE Category:</i> 13 – PHYSICS			<i>CASE Category:</i> 31 – ATMOSPHERIC SCIENCE		
<b>NAG 5 10902</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4951</b>	<b>NAG 5 11029</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4959</b>
A STATISTICAL MODEL OF HIGH-LATITUDE CONVECTION REFERENCED TO			TOMS DATA VALIDATION: SOLAR FLUX, QUIKTOMS AND TOTAL OZONE		
AURORAL BOUNDARIES			RETRIEVALS AT HIGH LATITUDES.		
05/07/2001 - 05/14/2002	FY01: \$76,028	Total: \$76,028	06/25/2001 - 06/30/2002	FY01: \$44,000	Total: \$44,000
<i>Prin. Invest.:</i> J M RUOHONIEMI			<i>Prin. Invest.:</i> S A LLOYD		
<i>Tech. Officer:</i> GSFC/J F SPANN			<i>Tech. Officer:</i> GSFC/R MCPETERS		
<i>CASE Category:</i> 99 – MULTI INTERDISCPL, OTHER			<i>CASE Category:</i> 31 – ATMOSPHERIC SCIENCE		
<b>NAG 5 10916</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4952</b>	<b>NAG 5 11034</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4960</b>
FUV AND OPTICAL SPECTROSCOPY OF HOT POST-AGB STARS IN GLOBULAR CLUSTERS			ATMOSPHERIC LOSS PROCESSES AT IO		
05/10/2001 - 05/14/2002	FY01: \$49,400	Total: \$49,400	06/20/2001 - 05/31/2002	FY01: \$88,000	Total: \$88,000
<i>Prin. Invest.:</i> W V DIXON			<i>Prin. Invest.:</i> B MAUK		
<i>Tech. Officer:</i> GSFC/R J OLIVERSEN			<i>Tech. Officer:</i> GSFC/D BOGAN		
<i>CASE Category:</i> 11 – ASTRONOMY			<i>CASE Category:</i> 31 – ATMOSPHERIC SCIENCE		
<b>NAG 5 10921</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4953</b>	<b>NAG 5 11035</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4961</b>
INVESTIGATING THE EXCITATION MECHANISM FOR COMETARY X-RAY,			RADIATION FIELD MODELING & DATA ANALYSIS IN SUPPORT OF NASA		
EUV, AND FUV EMISSIONS			STRATOSPHERE AND UPPER TROPOSPHERE		
05/21/2001 - 06/30/2002	FY01: \$52,500	Total: \$52,500	06/20/2001 - 06/14/2002	FY01: \$49,955	Total: \$49,955
<i>Prin. Invest.:</i> H A WEAVER			<i>Prin. Invest.:</i> S A LLOYD		
<i>Tech. Officer:</i> GSFC/G SONNEBORN			<i>Tech. Officer:</i> GSFC/M KURYLO		
<i>CASE Category:</i> 11 – ASTRONOMY			<i>CASE Category:</i> 99 – MULTI INTERDISCPL, OTHER		
<b>NAG 5 10922</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4954</b>	<b>NAG 5 11051</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4962</b>
EVOLUTIONARY SYNTHESIS OF EARLY-TYPE GALAXIES (ATP 00)			SATURN'S UPPER ATMOSPHERIC STRUCTURE AS DERIVED FROM A		
05/21/2001 - 05/31/2002	FY01: \$105,582	Total: \$105,582	RE-ANALYSIS OF THE VOYAGER ULTRAVIOLET		
<i>Prin. Invest.:</i> M A HOUDASHELT			06/20/2001 - 06/14/2002	FY01: \$50,000	Total: \$50,000
<i>Tech. Officer:</i> GSFC/R J OLIVERSEN			<i>Prin. Invest.:</i> R J VERVACK, JR <i>Prin. Invest.:</i> NONE		
<i>CASE Category:</i> 11 – ASTRONOMY			<i>Tech. Officer:</i> GSFC/D J BOGAN		
<i>CASE Category:</i> 31 – ATMOSPHERIC SCIENCE			<i>CASE Category:</i> 31 – ATMOSPHERIC SCIENCE		

<b>NAG 5 11060</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4963</b>	<b>NAG 8 1377</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4971</b>
LOW ENERGY CHARGED PARTICLES ON THE VOYAGER INTER STELLAR MISSION			R/S "NOVEL MICROGRAVITY OPTICAL TECHNIQUE FOR MOLECULARLY ENGINEERING ELECTROPHORETIC MEDIA.		
06/28/2001 - 06/30/2002	FY01: \$475,000	Total: \$475,000	07/23/1997 - 11/30/2001	FY01: \$0	Total: \$457,000
<i>Prin. Invest.: S M KRIMIGIS</i>			<i>Prin. Invest.: D WIRTZ</i>		
<i>Tech. Officer: GSFC/V W JONES</i>			<i>Tech. Officer: MSFC/B GUYNES, MSFC/J MAYO</i>		
<i>CASE Category: 41 - AERONAUTICAL ENGR</i>			<i>CASE Category: 19 - PHYSICAL SCIENCE, OTHER</i>		
<b>NAG 5 11116</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4964</b>	<b>NAG 8 1527</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4972</b>
NEW RADIAITON FACILITIES PLANNING SUPPORT.			AXAF INTERDISCIPLINARY SCIENTIST		
08/06/2001 - 02/14/2002	FY01: \$40,000	Total: \$40,000	03/30/1998 - 09/30/2001	FY01: \$112,000	Total: \$366,000
<i>Prin. Invest.: J KINNISON</i>			<i>Prin. Invest.: R GIACCONI, C NORMAN</i>		
<i>Tech. Officer: GSFC/R REED</i>			<i>Tech. Officer: MSFC/M SMITH, MSFC/B HAMBRICK</i>		
<i>CASE Category: 13 - PHYSICS</i>			<i>CASE Category: 11 - ASTRONOMY</i>		
<b>NAG 5 11193</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4965</b>	<b>NAG 8 1648</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4973</b>
AN AUTOMATED SYSTEM FOR THE REDUCTION AND ANALYSIS OF X-RAY DATA FROM GALAXIES			RBCC ACCESS TO SPACE ASSESSMENT		
08/29/2001 - 01/31/2002	FY01: \$72,700	Total: \$72,700	11/24/1999 - 03/31/2001	FY01: \$0	Total: \$96,583
<i>Prin. Invest.: A F PATAK</i>			<i>Prin. Invest.: P J WALTRUP</i>		
<i>Tech. Officer: GSFC/P E HUNTER</i>			<i>Tech. Officer: MSFC/C M MC ARTHUR</i>		
<i>CASE Category: 31 - ATMOSPHERIC SCIENCE</i>			<i>CASE Category: 42 - ASTRONAUTICAL ENGR</i>		
<b>NAG 5 11211</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4966</b>	<b>NAG 8 1695</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4974</b>
INFERRENCES FROM TOPOGRAPHY ON THE EMPLACEMENT OF FLUIDIZED EJECTA ON MARS			DEVELOPMENT OF A NEUTRON SPECTROMETER TO ASSESS BIOLOGICAL RADIATION DAMAGE BEHIND SPACECRAFT MAT.		
08/09/2001 - 08/14/2002	FY01: \$53,000	Total: \$53,000	05/01/2000 - 11/30/2003	FY01: \$85,500	Total: \$130,500
<i>Prin. Invest.: O BARNOUIN-JHA</i>			<i>Prin. Invest.: R MAUER</i>		
<i>Tech. Officer: GSFC/J M BOYCE</i>			<i>Tech. Officer: MSFC/P DOTY</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 19 - PHYSICAL SCIENCE, OTHER</i>		
<b>NAG 5 11283</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4967</b>	<b>NAG 9 1146</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4975</b>
INFERRING STRATOSPHERIC AND TROPOSPHERIC TRANSPORT FROM CHEMICAL TRACER MEASUREMENTS			CALCIUM KINETICS DURING SPACE FLIGHT		
08/17/2001 - 08/31/2004	FY01: \$92,581	Total: \$92,581	09/14/1999 - 09/30/2003	FY01: \$76,725	Total: \$110,325
<i>Prin. Invest.: D WAUCH</i>			<i>Prin. Invest.: K O O'BRIEN</i>		
<i>Tech. Officer: GSFC/P DECOLA</i>			<i>Tech. Officer: SSC/S M SMITH</i>		
<i>CASE Category: 99 - MULTI INTERDISCPL, OTHER</i>			<i>CASE Category: 19 - PHYSICAL SCIENCE, OTHER</i>		
<b>NAG 5 11297</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4968</b>	<b>NAG 9 1220</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4976</b>
DETAILED MODELING AND ANALYSIS OF THE CPFM DATASET			DEFINITION PHASE MARTIAN NEUTRON ENERGY SPECTROMETER		
08/22/2001 - 08/31/2002	FY01: \$52,090	Total: \$52,090	04/10/2000 - 08/11/2000	FY01: \$0	Total: \$123,440
<i>Prin. Invest.: W SWARTZ</i>			<i>Prin. Invest.: R H MAURER</i>		
<i>Tech. Officer: GSFC/P DECOLA</i>			<i>Tech. Officer: JSC/T A SULLIVAN</i>		
<i>CASE Category: 99 - MULTI INTERDISCPL, OTHER</i>			<i>CASE Category: 31 - ATMOSPHERIC SCIENCE</i>		
<b>NAG 5 11332</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4969</b>	<b>NAG 9 1345</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4977</b>
TIME-RESOLVED STUDY OF FLUORESCENCE IN FLUORESCENT PROTEIN BIOSENSORS			AWARD BASIC GRANT		
09/28/2001 - 08/31/2002	FY01: \$32,408	Total: \$32,408	07/27/2001 - 09/30/2004	FY01: \$41,000	Total: \$41,000
<i>Prin. Invest.: J B KHURGIN</i>			<i>Prin. Invest.: J L HARDEN</i>		
<i>Tech. Officer: GSFC/H SHAW</i>			<i>Tech. Officer: KSC/D RISIN</i>		
<i>CASE Category: 45 - ELECTRICAL ENGR</i>			<i>CASE Category: 43 - CHEMICAL ENGR</i>		
<b>NAG 8 1257</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4970</b>	<b>NAG13 00045</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4978</b>
RESEARCH "MEASUREMENT OF LIQUID-TO-SOLID NUCLEATION RATES IN UNDERCOOLED METALLIC MELTS			POLARIZATION DEPENDENCE OF GPS SIGNALS REFLECTED FROM THE OCEAN SURFACE		
04/18/1996 - 04/17/2000	FY01: \$0	Total: \$260,000	10/12/2000 - 10/11/2002	FY01: \$119,850	Total: \$119,850
<i>Prin. Invest.: J L KATZ</i>			<i>Prin. Invest.: D R THOMPSON</i>		
<i>Tech. Officer: MSFC/P DOWNEY, MSFC/D WOODARD</i>			<i>Tech. Officer: SSC/R MILLER</i>		
<i>CASE Category: 19 - PHYSICAL SCIENCE, OTHER</i>			<i>CASE Category: 33 - OCEANOGRAPHY</i>		

<b>NAS 3 01146</b>	JOHNS HOPKINS UNIV	4979	<b>NAS 5 97271</b>	JOHNS HOPKINS UNIV	4987
EPIREP/FIS ARCHITECTURE WORK 04/30/2001 - 02/28/2002	FY01: \$190,122	Total: \$190,122	AEROSPACE RESEARCH, DESIGN, AND DEVELOPMENT TASKS FOR NASA 10/01/1997 - 09/30/2002	FY01: \$91,336,152	Total: \$206,759,485
<i>Prin. Invest.: L BACHMAN</i>			<i>Prin. Invest.: T COUGHLIN</i>		
<i>Tech. Officer: GRC/G CHOMOS</i>			<i>Tech. Officer: GSFC/J WOLFF</i>		
<i>CASE Category: 49 – ENGINEERING, OTHER</i>			<i>CASE Category: 11 – ASTRONOMY</i>		
 <b>NAS 5 00166</b>	 JOHNS HOPKINS UNIV	 4980	 <b>NCC 1 01019</b>	 JOHNS HOPKINS UNIV	 4988
DEVELOPMENT OF SOLID STATE UV SOURCE 06/14/2000 - 07/13/2001	FY01: \$99,631	Total: \$273,851	ADAPTIVE DATA ANALYSIS AND PROCESSING TECHNOLOGY (ADAPT)--NRA-99-OES-08 01/16/2001 - 03/10/2004	FY01: \$159,017	Total: \$159,017
<i>Prin. Invest.: J KANG</i>			<i>Prin. Invest.: M A DARRIN, M A DARRIN</i>		
<i>Tech. Officer: GSFC/F SELDON- JONES</i>			<i>Tech. Officer: LARC/M E BEATTY, III</i>		
<i>CASE Category: 45 – ELECTRICAL ENGR</i>			<i>CASE Category: 45 – ELECTRICAL ENGR</i>		
 <b>NAS 5 01072</b>	 JOHNS HOPKINS UNIV	 4981	 <b>NCC 3 812</b>	 JOHNS HOPKINS UNIV	 4989
SUN EARTH CONNECTION LIVING WITH A STAR PROGRAM LETTER CONTRACT. 12/21/2000 - 12/20/2012	FY01: \$1,447,000	Total: \$1,447,000	USING SURFACTANTS TO CONTROL BUBBLE GROWTH COALESCENCE IN NUCLEATE POOL BOILING 07/06/2000 - 05/31/2004	FY01: \$94,940	Total: \$151,940
<i>Prin. Invest.: N AVAILABLE</i>			<i>Prin. Invest.: K J STEBE</i>		
<i>Tech. Officer: GSFC/J E ROBINSON</i>			<i>Tech. Officer: GRC/F P CHIARAMONTE</i>		
<i>CASE Category: 11 – ASTRONOMY</i>			<i>CASE Category: 49 – ENGINEERING, OTHER</i>		
 <b>NAS 5 30403</b>	 JOHNS HOPKINS UNIV	 4982	 <b>NCC 5 447</b>	 JOHNS HOPKINS UNIV	 4990
SPACE TELESCOPE IMAGING SPECTROGRAPH PROGRAM SUPPORT 02/04/1988 - 06/30/2003	FY01: \$290,000	Total: \$2,795,865	COOPERATIVE RESEARCH IN HIGH ENERGY ASTROPHYSICS BETWEEN JHU AND GSFC 12/21/1999 - 12/31/2001	FY01: \$262,512	Total: \$502,512
<i>Prin. Invest.: W MOOS</i>			<i>Prin. Invest.: E T VISHNIAC</i>		
<i>Tech. Officer: GSFC/D VITABLANO</i>			<i>Tech. Officer: GSFC/K E WEAVER</i>		
<i>CASE Category: 41 – AERONAUTICAL ENGR</i>			<i>CASE Category: 11 – ASTRONOMY</i>		
 <b>NAS 5 31373</b>	 JOHNS HOPKINS UNIV	 4983	 <b>NCC 5 500</b>	 JOHNS HOPKINS UNIV	 4991
EOS INVESTIGATION 12/13/1991 - 12/14/2001	FY01: \$0	Total: \$385,000	ATMOSPHERIC TRANSPORT: COMPARISON OF OBSERVATIONS AND MODELS 05/08/2000 - 05/14/2002	FY01: \$35,223	Total: \$69,499
<i>Prin. Invest.: J SALISBURY</i>			<i>Prin. Invest.: D WAUGH</i>		
<i>Tech. Officer: GSFC/H BLODGET</i>			<i>Tech. Officer: GSFC/A R DOUGLASS</i>		
<i>CASE Category: 31 – ATMOSPHERIC SCIENCE</i>			<i>CASE Category: 31 – ATMOSPHERIC SCIENCE</i>		
 <b>NAS 5 32865</b>	 JOHNS HOPKINS UNIV	 4984	 <b>NGT 5 40029</b>	 JOHNS HOPKINS UNIV	 4992
DESIGN & DEVELOPMENT OF ADVANCED CAMERA SCIENCE 08/25/1995 - 06/30/2003	FY01: \$469,400	Total: \$3,725,677	NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM 01/24/1997 - 01/31/2001	FY01: -\$21,673	Total: \$1,748,327
<i>Prin. Invest.: D FORD, D ILLINGWORTH</i>			<i>Prin. Invest.: R C HENRY</i>		
<i>Tech. Officer: GSFC/C KREBS</i>			<i>Tech. Officer: GSFC/L KEFFER</i>		
<i>CASE Category: 42 – ASTRONAUTICAL ENGR</i>			<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>		
 <b>NAS 5 32985</b>	 JOHNS HOPKINS UNIV	 4985	 <b>NGT 5 40079</b>	 JOHNS HOPKINS UNIV	 4993
PHASE C/D DESIGN AND DEVELOPMENT OF THE FAR ULTRA- VOLET SPECTROSCOPIC EXPLORER (FUSE) MISSION 11/22/1995 - 12/07/2002	FY01: \$10,201,386	Total: \$140,638,386	MARYLAND SPACE GRANT COLLEGE & FELLOWSHIP PROGRAM 02/09/2001 - 01/31/2002	FY01: \$496,673	Total: \$496,673
<i>Prin. Invest.: H W MOOS</i>			<i>Prin. Invest.: R C HENRY</i>		
<i>Tech. Officer: GSFC/D R MENGERS</i>			<i>Tech. Officer: GSFC/D D DETROYE</i>		
<i>CASE Category: 11 – ASTRONOMY</i>			<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>		
 <b>NAS 5 97179</b>	 JOHNS HOPKINS UNIV	 4986	 <b>NGT 5 50259</b>	 JOHNS HOPKINS UNIV	 4994
TIMED PHASE C/D LETTER CONTRACT 06/16/1997 - 09/09/2001	FY01: \$9,020,168	Total: \$120,130,864	PROTEIN CRYSTALLIZATION AT INTERFACE STUDENT: JEFFREY ERICKSON 07/07/1999 - 06/30/2001	FY01: \$0	Total: \$44,000
<i>Prin. Invest.: D GRANT</i>			<i>Prin. Invest.: K J STEBE</i>		
<i>Tech. Officer: GSFC/J J WOLFF</i>			<i>Tech. Officer: GSFC/L SMITH</i>		
<i>CASE Category: 11 – ASTRONOMY</i>			<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>		

<b>NGT 5 50268</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4995</b>	<b>NAG 5 8857</b>	<b>MORGAN STATE UNIV</b>	<b>5003</b>
SURFACTANT FACILITATED SPREADING 07/08/1999 - 06/30/2002	JOHNS HOPKINS UNIV FY01: \$22,000	Total: \$66,000	INVESTIGATION OF THE MAGNETIC & ELECTRONIC PROPER TIES OF METAL & METAL OXIDE FILMS & MULTILAYER FOR 09/28/1999 - 09/30/2001	FY01: \$100,000	Total: \$200,000
Prin. Invest.: K J STEBE/VAN NGUYE Tech. Officer: GSFC/L SMITH CASE Category: 99 – MULTI INTERDISCPL, OTHER			Prin. Invest.: C WILLIAMS Tech. Officer: GSFC/J CHITWOOD CASE Category: 13 – PHYSICS		
<b>NGT 5 50328</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4996</b>	<b>NAG 5 8860</b>	<b>MORGAN STATE UNIV</b>	<b>5004</b>
THE IMPACT OF DATA CONSTRAINTS IN GLOBAL CLIMATE MODELS (STUDENT: ANDREA MOLOD) 08/17/2000 - 08/31/2002	JOHNS HOPKINS UNIV FY01: \$22,000	Total: \$44,000	SCIENCE ENGINEERING & MATHEMATICS (SEM) ENRICH MENT PROGRAM FOR BALTIMORE MIDDLE & HIGH SCHOOL 09/28/1999 - 07/14/2001	FY01: \$0	Total: \$357,205
Prin. Invest.: D WAUGH Tech. Officer: GSFC/M WEI CASE Category: 39 – ENVIRONMENTAL SCI, OTHER			Prin. Invest.: H WILLIAMS Tech. Officer: GSFC/D MENCHAN CASE Category: 99 – MULTI INTERDISCPL, OTHER		
<b>NGT 5 50372</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4997</b>	<b>NAG 5 9215</b>	<b>MORGAN STATE UNIV</b>	<b>5005</b>
SYNTHESIS, GROWTH KINETICS, AND ASSEMBLY OF NANO PARTICLES 06/13/2001 - 07/31/2002	JOHNS HOPKINS UNIV FY01: \$22,000	Total: \$22,000	FORGING A PARTNERSHIP: A TWENTY-FIRST CENTURY APPR OACH TO THE INVESTIGATION OF SCIENTIFIC& TECHNOL 03/09/2000 - 12/14/2001	FY01: \$0	Total: \$850,000
Prin. Invest.: P C SEARSON Tech. Officer: GSFC/K BLANDING CASE Category: 99 – MULTI INTERDISCPL, OTHER			Prin. Invest.: E DELOATCH Tech. Officer: GSFC/G SOFFEN CASE Category: 49 – ENGINEERING, OTHER		
<b>NGT 9 50</b>	<b>JOHNS HOPKINS UNIV</b>	<b>4998</b>	<b>NAG 5 9710</b>	<b>MORGAN STATE UNIV</b>	<b>5006</b>
AN INVESTIGATION OF THE ADDITIVITY AND LINEARITY 07/05/2000 - 07/09/2002	JOHNS HOPKINS UNIV FY01: \$22,000	Total: \$44,000	A PROPOSAL FOR NASA-RELATED RESEARCH CAPACITY BUIL DINING AND OUTREACH BUILDING AND OUTREACCHAT MORGAN 06/29/2000 - 12/30/2001	FY01: \$0	Total: \$1,600,000
Prin. Invest.: J DICELLO Tech. Officer: JSC/F A CUCINOTTA CASE Category: 56 – MEDICAL			Prin. Invest.: D N WILLIAMS Tech. Officer: GSFC/C PERSON CASE Category: 99 – MULTI INTERDISCPL, OTHER		
<b>NAG 5 10230</b>	<b>LOYOLA COLLEGE</b>	<b>4999</b>	<b>NAG 5 9895</b>	<b>MORGAN STATE UNIV</b>	<b>5007</b>
APPLICATION OF GRADIENT-DESCENT IMAGE REGISTRATION TO SATELLITE IMAGERY. 01/16/2001 - 01/31/2002	LOYOLA COLLEGE FY01: \$24,811	Total: \$24,811	WIDEBAND, LOW POWER SAMPLE-AND-HOLD CIRCUIT FOR DIGITAL MICROWAVE RADIOMETRY. 08/29/2000 - 08/31/2001	FY01: \$0	Total: \$6,200
Prin. Invest.: P EASTMAN Tech. Officer: GSFC/J LE MOIGNE CASE Category: 22 – COMPUTER SCIENCE			Prin. Invest.: D WHITE Tech. Officer: GSFC/J PIEDMEIER CASE Category: 45 – ELECTRICAL ENGR		
<b>NAG 5 4401</b>	<b>MORGAN STATE UNIV</b>	<b>5000</b>	<b>NAG 5 10104</b>	<b>MORGAN STATE UNIV</b>	<b>5008</b>
MODELING AND CHANGE POINT DETECTION IN MODIS ENGIN 04/18/1997 - 12/31/2000	MORGAN STATE UNIV FY01: \$0	Total: \$36,000	SPACE TECHNOLOGY 5 PROJECT. APPLICATION OF PRODUC- TION DESIGN CONSIDERATIONS TO NANO-SATELLITES 12/13/2000 - 12/14/2001	FY01: \$5,000	Total: \$5,000
Prin. Invest.: J SMID Tech. Officer: GSFC/B MARKHAM CASE Category: 21 – MATHEMATICS			Prin. Invest.: G CHEN Tech. Officer: GSFC/J OBERRIGHT CASE Category: 49 – ENGINEERING, OTHER		
<b>NAG 5 7136</b>	<b>MORGAN STATE UNIV</b>	<b>5001</b>	<b>NAG 5 10913</b>	<b>MORGAN STATE UNIV</b>	<b>5009</b>
CHARACTERIZATION AND SIMULATION OF GALLIUM NITRIDE ULTRAVIO- LETPHOTODETECTORS 03/16/1998 - 08/30/2001	MORGAN STATE UNIV FY01: \$0	Total: \$300,000	DEVELOPING A SSPA UTILIZING WIDE BAND GAP SEMICON- DUCTOR MATERIAL 05/22/2001 - 09/30/2001	FY01: \$13,244	Total: \$13,244
Prin. Invest.: C J SCOTT Tech. Officer: GSFC/B MOTT CASE Category: 45 – ELECTRICAL ENGR			Prin. Invest.: C WHITE Tech. Officer: GSFC/D NGUYEN CASE Category: 45 – ELECTRICAL ENGR		
<b>NAG 5 8574</b>	<b>MORGAN STATE UNIV</b>	<b>5002</b>			
SEM MULTIPURPOSE FACILITY/PHASE I 07/21/1999 - 07/14/2002	MORGAN STATE UNIV FY01: -\$4,106	Total: \$1,098,252			
Prin. Invest.: H WILLIAMS Tech. Officer: GSFC/P HOLLOWAY CASE Category: 99 – MULTI INTERDISCPL, OTHER					

**NAG 5 10934** MORGAN STATE UNIV 5010  
 IMAGE REGISTRATION AND FUSION FOR FUTURE FORMATION FLYING SYSTEMS  
 06/06/2001 - 06/14/2002 FY01: \$18,000 Total: \$18,000  
*Prin. Invest.: D COLE-RHODES*  
*Tech. Officer: GSFC/J MOIGNE*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 5 10947** MORGAN STATE UNIV 5011  
 A PROPOSAL CAPACITY BUILDING FOR NASA RELATED AND OUTREACH AT MORGAN STATE UNIV  
 05/25/2001 - 05/31/2002 FY01: \$1,600,000 Total: \$1,600,000  
*Prin. Invest.: D N WILLIAMS*  
*Tech. Officer: GSFC/B WHITE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 11229** MORGAN STATE UNIV 5012  
 EXAMINE SAMPLES OF CARBON CARBONADOS.  
 08/15/2001 - 08/14/2002 FY01: \$3,000 Total: \$3,000  
*Prin. Invest.: E C HAMMOND*  
*Tech. Officer: GSFC/P TAYLOR*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 8 1847** MORGAN STATE UNIV 5013  
 POLYMERIZATION OF ADVANCED THERMOSETS IN MICROGRAVITY TO DEVELOP ULTRA LOW POLYMERS  
 08/06/2001 - 07/31/2002 FY01: \$99,966 Total: \$99,966  
*Prin. Invest.: A KENNEDY*  
*Tech. Officer: MSFC/E ORDONEZ*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NAG 9 998** MORGAN STATE UNIV 5014  
 SMART-SENSOR DESIGN INCORPORATING SIGNAL PROCESSING FOR DATA-COMPRESSION AND FEATURE ENHANCEMENT  
 03/31/1998 - 08/31/2001 FY01: \$0 Total: \$300,000  
*Prin. Invest.: J E WHITNEY*  
*Tech. Officer: JSC/K KRISHEN*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 5 122** MORGAN STATE UNIV 5015  
 MORGAN NETWORK RESOURCE TRAINING SITE  
 08/15/1995 - 08/14/2000 FY01: \$0 Total: \$2,873,523  
*Prin. Invest.: W LUPTON*  
*Tech. Officer: GSFC/J BENNETT*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NCC 5 204** MORGAN STATE UNIV 5016  
 THE MAGNETIC, TRANSPORT AND STRUCTURAL PROPERTIES OF MAGNETIC OXIDE FILMS  
 06/11/1997 - 12/31/1999 FY01: \$0 Total: \$224,712  
*Prin. Invest.: C WILLIAMS, NONE*  
*Tech. Officer: GSFC/J S CHITWOOD*  
*CASE Category: 13 – PHYSICS*

**NCC 5 532** MORGAN STATE UNIV 5017  
 NRTS CONTINUATION/MUSPIN NRTS PROGRAM.  
 02/01/2001 - 01/31/2002 FY01: \$350,000 Total: \$350,000  
*Prin. Invest.: W LUPTON*  
*Tech. Officer: GSFC/J HARRINGTON*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 5 565** MORGAN STATE UNIV 5018  
 SIGE ADC FOR DIGITAL MICROWAVE RADIOMETRY  
 06/22/2001 - 06/14/2002 FY01: \$40,000 Total: \$40,000  
*Prin. Invest.: C WHITE*  
*Tech. Officer: GSFC/J PIEDMEIER*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NCC 5 488** TOWSON STATE UNIV 5019  
 MULTI-AGENT SYSTEMS INSPACECRAFT: INTELLIGENT AGENTS AND AGENT COMMUNITY MANAGEMENT  
 04/14/2000 - 08/31/2001 FY01: \$25,000 Total: \$49,205  
*Prin. Invest.: B N NAG*  
*Tech. Officer: GSFC/W TRUSzkowski*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 5 6249** U OF MD CTR FOR ENVIR SCI - CAMBRIDGE 5020  
 TIMES-SCALES OF LAND-USE CHANGE AND EXPORT OF N AND BASIN TO THE COASTAL ZONE  
 08/19/1997 - 08/31/2001 FY01: \$0 Total: \$350,351  
*Prin. Invest.: P R FISHER*  
*Prin. Invest.: C JANETOS*  
*Tech. Officer: GSFC/A C JANETOS*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 6286** U OF MD CTR FOR ENVIR SCI - CAMBRIDGE 5021  
 REMOTE OBSERVATIONS AND MODELING OF PHYTOPLANKTON  
 09/10/1997 - 08/31/2002 FY01: \$111,094 Total: \$753,539  
*Prin. Invest.: L HARDING*  
*Tech. Officer: GSFC/J HARDING*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 6387** U OF MD CTR FOR ENVIR SCI - CAMBRIDGE 5022  
 MODELLING N<sub>2</sub> AND C<sub>02</sub> FIXATION BY THE OCEANIC DIAZO TROPHIC CYANOBACTERIUM TRICHODESIUM  
 10/18/1997 - 09/30/2001 FY01: \$0 Total: \$239,144  
*Prin. Invest.: R G HOOD*  
*Tech. Officer: GSFC/J MARRA*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 7455** U OF MD CTR FOR ENVIR SCI - CAMBRIDGE 5023  
 INTEGRATING REMOTE AND IN SITU SENSING TO DETECT AND PREDICT CHANGE IN THE COASTAL ZONE  
 07/28/1998 - 07/31/2000 FY01: \$0 Total: \$50,696  
*Prin. Invest.: T C MALONE*  
*Tech. Officer: GSFC/J W CAMPBELL*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 7602** U OF MD CTR FOR ENVIR SCI - CAMBRIDGE 5024  
 REMOTE OBSERVATIONS IN THE CHOPTANK RIVER INDEX SITE: OCEAN COLOR, SALINITY, TEMPERATURE AND C  
 07/21/1998 - 08/31/2002 FY01: \$95,040 Total: \$447,423  
*Prin. Invest.: L W HARDING*  
*Tech. Officer: GSFC/J W CAMPBELL*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9527** U OF MD CTR FOR ENVIR SCI - CAMBRIDGE 5025  
 WORKSHOP: DESIGN & IMPLEMENTATION PLAN FOR A HARMFUL ALGAL BLOOMS OBSERVING SYSTEM (HABSSOS), A  
 04/28/2000 - 04/30/2001 FY01: \$0 Total: \$25,000  
*Prin. Invest.: T MALONE*  
*Tech. Officer: GSFC/J MARRA*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 11083 U OF MD CTR FOR ENVIR SCI - CAMBRIDGE 5026**  
 EFFECTS OF LAND USE, SOILS & HUMAN POPULATIONS ON EXPORT OF  
 WATER, C, N, & P FROM THE MID-ATLANTIC  
 07/19/2001 - 08/14/2002 FY01: \$81,621 Total: \$81,621  
*Prin. Invest.: T FISHER*  
*Tech. Officer: GSFC/G GUTMAN*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 11302 U OF MD CTR FOR ENVIR SCI - CAMBRIDGE 5027**  
 INDICES OF NUTRIENT ENRICHMENT IN U.S. ATLANTIC ESTUARIES FROM  
 REMOTE SENSING OF OCEAN COLOR AND  
 08/30/2001 - 08/31/2005 FY01: \$72,963 Total: \$72,963  
*Prin. Invest.: L HARDING*  
*Tech. Officer: GSFC/E LINDSTROM*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAS 5 00195 U OF MD CTR FOR ENVIR SCI - CAMBRIDGE 5028**  
 R&D TO SUPPORT GSFC'S SIMBIOS PROJECT  
 12/18/2000 - 11/30/2001 FY01: \$114,713 Total: \$114,713  
*Prin. Invest.: L W HARDING*  
*Tech. Officer: GSFC/C R MCCLAIN*  
*CASE Category: 33 – OCEANOGRAPHY*

**NCC 5 493 U OF MD CTR FOR ENVIR SCI - CAMBRIDGE 5029**  
 REMOTE SENSING OF FOREST COMPOSITION AND STRUCTURE IN THE  
 CENTRAL APPALACHIANS USING EO-1 HYPE  
 04/19/2000 - 12/31/2001 FY01: \$68,198 Total: \$136,279  
*Prin. Invest.: P A TOWNSEND*  
*Tech. Officer: GSFC/S G UNGAR*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 2 1195 UNIV OF MD - BIOTECH INST COLLEGE PARK 5030**  
 OCCURRENCE OF V CHOLERAES IN THE BAY OF BENGAL & APPLICATION  
 OF REMOTE SENSING METHODS FOR PREDICTION  
 03/26/1998 - 03/31/2002 FY01: \$32,449 Total: \$141,067  
*Prin. Invest.: R R COLWELL*  
*Tech. Officer: ARC/B L WOOD, ARC/M M AVERNER*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NCC 8 175 UNIV OF MD - BIOTECH INST COLLEGE PARK 5031**  
 R/S MICROBIAL RESISTANCE TO SOLAR RADIATION: DNA DAMAGE AND  
 APPLICATION OF REPAIR ENZYMES IN BIOTEC  
 01/15/1999 - 11/30/2002 FY01: \$89,500 Total: \$289,500  
*Prin. Invest.: J DI RUAGIERO*  
*Tech. Officer: JSC/S GONDA*  
*CASE Category: 54 – ENVIRONMENTAL BIOLOGY*

**NAG 1 1832 UNIV OF MARYLAND - COLLEGE PARK 5032**  
 DEVELOPMENT OF CORRECTIONS FOR BIOMASS BURNING EFFECTS IN  
 VERSION TWO OF GEWEX SRB ALGORITHM  
 04/30/1996 - 04/30/2000 FY01: -\$94 Total: \$260,609  
*Prin. Invest.: R T PINKER*  
*Tech. Officer: LARC/A B CARLSON*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 1 1880 UNIV OF MARYLAND - COLLEGE PARK 5033**  
 LARGE EDDY SIMULATION OF THE SOUND EMISSION FROM UNSTEADY  
 FLOW SEPARATION  
 11/25/1996 - 11/30/1999 FY01: -\$1 Total: \$140,000  
*Prin. Invest.: U PIOMELLI*  
*Tech. Officer: LARC/J L THOMAS*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NAG 1 1897 UNIV OF MARYLAND - COLLEGE PARK 5034**  
 INVESTIGATION OF TROPICAL TROPOSPHERIC WATER VAPOR MY 1/3  
 02/13/1997 - 02/12/2000 FY01: -\$1 Total: \$168,000  
*Prin. Invest.: A E DESSLER*  
*Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 1 2024 UNIV OF MARYLAND - COLLEGE PARK 5035**  
 DIRECT MEASUREMENTS OF TROPOSPHERIC OZONE FROM TOMS DATA  
 03/26/1998 - 01/31/2001 FY01: \$1 Total: \$351,001  
*Prin. Invest.: R D HUDSON*  
*Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 1 2285 UNIV OF MARYLAND - COLLEGE PARK 5036**  
 INTERACTION OF A BOUNDARY LAYER WITH A TURBULANT WAKE  
 03/30/2000 - 03/31/2003 FY01: \$54,997 Total: \$104,953  
*Prin. Invest.: U PIOMELLI*  
*Tech. Officer: LARC/C L STREETT/J L THOMAS*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NAG 1 01084 UNIV OF MARYLAND - COLLEGE PARK 5037**  
 WHIRL FLUTTER OF TWO BLADED PROPELLOR/PYLON SYSTEM  
 05/17/2001 - 03/14/2002 FY01: \$40,000 Total: \$40,000  
*Prin. Invest.: I CHOPRA*  
*Tech. Officer: LARC/A S POTOTZKY, LARC/R G KVATERNIK*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NAG 2 1311 UNIV OF MARYLAND - COLLEGE PARK 5038**  
 INSENSITIVITY OF CONTROL SYSTEM PERFORMANCE TO CON TROLLER &  
 SYSTEM PARAMETERS  
 03/17/1999 - 01/14/2001 FY01: \$0 Total: \$35,143  
*Prin. Invest.: W S LEVINE*  
*Tech. Officer: ARC/M B TISCHLER*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NAG 2 1329 UNIV OF MARYLAND - COLLEGE PARK 5039**  
 EVALUATION OF METHODOLOGY FOR TESTING AND ANALYSIS OF  
 ADVANCED ROTOR SYSTEMS  
 06/01/1999 - 04/30/2001 FY01: \$0 Total: \$137,436  
*Prin. Invest.: I CHOPRA*  
*Tech. Officer: ARC/W G WARMBRODT*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NAG 2 1352 UNIV OF MARYLAND - COLLEGE PARK 5040**  
 MECHANOSENSITIVE CHANNELS IN BACTERIA: FUNCTIONAL DOMAINS &  
 MECHANISMS OF GATING  
 07/27/1999 - 07/31/2002 FY01: \$56,471 Total: \$359,055  
*Prin. Invest.: S I SUKHAREV*  
*Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 2 1405 UNIV OF MARYLAND - COLLEGE PARK 5041**  
 QUAD TILTROTOR COMPUTATIONAL FLUID DYNAMICS PROGRAM  
 04/28/2000 - 04/30/2002 FY01: \$300,000 Total: \$589,999  
*Prin. Invest.: F SCHMITZ, J BAEDER*  
*Tech. Officer: ARC/R A STRAWN, ARC/C TUNG*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

<b>NAG 2 1407</b>	<b>UNIV OF MARYLAND - COLLEGE PARK</b>	<b>5042</b>	<b>NAG 3 2479</b>	<b>UNIV OF MARYLAND - COLLEGE PARK</b>	<b>5050</b>
DYNAMICS OF HELICOPTERS WITH ON-BLADE CONTROLS 05/22/2000 - 05/31/2002	FY01: \$29,313	Total: \$71,849	GEOPHYSICAL FLOW EXPERIMENT IN A ROTATING SPHERICAL CAPACITOR, UM #000508-7778 07/26/2000 - 11/30/2003	FY01: \$41,621	Total: \$57,486
Prin. Invest.: R CELI			Prin. Invest.: D DEANE		
Tech. Officer: ARC/M B TISCHER			Tech. Officer: GRC/F P CHIARAMONTE		
CASE Category: 41 - AERONAUTICAL ENGR			CASE Category: 49 - ENGINEERING, OTHER		
<b>NAG 3 1867</b>	<b>UNIV OF MARYLAND - COLLEGE PARK</b>	<b>5043</b>	<b>NAG 3 2480</b>	<b>UNIV OF MARYLAND - COLLEGE PARK</b>	<b>5051</b>
Critical Synamics for Ambient Temperature and Low Temperature Phase Transitions 05/09/1996 - 01/31/2001	FY01: \$16,320	Total: \$438,320	Propulsion/Airframe Integration for Hypersonic Acc ESS-to-Space 07/27/2000 - 09/30/2001	FY01: \$0	Total: \$74,306
Prin. Invest.: R A FERRELL			Prin. Invest.: D J LEWIS		
Tech. Officer: GRC/B S SINGH			Tech. Officer: GRC/D T PALAC		
CASE Category: 13 - PHYSICS			CASE Category: 41 - AERONAUTICAL ENGR		
<b>NAG 3 2106</b>	<b>UNIV OF MARYLAND - COLLEGE PARK</b>	<b>5044</b>	<b>NAG 3 2568</b>	<b>UNIV OF MARYLAND - COLLEGE PARK</b>	<b>5052</b>
UNIV RESEARCH AND TRAINING PROGRAM IN HYPersonic PROPULSION/AIRFRAME INTEGRATION 02/05/1998 - 09/30/1999	FY01: -\$2,597	Total: \$147,403	MATERIAL PROPERTIES GOVERNING COCURRENT FLAME SPEED IN MICROGRAVITY 03/20/2001 - 11/30/2004	FY01: \$100,000	Total: \$100,000
Prin. Invest.: M J LEWIS			Prin. Invest.: J L TORERO		
Tech. Officer: GRC/S R THOMAS			Tech. Officer: GRC/G A RUFF		
CASE Category: 41 - AERONAUTICAL ENGR			CASE Category: 49 - ENGINEERING, OTHER		
<b>NAG 3 2139</b>	<b>UNIV OF MARYLAND - COLLEGE PARK</b>	<b>5045</b>	<b>NAG 5 2754</b>	<b>UNIV OF MARYLAND - COLLEGE PARK</b>	<b>5053</b>
SPECTRUAL ELEMENT SIMULATIONS OF THERMAL CONVECTION IN A ROTARING HEMISPHERICAL SHELL WILL RADIAL G 03/17/1998 - 01/05/2001	FY01: \$0	Total: \$101,000	PREPARATION OF FLIGHT OPERATIONS AND IWS INTERGRATION OF THE CELIAS EXPERIMENT ON THE SOHO SPACECR 10/18/1994 - 10/31/1999	FY01: -\$201,054	Total: \$1,636,677
Prin. Invest.: A DEANE			Prin. Invest.: F IPAVICH		
Tech. Officer: GRC/A CHAIT			Tech. Officer: GSFC/A POLAND		
CASE Category: 19 - PHYSICAL SCIENCE, OTHER			CASE Category: 11 - ASTRONOMY		
<b>NAG 3 2206</b>	<b>UNIV OF MARYLAND - COLLEGE PARK</b>	<b>5046</b>	<b>NAG 5 2963</b>	<b>UNIV OF MARYLAND - COLLEGE PARK</b>	<b>5054</b>
INVESTIGATION OF POD BOILING HEAT TRANSFER MECHANISMS IN MICROGRAVITY USING AN ARRAY OF SURFACE MO 10/28/1998 - 05/31/2001	FY01: \$0	Total: \$177,300	SOLAR CYCLE DYNAMICS OF SOLAR MAGNETOSPHERIC AND HELIOSPHERIC PARTICLES AND LONG-TERM ATMOSPHERIC.. 06/09/1995 - 09/30/2000	FY01: \$0	Total: \$4,114,335
Prin. Invest.: J KIM			Prin. Invest.: G M MASON		
Tech. Officer: GRC/J B MCQUEILLEN			Tech. Officer: GSFC/T VON ROSENVINGE		
CASE Category: 49 - ENGINEERING, OTHER			CASE Category: 19 - PHYSICAL SCIENCE, OTHER		
<b>NAG 3 2223</b>	<b>UNIV OF MARYLAND - COLLEGE PARK</b>	<b>5047</b>	<b>NAG 5 3361</b>	<b>UNIV OF MARYLAND - COLLEGE PARK</b>	<b>5055</b>
ROBUST DIAGNOSIS OF PLANETARY GEARTRAIN FAULTS ROBUST DIAGNOSIS OF PLANETARY GEARTRAIN FAULTS 01/08/1999 - 11/24/2001	FY01: \$72,000	Total: \$244,015	ISO DATA ANALYSIS IN PROGRAM FOR RESEARCH TO BE CONDUCTED AT THE UMD 08/28/1996 - 08/31/2001	FY01: \$0	Total: \$196,200
Prin. Invest.: D J PINES			Prin. Invest.: D G CURRLA		
Tech. Officer: GRC/D G LEWICKI			Tech. Officer: GSFC/D WEST		
CASE Category: 46 - MECHANICAL ENGR			CASE Category: 11 - ASTRONOMY		
<b>NAG 3 2228</b>	<b>UNIV OF MARYLAND - COLLEGE PARK</b>	<b>5048</b>	<b>NAG 5 3454</b>	<b>UNIV OF MARYLAND - COLLEGE PARK</b>	<b>5056</b>
SUBCOOLED POOL BOILING HEAT TRANSFER MECHANISMS IN MICROGRAVITY: TERRIER-IMPROVED ORION SOUNDING RO 02/12/1999 - 10/12/2000	FY01: -\$88	Total: \$36,026	TERRESTRIAL MONITORING AT HIGH SPATIAL RESOLUTION: THE ROLE OF LANDSAT-TYPESENSORS IN MISSION..... 10/07/1996 - 06/01/2002	FY01: \$122,138	Total: \$1,695,179
Prin. Invest.: P KIM			Prin. Invest.: S N GOWARD		
Tech. Officer: GRC/J MCQUEILLEN			Tech. Officer: GSFC/D L WILLIAMS		
CASE Category: 49 - ENGINEERING, OTHER			CASE Category: 39 - ENVIRONMENTAL SCI, OTHER		
<b>NAG 3 2337</b>	<b>UNIV OF MARYLAND - COLLEGE PARK</b>	<b>5049</b>	<b>NAG 5 3455</b>	<b>UNIV OF MARYLAND - COLLEGE PARK</b>	<b>5057</b>
DATA-BASE ON FUEL AIR MIXING AND COMBUSTION FOR NATIONAL COMBUSTION 02/24/2000 - 02/02/2005	FY01: \$104,507	Total: \$144,507	ENHANCED ANTARCTIC RESEARCH WITH LANDSAT: ICE SHEET DYNAMICS, HISTORY, AND CARTOGRAPHY 10/07/1996 - 06/30/2001	FY01: \$16,000	Total: \$228,438
Prin. Invest.: A K GUPTA			Prin. Invest.: M A FAHNSTOCK		
Tech. Officer: GRC/R R TACINA			Tech. Officer: GSFC/D L WILLIAMS		
CASE Category: 41 - AERONAUTICAL ENGR			CASE Category: 39 - ENVIRONMENTAL SCI, OTHER		

**NAG 5 3548 UNIV OF MARYLAND - COLLEGE PARK 5058**  
 RADAR BACKSCATTER MODELING AND ALGORITHM DEVELOPMENT FOR  
 FORREST PARAMETERS RETRIEVAL FROM SAR DATA  
 11/27/1996 – 11/30/1999 FY01: -\$75 Total: \$319,071  
*Prin. Invest.: S LIANG, G SUN*  
*Tech. Officer: GSFC/J RANSON*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 3678 UNIV OF MARYLAND - COLLEGE PARK 5059**  
 TROPOSPHERIC CONVECTION AND STRATOSPHERE-TROPOSPHERE ON  
 PHOTOCHEMISTRY, AEROSOLS, AND CLIMATE  
 01/04/1997 – 01/14/2001 FY01: \$0 Total: \$830,000  
*Prin. Invest.: K E PICKERING*  
*Tech. Officer: GSFC/M D HALL*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 3836 UNIV OF MARYLAND - COLLEGE PARK 5060**  
 LOW LUMINOSITY ACCRETION ONTO COMPACT OBJECTS  
 02/11/1997 – 08/14/2001 FY01: \$0 Total: \$219,000  
*Prin. Invest.: J L WANG*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 3840 UNIV OF MARYLAND - COLLEGE PARK 5061**  
 MAGNETOHYDRODYNAMIC MODELS OF THE COLD INTERSTELLAR  
 02/14/1997 – 02/14/2002 FY01: \$0 Total: \$217,500  
*Prin. Invest.: E C OSTRIKER*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 3960 UNIV OF MARYLAND - COLLEGE PARK 5062**  
 THE EFFECT OF VARIATIONS IN PACIFIC FRESH-WATER AND INDIAN OCEAN  
 02/18/1997 – 01/31/2002 FY01: \$0 Total: \$350,884  
*Prin. Invest.: R WAJSOWICZ*  
*Tech. Officer: GSFC/E LINDSTROM*  
*CASE Category: 33 – OCEANOGRAPHY*

**NAG 5 4056 UNIV OF MARYLAND - COLLEGE PARK 5063**  
 SATELLITE BASED IDENTIFICATION OF LINKED VEGETATION SURFACE  
 TEMPERATURE ANOMALY AREAS  
 03/11/1997 – 03/14/2001 FY01: \$0 Total: \$400,350  
*Prin. Invest.: J R TOWNSHEND*  
*Tech. Officer: GSFC/C J TUCKER*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 4080 UNIV OF MARYLAND - COLLEGE PARK 5064**  
 OBSERVATIONS OF COMETS AND ASTEROIDS  
 04/11/1997 – 11/30/2001 FY01: \$0 Total: \$300,000  
*Prin. Invest.: D F A'HEARN*  
*Tech. Officer: GSFC/J BERGSTRAHL*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 4092 UNIV OF MARYLAND - COLLEGE PARK 5065**  
 A SPECTROSCOPIC INVESTIGATION INTO THE "MISSING UV  
 03/10/1997 – 12/31/1999 FY01: -\$6 Total: \$135,040  
*Prin. Invest.: D C BALACHANDRAN*  
*Tech. Officer: GSFC/H HASAN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 4152 UNIV OF MARYLAND - COLLEGE PARK 5066**  
 CROSS CORRELATION OF SOLAR WIND PLASMA PARAMETERS SOHO AND  
 SWE ON WIND  
 03/25/1997 – 03/31/2000 FY01: \$0 Total: \$147,530  
*Prin. Invest.: D A COPLAN*  
*Tech. Officer: GSFC/D EVANS*  
*CASE Category: 13 – PHYSICS*

**NAG 5 4186 UNIV OF MARYLAND - COLLEGE PARK 5067**  
 A STUDY WITH ALTIMETRY OF LOW FREQUENCY VARIABILITY KUROSHIO  
 EXTENSION  
 04/01/1997 – 03/31/2001 FY01: \$4,451 Total: \$194,265  
*Prin. Invest.: L WANG*  
*Tech. Officer: GSFC/N MAYNARD*  
*CASE Category: 33 – OCEANOGRAPHY*

**NAG 5 4278 UNIV OF MARYLAND - COLLEGE PARK 5068**  
 GLOBAL MHD SIMULATION OF THE SOLAR NEBULA  
 04/01/1997 – 03/31/2000 FY01: \$0 Total: \$144,586  
*Prin. Invest.: P M STONE*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 4313 UNIV OF MARYLAND - COLLEGE PARK 5069**  
 A SPACE PHYSICS ANALYSIS AND PLANNING TOOL  
 05/09/1997 – 12/31/2001 FY01: \$0 Total: \$312,500  
*Prin. Invest.: D C GOODRICH*  
*Tech. Officer: GSFC/J BREDEKAMP*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 5 4429 UNIV OF MARYLAND - COLLEGE PARK 5070**  
 A LABORATORY AND OBSERVATIONAL STUDY OF THE CHEMIC PROTO-  
 STELLAR NEBULAE  
 05/06/1997 – 09/30/2000 FY01: \$0 Total: \$137,670  
*Prin. Invest.: D G MUNDY*  
*Tech. Officer: GSFC/D NAVA*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 4638 UNIV OF MARYLAND - COLLEGE PARK 5071**  
 DEVELOPMENT OF ION AND ELECTRON PLASMA INSTRUMENT W DESIGN  
 CONCEPTS FOR THE MINIMUM SOLAR MISSION  
 05/30/1997 – 09/30/2000 FY01: \$0 Total: \$18,951  
*Prin. Invest.: M A COPLAN*  
*Tech. Officer: GSFC/E C SITTLER*  
*CASE Category: 13 – PHYSICS*

**NAG 5 4740 UNIV OF MARYLAND - COLLEGE PARK 5072**  
 THEORETICAL MODELS OF COMETARY OBSERVATIONS  
 06/04/1997 – 05/31/2000 FY01: -\$5,256 Total: \$44,481  
*Prin. Invest.: D F A'HEARN*  
*Tech. Officer: GSFC/W HUEBNER*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 4811 UNIV OF MARYLAND - COLLEGE PARK 5073**  
 DEFORESTATION AND DEGRADATION IN SOUTHERN AND CEN  
 06/25/1997 – 10/31/2001 FY01: \$0 Total: \$580,000  
*Prin. Invest.: S PRINCE*  
*Tech. Officer: GSFC/G C GUTMAN*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 5062**      UNIV OF MARYLAND - COLLEGE PARK      5074  
 THE ADVANCED THIN IONIZATION CALORIMETER (ATIC) BALLOON EXPERIMENT  
 03/29/1996 – 09/30/2001      FY01: \$0      Total: \$1,534,597  
*Prin. Invest.: E S SEO*  
*Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MARRITT*  
*CASE Category: 13 – PHYSICS*

**NAG 5 5083**      UNIV OF MARYLAND - COLLEGE PARK      5075  
 PROTON MAGNETIC SPECTROMETER FOR CUSP MEASUREMENTS  
 06/14/1996 – 12/31/1999      FY01: -\$204      Total: \$221,061  
*Prin. Invest.: M A COPLAN*  
*Tech. Officer: GSFC/L W CURKIN*  
*CASE Category: 13 – PHYSICS*

**NAG 5 5155**      UNIV OF MARYLAND - COLLEGE PARK      5076  
 OPTIMIZED CALORIMETER FOR ACCESS MEASUREMENTS OF Z-1-26  
 NUCLEI AND ELECTRONS  
 03/26/1998 – 03/31/2002      FY01: \$0      Total: \$247,200  
*Prin. Invest.: E S SEO*  
*Tech. Officer: GSFC/B A MERRITT/*  
*CASE Category: 13 – PHYSICS*

**NAG 5 5204**      UNIV OF MARYLAND - COLLEGE PARK      5077  
 COSMIC-RAY ORIGIN, ACCELERATION, AND PROPAGATION SELECTED  
 UNDER THE PRESIDENTIAL EARLY CAREER AWARD  
 06/24/1998 – 06/30/2003      FY01: \$100,000      Total: \$400,000  
*Prin. Invest.: E S SEO*  
*Tech. Officer: GSFC/B A MERRITT*  
*CASE Category: 13 – PHYSICS*

**NAG 5 5225**      UNIV OF MARYLAND - COLLEGE PARK      5078  
 GRANT NAG5-5225 FOR ANTIMATTER AND COSMIC RAY STUDIES USING  
 BESS. PI DR. EUN-SUK SEO  
 03/16/1999 – 03/11/2002      FY01: \$95,000      Total: \$281,100  
*Prin. Invest.: E S SEO*  
*Tech. Officer: GSFC/B A MERRITT*  
*CASE Category: 13 – PHYSICS*

**NAG 5 5249**      UNIV OF MARYLAND - COLLEGE PARK      5079  
 COSMIC RAY ENERGETICS AND MASS (CREAM) COSMIC RAY ENERGETICS  
 AND MASS (CREAM)  
 03/13/2000 – 11/30/2002      FY01: \$1,060,000      Total: \$2,088,200  
*Prin. Invest.: E SEO*  
*Tech. Officer: GSFC/B MERRITT*  
*CASE Category: 13 – PHYSICS*

**NAG 5 5263**      UNIV OF MARYLAND - COLLEGE PARK      5080  
 SOUNDING ROCKET EXPERIMENT TO EXPLORE ELECTRO-DYNAMICS  
 COUPLING  
 03/02/2000 – 02/21/2003      FY01: \$98,377      Total: \$160,277  
*Prin. Invest.: M A COPLAN*  
*Tech. Officer: GSFC/W B JOHNSON*  
*CASE Category: 13 – PHYSICS*

**NAG 5 5308**      UNIV OF MARYLAND - COLLEGE PARK      5081  
 FIRST YEAR FUNDING FOR NAG5-5308 FIRST YEAR FUNDING FOR  
 NAG5-5308  
 02/01/2001 – 11/30/2003      FY01: \$250,000      Total: \$250,000  
*Prin. Invest.: E S SEO*  
*Tech. Officer: GSFC/B A MERRITT*  
*CASE Category: 13 – PHYSICS*

**NAG 5 6004**      UNIV OF MARYLAND - COLLEGE PARK      5082  
 CHARACTERIZING LAND-COVER HETEROGENEITY AND LAND-C SENSOR  
 SATELLITE DATA  
 08/28/1997 – 03/14/2001      FY01: \$0      Total: \$573,934  
*Prin. Invest.: D DEFRIES*  
*Tech. Officer: GSFC/G C GUTMAN*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 6059**      UNIV OF MARYLAND - COLLEGE PARK      5083  
 COLLISIONLESS SHOCK PHENOMENA IN THE SOLAR ATMOSPHERIC RADIO  
 EMISSION  
 07/29/1997 – 06/30/2001      FY01: \$0      Total: \$139,548  
*Prin. Invest.: D THEJAPPA*  
*Tech. Officer: GSFC/W WAGNER*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 6190**      UNIV OF MARYLAND - COLLEGE PARK      5084  
 MAGNETIC RECONNECTION AND ASSOCIATED WAVE AND PART LISION-  
 LESS PLASMA  
 08/13/1997 – 06/30/2000      FY01: -\$149      Total: \$139,851  
*Prin. Invest.: D F DRAKE*  
*Tech. Officer: GSFC/J BOHLIN*  
*CASE Category: 13 – PHYSICS*

**NAG 5 6257**      UNIV OF MARYLAND - COLLEGE PARK      5085  
 RESEARCH IN SOLAR RADIO ASTRONOMY AT SHORT WAVELENGTHS  
 08/27/1997 – 08/31/2000      FY01: \$0      Total: \$149,000  
*Prin. Invest.: D KUNDU*  
*Tech. Officer: GSFC/W WAGNER*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 6282**      UNIV OF MARYLAND - COLLEGE PARK      5086  
 DETECTING THE LOCATION, SPATIAL EXTENT, RATES AND TROPICAL  
 DEFORESTATION  
 09/22/1997 – 12/31/1999      FY01: -\$681      Total: \$497,424  
*Prin. Invest.: J TOWNSHEND*  
*Tech. Officer: GSFC/A C JANETOS*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 6319**      UNIV OF MARYLAND - COLLEGE PARK      5087  
 COMBINING REMOTE SENSING AND HYDROLOGICAL MODELING ENERGY  
 BALANCE STUDIES  
 09/11/1997 – 12/31/2000      FY01: \$0      Total: \$453,762  
*Prin. Invest.: R DUBAYAH*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 6421**      UNIV OF MARYLAND - COLLEGE PARK      5088  
 GLOBAL VEGETATION DYNAMICS  
 09/26/1997 – 06/30/2001      FY01: \$0      Total: \$693,429  
*Prin. Invest.: S D PRINCE*  
*Tech. Officer: GSFC/D E WICKLAND*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 6459**      UNIV OF MARYLAND - COLLEGE PARK      5089  
 VALIDATING MODIS/MISR LAND SURFACE REFLECTING AND ALBEDO  
 PRODUCTS  
 10/14/1997 – 09/30/2001      FY01: \$66,980      Total: \$360,529  
*Prin. Invest.: S LIANG*  
*Tech. Officer: GSFC/D STARR*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 6464 UNIV OF MARYLAND - COLLEGE PARK 5090**  
 EOS VALIDATION ACTIVITY IN A DESERT ENCROACHMENT ZONE OF SUB-SAHEL AFRICA  
 10/14/1997 - 09/30/2001 FY01: \$78,888 Total: \$495,819  
*Prin. Invest.: R PINKER*  
*Tech. Officer: GSFC/D STARR*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 6483 UNIV OF MARYLAND - COLLEGE PARK 5091**  
 EVALUATION OF OPERATIONAL LONGWAVE RADIATION BUDGET PARAMETERS USING THE GOES SOUNDER  
 11/18/1997 - 06/30/2002 FY01: \$209,834 Total: \$839,848  
*Prin. Invest.: P ELLINGSON*  
*Tech. Officer: GSFC/J DODGE*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 6526 UNIV OF MARYLAND - COLLEGE PARK 5092**  
 MECHANOSENSITIVE INION CHANNELS IN BACTERIA  
 04/02/1998 - 02/28/2000 FY01: -\$1 Total: \$243,243  
*Prin. Invest.: S I SUKHAVREV*  
*Tech. Officer: GSFC/L P CHAMBERS*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NAG 5 6547 UNIV OF MARYLAND - COLLEGE PARK 5093**  
 ORIGIN AND IMPACT OF NUCLEAR ACTIVITY IN GALAXIES (LTSA)  
 10/29/1997 - 10/31/2001 FY01: \$32,300 Total: \$117,452  
*Prin. Invest.: S VEILLEUX*  
*Tech. Officer: GSFC/D WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 6630 UNIV OF MARYLAND - COLLEGE PARK 5094**  
 COREGISTRATION, THRESHOLDING, AND STOCHASTIC METHODS OF VALIDATION OF RAINFALL ESTIMATES FROM SPA  
 12/05/1997 - 01/14/2001 FY01: -\$45 Total: \$164,955  
*Prin. Invest.: B KEDEM*  
*Tech. Officer: GSFC/O A THIELE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 6667 UNIV OF MARYLAND - COLLEGE PARK 5095**  
 EVALUATION OF ACCURACIES IN GEOPHYSICAL PARAMETERS DERIVED FROM PATHFINDER DATA  
 12/10/1997 - 12/31/2001 FY01: \$0 Total: \$363,808  
*Prin. Invest.: P PINKER*  
*Tech. Officer: GSFC/J DODGE*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 6682 UNIV OF MARYLAND - COLLEGE PARK 5096**  
 INTERANNUAL VARIABILITY, TRENDS, AND TRACER CORRELATIONS IN THE UARS DATA SET  
 12/08/1997 - 11/30/2001 FY01: \$0 Total: \$158,542  
*Prin. Invest.: D B CONSIDINE*  
*Tech. Officer: GSFC/A DOUGLASS*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 6699 UNIV OF MARYLAND - COLLEGE PARK 5097**  
 ENHANCED METADATA EXTRACTION FOR NASA'S REGIONAL VALIDATION CENTER SYSTEM.  
 12/12/1997 - 03/31/2002 FY01: \$42,000 Total: \$189,770  
*Prin. Invest.: J JAJA*  
*Tech. Officer: GSFC/J LEMONIGNE*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 5 6750 UNIV OF MARYLAND - COLLEGE PARK 5098**  
 ANALYSIS TOOLS FOR IR LINE AND CONTINUUM OBSERVATIONS; COBE AND THE STRUCTURE OF THE GALACTIC I  
 01/12/1998 - 01/14/2002 FY01: \$0 Total: \$208,147  
*Prin. Invest.: M WOLFIRE*  
*Tech. Officer: GSFC/D WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 6970 UNIV OF MARYLAND - COLLEGE PARK 5099**  
 MACHINE LEARNING TO IMPROVE LAND COVER CLASSIFICATIONS FROM MULTISENSOR AND MULTITEMPORAL DATA  
 03/12/1998 - 09/30/2001 FY01: \$61,178 Total: \$305,083  
*Prin. Invest.: R E DEFRIES*  
*Tech. Officer: GSFC/D E WICKLAND*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 7058 UNIV OF MARYLAND - COLLEGE PARK 5100**  
 ICE FLOW IN THE NORTHEAST GREENLAND ICE STREAM: MEASUREMENT AND ANALYSIS  
 03/04/1998 - 02/28/2002 FY01: \$0 Total: \$272,998  
*Prin. Invest.: M FAHNESTOCK*  
*Tech. Officer: GSFC/S GOGINENI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 7069 UNIV OF MARYLAND - COLLEGE PARK 5101**  
 TRANSPORT OF ENERGETIC PARTICLES IN THE GALAXY – A TP  
 03/02/1998 - 02/28/2001 FY01: \$0 Total: \$202,993  
*Prin. Invest.: A LUKASIAK*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7111 UNIV OF MARYLAND - COLLEGE PARK 5102**  
 SOLAR WIND AND SUPRATHERMAL ION COMPOSITION ON WIN-D  
 03/25/1998 - 03/14/2001 FY01: \$0 Total: \$1,075,000  
*Prin. Invest.: G GLOECKLER*  
*Tech. Officer: GSFC/K OBILVIE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 7141 UNIV OF MARYLAND - COLLEGE PARK 5103**  
 PIONEER 10/11 AND ULYSSES STUDY OF ENERGETIC PARTICLES IN THE HELIOSPHERE  
 03/12/1998 - 02/28/2001 FY01: \$0 Total: \$329,500  
*Prin. Invest.: F B McDONALD*  
*Tech. Officer: GSFC/J LING*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7145 UNIV OF MARYLAND - COLLEGE PARK 5104**  
 EMISSION PROCESSES ASSOCIATED WITH SOLAR TYPE III RADIO BURSTS  
 03/23/1998 - 04/14/2002 FY01: \$24,796 Total: \$162,414  
*Prin. Invest.: T GOLLA*  
*Tech. Officer: GSFC/W WAGNER*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7263 UNIV OF MARYLAND - COLLEGE PARK 5105**  
 VERTICAL TRANSPORT PROCESSES IN THE SASS/GMI CHEMICAL TRANSPORT MODEL: DEVELOPMENT, EVALUATION, AND  
 04/29/1998 - 04/30/2001 FY01: \$0 Total: \$170,883  
*Prin. Invest.: K PICKERING*  
*Tech. Officer: GSFC/R W STEWART*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 7419 UNIV OF MARYLAND - COLLEGE PARK 5106**  
 SIMULATION OF RADIOACTIVE TRACERS TO EVALUATE TRANSPORT AND  
 SCAVENGING IN THE GMI CORE MODEL  
 06/29/1998 – 04/30/2001 FY01: \$0 Total: \$162,321  
*Prin. Invest.: D CONSIDINE*  
*Tech. Officer: GSFC/R W STEWART*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 7536 UNIV OF MARYLAND - COLLEGE PARK 5107**  
 BOREAL ECOSYSTEM-ATMOSPHERE INFORMATION SYSTEMS DESIGN  
 AND OPERATION  
 06/18/1998 – 12/31/1999 FY01: -\$147 Total: \$89,779  
*Prin. Invest.: K HUMMERICK*  
*Tech. Officer: GSFC/F HALL*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 7587 UNIV OF MARYLAND - COLLEGE PARK 5108**  
 TERRESTRIAL ENVIRONMENTAL VARIABLES DERIVED FROM EOS PLATFORM  
 06/29/1998 – 07/31/2001 FY01: \$0 Total: \$241,817  
*Prin. Invest.: S N GOWARD*  
*Tech. Officer: GSFC/D E WICKLAND*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 7628 UNIV OF MARYLAND - COLLEGE PARK 5109**  
 LEARNING CONTROLLERS FOR ENHANCED AUTONOMY OF SPACE ROBOTS  
 08/24/1998 – 04/30/2000 FY01: \$0 Total: \$64,930  
*Prin. Invest.: D SANNER*  
*Tech. Officer: HQ/D LAVERY*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7634 UNIV OF MARYLAND - COLLEGE PARK 5110**  
 ISOTOPIC AND GEOCHEMICAL INVESTIGATIONS OF METEORITES  
 09/10/1998 – 07/31/2002 FY01: \$0 Total: \$209,000  
*Prin. Invest.: R J WALKER*  
*Tech. Officer: HQ/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7678 UNIV OF MARYLAND - COLLEGE PARK 5111**  
 MISSION OPERATIONS AND DATA ANALYSIS OF THE CELIAS EXPERIMENT ON SOHO PRIOR GRANT 2754  
 09/17/1998 – 04/30/2001 FY01: \$0 Total: \$400,000  
*Prin. Invest.: F IPAVICH*  
*Tech. Officer: GSFC/J GURMAN*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 7762 UNIV OF MARYLAND - COLLEGE PARK 5112**  
 WIND/SOHO GUEST OBSERVER PROGRAM FOR STUDY OF SOLAR ENERGY PARTICLES AND GALACTIC  
 12/24/1998 – 09/30/2001 FY01: \$87,200 Total: \$251,100  
*Prin. Invest.: F B MCDONALD*  
*Tech. Officer: GSFC/M GUHATHAKURTA*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7842 UNIV OF MARYLAND - COLLEGE PARK 5113**  
 OBSERVING SYSTEM SIMULATION EXPERIMENTS AND 4DDA ASSOCIATED WITH CAMEX3  
 11/27/1998 – 11/30/2001 FY01: \$0 Total: \$270,000  
*Prin. Invest.: D ZHANG*  
*Tech. Officer: GSFC/A F NEGRI*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 7901 UNIV OF MARYLAND - COLLEGE PARK 5114**  
 EIT STUDIES OF LARGE SCALE STRUCTURES IN THE SOLAR CORONA  
 12/02/1998 – 12/14/2000 FY01: \$0 Total: \$138,357  
*Prin. Invest.: M R KUNDU*  
*Tech. Officer: GSFC/J GURMAN*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 7958 UNIV OF MARYLAND - COLLEGE PARK 5115**  
 DYNAMICS OF DUST IN THE JOVIAN SYSTEM  
 01/27/1999 – 02/28/2001 FY01: \$0 Total: \$99,321  
*Prin. Invest.: D P HAMILTON*  
*Tech. Officer: GSFC/R BEEBE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8029 UNIV OF MARYLAND - COLLEGE PARK 5116**  
 THIS GRANT WILL CONDUCT BASIC SCIENTIFIC RESEARCH IN THE PHYSICS OF SOLAR FLARES; INCREASING  
 01/15/1999 – 04/01/2000 FY01: -\$2,652 Total: \$108,006  
*Prin. Invest.: E J SCHMAHL*  
*Tech. Officer: GSFC/C J CRANNELL*  
*CASE Category: 13 – PHYSICS*

**NAG 5 8033 UNIV OF MARYLAND - COLLEGE PARK 5117**  
 SUPPORT OF DATA ACCESS FOR THE IMP-8 UMD EXPERIMENT  
 01/19/1999 – 01/31/2002 FY01: \$5,630 Total: \$16,937  
*Prin. Invest.: F IPAVICH*  
*Tech. Officer: GSFC/J KING*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8079 UNIV OF MARYLAND - COLLEGE PARK 5118**  
 A PROPOSAL TO ASSIST IN THE INTERPRETATION OF DATA FROM THE COSMIC RAY ISOTOPE SPECTROMETER EXPERIMENT  
 01/14/1999 – 12/31/2001 FY01: \$48,600 Total: \$140,400  
*Prin. Invest.: D LUKASIAK*  
*Tech. Officer: GSFC/D C LING*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8105 UNIV OF MARYLAND - COLLEGE PARK 5119**  
 GEOMORPHOLOGICAL ANALYSIS OF TERRAINS ON EARTH AND MARSPOP: 2/1/99-1/31/00  
 02/19/1999 – 05/31/2001 FY01: \$0 Total: \$107,623  
*Prin. Invest.: R DUBAYAH*  
*Tech. Officer: GSFC/J B GARVIN*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 8121 UNIV OF MARYLAND - COLLEGE PARK 5120**  
 GENERATION OF A CONSISTENT TERRESTRIAL NET PRIMARY PRODUCTION DATA SET: PART II  
 01/26/1999 – 12/31/2001 FY01: \$9,124 Total: \$187,510  
*Prin. Invest.: S D PRINCE*  
*Tech. Officer: GSFC/D E WICKLAND*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8177 UNIV OF MARYLAND - COLLEGE PARK 5121**  
 DISTRIBUTION OF IJRS SPECIAL ISSUE ON GLOBAL AND REGIONAL LAND COVER CHARACTERIZATION FROM REMOTE  
 02/09/1999 - 12/31/2000 FY01: \$0 Total: \$15,037  
*Prin. Invest.: R DEFRIES*  
*Tech. Officer: GSFC/A C JANETOS*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8179 UNIV OF MARYLAND - COLLEGE PARK 5122**  
 INTERNATIONAL FORUM ON BRDF  
 02/12/1999 - 12/30/2000 FY01: \$0 Total: \$14,993  
*Prin. Invest.: S LIANG*  
*Tech. Officer: GSFC/D E WICKLAND*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8189 UNIV OF MARYLAND - COLLEGE PARK 5123**  
 OCCULTATION SYSTEM UPGRADE  
 03/08/1999 - 03/14/2002 FY01: \$0 Total: \$128,231  
*Prin. Invest.: M F A'HEARN*  
*Tech. Officer: GSFC/T MORGAN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8192 UNIV OF MARYLAND - COLLEGE PARK 5124**  
 RESEARCH IN SOLAR RADIO ASTRONOMY AT SHORT WAVELENGTHS  
 05/13/1999 - 05/31/2002 FY01: \$182,255 Total: \$342,214  
*Prin. Invest.: M R KUNDU, NONE*  
*Tech. Officer: GSFC/W J WAGNER*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8230 UNIV OF MARYLAND - COLLEGE PARK 5125**  
 COMPARISON OF THE RADIATIVE AND PHYSIOLOGICAL EFFECTS OF DOUBLED CO<sub>2</sub> ON THE GLOBAL CLIMATE AND DEVELOPMENT  
 03/01/1999 - 11/30/2000 FY01: \$0 Total: \$151,808  
*Prin. Invest.: L BOUNOUA*  
*Tech. Officer: GSFC/J G COLLATZ*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8263 UNIV OF MARYLAND - COLLEGE PARK 5126**  
 SALINITY EFFECTS ON INTRA-SEASONAL TO INTERANNUAL VARIABILITY OF A COUPLED CLIMATE PREDICTION MODEL  
 02/22/1999 - 12/31/2001 FY01: \$149,463 Total: \$429,840  
*Prin. Invest.: R MURTUGUDDE*  
*Tech. Officer: GSFC/E LINDSTROM*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8289 UNIV OF MARYLAND - COLLEGE PARK 5127**  
 DYNAMICAL DIAGNOSIS OF THE NSIPP ATMOSPHERIC AND COUPLED MODEL SIMULATIONS  
 02/24/1999 - 02/28/2002 FY01: \$101,935 Total: \$302,305  
*Prin. Invest.: S NIGAM*  
*Tech. Officer: GSFC/M RIENECKER*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 8366 UNIV OF MARYLAND - COLLEGE PARK 5128**  
 SURFACE RADIATION BUDGETS FOR LBA  
 03/08/1999 - 02/28/2002 FY01: \$100,457 Total: \$290,045  
*Prin. Invest.: R T PINKER*  
*Tech. Officer: GSFC/E T ENGMAN*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8398 UNIV OF MARYLAND - COLLEGE PARK 5129**  
 CONDUCT RESEARCH IN RAREFIED GAS DYNAMICS TO SUPPORT THE DEVELOPMENT OF NASA'S GLOBAL ELECTRODYNAMICS  
 05/10/1999 - 05/14/2002 FY01: \$37,000 Total: \$150,000  
*Prin. Invest.: D J LEWIS*  
*Tech. Officer: GSFC/J FIORA*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 8411 UNIV OF MARYLAND - COLLEGE PARK 5130**  
 ISTP GGS SOLARMAX  
 03/16/1999 - 02/28/2001 FY01: \$0 Total: \$640,000  
*Prin. Invest.: K PAPADOPOULOS*  
*Tech. Officer: GSFC/S CURTIS*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8459 UNIV OF MARYLAND - COLLEGE PARK 5131**  
 EQ-S MISSIONS OPERATIONS AND DATA ANALYSIS  
 04/19/1999 - 04/14/2002 FY01: \$51,041 Total: \$139,871  
*Prin. Invest.: J DRAKE*  
*Tech. Officer: GSFC/M HESSE*  
*CASE Category: 13 – PHYSICS*

**NAG 5 8528 UNIV OF MARYLAND - COLLEGE PARK 5132**  
 ENSEMBLE OCEAN-ATMOSPHERE PERTURBATIONS WITH GROWING ENSO USING BREEDING  
 05/26/1999 - 05/31/2002 FY01: \$194,706 Total: \$584,118  
*Prin. Invest.: E KALNAY*  
*Tech. Officer: GSFC/M RIENECKER*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8575 UNIV OF MARYLAND - COLLEGE PARK 5133**  
 DEVELOPMENT OF PROCEDURES FOR SELECTING LANDSAT SCENES FOR EARTH SYSTEM SCIENCE  
 06/07/1999 - 12/31/2000 FY01: \$0 Total: \$69,968  
*Prin. Invest.: J TOWNSHEND*  
*Tech. Officer: GSFC/C J TUCKER*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8583 UNIV OF MARYLAND - COLLEGE PARK 5134**  
 PLUME IMPINGEMENT MODELING FOR SPACECRAFT DESIGN  
 06/08/1999 - 06/14/2001 FY01: \$0 Total: \$50,000  
*Prin. Invest.: M J LEWIS*  
*Tech. Officer: GSFC/M RHEE*  
*CASE Category: 42 – ASTRONAUTICAL ENGR*

**NAG 5 8595 UNIV OF MARYLAND - COLLEGE PARK 5135**  
 PHYSICAL & BIOGEOCHEMICAL PROCESSES WITH THE INDIA OCEAN: A STUDY OF ANNUAL & INTERANNUAL VARIABILITY  
 06/07/1999 - 11/30/2001 FY01: \$0 Total: \$272,923  
*Prin. Invest.: R MURTUGUDDE*  
*Tech. Officer: GSFC/J W CAMPBELL*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8596 UNIV OF MARYLAND - COLLEGE PARK 5136**  
 YEAR 1 FUNDING FROM HPCC/ESS PROJECT FOR PROPOSAL TITLE: AN ADAPTIVE MHD CODE BASED ON CHARACTERISTICS  
 06/11/1999 - 06/14/2002 FY01: \$43,620 Total: \$146,327  
*Prin. Invest.: A DEANE*  
*Tech. Officer: GSFC/J R FISCHER*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 8613 UNIV OF MARYLAND - COLLEGE PARK 5137**  
 CLIMATE CHANGE, EXTREME COASTAL WATER LEVEL EVENTS AND  
 COASTAL EROSION  
 06/11/1999 - 12/31/2000 FY01: \$0 Total: \$72,761  
*Prin. Invest.: B DOUGLAS*  
*Tech. Officer: GSFC/E PAYLOR*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8621 UNIV OF MARYLAND - COLLEGE PARK 5138**  
 ANALYSIS OF DATA FROM THE SWE EXPERIMENT ON THE WIND SPACE-  
 CRAFT  
 06/16/1999 - 03/31/2001 FY01: \$0 Total: \$31,144  
*Prin. Invest.: M COPLAN, NONE*  
*Tech. Officer: GSFC/K OGILVIE*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 8678 UNIV OF MARYLAND - COLLEGE PARK 5139**  
 ROLE OF GRAY SQUIRRELS IN MAINTAINING LIFE CYCLE  
 07/09/1999 - 08/31/2002 FY01: \$0 Total: \$18,885  
*Prin. Invest.: L W ADAMS*  
*Tech. Officer: GSFC/D E WALTER*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 5 8711 UNIV OF MARYLAND - COLLEGE PARK 5140**  
 DEVELOPMENT OF A HIGH SPEED, HIGH FUNCTIONALITY, RELIABLE FIBER  
 OPTICS SWITCH MODULE BASED ON RESON  
 07/21/1999 - 09/30/2000 FY01: \$0 Total: \$45,000  
*Prin. Invest.: D DAGENAIS*  
*Tech. Officer: GSFC/H C SHAW*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NAG 5 8764 UNIV OF MARYLAND - COLLEGE PARK 5141**  
 MODELS & ALGORITHMS FOR FOREST DYNAMIC STUDIES IN SIBERIA &  
 NORTHEASTERN CHINA USING MULTI-SATELLITE  
 09/10/1999 - 11/30/2002 FY01: \$115,291 Total: \$224,080  
*Prin. Invest.: G SUN*  
*Tech. Officer: GSFC/K J RANSON*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8789 UNIV OF MARYLAND - COLLEGE PARK 5142**  
 CENTRAL AFRICA REGIONAL PROGRAM FOR THE ENVIRONMEN T  
 09/03/1999 - 08/31/2000 FY01: \$0 Total: \$76,729  
*Prin. Invest.: N T LAPORTE-GOETZ*  
*Tech. Officer: GSFC/C J TUCKER*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8809 UNIV OF MARYLAND - COLLEGE PARK 5143**  
 COMBINING HYDROLOGICAL MODELING AND REMOTE SENSING FOR  
 APPLIED MACROSCALE WATER AND ENERGY BALAN  
 09/08/1999 - 09/30/2000 FY01: \$0 Total: \$66,163  
*Prin. Invest.: R DUBAYAH*  
*Tech. Officer: GSFC/E WOOD*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8833 UNIV OF MARYLAND - COLLEGE PARK 5144**  
 THE REDSHIFT DEPENDENCE OF THE INTERACTION- ACTIVITY CONNECTION AMONG ULTRALUMINOUS STARBURST  
 09/12/2000 - 09/14/2002 FY01: \$8,325 Total: \$17,432  
*Prin. Invest.: P J TEUBEN*  
*Tech. Officer: GSFC/R OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8842 UNIV OF MARYLAND - COLLEGE PARK 5145**  
 AWARD FUNDING TO THE UNIV OF MARYLAND FOR PROPOSAL ENTITLED  
 "OCTOBER ASTROPHYSICS CONFER  
 09/24/1999 - 09/30/2002 FY01: \$25,000 Total: \$75,000  
*Prin. Invest.: J D TRASCO*  
*Tech. Officer: GSFC/D NORTON*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8849 UNIV OF MARYLAND - COLLEGE PARK 5146**  
 SOLAR FLARE PHYSICS  
 12/16/1999 - 01/14/2001 FY01: \$0 Total: \$118,283  
*Prin. Invest.: E J SCHMAHL*  
*Tech. Officer: GSFC/B R DENNIS*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8877 UNIV OF MARYLAND - COLLEGE PARK 5147**  
 SOLAR CYCLE DYNAMICS STUDIES WITH SAMPEX  
 11/24/1999 - 11/30/2001 FY01: \$756,000 Total: \$1,550,000  
*Prin. Invest.: G MASON*  
*Tech. Officer: GSFC/T VON ROSENVINGE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8936 UNIV OF MARYLAND - COLLEGE PARK 5148**  
 AN INVESTIGATION OF TROPICAL UPPER TROPOSPHERIC HUMIDITY  
 01/18/2000 - 11/30/2001 FY01: \$112,117 Total: \$259,155  
*Prin. Invest.: A DESSLER*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9075 UNIV OF MARYLAND - COLLEGE PARK 5149**  
 ULTRA-WIDEBAND MICROWAVE SPECTROMETERS FOR HETEROD YNE  
 SPECTROSCOPY  
 02/16/2000 - 02/28/2002 FY01: \$100,000 Total: \$228,000  
*Prin. Invest.: A HARRIS*  
*Tech. Officer: GSFC/G STRINGFELLOW*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 9108 UNIV OF MARYLAND - COLLEGE PARK 5150**  
 MAGNETIC RECONNECTION & ASSOCIATED WAVE & PARTICLE SIGNA-  
 TURES IN COLLISIONLESS PLASMA  
 02/23/2000 - 02/28/2003 FY01: \$91,362 Total: \$176,162  
*Prin. Invest.: J F DRAKE*  
*Tech. Officer: GSFC/J SHARBER*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 9150 UNIV OF MARYLAND - COLLEGE PARK 5151**  
 CENTER FOR SATELLITE AND HYBRID COMMUNICATION NETWORKS, NASA  
 COMMERCIAL SPACE CENTER  
 03/03/2000 - 09/01/2001 FY01: \$0 Total: \$1,000,000  
*Prin. Invest.: J BARAS*  
*Tech. Officer: GSFC/R DEPAULA*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 9151 UNIV OF MARYLAND - COLLEGE PARK 5152**  
 UNDERGRADUATE AND GRADUATE STUDENT TRAINING IN AERONAUTICS  
 RESEARCH (STAR)  
 03/02/2000 - 02/28/2001 FY01: \$27,000 Total: \$53,798  
*Prin. Invest.: M GAVRILAS*  
*Tech. Officer: GSFC/M S BURRELL*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NAG 5 9167 UNIV OF MARYLAND - COLLEGE PARK 5153**  
EVOLUTIONARY MODELS OF COLD, MAGNETIZED, INTERSTELLAR CLOUDS (ATP 99)  
03/15/2000 - 03/14/2002 FY01: \$90,530 Total: \$173,503  
*Prin. Invest.: E OSTRIKER*  
*Tech. Officer: GSFC/R OLIVERSEN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9228 UNIV OF MARYLAND - COLLEGE PARK 5154**  
ESTABLISHMENT OF CENTER FOR ADVANCED INFORMATION TECHNOLOGY  
03/20/2000 - 02/28/2002 FY01: \$0 Total: \$2,000,000  
*Prin. Invest.: G L GEOFFROY*  
*Tech. Officer: GSFC/M PHELPS*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 9271 UNIV OF MARYLAND - COLLEGE PARK 5155**  
PDRS IN GALAXIES: FROM THE LOCAL UNIVERSE TO HIGH Z STARBURSTS (LTSA 99)  
03/15/2000 - 03/14/2002 FY01: \$84,083 Total: \$130,777  
*Prin. Invest.: M WOLFIRE*  
*Tech. Officer: GSFC/R OLIVERSEN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9282 UNIV OF MARYLAND - COLLEGE PARK 5156**  
MISSION OPERATIONS & DATA ANALYSIS FOR THE CELIAS/ MT OF EXPERIMENT  
04/06/2000 - 04/30/2002 FY01: \$350,000 Total: \$750,000  
*Prin. Invest.: F I PAVICH*  
*Tech. Officer: GSFC/J GURMAN*  
*CASE Category: 19 - PHYSICAL SCIENCE, OTHER*

**NAG 5 9319 UNIV OF MARYLAND - COLLEGE PARK 5157**  
AN INTEGRATED FOREST MONITORING SYSTEM FOR CENTRAL ASIA  
03/22/2000 - 03/31/2002 FY01: \$120,224 Total: \$201,720  
*Prin. Invest.: N LAPORTE, NONE*  
*Tech. Officer: GSFC/G GUTMAN*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 9329 UNIV OF MARYLAND - COLLEGE PARK 5158**  
INTER-ANNUAL LAND SURFACE VARIATION  
03/24/2000 - 04/30/2002 FY01: \$221,967 Total: \$382,505  
*Prin. Invest.: S D PRINCE*  
*Tech. Officer: GSFC/G GUTMAN*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 9337 UNIV OF MARYLAND - COLLEGE PARK 5159**  
IMPROVEMENTS IN LANDSAT PATHFINDER METHODS FOR MONITORING TROPICAL DEFORESTATION & THEIR EXTENSION  
03/27/2000 - 04/30/2002 FY01: \$119,255 Total: \$291,348  
*Prin. Invest.: J R TOWNSHEND*  
*Tech. Officer: GSFC/G GUTMAN*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 9338 UNIV OF MARYLAND - COLLEGE PARK 5160**  
MONITORING FOREST DYNAMICS IN NORTHEASTERN CHINA IN SUPPORT OF GOFC  
03/31/2000 - 04/30/2002 FY01: \$105,741 Total: \$176,441  
*Prin. Invest.: G SUN*  
*Tech. Officer: GSFC/G GUTMAN*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 9339 UNIV OF MARYLAND - COLLEGE PARK 5161**  
TOWARDS METHODOLOGIES FOR GLOBAL MONITORING OF FOR EST COVER CHARACTERISTICS WITH COARSE  
03/31/2000 - 04/30/2002 FY01: \$114,324 Total: \$191,624  
*Prin. Invest.: R DEFRIES*  
*Tech. Officer: GSFC/G GUTMAN*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 9411 UNIV OF MARYLAND - COLLEGE PARK 5162**  
UNDERSTANDING WATER, ENERGY AND CLIMATE: A GEWEX GLOBAL WATER & ENERGY BUDGET PATHFINDER DATA SET  
04/10/2000 - 04/30/2002 FY01: \$48,533 Total: \$78,333  
*Prin. Invest.: R DUBAYAH*  
*Tech. Officer: GSFC/J DODGE*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 9440 UNIV OF MARYLAND - COLLEGE PARK 5163**  
CONTRIBUTION OF EMISSIONS FROM BOREAL FOREST FIRES  
04/13/2000 - 04/30/2002 FY01: \$222,068 Total: \$398,951  
*Prin. Invest.: K KASISCHKE*  
*Tech. Officer: GSFC/D WICKLAND*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 9447 UNIV OF MARYLAND - COLLEGE PARK 5164**  
TERRESTRIAL HYDROLOGY & CLIMATE STUDIES USING EOS- ERA DATA  
04/12/2000 - 04/14/2003 FY01: \$90,478 Total: \$151,972  
*Prin. Invest.: R DUBAYAH*  
*Tech. Officer: GSFC/P Houser*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 9481 UNIV OF MARYLAND - COLLEGE PARK 5165**  
WORKSHOP: DESIGN & IMPLEMENTATION PLAN FOR A HARMFUL ALGAL BLOOMS OBSERVING SYSTEM (HABSSOS), A  
04/19/2000 - 04/30/2001 FY01: \$0 Total: \$0  
*Prin. Invest.: T MALONE*  
*Tech. Officer: GSFC/J MARRA*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 9524 UNIV OF MARYLAND - COLLEGE PARK 5166**  
A STUDY OF INTERANNUAL AND DECADAL VARIABILITY IN THE PACIFIC  
04/26/2000 - 05/31/2001 FY01: \$0 Total: \$43,526  
*Prin. Invest.: L WANG*  
*Tech. Officer: GSFC/E LINSTROM*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 9560 UNIV OF MARYLAND - COLLEGE PARK 5167**  
2000 ASEEE-NASA SUMMER FACULTY FELLOWSHIP PROGRAM (AERONAUTICS AND SPACE RESEARCH)  
05/09/2000 - 09/14/2001 FY01: \$4,000 Total: \$309,000  
*Prin. Invest.: M GAVRILAS*  
*Tech. Officer: GSFC/M S BURRELL*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 9575 UNIV OF MARYLAND - COLLEGE PARK 5168**  
THE PHYSICAL & CHEMICAL STRUCTURE OF CIRCUMSTELLAR DISKS & ENVELOPES  
05/10/2000 - 04/30/2001 FY01: \$0 Total: \$40,000  
*Prin. Invest.: L MUNDY*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 13 - PHYSICS*

**NAG 5 9620 UNIV OF MARYLAND - COLLEGE PARK 5169**  
A GLOBAL NETWORK OF SITES FOR ASSESSING BIOGEOCHEMICAL & BIOPHYSICAL CONSEQUENCES OF LAND COVER DIS  
05/18/2000 - 05/14/2002 FY01: \$141,709 Total: \$231,709  
*Prin. Invest.: R DEFRIES*  
*Tech. Officer: GSFC/J DODGE*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9621 UNIV OF MARYLAND - COLLEGE PARK 5170**  
A FEDERATION INTEROPERABILITY SUBSTRATE USING MOCHA  
05/19/2000 - 10/14/2001 FY01: \$0 Total: \$40,000  
*Prin. Invest.: N ROUSSOPOULOS*  
*Tech. Officer: GSFC/C CHEUNG*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9632 UNIV OF MARYLAND - COLLEGE PARK 5171**  
INVESTIGATIONS OF THE TROPICAL TROPOAUSE REGION  
06/07/2000 - 05/31/2002 FY01: \$103,485 Total: \$202,968  
*Prin. Invest.: A DESSLER*  
*Tech. Officer: GSFC/P DECOLA*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9634 UNIV OF MARYLAND - COLLEGE PARK 5172**  
IMPROVED GLOBAL SCALE MODELS FOR SURFACE RADIATION BUDGETS  
05/26/2000 - 04/30/2002 FY01: \$165,000 Total: \$239,000  
*Prin. Invest.: R T PINKER*  
*Tech. Officer: GSFC/R CURAN*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9644 UNIV OF MARYLAND - COLLEGE PARK 5173**  
SUPPORT FOR THE GOFC BOREAL FOREST WORKSHOP, NASA SIBERIAN NETWORK AND EWG BOREAL FOREST PROJECT AC  
06/01/2000 - 05/31/2001 FY01: \$36,130 Total: \$86,713  
*Prin. Invest.: E S KASISCHKE*  
*Tech. Officer: GSFC/G GUTMAN*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9672 UNIV OF MARYLAND - COLLEGE PARK 5174**  
TROPOSPHERIC CONVECTION & STRATOSPHERE-TROPOSPHERE EXCHANGE: EFFECTS ON PHOTOCHEMISTRY, AEROSOLS  
06/12/2000 - 05/31/2002 FY01: \$260,031 Total: \$435,801  
*Prin. Invest.: K E PICKERING*  
*Tech. Officer: GSFC/P DECOLA*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9674 UNIV OF MARYLAND - COLLEGE PARK 5175**  
ADVANCING GLACIOLOGICAL APPLICATIONS OF REMOTE SENSING WITH EO-1  
06/09/2000 - 06/14/2001 FY01: \$0 Total: \$17,389  
*Prin. Invest.: M FAHNESTOCK*  
*Tech. Officer: GSFC/R BINDSCHADLER*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 9750 UNIV OF MARYLAND - COLLEGE PARK 5176**  
"WIDE-FIELD IMAGING INTERFEROMETRY"  
07/20/2000 - 07/31/2002 FY01: \$22,520 Total: \$37,460  
*Prin. Invest.: L G MUNDY*  
*Tech. Officer: GSFC/D LEISAWITZ*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9755 UNIV OF MARYLAND - COLLEGE PARK 5177**  
NEW ISTP SOLAR MAX GRANT: LFM IONOSPHERIC MODULE AT SOLAR MAXIMUM  
06/28/2000 - 06/30/2001 FY01: \$0 Total: \$50,000  
*Prin. Invest.: K PAPADOPOULOS*  
*Tech. Officer: GSFC/S CURTIS*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 9756 UNIV OF MARYLAND - COLLEGE PARK 5178**  
PERIODIC, QUASI-PERIODIC, AND BURSTING BEHAVIOR OF NEUTRON STAR X-RAY SOURCES  
06/28/2000 - 06/30/2002 FY01: \$0 Total: \$40,020  
*Prin. Invest.: M MILLER*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9761 UNIV OF MARYLAND - COLLEGE PARK 5179**  
RESEARCH IN SUPPORT OF THE COMMUNITY COORDINATED MODELING CENTER  
07/06/2000 - 06/30/2001 FY01: \$0 Total: \$84,444  
*Prin. Invest.: A DEANE, NONE*  
*Tech. Officer: GSFC/M HESSE*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 9793 UNIV OF MARYLAND - COLLEGE PARK 5180**  
SUPRATHERMAL THROUGH ENERGETIC PARTICLE DETECTOR ( STEP) SUBSYSTEM OF THEEPACT EXPERIMENT ON THE WIN  
07/27/2000 - 01/31/2002 FY01: \$0 Total: \$62,000  
*Prin. Invest.: G M MASON*  
*Tech. Officer: GSFC/VONROSENVINGE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9809 UNIV OF MARYLAND - COLLEGE PARK 5181**  
STUDY OF LAND-ATMOSPHERE INTERACTIONS USING SATEL- LITE DATA ASSIMILATION  
07/18/2000 - 07/31/2002 FY01: \$6,539 Total: \$46,561  
*Prin. Invest.: R DUBAYAH*  
*Tech. Officer: GSFC/P R HOUSER*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9827 UNIV OF MARYLAND - COLLEGE PARK 5182**  
VARIABILITY ASSESSMENT OF TMI SNAPSHOTS & QUALITY CONTROLLING N-SENSOR DATA.  
08/23/2000 - 08/31/2001 FY01: \$0 Total: \$30,000  
*Prin. Invest.: B KEDEM*  
*Tech. Officer: GSFC/R J LAWRENCE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 9890 UNIV OF MARYLAND - COLLEGE PARK 5183**  
RAREFIED FLOW AERODYNAMICS FOR STABILITY & CONTROL OF FORMATION-FLYING SATELLITES  
08/23/2000 - 08/31/2002 FY01: \$75,000 Total: \$150,000  
*Prin. Invest.: M J LEWIS*  
*Tech. Officer: GSFC/M CONCHA*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NAG 5 9892 UNIV OF MARYLAND - COLLEGE PARK 5184**  
 NASA-CENTRAL AFRICAN REGIONAL PROGRAM FOR THE ENVIRONMENT (CARPE) ACTIVITY  
 08/24/2000 - 08/31/2002 FY01: \$0 Total: \$80,000  
*Prin. Invest.: C O JUSTICE*  
*Tech. Officer: GSFC/C J TUCKER*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 9893 UNIV OF MARYLAND - COLLEGE PARK 5185**  
 CARPE FOREST COVER & INFORMATION SYSTEM - REVISED  
 08/29/2000 - 08/31/2001 FY01: \$160,941 Total: \$205,306  
*Prin. Invest.: C O JUSTICE*  
*Tech. Officer: GSFC/C J TUCKER*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 9916 UNIV OF MARYLAND - COLLEGE PARK 5186**  
 REPROCESSING OF GOES NOAA/NESDIS SURFACE RADIATION BUDGET PRODUCTS FOR GCIP  
 09/01/2000 - 08/31/2001 FY01: \$0 Total: \$100,000  
*Prin. Invest.: R T PINKER*  
*Tech. Officer: GSFC/P R HOUSER*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 9935 UNIV OF MARYLAND - COLLEGE PARK 5187**  
 X-RAY PERIODOCOTY & THE BROAD IRON K LINE IN IRAS 18325-5926  
 09/06/2000 - 09/14/2002 FY01: \$0 Total: \$10,500  
*Prin. Invest.: A J YOUNG*  
*Tech. Officer: GSFC/R MUSHOTZKY*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9961 UNIV OF MARYLAND - COLLEGE PARK 5188**  
 PRECISION RIGID BODY CONTROL OF A SATELLITE CONSTELLATION.  
 09/20/2000 - 09/30/2001 FY01: \$0 Total: \$70,000  
*Prin. Invest.: E M ATKINS*  
*Tech. Officer: GSFC/T STENGLE*  
*CASE Category: 41 - AERONAUTICAL ENGRN*

**NAG 5 10090 UNIV OF MARYLAND - COLLEGE PARK 5189**  
 COMPARISON OF THE RADIATIVE & PHYSIOLOGICAL EFFECT OF DOUBLED CO2 ON THE GLOBAL CLIMATE & THE  
 11/29/2000 - 11/30/2001 FY01: \$82,803 Total: \$82,803  
*Prin. Invest.: L BOUNOUA*  
*Tech. Officer: GSFC/G J COLLATZ*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 10097 UNIV OF MARYLAND - COLLEGE PARK 5190**  
 INTEGRATING RADAR DATA WITH OTHER SATELLITE IMAGERGY TO ESTIMATE NET PRIMARY PRODUCTIVITY IN  
 11/20/2000 - 10/31/2001 FY01: \$141,700 Total: \$141,700  
*Prin. Invest.: E KASISCHKE*  
*Tech. Officer: GSFC/K PARTINGTON*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 10126 UNIV OF MARYLAND - COLLEGE PARK 5191**  
 RECENT ADVANCES IN REMOTE SENSING OF BIOPHYSICAL VARIABLES  
 12/11/2000 - 12/14/2001 FY01: \$5,920 Total: \$5,920  
*Prin. Invest.: S GOETZ*  
*Tech. Officer: GSFC/D WICKLAND*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 10175 UNIV OF MARYLAND - COLLEGE PARK 5192**  
 MILLIMETER OBSERVATIONS OF MEV-ENERGY ELECTRONS IN CONJUNCTION WITH THE HESSI MISSION  
 12/18/2000 - 12/31/2001 FY01: \$68,900 Total: \$68,900  
*Prin. Invest.: S WHITE*  
*Tech. Officer: GSFC/W WAGNER*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 10179 UNIV OF MARYLAND - COLLEGE PARK 5193**  
 MICROWAVE EMISSION DEPTH IN FIRN AND LONG-TERM ACCUMULATION RATES FROM INTERNAL LAYER DISTRIBUTION  
 01/10/2001 - 02/28/2002 FY01: \$111,438 Total: \$111,438  
*Prin. Invest.: M FAHNESTOCK*  
*Tech. Officer: GSFC/W ABDALATI*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 10180 UNIV OF MARYLAND - COLLEGE PARK 5194**  
 SOLAR FLARE PHYSICS  
 01/11/2001 - 01/14/2002 FY01: \$113,888 Total: \$113,888  
*Prin. Invest.: E J SCHUMAHL*  
*Tech. Officer: GSFC/B DENNIS*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10235 UNIV OF MARYLAND - COLLEGE PARK 5195**  
 NASA/JMD: MONITORING THE STATE OF THE RAINFOREST IN THE REPUBLIC DEMOCRATIC OF THE CONGO  
 02/05/2001 - 02/14/2002 FY01: \$45,291 Total: \$45,291  
*Prin. Invest.: C J TUCKER*  
*Tech. Officer: GSFC/C J TUCKER*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 10298 UNIV OF MARYLAND - COLLEGE PARK 5196**  
 NONLOCAL KINETIC ANALYSIS OF MAGNETOTAIL THIN CURRENT SHEET STRUCTURE & DYNAMICS DURING SUBSTORMS  
 01/24/2001 - 01/31/2002 FY01: \$82,323 Total: \$82,323  
*Prin. Invest.: S SHARMA*  
*Tech. Officer: GSFC/J SHARBER*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 10388 UNIV OF MARYLAND - COLLEGE PARK 5197**  
 IMPROVED SIBERIAN LANDSCAPE MAPPING USING SRTM AND VCL DATA  
 02/08/2001 - 02/14/2002 FY01: \$25,000 Total: \$25,000  
*Prin. Invest.: G SUN*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NAG 5 10425 UNIV OF MARYLAND - COLLEGE PARK 5198**  
 ISOTOPIC & GEOCHEMICAL INVESTIGATIONS OF METEORITES  
 02/15/2001 - 07/31/2002 FY01: \$75,000 Total: \$75,000  
*Prin. Invest.: R WALKER*  
*Tech. Officer: GSFC/J M BOYCE*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 10502 UNIV OF MARYLAND - COLLEGE PARK 5199**  
 NANOTECHNOLOGY OPTICS FOR INFRARED ASTRONOMY  
 02/28/2001 - 02/28/2002 FY01: \$11,775 Total: \$11,775  
*Prin. Invest.: L G MUNDY*  
*Tech. Officer: GSFC/M M FREUND*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10527 UNIV OF MARYLAND - COLLEGE PARK 5200**  
 SATELLITE MAPPING OF THE AFRICAN & ASIAN ARID & SEMI-ARID BOUNDARIES  
 03/09/2001 - 03/14/2002 FY01: \$75,636 Total: \$75,636  
*Prin. Invest.: D R TOWNSEND*  
*Tech. Officer: GSFC/C J TUCKER*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 10540 UNIV OF MARYLAND - COLLEGE PARK 5201**  
 MISSION OPERATIONS & DATA ANALYSIS FOR THE SOLAR WIND & SUPRA-THERMAL ION COMPOSITION INVESTIGATION  
 03/22/2001 - 03/14/2002 FY01: \$175,000 Total: \$175,000  
*Prin. Invest.: G GLOEKLER*  
*Tech. Officer: GSFC/M ACUNA*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 10563 UNIV OF MARYLAND - COLLEGE PARK 5202**  
 AUTOMATION OF SAMPEX ORBIT DETERMINATION  
 03/19/2001 - 03/14/2002 FY01: \$50,000 Total: \$50,000  
*Prin. Invest.: B SHAPIRO*  
*Tech. Officer: GSFC/J TOTH*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NAG 5 10585 UNIV OF MARYLAND - COLLEGE PARK 5203**  
 CHAPMAN CONFERENCE ON STORM -SUBSTORMS RELATION SHIPS: TRAVEL GRANT  
 03/13/2001 - 01/14/2002 FY01: \$10,000 Total: \$10,000  
*Prin. Invest.: A S SHARMA*  
*Tech. Officer: GSFC/M GUHATHAKURTA*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10596 UNIV OF MARYLAND - COLLEGE PARK 5204**  
 NEW ISTP THEORY GRANT  
 03/16/2001 - 03/31/2002 FY01: \$300,000 Total: \$300,000  
*Prin. Invest.: K PAPADOPOULIS*  
*Tech. Officer: GSFC/S CURTIS*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 10611 UNIV OF MARYLAND - COLLEGE PARK 5205**  
 THE STRUCTURE OF YOUNG STELLAR SYSTEMS: ESTABLISHING THE INITIAL CONDITIONS FOR PLANET FORMA  
 03/17/2001 - 03/31/2002 FY01: \$45,000 Total: \$45,000  
*Prin. Invest.: L MUNDY*  
*Tech. Officer: GSFC/J M BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10626 UNIV OF MARYLAND - COLLEGE PARK 5206**  
 ADVANCED MHD MODELS FOR SOLAR WIND TURBULENCE  
 03/22/2001 - 03/31/2002 FY01: \$153,474 Total: \$153,474  
*Prin. Invest.: A DEANE*  
*Tech. Officer: GSFC/D GOLDSTEIN*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 10746 UNIV OF MARYLAND - COLLEGE PARK 5207**  
 SEA ICE VARIABILITY, TRENDS AND CLIMATE CHANGE  
 04/17/2001 - 04/30/2002 FY01: \$65,000 Total: \$65,000  
*Prin. Invest.: K Y VINNIKOV*  
*Tech. Officer: GSFC/D CAVALIERI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10751 UNIV OF MARYLAND - COLLEGE PARK 5208**  
 WITS: THE WEB INFRARED TOOLSHED.  
 04/13/2001 - 04/14/2002 FY01: \$60,000 Total: \$60,000  
*Prin. Invest.: M G WOLFIRE*  
*Tech. Officer: GSFC/P E HUNTER*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 5 10810 UNIV OF MARYLAND - COLLEGE PARK 5209**  
 RADIO & PLASMA WAVES ASSOCIATED WITH CORONAL MASS EJECTIONS  
 04/30/2001 - 04/30/2002 FY01: \$20,000 Total: \$20,000  
*Prin. Invest.: T GOLLA, NONE*  
*Tech. Officer: GSFC/W J WAGNER*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10819 UNIV OF MARYLAND - COLLEGE PARK 5210**  
 APPLICATIONS IN DEPLOYMENT DYNAMICS AND CONTROL  
 04/24/2001 - 09/30/2001 FY01: \$40,000 Total: \$40,000  
*Prin. Invest.: P KRISHNAPRASAD*  
*Tech. Officer: GSFC/D FOLTA*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NAG 5 10858 UNIV OF MARYLAND - COLLEGE PARK 5211**  
 LAND COVER LAND USE CHANGE PROJECT SCIENTIST SUPPORT  
 05/03/2001 - 04/30/2002 FY01: \$197,665 Total: \$197,665  
*Prin. Invest.: C JUSTICE*  
*Tech. Officer: GSFC/G GUTMAN*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 10859 UNIV OF MARYLAND - COLLEGE PARK 5212**  
 INTER-COMPARISON OF GLOBAL SCALE ECOLOGICAL MODELS  
 05/02/2001 - 04/30/2002 FY01: \$67,000 Total: \$67,000  
*Prin. Invest.: S PRINCE*  
*Tech. Officer: GSFC/D E WICKLAND*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 10882 UNIV OF MARYLAND - COLLEGE PARK 5213**  
 PREDICTION OF THE THREE DIMENSIONAL STRUCTURE OF THE SOLAR WIND AT THE EARTH FROM L1 ORBIT  
 05/03/2001 - 04/30/2002 FY01: \$98,686 Total: \$98,686  
*Prin. Invest.: C S GOODRICH*  
*Tech. Officer: GSFC/W J WAGNER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10895 UNIV OF MARYLAND - COLLEGE PARK 5214**  
 TOWARDS UNDERSTANDING STARBURST GALAXIES AT LOW & HIGH REDSHIFT (FUSE 2000)  
 05/14/2001 - 05/31/2002 FY01: \$36,000 Total: \$36,000  
*Prin. Invest.: T LANZ*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10898 UNIV OF MARYLAND - COLLEGE PARK 5215**  
 DEVELOPMENT OF ALGORITHMS FOR MONITORING & MAPPING FIRE BURNED AREAS OF NORTH AMERICA'S BOREAL & TEM  
 05/22/2001 - 04/30/2002 FY01: \$88,718 Total: \$88,718  
*Prin. Invest.: L ZHANQUING*  
*Tech. Officer: GSFC/G GUTMAN*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 10929** UNIV OF MARYLAND - COLLEGE PARK 5216  
 SOLAR ULTRAVIOLET RADIATION AND THE ORIGIN OF LIFE ON EARTH  
 (FUSE 2000)  
 05/14/2001 - 05/31/2002 FY01: \$35,000 Total: \$35,000  
*Prin. Invest.: T LANZ*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10958** UNIV OF MARYLAND - COLLEGE PARK 5217  
 ANALYSIS OF SOLAR WIND DATA FROM MTOFON SOHO & SWE ON WIND  
 05/30/2001 - 05/31/2002 FY01: \$25,703 Total: \$25,703  
*Prin. Invest.: M COPLAN, NONE*  
*Tech. Officer: GSFC/K OGILVIE*  
*CASE Category: 13 - PHYSICS*

**NAG 5 10959** UNIV OF MARYLAND - COLLEGE PARK 5218  
 IMPROVING HURRICANE FORECASTS THROUGH 3D RETRIEVAL & 4D VAR  
 ASSIMILATION IN THE GEOS DATA SYSTEM ASS  
 06/04/2001 - 06/14/2002 FY01: \$100,000 Total: \$100,000  
*Prin. Invest.: D ZHANG, NONE*  
*Tech. Officer: GSFC/R J LAWRENCE*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 10981** UNIV OF MARYLAND - COLLEGE PARK 5219  
 INTRASEASONAL VARIABILITY IN THE INDIAN OCEAN  
 05/31/2001 - 06/30/2002 FY01: \$30,000 Total: \$30,000  
*Prin. Invest.: R MURTUGUDDE*  
*Tech. Officer: GSFC/E LINDSTROM*  
*CASE Category: 33 - OCEANOGRAPHY*

**NAG 5 11054** UNIV OF MARYLAND - COLLEGE PARK 5220  
 STUDIES OF THE SOLAR MODULATION OF GALACTIC AND ANOMALOUS  
 COSMIC RAYS IN THE HELIOSPHERE  
 06/20/2001 - 06/14/2002 FY01: \$70,000 Total: \$70,000  
*Prin. Invest.: F B McDONALD*  
*Tech. Officer: GSFC/W J WAGNER*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 11091** UNIV OF MARYLAND - COLLEGE PARK 5221  
 THE PROPAGATION OF HIGH-ENERGY COSMIC RAYS IN THE GALAXY  
 07/06/2001 - 07/14/2002 FY01: \$50,000 Total: \$50,000  
*Prin. Invest.: F B McDONALD*  
*Tech. Officer: GSFC/F C JONES*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 11149** UNIV OF MARYLAND - COLLEGE PARK 5222  
 SPATIAL PREDICTIVE MODELING AND REMOTE SENSING OF LAND USE  
 CHANGE IN THE CHESAPEAKE BAY WATERSHED  
 07/26/2001 - 08/14/2003 FY01: \$76,666 Total: \$76,666  
*Prin. Invest.: N BOCKSTAEL*  
*Tech. Officer: GSFC/G GUTMAN*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 11151** UNIV OF MARYLAND - COLLEGE PARK 5223  
 GLOBAL 3D MODEL STUDIES OF POLAR PROCESSES & RADIONUCLIDES  
 WITH APPLICATION TO THE GLOBAL  
 07/27/2001 - 07/31/2004 FY01: \$77,909 Total: \$77,909  
*Prin. Invest.: D CONSIDINE*  
*Tech. Officer: GSFC/P DE COLA*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 11161** UNIV OF MARYLAND - COLLEGE PARK 5224  
 LAND USE/LAND CHANGE AROUND PROTECTED AREAS IN LCL UC SITES:  
 SYNTHESIS OF RATES, CONSEQUENCES FOR  
 08/08/2001 - 08/14/2004 FY01: \$25,402 Total: \$25,402  
*Prin. Invest.: R DEFRIES*  
*Tech. Officer: GSFC/G GUTMAN*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 11246** UNIV OF MARYLAND - COLLEGE PARK 5225  
 EVALUATION OF ASIAN OUTFLOW USING A STRETCHED GRID CTM  
 08/16/2001 - 08/14/2004 FY01: \$50,343 Total: \$50,343  
*Prin. Invest.: D ALLEN*  
*Tech. Officer: GSFC/P DECOLA*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 11247** UNIV OF MARYLAND - COLLEGE PARK 5226  
 TRENDS IN TOTAL AND PROFILE OZONE SORTED BY METEOROLOGICAL  
 REGIMES  
 08/16/2001 - 08/14/2004 FY01: \$99,999 Total: \$99,999  
*Prin. Invest.: R HUDSON*  
*Tech. Officer: GSFC/P DECOLA*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 11251** UNIV OF MARYLAND - COLLEGE PARK 5227  
 BURNED AREA MAPPING IN SOUTHERN AFRICA: CASE STUDY SYNTHESIS  
 AND REGIONAL APPLICATION OF MOD  
 08/20/2001 - 08/14/2004 FY01: \$131,572 Total: \$131,572  
*Prin. Invest.: D ROY*  
*Tech. Officer: GSFC/G GUTMAN*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 11252** UNIV OF MARYLAND - COLLEGE PARK 5228  
 BEYOND POTENTIAL VEGETATION: IMPROVING MODEL CARBON PROJECTIONS  
 OF THE LAND SURFACE USING LUDAR RE  
 08/20/2001 - 08/14/2004 FY01: \$78,629 Total: \$78,629  
*Prin. Invest.: R DUBAYAH, NONE*  
*Tech. Officer: GSFC/D WICKLAND*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 11274** UNIV OF MARYLAND - COLLEGE PARK 5229  
 MOORING BASED OPTICAM MEASUREMENTS IN THE TROPICAL ATLANTIC  
 OCEAN  
 08/22/2001 - 08/31/2002 FY01: \$60,522 Total: \$60,522  
*Prin. Invest.: A SUBRAMANIAN*  
*Tech. Officer: GSFC/J MARRA*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 11276** UNIV OF MARYLAND - COLLEGE PARK 5230  
 REPRESENTATION IN THE GMI MODEL AND EFFECTS ON CHEMISTRY AND  
 CLIMATE  
 08/22/2001 - 08/31/2004 FY01: \$54,842 Total: \$54,842  
*Prin. Invest.: K PICKERING*  
*Tech. Officer: GSFC/P DECOLA*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 11291 UNIV OF MARYLAND - COLLEGE PARK 5231**  
AN INVESTIGATION OF THE INDO-PACIFIC CLIMATE IN THE NSIPP  
COUPLEDCLIMATE SYSTEM  
08/22/2001 - 08/31/2002 FY01: \$60,000 Total: \$60,000  
*Prin. Invest.: R WAJSOWICZ*  
*Tech. Officer: GSFC/M RIENECKER*  
*CASE Category: 33 – OCEANOGRAPHY*

**NAG 5 11306 UNIV OF MARYLAND - COLLEGE PARK 5232**  
GLOBAL FOREST COVER ASSESSMENT  
08/31/2001 - 08/31/2002 FY01: \$240,266 Total: \$240,266  
*Prin. Invest.: J TOWNSHEND*  
*Tech. Officer: GSFC/G GUTMAN*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 11313 UNIV OF MARYLAND - COLLEGE PARK 5233**  
OPTIMAL PLANNING & CONTROL OF A VIRTUAL RIGID BODY SATELLITE  
CONSTELLATION.  
09/05/2001 - 09/14/2002 FY01: \$82,630 Total: \$82,630  
*Prin. Invest.: R SANNER*  
*Tech. Officer: GSFC/S STRARIN*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 8 1027 UNIV OF MARYLAND - COLLEGE PARK 5234**  
RADIO JET STUDY  
01/27/1994 - 09/30/2000 FY01: \$0 Total: \$665,000  
*Prin. Invest.: A S WILSON*  
*Tech. Officer: MSFC/ME ROSENTHAL*  
*CASE Category: 11 – ASTRONOMY*

**NAG 8 1440 UNIV OF MARYLAND - COLLEGE PARK 5235**  
SEARCH FOR SPIN-MASS INTERACTION WITH A SUPER- CONDUCTING  
DIFFERENTIAL ANGULAR ACCELEROMETER  
02/02/1998 - 12/31/2002 FY01: \$95,000 Total: \$401,000  
*Prin. Invest.: H J PAIK, M V MOODY*  
*Tech. Officer: MSFC/J W POE*  
*CASE Category: 13 – PHYSICS*

**NAG 8 1755 UNIV OF MARYLAND - COLLEGE PARK 5236**  
STUDIES OF RADIO JETS AND THE NARROW LINE REGIONS OF ACTIVE  
GALAXIES WITH THE ADVANCED X-RAY ASTROPH  
01/16/2001 - 09/30/2001 FY01: \$124,000 Total: \$124,000  
*Prin. Invest.: A S WILSON*  
*Tech. Officer: MSFC/M SMITH*  
*CASE Category: 11 – ASTRONOMY*

**NAG 8 1762 UNIV OF MARYLAND - COLLEGE PARK 5237**  
THEORY OF PHASE TRANSITIONS AND SIMULATIONS IN USPERFLUID  
HELIUM OF COSMOLOGICAL PHENOMENA  
04/26/2001 - 02/01/2005 FY01: \$84,166 Total: \$84,166  
*Prin. Invest.: R FERRELL*  
*Tech. Officer: MSFC/D HUBBARD*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 9 1116 UNIV OF MARYLAND - COLLEGE PARK 5238**  
RESEARCH IN SPACE AND TELEROBOTICS  
06/04/1999 - 12/31/2000 FY01: \$0 Total: \$500,000  
*Prin. Invest.: D AKIN*  
*Tech. Officer: JSC/C J CULBERT, JSC/C R PRICE*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 9 1180 UNIV OF MARYLAND - COLLEGE PARK 5239**  
GRANT DEVELOPEMENT/TESTING OF MECH COUNTERSPRESSURE SPACE  
SUIT GLOVE  
12/14/1999 - 12/31/2002 FY01: \$143,000 Total: \$293,000  
*Prin. Invest.: D L AKIN*  
*Tech. Officer: JSC/B WOOLFORD*  
*CASE Category: 42 – ASTRONAUTICAL ENGR*

**NAG 9 1290 UNIV OF MARYLAND - COLLEGE PARK 5240**  
RESEARCH IN SPACE & TELEROBOTICS  
04/04/2001 - 03/31/2002 FY01: \$500,000 Total: \$500,000  
*Prin. Invest.: D AKIN*  
*Tech. Officer: JSC/C CULBERT*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 9 1920 UNIV OF MARYLAND - COLLEGE PARK 5241**  
COMPUTER SIMULATIONS OF THE VARIABLE SPECIFIC IMPU LSE MAGNE-  
TOPLASMA ROCKET  
06/23/2000 - 12/31/2001 FY01: \$50,000 Total: \$130,000  
*Prin. Invest.: R SAGDEV*  
*Tech. Officer: JSC/F R CHANG-DIAZ*  
*CASE Category: 13 – PHYSICS*

**NAG13 98001 UNIV OF MARYLAND - COLLEGE PARK 5242**  
ENHANCING EARTH SYSTEM SCIENCES USING COMMERCIAL TERRES-  
TRIAL REMOTE SENSING SYSTEMS  
11/03/1997 - 02/24/2002 FY01: \$200,135 Total: \$797,015  
*Prin. Invest.: S GOWARD*  
*Tech. Officer: SSC/J JENNER*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG13 99011 UNIV OF MARYLAND - COLLEGE PARK 5243**  
MID ATLANTIC RESAC CONSORTIUM SAME  
03/01/1999 - 03/01/2002 FY01: \$0 Total: \$1,730,000  
*Prin. Invest.: S D PRINCE*  
*Tech. Officer: SSC/C HILL*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAS 5 00192 UNIV OF MARYLAND - COLLEGE PARK 5244**  
R & D TO SUPPORT GSFC'S SIMBIOS PROJECT  
12/18/2000 - 11/30/2001 FY01: \$260,821 Total: \$260,821  
*Prin. Invest.: A SUBRAMANIAM*  
*Tech. Officer: GSFC/C R MCCLAIN*  
*CASE Category: 33 – OCEANOGRAPHY*

**NAS 5 31365 UNIV OF MARYLAND - COLLEGE PARK 5245**  
EOS EXECUTION PHASE  
01/02/1992 - 12/14/2001 FY01: \$721,000 Total: \$4,464,390  
*Prin. Invest.: C JUSTICE*  
*Tech. Officer: GSFC/H OSEROFF*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAS 5 31732 UNIV OF MARYLAND - COLLEGE PARK 5246**  
R & D STUDIES IN BIOSPHERE-ATOMOSPHERE INTERACTIONS  
11/22/1991 - 12/31/1999 FY01: \$0 Total: \$753,400  
*Prin. Invest.: C JUSTICE*  
*Tech. Officer: GSFC/P SELLERS*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAS 5 96060 UNIV OF MARYLAND - COLLEGE PARK 5247**  
 DEFINITION PHASE ACTIVITIES ASSOCIATED WITH THE MODIS INSTRUMENT OF THE EOS  
 07/25/1996 – 12/14/2001 FY01: \$433,000 Total: \$1,891,000  
*Prin. Invest.: J TOWNSHEND*  
*Tech. Officer: GSFC/D TOLL*  
*CASE Category: 11 – ASTRONOMY*

**NAS 5 96062 UNIV OF MARYLAND - COLLEGE PARK 5248**  
 DEFINITION PHASE ACTIVITIES ASSOCIATED WITH MODIS INSTRUMENT OF THE EOS  
 07/02/1996 – 12/14/2001 FY01: \$403,000 Total: \$2,096,562  
*Prin. Invest.: E VERMONTE*  
*Tech. Officer: GSFC/D TOLL*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAS 5 97160 UNIV OF MARYLAND - COLLEGE PARK 5249**  
 VEGETATION CANOPY LIDAR MISSION FOR ESSP  
 05/15/1997 – 05/31/2002 FY01: \$6,099,428 Total: \$34,068,680  
*Prin. Invest.: R DUBAYAH*  
*Tech. Officer: GSFC/J ROBINSON*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAS 5 99211 UNIV OF MARYLAND - COLLEGE PARK 5250**  
 AWARD – SAMPEX MISSION SUPPORT  
 08/27/1999 – 08/26/2002 FY01: \$90,000 Total: \$270,000  
*Prin. Invest.: W FOURNEY*  
*Tech. Officer: GSFC/T STENGLE*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NASW 00004 UNIV OF MARYLAND - COLLEGE PARK 5251**  
 MESSENGER DISCOVERY PROJECTS (PI'S MANAGE PROJECT ORBIT & EXPLOR PLANET MERCURY PHASE B  
 03/14/2000 – 02/29/2004 FY01: \$13,461,929 Total: \$14,244,398  
*Prin. Invest.: M F A'HEARN*  
*Tech. Officer: JPL/D JARRETT*  
*CASE Category: 11 – ASTRONOMY*

**NASW 00028 UNIV OF MARYLAND - COLLEGE PARK 5252**  
 JOINT US/RUSSIAN RESEARCH SPACE SCIENCES (JURRISS) PROGRAM SUPPORT SERVICE/OPTION DATE 8/5/2002  
 12/06/2000 – 08/05/2002 FY01: \$219,800 Total: \$219,800  
*Prin. Invest.: L MUKHIN, R SAGDEEV*  
*Tech. Officer: HQ/J BOYCE*  
*CASE Category: 75 – POLITICAL SCIENCE*

**NCC 2 944 UNIV OF MARYLAND - COLLEGE PARK 5253**  
 CENTER FOR ROTORCRAFT EDUCATION & RESEARCH  
 02/23/1996 – 12/31/2000 FY01: \$0 Total: \$3,797,988  
*Prin. Invest.: I CHOPRA*  
*Tech. Officer: ARC/Y H YU, ARC/J M DAVIS*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 2 1129 UNIV OF MARYLAND - COLLEGE PARK 5254**  
 WAVERIDER-BASED REENTRY CONFIGURATIONS FOR THE SHARP FLIGHT EXPERIMENT  
 07/13/1999 – 12/14/2001 FY01: \$0 Total: \$66,608  
*Prin. Invest.: M J LEWIS*  
*Tech. Officer: ARC/P KOLODZIEJ, ARC/D J RASKY*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 2 1146 UNIV OF MARYLAND - COLLEGE PARK 5255**  
 EVALUATION OF METHODOLOGY FOR TESTING AND ANALYSIS FOR ADVANCED ROTOR SYSTEMS  
 12/01/1999 – 03/31/2002 FY01: \$100,000 Total: \$296,025  
*Prin. Invest.: F HARRIS, I CHROPA, G PRICE*  
*Tech. Officer: ARC/W WARMBRODT*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 2 5348 UNIV OF MARYLAND - COLLEGE PARK 5256**  
 THE EVOLUTION OF DUST IN THE MULTIPHASE INTERSTELLAR MEDIUM  
 09/01/1999 – 09/14/2001 FY01: \$0 Total: \$33,199  
*Prin. Invest.: M G WOLFIRE, NONE*  
*Tech. Officer: ARC/D J HOLLENBACH, ARC/R E YOUNG*  
*CASE Category: 11 – ASTRONOMY*

**NCC 3 528 UNIV OF MARYLAND - COLLEGE PARK 5257**  
 CENTER FOR SATELLITE AND HYBRID COMMUNICATION NETWORKS  
 01/30/1997 – 11/30/2001 FY01: \$1,000,000 Total: \$3,430,000  
*Prin. Invest.: J S BARAS*  
*Tech. Officer: GRC/J W BAGWELL, GRC/K B BHASIN*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NCC 3 686 UNIV OF MARYLAND - COLLEGE PARK 5258**  
 STUDIES ON THE BEHAVIOR OF HIGHLY PRE-HEATED AIR FLAMES IN MICROGRAVITY  
 03/11/1999 – 01/11/2003 FY01: \$95,000 Total: \$273,500  
*Prin. Invest.: A K GUPTA*  
*Tech. Officer: GRC/D STOCKER*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 3 783 UNIV OF MARYLAND - COLLEGE PARK 5259**  
 POOL BOILING HEAT TRANSFER MECHANISMS IN MICROGRAVITY AND PARTIAL GRAVITY  
 03/13/2000 – 11/30/2003 FY01: \$120,000 Total: \$195,000  
*Prin. Invest.: J KIM*  
*Tech. Officer: GRC/J B MCQUEILLEN*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 3 804 UNIV OF MARYLAND - COLLEGE PARK 5260**  
 FLAMMABILITY DIAGRAMS OF COMBUSTIBLE MATERIALS IN MICROGRAVITY  
 05/25/2000 – 04/30/2004 FY01: \$74,124 Total: \$129,092  
*Prin. Invest.: D L, NONE*  
*Tech. Officer: GRC/H D ROSS*  
*CASE Category: 46 – MECHANICAL ENGR*

**NCC 3 919 UNIV OF MARYLAND - COLLEGE PARK 5261**  
 TRANSITION FROM IGNITION TO FLAME GROWTH UNDER EXTERNAL RADIATION IN D-D  
 09/27/2001 – 09/30/2005 FY01: \$69,300 Total: \$69,300  
*Prin. Invest.: T KASHIWAGI*  
*Tech. Officer: GRC/S OLSON*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 5 55 UNIV OF MARYLAND - COLLEGE PARK 5262**  
 JOINT CENTER FOR EARTH SYSTEM SCIENCE  
 09/22/1993 – 09/30/1999 FY01: \$0 Total: \$5,402,993  
*Prin. Invest.: R D HUDSON*  
*Tech. Officer: GSFC/F EINAUDI, GSFC/C E COTE*  
*CASE Category: 11 – ASTRONOMY*

**NCC 5 128 UNIV OF MARYLAND - COLLEGE PARK 5263**  
A STUDY OF THE DEVELOPMENT OF REMOTE SENSING ALGORITHMS  
WITH EMPHASIS ON USING THE MODIS INSTR.  
01/18/1996 - 02/14/2000 FY01: -\$250 Total: \$960,474  
*Prin. Invest.:* A J FLAG  
*Tech. Officer:* GSFC/S SAMADI, GSFC/E MASUOKA  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NCC 5 150 UNIV OF MARYLAND - COLLEGE PARK 5264**  
GRAND CHALLENGE APPLICATIONS  
09/04/1996 - 06/30/2000 FY01: \$0 Total: \$962,000  
*Prin. Invest.:* P LYSTER  
*Tech. Officer:* GSFC/J R FISCHER  
*CASE Category:* 29 – MATH/COMPUTER SCI, OTHER

**NCC 5 180 UNIV OF MARYLAND - COLLEGE PARK 5265**  
THIS GRANT PROVIDES POST-DOC SUPPORT, FELLOWSHIPS, LABORATORY FOR HIGH ENERGY ASTROPHYSICS  
02/06/1997 - 01/31/2002 FY01: \$1,587,049 Total: \$8,219,607  
*Prin. Invest.:* J D TRASCO  
*Tech. Officer:* GSFC/A HARDING  
*CASE Category:* 11 – ASTRONOMY

**NCC 5 190 UNIV OF MARYLAND - COLLEGE PARK 5266**  
SUPPORT OF THE EARTH SYSTEM SCIENCE INTERDISCIPLIN  
04/04/1997 - 03/31/2002 FY01: \$0 Total: \$600,000  
*Prin. Invest.:* D TOWNSHEND  
*Tech. Officer:* GSFC/R C HARRISS  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NCC 5 238 UNIV OF MARYLAND - COLLEGE PARK 5267**  
COOPERATIVE RESEARCH AGREEMENT FOR SPACE LASER RES MD, A.  
JAMES CLARK SCHOOL OF ENGINEERING & NASA/G  
09/18/1997 - 04/30/2002 FY01: \$135,000 Total: \$2,514,055  
*Prin. Invest.:* D CHRISTOU  
*Tech. Officer:* GSFC/R AFZAL  
*CASE Category:* 49 – ENGINEERING, OTHER

**NCC 5 243 UNIV OF MARYLAND - COLLEGE PARK 5268**  
RANGER TELEROBOTIC FLIGHT EXPERIMENT  
11/03/1997 - 09/30/2002 FY01: \$0 Total: \$9,611,377  
*Prin. Invest.:* D AKIN  
*Tech. Officer:* GSFC/J PARRISH  
*CASE Category:* 11 – ASTRONOMY

**NCC 5 300 UNIV OF MARYLAND - COLLEGE PARK 5269**  
A LANDCOVER EARTH SCIENCE INFORMATION PARTNERSHIP  
04/21/1998 - 02/28/2002 FY01: \$1,451,662 Total: \$5,092,162  
*Prin. Invest.:* J TOWNSENDE, NONE  
*Tech. Officer:* GSFC/M MAIDEN  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NCC 5 353 UNIV OF MARYLAND - COLLEGE PARK 5270**  
FUNDS ARE PROVIDED FOR THE GRANT PROPOSAL BY THE UNIVERSITY  
RESEARCH FOUNDATION FOR ENVIRONET TO  
08/04/1998 - 12/31/2001 FY01: -\$1,444 Total: \$298,556  
*Prin. Invest.:* C F MARTIN  
*Tech. Officer:* GSFC/H PARK  
*CASE Category:* 22 – COMPUTER SCIENCE

**NCC 5 372 UNIV OF MARYLAND - COLLEGE PARK 5271**  
COOPERATIVE RESEARCH IN SPACE SCIENCE WITH THE UNIVERSITY OF  
MARYLAND  
12/22/1998 - 12/31/2001 FY01: \$476,931 Total: \$1,728,063  
*Prin. Invest.:* J D TRASCO  
*Tech. Officer:* GSFC/T KOSTIUK  
*CASE Category:* 11 – ASTRONOMY

**NCC 5 374 UNIV OF MARYLAND - COLLEGE PARK 5272**  
EARTH SCIENCE INTER-DISCIPLINARY CENTER  
01/20/1999 - 08/31/2002 FY01: \$828,535 Total: \$2,981,322  
*Prin. Invest.:* M BROWN  
*Tech. Officer:* GSFC/R HARTLE, GSFC/C COTE  
*CASE Category:* 11 – ASTRONOMY

**NCC 5 408 UNIV OF MARYLAND - COLLEGE PARK 5273**  
PROTOTYPE IMPLEMENTATION OF A RESEARCH ENVIRONMENT FOR  
ADVANCED LANDSAT MONITORING (REALM)  
05/17/1999 - 04/30/2002 FY01: \$100,045 Total: \$473,680  
*Prin. Invest.:* S GOWARD  
*Tech. Officer:* GSFC/D L WILLIAMS  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NCC 5 417 UNIV OF MARYLAND - COLLEGE PARK 5274**  
RANGER TELEROBOTICS FLIGHT EXPERIMENT  
08/25/1999 - 08/30/2001 FY01: \$0 Total: \$3,645,192  
*Prin. Invest.:* D L AKIN  
*Tech. Officer:* GSFC/D LAVERY  
*CASE Category:* 11 – ASTRONOMY

**NCC 5 449 UNIV OF MARYLAND - COLLEGE PARK 5275**  
A STUDY OF THE DEVELOPMENT OF REMOTE SENSING ALGORITHMS  
02/08/2000 - 12/31/2001 FY01: \$232,012 Total: \$515,894  
*Prin. Invest.:* D ROY  
*Tech. Officer:* GSFC/E J MASUOKA  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NCC 5 462 UNIV OF MARYLAND - COLLEGE PARK 5276**  
E0-1 VALIDATION AND EVALUATION FOR AGRICULTURAL MONITORING  
02/29/2000 - 12/31/2001 FY01: \$155,026 Total: \$242,283  
*Prin. Invest.:* S LIANG  
*Tech. Officer:* GSFC/S G UNGAR  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NCC 5 464 UNIV OF MARYLAND - COLLEGE PARK 5277**  
EVALUATION OF SOFTWARE ENGINEERING METHODOLOGIES  
02/29/2000 - 02/14/2002 FY01: \$227,539 Total: \$633,539  
*Prin. Invest.:* D R BASILI  
*Tech. Officer:* GSFC/D E JAMISON  
*CASE Category:* 42 – ASTRONAUTICAL ENGR

**NCC 5 497 UNIV OF MARYLAND - COLLEGE PARK 5278**  
SUMMER INST ON ATMOSPHERIC AND HYDROSPHERIC SCIENCES  
04/19/2000 - 09/30/2001 FY01: \$0 Total: \$92,807  
*Prin. Invest.:* F BAER  
*Tech. Officer:* GSFC/R HARTLE  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

<b>NCC 5 552</b>	<b>UNIV OF MARYLAND - COLLEGE PARK</b>	<b>5279</b>	<b>NGT 5 99</b>	<b>UNIV OF MARYLAND - COLLEGE PARK</b>	<b>5287</b>
SUMMER INST ON ATMOSPHERIC AND HYDROSPHERIC SCIENCES			ESTIMATION OF TROPICAL FOREST ABOVEGROUND USING LARGE FOOT-PRINT LIDAR		
04/24/2001 - 04/30/2002	FY01: \$114,929	Total: \$114,929	08/20/1999 - 08/31/2002	FY01: \$22,000	Total: \$66,000
<i>Prin. Invest.: F BAER</i>			<i>Prin. Invest.: R DUBAYAH, J DRAKE</i>		
<i>Tech. Officer: GSFC/R HARTLE</i>			<i>Tech. Officer: GSFC/M WEI</i>		
<i>CASE Category: 31 - ATMOSPHERIC SCIENCE</i>			<i>CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</i>		
<b>NGT 1 52158</b>	<b>UNIV OF MARYLAND - COLLEGE PARK</b>	<b>5280</b>	<b>NGT 5 100</b>	<b>UNIV OF MARYLAND - COLLEGE PARK</b>	<b>5288</b>
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)			GLOBAL CLIMATE CHANGE AND CHOLERA: MODELING OF CHO LERA OCCURRENCE IN SELECTED COASTAL AREAS USING S		
05/23/1997 - 06/30/2000	FY01: -\$18,543	Total: \$47,457	08/23/1999 - 08/31/2002	FY01: \$22,000	Total: \$66,000
<i>Prin. Invest.: M LEWIS</i>			<i>Prin. Invest.: E RUSSEK-COHEN</i>		
<i>Tech. Officer: LARC/C E COCKRELL</i>			<i>Tech. Officer: GSFC/M WEI</i>		
<i>CASE Category: 99 - MULTI INTERDISCPL, OTHER</i>			<i>CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</i>		
<b>NGT 2 52214</b>	<b>UNIV OF MARYLAND - COLLEGE PARK</b>	<b>5281</b>	<b>NGT 5 107</b>	<b>UNIV OF MARYLAND - COLLEGE PARK</b>	<b>5289</b>
SHAPE MEMORY ALLOY ACTURATION FOR ACTIVE TUNING OF COMPOSITE SHAFTS			FEASIBILITY OF ATMOSPHERIC PENETRATION FOR SATELLITE FORMATION FLYING EXPERIMENTS/STUDENT: JOS SCHU		
07/17/1996 - 08/31/2000	FY01: -\$5,907	Total: \$68,093	06/07/2000 - 06/30/2002	FY01: \$22,000	Total: \$44,000
<i>Prin. Invest.: I CHOPRA</i>			<i>Prin. Invest.: D PINES</i>		
<i>Tech. Officer: ARC/K Q NGYUEN</i>			<i>Tech. Officer: GSFC/G SOFFEN</i>		
<i>CASE Category: 41 - AERONAUTICAL ENGR</i>			<i>CASE Category: 41 - AERONAUTICAL ENGR</i>		
<b>NGT 2 52273</b>	<b>UNIV OF MARYLAND - COLLEGE PARK</b>	<b>5282</b>	<b>NGT 5 116</b>	<b>UNIV OF MARYLAND - COLLEGE PARK</b>	<b>5290</b>
CENTER FOR ROTORCRAFT EDUCATION & RESEARCH			INVESTIGATION OF LIBRATION ORBITS IN THE EARTH-MOON SYSTEM(STUDENT): RAQUEL JARABEK		
01/09/2001 - 04/30/2002	FY01: \$916,829	Total: \$916,829	06/04/2001 - 06/30/2002	FY01: \$22,000	Total: \$22,000
<i>Prin. Invest.: CHOPRA</i>			<i>Prin. Invest.: D SHAPIRO</i>		
<i>Tech. Officer: ARC/Y YU, ARC/A</i>			<i>Tech. Officer: GSFC/M S BURRELL</i>		
<i>CASE Category: 41 - AERONAUTICAL ENGR</i>			<i>CASE Category: 42 - ASTRONAUTICAL ENGR</i>		
<b>NGT 3 52367</b>	<b>UNIV OF MARYLAND - COLLEGE PARK</b>	<b>5283</b>	<b>NGT 5 30142</b>	<b>UNIV OF MARYLAND - COLLEGE PARK</b>	<b>5291</b>
SYNTHESIS OF MOLECULARLY DISPERSED CERAMIC POLYMER NANO-COMPOSITES			THE EFFECT OF WARM TROPICAL ATLANTIC SST ON EARLY SEASON CARIBBEAN RAIN-FALL		
06/14/2000 - 06/30/2002	FY01: \$22,000	Total: \$44,000	08/27/1998 - 08/31/2001	FY01: \$0	Total: \$44,000
<i>Prin. Invest.: D C WILSON JR</i>			<i>Prin. Invest.: A VERNEKAR, TAYLOR</i>		
<i>Tech. Officer: GRC/F MONTEGANI</i>			<i>Tech. Officer: GSFC/M Y WEI</i>		
<i>CASE Category: 49 - ENGINEERING, OTHER</i>			<i>CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</i>		
<b>NGT 5 50</b>	<b>UNIV OF MARYLAND - COLLEGE PARK</b>	<b>5284</b>	<b>NGT 5 30196</b>	<b>UNIV OF MARYLAND - COLLEGE PARK</b>	<b>5292</b>
DEVELOPMENT OF A RATCHETLESS WRENCH FOR EXTRAVEHICULAR ASSEMBLIES			TORNADOES: COHERENT FLOW STRUCTURES IN ATMOSPHERIC TURBULENCE		
06/23/1997 - 06/30/2000	FY01: -\$7,638	Total: \$58,362	08/18/1999 - 08/31/2002	FY01: \$22,000	Total: \$66,000
<i>Prin. Invest.: D L AKIN</i>			<i>Prin. Invest.: F BAER/NAWRI</i>		
<i>Tech. Officer: GSFC/M S BURRELL</i>			<i>Tech. Officer: GSFC/M WEI</i>		
<i>CASE Category: 46 - MECHANICAL ENGR</i>			<i>CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</i>		
<b>NGT 5 60</b>	<b>UNIV OF MARYLAND - COLLEGE PARK</b>	<b>5285</b>	<b>NGT 5 30377</b>	<b>UNIV OF MARYLAND - COLLEGE PARK</b>	<b>5293</b>
MEASUREMENT OF FIBER STRAIN IN TERMINATED FIBER CONNECTOR ASSEMBLIES USING IN-FIBER BRAGG GRATING A			ANALYSIS OF MOPITT DATA FOR INVESTIGATION OF BOREAL FOREST FIRE EMISSIONS/EDWARD J. HYER		
10/24/1997 - 08/14/2000	FY01: -\$1,088	Total: \$64,912	08/13/2001 - 08/31/2004	FY01: \$21,989	Total: \$21,989
<i>Prin. Invest.: T MEAD</i>			<i>Prin. Invest.: E KASISCHKE</i>		
<i>Tech. Officer: GSFC/G ASRAR</i>			<i>Tech. Officer: GSFC/M WEI</i>		
<i>CASE Category: 42 - ASTRONAUTICAL ENGR</i>			<i>CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</i>		
<b>NGT 5 62</b>	<b>UNIV OF MARYLAND - COLLEGE PARK</b>	<b>5286</b>	<b>NGT 5 30377</b>	<b>UNIV OF MARYLAND - COLLEGE PARK</b>	<b>5293</b>
1998 ASEE-NASA SUMMER FACULTY FELLOWSHIP PROGRAM (AERONAUTICS AND SPACE RESEARCH)			ANALYSIS OF MOPITT DATA FOR INVESTIGATION OF BOREAL FOREST FIRE EMISSIONS/EDWARD J. HYER		
04/22/1998 - 09/30/1999	FY01: -\$2,510	Total: \$356,741	08/13/2001 - 08/31/2004	FY01: \$21,989	Total: \$21,989
<i>Prin. Invest.: M GAVRILAS</i>			<i>Prin. Invest.: E KASISCHKE</i>		
<i>Tech. Officer: GSFC/G A SOFFEN</i>			<i>Tech. Officer: GSFC/M WEI</i>		
<i>CASE Category: 99 - MULTI INTERDISCPL, OTHER</i>			<i>CASE Category: 99 - MULTI INTERDISCPL, OTHER</i>		

<b>NGT 5 50083</b>	<b>UNIV OF MARYLAND - COLLEGE PARK</b>	<b>5294</b>	<b>NAG 8 1573</b>	<b>UNIV OF MARYLAND BALTIMORE</b>	<b>5302</b>
CHEMISTRY IN COMETS HALE-BOPP AND HYAKUTAKE 09/15/1997 - 06/30/2000	FY01: -\$9,225	Total: \$56,775	IONS AND PROTEIN ASSOCIATION: AW AND PROTEIN CRYSTALS 01/19/1999 - 11/30/2002	FY01: \$118,750	Total: \$362,750
<i>Prin. Invest.: A HEARN</i>			<i>Prin. Invest.: K COLLINS</i>		
<i>Tech. Officer: HQ/A NURRIDIN</i>			<i>Tech. Officer: MSFC/B GUYNE</i>		
<i>CASE Category: 41 - AERONAUTICAL ENGR</i>			<i>CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)</i>		
<b>NGT 5 50217</b>	<b>UNIV OF MARYLAND - COLLEGE PARK</b>	<b>5295</b>	<b>NCC 5 544</b>	<b>UNIV OF MARYLAND BALTIMORE</b>	<b>5303</b>
CONVECTIVE EFFECTS ON TROPOSPHERIC OZONE CHEMISTRY STUDIED WITH ACOPLED CLOUD/CHEMISTRY MOD 09/15/1998 - 08/31/2001	FY01: \$0	Total: \$53,077	IDENTIFICATION FOR RISK FACTORS FOR CHILDHOOD ASTH MA. 03/22/2001 - 03/31/2002	FY01: \$439,608	Total: \$439,608
<i>Prin. Invest.: K PICKERING</i>			<i>Prin. Invest.: D BLAISDELL</i>		
<i>Tech. Officer: GSFC/M Y WEI</i>			<i>Tech. Officer: GSFC/J P GALLOWAY</i>		
<i>CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</i>			<i>CASE Category: 19 - PHYSICAL SCIENCE, OTHER</i>		
<b>NAG 5 5328</b>	<b>UNIV OF MARYLAND - EASTERN SHORE</b>	<b>5296</b>	<b>NAG 1 2022</b>	<b>UNIV OF MARYLAND BALTIMORE COUNTY</b>	<b>5304</b>
RESEARCH PARTICIPATION IN AIRBORNE OCEANOGRAPHIC LIDAR ON LONG RANGE MISSIONS 03/19/2001 - 03/31/2002	FY01: \$27,623	Total: \$27,623	A CLIMATOLOGY OF TROPOSPHERIC CO OVER THE CENTRAL AND SOUTH- ASTERN UNITED STATES AND THE SOUTHWESTERN 03/12/1998 - 03/11/2002	FY01: \$15,000	Total: \$234,120
<i>Prin. Invest.: D R LEVIN</i>			<i>Prin. Invest.: W W MCMILLAN, G MORRIS, L STROW</i>		
<i>Tech. Officer: GSFC/W B KRABILL</i>			<i>Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE</i>		
<i>CASE Category: 19 - PHYSICAL SCIENCE, OTHER</i>			<i>CASE Category: 31 - ATMOSPHERIC SCIENCE</i>		
<b>NAG 5 8501</b>	<b>UNIV OF MARYLAND - EASTERN SHORE</b>	<b>5297</b>	<b>NAG 5 6460</b>	<b>UNIV OF MARYLAND BALTIMORE COUNTY</b>	<b>5305</b>
UNIV OF MARYLAND EASTERN SHORE PRE-COLLEGE TO COLLEGE ENGI- NEERING BRIDGE PROGRAM 05/12/1999 - 07/30/2000	FY01: \$0	Total: \$50,000	VALIDATION OF MOPITT COLUMN & PROFILE CO FROM SPAC EBORNE, AIRBORNE, & GROUND-BASED INTERFEROMETERS 10/14/1997 - 09/30/2002	FY01: \$60,588	Total: \$317,893
<i>Prin. Invest.: M WILSON</i>			<i>Prin. Invest.: W MCMILLAN</i>		
<i>Tech. Officer: WFF/D MENCHAN</i>			<i>Tech. Officer: GSFC/D O STARR</i>		
<i>CASE Category: 49 - ENGINEERING, OTHER</i>			<i>CASE Category: 19 - PHYSICAL SCIENCE, OTHER</i>		
<b>NAG 5 9243</b>	<b>UNIV OF MARYLAND - EASTERN SHORE</b>	<b>5298</b>	<b>NAG 5 6675</b>	<b>UNIV OF MARYLAND BALTIMORE COUNTY</b>	<b>5306</b>
PRE-COLLEGE ACTIVITIES FOR ENHANCING MINORITY PART ICIPATION IN ENGINEERING. 03/13/2000 - 03/14/2002	FY01: \$97,217	Total: \$194,773	VALIDATION OF CLOUD OPTICAL DEPTHS RETRIEVED FROM EOS/MODIS DATA 12/01/1997 - 09/30/2002	FY01: \$84,198	Total: \$309,020
<i>Prin. Invest.: G SINGH</i>			<i>Prin. Invest.: A MARSHAK</i>		
<i>Tech. Officer: GSFC/M STOUTSENBERGER</i>			<i>Tech. Officer: GSFC/D O STARR</i>		
<i>CASE Category: 99 - MULTI INTERDISCPL, OTHER</i>			<i>CASE Category: 19 - PHYSICAL SCIENCE, OTHER</i>		
<b>NAG 5 10122</b>	<b>UNIV OF MARYLAND - EASTERN SHORE</b>	<b>5299</b>	<b>NAG 5 6681</b>	<b>UNIV OF MARYLAND BALTIMORE COUNTY</b>	<b>5307</b>
MATHEMATICS, ENGINEERING, SCIENCE ENRICHMENT PRE- COLLEGE PROGRAM 11/28/2000 - 11/30/2001	FY01: \$50,000	Total: \$50,000	ASSIMILATION OF WIND OBSERVATIONS FROM THE HIGH RE SOLUTION DOPPLERIMAGER 12/05/1997 - 11/30/2001	FY01: \$0	Total: \$430,241
<i>Prin. Invest.: T DUBE</i>			<i>Prin. Invest.: D TANGBORN</i>		
<i>Tech. Officer: GSFC/D MENCHAN</i>			<i>Tech. Officer: GSFC/C JACKMAN</i>		
<i>CASE Category: 99 - MULTI INTERDISCPL, OTHER</i>			<i>CASE Category: 31 - ATMOSPHERIC SCIENCE</i>		
<b>NCC 5 437</b>	<b>UNIV OF MARYLAND - EASTERN SHORE</b>	<b>5300</b>	<b>NAG 5 6996</b>	<b>UNIV OF MARYLAND BALTIMORE COUNTY</b>	<b>5308</b>
DESIGN & DEVELOPMENT OF TETHERED BLIMP-BORNE MULTI -SPECTRAL IMAGING DEVICE 10/07/1999 - 01/14/2001	FY01: \$0	Total: \$32,500	A STUDY OF UNCERTAINTIES FOR MODIS CLOUD RETRIEVAL S OF OPTICAL THICKNESS AND EFFECTIVE RADIUS 02/06/1998 - 12/14/2001	FY01: \$0	Total: \$202,354
<i>Prin. Invest.: E BOYD</i>			<i>Prin. Invest.: D PLATNICK</i>		
<i>Tech. Officer: GSFC/R WESCOTT</i>			<i>Tech. Officer: GSFC/D STARR</i>		
<i>CASE Category: 46 - MECHANICAL ENGR</i>			<i>CASE Category: 31 - ATMOSPHERIC SCIENCE</i>		
<b>NAG 5 5339</b>	<b>UNIV OF MARYLAND BALTIMORE</b>	<b>5301</b>	<b>NAG 5 7385</b>	<b>UNIV OF MARYLAND BALTIMORE COUNTY</b>	<b>5309</b>
ASSIST GSFC CODE 972 DURING CAMEX-4 PROJECT A 07/12/2001 - 09/30/2001	FY01: \$9,000	Total: \$9,000	X-RAY SPECTROSCOPY OF ACTIVE GALACTIC NUCLEI: (LT SA) 05/15/1998 - 06/30/2002	FY01: \$216,715	Total: \$570,610
<i>Prin. Invest.: W MCMILLAN</i>			<i>Prin. Invest.: T J TURNER</i>		
<i>Tech. Officer: WFF/F SCHMIDLIN</i>			<i>Tech. Officer: GSFC/D K WEST</i>		
<i>CASE Category: 31 - ATMOSPHERIC SCIENCE</i>			<i>CASE Category: 11 - ASTRONOMY</i>		

**NAG 5 7563 UNIV OF MARYLAND BALTIMORE COUNTY 5310**  
 MODELING OF SHORTWAVE RADIATION FIELDS USING ATMOS PHERIC  
 RADIATION MEASUREMENTS (ARM) AND LANDSAT D  
 06/29/1998 - 06/30/2001 FY01: \$4,000 Total: \$275,720  
*Prin. Invest.: A MARSHAK*  
*Tech. Officer: GSFC/W WISCOMBE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 7774 UNIV OF MARYLAND BALTIMORE COUNTY 5311**  
 CLOUDLESS SCENE IDENTIFICATION FOR AEROSOL RETRIEVAL FROM  
 TOMS MEASUREMENTS  
 10/28/1998 - 10/31/2001 FY01: \$0 Total: \$128,000  
*Prin. Invest.: O TORRES*  
*Tech. Officer: GSFC/M I MISCHENKO*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 7909 UNIV OF MARYLAND BALTIMORE COUNTY 5312**  
 TRMM PRECIPITATION RADAR: DEVELOPMENT OF A RAIN RE TRIEVAL  
 ALGORITHMUSING GROUND VALIDATION DAT  
 12/08/1998 - 12/14/2002 FY01: \$140,965 Total: \$278,035  
*Prin. Invest.: E AMITAI*  
*Tech. Officer: GSFC/O W THIELE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 8231 UNIV OF MARYLAND BALTIMORE COUNTY 5313**  
 USE OF DATA FROM TRMM FIELD CAMPAIGNS IN IMPROVED INITIALI-  
 ZATION AND VALIDATION OF HIGH RESOLUTION  
 03/03/1999 - 03/14/2002 FY01: \$0 Total: \$156,420  
*Prin. Invest.: B S FERRIER*  
*Tech. Officer: GSFC/O W THIELE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 8379 UNIV OF MARYLAND BALTIMORE COUNTY 5314**  
 VARIATIONAL ASSIMILATION OF TRMM-DERIVED PRECIPITA-  
 TION OBSERVATIONS FOR THE IMPROVEMENT OF NUMERICA  
 04/14/1999 - 04/14/2001 FY01: \$0 Total: \$50,393  
*Prin. Invest.: W S OLSON*  
*Tech. Officer: GSFC/R W LAWRENCE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 9054 UNIV OF MARYLAND BALTIMORE COUNTY 5315**  
 INNOVATIVE ANALYSIS OF GRAVITY MAPPING MISSION DATA  
 02/10/2000 - 12/31/2001 FY01: \$12,500 Total: \$50,000  
*Prin. Invest.: E C PAVLIS*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 9346 UNIV OF MARYLAND BALTIMORE COUNTY 5316**  
 UNDERSTANDING TON S180? (ADP - 99)  
 03/31/2000 - 06/30/2001 FY01: \$0 Total: \$20,000  
*Prin. Invest.: T J TURNER*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9588 UNIV OF MARYLAND BALTIMORE COUNTY 5317**  
 LABORATORY QUANTITATIVE SPECTROSCOPY OF MOLECULES OF  
 ATMOSPHERIC RELEVANCE  
 05/11/2000 - 12/31/2001 FY01: \$77,197 Total: \$128,630  
*Prin. Invest.: J M SIROTA*  
*Tech. Officer: GSFC/M KURYLO*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9645 UNIV OF MARYLAND BALTIMORE COUNTY 5318**  
 A COMPARATIVE STUDY OF FOREST MAPPING METHODS AND ALGO-  
 RITHMS: TOWARDS OPTIMAL SOLUTIONS FOR OPERATIO  
 06/12/2000 - 06/30/2002 FY01: \$60,204 Total: \$124,699  
*Prin. Invest.: Y SOHN, NONE*  
*Tech. Officer: GSFC/G GUTMAN*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9698 UNIV OF MARYLAND BALTIMORE COUNTY 5319**  
 IMPROVEMENT OF CONVECTIVE/STRATIFORM SEPARATION & LATENT  
 HEATING PROFILE ESTIMATION FROM TRMM  
 07/21/2000 - 11/30/2001 FY01: \$107,963 Total: \$220,963  
*Prin. Invest.: W S OLSON*  
*Tech. Officer: GSFC/R J LAWRENCE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 9699 UNIV OF MARYLAND BALTIMORE COUNTY 5320**  
 ORGANIZATION, STRUCTURE, AND EVOLUTION OF TROPICAL CONVEC-  
 TIONS IN SOUTH CHINA SEA MONSOON AND THEIR  
 07/27/2000 - 05/31/2002 FY01: \$80,000 Total: \$126,667  
*Prin. Invest.: J WANG*  
*Tech. Officer: GSFC/R J LAWRENCE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 9707 UNIV OF MARYLAND BALTIMORE COUNTY 5321**  
 US INDIA COLLABORATIVE RESEARCH ON ONSOON PREDICT ABILITY  
 06/16/2000 - 08/31/2002 FY01: \$23,856 Total: \$47,712  
*Prin. Invest.: A MEHTA, NONE*  
*Tech. Officer: GSFC/J DODGE*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9718 UNIV OF MARYLAND BALTIMORE COUNTY 5322**  
 INVESTIGATIONS OF MARITIME & CONTINENTAL TROPICAL CONVECTIVE  
 SYSTEMS USING DATA FROM TRMM FIELD E  
 06/19/2000 - 06/30/2002 FY01: \$89,766 Total: \$145,766  
*Prin. Invest.: J B HALVERSON*  
*Tech. Officer: GSFC/R J LAWRENCE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 9816 UNIV OF MARYLAND BALTIMORE COUNTY 5323**  
 CLIMATOLOGY AND EVOLUTION OF CONVECTIVE SYSTEMS CO MBINING  
 SURFACE RADAR & GEOSTATIONARY INFRARED SA  
 07/21/2000 - 07/31/2002 FY01: \$75,000 Total: \$118,750  
*Prin. Invest.: T M RICKENBACH*  
*Tech. Officer: GSFC/R J LAWRENCE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 9954 UNIV OF MARYLAND BALTIMORE COUNTY 5324**  
 MYERHOFF SCHOLARSHIP PROGRAM  
 09/08/2000 - 09/14/2001 FY01: \$0 Total: \$200,000  
*Prin. Invest.: E B BAKER*  
*Tech. Officer: GSFC/D MENCHAN*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9995 UNIV OF MARYLAND BALTIMORE COUNTY 5325**  
 A SPECTRAL STUDY OF A NEW CLASS OF RADIO QUASARS  
 09/20/2000 - 03/31/2002 FY01: \$0 Total: \$21,878  
*Prin. Invest.: E S PERLMAN*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9996 UNIV OF MARYLAND BALTIMORE COUNTY 5326**  
 VARIABILITY AND HARD-X-RAY SPECTRA OF BL LACERTAE OBJECTS  
 09/21/2000 - 06/30/2001 FY01: \$0 Total: \$2,790  
*Prin. Invest.: E PERLMAN*  
*Tech. Officer: GSFC/J SWANK*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9997 UNIV OF MARYLAND BALTIMORE COUNTY 5327**  
 THE PHYSICS OF EXTRAGALACTIC RADIO/OPTICAL/X-RAY JETS  
 09/20/2000 - 03/14/2002 FY01: \$55,000 Total: \$101,603  
*Prin. Invest.: E S PERLMAN*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10024 UNIV OF MARYLAND BALTIMORE COUNTY 5328**  
 DIAGNOSTICS OF THE ISM IN INTERMEDIATE REDSHIFT GALAXIES USING  
 BACKGROUND BL LACS  
 09/27/2000 - 09/30/2001 FY01: \$0 Total: \$5,080  
*Prin. Invest.: E S PERLMAN*  
*Tech. Officer: GSFC/R MUSHOTZKY*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10086 UNIV OF MARYLAND BALTIMORE COUNTY 5329**  
 THE X-RAY TEMPERATURE FUNCTION AND STRUCTURE OF CLUSTERS AT  
 Z=0.6-1  
 11/07/2000 - 11/14/2001 FY01: \$6,213 Total: \$6,213  
*Prin. Invest.: E S PERLMAN*  
*Tech. Officer: GSFC/R MUSHOTZKY*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10109 UNIV OF MARYLAND BALTIMORE COUNTY 5330**  
 HIGH RESOLUTION X-RAY PROPERTIES OF BL LACS: AN XMM SURVEY  
 01/26/2001 - 01/31/2002 FY01: \$45,045 Total: \$45,045  
*Prin. Invest.: E S PERLMAN*  
*Tech. Officer: GSFC/R MUSHOTZKY*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10206 UNIV OF MARYLAND BALTIMORE COUNTY 5331**  
 QUANTITATIVE INFRARED SPECTROSCOPY FOR STUDIES OF BROWN  
 DWARFS & EXTRASOLAR GIANT PLANETS  
 12/28/2000 - 12/31/2001 FY01: \$30,000 Total: \$30,000  
*Prin. Invest.: D STEVERT*  
*Tech. Officer: GSFC/G STRINGFELLOW*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10347 UNIV OF MARYLAND BALTIMORE COUNTY 5332**  
 VALIDATION OF CLOUD MODEL MICROPHYSICS & RAIN RATE ESTIMATION  
 WITH HIGH-RESOLUTION MICROWAVE OBSERVA  
 02/01/2001 - 09/30/2002 FY01: \$128,752 Total: \$128,752  
*Prin. Invest.: G M SKOFRONICK-JACK*  
*Tech. Officer: GSFC/R J LAWRENCE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 10687 UNIV OF MARYLAND BALTIMORE COUNTY 5333**  
 CALIBRATION & NAVIGATION OF RAW INSAT IMAGERY & APPLICATION FOR  
 CLIMATE VARIABILITY ANALYSES  
 04/04/2001 - 04/14/2002 FY01: \$59,150 Total: \$59,150  
*Prin. Invest.: G I MOLNAR*  
*Tech. Officer: GSFC/A J NEGRI*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 10876 UNIV OF MARYLAND BALTIMORE COUNTY 5334**  
 STUDY OF SOLAR AND SPECTRAL GRADIANCES BASED ON  
 SOHO/VIRGO AND MDI  
 05/15/2001 - 11/30/2001 FY01: \$111,389 Total: \$111,389  
*Prin. Invest.: J M PAP*  
*Tech. Officer: GSFC/J GURMAN*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 10969 UNIV OF MARYLAND BALTIMORE COUNTY 5335**  
 DERIVING MICROPHYSICAL CLOUD PROFILES USING AIR-BORNE ACTIVE  
 & WIDEBAND PASSIVE MICROWAVE OBSERVA  
 06/06/2001 - 06/14/2002 FY01: \$28,596 Total: \$28,596  
*Prin. Invest.: G SKOFRONICK-JACK*  
*Tech. Officer: GSFC/R J LAWRENCE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 11020 UNIV OF MARYLAND BALTIMORE COUNTY 5336**  
 SCATTERING & ABSORPTION PROPERTIES OF NONSPHERICAL /INHOMOGENEOUS AEROSOLS& ICE CRYSTALS:  
 06/22/2001 - 06/30/2002 FY01: \$30,000 Total: \$30,000  
*Prin. Invest.: P YANG*  
*Tech. Officer: GSFC/R J LAWRENCE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 11092 UNIV OF MARYLAND BALTIMORE COUNTY 5337**  
 UNDERSTANDING ARK 564 (ADP 2000)  
 07/09/2001 - 09/30/2002 FY01: \$47,536 Total: \$47,536  
*Prin. Invest.: T J TURNER*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 11115 UNIV OF MARYLAND BALTIMORE COUNTY 5338**  
 STUDIES OF THE UPPER ATMOSPHERIC INNER CORE REGION OF HURRICANES USING THENASA ER-2 DROPWINDSONDE  
 07/26/2001 - 07/31/2002 FY01: \$152,789 Total: \$152,789  
*Prin. Invest.: J B HALVERSON*  
*Tech. Officer: GSFC/R J LAWRENCE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 11150 UNIV OF MARYLAND BALTIMORE COUNTY 5339**  
 MARS WATER CONSTRAINTS FROM VOLCANIC LANDFORM TOPOGRAPHY  
 07/26/2001 - 07/31/2002 FY01: \$40,000 Total: \$40,000  
*Prin. Invest.: S SAKIMOTO*  
*Tech. Officer: GSFC/J M BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 11156 UNIV OF MARYLAND BALTIMORE COUNTY 5340**  
 BBAERI AIRS OCEAN VALIDATION EXPERIMENT: BOAVE" AQUA-0056-0064  
 08/01/2001 - 08/31/2004 FY01: \$80,439 Total: \$80,439  
*Prin. Invest.: W MCMILLAN*  
*Tech. Officer: GSFC/D STARR*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 11174 UNIV OF MARYLAND BALTIMORE COUNTY 5341**  
 CONSTRAINTS ON WATER ON MARS FROM EXPLOSIVE VOLCANISM LANDFORMTOPOGRAPHY  
 09/05/2001 - 09/30/2001 FY01: \$13,000 Total: \$13,000  
*Prin. Invest.: S SAKIMOTO*  
*Tech. Officer: GSFC/J M BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 11206 UNIV OF MARYLAND BALTIMORE COUNTY 5342**  
 MODELING OF SHORTWAVE RADIATION FIELDS USING ATMOS PHERIC  
 RADIATION MEASUREMENTS (ARM) & LANDSAT DAT  
 08/14/2001 - 06/30/2002 FY01: \$114,205 Total: \$114,205  
*Prin. Invest.: A MARSHAK*  
*Tech. Officer: GSFC/W WISCOMBE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 11230 UNIV OF MARYLAND BALTIMORE COUNTY 5343**  
 OBSERVATIONALLY-BASED PROCESS EVALUATION OF MODEL TRANSPORT: IMPROVING ATMOSPHERIC MODELS AND THE G  
 08/16/2001 - 08/14/2004 FY01: \$115,145 Total: \$115,145  
*Prin. Invest.: S STRAHAN*  
*Tech. Officer: GSFC/P DECOLA*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 11269 UNIV OF MARYLAND BALTIMORE COUNTY 5344**  
 MICROPHYSICAL PROPERTIES OF CRYSTALLINE PSC PARTIC LES  
 DEVIVED FROM AIRBORNE LADAR MEASUREMENTS  
 08/22/2001 - 08/31/2004 FY01: \$67,295 Total: \$67,295  
*Prin. Invest.: J REICHARDT*  
*Tech. Officer: GSFC/P DECOLA*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 11284 UNIV OF MARYLAND BALTIMORE COUNTY 5345**  
 STATISTICAL INVESTIGATIONS OF SUBGRID SCALE VARIABILITY IN THE  
 UT/LS  
 08/17/2001 - 08/31/2004 FY01: \$73,791 Total: \$73,791  
*Prin. Invest.: L SPARLING*  
*Tech. Officer: GSFC/P DECOLA*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 11326 UNIV OF MARYLAND BALTIMORE COUNTY 5346**  
 VARIATIONS IN THE SOLAR RADIATION ENERGY OUTPUT ON TIME SCALES  
 OF YEARS AND THE SOLAR CYCLE  
 09/05/2001 - 05/14/2003 FY01: \$20,378 Total: \$20,378  
*Prin. Invest.: J PAP*  
*Tech. Officer: GSFC/C JACKSON*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 9 1190 UNIV OF MARYLAND BALTIMORE COUNTY 5347**  
 EFFECTS OF EXPOSURE TO HEAVY PARTICLES  
 01/20/2000 - 01/19/2003 FY01: \$178,062 Total: \$335,749  
*Prin. Invest.: B M RABIN*  
*Tech. Officer: JSC/F A CUCINOTTA*  
*CASE Category: 54 – ENVIRONMENTAL BIOLOGY*

**NAS 1 99107 UNIV OF MARYLAND BALTIMORE COUNTY 5348**  
 PICASSO-CENA SCIENCE TEAM SUPPORT FOR AEROSOL RETRIEVAL  
 STUDIES  
 11/02/1999 - 11/01/2002 FY01: \$124,187 Total: \$129,187  
*Prin. Invest.: R M HOFF*  
*Tech. Officer: LARC/G G GIBSON*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAS 5 00173 UNIV OF MARYLAND BALTIMORE COUNTY 5349**  
 PARTICIPATION IN THE OZONE MONITORING INSTRUMENT SCIENCE TEAM.  
 06/06/2000 - 10/31/2004 FY01: \$118,644 Total: \$188,644  
*Prin. Invest.: O TORRES*  
*Tech. Officer: GSFC/J C RIVERA*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAS 5 00203 UNIV OF MARYLAND BALTIMORE COUNTY 5350**  
 R & D TO SUPPORT GSFC'S SIMBIOS PROJECT  
 12/15/2000 - 11/30/2001 FY01: \$125,014 Total: \$125,014  
*Prin. Invest.: M WANG*  
*Tech. Officer: GSFC/C R MCCLAIN*  
*CASE Category: 33 – OCEANOGRAPHY*

**NAS 5 01110 UNIV OF MARYLAND BALTIMORE COUNTY 5351**  
 OZONE MONITORING INSTRUMENT (OMI) SCIENCE TEAM  
 04/18/2001 - 10/31/2004 FY01: \$127,932 Total: \$127,932  
*Prin. Invest.: A KRUEGER*  
*Tech. Officer: GSFC/J C RIVERA*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAS 5 31378 UNIV OF MARYLAND BALTIMORE COUNTY 5352**  
 EOS EXECUTION PHASE  
 12/16/1991 - 12/14/2001 FY01: \$480,000 Total: \$3,088,000  
*Prin. Invest.: L L STROW*  
*Tech. Officer: GSFC/E R KREINS*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAS 5 99141 UNIV OF MARYLAND BALTIMORE COUNTY 5353**  
 COMPACT HYPERSPECTRAL MAPPER FOR ENVIRONMENTAL APPLICA-  
 TIONS (CHYMERA).  
 02/08/1999 - 12/15/2001 FY01: -\$56,344 Total: \$469,836  
*Prin. Invest.: S JANZ*  
*Tech. Officer: GSFC/J HARTLEY*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 2 1252 UNIV OF MARYLAND BALTIMORE COUNTY 5354**  
 DISTRIBUTED DATA MINING FOR LARGE NASA DATABASES  
 04/10/2001 - 02/28/2002 FY01: \$156,000 Total: \$156,000  
*Prin. Invest.: H KARGUPTA*  
*Tech. Officer: ARC/J SKILES, ARC/J COUGHLAN*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NCC 5 339 UNIV OF MARYLAND BALTIMORE COUNTY 5355**  
 JOINT CENTER FOR EARTH SYSTEM TECHNOLOGY NEW AWARD  
 07/01/1998 - 06/30/2002 FY01: \$2,555,684 Total: \$11,033,288  
*Prin. Invest.: D CHRISTOU, R HOFF*  
*Tech. Officer: GSFC/R AFZAL, GSFC/C E COTE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 5 361 UNIV OF MARYLAND BALTIMORE COUNTY 5356**  
 DESKTOP STEREOSCOPIC VISUALIZATION AND ANALYSIS OF MULTI-DI-  
 MENSIONAL DATA SETS  
 09/08/1998 - 09/14/2001 FY01: \$0 Total: \$129,876  
*Prin. Invest.: D S EBERT*  
*Tech. Officer: GSFC/A ROBERTS*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NCC 5 367 UNIV OF MARYLAND BALTIMORE COUNTY 5357**  
 LHEA/UMB cooperATive AGREEMENT (LUCA)  
 10/20/1998 - 12/31/2001 FY01: \$612,863 Total: \$1,028,605  
*Prin. Invest.: M J HENRIKSEN*  
*Tech. Officer: GSFC/N E WHITE*  
*CASE Category: 11 – ASTRONOMY*

**NCC 5 494 UNIV OF MARYLAND BALTIMORE COUNTY 5358**  
 ESTABLISHMENT OF GODDARD EARTH SCIENCE & TECHN CTR ESTABLISHING GODDARD EARTH SCIENCE AND TECHNOLOGY  
 05/11/2000 - 05/10/2005 FY01: \$6,960,835 Total: \$9,787,006  
*Prin. Invest.: R CURRAN*  
*Tech. Officer: GSFC/R HARTLE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 3 1844 BOSTON UNIV 5365**  
 DETERMINATION OF INTERFACIAL RHEOLOGICAL PROPERTIES THROUGH MICROGRAVITY OSCILLATIONS OF BUBBLES DR  
 05/03/1996 - 08/31/2000 FY01: \$0 Total: \$272,000  
*Prin. Invest.: A NADIM*  
*Tech. Officer: GRC/B SINGH*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

## MASSACHUSETTS

**NAG 1 2057 BOSTON COLLEGE 5359**  
 ENHANCEMENT OF SOLID STATE LASER OUTPUT VIA INTERFACIAL ENERGY TRANSFER  
 04/24/1998 - 01/31/2001 FY01: \$0 Total: \$242,971  
*Prin. Invest.: B DIBARTOIO, B WALSH*  
*Tech. Officer: LARC/N P BARNES, LARC/J C BARNES*  
*CASE Category: 13 – PHYSICS*

**NAG 3 2121 BOSTON UNIV 5366**  
 RHEOLOGY OF FOAM NEAR THE ORDER-DISORDER TRANSITION  
 02/17/1998 - 08/31/2000 FY01: \$0 Total: \$100,000  
*Prin. Invest.: R G HOLT, J G MCDANIEL*  
*Tech. Officer: GRC/R B ROGERS*  
*CASE Category: 13 – PHYSICS*

**NAG 1 01019 BOSTON COLLEGE 5360**  
 INVESTIGATIONS OF FUNDAMENTAL PROCESSES IN LASER SOLIDS WITH REMOTE SENSING APPLICATIONS  
 01/25/2001 - 11/30/2003 FY01: \$142,260 Total: \$142,260  
*Prin. Invest.: B DIBARTOLO, B WALSH*  
*Tech. Officer: LARC/N P BARNES, LARC/J C BARNES*  
*CASE Category: 13 – PHYSICS*

**NAG 3 2143 BOSTON UNIV 5367**  
 SONOLUMINESCENCE IN SPACE: THE CRITICAL ROLE OF BOUNCING IN STABILITY AND EMISSION MECHANISMS  
 04/10/1998 - 01/08/2002 FY01: \$162,500 Total: \$517,500  
*Prin. Invest.: R G HOLT, R A ROY*  
*Tech. Officer: GRC/N R HALL*  
*CASE Category: 13 – PHYSICS*

**NAG 1 01067 BOSTON COLLEGE 5361**  
 NATO ADVANCED STUDY INST ON SPECTROSCOPY WITH SPATIALLY CONFINED STRUCTURES  
 04/18/2001 - 08/17/2001 FY01: \$15,000 Total: \$15,000  
*Prin. Invest.: B DIBARTOLO*  
*Tech. Officer: LARC/J C BARNES*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 3 2392 BOSTON UNIV 5368**  
 RHEOLOGY OF FOAM NEAR THE ORDER-DISORDER PHASE TRANSITION  
 04/18/2000 - 11/30/2003 FY01: \$80,000 Total: \$130,000  
*Prin. Invest.: D HOLT*  
*Tech. Officer: GRC/R B ROGERS*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 5 10824 BOSTON COLLEGE 5362**  
 STAR FORMATION IN MSX INFRARED DARK CLOUDS (LTSA 2000)  
 05/01/2001 - 05/14/2002 FY01: \$87,882 Total: \$87,882  
*Prin. Invest.: S J CAREY*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 690 BOSTON UNIV 5369**  
 A SOUNDING ROCKET PROGRAM IN EXTREME AND FAR UV INTERFEROMETRY  
 04/29/1992 - 01/31/2001 FY01: \$0 Total: \$2,352,044  
*Prin. Invest.: S CHAKRABARTI*  
*Tech. Officer: GSFC/R H PLESS*  
*CASE Category: 13 – PHYSICS*

**NAG 5 10833 BOSTON COLLEGE 5363**  
 THE MAGNETIC STRUCTURE OF CMES: A COMPARISON OF HALO CMES WITH MAGNETIC CLOUDS AT 1 AU  
 04/27/2001 - 04/30/2002 FY01: \$64,760 Total: \$64,760  
*Prin. Invest.: D F WEBB*  
*Tech. Officer: GSFC/W J WAGNER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 3384 BOSTON UNIV 5370**  
 TOWARD A REFINED UNDERSTANDING OF THE HIGH-ENERGY GAMMA-RAY UNIVERSE  
 08/28/1996 - 08/31/2001 FY01: \$0 Total: \$365,000  
*Prin. Invest.: J R MATTOX*  
*Tech. Officer: GSFC/D WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 2 1432 BOSTON UNIV 5364**  
 INTEGRATION OF ATMOSPHERIC, LABORATORY, & SATELITE DATA TO ESTIMATE BIOSPHERIC SOURCES OF OXYGENATE  
 08/15/2000 - 08/14/2002 FY01: \$42,000 Total: \$80,000  
*Prin. Invest.: R B MYNNENI*  
*Tech. Officer: ARC/C S POTTER*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 3439 BOSTON UNIV 5371**  
 MONITORING CHANGE IN TEMPERATE CONIFEROUS FOREST ECOSYSTEMS  
 10/07/1996 - 12/31/2001 FY01: \$50,854 Total: \$915,007  
*Prin. Invest.: C WOODCOCK*  
*Tech. Officer: GSFC/D L WILLIAMS*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 3748 BOSTON UNIV 5372**  
 THE MAGNETOSPHERIC MAPPING MISSION  
 03/10/1997 - 03/14/2001 FY01: -\$31 Total: \$199,969  
*Prin. Invest.: D E SPENCE*  
*Tech. Officer: GSFC/R HOWARD*  
*CASE Category: 13 – PHYSICS*

**NAG 5 3839**           **BOSTON UNIV**           **5373**  
 FREQUENCY STRATIFICATION OF THE NONTHERMAL EMISSION  
 02/24/1997 - 02/28/2001    FY01: \$1,000           Total: \$287,000  
*Prin. Invest.: A P MARSCHER*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 3999**           **BOSTON UNIV**           **5374**  
 A SILICON ANODE DETECTOR WITH INTEGRATED ELECTRONI  
 03/06/1997 - 02/28/2001    FY01: \$0               Total: \$491,700  
*Prin. Invest.: D CHAKRABARTI*  
*Tech. Officer: GSFC/H HASAN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 4246**           **BOSTON UNIV**           **5375**  
 USE OF ENERGETIC NEUTRAL ATOMS AS DIAGNOSTICS OF M PROCESSES  
 03/26/1997 - 04/30/2001    FY01: \$0               Total: \$262,266  
*Prin. Invest.: D MENDILLO*  
*Tech. Officer: GSFC/J GREBOWSKY*  
*CASE Category: 13 - PHYSICS*

**NAG 5 4273**           **BOSTON UNIV**           **5376**  
 SEPARATING SPATIAL AND TEMPORAL VARIATIONS OF THE NEARLY COLOCATED SATELLITES  
 04/04/1997 - 04/30/2001    FY01: \$0               Total: \$222,632  
*Prin. Invest.: D E SPENCE*  
*Tech. Officer: GSFC/M M MELLOTT*  
*CASE Category: 13 - PHYSICS*

**NAG 5 4707**           **BOSTON UNIV**           **5377**  
 USE OF NASA'S GLOBAL POSITIONING SYSTEM (GPS) MONI STUDIES OF IONOSPHERIC STRUCTURE AND VARIABILITY  
 06/11/1997 - 05/31/2001    FY01: \$0               Total: \$200,000  
*Prin. Invest.: D MENDILLO*  
*Tech. Officer: GSFC/M M MELLOTT*  
*CASE Category: 13 - PHYSICS*

**NAG 5 5137**           **BOSTON UNIV**           **5378**  
 SPECTRE: STUDENT-RUN PROGRAM FOR EXOATMOSPHERIC COLLECTING TECHNOLOGIES & ROCKET EXPERIMENTS  
 04/14/1997 - 12/31/2000    FY01: -\$2              Total: \$43,193  
*Prin. Invest.: S CHAKRABARTI*  
*Tech. Officer: GSFC/W JOHNSON*  
*CASE Category: 13 - PHYSICS*

**NAG 5 5251**           **BOSTON UNIV**           **5379**  
 A SUBORBITAL RESEARCH PROGRAM IN ULTRAVIOLET HIGH RESOLUTION AND IMAGING SPECTROSCOPY PI CHAKRABARTI  
 02/04/2000 - 02/03/2003    FY01: \$351,490        Total: \$652,929  
*Prin. Invest.: S CHAKRABARTI*  
*Tech. Officer: WFF/W B JOHNSON*  
*CASE Category: 13 - PHYSICS*

**NAG 5 6214**           **BOSTON UNIV**           **5380**  
 MODELING AND FORECASTING EFFECTS OF LAND-USE CHANG SOCIOECONOMIC DRIVERS  
 08/18/1997 - 06/30/2001    FY01: \$0               Total: \$312,042  
*Prin. Invest.: D K KAUFMANN*  
*Tech. Officer: GSFC/G C GUTMAN*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 6658**           **BOSTON UNIV**           **5381**  
 ULYSSES DATA ANALYSIS: MAGNETIC TOPOLOGY OF HELIO SPHERIC STRUCTURES  
 11/20/1997 - 06/30/2001    FY01: \$0               Total: \$203,772  
*Prin. Invest.: N CROOKER*  
*Tech. Officer: GSFC/J LING*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 6716**           **BOSTON UNIV**           **5382**  
 THERMAL AND HYDROLOGIC SIGNATURE OF SOIL CONTROLS ON EVAPORATION:A COMBINED ENERGY AND WATER  
 12/10/1997 - 06/30/2000    FY01: -\$695           Total: \$148,119  
*Prin. Invest.: G SALVUCCI*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 6755**           **BOSTON UNIV**           **5383**  
 ANALYSIS AND MODELING OF COMET HALE-BOPP'S MULTIPL E TAILS  
 12/16/1997 - 02/28/2001    FY01: \$0               Total: \$96,000  
*Prin. Invest.: M MENDILLO*  
*Tech. Officer: GSFC/R BEEBE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 6926**           **BOSTON UNIV**           **5384**  
 THE CLUSTER II RAPID IES EFFORT AT BOSTON UNIVERSIT Y-PRELAUNCH ACTIVITY  
 02/05/1998 - 10/31/2000    FY01: -\$8             Total: \$202,780  
*Prin. Invest.: T FRITZ*  
*Tech. Officer: GSFC/L CHRISTENSEN*  
*CASE Category: 42 - ASTRONAUTICAL ENGR*

**NAG 5 7049**           **BOSTON UNIV**           **5385**  
 WIND DATA ANALYSIS: GLOBAL HELIOSPHERIC STRUCTURE S  
 02/26/1998 - 06/30/2002    FY01: \$10,000        Total: \$127,700  
*Prin. Invest.: N U CROOKER*  
*Tech. Officer: GSFC/J LING*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 7217**           **BOSTON UNIV**           **5386**  
 GEOMETRIC OPTICAL MODELING OF DIRECTIONAL THERMAL RADIANCE FOR IMPROVEMENT OF LAND SURFACE TEMPERATU  
 04/17/1998 - 12/31/2001    FY01: \$34,086        Total: \$300,236  
*Prin. Invest.: X LI*  
*Tech. Officer: GSFC/D E WICKLAND*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 7218**           **BOSTON UNIV**           **5387**  
 MACHINE LEARNING TO IMPROVE LAND COVER CLASSIFICATIONS FROM MULTISENSOR AND MULTITEMPORAL DATA  
 04/09/1998 - 04/14/2001    FY01: \$0               Total: \$84,433  
*Prin. Invest.: M FRIEDL*  
*Tech. Officer: GSFC/D E WICKLAND*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 7331**           **BOSTON UNIV**           **5388**  
 XTE PROPOSAL MULTIWAVEBAND MONITORING OF THE RADIO GALAXY 3C 120  
 04/24/1998 - 04/30/2000    FY01: -\$46            Total: \$10,454  
*Prin. Invest.: A MARSCHER*  
*Tech. Officer: GSFC/J SWANK*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 7452**           **BOSTON UNIV**           **5389**  
 SIMULATIONS AND THEORY OF THE FARLEY-BUNEMAN INSTABILITY IN  
 THE E-REGION IONOSPHERE  
 07/10/1998 – 08/31/2001    FY01: \$0           Total: \$157,357  
*Prin. Invest.: M OPPENHEIM*  
*Tech. Officer: GSFC/M MELLOTT*  
*CASE Category: 13 – PHYSICS*

**NAG 5 7472**           **BOSTON UNIV**           **5390**  
 ADVANCED DATA SETS FROM FUSION OF AVHRR AND SEAWIFS DATA  
 06/16/1998 – 06/30/2001    FY01: \$0           Total: \$70,775  
*Prin. Invest.: R MYNENI*  
*Tech. Officer: GSFC/C TUCKER*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 7677**           **BOSTON UNIV**           **5391**  
 STUDIES BY THE CAMMICE INVESTIGATION TEAM DURING THE EXTENDED  
 MISSION OF GGSPOL  
 09/18/1998 – 09/30/2001    FY01: \$360,000      Total: \$1,335,607  
*Prin. Invest.: T FRITZ*  
*Tech. Officer: GSFC/R HOFFMAN*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 7706**           **BOSTON UNIV**           **5392**  
 STUDIES OF MAGNETOSPHERIC ENERGETIC PARTICLES IN THE SOLAR  
 MAXIMUM AREA  
 10/01/1998 – 12/31/2001    FY01: \$75,000       Total: \$355,000  
*Prin. Invest.: H E SPENCER*  
*Tech. Officer: GSFC/R HOFFMAN*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 7861**           **BOSTON UNIV**           **5393**  
 DYNAMICS OF JOVIAN UPPER ATMOSPHERES FROM STELLAR OCCULTA-  
 TIONS  
 01/07/1999 – 03/31/2000    FY01: -\$7,633       Total: \$23,096  
*Prin. Invest.: D A YOUNG*  
*Tech. Officer: GSFC/R BEEBE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8012**           **BOSTON UNIV**           **5394**  
 INVESTIGATIONS INTO THE ORIGIN OF THE MOON'S ATMOSPHERE:  
 OBSERVATIONS AND MODELING  
 01/13/1999 – 12/31/2000    FY01: \$0           Total: \$132,420  
*Prin. Invest.: M MENDILLO*  
*Tech. Officer: GSFC/T MORGAN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8039**           **BOSTON UNIV**           **5395**  
 MULTIPONT ENERGETIC NEUTRAL ATOM STUDIES WITH POLAR, GEOTAIL,  
 AND TIROS  
 01/11/1999 – 01/14/2001    FY01: \$0           Total: \$59,748  
*Prin. Invest.: H E SPENCE*  
*Tech. Officer: GSFC/M H ACUNA*  
*CASE Category: 13 – PHYSICS*

**NAG 5 8135**           **BOSTON UNIV**           **5396**  
 "SIGNATURES OF MAGNETOPAUSE RECONNECTION".  
 01/29/1999 – 01/31/2002    FY01: \$241,909      Total: \$607,075  
*Prin. Invest.: G L SISCOE*  
*Tech. Officer: GSFC/J GREBOWSKY*  
*CASE Category: 13 – PHYSICS*

**NAG 5 8147**           **BOSTON UNIV**           **5397**  
 AN AUDIO-MULTIMEDIA WORKSTATION: SCIENCE DATA ANALYSIS USING-  
 SONIFICATION AND SIMULTANEO  
 02/04/1999 – 12/31/2000    FY01: \$0           Total: \$176,485  
*Prin. Invest.: J D SULLIVAN*  
*Tech. Officer: GSFC/J BREDEKAMP*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8584**           **BOSTON UNIV**           **5398**  
 INVESTIGATION OF AERODYNAMIC AND RADIOMETRIC LAND SURFACE  
 TEMPERATURES  
 06/21/1999 – 06/30/2002    FY01: \$22,835       Total: \$65,906  
*Prin. Invest.: M A FRIEDL*  
*Tech. Officer: GSFC/E T ENGMAN*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8659**           **BOSTON UNIV**           **5399**  
 COLLECTION OF LAI & FPAR DATA OVER THE TERRA CORE SITES  
 08/31/1999 – 08/31/2000    FY01: \$0           Total: \$25,000  
*Prin. Invest.: R MYNENI*  
*Tech. Officer: GSFC/J PRIVETTE*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8666**           **BOSTON UNIV**           **5400**  
 DIRECT ESTIMATION OF THE FORM AND SCALE-DEPENDENCE OF SOIL  
 MOISTURE CONTROL ON LAND SURFACE WATER  
 07/01/1999 – 12/31/2000    FY01: \$0           Total: \$50,000  
*Prin. Invest.: G D SALVUCCI*  
*Tech. Officer: GSFC/P R HOUSER*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8756**           **BOSTON UNIV**           **5401**  
 GRAVITATIONAL LENSING: RECENT PROGRESS AND FUTURE GOALS  
 CONFERENCE  
 08/25/1999 – 06/30/2001    FY01: \$0           Total: \$13,996  
*Prin. Invest.: T BRAINERD*  
*Tech. Officer: GSFC/L KALUZIENSKI*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9110**           **BOSTON UNIV**           **5402**  
 SUBSTORM EVOLUTION IN THE NEAR-EARTH PLASMA SHEET  
 02/23/2000 – 02/28/2002    FY01: \$94,598       Total: \$182,498  
*Prin. Invest.: G ERICKSON*  
*Tech. Officer: GSFC/J SHARBER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9161**           **BOSTON UNIV**           **5403**  
 RXTE OBSERVATIONS OF SELECTED BLAZARS – ADP – 99  
 03/08/2000 – 03/14/2002    FY01: \$0           Total: \$23,580  
*Prin. Invest.: A MARSCHER*  
*Tech. Officer: GSFC/R OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9191**           **BOSTON UNIV**           **5404**  
 SUPPORT FOR SCIENTIFIC EVALUATION OF RAPID ON ORBIT  
 PERFORMANCE  
 03/08/2000 – 03/14/2001    FY01: \$0           Total: \$72,855  
*Prin. Invest.: T FRITZ*  
*Tech. Officer: GSFC/L CHRISTENSEN*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 9444**           **BOSTON UNIV**           **5405**  
 SIMULATIONS & THEORY OF ELECTRON PHASE-SPACE HOLES OBSERVED  
 IN THE AURORAL IONOSPHERE  
 04/13/2000 - 12/31/2001    FY01: \$0           Total: \$37,000  
*Prin. Invest.: M OPPENHEIM*  
*Tech. Officer: GSFC/M MELLOTT*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9547**           **BOSTON UNIV**           **5406**  
 MULTI-DECadal PATHFINDER DATA SETS OF GLOBAL LAND BIOPHYSICAL  
 VARIABLES FROM AVHRR & MODIS & THEIR  
 05/16/2000 - 05/31/2002    FY01: \$73,570       Total: \$150,000  
*Prin. Invest.: R MYNENI*  
*Tech. Officer: GSFC/DODGE*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9557**           **BOSTON UNIV**           **5407**  
 MULTIPONT ENERGETIC NEUTRAL ATOM IMAGING WITH POLAR GEOTAIL  
 AND TIROS  
 05/16/2000 - 05/14/2002    FY01: \$0           Total: \$58,999  
*Prin. Invest.: H SPENCE*  
*Tech. Officer: GSFC/R HOFFMAN*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 9562**           **BOSTON UNIV**           **5408**  
 NEW ISTP SOLAR MAX: CUSP ENERGETIC PARTICLES  
 05/09/2000 - 05/14/2001    FY01: \$0           Total: \$30,000  
*Prin. Invest.: J CHEN*  
*Tech. Officer: GSFC/R HOFFMAN*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 9582**           **BOSTON UNIV**           **5409**  
 A LARGE FORMAT, MINIATURIZED, PHOTON COUNTING IMAGING SYSTEM  
 WITH MICRO-CHANNEL PLATE PORE-LIMITED  
 05/09/2000 - 05/14/2002    FY01: \$0           Total: \$100,000  
*Prin. Invest.: S CHAKRABARTI*  
*Tech. Officer: GSFC/P CRANE*  
*CASE Category: 13 – PHYSICS*

**NAG 5 10108**           **BOSTON UNIV**           **5410**  
 THE CLUSTER RAPID ON-ORBIT OPERATIONS AND DATA VERIFICATION  
 12/28/2000 - 12/31/2001    FY01: \$502,000      Total: \$502,000  
*Prin. Invest.: T FRITZ*  
*Tech. Officer: GSFC/M GOLDSTEIN*  
*CASE Category: 13 – PHYSICS*

**NAG 5 10156**           **BOSTON UNIV**           **5411**  
 RETRIEVING LAI AND FPAR FROM MERIS DATA WITH ADVANCED ALGORITHMS  
 12/18/2000 - 12/31/2001    FY01: \$89,641       Total: \$89,641  
*Prin. Invest.: R B MYNENI*  
*Tech. Officer: GSFC/D WICKLAND*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10286**           **BOSTON UNIV**           **5412**  
 USE OF ENERGETIC NEUTRAL ATOMS AS DIAGNOSTICS OF MAGNETOSPHERIC PROCESSES AT JUPITER  
 01/23/2001 - 01/31/2002    FY01: \$35,000       Total: \$35,000  
*Prin. Invest.: M MENDILLO*  
*Tech. Officer: GSFC/J SHARBER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10419**           **BOSTON UNIV**           **5413**  
 CONSTELLATION PATHFINDER TECHNOLOGY DEVELOPMENT: SYSTEMS  
 INTEGRATION AND MANUFACTURABILITY  
 03/13/2001 - 03/14/2002    FY01: \$50,000       Total: \$50,000  
*Prin. Invest.: D SPENCE*  
*Tech. Officer: GSFC/P BUCHANAN*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 10496**           **BOSTON UNIV**           **5414**  
 HIGH DEFINITION IMAGES OF MERCURY'S SURFACE AND EXTENDED  
 ATMOSPHERE  
 02/28/2001 - 02/28/2002    FY01: \$55,000       Total: \$55,000  
*Prin. Invest.: J BAUMGARDNER*  
*Tech. Officer: GSFC/T MORGAN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10801**           **BOSTON UNIV**           **5415**  
 CONCEPT STUDY FOR THE "A SMALL EXPLORER MISSION FOR SPEC-TROSCOPY & PHOTOMETRY OF IGM'S DIFFUSE  
 04/30/2001 - 04/30/2002    FY01: \$450,000       Total: \$450,000  
*Prin. Invest.: P CHAKRABARTI*  
*Tech. Officer: GSFC/J R BYRD*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10808**           **BOSTON UNIV**           **5416**  
 INFRARED STUDIES OF 13CO CLUMPS IN THE GRS (LTSA 2 000)  
 04/25/2001 - 04/30/2002    FY01: \$100,000       Total: \$100,000  
*Prin. Invest.: J M JACKSON*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10856**           **BOSTON UNIV**           **5417**  
 HELIOSPHERIC CURRENT SHEET STRUCTURE  
 05/01/2001 - 04/30/2002    FY01: \$71,950       Total: \$71,950  
*Prin. Invest.: N U CROOKER*  
*Tech. Officer: GSFC/W J WAGNER*  
*CASE Category: 13 – PHYSICS*

**NAG 5 10881**           **BOSTON UNIV**           **5418**  
 HELIOSPHERIC CONSEQUENCES OF CORONAL MASS EJECTION  
 05/14/2001 - 05/31/2002    FY01: \$71,950       Total: \$71,950  
*Prin. Invest.: N U CROOKER*  
*Tech. Officer: GSFC/J GURMAN*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 11077**           **BOSTON UNIV**           **5419**  
 IONOSPHERE VARIABILITY AND STORMS ON MARS  
 08/06/2001 - 08/14/2003    FY01: \$50,000       Total: \$50,000  
*Prin. Invest.: M MENDILLO*  
*Tech. Officer: GSFC/J M BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 11165**           **BOSTON UNIV**           **5420**  
 MODELING STUDIES OF TITAN'S THERMOSPHERE, IONOSPHERE, AND  
 AURORA  
 08/06/2001 - 08/14/2004    FY01: \$40,198       Total: \$40,198  
*Prin. Invest.: M MENDILLO*  
*Tech. Officer: GSFC/D J BOGAN*  
*CASE Category: 42 – ASTRONAUTICAL ENGR*

**NAG 5 11263**           **BOSTON UNIV**           **5421**  
 LAND SURFACE ALBEDO FROM MERIS REFLECTIONS USING M ODIS  
 DIRECTIONALFACTORS  
 08/29/2001 - 12/31/2003      FY01: \$22,607      Total: \$22,607  
*Prin. Invest.: C SCHAAF*  
*Tech. Officer: GSFC/D WICKLAND*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 11338**           **BOSTON UNIV**           **5422**  
 THE EFFECTS OF AGRICULTURAL EXPANSION ON REGIONAL HYDROLOGY  
 IN SETURKEY  
 09/07/2001 - 09/15/2004      FY01: \$191,205      Total: \$191,205  
*Prin. Invest.: G SALVUCCI*  
*Tech. Officer: GSFC/G GUTMAN*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 8 1522**           **BOSTON UNIV**           **5423**  
 DIRECT USE OF SATELLITE REMOTE SENSING IN THE ESTIMATION OF  
 HYDROLOGIC TRANSPORTS.  
 05/22/1998 - 09/30/2001      FY01: \$0      Total: \$134,869  
*Prin. Invest.: G D SALVUCCI*  
*Tech. Officer: MSFC/J ARNOLD*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAS 5 31369**           **BOSTON UNIV**           **5424**  
 MODERATE RESOLUTION IMAGING SPECTROMETER INVESTIGATION –  
 LAND COVER CHANGES  
 12/30/1991 - 12/14/2001      FY01: \$645,000      Total: \$5,389,303  
*Prin. Invest.: W STRAHLER*  
*Tech. Officer: GSFC/H OSEROFF*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAS 5 96061**           **BOSTON UNIV**           **5425**  
 MODIS  
 09/27/1996 - 12/14/2001      FY01: \$384,000      Total: \$1,985,000  
*Prin. Invest.: R B MYNENI*  
*Tech. Officer: GSFC/D TOLL*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 2 1233**           **BOSTON UNIV**           **5426**  
 A BENCHMARK DATASET OF MULTIDIMENSIONAL EARTH SCIE NCE  
 SATELLITE DATA FOR TESTING OF LEARNING ALGORI  
 03/30/2001 - 02/28/2002      FY01: \$97,000      Total: \$97,000  
*Prin. Invest.: R B MYNENI*  
*Tech. Officer: ARC/J C OUGHLAN, ARC/S LAU*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NCC 9 127**           **BOSTON UNIV**           **5427**  
 MICRO GRAVITY INDUCED CHGS IN CONTROL OF MUSCLES  
 05/11/2001 - 05/31/2004      FY01: \$100,000      Total: \$100,000  
*Prin. Invest.: C J DE LUCA*  
*Tech. Officer: JSC/M ANDERSON*  
*CASE Category: 56 – MEDICAL*

**NGT 1 52199**           **BOSTON UNIV**           **5428**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 07/20/1998 - 06/30/2001      FY01: \$12,000      Total: \$66,000  
*Prin. Invest.: K P HARLING, B DI BARTOLO*  
*Tech. Officer: LARC/J C BARNES, LARC/N P BARNES*  
*CASE Category: 13 – PHYSICS*

**NGT 5 30223**           **BOSTON UNIV**           **5429**  
 RELATION BETWEEN INTERANNUAL VARIABILITY IN ATMOSP HERIC CO2,  
 SEA (ENSO) AND LAND SURFACE TEMPERATUR  
 09/20/1999 - 08/31/2002      FY01: \$22,000      Total: \$66,000  
*Prin. Invest.: R MYNENI, L ZHOU*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 30401**           **BOSTON UNIV**           **5430**  
 URBANIZATION AS A COMPONENT OF GLOBAL CHANGE. STUDENT: ANNE-  
 MARIE SCHNEIDE  
 08/14/2001 - 08/31/2004      FY01: \$22,000      Total: \$22,000  
*Prin. Invest.: C WOODSTOCK*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 30405**           **BOSTON UNIV**           **5431**  
 ESTIMATION OF LAND SURFACE ENERGY BALANCE AND SUR- FACE  
 PROPERTIES USING REMOTELY-SENSED OBSERVATION  
 08/16/2001 - 08/31/2004      FY01: \$22,000      Total: \$22,000  
*Prin. Invest.: M FRIEDEL*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50171**           **BOSTON UNIV**           **5432**  
 TOMOGRAPHIC IMAGING OF THE HOT INTERSTELLAR MEDIA USING  
 ULTRAVIOLETSPECTROSCOPY  
 06/03/1998 - 06/30/2001      FY01: \$0      Total: \$66,000  
*Prin. Invest.: S CHAKRABARTI*  
*Tech. Officer: HQ/A NURRIDIN*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NGT 5 50288**           **BOSTON UNIV**           **5433**  
 SIMULATION OF PLASMA TURBULENCE IN THE AURORAL ION OSPHERE  
 06/26/2000 - 08/31/2002      FY01: \$22,000      Total: \$44,000  
*Prin. Invest.: M OPPENHEIM*  
*Tech. Officer: GSFC/L SMITH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50307**           **BOSTON UNIV**           **5434**  
 GENE EXPRESSION PROFILE OF UNLOADED SKELETAL MUSCLE –  
 STUDENT: ERIC STEVENSON  
 07/06/2000 - 06/30/2002      FY01: \$22,000      Total: \$44,000  
*Prin. Invest.: S KANDARIAN*  
*Tech. Officer: GSFC/L SMITH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50309**           **BOSTON UNIV**           **5435**  
 A PROSTHETIC FOOT SOLE FOR THE MITIGATION OF BALAN CE DEFICITS  
 CAUSED BY REDUCED PLANTAR SENSATION  
 07/07/2000 - 08/31/2002      FY01: \$22,000      Total: \$44,000  
*Prin. Invest.: L ODDSSON*  
*Tech. Officer: GSFC/L SMITH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 3 2386** **BRANDEIS UNIV** **5436**  
 NUCLEATION OF COLLOIDAL AND PROTEIN CRYSTALS IN THE VICINITY OF  
 A METASTABLE CRITICAL POINT  
 04/07/2000 – 11/30/2003 FY01: \$95,000 Total: \$170,000  
*Prin. Invest.: D FRADEN*  
*Tech. Officer: GRC/F P CHIARAMONTE*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 5 6100** **BRANDEIS UNIV** **5437**  
 THE GRAYBIEL LABORATORY ROTATING ROOM RESEARCH FACILITY  
 10/02/1997 – 08/31/2000 FY01: \$0 Total: \$825,418  
*Prin. Invest.: D LACKNER*  
*Tech. Officer: GSFC/V SCHNEIDER*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NAG 9 1037** **BRANDEIS UNIV** **5438**  
 MOTOR ADAPTATION TO CORIOLIS AND CONTACT  
 07/01/1998 – 06/30/2001 FY01: \$266,364 Total: \$811,776  
*Prin. Invest.: J LACKNER*  
*Tech. Officer: JSC/C W LLOYD*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NAG 9 1038** **BRANDEIS UNIV** **5439**  
 ADAPTATION IN ARTIFICIAL GRAVITY ENVIRONMENTS  
 06/25/1998 – 08/30/2001 FY01: \$250,350 Total: \$617,290  
*Prin. Invest.: J LACKNER*  
*Tech. Officer: JSC/C W LLOYD*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NAG 9 1263** **BRANDEIS UNIV** **5440**  
 DEVELOPING PROCEDURES FOR ALLEVIATING ASTRONAUTS POST  
 FLIGHT DISTR OF POSTURE AND LOCOMOTION  
 12/06/2000 – 11/30/2003 FY01: \$309,386 Total: \$309,386  
*Prin. Invest.: J R LACKNER*  
*Tech. Officer: JSC/C W LLOYD*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 2 1443** **CLARK UNIV** **5441**  
 COFFEE HARVEST OPTIMIZATION USING UAV PLATFORMS FOR THE  
 ACQUISITION OF HIGH SPATIAL RESOLUTION REAL  
 09/27/2000 – 12/31/2000 FY01: \$0 Total: \$90,000  
*Prin. Invest.: S R HERWITZ*  
*Tech. Officer: ARC/S S WEGENER, ARC/R S HIPSINK*  
*CASE Category: 55 – AGRICULTURE*

**NAG 5 6046** **CLARK UNIV** **5442**  
 LAND-USE COVER IN THE SOUTHERN YUCATAN PENINSULA R  
 07/31/1997 – 02/25/2001 FY01: \$0 Total: \$530,000  
*Prin. Invest.: B TURNER*  
*Tech. Officer: GSFC/A JANETOS*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8559** **CLARK UNIV** **5443**  
 PIXELING THE SOCIAL USING REMOTELY SENSED INFORMATION IN  
 SOCIAL SCIENCE MODELS  
 07/08/1999 – 06/30/2002 FY01: \$116,917 Total: \$344,368  
*Prin. Invest.: J GEOGHEGAN*  
*Tech. Officer: GSFC/M Y WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 11134** **CLARK UNIV** **5444**  
 LCLUC-SYPR II  
 07/26/2001 – 07/31/2002 FY01: \$99,824 Total: \$99,824  
*Prin. Invest.: B TURNER*  
*Tech. Officer: GSFC/G GUTMAN*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 2 1270** **CLARK UNIV** **5445**  
 COFFEE HARVEST OPTIMIZATION USING UAV PLATFORMS FOR THE  
 ACQUISITION OF HIGH SPATIAL RESOLUTION REAL  
 06/07/2001 – 06/14/2002 FY01: \$840,000 Total: \$840,000  
*Prin. Invest.: S HERWITZ*  
*Tech. Officer: ARC/S S WEGENER*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 97** **CLARK UNIV** **5446**  
 INTEGRATED ASSESSMENT AND PROJECTION OF LAND-USE/ COVER  
 CHANGE IN THE SOUTHERN YUCATAN PENINSULAR  
 08/24/1999 – 08/31/2002 FY01: \$22,000 Total: \$66,000  
*Prin. Invest.: B L TURNER, S MANSION*  
*Tech. Officer: GSFC/M Y WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 30061** **CLARK UNIV** **5447**  
 DIAGNOSIS OF SPATIAL AND TEMPORAL PATTERNS OF DRY LAND-ATMOSPHERE WATER EXCHANGE IN THE TROPICAL SAV  
 09/10/1997 – 08/31/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.: L LEWIS*  
*Tech. Officer: GSFC/M Y WEI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 30129** **CLARK UNIV** **5448**  
 IDENTIFYING THE BIOPHYSICAL & HUMAN DIMENSIONS OF LAND  
 DEGRADATION IN THE SEMI-ARID KAROO, SOUTH AFR  
 10/08/1997 – 08/31/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.: B TURNER*  
*Tech. Officer: GSFC/G ASRAR*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 30147** **CLARK UNIV** **5449**  
 IDENTIFYING THE LAND-MANAGEMENT INSTS AND LANDSCAPE  
 PATTERN GOVERNING SAVANNA FIRE REGI  
 08/31/1998 – 08/31/2002 FY01: \$0 Total: \$66,000  
*Prin. Invest.: B L TURNER, 11*  
*Tech. Officer: GSFC/M Y WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 30153** **CLARK UNIV** **5450**  
 LINKING REMOTE SENSING AND SOCIAL ANALYSIS: CAUSAL INFLUENCES  
 OF TRANSITIONING ECONOMIES ON  
 08/28/1998 – 08/31/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.: B L TURNER, 11, HAAN*  
*Tech. Officer: GSFC/M Y WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 30197** CLARK UNIV 5451  
 CONSERVATION IN THE SOUTHERN YUCATAN PENINSULAR RE GION,  
 MEXICO: LINKING LANDSCAPE ECOLOGY AND SOCIA  
 08/18/1999 - 08/31/2002 FY01: \$22,000 Total: \$66,000  
*Prin. Invest.: B L TURNER, 11*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 30217** CLARK UNIV 5452  
 SOCIALIZING MIOMBO GEOLOGY: CHANGE IN WOODLAND USE AND ITS  
 MEANING FOR SUSTAINABLE LIVELIHOODS/STUD  
 08/24/1999 - 08/31/2002 FY01: \$22,000 Total: \$66,000  
*Prin. Invest.: B L TURNER*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 8 1796** COLLEGE OF THE HOLY CROSS 5453  
 FOR RESEARCH "TRANSIENT DENDRITIC SOLIDIFICATION EXPERIMENT"  
 03/07/2001 - 02/23/2002 FY01: \$100,000 Total: \$100,000  
*Prin. Invest.: M KOSS*  
*Tech. Officer: MSFC/A JACKSON*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 1 2007** HARVARD UNIV 5454  
 IN-SITU DETECTION OF OH, HO2, CIO, BRO, NO2, CIONOR, H2O, AND O3  
 FROM THE ER-2  
 02/18/1998 - 03/31/2001 FY01: -\$1 Total: \$5,928,959  
*Prin. Invest.: J G ANDERSON*  
*Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 1 2025** HARVARD UNIV 5455  
 ANALYSIS OF INTERANNUAL AND LONG TERM VARIATIONS OF STRATO-  
 SPHERIC TRANSPORT OF OZONE AND DEVELOP-  
 03/19/1998 - 01/31/2001 FY01: \$1 Total: \$345,001  
*Prin. Invest.: S C WOFSY*  
*Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 1 2126** HARVARD UNIV 5456  
 ANALYSIS AND MODELING OF PEM-TROPICS (B) DATA MY 1/3  
 02/02/1999 - 12/31/2001 FY01: \$1 Total: \$328,001  
*Prin. Invest.: D J JACOB, J A LOGAN*  
*Tech. Officer: LARC/J RAPER*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 1 2307** HARVARD UNIV 5457  
 GLOBAL THREE-DIMENSIONAL MODELING STUDIES OF TROPOSPHERIC  
 OZONE  
 06/28/2000 - 03/31/2003 FY01: \$211,001 Total: \$481,001  
*Prin. Invest.: D J JACOB*  
*Tech. Officer: LARC/G L MADDREA, HQ/P DE COLA*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 1 2328** HARVARD UNIV 5458  
 ANALYSIS OF ASIAN OUTFLOW OVER THE PACIFIC USING OBSERVATIONS  
 FROM TRACE-P, NRA 00-OES-01  
 09/20/2000 - 06/30/2003 FY01: \$115,469 Total: \$224,059  
*Prin. Invest.: D J JACOB*  
*Tech. Officer: LARC/J L RAPER, SR*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 1 01095** HARVARD UNIV 5459  
 CHEMISTRY, DYNAMICS, AND RADIATION OF OZONE LOSS AIRBORNE  
 MEAS OF OH, HO2, NO2, CIO BRO, IO,CLONO2  
 07/18/2001 - 12/31/2003 FY01: \$1,999,722 Total: \$1,999,722  
*Prin. Invest.: J G ANDERSON*  
*Tech. Officer: LARC/L R POOLE, LARC/G L MADDREA*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 2 1300** HARVARD UNIV 5460  
 FREE RADICALS & REACTIVE INTERMEDIATES FOR THE SAG E III OZONE  
 LOSS & VALIDATION EXPERIMENT SOLVE MI  
 03/09/1999 - 11/30/2000 FY01: \$0 Total: \$519,444  
*Prin. Invest.: J G ANDERSON*  
*Tech. Officer: ARC/E P CONDON, ARC/R S HIPSKE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 2 1304** HARVARD UNIV 5461  
 IN SITU MEASUREMENT OF CONCENTRAION OF ATMOSPHERIC CO2 IN  
 THE SAGE-2 OZONE LOSS &.... BALLOONMEAS  
 03/19/1999 - 12/31/2001 FY01: \$0 Total: \$309,500  
*Prin. Invest.: S C WOFSY*  
*Tech. Officer: ARC/E P CONDON, ARC/R S HIPSKE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 2 1310** HARVARD UNIV 5462  
 IN SITU MEASUREMENT OF CONCENTRATION OF ATMOSPHERI C CO2 IN  
 THE SGAE-3 OZONE LOSS & VALIDATION EXPER  
 03/19/1999 - 12/31/2001 FY01: \$119,500 Total: \$437,000  
*Prin. Invest.: S C WOFSY*  
*Tech. Officer: ARC/E P CONDON, ARC/R S HIPSKE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 2 1417** HARVARD UNIV 5463  
 BIOMECHANICS OF ARABIDOPSIS THALIANA WAVY ROOT DEV ELOPMENT  
 07/11/2000 - 06/30/2002 FY01: \$52,740 Total: \$121,609  
*Prin. Invest.: N M HOLBROOK*  
*Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 2 1509** HARVARD UNIV 5464  
 CONTROL OF CELL MECHANICS AND FUNCTION BY CELL MIC ROENVIRON-  
 MENT  
 07/26/2001 - 07/31/2002 FY01: \$112,405 Total: \$112,405  
*Prin. Invest.: N WANG*  
*Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 3 2284** HARVARD UNIV 5465  
 PHYSICS OF COLLOIDS IN SPACE PHYSICS OF COLLOIDS IN SPACE  
 08/02/1999 - 06/30/2004 FY01: \$378,125 Total: \$831,125  
*Prin. Invest.: D WEITZ*  
*Tech. Officer: GRC/B S SINGH*  
*CASE Category: 13 – PHYSICS*

**NAG 3 2376** HARVARD UNIV 5466  
 MICROGRAVITY DRIVEN INSTABILITIES IN GAS-FLUIDIZED BEDS  
 03/27/2000 - 11/30/2003 FY01: \$19,000 Total: \$49,000  
*Prin. Invest.: D A WEITZ*  
*Tech. Officer: GRC/B MOTIL*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 3 2381** HARVARD UNIV 5467  
 FABRICATION OF PHOTONIC STRUCTURE WITH COLLOIDAL ENGINEERING  
 04/07/2000 - 11/30/2003 FY01: \$76,000 Total: \$136,000  
*Prin. Invest.:* D A WHITE  
*Tech. Officer:* GRC/F P CHIARAMONTE  
*CASE Category:* 49 – ENGINEERING, OTHER

**NAG 3 2492** HARVARD UNIV 5468  
 ENGINEERING OF NOVEL BIOCOPOLYMER SUSPENSIONS ENGINEERING OF  
 NOVEL BIOCOPOLYMER SUSPENSIONS  
 10/17/2000 - 11/30/2003 FY01: \$30,000 Total: \$30,000  
*Prin. Invest.:* D A WEITZ  
*Tech. Officer:* GRC/D GRIFFIN  
*CASE Category:* 49 – ENGINEERING, OTHER

**NAG 5 3553** HARVARD UNIV 5469  
 AN INVESTIGATION OF THE COUPLING BETWEEN TROPOSPHERIC OZONE,  
 SULFATE AEROSOLS AND CLIMATE.....  
 12/05/1996 - 08/31/2000 FY01: \$0 Total: \$990,000  
*Prin. Invest.:* D JACOB  
*Tech. Officer:* GSFC/D RIND  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 3645** HARVARD UNIV 5470  
 EVOLUTION OF PROTEROZOIC MICROORGANISMS AND ENVIRONMENT  
 03/05/1997 - 11/30/2001 FY01: \$0 Total: \$353,808  
*Prin. Invest.:* D H KNOLL  
*Tech. Officer:* GSFC/M MEYER  
*CASE Category:* 32 – GEOLOGICAL SCIENCE

**NAG 5 4174** HARVARD UNIV 5471  
 PALEOSOLS AS INDICATORS OF ATMOSPHERIC EVOLUTION  
 03/24/1997 - 09/30/2000 FY01: \$0 Total: \$465,967  
*Prin. Invest.:* D D HOLLAND  
*Tech. Officer:* GSFC/M A MEYER  
*CASE Category:* 51 – BIOLOGY (EXCLUDING ENVIR)

**NAG 5 4216** HARVARD UNIV 5472  
 CCD PHOTOMETRY STUDY OF KUIPER BELT OBJECTS  
 04/09/1997 - 02/29/2000 FY01: -\$10,009 Total: \$69,408  
*Prin. Invest.:* D X SASSELOV  
*Tech. Officer:* GSFC/J BERGSTRALH  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 4302** HARVARD UNIV 5473  
 CROSS SECTION MEASUREMENTS FOR SOLAR COSMIC RAY STUDY  
 04/12/1997 - 06/30/2001 FY01: \$0 Total: \$82,034  
*Prin. Invest.:* D SISTERSON  
*Tech. Officer:* HQ/J BOYCE  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 4348** HARVARD UNIV 5474  
 ABSOLUTE TRANSITION PROBABILITIES FOR LINES IN THE ASTROPHYSICAL ATOMS, MOLECULES AND IONS  
 04/17/1997 - 12/31/2001 FY01: \$90,000 Total: \$426,197  
*Prin. Invest.:* W H PARKINSON  
*Tech. Officer:* GSFC/H HASAN  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 4430** HARVARD UNIV 5475  
 ISOTOPIC STUDIES OF SOLAR SYSTEMS ORIGINS  
 05/06/1997 - 02/28/2002 FY01: \$45,000 Total: \$178,000  
*Prin. Invest.:* D B JACOBSEN  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 4522** HARVARD UNIV 5476  
 DEVELOPMENT OF HOT-ELECTRON MICROBOLOMETERS FOR OBSERVING COSMIC MICROWAVE BACKGROUND RADIATION  
 05/28/1997 - 12/31/1999 FY01: -\$122,937 Total: \$144,021  
*Prin. Invest.:* P NAHUM  
*Tech. Officer:* GSFC/H THRONSON  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 4713** HARVARD UNIV 5477  
 CRYSTAL-LIQUID DENSITY INVERSIONS IN LUNAR AND PLANE  
 06/17/1997 - 06/30/2000 FY01: -\$117 Total: \$69,883  
*Prin. Invest.:* D G AGEE  
*Tech. Officer:* GSFC/D NAVA  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 4720** HARVARD UNIV 5478  
 TUNGSTEN ISOTOPE STUDIES OF METEORITES  
 06/17/1997 - 03/31/2001 FY01: \$0 Total: \$75,000  
*Prin. Invest.:* D B JACOBSEN  
*Tech. Officer:* GSFC/D NAVA  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 5103** HARVARD UNIV 5479  
 DEVELOPMENT OF EXITE3, IMAGING DETECTORS AND A LONG-DURATION BALLOON GONDOLA  
 02/11/1997 - 06/30/2001 FY01: \$0 Total: \$616,629  
*Prin. Invest.:* J E GRINDLAY  
*Tech. Officer:* GSFC/H C NEEDLEMAN, GSFC/B A MERRITT  
*CASE Category:* 13 – PHYSICS

**NAG 5 5279** HARVARD UNIV 5480  
 DEVELOPMENT OF A HARD X-RAY IMAGING DETECTOR AND SURVEY TELESCOPE (EXITE 3) FOR AN LDB MISSION  
 05/31/2000 - 05/18/2002 FY01: \$222,855 Total: \$422,811  
*Prin. Invest.:* G GRINDLAY  
*Tech. Officer:* GSFC/B A MERRITT  
*CASE Category:* 13 – PHYSICS

**NAG 5 6554** HARVARD UNIV 5481  
 LABORATORY STUDIES IN UV AND EUV SOLAR PHYSICS  
 10/24/1997 - 05/31/2000 FY01: \$0 Total: \$290,231  
*Prin. Invest.:* D H PARKINSON  
*Tech. Officer:* GSFC/W J WAGNER  
*CASE Category:* 59 – LIFE SCIENCE, OTHER

**NAG 5 7039** HARVARD UNIV 5482  
 STRUCTURE AND EVOLUTION OF X-RAY CLUSTERS: THEORY AND IMPLICATIONS FOR AXAF-ATP  
 02/25/1998 - 02/14/2002 FY01: \$0 Total: \$269,824  
*Prin. Invest.:* A LOEB  
*Tech. Officer:* GSFC/R J OLIVERSEN  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 7201** HARVARD UNIV 5483  
 GLOBAL THREE-DIMENSIONAL MODELING OF THE EFFECTS OF SUBSONIC AIRCRAFT ON OZONE  
 03/24/1998 – 03/31/2001 FY01: \$0 Total: \$495,343  
*Prin. Invest.: D JACOB*  
*Tech. Officer: GSFC/R W STEWART*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 7534** HARVARD UNIV 5484  
 LONG-TERM NET ECOSYSTEM EXCHANGE AT THE BORE AS NORTHERN OLD BLACKSPRUCE SITE: MECHANISMS FOR  
 06/11/1998 – 05/31/2002 FY01: \$213,603 Total: \$1,159,850  
*Prin. Invest.: S C WORSY*  
*Tech. Officer: GSFC/D E WICKLAND*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 7616** HARVARD UNIV 5485  
 FUNDING FOR 'INVESTIGATIONS OF THE GEODYNAMO USING SATELLITE MAGNETIC FIELD OBSERVATIONS' (SENH98-0)  
 07/22/1998 – 07/14/2001 FY01: \$37,000 Total: \$224,000  
*Prin. Invest.: J BLOXHAM*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 7768** HARVARD UNIV 5486  
 STUDYING THE SUPERNOVA HISTORY OF THE UNIVERSE WITH THE NEXT GENERATION SPACE TELESCOPE  
 01/11/1999 – 01/14/2002 FY01: \$0 Total: \$56,348  
*Prin. Invest.: R KIRSHNER*  
*Tech. Officer: GSFC/E SMITH*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7859** HARVARD UNIV 5487  
 PHOTOABSORPTION CROSS SECTIONS AND THEIR TEMPERATURE DEPENDENCE FOR CO2 AND H2O IN THE 170 NM TO 20  
 01/06/1999 – 12/31/2001 FY01: \$65,000 Total: \$183,875  
*Prin. Invest.: W H PARKINSON*  
*Tech. Officer: GSFC/R BEEBE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8467** HARVARD UNIV 5488  
 STUDIES OF STAR AND PLANETARY SYSTEM FORMATION  
 05/03/1999 – 07/31/2001 FY01: -\$19,712 Total: \$20,288  
*Prin. Invest.: A W CAMERON*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8727** HARVARD UNIV 5489  
 ORIGIN OF QUASAR ABSORPTION LINES IN A COSMOLOGICAL CONTEXT  
 08/10/1999 – 12/31/2000 FY01: -\$8 Total: \$69,698  
*Prin. Invest.: L E HERNQUIST*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8779** HARVARD UNIV 5490  
 CLOUDS AND WATER VAPOR IN THE CLIMATE SYSTEM  
 08/30/1999 – 02/28/2001 FY01: \$0 Total: \$898,876  
*Prin. Invest.: J ANDERSON*  
*Tech. Officer: GSFC/R CURRAN*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9019** HARVARD UNIV 5491  
 1. H2 IN HH2: FLUORESCENCE OR COLLISIONS? – FUSE 2. NON-RADIA-TIVE SHOCKS IN THE CYGNUS LOOP – FUSE  
 02/02/2000 – 01/31/2002 FY01: \$0 Total: \$61,100  
*Prin. Invest.: J C RAYMOND*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9521** HARVARD UNIV 5492  
 MEASUREMENT & ANALYSIS OF THE SPATIAL & TEMPORAL VARIABILITY OF OROGRAPHIC PRECIPITATION IN THE  
 04/26/2000 – 10/31/2000 FY01: \$0 Total: \$72,860  
*Prin. Invest.: A P BARROS*  
*Tech. Officer: GSFC/R LAWRENCE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 9571** HARVARD UNIV 5493  
 ISOTOPIC STUDIES OF THE FORMATION & EARLY DIFFERENTIATION OF PLANETS  
 05/08/2000 – 04/30/2001 FY01: \$0 Total: \$15,000  
*Prin. Invest.: S B JACOBSEN*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9643** HARVARD UNIV 5494  
 CHEMISTRY, AEROSOLS, AND CLIMATE: TROPOSPHERIC UNIFIED SIMULATION (CACTUS)  
 06/28/2000 – 05/31/2002 FY01: \$313,667 Total: \$630,667  
*Prin. Invest.: D J JACOB*  
*Tech. Officer: GSFC/P DECOLA*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9823** HARVARD UNIV 5495  
 MEASUREMENT, ANALYSIS, & MODELING OF THE SPATIAL & TEMPORAL VARIABILITY OF OROGRAPHIC PRECIP.  
 07/24/2000 – 11/30/2001 FY01: \$114,000 Total: \$225,420  
*Prin. Invest.: A P BARROS*  
*Tech. Officer: GSFC/R J LAWRENCE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 10040** HARVARD UNIV 5496  
 ON THE ORIGIN OF DIPS IN 4U1915-05  
 10/03/2000 – 09/30/2002 FY01: \$7,400 Total: \$7,400  
*Prin. Invest.: J E GRINDLAY*  
*Tech. Officer: GSFC/R MUSHOTZKY*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10046** HARVARD UNIV 5497  
 XMM OBSERVATIONS OF LARGE CORE CLUSTERS  
 09/28/2000 – 09/30/2002 FY01: \$0 Total: \$8,100  
*Prin. Invest.: J E GRINDLAY*  
*Tech. Officer: GSFC/R MUSHOTZKY*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10105** HARVARD UNIV 5498  
 X-RAY SPECTROSCOPY OF LOW-LUMINOSITY ACTIVE GALACTIC NUCLEI WITH XMM  
 12/18/2000 – 12/31/2001 FY01: \$4,865 Total: \$4,865  
*Prin. Invest.: R NARAYAN*  
*Tech. Officer: GSFC/R MUSHOTZKY*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10484** HARVARD UNIV 5499  
 ISOTOPIC STUDIES OF THE FORMATION & EARLY DIFFERENTIATION OF PLANETS  
 03/05/2001 - 03/31/2002 FY01: \$70,000 Total: \$70,000  
*Prin. Invest.: S JACOBSEN*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 12 - CHEMISTRY*

**NAG 5 10631** HARVARD UNIV 5500  
 THE EVOLUTION OF ATMOSPHERIC OXYGEN AND THE COMPOSITION OF SEAWATER  
 03/17/2001 - 03/14/2002 FY01: \$150,000 Total: \$150,000  
*Prin. Invest.: H D HOLLAND*  
*Tech. Officer: GSFC/M MEYER*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10780** HARVARD UNIV 5501  
 MODELS OF LOW-LUMINOSITY ACCRETION FLOWS (ATP 2000 )  
 04/20/2001 - 04/30/2002 FY01: \$94,389 Total: \$94,389  
*Prin. Invest.: R NARAYAN*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10792** HARVARD UNIV 5502  
 2001 7TH INTERNATIONAL PRECIPITATION CONFERENCE  
 04/24/2001 - 12/31/2001 FY01: \$27,900 Total: \$27,900  
*Prin. Invest.: A P BARROS*  
*Tech. Officer: GSFC/P R Houser*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 10906** HARVARD UNIV 5503  
 THE ORIGINS OF AUTOTROPHY: DISTRIBUTION, DIVERSITY AND EVOLUTION OF RUBISCO  
 05/22/2001 - 07/31/2002 FY01: \$90,000 Total: \$90,000  
*Prin. Invest.: C M CAVANAUGH*  
*Tech. Officer: GSFC/M MEYER*  
*CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)*

**NAG 5 11154** HARVARD UNIV 5504  
 FLUXES OF CARBON, WATER, AND ENERGY IN A BOREAL FOREST-PEAT ECOSYSTEM: SHORT TERM VARIANCE, LONG  
 08/02/2001 - 07/31/2002 FY01: \$189,403 Total: \$189,403  
*Prin. Invest.: S C WOFSY*  
*Tech. Officer: GSFC/D E WICKLAND*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 11270** HARVARD UNIV 5505  
 EVALUATION AND INTERCOMPARISON OF TROPOSPHERIC CHEMISTRY SIMULATIONS FOR GLOBAL MODEL INITIATIVE (GM)  
 08/22/2001 - 08/31/2004 FY01: \$145,130 Total: \$145,130  
*Prin. Invest.: D JACOB*  
*Tech. Officer: GSFC/P DECOLA*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 8 1256** HARVARD UNIV 5506  
 KINETICS OF NUCLEATION AND GROWTH FROM UNDERCOOLED MELTS  
 05/24/1996 - 05/22/2001 FY01: \$0 Total: \$700,000  
*Prin. Invest.: M J AZIZ, F SPAEPEN*  
*Tech. Officer: MSFC/P DOTY*  
*CASE Category: 19 - PHYSICAL SCIENCE, OTHER*

**NAG 8 1680** HARVARD UNIV 5507  
 "GLASS FORMATION, NUCLEATION AND DIFFUSION IN METALLIC MELTS"  
 06/06/2000 - 11/30/2003 FY01: \$95,000 Total: \$140,000  
*Prin. Invest.: F A SPAEPEN, M J AZIZ*  
*Tech. Officer: MSFC/P DOTY*  
*CASE Category: 47 - METAL & MATERIALS ENGR*

**NAG 8 1822** HARVARD UNIV 5508  
 RESEARCH ENTITLED, "STUDY OF METASTABILITY OF HYDROGEN AGAINST A TRANSITION TO PRESSURE"  
 06/29/2001 - 07/15/2002 FY01: \$99,972 Total: \$99,972  
*Prin. Invest.: I F SILVERA*  
*Tech. Officer: MSFC/S D BAI*  
*CASE Category: 43 - CHEMICAL ENGR*

**NAS 1 18946** HARVARD UNIV 5509  
 SAGE III SCIENCE SUPPORT; P.I. - WOFSY  
 11/28/1989 - 01/31/2005 FY01: \$80,000 Total: \$503,930  
*Prin. Invest.: S C WOFSY*  
*Tech. Officer: LARC/G MADDREA*  
*CASE Category: 19 - PHYSICAL SCIENCE, OTHER*

**NCC 2 897** HARVARD UNIV 5510  
 LIGHTWEIGHT HIGH-PRECISION, FAST RESPONSE INSTRUMENT FOR AIRBORNE CO<sub>2</sub> MEASUREMENTS FOR UAVS  
 03/22/1995 - 12/31/1999 FY01: -\$5,300 Total: \$1,049,504  
*Prin. Invest.: S C WOFSY*  
*Tech. Officer: ARC/S WEGENER*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NCC 2 1053** HARVARD UNIV 5511  
 THE PLANETARY CONTEXT OF BIOLOGICAL EVOLUTION  
 09/14/1998 - 06/30/2003 FY01: \$856,664 Total: \$2,322,169  
*Prin. Invest.: A H KNOLL*  
*Tech. Officer: ARC/R A GRIMES, ARC/W W DOLCI*  
*CASE Category: 59 - LIFE SCIENCE, OTHER*

**NCC 2 1236** HARVARD UNIV 5512  
 PROBABILISTIC REASONING FOR COMPLEX DYNAMIC SYSTEMS  
 04/11/2001 - 02/28/2002 FY01: \$66,000 Total: \$66,000  
*Prin. Invest.: A J PFEFFER*  
*Tech. Officer: ARC/R A MORRIS, ARC/D J CLANCY*  
*CASE Category: 22 - COMPUTER SCIENCE*

**NCC 5 341** HARVARD UNIV 5513  
 NET ECOSYSTEM EXCHANGE OF CO<sub>2</sub> AND H<sub>2</sub>O FROM PRIMARY TROPICAL FOREST IN CENTRAL AMAZONIA  
 07/07/1998 - 12/31/2001 FY01: \$295,000 Total: \$1,362,000  
*Prin. Invest.: S C WOFSY*  
*Tech. Officer: GSFC/D W DEERING*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NGT 5 101** HARVARD UNIV 5514  
 NATURAL SELECTION IN ELEMENTS OF PHOTOSYNTHESIS STUDENT: LUCAS MIX  
 05/25/2000 - 08/31/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.: C CAVANAUGH*  
*Tech. Officer: GSFC/G A SOFFEN*  
*CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)*

**NGT 5 30144** HARVARD UNIV 5515  
 THE EFFECTS OF ADJACENCY ARRANGEMENTS ON PLANT DIVERSITY IN  
 THE ASPEN PARKLAND ALBERTA  
 08/27/1998 - 08/31/2000 FY01: \$0 Total: \$44,000  
*Prin. Invest.: R FORMAN, ALEXANDER*  
*Tech. Officer: GSFC/M Y WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 30152** HARVARD UNIV 5516  
 BIOLOGICAL AND PHYSICAL CONTROLS ON EVAPOTRANSPIRATION IN A  
 MID-LATITUDE FOREST  
 08/28/1998 - 08/31/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.: S C WOFSY, LIN*  
*Tech. Officer: GSFC/M Y WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 30205** HARVARD UNIV 5517  
 NITRIC ACID AND NITROGEN DIOXIDE FLUX MEASUREMENTS OVER A  
 NORTH-AMERICAN FOREST/STUDENT: CASSANDRA H  
 08/19/1999 - 08/31/2002 FY01: \$22,000 Total: \$66,000  
*Prin. Invest.: S C WOFSY*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 30336** HARVARD UNIV 5518  
 LABORATORY STUDIES OF TROPOSPHERIC SOURCES & SINKS OF THE  
 HYDROXYL RADICAL: OXIDATION OF ALKENE  
 08/21/2000 - 08/31/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.: J ANDERSON*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 30366** HARVARD UNIV 5519  
 CHARACTERIZING THE HYDROLOGICAL AND ENVIRONMENTAL CONTROLS  
 ON THE CARBONBALANCE OF BOREAL FORESTS/AL  
 08/13/2001 - 08/31/2004 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: S WOFSY*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 30410** HARVARD UNIV 5520  
 A NEW METHOD FOR IN SITU MEASUREMENTS OF THE ISOTOPIC  
 COMPOSITION OF WATER IN THE TROPICAL UPPER  
 08/15/2001 - 08/31/2004 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: J ANDERSON*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50020** HARVARD UNIV 5521  
 OBSERVATIONS AND INSTRUMENTATION DEVELOPMENT TO STUDY UTRON  
 STARS'  
 07/14/1997 - 06/30/2000 FY01: -\$265 Total: \$43,735  
*Prin. Invest.: J GRINDLEY*  
*Tech. Officer: GSFC/A NURRIDIN*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50028** HARVARD UNIV 5522  
 A COMBINED X-RAY AND GRAVITATIONAL LENSING DETERMINISTS OF  
 GALAXIES  
 07/14/1997 - 08/31/2000 FY01: -\$1,546 Total: \$42,454  
*Prin. Invest.: L HERNQUIST, FOX*  
*Tech. Officer: GSFC/A NURRIDIN*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50244** HARVARD UNIV 5523  
 A KINEMATIC SURVEY OF NEARBY FIELD GALAXIES (STUDENT: SHEILA  
 KANNAPPAN)  
 06/02/1999 - 06/30/2001 FY01: \$0 Total: \$33,000  
*Prin. Invest.: R KIRSHNER*  
*Tech. Officer: GSFC/L SMITH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50258** HARVARD UNIV 5524  
 STUDIES IN LOW TEMPERATURE ATOMIC PHYSICS USING A CRYOGENIC  
 HYDROGEN MASER STUDENT: MARC HUMPHR  
 07/07/1999 - 06/30/2002 FY01: \$22,000 Total: \$66,000  
*Prin. Invest.: W H PARKINSON*  
*Tech. Officer: GSFC/L SMITH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 1 1857** MASSACHUSETTS INST OF TECHNOLOGY 5525  
 FUNDAMENTAL ISSUES INVOLVED WITH MODE AWARENESS OF  
 ADVANCED AUTOFLIGHT SYSTEMS  
 07/24/1996 - 06/30/2000 FY01: -\$270 Total: \$293,040  
*Prin. Invest.: R J HANSMAN*  
*Tech. Officer: LARC/M T PALMER*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NAG 1 1900** MASSACHUSETTS INST OF TECHNOLOGY 5526  
 TRACE GAS TRANSPORT IN THE TROPOSPHERE AND THE INTERPRETA-  
 TION OF IN SITU CONCENTRATION MEASURE.  
 02/10/1997 - 02/09/2000 FY01: -\$11 Total: \$217,990  
*Prin. Invest.: R A PLUMB*  
*Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 1 1978** MASSACHUSETTS INST OF TECHNOLOGY 5527  
 FAST BOUND METHODS FOR LARGE SCALE SIMULATION WITH APPLICA-  
 TION FOR ENGINEERING OPTIMIZATION  
 12/10/1997 - 12/09/2000 FY01: \$29,726 Total: \$419,726  
*Prin. Invest.: A T PATERN, J PERAIRE*  
*Tech. Officer: LARC/T A TANG, LARC/N M ALEXANDRIA*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NAG 1 2027** MASSACHUSETTS INST OF TECHNOLOGY 5528  
 LARGE-SCALE STRATOSPHERIC TRANSPORT PROCESSES MY 1/3  
 03/20/1998 - 02/28/2001 FY01: \$0 Total: \$414,501  
*Prin. Invest.: R A PLUMB*  
*Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 1 2122** MASSACHUSETTS INST OF TECHNOLOGY 5529  
 UNSTRUCTURED MESH METHODS FOR THE SIMULATION OF HYPERSONIC  
 FLOW  
 12/23/1998 - 03/31/2001 FY01: \$1 Total: \$190,766  
*Prin. Invest.: J PERAIRE*  
*Tech. Officer: LARC/K L BIBB, LARC/K J WEILMUNSTER*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NAG 1 2152** MASSACHUSETTS INST OF TECHNOLOGY 5530  
 STUDIES OF TRACE GAS CHEMICAL CYCLES USING INVERSE METHODS &  
 GLOBAL CHEMICAL TRANSPORT MODELS  
 02/25/1999 - 12/31/2001 FY01: \$148,013 Total: \$428,180  
*Prin. Invest.: R G PRINN*  
*Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 1 2173 MASSACHUSETTS INST OF TECHNOLOGY 5531**  
 PHYS PROCESSES GOV/G ATMOSPHERIC TRACECONSTITUENTS MEAS'D FROM A/C IN PEM-TROPICS-B (NRA-97-MTPE-04)  
 05/03/1999 - 02/28/2002 FY01: \$1 Total: \$445,112  
*Prin. Invest.: R E NEWELL*  
*Tech. Officer: LARC/J L RAPER, LARC/R J BENDURA*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 1 2189 MASSACHUSETTS INST OF TECHNOLOGY 5532**  
 ALERTG SYS EVAL METHODOLOGY FOR TRAJ CORRIDOR CONFORMANCE MONITORING W/APPLIC CLOSELY SPACED PARALLELS  
 04/28/1999 - 05/31/2000 FY01: -\$29 Total: \$70,388  
*Prin. Invest.: J K KUCHAR*  
*Tech. Officer: LARC/M C WALLER, LARC/T S ABBOTT*  
*CASE Category: 41 - AERONAUTICAL ENGRN*

**NAG 1 2203 MASSACHUSETTS INST OF TECHNOLOGY 5533**  
 TRACER EVOLUTION AT HIGHER LATITUDES IN WINTER (SOLVE)  
 06/17/1999 - 09/30/2001 FY01: \$8,319 Total: \$24,820  
*Prin. Invest.: R PLUMB*  
*Tech. Officer: LARC/G MADDREA*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 1 2239 MASSACHUSETTS INST OF TECHNOLOGY 5534**  
 REQUIREMENT ENGINEERING FOR SOFTWARE INTEGRITY AND SAFETY (NRA 98-LARC-8)  
 09/23/1999 - 09/30/2002 FY01: \$166,397 Total: \$352,740  
*Prin. Invest.: N LEVESON*  
*Tech. Officer: LARC/D E ECKMARDT*  
*CASE Category: 22 - COMPUTER SCIENCE*

**NAG 1 2275 MASSACHUSETTS INST OF TECHNOLOGY 5535**  
 DEVELOPMENT OF AN OUTPUT-BASED ADAPTIVE METHOD FOR MULTI-DIMENSIONAL EULER AND NAVIER STOKES SIMULATIONS  
 02/29/2000 - 12/31/2001 FY01: \$85,066 Total: \$165,279  
*Prin. Invest.: D L DARMOTAL*  
*Tech. Officer: LARC/J L THOMAS/W K ANDERSON*  
*CASE Category: 41 - AERONAUTICAL ENGRN*

**NAG 1 2306 MASSACHUSETTS INST OF TECHNOLOGY 5536**  
 USE OF GTE, MOZAIC, SONEX AND UARS-MLS DATA IN UNDERSTANDING TROPOSPHERIC CRITICAL TO MODEL DEV.  
 06/08/2000 - 03/31/2003 FY01: \$90,000 Total: \$180,000  
*Prin. Invest.: R E NEWELL*  
*Tech. Officer: LARC/D L MODDREA*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 1 01025 MASSACHUSETTS INST OF TECHNOLOGY 5537**  
 PERFORMANCE AND RELIABILITY OPTIMIZATION FOR AERO- SPACE SYSTEMS SUBJECT TO UNCERTAINTY & DEGRADATION  
 02/16/2001 - 12/31/2001 FY01: \$90,351 Total: \$90,351  
*Prin. Invest.: D W MILLER*  
*Tech. Officer: LARC/P G MAGHAM*  
*CASE Category: 41 - AERONAUTICAL ENGRN*

**NAG 1 01102 MASSACHUSETTS INST OF TECHNOLOGY 5538**  
 ACTIVE TAILORING OF A FLEXIBLE WING USING LANGLEY MACRO-FIBER COMPOSITE (MFC) ACTUATORS  
 06/20/2001 - 06/30/2002 FY01: \$39,988 Total: \$39,988  
*Prin. Invest.: C CESNIK*  
*Tech. Officer: LARC/H K WILKIE*  
*CASE Category: 41 - AERONAUTICAL ENGRN*

**NAG 2 729 MASSACHUSETTS INST OF TECHNOLOGY 5539**  
 MODELING INFORMATION PROCESSING IN FLIGHT MANAGEMENT  
 08/27/1991 - 06/30/2001 FY01: \$0 Total: \$994,962  
*Prin. Invest.: T B SHERIDAN*  
*Tech. Officer: ARC/S C LOZITO, ARC/E J HARTZELL*  
*CASE Category: 69 - PSYCHOLOGY, OTHER*

**NAG 2 855 MASSACHUSETTS INST OF TECHNOLOGY 5540**  
 ARCHIVING OF PLANETARY RING DATA  
 07/16/1993 - 03/31/2000 FY01: -\$399 Total: \$111,981  
*Prin. Invest.: J L ELLIOT*  
*Tech. Officer: ARC/J N CUZZI*  
*CASE Category: 11 - ASTRONOMY*

**NAG 2 1111 MASSACHUSETTS INST OF TECHNOLOGY 5541**  
 INVESTIGATION OF ALERT ZONE & DISPLAY CONCEPTS FOR FREE FLIGHT  
 02/14/1997 - 08/31/2000 FY01: \$0 Total: \$360,478  
*Prin. Invest.: J K KUCHAR*  
*Tech. Officer: ARC/S C LOZITO*  
*CASE Category: 41 - AERONAUTICAL ENGRN*

**NAG 2 1128 MASSACHUSETTS INST OF TECHNOLOGY 5542**  
 DEPARTURES PLANNING AT BUSY AIRPORTS  
 05/09/1997 - 05/31/2000 FY01: -\$1,515 Total: \$548,485  
*Prin. Invest.: A R ODONI, R J HANSMAN, E FERON*  
*Tech. Officer: ARC/D R ISSACSON, ARC/S C ATKINS*  
*CASE Category: 29 - MATH/COMPUTER SCI, OTHER*

**NAG 2 1136 MASSACHUSETTS INST OF TECHNOLOGY 5543**  
 SDSI IMPLEMENTATION  
 07/11/1997 - 11/30/2000 FY01: \$0 Total: \$153,149  
*Prin. Invest.: R L RIVEST*  
*Tech. Officer: ARC/Y K LIU*  
*CASE Category: 22 - COMPUTER SCIENCE*

**NAG 2 1272 MASSACHUSETTS INST OF TECHNOLOGY 5544**  
 APPLYING ATC AUTOMATION TO ADDRESS ENVIRONMENTAL CONSIDERATIONS  
 12/22/1998 - 02/28/2002 FY01: \$168,651 Total: \$486,178  
*Prin. Invest.: J P CLARKE*  
*Tech. Officer: ARC/T TOBIAS, ARC/T J DAVIS*  
*CASE Category: 41 - AERONAUTICAL ENGRN*

**NAG 2 1299 MASSACHUSETTS INST OF TECHNOLOGY 5545**  
 HUMAN PERFORMANCE CONSIDERATIONS FOR SHARED INFORMATION IN DATALINKED AIR TRAFFIC MANAGEMENT SYSTEM  
 03/03/1999 - 07/31/2002 FY01: \$206,177 Total: \$370,533  
*Prin. Invest.: R J HANSMAN*  
*Tech. Officer: ARC/S C LOZITO*  
*CASE Category: 69 - PSYCHOLOGY, OTHER*

**NAG 2 1338 MASSACHUSETTS INST OF TECHNOLOGY 5546**  
 SOFTWARE DESIGN FOR AIR-TRAFFIC CONTROL  
 07/19/1999 - 07/14/2001 FY01: \$0 Total: \$100,530  
*Prin. Invest.: D N JACKSON, J CHAPIN*  
*Tech. Officer: ARC/M M ESHOW, ARC/K Y TUNG-CATE*  
*CASE Category: 22 - COMPUTER SCIENCE*

**NAG 2 1350 MASSACHUSETTS INST OF TECHNOLOGY 5547**  
 EFFECT OF GROWTH STARVATION UNDER SIMULATED MICRO- GRAVITY  
 ON THE BACTERIAL STRESS & SECONDARY METAB  
 07/21/1999 - 07/14/2002 FY01: \$217,880 Total: \$599,947  
*Prin. Invest.: A L DEMAIN*  
*Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 2 1388 MASSACHUSETTS INST OF TECHNOLOGY 5548**  
 HYBRID ADAPTIVE METHODS FOR THE DEVELOPMENT OF MOD EL-BASED  
 AUTONOMOUS ROBOTIC SYSTEMS  
 12/01/1999 - 11/30/2001 FY01: \$300,000 Total: \$790,000  
*Prin. Invest.: B C WILLIAMS*  
*Tech. Officer: ARC/S LAU*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 2 1425 MASSACHUSETTS INST OF TECHNOLOGY 5549**  
 MODELING & ANALYSIS OF MULTIPLE ALERTING SYSTEM IN TERATIONS  
 07/26/2000 - 10/31/2001 FY01: \$111,097 Total: \$171,097  
*Prin. Invest.: J K KUCHAR*  
*Tech. Officer: ARC/S C LOZITO*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NAG 2 1458 MASSACHUSETTS INST OF TECHNOLOGY 5550**  
 SURFACE GENERATION & CARTESIAN MESH SUPPORT  
 02/27/2001 - 02/28/2002 FY01: \$50,139 Total: \$50,139  
*Prin. Invest.: R HAIMES*  
*Tech. Officer: ARC/M J AFTOSMIS, ARC/G KLUPFER*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 2 1463 MASSACHUSETTS INST OF TECHNOLOGY 5551**  
 SELF-DIRECTED COOPERATIVE PLANETARY ROVERS  
 03/16/2001 - 02/28/2002 FY01: \$270,961 Total: \$270,961  
*Prin. Invest.: S ZILBERSTEIN*  
*Tech. Officer: ARC/R A MORRIS, ARC/S LAU*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 2 1466 MASSACHUSETTS INST OF TECHNOLOGY 5552**  
 UNIFYING MODEL-BASED SEQUENCE EXECUTION & FAULT PR OTECTION  
 FOR SPACE VEHICLES  
 03/23/2001 - 03/14/2003 FY01: \$471,560 Total: \$471,560  
*Prin. Invest.: B WILLIAMS*  
*Tech. Officer: ARC/R MORRIS, ARC/S LAU*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 2 1482 MASSACHUSETTS INST OF TECHNOLOGY 5553**  
 UNDERSTANDING THE DYNAMICS OF AGILE SMALL-SCALE RO TORKRAFT  
 05/09/2001 - 04/30/2002 FY01: \$50,000 Total: \$50,000  
*Prin. Invest.: E FERON, NONE*  
*Tech. Officer: ARC/M B TISCHER, ARC/B R LAKINSMITH*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NAG 2 1515 MASSACHUSETTS INST OF TECHNOLOGY 5554**  
 DEVELOPMENT OF STOCHASTIC MODELS AND MODULES AND I NTERAC-  
 TIVE COMMUNICATION CAPABILITIES FOR THE MIT  
 08/08/2001 - 07/31/2002 FY01: \$65,000 Total: \$65,000  
*Prin. Invest.: J P CLARKE*  
*Tech. Officer: ARC/L A MEYN*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NAG 3 1845 MASSACHUSETTS INST OF TECHNOLOGY 5555**  
 DYNAMICS OF THE MOLTEN CONTACT LINE  
 05/20/1996 - 05/19/2001 FY01: \$0 Total: \$520,000  
*Prin. Invest.: A A SONIN*  
*Tech. Officer: GRC/M M HASAN*  
*CASE Category: 13 – PHYSICS*

**NAG 3 1879 MASSACHUSETTS INST OF TECHNOLOGY 5556**  
 MODELING OF PULSED PLASMA THRUSTER PLUMES  
 05/22/1996 - 11/30/2000 FY01: \$0 Total: \$483,000  
*Prin. Invest.: J B HOWARD*  
*Tech. Officer: GRC/J E BROOKER*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 3 2019 MASSACHUSETTS INST OF TECHNOLOGY 5557**  
 A GEOMETRY BASED INFRA-STRUCTURE FOR COMPUTATIONAL ANALYSIS  
 03/05/1997 - 02/04/2001 FY01: -\$121 Total: \$368,934  
*Prin. Invest.: R HAIMES*  
*Tech. Officer: GRC/G J FOLLEN, GRC/C LAWRENCE*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NAG 3 2051 MASSACHUSETTS INST OF TECHNOLOGY 5558**  
 THREE DIMENSIONAL AERODYNAMIC INSTABILITIES IN MU LTI-STAGE  
 AXIAL COMPRESSORS  
 05/27/1997 - 07/31/2000 FY01: -\$788 Total: \$161,956  
*Prin. Invest.: C S TAN*  
*Tech. Officer: GRC/A K OWEN*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NAG 3 2052 MASSACHUSETTS INST OF TECHNOLOGY 5559**  
 IDENTIFICATION AND CONTROL OF ROTATING STALL MODES IN AXIAL  
 COMPRESSORS  
 05/27/1997 - 03/31/2001 FY01: \$15,000 Total: \$669,476  
*Prin. Invest.: J PADUANO*  
*Tech. Officer: GRC/M BRIGHT*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NAG 3 2078 MASSACHUSETTS INST OF TECHNOLOGY 5560**  
 AERODYNAMICS OF ADVANCED SUBSONIC TRANSPORT INTEGRATED FAN  
 BYPASS DUCT SYSTEM AND ITS DESIGN  
 12/18/1997 - 08/31/2001 FY01: \$0 Total: \$211,012  
*Prin. Invest.: C S TAN*  
*Prin. Invest.: J PADUANO*  
*Tech. Officer: GRC/J ADAMCZYK*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NAG 3 2101 MASSACHUSETTS INST OF TECHNOLOGY 5561**  
 THREE-DIMENSIONAL AERODYNAMIC INSTABILITIES IN MUL TI-STAGE  
 AXIAL COMPRESSORS  
 12/23/1997 - 11/23/2001 FY01: \$49,500 Total: \$289,769  
*Prin. Invest.: C S TAN*  
*Tech. Officer: GRC/K L SUDER*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NAG 3 2155 MASSACHUSETTS INST OF TECHNOLOGY 5562**  
 AN INTEROMETRIC INVESTIGATION OF CONTACT LINE DYNA MICS IN  
 SPREADING POLYMER MELTS AND SOLUTIONS  
 04/21/1998 - 01/19/2002 FY01: \$82,650 Total: \$357,650  
*Prin. Invest.: G H MCKINLEY*  
*Tech. Officer: GRC/N R HALL*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 3 2178 MASSACHUSETTS INST OF TECHNOLOGY 5563**  
 INTEGRATED HUMAN CENTERED SYSTEMS ANALYSIS OF FUNCTIONAL REQUIREMENTS FOR COCKPIT ICING INFORMATION  
 07/08/1998 – 12/31/2001 FY01: \$87,336 Total: \$239,975  
*Prin. Invest.: R J HANSMAN*  
*Tech. Officer: GRC/A REEHorst*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 3 2179 MASSACHUSETTS INST OF TECHNOLOGY 5564**  
 INTRA-ENGINE TRACE SPECIES CHEMISTRY  
 06/30/1998 – 12/31/2000 FY01: \$0 Total: \$539,491  
*Prin. Invest.: L WAITZ*  
*Tech. Officer: GRC/C C WEY*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 3 2320 MASSACHUSETTS INST OF TECHNOLOGY 5565**  
 AEROTHERMAL PROBABILISTIC DESIGN OF COMPRESSOR BLADES  
 01/13/2000 – 03/13/2002 FY01: \$134,614 Total: \$258,555  
*Prin. Invest.: D M DARMOFAL*  
*Tech. Officer: GRC/S PAI*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 3 2321 MASSACHUSETTS INST OF TECHNOLOGY 5566**  
 CHARACTERIZATION OF AEROMECHANICS RESPONSE AND INSTABILITY IN FANS, COMPRESSORS, AND TURBINE BLADES  
 01/13/2000 – 11/30/2001 FY01: \$41,034 Total: \$91,034  
*Prin. Invest.: D S TAN*  
*Tech. Officer: GRC/G L STEFKO*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 3 2503 MASSACHUSETTS INST OF TECHNOLOGY 5567**  
 INTRA-ENGINE TRACE SPECIES CHEMISTRY INTRA-ENGINE TRACE SPECIES CHEMISTRY  
 11/21/2000 – 11/30/2001 FY01: \$92,166 Total: \$92,166  
*Prin. Invest.: D A WAITZ*  
*Tech. Officer: GRC/N LIU*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 3 2506 MASSACHUSETTS INST OF TECHNOLOGY 5568**  
 MICROFABRICATED LIQUID ROCKET MOTORS MICROFABRICATED LIQUID ROCKET MOTORS  
 11/21/2000 – 11/30/2001 FY01: \$128,686 Total: \$128,686  
*Prin. Invest.: D H EPSTEIN*  
*Tech. Officer: GRC/S SCHNEIDER*  
*CASE Category: 42 – ASTRONAUTICAL ENGR*

**NAG 3 2523 MASSACHUSETTS INST OF TECHNOLOGY 5569**  
 CAPRI USING A GEOMETRIC FOUNDATION FOR COMPUTATIONAL ANALYSIS AND DESIGN  
 01/17/2001 – 09/30/2003 FY01: \$109,920 Total: \$109,920  
*Prin. Invest.: R HAIMES*  
*Tech. Officer: GRC/G FOLLEN*  
*CASE Category: 29 – MATH/COMPUTER SCI, OTHER*

**NAG 4 157 MASSACHUSETTS INST OF TECHNOLOGY 5570**  
 DEVELOPMENT OF AN UNSTRUCTURED MESH CODE FOR FLOWS ABOUT COMPLETE VEHICLES  
 08/27/1998 – 05/31/2001 FY01: -\$88 Total: \$78,741  
*Prin. Invest.: J PERAIRE*  
*Tech. Officer: DFRC/K GUPTA*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 5 3550 MASSACHUSETTS INST OF TECHNOLOGY 5571**  
 ASSESSMENT OF GEOPHYSICAL SIGNALS IN GLOBAL GEODETIC DATA  
 12/14/1996 – 11/30/2000 FY01: -\$20 Total: \$399,460  
*Prin. Invest.: T A HERRING*  
*Tech. Officer: GSFC/P TAYLOR*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 3558 MASSACHUSETTS INST OF TECHNOLOGY 5572**  
 ACCRETING BLACK HOLES – AN ALL OUT EFFORT  
 12/14/1996 – 12/14/2001 FY01: \$52,000 Total: \$182,003  
*Prin. Invest.: W H LEWIN*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 3726 MASSACHUSETTS INST OF TECHNOLOGY 5573**  
 AMAZON DEFORESTATION & REGIONAL CLIMATE  
 02/12/1997 – 02/28/2001 FY01: \$0 Total: \$317,531  
*Prin. Invest.: R L BRAS*  
*Tech. Officer: GSFC/R KAKAR*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 3727 MASSACHUSETTS INST OF TECHNOLOGY 5574**  
 DEVELOPMENT OF OLIGONUCLEOTIDE PROBES TO STUDY THE PROCHLOROCOCCUS STRAINS WITH DIFFERING PHOTOSYNTH  
 02/20/1997 – 02/14/2001 FY01: \$0 Total: \$164,761  
*Prin. Invest.: S W CHISHOLM*  
*Tech. Officer: GSFC/J A YODER*  
*CASE Category: 33 – OCEANOGRAPHY*

**NAG 5 3915 MASSACHUSETTS INST OF TECHNOLOGY 5575**  
 SOLAR SYSTEM DYNAMICS  
 02/21/1997 – 09/30/2001 FY01: \$120,000 Total: \$613,900  
*Prin. Invest.: J WISDOM*  
*Tech. Officer: GSFC/D G SENSKY*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 3939 MASSACHUSETTS INST OF TECHNOLOGY 5576**  
 SMALL MAIN-BELT SPECTROSCOPIC SURVEY  
 02/12/1997 – 12/31/2001 FY01: \$0 Total: \$570,720  
*Prin. Invest.: D P BINZEL*  
*Tech. Officer: GSFC/J BERGSTRALH*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 3940 MASSACHUSETTS INST OF TECHNOLOGY 5577**  
 STELLAR OCCULTATION STUDIES OF PLUTO, TRITON  
 02/12/1997 – 11/30/2001 FY01: \$0 Total: \$494,752  
*Prin. Invest.: D L ELLIOT*  
*Tech. Officer: GSFC/J BERGSTRALH*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 3974 MASSACHUSETTS INST OF TECHNOLOGY 5578**  
 ADVANCED GLOBAL ATMOSPHERIC GASES EXPERIMENT (AGAGE)  
 02/26/1997 – 01/31/2002 FY01: \$453,924 Total: \$2,337,117  
*Prin. Invest.: R G PRINN*  
*Tech. Officer: GSFC/M J KURYLO*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 3977 MASSACHUSETTS INST OF TECHNOLOGY 5579**  
 COLLISION PROCESSES INVOLVING ATMOSPHERIC FREE RAD INFRARED  
 ABSORBERS  
 02/26/1997 - 09/30/2001 FY01: \$0 Total: \$287,633  
*Prin. Invest.: P STEINFELD*  
*Tech. Officer: GSFC/P L DECOLA*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 4047 MASSACHUSETTS INST OF TECHNOLOGY 5580**  
 INVESTIGATION OF VENUS SURFACE PROPERTIES  
 03/10/1997 - 12/31/2001 FY01: \$0 Total: \$165,000  
*Prin. Invest.: D G FORD*  
*Tech. Officer: GSFC/J G GRANT*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NAG 5 4115 MASSACHUSETTS INST OF TECHNOLOGY 5581**  
 RXTE SEARCH FOR THE CENTRIFUGAL BARRIER IN TRANSIE  
 04/17/1997 - 04/14/2000 FY01: \$1 Total: \$25,842  
*Prin. Invest.: S RAPPAPORT*  
*Tech. Officer: GSFC/J SWANK*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 4434 MASSACHUSETTS INST OF TECHNOLOGY 5582**  
 RESEARCH PARTICIPATION IN THE MARS ORBITING LASER  
 04/28/1997 - 12/31/2001 FY01: \$74,391 Total: \$409,282  
*Prin. Invest.: G H PETTENGILL*  
*Tech. Officer: GSFC/D E SMITH*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 4485 MASSACHUSETTS INST OF TECHNOLOGY 5583**  
 TIMING AND SPECTRAL STUDY OF 4U 1538-52  
 05/06/1997 - 04/30/2000 FY01: -\$10 Total: \$20,120  
*Prin. Invest.: G CLARK*  
*Tech. Officer: GSFC/J SWANK*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 4555 MASSACHUSETTS INST OF TECHNOLOGY 5584**  
 PLANETARY TECTONICS AND VOLCANISM  
 06/23/1997 - 03/31/2002 FY01: \$92,000 Total: \$689,783  
*Prin. Invest.: D R ZUBER*  
*Tech. Officer: GSFC/H BRINTON*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NAG 5 4733 MASSACHUSETTS INST OF TECHNOLOGY 5585**  
 FAST TIMING AND SPECTROSCOPY OF Z SOURCES  
 06/04/1997 - 06/30/2000 FY01: \$0 Total: \$30,000  
*Prin. Invest.: W LEWIN*  
*Tech. Officer: GSFC/J SWANK*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 4768 MASSACHUSETTS INST OF TECHNOLOGY 5586**  
 PHASE EQUILIBRIUM INVESTIGATIONS OF PLANETARY MATE  
 06/09/1997 - 06/30/2001 FY01: \$0 Total: \$180,000  
*Prin. Invest.: P L GROVE*  
*Tech. Officer: HQ/J BOYCE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 4778 MASSACHUSETTS INST OF TECHNOLOGY 5587**  
 RAINFALL-LIGHTNING RELATIONSHIPS ON A GLOBAL BASIS  
 06/18/1997 - 11/30/2000 FY01: \$0 Total: \$406,916  
*Prin. Invest.: E R WILLIAMS*  
*Tech. Officer: GSFC/R W LAWRENCE*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 4806 MASSACHUSETTS INST OF TECHNOLOGY 5588**  
 MARS OBSERVER LASER ALTIMETER  
 08/01/1997 - 07/31/2001 FY01: \$110,565 Total: \$970,797  
*Prin. Invest.: M T ZUBER*  
*Tech. Officer: GSFC/D E SMITH*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 4807 MASSACHUSETTS INST OF TECHNOLOGY 5589**  
 GPS MEASUREMENTS OF LOCALIZED INTRACONTINENTAL DEF HAN  
 08/01/1997 - 07/31/2000 FY01: \$0 Total: \$194,000  
*Prin. Invest.: P MOLNAR*  
*Tech. Officer: GSFC/H FREY*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NAG 5 4879 MASSACHUSETTS INST OF TECHNOLOGY 5590**  
 XTE OBSERVATIONS OF PSR1259-63 NEAR APASTRON  
 07/15/1997 - 07/14/2000 FY01: \$0 Total: \$3,000  
*Prin. Invest.: V KASPI*  
*Tech. Officer: GSFC/J SWANK*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 4880 MASSACHUSETTS INST OF TECHNOLOGY 5591**  
 THE FACTORS CONTROLLING POLEWARD HEAT TRANSPORT IN  
 07/15/1997 - 04/30/2001 FY01: \$0 Total: \$178,640  
*Prin. Invest.: P H STONE*  
*Tech. Officer: GSFC/A HOU*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 4989 MASSACHUSETTS INST OF TECHNOLOGY 5592**  
 CENTER FOR QUANTITATIVE CARDIOVASCULAR PHYSIOLOGY, ANALYSIS  
 06/27/1997 - 08/31/2001 FY01: \$0 Total: \$575,000  
*Prin. Invest.: R COHEN*  
*Tech. Officer: GSFC/V SCHNEIDER*  
*CASE Category: 59 - LIFE SCIENCE, OTHER*

**NAG 5 5105 MASSACHUSETTS INST OF TECHNOLOGY 5593**  
 A THREE-YEAR PROGRAM OF MICRO AND NANO SYSTEM TECHNOLOGY  
 DEVELOPMENT FOR X-RAY ASTRONOMY  
 01/17/1997 - 01/31/2001 FY01: \$0 Total: \$915,000  
*Prin. Invest.: C R CANIZARES*  
*Tech. Officer: GSFC/B FLOWERS*  
*CASE Category: 13 - PHYSICS*

**NAG 5 5271 MASSACHUSETTS INST OF TECHNOLOGY 5594**  
 FIRST YEAR OF TWO YEAR EFFORT FIRST YEAR OF TWO YEAR EFFORT -  
 A PROGRAM OF  
 04/17/2000 - 04/16/2002 FY01: \$385,000 Total: \$740,000  
*Prin. Invest.: M SCHATTENBURG*  
*Tech. Officer: GSFC/J C BRINTON*  
*CASE Category: 13 - PHYSICS*

**NAG 5 5329 MASSACHUSETTS INST OF TECHNOLOGY 5595**  
ADAPTATION OF GAS ELECTRON MULTIPLIER TECHNOLOGY FOR ROUTINE  
03/29/2001 - 03/31/2004 FY01: \$129,884 Total: \$129,884  
*Prin. Invest.: A LEVINE*  
*Tech. Officer: GSFC/J BRINTON*  
*CASE Category: 13 – PHYSICS*

**NAG 5 6062 MASSACHUSETTS INST OF TECHNOLOGY 5596**  
RECENT AND ACTIVE EVOLUTION OF THE EASTERN TIBETAN IMLINARY STUDY  
07/28/1997 - 07/14/2001 FY01: \$0 Total: \$151,577  
*Prin. Invest.: B C FIELD*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 6063 MASSACHUSETTS INST OF TECHNOLOGY 5597**  
VERTICAL ACCURACY IMPROVEMENT FOR VLBI AND GPS  
08/01/1997 - 07/14/2001 FY01: \$0 Total: \$272,990  
*Prin. Invest.: A E NIELL*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 6129 MASSACHUSETTS INST OF TECHNOLOGY 5598**  
MODELING THE EXTENDED NEUTRAL ATMOSPHERE AND PLASM SATURN  
08/04/1997 - 07/14/2000 FY01: -\$4 Total: \$180,996  
*Prin. Invest.: D RICHARDSON, NONE*  
*Tech. Officer: GSFC/J BERGSTRAHL*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 6145 MASSACHUSETTS INST OF TECHNOLOGY 5599**  
CRUSTAL DEFORMATION AND EARTHQUAKE HAZARDS IN THE REGION  
08/21/1997 - 08/31/2000 FY01: \$0 Total: \$350,000  
*Prin. Invest.: R E REILINGER*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 6304 MASSACHUSETTS INST OF TECHNOLOGY 5600**  
GLOBAL SCALE CIRCULATION PROCESSES  
10/10/1997 - 04/30/2000 FY01: -\$3 Total: \$203,997  
*Prin. Invest.: D S LINDZEN*  
*Tech. Officer: GSFC/K H BERGMAN*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 6352 MASSACHUSETTS INST OF TECHNOLOGY 5601**  
SURFACE DEFORMATION AND GRAVITY CHANGES FROM SURFLA LOADS  
09/26/1997 - 01/14/2001 FY01: \$0 Total: \$300,000  
*Prin. Invest.: B HAGER*  
*Tech. Officer: GSFC/E J LINSTROM*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 6473 MASSACHUSETTS INST OF TECHNOLOGY 5602**  
SHOCK EVOLUTION IN THE OUTER HELIOSPHERE  
11/13/1997 - 10/31/2000 FY01: -\$30 Total: \$148,928  
*Prin. Invest.: K PAULARENA*  
*Tech. Officer: GSFC/J LING*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 6523 MASSACHUSETTS INST OF TECHNOLOGY 5603**  
STUDIES OF TECHNIQUES FOR THE DETECTION OF PLANETS OF OTHER SOLAR SYSTEMS  
12/16/1997 - 06/30/2000 FY01: \$0 Total: \$45,000  
*Prin. Invest.: B BURKE*  
*Tech. Officer: GSFC/J BERGSTRAHL*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 6710 MASSACHUSETTS INST OF TECHNOLOGY 5604**  
PHYSICAL MECHANISMS CONTROLLING UPPER TROPOSPHERIC WATER VAPOR AS REVEALED BY MLS DATA FROM U  
12/17/1997 - 11/30/2001 FY01: \$0 Total: \$278,000  
*Prin. Invest.: D NEWELL*  
*Tech. Officer: GSFC/A DOUGLASS*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 6722 MASSACHUSETTS INST OF TECHNOLOGY 5605**  
EARLY PRECAMBRIAN CARBONATE AND EVAPORITE SEDIMENT S: CONSTRAINTS ON ENVIRONMENTAL AND BIOLOGICA  
12/16/1997 - 09/30/2000 FY01: \$0 Total: \$233,666  
*Prin. Invest.: J GROTZINGER*  
*Tech. Officer: GSFC/M MEYER*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7012 MASSACHUSETTS INST OF TECHNOLOGY 5606**  
JETS IN AGN: NUMERICAL SIMULATIONS IN RELATIVISTIC MHD - ATP  
02/19/1998 - 02/28/2002 FY01: \$0 Total: \$182,915  
*Prin. Invest.: M H VAN PUTTEN*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7194 MASSACHUSETTS INST OF TECHNOLOGY 5607**  
ATLANTIC OCEAN PROCESSES FROM SUBPOLAR REGIONS TO THE SOUTHERN SUBTROPICAL GYRE: MODEL/DATA COMPAR  
03/26/1998 - 04/30/2001 FY01: \$45,160 Total: \$498,840  
*Prin. Invest.: P RIZZOLI*  
*Tech. Officer: GSFC/E LINDSTROM*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 7204 MASSACHUSETTS INST OF TECHNOLOGY 5608**  
PARTICIPATION IN THE GISS EOS PROPOSAL  
03/25/1998 - 07/14/2000 FY01: \$0 Total: \$100,000  
*Prin. Invest.: P H STONE*  
*Tech. Officer: GSFC/D RIND*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 7279 MASSACHUSETTS INST OF TECHNOLOGY 5609**  
XTE PROPOSAL - DOES PRECESSION OF THE ACCRETION DISK OF SMC X-1 CAUSE A VARIATION IN THE PULSE PR  
04/15/1998 - 04/14/2001 FY01: \$0 Total: \$10,125  
*Prin. Invest.: G W CLARK*  
*Tech. Officer: GSFC/J SWANK*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7359 MASSACHUSETTS INST OF TECHNOLOGY 5610**  
MO & DA ON THE SWIE INSTRUMENT ON THE WIND SPACECR AFT  
05/05/1998 - 09/30/2001 FY01: \$0 Total: \$502,000  
*Prin. Invest.: A LARARUS*  
*Tech. Officer: GSFC/K OGILVIE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 7375 MASSACHUSETTS INST OF TECHNOLOGY 5611**  
 XTE PROPOSAL - SPECTRAL AND TIMING INVESTIGATIONS OF DWARF NOVAE SELECTED INHARD X-RAYS  
 05/12/1998 - 05/31/2000 FY01: -\$248 Total: \$6,498  
*Prin. Invest.: R A REMILLARD*  
*Tech. Officer: GSFC/J SWANK*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7475 MASSACHUSETTS INST OF TECHNOLOGY 5612**  
 THE VALUE OF DISTRIBUTED MODELING TO FLOOD FORECASTING  
 06/18/1998 - 08/31/2002 FY01: \$0 Total: \$382,143  
*Prin. Invest.: R BRASS*  
*Tech. Officer: GSFC/E ENGMAN*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 7480 MASSACHUSETTS INST OF TECHNOLOGY 5613**  
 XTE PROPOSAL (30269) - BL LACS IN X-RAY OUTBURST  
 06/01/1998 - 05/31/2000 FY01: -\$207 Total: \$5,805  
*Prin. Invest.: R A REMILLARD*  
*Tech. Officer: GSFC/J SWANK*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7481 MASSACHUSETTS INST OF TECHNOLOGY 5614**  
 XTE PROPOSAL (30079) - SIMULTANEOUS RXTE AND RADIO OBSERVATIONS OF THE RAPID BURSTER IN OUTBURST  
 06/01/1998 - 05/31/2000 FY01: -\$1 Total: \$4,999  
*Prin. Invest.: W LEWIN*  
*Tech. Officer: GSFC/J SWANK*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7487 MASSACHUSETTS INST OF TECHNOLOGY 5615**  
 THIS PR PROVIDES FUNDING TO A MIT GRANT ON "PASSIVE MICROWAVE STUDIES OF ATMOSPHERIC PRECIPITATION A  
 06/05/1998 - 11/30/2001 FY01: \$0 Total: \$355,000  
*Prin. Invest.: D STAELIN*  
*Tech. Officer: GSFC/J C SHIUE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 7517 MASSACHUSETTS INST OF TECHNOLOGY 5616**  
 XTE PROPOSAL (30137) TARGET OF OPPORTUNITY POSITIONING OF TRANSIENT X-RAY PULSARS  
 06/04/1998 - 06/14/2000 FY01: -\$46 Total: \$6,769  
*Prin. Invest.: D CHAKRABARTY*  
*Tech. Officer: GSFC/J SWANK*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7525 MASSACHUSETTS INST OF TECHNOLOGY 5617**  
 USE OF SATELLITE REMOTE SENSING TO STUDY THE ROLE OF RAINFALLS IN TROPICAL CLIMATE  
 06/08/1998 - 12/31/2002 FY01: \$99,993 Total: \$311,993  
*Prin. Invest.: E ELTAHIR*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 7794 MASSACHUSETTS INST OF TECHNOLOGY 5618**  
 INTERCALIBRATION AND CROSS-CORRELATION OF ACE AND WIND SOLAR WIND DATA  
 12/10/1998 - 09/30/2002 FY01: \$69,243 Total: \$203,205  
*Prin. Invest.: D J LAZARUS*  
*Tech. Officer: GSFC/D C LING*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7839 MASSACHUSETTS INST OF TECHNOLOGY 5619**  
 STRUCTURAL DYNAMICS & CONTROLS ANALYSES, SIMULATIONS, AND TESTBEDS FOR THE NEXT GENERATION SPACE T  
 12/16/1998 - 12/14/2001 FY01: \$111,982 Total: \$412,910  
*Prin. Invest.: D W MILLER*  
*Tech. Officer: GSFC/G MOSIER*  
*CASE Category: 42 – ASTRONAUTICAL ENGR*

**NAG 5 7857 MASSACHUSETTS INST OF TECHNOLOGY 5620**  
 A SYNTHESIS OF THE GLOBAL WOCE OBSERVATIONS OF THE OCEANIC CIRCULATION  
 12/10/1998 - 11/30/2001 FY01: \$275,090 Total: \$787,330  
*Prin. Invest.: C WUNSCH*  
*Tech. Officer: GSFC/E LINDSTROM*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 7967 MASSACHUSETTS INST OF TECHNOLOGY 5621**  
 A SEARCH FOR THE SOLAR SOURCES OF HIGH-SPEED SOLAR WIND STREAMS  
 01/15/1999 - 12/14/2001 FY01: \$98,645 Total: \$288,490  
*Prin. Invest.: D J LAZARUS*  
*Tech. Officer: GSFC/D C LING*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7990 MASSACHUSETTS INST OF TECHNOLOGY 5622**  
 RELATIVISTIC ASTROPHYSICS IN BLACK HOLE AND LOW-MASS NEUTRON STAR X-RAY BINARIES – LTSA98  
 01/22/1999 - 08/14/2000 FY01: \$0 Total: \$33,532  
*Prin. Invest.: W CUI*  
*Tech. Officer: GSFC/R K OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8031 MASSACHUSETTS INST OF TECHNOLOGY 5623**  
 REDUCTION AND SCIENTIFIC ANALYSIS OF DATA FROM IMP-8  
 01/19/1999 - 12/31/2001 FY01: \$122,546 Total: \$312,734  
*Prin. Invest.: A J LAZARUS, NONE*  
*Tech. Officer: GSFC/J KING*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8045 MASSACHUSETTS INST OF TECHNOLOGY 5624**  
 SCIENTIFIC ANALYSIS OF DATA FOR THE ISTP/SOLARMAX PROGRAM  
 01/11/1999 - 01/14/2002 FY01: \$0 Total: \$99,954  
*Prin. Invest.: A J LAZARUS*  
*Tech. Officer: GSFC/M H ACUNA*  
*CASE Category: 13 – PHYSICS*

**NAG 5 8063 MASSACHUSETTS INST OF TECHNOLOGY 5625**  
 PULSAR WIND NEBULAE, SPACE VELOCITIES, & SUPERNOVA REMNANT ASSOCIATIONS LTSA 98  
 01/13/1999 - 01/14/2002 FY01: \$48,000 Total: \$144,000  
*Prin. Invest.: V M KASPI*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8224 MASSACHUSETTS INST OF TECHNOLOGY 5626**  
 "THEORY AND MODELING OF STRATOSPHERIC AGE DISTRIBUTIONS"  
 02/10/1999 - 08/14/2000 FY01: \$0 Total: \$73,316  
*Prin. Invest.: R PLUMB*  
*Tech. Officer: GSFC/R W STEWART*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

<b>NAG 5 8244</b>	<b>MASSACHUSETTS INST OF TECHNOLOGY</b>	<b>5627</b>	<b>NAG 5 8814</b>	<b>MASSACHUSETTS INST OF TECHNOLOGY</b>	<b>5635</b>
SEARCH FOR ORBITAL DECAY IN LMC X-4			TEMPO OF THE PERMIAN MASS EXTINCTIONS & RECOVERIES		
02/10/1999 - 02/14/2000	FY01: -\$87	Total: \$10,555	09/29/1999 - 04/01/2002	FY01: \$114,000	Total: \$228,000
<i>Prin. Invest.: S A RAPPAPORT</i>			<i>Prin. Invest.: S A BOWRING</i>		
<i>Tech. Officer: GSFC/J SWANK</i>			<i>Tech. Officer: GSFC/M MEYER</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 11 - ASTRONOMY</i>		
<b>NAG 5 8368</b>	<b>MASSACHUSETTS INST OF TECHNOLOGY</b>	<b>5628</b>	<b>NAG 5 8887</b>	<b>MASSACHUSETTS INST OF TECHNOLOGY</b>	<b>5636</b>
FORMATION AND EVOLUTION OF BINARY SYSTEMS CONTAINING COLLAPSED STARS(ATP 98)			LABORATORY STUDIES OF HOMOGENEOUS & HETEROGENEOUS CHEMICAL PROCESSES OF IMPORTANCE IN THE UPPER ATM		
03/01/1999 - 04/30/2002	FY01: \$55,000	Total: \$161,810	12/02/1999 - 12/31/2001	FY01: \$199,995	Total: \$399,610
<i>Prin. Invest.: S A RAPPAPORT</i>			<i>Prin. Invest.: M MOLINA</i>		
<i>Tech. Officer: GSFC/D K WEST</i>			<i>Tech. Officer: GSFC/P DECOLA</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</i>		
<b>NAG 5 8460</b>	<b>MASSACHUSETTS INST OF TECHNOLOGY</b>	<b>5629</b>	<b>NAG 5 8947</b>	<b>MASSACHUSETTS INST OF TECHNOLOGY</b>	<b>5637</b>
THEORETICAL STUDIES OF BINARY SYSTEMS CONTAINING COLLAPSED STARS			MODELING THE EXTENDED NEUTRAL ATMOSPHERE & PLASMA ENVIRONMENT NEAR SATURN/FOLLOW-ON TO NAG5-6129		
04/16/1999 - 04/14/2002	FY01: \$82,608	Total: \$237,669	01/18/2000 - 07/14/2002	FY01: \$63,200	Total: \$122,734
<i>Prin. Invest.: F A RASIO</i>			<i>Prin. Invest.: J D RICHARDSON</i>		
<i>Tech. Officer: GSFC/R J OLIVERSEN</i>			<i>Tech. Officer: GSFC/D BOGAN</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 31 - ATMOSPHERIC SCIENCE</i>		
<b>NAG 5 8617</b>	<b>MASSACHUSETTS INST OF TECHNOLOGY</b>	<b>5630</b>	<b>NAG 5 9057</b>	<b>MASSACHUSETTS INST OF TECHNOLOGY</b>	<b>5638</b>
TWO-WAY BIOSPHERE-ATMOSPHERE INTERACTIONS: THEIR IMPLICATIONS FOR SATELLITE OBSERVATIONS OF REGIONAL			NEW GPS SITES ON THE ARABIAN PLATE TO EXPAND THE IGS NETWORK & TO SUPPORT MEASUREMENTS OF THE RED		
06/14/1999 - 06/30/2002	FY01: \$75,183	Total: \$199,247	02/15/2000 - 02/28/2001	FY01: \$4,500	Total: \$18,000
<i>Prin. Invest.: E B ELTAHIR</i>			<i>Prin. Invest.: R E REILINGER, NONE</i>		
<i>Tech. Officer: GSFC/E T ENGMAN</i>			<i>Tech. Officer: GSFC/H V FREY</i>		
<i>CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</i>			<i>CASE Category: 32 - GEOLOGICAL SCIENCE</i>		
<b>NAG 5 8668</b>	<b>MASSACHUSETTS INST OF TECHNOLOGY</b>	<b>5631</b>	<b>NAG 5 9080</b>	<b>MASSACHUSETTS INST OF TECHNOLOGY</b>	<b>5639</b>
DIRECT DEPOSITION OF OPTICAL BLOCKING FILTERS ON CCD X-RAY DETECTORS			DEVELOPMENT OF SOLID-STATE LOCAL-OSCILLATOR SOURCE FOR TERAHERTZ FREQUENCIES		
07/07/1999 - 09/30/2001	FY01: \$0	Total: \$172,793	02/17/2000 - 02/28/2003	FY01: \$144,000	Total: \$282,000
<i>Prin. Invest.: M W BAUTZ</i>			<i>Prin. Invest.: Q HU</i>		
<i>Tech. Officer: GSFC/G MUCKLOW</i>			<i>Tech. Officer: GSFC/G STRINGFELLOW</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 31 - ATMOSPHERIC SCIENCE</i>		
<b>NAG 5 8707</b>	<b>MASSACHUSETTS INST OF TECHNOLOGY</b>	<b>5632</b>	<b>NAG 5 9117</b>	<b>MASSACHUSETTS INST OF TECHNOLOGY</b>	<b>5640</b>
IMPLICATIONS OF LUNAR PROSPECTOR DATA FOR LUNAR GEOPHYSICS			SELF-ORGANIZED CRITICALITY, MULTIFRACTALS, & INTERMITTENT TURBULENCE IN EARTH'S MAGNETOTAIL		
07/20/1999 - 07/31/2002	FY01: \$45,000	Total: \$172,347	02/24/2000 - 02/28/2002	FY01: \$46,637	Total: \$88,637
<i>Prin. Invest.: M T ZUBER</i>			<i>Prin. Invest.: T CHANG</i>		
<i>Tech. Officer: GSFC/J BOYCE</i>			<i>Tech. Officer: GSFC/J SHARBER</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 31 - ATMOSPHERIC SCIENCE</i>		
<b>NAG 5 8720</b>	<b>MASSACHUSETTS INST OF TECHNOLOGY</b>	<b>5633</b>	<b>NAG 5 9120</b>	<b>MASSACHUSETTS INST OF TECHNOLOGY</b>	<b>5641</b>
INVESTIGATION OF SOLAR WIND CORRELATIONS & MODIFICATIONS NEAR EARTH USING MULTI-SPACECRAFT OBSERVATION			NEW ENERGETIC RADIO PULSARS: AN ARCHIVAL X-RAY SURVEY - ADP 99		
08/03/1999 - 07/31/2002	FY01: \$24,000	Total: \$70,500	02/29/2000 - 02/28/2002	FY01: \$0	Total: \$29,166
<i>Prin. Invest.: J I RICHARDSON</i>			<i>Prin. Invest.: V M KASPI, NONE</i>		
<i>Tech. Officer: GSFC/J BOYCE</i>			<i>Tech. Officer: GSFC/R J OLIVERSEN</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 41 - AERONAUTICAL ENGRN</i>		
<b>NAG 5 8776</b>	<b>MASSACHUSETTS INST OF TECHNOLOGY</b>	<b>5634</b>	<b>NAG 5 9135</b>	<b>MASSACHUSETTS INST OF TECHNOLOGY</b>	<b>5642</b>
RESIN-SPINNING OF SYNTHETIC POLYMER FIBERS WITH SILK-LIKE PROPERTIES			RXTE OBSERVATIONS OF BLACK HOLE CANDIDATES ADP99		
08/31/1999 - 08/31/2002	FY01: \$166,250	Total: \$385,000	02/28/2000 - 06/30/2002	FY01: \$0	Total: \$30,000
<i>Prin. Invest.: G MCKINLEY</i>			<i>Prin. Invest.: W H LEWIN</i>		
<i>Tech. Officer: GSFC/R CROUCH</i>			<i>Tech. Officer: GSFC/R J OLIVERSEN</i>		
<i>CASE Category: 99 - MULTI INTERDISCPL, OTHER</i>			<i>CASE Category: 11 - ASTRONOMY</i>		

**NAG 5 9143 MASSACHUSETTS INST OF TECHNOLOGY 5643**  
 APPLICATIONS OF AIRBORNE & ORBITAL LASER ALTIMETRY FOR COASTAL PROCESSES & MARINE STATIC GRAVITY  
 02/29/2000 - 02/28/2002 FY01: \$79,936 Total: \$126,436  
*Prin. Invest.: M T ZURBER*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 9164 MASSACHUSETTS INST OF TECHNOLOGY 5644**  
 LONG-TERM MONITORING OF ANOMALOUS X-RAY PULSARS WITH RXTE – ADP 99  
 03/08/2000 - 03/14/2002 FY01: \$0 Total: \$58,265  
*Prin. Invest.: D CHARKRABARTY*  
*Tech. Officer: GSFC/R OLIVERSEN*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NAG 5 9184 MASSACHUSETTS INST OF TECHNOLOGY 5645**  
 ACCRETING NEUTRON STARS AS ASTROPHYSICAL LABORATORIES LTSA-99  
 03/07/2000 - 03/14/2002 FY01: \$122,730 Total: \$240,744  
*Prin. Invest.: D CHARKRABARTY*  
*Tech. Officer: GSFC/R OLIVERSEN*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NAG 5 9185 MASSACHUSETTS INST OF TECHNOLOGY 5646**  
 TIMING THE MILLISECOND X-RAY PULSAR WITH RXTE – ADP - 99  
 03/07/2000 - 03/14/2002 FY01: \$0 Total: \$58,866  
*Prin. Invest.: D CHAKRABARTY*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NAG 5 9189 MASSACHUSETTS INST OF TECHNOLOGY 5647**  
 X-RAY PULSAR STUDIES WITH RXTE – ADP 99  
 03/08/2000 - 03/14/2002 FY01: \$20,000 Total: \$40,000  
*Prin. Invest.: S RAPPAPORT*  
*Tech. Officer: GSFC/R OLIVERSEN*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NAG 5 9211 MASSACHUSETTS INST OF TECHNOLOGY 5648**  
 A SEARCH FOR EVIDENCE OF NON-THERMAL EMISSION FROM THE SUPERNOVA REMNANTS 37A/B (ADP 99)  
 03/09/2000 - 03/14/2002 FY01: \$0 Total: \$7,709  
*Prin. Invest.: G ALLEN*  
*Tech. Officer: GSFC/R OLIVERSEN*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NAG 5 9235 MASSACHUSETTS INST OF TECHNOLOGY 5649**  
 A MEASUREMENT OF THE NON-THERMAL X-RAY EMISSION OF THE SUPERNOVA REMNANT X J1713.7-3946 – ADP 99  
 03/09/2000 - 03/14/2002 FY01: \$0 Total: \$8,769  
*Prin. Invest.: G ALLEN*  
*Tech. Officer: GSFC/R OLIVERSEN*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NAG 5 9237 MASSACHUSETTS INST OF TECHNOLOGY 5650**  
 A STUDY OF THE NON-THERMAL X-RAY EMISSION OF SHELL -TYPE SUPERNOVA REMNANTS – LTSA99  
 03/09/2000 - 03/14/2002 FY01: \$104,200 Total: \$204,300  
*Prin. Invest.: G ALLEN*  
*Tech. Officer: GSFC/R OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9445 MASSACHUSETTS INST OF TECHNOLOGY 5651**  
 CARBONATE PLATFORM DEVELOPMENT & STROMATOLITE MORPHOGENESIS: CONSTRAINTS ON ENVIRONMENTAL & BIOLOGIC  
 05/01/2000 - 04/30/2001 FY01: \$0 Total: \$117,750  
*Prin. Invest.: J GROTZINGER*  
*Tech. Officer: GSFC/M MEYER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9525 MASSACHUSETTS INST OF TECHNOLOGY 5652**  
 PHASE EQUILIBRIUM INVESTIGATIONS OF PLANETARY MATERIALS  
 04/28/2000 - 06/30/2002 FY01: \$61,000 Total: \$122,000  
*Prin. Invest.: T L GROVE, NONE*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9616 MASSACHUSETTS INST OF TECHNOLOGY 5653**  
 SOLAR WIND ACCELERATION, HEATING, & EVOLUTION WITH WAVE-PARTICLE  
 05/23/2000 - 04/30/2002 FY01: \$69,144 Total: \$107,441  
*Prin. Invest.: T CHANG*  
*Tech. Officer: GSFC/W J WAGNER*  
*CASE Category: 13 – PHYSICS*

**NAG 5 9622 MASSACHUSETTS INST OF TECHNOLOGY 5654**  
 DEVELOPMENT OF 25-YEAR IMP 8 BOW SHOCK CROSSING LIST, INGESTION OF THIS LIST INTO CDAWEB, & ENHANCEMENT  
 05/19/2000 - 05/31/2002 FY01: \$21,849 Total: \$42,764  
*Prin. Invest.: K PAULARENA*  
*Tech. Officer: GSFC/J KING*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 9637 MASSACHUSETTS INST OF TECHNOLOGY 5655**  
 THE USE OF TRMM LIS & GEOSTATIONARY IR DATA TO STUDY LAND-OCEAN DIFFERENCES IN CONVEC. & THEIR RE  
 07/07/2000 - 11/30/2001 FY01: \$92,396 Total: \$143,286  
*Prin. Invest.: E R WILLIAMS*  
*Tech. Officer: GSFC/R J LAWRENCE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 9640 MASSACHUSETTS INST OF TECHNOLOGY 5656**  
 APPLICATIONS OF TRMM PRODUCTS IN HYDROLOGIC STUDIES OVER THE AMAZON REGION  
 07/07/2000 - 11/30/2001 FY01: \$307,000 Total: \$446,131  
*Prin. Invest.: R L BRAS*  
*Tech. Officer: GSFC/R J LAWRENCE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 9763 MASSACHUSETTS INST OF TECHNOLOGY 5657**  
 OPTICAL INTERFEROMETER STUDIES OF OTHER PLANETARY SYSTEMS  
 06/27/2000 - 06/30/2002 FY01: \$0 Total: \$70,000  
*Prin. Invest.: B F BURKE*  
*Tech. Officer: GSFC/P CRANE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9962 MASSACHUSETTS INST OF TECHNOLOGY 5658**  
 DISENTANGLING X-RAY EMISSION PROCESSES IN VELA- LIKE PULSARS  
 09/22/2000 - 09/30/2002 FY01: \$16,000 Total: \$36,625  
*Prin. Invest.: B M GAENSLER*  
*Tech. Officer: GSFC/R MUSHOTZKY*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10008 MASSACHUSETTS INST OF TECHNOLOGY 5659**  
 STUDYING THE INTERGALACTIC MEDIUM THROUGH X-RAY ABSORPTION LINES  
 09/25/2000 - 09/30/2002 FY01: \$16,500 Total: \$44,500  
*Prin. Invest.: C R CANIZARES*  
*Tech. Officer: GSFC/R MUSHOTZKY*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10107 MASSACHUSETTS INST OF TECHNOLOGY 5660**  
 XMM OBSERVATIONS OF LOW MASS GROUPS  
 12/01/2000 - 11/30/2001 FY01: \$28,000 Total: \$28,000  
*Prin. Invest.: D S DAVIS*  
*Tech. Officer: GSFC/R MUSHOTZKY*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10192 MASSACHUSETTS INST OF TECHNOLOGY 5661**  
 XMM OBSERVATIONS OF BLACK-HOLE X-RAY BINARIES IN OUTBURST  
 12/28/2000 - 12/31/2001 FY01: \$22,900 Total: \$22,900  
*Prin. Invest.: W LEWIN*  
*Tech. Officer: GSFC/R MUSHOTZKY*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10328 MASSACHUSETTS INST OF TECHNOLOGY 5662**  
 COMPOSITION OF HYDRATED M AND E-CLASS ASTEROIDS: A SEARCH FOR ANALOGS  
 01/26/2001 - 01/31/2002 FY01: \$23,000 Total: \$23,000  
*Prin. Invest.: A RIVKIN*  
*Tech. Officer: GSFC/D SENKE*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 10389 MASSACHUSETTS INST OF TECHNOLOGY 5663**  
 RELIEF EVOLUTION IN TECTONICALLY ACTIVE MOUNTAIN RANGERS  
 02/08/2001 - 02/14/2002 FY01: \$50,049 Total: \$50,049  
*Prin. Invest.: K X WHIPPLE*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NAG 5 10440 MASSACHUSETTS INST OF TECHNOLOGY 5664**  
 AGENT BASED SOFTWARE FOR THE AUTONOMOUS CONTROL OF FORMATION FLYING SPACECRAFT PROPOSAL 864  
 03/07/2001 - 03/14/2002 FY01: \$366,548 Total: \$366,548  
*Prin. Invest.: D P HOW*  
*Tech. Officer: GSFC/N J DENNEHY*  
*CASE Category: 42 - ASTRONAUTICAL ENGR*

**NAG 5 10444 MASSACHUSETTS INST OF TECHNOLOGY 5665**  
 STELLAR OCCULTATION STUDIES OF SMALL BODIES IN THE OUTER SOLAR SYSTEM  
 02/20/2001 - 01/31/2002 FY01: \$133,900 Total: \$133,900  
*Prin. Invest.: J ELLIOT*  
*Tech. Officer: GSFC/T MORGAN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10522 MASSACHUSETTS INST OF TECHNOLOGY 5666**  
 PHASE EQUILIBRIUM AND KINETIC INVESTIGATIONS OF PLANETARY MATERIALS  
 03/03/2001 - 04/01/2001 FY01: \$0 Total: \$0  
*Prin. Invest.: D L GROVE, NONE*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10604 MASSACHUSETTS INST OF TECHNOLOGY 5667**  
 WATER OF HYDRATION ON C-CLASS ASTEROIDS: DOES SIZE MATTER  
 03/15/2001 - 03/14/2002 FY01: \$35,934 Total: \$35,934  
*Prin. Invest.: A RIVKIN*  
*Tech. Officer: GSFC/T MORGAN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10613 MASSACHUSETTS INST OF TECHNOLOGY 5668**  
 HIGH SENSITIVITY OPTICAL TECHNIQUES FOR ATMOSPHERIC SPECTROSCOPY, KINETICS, AND REMOTE SENSING  
 03/27/2001 - 03/31/2002 FY01: \$76,121 Total: \$76,121  
*Prin. Invest.: J I STEINFELD*  
*Tech. Officer: GSFC/M KURYLO*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 10684 MASSACHUSETTS INST OF TECHNOLOGY 5669**  
 DYNAMICS OF LANDSCAPE CHANGE IN RAPIDLY ERODING REGIONS  
 03/30/2001 - 03/31/2002 FY01: \$75,313 Total: \$75,313  
*Prin. Invest.: R L BRAS*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NAG 5 10711 MASSACHUSETTS INST OF TECHNOLOGY 5670**  
 A PARTICLE PHYSICS EXPERIMENT IN SPACE  
 04/06/2001 - 03/31/2002 FY01: \$10,000,000 Total: \$10,000,000  
*Prin. Invest.: S C TING*  
*Tech. Officer: GSFC/M SISTILLI*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 10728 MASSACHUSETTS INST OF TECHNOLOGY 5671**  
 APPLICATION OF EXPERIMENTAL PETROLOGY TO AID IN THE INTERPRETATION OF THE MARS PATHFINDER ROCK  
 04/10/2001 - 04/30/2002 FY01: \$40,000 Total: \$40,000  
*Prin. Invest.: T GROVE*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10793 MASSACHUSETTS INST OF TECHNOLOGY 5672**  
 ATLANTIC OCEAN PROCESSES FROM SUBPOLAR REGIONS TO THE SOUTHERN SUBTROPICAL GYRE: MODEL/DATA COMPAR  
 04/25/2001 - 10/31/2001 FY01: \$69,010 Total: \$69,010  
*Prin. Invest.: P RIZZOLI*  
*Tech. Officer: GSFC/E LINDSTROM*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 10815 MASSACHUSETTS INST OF TECHNOLOGY 5673**  
 LOW-MASS X-RAY BINARIES WITH RXTE (ADP 2000)  
 05/03/2001 - 05/14/2002 FY01: \$40,171 Total: \$40,171  
*Prin. Invest.: W H LEWIN*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10915 MASSACHUSETTS INST OF TECHNOLOGY 5674**  
 MO&DA FOR THE FARADAY CUP PORTION OF THE WIND SWE EXPERIMENT  
 05/21/2001 - 05/31/2002 FY01: \$120,000 Total: \$120,000  
*Prin. Invest.: A LAZARUS*  
*Tech. Officer: GSFC/K OGILVIE*  
*CASE Category: 19 - PHYSICAL SCIENCE, OTHER*

**NAG 5 1113 MASSACHUSETTS INST OF TECHNOLOGY** 5675  
 PLANETARY TOPOGRAPHY AND GRAVITY  
 07/18/2001 - 07/31/2002 FY01: \$249,999  
*Prin. Invest.:* M T ZUBER  
*Tech. Officer:* GSFC/D E SMITH  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

Total: \$249,999

**NAG 5 11268 MASSACHUSETTS INST OF TECHNOLOGY** 5676  
 SDM VIRTUALNESS PROJECT  
 08/17/2001 - 11/30/2002 FY01: \$300,000  
*Prin. Invest.:* J KLEIN  
*Tech. Officer:* GSFC/T MATURO  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

Total: \$300,000

**NAG 5 11285 MASSACHUSETTS INST OF TECHNOLOGY** 5677  
 LARGE-SCALE ATMOSPHERIC TRANSPORT PROCESSES  
 08/17/2001 - 08/31/2004 FY01: \$149,675  
*Prin. Invest.:* R A PLUMB  
*Tech. Officer:* GSFC/P DECOLA  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

Total: \$149,675

**NAG 8 1253 MASSACHUSETTS INST OF TECHNOLOGY** 5678  
 RESEARCH "APPLICATION OF PARALLEL COMPUTING FOR TWO AND  
 THREE D MODELING OF BULK CRYSTAL GROWTH  
 06/24/1996 - 06/30/2001 FY01: \$0  
*Prin. Invest.:* R A BROWN  
*Tech. Officer:* MSFC/P DOTY, MSFC/R POWER  
*CASE Category:* 19 – PHYSICAL SCIENCE, OTHER

Total: \$584,927

**NAG 8 1435 MASSACHUSETTS INST OF TECHNOLOGY** 5679  
 TOWARDS PRECISION EXPERIMENTS WITH BOSE-EINSTEIN CONDEN-  
 SATES  
 02/03/1998 - 01/31/2003 FY01: \$63,650  
*Prin. Invest.:* W KETTERLE  
*Tech. Officer:* MSFC/D HUBBARD  
*CASE Category:* 13 – PHYSICS

Total: \$339,650

**NAG 8 1487 MASSACHUSETTS INST OF TECHNOLOGY** 5680  
 IDENTIFICATION AND CONTROL OF GRAVITY RELATED DEFECT FORMA-  
 TION DURING MELT GROWTH OF ELECTROOPTI  
 02/13/1998 - 01/31/2002 FY01: \$164,750  
*Prin. Invest.:* A WITT  
*Tech. Officer:* MSFC/M PURVEY  
*CASE Category:* 47 – METAL & MATERIALS ENGR

Total: \$601,495

**NAG 8 1524 MASSACHUSETTS INST OF TECHNOLOGY** 5681  
 DIRECT USE OF SATELLITE REMOTE SENSING IN THE ESTIMATION OF  
 HYDROLOGIC TRANSPORTS  
 05/22/1998 - 08/31/2001 FY01: \$0  
*Prin. Invest.:* D ENTEKHABI  
*Tech. Officer:* MSFC/J ARNOLD  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

Total: \$434,701

**NAG 8 1659 MASSACHUSETTS INST OF TECHNOLOGY** 5682  
 KINETIC EVOLUTION OF STABLE AND METASTABLE STATES IN PROTEIN  
 SOLUTIONS.  
 05/10/2000 - 11/30/2003 FY01: \$104,500  
*Prin. Invest.:* G BENEDEK  
*Tech. Officer:* MSFC/P DOTY  
*CASE Category:* 19 – PHYSICAL SCIENCE, OTHER

Total: \$164,500

**NAG 8 1685 MASSACHUSETTS INST OF TECHNOLOGY** 5683  
 THE ROLE OF CONVECTION AND GROWTH COMPETITITON IN PHASE  
 SELECTION IN MICROGRAVITY  
 05/11/2000 - 11/30/2003 FY01: \$167,200  
*Prin. Invest.:* M C FLEMING  
*Tech. Officer:* MSFC/P DOTY  
*CASE Category:* 13 – PHYSICS

Total: \$252,200

**NAG 8 1688 MASSACHUSETTS INST OF TECHNOLOGY** 5684  
 FORCES DURING MANUFACTURE AND ASSEMBLY OF MICROSCALE  
 DISCRETE ELECTRONIC COMPONENTS.  
 05/17/2000 - 11/30/2003 FY01: \$74,100  
*Prin. Invest.:* M CIMA  
*Tech. Officer:* MSFC/P DOTY  
*CASE Category:* 19 – PHYSICAL SCIENCE, OTHER

Total: \$162,962

**NAG 8 1689 MASSACHUSETTS INST OF TECHNOLOGY** 5685  
 FROM OXYGEN GENERATIONTO METAL PRODUCTION: IN-SITU RESOURCE  
 UTILIZATION BY MOLTEN OXIDE ELECTROLYSIS  
 06/05/2000 - 11/30/2003 FY01: \$85,500  
*Prin. Invest.:* R SADOWAY  
*Tech. Officer:* MSFC/P DOTY  
*CASE Category:* 47 – METAL & MATERIALS ENGR

Total: \$125,500

**NAG 8 1768 MASSACHUSETTS INST OF TECHNOLOGY** 5686  
 INCREMENTAL FUNDING FOR TOWARDS PRECISION EXPERI- MENTS WITH  
 BOSE EINSTEIN CONDENSATES II  
 05/14/2001 - 05/13/2005 FY01: \$40,000  
*Prin. Invest.:* W KETTERLE  
*Tech. Officer:* MSFC/D HUBBARD  
*CASE Category:* 13 – PHYSICS

Total: \$40,000

**NAG 9 836 MASSACHUSETTS INST OF TECHNOLOGY** 5687  
 MICROGRAVITY TISSUE ENGINEERING  
 09/19/1995 - 08/31/2000 FY01: \$0  
*Prin. Invest.:* L E FREED  
*Tech. Officer:* JSC/N R PELLIS  
*CASE Category:* 51 – BIOLOGY (EXCLUDING ENVIR)

Total: \$4,371,496

**NAG 9 1003 MASSACHUSETTS INST OF TECHNOLOGY** 5688  
 MICROGRAVITY INVESTIGATION & CREW REACTION IN 0-G  
 04/29/1998 - 12/31/2001 FY01: \$0  
*Prin. Invest.:* D J NEWMAN, S BECK  
*Tech. Officer:* JSC/B WOOLFORD  
*CASE Category:* 56 – MEDICL

Total: \$268,557

**NAG 9 1004 MASSACHUSETTS INST OF TECHNOLOGY** 5689  
 ADVANCED DISPLAYS & CONTROLS FOR 6 DOF ORIENTATION  
 05/06/1998 - 06/10/2002 FY01: \$90,241  
*Prin. Invest.:* C M OMAN  
*Tech. Officer:* JSC/J DETROVE  
*CASE Category:* 59 – LIFE SCIENCE, OTHER

Total: \$543,296

**NAG 9 1078 MASSACHUSETTS INST OF TECHNOLOGY** 5690  
 SPACE STATION HUMAN FACTORS  
 01/21/1999 - 01/28/2000 FY01: -\$93  
*Prin. Invest.:* J P CLARKE  
*Tech. Officer:* JSC/H A ALDRIDGE  
*CASE Category:* 49 – ENGINEERING, OTHER

Total: \$22,907

**NAG 9 1089 MASSACHUSETTS INST OF TECHNOLOGY 5691**  
 ROBOTIC TECHNOLOGY AND FUTURE SPACE SUIT DEVELOPMENT  
 03/05/1999 - 02/28/2002 FY01: \$249,303 Total: \$562,946  
*Prin. Invest.: D J NEWMAN*  
*Tech. Officer: JSC/B J WOOLFORD*  
*CASE Category: 41 - AERONAUTICAL ENGR*

**NAG 9 1224 MASSACHUSETTS INST OF TECHNOLOGY 5692**  
 FOKKER-PLANCK STUDIES OF HELICON OPERATOR-VASIMR EXPERIMENT  
 03/23/2000 - 01/31/2002 FY01: \$65,000 Total: \$145,000  
*Prin. Invest.: K MOLVIG, O V BATISHCHAV*  
*Tech. Officer: JSC/F R CHANG-DIAZ*  
*CASE Category: 13 - PHYSICS*

**NAS 1 18690 MASSACHUSETTS INST OF TECHNOLOGY 5693**  
 MID-DECK 0-GRAVITY DYNAMICS EXPERIMENT  
 12/06/1988 - 09/30/1999 FY01: -\$133 Total: \$6,063,712  
*Prin. Invest.: E CROWLEY*  
*Tech. Officer: LARC/L G CLARK, LARC/S M BECK*  
*CASE Category: 42 - ASTRONAUTICAL ENGR*

**NAS 3 01153 MASSACHUSETTS INST OF TECHNOLOGY 5694**  
 INTRA ENGINE TRACE SPECIES CHEMISTRY  
 05/09/2001 - 08/10/2001 FY01: \$225,000 Total: \$225,000  
*Prin. Invest.: I A WAITZ*  
*Tech. Officer: GRC/N S LIU*  
*CASE Category: 41 - AERONAUTICAL ENGR*

**NAS 5 30612 MASSACHUSETTS INST OF TECHNOLOGY 5695**  
 ALL SKY MONITOR INSTRUMENTS  
 12/15/1989 - 11/15/2003 FY01: \$814,000 Total: \$27,357,767  
*Prin. Invest.: H BRADT*  
*Tech. Officer: GSFC/W DAVIS*  
*CASE Category: 11 - ASTRONOMY*

**NAS 5 31376 MASSACHUSETTS INST OF TECHNOLOGY 5696**  
 RECURSIVE ESTIMATION OF GEOGRAPHICAL PRODUCTS WITH AIRS/AMSU DATA (EOS INVESTIGATION)  
 01/10/1992 - 12/14/2001 FY01: \$260,000 Total: \$1,953,000  
*Prin. Invest.: D H STACLIN, P W ROSENKRANZ*  
*Tech. Officer: GSFC/E KREINS*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NAS 5 31728 MASSACHUSETTS INST OF TECHNOLOGY 5697**  
 ACQUISITION OF VLBI CORRELATOR  
 03/19/1992 - 11/30/2000 FY01: \$0 Total: \$9,022,390  
*Prin. Invest.: A R WHITNEY*  
*Tech. Officer: GSFC/B WILDES*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NAS 5 99007 MASSACHUSETTS INST OF TECHNOLOGY 5698**  
 GLAS SCIENCE TEAM  
 12/02/1998 - 12/01/2002 FY01: \$175,000 Total: \$465,000  
*Prin. Invest.: T A HERRING*  
*Tech. Officer: GSFC/G SMITH*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAS 5 99181 MASSACHUSETTS INST OF TECHNOLOGY 5699**  
 TRIANA FARADAY CUP.  
 03/17/1999 - 01/01/2001 FY01: \$18,632 Total: \$467,083  
*Prin. Invest.: A J LAZARUS*  
*Tech. Officer: GSFC/K W OGILVIE*  
*CASE Category: 19 - PHYSICAL SCIENCE, OTHER*

**NAS 5 99198 MASSACHUSETTS INST OF TECHNOLOGY 5700**  
 POVIDE PERSONNEL, FACILITIES, & EQUIPMENT NECESSARY TO SUPPORT THE SPACE GEODESY PROGRAM.  
 04/23/1999 - 04/22/2004 FY01: \$1,513,595 Total: \$3,942,622  
*Prin. Invest.: G CARRIGAN*  
*Tech. Officer: GSFC/W WILDES*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAS 8 37716 MASSACHUSETTS INST OF TECHNOLOGY 5701**  
 CONDUCT AN X-RAY IMAGING SPECTROSCOPY SCIENTIFIC INVESTIGATION  
 07/23/1990 - 12/31/1999 FY01: -\$71,800 Total: \$77,956,200  
*Prin. Invest.: G RICKER*  
*Tech. Officer: MSFC/N B CUMINGS*  
*CASE Category: 11 - ASTRONOMY*

**NAS 8 38249 MASSACHUSETTS INST OF TECHNOLOGY 5702**  
 AXAF (HETGS)  
 07/13/1990 - 03/01/2002 FY01: \$1,875,000 Total: \$28,623,000  
*Prin. Invest.: C R CANIZARES*  
*Tech. Officer: MSFC/M E ROSENTHAL*  
*CASE Category: 49 - ENGINEERING, OTHER*

**NAS 9 00097 MASSACHUSETTS INST OF TECHNOLOGY 5703**  
 UNIQUE FLIGHT AND BASELINE DATA COLLECTION HARDWARE AND DEVELOP  
 10/24/2000 - 10/25/2005 FY01: \$774,887 Total: \$774,887  
*Prin. Invest.: C M OMAN*  
*Tech. Officer: JSC/D K BAUMAN*  
*CASE Category: 59 - LIFE SCIENCE, OTHER*

**NAS 9 19536 MASSACHUSETTS INST OF TECHNOLOGY 5704**  
 ROLE OF VISUAL CUES IN SPATIAL ORIENTATION  
 03/19/1996 - 09/30/2000 FY01: -\$3,183 Total: \$995,644  
*Prin. Invest.: C M OMAN*  
*Tech. Officer: SSC/S SAWYER*  
*CASE Category: 56 - MEDICAL*

**NASW 4690 MASSACHUSETTS INST OF TECHNOLOGY 5705**  
 HIGH ENERGY TRANSIENT EXPERIMENT TO DETERMINE ORIGIN & NATURE OF GAMMA-RAY BURSTS  
 03/30/1992 - 11/29/2002 FY01: \$1,945,105 Total: \$26,192,859  
*Prin. Invest.: G RICKER*  
*Tech. Officer: HQ/D GILMAN, HQ/L KALUZIENSKI*  
*CASE Category: 13 - PHYSICS*

**NCC 1 323 MASSACHUSETTS INST OF TECHNOLOGY 5706**  
 AEROELASTIC ANALYSIS OF ACTIVE TWIST ROTOR SYSTEM FOR HELICOPTER VIBRATION REDUCTION  
 12/22/1998 - 10/31/2001 FY01: \$35,999 Total: \$180,429  
*Prin. Invest.: C E CESNIK, N W NAGOOD*  
*Tech. Officer: LARC/M L WILBUR, LARC/W K WILKIE*  
*CASE Category: 41 - AERONAUTICAL ENGR*

**NCC 1 415 MASSACHUSETTS INST OF TECHNOLOGY 5707**  
 PHYSICAL PROCESSES INFLUENCING ATMOSPHERIC TRACE CONSTITUENTS MEAS'D FROM AIRCRAFT IN TRACE-P (IS NRA  
 09/21/2000 - 06/30/2003 FY01: \$145,791 Total: \$302,433  
*Prin. Invest.: R E NEWELL*  
*Tech. Officer: LARC/J L RAPER, SR*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 2 570 MASSACHUSETTS INST OF TECHNOLOGY 5708**  
 PRINCIPAL INVESTIGATOR IN A BOX  
 12/29/1988 - 01/31/2001 FY01: \$0 Total: \$2,098,309  
*Prin. Invest.: L R YOUNG*  
*Tech. Officer: ARC/S LAU, ARC/D A ROSENTHAL*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NCC 2 985 MASSACHUSETTS INST OF TECHNOLOGY 5709**  
 AUTOMATED FLUID FEATURE EXTRACTION FORM TRANSIENT SIMULATIONS  
 04/01/1997 - 12/31/2000 FY01: -\$2,717 Total: \$169,612  
*Prin. Invest.: R HAIMES*  
*Tech. Officer: ARC/D L KAO, ARC/A VAZIRI*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NCC 2 1044 MASSACHUSETTS INST OF TECHNOLOGY 5710**  
 DRIVING PARAMETERS FOR DISTRIBUTED & CENTRALIZED AIR TRANSPORTATION ARCHITECTURES  
 06/24/1998 - 09/30/2000 FY01: \$0 Total: \$142,039  
*Prin. Invest.: E FERON*  
*Tech. Officer: ARC/B SRIDHAR, ARC/K BILIMORIA*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 2 1121 MASSACHUSETTS INST OF TECHNOLOGY 5711**  
 MARSCAPE  
 05/21/1999 - 12/31/2001 FY01: \$0 Total: \$150,000  
*Prin. Invest.: J K SALISBURY*  
*Tech. Officer: ARC/H THOMAS*  
*CASE Category: 46 – MECHANICAL ENGR*

**NCC 2 1147 MASSACHUSETTS INST OF TECHNOLOGY 5712**  
 IMPLEMENTATION ISSUES FOR DEPARTURE PLANNING SYSTEMS  
 12/07/1999 - 11/30/2001 FY01: \$249,714 Total: \$490,247  
*Prin. Invest.: E FERON, R J HANSMAN*  
*Tech. Officer: ARC/S ATKINS*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 2 1150 MASSACHUSETTS INST OF TECHNOLOGY 5713**  
 SAFETY METRICS FOR HUMAN-COMPUTER CONTROLLED SYSTEM  
 12/28/1999 - 12/31/2000 FY01: \$0 Total: \$195,940  
*Prin. Invest.: N LEVESON*  
*Tech. Officer: ARC/S YASSINI*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NCC 2 1209 MASSACHUSETTS INST OF TECHNOLOGY 5714**  
 DISTRIBUTED & CENTRALIZED CONFLICT MANAGEMENT UNDER TRAFFIC FLOW MANAGEMENT CONSTRAINTS  
 12/04/2000 - 11/14/2001 FY01: \$63,957 Total: \$63,957  
*Prin. Invest.: E FERON*  
*Tech. Officer: ARC/K BILIMORIA, ARC/B SRIDHAR*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 2 1223 MASSACHUSETTS INST OF TECHNOLOGY 5715**  
 APPROACHES TO HUMAN CENTERED SOFTWARE DEVELOPMENT  
 03/23/2001 - 02/28/2002 FY01: \$182,000 Total: \$182,000  
*Prin. Invest.: N G LEVESON*  
*Tech. Officer: ARC/P M JONES, ARC/M SHAFTO*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NCC 2 1235 MASSACHUSETTS INST OF TECHNOLOGY 5716**  
 A HYBRID DISCRETE/CONTINUOUS SYSTEM FOR HEALTH MANAGEMENT  
 04/03/2001 - 02/28/2002 FY01: \$235,000 Total: \$235,000  
*Prin. Invest.: B C WILLIAMS*  
*Tech. Officer: ARC/R MORRIS, ARC/D J CLANCY*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NCC 2 1237 MASSACHUSETTS INST OF TECHNOLOGY 5717**  
 MULTI-RESOLUTION PLANNING IN LARGE UNCERTAIN ENVIRONMENTS  
 04/06/2001 - 02/28/2002 FY01: \$129,000 Total: \$129,000  
*Prin. Invest.: L KAEHLING*  
*Tech. Officer: ARC/R MORRIS, ARC/D CLANCY*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NCC 2 1269 MASSACHUSETTS INST OF TECHNOLOGY 5718**  
 USING CAPRI WITHIN NASA'S INTELLIGENT SYNTHESIS ENVIRONMENT  
 06/01/2001 - 09/30/2001 FY01: \$74,975 Total: \$74,975  
*Prin. Invest.: R HAIMES*  
*Tech. Officer: ARC/J REUTHER, ARC/D KONTINOS*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NCC 3 610 MASSACHUSETTS INST OF TECHNOLOGY 5719**  
 THE EXTENSIONAL RHEOLOGY OF NON-NEWTONIAN MATERIAL EXTENSIONAL RHEOLOGY EXPERIMENT (ERE)  
 04/21/1998 - 02/09/2003 FY01: \$190,000 Total: \$740,000  
*Prin. Invest.: G H MCKINLEY*  
*Tech. Officer: GRC/N R HALL*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NCC 3 632 MASSACHUSETTS INST OF TECHNOLOGY 5720**  
 MIT ENGINEERING INTERNSHIP PROGRAM  
 06/30/1998 - 06/20/2002 FY01: \$36,645 Total: \$154,645  
*Prin. Invest.: I A WATZ*  
*Tech. Officer: GRC/L POVINELLI*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 3 875 MASSACHUSETTS INST OF TECHNOLOGY 5721**  
 HIGH SPECIFIC IMPULSE HALL THRUSTERS  
 03/21/2001 - 03/31/2004 FY01: \$401,796 Total: \$401,796  
*Prin. Invest.: D MARTINEZ-SANCHEZ*  
*Tech. Officer: GRC/S OLESON*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NCC 4 123 MASSACHUSETTS INST OF TECHNOLOGY 5722**  
 DESIGN & EVALUATION OF FLIGHT CONTROL SYSTEMS  
 04/28/1999 - 05/31/2001 FY01: \$0 Total: \$83,321  
*Prin. Invest.: J D PADUANO*  
*Tech. Officer: DFRC/T MAINE, DFRC/J BURKEN*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 5 244 MASSACHUSETTS INST OF TECHNOLOGY 5723**  
 BIOGEOCHEMICAL CYCLES USING MODELS AND DATA  
 10/24/1997 - 06/30/2001 FY01: \$0 Total: \$727,000  
*Prin. Invest.: J MARSHALL*  
*Tech. Officer: GSFC/J MARRA*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NCC 5 330 MASSACHUSETTS INST OF TECHNOLOGY 5724**  
 DEVELOPMENT OF ACCURATE STRUCTURE FOR MOUNTING AND ALIGNING  
 THIN FOIL-X-RAY MIRRORS.  
 05/07/1998 - 11/14/2000 FY01: \$0 Total: \$168,177  
*Prin. Invest.: M SCHATTENBURG* *Prin. Invest.: NONE*  
*Tech. Officer: GSFC/R PETRE*  
*CASE Category: 11 – ASTRONOMY*

**NCC 5 416 MASSACHUSETTS INST OF TECHNOLOGY 5725**  
 SOIL MOISTURE DATA ASSIMILATION FOR CONTINENTAL- SCALE LAND  
 SURFACE HYDROLOGY APPLICATIONS  
 08/04/1999 - 07/31/2002 FY01: \$82,472 Total: \$216,639  
*Prin. Invest.: D MC LAUGHLIN*  
*Tech. Officer: GSFC/E T ENGMAN*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NCC 5 525 MASSACHUSETTS INST OF TECHNOLOGY 5726**  
 FABRICATION AND METROLOGY OF HIGH-PRECISION FOIL MIRROR  
 MOUNTING ELEMENT CONSTELLATION X-PROPOSAL  
 01/08/2001 - 01/14/2002 FY01: \$105,000 Total: \$105,000  
*Prin. Invest.: M SCHATTENBURG*  
*Tech. Officer: GSFC/R PETRE*  
*CASE Category: 11 – ASTRONOMY*

**NCC 8 174 MASSACHUSETTS INST OF TECHNOLOGY 5727**  
 R/S MICROGRAVITY TISSUE ENGINEERING  
 03/31/1999 - 11/30/2002 FY01: \$853,100 Total: \$2,339,763  
*Prin. Invest.: L FREED*  
*Tech. Officer: JSC/N R PELLIS*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NGT 3 52360 MASSACHUSETTS INST OF TECHNOLOGY 5728**  
 GRADUATE STUDENT RESEARCHER PROGRAM GRADUATE STUDENT  
 RESEARCHER PROGRAM  
 07/15/1999 - 06/30/2001 FY01: \$0 Total: \$44,000  
*Prin. Invest.: G H MCKINLEY*  
*Tech. Officer: GRC/F J MONTEGANI*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NGT 5 30188 MASSACHUSETTS INST OF TECHNOLOGY 5729**  
 THE IMPACT OF GLACIAL EROSION ON THE RELIEF STRUCTURE OF  
 MOUNTAIN BELTS STUDENT: SIMON BROCKLEHURS  
 08/19/1999 - 08/31/2002 FY01: \$22,000 Total: \$66,000  
*Prin. Invest.: K X WHIPPLE*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 30189 MASSACHUSETTS INST OF TECHNOLOGY 5730**  
 TEMPORAL VARIABILITY OF AIR - SEA GAS FLUXES: ESTIMATION &  
 INCORPORATION INTO AN INVERSE MODEL OF  
 08/18/1999 - 08/31/2002 FY01: \$22,000 Total: \$66,000  
*Prin. Invest.: J MARSHALL*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 30190 MASSACHUSETTS INST OF TECHNOLOGY 5731**  
 ADJOINT SENSITIVITY ANALYSIS OF THE COUPLED LAND- ATMOSPHERE  
 SYSTEM STUDENT: STEVEN A. MARGULIS  
 08/19/1999 - 08/31/2002 FY01: \$22,000 Total: \$66,000  
*Prin. Invest.: D ENTEKHABI*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 30200 MASSACHUSETTS INST OF TECHNOLOGY 5732**  
 AN INVESTIGATION OF STRATOSPHERIC TRANSPORT USING THE "LEAKY  
 PIPE" MODEL STUDENT: JESSICA NEU  
 08/24/1999 - 08/31/2000 FY01: -\$1 Total: \$21,999  
*Prin. Invest.: R A PLUMB*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 30212 MASSACHUSETTS INST OF TECHNOLOGY 5733**  
 THE SIGNATURE OF CLIMATIC & TECTONIC PROCESSES IN ALLUVIAL  
 FANS: A NUMERICAL MODELING & REMOTE SENSING  
 08/20/1999 - 08/31/2002 FY01: \$0 Total: \$44,000  
*Prin. Invest.: R L BRAS*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 30334 MASSACHUSETTS INST OF TECHNOLOGY 5734**  
 MULTIPHASE AND HETEROGENEOUS PROCESSES IN ATMOSPHERIC  
 CHEMISTRY  
 08/17/2000 - 08/31/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.: B TROUT*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 30337 MASSACHUSETTS INST OF TECHNOLOGY 5735**  
 DYNAMICS & SCALES OF VARIABILITY IN THE LABRADOR SEA: STATE  
 ESTIMATION USING AN EDDY-RESOLVING  
 08/21/2000 - 08/31/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.: C WUNSCH*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 30339 MASSACHUSETTS INST OF TECHNOLOGY 5736**  
 EFFECTS OF VEGETATION DYNAMICS ON ARROYO & GULLY EVOLUTION &  
 SUSCEPTIBILITY TO CLIMATE CHANGE  
 08/21/2000 - 08/31/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.: R BRAS*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 40048 MASSACHUSETTS INST OF TECHNOLOGY 5737**  
 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM  
 01/24/1997 - 01/31/2001 FY01: \$0 Total: \$1,839,999  
*Prin. Invest.: L R YOUNG*  
*Tech. Officer: GSFC/L KEFFER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 40075 MASSACHUSETTS INST OF TECHNOLOGY 5738**  
 MASSACHUSETTS SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM  
 02/09/2001 - 01/31/2002 FY01: \$475,000 Total: \$475,000  
*Prin. Invest.: L YOUNG*  
*Tech. Officer: GSFC/D D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50302 MASSACHUSETTS INST OF TECHNOLOGY 5739**  
 COMBUSTION SYNTHESIS OF FULLERENES AND FULLERENIC NANOSTRUCTURES IN MICROGRAVITY/STUDENT: ANISH GOEL  
 07/06/2000 - 06/30/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.: J B HOWARD*  
*Tech. Officer: GSFC/L SMITH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50306 MASSACHUSETTS INST OF TECHNOLOGY 5740**  
 THE KINETICS OF COMPETITIVE GROWTH DURING RAPID SOLIDIFICATION OF TERNARY STEEL ALLOYS/STUDENT JOA  
 07/06/2000 - 06/30/2001 FY01: \$0 Total: \$22,000  
*Prin. Invest.: M FLEMINGS*  
*Tech. Officer: GSFC/L SMITH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 8 52860 MASSACHUSETTS INST OF TECHNOLOGY 5741**  
 CHARACTERIZATION OF THERMAL SUBSYSTEMS FOR A MICROGRAVITY BRIDGMAN CRYSTAL GROWTH FURNACE  
 07/23/1998 - 08/13/2000 FY01: -\$6,667 Total: \$0  
*Prin. Invest.: A F WITT*  
*Tech. Officer: MSFC/J F DOWDY*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NGT 8 52880 MASSACHUSETTS INST OF TECHNOLOGY 5742**  
 IDENTIFICATION AND CONTROL OF GRAVITY RELATED DEFECT FORMATION DURING MELT GROWTH  
 09/09/1999 - 06/30/2002 FY01: \$22,000 Total: \$66,000  
*Prin. Invest.: A WITT*  
*Tech. Officer: MSFC/J DOWDY*  
*CASE Category: 46 – MECHANICAL ENGR*

**NGT 8 52892 MASSACHUSETTS INST OF TECHNOLOGY 5743**  
 BALANCE OF PLANT DESIGN AND ANALYSIS FOR SPACE NUCLEAR POWER OPTIONS  
 07/11/2000 - 06/30/2003 FY01: \$0 Total: \$0  
*Prin. Invest.: M MARTINEZ-SANCHEZ*  
*Tech. Officer: MSFC/S NASH-STEVENSON*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 5 8635 MT HOLYOKE COLLEGE 5744**  
 CO<sub>2</sub> AND CH<sub>4</sub> EXCHANGE IN NORTHERN PEATLANDS  
 07/07/1999 - 06/30/2002 FY01: \$91,444 Total: \$345,781  
*Prin. Invest.: J L BUBIER*  
*Tech. Officer: GSFC/M Y WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 10238 MT HOLYOKE COLLEGE 5745**  
 SUMMERMATH NASA SCHOLARS PROGRAM  
 01/04/2001 - 12/31/2001 FY01: \$80,000 Total: \$80,000  
*Prin. Invest.: J MORROW*  
*Tech. Officer: GSFC/CHOLLINGSWORTH*  
*CASE Category: 29 – MATH/COMPUTER SCI, OTHER*

**NAG 5 10424 MT HOLYOKE COLLEGE 5746**  
 SYNCHROTRON CHARACTERIZATION OF HYDROGEN & FERRIC IRON IN MARTIAN METEORITES  
 02/15/2001 - 02/28/2002 FY01: \$34,000 Total: \$34,000  
*Prin. Invest.: D DYAR*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 12 – CHEMISTRY*

**NAG 8 1254 NORTHEASTERN UNIV 5747**  
 THE ROLE OF DYNAMIC NUCLEATION AT MOVING BOUNDRIES IN PHASE AND MICROSTRUCTURE SELECTION  
 05/10/1996 - 05/09/2001 FY01: \$0 Total: \$600,000  
*Prin. Invest.: A KARMA, R TRivedi*  
*Tech. Officer: MSFC/P DOTY, MSFC/R POWER*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 8 1485 NORTHEASTERN UNIV 5748**  
 R/S MODELING OF MACROSCOPIC/MICROSCOPIC TRANSPORT AND GROWTH PHENOMENA IN ZEOLITE CRYSTALS UNDER  
 04/27/1998 - 05/31/2001 FY01: \$16,150 Total: \$321,483  
*Prin. Invest.: A SACCO*  
*Tech. Officer: MSFC/C TALLEY*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 8 1668 NORTHEASTERN UNIV 5749**  
 PHASE FIELD SIMULATIONS OF DENDRITIC GROWTH AT LOW UNDER-COOLING: CONFRONTING THEORY AND EXPERIMENT.  
 05/23/2000 - 11/30/2003 FY01: \$85,500 Total: \$120,500  
*Prin. Invest.: A KARMA*  
*Tech. Officer: MSFC/P DOTY*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NCC 8 139 NORTHEASTERN UNIV 5750**  
 RESEARCH "CENTER FOR ADVANCED MICROGRAVITY MATERIALS PROCESSING (CAMMP)"  
 06/27/1997 - 10/31/2001 FY01: \$2,645,000 Total: \$8,913,655  
*Prin. Invest.: A SACCO*  
*Tech. Officer: MSFC/M NALL*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NGT 5 122 NORTHEASTERN UNIV 5751**  
 IMAGE PROCESSING TECHNIQUES FOR SATELLITE DATE USING RECONFIGURABLE TECHNOLOGY/STUDENT: HEATHER Q  
 07/09/2001 - 09/14/2002 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: M LEESER*  
*Tech. Officer: GSFC/M S BURRELL*  
*CASE Category: 29 – MATH/COMPUTER SCI, OTHER*

**NAG 3 2563 TUFTS UNIV 5752**  
 A SOLID STATE LI-ION BATTERY WITH A CONDUCTING POLYMER ANODE  
 03/13/2001 - 04/30/2002 FY01: \$58,333 Total: \$58,333  
*Prin. Invest.: D B GOLDNER*  
*Tech. Officer: GRC/N HAGEDORN*  
*CASE Category: 12 – CHEMISTRY*

**NAG 5 8115 TUFTS UNIV 5753**  
 VLA-SOHO OBSERVATIONS OF BLINKERS AND CME'S11  
 01/25/1999 - 01/31/2001 FY01: \$0 Total: \$112,000  
*Prin. Invest.: K R LANG*  
*Tech. Officer: GSFC/J GURMAN*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 9725 TUFTS UNIV 5754**  
 VERY LARGE ARRAY OBSERVATIONS IN SUPPORT OF HESSI  
 07/06/2000 - 07/14/2001 FY01: \$0 Total: \$35,000  
*Prin. Invest.: K R LANG*  
*Tech. Officer: GSFC/W J WAGNER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

<b>NAG 5 10350</b>	<b>TUFTS UNIV</b>	<b>5755</b>	<b>NAG 2 1438</b>	<b>UNIV OF MASSACHUSETTS @ WORCESTER</b>	<b>5763</b>
NASA'S COSMOS. FULLY FUNDS YEAR 1 OF 3 02/06/2001 - 02/14/2002	FY01: \$40,000	Total: \$40,000	THE EFFECT OF HYPERGRAVITY ON RETINOIC ACID SIGNALING IN THE DEVELOPING EMBRYO 09/19/2000 - 09/30/2002	FY01: \$147,369	Total: \$245,929
Prin. Invest.: K R LANG			Prin. Invest.: P J MACCAFFERY		
Tech. Officer: GSFC/P E HUNTER			Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY		
CASE Category: 99 – MULTI INTERDISCPL, OTHER			CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)		
<b>NAG 8 1311</b>	<b>TUFTS UNIV</b>	<b>5756</b>	<b>NAG 2 1495</b>	<b>UNIV OF MASSACHUSETTS @ WORCESTER</b>	<b>5764</b>
JOVE RESEARCH 01/21/1997 - 08/31/2000	FY01: \$0	Total: \$55,000	EFFECTS OF CHARITY ON THE STRUCTURE AND FUNCTION OF ANIMAL CELLS 07/09/2001 - 06/30/2002	FY01: \$99,039	Total: \$99,039
Prin. Invest.: K P LENTL			Prin. Invest.: Y L WANG		
Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT			Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY		
CASE Category: 22 – COMPUTER SCIENCE			CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)		
<b>NAG 8 1480</b>	<b>TUFTS UNIV</b>	<b>5757</b>	<b>NAG 8 1358</b>	<b>UNIV OF MASSACHUSETTS @ WORCESTER</b>	<b>5765</b>
STUDY OF DEVELOPMENT OF POLYMER STRUCTURE IN MICROGRAVITY USING ELLIPSOMETRY 02/27/1998 - 01/31/2002	FY01: \$61,750	Total: \$264,720	R/S MICROGRAVITY AND THE BIOLOGY OF NEURAL STEM CELLS 06/19/1997 - 11/30/2000	FY01: \$0	Total: \$584,981
Prin. Invest.: P CEBE			Prin. Invest.: W J SCHWARTZ		
Tech. Officer: MSFC/P M DOTY			Tech. Officer: MSFC/S R GONDA		
CASE Category: 19 – PHYSICAL SCIENCE, OTHER			CASE Category: 54 – ENVIRONMENTAL BIOLOGY		
<b>NAG 8 1699</b>	<b>TUFTS UNIV</b>	<b>5758</b>	<b>NAG 9 1356</b>	<b>UNIV OF MASSACHUSETTS @ WORCESTER</b>	<b>5766</b>
RESEARCH STUDY HIERARCHICAL ASSEMBLY OF COLLAGEN 06/05/2000 - 11/30/2003	FY01: \$104,500	Total: \$154,500	MICROGRAVITY AND THE BIOLOGY OF NEURAL STEM CELLS 07/27/2001 - 09/30/2004	FY01: \$47,000	Total: \$47,000
Prin. Invest.: D L KAPLAN			Prin. Invest.: W J SCHWARTZ, T M SAVARESE, H PANG LOW		
Tech. Officer: MSFC/P M DOTY			Tech. Officer: JSC/D RISEN		
CASE Category: 56 – MEDICAL			CASE Category: 56 – MEDICAL		
<b>NAG 9 1182</b>	<b>TUFTS UNIV</b>	<b>5759</b>	<b>NGT 5 50374</b>	<b>UNIV OF MASSACHUSETTS @ WORCESTER</b>	<b>5767</b>
MULTISENSOR ARRAY FOR MONITORING WATER QUALITY ON SPACE-CRAFT & PLANETARY HABITATS 12/20/1999 - 12/19/2002	FY01: \$96,401	Total: \$207,876	GENETIC MANIPULATION OF CELL ADHESION PROTEINS TO MODIFY MECHANICAL RESPONSE AND TISSUE REMODELING 07/09/2001 - 06/30/2002	FY01: \$22,000	Total: \$22,000
Prin. Invest.: S P KOUNAVES			Prin. Invest.: L BONASSAR		
Tech. Officer: JPL/D JAN			Tech. Officer: GSFC/K BLANDING		
CASE Category: 59 – LIFE SCIENCE, OTHER			CASE Category: 99 – MULTI INTERDISCPL, OTHER		
<b>NCC 3 479</b>	<b>TUFTS UNIV</b>	<b>5760</b>	<b>NAG 3 2426</b>	<b>UNIV OF MASSACHUSETTS</b>	<b>5768</b>
DECOPPLING THE ROLE OF INERTIA AND GRAVITY ON PARTICLE DISPERSION 06/01/1996 - 05/31/2001	FY01: \$0	Total: \$295,860	PHASE CHANGE IN LOW AND JITTERING GRAVITY ENVIRONMENT SIMULATED VIA ELECTROMAGNETIC FIELD 05/19/2000 - 11/30/2003	FY01: \$59,882	Total: \$100,694
Prin. Invest.: C ROGERS			Prin. Invest.: D CHARMCHI		
Tech. Officer: GRC/T K GLASGOW			Tech. Officer: GRC/H DEGROH		
CASE Category: 47 – METAL & MATERIALS ENGR			CASE Category: 49 – ENGINEERING, OTHER		
<b>NCC 5 434</b>	<b>TUFTS UNIV</b>	<b>5761</b>	<b>NAG 5 8145</b>	<b>UNIV OF MASSACHUSETTS</b>	<b>5769</b>
THE SCIENCE AND ENGINEERING NASA SITE OF REMOTE SENSING (SENSORS). 09/22/1999 - 09/30/2002	FY01: \$115,418	Total: \$299,533	AUTOMATED PROCESSING OF ISIS TOPSIDE IONOGRAMS INTO ELECTRON DENSITY PROFILES 02/04/1999 - 12/31/2001	FY01: \$65,200	Total: \$391,162
Prin. Invest.: C ROGERS			Prin. Invest.: B REINISCH		
Tech. Officer: GSFC/R E GABRYS			Tech. Officer: GSFC/J BREDEKAMP		
CASE Category: 99 – MULTI INTERDISCPL, OTHER			CASE Category: 31 – ATMOSPHERIC SCIENCE		
<b>NAG 2 1197</b>	<b>UNIV OF MASSACHUSETTS @ WORCESTER</b>	<b>5762</b>	<b>NAG 5 9611</b>	<b>UNIV OF MASSACHUSETTS</b>	<b>5770</b>
EFFECTS OF GRAVITY ON CELL MOVEMENT & DEVELOPMENT 04/02/1998 - 10/31/2001	FY01: \$0	Total: \$502,651	HALFWIDTHS & LINE SHIFTS OF WATER VAPOR TRANSITION IN THE 0.7 UM REGION 05/22/2000 - 05/31/2001	FY01: \$0	Total: \$20,000
Prin. Invest.: Y L WANG			Prin. Invest.: R GAMACHE		
Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY			Tech. Officer: GSFC/D STARR		
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)			CASE Category: 31 – ATMOSPHERIC SCIENCE		

**NAG 5 11064**      **UNIV OF MASSACHUSETTS**      **5771**  
 THEORY IN SUPPORT OF LABORATORY SPECTROSCOPY FOR AIRS, TES  
 AND HIRDLS  
 06/28/2001 - 06/30/2002      FY01: \$25,157      Total: \$25,157  
*Prin. Invest.: R R GAMACHE*  
*Tech. Officer: GSFC/D STARR*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 1 1022**      **UNIV OF MASSACHUSETTS – AMHERST**      **5772**  
 GROUND-BASED MILLIMETER-WAVE MEASUREMENT OF OZONE IN THE  
 MIDDLE ATMOSPHERE  
 06/19/1989 – 12/31/2000      FY01: \$0      Total: \$1,526,585  
*Prin. Invest.: A D PARRISH*  
*Tech. Officer: LARC/L E DEAVER*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 2 1375**      **UNIV OF MASSACHUSETTS – AMHERST**      **5773**  
 MICROGRAVITY EFFECTS ON SEED DEVELOPMENT AND MATURATION  
 08/20/1999 – 08/31/2002      FY01: \$118,900      Total: \$373,422  
*Prin. Invest.: M E MUSGRAVE*  
*Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 2 1394**      **UNIV OF MASSACHUSETTS – AMHERST**      **5774**  
 ON BOARD AUTONOMY FOR ROVERS  
 02/07/2000 – 01/31/2002      FY01: \$48,320      Total: \$94,780  
*Prin. Invest.: S ZILBERSTEIN*  
*Tech. Officer: ARC/J BRESINA*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 3 2452**      **UNIV OF MASSACHUSETTS – AMHERST**      **5775**  
 EMBEDDED SENSORS FOR CONDITION MONITORING OF HELICOPTER  
 GEARBOXES PROPOSAL #100-1355  
 06/07/2000 – 09/30/2002      FY01: \$82,776      Total: \$122,766  
*Prin. Invest.: D DANAI*  
*Tech. Officer: GRC/D LEWICKI*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 5 3922**      **UNIV OF MASSACHUSETTS – AMHERST**      **5776**  
 ORIGIN OF QUASAR ABSORPTION LINES IN A COSMOLOGICAL  
 03/24/1997 – 03/31/2001      FY01: \$0      Total: \$120,000  
*Prin. Invest.: N KATZ*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 4064**      **UNIV OF MASSACHUSETTS – AMHERST**      **5777**  
 A THEORETICAL STUDY OF PROCESSES DRIVING THE FORMATION  
 03/18/1997 – 03/31/2001      FY01: \$0      Total: \$151,330  
*Prin. Invest.: N KATZ*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 4272**      **UNIV OF MASSACHUSETTS – AMHERST**      **5778**  
 A CRYOGENIC FREQUENCY MULTIPLIER CHAIN FOR 1000 GHZ  
 04/18/1997 – 12/31/2000      FY01: \$0      Total: \$227,684  
*Prin. Invest.: D R ERICKSON*  
*Tech. Officer: GSFC/H THRONSON*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 4373**      **UNIV OF MASSACHUSETTS – AMHERST**      **5779**  
 PLANETARY, TECTONICS, AREAL GEOLOGY, AND GEOLOGICA  
 04/25/1997 – 01/31/2002      FY01: \$43,100      Total: \$207,145  
*Prin. Invest.: D E MCGILL*  
*Tech. Officer: GSFC/P ROGERS*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 4652**      **UNIV OF MASSACHUSETTS – AMHERST**      **5780**  
 SHOCK AND THERMAL HISTORY OF IRON AND CHONDRTIC METEORITES  
 06/11/1997 – 02/28/2002      FY01: \$0      Total: \$522,000  
*Prin. Invest.: D I GOLDSTEIN*  
*Tech. Officer: GSFC/D NAVA*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 4999**      **UNIV OF MASSACHUSETTS – AMHERST**      **5781**  
 STRUCTURAL AND GEOMORPHIC EVOLUTION OF THE MARTIAN  
 07/24/1997 – 07/14/2001      FY01: \$0      Total: \$121,184  
*Prin. Invest.: G MCGILL*  
*Tech. Officer: GSFC/P ROGERS*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 6161**      **UNIV OF MASSACHUSETTS – AMHERST**      **5782**  
 UMASS PLANET EARTH EDUCATION PROGRMS  
 08/01/1997 – 10/31/2000      FY01: \$0      Total: \$60,000  
*Prin. Invest.: M STERNHEIM*  
*Tech. Officer: GSFC/N KHAZENIE*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 6612**      **UNIV OF MASSACHUSETTS – AMHERST**      **5783**  
 MILLIMETER-WAVE AND RADIO STUDIES OF SOLAR SYSTEM OBJECTS  
 02/12/1998 – 12/31/1999      FY01: -\$74,107      Total: \$74,139  
*Prin. Invest.: F SCHLOERB*  
*Tech. Officer: GSFC/T MORGAN*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 6701**      **UNIV OF MASSACHUSETTS – AMHERST**      **5784**  
 ENVIRONMENTAL EVOLUTION. LIFE'S EFFECTS ON THE ARCHEAN AND  
 PROTEROZOIC EARTH: AN INTEGRATED RESEARCH  
 12/04/1997 – 01/31/2001      FY01: \$0      Total: \$256,225  
*Prin. Invest.: L MARGULIS*  
*Tech. Officer: GSFC/M MEYER*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 5 8184**      **UNIV OF MASSACHUSETTS – AMHERST**      **5785**  
 MARTIAN POLYGONAL TERRAIN: TESTS FOR SEDIMENTARY ORIGIN OF  
 DEPOSITS  
 02/16/1999 – 03/14/2002      FY01: \$17,000      Total: \$51,300  
*Prin. Invest.: G E MCGILL*  
*Tech. Officer: HQ/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8197**      **UNIV OF MASSACHUSETTS – AMHERST**      **5786**  
 SCALABLE PARALLEL STATISTICAL INFERENCE AND MODEL COMPARISON  
 USING LARGE DATABASES  
 02/04/1999 – 01/31/2002      FY01: \$230,000      Total: \$685,067  
*Prin. Invest.: M WEINERBERG*  
*Tech. Officer: GSFC/J BREDEKAMP*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8718 UNIV OF MASSACHUSETTS - AMHERST 5787**  
 BOUNDARY CONDITIONS FOR THE PALEOENVIRONMENT: THE CHEMISTRY  
 OF DENSE INTERSTELLAR CLOUDS & COMETS  
 07/29/1999 - 10/14/2001 FY01: \$80,000 Total: \$159,277  
*Prin. Invest.: W M IRVINE*  
*Tech. Officer: GSFC/M MEYER*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 8909 UNIV OF MASSACHUSETTS - AMHERST 5788**  
 STRUCTURAL AND GEOMORPHIC EVOLUTION OF THE MARTIAN CRUST  
 01/04/2000 - 07/14/2002 FY01: \$40,400 Total: \$82,081  
*Prin. Invest.: G E MCGILL, NONE*  
*Tech. Officer: GSFC/J GRANT*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 8999 UNIV OF MASSACHUSETTS - AMHERST 5789**  
 THE HOT INTERSTELLAR MEDIUM\_(LTSA)  
 02/03/2000 - 01/31/2002 FY01: \$104,000 Total: \$205,886  
*Prin. Invest.: Q WANG*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9429 UNIV OF MASSACHUSETTS - AMHERST 5790**  
 X-RAY SOURCE POPULATION IN NEARBY DISK GALAXIES- ADP-99  
 04/11/2000 - 04/14/2002 FY01: \$52,922 Total: \$99,684  
*Prin. Invest.: Q WANG*  
*Tech. Officer: GSFC/R OLIVERSEN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9630 UNIV OF MASSACHUSETTS - AMHERST 5791**  
 DUAL POL DUAL FREQUENCY ANTENNA ELEMENTS FOR INTEG RATED  
 SENSOR MODULES  
 05/25/2000 - 04/30/2001 FY01: \$0 Total: \$59,772  
*Prin. Invest.: K CARVER*  
*Tech. Officer: GSFC/T A DOIRON*  
*CASE Category: 45 - ELECTRICAL ENGR*

**NAG 5 9652 UNIV OF MASSACHUSETTS - AMHERST 5792**  
 CONTINUED GROUND-BASED MICROWAVE MEASUREMENTS OF OZONE  
 FOR THE NETWORK FOR DETECTION OF STRATOSPHER  
 05/26/2000 - 12/31/2001 FY01: \$204,536 Total: \$371,013  
*Prin. Invest.: A PARRISH*  
*Tech. Officer: GSFC/M KURYLO*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 10515 UNIV OF MASSACHUSETTS - AMHERST 5793**  
 SHOCK & THERMAL HISTORY OF IRON, STONY IRON & CHON DRITIC  
 METEORITES  
 03/05/2001 - 03/14/2002 FY01: \$80,000 Total: \$80,000  
*Prin. Invest.: J GOLDSTEIN*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 12 - CHEMISTRY*

**NAG 5 10649 UNIV OF MASSACHUSETTS - AMHERST 5794**  
 ASSESSING LANDFORMS AND LAND SURFACE CHANGE IN ACT IVE MOUN-  
 TAINS WITH SRTM AND ENVISAT OBSERVATION  
 04/04/2001 - 04/14/2002 FY01: \$117,715 Total: \$117,715  
*Prin. Invest.: C C DUNCAN*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NAG 5 10677 UNIV OF MASSACHUSETTS - AMHERST 5795**  
 MILLIMETER-WAVE AND RADIO STUDIES OF SOLAR SYSTEM BODIES  
 04/24/2001 - 04/30/2002 FY01: \$77,200 Total: \$77,200  
*Prin. Invest.: P SCHLOERB, NONE*  
*Tech. Officer: GSFC/T MORGAN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10681 UNIV OF MASSACHUSETTS - AMHERST 5796**  
 ENVIRONMENTAL EVOLUTION: ORIGIN OF THE CHIMERIC EUKARYOTE  
 03/28/2001 - 03/31/2002 FY01: \$100,000 Total: \$100,000  
*Prin. Invest.: L MARGULIS*  
*Tech. Officer: GSFC/M MEYER*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10699 UNIV OF MASSACHUSETTS - AMHERST 5797**  
 PRINTED CIRCUIT DUAL-POL DUAL-FREQUENCY ANTENNA ELEMENTS  
 FOR ATIP INTEGRATEDSENSOR MODULES  
 04/18/2001 - 09/30/2002 FY01: \$82,500 Total: \$82,500  
*Prin. Invest.: K CARVER*  
*Tech. Officer: GSFC/T DOIRON*  
*CASE Category: 45 - ELECTRICAL ENGR*

**NAG 5 10783 UNIV OF MASSACHUSETTS - AMHERST 5798**  
 0.2-1 KEV EMISSION FROM THE HOT INTERGALACTIC MEDIUM (ADP 2000)  
 04/23/2001 - 04/30/2002 FY01: \$46,230 Total: \$46,230  
*Prin. Invest.: Q WANG*  
*Tech. Officer: GSFC/R OLIVERSEN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 8 1694 UNIV OF MASSACHUSETTS - AMHERST 5799**  
 CAPILLARY WAVES AT INTERFACES: THE ROLE OF GRAVITY AND ELEC-  
 TRIC FIELDS  
 06/01/2000 - 11/30/2003 FY01: \$95,000 Total: \$155,000  
*Prin. Invest.: T P RUSSELL*  
*Tech. Officer: MSFC/P DOTY*  
*CASE Category: 49 - ENGINEERING, OTHER*

**NAG 8 1697 UNIV OF MASSACHUSETTS - AMHERST 5800**  
 "THIN FILM MOLECULAR SIEVE SYNTHESIS: PROCESSING MICROSTRU-  
 CTURE RELATIONSHIPS & EFFECTS OF GRAVITY"  
 06/06/2000 - 11/30/2003 FY01: \$95,000 Total: \$135,000  
*Prin. Invest.: M TSAPATIS*  
*Tech. Officer: MSFC/P DOTY*  
*CASE Category: 49 - ENGINEERING, OTHER*

**NAG 9 1379 UNIV OF MASSACHUSETTS - AMHERST 5801**  
 LEARNING TO EXPLOIT DYNAMICS FOR ROBOT MANIPULATORS  
 08/28/2001 - 07/31/2002 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: A G BARTO*  
*Tech. Officer: JSC/T MARTIN*  
*CASE Category: 46 - MECHANICAL ENGR*

**NAS 1 01058 UNIV OF MASSACHUSETTS - AMHERST 5802**  
 RESEARCH ENTITLED, "NEAR-QUANTUM-NOISE LIMITED HOT ELECTRON  
 BOLOMETRIC HETERODYNE DETECTORS  
 06/20/2001 - 06/19/2004 FY01: \$298,000 Total: \$298,000  
*Prin. Invest.: S K YNGVESSON*  
*Tech. Officer: LARC/M N ABEDIN*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAS 3 00121 UNIV OF MASSACHUSETTS - AMHERST** 5803  
 ALLIANCE ICING RESEARCH STUDY  
 04/30/2000 - 11/15/2000 FY01: \$0  
*Prin. Invest.:* S SEKELSEY  
*Tech. Officer:* GRC/A REEHORST  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 5 6605 UNIV OF MASSACHUSETTS-DARTMOUTH** 5811  
 INTERANNUAL PHYSICAL AND BIOLOGICAL VARIABILITY OF F THE NORTH-EAST U.S. COAST  
 12/11/1997 - 11/14/2000 FY01: -\$27,635  
*Prin. Invest.:* J J BISAGNI  
*Tech. Officer:* GSFC/J MARRA  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAS 5 99133 UNIV OF MASSACHUSETTS - AMHERST** 5804  
 TWO DIMENSIONAL SYNTHETIC APERTURE RADIOMETER.  
 08/03/1999 - 02/24/2002 FY01: \$70,512  
*Prin. Invest.:* K CARVER  
*Tech. Officer:* GSFC/D LEVINE  
*CASE Category:* 45 - ELECTRICAL ENGR

**NAG 5 9752 UNIV OF MASSACHUSETTS-DARTMOUTH** 5812  
 REGIONAL FISHERIES APPLICATION CENTER  
 06/22/2000 - 09/30/2002 FY01: \$0  
*Prin. Invest.:* B J ROTHSCHILD  
*Tech. Officer:* GSFC/D R KAHLE  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NCC 2 1180 UNIV OF MASSACHUSETTS - AMHERST** 5805  
 MULTI-AGENT INFORMATION ENVIRONMENT FOR INTEGRATE D DESIGN AND ANALYSIS.....  
 05/16/2000 - 05/14/2002 FY01: \$0  
*Prin. Invest.:* A DASCHMULCH  
*Tech. Officer:* ARC/M E LIVINGSTON  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 5 10125 UNIV OF MASSACHUSETTS-DARTMOUTH** 5813  
 A PILOT INVESTIGATION OF LOW FREQUENCY CHLOROPHYLL & PIGMENT VARIABILITY OFF THE NORTHEAST  
 12/12/2000 - 12/14/2001 FY01: \$80,043  
*Prin. Invest.:* J J BISAGNI  
*Tech. Officer:* GSFC/J MARRA  
*CASE Category:* 99 - MULTI INTERDISCPL, OTHER

**NCC 2 1265 UNIV OF MASSACHUSETTS - AMHERST** 5806  
 MULTI-AGENT REASONING & DISTRIBUTED SEARCH IN DESI GN OF COMPLEX AEROSPACE SYSTEMS  
 05/03/2001 - 04/30/2002 FY01: \$105,000  
*Prin. Invest.:* A DESHMUKH  
*Tech. Officer:* ARC/M LIVINGSTON, ARC/F J TORRES  
*CASE Category:* 22 - COMPUTER SCIENCE

**NAG 5 4046 WELLESLEY COLLEGE** 5814  
 STRUCTURE AND DYNAMICS OF PLANETARY RINGS  
 03/10/1997 - 09/30/2001 FY01: \$0  
*Prin. Invest.:* R G FRENCH  
*Tech. Officer:* GSFC/J G GRANT  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NGT 2 52276 UNIV OF MASSACHUSETTS - AMHERST** 5807  
 A DECISION-THEORY APPROACH TO AUTONOMOUS PLANETARY CONTROL (STUDENT: DANIELSCOTT BERNSTEIN)  
 06/12/2001 - 06/30/2002 FY01: \$22,000  
*Prin. Invest.:* S ZILBERSTEIN  
*Tech. Officer:* ARC/J BRESINA  
*CASE Category:* 22 - COMPUTER SCIENCE

**NAG 5 6222 WELLESLEY COLLEGE** 5815  
 HIGH-RESOLUTION LABORATORY MEASUREMENTS OF UV ABSO AND LINE WIDTHS FOR SO2 AND N2  
 08/25/1997 - 06/30/2000 FY01: \$0  
*Prin. Invest.:* D STARK  
*Tech. Officer:* GSFC/S HOWARD  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NGT 5 30375 UNIV OF MASSACHUSETTS - AMHERST** 5808  
 REALIZING NETWORK SENSOR WEBS THROUGH THE DEVELOPM ENT OF THE REMOTEINSTRUMENT DEFINITION LANGU  
 08/13/2001 - 08/31/2002 FY01: \$22,000  
*Prin. Invest.:* D MC LAUGHLIN  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 99 - MULTI INTERDISCPL, OTHER

**NAG 5 9059 WELLESLEY COLLEGE** 5816  
 LABORATORY MEASUREMENTS OF SO2 AND N2 ABSORPTION SPECTRA FOR PLANETARY ATMOSPHERES  
 02/15/2000 - 02/28/2002 FY01: \$54,800  
*Prin. Invest.:* D STARK  
*Tech. Officer:* GSFC/D BOGAN  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NGT 5 30412 UNIV OF MASSACHUSETTS - AMHERST** 5809  
 AIRBORNE CLOUD RADAR STUDIES: CLOUDSAT CALIBRATION AND CLOUD/PRECIPITA- TION RETRIEVAL ALGORITH DEV  
 08/14/2001 - 08/31/2004 FY01: \$22,000  
*Prin. Invest.:* S SEKELSKY  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 99 - MULTI INTERDISCPL, OTHER

**NAG 5 10197 WELLESLEY COLLEGE** 5817  
 DYNAMICS AND STRUCTURE OF PLANETARY RINGS  
 12/21/2000 - 12/31/2001 FY01: \$46,500  
*Prin. Invest.:* R G FRENCH  
*Tech. Officer:* GSFC/D SENSKY  
*CASE Category:* 11 - ASTRONOMY

**NGT 9 32 UNIV OF MASSACHUSETTS - AMHERST** 5810  
 TRAINING GRANT  
 06/04/1998 - 08/31/2001 FY01: \$0  
*Prin. Invest.:* R E VAN EMMERIK  
*Tech. Officer:* JSC/D G SICKOREZ  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 6455 WOODS HOLE OCEANOGRAPHIC INST** 5818  
 MODELING MESOSCALE BIOGEOCHEMICAL PROCESSES IN A T OPEX/POSEIDON DIAMOND SURROUNDING THE U.S. JGOFS  
 11/04/1997 - 09/30/2001 FY01: \$0  
*Prin. Invest.:* D J MCGILLICUDDY  
*Tech. Officer:* GSFC/J MARRA  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6456 WOODS HOLE OCEANOGRAPHIC INST 5819**  
 STUDYING THE ANNUAL AND INTER-ANNUAL VARIABILITY IN OCEAN COLOR USING SATELLITE DATA AND GLOBAL M  
 11/03/1997 - 09/30/2000 FY01: -\$368 Total: \$301,543  
*Prin. Invest.: D M GLOVER*  
*Tech. Officer: GSFC/J A YODER*  
*CASE Category: 33 – OCEANOGRAPHY*

**NAG 5 7348 WOODS HOLE OCEANOGRAPHIC INST 5820**  
 STUDIES OF HEAT, SALT, AND RADIATIVE FLUXES IN THE ARCTIC USING SATELLITE AND BUOY OBSERVAT  
 04/28/1998 - 04/30/2001 FY01: \$0 Total: \$185,000  
*Prin. Invest.: J YANG*  
*Tech. Officer: GSFC/J COMISO*  
*CASE Category: 33 – OCEANOGRAPHY*

**NAG 5 7445 WOODS HOLE OCEANOGRAPHIC INST 5821**  
 OPTICAL CLASSIFICATION OF WATER TYPES FROM SEAWIFS DATA: A HYBRIDAPPROACH USING BOTH SEMI-AN  
 06/04/1998 - 08/31/2002 FY01: \$0 Total: \$278,087  
*Prin. Invest.: H M SOSIK*  
*Tech. Officer: GSFC/J W CAMPBELL*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 7538 WOODS HOLE OCEANOGRAPHIC INST 5822**  
 BIOLOGICAL INTERPRETATION OF OCEAN COLOR: OBSERVAT IONS AND MODELS FOR WATERS OF THE MID-ATLANTIC  
 06/16/1998 - 02/28/2001 FY01: \$0 Total: \$180,000  
*Prin. Invest.: H M SOSIK*  
*Tech. Officer: GSFC/A C JANETOS*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 7770 WOODS HOLE OCEANOGRAPHIC INST 5823**  
 STUDIES OF ANTARCTIC SEA ICE AND SOUTHERN OCEAN TE MPERATURE MINIMUMLAYER USING SATELLITE AND I  
 10/22/1998 - 12/31/2001 FY01: \$64,522 Total: \$184,956  
*Prin. Invest.: R A KRISHFIELD*  
*Tech. Officer: GSFC/E LINDSTROM*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8868 WOODS HOLE OCEANOGRAPHIC INST 5824**  
 BIOLOGICAL INTERPRETATION OF OCEAN COLOR: OBSERVA TIONS & MODELS FOR WATERS OF THE MID-ATLANTIC SHEL  
 01/10/2000 - 02/28/2002 FY01: \$100,000 Total: \$200,000  
*Prin. Invest.: H SOSIK*  
*Tech. Officer: GSFC/J MARRA*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9422 WOODS HOLE OCEANOGRAPHIC INST 5825**  
 ISOTOPIC BIOGEOCHEMISTRY  
 04/11/2000 - 04/29/2002 FY01: \$185,000 Total: \$359,270  
*Prin. Invest.: D M HAYES*  
*Tech. Officer: GSFC/M MEYER*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 5 9858 WOODS HOLE OCEANOGRAPHIC INST 5826**  
 STUDYING THE ANNUAL & INTER-ANNUAL VARIABILITY IN OCEAN COLOR USING SATELLITEDATA & GLOBAL MARINE  
 08/07/2000 - 03/31/2002 FY01: \$95,616 Total: \$114,739  
*Prin. Invest.: D M GLOVER*  
*Tech. Officer: GSFC/J MARRA*  
*CASE Category: 33 – OCEANOGRAPHY*

**NAG 5 11265 WOODS HOLE OCEANOGRAPHIC INST 5827**  
 REGIONAL CARBON CYCLE MODELING AT THE BERMUDA ATLA NTIC TIME-SERIES STUDY(BATS) SITE USING AN EDDY-R  
 08/31/2001 - 08/31/2004 FY01: \$133,555 Total: \$133,555  
*Prin. Invest.: D MCGILLICUDDY*  
*Tech. Officer: GSFC/J MARRA*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAS 5 00198 WOODS HOLE OCEANOGRAPHIC INST 5828**  
 R & D TO SUPPORT SIMBIOS PROJECT  
 11/06/2000 - 10/30/2001 FY01: \$89,202 Total: \$89,202  
*Prin. Invest.: J R MORRISON*  
*Tech. Officer: GSFC/C R MCCLAIN*  
*CASE Category: 33 – OCEANOGRAPHY*

**NCC 5 441 WOODS HOLE OCEANOGRAPHIC INST 5829**  
 SEASONAL-TO-INTERANNUAL VARIATIONS IN THE INDIAN OCEAN USING THE NSIPP OCEAN MODEL SIMULATIONS  
 12/02/1999 - 11/30/2001 FY01: \$30,000 Total: \$90,000  
*Prin. Invest.: L YU*  
*Tech. Officer: GSFC/M RIENECKER*  
*CASE Category: 33 – OCEANOGRAPHY*

**NGT 5 30206 WOODS HOLE OCEANOGRAPHIC INST 5830**  
 INTERPRETATION OF VARIABILITY IN WATER COLUMN OPTI CAL PROPERTIES THROUGH SINGLE-PARTICLE ANALYSIS  
 08/19/1999 - 08/31/2002 FY01: \$22,000 Total: \$66,000  
*Prin. Invest.: H SOSIK*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 30362 WOODS HOLE OCEANOGRAPHIC INST 5831**  
 IRON CYCLING IN THE CALIFORNIA CURRENT SYSTEM: GEO CHEMICAL & ECOLOGICAL MODELING/STUDENT: PAYAL PAR  
 08/24/2000 - 08/31/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.: D M GLOVER, NONE*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 3 2395 WORCESTER POLYTECHNIC INST 5832**  
 STABILITY AND HEAT TRANSFER CHARACTERISTICS OF CON DENsing FILMS IN REDUCED GRAVITY  
 04/14/2000 - 11/30/2003 FY01: \$79,445 Total: \$122,531  
*Prin. Invest.: D C HERMANSON*  
*Tech. Officer: GRC/F CHIARAMONTE*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 3 2405 WORCESTER POLYTECHNIC INST 5833**  
 EXPERIMENTAL INVESTIGATION AND MODELING OF PULSED PLASMA THRUSTER PLUMES  
 05/03/2000 - 04/30/2002 FY01: \$55,598 Total: \$105,538  
*Prin. Invest.: D GATSONIS*  
*Tech. Officer: GRC/E J PENCIL*  
*CASE Category: 13 – PHYSICS*

**NAG 3 2535 WORCESTER POLYTECHNIC INST 5834**  
 SPLASHING DROPLETS  
 01/25/2001 - 11/30/2003 FY01: \$25,000 Total: \$25,000  
*Prin. Invest.: D TRYGGVASON*  
*Tech. Officer: GRC/F P CHIARAMONTE*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 3 2545** WORCESTER POLYTECHNIC INST 5835  
 COMPUTATIONAL MODELING OF THE EFFECT OF SECONDARY FORCES ON  
 THE PHASE DISTRIBUTIONIN DISPERSED MULT  
 02/22/2001 - 02/06/2004 FY01: \$95,000 Total: \$95,000  
*Prin. Invest.: D TRYGGVASON*  
*Tech. Officer: GRC/D F CHAO*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 3 2583** WORCESTER POLYTECHNIC INST 5836  
 COMPUTATIONS OF BOILING IN MICROGRAVITY  
 04/04/2001 - 04/30/2002 FY01: \$72,500 Total: \$72,500  
*Prin. Invest.: D TRYGGVASON*  
*Tech. Officer: GRC/D F CHAO*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 5 8578** WORCESTER POLYTECHNIC INST 5837  
 FUNDING FOR UNSOLICITED PROPOSAL FOR "STUDENT PROJECS AT  
 THE GODDARD SPACE FLIGHT CENTER"  
 05/26/1999 - 06/30/2000 FY01: \$0 Total: \$15,000  
*Prin. Invest.: F J LOOFT*  
*Tech. Officer: GSFC/M R BROWN*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9754** WORCESTER POLYTECHNIC INST 5838  
 STUDENT PROJECTS AT THE GODDARD SPACE FLIGHT CENTER  
 06/23/2000 - 06/30/2001 FY01: \$0 Total: \$15,000  
*Prin. Invest.: F J LOOFT*  
*Tech. Officer: GSFC/M R BROWN*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10712** WORCESTER POLYTECHNIC INST 5839  
 STUDENT PROJECTS AT THE GODDARD SPACE FLIGHT CTR  
 04/06/2001 - 06/30/2002 FY01: \$20,000 Total: \$20,000  
*Prin. Invest.: F J LOOFT*  
*Tech. Officer: GSFC/S J BRODEUR*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 9 1014** WORCESTER POLYTECHNIC INST 5840  
 GENESIS DISCOVERY MISSION PHASE B  
 05/12/1998 - 06/29/2000 FY01: \$0 Total: \$133,100  
*Prin. Invest.: K M RUTLEDGE*  
*Tech. Officer: JSC/K E CYR*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NCC 3 673** WORCESTER POLYTECHNIC INST 5841  
 COMBUSTION CHARACTERISTICS OF FULLY-MODULATED, TUR BULENT  
 DIFFUSION FLAMES IN REDUCED GRAVITY  
 02/23/1999 - 01/13/2003 FY01: \$112,067 Total: \$303,165  
*Prin. Invest.: D C HERMANSON*  
*Tech. Officer: GRC/D P STOCKER*  
*CASE Category: 49 – ENGINEERING, OTHER*

## MICHIGAN

**NAG 5 10118** ALMA COLLEGE 5842  
 ANALYSIS OF DATA FROM THE ER-2 CLOUD PHYSICS LIDAR SYSTEM  
 12/21/2000 - 12/31/2001 FY01: \$15,000 Total: \$15,000  
*Prin. Invest.: J H GIBSON*  
*Tech. Officer: GSFC/M J MCGILL*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 8799** BAY MILLS COMMUNITY COLLEGE 5843  
 YOU BE THE SCIENTIST PROGRAM  
 11/04/1999 - 03/14/2001 FY01: \$0 Total: \$45,000  
*Prin. Invest.: R DICKINSON*  
*Tech. Officer: GSFC/M COMBERIETE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10348** CALVIN COLLEGE 5844  
 SIMULATION OF GLOBAL GLACIO-ISOSTAS, EARTH DEFORMA TION AND  
 SEA LEVEL CHANGES.  
 02/05/2001 - 01/31/2002 FY01: \$41,623 Total: \$41,623  
*Prin. Invest.: J A CLARK*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 6409** GRAND VALLEY STATE UNIV 5845  
 PROVIDES FUNDING FOR TECH SUPPORT FOR "GPS MONITOR ING OF  
 STRAINACCUMULATION IN THE NEW MAD  
 10/24/1997 - 10/31/1999 FY01: -\$455 Total: \$2,544  
*Prin. Invest.: J WEBER*  
*Prin. Invest.: NONE*  
*Tech. Officer: GSFC/B BILLS*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 1 01060** HOPE COLLEGE 5846  
 THEORETICAL INVESTIGATION OF THERMO-MECHANICAL BEHAVIOR OF  
 CARBON NANOTUBE-BASED COMPOSITES USING  
 04/05/2001 - 04/04/2004 FY01: \$52,936 Total: \$52,936  
*Prin. Invest.: J PAWLOSKIE*  
*Tech. Officer: LARC/T S GATES*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NAG 3 2520** KETTERING UNIV 5847  
 MODELING FOR UNDERSTANDING HIGH SPECIFIC IMPULSE H ALL  
 THRUSTERS  
 01/08/2001 - 11/30/2003 FY01: \$59,531 Total: \$59,531  
*Prin. Invest.: S ROY*  
*Tech. Officer: GRC/M MANTENIEKS*  
*CASE Category: 13 – PHYSICS*

**NAG 3 2638** KETTERING UNIV 5848  
 ELECTRODE MODEL FOR MACH@MPD THRUSTER SIMULATIONS ELEC-  
 TRODE MODEL FOR MACH@MPD THRUSTER SIMULATIONS  
 06/21/2001 - 02/28/2002 FY01: \$19,994 Total: \$19,994  
*Prin. Invest.: S ROY*  
*Tech. Officer: GRC/D REDDY*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 1 2213** MICHIGAN STATE UNIV 5849  
 PENALTY-BASED FINITE ELEMENT INTERFACE TECHNOLOGY FOR ANAL-  
 YSIS OF HOMOGENEOUS & COMPOSITE STRUCTURES  
 07/12/1999 - 06/30/2001 FY01: -\$1 Total: \$54,655  
*Prin. Invest.: R C AVERILL*  
*Tech. Officer: LARC/J B RANSOM*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 1 01048** MICHIGAN STATE UNIV 5850  
 PARAMETRIC IDENTIFICATION OF NONLINEAR DYNAMICAL SYSTEMS  
 06/06/2001 - 09/30/2001 FY01: \$34,799 Total: \$34,799  
*Prin. Invest.: B F FEENY*  
*Tech. Officer: LARC/W A SILVA*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

<b>NAG 3 2203</b>	<b>MICHIGAN STATE UNIV</b>	<b>5851</b>	<b>NAG 5 8317</b>	<b>MICHIGAN STATE UNIV</b>	<b>5859</b>
CONTROL OF SHOCK-WAVE/BOUNDARY-LAYER INTERACTIONS WITH BLEED			ENHANCING PROFESSIONAL DEVELOPMENT OF LANDSCAPE ECOLOGISTS OF THE NEXT GENERATION		
09/25/1998 - 11/30/2000	FY01: \$0	Total: \$100,992	03/26/1999 - 02/28/2001	FY01: \$0	Total: \$20,000
<i>Prin. Invest.: T I SHIH</i>			<i>Prin. Invest.: J LIU</i>		
<i>Tech. Officer: GRC/B P WILLIS</i>			<i>Tech. Officer: GSFC/A C JANETOS</i>		
CASE Category: 41 – AERONAUTICAL ENGR			CASE Category: 39 – ENVIRONMENTAL SCI, OTHER		
<b>NAG 3 2234</b>	<b>MICHIGAN STATE UNIV</b>	<b>5852</b>	<b>NAG 5 8893</b>	<b>MICHIGAN STATE UNIV</b>	<b>5860</b>
DEVELOPMENT AND IMPLEMENTATION OF A GLOBAL BLEED BOUNDARY CONDITION			ATOMIC FORCE MICROSCOPE LITHOGRAPHY & BEAM INVESTIGATION OF CARBON NANOTUBE INTERFACES		
03/11/1999 - 01/20/2002	FY01: \$66,150	Total: \$189,150	01/07/2000 - 01/14/2001	FY01: \$0	Total: \$5,000
<i>Prin. Invest.: T SHIH</i>			<i>Prin. Invest.: V AYRES</i>		
<i>Tech. Officer: GRC/D DAVIS</i>			<i>Tech. Officer: GSFC/J M BENAVIDES</i>		
CASE Category: 41 – AERONAUTICAL ENGR			CASE Category: 47 – METAL & MATERIALS ENGR		
<b>NAG 3 2472</b>	<b>MICHIGAN STATE UNIV</b>	<b>5853</b>	<b>NAG 5 9232</b>	<b>MICHIGAN STATE UNIV</b>	<b>5861</b>
RESEARCHING EPOXY AND POLYIMIDE NANOCOMPOSITES USING NATURAL AND SYNTHETIC CLAYS			PATTERN TO PROCESS: RESEARCH AND APPLICATIONS FOR UNDERSTANDING MULTIPLE INTERACTIONS & FEEDBACK ON		
07/07/2000 - 10/06/2001	FY01: \$83,250	Total: \$119,880	04/03/2000 - 04/30/2002	FY01: \$218,611	Total: \$374,150
<i>Prin. Invest.: T J PINNAVIA</i>			<i>Prin. Invest.: R WALKER</i>		
<i>Tech. Officer: GRC/S G CAMPBELL</i>			<i>Tech. Officer: GSFC/G GUTMAN</i>		
CASE Category: 12 – CHEMISTRY			CASE Category: 39 – ENVIRONMENTAL SCI, OTHER		
<b>NAG 3 2576</b>	<b>MICHIGAN STATE UNIV</b>	<b>5854</b>	<b>NAG 5 9276</b>	<b>MICHIGAN STATE UNIV</b>	<b>5862</b>
AERODYNAMICS OF AIRFOILS WITH ICE ACCRETION: CFD SIMULATIONS AND TECHNOLOGY ISSUES			SYNTHESIS OF HYBRID CARBON NANOTUBE/DIAMOND FILMS		
03/26/2001 - 11/30/2003	FY01: \$70,000	Total: \$70,000	03/16/2000 - 05/14/2001	FY01: \$0	Total: \$20,000
<i>Prin. Invest.: T SHIH</i>			<i>Prin. Invest.: D TOMANEK</i>		
<i>Tech. Officer: GRC/Y CHOO</i>			<i>Tech. Officer: GSFC/H SHAW</i>		
CASE Category: 41 – AERONAUTICAL ENGR			CASE Category: 13 – PHYSICS		
<b>NAG 5 3218</b>	<b>MICHIGAN STATE UNIV</b>	<b>5855</b>	<b>NAG 5 9286</b>	<b>MICHIGAN STATE UNIV</b>	<b>5863</b>
CCD SYSTEM TECHNOLOGY FOR EXTREMELY LOW BACKGROUND OBSERVATIONS			GOFC DATA & INFORMATION FOR TROPICAL FOREST ASSESSMENT & MANAGEMENT		
04/26/1996 - 09/30/2001	FY01: \$0	Total: \$497,500	03/16/2000 - 04/30/2002	FY01: \$124,226	Total: \$205,044
<i>Prin. Invest.: E D LOH</i>			<i>Prin. Invest.: J QI</i>		
<i>Tech. Officer: GSFC/E CHENG</i>			<i>Tech. Officer: HQ/G GUTMAN</i>		
CASE Category: 13 – PHYSICS			CASE Category: 39 – ENVIRONMENTAL SCI, OTHER		
<b>NAG 5 4810</b>	<b>MICHIGAN STATE UNIV</b>	<b>5856</b>	<b>NAG 5 9563</b>	<b>MICHIGAN STATE UNIV</b>	<b>5864</b>
ACQUISITION AND ANALYSIS OF LARGE QUANTITIES OF LAND MEASURING TROPICAL LAND COVER CHANGE (NRA-MTPE-03)			SOLAR SURFACE CONVECTION		
07/30/1997 - 06/30/2001	FY01: \$48,523	Total: \$631,178	05/09/2000 - 05/14/2002	FY01: \$122,601	Total: \$170,954
<i>Prin. Invest.: D SKOLE</i>	<i>Prin. Invest.: NONE</i>		<i>Prin. Invest.: R F STEIN</i>		
<i>Tech. Officer: GSFC/D WILLIAMS</i>			<i>Tech. Officer: GSFC/W J WAGNER</i>		
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER			CASE Category: 11 – ASTRONOMY		
<b>NAG 5 6538</b>	<b>MICHIGAN STATE UNIV</b>	<b>5857</b>	<b>NAG 5 10200</b>	<b>MICHIGAN STATE UNIV</b>	<b>5865</b>
CASE STUDIES AND DIAGNOSTIC MODELS OF THE INTER-ANNUAL DYNAMICS OF DEFORESTATION IN SOUTHEAST ASIA			ENHANCING PROFESSIONAL DEVELOPMENT OF LANDSCAPE ECOLOGISTS OF THE NEXT GENERATION		
04/21/1998 - 09/30/2001	FY01: \$0	Total: \$460,000	12/21/2000 - 12/31/2001	FY01: \$15,000	Total: \$15,000
<i>Prin. Invest.: D SKOLE</i>			<i>Prin. Invest.: J LIU</i>		
<i>Tech. Officer: GSFC/A JANETOS</i>			<i>Tech. Officer: GSFC/G GUTMAN</i>		
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER			CASE Category: 99 – MULTI INTERDISCPL, OTHER		
<b>NAG 5 8053</b>	<b>MICHIGAN STATE UNIV</b>	<b>5858</b>	<b>NAG 8 1575</b>	<b>MICHIGAN STATE UNIV</b>	<b>5866</b>
SOLAR CONVECTION AND OSCILLATIONS			MICROGRAVITY REGULATION OF ONCOGENE EXPRESSION AND OSTEOBLAST DIFFERENTIATION.		
01/12/1999 - 01/14/2002	FY01: \$96,000	Total: \$252,000	02/17/1999 - 11/30/2002	FY01: \$125,400	Total: \$359,400
<i>Prin. Invest.: R F STEIN</i>			<i>Prin. Invest.: L R MCCABE</i>		
<i>Tech. Officer: GSFC/J GURMAN</i>			<i>Tech. Officer: GSFC/B GUYNES</i>		
CASE Category: 19 – PHYSICAL SCIENCE, OTHER			CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)		

**NAG 8 1690** MICHIGAN STATE UNIV 5867  
 INVESTIGATION OF SOLIDIFICATION PROCESS WITH CONVECTION USING  
 MESHLESS METHODS & VERIFICATION  
 05/16/2000 - 11/30/2003 FY01: \$95,000 Total: \$140,061  
*Prin. Invest.: A BERNARD, M KOOCHESFAHANI, A DIAZ*  
*Tech. Officer: MSFC/P DOTY*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NAG 9 1211** MICHIGAN STATE UNIV 5868  
 WATER DRIVEN ALTERATION OF ROCKS & MINERALS ON MARS ASTEROIDS:CLUES TO THE SEARCH FOR LIFE  
 04/04/2000 - 09/30/2002 FY01: \$0 Total: \$15,496  
*Prin. Invest.: M A VELBEL*  
*Tech. Officer: JSC/D S MCKAY*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 2 1274** MICHIGAN STATE UNIV 5869  
 CENTER FOR GENOMIC AND EVOLUTIONARY STUDIES ON MICROBIAL LIFE AT LOW TEMPERATURE  
 07/20/2001 - 06/30/2006 FY01: \$376,075 Total: \$376,075  
*Prin. Invest.: M THOMASOW, J TIEDJE, L SEPULVEDA*  
*Tech. Officer: ARC/R GRYMES, ARC/W W DOLCI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 3 662** MICHIGAN STATE UNIV 5870  
 INVESTIGATION OF DIFFUSION FLAME TIP INSTABILITY IN MICROGRAVITY  
 01/14/1999 - 01/03/2003 FY01: \$117,421 Total: \$273,339  
*Prin. Invest.: I S WICHMAN*  
*Tech. Officer: GRC/S OLSON*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 3 868** MICHIGAN STATE UNIV 5871  
 HIGH-TEMPERATURE SHAPE-MEMORY ALLOY DEVELOPMENT FOR ACTUATION ABOVE 500 C  
 02/28/2001 - 03/31/2004 FY01: \$64,500 Total: \$64,500  
*Prin. Invest.: D S GRUMMON*  
*Tech. Officer: GRC/M V NATHAL*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NCC 5 291** MICHIGAN STATE UNIV 5872  
 MEASUREMENT AND MODELING OF THE INTER-ANNUAL DYNAMICS OF DEFORESTATION AND REGROWTH IN THE BRAZIL  
 06/16/1998 - 12/31/2001 FY01: \$246,816 Total: \$961,952  
*Prin. Invest.: D SKOLE*  
*Prin. Invest.: NONE*  
*Tech. Officer: GSFC/D DEERING*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NCC 5 303** MICHIGAN STATE UNIV 5873  
 CREATIVE & INNOVATIVE WORKING PROTOTYPE EARTH SCIENCE INFORMATION PARTNERSHIPS IN SUPPORT  
 04/09/1998 - 06/30/2002 FY01: \$697,000 Total: \$4,352,000  
*Prin. Invest.: D SKOLE*  
*Tech. Officer: GSFC/M MAIDEN*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 1 52216** MICHIGAN STATE UNIV 5874  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 06/01/1999 - 06/30/2001 FY01: \$12,000 Total: \$44,000  
*Prin. Invest.: L M HUDY, A NAGUIB*  
*Tech. Officer: LARC/W M HUMPHREYS, JR.*  
*CASE Category: 41 – AERONAUTICAL ENGNR*

**NGT 5 30166** MICHIGAN STATE UNIV 5875  
 MAPPING THE SPATIAL DISTRIBUTION OF BAMBOO IN A GIANT PANDA RESERVE:A STUDY OF THE RELATIONSHIP  
 09/01/1998 - 08/31/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.: J LIU*  
*Tech. Officer: GSFC/M Y WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 30340** MICHIGAN STATE UNIV 5876  
 MODELING THE SOCIO-ECONOMIC DRIVERS OF LAND USE & COVER CHANGE IN SOUTH AFRICA: INTEGRATING SOCIALS  
 08/21/2000 - 08/31/2001 FY01: \$0 Total: \$22,000  
*Prin. Invest.: D J CAMPBELL*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 50150** MICHIGAN STATE UNIV 5877  
 AN INTEGRATED ASSESSMENT OF THE CUMULATIVE IMPACTS ARCTIC DEVELOPMENT  
 09/11/1997 - 08/31/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.: P WEBBER*  
*Tech. Officer: HQ/A NURRIDIN*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50378** MICHIGAN STATE UNIV 5878  
 ON-LINE LEARNING OF SENSOR-IMAGE STABILIZATION INSPIRED BY THEVESTIBULAR SYSTEM OF SQUIRREL  
 09/17/2001 - 09/14/2004 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: P PIERRE*  
*Prin. Invest.: NONE*  
*Tech. Officer: GSFC/K BLANDING*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT13 52715** MICHIGAN STATE UNIV 5879  
 NASA GRADUATE STUDENT RESEARCHER PROGRAM FOR STACEY A.C. NELSON  
 10/01/1997 - 08/15/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.: P SORRANO*  
*Tech. Officer: SSC/A JOYCE*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 1 01004** MICHIGAN TECHNOLOGICAL UNIV 5880  
 GRAPHITE NANOREINFORCEMENTS FOR AEROSPACE NANO-COMPOSITES  
 11/24/2000 - 09/30/2003 FY01: \$74,932 Total: \$74,932  
*Prin. Invest.: L DRZAL*  
*Tech. Officer: LARC/J HINKLEY, LARC/T S GATES*  
*CASE Category: 12 – CHEMISTRY*

**NAG 3 2088** MICHIGAN TECHNOLOGICAL UNIV 5881  
 NUMERICAL STUDIES OF THE LDI AND THE LPP/LDI GAS TURBINE COMBUSTOR CONCEPTS  
 12/23/1997 - 01/28/2002 FY01: \$80,000 Total: \$323,636  
*Prin. Invest.: S L YANG*  
*Tech. Officer: GRC/R R TACINA*  
*CASE Category: 41 – AERONAUTICAL ENGNR*

**NGT 5 3689** MICHIGAN TECHNOLOGICAL UNIV 5882  
 COOL STARS ATMOSPHERIC MODELS. COMPUTATIONS OF HIGH  
 01/14/1997 - 08/31/2000 FY01: \$0 Total: \$141,278  
*Prin. Invest.: A BORYSOW*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 4756** MICHIGAN TECHNOLOGICAL UNIV 5883  
 CONTINUING THE SEARCH FOR GRAVITATIONAL LENSING IN  
 06/17/1997 - 08/31/2000 FY01: \$0 Total: \$46,000  
*Prin. Invest.: R J NEMIROFF*  
*Tech. Officer: GSFC/J P NORRIS*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 5278** MICHIGAN TECHNOLOGICAL UNIV 5884  
 OBSERVING AND MEASURING EARLY OPTICAL LIGHT CURVES FROM  
 GAMMA-RAY BURSTS WITH LOTIS  
 06/21/2000 - 06/06/2002 FY01: \$0 Total: \$20,000  
*Prin. Invest.: R NEMIROFF*  
*Tech. Officer: WFF/B A MERRITT*  
*CASE Category: 13 - PHYSICS*

**NAG 5 6310** MICHIGAN TECHNOLOGICAL UNIV 5885  
 LINEAR ADAPTIVE MIRROR TESTBED TO SUPPORT DIRECT DETECTION OF  
 EXTRA-SOLAR PLANETS  
 10/06/1997 - 06/14/2002 FY01: \$0 Total: \$224,768  
*Prin. Invest.: D FTACLAS*  
*Tech. Officer: GSFC/B CAMPBELL*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NAG 5 7051** MICHIGAN TECHNOLOGICAL UNIV 5886  
 LAKE SUPERIOR ICE FIELD MEASUREMENTS FOR C-BAND SAR BACK-  
 SCATTER SIGNATURES AND ICE COVER ANALYSIS  
 03/12/1998 - 02/28/2002 FY01: \$0 Total: \$144,425  
*Prin. Invest.: D PILANT*  
*Tech. Officer: GSFC/S GOGINENI*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 7272** MICHIGAN TECHNOLOGICAL UNIV 5887  
 VOLCANIC PLUME ANALYSIS USING TOMS AND AVHRR DATA  
 04/30/1998 - 10/31/2001 FY01: \$0 Total: \$132,026  
*Prin. Invest.: W ROSE*  
*Tech. Officer: GSFC/A J KRUEGER*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 7576** MICHIGAN TECHNOLOGICAL UNIV 5888  
 FUNDING FOR 'APPLICATION OF TOMS DATA TO VOLCANIC HAZARD  
 MITIGATION'(SENH98-0061)  
 08/04/1998 - 07/31/2002 FY01: \$30,000 Total: \$180,000  
*Prin. Invest.: G J BLUTH*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NAG 5 8796** MICHIGAN TECHNOLOGICAL UNIV 5889  
 EARTH AND SPACE SCIENCES PROJECT SERVICES FOR NASA HPCC  
 09/21/1999 - 09/30/2002 FY01: \$189,394 Total: \$563,516  
*Prin. Invest.: D MERKEY*  
*Tech. Officer: GSFC/J R FISCHER*  
*CASE Category: 22 - COMPUTER SCIENCE*

**NAG 5 10568** MICHIGAN TECHNOLOGICAL UNIV 5890  
 ICE-SULFUR-ASH INTERACTIONS IN VOLCANIC CLOUDS: LABORATORY  
 STUDIES OF ICE NUCLEATION  
 03/12/2001 - 03/14/2002 FY01: \$82,459 Total: \$82,459  
*Prin. Invest.: R SHAW*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 11062** MICHIGAN TECHNOLOGICAL UNIV 5891  
 VALIDATION OF TOMS VOLCANIC AEROSOL & SO<sub>2</sub> PRODUCTS USING  
 MODIS & AVHRR  
 06/27/2001 - 06/30/2002 FY01: \$95,000 Total: \$95,000  
*Prin. Invest.: G BLUTH*  
*Tech. Officer: GSFC/R MVPETERS*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 8 1478** MICHIGAN TECHNOLOGICAL UNIV 5892  
 R/S GRAVITY INDUCED SETTLING IN INTERCONNECTED LIQUID SOLID  
 SYSTEMS  
 02/18/1998 - 01/31/2002 FY01: \$85,000 Total: \$258,833  
*Prin. Invest.: T H COURTNEY*  
*Tech. Officer: MSFC/C TALLEY*  
*CASE Category: 19 - PHYSICAL SCIENCE, OTHER*

**NGT 5 76** MICHIGAN TECHNOLOGICAL UNIV 5893  
 COLLEEN RILEY "TWO-DIMENSIONAL CHARACTERIZATION OF VOLCANIC  
 ASH-APPLICATIONS TO REMOTE SENSING ALGO  
 07/22/1998 - 08/31/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.: W I ROSE*  
*Tech. Officer: GSFC/M S BURRELL*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NGT 5 120** MICHIGAN TECHNOLOGICAL UNIV 5894  
 THE GROUNDING OF COMPOSITE MATERIALS & THE IMPACT ON EMC/  
 STUDENT: DERIK C. LOVE  
 05/31/2001 - 08/14/2002 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: E ROTHWELL*  
*Tech. Officer: GSFC/M S BURRELL*  
*CASE Category: 45 - ELECTRICAL ENGR*

**NGT 5 30154** MICHIGAN TECHNOLOGICAL UNIV 5895  
 TEMPORAL ANALYSIS OF VOLCANIC AEROSOL AND ASH TRANSPORT  
 08/28/1998 - 08/31/2001 FY01: \$0 Total: \$44,000  
*Prin. Invest.: G BLUTH, BARKER*  
*Tech. Officer: GSFC/M Y WEI*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 1 2042** UNIV OF MICHIGAN - ANN ARBOR 5896  
 TROPOSPHERIC TRACE GAS BUDGETS: INTERACTIONS WITH AEROSOLS  
 04/23/1998 - 04/22/2001 FY01: \$0 Total: \$343,040  
*Prin. Invest.: J E PENNER*  
*Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 1 2142** UNIV OF MICHIGAN - ANN ARBOR 5897  
 DEVELOPMENT AND TEST OF A 1.4 GHZ DIRECT-SAMPLING DIGITAL  
 RADIOMETER FOR STAR AND FULLY POLARIMETRIC  
 02/02/1999 - 09/30/2000 FY01: -\$1 Total: \$140,000  
*Prin. Invest.: A W ENGLAND*  
*Tech. Officer: LARC/J W JOHNSON, LARC/R W LAWRENCE*  
*CASE Category: 45 - ELECTRICAL ENGR*

**NAG 1 2181** UNIV OF MICHIGAN - ANN ARBOR 5898  
 DATA-BASED CLIMATOLOGIES AND STUDY OF THE OZONE BUDGET IN THE  
 TROPOPAUSE  
 03/31/1999 - 12/31/2001 FY01: \$0 Total: \$40,000  
*Prin. Invest.: M A CARROLL*  
*Tech. Officer: LARC/G R MADDREA, LARC/L POOLE*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 3 01032 UNIV OF MICHIGAN - ANN ARBOR 5899**  
 DESIGN STUDY OF A SYNTHETIC THINNED APERTURE RADIO METER FOR HURRICANE IMPACT PREDICTION  
 04/05/2001 - 12/31/2001 FY01: \$65,000 Total: \$65,000  
*Prin. Invest.: C S RUF*  
*Tech. Officer: LARC/J W JOHNSON, LARC/R W LAWRENCE*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NAG 3 1861 UNIV OF MICHIGAN - ANN ARBOR 5900**  
 ON THE BOUNDARY CONDITIONS AT AN OSCILLATING CONTACT LINE: A PHYSICAL/NUMERICAL EXPERIMENTAL PROGR  
 05/21/1996 - 08/31/2000 FY01: \$0 Total: \$392,000  
*Prin. Invest.: M PERLIN*  
*Tech. Officer: GRC/M WEISLOGEL*  
*CASE Category: 13 – PHYSICS*

**NAG 3 1878 UNIV OF MICHIGAN - ANN ARBOR 5901**  
 SOOT FORMATION IN FREELY-PROPAGATING LAMINAR PREMIXED FLAMES  
 05/20/1996 - 06/30/2001 FY01: \$0 Total: \$361,254  
*Prin. Invest.: G M FAETH*  
*Tech. Officer: GRC/H D ROSS*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 3 1900 UNIV OF MICHIGAN - ANN ARBOR 5902**  
 A STUDY OF NUCLEATE BOILING WITH FORCED CONVECTION IN MICROGRAVITY  
 07/22/1996 - 07/21/2001 FY01: \$0 Total: \$199,920  
*Prin. Invest.: P MERTE, NONE*  
*Tech. Officer: GRC/F CHIARAMONTE*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 3 1952 UNIV OF MICHIGAN - ANN ARBOR 5903**  
 NUMERICAL MODELING OF LIQUID-VAPOR PHASE CHANGE  
 09/06/1996 - 08/14/2000 FY01: \$0 Total: \$221,418  
*Prin. Invest.: V S ARPACI*  
*Tech. Officer: GRC/A T CHAI*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 3 2048 UNIV OF MICHIGAN - ANN ARBOR 5904**  
 LAMINAR SOOT PROCESSES EXPERIMENT (LSP)  
 05/06/1997 - 12/31/2000 FY01: \$0 Total: \$596,227  
*Prin. Invest.: G M FAETH*  
*Tech. Officer: GRC/D URBAN*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 3 2082 UNIV OF MICHIGAN - ANN ARBOR 5905**  
 STRATEGY 2000: RECRUITMENT, RETENTION, RECOGNITION; A BALANCED APPROACH TO DIVERSITY AND EXCELLENCE  
 09/30/1997 - 12/21/2002 FY01: \$56,000 Total: \$255,760  
*Prin. Invest.: D E SCOTT, J W JONES*  
*Tech. Officer: GRC/A GONZALEZ, GRC/S A MERRITT*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 3 2134 UNIV OF MICHIGAN - ANN ARBOR 5906**  
 MICROSCOPIC VISUALIZATION OF FLUID FLOWN IN EVAPORATION DROPLETS AND ELECTRO-OSMOTIC FLOWS  
 03/03/1998 - 01/05/2002 FY01: \$78,850 Total: \$385,850  
*Prin. Invest.: R G LARSON*  
*Tech. Officer: GRC/D W GRIFFIN*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 3 2162 UNIV OF MICHIGAN - ANN ARBOR 5907**  
 COMPUTATIONS OF BOILING IN MICROGRAVITY COMPUTATIONS OF BOILING IN MICROGRAVITY  
 04/27/1998 - 02/09/2002 FY01: \$14,000 Total: \$266,000  
*Prin. Invest.: G TRYGGVASON, D JACQMIN*  
*Tech. Officer: GRC/D F CHAO*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 3 2196 UNIV OF MICHIGAN - ANN ARBOR 5908**  
 FLUID MECHANICS OF CAPILLARY-ELASTIC INSTABILITIES IN THE MICROGRAVITY ENVIRONMENT  
 09/03/1998 - 03/31/2002 FY01: \$44,000 Total: \$293,766  
*Prin. Invest.: J B GROTBORG*  
*Tech. Officer: GRC/D F CHAO*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 3 2216 UNIV OF MICHIGAN - ANN ARBOR 5909**  
 USE OF LASER INDUCED FLUORESCENCE TO CHARACTERIZE DISCHARGE CATHODE EROSIONS OF AN ION ENGINES  
 01/14/1999 - 01/24/2002 FY01: \$40,000 Total: \$124,999  
*Prin. Invest.: A D GALLIMORE*  
*Tech. Officer: GRC/J S SOVEY*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 3 2307 UNIV OF MICHIGAN - ANN ARBOR 5910**  
 DEVELOPMENT OF A TWO-STAGE ION THRUSTER DEVELOPMENT OF A TWO-STAGE ION THRUSTER  
 12/03/1999 - 11/23/2002 FY01: \$20,000 Total: \$70,000  
*Prin. Invest.: A D GALLIMORE*  
*Tech. Officer: GRC/R S JANCOVSKY*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 3 2330 UNIV OF MICHIGAN - ANN ARBOR 5911**  
 LONG-TERM RELIABILITY OF HIGH-SPEED SiGe/Si HETERO JUNCTION BIPOLEAR TRANSISTORS  
 02/10/2000 - 02/03/2001 FY01: \$0 Total: \$70,000  
*Prin. Invest.: P BHATTACHARYA*  
*Tech. Officer: GRC/G PONCHAK*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NAG 3 2332 UNIV OF MICHIGAN - ANN ARBOR 5912**  
 COMPUTATIONAL MODELING OF THE EFFECT OF SECONDARY FORCES ON THE PHASE DISTRIBUTION IN DISPERSED MULT  
 02/11/2000 - 11/30/2003 FY01: \$0 Total: \$60,000  
*Prin. Invest.: G TRYGGVASON*  
*Tech. Officer: GRC/D F CHAO*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 3 2346 UNIV OF MICHIGAN - ANN ARBOR 5913**  
 SYSTEMATIC IDENTIFICATION OF BLADE MISTUNING PARAMETERS FOR BLISKS  
 03/07/2000 - 07/01/2001 FY01: \$0 Total: \$39,000  
*Prin. Invest.: C PIERRE*  
*Tech. Officer: GRC/O MEHMED*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 3 2356**      **UNIV OF MICHIGAN - ANN ARBOR**      **5914**  
 AGGREGATION AND GELATION IN SUSPENSIONS OF ANISOMETRIC PARTICLES: STUDIES OF COLLOIDAL PLATELETS AND  
 03/15/2000 – 11/30/2003      FY01: \$76,000      Total: \$126,000  
*Prin. Invest.:* M D SOLOMON, NONE  
*Tech. Officer:* GRC/F P CHIARAMONTE  
*CASE Category:* 49 – ENGINEERING, OTHER

**NAG 3 2404**      **UNIV OF MICHIGAN - ANN ARBOR**      **5915**  
 LAMINAR SOORT PROCESSES (LSP) LAMINAR SOORT PROCESSES (LSP)  
 04/27/2000 – 12/31/2002      FY01: \$76,000      Total: \$218,228  
*Prin. Invest.:* G M FAETH, NONE  
*Tech. Officer:* GRC/D URBAN  
*CASE Category:* 46 – MECHANICAL ENGR

**NAG 3 2406**      **UNIV OF MICHIGAN - ANN ARBOR**      **5916**  
 USING NONLINEARITY AND CONTACT LINES TO CONTROL FLUID FLOW IN MICROGRAVITY  
 04/27/2000 – 11/30/2003      FY01: \$56,963      Total: \$106,882  
*Prin. Invest.:* M PERLIN  
*Tech. Officer:* GRC/C LEK  
*CASE Category:* 49 – ENGINEERING, OTHER

**NAG 3 2497**      **UNIV OF MICHIGAN - ANN ARBOR**      **5917**  
 MODELING THE PERFORMANCE AND LIFETIME OF ION THRUSTERS  
 10/27/2000 – 10/22/2001      FY01: \$50,653      Total: \$50,653  
*Prin. Invest.:* I D BOYD  
*Tech. Officer:* GRC/G SOULAS  
*CASE Category:* 42 – ASTRONAUTICAL ENGR

**NAG 3 2530**      **UNIV OF MICHIGAN - ANN ARBOR**      **5918**  
 LONG TERM RELIABILITY OF HIGH SPEED SiGe/Si HETERO JUNCTION BIPOLEAR TRANSISTORS  
 01/23/2001 – 01/31/2002      FY01: \$69,886      Total: \$69,886  
*Prin. Invest.:* P BHATTACHARYA  
*Tech. Officer:* GRC/G E PONCHAK  
*CASE Category:* 45 – ELECTRICAL ENGR

**NAG 3 2582**      **UNIV OF MICHIGAN - ANN ARBOR**      **5919**  
 APPLICATION OF NANOTUBES TO WEIGHT REDUCTION IN ROBOTIC DRIVE SYSTEMS  
 04/02/2001 – 10/01/2001      FY01: \$60,032      Total: \$60,032  
*Prin. Invest.:* P P FRIEDMAN  
*Tech. Officer:* GRC/W MORALES  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NAG 3 2604**      **UNIV OF MICHIGAN - ANN ARBOR**      **5920**  
 ADVANCED VIBRATION ANALYSIS TOOLS AND NEW STRATEGIES FOR ROBUST DESIGN OF TURBINE ENGINE ROTORS  
 05/23/2001 – 05/31/2005      FY01: \$50,000      Total: \$50,000  
*Prin. Invest.:* C PIERRE  
*Tech. Officer:* GRC/O MEHMED  
*CASE Category:* 46 – MECHANICAL ENGR

**NAG 5 2869**      **UNIV OF MICHIGAN - ANN ARBOR**      **5921**  
 STAR FORMATION STUDIES: DYNAMICS AND INFRARED SIGNATURES  
 01/12/1995 – 07/14/2001      FY01: \$0      Total: \$225,000  
*Prin. Invest.:* F C ADAMS  
*Tech. Officer:* GSFC/D WEST  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 3168**      **UNIV OF MICHIGAN - ANN ARBOR**      **5922**  
 BUDGET OF NITROGEN COMPOUNDS IN THE GLOBAL ATMOSPHERE: OBSERVATIONS-BASED CLIMATOLOGIES . . .  
 02/14/1996 – 08/31/2000      FY01: -\$1,147      Total: \$143,653  
*Prin. Invest.:* M A CARROLL, G BRASSEUR  
*Tech. Officer:* GSFC/R W STEWART  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NAG 5 3247**      **UNIV OF MICHIGAN - ANN ARBOR**      **5923**  
 THE HOT INTERSTELLAR MEDIUM IN SPIRAL, ELLIPTICALS , AND CLUSTERS OF GALAXIES  
 05/30/1996 – 04/30/2001      FY01: \$0      Total: \$516,000  
*Prin. Invest.:* J N BREGMAN  
*Tech. Officer:* GSFC/D WEST  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 4007**      **UNIV OF MICHIGAN - ANN ARBOR**      **5924**  
 DYNAMICAL VARIATIONS IN THE MESOSPHERE AND LOWER T AND INTER-ANNUAL VARIABILITY  
 03/06/1997 – 09/30/2001      FY01: \$0      Total: \$213,729  
*Prin. Invest.:* D D SKINNER  
*Tech. Officer:* GSFC/M M MELLOTT  
*CASE Category:* 13 – PHYSICS

**NAG 5 4264**      **UNIV OF MICHIGAN - ANN ARBOR**      **5925**  
 THEORETICAL STUDIES AND SATELLITE DATA ANALYSIS OF LOWER THERMOSPHERE  
 04/07/1997 – 04/14/2000      FY01: \$0      Total: \$257,488  
*Prin. Invest.:* D L KILLEEN  
*Tech. Officer:* GSFC/M M MELLOTT  
*CASE Category:* 13 – PHYSICS

**NAG 5 4271**      **UNIV OF MICHIGAN - ANN ARBOR**      **5926**  
 STUDIES OF THE THERMOSPHERIC RESPONSE TO GEOMAGNETIC MINIMUM CONDITIONS  
 04/03/1997 – 04/30/2000      FY01: -\$74      Total: \$219,225  
*Prin. Invest.:* D BURNS  
*Tech. Officer:* GSFC/M M MELLOTT  
*CASE Category:* 13 – PHYSICS

**NAG 5 4381**      **UNIV OF MICHIGAN - ANN ARBOR**      **5927**  
 STUDIES OF TENOUS PLANETARY ATMOSPHERES  
 04/29/1997 – 12/31/2001      FY01: \$55,000      Total: \$254,455  
*Prin. Invest.:* D R COMBI  
*Tech. Officer:* GSFC/D BOGAN  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NAG 5 4589**      **UNIV OF MICHIGAN - ANN ARBOR**      **5928**  
 A PROGRAM FOR RESEARCH IN PLANETARY ATMOSPHERES: P COUPLED CLOUD PHYSICS  
 05/23/1997 – 12/31/2001      FY01: \$0      Total: \$249,000  
*Prin. Invest.:* P K ATREYA  
*Tech. Officer:* GSFC/R BEEBE  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NAG 5 4771**      **UNIV OF MICHIGAN - ANN ARBOR**      **5929**  
 STUDIES OF INNER MAGNETOSPHERIC PROCESSES AND THE UNDERLYING ATMOSPHERE AND IONOSPHERE  
 06/09/1997 - 04/30/2001      FY01: \$0      Total: \$356,438  
*Prin. Invest.: D U KOZYRA*  
*Tech. Officer: GSFC/J M SHARBER*  
*CASE Category: 13 - PHYSICS*

**NAG 5 4912**      **UNIV OF MICHIGAN - ANN ARBOR**      **5930**  
 MULTIDIMENSIONAL MHD MODEL STUDIES OF THE IONOSPHERE  
 07/02/1997 - 03/31/2000      FY01: \$0      Total: \$250,000  
*Prin. Invest.: D F NAGY*  
*Tech. Officer: GSFC/J BERGSTRALH*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 4939**      **UNIV OF MICHIGAN - ANN ARBOR**      **5931**  
 DIGITAL TOPOGRAPHY FROM SAR INTERFEROMETRY: DETER CORRECTION OF VEGETATION HEIGHT  
 06/23/1997 - 09/30/2000      FY01: \$0      Total: \$110,777  
*Prin. Invest.: K SARABANDI*  
*Tech. Officer: GSFC/D E WICKLAND*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 5030**      **UNIV OF MICHIGAN - ANN ARBOR**      **5932**  
 SOLAR AND MAGNETOSPHERIC INPUTS TO THE MLTI REGION  
 03/03/1995 - 03/05/2005      FY01: \$86,000      Total: \$502,974  
*Prin. Invest.: J KOZYRA*  
*Tech. Officer: GSFC/R PLESS*  
*CASE Category: 13 - PHYSICS*

**NAG 5 5049**      **UNIV OF MICHIGAN - ANN ARBOR**      **5933**  
 TIDI - A TIMED DOPPLER INTERFEROMETER NEW AWARD  
 12/04/1995 - 01/31/2002      FY01: \$0      Total: \$2,249,997  
*Prin. Invest.: T L KILLEN*  
*Tech. Officer: GSFC/W B JOHNSON*  
*CASE Category: 13 - PHYSICS*

**NAG 5 5173**      **UNIV OF MICHIGAN - ANN ARBOR**      **5934**  
 STUDY OF AN IMAGING CALORIMETER FOR ACCESS FUNDING FOR FIRST YEAR OF GRANT  
 03/05/1998 - 03/31/2002      FY01: \$0      Total: \$255,000  
*Prin. Invest.: G TARLE*  
*Tech. Officer: GSFC/B A MERRITT*  
*CASE Category: 13 - PHYSICS*

**NAG 5 5230**      **UNIV OF MICHIGAN - ANN ARBOR**      **5935**  
 GRANT NAG5-5230 - HIGH ENERGY ANTIMATTER TELESCOPE (HEAT) PI PROF. GREGORY TARLE'  
 03/16/1999 - 11/30/2001      FY01: \$182,000      Total: \$590,500  
*Prin. Invest.: G TARLE*  
*Tech. Officer: GSFC/B A MERRITT*  
*CASE Category: 13 - PHYSICS*

**NAG 5 5262**      **UNIV OF MICHIGAN - ANN ARBOR**      **5936**  
 FIRST YEAR OF THREE YEAR EFFORT/ SOUNDING ROCKET UV MEASUREMENTS  
 04/11/2000 - 03/23/2003      FY01: \$0      Total: \$150,000  
*Prin. Invest.: J T CLARK, NONE*  
*Tech. Officer: GSFC/W B JOHNSON*  
*CASE Category: 13 - PHYSICS*

**NAG 5 5281**      **UNIV OF MICHIGAN - ANN ARBOR**      **5937**  
 CONTEMPORANEOUS OPTICAL DETECTION OF GAMMA-RAY BURSTS  
 06/14/2000 - 06/07/2003      FY01: \$260,000      Total: \$462,500  
*Prin. Invest.: C W AKERLOFF*  
*Tech. Officer: WFF/B A MERRITT*  
*CASE Category: 13 - PHYSICS*

**NAG 5 5304**      **UNIV OF MICHIGAN - ANN ARBOR**      **5938**  
 GRANT NAG5-5304 CONSTRUCTION OF A HIGH PFR PULSED KU-BAND RADAR FOR MEASUREMENTS OF SEA SURFACE SLOP  
 09/27/2000 - 02/28/2002      FY01: \$30,000      Total: \$30,000  
*Prin. Invest.: K SARABANDI*  
*Tech. Officer: WFF/D C VANDEMARK, WFF/E J WALSH*  
*CASE Category: 45 - ELECTRICAL ENGR*

**NAG 5 6122**      **UNIV OF MICHIGAN - ANN ARBOR**      **5939**  
 SOHO GUEST INVESTIGATOR STUDY OF HYDROGEN LYMAN-AL WITH SWAN  
 08/11/1997 - 02/28/2001      FY01: \$0      Total: \$94,236  
*Prin. Invest.: D R COMBI*  
*Tech. Officer: GSFC/W J WAGNER*  
*CASE Category: 13 - PHYSICS*

**NAG 5 6203**      **UNIV OF MICHIGAN - ANN ARBOR**      **5940**  
 AN INTEGRATED MODELING STUDY FOR COORDINATED OBSERVATIONS OF H<sub>2</sub>O, OH, AND H<sub>2</sub>O + EMISSIONS IN THE CO  
 10/17/1997 - 08/31/2001      FY01: \$0      Total: \$70,954  
*Prin. Invest.: D R COMBI*  
*Tech. Officer: GSFC/J BERGSTRALH*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 6471**      **UNIV OF MICHIGAN - ANN ARBOR**      **5941**  
 ENERGETIC PARTICLE PROPAGATION IN THE NEW MODEL FOR THE HELIOSPHERIC MAGNETIC FIELD  
 11/17/1997 - 10/31/2000      FY01: \$0      Total: \$120,196  
*Prin. Invest.: T ZURBUCHEN*  
*Tech. Officer: GSFC/J LING*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 6709**      **UNIV OF MICHIGAN - ANN ARBOR**      **5942**  
 CONTINUED SCIENTIFIC STUDIES OF THE MIDDLE ATMOSPHERE BY THE HIGHRESOLUTION DOPPLER IMAGER ( HDI )  
 12/12/1997 - 12/14/2000      FY01: \$0      Total: \$789,000  
*Prin. Invest.: D SKINNER*  
*Tech. Officer: GSFC/C JACKMAN*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 6827**      **UNIV OF MICHIGAN - ANN ARBOR**      **5943**  
 MODELING OF COMETARY ATMOSPHERES  
 01/15/1998 - 12/31/2000      FY01: \$0      Total: \$237,584  
*Prin. Invest.: T GOMBOSI*  
*Tech. Officer: GSFC/R BEEBE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 6883**      **UNIV OF MICHIGAN - ANN ARBOR**      **5944**  
 COMPARATIVE STUDY OF JUPITER'S AURORA: HST UV IMAGES AND SPECTRA AND GALILEO DATA  
 01/30/1998 - 12/31/2000      FY01: \$0      Total: \$152,868  
*Prin. Invest.: J T CLARKE*  
*Tech. Officer: GSFC/D BOGAN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 7032 UNIV OF MICHIGAN - ANN ARBOR 5945**  
 MODELS OF RELATIVISTIC EXTRAGALACTIC JETS AND THE INTERPRETATION OF VSOPDATA- ATP  
 02/17/1998 - 02/14/2000 FY01: \$0 Total: \$40,700  
*Prin. Invest.: P A HUGHES*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 7474 UNIV OF MICHIGAN - ANN ARBOR 5946**  
 HIGH RESOLUTION DOPPLER IMAGER - OPERATIONS AND ALGORITHM- MAINTENANCE  
 06/23/1998 - 06/30/2001 FY01: \$101,500 Total: \$672,000  
*Prin. Invest.: W SKINNER*  
*Tech. Officer: GSFC/C H JACKMAN*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 7553 UNIV OF MICHIGAN - ANN ARBOR 5947**  
 APPLICATION OF MC-ICPMS TO THE MEASUREMENT OF ISOT OPIC ANOMALIES INZR, MO, RU, SN, TE AND W  
 06/23/1998 - 06/30/2000 FY01: \$0 Total: \$120,000  
*Prin. Invest.: A N HALLIDAY*  
*Tech. Officer: HQ/J BOYCE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 7557 UNIV OF MICHIGAN - ANN ARBOR 5948**  
 GGS/POLAR TIDE CO-INVESTIGATOR PROGRAM MO&DA SUPPLEMENTAL FUNDS  
 06/25/1998 - 06/30/2001 FY01: \$0 Total: \$124,000  
*Prin. Invest.: A NAGEY*  
*Tech. Officer: GSFC/R HOFFMAN*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 7569 UNIV OF MICHIGAN - ANN ARBOR 5949**  
 PROVIDING THE GLOBAL MODELING INITIATIVE WITH MODELING AND ANALYSIS OF AEROSOLS EFFECTS  
 07/09/1998 - 07/31/2001 FY01: \$0 Total: \$225,273  
*Prin. Invest.: J E PENNER*  
*Tech. Officer: GSFC/R W STEWART*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 7681 UNIV OF MICHIGAN - ANN ARBOR 5950**  
 DEFINING A CLIMATOLOGY AND THE EFFECTS OF ABSORBING AEROSOLS: MODELS AND MEASUREMENTS  
 09/04/1998 - 08/31/2002 FY01: \$160,000 Total: \$480,000  
*Prin. Invest.: J PENNER*  
*Tech. Officer: GSFC/M I MISHCHENKO*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 7858 UNIV OF MICHIGAN - ANN ARBOR 5951**  
 MEASUREMENT OF ABSOLUTE DIFFERENTIAL CROSS SECTION S FOR THE COLLISIONS OF ELECTRONS WITH PLANETARY  
 01/05/1999 - 03/31/2001 FY01: \$0 Total: \$127,100  
*Prin. Invest.: D SHYN*  
*Tech. Officer: GSFC/R BEEBE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 7860 UNIV OF MICHIGAN - ANN ARBOR 5952**  
 THE SOLAR SYSTEM BEYOND PLUTO  
 01/06/1999 - 12/31/2001 FY01: \$46,005 Total: \$152,586  
*Prin. Invest.: D M BERNSTEIN*  
*Tech. Officer: GSFC/T MORGAN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 8080 UNIV OF MICHIGAN - ANN ARBOR 5953**  
 STATE-TO-STATE RATE CONSTANTS FOR COMPUTATION OF N ON-LTE INFRARED RADIATIVE TRANSFER IN THE M  
 01/15/1999 - 03/31/2002 FY01: \$95,000 Total: \$279,500  
*Prin. Invest.: D R BARKER*  
*Tech. Officer: GSFC/M MELLOTT*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 8238 UNIV OF MICHIGAN - ANN ARBOR 5954**  
 MASSIVE BLACK HOLES AND THE CENTERS OF GALAXIES ( LTSA98)  
 02/25/1999 - 02/28/2002 FY01: \$111,098 Total: \$261,042  
*Prin. Invest.: D O RICHSTONE*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 8458 UNIV OF MICHIGAN - ANN ARBOR 5955**  
 MODELING OF X-RAY CLUSTERS (ATP 98)  
 04/15/1999 - 04/14/2002 FY01: \$43,000 Total: \$124,000  
*Prin. Invest.: A E EVRARD*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 8494 UNIV OF MICHIGAN - ANN ARBOR 5956**  
 EXTEND THE DEVELOPMENT OF THE SPACE WEATHER TOPIC, AND ALSO THE SPACE MISSIONS SECTION TO INCLUDE  
 05/04/1999 - 12/31/2000 FY01: \$0 Total: \$150,000  
*Prin. Invest.: R M JOHNSON*  
*Tech. Officer: GSFC/A F HASLER*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 8630 UNIV OF MICHIGAN - ANN ARBOR 5957**  
 HIERARCHICAL INVESTIGATION OF SOCIOECONOMIC DRIVER OF DECadal SCALE LAND-COVER CHANGES IN THE UPPER  
 08/11/1999 - 04/30/2001 FY01: \$0 Total: \$73,879  
*Prin. Invest.: D G BROWN*  
*Tech. Officer: GSFC/J RANSON*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 8661 UNIV OF MICHIGAN - ANN ARBOR 5958**  
 MOISTURE TRANSPORT AND RADIOBRIGHTNESS MODELS FOR COMPLEX VEGETATION  
 07/01/1999 - 06/30/2002 FY01: \$115,000 Total: \$307,050  
*Prin. Invest.: A W ENGLAND*  
*Tech. Officer: GSFC/P T Houser*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 8715 UNIV OF MICHIGAN - ANN ARBOR 5959**  
 DYNAMICS IN THE COMET ENVIRONMENT  
 08/03/1999 - 07/31/2002 FY01: \$24,000 Total: \$70,500  
*Prin. Invest.: D J SCHEERES*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 8719**      **UNIV OF MICHIGAN - ANN ARBOR**      **5960**  
 HIERARCHICAL INVESTIGATION OF SOCIOECONOMIC DRIVER S OF  
 DECADAL SCALE LAND-COVER CHANGES IN THE UPPE  
 08/02/1999 - 04/30/2001      FY01: \$0      Total: \$51,250  
*Prin. Invest.: D G BROWN*  
*Tech. Officer: GSFC/J RANSON*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8845**      **UNIV OF MICHIGAN - ANN ARBOR**      **5961**  
 CASSINI-HUYGENS GAS CHROMATOGRAPH MASS SPECTROMETER  
 SCIENCE SUPPORT  
 10/25/1999 - 10/31/2001      FY01: \$25,000      Total: \$50,000  
*Prin. Invest.: S K ATREYA*  
*Tech. Officer: GSFC/J E RICHARDS*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 8930**      **UNIV OF MICHIGAN - ANN ARBOR**      **5962**  
 SOLID EARTH AND NATURAL HAZARDS RESEARCH AND APPLICATIONS  
 01/13/2000 - 01/14/2002      FY01: \$75,000      Total: \$150,000  
*Prin. Invest.: K SARABANDI*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 8942**      **UNIV OF MICHIGAN - ANN ARBOR**      **5963**  
 THE DISTRIBUTION OF GASES IN THE INNER COMAE OF COMETS  
 01/14/2000 - 01/14/2002      FY01: \$100,000      Total: \$220,000  
*Prin. Invest.: M R COMBI*  
*Tech. Officer: GSFC/D BOGAN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8946**      **UNIV OF MICHIGAN - ANN ARBOR**      **5964**  
 STUDIES OF SOLAR WIND INTERACTION AND IONOSPHERIC PROCESSES  
 AT VENUS AND MARS  
 01/14/2000 - 03/31/2002      FY01: \$94,923      Total: \$179,923  
*Prin. Invest.: A NAGY*  
*Tech. Officer: GSFC/D BOGAN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8963**      **UNIV OF MICHIGAN - ANN ARBOR**      **5965**  
 FUSE SPECTRA OF LYMAN SERIES EMISSIONS FROM THE INTERPLANETARY MEDIUM – FUSE  
 01/24/2000 - 01/31/2002      FY01: \$0      Total: \$38,400  
*Prin. Invest.: J T CLARKE*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8993**      **UNIV OF MICHIGAN - ANN ARBOR**      **5966**  
 DYNAMICS IN THE EROS ENVIRONMENT  
 01/24/2000 - 12/31/2001      FY01: \$0      Total: \$66,124  
*Prin. Invest.: D J SCHEERES*  
*Tech. Officer: GSFC/T MORGAN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8996**      **UNIV OF MICHIGAN - ANN ARBOR**      **5967**  
 H<sub>2</sub> AS THE PRIMARY GAS COMPONENT AT LARGE GALACTIC RADIUS – FUSE  
 01/24/2000 - 01/31/2002      FY01: \$0      Total: \$30,300  
*Prin. Invest.: J N BREGMAN, NONE*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9017**      **UNIV OF MICHIGAN - ANN ARBOR**      **5968**  
 DYNAMICS OF THE ASTEROID ENVIRONMENT  
 02/02/2000 - 01/31/2002      FY01: \$22,000      Total: \$43,000  
*Prin. Invest.: D J SCHEERES*  
*Tech. Officer: GSFC/J GRANT*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9021**      **UNIV OF MICHIGAN - ANN ARBOR**      **5969**  
 DO ELLIPTICAL GALAXY COOLING FLOWS ACTUALLY COOL? – FUSE  
 02/03/2000 - 02/14/2002      FY01: \$0      Total: \$31,000  
*Prin. Invest.: J N BREGMAN*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9162**      **UNIV OF MICHIGAN - ANN ARBOR**      **5970**  
 RXTE OBSERVATIONS OF SELECTED BLAZARS – ADP - 99  
 03/14/2000 - 03/14/2002      FY01: \$0      Total: \$17,425  
*Prin. Invest.: M ALLER*  
*Tech. Officer: GSFC/R OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9355**      **UNIV OF MICHIGAN - ANN ARBOR**      **5971**  
 GEOMAGNETIC STORM STUDIES AT LOW LATITUDES  
 04/04/2000 - 04/14/2001      FY01: \$0      Total: \$36,200  
*Prin. Invest.: A BURNS*  
*Tech. Officer: GSFC/M MELLOTT*  
*CASE Category: 13 – PHYSICS*

**NAG 5 9406**      **UNIV OF MICHIGAN - ANN ARBOR**      **5972**  
 HIGH PERFORMANCE PARALLEL METHODS FOR SPACE WEATHER SIMULATION  
 04/10/2000 - 04/30/2002      FY01: \$165,800      Total: \$325,700  
*Prin. Invest.: T GOMBOSI*  
*Tech. Officer: GSFC/J BREDEKAMP*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9464**      **UNIV OF MICHIGAN - ANN ARBOR**      **5973**  
 A MASSIVELY PARALLEL PARTICLE CODE FOR RARIFIED IONIZED & NEUTRAL GAS FLOWS IN EARTH & PLANETARY  
 04/18/2000 - 04/14/2003      FY01: \$116,600      Total: \$233,600  
*Prin. Invest.: M COMBI*  
*Tech. Officer: GSFC/J BREDEKAMP*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9536**      **UNIV OF MICHIGAN - ANN ARBOR**      **5974**  
 NEW GRANT EXTENDED SOLAR MAX: INVESTIGATION OF THE SOLAR-WIND MAGNETOSPHER-IONOSPHERE COUPLING  
 05/04/2000 - 11/14/2001      FY01: \$0      Total: \$50,000  
*Prin. Invest.: C CLAUSER*  
*Tech. Officer: GSFC/R HOFFMAN*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 9762**      **UNIV OF MICHIGAN - ANN ARBOR**      **5975**  
 DESIGN STUDY OF A SYNTHETIC APERTURE PRECIPITATION RADIOMETER  
 08/03/2000 - 07/31/2002      FY01: \$95,000      Total: \$248,283  
*Prin. Invest.: C RUF*  
*Tech. Officer: GSFC/C M PRINCIPE*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NAG 5 9967 UNIV OF MICHIGAN - ANN ARBOR 5976**  
A SMALL, LIGHTWEIGHT RADIOMETER TO IMPROVE THE TEM PORAL SAMPLING OF RAINFALL  
10/30/2000 - 01/31/2001 FY01: \$21,630 Total: \$21,630  
*Prin. Invest.: C S RUF*  
*Tech. Officer: GSFC/C D KUMMEROW*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 9980 UNIV OF MICHIGAN - ANN ARBOR 5977**  
METAL ENRICHMENT MECHANISMS IN ABELL 2199 & ABELL 3571  
09/13/2000 - 09/14/2002 FY01: \$15,600 Total: \$31,700  
*Prin. Invest.: J N BREGMAN*  
*Tech. Officer: GSFC/R MUSHOTZKY*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9981 UNIV OF MICHIGAN - ANN ARBOR 5978**  
THE NATURE OF THE X-RAY EMISSION IN SA BULGES  
09/13/2000 - 09/14/2002 FY01: \$15,600 Total: \$31,600  
*Prin. Invest.: J N BREGMAN*  
*Tech. Officer: GSFC/R MUSHOTZKY*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10036 UNIV OF MICHIGAN - ANN ARBOR 5979**  
A MODULAR CODE FOR A COMMUNITY VERSION OF THE MICHIGAN LSP/R MODEL  
10/31/2000 - 04/30/2002 FY01: \$35,000 Total: \$35,000  
*Prin. Invest.: A ENGLAND*  
*Tech. Officer: GSFC/P E O'NEILL*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 10138 UNIV OF MICHIGAN - ANN ARBOR 5980**  
NOZOMI NEUTRAL MASS SPECTROMETER SCIENCE SUPPORT  
12/12/2000 - 12/14/2001 FY01: \$15,000 Total: \$15,000  
*Prin. Invest.: S K ATREYA*  
*Tech. Officer: GSFC/J E RICHARDS*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 10181 UNIV OF MICHIGAN - ANN ARBOR 5981**  
NOZOMI NEUTRAL MASS SPECTROMETER SCIENCE SUPPORT - DEVELOPING UPPER ATMOSPHERIC, EXOSPHERIC MODELS  
01/18/2001 - 01/31/2002 FY01: \$15,000 Total: \$15,000  
*Prin. Invest.: A F NAGY*  
*Tech. Officer: GSFC/J E RICHARDS*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 10297 UNIV OF MICHIGAN - ANN ARBOR 5982**  
PHYSICAL RESPONSE OF THE INNER MAGNETOSPHERE TO GEODEFFECTIVE SOLAR WIND DRIVERS: ENERGY DISSIPATION  
02/15/2001 - 01/31/2002 FY01: \$47,000 Total: \$47,000  
*Prin. Invest.: K KOZYRA*  
*Tech. Officer: GSFC/J SHARBER*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 10336 UNIV OF MICHIGAN - ANN ARBOR 5983**  
SELF-RELIANT, HIGH RESOLUTION IMAGING USING FORMAT ION FLYING SPACECRAFT  
02/07/2001 - 01/14/2002 FY01: \$355,697 Total: \$355,697  
*Prin. Invest.: D HYLAND*  
*Tech. Officer: GSFC/J A LEITNER*  
*CASE Category: 41 - AERONAUTICAL ENGRN*

**NAG 5 10552 UNIV OF MICHIGAN - ANN ARBOR 5984**  
ASU/MICHIGAN COLLABORATION: THE ABUNDANCE & ISOTOPIC COMPOSITION OF HG IN EXTRATERRESTRIAL MATERIAL  
03/09/2001 - 03/14/2002 FY01: \$20,000 Total: \$20,000  
*Prin. Invest.: J BLUM*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 12 - CHEMISTRY*

**NAG 5 10765 UNIV OF MICHIGAN - ANN ARBOR 5985**  
X-RAY ABSORPTION STUDIES; COOLING FLOWS (LTS-2000)  
04/23/2001 - 04/30/2002 FY01: \$110,000 Total: \$110,000  
*Prin. Invest.: J N BREGMAN*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10805 UNIV OF MICHIGAN - ANN ARBOR 5986**  
CONCEPT STUDY FOR THE "THE HEAVY NUCLEI EXPLORER" (HNE) MISSIONAO-99-OSS-05  
04/30/2001 - 04/30/2002 FY01: \$57,700 Total: \$57,700  
*Prin. Invest.: D TARLE*  
*Tech. Officer: GSFC/J R BYRD*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10806 UNIV OF MICHIGAN - ANN ARBOR 5987**  
RXTE OBSERVATIONS OF SELECTED BLAZARS - ADP - 99  
04/23/2001 - 04/30/2002 FY01: \$57,171 Total: \$57,171  
*Prin. Invest.: J N BREGMAN*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10812 UNIV OF MICHIGAN - ANN ARBOR 5988**  
HIGH RESOLUTION DOPPLER IMAGER - OPERATIONS AND ALGORITHM MAINTENANCE.  
05/02/2001 - 09/30/2001 FY01: \$72,500 Total: \$72,500  
*Prin. Invest.: W R SKINNER*  
*Tech. Officer: GSFC/C H JACKMAN*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 10850 UNIV OF MICHIGAN - ANN ARBOR 5989**  
SUPERPOSED EPOCH ANALYSIS OF RING CURRENT GEO-EFFECTIVENESS RELATED TO SOLAR WIND & PLASMA SHEET  
05/07/2001 - 05/14/2002 FY01: \$107,276 Total: \$107,276  
*Prin. Invest.: M W LIEMOHN*  
*Tech. Officer: GSFC/J F SPANN*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 10887 UNIV OF MICHIGAN - ANN ARBOR 5990**  
POLAR/TIDE  
05/07/2001 - 05/14/2002 FY01: \$50,000 Total: \$50,000  
*Prin. Invest.: A NAGY*  
*Tech. Officer: GSFC/R HOFFMAN*  
*CASE Category: 19 - PHYSICAL SCIENCE, OTHER*

**NAG 5 10907 UNIV OF MICHIGAN - ANN ARBOR 5991**  
2001: A SPACETIME ODYSSEY  
05/22/2001 - 05/31/2002 FY01: \$12,500 Total: \$12,500  
*Prin. Invest.: K FREESE*  
*Tech. Officer: GSFC/D GOLOMBEK*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10975 UNIV OF MICHIGAN - ANN ARBOR 5992**  
A PREDICTIVE MODEL FOR THE MAGNETIC FIELD IN THE HELIOSPHERE  
05/29/2001 - 05/31/2002 FY01: \$69,365 Total: \$69,365  
*Prin. Invest.: L A FINK*  
*Tech. Officer: GSFC/W J WAGNER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 11000 UNIV OF MICHIGAN - ANN ARBOR 5993**  
SOLAR WIND STRUCTURE IN THE INNER HELIOSPHERE: RATIONALE FOR  
THE LOCATION OF THE SENTINEL MISSION  
06/06/2001 - 05/31/2002 FY01: \$79,603 Total: \$79,603  
*Prin. Invest.: T H ZURBUCHEN*  
*Tech. Officer: GSFC/W J WAGNER*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 11004 UNIV OF MICHIGAN - ANN ARBOR 5994**  
RESEARCH IN PLANETARY ATMOSPHERES-JUPITER & TITAN  
06/08/2001 - 09/14/2002 FY01: \$90,000 Total: \$90,000  
*Prin. Invest.: S K ATREYA*  
*Tech. Officer: GSFC/D BOGAN*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 11031 UNIV OF MICHIGAN - ANN ARBOR 5995**  
INTEGRATED MODELING STUDY OF THE EFFECTS OF MAGNETOSPHERIC  
FORCING ON THE JOVIAN IONOSPHERE-THERMOS  
06/11/2001 - 05/30/2002 FY01: \$90,000 Total: \$90,000  
*Prin. Invest.: J H WAITE*  
*Tech. Officer: GSFC/D J BOGAN*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 11041 UNIV OF MICHIGAN - ANN ARBOR 5996**  
MODELING OF COMETARY ATMOSPHERES  
06/12/2001 - 06/14/2002 FY01: \$90,000 Total: \$90,000  
*Prin. Invest.: T I GOMBOSI*  
*Tech. Officer: GSFC/D J BOGAN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 11068 UNIV OF MICHIGAN - ANN ARBOR 5997**  
DYNAMICAL STUDIES OF THE MIDDLE ATMOSPHERE USING HIGH RESOLUTION  
DOPPLER IMAGER OBSERVATIONS  
07/09/2001 - 07/14/2002 FY01: \$86,667 Total: \$86,667  
*Prin. Invest.: W R SKINNER*  
*Tech. Officer: GSFC/C JACKMAN*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 11084 UNIV OF MICHIGAN - ANN ARBOR 5998**  
MODELING SIBERIAN BOREAL FOREST LAND-COVER CHANGE AND  
CARBON UNDER CHANGING ECONOMIC PARADIGMS  
07/20/2001 - 08/14/2002 FY01: \$96,393 Total: \$96,393  
*Prin. Invest.: K BERGEN*  
*Tech. Officer: GSFC/G GUTMAN*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 11187 UNIV OF MICHIGAN - ANN ARBOR 5999**  
MGS MAG/ER DATA ANALYSIS USING A TIME AND MAGNETIC FIELD  
DEPENDENT ELECTRON TRANSPORT MODEL  
08/08/2001 - 08/31/2004 FY01: \$90,000 Total: \$90,000  
*Prin. Invest.: M C LIEMOHN*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 11271 UNIV OF MICHIGAN - ANN ARBOR 6000**  
DEVELOPING LAND COVER SCENARIOS IN METROPOLITAN AND NON-METROPOLITAN MICHIGAN  
08/23/2001 - 08/31/2004 FY01: \$119,410 Total: \$119,410  
*Prin. Invest.: D BROWN*  
*Tech. Officer: GSFC/G GUTMAN*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 11275 UNIV OF MICHIGAN - ANN ARBOR 6001**  
TRACE GAS/AEROSOL INTERACTIONS AND GMI MODELING SUPPORT  
08/22/2001 - 08/31/2004 FY01: \$100,051 Total: \$100,051  
*Prin. Invest.: J PENNER*  
*Tech. Officer: GSFC/P DECOLA*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 8 1725 UNIV OF MICHIGAN - ANN ARBOR 6002**  
FIELD-REVERSED END PLUGGING FOR THE GASDYNAMIC MIRROR  
MACHINE  
07/26/2000 - 06/30/2001 FY01: \$0 Total: \$20,000  
*Prin. Invest.: T KAMMASH*  
*Tech. Officer: MSFC/W F EMRICH*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 9 1154 UNIV OF MICHIGAN - ANN ARBOR 6003**  
IMPACT OF MICROGRAVITY ON DRUG AND NUTRIENT ABSORPTION  
02/03/2000 - 01/31/2003 FY01: \$191,532 Total: \$352,052  
*Prin. Invest.: G L AMIDON*  
*Tech. Officer: JSC/C LLOYD*  
*CASE Category: 61 – PSYCHOLOGY BIOLOGY*

**NAG 9 1167 UNIV OF MICHIGAN - ANN ARBOR 6004**  
DEVELOP ADVANCED MILLIMETERWAVE INTERFEROMETER FOR  
PLASMA DIAGNOSTICS  
09/22/1999 - 06/30/2001 FY01: \$0 Total: \$44,000  
*Prin. Invest.: B E GILCHRIST*  
*Tech. Officer: JSC/F R CHANG-DIAZ*  
*CASE Category: 42 – ASTRONAUTICAL ENGR*

**NAG 9 1251 UNIV OF MICHIGAN - ANN ARBOR 6005**  
OPTICAL SEARCHES FOR GEOSYNCHRONOUS ORBITAL DEBRIS  
08/01/2000 - 07/31/2002 FY01: \$0 Total: \$106,787  
*Prin. Invest.: P O SEITZER*  
*Tech. Officer: JSC/E G STANSBERY*  
*CASE Category: 11 – ASTRONOMY*

**NAG 9 1373 UNIV OF MICHIGAN - ANN ARBOR 6006**  
AN OPTICAL SURVEY FOR SPACE DEBRIS IN GEOSYNCHRONOUS  
08/15/2001 - 09/30/2002 FY01: \$229,381 Total: \$229,381  
*Prin. Invest.: P O SEITZER*  
*Tech. Officer: JSC/E G STANSBERY*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG13 99024 UNIV OF MICHIGAN - ANN ARBOR 6007**  
FOREST STRUCTURE FROM MULTI-SPECTRAL FUSION SAME  
08/25/1999 - 08/19/2002 FY01: \$228,000 Total: \$430,010  
*Prin. Invest.: M DOBSON*  
*Tech. Officer: SSC/R MCKELLIP*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAS 5 32989**      **UNIV OF MICHIGAN - ANN ARBOR**      **6008**  
 PROVIDE ENGINEERING SUPPORT IN THE DEFINITION DESIGN AND TEST  
 OF THE PLANET-B NMS  
 01/25/1996 - 09/30/2000      FY01: \$42,341      Total: \$1,394,596  
*Prin. Invest.: G CARIGNAN*  
*Tech. Officer: GSFC/S WAY*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAS 5 99174**      **UNIV OF MICHIGAN - ANN ARBOR**      **6009**  
 PROVIDE SUPPORT, DESIGN, DEVELOPMENT OF THE NGIMS EXPERIMENT  
 FOR THE COMET NUCLEUS TOUR (CONTOUR)  
 04/02/1999 - 08/25/2002      FY01: \$308,438      Total: \$1,904,362  
*Prin. Invest.: G ARIGNAN*  
*Tech. Officer: GSFC/J RICHARDS*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAS 8 37108**      **UNIV OF MICHIGAN - ANN ARBOR**      **6010**  
 STUDY ENTITLED "RESEARCH ON ORBITAL PLASMA-ELECTRODYNAMICS  
 (ROPE)."      FY01: \$4,765      Total: \$66,428  
*Prin. Invest.: B GILCHRIST*  
*Tech. Officer: MSFC/W CASTLEMAN, MSFC/R HOLDER*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAS 8 99127**      **UNIV OF MICHIGAN - ANN ARBOR**      **6011**  
 R/S ICARUS SATELLITE FOR PROSEDS  
 06/23/1999 - 12/31/2001      FY01: \$138,397      Total: \$400,213  
*Prin. Invest.: G E GILCHRIST*  
*Tech. Officer: MSFC/K J WELZYN*  
*CASE Category: 42 – ASTRONAUTICAL ENGR*

**NAS 8 99128**      **UNIV OF MICHIGAN - ANN ARBOR**      **6012**  
 RESEARCH ENTITLED PROCEDS UMPMS PHASE D & E  
 07/30/1999 - 12/31/2001      FY01: \$436,038      Total: \$1,040,693  
*Prin. Invest.: B GILCHRIST*  
*Tech. Officer: MSFC/J L BALATICE, MSFC/L JOHNSON*  
*CASE Category: 42 – ASTRONAUTICAL ENGR*

**NCC 1 01050**      **UNIV OF MICHIGAN - ANN ARBOR**      **6013**  
 RESPONSE OF STRONGLY ANISOTROPIC LAMINATED PANELS UNDER  
 COMBINED LOADS  
 05/08/2001 - 01/31/2002      FY01: \$50,148      Total: \$50,148  
*Prin. Invest.: A P WAAS*  
*Tech. Officer: LARC/M P NEMETH*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NCC 2 856**      **UNIV OF MICHIGAN - ANN ARBOR**      **6014**  
 EFFECTS OF MICROGRAVITY ON DEVELOPMENT OF THIGH MUSCLES  
 05/25/1994 - 12/31/2001      FY01: \$0      Total: \$384,998  
*Prin. Invest.: K I CLARK, K F BARALD*  
*Tech. Officer: ARC/D A REISS-BUBENHEIM, ARC/C M WINGET*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NCC 2 5442**      **UNIV OF MICHIGAN - ANN ARBOR**      **6015**  
 THE EVOLUTION AND DISPERSAL OF PROTOSTELLAR DISKS  
 07/11/2001 - 06/30/2002      FY01: \$14,833      Total: \$14,833  
*Prin. Invest.: F C ADAMS*  
*Tech. Officer: ARC/G P LAUGHIN, ARC/D J HOLLENBACH*  
*CASE Category: 11 – ASTRONOMY*

**NCC 3 482**      **UNIV OF MICHIGAN - ANN ARBOR**      **6016**  
 RADIANT EXTINCITION OF GASOUS DIFFUSION FLAMES  
 06/15/1996 - 12/14/2001      FY01: \$0      Total: \$359,000  
*Prin. Invest.: A ATREYA*  
*Tech. Officer: GRC/K SACKSTEADER*  
*CASE Category: 13 – PHYSICS*

**NCC 3 656**      **UNIV OF MICHIGAN - ANN ARBOR**      **6017**  
 FLAME VORTEX INTERACTIONS IN MICROGRAVITY TO ASSES S THE  
 THEORY OF FLAME STRETCH  
 01/12/1999 - 12/03/2002      FY01: \$142,550      Total: \$350,050  
*Prin. Invest.: J F DRISCOLL*  
*Tech. Officer: GRC/J E BROOKER*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 3 661**      **UNIV OF MICHIGAN - ANN ARBOR**      **6018**  
 FLOW/SOOT-FORMATION IN NONBOUYANT LAMINAR DIFFUSIO N FLAMES  
 01/21/1999 - 12/29/2002      FY01: \$94,970      Total: \$257,365  
*Prin. Invest.: G M FAETH, NONE*  
*Tech. Officer: GRC/K SACKSTEDER*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 3 663**      **UNIV OF MICHIGAN - ANN ARBOR**      **6019**  
 TURBULENT FLAME PROCESSES VIA VORTEX-RING DIFFUSIO N FLAME  
 INTERACTION  
 01/15/1999 - 12/30/2002      FY01: \$85,500      Total: \$237,819  
*Prin. Invest.: W DAHM*  
*Tech. Officer: GRC/K R SACKSTEDER*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 3 723**      **UNIV OF MICHIGAN - ANN ARBOR**      **6020**  
 GAS SEPARATION & PRESSURIZATION FOR EXTRATERRESTRI AL EXPLO-  
 RATION  
 07/07/1999 - 12/31/2001      FY01: \$0      Total: \$40,000  
*Prin. Invest.: M KAVIANY, NONE*  
*Tech. Officer: GRC/E S NELSON*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 3 790**      **UNIV OF MICHIGAN - ANN ARBOR**      **6021**  
 SYSTEM ON A CHIP: ACTIVE COMPONENTS OF THE RF FRO NT END  
 04/04/2000 - 02/28/2003      FY01: \$199,584      Total: \$299,380  
*Prin. Invest.: L P KATEHI*  
*Tech. Officer: GRC/G E PONCHAK*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NCC 3 837**      **UNIV OF MICHIGAN - ANN ARBOR**      **6022**  
 LOW COST, LOW POWER COMPONENTS FOR TRANSMIT/RECEIV E PHASE  
 ARRAY ANTENNAS  
 12/20/2000 - 12/31/2001      FY01: \$226,564      Total: \$226,564  
*Prin. Invest.: L P KATEHI*  
*Tech. Officer: GRC/G E PONCHAK*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NCC 5 146**      **UNIV OF MICHIGAN - ANN ARBOR**      **6023**  
 RESEARCH FOR GRAND CHALLENGE APPLICATIONS  
 08/02/1996 - 06/30/2000      FY01: \$0      Total: \$1,400,000  
*Prin. Invest.: T GOMBOSI*  
*Tech. Officer: GSFC/J R FISCHER*  
*CASE Category: 29 – MATH/COMPUTER SCI, OTHER*

**NCC 5 296**      **UNIV OF MICHIGAN - ANN ARBOR**      **6024**  
RADAR REMOTE SENSING OF LAND-COVER AND BIOMASS IN THE AMAZON  
06/16/1998 – 12/31/2001      FY01: \$150,565      Total: \$657,456  
*Prin. Invest.:* M C DOBSON  
*Tech. Officer:* GSFC/D W DEERING  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NCC 5 383**      **UNIV OF MICHIGAN - ANN ARBOR**      **6025**  
COLLABORATIVE EDUCATION AND PUBLIC OUTREACH ACTIVITIES BY WINDOWS TO THE UNIVERSE PROJECT IN SUPPORT  
02/24/1999 – 02/28/2001      FY01: \$485      Total: \$50,000  
*Prin. Invest.:* L FISK  
*Tech. Officer:* GSFC/M H ACUNA  
*CASE Category:* 13 – PHYSICS

**NCC 8 181**      **UNIV OF MICHIGAN - ANN ARBOR**      **6026**  
GLOBAL SIMULATIONS OF CORE PLASMA DENSITIES, COMPOSITION AND TEMPERATURE. NASA NRA98-OSS-03.  
06/07/1999 – 06/06/2002      FY01: \$36,415      Total: \$80,401  
*Prin. Invest.:* M LIEMOHN  
*Tech. Officer:* MSFC/D GALLAGHER  
*CASE Category:* 19 – PHYSICAL SCIENCE, OTHER

**NGT 2 52257**      **UNIV OF MICHIGAN - ANN ARBOR**      **6027**  
SEARCHING EXTRASOLAR PLANETS USING DIFFERENTIAL PHOTOMETRY  
07/23/1999 – 07/14/2002      FY01: \$22,000      Total: \$66,000  
*Prin. Invest.:* F C ADAMS  
*Tech. Officer:* ARC/J J LISSAUER  
*CASE Category:* 11 – ASTRONOMY

**NGT 2 52269**      **UNIV OF MICHIGAN - ANN ARBOR**      **6028**  
SIMULTANEOUS VIBRATION & BVI NOISE REDUCTION IN RO TORCRAFT USING ACTIVELY CONTROLLED TRAILING-EDGE  
08/11/2000 – 08/31/2002      FY01: \$22,000      Total: \$44,000  
*Prin. Invest.:* P P FRIEDMAN, NONE  
*Tech. Officer:* ARC/W WARMBRODT  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NGT 3 52348**      **UNIV OF MICHIGAN - ANN ARBOR**      **6029**  
GRADUATE STUDENT RESEARCHERS PROGRAM GRADUATE STUDENT RESEARCHERS PROGRAM  
06/15/1999 – 05/31/2002      FY01: \$9,200      Total: \$53,200  
*Prin. Invest.:* A GALLIMORE  
*Tech. Officer:* GRC/F J MONTEGANI  
*CASE Category:* 49 – ENGINEERING, OTHER

**NGT 3 52349**      **UNIV OF MICHIGAN - ANN ARBOR**      **6030**  
GRADUATE STUDENT RESEARCH PROGRAM GRADUATE STUDENT RESEARCH PROGRAM  
06/23/1999 – 08/31/2002      FY01: \$22,000      Total: \$66,000  
*Prin. Invest.:* A D GALLIMORE  
*Tech. Officer:* GRC/F J MONTEGANI  
*CASE Category:* 49 – ENGINEERING, OTHER

**NGT 3 52365**      **UNIV OF MICHIGAN - ANN ARBOR**      **6031**  
GRADUATE STUDENT PROGRAM GRADUATE STUDENT PROGRAM  
06/14/2000 – 08/31/2002      FY01: \$22,000      Total: \$44,000  
*Prin. Invest.:* A ATREYA  
*Tech. Officer:* GRC/F J MONTEGANI  
*CASE Category:* 43 – CHEMICAL ENGR

**NGT 3 52372**      **UNIV OF MICHIGAN - ANN ARBOR**      **6032**  
GRADUATE STUDENT RESEARCHER'S PROGRAM GRADUATE STUDENT RESEARCHER'S PROGRAM  
04/09/2001 – 01/29/2002      FY01: \$22,000      Total: \$22,000  
*Prin. Invest.:* D PAVLIDIS  
*Tech. Officer:* GRC/D MONTEGANI  
*CASE Category:* 45 – ELECTRICAL ENGR

**NGT 3 52377**      **UNIV OF MICHIGAN - ANN ARBOR**      **6033**  
GRADUATE STUDENT RESEARCH  
06/07/2001 – 06/30/2002      FY01: \$22,000      Total: \$22,000  
*Prin. Invest.:* W J DAHM  
*Tech. Officer:* GRC/F J MONTEGANI  
*CASE Category:* 49 – ENGINEERING, OTHER

**NGT 4 52404**      **UNIV OF MICHIGAN - ANN ARBOR**      **6034**  
DESCRIPTION OF CONTRACT GRADUATE STUDENT RESEARCHERS PROGRAM  
06/10/1997 – 08/01/2001      FY01: \$0      Total: \$66,000  
*Prin. Invest.:* D BERNSTEIN  
*Tech. Officer:* DFRC/K K GUPTA, DFRC/L S VOELKER  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NGT 4 52421**      **UNIV OF MICHIGAN - ANN ARBOR**      **6035**  
MULTIVARIABLE NONLINEAR IDENTIFICATION MULTIVARIABLE NONLINEAR IDENTIFICATION  
05/11/2000 – 06/30/2002      FY01: \$22,000      Total: \$44,000  
*Prin. Invest.:* D S BERNSTEIN  
*Tech. Officer:* DFRC/K K GUPTA  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NGT 4 52426**      **UNIV OF MICHIGAN - ANN ARBOR**      **6036**  
GRADUATE RESEARCH – AEROELASTICITY AND AEROELASTIC SCALING OF HYPERSONIC VEHICLES  
07/17/2001 – 06/30/2002      FY01: \$22,000      Total: \$22,000  
*Prin. Invest.:* P FRIEDMAN  
*Tech. Officer:* DFRC/K K GUPTA  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NGT 5 75**      **UNIV OF MICHIGAN - ANN ARBOR**      **6037**  
A PARALLEL ADAPTIVE MESH REFINEMENT SCHEME FOR SUPERNOVA REMNANTS  
06/16/1998 – 06/30/2001      FY01: \$0      Total: \$66,000  
*Prin. Invest.:* K POWELL, NONE  
*Tech. Officer:* GSFC/G SOFFEN  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NGT 5 124**      **UNIV OF MICHIGAN - ANN ARBOR**      **6038**  
DEVELOPMENT AND TESTING OF THE FAST IMAGING PLASMA SPECTROMETER (STUDENT: PATRICK KOEHN)  
06/07/2001 – 08/31/2002      FY01: \$22,000      Total: \$22,000  
*Prin. Invest.:* L A FISK  
*Tech. Officer:* GSFC/M S BURRELL  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NGT 5 30172**      **UNIV OF MICHIGAN - ANN ARBOR**      **6039**  
THE USE OF REMOTE SENSING METHODS FOR STUDYING FIRE-INDUCED LAND COVER CHANGES IN BOREAL FORESTS  
09/04/1998 – 05/31/2002      FY01: \$0      Total: \$66,000  
*Prin. Invest.:* C OLSON, FRENCH  
*Tech. Officer:* GSFC/M Y WEI  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NGT 5 30359**      **UNIV OF MICHIGAN - ANN ARBOR**      **6040**  
 COMPUTATIONAL METHODS FOR ADVANCED CLIMATE MODEL PREDICTIONS: A STUDY OF ADOPTIVE GRID TECHNIQUES  
 08/23/2000 - 08/31/2002      FY01: \$22,000      Total: \$44,000  
*Prin. Invest.:* J PENNER  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NGT 5 40062**      **UNIV OF MICHIGAN - ANN ARBOR**      **6041**  
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE AND FELLOWSHIP PROGRAM.  
 03/15/1997 - 01/31/2001      FY01: \$0      Total: \$1,805,000  
*Prin. Invest.:* R M JOHNSON  
*Tech. Officer:* GSFC/L KEFFER  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NGT 5 40118**      **UNIV OF MICHIGAN - ANN ARBOR**      **6042**  
 MICHIGAN SPACE GRANT COLLEGE AND FELLOWSHIP PROGRA M  
 03/15/2001 - 01/31/2002      FY01: \$475,000      Total: \$475,000  
*Prin. Invest.:* A D GALLIMORE  
*Tech. Officer:* GSFC/D D DETROYE  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NGT 5 50199**      **UNIV OF MICHIGAN - ANN ARBOR**      **6043**  
 MARKET-BASED DISTRIBUTED TASK ALLOCATION IN AUTONO MOUS SPACECRAFT  
 06/24/1998 - 08/31/2001      FY01: \$0      Total: \$66,000  
*Prin. Invest.:* M WELLMAN  
*Tech. Officer:* HQ/A NURRIDIN  
*CASE Category:* 22 – COMPUTER SCIENCE

**NGT 5 50255**      **UNIV OF MICHIGAN - ANN ARBOR**      **6044**  
 A HYBRID KINETIC FLUID MODEL FOR THE ATMOSPHERE OF PLUTO STUDENT: AYLSHA REINARD  
 06/21/1999 - 06/30/2002      FY01: \$22,000      Total: \$66,000  
*Prin. Invest.:* L FISK  
*Tech. Officer:* GSFC/L SMITH  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NGT 5 50349**      **UNIV OF MICHIGAN - ANN ARBOR**      **6045**  
 DEVELOPMENT OF A NEW SOLID STATE DETECTOR FOR THE STUDY OF SOLAR WIND COMPOSITION/STUDENT: SUSAN LEP  
 05/08/2001 - 06/30/2002      FY01: \$22,000      Total: \$22,000  
*Prin. Invest.:* L FISK  
*Tech. Officer:* GSFC/K BLANDING  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NGT 8 52864**      **UNIV OF MICHIGAN - ANN ARBOR**      **6046**  
 IDENTIFICATION OF LONG TERM CHANGE IN SOCIETY AND SETTLEMENT OF THE KHABUR DRAINAGE  
 07/28/1998 - 08/13/2002      FY01: \$0      Total: \$64,000  
*Prin. Invest.:* H T WRIGHT  
*Tech. Officer:* MSFC/J F DOWDY  
*CASE Category:* 79 – SOCIAL SCIENCE, OTHER

**NGT 8 52888**      **UNIV OF MICHIGAN - ANN ARBOR**      **6047**  
 NUCLEAR THERMAL PROPULSION FOR SPACE EXPLORATION  
 05/18/2000 - 08/31/2003      FY01: \$22,000      Total: \$44,000  
*Prin. Invest.:* T KAMMASH  
*Tech. Officer:* MSFC/S NASH-STEVENSON  
*CASE Category:* 49 – ENGINEERING, OTHER

**NGT 8 52889**      **UNIV OF MICHIGAN - ANN ARBOR**      **6048**  
 DEVELOPMENT OF FIELD Emitter ARRy OF ELETRODYNAMIC TETHER  
 05/04/2000 - 06/30/2003      FY01: \$22,000      Total: \$44,000  
*Prin. Invest.:* B GILCHRIST  
*Tech. Officer:* MSFC/S NASH-STEVENSON  
*CASE Category:* 45 – ELECTRICAL ENGR

**NGT 8 52900**      **UNIV OF MICHIGAN - ANN ARBOR**      **6049**  
 DEV OF COMPUTER MODELS FOR NUCLEAR-BASED MAGNETHO YDRO-DYNAMIC POWER CYCLES  
 05/25/2001 - 07/01/2004      FY01: \$22,000      Total: \$22,000  
*Prin. Invest.:* I BOYD  
*Tech. Officer:* MSFC/S NASH-STEVENSON  
*CASE Category:* 41 – AERONAUTICAL ENGNR

**NAG 2 1279**      **WAYNE STATE UNIV**      **6050**  
 DEVELOPMENT OF STRATEGIES & TOOLS FOR ANALYSIS & C ONTROL OF LARGE AIR TRAFFIC MANAGEMENT SYSTEMS  
 01/05/1999 - 12/31/2001      FY01: \$30,000      Total: \$90,000  
*Prin. Invest.:* F LIN  
*Tech. Officer:* ARC/G MEYER  
*CASE Category:* 49 – ENGINEERING, OTHER

**NAG 2 1503**      **WAYNE STATE UNIV**      **6051**  
 EFFECTS OF MICROGRAVITY ON PREIMPLANTATION MOUSE D EVELOPMENT  
 07/12/2001 - 07/14/2002      FY01: \$89,600      Total: \$89,600  
*Prin. Invest.:* D A RAPPOLEE  
*Tech. Officer:* ARC/M M AVERNER  
*CASE Category:* 51 – BIOLOGY (EXCLUDING ENVIR)

**NAG 3 2180**      **WAYNE STATE UNIV**      **6052**  
 CHARACTERIZATION OF MULTI-JUNCTION SOLAR CELLS CHARACTERIZATION OF MULTI-JUNCTION SOLAR CELLS  
 07/18/1998 - 01/04/2002      FY01: \$75,000      Total: \$225,000  
*Prin. Invest.:* P WOODYARD  
*Tech. Officer:* GRC/D BRINKER  
*CASE Category:* 45 – ELECTRICAL ENGR

**NAG 3 2313**      **WAYNE STATE UNIV**      **6053**  
 A DESIGN AND ANALYSIS TOOL FOR PULSE DETONATION EN GINES  
 12/29/1999 - 02/04/2003      FY01: \$177,384      Total: \$237,384  
*Prin. Invest.:* S YU  
*Tech. Officer:* GRC/P C JORGENSEN  
*CASE Category:* 41 – AERONAUTICAL ENGNR

**NAG 3 2542**      **WAYNE STATE UNIV**      **6054**  
 DIRECT CALCULATIONS OF PLUME DYNAMICS AND ACOUSTIC S OF A PULSE DETONATION ENGINE BY THE SPACE-TIME  
 02/12/2001 - 02/04/2002      FY01: \$46,999      Total: \$46,999  
*Prin. Invest.:* S YU  
*Tech. Officer:* GRC/P C JORGENSEN  
*CASE Category:* 41 – AERONAUTICAL ENGNR

**NAG 9 1183**      **WAYNE STATE UNIV**      **6055**  
 DEVELOPMENT OF HUMAN FACTORS ANALYSIS OF ADVANCED 3D VISUALIZATION FOR TELEPRESENCE  
 01/15/2000 - 01/14/2003      FY01: \$121,173      Total: \$248,723  
*Prin. Invest.:* L ZAMORANO  
*Tech. Officer:* JSC/B WOOLFORD  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NCC 2 1189**      **WAYNE STATE UNIV**      **6056**  
 FROM BIOLOGICA INFORMATION PROCESSING TO ADAPTABLE ROBOTRY:  
 PRINCIPLES, MODELS & BIOMIMETIC DESIGN  
 07/14/2000 - 07/14/2002      FY01: \$75,000      Total: \$150,000  
*Prin. Invest.: K PETER ZAUNER*  
*Tech. Officer: ARC/S P COLOMBANO, ARC/M M AVERNER*  
*CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)*

**NCC 3 580**      **WAYNE STATE UNIV**      **6057**  
 APPLICATION OF THE METHOD OF SPACE-TIME CONSERVATI ON ELEMENT  
 AND SOLUTION ELEMENT TO THE CALCULATIO  
 01/08/1998 - 11/05/2000      FY01: \$0      Total: \$257,819  
*Prin. Invest.: S T YU, M C LAI*  
*Tech. Officer: GRC/P C JORGENSEN*  
*CASE Category: 41 - AERONAUTICAL ENGRN*

**NAG 1 1979**      **WESTERN MICHIGAN UNIV**      **6058**  
 NEW RESEARCH GRANT  
 12/10/1997 - 11/30/2000      FY01: -\$179      Total: \$149,683  
*Prin. Invest.: W W LIOU*  
*Tech. Officer: LARC/C L RUMSEY*  
*CASE Category: 41 - AERONAUTICAL ENGRN*

**NAG 1 01023**      **WESTERN MICHIGAN UNIV**      **6059**  
 DSMC SIMULATIONS OF LAMINAR FLOW BREAKDOWN ON SPACE TRANS-  
 PORT SYSTEMS  
 04/02/2001 - 02/28/2004      FY01: \$50,000      Total: \$50,000  
*Prin. Invest.: W W LIOU*  
*Tech. Officer: LARC/J N MOSS*  
*CASE Category: 41 - AERONAUTICAL ENGRN*

**NAG 3 2529**      **WESTERN MICHIGAN UNIV**      **6060**  
 A UNIFIED LES/RANS APPROACH USING THE CE/SE METHOD  
 01/22/2001 - 01/17/2002      FY01: \$61,000      Total: \$61,000  
*Prin. Invest.: W W LIOU*  
*Tech. Officer: GRC/S CHANG*  
*CASE Category: 41 - AERONAUTICAL ENGRN*

**NAG 5 10448**      **WESTERN MICHIGAN UNIV**      **6061**  
 IMPROVED SIMULATIONS OF ASTROPHYSICAL PLASMAS: COMPUTATION  
 OF NEW ATOMIC DATA  
 02/20/2001 - 02/28/2002      FY01: \$70,000      Total: \$70,000  
*Prin. Invest.: T GORCZYCA*  
*Tech. Officer: GSFC/P CRANE*  
*CASE Category: 13 - PHYSICS*

**NAG10 279**      **WESTERN MICHIGAN UNIV**      **6062**  
 CLOSE CALL DATA SOURCES REVIEW AND ANALYSIS CLOSE CALL DATA  
 SOURCES REVIEW AND ANALYSIS  
 04/07/2000 - 09/29/2000      FY01: \$0      Total: \$88,872  
*Prin. Invest.: W J HOMAN*  
*Tech. Officer: KSC/D S KEENAN*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NCC 2 1246**      **WESTERN MICHIGAN UNIV**      **6063**  
 FRACTAL & GEOSTATISTICAL METADATA FOR MONITORING G LOBAL  
 CHANGE USING REMOTE SENSING IMAGERY  
 04/17/2001 - 05/31/2002      FY01: \$70,000      Total: \$70,000  
*Prin. Invest.: C W EMERSON*  
*Tech. Officer: ARC/J L DUNGAN, ARC/J C COUGHLIN*  
*CASE Category: 22 - COMPUTER SCIENCE*

**MINNESOTA**

**NAG 5 8626**      **CONCORDIA COLLEGE IN MOORHEAD**      **6064**  
 MARS SOLAR BALLOON GAS CHROMATOGRAPH MASS SPECTROM ETER  
 06/24/1999 - 06/30/2001      FY01: \$0      Total: \$5,000  
*Prin. Invest.: H L MANNING*  
*Tech. Officer: GSFC/P R MAHAFFY*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 8142**      **MANKATO STATE UNIV**      **6065**  
 AN ARTIFICIAL INTELLIGENCE CLASSIFICATION TOOL AND ITS APPLICA-  
 TION TO GAMMA-RAY BURSTS  
 02/03/1999 - 01/31/2001      FY01: -\$22,293      Total: \$124,886  
*Prin. Invest.: J HAKKILA*  
*Tech. Officer: GSFC/P HUNTER*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 7366**      **MOORHEAD STATE UNIV**      **6066**  
 ELECTROCHEMICAL STUDY OF SILICATE MELT STRUCTURE A ND COMPO-  
 NENTACTIVITIES  
 05/15/1998 - 05/31/2002      FY01: \$0      Total: \$67,800  
*Prin. Invest.: R O COLSON*  
*Tech. Officer: HQ/J BOYCE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 11287**      **SAINT CLOUD STATE UNIV**      **6067**  
 SEARCH FOR CHEMICAL DIVERSITY IN COMETRAY VOLATILE S  
 08/20/2001 - 08/31/2004      FY01: \$16,400      Total: \$16,400  
*Prin. Invest.: M WOMACK*  
*Tech. Officer: GSFC/J HILLMAN*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 1 1938**      **UNIV OF MINNESOTA**      **6068**  
 INVESTIGATION OF MESOSCALE VARIABILITY IN CONVECTIVE BOUNDARY  
 LAYER DEVELOPMENT USING  
 05/28/1997 - 05/31/2000      FY01: \$0      Total: \$79,516  
*Prin. Invest.: K J DAVIS*  
*Tech. Officer: LARC/S ISMAIL, LARC/W T STEVENS*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 1 2242**      **UNIV OF MINNESOTA**      **6069**  
 STRUCTURING FORMAL RQMTS SPECIFICATIONS FOR REUSE AND  
 PRODUCT FAMILIES -- NRA 98-LARC-8  
 09/28/1999 - 06/30/2001      FY01: \$1      Total: \$62,055  
*Prin. Invest.: M E HEMDAHL*  
*Tech. Officer: LARC/R W BUTLER*  
*CASE Category: 22 - COMPUTER SCIENCE*

**NAG 1 01090**      **UNIV OF MINNESOTA**      **6070**  
 FURTHER DEVELOPMENT & DEPLOYMENT OF NANOMETER AEROSOL SIZE  
 ANALYZER (NASA) TO SUPPORT EXCAVATE  
 06/15/2001 - 01/12/2002      FY01: \$50,000      Total: \$50,000  
*Prin. Invest.: D Y PUI, D R CHEN*  
*Tech. Officer: LARC/W R COFER, LARC/B E ANDERSON*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 2 1428**      **UNIV OF MINNESOTA**      **6071**  
 REAL-TIME MOTION PATH PLANNING FOR AUTONOMOUS ROTOCRAFT  
 08/04/2000 - 08/31/2002      FY01: \$60,000      Total: \$145,373  
*Prin. Invest.: Y J ZHAO*  
*Tech. Officer: ARC/M S WHALLEY*  
*CASE Category: 41 - AERONAUTICAL ENGRN*

**NAG 2 1470**           **UNIV OF MINNESOTA**           **6072**  
 COMPREHENSIVE COMPUTER SIMULATION OF AIR TRAFFIC SYSTEM  
 04/09/2001 - 03/31/2002      FY01: \$59,297      Total: \$59,297  
*Prin. Invest.:* Y J ZHAO  
*Tech. Officer:* ARC/J E ROBINSON  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NAG 2 1474**           **UNIV OF MINNESOTA**           **6073**  
 ATOMIC FORCE MICROSCOPY OF THERMAL INSULATION MATERIALS WITH  
 AEROGELS  
 04/13/2001 - 03/31/2002      FY01: \$13,646      Total: \$13,646  
*Prin. Invest.:* J MAPS  
*Tech. Officer:* ARC/L J SALERNO, ARC/S M JOHNSON  
*CASE Category:* 13 – PHYSICS

**NAG 3 1975**           **UNIV OF MINNESOTA**           **6074**  
 ROBUST NONLINEAR FEEDBACK CONTROL OF AIRCRAFT PROPULSION  
 SYSTEMS  
 10/22/1996 - 10/31/2000      FY01: \$0      Total: \$226,384  
*Prin. Invest.:* W L GARRARD, G T BALAS  
*Tech. Officer:* GRC/S GARG  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NAG 3 2187**           **UNIV OF MINNESOTA**           **6075**  
 DEVELOPMENT OF A CALIBRATION SYSTEM FOR EVALUATING  
 INSTRUMENTS FOR MEASURING AEROSOLS AND PARTICULAE  
 08/06/1998 - 01/12/2001      FY01: \$0      Total: \$174,000  
*Prin. Invest.:* D H PUI  
*Tech. Officer:* GRC/T M SANDERS  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NAG 3 2275**           **UNIV OF MINNESOTA**           **6076**  
 FEASIBILITY STUDY OF A MICROSCALE PARTICULATE CLASSIFIER (MIPAC)  
 07/01/1999 - 10/20/1999      FY01: -\$2,516      Total: \$44,984  
*Prin. Invest.:* D H PUL  
*Tech. Officer:* GRC/P S GREENBERG  
*CASE Category:* 49 – ENGINEERING, OTHER

**NAG 3 2435**           **UNIV OF MINNESOTA**           **6077**  
 FEASIBILITY STUDY OF A MICROSCALE PARTICULATE CLASSIFIER (MIPAC)  
 05/31/2000 - 09/30/2001      FY01: \$25,000      Total: \$75,000  
*Prin. Invest.:* D H PUI  
*Tech. Officer:* GRC/P S GREENBERG  
*CASE Category:* 49 – ENGINEERING, OTHER

**NAG 3 2468**           **UNIV OF MINNESOTA**           **6078**  
 DEVELOPMENT OF A LOW-COST, SOFTWARE RECONFIGURABLE LABORATORY  
 FOR FIRST COURSE ON ELECTRIC DRIVES A  
 06/26/2000 - 08/31/2003      FY01: \$0      Total: \$10,000  
*Prin. Invest.:* P MOHAN  
*Tech. Officer:* GRC/B H KENNY  
*CASE Category:* 45 – ELECTRICAL ENGR

**NAG 3 2600**           **UNIV OF MINNESOTA**           **6079**  
 NEW POLYMER ELECTROLYTE SYSTEMS  
 05/01/2001 - 05/31/2004      FY01: \$125,000      Total: \$125,000  
*Prin. Invest.:* W H SMYRL  
*Tech. Officer:* GRC/NH HAGEDORN  
*CASE Category:* 12 – CHEMISTRY

**NAG 4 205**           **UNIV OF MINNESOTA**           **6080**  
 APPLICATION OF GAIN-SCHEDULED MULTIVARIABLE CONTROL TECHNIQUES  
 TO THE F/A-18 SYSTEMS RESEARCH AIRCR  
 04/06/2000 - 03/30/2001      FY01: \$0      Total: \$45,000  
*Prin. Invest.:* G J BAIAS  
*Tech. Officer:* DFRC/M STEPHENSON  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NAG 5 3735**           **UNIV OF MINNESOTA**           **6081**  
 STUDY FOR AN AURORAL MULTI-PROBE SATELLITE MISSION  
 03/03/1997 - 02/28/2002      FY01: \$0      Total: \$200,000  
*Prin. Invest.:* D A CATTELL  
*Tech. Officer:* GSFC/R HOWARD  
*CASE Category:* 13 – PHYSICS

**NAG 5 3998**           **UNIV OF MINNESOTA**           **6082**  
 WEB EXPLORATION TOOLS FOR A FAST FEDERATED OPTICAL  
 03/06/1997 - 02/28/2000      FY01: \$0      Total: \$225,911  
*Prin. Invest.:* P M HUMPHREYS  
*Tech. Officer:* GSFC/J BREDEKAMP  
*CASE Category:* 22 – COMPUTER SCIENCE

**NAG 5 4466**           **UNIV OF MINNESOTA**           **6083**  
 A THREE-DIMENSIONAL, TIME-DEPENDENT MODEL OF THE ION WAVES  
 WITH THE IONOSPHERE  
 05/21/1997 - 04/30/2000      FY01: -\$15,448      Total: \$208,215  
*Prin. Invest.:* D L LYSAK  
*Tech. Officer:* GSFC/M M MELLOTT  
*CASE Category:* 13 – PHYSICS

**NAG 5 5113**           **UNIV OF MINNESOTA**           **6084**  
 THE PROPAGATION OF UH COSMIC RAY NUCLEI FUNDING FOR FIRST YEAR  
 OF GRANT  
 04/09/1997 - 03/31/2000      FY01: \$0      Total: \$37,280  
*Prin. Invest.:* C J WADDINGTON  
*Tech. Officer:* GSFC/H C NEEDLEMAN, GSFC/B A MERRITT  
*CASE Category:* 12 – CHEMISTRY

**NAG 5 5172**           **UNIV OF MINNESOTA**           **6085**  
 A VERY HIGH TIME RESOLUTION ROCKET INVESTIGATION OF  
 IONOSPHERIC PLASMA PHYSICS ASSOCIATED WITH ATM  
 03/30/1998 - 03/31/2002      FY01: \$0      Total: \$557,127  
*Prin. Invest.:* J R WYGANT  
*Tech. Officer:* GSFC/W B JOHNSON  
*CASE Category:* 13 – PHYSICS

**NAG 5 5182**           **UNIV OF MINNESOTA**           **6086**  
 TIME DEPENDENT SIMULATION OF NONLINEAR COSMIC-RAY ACCELERATION  
 IN SHOCKS: A POWERFUL NEW APPROACH  
 03/26/1998 - 08/31/2001      FY01: \$0      Total: \$132,290  
*Prin. Invest.:* T W JONES  
*Tech. Officer:* GSFC/B A MERRITT  
*CASE Category:* 13 – PHYSICS

**NAG 5 5214**           **UNIV OF MINNESOTA**           **6087**  
 PHASE A GRANT STUDY FOR IMEX PROJECT PI - PROF J WYGANT  
 10/08/1998 - 10/31/2003      FY01: \$147,585      Total: \$557,085  
*Prin. Invest.:* J WYGANT  
*Tech. Officer:* GSFC/D PIERCE  
*CASE Category:* 13 – PHYSICS

**NAG 5 6191**           **UNIV OF MINNESOTA**           **6088**  
 TITLE: MORPHOLOGICAL ANALYSIS OF BRAIDED RIVERS U  
 08/13/1997 - 05/31/2001      FY01: \$0      Total: \$84,254  
*Prin. Invest.: E FOUFOULA-GEORGI*  
*Tech. Officer: GSFC/M Y WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 6797**           **UNIV OF MINNESOTA**           **6089**  
 RHEOLOGY OF DIABASE: IMPLICATIONS FOR TECTONICS ON VENUS AND MARS  
 02/19/1998 - 03/31/2001      FY01: \$0      Total: \$263,596  
*Prin. Invest.: D L KOHLSTEDT*  
*Tech. Officer: GSFC/P ROGERS*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 7094**           **UNIV OF MINNESOTA**           **6090**  
 RARE GAS AND NITROGEN STUDIES ON LUNAR, METEORITIC, AND SELECTED TERRESTRIAL MATERIALS  
 05/20/1998 - 03/14/2002      FY01: \$180,000      Total: \$652,000  
*Prin. Invest.: R O PEPIN*  
*Tech. Officer: HQ/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7202**           **UNIV OF MINNESOTA**           **6091**  
 CONTINUING DATA ANALYSIS OF THE WAVES EXPERIMENT ON THE WIND SPACECRAFT  
 04/22/1998 - 02/28/2001      FY01: \$0      Total: \$738,516  
*Prin. Invest.: P KELLOG*  
*Tech. Officer: GSFC/K OGILIVIE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 7462**           **UNIV OF MINNESOTA**           **6092**  
 SOLAR WIND COUPLING TO THE MAGNETOSPHERE: ANALYSIS OF MULTISPACECRAFT OBSERVATIONS IN SOLAR WIND  
 11/12/1998 - 12/31/2001      FY01: \$88,101      Total: \$260,721  
*Prin. Invest.: N LIN*  
*Tech. Officer: GSFC/M H ACUNA*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7599**           **UNIV OF MINNESOTA**           **6093**  
 REGIONAL HYDROLOGIC SIMULATION MODEL TO STUDY AQUIFER-ATMOSPHERE INTERACTIONS ON INTERANNUAL-DECADAL SCALES  
 07/21/1998 - 06/30/2002      FY01: \$0      Total: \$250,000  
*Prin. Invest.: M PERSON*  
*Tech. Officer: GSFC/E T ENGMAN*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 7715**           **UNIV OF MINNESOTA**           **6094**  
 SPATIO-TEMPORAL ORGANIZATION AND SPACE-TIME DOWNSCALING OF TROPICAL RAINFALL  
 10/27/1998 - 10/31/2001      FY01: \$73,386      Total: \$227,819  
*Prin. Invest.: E FOUFOULA-GEORGI*  
*Tech. Officer: GSFC/O W THIELE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 7885**           **UNIV OF MINNESOTA**           **6095**  
 SUPPORT ANALYSIS OF DATA FROM THE UCLA MAGNETOMETER ON NASAPOLAR SPACECRAFT DURING THE  
 12/01/1998 - 12/31/2000      FY01: \$0      Total: \$65,000  
*Prin. Invest.: C CATELL*  
*Tech. Officer: GSFC/R HOFFMAN*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 7906**           **UNIV OF MINNESOTA**           **6096**  
 INFRARED IMAGING PHOTOMETRY AND POLARIMETRY OF COMETS  
 12/10/1998 - 09/30/2002      FY01: \$0      Total: \$220,944  
*Prin. Invest.: D J JONES*  
*Tech. Officer: GSFC/T MORGAN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7917**           **UNIV OF MINNESOTA**           **6097**  
 BIG FOOT--CHARACTERIZING LAND COVER, LAI AND NPP AT THE LANDSCAPE SCALE FOR EOS/MODIS VALIDATION  
 12/09/1998 - 12/31/2001      FY01: \$77,629      Total: \$229,481  
*Prin. Invest.: P B REICH*  
*Tech. Officer: GSFC/D E WICKLAND*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8073**           **UNIV OF MINNESOTA**           **6098**  
 GEOTAIL OBSERVATIONS OF EXB FLOWS AND ASSOCIATED LOW FREQUENCY WAVES IN THE MAGNETOTAIL AND THEIR DYNAMICS  
 01/21/1999 - 01/31/2001      FY01: \$0      Total: \$84,000  
*Prin. Invest.: C A CATTELL*  
*Tech. Officer: GSFC/M H ACUNA*  
*CASE Category: 13 – PHYSICS*

**NAG 5 8082**           **UNIV OF MINNESOTA**           **6099**  
 THEORETICAL STUDY OF ULF WAVES IN THE MAGNETOTAIL  
 01/22/1999 - 04/30/2002      FY01: \$101,768      Total: \$285,981  
*Prin. Invest.: D L LYSAK*  
*Tech. Officer: GSFC/J SHARBER*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8205**           **UNIV OF MINNESOTA**           **6100**  
 STUDY OF SUBSTORM ASSOCIATED ULF AND VLF WAVES IN THE MAGNETOTAIL USING SPACECRAFT DATA  
 02/08/1999 - 02/14/2002      FY01: \$59,000      Total: \$167,693  
*Prin. Invest.: D LIN*  
*Tech. Officer: GSFC/D EVANS*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8869**           **UNIV OF MINNESOTA**           **6101**  
 LABORATORY STUDIES OF THE KINETICS OF ATMOSPHERIC REACTIONS OF HALOGENATED ALKOXY RADICALS  
 01/10/2000 - 12/31/2001      FY01: \$115,117      Total: \$224,975  
*Prin. Invest.: R W CARR*  
*Tech. Officer: GSFC/M KURYLO*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9146**           **UNIV OF MINNESOTA**           **6102**  
 PHASE-A AND BRIDGE PHASE STUDY OF STEREO/WAVES ACCOMMODATION  
 03/09/2000 - 12/31/2001      FY01: \$450,996      Total: \$582,150  
*Prin. Invest.: K GOETZ*  
*Tech. Officer: GSFC/M KAISER*  
*CASE Category: 11 – ASTRONOMY*

<b>NAG 5 9221</b>	<b>UNIV OF MINNESOTA</b>	<b>6103</b>	<b>NAG 5 10569</b>	<b>UNIV OF MINNESOTA</b>	<b>6111</b>
QUASARS AS PROBES (LTSA 99)			SPATIAL VARIABILITY IN LAND-ATMOSPHERE INTERACTION COUPLING A		
03/14/2000 - 05/31/2002	FY01: \$113,502	Total: \$216,561	NEW GENERATION LARGE-EDDY SIMULATION		
Prin. Invest.: E SKILLMAN			03/12/2001 - 03/14/2002	FY01: \$94,385	Total: \$94,385
Tech. Officer: GSFC/R OLIVERSEN			Prin. Invest.: F PORTE-AGEL		
CASE Category: 11 - ASTRONOMY			Tech. Officer: GSFC/M WEI		
			CASE Category: 99 - MULTI INTERDISCPL, OTHER		
<b>NAG 5 9254</b>	<b>UNIV OF MINNESOTA</b>	<b>6104</b>	<b>NAG 5 10774</b>	<b>UNIV OF MINNESOTA</b>	<b>6112</b>
THEORETICAL STUDIES OF ALFVEN WAVE INTERACTION WITH THE			SELF-CONSISTENT EVOLUTION OF COSMIC-RAY SHOCKS (ATP 2000)		
IONOSPHERE			04/24/2001 - 04/30/2002	FY01: \$61,343	Total: \$61,343
03/13/2000 - 04/30/2002	FY01: \$79,632	Total: \$152,132	Prin. Invest.: T W JONES		
Prin. Invest.: R LYSAK			Tech. Officer: GSFC/R J OLIVERSEN		
Tech. Officer: GSFC/M MELLOTT			CASE Category: 11 - ASTRONOMY		
CASE Category: 32 - GEOLOGICAL SCIENCE					
<b>NAG 5 9312</b>	<b>UNIV OF MINNESOTA</b>	<b>6105</b>	<b>NAG 5 11124</b>	<b>UNIV OF MINNESOTA</b>	<b>6113</b>
MAPPING & MODELING FOREST CHANGE IN A BOREAL LAND SCAPE			DETERMINING THE IMPORTANCE OF ENERGY TRANSFER BETWEEN		
03/20/2000 - 04/30/2002	FY01: \$120,154	Total: \$199,934	MAGNETOSPHERIC REGIONS VIA MHD WAVES USING		
Prin. Invest.: J PASTOR			07/19/2001 - 07/14/2002	FY01: \$185,000	Total: \$185,000
Tech. Officer: GSFC/G GUTMAN			Prin. Invest.: C A CATTELL		
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER			Tech. Officer: GSFC/J SPANN		
			CASE Category: 11 - ASTRONOMY		
<b>NAG 5 9349</b>	<b>UNIV OF MINNESOTA</b>	<b>6106</b>	<b>NAG 5 11130</b>	<b>UNIV OF MINNESOTA</b>	<b>6114</b>
BALLOON BORNE OBSERVATIONS OF THE POLARIZATION AND SOTROPY			LAND USE, CARBON AND WATER IN THE UPLANDS OF SOUTH EASTERN		
OF THE COSMIC MICROWAVE BACKGROUND RADIAT			NORTH AMERICA		
03/28/2000 - 03/31/2003	FY01: \$155,000	Total: \$284,000	08/02/2001 - 07/14/2002	FY01: \$79,866	Total: \$79,866
Prin. Invest.: S HANANY			Prin. Invest.: P BOLSTAD		
Tech. Officer: GSFC/G STRINGFELLOW			Tech. Officer: GSFC/G GUTMAN		
CASE Category: 11 - ASTRONOMY			CASE Category: 39 - ENVIRONMENTAL SCI, OTHER		
<b>NAG 5 9407</b>	<b>UNIV OF MINNESOTA</b>	<b>6107</b>	<b>NAG 5 11262</b>	<b>UNIV OF MINNESOTA</b>	<b>6115</b>
ENHANCING & ARCHIVING THE APS CATALOG OF THE POSS I			DEVELOPMENT OF ENVIRONMENTAL INDICATORS FOR THE US GREAT		
04/10/2000 - 04/30/2002	FY01: \$115,900	Total: \$233,400	LAKES USING REMOTE SENSING TECHNOLOGY		
Prin. Invest.: R HUMPHREYS			08/27/2001 - 08/31/2005	FY01: \$75,000	Total: \$75,000
Tech. Officer: GSFC/P HUNTER			Prin. Invest.: G NIEMI		
CASE Category: 11 - ASTRONOMY			Tech. Officer: GSFC/E LINDSTROM		
			CASE Category: 99 - MULTI INTERDISCPL, OTHER		
<b>NAG 5 10178</b>	<b>UNIV OF MINNESOTA</b>	<b>6108</b>	<b>NAG 8 1258</b>	<b>UNIV OF MINNESOTA</b>	<b>6116</b>
CONTINUED ANALYSIS OF ISTP WIND/WAVES DATA			ATOMISTIC SIMULATIONS OF CADMIUM TELLURIDE		
01/18/2001 - 02/28/2002	FY01: \$151,619	Total: \$151,619	04/15/1996 - 04/14/2002	FY01: \$0	Total: \$352,000
Prin. Invest.: K GOETZ			Prin. Invest.: J DERBY		
Tech. Officer: GSFC/M L KAISER			Tech. Officer: MSFC/P DOTY, MSFC/D NOEVER		
CASE Category: 11 - ASTRONOMY			CASE Category: 19 - PHYSICAL SCIENCE, OTHER		
<b>NAG 5 10274</b>	<b>UNIV OF MINNESOTA</b>	<b>6109</b>	<b>NAG 8 1349</b>	<b>UNIV OF MINNESOTA</b>	<b>6117</b>
DATA ANALYSIS OF THE UNIV. MINNESOTA PORTION OF THE URAP EXPERIMENT ON THE ULYSSES SPACECRAFT			SELF-ASSEMBLY OF HEPATOCYTE SPHEROIDS IN MICRO- GRAVITY		
01/16/2001 - 12/31/2001	FY01: \$90,024	Total: \$90,024	06/19/1997 - 11/30/2001	FY01: \$0	Total: \$497,933
Prin. Invest.: P J KELLOGG			Prin. Invest.: W S HU, L HANSEN, R KEMMEL		
Tech. Officer: GSFC/R J MACDOWALL			Tech. Officer: MSFC/B GUYNES, MSFC/J MAYO		
CASE Category: 13 - PHYSICS			CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)		
<b>NAG 5 10509</b>	<b>UNIV OF MINNESOTA</b>	<b>6110</b>	<b>NAG 8 1474</b>	<b>UNIV OF MINNESOTA</b>	<b>6118</b>
RHEOLOGY OF PLANETARY MATERIALS: IMPLICATIONS FOR TECTONICS OF TERRESTRIAL PLANETS			THEORETICAL ANALYSIS OF 3D TRANSIENT CONVECTION AND SEGREGATION		
03/01/2001 - 03/31/2002	FY01: \$84,900	Total: \$84,900	02/06/1998 - 01/31/2002	FY01: \$128,250	Total: \$487,750
Prin. Invest.: D L KOHLSTEDT			Prin. Invest.: J J DERBY, A J YECKEL		
Tech. Officer: GSFC/D SENKE			Tech. Officer: MSFC/C TALLEY		
CASE Category: 32 - GEOLOGICAL SCIENCE			CASE Category: 13 - PHYSICS		

**NAG 8 1519**           **UNIV OF MINNESOTA**           **6119**  
 SUBGRID SCALE PRECIPITATION VARIABILITY OVER THE MISSISSIPPI  
 RIVER BASIN  
 05/01/1998 - 04/30/2002      FY01: \$0            Total: \$317,495  
*Prin. Invest.: E FOUFOULA-GEORGIOU*  
*Tech. Officer: MSFC/J ARNOLD*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 8 1676**           **UNIV OF MINNESOTA**           **6120**  
 FIRST PRINCIPLES CALCULATIONS OF MOLTEN II-IV COMPOUNDS AND  
 THEIR SOLIDIFICATION BEHAVIOR  
 05/01/2000 - 11/30/2003      FY01: \$104,500        Total: \$149,500  
*Prin. Invest.: J J DERBY, J R CHELIKOWSKY*  
*Tech. Officer: MSFC/P M DOTY*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NAG 9 1007**           **UNIV OF MINNESOTA**           **6121**  
 GENESIS DISCOVERY MISSION  
 05/06/1998 - 03/31/2002      FY01: \$83,697        Total: \$309,322  
*Prin. Invest.: R O PEPIN*  
*Tech. Officer: JSC/E K STANSBERY*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 9 1218**           **UNIV OF MINNESOTA**           **6122**  
 LIQUID COOLING GARMENT FOR SPACE SUIT  
 03/03/2000 - 03/07/2002      FY01: \$184,134        Total: \$373,786  
*Prin. Invest.: V KOSCHEYER*  
*Tech. Officer: JSC/R TREVINO*  
*CASE Category: 42 – ASTRONAUTICAL ENGR*

**NAG 9 1222**           **UNIV OF MINNESOTA**           **6123**  
 WORST CASE ANALYSIS OF THE X38 V201 FLIGHT CONTROL SYSTEM  
 03/24/2000 - 03/24/2001      FY01: \$0            Total: \$40,918  
*Prin. Invest.: G J BALAS*  
*Tech. Officer: JSC/S R MUNDY/M M HAMMERSCHMIDT*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG13 99002**           **UNIV OF MINNESOTA**           **6124**  
 THE UPPER MIDWEST REGIONAL EARTH SCIENCE APPLICATION CENTER  
 02/03/1999 - 02/02/2002      FY01: \$0            Total: \$1,500,000  
*Prin. Invest.: M E BAUER*  
*Tech. Officer: SSC/C HILL*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG13 99022**           **UNIV OF MINNESOTA**           **6125**  
 INTEGRATING SATELLITE REMOTE SENSING INTO FOREST INVENTORY  
 AND MANAGEMENT  
 08/13/1999 - 11/01/2001      FY01: \$183,892        Total: \$288,917  
*Prin. Invest.: M BAUER*  
*Tech. Officer: SSC/R MCKELLIP*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAS 5 32994**           **UNIV OF MINNESOTA**           **6126**  
 SCIENTIFIC AND TECHNICAL SUPPORT FOR THE UNIFIED RADIO AND  
 PLASMA WAVE INVESTIGATION  
 02/08/1996 - 12/31/2000      FY01: \$0            Total: \$571,329  
*Prin. Invest.: K GOETZ, P J KELLOGG*  
*Tech. Officer: GSFC/R J MACDOWELL*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NCC 1 311**           **UNIV OF MINNESOTA**           **6127**  
 IMPLEMENTATION OF IMPROVED NANOMETER AEROSOL SIZE ANALYZER  
 (NANO-ASA) FOR NEAR-FIELD FLT EXPERIMENTS  
 07/23/1998 - 01/12/2001      FY01: \$0            Total: \$95,150  
*Prin. Invest.: D PUI, B E ANDERSON, D B KITTELSON*  
*Tech. Officer: LARC/W L GROSE, LARC/R S ECKMAN*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 1 337**           **UNIV OF MINNESOTA**           **6128**  
 APPLICATION OF LINEAR PARAMETER-VARYING TECHNIQUES TO SAFETY-  
 CRITICAL AIRCRAFT FLIGHT SYSTEMS  
 07/20/1999 - 07/14/2002      FY01: \$202,522        Total: \$502,114  
*Prin. Invest.: G J BALAS*  
*Tech. Officer: LARC/C M BELCASTRO, LARC/N M BELCASTRO*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 2 809**           **UNIV OF MINNESOTA**           **6129**  
 OPTIMAL TAKEOFF PROCEDURES FOR A CATEGORY A HELICO PTERS  
 07/08/1993 - 02/28/2001      FY01: \$0            Total: \$361,468  
*Prin. Invest.: Y ZHAO*  
*Tech. Officer: ARC/R T CHEN*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 2 990**           **UNIV OF MINNESOTA**           **6130**  
 AIRCRAFT SCHEDULING & CONFLICT RESOLUTION IN ATM  
 04/29/1997 - 02/28/2001      FY01: \$26,898        Total: \$311,215  
*Prin. Invest.: Y ZHAO*  
*Tech. Officer: ARC/T J DAVIS, ARC/J E ROBINSON,III*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 2 1231**           **UNIV OF MINNESOTA**           **6131**  
 DISCOVERY OF CHANGES FROM THE GLOBAL CARBON CYCLE & CLIMATE  
 SYSTEM USING DATA MINING  
 03/28/2001 - 02/28/2002      FY01: \$94,000        Total: \$94,000  
*Prin. Invest.: V KUMAR*  
*Tech. Officer: ARC/C S POTTER, ARC/J COUGHLAN*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NCC 2 1240**           **UNIV OF MINNESOTA**           **6132**  
 INTELLIGENT SPECIFICAITON-CENTERED TEST-CASE GENER ATION  
 REVIEW IDENTIFIER  
 04/04/2001 - 02/28/2002      FY01: \$108,000        Total: \$108,000  
*Prin. Invest.: M HEIMDAHL*  
*Tech. Officer: ARC/R MORRIS*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NCC 2 5340**           **UNIV OF MINNESOTA**           **6133**  
 LIFE IN EXTREME ENVIRONMENTS RESEARCH  
 08/04/1999 - 07/31/2000      FY01: \$0            Total: \$30,000  
*Prin. Invest.: W E SEYFRIED*  
*Tech. Officer: ARC/M T FLYNN, ARC/J HINES*  
*CASE Category: 33 – OCEANOGRAPHY*

**NCC 2 5393**           **UNIV OF MINNESOTA**           **6134**  
 ADVANCED MODELS FOR HIGH ENTHALPY FLOW SIMULATIONS  
 08/14/2000 - 09/14/2001      FY01: \$57,822        Total: \$113,572  
*Prin. Invest.: G V CANDLER*  
*Tech. Officer: ARC/J OLEJNICZAK*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 3 652** **UNIV OF MINNESOTA** **6135**  
 MEASUREMENTS IN A TRANSITIONAL BOUNDARY LAYER UNDER LOW-PRESSURE TURBINE AIRFOIL CONDITIONS  
 11/10/1998 - 11/01/2002 FY01: \$91,359 Total: \$182,306  
*Prin. Invest.: T W SIMON*  
*Tech. Officer: GRC/D E ASHPIS*  
*CASE Category: 46 – MECHANICAL ENGR*

**NCC 3 754** **UNIV OF MINNESOTA** **6136**  
 DEVELOPMENT OF THE SPACE-TIME CE/SE METHOD FOR LARGE EDDY SIMULATIONS OF SUPERSONIC JET NOISE  
 12/29/1999 - 12/15/2000 FY01: \$0 Total: \$50,000  
*Prin. Invest.: G V CANDLER*  
*Tech. Officer: GRC/P JORGENSEN*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 3 811** **UNIV OF MINNESOTA** **6137**  
 ULTRA-COMPACT, SOFT-SWITCHING POWER SUPPLIES WITH HIGH EFFICIENCY FOR ELECTRIC PROPULSION  
 07/13/2000 - 06/14/2002 FY01: \$0 Total: \$128,342  
*Prin. Invest.: N MOHAN*  
*Tech. Officer: GRC/R M BUTTON*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NCC 3 857** **UNIV OF MINNESOTA** **6138**  
 ULTRA COMPACT SOFT SWITCHING POWER SUPPLIES WITH HIGH EFFICIENCY FOR ELECTRIC PROPULSION  
 01/26/2001 - 01/14/2003 FY01: \$138,000 Total: \$138,000  
*Prin. Invest.: N MOHAN*  
*Tech. Officer: GRC/T T PETERSON*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NCC 5 316** **UNIV OF MINNESOTA** **6139**  
 INSTALIZING MTPE DATA FOR LAND & ENVIRONMENTAL MANAGEMENT  
 04/11/1998 - 02/28/2003 FY01: \$199,000 Total: \$727,000  
*Prin. Invest.: T BURK*  
*Tech. Officer: GSFC/A TUYAHOV*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 102** **UNIV OF MINNESOTA** **6140**  
 SPECTROSCOPIC VARIABILITY IN ETA CARINAE (STUDENT: NATHAN SMITH)  
 05/25/2000 - 06/30/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.: K DAVIDSON*  
*Tech. Officer: GSFC/G A SOFFEN*  
*CASE Category: 11 – ASTRONOMY*

**NGT 5 30080** **UNIV OF MINNESOTA** **6141**  
 THE HYDROLOGIC CYCLE OF THE LOWER KANSAS RIVER BASIN OF LAND-ATMOSPHERE FEEDBACKS AND POTENTIAL EFFECT  
 09/11/1997 - 08/31/2000 FY01: -\$2,720 Total: \$19,280  
*Prin. Invest.: M PERSON*  
*Tech. Officer: GSFC/G ASRAR*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 30109** **UNIV OF MINNESOTA** **6142**  
 FAST-GEOTAIL CORRELATIVE STUDIES OF MAGNETOSPHERE-IONOSPHERE COUPLING  
 05/11/1998 - 07/31/2001 FY01: -\$7,090 Total: \$36,910  
*Prin. Invest.: C CATTELL/SIGSBEE*  
*Tech. Officer: GSFC/D EVANS*  
*CASE Category: 11 – ASTRONOMY*

**NGT 5 30111** **UNIV OF MINNESOTA** **6143**  
 THE IMPACTS OF A SALT CEDAR (*TAMARIX RAMOSISSIMA*) INVASION ON COMMUNITIES, ECOSYSTEM PROCESSES  
 08/28/1998 - 08/31/2002 FY01: \$0 Total: \$66,000  
*Prin. Invest.: S HOBBIE*  
*Tech. Officer: GSFC/M Y WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 30115** **UNIV OF MINNESOTA** **6144**  
 ECOSYSTEM RESPONSE TO CLIMATIC CHANGE: A COMPARATIVE STUDY OF FOREST-LAKE ECOSYSTEMS ON DIFFERENT SCALES  
 10/01/1997 - 02/28/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.: M DAVIS*  
*Tech. Officer: GSFC/G ASRAR*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 40040** **UNIV OF MINNESOTA** **6145**  
 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM  
 01/24/1997 - 02/28/2001 FY01: -\$244,731 Total: \$1,172,919  
*Prin. Invest.: W L GARRARD*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 40086** **UNIV OF MINNESOTA** **6146**  
 MINNESOTA SPACE GRANT COLLEGE & FELLOWSHIP PROGRAM  
 02/16/2001 - 02/28/2002 FY01: \$726,131 Total: \$726,131  
*Prin. Invest.: W L GARRARD*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50091** **UNIV OF MINNESOTA** **6147**  
 STUDY OF LONG RANGE QUANTUM COHERENCE IN THE BOSE- LIQUID HELIUM FOUR.  
 09/05/1997 - 06/30/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.: HALLEY*  
*Tech. Officer: HQ/A NURRIDIN*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50104** **UNIV OF MINNESOTA** **6148**  
 SPATIO-TEMPORAL ORGANIZATION OF REMOTELY SENSED RADAR DYNAMIC SCALING AND DEVELOPMENT OF FRAMEWORK FOR  
 09/06/1997 - 08/31/2000 FY01: -\$79 Total: \$43,921  
*Prin. Invest.: G POURFOULA*  
*Tech. Officer: GSFC/G ASRAR*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50123** **UNIV OF MINNESOTA** **6149**  
 THE DYNAMICAL EVOLUTION OF YOUNG SUPERNOVA REMNANT  
 09/10/1997 - 09/14/2000 FY01: -\$3,485 Total: \$62,515  
*Prin. Invest.: L RUDNICK*  
*Tech. Officer: HQ/A NURRIDIN*  
*CASE Category: 29 – MATH/COMPUTER SCI, OTHER*

**NGT 5 50186** **UNIV OF MINNESOTA** **6150**  
 THREE DIMENSIONAL SIMULATION OF KELVIN-HELMHOLTZ INSTABILITY WITH MAGNETIC SHEAR  
 05/27/1998 - 06/30/2000 FY01: \$0 Total: \$38,500  
*Prin. Invest.: R L LYSAK*  
*Tech. Officer: HQ/A NURRIDIN*  
*CASE Category: 13 – PHYSICS*

**NGT 5 50250**           **UNIV OF MINNESOTA**           **6151**  
 SOUTHERN GALACTIC PLANE SURVEY AT 21 CM STUDENT: NAOMI M.  
 MCCLURE-G  
 06/08/1999 - 09/30/2001      FY01: \$0      Total: \$44,000  
*Prin. Invest.: J DICKEY*  
*Tech. Officer: GSFC/L SMITH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50251**           **UNIV OF MINNESOTA**           **6152**  
 STUDY OF SOLITARY WAVES & DOUBLE LAYERS IN HIGH ALTITUDE CUSP  
 AND PLASMA SHEET BOUNDARY REGION  
 06/08/1999 - 06/30/2000      FY01: \$0      Total: \$22,000  
*Prin. Invest.: C CATTELL*  
*Tech. Officer: GSFC/L SMITH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50293**           **UNIV OF MINNESOTA**           **6153**  
 A PARTICLE SIMULATION STUDY OF SOLITARY WAVES IN THE MAGNRTO-  
 SPHERE/STUDENT: JAMES CRUMLEY  
 06/26/2000 - 06/30/2002      FY01: \$22,000      Total: \$44,000  
*Prin. Invest.: R LYSAK*  
*Tech. Officer: GSFC/L SMITH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50312**           **UNIV OF MINNESOTA**           **6154**  
 THE ELECTRODYNAMICS OF THE INNER MAGNETOSPHERE DURING  
 MAJOR GEOMAGNETIC STORMS/STUDENT: DOUGLASROW  
 08/07/2000 - 07/31/2001      FY01: \$0      Total: \$22,000  
*Prin. Invest.: J WYGANT*  
*Tech. Officer: GSFC/J SHARBER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50344**           **UNIV OF MINNESOTA**           **6155**  
 MAXIPOL: MEASURING THE POLARIZATION ANISOTROPY OF THE COSMIC  
 MICROWAVE BACKGROUND/STUDENT: BRADLEY  
 05/14/2001 - 06/30/2002      FY01: \$22,000      Total: \$22,000  
*Prin. Invest.: S HANAY*  
*Tech. Officer: GSFC/K BLANDING*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50346**           **UNIV OF MINNESOTA**           **6156**  
 A MULTIWAVELENGTH STUDY OF THE INTERSTELLAR MEDIUM OF LOW-  
 METALLICITY/STUDENT: JOHN CANNON  
 05/07/2001 - 08/30/2002      FY01: \$22,000      Total: \$22,000  
*Prin. Invest.: E SKILLMAN*  
*Tech. Officer: GSFC/K BLANDING*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NSG 5088**           **UNIV OF MINNESOTA**           **6157**  
 RESEARCH OF MAGNETOSPHERIC PHYSICS PHENOMENA USING SOUND  
 ROCKETS  
 11/01/1975 - 06/30/2001      FY01: \$0      Total: \$2,615,463  
*Prin. Invest.: J R WINCKLER*  
*Tech. Officer: GSFC/L J EARLY, GSFC/R H PLESS*  
*CASE Category: 13 – PHYSICS*

**NAG 1 01054**           **WINONA STATE UNIV**           **6158**  
 ACCELERATED TESTING OF POLYMERIC COMPOSITES: CORRELATION OF  
 SCALE-UP EFFECTS ON VISOELASTIC  
 03/30/2001 - 04/30/2003      FY01: \$60,864      Total: \$60,864  
*Prin. Invest.: B ABDEL-MAGID*  
*Tech. Officer: LARC/T S GATES*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**MISSISSIPPI**

**NAG 9 1135**           **ALCORN STATE UNIV**           **6159**  
 INTEGRATED POWER SYS RELIABILITY CURRICULUM ENHANCEMENT AND  
 LAB DEVELOP PROGRAM  
 08/17/1999 - 08/16/2000      FY01: -\$1,459      Total: \$98,541  
*Prin. Invest.: N W MOSES*  
*Tech. Officer: JSC/W C ROEH, JSC/L M ARMENDARIZ*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NAG13 98005**           **ALCORN STATE UNIV**           **6160**  
 THERMAL-HYDRAULIC MATERIAL PRE-CONSTRUCTION ANALYSIS OF THE  
 NEW SSME TEST DIFFUSER  
 03/31/1998 - 09/30/2001      FY01: \$0      Total: \$264,392  
*Prin. Invest.: S ACEIL*  
*Tech. Officer: JSC/B ST. CYR*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG13 98010**           **ALCORN STATE UNIV**           **6161**  
 STRENGTHENING PRE-SERVICE AND IN-SERVICE TEACHER EDUCATION  
 IN MATHEMATICS, SCIENCE & TECHNOLOGY  
 06/12/1998 - 06/10/2001      FY01: \$0      Total: \$575,280  
*Prin. Invest.: D ADDIE, J RUSSELL, W HUMPHRY*  
*Tech. Officer: JSC/N SULLIVAN*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 2 1485**           **JACKSON STATE UNIV**           **6162**  
 NETWORK VISUALIZATION IN THREE-DIMENSIONS (NETVIZ)  
 05/22/2001 - 05/14/2002      FY01: \$35,000      Total: \$35,000  
*Prin. Invest.: Q MALLUHI*  
*Tech. Officer: ARC/B A BIEGEL*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 3 2277**           **JACKSON STATE UNIV**           **6163**  
 INTELLIGENT INTERFACE TO THE NUMERICAL SIMULATORS (IINS) OF THE  
 AEROSPACE TRANSPORTATION ENGINES  
 07/22/1999 - 07/31/2002      FY01: \$35,815      Total: \$105,847  
*Prin. Invest.: D MITRA*  
*Tech. Officer: GRC/D F NOGA*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 5 6209**           **JACKSON STATE UNIV**           **6164**  
 BOUNDARY LAYER PROCESSES AFFECTING TROPICAL CYCLONES  
 08/06/1997 - 07/31/2001      FY01: \$0      Total: \$300,000  
*Prin. Invest.: P FITZPATRICK*  
*Tech. Officer: GSFC/R ADLER*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG13 98007**           **JACKSON STATE UNIV**           **6165**  
 PACE/MSET SAME  
 06/10/1998 - 08/30/2001      FY01: \$0      Total: \$299,910  
*Prin. Invest.: A K MOHAMED*  
*Tech. Officer: SSC/A JOYCE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG13 99004**           **JACKSON STATE UNIV**           **6166**  
 MASTAP PROJECT: A MODEL FOR IMPROVING THE PRE- SERVICE  
 TRAINING OF MIDDLE SCHOOL MATH TEACHERS  
 02/23/1999 - 02/22/2002      FY01: \$199,600      Total: \$598,800  
*Prin. Invest.: H GORE*  
*Tech. Officer: SSC/A JOYCE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG13 99012**           **JACKSON STATE UNIV**           **6167**  
 STUDIES OF OCEAN-ATMOSPHERIC INTERACTIONS AND ASSOCIATED  
 TROPICAL CYCLONES/HURRICANES OF GULF ME  
 03/17/1999 - 03/16/2002    FY01: \$100,000           Total: \$300,000  
*Prin. Invest.: R REDDY*  
*Tech. Officer: JSC/R MILLER*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG13 99013**           **JACKSON STATE UNIV**           **6168**  
 SATELLITE ANALYSIS OF GULF COAST ATMOSPHERE MOSITURE AND  
 TROPOSPHERIC AEROSOLS  
 03/24/1999 - 03/23/2002    FY01: \$99,992           Total: \$299,988  
*Prin. Invest.: P CROFT*  
*Tech. Officer: JSC/J JENNER*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 2 5398**           **JACKSON STATE UNIV**           **6169**  
 COMPUTATIONAL STUDY ON EVOLUTION OF LIFE: INVESTIGATION OF  
 NON-CLASICAL BASE 5-AZACYTOSINE & ITS D  
 09/21/2000 - 09/30/2001    FY01: \$0                  Total: \$14,000  
*Prin. Invest.: J LESZCZYNSKI*  
*Tech. Officer: ARC/A POHORILLE, ARC/M FONDA*  
*CASE Category: 12 – CHEMISTRY*

**NAG 1 1990**           **MISSISSIPPI STATE UNIV**           **6170**  
 GRID GENERATION AND NUMERICAL SOLUTION OF THE NAVIER-STOKES  
 EQUATIONS OF UNSTRUCTUREDGRIDS  
 01/12/1998 - 01/11/2000    FY01: -\$89               Total: \$249,912  
*Prin. Invest.: D L WHITFIELD, D L MARCUS*  
*Tech. Officer: LARC/J L THOMAS*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 1 2038**           **MISSISSIPPI STATE UNIV**           **6171**  
 INVESTIGATION OF ROBUST DESIGN CONCEPTS FOR COMPO- SITE  
 ROTORCRAFT FUSELAGE STRUCTURES  
 03/26/1998 - 05/31/2001    FY01: \$0                  Total: \$135,283  
*Prin. Invest.: M RAIS-BHANI*  
*Tech. Officer: LARC/D J BAKER, LARC/D R AMBUR*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 1 2295**           **MISSISSIPPI STATE UNIV**           **6172**  
 SITUATION AWARENESS & LEVEL OF AUTOMATION: EMPIRICAL  
 ASSESSMENT OF LEELS OF AUTOMATION IN THE  
 05/11/2000 - 05/10/2001    FY01: -\$5,999           Total: \$54,001  
*Prin. Invest.: D B KABER*  
*Tech. Officer: LARC/M R ENDLEY*  
*CASE Category: 69 – PSYCHOLOGY, OTHER*

**NAG 2 1232**           **MISSISSIPPI STATE UNIV**           **6173**  
 PHYSICS-BASED MANEUVERING PREDICTION OF TILT ROTOR AIRCRAFT  
 06/24/1998 - 07/31/2001    FY01: \$216,338           Total: \$870,726  
*Prin. Invest.: D L WHITFIELD, L K TAYLOR, W R BRILEY*  
*Tech. Officer: ARC/R C STRAWN, ARC/W F FEIREISEN*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 3 1699**           **MISSISSIPPI STATE UNIV**           **6174**  
 COMPUTATIONAL FLUID DYNAMICS OF ROTATING MACHINERY USING  
 TRUBO  
 01/23/1995 - 03/30/2001    FY01: \$50,000           Total: \$629,999  
*Prin. Invest.: J M JANUS, D WHITFIELD, T M SWAFFORD*  
*Tech. Officer: GRC/D L HUFF*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 3 1712**           **MISSISSIPPI STATE UNIV**           **6175**  
 COMPUTATIONS OF ROTOR-STATOR INTERACTIONS USING TH E  
 NAVIEER-STOKES EQUATION  
 02/21/1995 - 02/06/2000    FY01: \$0                  Total: \$480,000  
*Prin. Invest.: D L WHITFIELD*  
*Tech. Officer: GRC/E R MCFARLAND*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 3 2176**           **MISSISSIPPI STATE UNIV**           **6176**  
 DEVELOPMENT OF A PARALLEL TURBOMACHINERY FLOW SOLV ER  
 06/22/1998 - 01/31/2002    FY01: \$35,000           Total: \$225,000  
*Prin. Invest.: W R BRILEY*  
*Tech. Officer: GRC/E R MCFARLAND*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 3 2235**           **MISSISSIPPI STATE UNIV**           **6177**  
 INTEGRATED GEOMETRY/GIRD/SIMULATION SOFTWARE FOR S INGLE AND  
 MULTI-ELEENT AIRFOILS WITH ICE ACCRETIO  
 02/22/1999 - 03/31/2001    FY01: \$80,000           Total: \$210,313  
*Prin. Invest.: B K SONI*  
*Tech. Officer: GRC/Y K CHOO*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 3 2562**           **MISSISSIPPI STATE UNIV**           **6178**  
 ICEWING – A MESH GENERATION SYSTEM FOR COMPLEX THR EE-DIMEN-  
 SIONAL ICED WING CONFIGURATIONS  
 03/05/2001 - 02/04/2002    FY01: \$61,087           Total: \$61,087  
*Prin. Invest.: D THOMPSON*  
*Tech. Officer: GRC/Y K CHOO*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 5 11127**           **MISSISSIPPI STATE UNIV**           **6179**  
 DELTA AREA SCIENCE & TECHNOLOGY ACADEMY  
 07/26/2001 - 07/14/2002    FY01: \$70,000           Total: \$70,000  
*Prin. Invest.: B JOINER*  
*Tech. Officer: GSFC/M MATHEWS*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 8 1566**           **MISSISSIPPI STATE UNIV**           **6180**  
 NOVEL APPROACHES REGARDING PROTEIN SOLUBILITY  
 02/23/1999 - 11/30/2002    FY01: \$103,550           Total: \$346,550  
*Prin. Invest.: W W WILSON, A ASONOV*  
*Tech. Officer: MSFC/B V GUYNES*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 8 1837**           **MISSISSIPPI STATE UNIV**           **6181**  
 HIGH THROUGHPUT SCREEN OF PROTEIN-PROTEIN INTER- ACTIONS BY  
 MICROCHIP SPACE  
 08/22/2001 - 11/30/2004    FY01: \$32,000           Total: \$32,000  
*Prin. Invest.: W W WILSON*  
*Tech. Officer: MSFC/B V GUYNES*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG13 99018** MISSISSIPPI STATE UNIV 6182  
 LEAF AREA AND VOLUME ESTIMATES IN LOBLOLLY PINE FOREST DERIVED FROM AERIAL IMAGING LIDAR  
 07/30/1999 - 11/01/2001 FY01: \$65,000 Total: \$247,132  
*Prin. Invest.: S ROBERTS*  
*Tech. Officer: SSC/R MCKELLIP*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAS 3 00181** MISSISSIPPI STATE UNIV 6183  
 MODIFICATION OF TURBO SOFTWARE  
 09/29/2000 - 10/01/2005 FY01: \$200,000 Total: \$325,000  
*Prin. Invest.: J CHEN, D L WHITEFIELD, R BRILEY*  
*Tech. Officer: GRC/E MCFARLAND, GRC/D VAN ZANTE*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NAS13 98033** MISSISSIPPI STATE UNIV 6184  
 RESEARCH & DEVELOPMENT NASA AND RESIDENT AGENCIES  
 03/23/1998 - 03/22/2003 FY01: \$4,699,265 Total: \$14,721,852  
*Prin. Invest.: L RITCHIE, BULLINGTON, D WIESENBURG*  
*Tech. Officer: SSC/D POWE*  
*CASE Category: 33 – OCEANOGRAPHY*

**NCC13 99001** MISSISSIPPI STATE UNIV 6185  
 ROLE OF LAND-GRANT UNIV IN APPLICATIONS OF REMOTE SENSING  
 02/19/1999 - 03/21/2004 FY01: \$2,500,000 Total: \$12,500,000  
*Prin. Invest.: D SHAW, N M COX*  
*Tech. Officer: SSC/H CARR*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT13 52741** MISSISSIPPI STATE UNIV 6186  
 ENHANCEMENT OF CRYOGENIC FLUID FLOW SIMULATION CAPABILITIES & CONTROLLER DESIGN TEST FACILITIES  
 05/20/2000 - 07/31/2001 FY01: \$0 Total: \$0  
*Prin. Invest.: R FOLLET*  
*Tech. Officer: SSC/R TRAVIS*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 5 9197** MISSISSIPPI VALLEY STATE UNIV. 6187  
 MISSISSIPPI VALLEY STATE UNIV PACE PROGRAM  
 03/09/2000 - 02/28/2002 FY01: \$99,921 Total: \$199,659  
*Prin. Invest.: C BLAND*  
*Tech. Officer: GSFC/M STOUTSENBERGER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9535** MISSISSIPPI VALLEY STATE UNIV. 6188  
 INTEGRATING REMOTE SENSING/GIS TECHNOLOGY & RSCH INTO MSET EDUCATION  
 05/01/2000 - 05/14/2002 FY01: \$0 Total: \$200,000  
*Prin. Invest.: C BLAND*  
*Tech. Officer: GSFC/C PERSON*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG13 51** MISSISSIPPI VALLEY STATE UNIV. 6189  
 INCORPORATING INFORMATION TECHNOLOGY TO ENTERPRISE ZONES AND EMPOWERMENT COMMUNITY SCHOOL SYSTEMS  
 06/30/1997 - 03/31/2000 FY01: -\$25,890 Total: \$355,128  
*Prin. Invest.: S J WHITE*  
*Tech. Officer: JSC/N SULLIVAN*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG13 98004** MISSISSIPPI VALLEY STATE UNIV. 6190  
 RESPONSE OF A LEAF AND CANOPY SPECTRAL REFLECTANCE TO DROUGHT STRESS IN SOYBEANS  
 03/31/1998 - 09/30/2001 FY01: \$0 Total: \$299,352  
*Prin. Invest.: R BAHADUR*  
*Tech. Officer: JSC/G CARTER*  
*CASE Category: 55 – AGRICULTURE*

**NAG13 99003** MISSISSIPPI VALLEY STATE UNIV. 6191  
 IMPROVING TEACHERS AND STUDENTS ACHIEVEMENT IN MATHEMATICS AND SCIENCE  
 02/17/1999 - 02/17/2002 FY01: \$197,853 Total: \$591,503  
*Prin. Invest.: S J WHITE*  
*Tech. Officer: SSC/N S SULLIVAN*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG13 99026** MISSISSIPPI VALLEY STATE UNIV. 6192  
 RESPONSE OF SOYBEAN LEAF & CANOPY SPECTRAL REFLECTANCE TO CHELATE ASSISTED LEAD JUTPEXTRACTOPM  
 09/01/1999 - 09/27/2002 FY01: \$77,299 Total: \$199,920  
*Prin. Invest.: R BAHADUR*  
*Tech. Officer: JSC/R TRAVIS*  
*CASE Category: 55 – AGRICULTURE*

**NAG 5 7671** UNIV OF MISSISSIPPI - MEDICAL CENTER 6193  
 FUNDING FOR 'THE UTILITY OF LOW COST THERMAL SENSORS IN ARCHAEOLOGICALRESEARCH' (SENH98-0125)  
 09/01/1998 - 02/28/2001 FY01: \$0 Total: \$100,000  
*Prin. Invest.: J K JOHNSON*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 – GEOLOGICALSCIENCE*

**NAG13 00036** UNIV OF MISSISSIPPI - UNIV 6194  
 THE UNIV OF MS REMOTE SENSING AND SPACE LAW CENTER OF EXCELLENCE  
 04/06/2000 - 04/05/2002 FY01: \$0 Total: \$500,000  
*Prin. Invest.: J GABRYNOWICZ, R McLAUGHLIN, R RYCHLAK*  
*Tech. Officer: SSC/M MICK*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG13 00037** UNIV OF MISSISSIPPI - UNIV 6195  
 THE UNIV OF MISSISSIPPI GEOINFORMATICS CENTER  
 05/08/2000 - 05/07/2002 FY01: \$0 Total: \$1,826,459  
*Prin. Invest.: G EASSON*  
*Tech. Officer: SSC/N SOVIK*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG13 01004** UNIV OF MISSISSIPPI - UNIV 6196  
 NEW GRANT AWARD GEOSPATIAL INFORMATION TECHNOLOGY EDUCATION:  
 07/12/2001 - 07/02/2002 FY01: \$1,000,000 Total: \$1,000,000  
*Prin. Invest.: J JOHNSON, P LAWHEAD*  
*Tech. Officer: SSC/D P POWE*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NCC 5 405** UNIV OF MISSISSIPPI - UNIV 6197  
 NASA EPSCOR: PREPARATORY GRANT PROPOSAL  
 05/17/1999 - 12/31/2001 FY01: \$0 Total: \$450,000  
*Prin. Invest.: P SUKANEK*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 5 574** UNIV OF MISSISSIPPI - UNIV 6198  
 MISSISSIPPI NASA EPSCOR PROGRAM  
 09/26/2001 - 07/31/2004 FY01: \$258,000 Total: \$258,000  
*Prin. Invest.: P SUKANEK*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 40032** UNIV OF MISSISSIPPI - UNIV 6199  
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE AND FELLOWSHIP PROGRAM.  
 02/13/1997 - 02/28/2001 FY01: -\$85,294 Total: \$938,456  
*Prin. Invest.: P R SUKANEK*  
*Prin. Invest.: NONE*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 40098** UNIV OF MISSISSIPPI - UNIV 6200  
 MISSISSIPPI SPACE GRANT COLLEGE AND FELLOWSHIP PRO GRAM  
 02/28/2001 - 02/28/2002 FY01: \$464,544 Total: \$464,544  
*Prin. Invest.: P SUKANEK*  
*Tech. Officer: GSFC/D D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 4570** UNIV OF SOUTHERN MISSISSIPPI 6201  
 OPTICAL ASSESSMENT OF BIOGEOCHEMICAL PROPERTIES IN APPLICATION TO MULTI-SPECTRAL AND HIGH RESOLUTION  
 07/23/1997 - 10/14/2000 FY01: \$0 Total: \$260,988  
*Prin. Invest.: S LOHRENZ*  
*Tech. Officer: GSFC/J A CAMPBELL*  
*CASE Category: 33 – OCEANOGRAPHY*

**NAG 5 9770** UNIV OF SOUTHERN MISSISSIPPI 6202  
 OPTICAL ASSESSMENT OF BIOGEOCHEMICAL PROPERTIES IN COASTAL WATERS WITH APPLICATION TO MULTI-SPECTRAL  
 07/12/2000 - 01/31/2002 FY01: \$35,716 Total: \$58,216  
*Prin. Invest.: S E LOHRENZ*  
*Tech. Officer: GSFC/J MARRA*  
*CASE Category: 33 – OCEANOGRAPHY*

**NAG 5 10668** UNIV OF SOUTHERN MISSISSIPPI 6203  
 EXPLORING THE RELATIONSHIP BETWEEN SIZE AND CATALYTIC CAPACITY OF RNA CATALYSTS  
 03/21/2001 - 03/31/2002 FY01: \$167,200 Total: \$167,200  
*Prin. Invest.: F HUANG*  
*Tech. Officer: GSFC/M MEYER*  
*CASE Category: 11 – ASTRONOMY*

**NAG 8 1466** UNIV OF SOUTHERN MISSISSIPPI 6204  
 FRONTAL POLYMERIZATION IN MICROGRAVITY  
 02/10/1998 - 12/31/2002 FY01: \$281,770 Total: \$735,520  
*Prin. Invest.: J A POJMAN*  
*Tech. Officer: MSFC/W S SPEARMAN*  
*CASE Category: 13 – PHYSICS*

**NAG 8 1684** UNIV OF SOUTHERN MISSISSIPPI 6205  
 "PHASE SEPARATION AND SELF-ASSEMBLY OF LIQUID CRYSTALS AND POLYMER DISPERSIONS"  
 06/05/2000 - 11/30/2003 FY01: \$85,500 Total: \$125,500  
*Prin. Invest.: J WHITEHEAD*  
*Tech. Officer: MSFC/P DOTY*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG13 01005** UNIV OF SOUTHERN MISSISSIPPI 6206  
 A PROPOSAL TO DEVELOP AND OPERATE A COASTAL ZONE APPLICATIONS CENTER/ADVANCED GIS/REMOTE SENSING  
 07/30/2001 - 06/30/2003 FY01: \$2,993,400 Total: \$2,993,400  
*Prin. Invest.: W HAWKINS*  
*Tech. Officer: SSC/M THOMAS*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

## MISSOURI

**NAG 1 2253** SAINT LOUIS UNIV 6207  
 DEV OF A LOW REYNOLDS NUMBER TRANSITION-SENSITIZED TURBULENCE MODEL  
 11/23/1999 - 12/31/2000 FY01: \$0 Total: \$35,000  
*Prin. Invest.: W D THACKER*  
*Tech. Officer: LARC/J B GATSKI*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 3 2469** SAINT LOUIS UNIV 6208  
 INVESTIGATION OF THERMAL PROCESSING ON THE PROPERTIES OF PS304, A SOLID LUBRICANT COATING  
 06/27/2000 - 06/14/2001 FY01: \$0 Total: \$32,201  
*Prin. Invest.: P A BENOY*  
*Tech. Officer: GRC/C DELLACORTE*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NAG 3 2642** SAINT LOUIS UNIV 6209  
 INVESTIGATION OF THERMAL PROCESSING ON THE PROPERTIES OF PS305, A SOLID LUBRICANT COATING  
 08/02/2001 - 12/16/2001 FY01: \$31,007 Total: \$31,007  
*Prin. Invest.: P A BENOY*  
*Tech. Officer: GRC/C DELLACORTE*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NCC 1 01003** SAINT LOUIS UNIV 6210  
 FORMULATION OF A TRANSITION-SENSITIZED TURBULENCE MODEL  
 12/19/2000 - 12/31/2001 FY01: \$35,000 Total: \$35,000  
*Prin. Invest.: W D THACKER*  
*Tech. Officer: LARC/T B GATSKI*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NGT 5 50201** SAINT LOUIS UNIV 6211  
 TRANSCRIPTIONAL REGULATION OF DIFFERENTIATING OSTEOBAST  
 07/02/1998 - 06/30/2000 FY01: \$0 Total: \$44,000  
*Prin. Invest.: N C PARTRIDGE*  
*Tech. Officer: HQ/L SMITH*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 1 01037** UNIV OF MISSOURI - COLUMBIA 6212  
 DESIGN & EXPERIMENTAL VERIFICATION OF DEPLOYABLE/ INFLATABLE ULTRA-LIGHTWEIGHT STRUCTURES  
 06/08/2001 - 05/31/2004 FY01: \$79,054 Total: \$79,054  
*Prin. Invest.: P PAI*  
*Tech. Officer: LARC/W K BELVIN*  
*CASE Category: 49 – ENGINEERING, OTHER*

<b>NAG 2 1372</b>	<b>UNIV OF MISSOURI - COLUMBIA</b>	<b>6213</b>	<b>NAG 5 9145</b>	<b>UNIV OF MISSOURI - COLUMBIA</b>	<b>6220</b>
SIGNALING OF MUSCLE ATROPHY WITH UNLOADING 08/17/1999 - 08/31/2002	FY01: \$150,219	Total: \$365,206	ANDEAN MOUNTAIN BUILDING: AN INTEGRATED TOPOGRAPH GPS, SEISMOLOGICAL AND NUMERICAL STUDY 03/07/2000 - 03/14/2002	FY01: \$62,500	Total: \$100,000
Prin. Invest.: F W BOOTH			Prin. Invest.: M LIU		
Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY			Tech. Officer: GSFC/H V FREY		
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)			CASE Category: 32 - GEOLOGICAL SCIENCE		
<b>NAG 5 3900</b>	<b>UNIV OF MISSOURI - COLUMBIA</b>	<b>6214</b>	<b>NAG 5 9555</b>	<b>UNIV OF MISSOURI - COLUMBIA</b>	<b>6221</b>
INTERCOMPARISON, VISUALIZATION AND ANALYSIS TESTBED ASSIMILATED DATA SETS AND SATELLITE DATA. 03/03/1997 - 02/28/2001	FY01: \$0	Total: \$405,838	EVOLUTION OF THE RIBOZYME RNASE P RNA BY TRANSACTIVATION 05/04/2000 - 04/30/2002	FY01: \$120,000	Total: \$233,040
Prin. Invest.: K PALANIAPPAN			Prin. Invest.: F SCHMIDT		
Tech. Officer: GSFC/A NEGRI			Tech. Officer: GSFC/M MEYER		
CASE Category: 31 - ATMOSPHERIC SCIENCE			CASE Category: 99 - MULTI INTERDISCPL, OTHER		
<b>NAG 5 4607</b>	<b>UNIV OF MISSOURI - COLUMBIA</b>	<b>6215</b>	<b>NAG 5 10720</b>	<b>UNIV OF MISSOURI - COLUMBIA</b>	<b>6222</b>
VESTIBULAR ONTOGENY, ADAPTATION, AND THE EFFECTS OF LOADING IN THE RAT 05/19/1997 - 11/14/2001	FY01: \$0	Total: \$296,020	MOBILE WIRELESS ACCESS TO LOW RESOLUTION PICTURE TAKING (LRPT) NOAA WEATHER IMAGES 05/03/2001 - 05/14/2002	FY01: \$50,000	Total: \$50,000
Prin. Invest.: T A JONES			Prin. Invest.: C CHEN		
Tech. Officer: GSFC/M AVERNER			Tech. Officer: GSFC/P YEH		
CASE Category: 59 - LIFE SCIENCE, OTHER			CASE Category: 49 - ENGINEERING, OTHER		
<b>NAG 5 6772</b>	<b>UNIV OF MISSOURI - COLUMBIA</b>	<b>6216</b>	<b>NAG 5 11081</b>	<b>UNIV OF MISSOURI - COLUMBIA</b>	<b>6223</b>
INVESTIGATION OF A LARGE, COMPLETE SAMPLE OF GALAXY GROUPS USING THE ROSAT ALL-SKY SURVEY 01/22/1998 - 01/31/2001	FY01: \$0	Total: \$90,767	20-YEAR ELEVATION CHANGE OF THE SOUTHERN GREENLAND ICE SHEET FROM SATELLITE RADAR ALTIMETRY 07/10/2001 - 06/30/2002	FY01: \$48,977	Total: \$48,977
Prin. Invest.: J BURNS			Prin. Invest.: C DAVIS		
Tech. Officer: GSFC/D WEST			Tech. Officer: GSFC/W ABDALATI		
CASE Category: 11 - ASTRONOMY			CASE Category: 39 - ENVIRONMENTAL SCI, OTHER		
<b>NAG 5 6837</b>	<b>UNIV OF MISSOURI - COLUMBIA</b>	<b>6217</b>	<b>NAG 8 1741</b>	<b>UNIV OF MISSOURI - COLUMBIA</b>	<b>6224</b>
GREENLAND ICE SHEET ELEVATION CHANGE STUDIES USING RADAR ALTIMETRY WITH IMPROVED ORBIT ERROR ANALYSIS 01/08/1998 - 12/31/2000	FY01: \$0	Total: \$150,214	TRAJECTORY OPTIMIZATION PROGRAM FOR NEAR-EARTH LOW-THRUST SPACECRAFT 11/01/2000 - 08/31/2001	FY01: \$55,933	Total: \$55,933
Prin. Invest.: D KLUEVER			Prin. Invest.: C A KLUEVER		
Tech. Officer: GSFC/S GOGINENI			Tech. Officer: MSFC/J M HANSON, MSFC/G A DUKEMAN		
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER			CASE Category: 42 - ASTRONAUTICAL ENGR		
<b>NAG 5 8344</b>	<b>UNIV OF MISSOURI - COLUMBIA</b>	<b>6218</b>	<b>NAG 9 1210</b>	<b>UNIV OF MISSOURI - COLUMBIA</b>	<b>6225</b>
BAYESIAN HIERARCHICAL AIR-SEA INTERACTION MODELING : DEVELOPMENT AND APPLICATION IN THE LABR 04/13/1999 - 05/31/2002	FY01: \$16,231	Total: \$51,413	DESIGN & THERMAL CONTROL OF ADVANCED SPACE SUITS 03/24/2000 - 03/31/2003	FY01: \$15,000	Total: \$89,999
Prin. Invest.: C K WIKLE			Prin. Invest.: S NAIR, J B MILES		
Tech. Officer: GSFC/E LINDSTROM			Tech. Officer: JSC/G A THOMAS		
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER			CASE Category: 49 - ENGINEERING, OTHER		
<b>NAG 5 8557</b>	<b>UNIV OF MISSOURI - COLUMBIA</b>	<b>6219</b>	<b>NAG 9 1230</b>	<b>UNIV OF MISSOURI - COLUMBIA</b>	<b>6226</b>
ELEVATION CHANGE OF THE SOUTHERN GREENLAND ICE SHEET: INTERPRETATION 06/18/1999 - 12/31/2000	FY01: \$0	Total: \$59,378	CONSTRUCT THE LIFE SCIENCES CENTER 09/29/2000 - 08/31/2005	FY01: \$14,967,000	Total: \$27,767,000
Prin. Invest.: C DAVIS, NONE			Prin. Invest.: G M CHIPPENDALE		
Tech. Officer: GSFC/E LINDSTROM			Tech. Officer: JSC/R P KEHOE, JSC/P CAMPBELL		
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER			CASE Category: 59 - LIFE SCIENCE, OTHER		
<b>NAG 13 00006</b>	<b>UNIV OF MISSOURI - COLUMBIA</b>	<b>6227</b>	<b>NAG13 00006</b>	<b>UNIV OF MISSOURI - COLUMBIA</b>	<b>6227</b>
CENTER FOR LOCAL AND REGIONAL GOVERNMENT APPLICATIONS (CLARA) 03/13/2000 - 05/31/2002			CENTER FOR LOCAL AND REGIONAL GOVERNMENT APPLICATIONS (CLARA)		
Prin. Invest.: D D HIPPLE			Prin. Invest.: D D HIPPLE		
Tech. Officer: SSC/R MCKELLIP			Tech. Officer: SSC/R MCKELLIP		
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER			CASE Category: 39 - ENVIRONMENTAL SCI, OTHER		

**NAG13 99014** UNIV OF MISSOURI - COLUMBIA 6228  
 INST FOR THE COMMERCIAL DEVELOPMENT OF REMOTE SENSING TECHNOLOGY (ICREST)  
 04/19/1999 - 12/31/2001 FY01: \$0 Total: \$3,590,000  
*Prin. Invest.: D BLANCHARD*  
*Tech. Officer: JSC/R MCKELLIP*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 1 01017** UNIV OF MISSOURI - COLUMBIA 6229  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) (PREVIOUS GRANT NO. NGT-1-52239)  
 05/25/2001 - 06/30/2003 FY01: \$12,000 Total: \$12,000  
*Prin. Invest.: O VASILYEV*  
*Tech. Officer: LARC/T B GATSKI*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NGT 1 52239** UNIV OF MISSOURI - COLUMBIA 6230  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 05/26/2000 - 06/30/2001 FY01: \$12,000 Total: \$22,000  
*Prin. Invest.: O VASILYEV*  
*Tech. Officer: LARC/T B GATSKI*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NGT 5 50205** UNIV OF MISSOURI - COLUMBIA 6231  
 VASCULAR CONTROL OF SKELETAL MUSCLE BLOOD FLOW AFT ER SIMULATEDMICROGRAVITY (GSRP STUDENT):  
 07/09/1998 - 06/30/2001 FY01: \$0 Total: \$44,000  
*Prin. Invest.: M LAUGHLIN*  
*Tech. Officer: HQ/A NURRIDIN*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 8 52850** UNIV OF MISSOURI - COLUMBIA 6232  
 ROBUST GUIDANCE SCHEMES FOR LOW THRUST EARTH ORBIT  
 07/27/1998 - 08/14/2000 FY01: \$0 Total: \$44,000  
*Prin. Invest.: C A KLUEVER*  
*Tech. Officer: MSFC/J F DOWDY*  
*CASE Category: 46 – MECHANICAL ENGR*

**NGT13 52747** UNIV OF MISSOURI - COLUMBIA 6233  
 REMOTE SENSING INFO. PRODUCTS FROM HIGH RESOLUTION SATELLITE IMAGERY FOR LOCAL GOV. APP'S  
 06/08/2001 - 06/30/2004 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: A K SHACKLEFORD*  
*Tech. Officer: SSC/B DAVIS*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 1 01050** UNIV OF MISSOURI - ROLLA 6234  
 MODELING OF INTERACTION BETW PERMEABILITY & DAMAGE IN PMC LAMINATES FOR THE NASA RLV  
 04/05/2001 - 04/04/2004 FY01: \$81,286 Total: \$81,286  
*Prin. Invest.: S ROY*  
*Tech. Officer: LARC/T S GATES*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NAG 1 01122** UNIV OF MISSOURI - ROLLA 6235  
 HIGH-SPEED PROPULSION SYSTEM MODELING AND ANALYSIS  
 08/29/2001 - 08/28/2004 FY01: \$60,001 Total: \$60,001  
*Prin. Invest.: D W RIGGINS*  
*Tech. Officer: LARC/C R MCCLINTON, LARC/S H STACK*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NAG 3 2185** UNIV OF MISSOURI - ROLLA 6236  
 ADVANCED EXTRACTIVE AEROSOL SAMPLING  
 07/27/1998 - 09/30/2000 FY01: \$0 Total: \$303,149  
*Prin. Invest.: P D WHITEFIELD, D E HAGEN*  
*Tech. Officer: GRC/C C WEY*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NAG 3 2340** UNIV OF MISSOURI - ROLLA 6237  
 STUDIES IN ACOUSTIC PROPAGATION AND RADIATION STUDIES IN ACOUSTIC PROPAGATION AND RADIATION  
 02/25/2000 - 01/31/2002 FY01: \$0 Total: \$75,381  
*Prin. Invest.: W EVERSMAN*  
*Tech. Officer: GRC/E ENVIA*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NAG 3 2357** UNIV OF MISSOURI - ROLLA 6238  
 CHARACTERIZATION OF ENVIRONMENTAL DURABILITY OF A POLYMER MATRIX COMPOSITE  
 03/15/2000 - 01/31/2002 FY01: \$31,731 Total: \$65,644  
*Prin. Invest.: D ROY*  
*Tech. Officer: GRC/M A MEADER*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 3 2608** UNIV OF MISSOURI - ROLLA 6239  
 SECOND-LAW BASED PERFORMED OF AEROSPACE TURBOSHAFT ENGINES & ENGINE COMPONENTS  
 05/11/2001 - 12/14/2001 FY01: \$59,999 Total: \$59,999  
*Prin. Invest.: D W RIGGINS*  
*Tech. Officer: GRC/D THURMAN*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NAG 8 1465** UNIV OF MISSOURI - ROLLA 6240  
 KINETICS OF NUCLEATION AND CRYSTAL GROWTH IN GLASS FORMING METALS IN MICROGRAVITY  
 02/10/1998 - 01/31/2002 FY01: \$211,630 Total: \$617,880  
*Prin. Invest.: D E DAY, C S RAY*  
*Tech. Officer: MSFC/M PURVEY*  
*CASE Category: 13 – PHYSICS*

**NAG 8 1656** UNIV OF MISSOURI - ROLLA 6241  
 MODELS OF MASS TRANSPORT DURING MICROGRAVITY CRY- STAL GROWTH OF ALLOYED SEMICONDUCTORS IN A MAGETIC  
 04/24/2000 - 04/30/2001 FY01: \$0 Total: \$40,000  
*Prin. Invest.: N MA*  
*Tech. Officer: MSFC/P DOTY*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 8 1805** UNIV OF MISSOURI - ROLLA 6242  
 ROBUST ADAPTIVE CRITIC BASED NEUROCONTROLLERS FOR REUSABLE LAUNCH VEHICLES  
 07/25/2001 - 07/31/2002 FY01: \$34,999 Total: \$34,999  
*Prin. Invest.: S N BALAKRISHNAN*  
*Tech. Officer: MSFC/D KRUPP, MSFC/C HALL*  
*CASE Category: 46 – MECHANICAL ENGR*

**NCC 2 5419** UNIV OF MISSOURI - ROLLA 6243  
 ADAPTIVE CRITIC BASED RECONFIGURABLE CONTROLLER  
 02/14/2001 - 01/31/2002 FY01: \$60,000 Total: \$60,000  
*Prin. Invest.: S N BALAKRISHNAN*  
*Tech. Officer: GSFC/J J TOTAH*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NCC 2 5423**      **UNIV OF MISSOURI - ROLLA**      **6244**  
AN ANALYTICAL METHOD FOR DESIGN & AMANUFACTURING TO CAPTURE  
POTENTIAL FAILURE MODES IN HIGH RISK AE  
02/26/2001 - 02/28/2002      FY01: \$50,640      Total: \$50,640  
*Prin. Invest.: R B STONE*  
*Tech. Officer: ARC/I Y TUMER*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NGT 5 40060**      **UNIV OF MISSOURI - ROLLA**      **6245**  
TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE  
AND FELLOWSHIP PROGRAM.  
03/04/1997 - 02/28/2001      FY01: \$0      Total: \$807,500  
*Prin. Invest.: B P SELBERG*  
*Tech. Officer: GSFC/L KEFFER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 40112**      **UNIV OF MISSOURI - ROLLA**      **6246**  
MISSOURI SPACE GRANT COLLEGE & FELLOWSHIP PROGRAM  
03/06/2001 - 02/28/2002      FY01: \$212,500      Total: \$212,500  
*Prin. Invest.: F FINIASH*  
*Tech. Officer: GSFC/D D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 3 2592**      **UNIV OF MISSOURI - SAINT LOUIS**      **6247**  
THE THERMO-CHEMISTRY OF HIGH ENERGY DENSITY MISSLE FUELS  
04/23/2001 - 02/28/2002      FY01: \$30,000      Total: \$30,000  
*Prin. Invest.: J CHICKOS*  
*Tech. Officer: GRC/M J ZEHNE*  
*CASE Category: 12 – CHEMISTRY*

**NAG 5 6091**      **UNIV OF MISSOURI - SAINT LOUIS**      **6248**  
METHANE ABSORPTION SPECTROSCOPY IN THE 700-1000NM R SURE  
DEPENDENCES & DETERMINATIONS OF THE INTER-BA  
08/26/1997 - 06/14/2001      FY01: \$0      Total: \$100,000  
*Prin. Invest.: D J O'BRIEN*  
*Tech. Officer: GSFC/J BERGSTRALH*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 2 945**      **WASHINGTON UNIV - ST. LOUIS**      **6249**  
CHRONIC RECORDING OF OTOLITH NERVES IN MICROGRAVITY  
12/16/1994 - 11/30/1999      FY01: -\$60,416      Total: \$969,576  
*Prin. Invest.: S M HIGHSTEIN*  
*Tech. Officer: ARC/W E HINDS, ARC/C M WINGET*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 2 1457**      **WASHINGTON UNIV - ST. LOUIS**      **6250**  
DEFORMABLE WAKE DYNAMICS FOR IMPROVED MANEUVERING FLIGHT  
SIMULATION  
03/07/2001 - 02/14/2002      FY01: \$43,821      Total: \$43,821  
*Prin. Invest.: D A PETERS*  
*Tech. Officer: ARC/C TUNG, ARC/T MAIER*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 2 1493**      **WASHINGTON UNIV - ST. LOUIS**      **6251**  
MULTISENSORY INTERACTIONS TO DISCRIMINATE GRAVITY FROM  
TRANSLATIONAL ACCELERATIONS  
07/31/2001 - 06/30/2002      FY01: \$188,831      Total: \$188,831  
*Prin. Invest.: D E ANGELAKI*  
*Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 2 1500**      **WASHINGTON UNIV - ST. LOUIS**      **6252**  
EVOLUTION OF ANTHROPOD NEURAL PATTERN  
07/06/2001 - 06/30/2002      FY01: \$76,223      Total: \$76,223  
*Prin. Invest.: J B SKEATH*  
*Tech. Officer: ARC/M M AVERNER*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 3 1910**      **WASHINGTON UNIV - ST. LOUIS**      **6253**  
GAS - PHASE COMBUSTION SYNTHESIS OF METAL AND ERAM IC NANO-  
PARTICLES  
06/24/1996 - 06/22/2001      FY01: \$0      Total: \$288,238  
*Prin. Invest.: R L AXELBAUM, B H CHAO*  
*Tech. Officer: GRC/S A GOKOGLE*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NGT 5 40112**      **UNIV OF MISSOURI - ROLLA**      **6246**  
MISSOURI SPACE GRANT COLLEGE & FELLOWSHIP PROGRAM  
03/06/2001 - 02/28/2002      FY01: \$212,500      Total: \$212,500  
*Prin. Invest.: F FINIASH*  
*Tech. Officer: GSFC/D D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 3 2625**      **WASHINGTON UNIV - ST. LOUIS**      **6254**  
DEVELOPMENT OF A MICROSCALE PARTICULATE CLASSIFIER (MIPAC)  
06/01/2001 - 09/30/2001      FY01: \$25,000      Total: \$25,000  
*Prin. Invest.: D CHEN*  
*Tech. Officer: GRC/P S GREENBERG*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 5 3657**      **WASHINGTON UNIV - ST. LOUIS**      **6255**  
STRUCTURE AND EVOLUTION OF OUTER PLANET SATELLITES  
03/19/1997 - 10/31/2001      FY01: \$30,900      Total: \$151,632  
*Prin. Invest.: W B MCKINNON*  
*Tech. Officer: GSFC/P G ROGERS*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 3870**      **WASHINGTON UNIV - ST. LOUIS**      **6256**  
SURFACE PROCESSES ON VENUS AND MARS  
02/11/1997 - 03/31/2001      FY01: \$0      Total: \$649,054  
*Prin. Invest.: R E ARVIDSON*  
*Tech. Officer: GSFC/D G SENSKE*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 4098**      **WASHINGTON UNIV - ST. LOUIS**      **6257**  
ISOTOPIC STRUCTURES AND FINE-SCALE CHRONOLOGY IN P  
06/23/1997 - 03/31/2002      FY01: \$0      Total: \$427,000  
*Prin. Invest.: D A PODOSEK*  
*Tech. Officer: HQ/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 4172**      **WASHINGTON UNIV - ST. LOUIS**      **6258**  
ANALYTICAL, EXPERIMENTAL, AND MODELING STUDIES OF IGNEOUS  
ROCKS  
04/09/1997 - 06/30/2001      FY01: \$0      Total: \$988,000  
*Prin. Invest.: D A HASKIN*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 12 – CHEMISTRY*

**NAG 5 4173**      **WASHINGTON UNIV - ST. LOUIS**      **6259**  
LUNAR AND PLANETARY SURFACE DYNAMICS AND EARLY HIS  
06/02/1997 - 12/14/2000      FY01: \$0      Total: \$645,000  
*Prin. Invest.: D HOHENBERG*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 12 – CHEMISTRY*

**NAG 5 4323** WASHINGTON UNIV - ST. LOUIS 6260  
 KINETICS OF THERMOCHEMICAL GAS-SOLID REACTIONS IMP RETENTION  
 IN THE SOLAR NEBULA: IMPLICATIONS FOR  
 04/09/1997 - 01/31/2001 FY01: -\$29 Total: \$232,785  
*Prin. Invest.: D FEGLEY*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 4435** WASHINGTON UNIV - ST. LOUIS 6261  
 PARTICIPATION IN THE DATA ANALYSIS AND SCIENCE ACT ORBITING  
 LASER ALTIMETER (MOLA) & THE MARS GLOBAL  
 04/28/1997 - 12/31/2001 FY01: \$125,000 Total: \$560,000  
*Prin. Invest.: R J PHILLIPS*  
*Tech. Officer: GSFC/D E SMITH*  
*CASE Category: 99 – MULTIINTERDISCPL, OTHER*

**NAG 5 4448** WASHINGTON UNIV - ST. LOUIS 6262  
 PLANETARY INTERIOR MODELLING AND TECTONIC IMPLICAT  
 05/08/1997 - 12/31/2001 FY01: \$117,000 Total: \$554,150  
*Prin. Invest.: D J PHILLIPS*  
*Tech. Officer: GSFC/P ROGERS*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 4564** WASHINGTON UNIV - ST. LOUIS 6263  
 KINETICS OF THERMOCHEMICAL REACTIONS IMPORTANT IN SULFUR  
 CYCLE  
 05/29/1997 - 12/31/2001 FY01: \$0 Total: \$343,206  
*Prin. Invest.: D FEGLEY*  
*Tech. Officer: GSFC/D BOGAN*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 4565** WASHINGTON UNIV - ST. LOUIS 6264  
 CHEMICAL WEATHERING KINETICS OF BASALT ON VENUS  
 05/30/1997 - 02/14/2002 FY01: \$0 Total: \$227,838  
*Prin. Invest.: D FEGLEY*  
*Tech. Officer: GSFC/D BOGAN*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 4642** WASHINGTON UNIV - ST. LOUIS 6265  
 RAMAN SPECTROMETER FOR SURFACE IDENTIFICATION OF M  
 COMPOUNDS ON SILICATE PLANETSAND SMALL SOLAR-SYS  
 06/06/1997 - 06/30/2000 FY01: \$0 Total: \$167,390  
*Prin. Invest.: D A HASKIN*  
*Tech. Officer: GSFC/B CAMPBELL*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 5078** WASHINGTON UNIV - ST. LOUIS 6266  
 BASIC RESEARCH ON THE COMPOSITION OF HEAVY COSMIC RAYS: TIGER  
 05/03/1996 - 11/30/2001 FY01: \$325,000 Total: \$1,812,700  
*Prin. Invest.: R W BINNS*  
*Tech. Officer: GSFC/H C NEDDELMAN, GSFC/B A MERRITT*  
*CASE Category: 13 – PHYSICS*

**NAG 5 5110** WASHINGTON UNIV - ST. LOUIS 6267  
 DEVELOPMENT OF SIFTER WITH SIMULTANEOUS TRACKING AND  
 CALORIMETRY  
 02/12/1997 - 05/31/2001 FY01: \$0 Total: \$410,000  
*Prin. Invest.: R BINNS*  
*Tech. Officer: GSFC/H NEEDLEMAN*  
*CASE Category: 13 – PHYSICS*

**NAG 5 5114** WASHINGTON UNIV - ST. LOUIS 6268  
 A BALLOON-BORNE HARD X-RAY IMAGING SPECTROMETER BASED ON  
 CDZNTE TECHNOLOGY  
 04/09/1997 - 09/30/2000 FY01: \$0 Total: \$161,000  
*Prin. Invest.: P L HINK*  
*Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT*  
*CASE Category: 13 – PHYSICS*

**NAG 5 5154** WASHINGTON UNIV - ST. LOUIS 6269  
 ULTRA HEAVY AND HEAVY COSMIC-RAY MEASUREMENTS ON ACCESS  
 03/26/1998 - 06/30/2001 FY01: \$0 Total: \$112,160  
*Prin. Invest.: W R BINNS*  
*Tech. Officer: GSFC/H NEEDLEMAN*  
*CASE Category: 13 – PHYSICS*

**NAG 5 5215** WASHINGTON UNIV - ST. LOUIS 6270  
 A PROPOSAL FOR CONVERSION OF THE TRANS-IRON GALACTIC  
 ELEMENT RECORDER (TIGER) PHINK  
 12/01/1998 - 11/30/2002 FY01: \$209,442 Total: \$529,732  
*Prin. Invest.: P HINK*  
*Tech. Officer: GSFC/B MERRITT*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 5 5296** WASHINGTON UNIV - ST. LOUIS 6271  
 SIFTER SCINTILLATING FIBER TELESCOPE FOR ENERGETIC  
 06/12/2000 - 12/31/2001 FY01: \$0 Total: \$64,000  
*Prin. Invest.: W R BINNS*  
*Tech. Officer: WFF/B A MERRITT*  
*CASE Category: 13 – PHYSICS*

**NAG 5 6125** WASHINGTON UNIV - ST. LOUIS 6272  
 ACOUSTIC COMPOSITION EXPERIMENT FOR DETERMINING H2 RATIO IN  
 THE ATMOSPHERES OF THE JOVIAN PLANETS  
 08/04/1997 - 07/14/2002 FY01: \$0 Total: \$467,327  
*Prin. Invest.: D FEGLEY*  
*Tech. Officer: GSFC/B CAMPBELL*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 6366** WASHINGTON UNIV - ST. LOUIS 6273  
 CHEMICAL MODELS OF THE PRESENT AND PRIMORDIAL ATMO GIANT  
 PLANETS JUPITER, SATURN, URANUS AND NEPTUNE  
 09/22/1997 - 12/31/2001 FY01: \$63,800 Total: \$283,926  
*Prin. Invest.: D FEGLEY*  
*Tech. Officer: GSFC/J BERGSTRAHL*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 6756** WASHINGTON UNIV - ST. LOUIS 6274  
 REGIONAL PLANETARY IMAGE FACILITY  
 12/24/1997 - 06/30/2001 FY01: \$0 Total: \$61,951  
*Prin. Invest.: R ARVIDSON*  
*Tech. Officer: GSFC/P ROGERS*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 6784** WASHINGTON UNIV - ST. LOUIS 6275  
 COMPOSITION, LITHOLOGY, AND HETEROGENEITY OF THE L UNAR CRUST  
 USING REMOTE-SESENSING OF IMPACT-B  
 01/28/1998 - 04/30/2000 FY01: -\$1 Total: \$63,199  
*Prin. Invest.: B L JOLLIFF*  
*Tech. Officer: GSFC/P ROGERS*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 7140** WASHINGTON UNIV - ST. LOUIS 6276  
 OPTICAL DESIGN AND BREADBOARD OF A RAMAN SPECTROMETER  
 03/13/1998 – 03/31/2001 FY01: \$0 Total: \$267,726  
*Prin. Invest.: L HASKIN*  
*Tech. Officer: GSFC/B CAMPBELL*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7149** WASHINGTON UNIV - ST. LOUIS 6277  
 STUDIES OF PRESOLAR MATERIALS AND SOLAR NEBULA STRUCTURE  
 AND EVOLUTION  
 03/23/1998 – 07/31/2000 FY01: -\$13 Total: \$163,704  
*Prin. Invest.: F PODOSEK*  
*Tech. Officer: HQ/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7613** WASHINGTON UNIV - ST. LOUIS 6278  
 DYNAMICS OF WETLANDS AMONG ENGINEERED PORTIONS OF MISSOURI  
 RIVER SYSTEM  
 07/22/1998 – 01/31/2002 FY01: \$60,000 Total: \$360,000  
*Prin. Invest.: R E ARVIDSON*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 7696** WASHINGTON UNIV - ST. LOUIS 6279  
 HYDROTHERMAL ECOSYSTEMS IN A PLANETARY CONTEXT  
 09/17/1998 – 01/31/2002 FY01: \$135,931 Total: \$425,728  
*Prin. Invest.: E L SHOCK*  
*Tech. Officer: GSFC/M MEYER*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8056** WASHINGTON UNIV - ST. LOUIS 6280  
 DEFORMATION OF THE EUROPEAN ICE SHELL BY TIDAL AND CONVECTION  
 STRESSES  
 01/15/1999 – 01/31/2002 FY01: \$0 Total: \$103,000  
*Prin. Invest.: W B MCKINNON*  
*Tech. Officer: GSFC/R BEEBE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8194** WASHINGTON UNIV - ST. LOUIS 6281  
 ADAPTIVE VISUAL-VESTIBULAR MECHANISMS AND GRAVITY  
 05/12/1999 – 06/30/2000 FY01: -\$590 Total: \$99,409  
*Prin. Invest.: D E ANGELAKI*  
*Tech. Officer: GSFC/C SAWIN*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NAG 5 8336** WASHINGTON UNIV - ST. LOUIS 6282  
 SOLID STATE AND MASS SPECTROMETRIC MEASUREMENT OF EXTRATERRESTRIAL MATERIALS  
 02/24/1999 – 02/28/2002 FY01: \$405,000 Total: \$1,981,000  
*Prin. Invest.: T J BERNATOWICZ*  
*Prin. Invest.: NONE*  
*Tech. Officer: HQ/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8536** WASHINGTON UNIV - ST. LOUIS 6283  
 DEVELOPMENT OF HIGH QUANTUM EFFICIENCY UV/BLUE PHOTOCATHODE EPITAXIAL SEMICONDUCTOR HETEROSTRUCTURE  
 07/08/1999 – 01/14/2002 FY01: \$0 Total: \$576,028  
*Prin. Invest.: D LEOPOLD*  
*Tech. Officer: GSFC/G MUCKLOW*  
*CASE Category: 12 – CHEMISTRY*

**NAG 5 8568** WASHINGTON UNIV - ST. LOUIS 6284  
 THE HIGH ENERGY X-RAY IMAGING SURVEY (HEXIS)  
 05/24/1999 – 05/31/2001 FY01: \$0 Total: \$45,000  
*Prin. Invest.: P L HINK*  
*Tech. Officer: GSFC/L KALUZIENSKI*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 5 8609** WASHINGTON UNIV - ST. LOUIS 6285  
 SYNTHESIZING LUNAR PROSPECTOR, CLEMENTINE, AND APO LLO  
 GEOCHEMICAL DATA TO UNDERSTAND THE GEOLOGY  
 06/10/1999 – 06/30/2002 FY01: \$70,000 Total: \$176,000  
*Prin. Invest.: R L KOROTEV*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8717** WASHINGTON UNIV - ST. LOUIS 6286  
 GLOBAL CHEMICAL REACTOR OF PROTOPLANETARY DISK  
 08/10/1999 – 07/31/2002 FY01: \$23,000 Total: \$68,000  
*Prin. Invest.: J T GLEAVES*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8729** WASHINGTON UNIV - ST. LOUIS 6287  
 PURCHASE AND INSTALLATION OF NANOSIMS 50  
 08/10/1999 – 07/31/2002 FY01: \$350,000 Total: \$1,083,000  
*Prin. Invest.: R M WALKER*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8899** WASHINGTON UNIV - ST. LOUIS 6288  
 DEFORMATION OF THE EUROPEAN ICE SHELL BY TIDAL AND CONVECTIVE  
 STRESSES: CONSTRAINTS FROM GEM DATA  
 01/13/2000 – 01/31/2002 FY01: \$40,000 Total: \$69,000  
*Prin. Invest.: W MCKINNON*  
*Tech. Officer: GSFC/D BOGAN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8905** WASHINGTON UNIV - ST. LOUIS 6289  
 COMPOSITION, LITHOLOGY, AND HETEROGENEITY OF THE LUNAR CRUST  
 USING REMOTE-SENSING OF IMPACT-BASIN  
 01/21/2000 – 01/31/2002 FY01: \$38,000 Total: \$74,100  
*Prin. Invest.: B L JOLLIFF*  
*Tech. Officer: GSFC/J GRANT*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 9442** WASHINGTON UNIV - ST. LOUIS 6290  
 LUNAR & PLANETARY SURFACE DYNAMICS & EARLY HISTORY  
 04/14/2000 – 12/14/2001 FY01: \$224,000 Total: \$441,000  
*Prin. Invest.: C M HOHENBERG*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9449** WASHINGTON UNIV - ST. LOUIS 6291  
 STUDIES OF PRESOLAR MATERIALS AND SOLAR NEBULA STRUCTURE  
 AND EVOLUTION  
 04/12/2000 – 04/30/2002 FY01: \$82,000 Total: \$156,000  
*Prin. Invest.: F PODOSEK*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9801** WASHINGTON UNIV - ST. LOUIS 6292  
 ORIGIN & EVOLUTION OF THE SOLAR SYSTEM: MICROANALYTICAL STUDIES OF METEORITES & INTERPLANETARY DUST  
 07/14/2000 - 02/28/2002 FY01: \$202,000 Total: \$387,000  
*Prin. Invest.: R M WALKER*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10158** WASHINGTON UNIV - ST. LOUIS 6293  
 WASHINGTON UNIV-REGIONAL PLANETARY IMAGE FACILITY  
 12/18/2000 - 12/31/2001 FY01: \$24,473 Total: \$24,473  
*Prin. Invest.: R ARVIDSON*  
*Tech. Officer: GSFC/D SENSKE*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 10186** WASHINGTON UNIV - ST. LOUIS 6294  
 SPACE-BASED GRAVITATIONAL-WAVE OBSERVATIONS AS TOOLS FOR TESTING GENERAL RELATIVITY  
 12/20/2000 - 12/31/2001 FY01: \$65,000 Total: \$65,000  
*Prin. Invest.: C M WILL*  
*Tech. Officer: GSFC/P CRANE*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 10190** WASHINGTON UNIV - ST. LOUIS 6295  
 HYDROGEOLOGY OF BASINS ON MARS  
 01/03/2001 - 01/14/2002 FY01: \$138,000 Total: \$138,000  
*Prin. Invest.: R E ARVIDSON*  
*Tech. Officer: GSFC/D SENSKE*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NAG 5 10227** WASHINGTON UNIV - ST. LOUIS 6296  
 INTEGRATED STUDY OF THE GEOLOGY, COMPOSITION, & ORIGIN OF LUNAR MARE BASALTS  
 01/04/2001 - 01/14/2002 FY01: \$35,000 Total: \$35,000  
*Prin. Invest.: B JOLLIFF*  
*Tech. Officer: GSFC/D SENSKE*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 10426** WASHINGTON UNIV - ST. LOUIS 6297  
 THE HISTORY OF PRESOLAR GRAINS  
 02/16/2001 - 02/28/2002 FY01: \$386,000 Total: \$386,000  
*Prin. Invest.: T BERNATOWICZ*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 12 - CHEMISTRY*

**NAG 5 10485** WASHINGTON UNIV - ST. LOUIS 6298  
 GEOCHEMICAL & PETROLOGIC ANALYSIS & MODELING OF LUNAR ROCKS & REGOLITHS  
 03/06/2001 - 03/14/2002 FY01: \$250,000 Total: \$250,000  
*Prin. Invest.: L HASPIN*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 12 - CHEMISTRY*

**NAG 5 10513** WASHINGTON UNIV - ST. LOUIS 6299  
 ISOTOPIC STRUCTURES & FINE-SCALE CHRONOLOGY IN PLANETARY MATERIALS  
 03/05/2001 - 03/31/2002 FY01: \$114,000 Total: \$114,000  
*Prin. Invest.: F PODOSEK*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 12 - CHEMISTRY*

**NAG 5 10533** WASHINGTON UNIV - ST. LOUIS 6300  
 MAJOR EQUIPMENT: GAMMA-RAY DETECTORS FOR NEUTRON ACTIVATION ANALYSIS ASSOCIATED WITH PROPOSAL "GE  
 04/06/2001 - 02/28/2002 FY01: \$44,200 Total: \$44,200  
*Prin. Invest.: L HASKIN*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 12 - CHEMISTRY*

**NAG 5 10553** WASHINGTON UNIV - ST. LOUIS 6301  
 KINETICS OF THERMOCHEMICAL GAS-SOLID REACTIONS IMPORTANT FOR VOLATILE RETENTION IN THE SOLAR NE  
 03/09/2001 - 03/14/2002 FY01: \$60,000 Total: \$60,000  
*Prin. Invest.: B FEGLY*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10703** WASHINGTON UNIV - ST. LOUIS 6302  
 ENHANCED LASER RAMAN SPECTROSCOPY FOR PLANETARY ON-SURFACE MINERALOGY, PETROLOGY, AND DETECTION OF  
 04/09/2001 - 03/31/2002 FY01: \$186,674 Total: \$186,674  
*Prin. Invest.: L HASPIN*  
*Tech. Officer: GSFC/B BETTS*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10802** WASHINGTON UNIV - ST. LOUIS 6303  
 CONCEPT STUDY FOR THE "THE HEAVY NUCLEI EXPLORER" (HNX) MISSION AO-99-OSS-05  
 04/30/2001 - 04/30/2002 FY01: \$127,300 Total: \$127,300  
*Prin. Invest.: W BINNS*  
*Tech. Officer: GSFC/J R BYRD*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 11037** WASHINGTON UNIV - ST. LOUIS 6304  
 KINETICS OF THE THERMOCHEMICAL REACTIONS IMPORTANT IN THE VENUS ATMOSPHERIC SULFUR CYCLE  
 06/12/2001 - 06/14/2002 FY01: \$93,000 Total: \$93,000  
*Prin. Invest.: B FEGLY*  
*Tech. Officer: GSFC/D BOGAN*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 11050** WASHINGTON UNIV - ST. LOUIS 6305  
 CHEMICAL WEATHERING REACTIONS ON VENUS  
 06/18/2001 - 05/31/2002 FY01: \$60,000 Total: \$60,000  
*Prin. Invest.: B FEGLY, JR*  
*Tech. Officer: GSFC/D BOGAN*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 11202** WASHINGTON UNIV - ST. LOUIS 6306  
 INTEGRATED GEODYNAMICAL AND HYDROGEOLOGICAL HISTORY OF MARS  
 08/14/2001 - 08/14/2004 FY01: \$65,000 Total: \$65,000  
*Prin. Invest.: R J PHILLIPS*  
*Tech. Officer: GSFC/J M BOYCE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 8 1682** WASHINGTON UNIV - ST. LOUIS 6307  
 "STUDIES OF NUCLEATION AND GROWTH, SPECIFIC HEAT AND VISCOSITY OF UNDER COOLED MELTS OF ALLOYS"  
 05/01/2000 - 11/30/2003 FY01: \$159,600 Total: \$239,579  
*Prin. Invest.: K F KELTON*  
*Tech. Officer: MSFC/P DOTY*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NAG 9 1006** WASHINGTON UNIV - ST. LOUIS 6308  
 GENESIS: NOBLE GAS MEASUREMENTS PHASE B  
 04/29/1998 - 03/31/2002 FY01: \$61,800 Total: \$244,900  
*Prin. Invest.: C M HOHENBERG*  
*Tech. Officer: JSC/K E CYR*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 9 1010** WASHINGTON UNIV - ST. LOUIS 6309  
 GENESIS DISCOVERY MISSION  
 05/05/1998 - 08/08/2001 FY01: \$0 Total: \$56,600  
*Prin. Invest.: F A PODOSEK*  
*Tech. Officer: JSC/E K STANSBERY*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAS 3 00094** WASHINGTON UNIV - ST. LOUIS 6310  
 NRA CONTRACT FOR "SEARCH FOR EFFECTS OF ELECTROSTATIC POTENTIAL ON CLOCKS IN THE FRAME OF REFERENCE  
 12/27/1999 - 12/26/2000 FY01: \$0 Total: \$99,985  
*Prin. Invest.: M S CONRAD, H I RINGERMACHER*  
*Tech. Officer: GRC/M MILLIS*  
*CASE Category: 13 – PHYSICS*

**NCC 3 697** WASHINGTON UNIV - ST. LOUIS 6311  
 FFLAE DESIGN - A NOVAL APPROACH TO CLEAN, EFFICIENT DIFFUSION FLAMES  
 03/26/1999 - 01/13/2003 FY01: \$60,300 Total: \$186,032  
*Prin. Invest.: R L AXELBAUM*  
*Tech. Officer: GRC/D L URBAN*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 3 777** WASHINGTON UNIV - ST. LOUIS 6312  
 OPTIMIZING THE CORBA COMPONENT MODEL FOR HIGH-PERF ORMANCE AND REAL-TIME APPLICATIONS  
 02/24/2000 - 01/20/2003 FY01: \$40,842 Total: \$100,842  
*Prin. Invest.: D L LEVINE*  
*Tech. Officer: GRC/R W CLAUS*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 8 85** WASHINGTON UNIV - ST. LOUIS 6313  
 COMPOSITION EFFECTS ON PHASE FORMATION & STABILITY  
 04/22/1996 - 04/21/2001 FY01: \$0 Total: \$467,400  
*Prin. Invest.: K F KELTON*  
*Tech. Officer: MSFC/P DOTY*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NCC 8 154** WASHINGTON UNIV - ST. LOUIS 6314  
 COOPERATIVE AGREEMENT ENTITLED "IMAGING CALORIMETER FOR ACCESS (ICA)"  
 07/10/1998 - 07/09/2001 FY01: \$0 Total: \$119,600  
*Prin. Invest.: P L HINK, M H ISRAEL, R W BINNS*  
*Tech. Officer: MSFC/M CHRISTI, MSFC/M J CHRISTI*  
*CASE Category: 11 – ASTRONOMY*

**NGT 1 52197** WASHINGTON UNIV - ST. LOUIS 6315  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 06/09/1998 - 06/30/2000 FY01: \$0 Total: \$44,000  
*Prin. Invest.: K R WATERS*  
*Tech. Officer: LARC/P H JOHNSTON*  
*CASE Category: 13 – PHYSICS*

**NGT 5 50023** WASHINGTON UNIV - ST. LOUIS 6316  
 TIGER: A COSMIC RAY DETECTOR USED TO STUDY THE ABU ELEMENTS  
 08/04/1997 - 06/30/2000 FY01: -\$250 Total: \$65,750  
*Prin. Invest.: SPOSATO*  
*Tech. Officer: GSFC/A NURRIDDI*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NGT 5 50030** WASHINGTON UNIV - ST. LOUIS 6317  
 COMPOSITIONAL EFFECTS ON TIME DEPENDENT NUCLEATION  
 08/04/1997 - 06/30/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.: K KELTON/CROAT*  
*Tech. Officer: GSFC/A NURRIDDI*  
*CASE Category: 11 – ASTRONOMY*

**NGT 5 50063** WASHINGTON UNIV - ST. LOUIS 6318  
 TECTONIC PROCESSES ON ICY SATELLITES  
 08/15/1997 - 06/30/2000 FY01: -\$1,246 Total: \$64,754  
*Prin. Invest.: W B MCKINNON/DOMBAR*  
*Tech. Officer: GSFC/A NURRIDDI*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NGT 5 50170** WASHINGTON UNIV - ST. LOUIS 6319  
 GRADUATE STUDENT RESEARCH IN X-RAY ASTRONOMY  
 05/22/1998 - 06/30/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.: P L HINK*  
*Tech. Officer: GSFC/K E BLANDING*  
*CASE Category: 13 – PHYSICS*

**NGT 5 50240** WASHINGTON UNIV - ST. LOUIS 6320  
 GRADUATE STUDENT RSCH IN COSMIC RAY ASTROPHYSICS  
 06/03/1999 - 06/30/2002 FY01: \$22,000 Total: \$66,000  
*Prin. Invest.: M ISRAEL*  
*Tech. Officer: GSFC/L SMITH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50348** WASHINGTON UNIV - ST. LOUIS 6321  
 HYDROTHERMAL ECOSYSTEMS AS ANALOGS IN THE STUDY OF ASTROBIOLOGY & EARLY LIFE ON EARTH/STUDENT: D. ME  
 05/07/2001 - 06/30/2002 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: E SHOCK*  
*Tech. Officer: GSFC/K BLANDING*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 8 1851** WILLIAM JEWELL COLLEGE 6322  
 MOLECULAR PROBE FLUORESCENCE MONITORING OF POLYMERIZATION  
 09/27/2001 - 08/31/2002 FY01: \$27,957 Total: \$27,957  
*Prin. Invest.: P BUNTON*  
*Tech. Officer: MSFC/M P BODIFORD*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

<b>MONTANA</b>		
<b>NAG 2 1323</b>	<b>MONTANA STATE UNIV</b>	<b>6323</b>
SPATIO-SPECTRAL HOLOGRAPHY FOR HIGH BANDWIDTH CORR ELATORS 04/29/1999 - 04/30/2002	FY01: \$1,750,000	Total: \$5,096,000
<i>Prin. Invest.: A E CRAIG</i> <i>Tech. Officer: ARC/W F BROOKS, ARC/D KOGA</i> <i>CASE Category: 47 – METAL &amp; MATERIALS ENGR</i>		
<b>NAG 5 3652</b>	<b>MONTANA STATE UNIV</b>	<b>6324</b>
MOLECULAR AND GEOCHEMICAL ANALYSIS OF HOT SPRING C ROFLEXUS MATS AS STROMATOLITE ANALOGS 03/25/1997 - 06/30/2000	FY01: \$0	Total: \$274,062
<i>Prin. Invest.: M G WARD</i> <i>Tech. Officer: GSFC/M MEYER</i> <i>CASE Category: 12 – CHEMISTRY</i>		
<b>NAG 5 4576</b>	<b>MONTANA STATE UNIV</b>	<b>6325</b>
CENTER FOR EDUCATIONAL RESOURCES 05/13/1997 - 05/31/2001	FY01: \$0	Total: \$999,975
<i>Prin. Invest.: G TUTHILL</i> <i>Tech. Officer: GSFC/M V PHELPS</i> <i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>		
<b>NAG 5 6005</b>	<b>MONTANA STATE UNIV</b>	<b>6326</b>
CAUSES AND CONSEQUENCES OF LAND-COVER IN A GREATER ASSESSMENT, MONITORING AND OUTREACH 09/11/1997 - 07/14/2001	FY01: \$0	Total: \$565,010
<i>Prin. Invest.: A HASEN</i> <i>Tech. Officer: GSFC/A C JANETOS</i> <i>CASE Category: 39 – ENVIRONMENTAL SCI, OTHER</i>		
<b>NAG 5 6110</b>	<b>MONTANA STATE UNIV</b>	<b>6327</b>
MAGNETIC HELICITY AND THE SOLAR DYNAMO 07/28/1997 - 07/31/2002	FY01: \$316,052	Total: \$975,776
<i>Prin. Invest.: D CANFIELD</i> <i>Tech. Officer: GSFC/W WAGNER</i> <i>CASE Category: 11 – ASTRONOMY</i>		
<b>NAG 5 8807</b>	<b>MONTANA STATE UNIV</b>	<b>6328</b>
CENTER FOR STUDYING LIFE IN EXTREME ENVIRONMENTS 09/03/1999 - 08/31/2004	FY01: \$5,129,000	Total: \$7,002,000
<i>Prin. Invest.: T R McDERMOTT</i> <i>Tech. Officer: GSFC/M MEYER</i> <i>CASE Category: 11 – ASTRONOMY</i>		
<b>NAG 5 8824</b>	<b>MONTANA STATE UNIV</b>	<b>6329</b>
MOLECULAR AND GEOCHEMICAL ANALYSIS OF HOT SPRING CYANOBAC- TERIAL & CHLOROFLEXUS MATS AS STROMATOLITE 09/22/1999 - 10/31/2001	FY01: \$0	Total: \$194,200
<i>Prin. Invest.: D M WARD</i> <i>Tech. Officer: GSFC/M MEYER</i> <i>CASE Category: 11 – ASTRONOMY</i>		
<b>NAG 5 9300</b>	<b>MONTANA STATE UNIV</b>	<b>6330</b>
MONITORING FOREST RESPONSE TO PAST & FUTURE GLOBAL CHANGE IN GREATER YELLOWSTONE 04/07/2000 - 04/30/2002	FY01: \$120,886	Total: \$207,168
<i>Prin. Invest.: A HANSEN</i> <i>Tech. Officer: GSFC/G GUTMAN</i> <i>CASE Category: 39 – ENVIRONMENTAL SCI, OTHER</i>		
<b>NAG 5 9806</b>	<b>MONTANA STATE UNIV</b>	<b>6331</b>
CHANGING LANDSCAPED IN RURAL AMERICA 07/13/2000 - 08/31/2001	FY01: \$0	Total: \$15,000
<i>Prin. Invest.: A HANSEN</i> <i>Tech. Officer: GSFC/G GUTMAN</i> <i>CASE Category: 39 – ENVIRONMENTAL SCI, OTHER</i>		
<b>NAG 5 10489</b>	<b>MONTANA STATE UNIV</b>	<b>6332</b>
THE X-RAY BRIGHT POINT: A CASE STUDY IN RECONNECTI ON 03/07/2001 - 02/28/2002	FY01: \$91,029	Total: \$91,029
<i>Prin. Invest.: D LONGCOPE</i> <i>Tech. Officer: GSFC/W WALTER</i> <i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>		
<b>NAG 5 10997</b>	<b>MONTANA STATE UNIV</b>	<b>6333</b>
MOSES: A SLITLESS MULTI-ORDER SOLAR EXTREME ULTRA VIOLET SPECTROGRAPH FOR FAST IMAGING SPECTROSCOPY 06/08/2001 - 05/31/2002	FY01: \$248,122	Total: \$248,122
<i>Prin. Invest.: C C KANKELBORG</i> <i>Tech. Officer: GSFC/W J WAGNER</i> <i>CASE Category: 13 – PHYSICS</i>		
<b>NAG 5 11158</b>	<b>MONTANA STATE UNIV</b>	<b>6334</b>
LAND USE LAND CHANGE AROUND PROTECTED AREAS IN LCLUC SITES: SYNTHESIS OF RATES, CONSEQUENCES FOR 08/01/2001 - 08/14/2004	FY01: \$61,425	Total: \$61,425
<i>Prin. Invest.: A HANSEN</i> <i>Tech. Officer: GSFC/G GUTMAN</i> <i>CASE Category: 39 – ENVIRONMENTAL SCI, OTHER</i>		
<b>NAG 8 1399</b>	<b>MONTANA STATE UNIV</b>	<b>6335</b>
LARGE SCALE ORGANIZATION OF ACTIVE REGION MAGNETIC FIELDS 08/11/1997 - 08/10/2002	FY01: \$0	Total: \$184,330
<i>Prin. Invest.: R C CANFIELD</i> <i>Tech. Officer: MSFC/M J HAGYARD, MSFC/G A GARY</i> <i>CASE Category: 11 – ASTRONOMY</i>		
<b>NAG 9 1082</b>	<b>MONTANA STATE UNIV</b>	<b>6336</b>
RAPID BACTERIAL TESTING FOR SPACECRAFT WATER 03/03/1999 - 03/31/2002	FY01: \$69,483	Total: \$286,278
<i>Prin. Invest.: B H PYLE</i> <i>Tech. Officer: JPL/D JAN</i> <i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>		
<b>NCC 2 1073</b>	<b>MONTANA STATE UNIV</b>	<b>6337</b>
COMPARATIVE STUDIES OF MICROBIAL MATS: COMMUNITY COMPOSI- TION, PHYSIOLOGICAL & ORGANIC GEOCHEMICAL P 12/08/1998 - 12/31/2002	FY01: \$54,441	Total: \$155,454
<i>Prin. Invest.: D M WARD</i> <i>Prin. Invest.: NONE</i> <i>Tech. Officer: ARC/D J DES MARAIS, ARC/B BEABOUT</i> <i>CASE Category: 54 – ENVIRONMENTAL BIOLOGY</i>		
<b>NCC 2 1143</b>	<b>MONTANA STATE UNIV</b>	<b>6338</b>
BACTERIAL PHYSIOLOGY & VIRULENCE ON EARTH & IN MIC ROGRAVITY 09/19/1999 - 08/31/2002	FY01: \$135,620	Total: \$325,621
<i>Prin. Invest.: B H PYLE</i> <i>Tech. Officer: ARC/M F VASQUES, ARC/P D SAVAGE</i> <i>CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)</i>		

**NCC 2 1181** MONTANA STATE UNIV 6339  
 STUDENT-MENTOR PROJECTS IN SUPPORT OF NASA SHARP PROGRAM EXPERIMENTS  
 05/23/2000 - 12/31/2001 FY01: \$0 Total: \$91,357  
*Prin. Invest.: D CAIRNS*  
*Tech. Officer: ARC/P KOLODZIEJ, ARC/D J RASKY*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NCC 2 5277** MONTANA STATE UNIV 6340  
 MICROBIOLOGICAL SENSING SYSTEM FOR A EUROPA PROBE APPLICATION  
 07/21/1998 - 09/30/1999 FY01: \$0 Total: \$10,000  
*Prin. Invest.: B H PYLE, G MCFETERS*  
*Tech. Officer: ARC/M T FLYNN*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NCC 2 5437** MONTANA STATE UNIV 6341  
 A MINIATURE RAMAN SPECTROMETER FOR FIELD EVALUATION IN ANTARCTICA AS AN ANALOGUE OF PUTATIVE MARTIAN  
 06/25/2001 - 05/31/2002 FY01: \$72,607 Total: \$72,607  
*Prin. Invest.: D L DICKENSHEETS*  
*Tech. Officer: ARC/R A GRYMES, ARC/W W DOLCI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 2 5445** MONTANA STATE UNIV 6342  
 EFFECTS OF STAND-REPLACING FIRE ON MYCORRHIZAL COMMUNITIES  
 07/16/2001 - 06/30/2002 FY01: \$94,660 Total: \$94,660  
*Prin. Invest.: J HENSON*  
*Tech. Officer: ARC/K CULLINGS, ARC/M H NEW*  
*CASE Category: 54 – ENVIRONMENTAL BIOLOGY*

**NCC 5 240** MONTANA STATE UNIV 6343  
 MONTANA EPSCOR PROGRAM  
 09/12/1997 - 02/28/2002 FY01: \$0 Total: \$1,800,000  
*Prin. Invest.: W HISCOCK*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 11 – ASTRONOMY*

**NCC 5 410** MONTANA STATE UNIV 6344  
 NASA EPSCOR: PREPARATORY GRANT PROPOSAL  
 05/18/1999 - 05/31/2002 FY01: \$0 Total: \$450,000  
*Prin. Invest.: W HISCOCK*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 5 579** MONTANA STATE UNIV 6345  
 MONTANA NASA EPSCOR PROGRAM  
 08/17/2001 - 07/31/2004 FY01: \$463,300 Total: \$463,300  
*Prin. Invest.: W HISCOCK*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 40041** MONTANA STATE UNIV 6346  
 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM  
 06/03/1991 - 02/29/2000 FY01: -\$50,967 Total: \$953,533  
*Prin. Invest.: W A HISCOCK*  
*Tech. Officer: HQ/E T SCHWARTZ*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 1 01012** MONTANA STATE UNIV 6347  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) MY 1/3  
 06/15/2001 - 06/30/2004 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: V H SCHMIDT*  
*Tech. Officer: LARC/J HARRISON*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NGT 5 40036** MONTANA STATE UNIV 6348  
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE AND FELLOWSHIP PROGRAM.  
 01/31/1997 - 02/28/2001 FY01: -\$80,617 Total: \$1,330,633  
*Prin. Invest.: W A HISCOCK*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 40092** MONTANA STATE UNIV 6349  
 MONTANA SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM  
 02/28/2001 - 02/28/2002 FY01: \$555,617 Total: \$555,617  
*Prin. Invest.: W HISCOCK*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50297** MONTANA STATE UNIV 6350  
 ECOLOGY & NITROGEN BIOGEOCHEMISTRY OF ANATARCTIC LAKE ICE/STUDENT: AARON D. HALL  
 06/27/2000 - 08/31/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.: J C PRISCU*  
*Tech. Officer: GSFC/L SMITH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9139** MONTANA TECH OF THE UNIV OF MONTANA 6351  
 STEP CAREERS IN RESEARCH EXPLORATION PROGRAM  
 02/29/2000 - 02/28/2003 FY01: \$15,695 Total: \$31,730  
*Prin. Invest.: T MOON*  
*Tech. Officer: GSFC/N KHAZENIE*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9102** SALISH KOOTENAI COLLEGE 6352  
 EARTH SYSTEM SCIENCE STUDENT RESEARCH EXPERIENCES AT SALISH KOOTENAI COLLEGE  
 03/02/2000 - 01/31/2002 FY01: \$105,595 Total: \$213,103  
*Prin. Invest.: T S OLSON*  
*Tech. Officer: GSFC/N K HAZENIE*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9147** SALISH KOOTENAI COLLEGE 6353  
 NORTHERN ROCKY MOUNTAIN TRIBAL PATHWAY TO ACADEMIC EXCELLENCE PROGRAM  
 03/03/2000 - 03/14/2002 FY01: \$100,000 Total: \$200,000  
*Prin. Invest.: J M GOBERT*  
*Tech. Officer: GSFC/M STOUTSENBERGER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 9368** SALISH KOOTENAI COLLEGE 6354  
 NASA NATIVE EARTH SYSTEMS SCIENCE CURRICULUM PROJECT (NESCP)  
 04/03/2000 - 03/31/2002 FY01: \$154,129 Total: \$308,847  
*Prin. Invest.: J M GOBERT*  
*Tech. Officer: GSFC/B MEESON*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

<b>NAG 5 9541</b>	<b>SALISH KOOTENAI COLLEGE</b>	<b>6355</b>	<b>NAG 5 1126</b>	<b>UNIV OF MONTANA</b>	<b>6363</b>
RELATIVISTIC DISSIPATIVE FLUID THEORIES OF NEUTRON STARS 06/08/2000 - 06/14/2001	FY01: \$0	Total: \$48,051	A SATELLITE MICROWAVE REMOTE SENSING MEASURE OF HIGH LATITUDE GROWING SEASONS FOR IMPROVED ASSESS 08/16/2001 - 08/31/2004	FY01: \$165,352	Total: \$165,352
Prin. Invest.: T OLSON Tech. Officer: GSFC/D MENCHAN CASE Category: 21 - MATHEMATICS			Prin. Invest.: S RUNNING Tech. Officer: GSFC/D WICKLAND CASE Category: 99 - MULTI INTERDISCPL, OTHER		
<b>NAG 5 10144</b>	<b>SALISH KOOTENAI COLLEGE</b>	<b>6356</b>	<b>NAG 9 1112</b>	<b>UNIV OF MONTANA</b>	<b>6364</b>
ASTRONOMY & ASTROPHYSICS COURSE DEVELOPMENT AT SALISH KOOTENAI COLLEGE 12/11/2000 - 12/31/2001	FY01: \$12,852	Total: \$12,852	INST FOR THE STUDY OF BIOMAKERS IN ASTROMATERIALS 05/11/1999 - 05/13/2002	FY01: \$14,353	Total: \$38,353
Prin. Invest.: T S OLSON, NONE Tech. Officer: GSFC/P SAKIMOTO CASE Category: 44 - CIVIL ENGR			Prin. Invest.: N C HINMAN Tech. Officer: JSC/E K GIBSON CASE Category: 32 - GEOLOGICAL SCIENCE		
<b>NAG 5 4923</b>	<b>UNIV OF MONTANA</b>	<b>6357</b>	<b>NAS 5 31368</b>	<b>UNIV OF MONTANA</b>	<b>6365</b>
ASSIMILATION OF SAR DERIVED PARAMETER MAPS INTO BI OVER BOREAS STUDY AREA 06/23/1997 - 05/31/2000	FY01: -\$1	Total: \$191,316	EOS MODIS INVESTIGATION FROM DR. STEVE RUNNING 01/07/1992 - 12/14/2001	FY01: \$421,000	Total: \$4,369,500
Prin. Invest.: S W RUNNING Tech. Officer: GSFC/D E WICKLAND CASE Category: 39 - ENVIRONMENTAL SCI, OTHER			Prin. Invest.: S W RUNNING Tech. Officer: GSFC/H OSEROFF CASE Category: 39 - ENVIRONMENTAL SCI, OTHER		
<b>NAG 5 6719</b>	<b>UNIV OF MONTANA</b>	<b>6358</b>	<b>NCC 2 1263</b>	<b>UNIV OF MONTANA</b>	<b>6366</b>
RADAR BASED MEASURE OF INTERANNUAL VEGETATION PHENOLOGY FOR MONITORING GLOBAL CHANGE RESPONSES OF 12/10/1997 - 08/31/2000	FY01: -\$43	Total: \$205,435	INTELLIGENT PARAMETERIZATION & REAL-TIME EXECUTION OF ECOSYSTEM MODELS 05/07/2001 - 10/31/2001	FY01: \$100,849	Total: \$100,849
Prin. Invest.: S RUNNING Tech. Officer: GSFC/D WICKLAND CASE Category: 39 - ENVIRONMENTAL SCI, OTHER			Prin. Invest.: R NEMANI Tech. Officer: ARC/K P GOODEN, ARC/M A SCHWABACHER CASE Category: 22 - COMPUTER SCIENCE		
<b>NAG 5 8599</b>	<b>UNIV OF MONTANA</b>	<b>6359</b>	<b>NCC 2 5397</b>	<b>UNIV OF MONTANA</b>	<b>6367</b>
THE IMPACT OF VEGETATION CHANGES IN THE SAHEL ON REGIONAL SCALE HYDROLOGY 06/21/1999 - 06/30/2002	FY01: \$48,860	Total: \$140,734	AUTOMATED TESTING OF MATRIXX MODELS 09/07/2000 - 02/28/2001	FY01: \$0	Total: \$12,162
Prin. Invest.: S W RUNNING Tech. Officer: GSFC/E G ENGMAN CASE Category: 39 - ENVIRONMENTAL SCI, OTHER			Prin. Invest.: J HENRY Tech. Officer: ARC/A PATTERSON-HINE, ARC/S LAU CASE Category: 22 - COMPUTER SCIENCE		
<b>NAG 5 9062</b>	<b>UNIV OF MONTANA</b>	<b>6360</b>	<b>NCC 5 382</b>	<b>UNIV OF MONTANA</b>	<b>6368</b>
EARTH SCIENCE ENTERPRISE RESEARCH PROGRAM 02/15/2000 - 02/14/2003	FY01: \$99,675	Total: \$199,675	INTERNATIONAL EOS NATURAL RESOURCE TRAINING CENTER 02/19/1999 - 02/28/2002	FY01: \$2,993,400	Total: \$8,174,400
Prin. Invest.: J R KUGLIN Tech. Officer: GSFC/N KHAZENIE CASE Category: 39 - ENVIRONMENTAL SCI, OTHER			Prin. Invest.: S W RUNNING Tech. Officer: GSFC/D E WICKLAND CASE Category: 39 - ENVIRONMENTAL SCI, OTHER		
<b>NAG 5 9332</b>	<b>UNIV OF MONTANA</b>	<b>6361</b>	<b>NGT 5 30395</b>	<b>UNIV OF MONTANA</b>	<b>6369</b>
DEVELOPMENT SPRAWL IMPACTS ON THE TERRESTRIAL CARBON DYNAMICS OF THE UNITED STATES 03/23/2000 - 04/30/2003	FY01: \$48,044	Total: \$77,873	FORECASTING THE EFFECTS OF CLIMATE CHANGE ON EMERGING INFECTIOUS DISEASE: A HANTAVIRUS MODEL 08/14/2001 - 08/31/2004	FY01: \$22,000	Total: \$22,000
Prin. Invest.: R NEMANI Tech. Officer: GSFC/G GUTMAN CASE Category: 39 - ENVIRONMENTAL SCI, OTHER			Prin. Invest.: S RUNNING Tech. Officer: GSFC/M WEI CASE Category: 99 - MULTI INTERDISCPL, OTHER		
<b>NAG 5 9333</b>	<b>UNIV OF MONTANA</b>	<b>6362</b>	<b>NGT 5 50225</b>	<b>UNIV OF MONTANA</b>	<b>6370</b>
MONITORING BOREAL LANDCOVER AND ECOSYSTEM DYNAMICS AT REGIONAL SCALES USING INTEGRATED SPACEBORNE 03/23/2000 - 04/30/2003	FY01: \$11,333	Total: \$34,000	MODELING NOVEL FT-IR SPECTROSCOPIC MEASUREMENTS OF OXYGENATEDHYDROCARBON LEVELS FROM BIO 09/29/1998 - 02/28/2002	FY01: \$0	Total: \$66,000
Prin. Invest.: J KIMBALL Tech. Officer: GSFC/G GUTMAN CASE Category: 39 - ENVIRONMENTAL SCI, OTHER			Prin. Invest.: R J FIELD Tech. Officer: GSFC/M Y WEI CASE Category: 99 - MULTI INTERDISCPL, OTHER		

**NGT 5 50329**      **UNIV OF MONTANA**      **6371**  
 BIOGEOCHEMISTRY OF RECREATIONAL GRASSLANDS STUDENT: CRISTINA MILESI  
 08/17/2000 - 08/31/2002      FY01: \$22,000      Total: \$44,000  
*Prin. Invest.: S RUNNING*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 6990**      **UNIV OF NEBRASKA - LINCOLN**      **6378**  
 CHARACTERIZATION AND IMPROVEMENT OF EOS LAND PRODU CTS  
 USING MEASUREMENTSAT AMERIFLUX GRASSLAND AND  
 02/25/1998 - 02/28/2002      FY01: \$64,380      Total: \$505,000  
*Prin. Invest.: E WALTER-SHEA*  
*Tech. Officer: GSFC/D C WICKLAND*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

## NEBRASKA

**NAG 2 1353**      **CREIGHTON UNIV**      **6372**  
 EFFECTS OF GRAVITY ON VESTIBULAR DEVELOPMENT IN MI CE  
 07/22/1999 - 07/31/2002      FY01: \$195,093      Total: \$484,874  
*Prin. Invest.: B FRITSZCH*  
*Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 5 8677**      **UNIV OF NEBRASKA - LINCOLN**      **6379**  
 "COMPRESSION FOR LAND USE DATA". GSFC CONTROL NO. 5-3491.  
 FUNDS FOR UNSOLICITED PROPOSAL W/UNIV NE  
 07/09/1999 - 09/30/2001      FY01: \$0      Total: \$50,131  
*Prin. Invest.: K SAYOOD*  
*Tech. Officer: GSFC/P YEH*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 1 01087**      **UNIV OF NEBRASKA - LINCOLN**      **6373**  
 OPTIMAL EXPERIMENTAL DESIGN FOR THERMAL CHARACTER- IZATION  
 OF FUNCTIONALLY GRADED MATERIALS  
 05/30/2001 - 09/30/2002      FY01: \$29,437      Total: \$29,437  
*Prin. Invest.: K D COLE*  
*Tech. Officer: LARC/M L BLOXXER*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NAG 5 9834**      **UNIV OF NEBRASKA - LINCOLN**      **6380**  
 ROBUST COMPRESSION FOR LAND USE DATA  
 07/28/2000 - 09/30/2002      FY01: \$0      Total: \$60,546  
*Prin. Invest.: K SAYOOD*  
*Tech. Officer: GSFC/P YEH*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 3 2219**      **UNIV OF NEBRASKA - LINCOLN**      **6374**  
 ATOMIC OXYGEN ULTRAVIOLET, AND THERMAL CYCLING EFF ECTS ON  
 SPACE MATERIALS  
 12/28/1998 - 10/31/2001      FY01: \$55,001      Total: \$145,001  
*Prin. Invest.: J A WOOLLAM*  
*Tech. Officer: GRC/D A JAWORSKE*  
*CASE Category: 13 – PHYSICS*

**NAG 5 10408**      **UNIV OF NEBRASKA - LINCOLN**      **6381**  
 "CONTEXT BASED COMPRESSION SCHEME"  
 04/05/2001 - 07/14/2002      FY01: \$50,000      Total: \$50,000  
*Prin. Invest.: K SAYOOD*  
*Tech. Officer: GSFC/P YEH*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 5 3442**      **UNIV OF NEBRASKA - LINCOLN**      **6375**  
 CHARACTERIZATION OF LANDSAT-7 GEOMETRY AND RADIOME TRY FOR  
 LAND COVER ANALYSES  
 10/07/1996 - 12/31/2000      FY01: \$0      Total: \$93,293  
*Prin. Invest.: J W MERCHANT*  
*Tech. Officer: GSFC/D L WILLIAMS*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 11147**      **UNIV OF NEBRASKA - LINCOLN**      **6382**  
 CONSEQUENCES OF INSTAL CHANGE: LAND-COVER DYNAMICS IN  
 KAZAKHSTAN 1960-2000  
 07/31/2001 - 08/14/2003      FY01: \$89,949      Total: \$89,949  
*Prin. Invest.: A GITELSON*  
*Tech. Officer: GSFC/G GUTMAN*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 4217**      **UNIV OF NEBRASKA - LINCOLN**      **6376**  
 CONSORTIUM FOR THE APPLICATION OF SPACE DATA TO ED  
 03/15/1997 - 12/31/2000      FY01: \$0      Total: \$1,449,859  
*Prin. Invest.: D RUNDQUIST*  
*Tech. Officer: GSFC/D L KALE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 9 1137**      **UNIV OF NEBRASKA - LINCOLN**      **6383**  
 A PROTOTYPE MARS SURFACE MOBILITY VEHICLE  
 08/04/1999 - 08/31/2000      FY01: -\$5,000      Total: \$0  
*Prin. Invest.: S FARRITOR*  
*Tech. Officer: JSC/J JOCHIM*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 5 6506**      **UNIV OF NEBRASKA - LINCOLN**      **6377**  
 MRK 42 AND MRK 957: TWO EXTREME NARROW-LINE STRONG FE II EMIT-  
 TING QUASARS - ASCA PROPOSAL A05  
 11/17/1997 - 10/31/2001      FY01: \$0      Total: \$17,800  
*Prin. Invest.: M GASKELL*  
*Prin. Invest.: NONE*  
*Tech. Officer: GSFC/N WHITE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 9 1310**      **UNIV OF NEBRASKA - LINCOLN**      **6384**  
 USE OF FEMTOSECOND LASERS IN THE CURATION & ALLOCATION OD  
 SAMPLES COLLECTED BY UPCOMING PLANET  
 06/06/2001 - 06/08/2004      FY01: \$34,995      Total: \$34,995  
*Prin. Invest.: D R ALEXANDER*  
*Tech. Officer: JSC/F HORZZ, JSC/J JONES*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NCC 2 5304**      **UNIV OF NEBRASKA - LINCOLN**      **6385**  
 TRANSPORT IN QUANTUM STRUCUTRES: QUASI TWO DIMENS IONAL  
 DEVICES  
 01/11/1999 - 12/31/2001      FY01: \$0      Total: \$126,973  
*Prin. Invest.: S BANDYOPADHYAY*  
*Tech. Officer: ARC/M MEYYAPPAN*  
*CASE Category: 13 – PHYSICS*

**NCC 5 169**      **UNIV OF NEBRASKA - LINCOLN**      **6386**  
 THE NEBRASKA INITIATIVE FOR AEROSPACE RESEARCH AND DEVELOPMENT  
 12/05/1996 – 11/14/2001      FY01: \$500,000      Total: \$2,500,000  
*Prin. Invest.: B D BOWEN*  
*Tech. Officer: GSFC/D D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 5 430**      **UNIV OF NEBRASKA - LINCOLN**      **6387**  
 "AMERICA'S FARM" A PROTOTYPE FOR OTHER NATIONAL CYBER-EDUCATIONAL SITES IN RESPONSE TO NASA COOPERATION  
 09/20/1999 – 09/30/2002      FY01: \$220,740      Total: \$518,228  
*Prin. Invest.: D C RUNDQUIST*  
*Tech. Officer: GSFC/R E GABRYS*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC13 98003**      **UNIV OF NEBRASKA - LINCOLN**      **6388**  
 AN INITIATIVE TO CREATE AN AFFILIATED RESEARCH CENTER PROGRAM  
 08/17/1998 – 03/31/2002      FY01: \$272,792      Total: \$622,399  
*Prin. Invest.: RUNDQUIST*  
*Tech. Officer: SSC/A PEEK*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 30175**      **UNIV OF NEBRASKA - LINCOLN**      **6389**  
 INTERANNUAL VARIABILITY IN SNOW MELT & ASSOCIATED ATMOSPHERIC CONDITIONS OVER THE MARINE CRYOSPHERE  
 01/13/1999 – 12/31/2000      FY01: \$0      Total: \$44,000  
*Prin. Invest.: M ANDERSON*  
*Tech. Officer: GSFC/S GOGINENI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 30358**      **UNIV OF NEBRASKA - LINCOLN**      **6390**  
 LANDFORM EVOLUTION OF THE LOWER MISSISSIPPI RIVER VALLEY IN RESPONSE TO DEGLACIATION/STUDENT: TAMMY  
 08/23/2000 – 08/31/2002      FY01: \$22,000      Total: \$44,000  
*Prin. Invest.: M BLUM*  
*Tech. Officer: GSFC/M Y WEI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 5 401**      **UNIV OF NEBRASKA-OMAHA**      **6391**  
 NASA EPSCOR: PREPARATORY GRANT PROPOSAL  
 05/13/1999 – 09/30/2001      FY01: \$0      Total: \$450,000  
*Prin. Invest.: B BROWN*  
*Tech. Officer: HQ/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 5 572**      **UNIV OF NEBRASKA-OMAHA**      **6392**  
 NEBRASKA NASA EPSCOR PROGRAM  
 07/20/2001 – 07/31/2002      FY01: \$700,000      Total: \$700,000  
*Prin. Invest.: B D BOWEN*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 40037**      **UNIV OF NEBRASKA-OMAHA**      **6393**  
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE AND FELLOWSHIP PROGRAM.  
 02/13/1997 – 02/28/2001      FY01: \$0      Total: \$1,040,150  
*Prin. Invest.: B D BOWEN*  
*Tech. Officer: GSFC/L KEFFER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 40104**      **UNIV OF NEBRASKA-OMAHA**      **6394**  
 NEBRASKA SPACE GRANT COLLEGE & FELLOWSHIP PROGRAM  
 03/01/2001 – 02/28/2002      FY01: \$277,650      Total: \$277,650  
*Prin. Invest.: B D BOWEN*  
*Tech. Officer: GSFC/D D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NEVADA**

**NAG 1 2046**      **UNIV. OF NEVADA - DESERT RES. INST - RENO**      **6395**  
 MICROPHYSICS AND RADIATIVE PROPERTIES OF CIRRUS: INSTRUMENTATION AND ANALYSIS/PREVIOUS # NAG-1-1707  
 04/01/1998 – 05/03/2002      FY01: \$0      Total: \$212,000  
*Prin. Invest.: J HALLETT*  
*Tech. Officer: LARC/D S MCDOUGAL, LARC/J RAPER*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 1 2183**      **UNIV. OF NEVADA - DESERT RES. INST - RENO**      **6396**  
 CLOUD CONDENSATION NUCLEI FIRE III MY 1/2  
 04/19/1999 – 06/03/2002      FY01: \$21,000      Total: \$100,000  
*Prin. Invest.: J G HUDSON*  
*Tech. Officer: LARC/V E DELNORE, LARC/J RAPER*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 7870**      **UNIV. OF NEVADA - DESERT RES. INST - RENO**      **6397**  
 INTEGRATING MODELING AND REMOTE SENSING FOR MONITO RING POTENTIAL RESPONSES TO CLIMATE CHANGE  
 01/20/1999 – 12/31/2001      FY01: \$62,310      Total: \$158,378  
*Prin. Invest.: G L DANA*  
*Tech. Officer: GSFC/S GOGINENI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 7973**      **UNIV. OF NEVADA - DESERT RES. INST - RENO**      **6398**  
 IN SITU MICROPHYSICAL OBSERVATIONS IN SUPPORT OF THE TRMM/KWAJEX FIELD CAMPAIGN  
 01/03/1999 – 12/31/2001      FY01: \$92,070      Total: \$349,841  
*Prin. Invest.: J HALALETT*  
*Tech. Officer: GSFC/R J LAWRENCE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 9716**      **UNIV. OF NEVADA - DESERT RES. INST - RENO**      **6399**  
 ANALYSIS AND INTEGRATION OF IN SITU MICROPHYSICAL OBSERVATIONS FROM THE TRMM/KWAJEX FIELD CAMPAIGN  
 06/22/2000 – 06/14/2002      FY01: \$153,000      Total: \$305,764  
*Prin. Invest.: D KINGSMILL*  
*Tech. Officer: GSFC/R LAWRENCE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 10445**      **UNIV. OF NEVADA - DESERT RES. INST - RENO**      **6400**  
 AN AQUEOUS GEOCHEMICAL MODEL FOR COLD PLANETS  
 02/20/2001 – 02/28/2002      FY01: \$65,000      Total: \$65,000  
*Prin. Invest.: G M MARION*  
*Tech. Officer: GSFC/D SENSKY*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 8 1718 UNIV. OF NEVADA - DESERT RES. INST - RENO 6401**  
 RESEARCH ENTITLED, "SHEAR FLOW STABILIZED LASER- IGNITED Z-PINCH"  
 04/27/2000 - 04/26/2003 FY01: \$37,000 Total: \$67,000  
*Prin. Invest.: F WINTERBERG*  
*Tech. Officer: MSFC/F THIO*  
*CASE Category: 13 – PHYSICS*

**NCC 5 486 UNIV. OF NEVADA - DESERT RES. INST - RENO 6402**  
 HYPERSPECTRAL MONITORING OF INVASIVE NON-NATIVE PLANT SPECIES  
 04/06/2000 - 12/31/2001 FY01: \$64,689 Total: \$110,966  
*Prin. Invest.: K C MCGWIRE*  
*Tech. Officer: GSFC/S G UNGAR*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 40038 UNIV. OF NEVADA - DESERT RES. INST - RENO 6403**  
 NATIONAL SPACE GRANT COLLEGE & FELLOWSHIP PROGRAM  
 01/24/1997 - 02/28/2001 FY01: \$0 Total: \$801,125  
*Prin. Invest.: J V TARANIK*  
*Tech. Officer: GSFC/L KEFFER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 3994 UNIV OF NEVADA - LAS VEGAS 6404**  
 EFFICIENT TRANSMISSION AND MANIPULATION OF SCIENTI  
 03/06/1997 - 02/28/2001 FY01: \$0 Total: \$261,642  
*Prin. Invest.: D LATIFI*  
*Tech. Officer: GSFC/J BREDEKAMP*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 5 6727 UNIV OF NEVADA - LAS VEGAS 6405**  
 LABORATORY STUDIES OF THERMAL ENERGY CHARGE TRANSFER OF CARBON, IRON, SULPHUR, AND NITROGEN IONS IN  
 12/11/1997 - 12/31/2001 FY01: \$100,000 Total: \$310,200  
*Prin. Invest.: V H KWONG*  
*Tech. Officer: GSFC/H HASAN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9489 UNIV OF NEVADA - LAS VEGAS 6406**  
 DEVELOPMENT OF THE CONTENT-BASED IMAGE QUERYING TOOLS: TOWARD ADVANCED DATABASES FOR ASTRONOMICAL  
 04/17/2000 - 04/14/2001 FY01: \$0 Total: \$80,000  
*Prin. Invest.: S LATIFI*  
*Tech. Officer: GSFC/J BREDEKAMP*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAS 5 31231 UNIV OF NEVADA - LAS VEGAS 6407**  
 STIS CO-INVESTIGATOR SUPPORT  
 08/30/1991 - 09/30/2002 FY01: \$109,000 Total: \$1,023,301  
*Prin. Invest.: D WEISTROP*  
*Tech. Officer: GSFC/D VITAGLIANO*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 6881 UNIV OF NEVADA - RENO 6408**  
 NUMERICAL GEOMECHANICS STUDIES OF PLANETARY FAULTING  
 02/27/1998 - 12/31/2000 FY01: \$0 Total: \$164,302  
*Prin. Invest.: R SCHULTZ*  
*Tech. Officer: GSFC/P ROGERS*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8267 UNIV OF NEVADA - RENO 6409**  
 GEOMETRY AND MECHANICS OF FAULTING ON MARS  
 02/24/1999 - 06/30/2002 FY01: \$95,000 Total: \$279,000  
*Prin. Invest.: R SCHULTZ*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9001 UNIV OF NEVADA - RENO 6410**  
 COMPREHENSIVE STRUCTURAL MODEL FOR PLANETARY WRINKLE RIDGES  
 02/03/2000 - 06/30/2002 FY01: \$44,000 Total: \$80,100  
*Prin. Invest.: R A SCHULTZ*  
*Tech. Officer: GSFC/D SENKE*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9127 UNIV OF NEVADA - RENO 6411**  
 CONCURRENT ANALYSIS OF MULTI- & HYPERSPECTRAL DATA SETS OF ANTARCTICA  
 02/25/2000 - 12/31/2001 FY01: \$0 Total: \$31,900  
*Prin. Invest.: W M CALVIN*  
*Tech. Officer: GSFC/E LINDSTROM*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9298 UNIV OF NEVADA - RENO 6412**  
 ALTERATION MINEROLOGY OF MARS: SPECTROSCOPIC ANALYSIS AND INTERPRETATION  
 04/27/2000 - 04/30/2001 FY01: \$0 Total: \$55,100  
*Prin. Invest.: W M CALVIN, NONE*  
*Tech. Officer: GSFC/J A GRANT*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 9467 UNIV OF NEVADA - RENO 6413**  
 AN AQUEOUS GEOCHEMICAL MODEL FOR COLD PLANETS  
 04/18/2000 - 04/14/2001 FY01: \$0 Total: \$33,250  
*Prin. Invest.: G M MARION*  
*Tech. Officer: GSFC/J A GRANT*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 9498 UNIV OF NEVADA - RENO 6414**  
 GLOBAL ASSESSMENT OF VOLCANIC DEBRIS FLOW HAZARDS FROM SPACE: EVALUATION OF NEW MULTISPECTRAL AND HYPER SPECTRAL DATA SETS  
 04/27/2000 - 12/31/2001 FY01: \$43,475 Total: \$81,821  
*Prin. Invest.: R J WATTERS*  
*Tech. Officer: GSFC/S G UNGAR*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 10290 UNIV OF NEVADA - RENO 6415**  
 ICES & ALTERATION MINERALS IN THE SOLAR SYSTEM: SPECTROSCOPIC ANALYSIS & INTERPRETATION  
 01/29/2001 - 01/31/2002 FY01: \$43,000 Total: \$43,000  
*Prin. Invest.: W M CALVIN*  
*Tech. Officer: GSFC/D SENKE*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 10926 UNIV OF NEVADA - RENO 6416**  
 GEOMECHANICS STUDIES OF PLANETARY FAULTING: MECHANISMS OF DEFORMATION ON MARS AND EUROPA  
 05/14/2001 - 06/30/2002 FY01: \$36,000 Total: \$36,000  
*Prin. Invest.: R A SCHULTZ*  
*Tech. Officer: GSFC/D A SENKE*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 9 1340** UNIV OF NEVADA - RENO 6417  
 STEM CELL PLASTICITY UNDER SIMULATED MICROGRAVITY  
 08/01/2001 - 08/01/2004 FY01: \$51,000 Total: \$51,000  
*Prin. Invest.: G ALMEIDA-PORADA*  
*Tech. Officer: JSC/D RISIN*  
*CASE Category: 43 – CHEMICAL ENGR*

**NCC 2 5408** UNIV OF NEVADA - RENO 6418  
 MEASURING CHANGES IN LOCAL VOLUMETRIC BONE DENSITY  
 11/24/2000 - 11/14/2001 FY01: \$23,750 Total: \$23,750  
*Prin. Invest.: E WANG*  
*Tech. Officer: ARC/R T WHALEN, ARC/E M HOLTON*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NCC 2 5443** UNIV OF NEVADA - RENO 6419  
 TESTING/DIRECT OSMOTIC CONCENTRATION  
 07/16/2001 - 01/31/2003 FY01: \$20,684 Total: \$20,684  
*Prin. Invest.: V D ADAMS, J G CURTIS, A E CHILDRESS*  
*Tech. Officer: ARC/M T FLYNN, ARC/J W FISHER*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NCC 3 750** UNIV OF NEVADA - RENO 6420  
 ACOUSTIC TOMOGRAPHY FOR JET ENGINES/TURBINES: PRO OF OF CONCEPT  
 12/15/1999 - 09/30/2001 FY01: \$79,737 Total: \$119,564  
*Prin. Invest.: J A KLEPPE*  
*Tech. Officer: GRC/G FRALICK*  
*CASE Category: 46 – MECHANICAL ENGR*

**NGT 5 30385** UNIV OF NEVADA - RENO 6421  
 EVAPORATION AND CARBON DIOXIDE FLUX MEASUREMENTS AT THE SALAR DEATACAMA, NORTHERN CHILE/STE  
 08/13/2001 - 08/31/2004 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: S TYLER*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 40113** UNIV OF NEVADA - RENO 6422  
 NEVADA SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM  
 03/12/2001 - 02/28/2002 FY01: \$206,125 Total: \$206,125  
*Prin. Invest.: J V TARANIK*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50362** UNIV OF NEVADA - RENO 6423  
 SYNTHESIS OF HYPERSPECTRAL AND MULTISPECTRAL IMAGE DATA FOR THE IDENTIFICATION OF FOSSIL AND ACTIVE  
 05/31/2001 - 06/30/2002 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: W CALVIN*  
*Tech. Officer: GSFC/K BLANDING*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 5 397** UNIV OF NEVADA SYSTEM 6424  
 NASA EPSCOR: PREPARATORY GRANT PROPOSAL  
 05/24/1999 - 06/30/2002 FY01: \$0 Total: \$450,000  
*Prin. Invest.: J TARANKI*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 5 583** UNIV OF NEVADA SYSTEM 6425  
 NEVADA NASA EPSCOR PROGRAM  
 08/27/2001 - 08/31/2004 FY01: \$508,600 Total: \$508,600  
*Prin. Invest.: J V TARANIK*  
*Tech. Officer: HQ/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

## NEW HAMPSHIRE

**NAG 2 1420** DARTMOUTH COLLEGE 6426  
 TRANSCRIPTIONAL REGULATIONS & EVOLUTION OF BILATERIAN BODY PLANS  
 07/13/2000 - 07/31/2002 FY01: \$66,695 Total: \$134,855  
*Prin. Invest.: K PETERSON, E H DAVIDSON*  
*Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 5 3212** DARTMOUTH COLLEGE 6427  
 A PRECISE POSITION FOR RU0042+32  
 04/18/1996 - 10/31/1999 FY01: -\$1,054 Total: \$939  
*Prin. Invest.: J THORSTENSEN*  
*Tech. Officer: GSFC/R PETRE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 3498** DARTMOUTH COLLEGE 6428  
 "RIVER FLOODING AND GLOBAL ENVIRONMENTAL CHANGE: A  
 12/02/1996 - 02/14/2001 FY01: \$0 Total: \$824,151  
*Prin. Invest.: R BRACKENRIDGE*  
*Tech. Officer: GSFC/M BALDWIN*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 4529** DARTMOUTH COLLEGE 6429  
 DISPERSIVE ALFVEN DYNAMICS OF THE MAGNETOSPHERE-IO  
 05/09/1997 - 08/31/2001 FY01: \$0 Total: \$251,535  
*Prin. Invest.: D LOTKO*  
*Tech. Officer: GSFC/M M MELLOTT*  
*CASE Category: 13 – PHYSICS*

**NAG 5 5238** DARTMOUTH COLLEGE 6430  
 SOUNDING OF THE ION ENERGIZATION REGION: RESOLVING AMBIGUITIES (SIERRA)  
 05/11/1999 - 05/10/2002 FY01: \$48,100 Total: \$166,055  
*Prin. Invest.: J W LABELLE*  
*Tech. Officer: GSFC/W B JOHNSON*  
*CASE Category: 13 – PHYSICS*

**NG 5 5239** DARTMOUTH COLLEGE 6431  
 FIRST YEAR FUNDING FOR "ROCKET AURORAL CORRELATOR EXPERIMENT (RACE) PI DR. JAMES LABELLE  
 05/19/1999 - 05/18/2002 FY01: \$52,751 Total: \$263,637  
*Prin. Invest.: J W LABELLE*  
*Tech. Officer: GSFC/W B JOHNSON*  
*CASE Category: 13 – PHYSICS*

**NAG 5 5318** DARTMOUTH COLLEGE 6432  
 HIGH BANDWIDTH AURORAL ROCKET (HI-BAR) HIGH BANDWIDTH AURORAL ROCKET (HI-BAR)  
 02/14/2001 - 02/12/2004 FY01: \$69,098 Total: \$69,098  
*Prin. Invest.: J W LABELLE*  
*Tech. Officer: GSFC/J C BRINTON*  
*CASE Category: 13 – PHYSICS*

**NAG 5 6268** DARTMOUTH COLLEGE 6433  
 AUTOMATED ANALYSIS OF REMOTELY-SENSED 2D MAGNETOPA  
 08/21/1997 - 07/31/2000 FY01: \$0 Total: \$128,879  
*Prin. Invest.: D O SONNERUP*  
*Tech. Officer: GSFC/J BOHLIN*  
*CASE Category: 13 - PHYSICS*

**NAG 5 7185** DARTMOUTH COLLEGE 6434  
 APPROXIMATELY TWO-DIMENSIONAL, COHERENT STRUCTURES IN  
 SPACE PLASMAS: THE INVERSE PROBLEM  
 03/25/1998 - 03/31/2002 FY01: \$0 Total: \$213,222  
*Prin. Invest.: B U SONNERUP*  
*Tech. Officer: GSFC/D EVANS*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 7442** DARTMOUTH COLLEGE 6435  
 A THEORETICAL STUDY OF THE GLOBAL GEOSPACE SYSTEM  
 06/02/1998 - 09/30/2001 FY01: \$70,000 Total: \$585,630  
*Prin. Invest.: M HUDSON*  
*Tech. Officer: GSFC/S CURTIS*  
*CASE Category: 19 - PHYSICAL SCIENCE, OTHER*

**NAG 5 7689** DARTMOUTH COLLEGE 6436  
 NONADIABATIC CHANGES IN RADIATION BELT POPULATIONS  
 09/14/1998 - 09/30/2001 FY01: \$0 Total: \$215,592  
*Prin. Invest.: M K HUDSON*  
*Tech. Officer: GSFC/D EVANS*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 7803** DARTMOUTH COLLEGE 6437  
 MULTIPONT, MULTI-INSTRUMENT STUDY OF AURORAL ALFVENIC  
 PROCESSES (SEC GI PROGRAM) NRA-98-03-S  
 11/09/1998 - 03/31/2002 FY01: \$99,249 Total: \$284,369  
*Prin. Invest.: W LOTKO*  
*Tech. Officer: GSFC/M H ACUNA*  
*CASE Category: 13 - PHYSICS*

**NAG 5 8441** DARTMOUTH COLLEGE 6438  
 RESEARCH: "ULTRA LOW FREQUENCY MAGNETOSPHERIC PHYSI  
 CS... FIRST YEAR OF THREE YEAR FUNDING CYCLE. P  
 04/08/1999 - 04/14/2002 FY01: \$346,000 Total: \$980,048  
*Prin. Invest.: W LOTKO*  
*Tech. Officer: GSFC/J M GREBOWSKY*  
*CASE Category: 13 - PHYSICS*

**NAG 5 9225** DARTMOUTH COLLEGE 6439  
 THE FORMATION OF THE MILKY WAY AND ITS SATELLITE GALAXIES (LTSA  
 99)  
 03/15/2000 - 03/14/2002 FY01: \$61,755 Total: \$121,649  
*Prin. Invest.: B CHABOYER*  
*Tech. Officer: GSFC/R OLIVERSEN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9470** DARTMOUTH COLLEGE 6440  
 RIVER FLOODING AND GLOBAL ENVIRONMENTAL CHANGE: A MULTI-  
 SENSOR APPROACH  
 04/14/2000 - 04/30/2002 FY01: \$196,905 Total: \$329,437  
*Prin. Invest.: R BRAKENRIDGE, NONE*  
*Tech. Officer: GSFC/P HOUSER*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 10216** DARTMOUTH COLLEGE 6441  
 IMPACTS OF IONOSPHERIC ACTIVITY ON ULTRA-LOW-FREQUENCIES  
 AUORAL ELECTRODYNAMICS  
 01/05/2001 - 01/14/2002 FY01: \$78,513 Total: \$78,513  
*Prin. Invest.: A V STRELTSOV*  
*Tech. Officer: GSFC/M MELLOTT*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 10219** DARTMOUTH COLLEGE 6442  
 A LOW-COST ROCKET-BORNE IMAGER FOR STUDIES OF AURORAL FINE  
 STRUCTURES  
 01/05/2001 - 01/14/2002 FY01: \$69,891 Total: \$69,891  
*Prin. Invest.: M R LESSARD*  
*Tech. Officer: GSFC/M MELLOTT*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 10953** DARTMOUTH COLLEGE 6443  
 EARLY FLOOD DETECTION USING QUICKSCAT AND THE DART MOUTH  
 FLOOD OBSERVATORY  
 05/18/2001 - 05/31/2002 FY01: \$59,686 Total: \$59,686  
*Prin. Invest.: G BRAKENRIDGE, NONE*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NAG 8 1590** DARTMOUTH COLLEGE 6444  
 R/S IN SITU OPTICAL WAVEGUIDES FOR MONITORING AND MODIFYING  
 PROTEIN CRYSTAL GROWTH  
 01/28/1999 - 09/30/2002 FY01: \$108,300 Total: \$305,299  
*Prin. Invest.: U J GIBSON*  
*Tech. Officer: MSFC/H K HIGGINBOTTAM, MSFC/B GUYNES*  
*CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)*

**NAG 9 1088** DARTMOUTH COLLEGE 6445  
 LIFE SCIENCES DATA ARCHIVE SCIENTIFIC SUPPORT  
 03/15/1999 - 09/30/2001 FY01: \$44,362 Total: \$261,091  
*Prin. Invest.: J BUCKLEY*  
*Tech. Officer: JSC/D BELL*  
*CASE Category: 56 - MEDICAL*

**NAG 9 1387** DARTMOUTH COLLEGE 6446  
 OTOACOUSTIC HEARING OF SPACE STATION CREWS  
 09/24/2001 - 08/31/2004 FY01: \$85,004 Total: \$85,004  
*Prin. Invest.: J BUCKLEY*  
*Tech. Officer: JSC/C LLYOD*  
*CASE Category: 56 - MEDICAL*

**NAG13 00041** DARTMOUTH COLLEGE 6447  
 LIMITED AREA OPERATIONAL COASTAL OCEAN MODELS SAME  
 09/06/2000 - 09/05/2002 FY01: \$0 Total: \$234,724  
*Prin. Invest.: D LYNCH*  
*Tech. Officer: SSC/R MILLER*  
*CASE Category: 33 - OCEANOGRAPHY*

**NCC 1 01045** DARTMOUTH COLLEGE 6448  
 DATA-BASED OPTIMAL CONTROL & FAULT DETECTION TECHNIQUES FOR  
 AEROSPACE SYSTEMS  
 06/12/2001 - 02/14/2004 FY01: \$56,000 Total: \$56,000  
*Prin. Invest.: M Q PHAN*  
*Tech. Officer: LARC/C M BELCASTRO*  
*CASE Category: 41 - AERONAUTICAL ENGRN*

<b>NGT 5 95</b>	<b>DARTMOUTH COLLEGE</b>	<b>6449</b>	<b>NAG 5 4856</b>	<b>UNIV OF NEW HAMPSHIRE - DURHAM</b>	<b>6457</b>
STORM-TIME RADIATION BELT DYNAMICS			MAGNETIC RECONNECTION IN SOLAR FLARES		
07/23/1999 - 07/31/2000	FY01: \$0	Total: \$22,000	07/15/1997 - 05/14/2000	FY01: -\$381	Total: \$253,619
<i>Prin. Invest.:</i> M K HUDSON			<i>Prin. Invest.:</i> D G FORBES		
<i>Tech. Officer:</i> GSFC/L ZANETTI			<i>Tech. Officer:</i> GSFC/W J WAGNER		
<i>CASE Category:</i> 11 - ASTRONOMY			<i>CASE Category:</i> 11 - ASTRONOMY		
<b>NCC 5 384</b>	<b>SAINT ANSELM COLLEGE</b>	<b>6450</b>	<b>NAG 5 5057</b>	<b>UNIV OF NEW HAMPSHIRE - DURHAM</b>	<b>6458</b>
GROUND-BASED TESTING OF A PROTOTYPE HOLOGRAPHIC AT			A CO-INVESTIGATOR PROPOSAL FOR CORNELL UNIV CAPER		
MOSPHERIC SCANNER FOR ENVIRONMENTAL REMOTESENSIN			06/25/1996 - 05/31/2001	FY01: \$0	Total: \$409,705
03/05/1999 - 08/30/2001	FY01: \$0	Total: \$34,700	<i>Prin. Invest.:</i> R ARNOLDY		
<i>Prin. Invest.:</i> D GUERRA			<i>Tech. Officer:</i> GSFC/L W GURKIN		
<i>Tech. Officer:</i> GSFC/A J NEGRI			<i>CASE Category:</i> 13 - PHYSICS		
<i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE					
<b>NAG 5 1479</b>	<b>UNIV OF NEW HAMPSHIRE - DURHAM</b>	<b>6451</b>	<b>NAG 5 5117</b>	<b>UNIV OF NEW HAMPSHIRE - DURHAM</b>	<b>6459</b>
THEORETICAL STUDIES ON THE CHROMOSPHERE, CORONA, AND SOLAR			THE TIGRE INSTRUMENT FOR INTERMEDIATE-ENERGY GAMMA-RAY		
WIND			ASGTRONOMY FOR 0.3 TO 100MEV		
11/26/1990 - 09/30/1999	FY01: -\$6,156	Total: \$2,540,074	04/18/1997 - 11/30/2001	FY01: \$24,990	Total: \$175,972
<i>Prin. Invest.:</i> J V HOLLWEG, M A LEO			<i>Prin. Invest.:</i> J RYAN		
<i>Tech. Officer:</i> GSFC/T J BIRMINGHAM			<i>Tech. Officer:</i> GSFC/H NEEDLEMAN, GSFC/B A MERRITT		
<i>CASE Category:</i> 13 - PHYSICS			<i>CASE Category:</i> 13 - PHYSICS		
<b>NAG 5 3527</b>	<b>UNIV OF NEW HAMPSHIRE - DURHAM</b>	<b>6452</b>	<b>NAG 5 5124</b>	<b>UNIV OF NEW HAMPSHIRE - DURHAM</b>	<b>6460</b>
ASSESSING THE EFFECTS OF HISTORICAL LAND USE ON FO RESPONSE			ENSTROPY - FILAMENTATION OF AURORAL CURRENTS		
TO CLIMATE CHANGEAND CO2: A REMOTE SENS			03/10/1997 - 01/31/2001	FY01: \$0	Total: \$389,920
11/18/1996 - 11/14/2000	FY01: -\$1,310	Total: \$550,380	<i>Prin. Invest.:</i> K LYNCH		
<i>Prin. Invest.:</i> M MARTIN			<i>Tech. Officer:</i> GSFC/B FLOWERS		
<i>Tech. Officer:</i> GSFC/D E WICKLAND			<i>CASE Category:</i> 13 - PHYSICS		
<i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER					
<b>NAG 5 3671</b>	<b>UNIV OF NEW HAMPSHIRE - DURHAM</b>	<b>6453</b>	<b>NAG 5 5147</b>	<b>UNIV OF NEW HAMPSHIRE - DURHAM</b>	<b>6461</b>
CONTINUED STUDIES OF SOUTHERN HEMISPHERE GAMMA-RAY			MINUTE OF ARC RESOLUTION GAMMA-RAY IMAGING EXPERIMENT		
PARADIGMS FOR TWO BLAZAR PROTOTYPES			(MARGIE)		
01/02/1997 - 12/31/1999	FY01: -\$40,990	Total: \$52,005	07/02/1997 - 06/30/2001	FY01: \$0	Total: \$150,000
<i>Prin. Invest.:</i> W VESTRAND <i>Prin. Invest.:</i> NONE			<i>Prin. Invest.:</i> J RYAN		
<i>Tech. Officer:</i> GSFC/J P NORRIS			<i>Tech. Officer:</i> GSFC/H NEEDLEMAN		
<i>CASE Category:</i> 11 - ASTRONOMY			<i>CASE Category:</i> 13 - PHYSICS		
<b>NAG 5 4458</b>	<b>UNIV OF NEW HAMPSHIRE - DURHAM</b>	<b>6454</b>	<b>NAG 5 5192</b>	<b>UNIV OF NEW HAMPSHIRE - DURHAM</b>	<b>6462</b>
MAGNETOTAIL-IONOSPHERE COUPLING			MONITORING INITIAL STAGES OF FOREST RECOVERY IN T CZECH		
05/14/1997 - 06/30/2000	FY01: \$0	Total: \$63,900	REPUBLIC		
<i>Prin. Invest.:</i> D L KAUFMANN			07/18/1997 - 07/31/2000	FY01: \$0	Total: \$444,069
<i>Tech. Officer:</i> GSFC/J BOHLIN			<i>Prin. Invest.:</i> B ROCK		
<i>CASE Category:</i> 13 - PHYSICS			<i>Tech. Officer:</i> GSFC/D WICKLAND		
			<i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER		
<b>NAG 5 4695</b>	<b>UNIV OF NEW HAMPSHIRE - DURHAM</b>	<b>6455</b>	<b>NAG 5 5212</b>	<b>UNIV OF NEW HAMPSHIRE - DURHAM</b>	<b>6463</b>
TRANSPORT OF ENERGETIC IONS IN THE RING CURRENT DU S			ULDB COMPTON TELESCOPE MISSION		
06/17/1997 - 11/14/1999	FY01: -\$529	Total: \$120,471	09/22/1998 - 12/31/2001	FY01: \$0	Total: \$60,000
<i>Prin. Invest.:</i> D M KISTLER			<i>Prin. Invest.:</i> J M RYAN		
<i>Tech. Officer:</i> GSFC/D EVANS			<i>Tech. Officer:</i> WFF/B A MERRITT		
<i>CASE Category:</i> 13 - PHYSICS			<i>CASE Category:</i> 11 - ASTRONOMY		
<b>NAG 5 4785</b>	<b>UNIV OF NEW HAMPSHIRE - DURHAM</b>	<b>6456</b>	<b>NAG 5 5234</b>	<b>UNIV OF NEW HAMPSHIRE - DURHAM</b>	<b>6464</b>
AN INTEGRATED SYSTEM FOR WATER BUDGET CLOSURE OVER MASS: A			DUST DARTS PI DR. KRISTINA LYNCH		
TRMM VALIDATION EFFORT			02/12/1999 - 03/28/2002	FY01: \$138,400	Total: \$353,595
07/03/1997 - 12/31/2001	FY01: \$0	Total: \$234,500	<i>Prin. Invest.:</i> K LYNCH		
<i>Prin. Invest.:</i> C VOROSMARTY			<i>Tech. Officer:</i> GSFC/W JOHNSON		
<i>Tech. Officer:</i> GSFC/O W THIELE			<i>CASE Category:</i> 13 - PHYSICS		
<i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE					

**NAG 5 5237 UNIV OF NEW HAMPSHIRE - DURHAM 6465**  
 SOUNDING OF THE ION ENERGIZATION REGION: RESOLVING AMBIGUITIES  
 (SIERRA)  
 05/11/1999 - 05/10/2002 FY01: \$154,870 Total: \$424,715  
*Prin. Invest.: R L ARNOLDY*  
*Tech. Officer: GSFC/W B JOHNSON*  
*CASE Category: 13 – PHYSICS*

**NAG 5 5324 UNIV OF NEW HAMPSHIRE - DURHAM 6466**  
 A WIDE FIELD-OF-VIEW HARD X-RAY POLARIMETER FOR STUDYING  
 GAMMA-RAY BURSTS  
 03/21/2001 - 12/31/2003 FY01: \$75,000 Total: \$75,000  
*Prin. Invest.: M L MCCONNELL*  
*Tech. Officer: GSFC/B A MERRITT*  
*CASE Category: 13 – PHYSICS*

**NAG 5 5326 UNIV OF NEW HAMPSHIRE - DURHAM 6467**  
 DEVELOPMENT OF CZT STRIP DETECTORS FOR HARD X-RAY IMAGING  
 WITH MARGIE  
 03/21/2001 - 12/31/2004 FY01: \$130,000 Total: \$130,000  
*Prin. Invest.: J M RYAN*  
*Tech. Officer: GSFC/B A MERRITT*  
*CASE Category: 13 – PHYSICS*

**NAG 5 5327 UNIV OF NEW HAMPSHIRE - DURHAM 6468**  
 DEVELOPMENT OF CZT STRIP DETECTORS FOR HARD X-RAY AND  
 GAMMA-RAYIMAGING SPECTROSCOPY PI PRO  
 08/09/2001 - 12/31/2003 FY01: \$250,000 Total: \$250,000  
*Prin. Invest.: J RYAN*  
*Tech. Officer: WFF/B MERRITT*  
*CASE Category: 13 – PHYSICS*

**NAG 5 6115 UNIV OF NEW HAMPSHIRE - DURHAM 6469**  
 THE BIO-ATMOSPHERIC CYCLES OF NITROGEN AND CARBON: POLLUTION  
 AND TERRESTRIAL  
 07/28/1997 - 07/31/2000 FY01: -\$1 Total: \$107,769  
*Prin. Invest.: B BRASWELL*  
*Tech. Officer: GSFC/D WICKLAND*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 6137 UNIV OF NEW HAMPSHIRE - DURHAM 6470**  
 TRANSFER FUNDS TO UNIV OF NEW HAMPSHIRE IN S ENTITLED:  
 CHANGES IN BIOGEOCHEMICAL CYCLES  
 08/11/1997 - 05/31/2002 FY01: \$0 Total: \$6,253,073  
*Prin. Invest.: B MOORE, III*  
*Tech. Officer: GSFC/A C JANETOS*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 6289 UNIV OF NEW HAMPSHIRE - DURHAM 6471**  
 DEVELOPMENT OF A PARTICLE BACKSCATTERING ALGORITHM CONCUR-  
 REENT SHIP MEASUREMENTS, AND GLOBAL BIOGEOCH  
 09/10/1997 - 08/31/2002 FY01: \$79,608 Total: \$425,983  
*Prin. Invest.: W S BROWN, NONE*  
*Tech. Officer: GSFC/E A LINDSTROM*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 6452 UNIV OF NEW HAMPSHIRE - DURHAM 6472**  
 SATELLITE-BASED SYSTEMS FOR MONITORING BIOGEOCHEMI CAL  
 FLUXES BETWEEN THECONTINENTAL LAND MASS AND C  
 11/04/1997 - 12/31/2000 FY01: \$0 Total: \$552,982  
*Prin. Invest.: C VOROSMARTY*  
*Tech. Officer: GSFC/J A YODER*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 6453 UNIV OF NEW HAMPSHIRE - DURHAM 6473**  
 ATMOSPHERIC IMPACTS OF AGRICULTURE: INTEGRATION OF REMOTE  
 SENSING AND BIOGEOCHEMICAL MODELS FOR T  
 11/18/1997 - 12/31/2001 FY01: \$0 Total: \$336,476  
*Prin. Invest.: C LI*  
*Tech. Officer: GSFC/D WICKLAND*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 6623 UNIV OF NEW HAMPSHIRE - DURHAM 6474**  
 RADAR-BASED MEASURE OF INTERANNUAL VEGETATION PHEN OLOGY  
 FOR MONITORING GLOBAL CHANGES RESPONSES OF  
 11/19/1997 - 11/30/2000 FY01: \$0 Total: \$83,227  
*Prin. Invest.: S FROLKING*  
*Tech. Officer: GSFC/D E WICKLAND*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 6860 UNIV OF NEW HAMPSHIRE - DURHAM 6475**  
 WIND/SWE CONTINUED INVESTIGATIONS  
 02/17/1998 - 01/14/2001 FY01: \$0 Total: \$459,155  
*Prin. Invest.: R TORBERT*  
*Tech. Officer: GSFC/K OGILVIE*  
*CASE Category: 13 – PHYSICS*

**NAG 5 6925 UNIV OF NEW HAMPSHIRE - DURHAM 6476**  
 GRANT  
 02/04/1998 - 01/31/2001 FY01: -\$374 Total: \$389,360  
*Prin. Invest.: L M KISTLER*  
*Tech. Officer: GSFC/M HESSE*  
*CASE Category: 13 – PHYSICS*

**NAG 5 6935 UNIV OF NEW HAMPSHIRE - DURHAM 6477**  
 GRANT  
 02/04/1998 - 07/31/2001 FY01: \$0 Total: \$379,492  
*Prin. Invest.: R B TORBERT*  
*Tech. Officer: GSFC/M HESSE*  
*CASE Category: 13 – PHYSICS*

**NAG 5 7095 UNIV OF NEW HAMPSHIRE - DURHAM 6478**  
 SCALING PEATLAND C02 AND CH4 FLUXES FROM CHAMBERS TO THE  
 BOREAS NORTH- ERN AND SOUTHERN STUDY AREAS  
 05/21/1998 - 04/30/2001 FY01: \$0 Total: \$218,362  
*Prin. Invest.: S FROLKING*  
*Tech. Officer: GSFC/D E WICKLAND*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 7097 UNIV OF NEW HAMPSHIRE - DURHAM 6479**  
 STUDIES OF INTERSTELLAR PICKUP IONS IN THE SOLAR W IND  
 06/05/1998 - 04/30/2001 FY01: \$0 Total: \$220,600  
*Prin. Invest.: P A ISENBERG*  
*Tech. Officer: GSFC/J LING*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7368 UNIV OF NEW HAMPSHIRE - DURHAM 6480**  
 STUDY OF RING CURRENT DYNAMICS DURING GEOMAGNETIC STORMS  
 05/06/1998 - 05/31/2000 FY01: -\$2 Total: \$13,998  
*Prin. Invest.: V K JORDANOVA*  
*Tech. Officer: GSFC/D EVANS*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7601 UNIV OF NEW HAMPSHIRE - DURHAM 6481**  
 DEVELOPMENT OF SPACE-BASED TECHNIQUES FOR MEASURING  
 07/24/1998 - 07/14/2000 FY01: \$0 Total: \$89,532  
*Prin. Invest.: L D DINGMAN*  
*Tech. Officer: GSFC/E T ENGMAN*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NAG 5 7631 UNIV OF NEW HAMPSHIRE - DURHAM 6482**  
 QUANTIFYING THE ATMOSPHERIC IMPACTS OF PADDY RICE AGRICULTURE  
 IN CHINA  
 08/10/1998 - 09/30/2002 FY01: \$370,330 Total: \$1,350,000  
*Prin. Invest.: C LI*  
*Tech. Officer: GSFC/A C JANETOS*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 7792 UNIV OF NEW HAMPSHIRE - DURHAM 6483**  
 ION ACCELERATION AND TRANSPORT IN IMPULSIVE AND GRADUAL  
 SOLAR FLARES  
 12/14/1998 - 12/31/2001 FY01: \$58,263 Total: \$166,844  
*Prin. Invest.: D A LEE*  
*Tech. Officer: GSFC/D C LING*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 7798 UNIV OF NEW HAMPSHIRE - DURHAM 6484**  
 SMALL SCALE STRUCTURE OF AURORAL ELECTRIC CURRENTS -- A  
 QUEST INVESTIGATOR PROPOSAL TO THE FAST  
 12/15/1998 - 12/31/2001 FY01: \$0 Total: \$168,425  
*Prin. Invest.: D A LYNCH*  
*Tech. Officer: GSFC/L ZANETTI*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 7804 UNIV OF NEW HAMPSHIRE - DURHAM 6485**  
 ELECTRIC FIELDS AND RING CURRENT ENERGIZATION (SEC GI  
 PROGRAM)  
 11/06/1998 - 12/31/2001 FY01: \$77,655 Total: \$224,131  
*Prin. Invest.: V K JORDANOVA*  
*Tech. Officer: GSFC/M H ACUNA*  
*CASE Category: 13 - PHYSICS*

**NAG 5 8041 UNIV OF NEW HAMPSHIRE - DURHAM 6486**  
 INVESTIGATION OF POLAR CAP AND RING CURRENT PRECIPITATION  
 01/07/1999 - 01/14/2001 FY01: \$0 Total: \$60,695  
*Prin. Invest.: R B TOBBERT*  
*Tech. Officer: GSFC/M H ACUNA*  
*CASE Category: 13 - PHYSICS*

**NAG 5 8044 UNIV OF NEW HAMPSHIRE - DURHAM 6487**  
 AN INVESTIGATION OF THE CHARGE STATE COMPOSITION OF SOLAR &  
 SHOCKACCELERATED SUPRATHERMAL PA  
 01/11/1999 - 01/14/2000 FY01: \$0 Total: \$36,081  
*Prin. Invest.: A B GALVIN*  
*Tech. Officer: GSFC/M H ACUNA*  
*CASE Category: 13 - PHYSICS*

**NAG 5 8228 UNIV OF NEW HAMPSHIRE - DURHAM 6488**  
 "THEORETICAL STUDIES OF THE SOLAR ATMOSPHERE AND SOLAR WIND".  
 02/24/1999 - 03/14/2002 FY01: \$400,000 Total: \$1,139,914  
*Prin. Invest.: J V HOLLWEG*  
*Tech. Officer: GSFC/J M GREBOWSKY*  
*CASE Category: 13 - PHYSICS*

**NAG 5 8443 UNIV OF NEW HAMPSHIRE - DURHAM 6489**  
 A WATER BUDGET CLOSURE SYSTEM TO SUPPORT LBA HYDRO  
 METEOROLOGY AND ECOLOGY STUDIES  
 04/08/1999 - 04/14/2002 FY01: \$104,881 Total: \$328,145  
*Prin. Invest.: C J VOROSMARTY*  
*Tech. Officer: GSFC/P T Houser*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 8452 UNIV OF NEW HAMPSHIRE - DURHAM 6490**  
 USE OF SAR FOR MONITORING DEFORESTATION AND SECONDARY  
 GROWTH IN THE TROPICS  
 04/09/1999 - 08/31/2000 FY01: -\$608 Total: \$40,934  
*Prin. Invest.: W SALAS*  
*Tech. Officer: GSFC/S GOGINENI*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 8486 UNIV OF NEW HAMPSHIRE - DURHAM 6491**  
 SONTRAC - A NEUTRON TRACKING DEVICE FOR SOLAR AND  
 ATMOSPHERIC PHYSICS  
 04/29/1999 - 10/30/2000 FY01: \$0 Total: \$171,043  
*Prin. Invest.: J M RYAN*  
*Tech. Officer: GSFC/W WAGNER*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 8641 UNIV OF NEW HAMPSHIRE - DURHAM 6492**  
 AN APP READOUT SCHEME FOR A SOLAR NEUTRON TRACKING DEVICE.  
 07/08/1999 - 06/30/2002 FY01: \$0 Total: \$368,600  
*Prin. Invest.: M L MCCONNELL, NONE*  
*Tech. Officer: GSFC/F HERRERO*  
*CASE Category: 13 - PHYSICS*

**NAG 5 8656 UNIV OF NEW HAMPSHIRE - DURHAM 6493**  
 EDUCATION & PUBLIC OUTREACH PROPOSAL - UNIV-LEVEL RESEARCH  
 PROJECTS FOR HIGH SCHOOL STUDENTS  
 08/19/1999 - 08/31/2000 FY01: -\$3 Total: \$997  
*Prin. Invest.: M MCCONNELL*  
*Tech. Officer: GSFC/J P NORRIS*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 8683 UNIV OF NEW HAMPSHIRE - DURHAM 6494**  
 THE CONTRIBUTION OF SATELLITE RADAR ALTIMETRY TO THE DETERMINATION  
 OF RIVER DISCHARGE & LAKE/RESERVOIR  
 07/23/1999 - 07/14/2001 FY01: \$0 Total: \$132,199  
*Prin. Invest.: C J VOROSMARTY*  
*Tech. Officer: GSFC/E T ENGMAN*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 8733 UNIV OF NEW HAMPSHIRE - DURHAM 6495**  
 CONVERSION SURFACE TECHNOLOGY FOR LOW ENERGY NEUTRAL ATOM IMAGING.  
 09/14/1999 - 06/30/2002 FY01: \$0 Total: \$352,372  
*Prin. Invest.: J QUINN*  
*Tech. Officer: GSFC/G MUCKLOW*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 8828 UNIV OF NEW HAMPSHIRE - DURHAM 6496**  
 "COOPERATION BETWEEN IGBP AND LAB: MEETING THE INTERNATIONAL CHALLENGE"  
 09/08/1999 - 03/14/2002 FY01: \$98,450 Total: \$214,950  
*Prin. Invest.: B MOORE III*  
*Tech. Officer: GSFC/D DEERING*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9614 UNIV OF NEW HAMPSHIRE - DURHAM 6497**  
 MAGNETIC RECONNECTION IN SOLAR FLARES  
 05/16/2000 - 11/14/2001 FY01: \$0 Total: \$29,840  
*Prin. Invest.: T G FORBES*  
*Tech. Officer: GSFC/W J WAGNER*  
*CASE Category: 13 – PHYSICS*

**NAG 5 9617 UNIV OF NEW HAMPSHIRE - DURHAM 6498**  
 A REGIONAL INTEGRATED MONITORING SYSTEM FOR THE HYDROLOGY OF THE PAN-ARCTIC MASS  
 05/23/2000 - 04/30/2002 FY01: \$132,842 Total: \$214,401  
*Prin. Invest.: C VOROSMARTY*  
*Tech. Officer: GSFC/P HOUSER*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9685 UNIV OF NEW HAMPSHIRE - DURHAM 6499**  
 CONSOLIDATING THE VELA-REGION 1.809 MEV RESULTS  
 06/05/2000 - 06/14/2001 FY01: \$0 Total: \$3,500  
*Prin. Invest.: J RYAN*  
*Tech. Officer: GSFC/J P NORRIS*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9689 UNIV OF NEW HAMPSHIRE - DURHAM 6500**  
 LONG DURATION SOLAR OBSERVATIONS WITH COMPTEL  
 06/15/2000 - 06/14/2001 FY01: \$0 Total: \$5,000  
*Prin. Invest.: M L MCCONNELL*  
*Tech. Officer: GSFC/J P NORRIS*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9960 UNIV OF NEW HAMPSHIRE - DURHAM 6501**  
 CLUSTER ELECTRON DRIFT INSTRUMENT (EDI).  
 09/20/2000 - 10/31/2001 FY01: \$525,751 Total: \$867,315  
*Prin. Invest.: J M QUINN*  
*Tech. Officer: GSFC/M GOLDSTEIN*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 10135 UNIV OF NEW HAMPSHIRE - DURHAM 6502**  
 PREDICTING CHANGES IN REGIONAL & GLOBAL BIOGEO- CHEMICAL CYCLES  
 02/14/2001 - 12/31/2001 FY01: \$800,000 Total: \$800,000  
*Prin. Invest.: B MOORE*  
*Tech. Officer: GSFC/D E WICKLAND*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10203 UNIV OF NEW HAMPSHIRE - DURHAM 6503**  
 HARD X-RAY POLARIMETRY OF SOLAR FLARES WITH HESSI  
 12/28/2000 - 12/31/2001 FY01: \$68,115 Total: \$68,115  
*Prin. Invest.: M L MCCONNEL*  
*Tech. Officer: GSFC/W WAGNER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10260 UNIV OF NEW HAMPSHIRE - DURHAM 6504**  
 A SATELLITE-BASED SYSTEM FOR MONITORING FLUXES BETWEEN THE CONTINENTAL LAND MASS & COASTAL OCEANS  
 02/05/2001 - 12/31/2001 FY01: \$212,404 Total: \$212,404  
*Prin. Invest.: C VOROSMARTY*  
*Tech. Officer: GSFC/J MARRA*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10360 UNIV OF NEW HAMPSHIRE - DURHAM 6505**  
 GGS/WIND MISSION MISSIONS OPERATIONS AND DATA ANALYSIS PHASE.  
 02/05/2001 - 02/14/2002 FY01: \$100,000 Total: \$100,000  
*Prin. Invest.: R TORBERT*  
*Tech. Officer: GSFC/K OGILVIE*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 10420 UNIV OF NEW HAMPSHIRE - DURHAM 6506**  
 CONSTELLATION PATHFINDER TECHNOLOGY DEVELOPMENT: SYSTEMS INTEGRATION AND MANUFACTURABILITY.  
 03/12/2001 - 03/14/2002 FY01: \$49,645 Total: \$49,645  
*Prin. Invest.: D LYNCH*  
*Tech. Officer: GSFC/P BUCHANAN*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 10472 UNIV OF NEW HAMPSHIRE - DURHAM 6507**  
 PARTICLE ENERGIZATION IN REVERSE AURORA  
 02/27/2001 - 02/28/2002 FY01: \$79,035 Total: \$79,035  
*Prin. Invest.: K LYNCH*  
*Tech. Officer: GSFC/J SPANN*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 10835 UNIV OF NEW HAMPSHIRE - DURHAM 6508**  
 A NEW KINETIC MODEL FOR CORONAL HEATING AND GENERATION OF THE FAST SOLAR WIND BY ION-CYCLOTRON  
 04/27/2001 - 04/30/2002 FY01: \$94,021 Total: \$94,021  
*Prin. Invest.: P A ISENBERG*  
*Tech. Officer: GSFC/W J WAGNER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10883 UNIV OF NEW HAMPSHIRE - DURHAM 6509**  
 AN ASSESSMENT OF THE FEASIBILITY OF PREDICTING MAJOR GEOMAGNETIC DISTURBANCES FROM MONITORS IN  
 05/03/2001 - 04/30/2002 FY01: \$98,885 Total: \$98,885  
*Prin. Invest.: C FARRUGIA*  
*Tech. Officer: GSFC/W WAGNER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10890 UNIV OF NEW HAMPSHIRE - DURHAM 6510**  
 LOCAL INTERSTELLER MEDIUM PARAMETERS  
 05/10/2001 - 05/31/2002 FY01: \$75,327 Total: \$75,327  
*Prin. Invest.: E MOEBIUS*  
*Tech. Officer: GSFC/J GURMAN*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 10977 UNIV OF NEW HAMPSHIRE - DURHAM 6511**  
 NUMERICAL TESTS OF ERUPTIVE CME MODELS  
 05/29/2001 - 05/31/2002 FY01: \$53,067 Total: \$53,067  
*Prin. Invest.: T G FORBES*  
*Tech. Officer: GSFC/W J WAGNER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10988 UNIV OF NEW HAMPSHIRE - DURHAM 6512**  
 THE ROLE OF KINETICS IN NEARLY PERPENDICULAR CASCADES  
 06/05/2001 - 05/31/2002 FY01: \$86,312 Total: \$86,312  
*Prin. Invest.: B J VASQUEZ*  
*Tech. Officer: GSFC/W J WAGNER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 11160 UNIV OF NEW HAMPSHIRE - DURHAM 6513**  
 LAND-USE CHANGE IN TEMPERATE EAST ASIA: LAND COVER CHANGE  
 IMPACTS ON CARBON FLUXES AND LAND PRODUCTI  
 08/03/2001 - 07/31/2002 FY01: \$36,831 Total: \$36,831  
*Prin. Invest.: X XIAO*  
*Tech. Officer: GSFC/G Q GUTMAN*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 11258 UNIV OF NEW HAMPSHIRE - DURHAM 6514**  
 AIR-SEA FLUX OF CO<sub>2</sub>: EFFECTS OF SMALL-SCALE VARIABILITY ON  
 LARGE-SCALE ESTIMATES  
 08/17/2001 - 08/31/2004 FY01: \$133,369 Total: \$133,369  
*Prin. Invest.: J W CAMPBELL*  
*Tech. Officer: GSFC/J MARRA*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 11310 UNIV OF NEW HAMPSHIRE - DURHAM 6515**  
 SCALING FOREST CARBON FLUX MEASUREMENTS FROM SITES TO LAND-  
 SCAPES: AHYPERSPECTRAL ANALYSIS OF F  
 08/31/2001 - 08/31/2004 FY01: \$268,075 Total: \$268,075  
*Prin. Invest.: S OLLINGER*  
*Tech. Officer: GSFC/D WICKLAND*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAS 5 00132 UNIV OF NEW HAMPSHIRE - DURHAM 6516**  
 STEREO PHASE A CONCEPT STUDY FOR INSTIN MEASUREMENTS OF  
 PARTICLES & CME TRANSIENT (IMPACT)  
 02/22/2000 - 11/29/2001 FY01: \$825,709 Total: \$1,323,609  
*Prin. Invest.: A GALVIN*  
*Tech. Officer: GSFC/A HARPER*  
*CASE Category: 13 – PHYSICS*

**NAS 5 26645 UNIV OF NEW HAMPSHIRE - DURHAM 6517**  
 DEFINITION PHASE OF THE DETECTOR SUBSYSTEM FOR THE COMPTEL  
 08/19/1981 - 09/30/2002 FY01: \$250,000 Total: \$30,541,653  
*Prin. Invest.: J RYAN*  
*Tech. Officer: GSFC/J NORRIS*  
*CASE Category: 11 – ASTRONOMY*

**NAS 5 30744 UNIV OF NEW HAMPSHIRE - DURHAM 6518**  
 ELECTRON DRIFT EXPERIMENT & ACTIVE SPACECRAFT POTENTIAL  
 11/22/1989 - 10/17/2000 FY01: \$0 Total: \$16,084,594  
*Prin. Invest.: R TORBERT*  
*Tech. Officer: GSFC/L CHRISTENSEN*  
*CASE Category: 13 – PHYSICS*

**NAS 5 96063 UNIV OF NEW HAMPSHIRE - DURHAM 6519**  
 MODIS-EOS DEVELOPMENT OF ALGORITHMS  
 07/16/1996 - 12/14/2001 FY01: \$217,000 Total: \$1,156,000  
*Prin. Invest.: J CAMPBELL*  
*Tech. Officer: GSFC/D TOLL, GSFC/B CONBOY*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 1 298 UNIV OF NEW HAMPSHIRE - DURHAM 6520**  
 PEM-TROPICS B MY 1/2  
 04/30/1998 - 07/31/2001 FY01: \$0 Total: \$818,000  
*Prin. Invest.: R W TALBOT, J E DIBB*  
*Tech. Officer: LARC/J M HOELL, JR., LARC/R J BENDURA*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 1 410 UNIV OF NEW HAMPSHIRE - DURHAM 6521**  
 TRACE-P DC-8 AND P3-B AIRCRAFT MY 1/3  
 09/13/2000 - 06/30/2003 FY01: \$168,939 Total: \$379,907  
*Prin. Invest.: R W TALBOT*  
*Tech. Officer: LARC/J L RAPER, SR*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 5 226 UNIV OF NEW HAMPSHIRE - DURHAM 6522**  
 TROPICAL BIOCHEMISTRY & NASA LBA ECOLOGY SCIENCE S  
 09/10/1997 - 12/31/2001 FY01: \$173,479 Total: \$656,894  
*Prin. Invest.: D BARTLETT*  
*Tech. Officer: GSFC/D WICKLAND*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NCC 5 304 UNIV OF NEW HAMPSHIRE - DURHAM 6523**  
 WEB BASED SYSTEM FOR TERRESTRIAL ENVIRONMENTAL RESEARCH  
 04/22/1998 - 06/30/2002 FY01: \$610,000 Total: \$3,385,000  
*Prin. Invest.: B MOORE*  
*Tech. Officer: GSFC/M MAIDEN*  
*CASE Category: 29 – MATH/COMPUTER SCI, OTHER*

**NCC 5 338 UNIV OF NEW HAMPSHIRE - DURHAM 6524**  
 MODELING THE BIOGEOCHEMICAL SYSTEM OF THE TERRESTRIAL  
 AMAZON: ISSUES FOR SUSTAINABILITY  
 06/23/1998 - 12/31/2001 FY01: \$232,670 Total: \$1,023,276  
*Prin. Invest.: B MOORE, 111*  
*Tech. Officer: GSFC/D W DEERING*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NCC 5 357 UNIV OF NEW HAMPSHIRE - DURHAM 6525**  
 SOIL BIOGEOCHEMISTRY OF CARBON, NUTRIENTS AND TRAC E GAS IN  
 THE AMAZON REGION OF BRAZIL: FIELD AND  
 08/03/1998 - 12/31/2001 FY01: \$235,394 Total: \$1,034,065  
*Prin. Invest.: P CRILL*  
*Tech. Officer: GSFC/D E WICKLAND*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NCC 5 477 UNIV OF NEW HAMPSHIRE - DURHAM 6526**  
 EVALUATION OF HYPERSPECTRAL REQUIREMENTS FOR REMOTE ESTIMA-  
 TION OF FOREST ECOSYSTEM COMPOSTITIO  
 03/22/2000 - 12/31/2001 FY01: \$108,292 Total: \$121,360  
*Prin. Invest.: M E MARTIN*  
*Tech. Officer: GSFC/S G UNGAR*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NCC 5 499 UNIV OF NEW HAMPSHIRE - DURHAM 6527**  
 "LENA/IMAGE" MO&DA - ON-ORBIT EVALUATION & VALIDATION OF THE  
 LENNA INSTRUMENTOPERATION & DATA  
 05/03/2000 - 01/31/2001 FY01: \$0 Total: \$28,065  
*Prin. Invest.: J M QUINN*  
*Prin. Invest.: NONE*  
*Tech. Officer: GSFC/T E MOORE*  
*CASE Category: 11 – ASTRONOMY*

**NCC 5 587 UNIV OF NEW HAMPSHIRE - DURHAM 6528**  
 VALIDATING, SCALING AND PARAMETERIZING A FOREST RE GROWTH  
 MODEL FOR THE AMAZON REGION USING AIRCRAFT  
 08/30/2001 - 08/31/2004 FY01: \$281,397 Total: \$281,397  
*Prin. Invest.: W SALAS*  
*Tech. Officer: GSFC/D WICKLAND*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 30125 UNIV OF NEW HAMPSHIRE - DURHAM 6529**  
 SOIL HYDROLOGICAL CONTROLS OVER NITROGEN OXIDE EMISSIONS  
 AND NITROGEN CYCLING IN TROPICAL AGRICULTURE  
 06/03/1998 - 08/31/2000 FY01: -\$8,572 Total: \$57,428  
*Prin. Invest.: P CRILL*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 30349 UNIV OF NEW HAMPSHIRE - DURHAM 6530**  
 SOURCE APPORTIONMENT OF ANTHROPOGENIC AEROSOLS CONTRIBUTING TO DIRECT RADIATIVE FORCING IN SOUTHERN  
 08/24/2000 - 08/31/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.: J E DIBB*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 40010 UNIV OF NEW HAMPSHIRE - DURHAM 6531**  
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATIONAL COLLEGE  
 AND FELLOWSHIP PROGRAM.  
 01/30/1997 - 02/28/2001 FY01: -\$254,296 Total: \$1,028,851  
*Prin. Invest.: D S BARTLETT*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 40088 UNIV OF NEW HAMPSHIRE - DURHAM 6532**  
 NEW HAMPSHIRE SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM  
 02/21/2001 - 02/28/2002 FY01: \$685,546 Total: \$685,546  
*Prin. Invest.: D BARTLETT*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

## NEW JERSEY

**NAG 1 01110 NEW JERSEY INST OF TECHNOLOGY 6533**  
 NANOCOMPOSITES BASED ON LIQUID CRYSTALLINE POLYMERS  
 08/30/2001 - 09/30/2004 FY01: \$131,933 Total: \$131,933  
*Prin. Invest.: M JAFFE*  
*Tech. Officer: LARC/E S WEISER, LARC/B J JENSEN*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NAG 3 2367 NEW JERSEY INST OF TECHNOLOGY 6534**  
 GRAVITY AND GRANULAR MATERIALS GRAVITY AND GRANULAR  
 MATERIALS  
 03/24/2000 - 11/30/2003 FY01: \$10,435 Total: \$20,333  
*Prin. Invest.: L KONDIC, NONE*  
*Tech. Officer: GRC/A WILKENSEN*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 3 2459 NEW JERSEY INST OF TECHNOLOGY 6535**  
 DATA ANALYSIS FOR REAL-TIME/POST FLIGHT HEALTH MONITORING OF  
 PROPULSION SYSTEMS  
 06/07/2000 - 12/31/2001 FY01: \$48,702 Total: \$104,419  
*Prin. Invest.: D P DHAWAN*  
*Tech. Officer: GRC/E WONG*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NAG 3 2475 NEW JERSEY INST OF TECHNOLOGY 6536**  
 DATA MINING AND OPTIMIZATION TOOLS FOR ENGINE CONDITION  
 MONITORING  
 07/19/2000 - 11/30/2001 FY01: \$60,599 Total: \$94,022  
*Prin. Invest.: D P DHAWAN*  
*Tech. Officer: GRC/J LITT*  
*CASE Category: 29 – MATH/COMPUTER SCI, OTHER*

**NAG 5 4919 NEW JERSEY INST OF TECHNOLOGY 6537**  
 STUDIES OF SOLAR MAGNETIC FIELDS AND SOLAR ACTIVITY  
 07/08/1997 - 05/31/2000 FY01: -\$16 Total: \$1,044,459  
*Prin. Invest.: D R GOODE*  
*Tech. Officer: GSFC/W J WAGNER*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 5144 NEW JERSEY INST OF TECHNOLOGY 6538**  
 A STUDENT-DESIGNED EXPERIMENT TO ANALYZE PARTICLES COLLECTED  
 DURING A NASA BALLOON FLIGHT  
 06/17/1997 - 12/17/1999 FY01: \$0 Total: \$34,220  
*Prin. Invest.: D S BARTLETT*  
*Tech. Officer: GSFC/H NEEDLEMAN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 6381 NEW JERSEY INST OF TECHNOLOGY 6539**  
 MEASUREMENTS OF THE SOLAR CORONA AND MAGNETIC FIELDS USING  
 IMAGING/MICROWAVE SPECTROSCOPY  
 10/31/1997 - 06/30/2001 FY01: \$0 Total: \$316,003  
*Prin. Invest.: D GARY*  
*Tech. Officer: GSFC/W J WAGNER*  
*CASE Category: 13 – PHYSICS*

**NAG 5 7085 NEW JERSEY INST OF TECHNOLOGY 6540**  
 STATISTICAL STUDIES OF FILAMENT DIAPPEARANCES BY ANALYZING  
 FULL-DISK YOHKOHO SXT AND BBSO HX DATA  
 03/13/1998 - 10/14/2001 FY01: \$0 Total: \$105,906  
*Prin. Invest.: H WANG*  
*Prin. Invest.: H WANG*  
*Tech. Officer: GSFC/W J WAGNER*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7454 NEW JERSEY INST OF TECHNOLOGY 6541**  
 EARTHSHINE MEASUREMENTS OF GLOBAL ATMOSPHERIC PROPERTIES  
 07/23/1998 - 07/31/2001 FY01: \$107,176 Total: \$325,721  
*Prin. Invest.: P R GOODE*  
*Tech. Officer: GSFC/D EVANS*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7837 NEW JERSEY INST OF TECHNOLOGY 6542**  
 SOHO/BBSO COORDINATED STUDY ON MAGNETIC RECONNECTI ON IN  
 THE QUIET SUN  
 12/22/1998 - 12/31/2001 FY01: \$81,154 Total: \$232,363  
*Prin. Invest.: H WANG*  
*Tech. Officer: GSFC/J GURMAN*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 8466 NEW JERSEY INST OF TECHNOLOGY 6543**  
 SOFTWARE DEVELOPMENT FOR THE OWENS VALLEY SOLAR ARRAY IN SUPPORT OF HESSI  
 04/29/1999 - 09/30/2000 FY01: -\$313 Total: \$73,204  
*Prin. Invest.: D E GARY*  
*Tech. Officer: GSFC/W WAGNER*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8485 NEW JERSEY INST OF TECHNOLOGY 6544**  
 INTERACTION OF WAVES AND CONVECTION IN THE SUN  
 05/04/1999 - 04/30/2002 FY01: \$47,923 Total: \$131,417  
*Prin. Invest.: M F WOODARD*  
*Tech. Officer: GSFC/W WAGNER*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9501 NEW JERSEY INST OF TECHNOLOGY 6545**  
 STUDIES OF SMALL-SCALE DYNAMICS BY JOINT TRACE AND BBSO OBSERVATIONS  
 04/20/2000 - 04/30/2002 FY01: \$74,612 Total: \$116,483  
*Prin. Invest.: H WANG*  
*Tech. Officer: GSFC/W J WAGNER*  
*CASE Category: 13 – PHYSICS*

**NAG 5 9519 NEW JERSEY INST OF TECHNOLOGY 6546**  
 SOURCES OF SOLAR IRRADIANCE VARIATION  
 05/02/2000 - 07/30/2001 FY01: \$0 Total: \$47,100  
*Prin. Invest.: M F WOODARD*  
*Tech. Officer: GSFC/W J WAGNER*  
*CASE Category: 13 – PHYSICS*

**NAG 5 9682 NEW JERSEY INST OF TECHNOLOGY 6547**  
 STUDIES OF SOLAR MAGNETIC FIELDS & SOLAR ACTIVITY  
 06/26/2000 - 05/31/2002 FY01: \$263,866 Total: \$525,155  
*Prin. Invest.: P R GOODE*  
*Tech. Officer: GSFC/W J WAGNER*  
*CASE Category: 13 – PHYSICS*

**NAG 5 9730 NEW JERSEY INST OF TECHNOLOGY 6548**  
 NEW GRANT GLOBAL ASYMMETRIES IN SOLAR INTERIOR FROM SOHO  
 06/22/2000 - 06/30/2001 FY01: \$0 Total: \$73,307  
*Prin. Invest.: P GOODE*  
*Tech. Officer: GSFC/J GURMAN*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 9738 NEW JERSEY INST OF TECHNOLOGY 6549**  
 NEW GRANT STUDY OF FILAMENT ERUPTIONS AND CORONAL MASS EJECTIONS BY SOHO  
 07/18/2000 - 07/31/2001 FY01: \$0 Total: \$100,440  
*Prin. Invest.: H WANG*  
*Tech. Officer: GSFC/J GURMAN*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 10212 NEW JERSEY INST OF TECHNOLOGY 6550**  
 MICROWAVE IMAGING SPECTROSCOPY OF SOLAR FLARES IN SUPPORT OF HESSI  
 01/03/2001 - 12/31/2001 FY01: \$78,945 Total: \$78,945  
*Prin. Invest.: D E GARY*  
*Tech. Officer: GSFC/W WAGNER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10891 NEW JERSEY INST OF TECHNOLOGY 6551**  
 STUDY OF OVSA MICROWAVES AND HESSI HARD X-RAYS  
 05/10/2001 - 05/31/2002 FY01: \$47,208 Total: \$47,208  
*Prin. Invest.: J LEE*  
*Tech. Officer: GSFC/J GURMAN*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 10894 NEW JERSEY INST OF TECHNOLOGY 6552**  
 EPHEMERAL REGIONS AND CANCELLING MAGNETIC FEATURES  
 05/14/2001 - 05/31/2002 FY01: \$46,245 Total: \$46,245  
*Prin. Invest.: J CHAE*  
*Tech. Officer: GSFC/J GURMAN*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 10910 NEW JERSEY INST OF TECHNOLOGY 6553**  
 HESSI-BBSO JOINT STUDIES OF SOLAR FLARES  
 05/24/2001 - 05/31/2002 FY01: \$74,971 Total: \$74,971  
*Prin. Invest.: H WANG*  
*Tech. Officer: GSFC/J GURMAN*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 11007 NEW JERSEY INST OF TECHNOLOGY 6554**  
 EARTHSHINE MEASUREMENTS OF THE EARTH'S ALBEDO  
 06/29/2001 - 06/30/2002 FY01: \$73,505 Total: \$73,505  
*Prin. Invest.: P R GOODE*  
*Tech. Officer: GSFC/W J WAGNER*  
*CASE Category: 11 – ASTRONOMY*

**NAG 8 1714 NEW JERSEY INST OF TECHNOLOGY 6555**  
 HIGH TEMPERATURE PHASES AND PHASE EQUILIBRIA IN REACTIVE MOLTEN METAL-BASED SYSTEMS  
 05/04/2000 - 11/30/2003 FY01: \$99,750 Total: \$149,750  
*Prin. Invest.: E DREIZIN*  
*Tech. Officer: MSFC/P DOTY*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 3 746 NEW JERSEY INST OF TECHNOLOGY 6556**  
 DETAILED REACTION MECHANISMS AND PARTICLE INTERACTION IN BURNING TWO-PHASE SYSTEMS  
 12/07/1999 - 06/30/2001 FY01: \$0 Total: \$53,363  
*Prin. Invest.: E L DREIZEN*  
*Tech. Officer: GRC/R F FRIEDMAN*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 5 9103 PASSAIC COUNTY COMMUNITY COLLEGE 6557**  
 PANTHER PROJECT (PATERSON & NASA TOGETHER FOR HIGH EXPECTATIONS & RESULTS)  
 03/10/2000 - 02/28/2002 FY01: \$100,000 Total: \$200,000  
*Prin. Invest.: R EPSTEIN*  
*Tech. Officer: HQ/STOUTSENBERGER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 1 2291 PRINCETON UNIV 6558**  
 ADAPTIVE AND OPTIMAL CONTROLLER DESIGNS FOR UNDERSTAIN AEROSPACE STRUCTURES  
 04/13/2000 - 12/01/2000 FY01: \$0 Total: \$45,000  
*Prin. Invest.: M Q PHAN*  
*Tech. Officer: LARC/P G MAGHAM*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

<b>NAG 1 01010</b>	<b>PRINCETON UNIV</b>	<b>6559</b>	<b>NAG 5 616</b>	<b>PRINCETON UNIV</b>	<b>6567</b>
SELF-HEALING ORGANIC/INORGANIC NANOCOMPOSITES 01/10/2001 - 12/31/2003	PRINCETON UNIV FY01: \$125,000	Total: \$125,000	INTERSTELLAR MEDIUM ABSORPTION PROFILE SPCETROGRAPH (IMAPS) 01/01/1983 - 10/31/2002	PRINCETON UNIV FY01: \$10,649	Total: \$10,722,665
<i>Prin. Invest.: A AKSAY</i>			<i>Prin. Invest.: E B JENKINS</i>		
<i>Tech. Officer: WFF/T L STCLAIR</i>			<i>Tech. Officer: GSFC/W B JOHNSON</i>		
<i>CASE Category: 12 – CHEMISTRY</i>			<i>CASE Category: 13 – PHYSICS</i>		
<b>NAG 2 561</b>	<b>PRINCETON UNIV</b>	<b>6560</b>	<b>NAG 5 1629</b>	<b>PRINCETON UNIV</b>	<b>6568</b>
STUDIES IN ROTORCRAFT SYSTEM IDENTIFICATION 02/03/1989 - 01/31/2000	PRINCETON UNIV FY01: \$0	Total: \$372,867	HST GTO PARTICIPATION 07/15/1991 - 08/31/2000	PRINCETON UNIV FY01: \$0	Total: \$925,196
<i>Prin. Invest.: H C CURTISS, R M MCKILLUP</i>			<i>Prin. Invest.: E J GROTH</i>		
<i>Tech. Officer: ARC/J A FRANKLIN, ARC/M B TISCHLER</i>			<i>Tech. Officer: GSFC/S SOBIESKI</i>		
<i>CASE Category: 41 – AERONAUTICAL ENGRN</i>			<i>CASE Category: 11 – ASTRONOMY</i>		
<b>NAG 2 1327</b>	<b>PRINCETON UNIV</b>	<b>6561</b>	<b>NAG 5 3364</b>	<b>PRINCETON UNIV</b>	<b>6569</b>
DEVELOPMENT OF UNSTRUCTURED METHODS FOR EFFICIENT AERODYNAMIC SIMULATION & DESIGN 05/21/1999 - 03/14/2002	PRINCETON UNIV FY01: \$69,588	Total: \$205,335	ORIGIN AND EVOLUTION OF DUST IN ELLIPTICAL GALAXIES 08/28/1996 - 08/31/2001	PRINCETON UNIV FY01: \$0	Total: \$151,000
<i>Prin. Invest.: T J BAKER, A J SMITS</i>			<i>Prin. Invest.: G R KNAPP</i>		
<i>Tech. Officer: ARC/S E CLIFF</i>			<i>Tech. Officer: GSFC/D WEST</i>		
<i>CASE Category: 41 – AERONAUTICAL ENGRN</i>			<i>CASE Category: 11 – ASTRONOMY</i>		
<b>NAG 2 1400</b>	<b>PRINCETON UNIV</b>	<b>6562</b>	<b>NAG 5 6494</b>	<b>PRINCETON UNIV</b>	<b>6570</b>
STUDIES IN ROTORCRAFT SYSTEM IDENTIFICATION 03/28/2000 - 09/30/2001	PRINCETON UNIV FY01: \$0	Total: \$22,500	REMOTE SENSING FOR LAND SURFACE HYDROLOGY: ACCURACY AND UNCERTAINTY ANALYSES 10/27/1997 - 09/30/2001	PRINCETON UNIV FY01: \$0	Total: \$436,752
<i>Prin. Invest.: H C CURTIS</i>			<i>Prin. Invest.: E WOOD</i>		
<i>Tech. Officer: ARC/M B TISCHLER</i>			<i>Tech. Officer: GSFC/J DODGE</i>		
<i>CASE Category: 41 – AERONAUTICAL ENGRN</i>			<i>CASE Category: 39 – ENVIRONMENTAL SCI, OTHER</i>		
<b>NAG 2 1475</b>	<b>PRINCETON UNIV</b>	<b>6563</b>	<b>NAG 5 6511</b>	<b>PRINCETON UNIV</b>	<b>6571</b>
PIEZOELECTRIC MICROCANILEVERS WITH NANOSCOPIC COATINGS A BREAKTHROUGH SENSING TECHNOLOGY 04/20/2001 - 04/14/2003	PRINCETON UNIV FY01: \$598,740	Total: \$598,740	"ESTIMATION OF FLOOD HAZARDS THROUGH REMOTE SENSING AND MODELING" 11/04/1997 - 09/30/2001	PRINCETON UNIV FY01: \$0	Total: \$144,589
<i>Prin. Invest.: I AKSAY</i>			<i>Prin. Invest.: E WOOD</i>		
<i>Tech. Officer: ARC/M MEYYAPPAN, ARC/H PATRIDGE</i>			<i>Tech. Officer: GSFC/H V FREY</i>		
<i>CASE Category: 22 – COMPUTER SCIENCE</i>			<i>CASE Category: 32 – GEOLOGICAL SCIENCE</i>		
<b>NAG 3 2248</b>	<b>PRINCETON UNIV</b>	<b>6564</b>	<b>NAG 5 6591</b>	<b>PRINCETON UNIV</b>	<b>6572</b>
THE CONTROL AND DYNAMICS OF HARD SPHERE COLLOIDAL DISPERSIONS 03/30/1999 - 02/23/2004	PRINCETON UNIV FY01: \$432,500	Total: \$1,032,500	EVALUATION AND INTERCOMPARISON OF THREE-DIMENSIONAL GLOBAL MARINE CARBONCYCLE MODELS 11/07/1997 - 12/31/2000	PRINCETON UNIV FY01: \$0	Total: \$172,804
<i>Prin. Invest.: P M CHALKIN</i>			<i>Prin. Invest.: J L SARMIENTO</i>		
<i>Tech. Officer: GRC/B S SINGH</i>			<i>Tech. Officer: GSFC/G ASRAR</i>		
<i>CASE Category: 49 – ENGINEERING, OTHER</i>			<i>CASE Category: 39 – ENVIRONMENTAL SCI, OTHER</i>		
<b>NAG 3 2380</b>	<b>PRINCETON UNIV</b>	<b>6565</b>	<b>NAG 5 6734</b>	<b>PRINCETON UNIV</b>	<b>6573</b>
ELECTROHYDRODYNAMIC FLOWS IN ELECTROCHEMICAL SYSTEMS 04/06/2000 - 11/30/2003	PRINCETON UNIV FY01: \$90,250	Total: \$150,250	IMAGING THE CELESTIAL EQUATOR AT 12 MICRONS AND 25 MICRONS AND COMPARISON WITH FIVE COLOR 12/16/1997 - 12/31/2001	PRINCETON UNIV FY01: \$0	Total: \$45,000
<i>Prin. Invest.: D A SAVILLE</i>			<i>Prin. Invest.: G KNAPP</i>		
<i>Tech. Officer: GRC/F P CHIARAMONTE</i>			<i>Tech. Officer: GSFC/D WEST</i>		
<i>CASE Category: 19 – PHYSICAL SCIENCE, OTHER</i>			<i>CASE Category: 11 – ASTRONOMY</i>		
<b>NAG 3 2473</b>	<b>PRINCETON UNIV</b>	<b>6566</b>	<b>NAG 5 7016</b>	<b>PRINCETON UNIV</b>	<b>6574</b>
FUEL SULFUR ISSUES AND SOX/NOX/COX HOT SECTION INTERACTIONS 07/12/2000 - 09/30/2001	PRINCETON UNIV FY01: \$0	Total: \$100,087	ASTROMETRY OF GRAVITATIONAL LENSING WITH SIMBAD 02/17/1998 - 02/14/2000	PRINCETON UNIV FY01: \$0	Total: \$92,522
<i>Prin. Invest.: D L DRYER</i>			<i>Prin. Invest.: B PACZYNSKI</i>		
<i>Tech. Officer: GRC/M RABINOWITZ</i>			<i>Tech. Officer: GSFC/D K WEST</i>		
<i>CASE Category: 41 – AERONAUTICAL ENGRN</i>			<i>CASE Category: 11 – ASTRONOMY</i>		

<b>NAG 5 7030</b>	<b>PRINCETON UNIV</b>	<b>6575</b>	<b>NAG 5 8084</b>	<b>PRINCETON UNIV</b>	<b>6583</b>
INTERSTELLAR STUDIES - ATP 02/17/1998 - 02/14/2002	FY01: \$0	Total: \$297,933	PRIMARY AND SECONDARY ANISOTROPIES OF COSMIC MICRO WAVE BACKGROUND 01/19/1999 - 02/28/2002	FY01: \$92,000	Total: \$270,664
Prin. Invest.: B T DRAINE Tech. Officer: GSFC/D K WEST CASE Category: 11 - ASTRONOMY			Prin. Invest.: U SELJAK Tech. Officer: GSFC/D K WEST CASE Category: 11 - ASTRONOMY		
<b>NAG 5 7047</b>	<b>PRINCETON UNIV</b>	<b>6576</b>	<b>NAG 5 8365</b>	<b>PRINCETON UNIV</b>	<b>6584</b>
QUASAR ABSORPTION LINES AT LOW AND INTERMEDIATE REDSHIFTS - ATP 02/19/1998 - 02/14/2001	FY01: \$0	Total: \$156,000	STUDYING THE EVOLUTION OF X-RAY CLUSTERS OF GALAXIES USING LARGE-SCALE HIGH RESOLUTION COSMOLOGIC 03/15/1999 - 03/14/2002	FY01: \$123,559	Total: \$363,066
Prin. Invest.: J N BACHALL Tech. Officer: GSFC/R J OLIVERSEN CASE Category: 11 - ASTRONOMY			Prin. Invest.: R CEN Tech. Officer: GSFC/D K WEST CASE Category: 11 - ASTRONOMY		
<b>NAG 5 7066</b>	<b>PRINCETON UNIV</b>	<b>6577</b>	<b>NAG 5 8385</b>	<b>PRINCETON UNIV</b>	<b>6585</b>
DYNAMICS OF THE GALAXY, GLOBULAR CLUSTERS, AND THE LOCAL GROUP - ATP 02/26/1998 - 02/28/2002	FY01: \$0	Total: \$229,480	EVOLUTION AND DYNAMICS OF PROTOSTELLAR DISKS 03/03/1999 - 02/28/2002	FY01: \$40,000	Total: \$125,000
Prin. Invest.: S D TREMAINE Tech. Officer: GSFC/D K WEST CASE Category: 11 - ASTRONOMY			Prin. Invest.: J GOODMAN Tech. Officer: GSFC/J BOYCE CASE Category: 11 - ASTRONOMY		
<b>NAG 5 7154</b>	<b>PRINCETON UNIV</b>	<b>6578</b>	<b>NAG 5 8676</b>	<b>PRINCETON UNIV</b>	<b>6586</b>
FORMATION AND EVOLUTION OF GROUPS AND FILAMENTS - ATP 03/16/1998 - 03/14/2002	FY01: \$0	Total: \$348,752	ATMOSPHERIC AEROSOL EVOLUTION AND EXCHANGE 07/08/1999 - 07/14/2002	FY01: \$0	Total: \$322,129
Prin. Invest.: D N SPERGEL Tech. Officer: GSFC/D K WEST CASE Category: 11 - ASTRONOMY			Prin. Invest.: L RUSSELL Tech. Officer: GSFC/M WEI CASE Category: 39 - ENVIRONMENTAL SCI, OTHER		
<b>NAG 5 7297</b>	<b>PRINCETON UNIV</b>	<b>6579</b>	<b>NAG 5 9274</b>	<b>PRINCETON UNIV</b>	<b>6587</b>
A TERRESTRIAL WATER AND ENERGY BUDGET FOR THE BORE AS STUDY REGION SCALE USING FIELD MEASUREMENTS, R 04/21/1998 - 04/30/2002	FY01: \$0	Total: \$103,503	EARLY IDENTIFICATION & INTERPRETATION OF QUASAR/ AGN MICROLENSING EVENT: PROBES OF ACCRETIONDISK 03/15/2000 - 03/14/2002	FY01: \$91,000	Total: \$173,240
Prin. Invest.: E F WOOD Tech. Officer: GSFC/D E WICKLAND CASE Category: 39 - ENVIRONMENTAL SCI, OTHER			Prin. Invest.: E TURNER Tech. Officer: GSFC/R J OLIVERSEN CASE Category: 11 - ASTRONOMY		
<b>NAG 5 7310</b>	<b>PRINCETON UNIV</b>	<b>6580</b>	<b>NAG 5 9284</b>	<b>PRINCETON UNIV</b>	<b>6588</b>
LONG-TERM ORBITAL EVOLUTION IN PLANETARY SYSTEMS AND PROTO-PLANETARY DISKS 04/22/1998 - 04/30/2001	FY01: \$0	Total: \$217,000	FINDING THE BARYONS: MATCHING COSMOLOGICAL PREDICTIONS WITH THE X-RAY SKY 04/17/2000 - 04/30/2002	FY01: \$99,674	Total: \$210,344
Prin. Invest.: S D TREMAINE Tech. Officer: HQ/J BOYCE CASE Category: 11 - ASTRONOMY			Prin. Invest.: J P OSTRIKER Tech. Officer: GSFC/R J OLIVERSEN CASE Category: 11 - ASTRONOMY		
<b>NAG 5 7544</b>	<b>PRINCETON UNIV</b>	<b>6581</b>	<b>NAG 5 9414</b>	<b>PRINCETON UNIV</b>	<b>6589</b>
HYDROLOGY OF EXTREME FLOODS FOR THE UNITED STATES EAST OF THE ROCKYMOUNTAINS 06/23/1998 - 09/30/2001	FY01: \$0	Total: \$246,097	UNDERSTANDING WATER, CLIMATE AND GLOBAL CHANGE: A GEWEX GLOBAL WATER AND ENERGY PATHFINDER DATA SET 04/11/2000 - 04/14/2002	FY01: \$58,811	Total: \$95,448
Prin. Invest.: J A SMITH Tech. Officer: GSFC/E T ENGMAN CASE Category: 32 - GEOLOGICAL SCIENCE			Prin. Invest.: E WOOD Tech. Officer: GSFC/J DODGE CASE Category: 39 - ENVIRONMENTAL SCI, OTHER		
<b>NAG 5 7744</b>	<b>PRINCETON UNIV</b>	<b>6582</b>	<b>NAG 5 9486</b>	<b>PRINCETON UNIV</b>	<b>6590</b>
DEVELOPMENT AND EVALUATION OF RADAR DATA QUALITY CONTROL ALGORITHMS 10/28/1998 - 10/31/2001	FY01: \$76,390	Total: \$254,471	TERRESTRIAL HYDROLOGY & CLIMATE STUDIES USING EOS- ERA DATA 04/17/2000 - 03/31/2002	FY01: \$92,619	Total: \$153,958
Prin. Invest.: J A SMITH Tech. Officer: GSFC/O W THIELE CASE Category: 31 - ATMOSPHERIC SCIENCE			Prin. Invest.: E WOOD Tech. Officer: GSFC/P Houser CASE Category: 39 - ENVIRONMENTAL SCI, OTHER		

<b>NAG 5 9635</b>	<b>PRINCETON UNIV</b>	<b>6591</b>	<b>NAG 5 10933</b>	<b>PRINCETON UNIV</b>	<b>6599</b>
TMI SOIL MOISTURE PATHFINDER DATA STUDY 06/05/2000 - 05/31/2002	FY01: \$40,003	Total: \$90,002	MODELING AND SIMULATION OF THE MAXIM PATHFINDER MISSION: PRECISION SPACECRAFT FORMATION CONTROL 06/04/2001 - 10/31/2001	FY01: \$50,000	Total: \$50,000
<i>Prin. Invest.: E WOOD</i> <i>Tech. Officer: GSFC/J DODGE</i> <i>CASE Category: 39 – ENVIRONMENTAL SCI, OTHER</i>			<i>Prin. Invest.: J KASDIN</i> <i>Tech. Officer: GSFC/F L MARKLEY</i> <i>CASE Category: 42 – ASTRONAUTICAL ENGR</i>		
<b>NAG 5 9748</b>	<b>PRINCETON UNIV</b>	<b>6592</b>	<b>NAG 5 11094</b>	<b>PRINCETON UNIV</b>	<b>6600</b>
"SATELLITE ATTITUDE ESTIMATION WITH THE TWO STEP OPTIMAL ESTIMATOR" 07/14/2000 - 02/28/2002	FY01: \$0	Total: \$50,000	PARALLAXES OF RED GIANT STARS (ADP 2000) 07/10/2001 - 07/14/2002	FY01: \$38,391	Total: \$38,391
<i>Prin. Invest.: N KASDIN</i> <i>Tech. Officer: GSFC/R HARMAN</i> <i>CASE Category: 41 – AERONAUTICAL ENGR</i>			<i>Prin. Invest.: G R KNAPP</i> <i>Tech. Officer: GSFC/R J OLIVERSEN</i> <i>CASE Category: 11 – ASTRONOMY</i>		
<b>NAG 5 9810</b>	<b>PRINCETON UNIV</b>	<b>6593</b>	<b>NAG 5 11111</b>	<b>PRINCETON UNIV</b>	<b>6601</b>
REGIONAL CONTRIBUTION TO THE GLOBAL TROPOSPHERIC OZONE BUDGET-GLOBAL MODELING AND DATA ANALYSIS 07/18/2000 - 07/14/2001	FY01: \$32,692	Total: \$61,844	LAND SURFACE MODELING STUDIES IN SUPPORT OF AQUA AMSR-E VALIDATION AQUA-0088-0029 07/12/2001 - 08/31/2002	FY01: \$46,591	Total: \$46,591
<i>Prin. Invest.: D L MAUZERALL</i> <i>Tech. Officer: GSFC/P DECOLA</i> <i>CASE Category: 39 – ENVIRONMENTAL SCI, OTHER</i>			<i>Prin. Invest.: E F WOOD</i> <i>Tech. Officer: GSFC/D STARR</i> <i>CASE Category: 19 – PHYSICAL SCIENCE, OTHER</i>		
<b>NAG 5 9891</b>	<b>PRINCETON UNIV</b>	<b>6594</b>	<b>NAG 5 11136</b>	<b>PRINCETON UNIV</b>	<b>6602</b>
USE OF TRMM DATA TO EVALUATE BENEFITS OF POST-2002 GLOBAL PRECIPITATION MISSION FOR LAND SURFACE HYD 08/23/2000 - 08/31/2002	FY01: \$63,000	Total: \$126,000	TESTING COSMOLOGICAL MODELS WITH QSO ABSORBERS (LTSA 2000) 07/20/2001 - 03/30/2002	FY01: \$88,745	Total: \$88,745
<i>Prin. Invest.: E F WOOD</i> <i>Tech. Officer: GSFC/R J LAWRENCE</i> <i>CASE Category: 31 – ATMOSPHERIC SCIENCE</i>			<i>Prin. Invest.: T M TRIPP</i> <i>Tech. Officer: GSFC/R J OLIVERSEN</i> <i>CASE Category: 11 – ASTRONOMY</i>		
<b>NAG 5 10217</b>	<b>PRINCETON UNIV</b>	<b>6595</b>	<b>NAG 5 11301</b>	<b>PRINCETON UNIV</b>	<b>6603</b>
ENERGY TRANSPORT & DISSIPATION OF ELECTROMAGNETIC ION CYCLOTRON WAVES IN THE MAGNETOSPHERE/IONOSPHERE 01/05/2001 - 02/07/2001	FY01: \$0	Total: \$0	USING REMOTE SENSING AND OCEAN MEASUREMENTS TO CONstrain CARBON FLUXES IN THE SOUTHERN OCEAN 08/31/2001 - 08/31/2003	FY01: \$155,253	Total: \$155,253
<i>Prin. Invest.: J R JOHNSON</i> <i>Tech. Officer: GSFC/M MELLOTT</i> <i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>			<i>Prin. Invest.: M BENDER</i> <i>Tech. Officer: GSFC/J MARRA</i> <i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>		
<b>NAG 5 10456</b>	<b>PRINCETON UNIV</b>	<b>6596</b>	<b>NAG 8 1368</b>	<b>PRINCETON UNIV</b>	<b>6604</b>
RESONANT & SECULAR ORBITAL DYNAMICS OF PLANETS, PLANETESIMALS & SATELLITES 02/21/2001 - 02/28/2002	FY01: \$60,000	Total: \$60,000	ELECTROHYDRODYNAMICS OF SUSPENSIONS 05/30/1997 - 11/30/2000	FY01: \$0	Total: \$389,000
<i>Prin. Invest.: S TREMAINE</i> <i>Tech. Officer: GSFC/J BOYCE</i> <i>CASE Category: 11 – ASTRONOMY</i>			<i>Prin. Invest.: D SAVILLE</i> <i>Tech. Officer: MSFC/D NOENER</i> <i>CASE Category: 12 – CHEMISTRY</i>		
<b>NAG 5 10481</b>	<b>PRINCETON UNIV</b>	<b>6597</b>	<b>NAG 8 1517</b>	<b>PRINCETON UNIV</b>	<b>6605</b>
MICROWAVE ANISOTROPY PROBE (MAP) INVESTIGATION PHASE III COMPLETION & PHASE IV DATA ANALYSIS 03/01/2001 - 07/31/2001	FY01: \$381,540	Total: \$381,540	TERRESTRIAL HYDROLOGY AND CLIMATE STUDIES USING EOS-ERA DATA (CATEGORY 2) 05/07/1998 - 04/30/2002	FY01: \$0	Total: \$715,753
<i>Prin. Invest.: L PAGE</i> <i>Tech. Officer: GSFC/C BENNET</i> <i>CASE Category: 11 – ASTRONOMY</i>			<i>Prin. Invest.: E F WOOD</i> <i>Tech. Officer: MSFC/J ARNOLD</i> <i>CASE Category: 31 – ATMOSPHERIC SCIENCE</i>		
<b>NAG 5 10811</b>	<b>PRINCETON UNIV</b>	<b>6598</b>	<b>NAG 8 1521</b>	<b>PRINCETON UNIV</b>	<b>6606</b>
INTERSTELLAR STUDIES OF DUST AND GAS (ATP 2000) 04/30/2001 - 04/30/2002	FY01: \$60,000	Total: \$60,000	OROGRAPHIC RAINFALL IN THE APPALACHIAN REGION OF THE MISSISSIPPI RIVER BASIN 05/15/1998 - 10/01/2001	FY01: \$0	Total: \$206,179
<i>Prin. Invest.: B T DRAINE</i> <i>Tech. Officer: GSFC/R J OLIVERSEN</i> <i>CASE Category: 11 – ASTRONOMY</i>			<i>Prin. Invest.: J A SMITH</i> <i>Tech. Officer: MSFC/J ARNOLD</i> <i>CASE Category: 31 – ATMOSPHERIC SCIENCE</i>		

<b>NAS 5 30110</b>	<b>PRINCETON UNIV</b>	<b>6607</b>	<b>NGT 5 30137</b>	<b>PRINCETON UNIV</b>	<b>6615</b>
SPACE TELESCOPE IMAGING SPECTROGRAPH PROGRAM SUPPORT 06/17/1987 - 09/30/2001	FY01: \$247,245	Total: \$1,114,245	TRANSBOUNDARY AIR POLLUTION IN ASIA/STUDENT:HOLLOWAY 09/04/1998 - 08/31/2001	FY01: \$0	Total: \$66,000
Prin. Invest.: E JENKINS			Prin. Invest.: H LEVY, 11		
Tech. Officer: GSFC/D VITAGLINO			Tech. Officer: GSFC/M Y WEI		
CASE Category: 11 - ASTRONOMY			CASE Category: 39 - ENVIRONMENTAL SCI, OTHER		
<b>NAS 5 96021</b>	<b>PRINCETON UNIV</b>	<b>6608</b>	<b>NGT 5 30156</b>	<b>PRINCETON UNIV</b>	<b>6616</b>
MICROWAVE ANISOTROPY PROBE INVESTIGATION (PHASE I DEFINITION STUDY) 06/28/1996 - 05/30/2001	FY01: \$465,566	Total: \$9,368,566	THE INFLUENCE OF THE TROPOSPHERE'S STATIC STABILITY ON CLIMATE-SENSITIVITY 08/28/1998 - 08/31/2000	FY01: \$0	Total: \$34,900
Prin. Invest.: D WILKINSON			Prin. Invest.: I M HELD, SCHNEIDER		
Tech. Officer: GSFC/R CUDDAPAH			Tech. Officer: GSFC/M Y WEI		
CASE Category: 11 - ASTRONOMY			CASE Category: 39 - ENVIRONMENTAL SCI, OTHER		
<b>NCC 1 01010</b>	<b>PRINCETON UNIV</b>	<b>6609</b>	<b>NGT 5 30333</b>	<b>PRINCETON UNIV</b>	<b>6617</b>
DEV OF A DESIGN METHODOLOGY FOR RECONFIGURABLE FLIGHT CONTROL SYSTEMS 02/27/2001 - 02/28/2002	FY01: \$50,992	Total: \$50,992	THE INTERACTION BETWEEN THE ABYSSAL CIRCULATION & THE WIND DRIVEN OCEAN:DYNAMICS & EFFECTS ON THE CL 08/16/2000 - 08/31/2002	FY01: \$22,000	Total: \$44,000
Prin. Invest.: I A AKSAY			Prin. Invest.: G PHILANDER		
Tech. Officer: LARC/E J SIOCHI, LARC/T L ST. CLAIR			Tech. Officer: GSFC/M Y WEI		
CASE Category: 12 - CHEMISTRY			CASE Category: 39 - ENVIRONMENTAL SCI, OTHER		
<b>NCC 3 670</b>	<b>PRINCETON UNIV</b>	<b>6610</b>	<b>NGT 5 30341</b>	<b>PRINCETON UNIV</b>	<b>6618</b>
STRUCTURE AND RESPONSE OF SPHERICAL DIFFUSION FLAMES 02/08/1999 - 12/29/2002	FY01: \$128,750	Total: \$433,750	ELEPHANTS, FIRE & VEGETATION CHANGE IN SOUTHERN AFRICAN WOODLANDS/STUDENT: RICARDO HOLDO 08/21/2000 - 08/31/2002	FY01: \$22,000	Total: \$44,000
Prin. Invest.: C K LAW			Prin. Invest.: A DOBSON		
Tech. Officer: GRC/K SACKSTEDE			Tech. Officer: GSFC/M Y WEI		
CASE Category: 49 - ENGINEERING, OTHER			CASE Category: 39 - ENVIRONMENTAL SCI, OTHER		
<b>NCC 3 687</b>	<b>PRINCETON UNIV</b>	<b>6611</b>	<b>NGT 5 30356</b>	<b>PRINCETON UNIV</b>	<b>6619</b>
AERODYNAMICS AND CHEMICAL KINETICS OF PREMIXED FLAMES AT HIGH PRESSURE 03/12/1999 - 01/03/2003	FY01: \$114,000	Total: \$339,000	MODELING MARINE DENITRIFICATION & N2 FIXATION STUDENT: CURTIS DEUTSCH 08/24/2000 - 08/31/2002	FY01: \$22,000	Total: \$44,000
Prin. Invest.: C K LAW			Prin. Invest.: J SARMIENTO		
Tech. Officer: GRC/D SACKSTEDE			Tech. Officer: GSFC/M Y WEI		
CASE Category: 49 - ENGINEERING, OTHER			CASE Category: 39 - ENVIRONMENTAL SCI, OTHER		
<b>NCC 3 735</b>	<b>PRINCETON UNIV</b>	<b>6612</b>	<b>NGT 5 50033</b>	<b>PRINCETON UNIV</b>	<b>6620</b>
SCIENTIFIC SUPPORT FOR A SPACE SHUTTLE DROPLET BURNING EXPERIMENT 09/30/1999 - 08/18/2002	FY01: \$223,079	Total: \$502,248	MEASURING ANISOTROPY IN THE COSMIC MICROWAVE BACKG SIS RECEIVERS 08/04/1997 - 07/31/2000	FY01: \$0	Total: \$66,000
Prin. Invest.: F L DRYER			Prin. Invest.: L PAGE/MILLER		
Tech. Officer: GRC/D L URBAN			Tech. Officer: GSFC/A NURRIDIN		
CASE Category: 46 - MECHANICAL ENGR			CASE Category: 41 - AERONAUTICAL ENGR		
<b>NGT 5 30113</b>	<b>PRINCETON UNIV</b>	<b>6613</b>	<b>NGT 5 50193</b>	<b>PRINCETON UNIV</b>	<b>6621</b>
CHANGE IN FOREST COVER OF NANG RONG, THAILAND: AN INTEGRATED PRGM OF LANDSCAPE ANALYSIS, EMPIRICAL S 10/01/1997 - 08/31/2001	FY01: \$0	Total: \$66,000	EXPERIMENTAL & THEORETICAL STUDIES OF ANOMALOUS RESISTIVITY IN MAGNETIC RECONNECTION 06/05/1998 - 06/30/2001	FY01: \$0	Total: \$66,000
Prin. Invest.: S HUBBELL			Prin. Invest.: M YAMADA		
Tech. Officer: GSFC/M Y WEI			Tech. Officer: HQ/A NURRIDIN		
CASE Category: 99 - MULTI INTERDISCPL, OTHER			CASE Category: 11 - ASTRONOMY		
<b>NGT 5 30134</b>	<b>PRINCETON UNIV</b>	<b>6614</b>	<b>NGT 5 50333</b>	<b>PRINCETON UNIV</b>	<b>6622</b>
RESPONSE OF ENSO TO MODULATIONS IN TROPICAL CLIMATE/STUDENT: WITTENBERG 09/04/1998 - 08/31/2001	FY01: \$0	Total: \$44,000	ROLE OF GLOBAL SNOW COVER EXTENT ON CLIMATE VARIABILITY & PREDICTABILITY STUDENT: RADHIKA WIJETUNG 08/17/2000 - 08/31/2002	FY01: \$22,000	Total: \$44,000
Prin. Invest.: G PHILANDER			Prin. Invest.: E F WOOD		
Tech. Officer: GSFC/M Y WEI			Tech. Officer: GSFC/M Y WEI		
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER			CASE Category: 39 - ENVIRONMENTAL SCI, OTHER		

**NGT 5 50356** PRINCETON UNIV 6623  
 LITHIUM LORENTZ FORCE ACCELERATOR RESEARCH FOR HIGH POWER  
 STEADY-STATE SPACE PROPULSION (STUDENT:  
 05/23/2001 - 08/31/2002 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.:* E CHOUEIRI  
*Tech. Officer:* GSFC/K BLANDING  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NGT 5 50370** PRINCETON UNIV 6624  
 OPTICALLY-TUNABLE COLLOIDAL CRYSTALLIZATION (STUDENT: W.  
 RISTENPART)  
 06/13/2001 - 08/31/2002 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.:* D SAVILLE  
*Tech. Officer:* GSFC/K BLANDING  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NAG 3 2521** ROWAN UNIV 6625  
 GRAVITATIONAL INFLUENCES ON FLAME PROPAGATION THROUGH NON  
 UNIFORM PREMIXED GAS SYSTEMS  
 01/10/2001 - 11/30/2001 FY01: \$10,745 Total: \$10,745  
*Prin. Invest.:* D MARCHESE  
*Tech. Officer:* GRC/K SACKSTEDER  
*CASE Category:* 49 – ENGINEERING, OTHER

**NAG 5 6776** ROWAN UNIV 6626  
 RESEARCH IN PLANETARY ASTRONOMY  
 01/09/1998 - 06/30/2002 FY01: \$85,885 Total: \$246,728  
*Prin. Invest.:* D KLASSEN  
*Tech. Officer:* GSFC/T MORGAN  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 9593** ROWAN UNIV 6627  
 FUNDING FOR PROFESSOR KAREN MAGEE-SAUER, DEPT OF CHEMISTRY  
 & PHYSICS; PRODUCTION DATA PROCESSING  
 06/07/2000 - 05/31/2001 FY01: \$0 Total: \$8,900  
*Prin. Invest.:* K MAGEE-SAUER  
*Tech. Officer:* GSFC/M J MUMMA  
*CASE Category:* 13 – PHYSICS

**NAG 5 11076** ROWAN UNIV 6628  
 CLOUDS OF MARS-AN IRFT/MGS COMPARISON  
 08/06/2001 - 08/14/2002 FY01: \$50,000 Total: \$50,000  
*Prin. Invest.:* D R KLASSEN  
*Tech. Officer:* GSFC/J M BOYCE  
*CASE Category:* 11 – ASTRONOMY

**NAG 1 2154** RUTGERS ST UNIV N.J.-INCLUDES PSCTWY 6629  
 SAGE II VALIDATION WITH A GLOBAL LIDAR NETWORK MY 1/3  
 03/10/1999 - 12/31/2001 FY01: \$84,149 Total: \$253,933  
*Prin. Invest.:* A ROBOCK  
*Tech. Officer:* LARC/G L MADDREA, LARC/L R POOLE  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NAG 1 2182** RUTGERS ST UNIV N.J.-INCLUDES PSCTWY 6630  
 NANOCOMPOSITES BASED ON LIQUID CRYSTALLINE POLYMERS  
 04/13/1999 - 10/31/2001 FY01: \$0 Total: \$115,001  
*Prin. Invest.:* M JAFFE  
*Tech. Officer:* LARC/N J JOHNSON, LARC/J W CONNELLE  
*CASE Category:* 12 – CHEMISTRY

**NAG 1 2311** RUTGERS ST UNIV N.J.-INCLUDES PSCTWY 6631  
 NIGHTTIME POLAR CLOUD PARAMETERS RETRIEVED FROM SATELLITE  
 SOUNDER AND IMAGE DATA  
 06/15/2000 - 06/30/2001 FY01: \$39,724 Total: \$68,099  
*Prin. Invest.:* J A FRANCIS  
*Tech. Officer:* LARC/P MINNIS  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NAG 2 1234** RUTGERS ST UNIV N.J.-INCLUDES PSCTWY 6632  
 SELF ADAPTIVE SOFTWARE FOR AUTOMATED DESIGN OF COM PLEX  
 ENGINEERING SYSTEMS  
 07/24/1998 - 12/31/2001 FY01: \$0 Total: \$788,238  
*Prin. Invest.:* S AMAREL, T ELLMAN  
*Tech. Officer:* ARC/M R LOWRY  
*CASE Category:* 22 – COMPUTER SCIENCE

**NAG 3 2350** RUTGERS ST UNIV N.J.-INCLUDES PSCTWY 6633  
 THE EFFECT OF GRAVITY ON THE MECHANICS OF FLUIDIZE D BEDS  
 03/16/2000 - 11/30/2003 FY01: \$76,000 Total: \$126,000  
*Prin. Invest.:* D J GLASSER  
*Tech. Officer:* GRC/B J MOTIL  
*CASE Category:* 49 – ENGINEERING, OTHER

**NAG 3 2589** RUTGERS ST UNIV N.J.-INCLUDES PSCTWY 6634  
 IN-SITU ULTRA-HIGH VACUUM SCANNING PROBE MICROSCOP Y STUDIES  
 OF THE POLYMER ANODE/LIPON INTERFACE  
 04/17/2001 - 05/31/2002 FY01: \$50,000 Total: \$50,000  
*Prin. Invest.:* D H GAROFALINI  
*Tech. Officer:* GRC/N HAGEDORN  
*CASE Category:* 13 – PHYSICS

**NAG 5 3158** RUTGERS ST UNIV N.J.-INCLUDES PSCTWY 6635  
 GUARANTEED TIME OBSERVER: SPACE TELESCOPE IMAGING SPECTRO-  
 GRAPH  
 01/23/1996 - 09/30/2001 FY01: \$51,000 Total: \$615,000  
*Prin. Invest.:* C L JOSEPH  
*Tech. Officer:* GSFC/KRUEGER  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 3432** RUTGERS ST UNIV N.J.-INCLUDES PSCTWY 6636  
 DETERMINING THE HUBLEE CONSTANT USING X-RAY, OPTIC IONS OF  
 CLUSTER  
 10/30/1996 - 09/30/2002 FY01: \$0 Total: \$638,401  
*Prin. Invest.:* J P HUGHES  
*Tech. Officer:* GSFC/R K OLIVERSEN  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 4327** RUTGERS ST UNIV N.J.-INCLUDES PSCTWY 6637  
 ISOTOPIC INVESTIGATIONS OF EXTRATERRESTRIAL MATERI  
 04/11/1997 - 02/28/2002 FY01: \$70,000 Total: \$339,000  
*Prin. Invest.:* D F HERZOG, NONE  
*Tech. Officer:* GSFC/D NAVA  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 4597** RUTGERS ST UNIV N.J.-INCLUDES PSCTWY 6638  
 TRANSIENT HEATING IN THE SOLAR ACCRETION DISK  
 05/15/1997 - 02/28/2001 FY01: \$0 Total: \$190,000  
*Prin. Invest.:* R H HEWINS  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 11 – ASTRONOMY

<b>NAG 5 6011 RUTGERS ST UNIV N.J.-INCLUDES PSCTWY</b>	<b>6639</b>	<b>NAG 5 8213 RUTGERS ST UNIV N.J.-INCLUDES PSCTWY</b>	<b>6647</b>
"NJ-NSCORT FOR BIOREGENERATIVE LIFE SUPPORT SYSTEM 07/23/1997 - 04/30/2001 FY01: \$760,000	Total: \$5,084,998	THE IMPACTS OF LAND-USE/LAND-COVER CHANGE IN AMAZONIA ON HYDROLOGICAL PROCESS 03/01/1999 - 02/28/2002 FY01: \$91,808	Total: \$300,000
<i>Prin. Invest.: H JANES, NONE</i>		<i>Prin. Invest.: R AVISSAR</i>	
<i>Tech. Officer: GSFC/G FOGLEMAN</i>		<i>Tech. Officer: GSFC/E T ENGMAN</i>	
<i>CASE Category: 59 - LIFE SCIENCE, OTHER</i>		<i>CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</i>	
 <b>NAG 5 6037 RUTGERS ST UNIV N.J.-INCLUDES PSCTWY</b>	<b>6640</b>	 <b>NAG 5 8820 RUTGERS ST UNIV N.J.-INCLUDES PSCTWY</b>	<b>6648</b>
BLACK HOLES AND GALAXY DYNAMICS 10/08/1997 - 10/14/2001 FY01: \$119,000	Total: \$454,000	IN SITU MICROANALYSIS OF TRANSITION ELEMENT OXIDATION STATES IN SOLAR SYSTEM MATERIALS 09/07/1999 - 08/31/2000 FY01: \$0	Total: \$30,000
<i>Prin. Invest.: D MERRITT</i>		<i>Prin. Invest.: J S DELANEY</i>	
<i>Tech. Officer: GSFC/D K WEST</i>		<i>Tech. Officer: HQ/J BOYCE</i>	
<i>CASE Category: 11 - ASTRONOMY</i>		<i>CASE Category: 11 - ASTRONOMY</i>	
 <b>NAG 5 6420 RUTGERS ST UNIV N.J.-INCLUDES PSCTWY</b>	<b>6641</b>	 <b>NAG 5 9046 RUTGERS ST UNIV N.J.-INCLUDES PSCTWY</b>	<b>6649</b>
ROSAT HRI OBSERVATIONS OF SMC SNRS 11/25/1997 - 10/31/2000 FY01: \$0	Total: \$53,718	ORIGIN AND EVOLUTION OF MASSIVE BLACK HOLES IN GALAXIES - (ATP 99) 03/06/2000 - 05/31/2002 FY01: \$95,370	Total: \$196,783
<i>Prin. Invest.: J HUGHES</i>		<i>Prin. Invest.: D MERRITT</i>	
<i>Tech. Officer: GSFC/R PETRE</i>		<i>Tech. Officer: GSFC/R J OLIVERSEN</i>	
<i>CASE Category: 22 - COMPUTER SCIENCE</i>		<i>CASE Category: 11 - ASTRONOMY</i>	
 <b>NAG 5 6982 RUTGERS ST UNIV N.J.-INCLUDES PSCTWY</b>	<b>6642</b>	 <b>NAG 5 9259 RUTGERS ST UNIV N.J.-INCLUDES PSCTWY</b>	<b>6650</b>
REPRESENTING KEY PHYTOPLANKTON GROUPS IN OCEAN CARBON CYCLE MODELS 03/23/1998 - 03/14/2001 FY01: \$0	Total: \$658,307	SIMULATION AND ANALYSIS OF METEORITIC MATERIAL 03/17/2000 - 02/28/2002 FY01: \$0	Total: \$109,000
<i>Prin. Invest.: P G FALKOWSKI</i>		<i>Prin. Invest.: J BOYCE</i>	
<i>Tech. Officer: GSFC/J W CAMPBELL</i>		<i>Tech. Officer: GSFC/R HEWINS</i>	
<i>CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</i>		<i>CASE Category: 11 - ASTRONOMY</i>	
 <b>NAG 5 7015 RUTGERS ST UNIV N.J.-INCLUDES PSCTWY</b>	<b>6643</b>	 <b>NAG 5 9340 RUTGERS ST UNIV N.J.-INCLUDES PSCTWY</b>	<b>6651</b>
THEORETICAL ISSUES FOR INTERPRETING COSMIC MICROWAVE BACKGROUND MAPS_ATP 02/17/1998 - 04/30/2001 FY01: \$0	Total: \$100,333	ATMOSPHERIC IRON FLUXES TO THE OCEAN: SEASONAL PATTERNS AND LINKAGE TO PHYTOPLANKTON BLOOMS 04/11/2000 - 04/30/2002 FY01: \$93,217	Total: \$157,366
<i>Prin. Invest.: A B KOSOWSKY</i>		<i>Prin. Invest.: Y GAO</i>	
<i>Tech. Officer: GSFC/D K WEST</i>		<i>Tech. Officer: GSFC/J MARRA</i>	
<i>CASE Category: 11 - ASTRONOMY</i>		<i>CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</i>	
 <b>NAG 5 7148 RUTGERS ST UNIV N.J.-INCLUDES PSCTWY</b>	<b>6644</b>	 <b>NAG 5 9528 RUTGERS ST UNIV N.J.-INCLUDES PSCTWY</b>	<b>6652</b>
UV SOLID STATE DETECTORS 05/04/1998 - 04/14/2002 FY01: \$43,166	Total: \$301,004	IN SITU SYNCHROTRON MICROXANES MEASUREMENTS OF OXIDATION STATES OF SOLAR SYSTEM MATERIALS 04/28/2000 - 04/30/2002 FY01: \$40,000	Total: \$109,000
<i>Prin. Invest.: C L JOSEPH</i>		<i>Prin. Invest.: J S DELANEY</i>	
<i>Tech. Officer: GSFC/W WAGNER</i>		<i>Tech. Officer: GSFC/J BOYCE</i>	
<i>CASE Category: 11 - ASTRONOMY</i>		<i>CASE Category: 11 - ASTRONOMY</i>	
 <b>NAG 5 7437 RUTGERS ST UNIV N.J.-INCLUDES PSCTWY</b>	<b>6645</b>	 <b>NAG 5 9746 RUTGERS ST UNIV N.J.-INCLUDES PSCTWY</b>	<b>6653</b>
ESTABLISHING AND IMPROVING A TRACEABLE, TIME-DEPENDENT PRIMARY PRODUCTION ALGORITHM FOR GENERATING 06/11/1998 - 07/14/2000 FY01: \$0	Total: \$306,822	SUPPORT FOR THE NASA-HYDROMETEOROLOGY SCIENCE TEAM OFFICE 07/11/2000 - 07/14/2001 FY01: \$0	Total: \$49,475
<i>Prin. Invest.: M J BEHRENFELD</i>		<i>Prin. Invest.: R AVISSAR, NONE</i>	
<i>Tech. Officer: GSFC/J CAMPBELL</i>		<i>Tech. Officer: GSFC/P R Houser</i>	
<i>CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</i>		<i>CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</i>	
 <b>NAG 5 7564 RUTGERS ST UNIV N.J.-INCLUDES PSCTWY</b>	<b>6646</b>	 <b>NAG 5 9787 RUTGERS ST UNIV N.J.-INCLUDES PSCTWY</b>	<b>6654</b>
EVALUATION OF SNOW WATER EQUIVALENT ACROSS GRASSLAND REGIONS 06/30/1998 - 06/30/2001 FY01: \$0	Total: \$115,143	ESTABLISHING AND IMPROVING A TRACEABLE, TIME-DEPENDENT PRIMARY PRODUCTION ALGORITHM FOR GENERATING 07/14/2000 - 07/14/2001 FY01: \$37,000	Total: \$74,000
<i>Prin. Invest.: D ROBINSON</i>		<i>Prin. Invest.: M J BEHRENFELD</i>	
<i>Tech. Officer: GSFC/E T ENGMAN</i>		<i>Tech. Officer: GSFC/J MARRA</i>	
<i>CASE Category: 32 - GEOLOGICAL SCIENCE</i>		<i>CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</i>	

**NAG 5 9792 RUTGERS ST UNIV N.J.-INCLUDES PSCTWY** 6655  
 VOLCANIC ERUPTIONS AND CLIMATE  
 07/18/2000 - 07/31/2002 FY01: \$60,000 Total: \$120,000  
*Prin. Invest.:* A ROBECK  
*Tech. Officer:* GSFC/K BERGMAN  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NAG 5 9813 RUTGERS ST UNIV N.J.-INCLUDES PSCTWY** 6656  
 ULTRAVIOLET TESTING OF GAN BASED UV CCD'S AS DESCRIPTED IN THE PROPOSAL "GA CCD'S"  
 07/19/2000 - 07/14/2001 FY01: \$0 Total: \$20,000  
*Prin. Invest.:* D JOSEPH  
*Tech. Officer:* GSFC/B MOTT  
*CASE Category:* 19 – PHYSICAL SCIENCE, OTHER

**NAG 5 9847 RUTGERS ST UNIV N.J.-INCLUDES PSCTWY** 6657  
 OCEAN CARBON FLUX: TRANSPORT & BURIAL WITHIN THE WESTERN & EASTERN U.S.COASTAL ZONES  
 07/31/2000 - 07/31/2002 FY01: \$97,500 Total: \$191,250  
*Prin. Invest.:* D HAIDVOGEL  
*Tech. Officer:* GSFC/E LINSTROM  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NAG 5 9927 RUTGERS ST UNIV N.J.-INCLUDES PSCTWY** 6658  
 XMM SPECTRO-IMAGERY OF TWO YOUNG EJECTA-DOMINATED SNRS: KEPLER & W49B  
 09/07/2000 - 09/14/2001 FY01: \$0 Total: \$6,240  
*Prin. Invest.:* J P HUGHES  
*Tech. Officer:* GSFC/D F MUSHOTZKY  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 9979 RUTGERS ST UNIV N.J.-INCLUDES PSCTWY** 6659  
 CONFRONTING THE COMPLEXITY OF GALAXY CLUSTERS WITH LENZING, SZ, & XMM DATA  
 09/12/2000 - 09/14/2002 FY01: \$16,400 Total: \$44,800  
*Prin. Invest.:* J P HUGHES  
*Tech. Officer:* GSFC/R MUSHOTZKY  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 9990 RUTGERS ST UNIV N.J.-INCLUDES PSCTWY** 6660  
 XMM STUDIES OF A NEW SAMPLE OF YOUNG EJECTA-DOMINATED GALACTIC SNRS  
 09/14/2000 - 08/31/2002 FY01: \$16,061 Total: \$45,061  
*Prin. Invest.:* J P HUGHES  
*Tech. Officer:* GSFC/R MUSHOTZKY  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 10003 RUTGERS ST UNIV N.J.-INCLUDES PSCTWY** 6661  
 BLACK HOLES IN EARLY TYPE GALAXIES: INCIDENCE, FORMATION AND EVOLUTION  
 09/25/2000 - 08/31/2002 FY01: \$109,223 Total: \$216,501  
*Prin. Invest.:* L FERRARESE  
*Tech. Officer:* GSFC/R J OLIVERSEN  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 10110 RUTGERS ST UNIV N.J.-INCLUDES PSCTWY** 6662  
 SPACE ASTROPHYSICS RESEARCH & ANALYSIS PROGRAM  
 01/02/2001 - 12/31/2001 FY01: \$100,000 Total: \$100,000  
*Prin. Invest.:* J SELLWOOD  
*Tech. Officer:* GSFC/P CRANE  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NAG 5 10357 RUTGERS ST UNIV N.J.-INCLUDES PSCTWY** 6663  
 HOT-ELECTRON DETECTORS: RECORD SENSITIVITY DUE TO CONTROLLABLE ELECTRON-PHONON COUPLING IN SUPERCOND  
 02/01/2001 - 01/14/2002 FY01: \$182,594 Total: \$182,594  
*Prin. Invest.:* M GERSHENSON  
*Tech. Officer:* GSFC/C STAHL  
*CASE Category:* 13 – PHYSICS

**NAG 5 10494 RUTGERS ST UNIV N.J.-INCLUDES PSCTWY** 6664  
 SIMULATION & ANALYSIS OF METEORITIC MATERIAL  
 02/28/2001 - 02/28/2002 FY01: \$120,000 Total: \$120,000  
*Prin. Invest.:* R HEWINS  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 12 – CHEMISTRY

**NAG 5 10495 RUTGERS ST UNIV N.J.-INCLUDES PSCTWY** 6665  
 TRANSIENT HEATING IN THE SOLAR ACCRETION DISK  
 02/28/2001 - 02/28/2002 FY01: \$30,000 Total: \$30,000  
*Prin. Invest.:* R HEWINS  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 10809 RUTGERS ST UNIV N.J.-INCLUDES PSCTWY** 6666  
 REDUCTION OF BACKGROUND SIGNALS IN AIGAN OR GAN SOLID STATE DETECTORS  
 04/26/2001 - 04/30/2002 FY01: \$32,000 Total: \$32,000  
*Prin. Invest.:* C L JOSEPH  
*Tech. Officer:* GSFC/W J WAGNER  
*CASE Category:* 13 – PHYSICS

**NAG 5 11045 RUTGERS ST UNIV N.J.-INCLUDES PSCTWY** 6667  
 EFFECTS OF RADIATION ON DESORPTION OF ALKALIS FROM MINERAL & ICE SURFACES: RELATION TO ORIGINS OF AL  
 06/13/2001 - 06/14/2002 FY01: \$80,000 Total: \$80,000  
*Prin. Invest.:* T MADEY  
*Tech. Officer:* GSFC/D J BOGAN  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NAG 5 11345 RUTGERS ST UNIV N.J.-INCLUDES PSCTWY** 6668  
 USING REMOTE SENSING AND OCEAN OXYGEN MEASUREMENTS TO CONSTRAIN CARBONFLUXES IN THE SOUTHERN OCEAN  
 09/10/2001 - 09/14/2004 FY01: \$78,581 Total: \$78,581  
*Prin. Invest.:* P G FALKONSKI  
*Tech. Officer:* GSFC/J MARRA  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NAG 8 1513 RUTGERS ST UNIV N.J.-INCLUDES PSCTWY** 6669  
 SPATIAL & TEMPORAL VARIABILITY OF SOIL MOISTURE & ITS RELATION TO WATER & ENERGY BALANCES IN A MONSN  
 06/01/1998 - 05/31/2002 FY01: \$0 Total: \$339,524  
*Prin. Invest.:* Y LIU, R AVISSAR  
*Tech. Officer:* MSFC/J ARNOLD  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NAG 8 1769 RUTGERS ST UNIV N.J.-INCLUDES PSCTWY** 6670  
 RESEARCH ON STRESS-DRIVEN INSTABILITY ON HELIUM-4 CRYSTALS  
 04/27/2001 - 03/31/2005 FY01: \$100,444 Total: \$100,444  
*Prin. Invest.:* H KOJIMA  
*Tech. Officer:* MSFC/D HUBBARD  
*CASE Category:* 19 – PHYSICAL SCIENCE, OTHER

**NAGW 5226 RUTGERS ST UNIV N.J.-INCLUDES PSCTWY** 6671  
 RESEARCH (BIDIRECTIONAL)  
 10/07/1996 - 12/31/1999 FY01: \$0 Total: \$40,000  
*Prin. Invest.: R AVISSAR*  
*Tech. Officer: HQ/A C JANETOS*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 5 476 RUTGERS ST UNIV N.J.-INCLUDES PSCTWY** 6672  
 COOPERATIVE RESEARCH IN REGIONAL & GLOBAL CLIMATE VARIABILITY.  
 03/17/2000 - 03/31/2001 FY01: \$115,594 Total: \$657,181  
*Prin. Invest.: R AVISSAR*  
*Tech. Officer: GSFC/R STOTHERS*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 5 553 RUTGERS ST UNIV N.J.-INCLUDES PSCTWY** 6673  
 RESEARCH IN REGIONAL & GLOBAL CLIMATE VARIABILITY  
 04/24/2001 - 03/31/2002 FY01: \$700,000 Total: \$700,000  
*Prin. Invest.: A ROBOCK*  
*Tech. Officer: GSFC/R B STOTHERS*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NGT 5 30062 RUTGERS ST UNIV N.J.-INCLUDES PSCTWY** 6674  
 ANTHROPOGENIC PERTURBATIONS TO THE CARBON CYCLE FR ESTI-  
 MATED FROM NEW HISTORICAL LAND USE DATA  
 09/10/1997 - 05/31/2001 FY01: \$0 Total: \$44,000  
*Prin. Invest.: D ROBINSON*  
*Tech. Officer: GSFC/G ASRAR*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50229 RUTGERS ST UNIV N.J.-INCLUDES PSCTWY** 6675  
 CROP MODELING FOR MULTIPLE CROP PRODUCTION AND CON TROL FOR  
 ADVANCED LIFE SUPPORT SYSTEMS  
 11/04/1998 - 08/31/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.: K C TING, FLEISHER*  
*Tech. Officer: HQ/A NURRIDIN*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NGT 5 50364 RUTGERS ST UNIV N.J.-INCLUDES PSCTWY** 6676  
 DEVELOPMENT OF A HAPTIC INTERFACE FOR REMOTE OPERA TIONS IN  
 SPACE, MEDICINE AND VIRTUAL REALITY, USI  
 06/12/2001 - 08/30/2002 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: C MAVROIDIS*  
*Tech. Officer: GSFC/K BLADING*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50376 RUTGERS ST UNIV N.J.-INCLUDES PSCTWY** 6677  
 SPATIALLY RESOLVED X-RAY SPECTROSCOPY OF YOUNG SUPERNOVA  
 REMNANTS/STUDENT: CARA RAKOWSKI  
 07/05/2001 - 06/30/2002 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: J P HUGHES*  
*Tech. Officer: GSFC/L KALUZIENSKI*  
*CASE Category: 42 – ASTRONAUTICAL ENGR*

**NAG 5 9359 RUTGERS STATE UNIV OF NJ COOK CAMPUS** 6678  
 A STUDY OF TELECONNECTIONS USING A NESTED GCM-RCM &  
 SATELLITE OBSERVATIONS  
 04/06/2000 - 06/30/2001 FY01: \$50,000 Total: \$100,000  
*Prin. Invest.: R AVISSAR*  
*Tech. Officer: GSFC/K BERGMAN*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9833 RUTGERS STATE UNIV OF NJ NEW BRUNSWICK** 6679  
 ULTRAVIOLET TESTIN OF GAN ARRAYS AS DESCRIBED IN THE PROPOSAL  
 "GAN ULTRAVIOLET ARRAYS"  
 07/26/2000 - 10/31/2002 FY01: \$24,504 Total: \$49,008  
*Prin. Invest.: D JOSEPH*  
*Tech. Officer: GSFC/B MOTT*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 11244 RUTGERS STATE UNIV OF NJ NEW BRUNSWICK** 6680  
 GLOBAL MODELING AND ANALYSIS OF NONMETHANE HYDROCARBONS,  
 OXYGENATED HYDROCARBONS, AND ANTHROPOG  
 08/16/2001 - 08/31/2004 FY01: \$81,221 Total: \$81,221  
*Prin. Invest.: Y WANG, NONE*  
*Tech. Officer: GSFC/P DECOLA*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 11356 RUTGERS STATE UNIV OF NJ NEW BRUNSWICK** 6681  
 REPRESENTING KEY PHYTOPLANKTON GROUPS IN OCEAN CAR BON  
 CYCLE MODELS  
 09/25/2001 - 09/30/2004 FY01: \$124,826 Total: \$124,826  
*Prin. Invest.: P G FALKOWSKI*  
*Tech. Officer: GSFC/J MARRA*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 9 1283 RUTGERS STATE UNIV OF NJ NEW BRUNSWICK** 6682  
 MOLECULAR CHARACTERIZATION OF EUBATERIA IN THE BIOLOGICAL  
 WATER PROCESSOR  
 02/22/2001 - 12/31/2001 FY01: \$144,228 Total: \$144,228  
*Prin. Invest.: L KERKHOF*  
*Tech. Officer: JSC/K DAUES*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 9 1318 RUTGERS STATE UNIV OF NJ NEW BRUNSWICK** 6683  
 CHARACTERIZATION OF HYDROPONICALLY GROWN APOGEE WHEAT  
 FLOUR  
 06/18/2001 - 10/31/2001 FY01: \$16,100 Total: \$16,100  
*Prin. Invest.: J L KOKINI*  
*Tech. Officer: JSC/V KLOERIS*  
*CASE Category: 43 – CHEMICAL ENGR*

**NAG 9 1923 RUTGERS STATE UNIV OF NJ NEW BRUNSWICK** 6684  
 INNOVATIVE CO2 REMOVAL BIOREACTOR FOR AN ADVANCED MARS EVA  
 SPACESUIT  
 06/23/2000 - 06/23/2001 FY01: \$0 Total: \$99,997  
*Prin. Invest.: M C TRACHTENBERG, R M COWAN*  
*Tech. Officer: JSC/G A THOMAS*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAS 5 99138 RUTGERS STATE UNIV OF NJ NEW BRUNSWICK** 6685  
 AIRBORNA (LIFT) METHOD FOR MEASURING PHOTOSYNTHETIC  
 PERFORMANCE & PRIMARY PRODUCTIVITY.  
 04/15/1999 - 04/15/2002 FY01: \$273,133 Total: \$984,393  
*Prin. Invest.: Z KOLBER*  
*Tech. Officer: GSFC/J B HARTLEY*  
*CASE Category: 61 – PSYCHOLOGY BIOLOGY*

**NCC 2 1259 RUTGERS STATE UNIV OF NJ NEW BRUNSWICK 6686**  
 INTEGRATING MULTIPLE SOURCES OF INFORMATION IN TEXT MINING  
 04/20/2001 - 04/30/2002 FY01: \$80,000 Total: \$80,000  
*Prin. Invest.: H HIRSCH*  
*Tech. Officer: ARC/M SCHWABACHER, ARC/J COUGHLAN*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 5 8971 STEVENS INST OF TECHNOLOGY 6687**  
 ELECTRON-IMPACT DISSOCIATION AND EXCITATION OF MOLECULES AND  
 MOLECULAR IONS  
 01/28/2000 – 12/31/2002 FY01: \$60,100 Total: \$116,714  
*Prin. Invest.: K BECKER*  
*Tech. Officer: GSFC/D BOGAN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 9 1063 STEVENS INST OF TECHNOLOGY 6688**  
 INVESTIGATION OF AMBIENT PRESSURE  
 01/05/1999 – 01/05/2002 FY01: \$153,288 Total: \$428,983  
*Prin. Invest.: G P KORFIATIS*  
*Tech. Officer: JSC/J GRAF*  
*CASE Category: 54 – ENVIRONMENTAL BIOLOGY*

**NAS 5 99238 STEVENS INST OF TECHNOLOGY 6689**  
 SENSOR INTERCOMPARISON & MERGER FOR BIOLOGICAL & INTERDISCIPLINARY STUDIES.  
 09/01/1999 – 02/28/2001 FY01: \$0 Total: \$124,965  
*Prin. Invest.: K STAMNES, B CHEN*  
*Tech. Officer: GSFC/C MCCLAIN*  
*CASE Category: 33 – OCEANOGRAPHY*

**NGT 5 40041 STEVENS INST OF TECHNOLOGY 6690**  
 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM  
 01/24/1997 – 02/28/2001 FY01: \$0 Total: \$801,125  
*Prin. Invest.: S THANGAM*  
*Tech. Officer: GSFC/L KEFFER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 40096 STEVENS INST OF TECHNOLOGY 6691**  
 NEW JERSEY SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM  
 02/28/2001 – 02/28/2002 FY01: \$206,125 Total: \$206,125  
*Prin. Invest.: S THANGAM*  
*Tech. Officer: GSFC/D D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 2 1367 UNIV OF MEDICINE AND DENTISTRY 6692**  
 MURINE DEVELOPMENT: CELLULAR & MOLECULAR ANALYSIS  
 08/02/1999 – 07/14/2002 FY01: \$290,411 Total: \$705,316  
*Prin. Invest.: R S NOWAKOWSKI*  
*Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 9 1162 UNIV OF MEDICINE AND DENTISTRY 6693**  
 GLUKOSE KINETICS AND MUSCLE ATROPHY  
 09/21/1999 – 09/22/2002 FY01: \$70,049 Total: \$148,027  
*Prin. Invest.: T P STEIN*  
*Tech. Officer: JSC/C W LLOYD*  
*CASE Category: 56 – MEDICAL*

**NGT 5 50335 UNIV OF MEDICINE AND DENTISTRY 6694**  
 TRANSCRIPTIONAL REGULATION OF DIFFERENTIATING OSTEOBLASTS/  
 STUDENT: RICHARD D'ALONZO  
 10/16/2000 – 10/01/2001 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: N C PARTRIDGE*  
*Tech. Officer: HQ/L SMITH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 2 950 UNIV. OF MEDICINE & DENTISTRY-NJ. 6695**  
 REDUCED GRAVITY: EFFECTS IN THE DEVELOPING NERVOUS SYSTEM  
 (DEFINITION PHASE)  
 12/16/1994 – 11/30/1999 FY01: \$0 Total: \$739,162  
*Prin. Invest.: R S KOWAKOWSKI*  
*Tech. Officer: ARC/W E HINDS, ARC/C M WINGET*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

## NEW MEXICO

**NAG 9 1066 COLLEGE OF SANTA FE 6696**  
 MOBILE SCIENCE PROJECT PACE/ MSET  
 01/07/1999 – 12/31/2001 FY01: \$100,000 Total: \$300,000  
*Prin. Invest.: B COLEMAN*  
*Tech. Officer: JSC/L ARMENDARIZ*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10150 EASTERN NEW MEXICO UNIV – MAIN CAMPUS 6697**  
 NEW MEXICO CONNECTIONS: CONNECTING PEOPLE, PLACES AND  
 RESEARCH  
 12/08/2000 – 08/13/2001 FY01: \$64,956 Total: \$64,956  
*Prin. Invest.: S NUTTER*  
*Tech. Officer: GSFC/P SAKIMOTO*  
*CASE Category: 11 – ASTRONOMY*

**NAG 9 972 EASTERN NEW MEXICO UNIV – MAIN CAMPUS 6698**  
 SUMMER SMET CAMP FOR RURAL MINORITIES GIRLS  
 09/24/1997 – 09/30/2000 FY01: -\$2,485 Total: \$72,515  
*Prin. Invest.: J MILLER*  
*Tech. Officer: JSC/L ARMENDARIZ*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 9 1255 EASTERN NEW MEXICO UNIV – MAIN CAMPUS 6699**  
 SMET CAMP  
 08/12/2000 – 09/30/2001 FY01: \$0 Total: \$25,000  
*Prin. Invest.: J MILLER*  
*Tech. Officer: JSC/L ARMENDARIZ*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 8 1730 INST AMER INDIAN & AK NATIVE CULTURE & DEV 6700**  
 ESTABLISH A COMMUNITY BASED NATIVE AMERICAN AGRICULTURE  
 RESEARCH AND DEVELOPMENT CENTER  
 06/22/2000 – 11/30/2001 FY01: \$0 Total: \$98,854  
*Prin. Invest.: S SULNA*  
*Prin. Invest.: NONE*  
*Tech. Officer: MSFC/W LOVE*  
*CASE Category: 55 – AGRICULTURE*

**NAG 5 6532 NEW MEXICO HIGHLANDS UNIV 6701**  
 ALLIANCE FOR NONLINEAR OPTICS  
 12/07/1997 – 09/30/1999 FY01: \$0 Total: \$1,653,070  
*Prin. Invest.: R CLARK*  
*Tech. Officer: GSFC/J MALONE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

<b>NAG 5 8734</b>	<b>NEW MEXICO HIGHLANDS UNIV</b>	<b>6702</b>	<b>NAG 9 1374</b>	<b>NEW MEXICO HIGHLANDS UNIV</b>	<b>6711</b>
CCD PHOTOMETRY OF THE VESTA FAMILY OF ASTEROIDS & AN ANALYSIS OF THEIR IMPACT ORIGIN			AISTEC PROJECT		
08/26/1999 - 07/31/2002	FY01: \$72,000	Total: \$217,699	08/09/2001 - 08/12/2002	FY01: \$100,000	Total: \$100,000
<i>Prin. Invest.: D V RYAN</i>			<i>Prin. Invest.: J CAIBACA</i>		
<i>Tech. Officer: GSFC/T MORGAN</i>			<i>Tech. Officer: JSC/K KRISHEN, JSC/L ARMENDARIZ</i>		
<i>CASE Category: 11 – ASTRONOMY</i>			<i>CASE Category: 39 – ENVIRONMENTAL SCI, OTHER</i>		
<b>NAG 8 1639</b>	<b>NEW MEXICO HIGHLANDS UNIV</b>	<b>6703</b>	<b>NAG 9 1375</b>	<b>NEW MEXICO HIGHLANDS UNIV</b>	<b>6712</b>
DEVELOPMENT OF NOVEL THERMOSTABLE PHOTOREFRACTIVE POLY- MERS AND SOL-GEL MATERIALS			HYDROCODE SIMULATCRS OF POROUS ASTEROID IMPACTS		
12/21/1999 - 12/20/2002	FY01: \$176,652	Total: \$290,006	08/09/2001 - 08/12/2002	FY01: \$25,000	Total: \$25,000
<i>Prin. Invest.: R D CLARK, M SANGHADASA</i>			<i>Prin. Invest.: J R JUAREZ</i>		
<i>Tech. Officer: MSFC/B G PENN</i>			<i>Tech. Officer: JSC/L ARMENDARIZ</i>		
<i>CASE Category: 13 – PHYSICS</i>			<i>CASE Category: 31 – ATMOSPHERIC SCIENCE</i>		
<b>NAG 8 1708</b>	<b>NEW MEXICO HIGHLANDS UNIV</b>	<b>6704</b>	<b>NAG 9 1921</b>	<b>NEW MEXICO HIGHLANDS UNIV</b>	<b>6713</b>
ALLIANCE FOR NONLINEAR OPTICS			EDUCATIONAL OUTREACH		
03/01/2000 - 02/28/2003	FY01: \$500,000	Total: \$1,000,000	05/23/2000 - 05/31/2001	FY01: \$0	Total: \$18,803
<i>Prin. Invest.: R CLARK</i>			<i>Prin. Invest.: J R JUAREZ</i>		
<i>Tech. Officer: MSFC/W LOVE</i>			<i>Tech. Officer: JSC/L ARMENDARIZ</i>		
<i>CASE Category: 49 – ENGINEERING, OTHER</i>			<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>		
<b>NAG 9 1139</b>	<b>NEW MEXICO HIGHLANDS UNIV</b>	<b>6705</b>	<b>NAG 9 1922</b>	<b>NEW MEXICO HIGHLANDS UNIV</b>	<b>6714</b>
AMERICAN INDIAN SCIENCE & TECH EDUCATION CONSORTIUM			HYDROCODE SIMULATIONS OF PAROUS ASTEROID IMPACTS		
08/31/1999 - 08/30/2001	FY01: \$0	Total: \$278,000	05/23/2000 - 05/31/2001	FY01: \$0	Total: \$24,997
<i>Prin. Invest.: J C'DE BACA</i>			<i>Prin. Invest.: J R JUAREZ</i>		
<i>Tech. Officer: JSC/L M ARMEDARIZ</i>			<i>Tech. Officer: JSC/L ARMENDARIZ</i>		
<i>CASE Category: 39 – ENVIRONMENTAL SCI, OTHER</i>			<i>CASE Category: 31 – ATMOSPHERIC SCIENCE</i>		
<b>NAG 9 1168</b>	<b>NEW MEXICO HIGHLANDS UNIV</b>	<b>6706</b>	<b>NGT 5 90069</b>	<b>NEW MEXICO HIGHLANDS UNIV</b>	<b>6715</b>
JSC ASTROBIOLOGY INST			AMERICAN INDIAN SCIENCE AND TECHNOLOGY EDUCATION C		
09/28/1999 - 09/29/2001	FY01: \$0	Total: \$292,100	04/04/1997 - 11/30/2001	FY01: \$0	Total: \$4,400,822
<i>Prin. Invest.: J C DEBACA, J R JUAREZ</i>			<i>Prin. Invest.: J C'DE BACA</i>		
<i>Tech. Officer: JSC/D S MCKAY, JSC/L ARMENDARIZ</i>			<i>Tech. Officer: GSFC/P SAKIMOTO</i>		
<i>CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)</i>			<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>		
<b>NAG 9 1195</b>	<b>NEW MEXICO HIGHLANDS UNIV</b>	<b>6707</b>	<b>NAG 5 4139</b>	<b>NEW MEXICO INST OF MINING &amp; TECH</b>	<b>6716</b>
REACHING OUT FOR SCIENCE, MATHEMATICS, & TECHNOLOGY STUDENTS			OBSERVATIONS & ANALYSIS OF ATMOSPHERIC HYDROXYL		
05/23/2000 - 05/31/2001	FY01: \$0	Total: \$19,528	03/17/1997 - 03/14/2001	FY01: \$0	Total: \$176,882
<i>Prin. Invest.: J JUAREZ</i>			<i>Prin. Invest.: K MINSCHWANNER</i>		
<i>Tech. Officer: JSC/L ARMENDARIZ</i>			<i>Tech. Officer: GSFC/M J KURYLO</i>		
<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>			<i>CASE Category: 31 – ATMOSPHERIC SCIENCE</i>		
<b>NAG 9 1260</b>	<b>NEW MEXICO HIGHLANDS UNIV</b>	<b>6708</b>	<b>NAG 5 7109</b>	<b>NEW MEXICO INST OF MINING &amp; TECH</b>	<b>6717</b>
STUDIES ON THE IMPACT OF CERRO GRANDE & VIVEASH FOREST FIRES			GROUND BASED MEASUREMENTS OF TOTAL OZONE, CLOUD PR OPER- TIES, AND UVDOSES		
09/07/2000 - 09/30/2004	FY01: \$0	Total: \$151,095	03/25/1998 - 03/31/2002	FY01: \$0	Total: \$107,153
<i>Prin. Invest.: J R JUAREZ</i>			<i>Prin. Invest.: D R MINSCHWANNER</i>		
<i>Tech. Officer: JSC/G HENDERSEN</i>			<i>Tech. Officer: GSFC/J HERMAN</i>		
<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>			<i>CASE Category: 31 – ATMOSPHERIC SCIENCE</i>		
<b>NAG 9 1330</b>	<b>NEW MEXICO HIGHLANDS UNIV</b>	<b>6709</b>	<b>NAG 5 9328</b>	<b>NEW MEXICO INST OF MINING &amp; TECH</b>	<b>6718</b>
REACHING OUT FOR SCIENCE, MATHEMATICS & TECHNOLOGY STUDENTS			INFLUENCE OF LAND-ATMOSPHERE INTERACTIONS ON VARIA BILITY OF THE NORTH AMERICAN MONSOON		
06/26/2001 - 06/26/2004	FY01: \$19,528	Total: \$19,528	04/03/2000 - 04/30/2002	FY01: \$81,513	Total: \$140,754
<i>Prin. Invest.: J R JUAREZ</i>			<i>Prin. Invest.: E E SMALL</i>		
<i>Tech. Officer: JSC/L M ARMENDARIZ</i>			<i>Tech. Officer: GSFC/D WICKLAND</i>		
<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>			<i>CASE Category: 39 – ENVIRONMENTAL SCI, OTHER</i>		
<b>NAG 9 1369</b>	<b>NEW MEXICO HIGHLANDS UNIV</b>	<b>6710</b>	<b>NAG 9 1106</b>	<b>NEW MEXICO INST OF MINING &amp; TECH</b>	<b>6719</b>
EDUCATIONAL OUTREACH			THE SEARCH FOR MICROBIAL BIOMARKERS IN TERRESTRIAL DEPOSITS		
07/30/2001 - 07/31/2004	FY01: \$19,000	Total: \$19,000	05/10/1999 - 05/09/2004	FY01: \$22,000	Total: \$66,000
<i>Prin. Invest.: J JUAREZ</i>			<i>Prin. Invest.: T L KIEFT</i>		
<i>Tech. Officer: WFF/PBAKER, JSC/L M ARMENDARIZ</i>			<i>Tech. Officer: JSC/F K GIBSON</i>		
<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>			<i>CASE Category: 39 – ENVIRONMENTAL SCI, OTHER</i>		

**NGT 5 30169** NEW MEXICO INST OF MINING & TECH 6720  
 COMBINED SIMULATION OF ALPINE GLACIERS AND CLOSED- BASIN LAKES: THE KEY TO DETERMINING THE LONG-TERM  
 09/01/1998 - 08/31/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.: F M PHILLIPS, PLUMMER*  
*Tech. Officer: GSFC/M Y WEI*  
*CASE Category: 11 – ASTRONOMY*

**NAG 1 1868** NEW MEXICO STATE UNIV - LAS CRUCES 6721  
 ACTIVE CONTROL OF AERODYNAMIC NOISE SOURCES MY 1/3  
 09/20/1996 - 11/01/2000 FY01: \$0 Total: \$281,474  
*Prin. Invest.: G A REYNOLDS*  
*Tech. Officer: LARC/G S JONES*  
*CASE Category: 41 – AERONAUTICAL ENGNR*

**NAG 2 1334** NEW MEXICO STATE UNIV - LAS CRUCES 6722  
 XENOPUS INNER EAR ORGAN INFRMATION IN AN ALTERED G RAVITY ENVIRONMNT  
 07/08/1999 - 06/30/2002 FY01: \$99,920 Total: \$299,141  
*Prin. Invest.: E E SERRANO*  
*Tech. Officer: ARC/C E WADE*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 2 6007** NEW MEXICO STATE UNIV - LAS CRUCES 6723  
 THEORETICAL & OBSERVATIONAL STUDIES OF SOLAR & EXT RA SOLAR PLANETARY ATMOSPHERES  
 10/16/1996 - 06/30/2001 FY01: \$0 Total: \$288,379  
*Prin. Invest.: M MARLEY*  
*Tech. Officer: ARC/C P MCKAY, ARC/A J HATCH*  
*CASE Category: 11 – ASTRONOMY*

**NAG 2 6030** NEW MEXICO STATE UNIV - LAS CRUCES 6724  
 CAREER OPPORTUNITES IN MATHEMATICS, ENGINEERING, T ECHNOLOGY, & SCIENCE (COMETS) PROGRAMS  
 03/09/1999 - 03/31/2002 FY01: \$99,000 Total: \$299,001  
*Prin. Invest.: G V GARCIA*  
*Tech. Officer: ARC/B J COLLINS, ARC/G S LEE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 3842** NEW MEXICO STATE UNIV - LAS CRUCES 6725  
 MODELLING X-RAY CLUSTERS: EVOLUTION AND REALISTIC  
 02/25/1997 - 02/28/2001 FY01: \$0 Total: \$299,540  
*Prin. Invest.: A KLYPIN*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 4987** NEW MEXICO STATE UNIV - LAS CRUCES 6726  
 MODEL ATMOSPHERES AND SPECTRA FOR EXTRASOLAR GIANT  
 06/26/1997 - 06/14/2001 FY01: \$0 Total: \$127,500  
*Prin. Invest.: D MARLEY*  
*Tech. Officer: GSFC/J BERGSTRALH*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 5060** NEW MEXICO STATE UNIV - LAS CRUCES 6727  
 SEARCHING FOR ANTIMATTER AND COSMIC RAY STUDIES USING BESS  
 05/01/1996 - 05/31/2000 FY01: \$0 Total: \$88,318  
*Prin. Invest.: S J STOCHAJ*  
*Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT*  
*CASE Category: 13 – PHYSICS*

**NAG 5 5068** NEW MEXICO STATE UNIV - LAS CRUCES 6728  
 WIZARD-RELATED BALLOON PROGRAM FUNDING FOR THE FIRST YEAR OF THE GRANT  
 05/03/1996 - 05/31/2000 FY01: -\$1,839 Total: \$932,832  
*Prin. Invest.: S J STOCHAJ*  
*Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT*  
*CASE Category: 13 – PHYSICS*

**NAG 5 5159** NEW MEXICO STATE UNIV - LAS CRUCES 6729  
 AN IMAGING SILICON CALORIMETER FOR USE ON ACCESS INCREMENTAL FUNDING FOR FIRST YEAR OF GRANT  
 03/26/1998 - 06/30/2001 FY01: \$0 Total: \$209,000  
*Prin. Invest.: S J STOCHAJ*  
*Tech. Officer: GSFC/B A MERRITT/*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 5226** NEW MEXICO STATE UNIV - LAS CRUCES 6730  
 FIRST YEAR FUNDING FOR NAG5-5226  
 07/06/1999 - 12/31/2001 FY01: \$143,000 Total: \$428,000  
*Prin. Invest.: S J STOCHAJ*  
*Tech. Officer: WSTF/B A MERRITT*  
*CASE Category: 13 – PHYSICS*

**NAG 5 6897** NEW MEXICO STATE UNIV - LAS CRUCES 6731  
 EFFECTS OF RHEOLOGY ON THE DYNAMICS AND EVOLUTION OF MARS AND VENUS  
 01/21/1998 - 12/31/2000 FY01: \$0 Total: \$92,577  
*Prin. Invest.: V SOLOMATOV*  
*Tech. Officer: GSFC/P ROGERS*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 7520** NEW MEXICO STATE UNIV - LAS CRUCES 6732  
 CENTER FOR TELEMETRYING AND TELECOMMUNICATION SYSTM EMS  
 07/28/1998 - 04/30/2000 FY01: \$0 Total: \$1,344,000  
*Prin. Invest.: S HORAN*  
*Tech. Officer: GSFC/W MILLER*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 5 7524** NEW MEXICO STATE UNIV - LAS CRUCES 6733  
 TRANSPORTATION OF ENERGETIC PARTICLES IN THE GALAXY - APPROVED UNDERNRA 97-OSS-12  
 06/09/1998 - 06/14/2002 FY01: \$10,951 Total: \$34,173  
*Prin. Invest.: W R WEBBER*  
*Tech. Officer: GSFC/F C JONES*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7795** NEW MEXICO STATE UNIV - LAS CRUCES 6734  
 A PROPOSAL TO ASSIST IN THE INTERPRETATION OF DATA FROM THE COSMIC RAY ISOTOPE SPECTROMETER EXPERIM  
 12/10/1998 - 12/31/2001 FY01: \$40,698 Total: \$117,422  
*Prin. Invest.: D R WEBBER*  
*Tech. Officer: GSFC/D C LING*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7904** NEW MEXICO STATE UNIV - LAS CRUCES 6735  
 ADVANCED IR IMAGING OF SATURN  
 12/03/1998 - 11/30/2002 FY01: \$59,800 Total: \$160,726  
*Prin. Invest.: D J CHANOVER*  
*Tech. Officer: GSFC/T MORGAN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8242 NEW MEXICO STATE UNIV - LAS CRUCES 6736**  
 TESTING INFLATION AND DARK MATTER WITH NEW DATA, MODELS, AND METHODS(ATP98)  
 02/19/1999 - 02/28/2002 FY01: \$24,762 Total: \$67,392  
*Prin. Invest.: A KLYPIN*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 8803 NEW MEXICO STATE UNIV - LAS CRUCES 6737**  
 EFFECTS OF RHEOLOGY ON THE DYNAMICS AND THERMAL EVOLUTION OF MARS AND VENUS  
 01/06/2000 - 01/14/2002 FY01: \$48,000 Total: \$93,600  
*Prin. Invest.: V SOLOMATOV*  
*Tech. Officer: GSFC/J GRANT*  
*CASE Category: 13 - PHYSICS*

**NAG 5 8919 NEW MEXICO STATE UNIV - LAS CRUCES 6738**  
 MODEL ATMOSPHERES AND SPECTRA FOR EXTRASOLAR GIANT PLANETS AND BROWNDWARFS  
 01/21/2000 - 06/14/2002 FY01: \$77,300 Total: \$148,515  
*Prin. Invest.: M MARLEY*  
*Tech. Officer: GSFC/D BOGAN*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 9273 NEW MEXICO STATE UNIV - LAS CRUCES 6739**  
 MODEL ATMOSPHERES AND SPECTRA OF THE L-DWARFS (ATP 99)  
 03/15/2000 - 03/14/2002 FY01: \$50,184 Total: \$86,127  
*Prin. Invest.: M S MARLEY*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9323 NEW MEXICO STATE UNIV - LAS CRUCES 6740**  
 "THE CENTER FOR SPACE TELEMETRYING AND TELECOMMUNICATIONS SYSTEMS", AT THE NEW MEXICO STATE UNIVERSITY  
 03/31/2000 - 04/30/2002 FY01: \$524,000 Total: \$1,060,000  
*Prin. Invest.: S HORAN*  
*Tech. Officer: GSFC/W H MILLER*  
*CASE Category: 49 - ENGINEERING, OTHER*

**NAG 5 10578 NEW MEXICO STATE UNIV - LAS CRUCES 6741**  
 IMPACTS AND THE THERMAL EVOLUTION OF MARS  
 03/19/2001 - 02/28/2002 FY01: \$30,000 Total: \$30,000  
*Prin. Invest.: V SOLOMATOV*  
*Tech. Officer: GSFC/J M BOYCE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 11164 NEW MEXICO STATE UNIV - LAS CRUCES 6742**  
 DETERMINATION OF MARTIAN POLAR DUST FLUX FROM TES OPACITY OBSERVATIONS  
 08/06/2001 - 08/14/2003 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: J R MURPHY*  
*Tech. Officer: GSFC/J M BOYCE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 11311 NEW MEXICO STATE UNIV - LAS CRUCES 6743**  
 NMSU PARTICIPATORY PROJECT IN MESSENGER EXPLORATION AND NSIPDEELOPMENT OF STUDENT SCIEN  
 09/07/2001 - 09/14/2002 FY01: \$30,000 Total: \$30,000  
*Prin. Invest.: H BAPTISTE*  
*Tech. Officer: GSFC/J HARRINGTON*  
*CASE Category: 11 - ASTRONOMY*

**NAG 8 1710 NEW MEXICO STATE UNIV - LAS CRUCES 6744**  
 NANOMETER LASER SPECTROSCOPY USING FRACTAL MEDIA  
 03/08/2000 - 03/07/2003 FY01: \$99,997 Total: \$199,995  
*Prin. Invest.: C YING*  
*Tech. Officer: MSFC/W LOVE*  
*CASE Category: 19 - PHYSICAL SCIENCE, OTHER*

**NAG 9 1291 NEW MEXICO STATE UNIV - LAS CRUCES 6745**  
 STUDY TOWARD A HAND HELD VOLATILE ORGANIC ANALYZER FOR MARS MISSION  
 04/19/2001 - 12/31/2002 FY01: \$202,180 Total: \$202,180  
*Prin. Invest.: G A EICEMAN*  
*Tech. Officer: JSC/D M RUSSO*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAS 5 98009 NEW MEXICO STATE UNIV - LAS CRUCES 6746**  
 BALLOON SERVICES  
 02/17/1998 - 02/28/2003 FY01: \$14,645,312 Total: \$55,687,659  
*Prin. Invest.: N APPLICABLE*  
*Tech. Officer: WFF/R S NOCK, WFF/B A MERRITT*  
*CASE Category: 41 - AERONAUTICAL ENGNR*

**NCC 5 422 NEW MEXICO STATE UNIV - LAS CRUCES 6747**  
 SIMULATIONS OF EXTENSIVE AIRWHOWERS USING BEOWULF- CLASS SYSTEMS  
 09/30/1999 - 08/31/2001 FY01: \$3,777 Total: \$138,230  
*Prin. Invest.: S STOCHAJ*  
*Tech. Officer: GSFC/R E STREITMATTER*  
*CASE Category: 22 - COMPUTER SCIENCE*

**NCC 5 466 NEW MEXICO STATE UNIV - LAS CRUCES 6748**  
 MATHEMATICS AND SCIENCE EDUCATORS FOR THE FUTURE  
 03/02/2000 - 02/28/2002 FY01: \$148,386 Total: \$340,144  
*Prin. Invest.: H BAPTISTE*  
*Tech. Officer: GSFC/B WHITE*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NGT 5 40061 NEW MEXICO STATE UNIV - LAS CRUCES 6749**  
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE AND FELLOWSHIPPROGRAM.  
 03/04/1997 - 01/31/2002 FY01: \$10,000 Total: \$1,968,000  
*Prin. Invest.: P HYNES*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NGT 5 40087 NEW MEXICO STATE UNIV - LAS CRUCES 6750**  
 NEW MEXICO SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM  
 02/16/2001 - 02/14/2002 FY01: \$475,000 Total: \$475,000  
*Prin. Invest.: P HYNES*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NGT 5 50117 NEW MEXICO STATE UNIV - LAS CRUCES 6751**  
 DIRECT SOLUTION OF LARGE, SPARSE SYSTEMS OF EQUATI  
 09/06/1997 - 06/30/2000 FY01: -\$9,023 Total: \$55,477  
*Prin. Invest.: S CASTILLO*  
*Tech. Officer: GSFC/A NURRIDIN*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 10143** SOUTHWESTERN INDIAN POLYTECHNIC INST 6752  
 STARS ON EARTH, PROVIDING UNDERREPRESENTED NEW MEXICO HIGH SCHOOL STUDENTS WITH RESEARCH EXPERIENCES  
 01/18/2001 - 12/31/2001 FY01: \$160,000 Total: \$160,000  
*Prin. Invest.: C L ABEITA*  
*Tech. Officer: GSFC/P SAKIMOTO*  
*CASE Category: 11 – ASTRONOMY*

**NAG 9 1312** UNIV OF ALBUQUERQUE 6753  
 NASA TRAINING PROJECT  
 09/24/2001 - 09/30/2004 FY01: \$450,200 Total: \$450,200  
*Prin. Invest.: R A LAFARGE*  
*Tech. Officer: JSC/LM ARMENDARIZ*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 1 2018** UNIV OF NEW MEXICO-ALBUQUERQUE 6754  
 SIMULATION OF FLOW CONTROL USING DEFORMABLE SURFACES  
 03/17/1998 - 03/16/2001 FY01: \$1 Total: \$299,945  
*Prin. Invest.: C R TRUMAN*  
*Tech. Officer: LARC/R D JOSLIN*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 2 1437** UNIV OF NEW MEXICO-ALBUQUERQUE 6755  
 CHARACTERIZATION & ANALYSIS OF ADVANCED THERMAL PROTECTION MATERIALS  
 09/13/2000 - 08/14/2002 FY01: \$0 Total: \$59,996  
*Prin. Invest.: R E LOEHMAN*  
*Tech. Officer: ARC/D T ELLERY, ARC/S M JOHNSON*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NAG 2 1480** UNIV OF NEW MEXICO-ALBUQUERQUE 6756  
 NASA GROUP UNIV RESEARCH CENTER SECOND FIVE YEARS  
 05/01/2001 - 04/30/2002 FY01: \$760,000 Total: \$760,000  
*Prin. Invest.: P DORATO*  
*Tech. Officer: ARC/B J COLLINS, ARC/A R GROSS*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 2 1516** UNIV OF NEW MEXICO-ALBUQUERQUE 6757  
 CHARACTERIZATION AND ANALYSIS OF ULTRAHIGH TEMPERATURE CERAMICS  
 08/15/2001 - 07/31/2002 FY01: \$30,000 Total: \$30,000  
*Prin. Invest.: R E LOEHMAN*  
*Tech. Officer: ARC/D ELLERY, ARC/S JOHNSON*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NAG 3 1976** UNIV OF NEW MEXICO-ALBUQUERQUE 6758  
 NEW PHENOMENA IN STRONGLY COUNTERFLOWING HE-II  
 10/22/1996 - 09/30/2002 FY01: \$89,000 Total: \$354,000  
*Prin. Invest.: S T BOYD, R V DUNCAN, M J ADVIAANS*  
*Tech. Officer: GRC/B S SINGH*  
*CASE Category: 13 – PHYSICS*

**NAG 3 2322** UNIV OF NEW MEXICO-ALBUQUERQUE 6759  
 ACCURATE BOUNDARY CONDITIONS FOR COMPUTATIONAL AEROACOUSTICS  
 01/18/2000 - 01/03/2001 FY01: \$0 Total: \$86,532  
*Prin. Invest.: D HAGSTROM*  
*Tech. Officer: GRC/J GOODRICH*  
*CASE Category: 21 – MATHEMATICS*

**NAG 3 2543** UNIV OF NEW MEXICO-ALBUQUERQUE 6760  
 HIGH EFFICIENCY THERMOELECTRIC RADIOSOTCOPE POWER SYSTEMS  
 02/15/2001 - 12/31/2003 FY01: \$102,000 Total: \$102,000  
*Prin. Invest.: M EL-GENK*  
*Tech. Officer: GRC/R L CATALDO*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NAG 3 2626** UNIV OF NEW MEXICO-ALBUQUERQUE 6761  
 EXPERIMENTS WITH BOUNDARY CONDITIONS FOR JET FLOW SIMULATIONS  
 06/01/2001 - 04/30/2002 FY01: \$6,943 Total: \$6,943  
*Prin. Invest.: T HAGSTROM*  
*Tech. Officer: GRC/J GOODRICH*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 5 4441** UNIV OF NEW MEXICO-ALBUQUERQUE 6762  
 PETROLOGY OF PRESOLAR DUST AND ALTERATION IN CHONDRITES  
 04/28/1997 - 03/31/2002 FY01: \$121,000 Total: \$559,000  
*Prin. Invest.: D J RIETMEIJER*  
*Tech. Officer: GSFC/J M BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 4619** UNIV OF NEW MEXICO-ALBUQUERQUE 6763  
 METEORITES AND SMALL PRIMITIVE SOLAR SYSTEM BODIES  
 05/20/1997 - 05/14/2001 FY01: \$0 Total: \$100,000  
*Prin. Invest.: D J BREARLEY*  
*Tech. Officer: GSFC/J M BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 4935** UNIV OF NEW MEXICO-ALBUQUERQUE 6764  
 MICROSTRUCTURAL STUDIES BEARING ON THE ORIGIN OF C ASSOCIATED MINERALS IN MARTIAN METEORITE ALH 8400  
 06/23/1997 - 06/30/2000 FY01: \$0 Total: \$78,000  
*Prin. Invest.: A J BREARLEY*  
*Tech. Officer: GSFC/J M BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 6739** UNIV OF NEW MEXICO-ALBUQUERQUE 6765  
 THE X-RAY PROPERTIES OF RICH CLUSTERS FROM Z=0-0.2 USING THE ROSATALL-SKY-SURVEY  
 12/19/1997 - 06/30/2000 FY01: -\$28,071 Total: \$131,969  
*Prin. Invest.: M LEDLOW*  
*Prin. Invest.: M LEDLOW*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 6999** UNIV OF NEW MEXICO-ALBUQUERQUE 6766  
 RIPARIAN ECOSYSTEM RESTORATION: EFFECTS OF FLOODING AND VEGETATION TYPE ON ANNUAL EVAPOTRANSPIRATION  
 02/17/1998 - 02/14/2002 FY01: \$0 Total: \$700,000  
*Prin. Invest.: C N DAHM*  
*Tech. Officer: GSFC/A C JANETOS*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 7006** UNIV OF NEW MEXICO-ALBUQUERQUE 6767  
 GRANT TITLE: "HIGH PERFORMANCE IMAGE PROCESSOR FOR SPACE" GSFC#5-3358.  
 02/17/1998 - 04/14/2001 FY01: \$0 Total: \$325,000  
*Prin. Invest.: G MAKI*  
*Tech. Officer: GSFC/W H MILLER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 7360 UNIV OF NEW MEXICO-ALBUQUERQUE 6768**  
 TITLE: "CULPRIT". GSFC CONTROL #5-3394, (4/1/98 THRU 9/30/98) FIRST  
 YEAR FUNDS FOR THE UNSOLICIT  
 05/15/1998 - 05/14/2001 FY01: \$50,835 Total: \$1,248,699  
*Prin. Invest.: G MAKI*  
*Tech. Officer: GSFC/W H MILLER*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NAG 5 8454 UNIV OF NEW MEXICO-ALBUQUERQUE 6769**  
 HIGH PERFORMANCE DATA COMPRESSION VLSI ARCHITECTURE; GSFC  
 CONTROLNO. 3474  
 04/20/1999 - 04/30/2002 FY01: \$0 Total: \$460,000  
*Prin. Invest.: G MAKI*  
*Tech. Officer: GSFC/W H MILLER*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 5 8804 UNIV OF NEW MEXICO-ALBUQUERQUE 6770**  
 MARTIN IMPACT CRATER HYDROTHERMAL SYSTEMS, CLUES FROM THE  
 LONAR CRATER, INDIA.  
 01/06/2000 - 01/14/2002 FY01: \$25,100 Total: \$48,945  
*Prin. Invest.: H NEWSOM*  
*Tech. Officer: GSFC/J GRANT*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 8821 UNIV OF NEW MEXICO-ALBUQUERQUE 6771**  
 BIOMIMETIC SELF-ASSEMBLY OF HARDENED (NACRE-LIKE) COMPOSITE  
 COATINGS FOR TRANSHAB  
 09/21/1999 - 08/31/2002 FY01: \$242,564 Total: \$492,748  
*Prin. Invest.: J BRINKER*  
*Tech. Officer: GSFC/R CROUCH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9152 UNIV OF NEW MEXICO-ALBUQUERQUE 6772**  
 ULTRA-LOW POWER RADIATION TOLERANT CMOS VLSI  
 03/07/2000 - 03/14/2001 FY01: \$0 Total: \$1,237,600  
*Prin. Invest.: G MAKI*  
*Tech. Officer: GSFC/W H MILLER*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 5 9402 UNIV OF NEW MEXICO-ALBUQUERQUE 6773**  
 "BIT PLANE ENCODER/DECODER FOR HPDC", FOR THE UNIVERSITY OF  
 NEW MEXICO, CONTROL #5-3524.  
 04/25/2000 - 04/14/2002 FY01: \$420,000 Total: \$720,000  
*Prin. Invest.: G MAKI*  
*Prin. Invest.: NONE*  
*Tech. Officer: GSFC/W H MILLER*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 5 9463 UNIV OF NEW MEXICO-ALBUQUERQUE 6774**  
 MICROBEAM STUDIES OF PLANETARY MATERIALS  
 04/18/2000 - 02/14/2003 FY01: \$283,800 Total: \$516,800  
*Prin. Invest.: J J PAPIKE*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9469 UNIV OF NEW MEXICO-ALBUQUERQUE 6775**  
 RECONFIGURABLE DATA PATH PROCESSOR  
 04/17/2000 - 04/14/2002 FY01: \$270,000 Total: \$510,000  
*Prin. Invest.: G DONOHOE*  
*Tech. Officer: GSFC/P YEH*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 5 9704 UNIV OF NEW MEXICO-ALBUQUERQUE 6776**  
 SOFTWARE DEVELOPMENT ENVIRONMENT FOR A RECONFIGURABLE  
 PROCESSOR  
 06/22/2000 - 07/31/2002 FY01: \$223,010 Total: \$483,010  
*Prin. Invest.: G W DONOHOE*  
*Tech. Officer: GSFC/W H MILLER*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 5 9798 UNIV OF NEW MEXICO-ALBUQUERQUE 6777**  
 FORMATION AND ALTERATION HISTORIES OF CHONDROITIC MATERIAL  
 07/13/2000 - 06/30/2002 FY01: \$65,000 Total: \$125,000  
*Prin. Invest.: A BREARLEY*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9993 UNIV OF NEW MEXICO-ALBUQUERQUE 6778**  
 VLSI ARCHITECTURE FOR 8PSK-TRELLIS CODED MODULATION  
 09/14/2000 - 09/14/2001 FY01: \$30,000 Total: \$55,000  
*Prin. Invest.: G K MAKI*  
*Tech. Officer: GSFC/W H MILLER*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 5 10337 UNIV OF NEW MEXICO-ALBUQUERQUE 6779**  
 "ULTRA-LOW POWER RADIATION TOLERANT CMOS VLSI", RENEWAL OF  
 GRANT NAG5-9152, PROPOSAL CONTROL #5-35  
 02/07/2001 - 03/14/2002 FY01: \$995,760 Total: \$995,760  
*Prin. Invest.: G K MAKI*  
*Tech. Officer: GSFC/W H MILLER*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 5 10359 UNIV OF NEW MEXICO-ALBUQUERQUE 6780**  
 NEUTRON AND HIGH ENERGY PARTICLE DETECTION WITH CRYOGENICS  
 CALORIMETERS  
 02/01/2001 - 01/14/2002 FY01: \$132,997 Total: \$132,997  
*Prin. Invest.: S BOYD*  
*Tech. Officer: GSFC/C STAHL*  
*CASE Category: 13 – PHYSICS*

**NAG 5 10372 UNIV OF NEW MEXICO-ALBUQUERQUE 6781**  
 SEMICONDUCTOR-RING-LASER-BASED ROTATION SENSORS PROPOSAL  
#293.  
 02/15/2001 - 01/14/2002 FY01: \$326,882 Total: \$326,882  
*Prin. Invest.: M OSINSKI*  
*Tech. Officer: GSFC/J GAMBINO*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 5 10373 UNIV OF NEW MEXICO-ALBUQUERQUE 6782**  
 SOLID STATE OPTICAL REFRIGERATORS FOR SPACE MISSIONS,  
 PROPOSAL #214  
 03/27/2001 - 03/14/2002 FY01: \$300,000 Total: \$300,000  
*Prin. Invest.: R I EPSTEIN*  
*Tech. Officer: GSFC/E R CANAVAN*  
*CASE Category: 13 – PHYSICS*

**NAG 5 10918 UNIV OF NEW MEXICO-ALBUQUERQUE 6783**  
 HELIOSEISMIC METROLOGY  
 05/14/2001 - 05/31/2002 FY01: \$114,667 Total: \$114,667  
*Prin. Invest.: S JEFFERIES*  
*Tech. Officer: GSFC/J GURMAN*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 10960 UNIV OF NEW MEXICO-ALBUQUERQUE 6784**  
 HIGH PERFORMANCE ULTRA-LOW POWER RADIATION TOLERANT CMOS  
 VLSI  
 06/11/2001 - 06/14/2002 FY01: \$407,038 Total: \$407,038  
*Prin. Invest.: G K MAKI*  
*Tech. Officer: GSFC/P YEP*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAS 3 00103 UNIV OF NEW MEXICO-ALBUQUERQUE 6792**  
 MULTIPLE PR'S FOR THIS ACTION: 132514,132514F BREAKTHROUGH  
 PROPULSION PHYSICS  
 01/19/2000 - 04/09/2002 FY01: \$79,972 Total: \$170,353  
*Prin. Invest.: K J MALLOY*  
*Tech. Officer: GRC/M G MILLIS*  
*CASE Category: 13 – PHYSICS*

**NAG 8 1664 UNIV OF NEW MEXICO-ALBUQUERQUE 6785**  
 RESEARCH  
 06/01/2000 - 05/31/2003 FY01: \$100,000 Total: \$200,000  
*Prin. Invest.: M OSINSKI*  
*Tech. Officer: MSFC/M D WATSON*  
*CASE Category: 46 – MECHANICAL ENGR*

**NCC 2 5345 UNIV OF NEW MEXICO-ALBUQUERQUE 6793**  
 TELEMEDICINE VIRTUAL COLLABORATORY  
 08/16/1999 - 10/31/2000 FY01: -\$891 Total: \$70,660  
*Prin. Invest.: D ALVERSON*  
*Tech. Officer: ARC/K A SOUZA, ARC/B P DALTON*  
*CASE Category: 56 – MEDICAL*

**NAG 8 1758 UNIV OF NEW MEXICO-ALBUQUERQUE 6786**  
 BASIC AWARD FOR RESEARCH STUDY ENTITLED, "SURFACE PHYSICS  
 WITH HELIUM CRYSTALS IN MICROGRAVITY"  
 04/24/2001 - 04/29/2003 FY01: \$80,000 Total: \$80,000  
*Prin. Invest.: A V BABKIN*  
*Tech. Officer: MSFC/D HUBBARD*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NCC 5 309 UNIV OF NEW MEXICO-ALBUQUERQUE 6794**  
 PERFORMING A REGIONAL ASSESSMENT & PROTOTYPING INTERNET  
 ACCESSIBLE MTPE PRODUCTS TO THE UPPER RIO  
 04/09/1998 - 02/28/2003 FY01: \$392,955 Total: \$2,078,687  
*Prin. Invest.: S MORAIN*  
*Tech. Officer: GSFC/A TUYAHOV*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 9 995 UNIV OF NEW MEXICO-ALBUQUERQUE 6787**  
 DESIGN & DEVELOP INTELLIGENT BIOMIMETIC ROBOTS  
 03/12/1998 - 07/30/2001 FY01: \$0 Total: \$300,000  
*Prin. Invest.: M SHAHINPOOR*  
*Tech. Officer: JSC/K KRISHEN*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NCC 5 350 UNIV OF NEW MEXICO-ALBUQUERQUE 6795**  
 PREPARATION FOR UNIVERSITY OF STUDENTS IN UNDEGRAD UATE  
 EDUCATION  
 07/01/1998 - 07/31/2003 FY01: \$896,961 Total: \$1,996,587  
*Prin. Invest.: M JAMSHIDI*  
*Tech. Officer: GSFC/M MATHEWS*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 9 1017 UNIV OF NEW MEXICO-ALBUQUERQUE 6788**  
 STIMULUS FOR STUDENTS TO STUDY PRE COLLEGE MATH  
 05/28/1998 - 07/21/2001 FY01: \$0 Total: \$297,351  
*Prin. Invest.: H E NEWSOM*  
*Tech. Officer: JSC/L ARMENDARIZ*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC13 98002 UNIV OF NEW MEXICO-ALBUQUERQUE 6796**  
 AFFILIATED RESEARCH CENTER PROGRAM-COMMERCIAL RE- MOTE  
 SENSING PARTNERSHIPS WITH INDUSTRY  
 08/11/1998 - 08/10/2002 FY01: \$224,681 Total: \$574,681  
*Prin. Invest.: S A MORAIN, S A MORAIN*  
*Tech. Officer: SSC/A PEEK*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 9 1042 UNIV OF NEW MEXICO-ALBUQUERQUE 6789**  
 1998 NASA TRAINING PROJECT  
 07/01/1998 - 06/30/2001 FY01: \$0 Total: \$1,350,600  
*Prin. Invest.: J D TORRES*  
*Tech. Officer: JSC/L ARMENDARIZ*  
*CASE Category: 11 – ASTRONOMY*

**NGT 5 30227 UNIV OF NEW MEXICO-ALBUQUERQUE 6797**  
 CLIMATIC WATER BALANCE AND THE DYNAMICS OF PINYON- JUNIPER  
 09/19/2000 - 08/31/2001 FY01: \$0 Total: \$14,000  
*Prin. Invest.: B MILNE*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 9 1111 UNIV OF NEW MEXICO-ALBUQUERQUE 6790**  
 INST FOR THE STUDY OF BIOMARKERS IN ASTROMATERIALS  
 05/14/1999 - 05/13/2002 FY01: \$50,000 Total: \$150,000  
*Prin. Invest.: J J PAPIKE*  
*Tech. Officer: JSC/E K GIBSON*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 9 1324 UNIV OF NEW MEXICO-ALBUQUERQUE 6791**  
 ADVANCED CO<sub>2</sub> REMOVAL SYSTEM USING AMINE FUNCTIONALIZED  
 MEMBRANES  
 07/20/2001 - 06/15/2002 FY01: \$95,000 Total: \$95,000  
*Prin. Invest.: J BRINKER*  
*Tech. Officer: JSC/G THOMAS*  
*CASE Category: 42 – ASTRONAUTICAL ENGR*

**NGT 9 31 UNIV OF NEW MEXICO-ALBUQUERQUE 6798**  
 TRAINING GRANT  
 06/03/1998 - 08/01/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.: C D HERD*  
*Tech. Officer: JSC/J H JONES, JSC/D SICKORREZ*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

## NEW YORK

**NAG 5 7473 CAYUGA COUNTY COMMUNITY COLLEGE 6799**  
 DEFINING EARTH SYSTEM ENTERPRISE INFO NEEDS & PILOT PROGRAMS  
 FOR UTILIZATION BY LOCAL GOVERNMENT  
 06/15/1998 - 06/14/2002 FY01: \$0 Total: \$3,450,000  
*Prin. Invest.: R BROWN*  
*Tech. Officer: GSFC/W CAMPBELL*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG13 00043 CAYUGA COUNTY COMMUNITY COLLEGE 6800**  
 SPATIAL INFORMATION TECHNOLOGY CENTER AT FULTON MONTGOMERY  
 COMMUNITY COLLEGE  
 09/27/2000 - 09/26/2002 FY01: \$498,900 Total: \$1,491,400  
*Prin. Invest.: R FRESTOPKIK*  
*Tech. Officer: SSC/D POWE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG13 00044 CAYUGA COUNTY COMMUNITY COLLEGE 6801**  
 PHASE III:DEPLOYING ESE PILOT INFORMATION PROGRAMS FOR STATE &  
 LOCAL GOVERNMENT INTHE NORTHEAST  
 09/27/2000 - 09/26/2003 FY01: \$1,000,000 Total: \$10,110,000  
*Prin. Invest.: R BROWER*  
*Tech. Officer: SSC/M MICK*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 3 2268 CITY UNIV OF NY HERBERT H. LEHMAN COLL 6802**  
 MATHEMATICS, SCIENCE AND TECHNOLOGY WITH EXCELLENCE IN  
 RESEARCH: A SCIENCE AND TECHNOLOGY ENTRY PR  
 05/17/1999 - 06/30/2002 FY01: \$100,000 Total: \$300,000  
*Prin. Invest.: A L ROTHSETIN*  
*Tech. Officer: GRC/R F LAWRENCE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 3 2057 CITY UNIV. OF NY HOSTOS COMMUNITY COLL. 6803**  
 HOSTOS EARLY LEARNING COMMUNITIES  
 08/19/1997 - 10/31/1999 FY01: -\$12,084 Total: \$137,916  
*Prin. Invest.: G MELENDEZ-DELANEY*  
*Tech. Officer: GRC/D CENTENO-GOMEZ*  
*CASE Category: 29 – MATH/COMPUTER SCI, OTHER*

**NAG 5 7532 CITY UNIV COLLEGE OF NEW YORK YORK COLL 6804**  
 LET'S DO SCIENCE  
 06/11/1998 - 05/31/2001 FY01: \$0 Total: \$583,704  
*Prin. Invest.: J SCHLEIN*  
*Tech. Officer: GSFC/M STOUTSENBERGER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10152 CITY UNIV COLLEGE OF NEW YORK YORK COLL 6805**  
 YORK COLLEGE OBSERVATORY EDUCATIONAL OUTREACH SVC. TO THE  
 COLLEGE& THE PUBLIC SCHOOL COMMUNITY  
 12/08/2000 - 12/31/2001 FY01: \$154,000 Total: \$154,000  
*Prin. Invest.: M SPERGEL*  
*Tech. Officer: GSFC/P SAKIMOTO*  
*CASE Category: 11 – ASTRONOMY*

**NAG 1 2028 CITY UNIV OF NEW YORK CITY COLLEGE 6806**  
 EIGENSTRUCTURE ASSIGNMENT FOR FAULT TOLERANT FLIGHT CONTROL  
 DESIGN  
 03/09/1998 - 01/31/2002 FY01: \$0 Total: \$298,796  
*Prin. Invest.: K SOBEL*  
*Tech. Officer: LARC/S M JOSHI*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 1 2259 CITY UNIV OF NEW YORK CITY COLLEGE 6807**  
 IRA (INSTAL RESEARCH AWARD) PROGRAM TRANSFER NAGW5-6952  
 01/19/2000 - 11/30/2002 FY01: \$170,000 Total: \$1,000,000  
*Prin. Invest.: R A ALFANO*  
*Tech. Officer: LARC/N P BARNES, LARC/J C BARNES*  
*CASE Category: 13 – PHYSICS*

**NAG 3 1836 CITY UNIV OF NEW YORK CITY COLLEGE 6808**  
 MOLECULAR DYNAMICS OF FLUID-SOLID SYSTEM  
 04/19/1996 - 04/30/2000 FY01: \$0 Total: \$600,000  
*Prin. Invest.: J KOPLIK, J BANAVAR*  
*Tech. Officer: GRC/B SINGH*  
*CASE Category: 13 – PHYSICS*

**NAG 3 2074 CITY UNIV OF NEW YORK CITY COLLEGE 6809**  
 PICOSECOND GATED OPTICAL IMAGIG OF DENSE FUEL SPRAY  
 09/17/1997 - 07/15/2001 FY01: \$0 Total: \$299,322  
*Prin. Invest.: P P HO*  
*Tech. Officer: GRC/K J BREISACHER, GRC/L LIOU*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 3 2163 CITY UNIV OF NEW YORK CITY COLLEGE 6810**  
 HIGH RESOLUTION EXPERIMENTS OF COMPRESSIBLE TURBULENCE  
 INTERACTING WITH EXPANSION OR SHOCK WAVES  
 08/24/1998 - 04/05/2001 FY01: \$0 Total: \$300,000  
*Prin. Invest.: Y ANDREOPoulos*  
*Tech. Officer: GRC/D O DAVIS*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 3 2167 CITY UNIV OF NEW YORK CITY COLLEGE 6811**  
 USING SURFACTANTS TO ENHANCE THERMOCAPILLARY MIGRATION OF  
 BUBBLES & DROPS & FACILITATE DROP SPREADI  
 05/26/1998 - 09/30/2001 FY01: \$59,996 Total: \$299,820  
*Prin. Invest.: C MALDARELLI, RBALASUBRAMANIAN*  
*Tech. Officer: GRC/B S SINGH*  
*CASE Category: 13 – PHYSICS*

**NAG 3 2258 CITY UNIV OF NEW YORK CITY COLLEGE 6812**  
 SCIENCE AND TECHNOLOGY TEACHERS FOR THE NEXT MILLENNIUM  
 PHASE II (MASTAP)  
 05/03/1999 - 03/22/2002 FY01: \$200,000 Total: \$600,000  
*Prin. Invest.: L P JOHNSON*  
*Tech. Officer: GRC/R F LAWRENCE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 3 2259 CITY UNIV OF NEW YORK CITY COLLEGE 6813**  
 ULTRASONIC ASSESSMENT OF IMPACT-INDUCED DAMAGE AND MICRO-  
 CRACKING IN POLYMER MATRIX COMPOSITES  
 05/05/1999 - 01/26/2002 FY01: \$100,000 Total: \$200,000  
*Prin. Invest.: B LIAW*  
*Tech. Officer: GRC/K J BOWLES*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NAG 3 2335 CITY UNIV OF NEW YORK CITY COLLEGE 6814**  
 MOLECULAR DYNAMICS OF FLUID-SOLID SYSTEMS MOLECULAR DYNAMICS OF FLUID-SOLID SYSTEMS  
 02/17/2000 – 11/30/2003 FY01: \$49,999 Total: \$75,085  
*Prin. Invest.: D KOPLIK*  
*Tech. Officer: GRC/F P CHIARMONTE*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 5 4019 CITY UNIV OF NEW YORK CITY COLLEGE 6815**  
 CONTINUATION OF GRANT  
 03/03/1997 – 11/30/2000 FY01: \$0 Total: \$300,000  
*Prin. Invest.: D AKINS*  
*Tech. Officer: GSFC/S GLICKER*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 4911 CITY UNIV OF NEW YORK CITY COLLEGE 6816**  
 ADVANCING MINORITIES IN SCIENCE AND ENGINEERING ED  
 07/16/1997 – 08/31/2001 FY01: \$0 Total: \$633,325  
*Prin. Invest.: J BARBA*  
*Tech. Officer: GSFC/M MATEU*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 6952 CITY UNIV OF NEW YORK CITY COLLEGE 6817**  
 TUNABLE SOLID STATE LASERS AND OPTICAL IMAGING  
 02/02/1998 – 11/30/1999 FY01: -\$39,360 Total: \$1,861,893  
*Prin. Invest.: R R ALFANO*  
*Tech. Officer: GSFC/J MALONE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 7129 CITY UNIV OF NEW YORK CITY COLLEGE 6818**  
 ROBUST ALGORITHMS FOR IMAGE REGISTRATION  
 03/11/1998 – 09/30/2001 FY01: \$0 Total: \$300,000  
*Prin. Invest.: G WOLBERG*  
*Tech. Officer: GSFC/J TILTON*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 5 7160 CITY UNIV OF NEW YORK CITY COLLEGE 6819**  
 HIGH DENSITY SOLID STATE MEMORIES  
 03/11/1998 – 03/14/2002 FY01: \$0 Total: \$294,347  
*Prin. Invest.: N SCHEINBERG*  
*Tech. Officer: GSFC/H SHAW*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NAG 5 7827 CITY UNIV OF NEW YORK CITY COLLEGE 6820**  
 WINDS, WATER BUDGETS, AND STABLE ISOTOPES IN TROPICAL CYCLONES USING TRMM AND QUICKSCAT  
 12/14/1998 – 12/14/2001 FY01: \$67,544 Total: \$204,552  
*Prin. Invest.: S GEDZELMAN*  
*Tech. Officer: GSFC/O W THIELE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 9732 CITY UNIV OF NEW YORK CITY COLLEGE 6821**  
 THE STUDENT POLARIMETER AEROSOL & CLOUD EXPERIMENT (SPACE)  
 06/20/2000 – 12/31/2001 FY01: \$0 Total: \$100,000  
*Prin. Invest.: F MOSHARY, NONE*  
*Tech. Officer: GSFC/C PERSON*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10845 CITY UNIV OF NEW YORK CITY COLLEGE 6822**  
 ADVANCING MINORITIES IN SCIENCE AND ENGINEERING EDUCATION  
 05/01/2001 – 05/14/2002 FY01: \$157,608 Total: \$157,608  
*Prin. Invest.: J BARBA*  
*Tech. Officer: GSFC/M MATEU*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 3 607 CITY UNIV OF NEW YORK CITY COLLEGE 6823**  
 THE SYNERGISM OF ELECTRORHEOLOGICAL RESPONSE, DIEL ETROPHORESIS AND SHEAR-INDUCED DIFFUSION IN FLOW  
 04/07/1998 – 01/31/2002 FY01: \$71,250 Total: \$296,250  
*Prin. Invest.: A ACRIVOS*  
*Tech. Officer: GRC/F D CHIARAMONTE*  
*CASE Category: 46 – MECHANICAL ENGR*

**NCC 5 98 CITY UNIV OF NEW YORK CITY COLLEGE 6824**  
 AN URBAN COLLABORATION FOR NETWORK CONNECTIVITY AND INTERNET ACCESS  
 09/13/1995 – 11/14/2000 FY01: \$0 Total: \$2,423,500  
*Prin. Invest.: S AUSTIN*  
*Tech. Officer: GSFC/J HARRINGTON*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NCC 5 343 CITY UNIV OF NEW YORK CITY COLLEGE 6825**  
 COOPERATIVE RESEARCH & EDUCATION PROGRAM: INST ON CLIMATE AND PLANETS  
 06/23/1998 – 12/31/2000 FY01: \$0 Total: \$782,194  
*Prin. Invest.: N A PARKER*  
*Tech. Officer: GSFC/L TRAVIS*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 5 344 CITY UNIV OF NEW YORK CITY COLLEGE 6826**  
 INTEGRATION OF RESEARCH AND EDUCATION IN REMOTE SENSING AND ENVIRONMENTAL CLIMATE RESEARCH  
 07/15/1998 – 06/30/2002 FY01: \$500,000 Total: \$2,000,000  
*Prin. Invest.: R KHANBILVARDI*  
*Tech. Officer: HQ/B WHITE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 5 520 CITY UNIV OF NEW YORK CITY COLLEGE 6827**  
 COOPERATIVE RESEARCH & EDUCATION PROGRAM: INST. ON CLIMATE & PLANETS.  
 11/02/2000 – 12/31/2001 FY01: \$349,123 Total: \$349,123  
*Prin. Invest.: N A PARKER*  
*Tech. Officer: GSFC/L TRAVIS*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 5 530 CITY UNIV OF NEW YORK CITY COLLEGE 6828**  
 AN URBAN COLLABORATION FOR NETWORKS CONNECTIVITY & INTERNET ACCESS/MUSPINNRTS PROGRAM.  
 02/01/2001 – 01/31/2002 FY01: \$399,765 Total: \$399,765  
*Prin. Invest.: S AUSTIN*  
*Tech. Officer: GSFC/J HARRINGTON*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 8 1423 CITY UNIV OF NEW YORK SYSTEM 6829**  
 R/S OBJECTIVE OPERATIONAL UTILIZATION OF SATELITE MICROWAVE SCATTEROMETER OBSERVATION OF TROPICAL  
 01/01/1998 – 12/31/2000 FY01: -\$1 Total: \$99,999  
*Prin. Invest.: W J PIERSON*  
*Tech. Officer: MSFC/J SIMMONDS*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

<b>NAG 3 1891</b>	<b>CLARKSON UNIV</b>	<b>6830</b>	<b>NGT 1 52222</b>	<b>CLARKSON UNIV</b>	<b>6838</b>
ABSOLUTE AND CONVECTIVE INSTABILITY AND SPLITTING OF A LIQUID 05/30/1996 - 05/31/2001	FY01: \$4,867	Total: \$348,867	GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) 06/29/1999 - 06/30/2002	FY01: \$16,000	Total: \$56,001
<i>Prin. Invest.: S P LIN</i>			<i>Prin. Invest.: R F SCHMIT, M GLAUSER</i>		
<i>Tech. Officer: GRC/M E HILL</i>			<i>Tech. Officer: LARC/J JUANG, LARC/L HORTA</i>		
<i>CASE Category: 19 – PHYSICAL SCIENCE, OTHER</i>			<i>CASE Category: 41 – AERONAUTICAL ENGNR</i>		
<b>NAG 3 2393</b>	<b>CLARKSON UNIV</b>	<b>6831</b>	<b>NGT 8 52849</b>	<b>CLARKSON UNIV</b>	<b>6839</b>
QUANTIFICATION OF ENERGY RELEASE IN COMPOSITE STRUCTURES 04/18/2000 - 12/31/2001	FY01: \$0	Total: \$49,529	MICROGRAVITY EQUIPMENT VIBRATIONS: A SENSITIVITY AND CONTROL STUDY 07/21/1998 - 08/13/2001	FY01: \$0	Total: \$44,000
<i>Prin. Invest.: D MINNETYAN</i>			<i>Prin. Invest.: G AHMADI</i>		
<i>Tech. Officer: GRC/C C CHAMIS</i>			<i>Tech. Officer: MSFC/J DOWDY</i>		
<i>CASE Category: 41 – AERONAUTICAL ENGNR</i>			<i>CASE Category: 46 – MECHANICAL ENGR</i>		
<b>NAG 3 2394</b>	<b>CLARKSON UNIV</b>	<b>6832</b>	<b>NGT 8 52853</b>	<b>CLARKSON UNIV</b>	<b>6840</b>
TEST-FREE FRACTURE TOUGHNESS, REF. #00169 TEST-FREE FRACTURE TOUGHNESS, REF. #00169 04/18/2000 - 12/31/2001	FY01: \$0	Total: \$50,554	COMPUTATIONAL MODELING OF FUEL SPRAY FORMATION IN ROCKET ENGINES 07/21/1998 - 08/13/2001	FY01: \$0	Total: \$66,000
<i>Prin. Invest.: D MINNETYAN</i>			<i>Prin. Invest.: G AHMADI</i>		
<i>Tech. Officer: GRC/C C CHAMIS</i>			<i>Tech. Officer: MSFC/J F DOWDY</i>		
<i>CASE Category: 41 – AERONAUTICAL ENGNR</i>			<i>CASE Category: 46 – MECHANICAL ENGR</i>		
<b>NAG 3 2609</b>	<b>CLARKSON UNIV</b>	<b>6833</b>	<b>NAG 2 1345</b>	<b>COLUMBIA UNIV</b>	<b>6841</b>
COMPUTATIONAL SIMULATION OF COMPOSITE STRUCTURAL FAILURE 05/16/2001 - 05/31/2004	FY01: \$25,118	Total: \$25,118	DEVELOPMENT & FUNCTION OF THE MOUSE VESTIBULAR SYSTEM IN THE ABSENCE OF GRAVITY PERCEPTION 07/16/1999 - 07/14/2002	FY01: \$170,916	Total: \$429,061
<i>Prin. Invest.: D MINNETYAN</i>			<i>Prin. Invest.: D J WOLGEMUTH</i>		
<i>Tech. Officer: GRC/C C CHAMIS</i>			<i>Tech. Officer: ARC/M M AVRENER, ARC/G C JAHN</i>		
<i>CASE Category: 41 – AERONAUTICAL ENGNR</i>			<i>CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)</i>		
<b>NAG 8 1266</b>	<b>CLARKSON UNIV</b>	<b>6834</b>	<b>NAG 5 618</b>	<b>COLUMBIA UNIV</b>	<b>6842</b>
USE OF MICROGRAVITY TO CONTROL THE MICROSTRUCTURE OF EUTECTICS 05/01/1996 - 11/30/2001	FY01: \$0	Total: \$540,000	X-RAY ASTRONOMY 07/23/1990 - 06/30/2001	FY01: \$0	Total: \$8,461,663
<i>Prin. Invest.: W R WILCOX, L L REGEL</i>			<i>Prin. Invest.: R NOVICK, W H-M KU, M VARTANIAN</i>		
<i>Tech. Officer: MSFC/P DOTY, MSFC/R POWER</i>			<i>Tech. Officer: GSFC/L J EARLY, GSFC/R H PLESS</i>		
<i>CASE Category: 19 – PHYSICAL SCIENCE, OTHER</i>			<i>CASE Category: 13 – PHYSICS</i>		
<b>NAG 8 1482</b>	<b>CLARKSON UNIV</b>	<b>6835</b>	<b>NAG 5 3502</b>	<b>COLUMBIA UNIV</b>	<b>6843</b>
R/S IMPROVED CRYSTAL QUALITY BY DETACHED SOLIDIFICATION IN MICROGRAVITY 02/12/1998 - 01/31/2002	FY01: \$90,250	Total: \$340,417	SN 1987A: FORMATION OF A SUPERNOVA REMNANT 12/11/1996 - 12/14/2001	FY01: \$175,300	Total: \$583,500
<i>Prin. Invest.: L L REGEL</i>			<i>Prin. Invest.: A P CROTT</i>		
<i>Tech. Officer: MSFC/C TALLEY</i>			<i>Tech. Officer: GSFC/D K WEST</i>		
<i>CASE Category: 19 – PHYSICAL SCIENCE, OTHER</i>			<i>CASE Category: 11 – ASTRONOMY</i>		
<b>NAG 8 1703</b>	<b>CLARKSON UNIV</b>	<b>6836</b>	<b>NAG 5 4028</b>	<b>COLUMBIA UNIV</b>	<b>6844</b>
RESIDUAL GAS EFFECTS ON DETACHED SOLIDIFICATION IN MICROGRAVITY 06/22/2000 - 11/28/2003	FY01: \$95,000	Total: \$135,000	MODELLING SOUTH PACIFIC OCEAN INTERACTIONS IN THE 03/13/1997 - 02/28/2001	FY01: \$0	Total: \$261,592
<i>Prin. Invest.: W R WILCOX</i>			<i>Prin. Invest.: D M HOLLAND</i>		
<i>Tech. Officer: MSFC/P DOTY</i>			<i>Tech. Officer: GSFC/R H THOMAS</i>		
<i>CASE Category: 12 – CHEMISTRY</i>			<i>CASE Category: 39 – ENVIRONMENTAL SCI, OTHER</i>		
<b>NGT 1 52214</b>	<b>CLARKSON UNIV</b>	<b>6837</b>	<b>NAG 5 4058</b>	<b>COLUMBIA UNIV</b>	<b>6845</b>
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) YEAR 1 06/10/1999 - 06/30/2002	FY01: \$12,000	Total: \$44,000	IMPACTS OF INTERANNUAL VARIABILITY ON AGRO ECOSYSTEMS AND FISHERIES 03/26/1997 - 12/31/2000	FY01: \$0	Total: \$360,000
<i>Prin. Invest.: M N GLAUSER</i>			<i>Prin. Invest.: M CANE</i>		
<i>Tech. Officer: LARC/C S YAO</i>			<i>Tech. Officer: GSFC/C ROSENZWEIG</i>		
<i>CASE Category: 41 – AERONAUTICAL ENGNR</i>			<i>CASE Category: 11 – ASTRONOMY</i>		

<b>NAG 5 4649</b>	<b>COLUMBIA UNIV</b>	<b>6846</b>	<b>NAG 5 5280</b>	<b>COLUMBIA UNIV</b>	<b>6854</b>
EARLY DIFFERENTIATION OF THE MOON:EXPERIMENTAL AND 06/11/1997 - 05/31/2002	FY01: \$161,000	Total: \$710,000	DEVELOPMENT OF XENON TIME PROJECTION CHAMBERS FOR PRECISDE COMPTON IMAGING OF ASTROPHYSICAL LINES 05/31/2000 - 12/31/2002	FY01: \$390,000	Total: \$757,500
Prin. Invest.: D LONGHI			Prin. Invest.: E APRILE		
Tech. Officer: GSFC/D NAVA			Tech. Officer: GSFC/B A MERRITT		
CASE Category: 11 - ASTRONOMY			CASE Category: 11 - ASTRONOMY		
<b>NAG 5 5108</b>	<b>COLUMBIA UNIV</b>	<b>6847</b>	<b>NAG 5 6035</b>	<b>COLUMBIA UNIV</b>	<b>6855</b>
LXEGRIT: A LIQUID XENON GAMMA-RAY IMAGING TELE- SCOPE FOR HIGH ENERGY ASTROPHYSICS 02/11/1997 - 05/31/2001	FY01: \$30,000	Total: \$1,291,000	SURFING THE HIGH DENSITY UNIVERSE 10/03/1997 - 09/30/2001	FY01: \$137,700	Total: \$486,800
Prin. Invest.: E APRILE			Prin. Invest.: D HELFAND		
Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT			Tech. Officer: GSFC/D K WEST		
CASE Category: 13 - PHYSICS			CASE Category: 11 - ASTRONOMY		
<b>NAG 5 5123</b>	<b>COLUMBIA UNIV</b>	<b>6848</b>	<b>NAG 5 6294</b>	<b>COLUMBIA UNIV</b>	<b>6856</b>
X-RAY SPECTROSCOPIC LABORATORY EXPERIMENTS IN SUPPORT OF THE NASA X-RAY ASTRONOMY PROGRAM 02/20/1997 - 05/31/2003	FY01: \$85,240	Total: \$708,400	DEVELOP A UNIQUE SHARED RESEARCH FACILITY IN WHICH FOCUS ON THE CHANGING ATMOSPHER 09/15/1997 - 08/14/2000	FY01: \$0	Total: \$225,000
Prin. Invest.: S M KAHN			Prin. Invest.: W BROECKER		
Tech. Officer: GSFC/W B JOHNSON			Tech. Officer: GSFC/M KHAZENIE		
CASE Category: 13 - PHYSICS			CASE Category: 31 - ATMOSPHERIC SCIENCE		
<b>NAG 5 5247</b>	<b>COLUMBIA UNIV</b>	<b>6849</b>	<b>NAG 5 6315</b>	<b>COLUMBIA UNIV</b>	<b>6857</b>
GRANT NAG5-5247 RAIN INDUCED AIR-WATER GAS EXCH. PI DR. SCHLOSSER 04/01/1999 - 03/28/2001	FY01: \$0	Total: \$10,000	MODELING STUDIES OF THE EFFECTS OF WINDS AND HEAT TROPICAL OCEAN 09/19/1997 - 03/31/2000	FY01: \$0	Total: \$291,359
Prin. Invest.: P SCHLOSSER			Prin. Invest.: R SEAGER		
Tech. Officer: GSFC/F BLIVEN			Tech. Officer: GSFC/E LINDSTROM		
CASE Category: 13 - PHYSICS			CASE Category: 39 - ENVIRONMENTAL SCI, OTHER		
<b>NAG 5 5254</b>	<b>COLUMBIA UNIV</b>	<b>6850</b>	<b>NAG 5 6321</b>	<b>COLUMBIA UNIV</b>	<b>6858</b>
HIGH-PERFORMANCE MULTILAYER COATINGS FOR THE NEXT GENERA- TION OF HIGH-RESOLUTION X-RAY OPTICS 02/22/2000 - 02/03/2003	FY01: \$195,000	Total: \$380,000	THE BIO-ATMOSPHERIC CYCLES OF NITROGEN AND CARBON: POLLUTION AND TERRESTRIAL ECOSYSTEMS 09/09/1997 - 04/30/2001	FY01: \$0	Total: \$123,985
Prin. Invest.: D L WINDT			Prin. Invest.: E MATTHEWS		
Tech. Officer: GSFC/W B JOHNSON			Tech. Officer: GSFC/D E WICKLAND		
CASE Category: 13 - PHYSICS			CASE Category: 39 - ENVIRONMENTAL SCI, OTHER		
<b>NAG 5 5260</b>	<b>COLUMBIA UNIV</b>	<b>6851</b>	<b>NAG 5 6450</b>	<b>COLUMBIA UNIV</b>	<b>6859</b>
THERMALLY-FORMED GALASS OPTICS FOR X-RAY AND GAMMA-RAY MISSIONS 02/18/2000 - 02/10/2003	FY01: \$195,000	Total: \$374,000	PRODUCTION AND ANALYSIS OF GLOBAL WAVE AND PHOTOSY NTHETI- CALLY ACTIVESURFACE IRRADIANCE FIELDS U 10/31/1997 - 09/30/2001	FY01: \$0	Total: \$485,933
Prin. Invest.: C J HAILEY			Prin. Invest.: J A BISHOP		
Tech. Officer: GSFC/W B JOHNSON			Tech. Officer: GSFC/J A MARRA		
CASE Category: 19 - PHYSICAL SCIENCE, OTHER			CASE Category: 33 - OCEANOGRAPHY		
<b>NAG 5 5261</b>	<b>COLUMBIA UNIV</b>	<b>6852</b>	<b>NAG 5 6876</b>	<b>COLUMBIA UNIV</b>	<b>6860</b>
MEASUREMENTS, CALCULATIONS, AND ASTROPHYSICAL IMPLICATIONS OF NEW LOW TEMPERATURE DIELECTRONIC 02/11/2000 - 02/10/2003	FY01: \$120,000	Total: \$233,040	INFLUENCE OF ARCTIC SEA ICE ON NATURAL AND ANTHROP OGENI- CALLY-INDUCEDCLIMATE VARIABILITY 01/30/1998 - 03/31/2002	FY01: \$0	Total: \$235,200
Prin. Invest.: D W SAVIN			Prin. Invest.: D G MARTINSON		
Tech. Officer: GSFC/W B JOHNSON			Tech. Officer: GSFC/S GOGINENI		
CASE Category: 13 - PHYSICS			CASE Category: 39 - ENVIRONMENTAL SCI, OTHER		
<b>NAG 5 5275</b>	<b>COLUMBIA UNIV</b>	<b>6853</b>	<b>NAG 5 6877</b>	<b>COLUMBIA UNIV</b>	<b>6861</b>
FUNDING FOR PHASE 1 OF SPACE PROJECT FUNDING FOR PHASE 1 OF SPACE PROJECT 04/17/2000 - 04/13/2006	FY01: \$0	Total: \$299,510	MONSOONS, TIDAL MIXING AND PRODUCTIVITY IN THE BAN DA SEA, INDO- NESIA 02/10/1998 - 12/31/2001	FY01: \$0	Total: \$554,232
Prin. Invest.: B CAIRNS			Prin. Invest.: T TAKAHASHI		
Tech. Officer: GSFC/D L PIERCE			Tech. Officer: GSFC/J MARRA		
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER			CASE Category: 39 - ENVIRONMENTAL SCI, OTHER		

**NAG 5 6948**           **COLUMBIA UNIV**           **6862**  
 MTPE: GLOBAL OCEAN-ATMOSPHERE INTERACTIONS FORCED BY TIDAL  
 MIXING OF SST  
 02/24/1998 - 12/31/2000      FY01: \$0      Total: \$127,651  
*Prin. Invest.: A L FIELD*  
*Tech. Officer: GSFC/E LINDSTROM*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 7044**           **COLUMBIA UNIV**           **6863**  
 ASSESSING CURRENT AND POTENTIAL USE OF CLIMATE FOR ECSTS  
 FOR COMMUNAL FARM MANAGEMENT IN ZIMBABWE  
 03/05/1998 - 08/31/2001      FY01: \$25,119      Total: \$102,621  
*Prin. Invest.: M A CANE*  
*Tech. Officer: GSFC/D RIND*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 7138**           **COLUMBIA UNIV**           **6864**  
 MIDDLEWORLD TRANSPORT WITHIN THREE-DIMENSIONAL MODELS: CHAR-  
 ACTERIZATION & SENSITIVITIES TO MODEL F  
 05/06/1998 - 03/31/2001      FY01: \$0      Total: \$126,408  
*Prin. Invest.: T HALL*  
*Tech. Officer: GSFC/R W STEWART*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 7461**           **COLUMBIA UNIV**           **6865**  
 POLYNYAS, PREDATORS AND PACK ICE VARIABILITY IN TH E SOUTHERN  
 OCEAN  
 10/26/1998 - 12/31/2001      FY01: \$91,498      Total: \$249,868  
*Prin. Invest.: S S JACOBS*  
*Tech. Officer: GSFC/S GOGINENI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 7687**           **COLUMBIA UNIV**           **6866**  
 SURFACE SOLAR RADIATION SOLAR BASE  
 09/17/1998 - 08/31/2001      FY01: \$67,429      Total: \$300,429  
*Prin. Invest.: G KUKLA*  
*Tech. Officer: GSFC/M I MISHCHENKO*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 7737**           **COLUMBIA UNIV**           **6867**  
 SCIENCE AND CALIBRATION SUPPORT FOR THE REFLECTING GRATING  
 SPECTROMETER ON THE X-RAY MULTI-MIRROR M  
 10/01/1998 - 03/31/2002      FY01: \$1,005,000      Total: \$2,033,750  
*Prin. Invest.: S M KAHN*  
*Prin. Invest.: NONE*  
*Tech. Officer: GSFC/N E WHITE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7740**           **COLUMBIA UNIV**           **6868**  
 XTE AO3 PROPOSAL – RECONSIDERING THE NATURE OF THE NEUTRON  
 STAR CANDIDATE IN RCW 103  
 10/28/1998 - 10/31/2000      FY01: \$0      Total: \$9,401  
*Prin. Invest.: E GOTTHELF*  
*Tech. Officer: GSFC/J SWANK*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7814**           **COLUMBIA UNIV**           **6869**  
 NEW ASCA AND ROSAT OBSERVATIONS OF ROTATION-POWERED D  
 PULSARS – ADP 98  
 12/03/1998 - 12/14/2001      FY01: \$0      Total: \$72,728  
*Prin. Invest.: J P HALPERN*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7846**           **COLUMBIA UNIV**           **6870**  
 CONSOLIDATING CYGNUS REGION 1.809 MEV EMISSION  
 11/25/1998 - 05/31/2000      FY01: \$0      Total: \$5,000  
*Prin. Invest.: U OBERLACK*  
*Tech. Officer: GSFC/J P NORRIS*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7922**           **COLUMBIA UNIV**           **6871**  
 EFFECT OF HISTORICAL AND PROJECTED CLIMATE CHANGE ON  
 SOUTHERN OCEAN SEA ICE AND ANTARCTIC MASSBALAN  
 12/21/1998 - 12/31/2000      FY01: \$0      Total: \$93,000  
*Prin. Invest.: D MARTINSON*  
*Tech. Officer: GSFC/S GOGINENI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 7935**           **COLUMBIA UNIV**           **6872**  
 THE NATURE OF RADIO-QUIET X-RAY PULSARS IN SUPERNOVA  
 REMNANTS (LTSA-98)  
 12/14/1998 - 12/31/2001      FY01: \$117,407      Total: \$339,196  
*Prin. Invest.: E V GOTTHELF*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7971**           **COLUMBIA UNIV**           **6873**  
 NARROW-LINE SEYFERT 1 GALAXIES (LTSA 98)  
 12/22/1998 - 09/14/2000      FY01: -\$7,843      Total: \$134,364  
*Prin. Invest.: K M LEIGHLY*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7977**           **COLUMBIA UNIV**           **6874**  
 ACCRETION RATES IN CATACLYSMIC VARIABLES (ADP98)  
 12/23/1998 - 12/31/2001      FY01: \$0      Total: \$106,810  
*Prin. Invest.: J O PATTERSON*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8297**           **COLUMBIA UNIV**           **6875**  
 VARIABILITY OF SEA LEVEL WITHIN THE INDONESIAN SEA S AND ITS RELA-  
 TIONSHIP TO INTEROCEAN THROUGHF  
 02/23/1999 - 02/28/2001      FY01: \$0      Total: \$205,158  
*Prin. Invest.: A L GORDON*  
*Tech. Officer: GSFC/E LINDSTROM*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8506**           **COLUMBIA UNIV**           **6876**  
 COSMOLOGY AND PARTICLE ASTROPHYSICS THEORY (ATP - 98)  
 05/10/1999 - 04/30/2000      FY01: \$0      Total: \$30,743  
*Prin. Invest.: M P KAMIONKOWSKI*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8675**           **COLUMBIA UNIV**           **6877**  
HYDRODYNAMIC INSTABILITIES AND EDDY-MEAN FLOW INTERACTION IN  
THE SOUTHERN OCEAN  
07/08/1999 - 07/14/2001     FY01: -\$69,108       Total: \$131,482  
*Prin. Invest.: D L WITTER*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 8725**           **COLUMBIA UNIV**           **6878**  
SEASONAL AND INTERANNUAL VARIABILITY OF AIR-SEA-ICE COUPLING  
PROCESSES IN THE SUBPOLAR SOUTHERN OCEAN  
08/04/1999 - 08/31/2002     FY01: \$42,416       Total: \$184,254  
*Prin. Invest.: X YUAN*  
*Tech. Officer: GSFC/E LINDSTROM*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 8808**           **COLUMBIA UNIV**           **6879**  
US GLOBAL CHANGE RESEARCH INFORMATION OFFICE (GCRI O)  
09/08/1999 - 02/28/2001     FY01: \$0           Total: \$350,000  
*Prin. Invest.: R MILLER*  
*Tech. Officer: GSFC/D KAHLER*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 8848**           **COLUMBIA UNIV**           **6880**  
FIRST YEAR FUNDING FOR SENH99-0121, LANDSLIDE MECHANISMS &  
HAZARD ASSESSMENT IN MOUNTAIN REGIONS  
12/16/1999 - 12/31/2001     FY01: \$148,174       Total: \$315,761  
*Prin. Invest.: J K WEISSEL*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NAG 5 8854**           **COLUMBIA UNIV**           **6881**  
ASSIST IN DEVELOPING A THEORETICAL MATHEMATICAL MODEL FOR THE  
EXISTING WFF BALLOON LAUNCH TRAIN AND  
11/01/1999 - 10/31/2000     FY01: -\$31           Total: \$9,969  
*Prin. Invest.: B CRAIG*  
*Tech. Officer: GSFC/T GRUNER*  
*CASE Category: 41 - AERONAUTICAL ENGR*

**NAG 5 9056**           **COLUMBIA UNIV**           **6882**  
CONTINENT-WIDE ESTIMATION AND CALIBRATION OF CATCHMENT  
HYDROLOGIC PARAMETERS USING SRTM AND LASER  
02/15/2000 - 02/28/2002     FY01: \$46,943       Total: \$71,693  
*Prin. Invest.: C P STARK*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NAG 5 9060**           **COLUMBIA UNIV**           **6883**  
IMPROVED ESTIMATES OF ANTARCTIC ICE SHEET VOLUME BASED ON  
INVERSION OF GRAVITY DATA & OTHER POTENTIALS  
02/10/2000 - 02/14/2002     FY01: \$72,250       Total: \$139,000  
*Prin. Invest.: R E BELL*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NAG 5 9094**           **COLUMBIA UNIV**           **6884**  
TESTING FOR X-RAY PERIODICITIES IN SEYFERT GALAXIES - ADP 99  
02/18/2000 - 02/28/2002     FY01: -\$7,500       Total: \$22,152  
*Prin. Invest.: J P HALPERN*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9095**           **COLUMBIA UNIV**           **6885**  
ASCA OBSERVATIONS OF HIGH-ENERGY GAMMA-RAY SOURCES -ADP 99  
02/18/2000 - 02/28/2002     FY01: -\$7,500       Total: \$49,911  
*Prin. Invest.: J P HALPERN*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9136**           **COLUMBIA UNIV**           **6886**  
ON THE EVOLUTION OF YOUNG NEUTRON STARS: ANOMALOUS COMPACT  
OBJECTS WITHIN SUPERNOVA REMNANTS  
03/01/2000 - 02/28/2002     FY01: \$52,422       Total: \$102,862  
*Prin. Invest.: E V GOTTHELF*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9581**           **COLUMBIA UNIV**           **6887**  
UNRAVELING THE PHYSICAL CONDITIONS IN THE SOLAR ATMOSPHERE:  
EXPERIMENTAL AND THEORETICAL RATES FOR  
05/09/2000 - 04/30/2003     FY01: \$131,183       Total: \$206,052  
*Prin. Invest.: D W SAVIN*  
*Tech. Officer: GSFC/W J WAGNER*  
*CASE Category: 13 - PHYSICS*

**NAG 5 9615**           **COLUMBIA UNIV**           **6888**  
HIGH-PERFORMANCE MULTILAYER X-RAY OPTICS FOR SOLAR PHYSICS  
05/23/2000 - 04/30/2002     FY01: \$92,692       Total: \$144,069  
*Prin. Invest.: D WINDT*  
*Tech. Officer: GSFC/W J WAGNER*  
*CASE Category: 13 - PHYSICS*

**NAG 5 9653**           **COLUMBIA UNIV**           **6889**  
CONSOLIDATING THE VELA-REGION 1.809 MEV RESULTS  
05/30/2000 - 08/31/2001     FY01: \$0           Total: \$6,500  
*Prin. Invest.: U OBERLACK*  
*Tech. Officer: GSFC/J P NORRIS*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9759**           **COLUMBIA UNIV**           **6890**  
ASSIMILATION OF REMOTELY SENSED SNOW OBSERVATIONS INTO THE  
NSIPP LAND SURFACE MODEL  
06/26/2000 - 06/30/2002     FY01: \$57,946       Total: \$103,447  
*Prin. Invest.: M STIEGLITZ*  
*Tech. Officer: GSFC/P R Houser*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 9870**           **COLUMBIA UNIV**           **6891**  
SURVEYING THE GALACTIC PLANE WITH XMM  
09/29/2000 - 09/30/2002     FY01: \$30,000       Total: \$61,000  
*Prin. Invest.: D HELFAND*  
*Tech. Officer: GSFC/P ATKINS*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9898**           **COLUMBIA UNIV**           **6892**  
THE NATURE OF ISOLATED NEUTRON STARS AND THE EQUATION OF  
STATE AT SUPRA-NUCLEAR DENSITY  
09/06/2000 - 09/14/2002     FY01: \$0           Total: \$8,500  
*Prin. Invest.: F B PAERELS*  
*Tech. Officer: GSFC/R F MUSHOTZKY*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9911**           **COLUMBIA UNIV**           **6893**  
 AN ULTRA-MAGNETIZED X-RAY PULSAR IN THE SUPERNOVA REMNANT  
 KES 73  
 09/05/2000 - 09/30/2002      FY01: \$13,365      Total: \$27,365  
*Prin. Invest.: E V GOTTHELF*  
*Tech. Officer: GSFC/R M MUSHOTZKY*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9928**           **COLUMBIA UNIV**           **6894**  
 COMPOSITE SUPERNOVA REMNANTS: HOME TO THE YOUNGEST  
 NEUTRON STARS  
 09/07/2000 - 09/14/2002      FY01: \$0      Total: \$23,459  
*Prin. Invest.: D J HELFAND*  
*Tech. Officer: GSFC/D F MUSHOTZKY*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9929**           **COLUMBIA UNIV**           **6895**  
 AN X-RAY SPECTROSCOPIC DETERMINATION OF THE HUBBLE CONSTANT  
 09/07/2000 - 09/14/2002      FY01: \$0      Total: \$24,619  
*Prin. Invest.: F B PAERLES*  
*Tech. Officer: GSFC/D F MUSHOTZKY*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9946**           **COLUMBIA UNIV**           **6896**  
 TAKING THE PULSE OF OUR YOUNGEST NEIGHBORHOOD NEUTRON STAR  
 09/06/2000 - 09/14/2002      FY01: \$15,000      Total: \$32,900  
*Prin. Invest.: D J HELFAND*  
*Tech. Officer: GSFC/R F MUSHOTZKY*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9950**           **COLUMBIA UNIV**           **6897**  
 A POSSIBLE IDENTIFICATION OF THE EGRET SOURCE 2EG J2227+6122  
 09/07/2000 - 08/31/2002      FY01: \$14,000      Total: \$30,662  
*Prin. Invest.: J P HALPERN*  
*Tech. Officer: GSFC/R MUSHOTZKY*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10082**           **COLUMBIA UNIV**           **6898**  
 THE X-RAY TEMPERATURE FUNCTION AND STRUCTURE OF CLUSTERS AT  
 Z=0.6-1  
 11/06/2000 - 11/14/2002      FY01: \$5,625      Total: \$5,625  
*Prin. Invest.: C A SCHAFER*  
*Tech. Officer: GSFC/R MUSHOTZKY*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10607**           **COLUMBIA UNIV**           **6899**  
 USING A CLOUD-RESOLVING MODEL TO UNDERSTAND LARGE- SCALE  
 VARIATIONS IN TROPICAL RAINFALL: A NO  
 03/15/2001 - 03/14/2002      FY01: \$95,576      Total: \$95,576  
*Prin. Invest.: A SOBEL*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 11049**           **COLUMBIA UNIV**           **6900**  
 RECOMBINATION RATES OF METHYL RADICALS AT LOW TEMPERATURES  
 IN HYDROGEN. (LOW TEMPERATURE PHOTOCHEM)  
 06/18/2001 - 05/31/2002      FY01: \$65,000      Total: \$65,000  
*Prin. Invest.: R BERSOHN*  
*Tech. Officer: GSFC/D J BOGAN*  
*CASE Category: 12 - CHEMISTRY*

**NAG 5 11215**           **COLUMBIA UNIV**           **6901**  
 MESOSCALE CIRCULATION AND ECOSYSTEM PROCESSES OFF WESTERN  
 AUSTRALIA: A SYNERGISTIC APPROACH OF REMO  
 08/13/2001 - 09/30/2003      FY01: \$243,481      Total: \$243,481  
*Prin. Invest.: O ANDERSON*  
*Tech. Officer: GSFC/J MARRA*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 11357**           **COLUMBIA UNIV**           **6902**  
 TIME VARIATIONS OF THE NET AIR-SEA CO<sub>2</sub> FLUX  
 09/25/2001 - 09/30/2004      FY01: \$87,100      Total: \$87,100  
*Prin. Invest.: T TAKAHASHI*  
*Tech. Officer: GSFC/J MARRA*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 9 1148**           **COLUMBIA UNIV**           **6903**  
 INDIVIDUAL SUSCEPTIBILITY TO RADIAITON EFFECTS  
 09/14/1999 - 12/13/2002      FY01: \$397,244      Total: \$734,218  
*Prin. Invest.: E J HALL*  
*Tech. Officer: JSC/F A CUCINOTTA*  
*CASE Category: 59 - LIFE SCIENCE, OTHER*

**NAS 5 97164**           **COLUMBIA UNIV**           **6904**  
 ACRIM SCIENCE TEAM  
 04/21/1997 - 04/20/2002      FY01: \$583,827      Total: \$2,049,807  
*Prin. Invest.: R C WILSON*  
*Tech. Officer: GSFC/V GRIFFIN*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NAS 5 98037**           **COLUMBIA UNIV**           **6905**  
 CONSTELLATION X-RAY MISSION  
 06/22/1998 - 12/15/2001      FY01: \$90,000      Total: \$432,000  
*Prin. Invest.: S M KAHN*  
*Tech. Officer: GSFC/J GRADY*  
*CASE Category: 41 - AERONAUTICAL ENGRN*

**NAS 5 98162**           **COLUMBIA UNIV**           **6906**  
 EOSDIS SEDAC  
 07/01/1998 - 06/30/2003      FY01: \$4,154,000      Total: \$11,070,114  
*Prin. Invest.: R S CHEN*  
*Tech. Officer: GSFC/Q BARKER*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NCC 5 218**           **COLUMBIA UNIV**           **6907**  
 SEASONAL-TO-INTERANNUAL PREDICTION PROJECT  
 07/21/1997 - 06/30/2001      FY01: \$0      Total: \$220,892  
*Prin. Invest.: M STIEGLITZ*  
*Tech. Officer: GSFC/R KOSTER*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NCC 5 270**           **COLUMBIA UNIV**           **6908**  
 INTERDISCIPLINARY GLOBAL CHANGE RESEARCH  
 02/17/1998 - 04/30/2000      FY01: \$0      Total: \$3,781,639  
*Prin. Invest.: L M DRUYAN*  
*Tech. Officer: GSFC/A LACIS*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NCC 5 278**           **COLUMBIA UNIV**           **6909**  
 MODELLING OF ATMOSPHERIC CIRCULATION AND CHEMISTRY -GSFC  
 CONTROL NO.5-3357  
 05/28/1998 – 02/28/2001      FY01: \$0            Total: \$373,065  
*Prin. Invest.: L POLVANI, NONE*  
*Tech. Officer: GSFC/R STOTHERS*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 5 328**           **COLUMBIA UNIV**           **6910**  
 INTERDISCIPLINARY RESEARCH ON CLIMATE VARIABILITY AND THE  
 IMPACTS ASSOCIATED WITH REGIONAL CLIMATE C  
 06/05/1998 – 12/31/2000      FY01: \$0            Total: \$2,082,031  
*Prin. Invest.: M A CHANDLER*  
*Tech. Officer: GSFC/D RIND*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 5 469**           **COLUMBIA UNIV**           **6911**  
 MODELING OF ATMOSPHERIC CIRCULATION AND CHEMISTRY  
 03/09/2000 – 06/14/2001      FY01: \$0            Total: \$259,591  
*Prin. Invest.: L POLVANI*  
*Tech. Officer: GSFC/R STOTHERS*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 5 470**           **COLUMBIA UNIV**           **6912**  
 THE INST ON CLIMATE AND PLANETS (ICP): A RESEARCH EDUCATION  
 PROGRAM  
 03/09/2000 – 05/31/2001      FY01: \$0            Total: \$268,397  
*Prin. Invest.: C HARRIS*  
*Tech. Officer: GSFC/B CARLSON*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 5 473**           **COLUMBIA UNIV**           **6913**  
 INTERDISCIPLINARY GLOBAL CHANGE RESEARCH.  
 03/15/2000 – 03/31/2001      FY01: \$419,830      Total: \$831,205  
*Prin. Invest.: L DRUYAN*  
*Tech. Officer: GSFC/A LACIS*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 5 485**           **COLUMBIA UNIV**           **6914**  
 MODELING OF OCEAN CIRCULATION AND ATMOSPHERIC CHEMICAL  
 SYSTEMS.  
 03/30/2000 – 06/30/2001      FY01: \$664,196      Total: \$1,596,248  
*Prin. Invest.: C K CHU*  
*Tech. Officer: GSFC/R B STOTHERS*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 5 505**           **COLUMBIA UNIV**           **6915**  
 INTERDISCIPLINARY RESEARCH ON CLIMATE VARIABILITY AND CLIMATE  
 CHANGE  
 07/21/2000 – 07/31/2002      FY01: \$1,226,342      Total: \$1,302,543  
*Prin. Invest.: M CHANDLER, NONE*  
*Tech. Officer: GSFC/D RIND*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 5 510**           **COLUMBIA UNIV**           **6916**  
 LAND SURFACE MODEL DEVELOPMENT FOR THE NASA SEASON AL TO  
 INTERANNUAL PREDICTION PROJECT  
 08/21/2000 – 08/14/2002      FY01: \$122,489      Total: \$177,298  
*Prin. Invest.: M STIEGLITZ*  
*Tech. Officer: GSFC/R KOSTER*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NCC 5 546**           **COLUMBIA UNIV**           **6917**  
 INTERDISCIPLINARY GLOBAL CHANGE RESEARCH  
 04/04/2001 – 03/31/2002      FY01: \$862,710      Total: \$862,710  
*Prin. Invest.: L M DRUYAN*  
*Tech. Officer: GSFC/A LACIS*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 5 547**           **COLUMBIA UNIV**           **6918**  
 MODELING OF OCEAN CIRCULATION AND ATMOSPHERIC CHEMICAL  
 SYSTEMS  
 04/06/2001 – 03/31/2002      FY01: \$927,415      Total: \$927,415  
*Prin. Invest.: C K CHU*  
*Tech. Officer: GSFC/R B STOTHERS*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 5 549**           **COLUMBIA UNIV**           **6919**  
 "ICP: RESEARCH EDUCATION PROGRAM"  
 04/09/2001 – 05/31/2002      FY01: \$169,981      Total: \$169,981  
*Prin. Invest.: C HARRIS*  
*Tech. Officer: GSFC/B CARLSON*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 5 558**           **COLUMBIA UNIV**           **6920**  
 MODELING OF ATMOSPHERIC CIRCULATION AND CHEMISTRY.  
 06/06/2001 – 02/28/2002      FY01: \$329,203      Total: \$329,203  
*Prin. Invest.: L M POLVANI*  
*Tech. Officer: GSFC/R STOTHERS*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NGT 5 44**           **COLUMBIA UNIV**           **6921**  
 RADIATIVE LINKS TO POLAR DYNAMICAL PROCESSES  
 06/23/1997 – 06/30/2000      FY01: \$0            Total: \$66,000  
*Prin. Invest.: A D DELGENIO*  
*Tech. Officer: GSFC/M S BURRELL*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NGT 5 30106**          **COLUMBIA UNIV**           **6922**  
 RAIN INDUCED AIR-WATER GAS EXCHANGE: MECHANISMS AND GLOBAL  
 EFFECTS  
 10/24/1997 – 08/31/2000      FY01: \$0            Total: \$66,000  
*Prin. Invest.: D SCHLOSSER*  
*Tech. Officer: GSFC/G ASRAR*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 30123**          **COLUMBIA UNIV**           **6923**  
 AN INTERMEDIATE-LEVEL MODEL FOR THE TROPICAL ATMOS  
 09/30/1997 – 08/31/2000      FY01: \$0            Total: \$66,000  
*Prin. Invest.: M CANE*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 30167**          **COLUMBIA UNIV**           **6924**  
 VARIABILITY OF BIOGEOCHEMICAL REGIMES IN THE ROSS SEA: AN ANALYSIS  
 USING HIGH RESOLUTION SEA SURFACE  
 09/02/1998 – 08/31/2002      FY01: \$0            Total: \$66,000  
*Prin. Invest.: T TAKAHASHI*  
*Tech. Officer: GSFC/M Y WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 30226**           **COLUMBIA UNIV**           **6925**  
 HIGH RESOLUTION MILLENNIAL SCALE HISTORY OF HUDSON VALLEY, NY FORESTS: CLIMATE & ENVIRONMENTAL INFL  
 09/19/2000 - 08/31/2002      FY01: \$22,000      Total: \$44,000  
*Prin. Invest.: D PETEET*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 30374**           **COLUMBIA UNIV**           **6926**  
 INCREASING HAZARD IN GREATER CARACAS, VENEZUELA: INTERACTIONS OF NEOTECTONICS, LANDSLIDES AND  
 08/13/2001 - 08/31/2002      FY01: \$22,000      Total: \$22,000  
*Prin. Invest.: W MENKE*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 30388**           **COLUMBIA UNIV**           **6927**  
 SEMI-ARID GRASSLAND ECOSYSTEM FORCING: REPLACING NATIVE, FREE-RANGING UNGULATE GRAZING WITH HUMAN-  
 08/13/2001 - 09/05/2001      FY01: \$0      Total: \$0  
*Prin. Invest.: W MENKE*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 30391**           **COLUMBIA UNIV**           **6928**  
 SENSITIVITY AND RESPONSE OF ICE-OCEAN-ATMOSPHERE INTERACTIONS IN THE SOUTH PACIFIC SECTOR OF THE  
 08/14/2001 - 08/31/2004      FY01: \$22,000      Total: \$22,000  
*Prin. Invest.: D MARTINSON*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 50323**           **COLUMBIA UNIV**           **6929**  
 PREDICTION OF MOSQUITO ABUNDANCE WITH A LAND SURFACE HYDROLOGY MODEL & LANDSAT THERMATIC MAPPER IMA  
 08/17/2000 - 08/31/2002      FY01: \$22,000      Total: \$44,000  
*Prin. Invest.: M CANE*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 50353**           **COLUMBIA UNIV**           **6930**  
 X-RAY SPECTROSCOPIC INVESTIGATIONS OF OUTFLOWS IN ACTIVE GALACTIC NUCLEI  
 05/11/2001 - 06/30/2002      FY01: \$22,000      Total: \$22,000  
*Prin. Invest.: S KAHN*  
*Tech. Officer: GSFC/K E BLANDING*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 1 2069**           **CORNELL UNIV**           **6931**  
 BASIC RESEARCH IN CRACK GROWTH PREDICTION METHODOLOGIES  
 05/20/1998 - 06/30/2000      FY01: \$0      Total: \$173,472  
*Prin. Invest.: A R INGRAFFEA, P A WAWRZYNEK*  
*Tech. Officer: LARC/J C NEWMAN, JR., LARC/I S RAJU*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 1 2268**           **CORNELL UNIV**           **6932**  
 CRACK TURNING AND DAMAGE TOLERANCE OF MONOLITHIC STRUCTURES  
 02/03/2000 - 06/15/2000      FY01: \$0      Total: \$25,225  
*Prin. Invest.: R PETTIT, A INGRAFFEA*  
*Tech. Officer: LARC/J C NEWMAN/D R AMBUR*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NAG 1 01034**           **CORNELL UNIV**           **6933**  
 NANOTUBE SENSORS  
 02/28/2001 - 10/31/2001      FY01: \$100,000      Total: \$100,000  
*Prin. Invest.: P L MCEUEN*  
*Tech. Officer: LARC/S K KAHNG*  
*CASE Category: 13 – PHYSICS*

**NAG 3 1854**           **CORNELL UNIV**           **6934**  
 STABILITY OF SHAPE HELD BY SURFACE TENSION AND SUBJECTED TO FLUID ROTATION  
 05/01/1996 - 04/30/2001      FY01: \$0      Total: \$425,007  
*Prin. Invest.: P H STEEN*  
*Tech. Officer: GRC/B S SINGH*  
*CASE Category: 43 – CHEMICAL ENGR*

**NAG 3 1993**           **CORNELL UNIV**           **6935**  
 SIMULATION OF CRACK GROWTH IN SPRIAL-BEVEL GEARS  
 12/11/1996 - 01/01/2002      FY01: \$0      Total: \$289,961  
*Prin. Invest.: A R INGRAFFEA*  
*Tech. Officer: GRC/D G LOWICKI*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 3 2112**           **CORNELL UNIV**           **6936**  
 STUDIES OF GAS-PARTICLE INTERACTIONS IN A MICROGRAVITY FLOW CELL  
 01/15/1998 - 12/31/2001      FY01: \$242,549      Total: \$686,517  
*Prin. Invest.: M LOUGE*  
*Tech. Officer: GRC/R HAKIMAZADEH*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 3 2224**           **CORNELL UNIV**           **6937**  
 HIGH PRESSURE COMBUSTION OF AN UNSUPPORTED SOOTING FUEL DROPLET IN MICROGRAVITY  
 01/12/1999 - 11/11/2002      FY01: \$71,483      Total: \$211,972  
*Prin. Invest.: T AVEDISIAN*  
*Tech. Officer: GRC/D L DIETRICH*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 3 2349**           **CORNELL UNIV**           **6938**  
 TURBULENCE-INDUCED COALESCENCE OF AEROSOL PARTICLES  
 03/23/2000 - 11/30/2003      FY01: \$95,000      Total: \$145,000  
*Prin. Invest.: D L KOCH*  
*Tech. Officer: GRC/H K NAHRA*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 3 2353**           **CORNELL UNIV**           **6939**  
 SHEET FLOWS, AVALANCHES, AND DUNE EVOLUTION ON EARTH AND MARS  
 03/14/2000 - 11/30/2003      FY01: \$58,900      Total: \$103,140  
*Prin. Invest.: D T JENKINS*  
*Tech. Officer: GRC/F P CHIARMONTE*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 3 2440** CORNELL UNIV 6940  
 RAPIDLY SHEARED BUBBLY SUSPENSION RAPIDLY SHEARED BUBBLY  
 SUSPENSION  
 05/31/2000 - 04/30/2005 FY01: \$133,000 Total: \$273,000  
*Prin. Invest.: D L KOCH*  
*Tech. Officer: GRC/H K NAHRA*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 5 3427** CORNELL UNIV 6941  
 DEVELOPMENT AND APPLICATION OF NEW TOOLS FOR STATI DISCRETE  
 ASTROPHYSICAL DATA  
 09/26/1996 - 09/30/2001 FY01: \$0 Total: \$522,253  
*Prin. Invest.: T J LOREDO*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 3626** CORNELL UNIV 6942  
 PHYSICAL STUDIES OF PLANETARY AND SATELLITE SURFACE  
 02/12/1997 - 10/31/2001 FY01: \$77,000 Total: \$511,150  
*Prin. Invest.: J VEVERKA*  
*Tech. Officer: GSFC/P G ROGERS*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 3627** CORNELL UNIV 6943  
 SHAPES, SURFACES AND INTERIORS OF SATELLITES  
 02/12/1997 - 03/31/2001 FY01: \$0 Total: \$210,850  
*Prin. Invest.: P C THOMAS*  
*Tech. Officer: GSFC/J GRANT*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 3639** CORNELL UNIV 6944  
 STUDY OF THE EFFECTS OF PHOTOMETRIC GEOMETRY ON SP  
 MEASUREMENTS  
 02/12/1997 - 12/31/2001 FY01: \$50,000 Total: \$247,500  
*Prin. Invest.: P HELFENSTEIN*  
*Tech. Officer: GSFC/P G ROGERS*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 3795** CORNELL UNIV 6945  
 DYNAMICAL STUDIES OF PLANETARY RINGS  
 03/24/1997 - 09/30/2001 FY01: \$61,000 Total: \$297,050  
*Prin. Invest.: P D NICHOLSON*  
*Tech. Officer: GSFC/P G ROGERS*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 3800** CORNELL UNIV 6946  
 STATISTICS OF GAMMA RAY BURSTS  
 11/27/1996 - 11/30/2000 FY01: \$0 Total: \$50,000  
*Prin. Invest.: I M WASSERMAN*  
*Tech. Officer: GSFC/J PNORRIS*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 3862** CORNELL UNIV 6947  
 STUDIES OF THERMAL STRUCTURES AND MOTIONS OF PLANE  
 01/24/1997 - 11/30/2001 FY01: \$123,200 Total: \$547,161  
*Prin. Invest.: D J GIERABCH*  
*Tech. Officer: GSFC/J BERGSTRALH*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 3910** CORNELL UNIV 6948  
 PHYSICAL PROCESSES IN PLANETARY RINGS  
 03/07/1997 - 12/31/2001 FY01: \$114,000 Total: \$683,100  
*Prin. Invest.: D A BURNS*  
*Tech. Officer: GSFC/P ROGERS*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 4205** CORNELL UNIV 6949  
 STUDIES IN PLANETARY GEOSCIENCES  
 03/19/1997 - 03/31/2002 FY01: \$0 Total: \$459,323  
*Prin. Invest.: S W SQUYRES*  
*Tech. Officer: GSFC/J G GRANT*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 4220** CORNELL UNIV 6950  
 SURFACE PROPERTIES FROM RADAR AND RADIO OBSERVATIO  
 03/15/1997 - 12/31/2000 FY01: \$0 Total: \$161,900  
*Prin. Invest.: D B CAMPBELL*  
*Tech. Officer: GSFC/P ROGERS*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 4333** CORNELL UNIV 6951  
 MARS SURFACE MINERALOGY FROM HST AND MARINER 6.7 I  
 04/25/1997 - 04/30/2001 FY01: \$0 Total: \$133,200  
*Prin. Invest.: D F BELL*  
*Tech. Officer: GSFC/P ROGERS*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 4361** CORNELL UNIV 6952  
 IMPLICATIONS OF EPISODIC SUBDUCTION  
 04/09/1997 - 03/31/2000 FY01: \$0 Total: \$105,000  
*Prin. Invest.: D L TURCOTTE*  
*Tech. Officer: GSFC/P G ROGERS*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 4502** CORNELL UNIV 6953  
 OPERATE THE SPACECRAFT PLANETARY IMAGING FACILITY  
 05/06/1997 - 02/28/2001 FY01: \$0 Total: \$146,150  
*Prin. Invest.: D VEVERKA*  
*Tech. Officer: GSFC/P ROGERS*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 5134** CORNELL UNIV 6954  
 CO-INVESTIGATOR PROPOSAL FOR ENSTROPHY- FILAMENTATION OF  
 AWARD CURRENTS  
 04/14/1997 - 03/31/2000 FY01: -\$12 Total: \$201,579  
*Prin. Invest.: P KINTNER*  
*Tech. Officer: GSFC/W JOHNSON*  
*CASE Category: 13 – PHYSICS*

**NAG 5 5233** CORNELL UNIV 6955  
 SIERRA PI DR. PAUL KINTNER  
 02/10/1999 - 03/31/2002 FY01: \$146,899 Total: \$513,147  
*Prin. Invest.: P M KINTNER*  
*Tech. Officer: MSFC/W B JOHNSON*  
*CASE Category: 13 – PHYSICS*

<b>NAG 5 5244</b>	<b>CORNELL UNIV</b>	<b>6956</b>	<b>NAG 5 7508</b>	<b>CORNELL UNIV</b>	<b>6964</b>
FIRST YEAR OF A THREE GRANT NAG5-5244 PI DR. MICHAEL C. KELLEY 03/29/1999 - 03/28/2002	PI DR. MICHAEL C. KELLEY FY01: \$97,600	Total: \$189,538	ELASTIC PROPERTIES OF FILMS OF WATER AND NOBLE GAS ES CONDENSED AT LOW TEMPERATURES 06/29/1998 - 05/31/2001	ELASTIC PROPERTIES OF FILMS OF WATER AND NOBLE GAS ES CONDENSED AT LOW TEMPERATURES FY01: \$0	Total: \$130,000
Prin. Invest.: M C KELLEY			Prin. Invest.: R O POHL		
Tech. Officer: GSFC/W B JOHNSON			Tech. Officer: HQ/J BOYCE		
CASE Category: 13 - PHYSICS			CASE Category: 11 - ASTRONOMY		
<b>NAG 5 6273</b>	<b>CORNELL UNIV</b>	<b>6957</b>	<b>NAG 5 7864</b>	<b>CORNELL UNIV</b>	<b>6965</b>
BIOLOGICAL AND PHYSICAL CONTROLS OF PRIMARY PRODUC SUBSEQUENT FATE IN THE GEORGES BANK REGION: AN IN 08/29/1997 - 04/30/2001	BIOLOGICAL AND PHYSICAL CONTROLS OF PRIMARY PRODUC SUBSEQUENT FATE IN THE GEORGES BANK REGION: AN IN FY01: \$0	Total: \$218,223	JUPITER CLOUD STRUCTURE AND DYNAMICS STUDIES 01/12/1999 - 12/31/2001	JUPITER CLOUD STRUCTURE AND DYNAMICS STUDIES FY01: \$0	Total: \$182,000
Prin. Invest.: G CHARLES			Prin. Invest.: D J GIERASCH		
Tech. Officer: GSFC/J JODER			Tech. Officer: GSFC/R BEEBE		
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER			CASE Category: 11 - ASTRONOMY		
<b>NAG 5 6437</b>	<b>CORNELL UNIV</b>	<b>6958</b>	<b>NAG 5 7892</b>	<b>CORNELL UNIV</b>	<b>6966</b>
PERCEPTION AND TRANSDUCTION OF THE GRAVITATIONAL S TIMULUS 10/28/1997 - 05/31/2000	PERCEPTION AND TRANSDUCTION OF THE GRAVITATIONAL S TIMULUS FY01: -\$38,430	Total: \$181,577	SPECTROSCOPY AND METEORITE LINKAGE OF THE K-TYPE ASTEROIDS 12/04/1998 - 12/31/2000	SPECTROSCOPY AND METEORITE LINKAGE OF THE K-TYPE ASTEROIDS FY01: \$0	Total: \$41,000
Prin. Invest.: R WAYNE			Prin. Invest.: D E CLARK		
Tech. Officer: GSFC/M P AVERNER			Tech. Officer: GSFC/J GRANT		
CASE Category: 59 - LIFE SCIENCE, OTHER			CASE Category: 11 - ASTRONOMY		
<b>NAG 5 6495</b>	<b>CORNELL UNIV</b>	<b>6959</b>	<b>NAG 5 7919</b>	<b>CORNELL UNIV</b>	<b>6967</b>
DEVELOPMENT OF 256X256 SI:SB AND SI:AS BIBIB DETEC TORS FOR SOFIA 10/31/1997 - 12/31/2001	DEVELOPMENT OF 256X256 SI:SB AND SI:AS BIBIB DETEC TORS FOR SOFIA FY01: \$30,000	Total: \$840,000	SPATIALLY RESOLVED K-BAND GRISM SPECTRA OF URANUS AND NEPTUNE: AEROSOL AND METHANE VERTICAL DISTRIBUTION 12/10/1998 - 12/31/2001	SPATIALLY RESOLVED K-BAND GRISM SPECTRA OF URANUS AND NEPTUNE: AEROSOL AND METHANE VERTICAL DISTRIBUTION FY01: \$0	Total: \$58,795
Prin. Invest.: D L HERTER			Prin. Invest.: D BANFIELD		
Tech. Officer: GSFC/G STRINGFELLOW			Tech. Officer: GSFC/T MORGAN		
CASE Category: 11 - ASTRONOMY			CASE Category: 11 - ASTRONOMY		
<b>NAG 5 6783</b>	<b>CORNELL UNIV</b>	<b>6960</b>	<b>NAG 5 7965</b>	<b>CORNELL UNIV</b>	<b>6968</b>
RADAR SYNTHESIS IMAGING OF SMALL BODIES 01/20/1998 - 09/30/2000	RADAR SYNTHESIS IMAGING OF SMALL BODIES FY01: -\$415	Total: \$101,585	JOVIAN PLANETARY WAVES: BASIC ATMOSPHERIC PROPERTIES FROM MULTIPLE PRE-GALILEO DATASETS 12/15/1998 - 12/31/2000	JOVIAN PLANETARY WAVES: BASIC ATMOSPHERIC PROPERTIES FROM MULTIPLE PRE-GALILEO DATASETS FY01: \$0	Total: \$73,978
Prin. Invest.: D B CAMPBELL			Prin. Invest.: D HARRINGTON		
Tech. Officer: GSFC/P ROGERS			Tech. Officer: GSFC/R BEEBE		
CASE Category: 32 - GEOLOGICAL SCIENCE			CASE Category: 11 - ASTRONOMY		
<b>NAG 5 7264</b>	<b>CORNELL UNIV</b>	<b>6961</b>	<b>NAG 5 8010</b>	<b>CORNELL UNIV</b>	<b>6969</b>
ROTATING AND BINARY NEUTRON STARS IN GENERAL RELATIVITY - ATP 04/29/1998 - 04/30/2001	ROTATING AND BINARY NEUTRON STARS IN GENERAL RELATIVITY - ATP FY01: \$0	Total: \$166,136	DIGITAL MAPPING OF JOVIAN CLOUD MOTIONS 01/13/1999 - 01/14/2002	DIGITAL MAPPING OF JOVIAN CLOUD MOTIONS FY01: \$0	Total: \$50,000
Prin. Invest.: S TUEKOLSKY			Prin. Invest.: P HELFENSTEIN		
Tech. Officer: GSFC/D K WEST			Tech. Officer: GSFC/R BEEBE		
CASE Category: 11 - ASTRONOMY			CASE Category: 11 - ASTRONOMY		
<b>NAG 5 7373</b>	<b>CORNELL UNIV</b>	<b>6962</b>	<b>NAG 5 8067</b>	<b>CORNELL UNIV</b>	<b>6970</b>
OBSERVATIONS OF LARGE-SCALE JOVIAN THERMAL WAVES 05/12/1998 - 05/14/2000	OBSERVATIONS OF LARGE-SCALE JOVIAN THERMAL WAVES FY01: \$0	Total: \$158,910	COMET NUCLEUS TOUR - CONTOUR 01/21/1999 - 09/30/2000	COMET NUCLEUS TOUR - CONTOUR FY01: \$0	Total: \$574,000
Prin. Invest.: J HARRINGTON			Prin. Invest.: D VEVERKA		
Tech. Officer: GSFC/L D DEMING			Tech. Officer: GSFC/A CARRO		
CASE Category: 11 - ASTRONOMY			CASE Category: 11 - ASTRONOMY		
<b>NAG 5 7497</b>	<b>CORNELL UNIV</b>	<b>6963</b>	<b>NAG 5 8070</b>	<b>CORNELL UNIV</b>	<b>6971</b>
UNDERSTANDING METEOROLOGICAL CONTROLS OF GLACIER MASS BALANCE 06/29/1998 - 06/30/2002	UNDERSTANDING METEOROLOGICAL CONTROLS OF GLACIER MASS BALANCE FY01: \$0	Total: \$270,000	WATER DETECTION ON ASTEROIDS: ARE THE VISIBLE REBANDS REALLY A GOOD PROXY? 01/29/1999 - 02/28/2002	WATER DETECTION ON ASTEROIDS: ARE THE VISIBLE REBANDS REALLY A GOOD PROXY? FY01: \$0	Total: \$89,364
Prin. Invest.: K H COOK			Prin. Invest.: D S HOWELL		
Tech. Officer: GSFC/E T ENGMAN			Tech. Officer: GSFC/T MORGAN		
CASE Category: 32 - GEOLOGICAL SCIENCE			CASE Category: 11 - ASTRONOMY		

**NAG 5 8188** CORNELL UNIV 6972  
 UNDERGRADUATE COURSE ON SATELLITE REMOTE SENSING IN BIOLOGICAL OCEANOGRAPHY  
 03/04/1999 - 09/30/2001 FY01: \$0 Total: \$151,501  
*Prin. Invest.:* B MONGER  
*Tech. Officer:* GSFC/J CAMPBELL  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8282** CORNELL UNIV 6973  
 SEPARATION & ANALYSIS OF TES ATMOSPHERIC TEMPERATURE AS COMPONENTS: ZONAL MEANS, THERMADYNE  
 02/19/1999 - 02/28/2002 FY01: \$66,000 Total: \$200,800  
*Prin. Invest.:* D J BANDFIELD  
*Tech. Officer:* HQ/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8356** CORNELL UNIV 6974  
 ASTROPHYSICS OF FAST MOVING NEUTRON STARS (ATP98)  
 03/11/1999 - 03/14/2002 FY01: \$115,000 Total: \$329,504  
*Prin. Invest.:* D F CHERNOFF  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8484** CORNELL UNIV 6975  
 MATTER IN STRONG MAGNETIC FIELDS AND THERMAL RADIATION FROM ISOLATED NEUTRON STARS (ATP - 98)  
 05/11/1999 - 05/14/2002 FY01: \$69,000 Total: \$197,114  
*Prin. Invest.:* D LAI  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8673** CORNELL UNIV 6976  
 A SCANNING DOUBLE HALF-WAVE INTERFEROMETER FOR SOFIA  
 07/09/1999 - 07/14/2002 FY01: \$0 Total: \$315,665  
*Prin. Invest.:* G J STACEY  
*Tech. Officer:* GSFC/G MUCKLOW  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8775** CORNELL UNIV 6977  
 ENGINEERING CONTROL OF BIOMOLECULAR MOTOR POWERED NANO CHEMICAL DEVICE  
 09/01/1999 - 08/31/2002 FY01: \$143,631 Total: \$326,772  
*Prin. Invest.:* C MONTEEMAGNO  
*Tech. Officer:* GSFC/S DAVISON  
*CASE Category:* 99 - MULTI INTERDISCPL, OTHER

**NAG 5 8950** CORNELL UNIV 6978  
 DELIVERY OF ASTEROIDS AND METEOROIDS TO EARTH VIA YARKOVSKY THERMAL FORCES  
 01/24/2000 - 10/15/2000 FY01: -\$11,041 Total: \$13,659  
*Prin. Invest.:* W BOTTKE  
*Tech. Officer:* GSFC/J GRANT  
*CASE Category:* 99 - MULTI INTERDISCPL, OTHER

**NAG 5 9034** CORNELL UNIV 6979  
 RADAR SYNTHESIS IMAGING OF SMALL BODIES  
 02/07/2000 - 02/14/2003 FY01: \$63,000 Total: \$122,850  
*Prin. Invest.:* B CAMPBELL  
*Tech. Officer:* GSFC/J GRANT  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 9047** CORNELL UNIV 6980  
 ACCRETION TO MAGNETIZED ROTATING NEUTRON STARS (ATP 99)  
 03/09/2000 - 03/14/2002 FY01: \$59,643 Total: \$116,752  
*Prin. Invest.:* R LOVELACE  
*Tech. Officer:* GSFC/R OLIVERSEN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9067** CORNELL UNIV 6981  
 SCALING & CROSS CORRELATION STUDIES OF LAND SLIDES  
 02/17/2000 - 02/28/2002 FY01: \$75,000 Total: \$120,000  
*Prin. Invest.:* D L TURCOTTE  
*Tech. Officer:* GSFC/H V FREY  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 9082** CORNELL UNIV 6982  
 UNDERSTANDING THE DISTRIBUTION OF NEAR-EARTH OBJECTS TO THE NASA NEAR EARTH OBJECTS OBSERVATIONS  
 02/17/2000 - 08/14/2000 FY01: -\$33,804 Total: \$12,196  
*Prin. Invest.:* W BOTTKE  
*Tech. Officer:* GSFC/T H MORGAN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9140** CORNELL UNIV 6983  
 INVESTIGATION OF CELESTIAL SOLID ANALOGS  
 02/29/2000 - 02/28/2002 FY01: \$60,000 Total: \$116,520  
*Prin. Invest.:* A SIEVERS  
*Tech. Officer:* GSFC/P CRANE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9178** CORNELL UNIV 6984  
 MULTIWAVELENGTH OBSERVATIONS OF THE MICROQUASAR GRS 1915+105--ADP99  
 03/06/2000 - 03/14/2001 FY01: \$0 Total: \$20,482  
*Prin. Invest.:* S S EIKENBERRY  
*Tech. Officer:* GSFC/R J OLIVERSEN  
*CASE Category:* 21 - MATHEMATICS

**NAG 5 9199** CORNELL UNIV 6985  
 ELECTRON AND ION ACCELERATION ASSOCIATED WITH ALFVENIC STRUCTURES  
 03/09/2000 - 03/14/2003 FY01: \$80,000 Total: \$153,500  
*Prin. Invest.:* C E SEYLER  
*Tech. Officer:* GSFC/M MELLOTT  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 9492** CORNELL UNIV 6986  
 STUDIES OF VOLCANISM AND TECTONISM ON MARS AND THE MOON  
 04/17/2000 - 04/14/2002 FY01: \$35,000 Total: \$68,250  
*Prin. Invest.:* D L TURCOTTE  
*Tech. Officer:* GSFC/J A GRANT  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 9594** CORNELL UNIV 6987  
 PARTICIPATION IN SHOEMAKER-LEVY 9 IMPACT MODELING INVESTIGATION  
 06/08/2000 - 06/14/2002 FY01: \$46,823 Total: \$107,147  
*Prin. Invest.:* J HARRINGTON  
*Tech. Officer:* GSFC/L D DEMING  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9612** CORNELL UNIV 6988  
 NEW ALGORITHMS FOR MAGNETOMETER ORBIT AND ATTITUDE ESTIMATION  
 05/26/2000 - 05/31/2002 FY01: \$0 Total: \$60,008  
*Prin. Invest.: D PSIABI*  
*Tech. Officer: GSFC/R HARMAN*  
*CASE Category: 41 - AERONAUTICAL ENGRN*

**NAG 5 9735** CORNELL UNIV 6989  
 MAGNETOHYDRODYNAMICS AND PLASMA PHENOMENA IN PROTE STELLAR SYSTEMS  
 06/21/2000 - 06/30/2002 FY01: \$23,200 Total: \$45,200  
*Prin. Invest.: R LOVELACE*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9774** CORNELL UNIV 6990  
 SUB-PIXEL DETECTABILITY OF MATERIALS AT THE PATH FINDER LANDING SITE: IMPLICATIONS FOR MARTIAN SURF  
 06/30/2000 - 06/30/2002 FY01: \$70,000 Total: \$140,000  
*Prin. Invest.: J F BELL*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9794** CORNELL UNIV 6991  
 DETERMINATION OF AERODYNAMIC ROUGHNESS FROM SURFACE-BASES STEREO IMAGING  
 07/11/2000 - 07/14/2002 FY01: \$43,000 Total: \$85,100  
*Prin. Invest.: R J SULLIVAN*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 10168** CORNELL UNIV 6992  
 SURFACES OF PLANETS, SATELLITES, AND ASTEROIDS  
 01/04/2001 - 11/30/2001 FY01: \$39,000 Total: \$39,000  
*Prin. Invest.: P THOMAS*  
*Tech. Officer: GSFC/D SENSKA*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 10289** CORNELL UNIV 6993  
 THERMAL EMISSION SPECTRAL MODELING WITH APPLICATIONS TO ASTEROIDS AND METEORITES  
 01/29/2001 - 01/31/2002 FY01: \$16,000 Total: \$16,000  
*Prin. Invest.: B E CLARK*  
*Tech. Officer: GSFC/D SENSKA*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10356** CORNELL UNIV 6994  
 QUANTUM WELL ELECTRON GAIN STRUCTURES FOR IMPROVED INFRARED DETECTOR READ NOISE  
 02/07/2001 - 01/31/2002 FY01: \$293,057 Total: \$293,057  
*Prin. Invest.: S EIKENBERRY*  
*Tech. Officer: GSFC/G STRINGFELLOW*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 10434** CORNELL UNIV 6995  
 OPERATE THE SPACECRAFT PLANETARY IMAGING FACILITY AT CORNELL  
 02/16/2001 - 02/28/2002 FY01: \$37,000 Total: \$37,000  
*Prin. Invest.: J VEVERKA*  
*Tech. Officer: GSFC/D SENSKA*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10438** CORNELL UNIV 6996  
 THE IRREGULAR SATELLITE SYSTEMS OF THE GIANT PLANETS  
 02/20/2001 - 02/28/2002 FY01: \$54,000 Total: \$54,000  
*Prin. Invest.: P NICHOLSON*  
*Tech. Officer: GSFC/T MORGAN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10559** CORNELL UNIV 6997  
 MHD AND PLASMA PHENOMENA IN PROTOSTELLAR SYSTEMS  
 03/13/2001 - 05/15/2001 FY01: \$0 Total: \$0  
*Prin. Invest.: R V LOVELACE*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10574** CORNELL UNIV 6998  
 EVALUATION OF DUST AVALANCHES AND HIGH-ALTITUDE AEOLIAN FEATURES  
 03/13/2001 - 03/14/2002 FY01: \$45,000 Total: \$45,000  
*Prin. Invest.: R SULLIVAN*  
*Tech. Officer: GSFC/J M BOYCE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10579** CORNELL UNIV 6999  
 DUST LIFTING & TRANSPORT ON MARS: ANALYSIS OF MGS DATA WITH A MESOSCALE MODEL  
 03/19/2001 - 02/28/2002 FY01: \$71,000 Total: \$71,000  
*Prin. Invest.: P GIERASCH*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10580** CORNELL UNIV 7000  
 OBSERVATIONAL STUDY OF THE MARS POLAR VORTEX  
 03/19/2001 - 02/28/2002 FY01: \$60,000 Total: \$60,000  
*Prin. Invest.: B CONRATH*  
*Tech. Officer: GSFC/J M BOYCE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10584** CORNELL UNIV 7001  
 ELASTIC PROPERTIES OF FILMS OF WATER & NOBLE GASES CONDENSED AT LOW TEMPERATURES  
 03/13/2001 - 05/31/2002 FY01: \$45,000 Total: \$45,000  
*Prin. Invest.: R O POHL*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10636** CORNELL UNIV 7002  
 MINERALOGY AND WEATHERING HISTORY OF THE MARTIAN SURFACE  
 03/17/2001 - 03/14/2002 FY01: \$80,000 Total: \$80,000  
*Prin. Invest.: J F BELL, III*  
*Tech. Officer: GSFC/D SENSKA*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10848** CORNELL UNIV 7003  
 UNDERGRADUATE COURSE ON SATELLITE REMOTE SENSING IN BIOLOGICAL OCEANOGRAPHY  
 05/03/2001 - 04/14/2002 FY01: \$89,482 Total: \$89,482  
*Prin. Invest.: B MONGER*  
*Tech. Officer: GSFC/J MARRA*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 8 1357**           **CORNELL UNIV**           **7004**  
 R/S "DEFECTS, GROWTH, & ELASTIC PROPERTIES OF PROTEIN CRYSTALS"  
 05/15/1997 - 05/31/2001      FY01: \$41,913      Total: \$410,913  
*Prin. Invest.: R THORNE*  
*Tech. Officer: MSFC/B GUYNES, MSFC/J MAYO*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 8 1372**           **CORNELL UNIV**           **7005**  
 R/S ENHANCEMENT OF CELL FUNCTION IN CULTURE BY CONTROLLED  
 AGGREGATION UNDER MICROGRAVITY CONDITIO  
 06/18/1997 - 05/31/2001      FY01: \$0      Total: \$511,000  
*Prin. Invest.: W M SALTZMAN*  
*Tech. Officer: JSC/W M SATTMAN*  
*CASE Category: 13 – PHYSICS*

**NAG 8 1438**           **CORNELL UNIV**           **7006**  
 STUDIES OF FREE RADICALS  
 02/17/1998 - 01/31/2001      FY01: \$10,500      Total: \$245,500  
*Prin. Invest.: J M PARPIA*  
*Tech. Officer: MSFC/J W POE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 8 1445**           **CORNELL UNIV**           **7007**  
 STUDIES OF FREE RADICALS  
 02/16/1998 - 01/31/2003      FY01: \$142,500      Total: \$583,500  
*Prin. Invest.: D M LEE*  
*Tech. Officer: MSFC/J W POE*  
*CASE Category: 13 – PHYSICS*

**NAG 8 1518**           **CORNELL UNIV**           **7008**  
 MESOSCALE LANDSURFACE HEAT FLUX VARIABILITY OVER THE  
 SOUTHERN GCIP AREA FROM ATMOSPHERIC SOUNDINGS  
 06/01/1998 - 05/31/2002      FY01: \$0      Total: \$343,000  
*Prin. Invest.: W BRUTSAERT*  
*Tech. Officer: MSFC/J ARNOLD*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 8 1574**           **CORNELL UNIV**           **7009**  
 IMPURITY EFFECTS IN MACROMOLECULAR CRYSTAL GROWTH  
 01/05/1999 - 11/30/2002      FY01: \$29,150      Total: \$192,150  
*Prin. Invest.: R THORNE*  
*Tech. Officer: MSFC/B GUYNES*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 8 1666**           **CORNELL UNIV**           **7010**  
 INFLUENCE OF HOMOGENEITY AND FRAGILITY ON THE DYNAMICAL PRO-  
 PERTIES OF GLASSY NETWORKS.  
 05/12/2000 - 09/30/2003      FY01: \$104,500      Total: \$159,500  
*Prin. Invest.: A J SIEVERS*  
*Tech. Officer: MSFC/P DOTY*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NAG 8 1671**           **CORNELL UNIV**           **7011**  
 ON THE CONTROL OF THE EFFECTS OF GRAVITY ON THE SO LIDIFICATION  
 MICROSTRUCTURES USING OPTIMALLY DESIG  
 06/16/2000 - 12/31/2003      FY01: \$90,250      Total: \$135,250  
*Prin. Invest.: N ZABARAS*  
*Tech. Officer: MSFC/P DOTY*  
*CASE Category: 43 – CHEMICAL ENGR*

**NAG 8 1716**           **CORNELL UNIV**           **7012**  
 SIMULATION FOR OPERATIONA AND SPARE PARTS STOCKING FOR SPACE  
 TRANSPORTATION SYSTMS.  
 03/22/2000 - 12/22/2001      FY01: \$2,000      Total: \$76,999  
*Prin. Invest.: P JACKSON*  
*Tech. Officer: MSFC/M NIX*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 8 1759**           **CORNELL UNIV**           **7013**  
 BIODEGRADABLE POLYMERS  
 05/02/2001 - 03/31/2005      FY01: \$74,084      Total: \$74,084  
*Prin. Invest.: C A BATT, E P GIANNELIS*  
*Tech. Officer: MSFC/D SHUBBARD*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 8 1778**           **CORNELL UNIV**           **7014**  
 MICROSCALE MIXER FOR PROTEIN FOLDING  
 05/02/2001 - 12/31/2005      FY01: \$80,000      Total: \$80,000  
*Prin. Invest.: L POLLACK*  
*Tech. Officer: MSFC/D HUBBARD*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 8 1831**           **CORNELL UNIV**           **7015**  
 R/S "MACROMOLECULAR CRYSTAL GROWTH: TECHNIQUES, DEVELOP-  
 MENT, FUNDAMENTAL STUDIES, AND APPS.  
 08/30/2001 - 11/30/2004      FY01: \$131,000      Total: \$131,000  
*Prin. Invest.: R E THORNE*  
*Tech. Officer: MSFC/G GUYNES*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NASW 00005**           **CORNELL UNIV**           **7016**  
 PRINCIPAL INVESTIGATOR & CO'S NASA'S CONTOUR DISCOVERY MISSION  
 07/03/2000 - 09/30/2002      FY01: \$563,497      Total: \$905,497  
*Prin. Invest.: J F EVERKA*  
*Tech. Officer: HQ/D B JARRETT*  
*CASE Category: 11 – ASTRONOMY*

**NASW 99008**           **CORNELL UNIV**           **7017**  
 DEVELOPMENT MID-INFARED CROSS DISPERSEL ECHELLE SPECTRO-  
 GRAPH W/NO MOVING PARTS KECK OBS  
 05/24/1999 - 05/23/2000      FY01: \$0      Total: \$78,812  
*Prin. Invest.: J R HOUCK*  
*Tech. Officer: HQ/J T BERGSTRALH*  
*CASE Category: 11 – ASTRONOMY*

**NCC 2 1201**           **CORNELL UNIV**           **7018**  
 DO INTEGRINS MEDIATE THE SKELETAL RESPONSES TO ALT ERRED  
 LOADING IN VIVO (SUB-PROJECT B)  
 09/12/2000 - 09/30/2002      FY01: \$30,172      Total: \$64,060  
*Prin. Invest.: M C VAN DER MEULEN*  
*Tech. Officer: ARC/R K GLOBUS, ARC/E M HOLTON*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NCC 2 5459**           **CORNELL UNIV**           **7019**  
 SYNTHETIC & MICROBIAL FOOD INGREDIENTS FOR LONG DU RATION  
 SPACE MISSIONS  
 08/27/2001 - 08/31/2002      FY01: \$18,293      Total: \$18,293  
*Prin. Invest.: J B HUNTER*  
*Tech. Officer: ARC/H W JONES, ARC/M H KLASS*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NCC 3 468** CORNELL UNIV 7020  
 MICROGRAVITY SEGREGATION IN BINARY MIXTURES OF INE LASTIC SPHERES DRIVEN BY VELOCITY FLUCTUATION GRA  
 04/22/1996 - 08/15/2001 FY01: \$0 Total: \$787,098  
*Prin. Invest.: J T JENKINS, M LOUGE*  
*Tech. Officer: GRC/R HAKIMZADEH, GRC/E NELSON*  
*CASE Category: 46 – MECHANICAL ENGR*

**NCC 3 797** CORNELL UNIV 7021  
 PARTICLE SEGREGATION IN COLLISIONAL SHEARING FLOWS PARTICLE SEGREGATION IN COLLISIONAL SHEARINGFLOW  
 05/18/2000 - 04/30/2005 FY01: \$183,996 Total: \$309,996  
*Prin. Invest.: J JENKINS*  
*Tech. Officer: GRC/F P CHARIAMONTE 111*  
*CASE Category: 46 – MECHANICAL ENGR*

**NCC 3 832** CORNELL UNIV 7022  
 HIGH TEMPERATURE POLYIMIDE NANOCOMPOSITES HIGH TEMPERATURE POLYIMIDE NANOCOMPOSITES  
 01/04/2001 - 12/31/2001 FY01: \$67,850 Total: \$67,850  
*Prin. Invest.: D P GIANNELIS*  
*Tech. Officer: GRC/M MEADOR*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NCC 5 298** CORNELL UNIV 7023  
 CARBON AND NUTRIENT STOCKS, SOIL WATER DYNAMICS, A ND TRACE GAS FLUXES IN ABANDONED PASTURES AND AGR  
 06/16/1998 - 12/31/2001 FY01: \$346,002 Total: \$995,177  
*Prin. Invest.: E FERNANDES*  
*Tech. Officer: GSFC/D DEERING*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NCC 5 322** CORNELL UNIV 7024  
 OUTER PLANETS ATMOSPHERIC STRUCTURE  
 03/10/1998 - 02/28/2001 FY01: \$18,580 Total: \$348,719  
*Prin. Invest.: P J GIERASCH*  
*Tech. Officer: GSFC/F M FLASAR*  
*CASE Category: 11 – ASTRONOMY*

**NCC 5 375** CORNELL UNIV 7025  
 RADIATIVE STUDIES OF PLANETARY ATMOSPHERES  
 01/19/1999 - 02/14/2002 FY01: \$114,229 Total: \$273,854  
*Prin. Invest.: B J CONRATH*  
*Tech. Officer: GSFC/F M FLASAR*  
*CASE Category: 11 – ASTRONOMY*

**NCC 5 539** CORNELL UNIV 7026  
 OUTER PLANETS, ATMOSPHERIC STRUCTURE AND PARTICIPA TION IN CIRS  
 02/12/2001 - 02/14/2002 FY01: \$170,000 Total: \$170,000  
*Prin. Invest.: P J GIERASCH*  
*Tech. Officer: GSFC/F M FLASAR*  
*CASE Category: 11 – ASTRONOMY*

**NCC 5 563** CORNELL UNIV 7027  
 DEVELOPMENT OF GPS SOFTWARE RECEIVER ALGORITHMS FOR USE IN HIGH-ALTITUDE SPACECRAFT NAVIGATION  
 06/12/2001 - 06/30/2002 FY01: \$40,000 Total: \$40,000  
*Prin. Invest.: M L PSIABI*  
*Tech. Officer: GSFC/B L EDWARDS*  
*CASE Category: 42 – ASTRONAUTICAL ENGR*

**NCC 9 86** CORNELL UNIV 7028  
 EVALUATION OF WATER-JACKTED LAMPS FOR USE IN JSC BIO-PLEX  
 06/01/1999 - 12/31/2001 FY01: \$0 Total: \$26,089  
*Prin. Invest.: L D ALBRIGHT*  
*Tech. Officer: JSC/D J BARTA*  
*CASE Category: 55 – AGRICULTURE*

**NCC 9 89** CORNELL UNIV 7029  
 COORDINATE ANALYSIS AND CALIBRATION STUDIES  
 07/20/1999 - 07/19/2002 FY01: \$10,000 Total: \$30,000  
*Prin. Invest.: R V MORRIS, J F BELL*  
*Tech. Officer: JSC/R V MORRIS*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 3 52362** CORNELL UNIV 7030  
 NASA GRADUATE STUDENT RESEARCHERS PROGRAM NASA GRADUATE STUDENT RESEARCHERS PROGRAM  
 06/07/2000 - 06/30/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.: D KOCH*  
*Tech. Officer: GRC/H K NAHRA*  
*CASE Category: 43 – CHEMICAL ENGR*

**NGT 5 30038** CORNELL UNIV 7031  
 THE INTERNAL NITROGEN CYCLE OF TEMPERATURE FORESTS MECH-ANISMS IN THE ABSENCE OF HUMAN DISTURBANCE  
 10/17/1996 - 08/31/2000 FY01: \$0 Total: \$66,000  
*Prin. Invest.: L O HEDIN*  
*Tech. Officer: GSFC/G ASRAR*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NGT 5 30126** CORNELL UNIV 7032  
 INTERFEROMETRIC SAR MEASUREMENTS OF SEISMIC & INTE R-SEISMIC STRAIN NEAR A MAJOR SEISMIC GAP INPERU  
 10/10/1997 - 08/31/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.: B ISACKS*  
*Tech. Officer: GSFC/G ASRAR*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 30210** CORNELL UNIV 7033  
 HAVE WE GROSSLY UNDERESTIMATED METHANE PRODUCTION & CONSUMPTION? APPLICATION OF A NEW STABLE ISOTOPE  
 08/20/1999 - 08/31/2002 FY01: \$2,200 Total: \$46,200  
*Prin. Invest.: L O HEDIN*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 40019** CORNELL UNIV 7034  
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE AND FELLOWSHIP PROGRAM.  
 01/06/1997 - 01/31/2001 FY01: -\$15,696 Total: \$1,789,304  
*Prin. Invest.: Y TERZIAN*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 40078** CORNELL UNIV 7035  
 NEW YORK SPACE GRANT COLLEGE & FELLOWSHIP PROGRAM  
 02/09/2001 - 01/31/2002 FY01: \$490,696 Total: \$490,696  
*Prin. Invest.: Y TERZIAN*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50218**           **CORNELL UNIV**           **7036**  
 VOLUMETRIC ASSESSMENT OF FACTORS GOVERNING SEASONAL AND  
 INTERANNUAL FLUXES OF PHYTOPLANKTON FROM  
 09/17/1998 - 08/31/2001      FY01: \$0      Total: \$66,000  
*Prin. Invest.: C H GREENE, FISHER*  
*Tech. Officer: GSFC/M Y WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 50270**           **CORNELL UNIV**           **7037**  
 PRE-AGGREGATION OF CELLS UNDER MICROGRAVITY CONDITIONS  
 FOLLOWED BY TRANSPLANTATION INTO THE BRAIN  
 07/23/1999 - 08/31/2000      FY01: \$0      Total: \$22,000  
*Prin. Invest.: M SALTZMAN*  
*Tech. Officer: GSFC/L SMITH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50375**           **CORNELL UNIV**           **7038**  
 BONE ADAPTATION TO PRECISELY CONTROLLED CYCLIC LOADING  
 (STUDENT: JAMES FRITTON)  
 06/29/2001 - 07/31/2002      FY01: \$22,000      Total: \$22,000  
*Prin. Invest.: M H VAN DER MUELEN*  
*Tech. Officer: GSFC/K BLANDING*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 8 52897**           **CORNELL UNIV**           **7039**  
 UNDERSTANDING THE COVARIABILITY OF AFRICAN AND INDIAN SUMMER  
 RAINFALL  
 05/25/2001 - 07/01/2004      FY01: \$22,000      Total: \$22,000  
*Prin. Invest.: K H COOK*  
*Tech. Officer: MSFC/S NASH-STEVENSON*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NGT 9 16**           **CORNELL UNIV**           **7040**  
 SELECTION & CHARAC OF VEG CROP CULTIVARS ...  
 05/16/1997 - 09/30/2000      FY01: \$0      Total: \$69,000  
*Prin. Invest.: R W LANGHANS*  
*Tech. Officer: JSC/D G SICKOREZ*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT10 52623**           **CORNELL UNIV**           **7041**  
 GRADUATE STUDENT RESEARCHER'S PROGRAM  
 08/23/1999 - 08/30/2002      FY01: \$22,000      Total: \$66,000  
*Prin. Invest.: L ALBRIGHT*  
*Tech. Officer: KSC/R WHEELER*  
*CASE Category: 55 – AGRICULTURE*

**NAG13 00007**           **FULTON-MONTGOMERY COMMUNITY COLLEGE**           **7042**  
 SPATIAL INFORMATION TECHNOLOGY CENTER AT FULTON-MONTGOMERY COMMUNITY COLLEGE  
 03/23/2000 - 03/26/2001      FY01: \$0      Total: \$375,000  
*Prin. Invest.: M PRESTOPNIK*  
*Tech. Officer: SSC/D L POWE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 7503**           **HOFSTRA UNIV**           **7043**  
 OCEAN SURFACE STRESS MEASUREMENTS USING SATELLITE SCATTERMETERS  
 06/09/1998 - 12/31/2000      FY01: \$0      Total: \$256,223  
*Prin. Invest.: D E WEISSMAN*  
*Tech. Officer: GSFC/E J LINDSTROM*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 8 1259**           **HUNTER COLL OF THE CITY UNIV OF NY**           **7044**  
 JOVE RESEARCH  
 01/17/1997 - 08/31/2000      FY01: -\$531      Total: \$207,469  
*Prin. Invest.: L COHEN, S GREENBAUM, P COMBS*  
*Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9311**           **INTER AMERICAN UNIV OF PR AGUADILLA CAMP**           **7045**  
 PRECOLLEGE AWARENESS IN MATHY AND SCIENCE PROGRAM  
 03/22/2000 - 02/28/2002      FY01: \$77,027      Total: \$172,161  
*Prin. Invest.: R GONZALEZ*  
*Tech. Officer: HQ/M STOUTSENBERGER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9889**           **MARIST COLLEGE**           **7046**  
 PERSISTENCE & INFECTIVITY OF CYANOPHAGE FROM POLAR ENVIRONMENTS: IMPLICATIONS FOR PLANETARY PROTECTI  
 08/30/2000 - 06/30/2001      FY01: \$0      Total: \$70,650  
*Prin. Invest.: R KEPNER*  
*Tech. Officer: GSFC/M MEYER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9256**           **MEDGAR EVERS COLLEGE**           **7047**  
 MEDGAR EVERS COLLEGE AERONAUTICS AND EARTH SCIENCE ACADEMY  
 03/15/2000 - 02/28/2002      FY01: \$100,000      Total: \$200,000  
*Prin. Invest.: L JOHNSON*  
*Tech. Officer: HQ/M STOUTSENBERGER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10142**           **MEDGAR EVERS COLLEGE**           **7048**  
 THE NEW YORK CITY SPACE SCIENCE RESEARCH ALLIANCE  
 12/19/2000 - 12/31/2001      FY01: \$245,000      Total: \$245,000  
*Prin. Invest.: L P JOHNSON*  
*Tech. Officer: GSFC/P SAKIMOTO*  
*CASE Category: 11 – ASTRONOMY*

**NAG 2 946**           **MT SINAI SCH OF MED OF THE CUNY**           **7049**  
 ANATOMICAL STUDIES OF CENTRAL VESTIBULAR ADAPTATION  
 01/10/1995 - 09/30/2001      FY01: \$0      Total: \$694,832  
*Prin. Invest.: G R HOLSTEIN, G R HOLSTEIN*  
*Tech. Officer: ARC/W E HINDS, ARC/C M WINGET*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 2 1191**           **MT SINAI SCH OF MED OF THE CUNY**           **7050**  
 NITRIC OXIDE SIGNALING IN HYPERGRAVITY INDUCED NEURONAL PLASTICITY  
 03/23/1998 - 08/31/2002      FY01: \$0      Total: \$636,166  
*Prin. Invest.: G R HOLSTEIN, G P MARTINELLI*  
*Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 5 6276**           **MT SINAI SCH OF MED OF THE CUNY**           **7051**  
 "VESTIBULAR INFLUENCES ON AUTONOMIC CARDIOVASCULAR  
 09/08/1997 - 12/31/2001      FY01: \$0      Total: \$848,810  
*Prin. Invest.: H KAUFMANN*  
*Tech. Officer: GSFC/V SCHNEIDER*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NAG 9 1097** MT SINAI SCH OF MED OF THE CUNY 7052  
 ARTCT AND MECH FUNTION W/RECOVERY FR DISUSE OSTEOPOROSIS  
 04/01/1999 - 03/31/2001 FY01: \$0 Total: \$153,098  
*Prin. Invest.: M SCHAFFLER*  
*Tech. Officer: JSC/C LLOYD*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAS 9 19441** MT SINAI SCH OF MED OF THE CUNY 7053  
 SPATIAL ORIENTATION OF VESTIBULO-OCULAR REFLEX AND VELOCITY  
 STORAGE  
 03/01/1996 - 09/30/2000 FY01: \$0 Total: \$1,779,665  
*Prin. Invest.: D COHEN, M.D., M DAI, M.D.*  
*Tech. Officer: JSC/A M LEE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 2 1173** MT SINAI SCH OF MED OF THE CUNY 7054  
 NEUROLAB COMPLETION PROPOSAL: ANATOMICAL STUDIES OF CENTRAL  
 VESTIBULAR ADAPTATION  
 04/17/2000 - 03/31/2002 FY01: \$0 Total: \$238,548  
*Prin. Invest.: G R HOLSTEIN*  
*Tech. Officer: ARC/M F VASQUES, ARC/P D SAVAGE*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NCC 9 128** MT SINAI SCH OF MED OF THE CUNY 7055  
 VALIDATION CENTRIFUGATION AS A COUNTER MEASURE FOR OTOLIGH  
 DECONDITIONING DURING SPACEFLIGHT  
 06/14/2001 - 09/30/2004 FY01: \$100,000 Total: \$100,000  
*Prin. Invest.: S MOORE*  
*Tech. Officer: JSC/M E ANDERSON*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NAG 2 951** NEW YORK UNIV 7056  
 EFFECTS OF GRAVITY ON POSTNATAL MOTOR DEVELOPMENT  
 12/22/1994 - 07/31/2001 FY01: \$0 Total: \$878,767  
*Prin. Invest.: K D WALTON*  
*Tech. Officer: ARC/W E HINDS*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 2 1426** NEW YORK UNIV 7057  
 GRAVITATION & DEVELOPMENT MOTRICITY  
 07/26/2000 - 07/31/2001 FY01: \$0 Total: \$80,000  
*Prin. Invest.: K D WALTON*  
*Tech. Officer: ARC/MM AVERNER, ARC/R D MACELROY*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 5 7583** NEW YORK UNIV 7058  
 JOINT CENTER FOR COMPUTATIONAL MODELING (JCCM)  
 08/04/1998 - 12/31/2001 FY01: \$103,000 Total: \$203,000  
*Prin. Invest.: M BERGER*  
*Tech. Officer: GSFC/D S SPICER*  
*CASE Category: 21 – MATHEMATICS*

**NAG 5 8475** NEW YORK UNIV 7059  
 MODELING SOUTH PACIFIC ICE-OCEAN INTERACTIONS IN THE GLOBAL  
 CLIMATE SYSTEM  
 04/26/1999 - 04/30/2001 FY01: \$0 Total: \$45,065  
*Prin. Invest.: D M HOLLAND*  
*Tech. Officer: GSFC/S GOGINENI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9246** NEW YORK UNIV 7060  
 SENSITIVITY OF THE ATMOSPHERIC SHOWERS OF EXTREMELY HIGH  
 ENERGY COSMIC RAYS TO UNKNOWN ASPECTS OF  
 03/14/2000 - 03/14/2002 FY01: \$101,800 Total: \$194,118  
*Prin. Invest.: G FARRAR*  
*Tech. Officer: GSFC/R OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9871** NEW YORK UNIV 7061  
 AN INVESTIGATION OF THE PREDICTABILITY OF THE NSIPP FORECAST  
 SYSTEM  
 08/08/2000 - 08/14/2002 FY01: \$100,000 Total: \$185,000  
*Prin. Invest.: R KLEEMAN*  
*Tech. Officer: GSFC/M REINECKER*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 9 1024** NEW YORK UNIV 7062  
 CANCER RISK MECHANISM FOLLOWING REPEATED EXPOSURE TO  
 HIGH LET RADIATION  
 06/04/1998 - 09/04/2001 FY01: \$71,334 Total: \$589,334  
*Prin. Invest.: F J BURNS*  
*Tech. Officer: JSC/F A CUCINOTTA*  
*CASE Category: 56 – MEDICAL*

**NCC 2 5417** NEW YORK UNIV 7063  
 SOFTWARE FOR IMAGE DISCRIMINABILITY & QUALITY MODELING  
 02/15/2001 - 05/31/2001 FY01: \$63,912 Total: \$63,912  
*Prin. Invest.: M LANDY*  
*Tech. Officer: ARC/A J AHUMADA, ARC/J B MULLIGAN*  
*CASE Category: 69 – PSYCHOLOGY, OTHER*

**NGT 8 52893** NEW YORK UNIV 7064  
 NANOTOOLS FROM BIOLOGY: ANTIBODY TECHNOLOGY APPLIED TO  
 CARBON NANOTUBE PROCESSING  
 06/28/2000 - 08/31/2003 FY01: \$0 Total: \$22,000  
*Prin. Invest.: S WILSON, NONE*  
*Tech. Officer: MSFC/S NASH-STEVEN*  
*CASE Category: 12 – CHEMISTRY*

**NCC 8 182** NIAGARA UNIV 7065  
 ALGORITHM DEVELOPMENT AND SCIENCES ANALYSIS OF STANDARD  
 DATA PRODUCTS FROM LIGHTNING INSTR. SPACE  
 04/26/1999 - 07/31/2002 FY01: \$22,431 Total: \$67,514  
*Prin. Invest.: W BOECK*  
*Tech. Officer: MSFC/R BLAKESLEE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 3 2533** POLYTECHNIC UNIV - BROOKLYN, NY 7066  
 REFLECTION & REFRACTION OF SOUND WAVES THROUGH GLOW  
 DISCHARGES  
 01/25/2001 - 12/31/2002 FY01: \$65,000 Total: \$65,000  
*Prin. Invest.: M OTUGEN*  
*Tech. Officer: GRC/D B ZAMAN*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 8 1370 POLYTECHNIC UNIV - BROOKLYN,NY 7067**  
 R/S "DIFFUSION, VISCOSTY AND CRYSTAL GROWTH OF PROTEINS IN MICROGRAVITY"  
 05/28/1997 - 02/28/2002 FY01: \$70,000 Total: \$431,000  
*Prin. Invest.: A MYERSON*  
*Tech. Officer: MSFC/B GUYNES, MSFC/J MAYO*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 8 1455 POLYTECHNIC UNIV - BROOKLYN,NY 7068**  
 R/S THERMODYNAMIC & SPECTROSCOPIC STUDIES OF SECONDARY NUCLEATION IN MICROGRAVITY  
 02/01/1998 - 01/31/2002 FY01: \$76,000 Total: \$282,667  
*Prin. Invest.: A S MEYERSON*  
*Tech. Officer: MSFC/C TALLEY*  
*CASE Category: 43 – CHEMICAL ENGR*

**NGT 8 52879 POLYTECHNIC UNIV - BROOKLYN,NY 7069**  
 GRADUATE STUDENT RESEARCH PROGRAM DEVELOPMENT OF HEALTH MONITORING TECHNIQUESFOR AEROSPACE  
 09/08/1999 - 08/31/2002 FY01: \$0 Total: \$22,000  
*Prin. Invest.: F LIN*  
*Tech. Officer: MSFC/J DOWDY*  
*CASE Category: 44 – CIVIL ENGR*

**NAG 1 1939 RENSSELAER POLYTECHNIC INST 7070**  
 THE DESIGN AND SYNTHESIS OF EPOXY MATRIX COMPOSITES CRUABLE BY ELECTRON BEAM  
 06/02/1997 - 03/06/2000 FY01: -\$1,638 Total: \$158,616  
*Prin. Invest.: J V CRIVELLO*  
*Tech. Officer: LARC/J W CONNELL, LARC/N J JOHNSTON*  
*CASE Category: 41 – AERONAUTICAL ENGNR*

**NAG 1 2089 RENSSELAER POLYTECHNIC INST 7071**  
 EVOLUTION IN DECENTRALIZED EMERGENT COMPUTATION MY 1/2  
 07/08/1998 - 05/30/2001 FY01: \$1 Total: \$264,639  
*Prin. Invest.: P HAJELA, K E JANSEN*  
*Tech. Officer: LARC/J SOBIESKI, LARC/J R ROGERS*  
*CASE Category: 41 – AERONAUTICAL ENGNR*

**NAG 3 1834 RENSSELAER POLYTECHNIC INST 7072**  
 A STUDY OF THE CONSTRAINED VAPOR BUBBL THRMOSYPHON  
 04/22/1996 - 10/21/2000 FY01: \$0 Total: \$709,520  
*Prin. Invest.: P C WAYNER*  
*Tech. Officer: GRC/J C DUH*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 3 2304 RENSSELAER POLYTECHNIC INST 7073**  
 STUDIES OF CYCLIC AND LINEAR CARBOSILANES AS SINGL E SOURCE SIC PRESURORS  
 12/13/1999 - 03/09/2000 FY01: -\$135 Total: \$4,865  
*Prin. Invest.: L V INTERRANTE*  
*Tech. Officer: GRC/D LARKIN*  
*CASE Category: 12 – CHEMISTRY*

**NAG 3 2334 RENSSELAER POLYTECHNIC INST 7074**  
 MINORITY ENGINEERING PROGRAM MINORITY ENGINEERING PROGRAM  
 02/17/2000 - 08/31/2000 FY01: \$0 Total: \$50,000  
*Prin. Invest.: M D SMITH*  
*Tech. Officer: GRC/S GOT*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 3 2351 RENSSELAER POLYTECHNIC INST 7075**  
 THEORETICAL AND EXPERIMENTAL INVESTIGATION OF THE STABILITY OF AN EVAPORATING CONSTRAINED VAPOR BUBB  
 03/24/2000 - 11/30/2003 FY01: \$54,000 Total: \$81,500  
*Prin. Invest.: D C WAYNER*  
*Tech. Officer: GRC/R SKARDA*  
*CASE Category: 49 – ENGINEERING,OTHER*

**NAG 3 2383 RENSSELAER POLYTECHNIC INST 7076**  
 R & D WORK ON THE CONSTRAINED VAPOR BUBBLE SYSTEM FOR A MICROGRAVITY EXPERIMENT  
 04/18/2000 - 04/21/2005 FY01: \$166,250 Total: \$314,250  
*Prin. Invest.: P C WAGNER*  
*Tech. Officer: GRC/J SKARDA*  
*CASE Category: 43 – CHEMICAL ENGR*

**NAG 3 2525 RENSSELAER POLYTECHNIC INST 7077**  
 THE PREPARATION OF SIC NANOTUBES & NANOLAYERS #207 -01-253B  
 01/17/2001 - 12/31/2001 FY01: \$127,311 Total: \$127,311  
*Prin. Invest.: D INTERRANTE*  
*Tech. Officer: GRC/D LARKIN*  
*CASE Category: 12 – CHEMISTRY*

**NAG 3 2552 RENSSELAER POLYTECHNIC INST 7078**  
 MINORITY ENGINEERING PROGRAM MINORITY ENGINEERING PROGRAM  
 03/06/2001 - 12/01/2001 FY01: \$30,000 Total: \$30,000  
*Prin. Invest.: M D SMITH*  
*Tech. Officer: GRC/T ROGERS*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 5 3725 RENSSELAER POLYTECHNIC INST 7079**  
 METEORITE SPECTROSCOPY AND CHARACTERIZATION OF AST MATERIALS  
 02/12/1997 - 02/14/2001 FY01: \$0 Total: \$164,250  
*Prin. Invest.: M J GAFFEY*  
*Tech. Officer: GSFC/P G ROGERS*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 4557 RENSSELAER POLYTECHNIC INST 7080**  
 A LABORATORY INVESTIGATION OF PHOTOCHEMICAL PROCES  
 06/23/1997 - 10/31/2000 FY01: \$0 Total: \$406,120  
*Prin. Invest.: D P FERRIS*  
*Tech. Officer: GSFC/M MEYER*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 5 7598 RENSSELAER POLYTECHNIC INST 7081**  
 ORIGIN OF LIFE: INTERSTELLAR MOLECULES TO INTRONS  
 07/15/1998 - 12/31/2001 FY01: \$953,000 Total: \$2,800,218  
*Prin. Invest.: D P FERRIS*  
*Tech. Officer: GSFC/M A MEYER*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7884 RENSSELAER POLYTECHNIC INST 7082**  
 THE NATURE AND EVOLUTION OF INTERSTELLAR & CIRCUMSTELLAR ICES & ORGANIC MATTER  
 12/01/1998 - 12/31/2001 FY01: \$16,380 Total: \$47,724  
*Prin. Invest.: D C WHITTET*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8976 RENSSELAER POLYTECHNIC INST 7083**  
 PARTICIPATING SCIENTIST: ANALYSIS OF THE MSI/NIS SPECTRA OF EROS  
 01/24/2000 – 03/31/2002 FY01: \$0 Total: \$70,887  
*Prin. Invest.: M J GAFFEY*  
*Tech. Officer: GSFC/T MORGAN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9148 RENSSELAER POLYTECHNIC INST 7084**  
 AN INVENTORY OF CARBONACEOUS MOLECULES IN INTERSTELLAR ICES & THEIR RELATION TO COMETS  
 03/03/2000 – 03/14/2002 FY01: \$55,900 Total: \$108,558  
*Prin. Invest.: D WHITTET*  
*Tech. Officer: GSFC/M MEYER*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 5 9607 RENSSELAER POLYTECHNIC INST 7085**  
 A LABORATORY INVESTIGATION OF PHOTOCHEMICAL PROCESSES ON TITAN  
 05/12/2000 – 05/14/2002 FY01: \$133,000 Total: \$266,000  
*Prin. Invest.: J P FERRIS*  
*Tech. Officer: GSFC/M MEYER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10345 RENSSELAER POLYTECHNIC INST 7086**  
 CHARACTERIZATIONS OF ASTEROID\_SURFACE MATERIALS: METEORITE PARENT BODIES & ASTEROID EVOLUTION  
 02/01/2001 – 02/14/2002 FY01: \$50,000 Total: \$50,000  
*Prin. Invest.: D J GAFFEY*  
*Tech. Officer: GSFC/D SENSKA*  
*CASE Category: 11 – ASTRONOMY*

**NAG 8 1290 RENSSELAER POLYTECHNIC INST 7087**  
 "INVESTIGATIONS OF FREE STREAM FLOW TECHNOLOGIES"  
 12/18/1996 – 09/30/2000 FY01: \$0 Total: \$525,669  
*Prin. Invest.: L N MYRABO*  
*Tech. Officer: MSFC/G A ROBERSTON*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 8 1468 RENSSELAER POLYTECHNIC INST 7088**  
 R/S EVOLUTION OF LOCAL MICROSTRUCTURES SPATIAL INSTABILITIES OF CORSENING CLUSTERS  
 02/24/1998 – 03/23/2002 FY01: \$142,500 Total: \$401,259  
*Prin. Invest.: M E GLICKSMAN*  
*Tech. Officer: MSFC/L B JETER*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 8 1488 RENSSELAER POLYTECHNIC INST 7089**  
 R/S TRANSIENT DENDRITIC SOLIDIFICATION EXPERIMENT  
 02/24/1998 – 02/23/2002 FY01: -\$13,344 Total: \$374,256  
*Prin. Invest.: M B KOSS, M E GLICKSMAN*  
*Tech. Officer: MSFC/A JACKMAN*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 8 1696 RENSSELAER POLYTECHNIC INST 7090**  
 FOLLOW-ON RESEARCH ACTIVITIES FOR THE RENSSELAER ISOTHERMAL DENDRITIC GROWTH EXPERIMENT (RIDGE)  
 05/15/2000 – 11/30/2003 FY01: \$95,000 Total: \$135,000  
*Prin. Invest.: M E GLICKSMAN, M B KOSS*  
*Tech. Officer: MSFC/P M DOTY*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NAG 8 1795 RENSSELAER POLYTECHNIC INST 7091**  
 EXPERIMENTAL INVESTIGATION INTO ADVANCED PROPULSION FORTH GENERATION SPACE TRANSPORTATION  
 04/12/2001 – 03/31/2004 FY01: \$99,000 Total: \$99,000  
*Prin. Invest.: L N MYRABO, H NAGAMATSU*  
*Tech. Officer: MSFC/J W LEHNER*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAS 3 25368 RENSSELAER POLYTECHNIC INST 7092**  
 ISOTHERMAL DENDRITIC GROWTH  
 12/15/1988 – 12/31/1999 FY01: -\$18,173 Total: \$3,612,729  
*Prin. Invest.: M E GLICKSMAN*  
*Tech. Officer: GRC/E A WINSA, GRC/G A KRAFT*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NGT 1 52160 RENSSELAER POLYTECHNIC INST 7093**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 09/22/1997 – 09/21/2000 FY01: -\$23,491 Total: \$42,509  
*Prin. Invest.: K E JARSEN*  
*Tech. Officer: LARC/M H CARPENTER*  
*CASE Category: 46 – MECHANICAL ENGR*

**NGT 3 52341 RENSSELAER POLYTECHNIC INST 7094**  
 POWDER LUBRICATED JOURNAL BEARING DEVELOPMENT  
 06/29/1998 – 08/31/2001 FY01: \$0 Total: \$64,000  
*Prin. Invest.: J A TICHY*  
*Tech. Officer: GRC/D MONTEGANI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50165 RENSSELAER POLYTECHNIC INST 7095**  
 SCALABLE INSTRUMENTATION AND DATABASE APPROACH TO PERFORMANCE ANALYSIS OF PARALLEL SCIENTIFIC APPLI  
 06/03/1999 – 06/30/2001 FY01: \$0 Total: \$44,000  
*Prin. Invest.: B SZMANSKI*  
*Tech. Officer: GSFC/L SMITH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 3 2484 ROCHESTER INST OF TECHNOLOGY 7096**  
 SPIN-ON GLASSY ELECTROLYTES FOR THIN-FILM MICROELECTRONIC BATTERIES  
 09/11/2000 – 11/30/2002 FY01: \$34,637 Total: \$46,182  
*Prin. Invest.: D P RAFFAELLE*  
*Tech. Officer: GRC/N HAGEDORN*  
*CASE Category: 12 – CHEMISTRY*

**NAG 3 2593 ROCHESTER INST OF TECHNOLOGY 7097**  
 DEVELOPMENT OF ADVANCED GRAVITY-INDEPENDENT HIGH HEAT FLUX PHASE CHANGE HEAT EXCHANGER TECH & DESIG  
 05/11/2001 – 06/30/2003 FY01: \$42,462 Total: \$42,462  
*Prin. Invest.: D RAFFAELLE*  
*Tech. Officer: GRC/S BAILEY*  
*CASE Category: 13 – PHYSICS*

**NAG 3 2595 ROCHESTER INST OF TECHNOLOGY 7098**  
 QUANTUM DOT DEVICE CHARACTERIZATION AND DEVELOPMENT  
 04/30/2001 – 05/31/2004 FY01: \$50,000 Total: \$50,000  
*Prin. Invest.: D P RAFFAELLE*  
*Tech. Officer: GRC/S BAILEY*  
*CASE Category: 13 – PHYSICS*

**NAG 3 2596      ROCHESTER INST OF TECHNOLOGY      7099**  
 SIC SOLAR CELLS SIC SOLAR CELLS  
 04/30/2001 - 05/31/2002      FY01: \$36,889  
*Prin. Invest.: D RAFFAELLE*  
*Tech. Officer: GRC/S BAILEY*  
*CASE Category: 13 - PHYSICS*  
 Total: \$36,889

**NAG 5 3443      ROCHESTER INST OF TECHNOLOGY      7100**  
 ABSOLUTE CALIBRATION, ATMOSPHERIC CORRECTION AND A PPLICATION  
 OF LANDSAT-7 ETM +THERMAL INFRARED...  
 11/03/1996 - 06/30/2001      FY01: \$52,142  
*Prin. Invest.: J SCHOTT*  
*Tech. Officer: GSFC/D L WILLIAMS*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*  
 Total: \$828,520

**NAG 5 3728      ROCHESTER INST OF TECHNOLOGY      7101**  
 DEVELOPMENT OF BACK ILLUMINATED PREAMP PER PIXEL DEVICE  
 ARRAYS  
 02/21/1997 - 12/31/2000      FY01: \$0  
*Prin. Invest.: D NINKOV*  
*Tech. Officer: GSFC/H HASAN*  
*CASE Category: 11 - ASTRONOMY*  
 Total: \$367,451

**NAG 5 9090      ROCHESTER INST OF TECHNOLOGY      7102**  
 A PROGRAM TO DEVELOP HYBRIDIZED 2K X 2K SI PIN ARRAYS FOR SPACE  
 02/17/2000 - 01/31/2002      FY01: \$350,000  
*Prin. Invest.: Z NINKOV*  
*Tech. Officer: GSFC/P CRANE*  
*CASE Category: 11 - ASTRONOMY*  
 Total: \$679,700

**NAG 5 10051      ROCHESTER INST OF TECHNOLOGY      7103**  
 FOREST FIRES IMAGING EXPERIMENT SYSTEMS  
 09/29/2000 - 08/31/2002      FY01: \$1,598,227  
*Prin. Invest.: A VODECEK*  
*Tech. Officer: GSFC/T D GUBBELS*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*  
 Total: \$2,275,275

**NAG 5 11009      ROCHESTER INST OF TECHNOLOGY      7104**  
 SYNERGISTIC APPLICATIONS OF EO-1 AND LANDSAT 7 FOR CANOPY  
 TEMPERA  
 06/06/2001 - 06/14/2003      FY01: \$69,997  
*Prin. Invest.: D SCHOTT*  
*Tech. Officer: GSFC/J A SMITH*  
*CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)*  
 Total: \$69,997

**NAG 5 11298      ROCHESTER INST OF TECHNOLOGY      7105**  
 YEAR ONE OF SOLICITED PROPOSAL ENTITLED,"LANDSAT RADIOMETRIC  
 CALIBRATION: TOWARDS A 20 YEAR RECORD  
 08/29/2001 - 08/31/2004      FY01: \$94,989  
*Prin. Invest.: J SCHOTT*  
*Tech. Officer: GSFC/B L MARKHAM*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*  
 Total: \$94,989

**NCC 3 786      ROCHESTER INST OF TECHNOLOGY      7106**  
 INTEGRATED POWER SOURCES INTEGRATED POWER SOURCES  
 03/23/2000 - 04/30/2003      FY01: \$25,000  
*Prin. Invest.: D P RAFFAELLE*  
*Tech. Officer: GRC/A F HEPP*  
*CASE Category: 13 - PHYSICS*  
 Total: \$75,000

**NCC 3 806      ROCHESTER INST OF TECHNOLOGY      7107**  
 SOLID STATE LITHIUM POLYMER ELECTROLYTE DEVELOPMEN T  
 06/07/2000 - 05/31/2001      FY01: \$0  
*Prin. Invest.: D P RAFFAELLE*  
*Tech. Officer: GRC/A F HEPP*  
*CASE Category: 19 - PHYSICAL SCIENCE, OTHER*  
 Total: \$50,000

**NCC 3 807      ROCHESTER INST OF TECHNOLOGY      7108**  
 THIN FILM SOLAR CELL PROCESSING AND DEVELOPMENT THIN FILM  
 SOLAR CELL PROCESSING AND DEVELOPMENT  
 06/07/2000 - 05/31/2001      FY01: \$0  
*Prin. Invest.: D P RAFFAELLE*  
*Tech. Officer: GRC/A HEPP*  
*CASE Category: 13 - PHYSICS*  
 Total: \$70,000

**NCC13 98001      ST U NY COLL OF ENVIR SCI & FORESTRY      7109**  
 A CENTER FOR EXPLORING AND DEVELOPING COMMERCIAL APPLICATI-  
 ONES OF REMOTE SENSING AND GEO-SPATIAL TEC  
 09/01/1998 - 03/31/2002      FY01: \$150,000  
*Prin. Invest.: P HOPKINS*  
*Tech. Officer: SSC/N SOVIK*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*  
 Total: \$500,000

**NAG13 01003      ST U NY COLL OF ENVIR SCI & FORESTRY      7110**  
 APPLYING REMOTE SENSING TO FOREST MANAGEMENT IN ST ATE AGEN-  
 CIES  
 06/01/2001 - 05/31/2002      FY01: \$449,010  
*Prin. Invest.: P HOPKINS*  
*Tech. Officer: SSC/N SOVIK*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*  
 Total: \$449,010

**NAG 5 6227      STATE UNIV OF NEW YORK - ALBANY      7111**  
 DETECTING INTERACTIONS BETWEEN VEGETATION AND THE THE NORTH-  
 EASTERN UNITED STATES  
 09/12/1997 - 12/31/2001      FY01: \$12,801  
*Prin. Invest.: D R FITZJARRALD*  
*Tech. Officer: GSFC/D WICKLAND*  
*CASE Category: 11 - ASTRONOMY*  
 Total: \$296,085

**NAG 5 7469      STATE UNIV OF NEW YORK - ALBANY      7112**  
 CASE STUDY INVESTIGATIONS OF LARGE-AMPLITUDE INERT IA-GRAVITY  
 WAVEENVIRONMENTS AND MESOSCALE  
 06/03/1998 - 06/30/2001      FY01: \$0  
*Prin. Invest.: L BOSART*  
*Tech. Officer: GSFC/A NEGRI*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*  
 Total: \$129,936

**NAG 5 8815      STATE UNIV OF NEW YORK - ALBANY      7113**  
 GENETIC COMPLEXITY IN THE RNA WORLD: AN EXAMINATIO N OF THE  
 GENETIC LOAD IN RNA POPULATIONS  
 10/06/1999 - 09/30/2001      FY01: \$75,360  
*Prin. Invest.: N E LEHMAN*  
*Prin. Invest.: NONE*  
*Tech. Officer: GSFC/M MEYER*  
*CASE Category: 11 - ASTRONOMY*  
 Total: \$155,360

**NAG 5 9676 STATE UNIV OF NEW YORK - ALBANY 7114**  
 TECHNOLOGY & POLICY ASPECTS OF APPLYING REMOTE SENSING TO  
 FOREST MANAGEMENT IN STATE AGENCIES  
 05/31/2000 - 05/31/2001 FY01: \$0 Total: \$275,000  
*Prin. Invest.: P F HOPKINS*  
*Tech. Officer: GSFC/A J TUYAHOV*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 9690 STATE UNIV OF NEW YORK - ALBANY 7115**  
 DEVELOPING & TESTING OF NEW TECHNIQUES FOR CONSER- VATIONAL  
 BIOGEOPHYSICAL MINERALEXPLORATION  
 06/19/2000 - 11/30/2001 FY01: \$0 Total: \$114,589  
*Prin. Invest.: H MASSONE*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NAG 5 9764 STATE UNIV OF NEW YORK - ALBANY 7116**  
 MARS LANDING SITE STUDIES  
 06/27/2000 - 06/30/2001 FY01: -\$40,000 Total: \$0  
*Prin. Invest.: J A GRANT*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 11008 STATE UNIV OF NEW YORK - ALBANY 7117**  
 RELATIONSHIP BETWEEN CORE CONVECTIVE STRUCTURE AND  
 INTENSITY CHANGE IN TROPICAL CYCLONES  
 06/06/2001 - 06/14/2002 FY01: \$80,000 Total: \$80,000  
*Prin. Invest.: J MOLINARI*  
*Tech. Officer: GSFC/R LAWRENCE*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAS 1 18942 STATE UNIV OF NEW YORK - ALBANY 7118**  
 SAGE III SCIENCE SUPPORT - P.I. - DR. V. MOHNEN  
 01/31/1990 - 01/31/2005 FY01: \$70,000 Total: \$587,630  
*Prin. Invest.: V MOHNEN*  
*Tech. Officer: LARC/G L MADDREA, LARC/L R MCMASTER*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NCC 2 5212 STATE UNIV OF NEW YORK - ALBANY 7119**  
 REVIEW QUALITY ASSURANCE AND APPLICATION OF GLOBAL  
 ATMOSPHERIC RADON DATA  
 04/03/1997 - 05/31/2000 FY01: \$0 Total: \$44,698  
*Prin. Invest.: M KRITZ*  
*Tech. Officer: ARC/L PFISTER*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NCC 2 5380 STATE UNIV OF NEW YORK - ALBANY 7120**  
 A PRELIMINARY TEST OF THE CO<sub>2</sub> RECTIFIER HYPOTHESIS USING  
 EXISTING UPPER TROPOSPHERIC MEASUREMENTS...  
 04/15/2000 - 04/14/2002 FY01: \$24,410 Total: \$48,710  
*Prin. Invest.: M KRITZ*  
*Tech. Officer: ARC/L PFISLER*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NCC 3 891 STATE UNIV OF NEW YORK - ALBANY 7121**  
 POLYTYPE MAPPING AND DEFECT CHARACTERIZATION IN SILICON  
 CARBIDE HETEROEPITAXIAL STRUCTURES  
 06/04/2001 - 05/02/2002 FY01: \$55,000 Total: \$55,000  
*Prin. Invest.: D DUDLEY*  
*Tech. Officer: GRC/P NEUDECK*  
*CASE Category: 45 - ELECTRICAL ENGR*

**NCC 5 283 STATE UNIV OF NEW YORK - ALBANY 7122**  
 PERIODIC, TRANSIENT, AND SPATIALLY INHOMOGENEOUS INFLUENCES  
 ONC EXCHANGE IN AMAZONIA  
 06/23/1998 - 12/31/2001 FY01: \$284,620 Total: \$1,157,862  
*Prin. Invest.: D R FRITZJARRALD, NONE*  
*Tech. Officer: GSFC/D W DEERING*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NCC 8 125 STATE UNIV OF NEW YORK - ALBANY 7123**  
 RESEARCH BRINGING GREATLY ENHANCED LAB-BASED PROTEIN CRYSTALLOGRAPHY TO THE US BIOTECHNOLOGY  
 01/16/1997 - 01/14/2001 FY01: \$0 Total: \$2,075,346  
*Prin. Invest.: W M GIBSON*  
*Tech. Officer: MSFC/K HIGGINBOTHAN*  
*CASE Category: 59 - LIFE SCIENCE, OTHER*

**NAG 5 9069 STATE UNIV OF NEW YORK - BINGHAMTON 7124**  
 USE OF ROTATIONAL & GRAVITATIONAL OBSERVATIONS TO INFER CORE-MANTLE COUPLING & LONG TIDAL PERIODS  
 03/08/2000 - 02/28/2002 FY01: \$65,750 Total: \$107,000  
*Prin. Invest.: S DICKMAN*  
*Tech. Officer: GSFC/H FREY*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NCC 1 336 STATE UNIV OF NEW YORK - BINGHAMTON 7125**  
 RELIABILITY CRITERIA-BASED FLIGHT SYSTEM CONTROL MY 1/3  
 04/30/1999 - 01/31/2002 FY01: \$59,559 Total: \$159,254  
*Prin. Invest.: N WU*  
*Tech. Officer: LARC/C M BELCASTRO, LARC/C M BELCASTRO*  
*CASE Category: 41 - AERONAUTICAL ENGR*

**NAG 1 2238 STATE UNIV OF NEW YORK - BUFFALO 7126**  
 FILTERED MASS DENSITY FUNCTION FOR DESIGN SIMULATIONS OF HIGH SPEED AIRBREATHING PROPULSION SYS.  
 09/20/1999 - 08/31/2002 FY01: \$30,000 Total: \$67,500  
*Prin. Invest.: P GIVI*  
*Tech. Officer: LARC/J P DRUMMOND*  
*CASE Category: 46 - MECHANICAL ENGR*

**NAG 2 1429 STATE UNIV OF NEW YORK - BUFFALO 7127**  
 A NEW SEMI-ACTIVE APPROACH FOR DYNAMIC RESPONSE MODIFICATION OF HELICOPTERS  
 08/11/2000 - 08/31/2002 FY01: \$0 Total: \$46,994  
*Prin. Invest.: G LEE*  
*Tech. Officer: ARC/C TUNG*  
*CASE Category: 41 - AERONAUTICAL ENGR*

**NAG 3 2225 STATE UNIV OF NEW YORK - BUFFALO 7128**  
 LARGE EDDY SIMULATION OF GRAVITATIONAL EFFECTS ON TRANSITIONAL AND TURBULENT GAS-JET DIFFUSION FLAME  
 01/22/1999 - 12/10/2002 FY01: \$96,790 Total: \$263,911  
*Prin. Invest.: D GIVI*  
*Tech. Officer: GRC/K R SACKSTEDER*  
*CASE Category: 49 - ENGINEERING, OTHER*

**NAG 5 9390 STATE UNIV OF NEW YORK - BUFFALO 7129**  
 THE PLANETARY GEOLOGY AND GEOPHYSICS UNDERGRADUATE RESEARCH PROGRAM  
 04/04/2000 - 04/14/2002 FY01: \$68,600 Total: \$148,600  
*Prin. Invest.: T GREGG*  
*Tech. Officer: GSFC/J A GRANT*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NAG 5 9619 STATE UNIV OF NEW YORK - BUFFALO 7130**  
 VOLCANIC EVOLUTION & EROSIONAL HISTORY OF TYRRHENIA &  
 HADRIACA PATERAE, MARS  
 05/18/2000 - 05/14/2003 FY01: \$55,000 Total: \$109,200  
*Prin. Invest.: T GREGG*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9658 STATE UNIV OF NEW YORK - BUFFALO 7131**  
 DEVELOPMENT OF A ROVER-DEPLOYED GROUND PENETRATING RADAR  
 05/31/2000 - 11/30/2000 FY01: -\$169,387 Total: \$0  
*Prin. Invest.: J GRANT*  
*Tech. Officer: GSFC/B BETTS*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9873 STATE UNIV OF NEW YORK - BUFFALO 7132**  
 A NEW CLASS OF UNNATURAL FOLDING OLIGOMERS: HELICES WITH  
 NANO-SIZED CAVITIES  
 08/10/2000 - 08/31/2002 FY01: \$139,567 Total: \$233,822  
*Prin. Invest.: B GONG*  
*Tech. Officer: GSFC/S DAVISON*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10608 STATE UNIV OF NEW YORK - BUFFALO 7133**  
 REMOTE SENSING OF GROUND WATER: CALIBRATION OF ENVIRONMENTAL GROUNDWATER FLOW MODELS TO SATELLITE  
 03/15/2001 - 03/14/2002 FY01: \$115,418 Total: \$115,418  
*Prin. Invest.: M BECKER*  
*Tech. Officer: GSFC/M BECKER*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 1 01034 STATE UNIV OF NEW YORK - BUFFALO 7134**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) MY 1/2  
 06/22/2001 - 06/30/2003 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: K LEWIS*  
*Tech. Officer: LARC/S L PADULA*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NGT 1 52185 STATE UNIV OF NEW YORK - BUFFALO 7135**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 05/12/1998 - 06/30/2002 FY01: \$12,000 Total: \$66,001  
*Prin. Invest.: K E LEWIS*  
*Tech. Officer: LARC/J SOBIESKI*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NGT 1 52228 STATE UNIV OF NEW YORK - BUFFALO 7136**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 04/18/2000 - 12/31/2001 FY01: \$1 Total: \$22,001  
*Prin. Invest.: K E LEWIS, T J HALECKI*  
*Tech. Officer: LARC/S L PADULA*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 1 2040 STATE UNIV OF NEW YORK - STONY BROOK 7137**  
 SPARC DATA CENTER MY 1/3  
 03/27/1998 - 12/31/2000 FY01: \$1 Total: \$179,288  
*Prin. Invest.: M A GELLER*  
*Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 1 2065 STATE UNIV OF NEW YORK - STONY BROOK 7138**  
 OCEAN BUOY SHORTWAVE (OBS): A DATA SET FOR SATELLITE RETRIEVAL AND GCM VALIDATION  
 05/01/1998 - 11/30/2000 FY01: \$1 Total: \$126,278  
*Prin. Invest.: R A WALISER*  
*Tech. Officer: LARC/D S MCDOUGAL, LARC/J L RAPER*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 1 2166 STATE UNIV OF NEW YORK - STONY BROOK 7139**  
 SAGE II RESEARCH ON THE CONTROLLING PROCESSES OF UPPER TROPOSPHERIC & STRATOSPHERIC WATER VAPOR  
 03/17/1999 - 06/14/2002 FY01: \$106,000 Total: \$273,000  
*Prin. Invest.: M A GELLER*  
*Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 1 01052 STATE UNIV OF NEW YORK - STONY BROOK 7140**  
 CENTER FOR EMERGING TECHNOLOGIES: LONG ISLAND TECHNICALITY CENTER  
 03/30/2001 - 04/14/2003 FY01: \$997,800 Total: \$997,800  
*Prin. Invest.: Y SHAMASH*  
*Tech. Officer: LARC/R R ANTCLIFF*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 2 1325 STATE UNIV OF NEW YORK - STONY BROOK 7141**  
 APPLICATIONS OF COMPUTATIONAL GEOMETRY IN AIR TRAFFIC MANAGEMENT  
 05/19/1999 - 05/31/2002 FY01: \$35,000 Total: \$85,000  
*Prin. Invest.: J S MITCHELL*  
*Tech. Officer: ARC/G MEYER*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 2 1379 STATE UNIV OF NEW YORK - STONY BROOK 7142**  
 EFFECT OF SIMULATED MICROGRAVITY ON ACTIVATED T CELL GENE TRANSCRIPTION  
 08/16/1999 - 08/31/2002 FY01: \$82,597 Total: \$206,623  
*Prin. Invest.: M A MORROW*  
*Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NGT 2 1517 STATE UNIV OF NEW YORK - STONY BROOK 7143**  
 ELUCIDATING THE MOLECULAR EVENTS OF BONE MECHANORECEPTION  
 08/31/2001 - 08/14/2002 FY01: \$139,589 Total: \$139,589  
*Prin. Invest.: M HADJIAIRYROU*  
*Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 5 2863 STATE UNIV OF NEW YORK - STONY BROOK 7144**  
 THE COMPOSITION, STRUCTURE AND EVOLUTION OF NEUTRON STARS  
 01/06/1995 - 09/30/1999 FY01: -\$152 Total: \$220,846  
*Prin. Invest.: J M LATTIMER*  
*Tech. Officer: GSFC/D WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 3135 STATE UNIV OF NEW YORK - STONY BROOK 7145**  
 CONSISTENCY STUDY OF THE ENHANCED SHORTWAVE CLOUD ABSORPTION USING GEBA DATA  
 11/03/1995 - 05/14/2000 FY01: \$0 Total: \$118,349  
*Prin. Invest.: M ZHANG*  
*Tech. Officer: GSFC/M DAH*  
*CASE Category: 11 – ASTRONOMY*

<b>NAG 5 3261 STATE UNIV OF NEW YORK - STONY BROOK</b>	<b>7146</b>	<b>NAG 5 6601 STATE UNIV OF NEW YORK - STONY BROOK</b>	<b>7154</b>
THE GASEOUS CONTENT OF THE UNIVERSE AT Z		DEVELOPMENT AND VALIDATION OF A TROPICAL ISOPRENE EMISSION MODEL	
06/10/1996 - 04/30/2001	FY01: \$0	12/09/1997 - 03/31/2002	FY01: \$0
<i>Prin. Invest.: K M LANZETTA</i>		<i>Prin. Invest.: M LERDAU</i>	Total: \$117,349
<i>Tech. Officer: GSFC/D WEST</i>		<i>Tech. Officer: GSFC/D WICKLAND</i>	
CASE Category: 11 - ASTRONOMY		CASE Category: 39 - ENVIRONMENTAL SCI, OTHER	
<b>NAG 5 3718 STATE UNIV OF NEW YORK - STONY BROOK</b>	<b>7147</b>	<b>NAG 5 6879 STATE UNIV OF NEW YORK - STONY BROOK</b>	<b>7155</b>
LABORATORY SPECTROSCOPIC MEASUREMENTS RELEVANT TO RESEARCH		STUDIES OF EXCITED SPECIES IN PLANETARY UPPER ATMOSPHERES	
01/24/1997 - 02/28/2002	FY01: \$93,671	01/30/1998 - 05/14/2002	FY01: \$90,338
<i>Prin. Invest.: D VARANABI</i>		<i>Prin. Invest.: J L FOX</i>	Total: \$266,738
<i>Tech. Officer: GSFC/M J KURYLO</i>		<i>Tech. Officer: GSFC/D BOGAN</i>	
CASE Category: 31 - ATMOSPHERIC SCIENCE		CASE Category: 11 - ASTRONOMY	
<b>NAG 5 3950 STATE UNIV OF NEW YORK - STONY BROOK</b>	<b>7148</b>	<b>NAG 5 7134 STATE UNIV OF NEW YORK - STONY BROOK</b>	<b>7156</b>
OPTIMIZATION OF A BIOCHEMICAL COUNTERMEASURE		UARS INVESTIGATIONS OF WAVE-COUPING IN THE MIDDLE ATMOSPHERE	
02/12/1997 - 02/14/2002	FY01: \$0	03/03/1998 - 02/14/2001	FY01: \$0
<i>Prin. Invest.: C T RUBIN</i>		<i>Prin. Invest.: D A GELLER</i>	Total: \$225,003
<i>Tech. Officer: GSFC/V SCHNEIDER</i>		<i>Tech. Officer: GSFC/A DOUGLASS</i>	
CASE Category: 59 - LIFE SCIENCE, OTHER		CASE Category: 31 - ATMOSPHERIC SCIENCE	
<b>NAG 5 4043 STATE UNIV OF NEW YORK - STONY BROOK</b>	<b>7149</b>	<b>NAG 5 7439 STATE UNIV OF NEW YORK - STONY BROOK</b>	<b>7157</b>
CIO MEASUREMENTS AND ANALYSIS IN THE NETWORK FOR T STRATOSPHERIC CHANGE		EARTH REMOTE SENSING FACILITIES FOR RESEARCH AND TEACHING AT THE STATE UNIV OF NEW YORK	
05/06/1997 - 12/31/2001	FY01: \$283,935	05/27/1998 - 08/31/2000	FY01: \$0
<i>Prin. Invest.: P SOLOMON</i>		<i>Prin. Invest.: M GELLER</i>	Total: \$99,921
<i>Tech. Officer: GSFC/M J KURYLO</i>		<i>Tech. Officer: GSFC/M Y WEI</i>	
CASE Category: 31 - ATMOSPHERIC SCIENCE		CASE Category: 31 - ATMOSPHERIC SCIENCE	
<b>NAG 5 4071 STATE UNIV OF NEW YORK - STONY BROOK</b>	<b>7150</b>	<b>NAG 5 7875 STATE UNIV OF NEW YORK - STONY BROOK</b>	<b>7158</b>
STRATOSPHERIC AND MESOSPHERIC TRACE GAS STUDIES USI MM-WAVE RECEIVERS		2+D MODELING EFFORTS FOR SUPERSONIC AIRCRAFT EFFECTS ON THE ATMOSPHERE NEW GRANT	
03/21/1997 - 12/31/2001	FY01: \$0	11/30/1998 - 05/31/2000	FY01: -\$1
<i>Prin. Invest.: R L DE ZAFRA</i>		<i>Prin. Invest.: M GELLER</i>	Total: \$49,999
<i>Tech. Officer: GSFC/M J KURYLO</i>		<i>Tech. Officer: GSFC/R W STEWART</i>	
CASE Category: 31 - ATMOSPHERIC SCIENCE		CASE Category: 31 - ATMOSPHERIC SCIENCE	
<b>NAG 5 4640 STATE UNIV OF NEW YORK - STONY BROOK</b>	<b>7151</b>	<b>NAG 5 7978 STATE UNIV OF NEW YORK - STONY BROOK</b>	<b>7159</b>
THE STABILITY OF ORBITAL CONFIGURATIONS AND THE UL OF PLANETARY AND SATELLITESYSTEMS		A COMPREHENSIVE STUDY OF NEUTRON STAR PHOTOSPHERES - (LTSA98)	
06/09/1997 - 03/31/2001	FY01: \$0	01/06/1999 - 12/31/2001	FY01: \$75,000
<i>Prin. Invest.: D J LISSAUER</i>		<i>Prin. Invest.: F M WALTER</i>	Total: \$178,000
<i>Tech. Officer: GSFC/J BOYCE</i>		<i>Tech. Officer: GSFC/D K WEST</i>	
CASE Category: 11 - ASTRONOMY		CASE Category: 11 - ASTRONOMY	
<b>NAG 5 6544 STATE UNIV OF NEW YORK - STONY BROOK</b>	<b>7152</b>	<b>NAG 5 8106 STATE UNIV OF NEW YORK - STONY BROOK</b>	<b>7160</b>
ORBITS OF SATURN'S INNER MOONS AND OTHER OBSERVATIONS CONNECTED WITH THE 1995-1996 SATURNIAN RING PL		COSMIC RAYS IN INTERPLANETARY SPACE	
10/24/1997 - 12/31/2000	FY01: -\$1	02/04/1999 - 05/15/2001	FY01: \$0
<i>Prin. Invest.: D LISSAUER</i>		<i>Prin. Invest.: D A FORMAN</i>	Total: \$242,918
<i>Tech. Officer: GSFC/J BERGSTRALH</i>		<i>Tech. Officer: GSFC/J LING</i>	
CASE Category: 11 - ASTRONOMY		CASE Category: 11 - ASTRONOMY	
<b>NAG 5 6565 STATE UNIV OF NEW YORK - STONY BROOK</b>	<b>7153</b>	<b>NAG 5 8169 STATE UNIV OF NEW YORK - STONY BROOK</b>	<b>7161</b>
COLLABORATIVE RESEARCH: MODELING OF N2 AND CO2 FIXATION BY THE OCEANIC DIAZOTROPH TRICHODESMIUM		SEDIMENTARY GEOCHEMISTRY OF MARTIAN SAMPLES FROM THE PATHFINDER MISSION	
11/03/1997 - 10/31/2000	FY01: \$0	02/16/1999 - 08/31/2001	FY01: \$0
<i>Prin. Invest.: E CARPENTER</i>		<i>Prin. Invest.: S M MCLENNAN</i>	Total: \$59,500
<i>Tech. Officer: GSFC/J CAMPBELL</i>		<i>Tech. Officer: HQ/J BOYCE</i>	
CASE Category: 11 - ASTRONOMY		CASE Category: 11 - ASTRONOMY	

**NAG 5 8377 STATE UNIV OF NEW YORK - STONY BROOK 7162**  
 SYSTEMATIC STUDY OF EXPLOSIONS IN CORE COLLAPSE SUPERNOVA - REOB. DUE TO PI TRANSF. FROM NAG5-3099  
 03/08/1999 - 12/31/2000 FY01: \$0 Total: \$28,837  
*Prin. Invest.: F SWETSY*  
*Tech. Officer: GSFC/D WEST*  
*CASE Category: 22 - COMPUTER SCIENCE*

**NAG 5 8437 STATE UNIV OF NEW YORK - STONY BROOK 7163**  
 LOW MASS STAR FORMATION IN ORI OB1A & B (ADP 98)  
 04/02/1999 - 03/31/2001 FY01: \$0 Total: \$54,988  
*Prin. Invest.: F M WALTER*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 8462 STATE UNIV OF NEW YORK - STONY BROOK 7164**  
 STRUCTURE OF PROTOPLANETARY ENVIRONMENTS  
 04/19/1999 - 05/31/2000 FY01: -\$37 Total: \$9,963  
*Prin. Invest.: M SIMON*  
*Tech. Officer: HQ/J BOYCE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 8980 STATE UNIV OF NEW YORK - STONY BROOK 7165**  
 WERNER BANDS OF H<sub>2</sub> IN CIRCUMSTELLAR ENVIRONMENTS OF SELECTED CLASSICAL T TAURI STARS - FUSE  
 01/24/2000 - 01/31/2002 FY01: \$0 Total: \$45,500  
*Prin. Invest.: F M WALKER*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9029 STATE UNIV OF NEW YORK - STONY BROOK 7166**  
 SORPTION OF SIMPLE ORGANIC MOLECULES ONTO PYRITE: POSSIBLY AN IMPORTANT STEP IN THE ORIGIN OF LIFE  
 02/08/2000 - 12/31/2001 FY01: \$0 Total: \$45,519  
*Prin. Invest.: M A SCHOONEN*  
*Tech. Officer: GSFC/M MEYER*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9053 STATE UNIV OF NEW YORK - STONY BROOK 7167**  
 A SELF-CONSISTEN GLOBAL VELKOCITY GRADIENT TENSOR FIELD MODEL  
 02/10/2000 - 02/14/2002 FY01: \$42,500 Total: \$170,000  
*Prin. Invest.: W E HOLT*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NAG 5 9680 STATE UNIV OF NEW YORK - STONY BROOK 7168**  
 THE STABILITY OF ORBITAL CONFIGURATIONS AND THE UL TIMATE CONFIGURATIONS OF PLANETARY AND SATELLITE  
 06/21/2000 - 06/14/2002 FY01: \$0 Total: \$30,000  
*Prin. Invest.: J J LISSAUR*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9786 STATE UNIV OF NEW YORK - STONY BROOK 7169**  
 TRAVEL SUPPORT AND WAVAS PROJECT SUPPORT OF SPARC  
 07/11/2000 - 07/31/2001 FY01: \$0 Total: \$34,726  
*Prin. Invest.: M A GELLER*  
*Tech. Officer: GSFC/P DECOLA*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 9958 STATE UNIV OF NEW YORK - STONY BROOK 7170**  
 THE EVOLUTION OF STELLAR CORONAE FROM THE PMS THROUGH THE ZAMS  
 09/13/2000 - 09/14/2002 FY01: \$17,000 Total: \$45,000  
*Prin. Invest.: F M WALTER*  
*Tech. Officer: GSFC/R MUSHOTZKY*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10284 STATE UNIV OF NEW YORK - STONY BROOK 7171**  
 VERTICAL PROFILES OF LATENT HEATING IN TRMM: VALIDATION & ASSIMILATION IN THE GEOS DATA ASSIMILATI  
 01/31/2001 - 01/31/2002 FY01: \$50,000 Total: \$50,000  
*Prin. Invest.: M ZHANG*  
*Tech. Officer: GSFC/R J LAWRENCE*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 10318 STATE UNIV OF NEW YORK - STONY BROOK 7172**  
 THE EARLY EVOLUTION OF THE CIRCUMSTELLAR ENVIRON- MENT OF SOLAR-LIKE STARS FUSE 2000  
 01/25/2001 - 01/31/2002 FY01: \$36,000 Total: \$36,000  
*Prin. Invest.: F M WALTER*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10506 STATE UNIV OF NEW YORK - STONY BROOK 7173**  
 SURFICIAL PROCESSES ON MARS: AN EXPERIMENTAL APPROACH  
 03/05/2001 - 02/28/2002 FY01: \$60,000 Total: \$60,000  
*Prin. Invest.: S MCLENNAN*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 12 - CHEMISTRY*

**NAG 5 10583 STATE UNIV OF NEW YORK - STONY BROOK 7174**  
 SEDIMENTARY GEOCHEMISTRY ON MARS  
 03/19/2001 - 02/28/2002 FY01: \$28,000 Total: \$28,000  
*Prin. Invest.: S MCLENNAN*  
*Tech. Officer: GSFC/J M BOYCE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10772 STATE UNIV OF NEW YORK - STONY BROOK 7175**  
 EARLY BATSE GRB AFTERGLOWS (ADP 2000)  
 04/26/2001 - 04/30/2002 FY01: \$10,000 Total: \$10,000  
*Prin. Invest.: R A WIJERS*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10995 STATE UNIV OF NEW YORK - STONY BROOK 7176**  
 COSMIC RAYS IN INTERPLANETARY SPACE: SCATTERING THEORY IN THREE DIMENSIONAL TURBULENCE  
 05/31/2001 - 05/31/2002 FY01: \$117,926 Total: \$117,926  
*Prin. Invest.: M A FORMAN*  
*Tech. Officer: GSFC/W WAGNER*  
*CASE Category: 13 - PHYSICS*

**NAG 5 11033 STATE UNIV OF NEW YORK - STONY BROOK 7177**  
 INTRASEASONAL VARIABILITY IN THE INDIAN OCEAN  
 06/08/2001 - 06/30/2002 FY01: \$59,976 Total: \$59,976  
*Prin. Invest.: D WALISER*  
*Tech. Officer: GSFC/E LINDSTROM*  
*CASE Category: 33 - OCEANOGRAPHY*

**NAG 5 11240 STATE UNIV OF NEW YORK - STONY BROOK 7178**  
 TROPICAL UPWELLING AND STRATOSPHERIC WATER VAPOR VARIABILITY  
 08/15/2001 - 08/31/2004 FY01: \$73,956 Total: \$73,956  
*Prin. Invest.: M GELLER*  
*Tech. Officer: GSFC/P DECOLA*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 8 1698 STATE UNIV OF NEW YORK - STONY BROOK 7179**  
 MICROGRAVITY PROCESSING OF POLYMER THIN FILMS  
 06/02/2000 - 11/30/2003 FY01: \$95,000 Total: \$135,000  
*Prin. Invest.: M RAFAILOVICH*  
*Tech. Officer: MSFC/P DOTY*  
*CASE Category: 12 – CHEMISTRY*

**NAG 8 1700 STATE UNIV OF NEW YORK - STONY BROOK 7180**  
 DEFECTS NUMERICALLY DECREASED (DENUDE)  
 08/07/2000 - 11/30/2003 FY01: \$47,500 Total: \$92,500  
*Prin. Invest.: D LARSON*  
*Tech. Officer: MSFC/P M DOTY*  
*CASE Category: 13 – PHYSICS*

**NAS 1 96006 STATE UNIV OF NEW YORK - STONY BROOK 7181**  
 UPPER ATMOSPHER AND STRATOSHERIC WATER VAPOR RESEARCH  
 USING SAGE II  
 06/12/1996 - 06/11/2000 FY01: \$0 Total: \$253,806  
*Prin. Invest.: N AVAILABLE*  
*Tech. Officer: LARC/N AVAILABLE*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAS 1 98142 STATE UNIV OF NEW YORK - STONY BROOK 7182**  
 CERES SCIENCE INVESTIGATIONS  
 10/29/1998 - 10/31/2002 FY01: \$186,379 Total: \$494,914  
*Prin. Invest.: R D CESS*  
*Tech. Officer: LARC/B A WIELICKI*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 5 126 STATE UNIV OF NEW YORK - STONY BROOK 7183**  
 INTERDISCIPLINARY GLOBAL CHANGE RESEARCH  
 10/05/1995 - 02/15/2000 FY01: -\$2 Total: \$324,249  
*Prin. Invest.: GELLER*  
*Tech. Officer: GSFC/B CARLSON*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NCC 5 342 STATE UNIV OF NEW YORK - STONY BROOK 7184**  
 INTERDISCIPLINARY GLOBAL RESEACH  
 06/23/1998 - 03/14/2002 FY01: \$0 Total: \$136,741  
*Prin. Invest.: M GELLER*  
*Tech. Officer: GSFC/B CARLSON*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 8 93 STATE UNIV OF NEW YORK - STONY BROOK 7185**  
 COMBINED SYNCHROTRON WHITE X-RAY TOPOGRAPHY & HIGH RESOLUTION TRIPLE AXIS X-RAY DIFFRACTION CHARACTE  
 04/22/1996 - 03/31/2001 FY01: \$0 Total: \$418,563  
*Prin. Invest.: M DUDLEY, R J MATYI*  
*Tech. Officer: MSFC/C TALLEY, MSFC/F R SZOFTRAN*  
*CASE Category: 13 – PHYSICS*

**NCC 8 100 STATE UNIV OF NEW YORK - STONY BROOK 7186**  
 RESEARCH ENTITLED "ORBITAL PROCESSING OF EUTECTICS  
 06/13/1996 - 10/31/2000 FY01: \$0 Total: \$656,249  
*Prin. Invest.: D LARSON*  
*Tech. Officer: MSFC/T TURNER*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 8 208 STATE UNIV OF NEW YORK - STONY BROOK 7187**  
 GROWTH DEFECT CHARACTERIZATION USING WHITE BEAM SYNCHROTRON X-RAY TOPOGRAPHY  
 11/06/2000 - 11/05/2001 FY01: \$40,000 Total: \$40,000  
*Prin. Invest.: M DUDLEY*  
*Tech. Officer: MSFC/C HUA SU*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NGT 5 30124 STATE UNIV OF NEW YORK - STONY BROOK 7188**  
 ENVIRONMENTAL CONTROLS OVER 2-METHYL-3-BUTEN-2-01  
 09/30/1997 - 08/31/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.: M LERDAU/GRAY*  
*Tech. Officer: GSFC/M Y WEI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50322 STATE UNIV OF NEW YORK - STONY BROOK 7189**  
 EVOLUTION OF THE THREE-DIMENSIONAL MOISTURE STRUCTURE ASSOCIATED WITH THE LIFE CYCLE OF THE MADDEN  
 08/17/2000 - 08/31/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.: D WALISER*  
*Tech. Officer: GSFC/M Y WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9383 STATE UNIV OF NEW YORK COL - PLATTSBURGH 7190**  
 TRACE ELEMENT ANALYSIS OF COSMIC DUST  
 04/04/2000 - 06/30/2002 FY01: \$47,700 Total: \$91,700  
*Prin. Invest.: G J FLYNN*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 9 1109 STATE UNIV OF NEW YORK COL - PLATTSBURGH 7191**  
 JSC ASTROBIOLOGY INST  
 05/11/1999 - 05/13/2002 FY01: \$25,000 Total: \$75,000  
*Prin. Invest.: G J FLYNN*  
*Tech. Officer: JSC/E K GIBSON*  
*CASE Category: 13 – PHYSICS*

**NAG 5 4157 STATE UNIV OF NEW YORK COLLEGE - PURCHASE 7192**  
 EVOLUTION OF VALLEY NETWORKS  
 04/16/1997 - 03/30/2001 FY01: -\$23,313 Total: \$59,015  
*Prin. Invest.: D A GRANT,III*  
*Tech. Officer: GSFC/T MORGAN*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 4691 STATE UNIV OF NEW YORK COLLEGE - PURCHASE 7193**  
 CARBON AND NITROGEN ABUNDANCES IN INTERPLANETARY TO PREBIOTIC ORGANIC MATTER ON EARTH  
 06/26/1997 - 10/31/2001 FY01: \$0 Total: \$73,550  
*Prin. Invest.: D J FLYNN*  
*Tech. Officer: GSFC/M A MEYER*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 5 8499 STATE UNIV OF NEW YORK COLLEGE - PURCHASE 7194**  
DETERMINATION OF GEOS ANALYSIS ERRORS NEAR STRONG JET STREAMS USING HIGHRESOLUTION MODELS & AIRCRAF  
06/14/1999 - 06/30/2000 FY01: \$0 Total: \$50,000  
*Prin. Invest.: J TENENBAUM, NONE*  
*Tech. Officer: GSFC/H M HELFAND*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 9370 STATE UNIV OF NEW YORK COLLEGE - PURCHASE 7195**  
VALIDATION AND IMPROVEMENT OF DAO ANALYSES USING FLIGHT DATA RECORDER OBSERVATIONS  
04/12/2000 - 03/31/2002 FY01: \$70,000 Total: \$138,000  
*Prin. Invest.: J TENENBAUM*  
*Tech. Officer: GSFC/M HELFAND*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 10221 STATE UNIV OF NEW YORK COLLEGE - PURCHASE 7196**  
EXPERIMENTAL STUDY OF THE IMPACT DISRUPTION OF MET EORITIC SAMPLES: PARENT BODY FRAGMENTATION & THE  
01/11/2001 - 01/14/2002 FY01: \$30,000 Total: \$30,000  
*Prin. Invest.: G FLYNN*  
*Tech. Officer: GSFC/D SENSKA*  
*CASE Category: 99 – MULTIINTERDISCPL, OTHER*

**NAG 3 2464 STATE UNIV OF NEW YORK COLLEGE, BUFFALO 7197**  
DYNAMICS OF AEROSOL PARTICLES IN STATIONARY ISOTRO PIC TURBULENCE  
06/16/2000 - 11/30/2003 FY01: \$57,000 Total: \$77,000  
*Prin. Invest.: H MENG*  
*Tech. Officer: GRC/F P CHIARAMONTE 111*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 5 4544 STATE UNIV OF NEW YORK COLLEGE, BUFFALO 7198**  
PLANETARY GEOLOGY AND GEOPHYSICS UNDERGRADUATE RES  
05/13/1997 - 03/31/2001 FY01: \$0 Total: \$204,086  
*Prin. Invest.: GREGG*  
*Tech. Officer: GSFC/J G GRANT*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 7579 STATE UNIV OF NEW YORK COLLEGE, BUFFALO 7199**  
FUNDING FOR 'DEBRIS FLOW HAZARD ASSESSMENT, PICO D E ORIZABA, MEXICO'(SENH98-0089)  
08/04/1998 - 07/31/2002 FY01: \$50,000 Total: \$300,000  
*Prin. Invest.: M F SHERIDAN*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 7581 STATE UNIV OF NEW YORK COLLEGE, BUFFALO 7200**  
FUNDING FOR 'TEPHROSTRATIGRAPHIC AND SATELLITE IMA GERY ANALYSIS OF THE KAMCHATKAN SHORELINE...' (SE  
08/04/1998 - 01/31/2002 FY01: \$0 Total: \$100,000  
*Prin. Invest.: M BURSIK*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 – GEOLOGICALSCIENCE*

**NAG 5 10648 STATE UNIV OF NEW YORK COLLEGE, BUFFALO 7201**  
ANALYSIS OF VOCANOTECTONICS DEFORMATION & VOLCANIC HAZARDS USING TOPSAR & SRTM, MONO BASIN CALIFORN  
04/02/2001 - 04/14/2002 FY01: \$35,000 Total: \$35,000  
*Prin. Invest.: M I BURSIK*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 11331 STATE UNIV OF NEW YORK COLLEGE, BUFFALO 7202**  
ATTITUDE DETERMINATION SCHEMES FOR THE CEGANS SENSORS  
09/27/2001 - 11/30/2001 FY01: \$5,900 Total: \$5,900  
*Prin. Invest.: J CRASSIDIS*  
*Tech. Officer: GSFC/D A QUINN*  
*CASE Category: 41 – AERONAUTICAL ENGNR*

**NGT 8 52861 STATE UNIV OF NEW YORK COLLEGE, BUFFALO 7203**  
ORIGIN OF CELLULAR PROCESSES ON EARTH  
07/27/1998 - 06/30/2000 FY01: \$0 Total: \$20,699  
*Prin. Invest.: G R WILSKY*  
*Tech. Officer: MSFC/J F DOWDY*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 3 1853 SYRACUSE UNIV 7204**  
BEHAVIOR OF RAPIDLY SHEARED BUBBLY SUSPENSIONS  
05/01/1996 - 04/30/2001 FY01: \$0 Total: \$793,431  
*Prin. Invest.: A S SANGANI, D L KOCH*  
*Tech. Officer: GRC/H K NAHRA, GRC/B MOTIL*  
*CASE Category: 43 – CHEMICAL ENGR*

**NAG 3 2089 SYRACUSE UNIV 7205**  
THREE-DIMENSIONAL VISCOUS INVERSE METHOD WITH ENDW ALL EFFECTS  
03/17/1998 - 12/31/2001 FY01: \$0 Total: \$211,521  
*Prin. Invest.: T DANG*  
*Tech. Officer: GRC/J R WOOD*  
*CASE Category: 41 – AERONAUTICAL ENGNR*

**NAG 3 2309 SYRACUSE UNIV 7206**  
WORKSHOP ON BOUNDARY LAYER TRANSITION AND UNSTEADY ASPECTS OF TURBOMACHINERY FLOWS  
12/10/1999 - 12/31/2000 FY01: \$0 Total: \$6,000  
*Prin. Invest.: D E LAGRAFF*  
*Tech. Officer: GRC/D ASHPIS*  
*CASE Category: 41 – AERONAUTICAL ENGNR*

**NAG 3 2419 SYRACUSE UNIV 7207**  
MEASUREMENT OF TURBULENT PRESSURE AND TEMPERATURE FLUCTUATIONS IN A GAS TURBINE COMBUSTOR  
05/11/2000 - 09/30/2002 FY01: \$88,633 Total: \$158,710  
*Prin. Invest.: D LAGRAFF*  
*Tech. Officer: GRC/D A POVINELLI*  
*CASE Category: 41 – AERONAUTICAL ENGNR*

**NAG 3 2427 SYRACUSE UNIV 7208**  
RAPIDLY SHEARED BUBBLY SUSPENSIONS RAPIDLY SHEARED BUBBLY SUSPENSIONS  
05/24/2000 - 04/30/2005 FY01: \$66,500 Total: \$136,500  
*Prin. Invest.: D SANGANI*  
*Tech. Officer: GRC/H K NAHRA*  
*CASE Category: 49 – ENGINEERING, OTHER*

<b>NAG 5 6822</b>	<b>SYRACUSE UNIV</b>	<b>7209</b>	<b>NAG 2 1452</b>	<b>UNIV OF ROCHESTER</b>	<b>7217</b>
STUDIES OF REACTIONS ON INTERSTELLAR GRAIN ANALOGUES IN A UV-RICH ENVIRONMENT			DEVELOPMENT OF OPTIMIZED 1K X 1K MULTIPLEXER FOR N GST		
01/12/1998 - 12/31/2001	FY01: \$0	Total: \$229,476	02/01/2001 - 12/31/2001	FY01: \$450,000	Total: \$450,000
<i>Prin. Invest.:</i> G VIDALI			<i>Prin. Invest.:</i> W J FORREST		
<i>Tech. Officer:</i> GSFC/H HASAN			<i>Tech. Officer:</i> ARC/C R MCCREIGHT, ARC/R E MCMURRAY, JR		
CASE Category: 11 – ASTRONOMY			CASE Category: 11 – ASTRONOMY		
<b>NAG 5 9093</b>	<b>SYRACUSE UNIV</b>	<b>7210</b>	<b>NAG 3 2348</b>	<b>UNIV OF ROCHESTER</b>	<b>7218</b>
ENERGETICS OF MOLECULAR HYDROGEN FORMATION			LIQUID CRYSTAL POINT-DIFFRACTION INTERFEROMETER (L CPDI)		
02/17/2000 - 01/31/2002	FY01: \$70,000	Total: \$135,940	MATERIALS AND DEVICES FOR MICROGRAVITY FLUIDS		
<i>Prin. Invest.:</i> G VIDALI			03/08/2000 - 11/30/2003	FY01: \$93,276	Total: \$131,776
<i>Tech. Officer:</i> GSFC/P CRANE			<i>Prin. Invest.:</i> K MARSHALL		
CASE Category: 11 – ASTRONOMY			<i>Tech. Officer:</i> GRC/D GRIFFIN		
<b>NAG 5 11227</b>	<b>SYRACUSE UNIV</b>	<b>7211</b>	CASE Category: 49 – ENGINEERING, OTHER		
APPLY SENSE, ANALYZE, INTERPRET AND DECIDE (SAID) TO THE DEVELOPMENT OF INTELLIGENT ALGORITHMS& SYSTEMS			<b>NAG 5 4976</b>	<b>UNIV OF ROCHESTER</b>	<b>7219</b>
08/13/2001 - 08/14/2003	FY01: \$997,800	Total: \$997,800	DEVELOPMENT OF GE:GA BLOCKED-IMPURITY-BAND DETECTORS FOR ASTRONOMY		
<i>Prin. Invest.:</i> P K VARSHNEY			07/10/1997 - 12/31/2000	FY01: \$0	Total: \$305,000
<i>Tech. Officer:</i> GSFC/E J MASUOKA			<i>Prin. Invest.:</i> D M WATSON		
CASE Category: 22 – COMPUTER SCIENCE			<i>Tech. Officer:</i> GSFC/G STRINGFELLOW		
<b>NAS 3 00172</b>	<b>SYRACUSE UNIV</b>	<b>7212</b>	CASE Category: 11 – ASTRONOMY		
ENHANCED 3D VISCOSUS INVERSE DESIGN CFD CODE			<b>NAG 5 6119</b>	<b>UNIV OF ROCHESTER</b>	<b>7220</b>
11/03/2000 - 09/30/2001	FY01: \$141,504	Total: \$141,504	SUNSPOT DYNAMICS		
<i>Prin. Invest.:</i> N AVAILABLE			08/08/1997 - 08/31/2001	FY01: \$0	Total: \$173,100
<i>Tech. Officer:</i> GRC/C COLES-HAMILTON			<i>Prin. Invest.:</i> D H THOMAS		
CASE Category: 22 – COMPUTER SCIENCE			<i>Tech. Officer:</i> GSFC/W J WAGNER		
<b>NCC 1 01004</b>	<b>SYRACUSE UNIV</b>	<b>7213</b>	CASE Category: 11 – ASTRONOMY		
AN ADVANCED INTERACTIVE DISCOVERY ENVIRONMENT FOR ENGINEERING EDUCATION			<b>NAG 5 6267</b>	<b>UNIV OF ROCHESTER</b>	<b>7221</b>
02/07/2001 - 12/31/2003	FY01: \$998,000	Total: \$998,000	DEVELOPMENT OF LOW DARK CURRENT, HIGH QUANTUM EFFICIENCY PASSIVELY COOLED SPACE EXPERIMENTS		
<i>Prin. Invest.:</i> B D DAVIDSON, E D LIDDY			08/21/1997 - 06/30/2002	FY01: \$0	Total: \$605,562
<i>Tech. Officer:</i> LARC/R D BRAUN, LARC/K A CANNON			<i>Prin. Invest.:</i> J L PIPHER		
CASE Category: 49 – ENGINEERING, OTHER			<i>Tech. Officer:</i> GSFC/G STRINGFELLOW		
<b>NGT 1 52169</b>	<b>SYRACUSE UNIV</b>	<b>7214</b>	CASE Category: 11 – ASTRONOMY		
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)			<b>NAG 5 8428</b>	<b>UNIV OF ROCHESTER</b>	<b>7222</b>
05/07/1997 - 12/31/1999	FY01: -\$5,148	Total: \$44,352	THE PHYSICS OF RADIATIVE MHD JETS: A NUMERICAL STUDY OF MAGNETIZED YSO OUTFLOWS		
<i>Prin. Invest.:</i> M A KEGERISE, E F SPINA			06/02/1999 - 06/14/2002	FY01: \$174,780	Total: \$278,780
<i>Tech. Officer:</i> LARC/C B MCGINLEY			<i>Prin. Invest.:</i> A FRANK		
CASE Category: 41 – AERONAUTICAL ENGR			<i>Tech. Officer:</i> GSFC/R K OLIVERSEN		
<b>NAG 2 1142</b>	<b>UNIV OF ROCHESTER</b>	<b>7215</b>	CASE Category: 11 – ASTRONOMY		
PROPOSAL FOR INFRARED SUBMILLIMETER, AND RADIO ASTRONOMY			<b>NAG 5 8642</b>	<b>UNIV OF ROCHESTER</b>	<b>7223</b>
07/22/1997 - 05/31/2002	FY01: \$0	Total: \$1,479,766	DEVELOPMENT OF 2 - 10 MICRON HGCDTE ARRAYS FOR EXPLORER MISSIONS AND SOFIA.		
<i>Prin. Invest.:</i> W J FORREST, J L PIPHER			07/08/1999 - 06/30/2002	FY01: \$0	Total: \$492,402
<i>Tech. Officer:</i> ARC/C R MCCREIGHT, ARC/R E MCMURRAY			<i>Prin. Invest.:</i> J L PIPHER		
CASE Category: 13 – PHYSICS			<i>Tech. Officer:</i> GSFC/G MUCKLOW		
<b>NAG 2 1280</b>	<b>UNIV OF ROCHESTER</b>	<b>7216</b>	CASE Category: 11 – ASTRONOMY		
DEVELOPMENT OF DETECTOR ARRAYS FOR LOW-BACKGROUND SPACE ASTRONOMY			<b>NAG 5 9351</b>	<b>UNIV OF ROCHESTER</b>	<b>7224</b>
01/12/1999 - 02/28/2002	FY01: \$65,000	Total: \$195,000	DEVELOPMENT OF EXTRINSIC GERMANIUM BLOCKED-IMPURITY-BAND DETECTOR ARRAYS FOR FAR-INFRARED ASTRONOMY		
<i>Prin. Invest.:</i> W J FORREST			03/30/2000 - 03/31/2001	FY01: \$0	Total: \$298,000
<i>Tech. Officer:</i> ARC/C R MCCREIGHT			<i>Prin. Invest.:</i> D M WATSON		
CASE Category: 45 – ELECTRICAL ENGR			<i>Tech. Officer:</i> GSFC/G STRINGFELLOW		
			CASE Category: 13 – PHYSICS		

**NAG 5 10429** UNIV OF ROCHESTER 7225  
 NGST DETECTOR ARRAY TESTING AT THE UNIV OF R OCHESTER  
 02/22/2001 - 02/28/2002 FY01: \$183,000 Total: \$183,000  
*Prin. Invest.:* D J FORREST  
*Tech. Officer:* GSFC/M GREENHOUSE  
*CASE Category:* 11 – ASTRONOMY

**NAG 8 1382** UNIV OF ROCHESTER 7226  
 EN VIVO HEMOPOIESIS IN 3-DIMENSIONAL HUMAN BONE MARROW CULTURE UNDER SIMULATED MICROGRAVITY  
 07/09/1997 - 07/08/2001 FY01: \$0 Total: \$519,000  
*Prin. Invest.:* D WU  
*Tech. Officer:* MSFC/C TALLEY  
*CASE Category:* 59 – LIFE SCIENCE, OTHER

**NAG 9 1360** UNIV OF ROCHESTER 7227  
 CIRCADIAN RYTHMS AND CONTROL OF HEMATOPOIESIS  
 07/27/2001 - 07/16/2005 FY01: \$79,000 Total: \$79,000  
*Prin. Invest.:* J H WU  
*Tech. Officer:* JSC/D RISEN  
*CASE Category:* 51 – BIOLOGY (EXCLUDING ENVIR)

**NCC 3 660** UNIV OF ROCHESTER 7228  
 WAVEGUIDE COUPLING APPLIED TO AN INTEGRATED THIN FILM NOX SENSOR  
 01/06/1999 - 09/24/2000 FY01: \$0 Total: \$34,980  
*Prin. Invest.:* T G BROWN  
*Tech. Officer:* GRC/M L TUMA  
*CASE Category:* 13 – PHYSICS

**NGT 5 104** UNIV OF ROCHESTER 7229  
 THE NUCLEATION OF REFRACTORY VAPORS & ITS IMPACT ON ASTROPHYSICAL PROCESSES/STUDENT: DANIEL MARTINE  
 05/25/2000 - 08/31/2001 FY01: \$0 Total: \$22,000  
*Prin. Invest.:* R H HEIST  
*Tech. Officer:* GSFC/G A SOFFEN  
*CASE Category:* 43 – CHEMICAL ENGR

**NGT 5 50360** UNIV OF ROCHESTER 7230  
 EXPERIMENTAL EFFORT FOR THE OBSERVATION OF MACROSCOPIC QUANTUM COHERENCE IN AN RF - SQUID  
 05/25/2001 - 05/31/2002 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.:* M BOCKO  
*Tech. Officer:* GSFC/K BLANDING  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

## NORTH CAROLINA

**NAG 1 01014** DUKE UNIV 7231  
 IMPACT OF MODEL UNCERTAINTY ON SPATIAL COMPENSATION IN STRUCTURAL ACOUSTIC CONTROL  
 03/27/2001 - 12/31/2003 FY01: \$50,535 Total: \$50,535  
*Prin. Invest.:* R L CLARK  
*Tech. Officer:* LARC/R H CABELL  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NAG 1 01062** DUKE UNIV 7232  
 THE MECHANICS OF FLAPPING FLIGHT  
 04/11/2001 - 01/31/2004 FY01: \$35,723 Total: \$35,723  
*Prin. Invest.:* K C HALL  
*Tech. Officer:* LARC/D E COX  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NAG 2 1002** DUKE UNIV 7233  
 EXPRESSION OF CONTRACTILE PROTEIN ISOFORMS IN MICROGRAVITY  
 08/25/1995 - 06/30/2000 FY01: \$0 Total: \$165,646  
*Prin. Invest.:* P ANDERSON  
*Tech. Officer:* ARC/C M WINGET, ARC/G C JAHNS  
*CASE Category:* 51 – BIOLOGY (EXCLUDING ENVIR)

**NAG 2 1377** DUKE UNIV 7234  
 EVOLUTION OF GENE REGULATORY SYSTEM: STRUCTURAL & FUNCTIONAL ANALYSES OF EVOLUTIONARY DIVERSIFICATION  
 08/19/1999 - 09/30/2002 FY01: \$121,565 Total: \$316,458  
*Prin. Invest.:* G A WRATT  
*Tech. Officer:* ARC/M M AVERNER, ARC/R D MACELROY  
*CASE Category:* 51 – BIOLOGY (EXCLUDING ENVIR)

**NAG 3 1838** DUKE UNIV 7235  
 DENSITY EQUILIBRATION IN FLUIDS NEAR THE LIQUID-VAPOR CRITICAL POINT  
 04/22/1996 - 04/30/2002 FY01: \$0 Total: \$350,000  
*Prin. Invest.:* H MEYER  
*Tech. Officer:* GRC/B S SINGH  
*CASE Category:* 13 – PHYSICS

**NAG 3 1917** DUKE UNIV 7236  
 DYNAMICS OF GRANULAR MATERIAL  
 07/15/1996 - 07/15/2000 FY01: -\$1 Total: \$471,999  
*Prin. Invest.:* R BEHRINGER  
*Tech. Officer:* GRC/E NELSON  
*CASE Category:* 47 – METAL & MATERIALS ENGR

**NAG 3 2372** DUKE UNIV 7237  
 GRAVITY AND GRANULAR MATERIALS GRAVITY AND GRANULAR MATERIALS  
 04/07/2000 - 11/30/2003 FY01: \$103,550 Total: \$168,650  
*Prin. Invest.:* R P BEHRINGER  
*Tech. Officer:* GRC/R A WILKINSON  
*CASE Category:* 49 – ENGINEERING, OTHER

**NAG 3 2627** DUKE UNIV 7238  
 MODELING OF UNSTEADY THREE-DIMENSIONAL FLOWS IN MULTISTAGE MACHINES  
 06/07/2001 - 04/02/2005 FY01: \$18,243 Total: \$18,243  
*Prin. Invest.:* K C HALL  
*Tech. Officer:* GRC/A P KURKOV  
*CASE Category:* 46 – MECHANICAL ENGR

**NAG 5 3665** DUKE UNIV 7239  
 A STUDY OF CARBON MONOXIDE USING TRACE CONSTITUENT DATA ASSIMILATION: A NEW APPROACH IN GLOBAL ....  
 01/15/1997 - 12/31/2000 FY01: \$0 Total: \$646,175  
*Prin. Invest.:* P KABIBHATLA  
*Tech. Officer:* GSFC/R ROOD  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NAG 5 6988** DUKE UNIV 7240  
 REPRESENTING KEY PHYTOPLANKTON GROUPS IN OCEAN CARBON CYCLE MODELS  
 02/20/1998 - 02/14/2000 FY01: -\$7,564 Total: \$169,330  
*Prin. Invest.: R T BARBER*  
*Tech. Officer: GSFC/J CAMPBELL*  
*CASE Category: 33 – OCEANOGRAPHY*

**NAG 5 8533** DUKE UNIV 7241  
 TO WHAT EXTENT CAN INCREASED EVAPOTRANSPIRATION DUE TO GROUNDWATER BASED IRRIGATION IN THE GREAT  
 07/02/1999 - 07/14/2002 FY01: \$103,346 Total: \$233,754  
*Prin. Invest.: S ROJSTACZER*  
*Tech. Officer: GSFC/E T ENGMAN*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9348** DUKE UNIV 7242  
 PHYSICAL VARIABILITY, ECOSYSTEM RESPONSE & BIOGEO CHEMICAL CONSEQUENCES IN THE PACIFIC OCEAN: UNDERSTANDING  
 03/28/2000 - 04/30/2002 FY01: \$184,477 Total: \$303,262  
*Prin. Invest.: R T BARBER*  
*Tech. Officer: GSFC/J MARRA*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9605** DUKE UNIV 7243  
 CONTINUED DEVELOPMENT & APPLICATION OF DATA ASSIMILATION TECHNIQUES FOR TROPOSPHERIC CHEMISTRY STUDY  
 05/31/2000 - 05/31/2002 FY01: \$210,144 Total: \$338,430  
*Prin. Invest.: P KASIBHATLA*  
*Tech. Officer: GSFC/P DECOLA*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 10270** DUKE UNIV 7244  
 MAGNETOSPHERIC, IONOSPHERIC, & ATMOSPHERIC EFFECT OF INTENSE LIGHTNING-GENERATED ELECTROMAGNETIC  
 01/08/2001 - 01/14/2002 FY01: \$73,976 Total: \$73,976  
*Prin. Invest.: S SUMMER*  
*Tech. Officer: GSFC/M MELLOTT*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 8 1581** DUKE UNIV 7245  
 R/S DIFFERENTIATION AND MAINTENANCE OF SKELETAL AND CARDIAC MUSCLE IN SIMULATED GRAVITY  
 03/01/1999 - 11/30/2002 FY01: \$152,000 Total: \$400,000  
*Prin. Invest.: W E KRAUS*  
*Tech. Officer: MSFC/B GUYNES*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 8 1715** DUKE UNIV 7246  
 RESEARCH ENTITLED: DYNAMIC STRUCTURAL MODELING AND TESTING OF THIN-FILM STRUCTURE.  
 03/23/2000 - 06/02/2003 FY01: \$62,028 Total: \$121,102  
*Prin. Invest.: L N VIRGIN, K N SLADE*  
*Tech. Officer: MSFC/M TINKER, MSFC/L CURTIS*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NAG 8 1736** DUKE UNIV 7247  
 AN INVESTIGATION OF THE GEOMETRICAL SCALING PROPERTIES FOR INFLATABLE STRUCTURES  
 09/06/2000 - 09/06/2001 FY01: \$0 Total: \$25,000  
*Prin. Invest.: L N VIRGIN, K N SLADE*  
*Tech. Officer: MSFC/M L TINKER*  
*CASE Category: 42 – ASTRONAUTICAL ENGR*

**NAG 8 1781** DUKE UNIV 7248  
 QUANTUM COHERENCE IN ULTRACOLD FERMIONIC VAPORS  
 05/01/2001 - 04/30/2005 FY01: \$70,000 Total: \$70,000  
*Prin. Invest.: J E THOMAS*  
*Tech. Officer: MSFC/D HUBBARD*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NCC 5 233** DUKE UNIV 7249  
 A GROUND-TRUTHING PROGRAM IN SUPPORT OF THE VEGETA MISSION.  
 09/03/1997 - 08/31/2000 FY01: \$0 Total: \$39,437  
*Prin. Invest.: D L URBAN*  
*Tech. Officer: GSFC/R KNOX*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NCC 9 83** DUKE UNIV 7250  
 PREBREATHE REDUCTION PROTOCOL  
 03/11/1999 - 03/10/2003 FY01: \$150,000 Total: \$425,000  
*Prin. Invest.: R VANN*  
*Tech. Officer: JSC/M GERNHARDT*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 69** DUKE UNIV 7251  
 A REGIONAL ASSESSMENT OF THE RATE AND DIRECTION OF CHANGE IN SOIL ORGANIC CARBON POOLS DUE TO LAND  
 05/28/1998 - 09/14/2001 FY01: \$0 Total: \$62,100  
*Prin. Invest.: B SCHLESINGER*  
*Tech. Officer: GSFC/M S BURRELL*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 30105** DUKE UNIV 7252  
 EFFECTS OF PLANT-SOIL INTERACTIONS ON CARBON STORAGE IN A CHESAPEAKE BAY MARSH: DOES ELEVATED CO<sub>2</sub>?  
 10/24/1997 - 08/31/2000 FY01: \$0 Total: \$66,000  
*Prin. Invest.: D REYNOLDS*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 30117** DUKE UNIV 7253  
 THE EFFECTS OF WILDFIRE ON CARBON CYCLING IN SOILS OF INTERIOR ALASKA ESSF RECIPIENT: KATHERINE O'NEAL  
 10/01/1997 - 08/31/2000 FY01: \$0 Total: \$66,000  
*Prin. Invest.: D RICHTER*  
*Tech. Officer: GSFC/G ASRAR*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 30355** DUKE UNIV 7254  
 EFFECTS OF PRECIPITATION VARIABILITY & DESERTIFICATION ON WATER DYNAMICS IN ARID LANDS: A PATCH & LA  
 08/24/2000 - 08/31/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.: J REYNOLDS*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 30379** DUKE UNIV 7255  
 THE INFLUENCE OF IRRIGATION ON WARM SEASON PRECIPITATION IN THE GREWPLAINS/NATHAN J. MOORE  
 08/13/2001 - 08/31/2004 FY01: \$21,412 Total: \$21,412  
*Prin. Invest.: S ROJSTACZER*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 30397** DUKE UNIV 7256  
 MECHANISMS CONTROLLING THE RESPONSE OF DETRIFICATION TO ANTHROPOGENIC NITROGEN DEPOSITION (STUDENT)  
 08/14/2001 - 08/31/2004 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: W H SCHLESSINGER*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50224** DUKE UNIV 7257  
 VARYING EOLIAN DUST INPUTS AND SPATIOTEMPORAL PATTERNS OF CHANGE ON CARIBBEAN CORAL REEFS  
 09/29/1998 - 08/31/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.: R T BARBER, M HAYES*  
*Tech. Officer: HQ/A NURRIDIN*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 50266** DUKE UNIV 7258  
 CYTOSKELETAL CONTRIBUTIONS TO CHANGES IN ELASTICITY OF MAMMALIAN MYOCYTES AFTER CYCLIC MECHANICAL  
 07/07/1999 - 06/30/2001 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.: G TRUSKEY*  
*Tech. Officer: GSFC/L SMITH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 8 52842** DUKE UNIV 7259  
 GRADUATE STUDENT RESEARCH PROGRAM  
 07/30/1997 - 08/31/2000 FY01: -\$1,251 Total: \$64,749  
*Prin. Invest.: L N VIRGIN*  
*Tech. Officer: MSFC/JDOWDY*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 2 6045** EAST CAROLINA UNIV 7260  
 SC2000/SC2001 COMPUTATIONAL SCIENCE LEADERSHIP PROGRAM FOR HIGH SCHOOL TEACHERS  
 08/23/2000 - 07/31/2002 FY01: \$54,000 Total: \$108,000  
*Prin. Invest.: J C HUSKAMP*  
*Tech. Officer: ARC/J P ZIEBARTH, ARC/M J LEON*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NCC 1 01027** EAST CAROLINA UNIV 7261  
 THE LIVES, CAREERS, AND ENGINEERING ACCOMPLISHMENTS OF WILBUR AND ORVILLE WRIGHT  
 03/13/2001 - 12/31/2002 FY01: \$91,874 Total: \$91,874  
*Prin. Invest.: L TISE*  
*Tech. Officer: LARC/S E MASSENBERG*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 2 1165** EAST CAROLINA UNIV 7262  
 HYPERGRAVITY EFFECTS ON THE MATERNAL-FETAL SYSTEM  
 03/27/2000 - 03/14/2002 FY01: \$29,886 Total: \$58,902  
*Prin. Invest.: H W BURDEN*  
*Tech. Officer: ARC/A E RONCA/E M HOLTON*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 1 2229** ELIZABETH CITY STATE UNIV 7263  
 A PILOT COMPUTER AIDED DESIGN AND MANUFACTURING CURRICULUM THAT PROMOTES ENGINEERING  
 09/15/1999 - 07/31/2001 FY01: \$75,001 Total: \$200,001  
*Prin. Invest.: E LAWRENCE*  
*Tech. Officer: LARC/G D REESE*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 3 2150** ELIZABETH CITY STATE UNIV 7264  
 CONTROLLING CHAOS IN JOSEPHSON JUNCTION CONTROLLING CHAOS IN JOSEPHSON JUNCTION  
 04/07/1998 - 05/31/2002 FY01: \$0 Total: \$244,272  
*Prin. Invest.: D SENGUPTA, S K KANA, K D EDOH*  
*Tech. Officer: GRC/M ANDRO, GRC/E J PETRIK*  
*CASE Category: 21 – MATHEMATICS*

**NAG 3 2556** ELIZABETH CITY STATE UNIV 7265  
 AIR TRAFFIC ANALYSIS AIR TRAFFIC ANALYSIS  
 03/01/2001 - 02/28/2002 FY01: \$35,000 Total: \$35,000  
*Prin. Invest.: D PENDHARKAR*  
*Tech. Officer: GRC/D C ROBINSON*  
*CASE Category: 29 – MATH/COMPUTER SCI, OTHER*

**NAG 5 6814** ELIZABETH CITY STATE UNIV 7266  
 DR. C.D. TURNAGE PRE-COLLEGE AWARDS FOR EXCELLENCE IN MATHEMATICS, SCIENCE, ENGINEERING AND TECHNOLOGY  
 01/05/1998 - 11/30/1999 FY01: \$0 Total: \$200,000  
*Prin. Invest.: S SACHDEV*  
*Tech. Officer: GSFC/STOUTSENBERGER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9371** ELIZABETH CITY STATE UNIV 7267  
 MATHEMATICS OF THE GREAT DISMAL SWAMP  
 04/06/2000 - 03/31/2002 FY01: \$101,776 Total: \$203,776  
*Prin. Invest.: L HAYDEN*  
*Tech. Officer: GSFC/B MEESON*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9372** ELIZABETH CITY STATE UNIV 7268  
 YOU BE THE SCIENTIST WITH SATELLITE IMAGERY IN EX/ EC COMMUNITIES  
 04/06/2000 - 03/31/2002 FY01: \$94,791 Total: \$189,791  
*Prin. Invest.: L B HAYDEN*  
*Tech. Officer: GSFC/I KHAZENIE*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NCC 5 121** ELIZABETH CITY STATE UNIV 7269  
 REGIONAL NETWORK RESOURCES AND TRAINING SITE AT ECSU  
 08/15/1995 - 08/14/2001 FY01: \$15,000 Total: \$2,639,000  
*Prin. Invest.: L HAYDEN*  
*Tech. Officer: GSFC/J HARRINGTON*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NCC 5 533** ELIZABETH CITY STATE UNIV 7270  
 ECSU - NRTS CONTINUATION/MUSPIN NRTS PROGRAM.  
 02/01/1991 - 01/31/2002 FY01: \$357,694 Total: \$357,694  
*Prin. Invest.: L HAYDEN*  
*Tech. Officer: GSFC/J HARRINGTON*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 1 2227** FAYETTEVILLE STATE UNIV 7271  
 TEACHING INTEGRATED MATHEMATICS AND SCIENCE WITH TECHNOLOGY  
 AND NASA RESOURCES: A PARTNERSHIP  
 08/23/1999 - 07/31/2001 FY01: \$1 Total: \$200,001  
*Prin. Invest.: I EDWARDS*  
*Tech. Officer: LARC/S MASSENBERG*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 3 2072** FAYETTEVILLE STATE UNIV 7272  
 GENERATING ELECTRONIC MATERIALS (GEM) FOR TEACHING /LEARNING  
 MATHEMATIC AND SCIENCE TEACHER TRAINING  
 07/28/1997 - 04/15/2000 FY01: -\$2,603 Total: \$79,394  
*Prin. Invest.: L EWARDS*  
*Tech. Officer: GRC/R F LAWRENCE*  
*CASE Category: 29 – MATH/COMPUTERSCI, OTHER*

**NAG 5 9155** FAYETTEVILLE STATE UNIV 7273  
 MATHEMATICS/SCIENCE EDUCATION CENTER PRECOLLEGE PROGRAM  
 03/03/2000 - 02/28/2002 FY01: \$100,000 Total: \$200,000  
*Prin. Invest.: L EDWARDS*  
*Tech. Officer: GSFC/M STOUTSENBERGER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 3 2290** JOHNSON C. SMITH UNIV 7274  
 OPTIMUM DESIGN OF PASSIVE MILLIMETER WAVE IMAGING WITH SUPER-  
 RAYLEIGH RESOLUTION OF APPLICATION TO  
 09/02/1999 - 08/31/2000 FY01: \$0 Total: \$55,000  
*Prin. Invest.: M F ATTIA*  
*Tech. Officer: GRC/I M BLANKSON*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 3 2300** JOHNSON C. SMITH UNIV 7275  
 THE DEVELOPMENT OF A PASSIVE MILLIMETER WAVE IMAGING SYSTEM  
 WITH SUPER-RESOLUTION  
 11/16/1999 - 12/31/2002 FY01: \$97,596 Total: \$195,192  
*Prin. Invest.: D E MILLER*  
*Tech. Officer: GRC/D M BLANKSON*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 1 1956** NORTH CAROLINA A&T STATE UNIV 7276  
 APPROACHES TO DESIGN AND EVALUATION OF SANDWICH COMPOSITES  
 07/10/1997 - 10/31/2000 FY01: \$1 Total: \$177,001  
*Prin. Invest.: K N SHIVAKUMAR, NONE*  
*Tech. Officer: LARC/D R AMBUR, LARC/C C POE*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NAG 1 2225** NORTH CAROLINA A&T STATE UNIV 7277  
 ACCESS TO SPACE THROUGH RESEARCH AND EDUCATION MY 1/2  
 08/24/1999 - 12/31/2001 FY01: \$75,000 Total: \$200,000  
*Prin. Invest.: F FERGUSON*  
*Tech. Officer: LARC/R S CALLOWAY, LARC/B K OUTLAW*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 2 1413** NORTH CAROLINA A&T STATE UNIV 7278  
 MOTION PLANNING IN A SOCIETY OF INTELLIGENT MOBILE AGENTS  
 07/05/2000 - 06/14/2002 FY01: \$0 Total: \$120,416  
*Prin. Invest.: A C ESTERLINE*  
*Tech. Officer: ARC/M G SHATTO*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 2 1430** NORTH CAROLINA A&T STATE UNIV 7279  
 COMBUSTION SENSORS: GAS TURBINE APPLICATIONS  
 08/16/2000 - 12/31/2001 FY01: \$0 Total: \$143,397  
*Prin. Invest.: M HUMAN*  
*Tech. Officer: ARC/G ZILLIAC*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 2 1469** NORTH CAROLINA A&T STATE UNIV 7280  
 EXAMINING THE PILOT & CONTROLLER PERFORMANCE DATA WHEN IN A  
 FREE FLIGHT WITH WEATHER PHENOMENON  
 04/12/2001 - 03/31/2002 FY01: \$130,000 Total: \$130,000  
*Prin. Invest.: C NTUEN*  
*Tech. Officer: ARC/S LOZITO, ARC/R ASHFORD*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 2 6028** NORTH CAROLINA A&T STATE UNIV 7281  
 RONALD E. MCNAIR GRADUATE RESEARCH FELLOWSHIP PROG RAM  
 02/22/1999 - 02/14/2002 FY01: \$323,500 Total: \$970,500  
*Prin. Invest.: R M SALAMI, L SHARPE*  
*Tech. Officer: ARC/B COLLINS, ARC/M L MARLAIRE*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NAG 3 2165** NORTH CAROLINA A&T STATE UNIV 7282  
 DEVELOPMENT OF A STRUCTURAL DAMAGE DIAGNOSTIC AND  
 MONITORING SYSTEM FOR ROCKETENGINES PHASE I: DAMA  
 06/11/1998 - 10/31/2000 FY01: \$0 Total: \$90,000  
*Prin. Invest.: Y ELLEN, L SHARPE*  
*Tech. Officer: GRC/D F NOGA, GRC/A L JANKOVSKY*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 3 2584** NORTH CAROLINA A&T STATE UNIV 7283  
 ADVANCED CROSS ENTERPRISE TECHNOLOGY  
 04/05/2001 - 03/11/2004 FY01: \$539,870 Total: \$539,870  
*Prin. Invest.: D DOGAN*  
*Tech. Officer: GRC/G FUJIKAWA*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NAG 3 2650** NORTH CAROLINA A&T STATE UNIV 7284  
 CARBON FIBER REINFORCED CERAMIC COMPOSITES FOR PRO PULSION  
 APPLICATION  
 09/21/2001 - 02/28/2002 FY01: \$5,000 Total: \$5,000  
*Prin. Invest.: D N SHIVAKUMAR*  
*Tech. Officer: GRC/M R FREEDMAN*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NAG 4 118** NORTH CAROLINA A&T STATE UNIV 7285  
 MULTIDISCIPLINARY MODELING & SIMULATION OF AEROSPACE VEHICLE  
 SYSTEMS  
 03/27/1997 - 03/30/2001 FY01: -\$209 Total: \$99,789  
*Prin. Invest.: M HUMAN*  
*Tech. Officer: DFRC/K K GUPTA, DFRC/L S VOELKER*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 4 131** NORTH CAROLINA A&T STATE UNIV 7286  
 ARTIFICIAL POTENTIAL FIELD BASED MOTION PLANNING/ NAVIGATION IN 2  
 & 3 DIMENSIONAL DYNAMIC ENVIRON.  
 06/06/1997 - 05/31/2001 FY01: \$0 Total: \$354,016  
*Prin. Invest.: A V HOMAI FAR*  
*Tech. Officer: DFRC/K GUPTA*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 4 132** NORTH CAROLINA A&T STATE UNIV 7287  
HYBRID MOTION PLANNING WITH MULTIPLE DESTINATIONS NEW AWARD  
06/10/1997 - 06/30/2000 FY01: -\$3,541 Total: \$269,753  
*Prin. Invest.: J CLOUSE, NONE*  
*Tech. Officer: DFRC/K GUPTA*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 4 152** NORTH CAROLINA A&T STATE UNIV 7288  
INVESTIGATION OF AERO SERVO STRUCTURAL INTERACTIO IN AERO-  
SPACE APPLICATIONS  
03/23/1998 - 03/18/2002 FY01: \$0 Total: \$300,000  
*Prin. Invest.: S CHANDRA*  
*Tech. Officer: DFRC/J BRADEN, DFRC/K K GUPTA*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 4 211** NORTH CAROLINA A&T STATE UNIV 7289  
DEVELOPMENT AND EVALUATION OF FAULT-TOLERANT FLIGHT CONTROL  
SYSTEMS  
06/26/2000 - 06/14/2003 FY01: \$100,000 Total: \$200,000  
*Prin. Invest.: D D SONG*  
*Tech. Officer: DFRC/K GUPTA*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 5 4102** NORTH CAROLINA A&T STATE UNIV 7290  
FORMAL FOUNDATIONS OF AGENTS  
03/31/1997 - 11/30/1999 FY01: \$0 Total: \$295,567  
*Prin. Invest.: A ESTERLINE*  
*Tech. Officer: GSFC/W TRUSzkowski*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 5 7158** NORTH CAROLINA A&T STATE UNIV 7291  
SELF-TIMED SYNCHRONOUS DIGITAL SYSTEM DESIGN  
03/11/1998 - 05/14/2002 FY01: \$100,000 Total: \$299,028  
*Prin. Invest.: A WALKER*  
*Tech. Officer: GSFC/P CORONADO*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NAG 5 9170** NORTH CAROLINA A&T STATE UNIV 7292  
NATIONAL CONFERENCE OF BLACK PHYSICS STUDENTS  
03/06/2000 - 03/14/2001 FY01: \$0 Total: \$77,708  
*Prin. Invest.: E WILLIAMS*  
*Tech. Officer: GSFC/J A JACKSON*  
*CASE Category: 13 – PHYSICS*

**NAG 5 9419** NORTH CAROLINA A&T STATE UNIV 7293  
LOW-POWER RF SOI-CMOS TECHNOLOGY FOR DISTRIBUTED SENSOR  
NETWORKS  
04/11/2000 - 08/30/2001 FY01: \$0 Total: \$100,000  
*Prin. Invest.: N DOGAN*  
*Tech. Officer: GSFC/J MALONE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 8 1142** NORTH CAROLINA A&T STATE UNIV 7294  
ROCKET ENGINE STUDY  
05/15/1995 - 12/31/2000 FY01: \$0 Total: \$69,729  
*Prin. Invest.: K JONES*  
*Tech. Officer: MSFC/J RUF*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 8 1247** NORTH CAROLINA A&T STATE UNIV 7295  
DEVELOPMENT & TESTING OF A VIBROMETRY TECHNIQUE FOR HEALTH  
MONITORING OF COMPOSITE MATERIAL STRUCT  
10/31/1996 - 10/31/1999 FY01: -\$8,247 Total: \$276,260  
*Prin. Invest.: D J SCHULZ*  
*Tech. Officer: MSFC/C WILKERSON*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 8 1646** NORTH CAROLINA A&T STATE UNIV 7296  
STRUCTURAL HEALTH MONITORING OF AEROSPACE VEHICLES  
09/30/1999 - 09/30/2001 FY01: \$80,000 Total: \$200,000  
*Prin. Invest.: N*  
*Tech. Officer: MSFC/A BEAM, MSFC/W LOVE*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 8 1707** NORTH CAROLINA A&T STATE UNIV 7297  
ALLIANCE FOR LEARNING AND VISION FOR UNDER- REPRESENTED AMER-  
ICANS PROGRAM (ALVA)  
01/31/2000 - 01/20/2001 FY01: \$0 Total: \$47,025  
*Prin. Invest.: E CHEEK*  
*Tech. Officer: MSFC/W LOVE*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 9 973** NORTH CAROLINA A&T STATE UNIV 7298  
INTELLIGENT AGENTS-BASED SCHEDULING  
09/25/1997 - 09/30/2000 FY01: -\$15,499 Total: \$117,448  
*Prin. Invest.: B RAM*  
*Tech. Officer: JSC/J D ERICK SUN*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG10 201** NORTH CAROLINA A&T STATE UNIV 7299  
CLEANING OF CONTAMINATED SUBSTRATES  
10/23/1996 - 12/22/2000 FY01: -\$31,054 Total: \$253,029  
*Prin. Invest.: G WHITE*  
*Tech. Officer: KSC/G ALLEN*  
*CASE Category: 43 – CHEMICAL ENGR*

**NAS 3 01197** NORTH CAROLINA A&T STATE UNIV 7300  
8CM, AND 30CM CARBON-CARBON GRIDS, USING INNOVATIV E MANUFAC-  
TURING PROCESS  
08/14/2001 - 05/28/2004 FY01: \$40,000 Total: \$40,000  
*Prin. Invest.: K SHIVAKUMAR*  
*Tech. Officer: GRC/T HAAG*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NAS 3 96055** NORTH CAROLINA A&T STATE UNIV 7301  
NEW MECHANISTIC CONSTITUTIVE MODEL FOR HIGH TEMPER ATURE  
CMCS UNDER MONOTONIC CYCLIC LOADING  
11/05/1996 - 09/30/1999 FY01: \$0 Total: \$120,000  
*Prin. Invest.: J SANKAR, A D KELKAR*  
*Tech. Officer: GRC/R BHATT, GRC/E HANES*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NCC 1 255** NORTH CAROLINA A&T STATE UNIV 7302  
THE CENTER FOR AEROSPACE RESEARCH: A NASA CENTER OF EXCEL-  
LENCE  
05/13/1997 - 12/31/2001 FY01: \$1,200,000 Total: \$4,900,000  
*Prin. Invest.: E O DOSE*  
*Tech. Officer: LARC/W WHIGGLOW, JR.*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 1 01058** NORTH CAROLINA A&T STATE UNIV 7303  
 INTEGRATION OF NASA RESEARCH IN UNDERGRAD EDUCATION IN MATHEMATICS, SCIENCE, ENGINEERING & TECHNOLOGY  
 08/24/2001 - 06/30/2003 FY01: \$701,721 Total: \$701,721  
*Prin. Invest.:* J D MONROE  
*Tech. Officer:* LARC/R A HATHAWAY  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NCC 3 576** NORTH CAROLINA A&T STATE UNIV 7304  
 AEROTHERMO STRUCTURAL ANALYSIS OF LOW COST COMPOSITE NOZZLE/INLET COMPONENTS  
 09/19/1997 - 08/15/2000 FY01: \$0 Total: \$499,494  
*Prin. Invest.:* K N SHIVAKUMAR, D SREE  
*Tech. Officer:* GRC/D R REDDY  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NCC 4 105** NORTH CAROLINA A&T STATE UNIV 7305  
 ON THE PREVIEWED CONTROL ACTION FOR AIRCRAFT FLYING QUALITIES  
 07/25/1996 - 03/30/2001 FY01: -\$6,977 Total: \$93,023  
*Prin. Invest.:* D HOMAIFAR  
*Tech. Officer:* DFRC/R K BOGUE  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NCC 5 349** NORTH CAROLINA A&T STATE UNIV 7306  
 INTEGRATION OF NASA RESEARCH INTO UNDERGRADUATE EDUCATION IN MATHEMATICS/SCIENCE, ENGINEERING AND TECH  
 06/29/1998 - 06/30/2003 FY01: \$0 Total: \$1,500,000  
*Prin. Invest.:* J D MONROE  
*Tech. Officer:* GSFC/B WHITE  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NGT 1 52178** NORTH CAROLINA A&T STATE UNIV 7307  
 GRADUATE STUDENT RESEARCHERS PROGRAM  
 09/12/1997 - 09/11/2000 FY01: -\$2,382 Total: \$63,618  
*Prin. Invest.:* F VAINSTEIN, R P WILSON  
*Tech. Officer:* LARC/S E WOODARD, LARC/J N JUANG  
*CASE Category:* 42 – AERONAUTICAL ENGR

**NGT 4 52409** NORTH CAROLINA A&T STATE UNIV 7308  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 06/04/1999 - 10/31/2001 FY01: \$0 Total: \$44,000  
*Prin. Invest.:* S CHANDRA, S WYLIE  
*Tech. Officer:* DFRC/K GUPTA  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NAG 1 1981** NORTH CAROLINA STATE UNIV. - RALEIGH 7309  
 CRACK TURNING MECHANICS OF COMPOSITE WING SKIN PANELS  
 12/17/1997 - 04/30/2001 FY01: \$20,939 Total: \$323,824  
*Prin. Invest.:* F G YUAN  
*Tech. Officer:* LARC/C C POE, LARC/I S RAJU  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NAG 1 2216** NORTH CAROLINA STATE UNIV. - RALEIGH 7310  
 ALGORITHMIC ENHANCEMENTS FOR THE VULCAN NAVIER- STOKES SOLVER  
 08/09/1999 - 06/30/2002 FY01: \$15,001 Total: \$50,001  
*Prin. Invest.:* J R EDWARDS  
*Tech. Officer:* LARC/J A WHITE, LARC/J P DRUMMOND  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NAG 1 2222** NORTH CAROLINA STATE UNIV. - RALEIGH 7311  
 AN INVESTIGATION OF TERMINAL GUIDANCE & CONTROL TECHNIQUES FOR A ROBOTIC MARSLANDER  
 08/06/1999 - 05/15/2001 FY01: \$0 Total: \$62,356  
*Prin. Invest.:* G O WALBERG, B K BIRGE  
*Tech. Officer:* LARC/E M QUEEN, LARC/R W POWELL  
*CASE Category:* 42 – ASTRONAUTICAL ENGR

**NAG 1 2287** NORTH CAROLINA STATE UNIV. - RALEIGH 7312  
 MODEL DEVELOPMENT FOR HIGH PERFORMANCE PIEZOCERAMIC-BASED ACTUATORS  
 03/30/2000 - 04/30/2001 FY01: -\$231 Total: \$27,769  
*Prin. Invest.:* R C SMITH  
*Tech. Officer:* LARC/J S HARRISON/R G BRYANT  
*CASE Category:* 47 – METAL & MATERIALS ENGR

**NAG 1 01002** NORTH CAROLINA STATE UNIV. - RALEIGH 7313  
 LEVELS OF AUTOMATION IN THE COMMERCIAL AIRCRAFT COCKPIT AND PILOT SITUATION AWARENESS  
 12/06/2000 - 12/31/2001 FY01: \$63,462 Total: \$63,462  
*Prin. Invest.:* D B KABER  
*Tech. Officer:* LARC/A C TRUJILLO  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NAG 1 01039** NORTH CAROLINA STATE UNIV. - RALEIGH 7314  
 HUMAN RESPONSE ADAPTIVE AUTOMATION EARLY SENSOR/INFO ACQ FUNC & LATER STGS OF INFO PROCESSING IN SYS OPS  
 04/19/2001 - 12/31/2001 FY01: \$39,971 Total: \$39,971  
*Prin. Invest.:* D KABER  
*Tech. Officer:* LARC/L J PRINZEL  
*CASE Category:* 69 – PSYCHOLOGY, OTHER

**NAG 1 01041** NORTH CAROLINA STATE UNIV. - RALEIGH 7315  
 MODEL DEVELOPMENT FOR HIGH PERFORMANCE PIEZO-CERAMIC-BASED ACTUATORS  
 03/22/2001 - 02/28/2002 FY01: \$33,886 Total: \$33,886  
*Prin. Invest.:* R C SMITH  
*Tech. Officer:* LARC/J S HARRISON  
*CASE Category:* 21 – MATHEMATICS

**NAG 1 01064** NORTH CAROLINA STATE UNIV. - RALEIGH 7316  
 ACTIVE SHIELDING & CONTROL OF ENVIRONMENTAL NOISE  
 04/19/2001 - 12/31/2001 FY01: \$10,009 Total: \$10,009  
*Prin. Invest.:* S C TSYNKOV  
*Tech. Officer:* LARC/C L STREETT, LARC/H L ATKINS  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NAG 1 01069** NORTH CAROLINA STATE UNIV. - RALEIGH 7317  
 UNINHABITED AERIAL VEHICLES (UAV) FLIGHT CONTROL USING DISTRIBUTED ACTUATION & SENSING  
 05/18/2001 - 09/30/2003 FY01: \$43,308 Total: \$43,308  
*Prin. Invest.:* N E CHOKANI, C E HALL  
*Tech. Officer:* LARC/D L RANEY  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NAG 1 01103** NORTH CAROLINA STATE UNIV. - RALEIGH 7318  
 MULTISCALE MODELING OF NANOCOMPOSITES  
 06/19/2001 - 06/30/2002 FY01: \$19,993 Total: \$19,993  
*Prin. Invest.:* F G YUAN  
*Tech. Officer:* LARC/E H GLASSGEN, LARC/E SAETHER  
*CASE Category:* 47 – METAL & MATERIALS ENGR

**NAG 1 01111** NORTH CAROLINA STATE UNIV. - RALEIGH 7319  
 A COMPUTATIONAL INTELLIGENT (CI) APPROACH TO THE PRECISION MARS LANDER PROBLEM  
 08/09/2001 - 05/15/2002 FY01: \$35,413 Total: \$35,413  
*Prin. Invest.:* G D WALBERG  
*Tech. Officer:* LARC/E M QUEEN, LARC/R W POWELL  
*CASE Category:* 42 – ASTRONAUTICAL ENGR

**NAG 1 01119** NORTH CAROLINA STATE UNIV. - RALEIGH 7320  
 POST-STALL FLIGHT UNSTEADY AERODYNAMIC STUDY AND GAIN-SCHEDULED CONTROLLER DESIGN  
 08/16/2001 - 08/31/2004 FY01: \$50,000 Total: \$50,000  
*Prin. Invest.:* F WU  
*Tech. Officer:* LARC/P C MURPHY  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NAG 1 01128** NORTH CAROLINA STATE UNIV. - RALEIGH 7321  
 ENHANCEMENT OF BUCKLING LOAD WITH THE USE OF ACTIVE MATERIALS  
 09/27/2001 - 05/31/2002 FY01: \$26,106 Total: \$26,106  
*Prin. Invest.:* F G YUAN  
*Tech. Officer:* LARC/D R AMBER  
*CASE Category:* 47 – METAL & MATERIALS ENGR

**NAG 2 1119** NORTH CAROLINA STATE UNIV. - RALEIGH 7322  
 COMPUTATIONAL STUDY OF NANOMETER-SCALE DEVICE OPERATION & ENGINEERING  
 02/20/1997 - 09/30/2000 FY01: -\$4,777 Total: \$249,135  
*Prin. Invest.:* D W BRENNER, C K HALL  
*Tech. Officer:* ARC/C ' LEVIT, ARC/D A BAILEY  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NAG 2 1281** NORTH CAROLINA STATE UNIV. - RALEIGH 7323  
 VISUAL FACTORS AFFECTING PILOT'S JUDGEMENTS OF TRAJECTORY-TO-TOUCHDOWN DURING EMERGENCY LANDINGS  
 01/11/1999 - 12/31/2001 FY01: \$0 Total: \$185,999  
*Prin. Invest.:* D H MERSHON, C M MAYER  
*Tech. Officer:* ARC/I BARSHI  
*CASE Category:* 69 – PSYCHOLOGY, OTHER

**NAG 2 1502** NORTH CAROLINA STATE UNIV. - RALEIGH 7324  
 PHOSPHOINOSITIDE SIGNALING AND PLANT GRAVITROPISM: A TRANSGENIC APPROACH  
 07/16/2001 - 07/14/2002 FY01: \$47,006 Total: \$47,006  
*Prin. Invest.:* I Y PERERA  
*Tech. Officer:* ARC/M M AVERNER  
*CASE Category:* 51 – BIOLOGY (EXCLUDING ENVIR)

**NAG 5 3743** NORTH CAROLINA STATE UNIV. - RALEIGH 7325  
 NASA SPECIALIZED CENTER OF RESEARCH AND TRAINING I BIOLOGY  
 03/19/1997 - 03/14/2002 FY01: \$526,237 Total: \$4,028,631  
*Prin. Invest.:* E DAVIES  
*Tech. Officer:* GSFC/D P LISKOWSKY  
*CASE Category:* 59 – LIFE SCIENCE, OTHER

**NAG 5 6520** NORTH CAROLINA STATE UNIV. - RALEIGH 7326  
 SEAWIFS DATA COLLECTION, CALIBRATION AND PROCESSING FOR THE INDIAN OCEAN  
 02/12/1998 - 01/31/2001 FY01: \$0 Total: \$102,105  
*Prin. Invest.:* J MORRISON  
*Tech. Officer:* GSFC/J CAMPBELL  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NAG 5 6586** NORTH CAROLINA STATE UNIV. - RALEIGH 7327  
 REFINING REMOTE SENSING ESTIMATES OF NUTRIENT CONC ENTRATIONS BASED ON TEMPERATURE  
 11/07/1997 - 04/30/2002 FY01: \$0 Total: \$189,527  
*Prin. Invest.:* D KAMYKOWSKI  
*Tech. Officer:* GSFC/J A MARRA  
*CASE Category:* 33 – OCEANOGRAPHY

**NAG 5 7153** NORTH CAROLINA STATE UNIV. - RALEIGH 7328  
 X-RAY EMISSION AND DYNAMICS OF SUPERNOVA REMNANTS – ATP  
 03/31/1998 - 03/14/2002 FY01: \$0 Total: \$382,170  
*Prin. Invest.:* S P REYNOLDS  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 7406** NORTH CAROLINA STATE UNIV. - RALEIGH 7329  
 DUST DESTRUCTION IN SUPERNOVA REMNANTS – ASCA PROP OSAL  
 05/28/1998 - 11/30/1999 FY01: -\$2,827 Total: \$7,672  
*Prin. Invest.:* K BORKOWSKI  
*Tech. Officer:* GSFC/N WHITE  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 7942** NORTH CAROLINA STATE UNIV. - RALEIGH 7330  
 A GENERIC DESIGN METHODOLOGY FOR DEVELOPMENT OF HI GH PERFORMANCE REMOTE SENSING SCIENCE DATA PROCESSES  
 01/27/1999 - 01/31/2000 FY01: -\$1,547 Total: \$48,453  
*Prin. Invest.:* C GLOSTER, JR.  
*Tech. Officer:* GSFC/P S GHUMAN  
*CASE Category:* 22 – COMPUTER SCIENCE

**NAG 5 8215** NORTH CAROLINA STATE UNIV. - RALEIGH 7331  
 EDUCATIONAL OUTREACH FOR RESEARCH "PRODUCTION OF ENERGETIC PARTICLES AT HELIOSPHERIC SHOCKS". THIS  
 03/04/1999 - 10/31/2000 FY01: \$0 Total: \$9,975  
*Prin. Invest.:* D C ELLISON  
*Tech. Officer:* GSFC/J M GREBOWSKY  
*CASE Category:* 13 – PHYSICS

**NAG 5 8865** NORTH CAROLINA STATE UNIV. - RALEIGH 7332  
 SEAWIFS DATA COLLECTION, CALIBRATION & PROCESSING FOR THE INDIAN OCEAN  
 12/06/1999 - 01/31/2002 FY01: \$100,859 Total: \$165,884  
*Prin. Invest.:* J MORRISON  
*Tech. Officer:* GSFC/J MARRA  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NAG 5 9490** NORTH CAROLINA STATE UNIV. - RALEIGH 7333  
 SOFTWARE PACKAGE FOR ANALYSIS OF THERMAL X-RAY SPECTRA OF SUPERNOVA REMNANTS  
 04/17/2000 - 10/14/2001 FY01: \$0 Total: \$87,400  
*Prin. Invest.:* K J BORKOWSKI  
*Tech. Officer:* GSFC/J BREDEKAMP  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NAG 5 10940** NORTH CAROLINA STATE UNIV. - RALEIGH 7334  
 X-RAY EMISSION AND DYNAMICS OF SUPERNOVA REMNANTS (ATP 2000)  
 05/15/2000 - 05/14/2002 FY01: \$140,000 Total: \$140,000  
*Prin. Invest.:* S P REYNOLDS  
*Tech. Officer:* GSFC/R J OLIVERSEN  
*CASE Category:* 11 – ASTRONOMY

**NAG 8 1479** NORTH CAROLINA STATE UNIV. - RALEIGH 7335  
 R/S GROWTH AND PROPERTIES OF CARBON  
 03/19/1998 – 01/31/2002 FY01: \$95,000 Total: \$358,333  
*Prin. Invest.:* J BERNHOLC  
*Tech. Officer:* MSFC/C TALLEY  
*CASE Category:* 19 – PHYSICAL SCIENCE, OTHER

**NAG 8 1686** NORTH CAROLINA STATE UNIV. - RALEIGH 7336  
 OPTICAL CHARACTERIZATION OF GAS PHASE CHEMISTRY AND SURFACE  
 CHEMISTRY DURING HIGH PRESSURE PROCESS  
 05/09/2000 – 12/31/2003 FY01: \$114,000 Total: \$164,000  
*Prin. Invest.:* N DIETZ  
*Tech. Officer:* MSFC/P DOTY  
*CASE Category:* 19 – PHYSICAL SCIENCE, OTHER

**NAG 8 1817** NORTH CAROLINA STATE UNIV. - RALEIGH 7337  
 MODELS OF MASS TRANSPORT DURING MICROGRAVITY CRYSTAL  
 GROWTH OF ALLOYED SEMICONDUCTORS  
 07/10/2001 – 11/30/2003 FY01: \$36,000 Total: \$36,000  
*Prin. Invest.:* N MA  
*Tech. Officer:* MSFC/P DOTY  
*CASE Category:* 46 – MECHANICAL ENGR

**NAG 9 1087** NORTH CAROLINA STATE UNIV. - RALEIGH 7338  
 INTEGRATED PRESSURE BLADDER-RESTRAINT STRUCTURE FOR  
 ADVANCED EXTRAVEHICULAR MOBILITY UNIT  
 02/12/1999 – 02/11/2002 FY01: \$0 Total: \$81,144  
*Prin. Invest.:* M H MOHAMAD  
*Tech. Officer:* JSC/C H LIN  
*CASE Category:* 47 – METAL & MATERIALS ENGR

**NAG10 308** NORTH CAROLINA STATE UNIV. - RALEIGH 7339  
 CAPTURING SELECTED LECTURES FROM THE COURSE "SPACE BIOLOGY"  
 IN DIGITAL FORMAT: PHASE I  
 09/24/2001 – 09/16/2002 FY01: \$38,338 Total: \$38,338  
*Prin. Invest.:* D S BROWN *Prin. Invest.:* NONE  
*Tech. Officer:* KSC/J LETCHWORTH  
*CASE Category:* 51 – BIOLOGY (EXCLUDINGENVIR)

**NAS 1 01082** NORTH CAROLINA STATE UNIV. - RALEIGH 7340  
 HEALTH MONITORING OF RLV AIRFRAME STRUCTURES  
 05/30/2001 – 03/31/2002 FY01: \$219,597 Total: \$219,597  
*Prin. Invest.:* F G YUAN, K PETERS  
*Tech. Officer:* LARC/P H JOHNSTON  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NAS 1 18944** NORTH CAROLINA STATE UNIV. - RALEIGH 7341  
 SAGE III SCIENCE INVESTIGATION SUPPORT; P.I. PROFESSOR SAXENA  
 10/06/1989 – 01/31/2005 FY01: \$146,300 Total: \$613,937  
*Prin. Invest.:* V SAXENA  
*Tech. Officer:* LARC/G MADDREA  
*CASE Category:* 19 – PHYSICAL SCIENCE, OTHER

**NAS 1 99097** NORTH CAROLINA STATE UNIV. - RALEIGH 7342  
 ENHANCEMENT OF TAPPS FOR AVOSS DEMONSTRATION  
 06/03/1999 – 12/01/2000 FY01: \$0 Total: \$302,000  
*Prin. Invest.:* Y L LIN, M L KAPLAN  
*Tech. Officer:* LARC/F H PROCTOR  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NCC 1 335** NORTH CAROLINA STATE UNIV. - RALEIGH 7343  
 DETAILED MEASUREMENTS IN CAVITY SHEAR LAYER WITH OSCILLATORY  
 BLOWING CONTROL  
 04/09/1999 – 05/31/2000 FY01: -\$1,016 Total: \$27,307  
*Prin. Invest.:* N CHOKANI  
*Tech. Officer:* LARC/R D JOSLIN  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NCC 1 407** NORTH CAROLINA STATE UNIV. - RALEIGH 7344  
 RESEARCH ON STREAMLINES AND AERODYNAMIC HEATING FOR  
 UNSTRUCTURED GRIDS ON HIGH SPEED VEHICLES  
 08/28/2000 – 06/30/2001 FY01: \$0 Total: \$24,675  
*Prin. Invest.:* F R DEJARNETTE  
*Tech. Officer:* LARC/H H HAMILTON  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NCC 1 01008** NORTH CAROLINA STATE UNIV. - RALEIGH 7345  
 UAV (UNINHABITED AERIAL VEHICLE) FLIGHT TESTING 4 ADVANCED  
 TECHNOLOGY CONCEPTS  
 11/28/2000 – 11/30/2003 FY01: \$54,917 Total: \$54,917  
*Prin. Invest.:* N CHOKANI, S N NIHEINZEN, C E HALL  
*Tech. Officer:* LARC/J B ANDERS  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NCC 8 95** NORTH CAROLINA STATE UNIV. - RALEIGH 7346  
 FUNDAMENTAL ASPECTS OF VAPOR DEPOSITION AND ETCHING UNDER  
 DIFFUSION CONTROLLED TRANSPORT  
 05/31/1996 – 08/31/2000 FY01: \$0 Total: \$691,133  
*Prin. Invest.:* K J BACHMANN  
*Tech. Officer:* MSFC/S SPEARMAN, MSFC/J GRISHAM  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NCC 8 159** NORTH CAROLINA STATE UNIV. - RALEIGH 7347  
 APPLICATION OF REMOTE SENSING TECHNOLOGIES IN THE FOREST  
 SECTOR  
 10/28/1998 – 10/27/2003 FY01: \$0 Total: \$120,000  
*Prin. Invest.:* R ABT  
*Tech. Officer:* MSFC/J ARNOLD  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NGT 1 01004** NORTH CAROLINA STATE UNIV. - RALEIGH 7348  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) MY 1/3  
 05/16/2001 – 06/30/2004 FY01: \$12,000 Total: \$12,000  
*Prin. Invest.:* D KABER  
*Tech. Officer:* LARC/L J PRINZEL, III  
*CASE Category:* 69 – PSYCHOLOGY, OTHER

**NGT 1 01007** NORTH CAROLINA STATE UNIV. - RALEIGH 7349  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) MY 1/3  
 06/04/2001 – 06/30/2004 FY01: \$12,000 Total: \$12,000  
*Prin. Invest.:* L SILVERBERG  
*Tech. Officer:* LARC/D E COX  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NGT 1 01032** NORTH CAROLINA STATE UNIV. - RALEIGH 7350  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) MY 1/2  
 06/22/2001 – 06/30/2003 FY01: \$12,000 Total: \$12,000  
*Prin. Invest.:* H T BANKS  
*Tech. Officer:* LARC/W P WINIFREE  
*CASE Category:* 21 – MATHEMATICS

**NGT 1 52172** NORTH CAROLINA STATE UNIV. - RALEIGH 7351  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 06/30/1997 - 06/30/2000 FY01: -\$4,449 Total: \$61,552  
*Prin. Invest.: F R DE JARNETTE, K E HARWELL*  
*Tech. Officer: LARC/H H HAMILTON, LARC/E V ZOBY*  
*CASE Category: 41 - AERONAUTICAL ENGRN*

**NGT 1 52183** NORTH CAROLINA STATE UNIV. - RALEIGH 7352  
 GRADUATE STUDENTS RESEARCHERS PROGRAM (GSRP)  
 08/31/1998 - 06/30/2000 FY01: -\$582 Total: \$43,418  
*Prin. Invest.: M SMITH*  
*Tech. Officer: LARC/B E ANDERSON, LARC/V S CONNORS*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NGT 1 52196** NORTH CAROLINA STATE UNIV. - RALEIGH 7353  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 05/22/1998 - 06/30/2001 FY01: \$12,000 Total: \$66,001  
*Prin. Invest.: M L JOYNER, H T BANKS*  
*Tech. Officer: LARC/W P WINFREE, LARC/R A WINCHESKI*  
*CASE Category: 21 - MATHEMATICS*

**NGT 1 52242** NORTH CAROLINA STATE UNIV. - RALEIGH 7354  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 06/22/2000 - 06/30/2001 FY01: \$12,001 Total: \$22,001  
*Prin. Invest.: G P*  
*Tech. Officer: LARC/W P WINFREE*  
*CASE Category: 21 - MATHEMATICS*

**NGT 5 65** NORTH CAROLINA STATE UNIV. - RALEIGH 7355  
 GSRP TRAINING GRANT - KRISTY DYER - THERMAL AND NO N-THERMAL  
 PHYSICS OF OUNGSUPERNOVA REMNANTS  
 05/27/1998 - 08/14/2002 FY01: \$0 Total: \$66,000  
*Prin. Invest.: S O REYNOLDS*  
*Tech. Officer: GSFC/M S BURRELL*  
*CASE Category: 13 - PHYSICS*

**NGT 5 30054** NORTH CAROLINA STATE UNIV. - RALEIGH 7356  
 CONSTRAINING CARBON MONOXIDE SOURCES BY MODELING ITS STABLE  
 ISOTOPES  
 10/24/1997 - 08/31/2002 FY01: \$0 Total: \$66,000  
*Prin. Invest.: D REICHLE*  
*Tech. Officer: GSFC/A GHASSEM*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NGT 5 30192** NORTH CAROLINA STATE UNIV. - RALEIGH 7357  
 WATER, HEAT AND SALT BUDGET IN THE NORTHERN INDIAN OCEAN/STU-  
 DENT: WEI SHI  
 08/19/1999 - 08/31/2002 FY01: \$22,000 Total: \$66,000  
*Prin. Invest.: J M MORRISON*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NGT 5 40011** NORTH CAROLINA STATE UNIV. - RALEIGH 7358  
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE  
 AND FELLOWSHIP PROGRAM.  
 01/30/1997 - 02/28/2002 FY01: -\$48,709 Total: \$928,341  
*Prin. Invest.: F R DE JARNETTE*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NGT 5 40109** NORTH CAROLINA STATE UNIV. - RALEIGH 7359  
 NORTH CAROLINA SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM  
 03/02/2001 - 02/28/2002 FY01: \$304,959 Total: \$304,959  
*Prin. Invest.: F R DEJARNETTE*  
*Tech. Officer: GSFC/D D DETROYE*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 1 01126** SHAW UNIV 7360  
 SCIENTISTS PLUS ALLIES CONTRIBUTING TO EDUCATION (SPACE)  
 09/25/2001 - 08/31/2002 FY01: \$99,364 Total: \$99,364  
*Prin. Invest.: P PIERCE RAMSEY*  
*Tech. Officer: LARC/R HATHAWAY*  
*CASE Category: 41 - AERONAUTICAL ENGRN*

**NAG 5 9195** SHAW UNIV 7361  
 SHAW UNIV MSET PRE-COLLEGE EXPERIENCE  
 03/10/2000 - 02/28/2002 FY01: \$88,107 Total: \$181,917  
*Prin. Invest.: K SATAGOPAN*  
*Tech. Officer: GSFC/M STOUTSENBERGER*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 1 2301** UNIV OF NORTH CAROLINA - CHAPEL HILL 7362  
 CHEMICAL MODIFICATION OF NANOTUBES FOR COMPOSITES  
 06/08/2000 - 05/31/2003 FY01: \$102,529 Total: \$152,865  
*Prin. Invest.: E T SAMULSKI*  
*Tech. Officer: LARC/E J SIOCHI*  
*CASE Category: 12 - CHEMISTRY*

**NAG 1 01061** UNIV OF NORTH CAROLINA - CHAPEL HILL 7363  
 SCIENCE AND TECHNOLOGY OF NEW CARBON NANOTUBE- BASED  
 COMPOSITES  
 04/17/2001 - 01/31/2004 FY01: \$382,970 Total: \$382,970  
*Prin. Invest.: O*  
*Tech. Officer: LARC/J SMITH, JR*  
*CASE Category: 41 - AERONAUTICAL ENGRN*

**NAG 2 1188** UNIV OF NORTH CAROLINA - CHAPEL HILL 7364  
 BONE MATRIX CHANGES DURING SKELETAL UNLOADING & RE LOADING  
 08/15/2000 - 04/30/2002 FY01: \$0 Total: \$509,761  
*Prin. Invest.: M YAMAUCHI, W J GRZESKI*  
*Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY*  
*CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)*

**NAG 5 3100** UNIV OF NORTH CAROLINA - CHAPEL HILL 7365  
 RADIATIVE PHYSICS OF THE SOFT GAMMA REPEATERS  
 10/11/1995 - 01/14/2001 FY01: \$0 Total: \$99,000  
*Prin. Invest.: C EVANS*  
*Tech. Officer: GSFC/R OLIVERSEN*  
*CASE Category: 22 - COMPUTER SCIENCE*

**NAG 5 6278** UNIV OF NORTH CAROLINA - CHAPEL HILL 7366  
 GREENHOUSE GAS (N2O, CH4) EXCHANGE AND N CYCLING D FERTILIZED  
 (FACE) TEMPERATE FOREST  
 09/12/1997 - 08/31/2001 FY01: \$26,177 Total: \$254,765  
*Prin. Invest.: S C WHALEN*  
*Tech. Officer: GSFC/D E WICKLAND*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 8924 UNIV OF NORTH CAROLINA - CHAPEL HILL 7367**  
 LABORATORY STUDIES OF THE OPTICAL CONSTANTS & MICR OPHYSICAL PROPERTIESOF STRATOSPHERIC & UPPER TR  
 01/06/2000 - 12/31/2001 FY01: \$90,000 Total: \$203,536  
*Prin. Invest.: R E MILLER*  
*Tech. Officer: GSFC/P DECOLA*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 11290 UNIV OF NORTH CAROLINA - CHAPEL HILL 7368**  
 SIMULATING OF LAND USE DYNAMICS IN SE ASIA: A CELL UALAR AUTOMATION APPROACH  
 08/21/2001 - 08/31/2004 FY01: \$187,891 Total: \$187,891  
*Prin. Invest.: R RINDFUSS*  
*Tech. Officer: GSFC/G GUTMAN*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 8 1580 UNIV OF NORTH CAROLINA - CHAPEL HILL 7369**  
 QUANTITATIVE, MULVARIATE METHOD/PRE-FLIGHT OPTI- MIATION, & POST-FLIGHTEVAL. MACR CRYSTAL GROWTH.  
 02/04/1999 - 11/30/2002 FY01: \$176,700 Total: \$501,677  
*Prin. Invest.: C W CARTER, JR.*  
*Tech. Officer: MSFC/B GUYNES*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NCC 2 5372 UNIV OF NORTH CAROLINA - CHAPEL HILL 7370**  
 NOVEL PROPERTIES OF CARBON NANOTUBES AND RELATED NANOSTRUCTURES  
 03/23/2000 - 03/14/2002 FY01: \$80,000 Total: \$170,000  
*Prin. Invest.: J LU*  
*Tech. Officer: ARC/M MEYYAPPAN*  
*CASE Category: 13 – PHYSICS*

**NCC 5 295 UNIV OF NORTH CAROLINA - CHAPEL HILL 7371**  
 AGRICULTURAL COLONIZATION ON THE ECUADORIAN AMAZON : POPULATION, BIOPHYSICAL AND GEOGRAPHICAL FACTOR  
 06/12/1998 - 12/31/2001 FY01: \$161,231 Total: \$811,893  
*Prin. Invest.: R BILSBORROW*  
*Tech. Officer: GSFC/D DEERING*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NCC 5 337 UNIV OF NORTH CAROLINA - CHAPEL HILL 7372**  
 RADON-222 AND STABLE CARBON ISOTOPE TRACING OF CAR BON EXCHANGE AND TRACE GAS FLUXES IN OLD GROWTH A  
 06/17/1998 - 12/31/2001 FY01: \$218,935 Total: \$782,600  
*Prin. Invest.: C S MARTENS*  
*Tech. Officer: GSFC/D W DEERING*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 2 52247 UNIV OF NORTH CAROLINA - CHAPEL HILL 7373**  
 SYNTHESIS & PROPERTIES OF CARBON NANOTUBES & CARBO N NANO-TUBE INTERCALATION COMPOUNDS  
 08/19/1998 - 08/14/2000 FY01: \$0 Total: \$44,000  
*Prin. Invest.: O ZHOU*  
*Tech. Officer: ARC/R L JAFFE*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NGT 2 52254 UNIV OF NORTH CAROLINA - CHAPEL HILL 7374**  
 CMOS SMART SENSORS FOR TRACKING IN NATURAL ENVIRONMENTS  
 07/19/1999 - 07/14/2000 FY01: \$0 Total: \$22,000  
*Prin. Invest.: G BISHOP*  
*Tech. Officer: ARC/H THOMAS, ARC/S LAU*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NGT 5 30177 UNIV OF NORTH CAROLINA - CHAPEL HILL 7375**  
 THE MIGRATION ORIGINS OF DEFORESTATION IN A PROTEC TED AREA: COLONIZATIONCLEAR-CUTTING, AND CORN IN  
 08/12/1999 - 08/31/2002 FY01: \$22,000 Total: \$66,000  
*Prin. Invest.: T M WHITMORE*  
*Tech. Officer: GSFC/L SMITH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 30389 UNIV OF NORTH CAROLINA - CHAPEL HILL 7376**  
 WIND DRIVEN TRANSPORT PROCESSES OFF THE OREGON COA ST: DIRECT AND REMOTESENSING OF COASTAL OCEAN PR  
 08/14/2001 - 08/31/2004 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: J BANE*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 30390 UNIV OF NORTH CAROLINA - CHAPEL HILL 7377**  
 DISTRIBUTED HYDROLOGICAL MODELING OF URBANIZING EC OSYSTEMS: INVESTIGAT- ING THE IMPACT OF URBANIZAT  
 08/14/2001 - 08/31/2004 FY01: \$20,470 Total: \$20,470  
*Prin. Invest.: L BAND*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50311 UNIV OF NORTH CAROLINA - CHAPEL HILL 7378**  
 MONOLAYER-PROTECTED CLUSTERS: NEW AND UNUSUAL NANO METER-SCALE ELECTRONICS MATERIALS/STUDENT W. WUEL  
 07/07/2000 - 09/30/2001 FY01: \$0 Total: \$22,000  
*Prin. Invest.: R W MURRAY*  
*Tech. Officer: GSFC/L SMITH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 8114 UNIV OF NORTH CAROLINA AT WILMINGTON 7379**  
 HIGH-TROPHIC LEVEL ECOSYSTEM RESPONSE TO CLIMATE C HANGE IN THEANTARCTIC PENINSULA  
 01/25/1999 - 12/31/2001 FY01: \$0 Total: \$165,725  
*Prin. Invest.: S D EMSLIE*  
*Tech. Officer: GSFC/J W CAMPBELL*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 9 1296 UNIV OF NORTH CAROLINA-GREENSBORO 7380**  
 SSELF-REPORTING SPACE CORPS: EDIBLE BIOSENSORS  
 04/27/2001 - 04/30/2002 FY01: \$57,000 Total: \$57,000  
*Prin. Invest.: C N STEWART*  
*Tech. Officer: JSC/D RUSSO*  
*CASE Category: 54 – ENVIRONMENTAL BIOLOGY*

**NAG 8 1314 UNIV OF NORTH CAROLINA, CHARLOTTE 7381**  
 RESEARCH JOVE  
 01/22/1997 - 08/31/2000 FY01: -\$7,057 Total: \$127,443  
*Prin. Invest.: R D FORSYTHE, P WANG, S E MARSHALL*  
*Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 8 1514 UNIV OF NORTH CAROLINA, CHARLOTTE 7382**  
 VARIABILITY & PREDICTABILITY OF LAND-ATMOSPHERE INTERACTIONS: OBSERVATIONAL AND MODELING STUDIES  
 06/02/1998 - 05/31/2001 FY01: -\$1,574 Total: \$138,326  
*Prin. Invest.: S MARSHALL, NONE*  
*Tech. Officer: MSFC/J ARNOLD*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NGT 8 52901** UNIV OF NORTH CAROLINA, CHARLOTTE 7383  
 CHARACTERIZATION OF X-RAY OPTICS MANUFACTURE AND ITS APPLICATION TO WOLTERMICROSCOPE OPTICS.  
 05/25/2001 - 07/01/2004 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.:* S SMITH  
*Tech. Officer:* MSFC/S NASH-STEVENSON  
*CASE Category:* 46 – MECHANICAL ENGR

**NAG 2 1203** WAKE FOREST UNIV 7384  
 FOCUS AS A MODEL SYSTEM TO STUDY THE ROLE OF SUXIN TRANSPORT & THE ACTIN CYTOSKELETON IN GRAVITY...  
 04/06/1998 - 04/30/2002 FY01: \$0 Total: \$399,796  
*Prin. Invest.:* G K MUDAAY  
*Tech. Officer:* ARC/M M AVERNER, ARC/R D MACELROY  
*CASE Category:* 51 – BIOLOGY (EXCLUDING ENVIR)

**NAG 2 1507** WAKE FOREST UNIV 7385  
 REGULATION OF AUXIN TRANSPORT BY PHOSPHORYLATION AND FLAVONOIDS DURING GRAVITROPISM IN ARABIDOPSIS  
 07/20/2001 - 07/31/2002 FY01: \$67,694 Total: \$67,694  
*Prin. Invest.:* G K MUDAY  
*Tech. Officer:* ARC/M M AVERNER, ARC/R D MACELROY  
*CASE Category:* 51 – BIOLOGY (EXCLUDING ENVIR)

**NAG 3 2011** WINSTON-SALEM STATE UNIV 7386  
 PARALLEL OBJECT-ORIENTED PROGRAMMING IN NETWORK ENVIRONMENT  
 02/21/1997 - 02/28/2001 FY01: -\$722 Total: \$143,266  
*Prin. Invest.:* A RADENSKI  
*Tech. Officer:* GRC/G FOLLEN  
*CASE Category:* 22 – COMPUTER SCIENCE

**NAG 3 2515** WINSTON-SALEM STATE UNIV 7387  
 GENERIC DIVIDE AND CONQUER INTERNET-BASED GENERIC DIVIDE AND CONQUER INTERNET-BASED  
 12/22/2000 - 12/21/2003 FY01: \$51,839 Total: \$51,839  
*Prin. Invest.:* D RADENSKI  
*Tech. Officer:* GRC/G J FOLLEN  
*CASE Category:* 22 – COMPUTER SCIENCE

**NAG 8 1099** WINSTON-SALEM STATE UNIV 7388  
 JOVE  
 10/18/1994 - 02/25/2000 FY01: -\$1,498 Total: \$105,502  
*Prin. Invest.:* F LEE, E J JONES  
*Tech. Officer:* MSFC/F SIX  
*CASE Category:* 29 – MATH/COMPUTER SCI, OTHER

## NORTH DAKOTA

**NAG 4 209** NORTH DAKOTA STATE UNIV 7389  
 ADAPTIVE MULTISCALE ALGORITHMS FOR NON-LINEAR ESTIMATION OF AEROSPACE SYSTEMS  
 05/31/2000 - 02/12/2001 FY01: -\$271 Total: \$12,757  
*Prin. Invest.:* Y XU  
*Tech. Officer:* DFRC/M J BRENNER  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NGT 1 52159** NORTH DAKOTA STATE UNIV 7390  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 06/27/1997 - 06/30/2000 FY01: -\$9,110 Total: \$56,890  
*Prin. Invest.:* M SOUCEK, C R WOLD  
*Tech. Officer:* LARC/R PATER  
*CASE Category:* 11 – ASTRONOMY

**NGT 4 52411** NORTH DAKOTA STATE UNIV 7391  
 ADAPTIVE MULTISCALE ALGORITHMS  
 05/11/1999 - 07/31/2000 FY01: \$0 Total: \$22,000  
*Prin. Invest.:* Y XU, W K PERRIZO  
*Tech. Officer:* DFRC/K GUPTA  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NGT 4 52424** NORTH DAKOTA STATE UNIV 7392  
 GRAD STU RES PRO (GSRP)-PROP TITLE : ADAPTIVE MULTISCALE ALGORITHMS FOR NONLINEAR EST OF AEROSP SY  
 09/26/2000 - 09/25/2001 FY01: \$0 Total: \$22,000  
*Prin. Invest.:* Y XU  
*Tech. Officer:* DFRC/K K GUPTA  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NAG 3 1911** UNIV OF NORTH DAKOTA 7393  
 AMERICAN INDIANS INTO COMPUTER SCIENCE & ENGINEERING PROGRAM (AICSE)  
 07/08/1996 - 05/31/2000 FY01: -\$672 Total: \$58,096  
*Prin. Invest.:* M S ALI, A ALLERY  
*Tech. Officer:* GRC/D R PLUMER, GRC/S A MERRITT  
*CASE Category:* 22 – COMPUTER SCIENCE

**NAG 5 2696** UNIV OF NORTH DAKOTA 7394  
 BRINGING VOLCANO REMOTE SENSING DATA TO CLASSROOMS NATIONAL PARKS AND MONUMENTS  
 08/17/1994 - 09/30/2000 FY01: -\$13,765 Total: \$841,722  
*Prin. Invest.:* C A WOOD  
*Tech. Officer:* GSFC/F HASLER  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NAG 5 3616** UNIV OF NORTH DAKOTA 7395  
 A PUBLIC ACCESS RESOURCE CENTER (PARC) EMPOWERING TO USE EOSDIS -IMPLEMENTATION PHASE  
 11/22/1996 - 06/30/2002 FY01: \$999,924 Total: \$4,816,924  
*Prin. Invest.:* G A SEIELSTAD  
*Tech. Officer:* GSFC/J J COLLIER  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NAG 5 5340** UNIV OF NORTH DAKOTA 7396  
 EVALUATION OF NASA POLARIMETRIC (NPOL) RADAR OBSERVATIONS COLLECTED DURING THE KEYS AREA MICROPHYSIC  
 07/16/2001 - 12/31/2002 FY01: \$74,217 Total: \$74,217  
*Prin. Invest.:* P KUCERA  
*Tech. Officer:* WFF/J GERLACH  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NAG 5 7950** UNIV OF NORTH DAKOTA 7397  
 CO2 BUDGET AND RECTIFICATION AIRBORNE STUDY--NORTH AMERICA (COBRA--NA)  
 12/21/1998 - 12/14/2001 FY01: \$0 Total: \$180,250  
*Prin. Invest.:* C A GRAINGER  
*Tech. Officer:* GSFC/D E WICKLAND  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

## NASA'S UNIVERSITY PROGRAM

OHIO

**NAG 5 8681** UNIV OF NORTH DAKOTA 7398  
 BEYOND THE CUTTING EDGE: INNOVATIVE INTERNET EDUCATION TECHNIQUES  
 07/23/1999 - 09/30/2000 FY01: -\$320 Total: \$99,680  
*Prin. Invest.: C WOOD*  
*Tech. Officer: GSFC/N LAL*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9656** UNIV OF NORTH DAKOTA 7399  
 MICROPHYSICAL CHARACTERISTICS OF CLOUDS DURING THE TRMM FIELD CAMPAIGNS  
 06/05/2000 - 05/31/2002 FY01: \$42,356 Total: \$101,655  
*Prin. Invest.: C A GRAINGER*  
*Tech. Officer: HQ/R J LAWRENCE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG10 283** UNIV OF NORTH DAKOTA 7400  
 CLOUD ELECTRIC FIELDS AND MICROPHYSICS STUDIES CLOUD ELECTRIC FIELDS AND MICROPHYSICS STUDIES  
 05/23/2000 - 06/03/2002 FY01: \$429,054 Total: \$821,054  
*Prin. Invest.: D GRAINGER*  
*Tech. Officer: KSC/F J MERCERET*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG13 01006** UNIV OF NORTH DAKOTA 7401  
 NORTHERN GREAT PLAINS CENTER OF PEOPLE AND THE ENVIRONMENT  
 07/30/2001 - 04/30/2002 FY01: \$1,496,700 Total: \$1,496,700  
*Prin. Invest.: G A SEIESTAD*  
*Tech. Officer: SSC/B A SPIERING*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG13 99006** UNIV OF NORTH DAKOTA 7402  
 NORTHERN GREAT PLAINS REGIONAL EARTH SCIENCE APPLICATIONS CENTER  
 03/01/1999 - 02/28/2002 FY01: \$0 Total: \$1,720,000  
*Prin. Invest.: P R ZIMMERMAN*  
*Tech. Officer: SSC/C HILL*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 5 310** UNIV OF NORTH DAKOTA 7403  
 A PUBLIC ACCESS RESOURCE CTR(PARC)EMPOWERING THE GENERAL PUBLIC TO USE EOSDIS(PHASE III-OPERATIONS)  
 04/11/1998 - 06/30/2002 FY01: \$574,300 Total: \$2,202,300  
*Prin. Invest.: G SEIELSTAD*  
*Tech. Officer: GSFC/A TUYAHOV*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 5 399** UNIV OF NORTH DAKOTA 7404  
 NASA EPSCOR: PREPARATORY GRANT PROPOSAL  
 05/14/1999 - 04/30/2002 FY01: \$0 Total: \$450,000  
*Prin. Invest.: C WOOD*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 5 503** UNIV OF NORTH DAKOTA 7405  
 A MULTI-USE AIRBORNE RESEARCH FACILITY  
 06/20/2000 - 06/30/2003 FY01: \$50,000 Total: \$143,257  
*Prin. Invest.: M POELLET*  
*Tech. Officer: GSFC/C YUHAS*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NCC 5 582** UNIV OF NORTH DAKOTA 7406  
 NORTH DAKOTA NASA EPSCOR PROGRAM  
 08/16/2001 - 08/14/2004 FY01: \$125,000 Total: \$125,000  
*Prin. Invest.: R ANDRES*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 40034** UNIV OF NORTH DAKOTA 7407  
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE AND FELLOWSHIP PROGRAM.  
 02/13/1997 - 02/28/2001 FY01: \$0 Total: \$931,062  
*Prin. Invest.: C A WOOD*  
*Tech. Officer: GSFC/L KEFFER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 40117** UNIV OF NORTH DAKOTA 7408  
 NORTH DAKOTA SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM  
 03/08/2001 - 02/28/2002 FY01: \$248,562 Total: \$248,562  
*Prin. Invest.: R ANDRES*  
*Tech. Officer: GSFC/D D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

## OHIO

**NAG 3 2443** BOWLING GREEN STATE UNIV 7409  
 PROPOSED TRIAL OF FRESHLY COLLECTED LANDSAT 7 TM DATA FOR REMOTE SENSING APPLICATIONS IN NORTHWEST  
 05/31/2000 - 09/30/2001 FY01: \$0 Total: \$105,000  
*Prin. Invest.: D K VINCENT*  
*Tech. Officer: GRC/T M SCOTT*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 9 1186** BOWLING GREEN STATE UNIV 7410  
 PATHOGEN REDUCTION ON LETTUCE AND RADISHES USING HYDROGEN PEROXIDE  
 01/10/2000 - 11/30/2001 FY01: \$0 Total: \$18,412  
*Prin. Invest.: D L HENTGES, NONE*  
*Tech. Officer: JSC/V L KLOERIS*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAS 3 99202** BOWLING GREEN STATE UNIV 7411  
 PURCHASE OF DYNAMIC ELECTRIC MOTOR LOAD SIMULATOR  
 09/24/1999 - 12/31/2000 FY01: \$0 Total: \$359,986  
*Prin. Invest.: S BALLARD*  
*Tech. Officer: GRC/J L DOLCE*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NAG 2 1333** CASE WESTERN RESERVE UNIV 7412  
 DISCRETE FILEDS FOR AIR TRAFFIC MANAGEMENT  
 07/01/1999 - 12/31/2001 FY01: \$34,333 Total: \$86,610  
*Prin. Invest.: M S BRANICKY*  
*Tech. Officer: ARC/G MEYER*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 2 1356** CASE WESTERN RESERVE UNIV 7413  
 EFFECTS OF MICROGRAVITY ON ZEBRAFISH VESTIBULAR DEVELOPMENT  
 07/23/1999 - 07/31/2002 FY01: \$122,948 Total: \$305,164  
*Prin. Invest.: S J MOORMAN, NONE*  
*Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

<b>NAG 3 1868</b>	<b>CASE WESTERN RESERVE UNIV</b>	<b>7414</b>	<b>NAG 3 2243</b>	<b>CASE WESTERN RESERVE UNIV</b>	<b>7422</b>
INDUSTRIAL PROCESSES INFLUENCED BY GRAVITY 05/09/1996 - 04/08/2001	CASE Category: 49 – ENGINEERING, OTHER	FY01: \$0	ADVANCEMENT OR TRANSDUCER SENSOR SYSTEM FOR CRACK CONTAMINATION DETECTION 03/12/1999 - 07/30/2002	FY01: \$0	Total: \$396,073 Total: \$100,000
Prin. Invest.: S OSTRACH, Y KAMOTANI Tech. Officer: GRC/A D PLINE, GRC/N R HALL			Prin. Invest.: D HAZONY Tech. Officer: GRC/D NG		
			CASE Category: 41 – AERONAUTICAL ENGR		
<b>NAG 3 1913</b>	<b>CASE WESTERN RESERVE UNIV</b>	<b>7415</b>	<b>NAG 3 2315</b>	<b>CASE WESTERN RESERVE UNIV</b>	<b>7423</b>
BUBBLE GENERATION IN A FLOWING LIQUID MEDIUM & RES ULTING TWO-PHASE FLOW IN MICROGRAVITY 07/10/1996 - 09/30/2000	CASE Category: 19 – PHYSICAL SCIENCE, OTHER	FY01: -\$446	MODELING OF BALLISTIC IMPACT BEHAVIOR OF INCONEL 7 18 ALLOYS WITH APPLICATIONS TO ENGINE BLADE CONTA 12/30/1999 - 12/15/2001	FY01: \$121,932	Total: \$383,528 Total: \$161,932
Prin. Invest.: Y KAMOTANI, J OSTRACH Tech. Officer: GRC/D F CHAO			Prin. Invest.: V PRAKASH Tech. Officer: GRC/J PEREIRA		
			CASE Category: 46 – MECHANICAL ENGR		
<b>NAG 3 2110</b>	<b>CASE WESTERN RESERVE UNIV</b>	<b>7416</b>	<b>NAG 3 2331</b>	<b>CASE WESTERN RESERVE UNIV</b>	<b>7424</b>
NOVEL PIV TECHNIQUE FOR PLANAR PARTICLE SIZE AND V OLOCITY MEASUREMENTS FOR SPRAY DIAGNOSTICS 01/08/1998 - 10/31/2000	CASE Category: 99 – MULTI INTERDISCPL, OTHER	FY01: \$0	CANDLE FLAMES IN MICROGRAVITY CANDLE FLAMES IN MICROGRAVITY 02/10/2000 - 02/08/2002	FY01: \$14,000	Total: \$224,947 Total: \$56,323
Prin. Invest.: J R KADAMBI Tech. Officer: GRC/M P WERNET			Prin. Invest.: J S T'EN Tech. Officer: GRC/D L KIETRICH		
			CASE Category: 47 – METAL & MATERIALS ENGR		
<b>NAG 3 2160</b>	<b>CASE WESTERN RESERVE UNIV</b>	<b>7417</b>	<b>NAG 3 2391</b>	<b>CASE WESTERN RESERVE UNIV</b>	<b>7425</b>
STABILITY LIMITS AND DYNAMICS OF NONAXISYMMETRIC LIQUID BRIDGES 04/24/1998 - 05/31/2001	CASE Category: 46 – MECHANICAL ENGR	FY01: \$0	SATELLITE AND TERRESTRIAL NETWORK ANALYSIS SATELLITE AND TERRESTRIAL NETWORK ANALYSIS 04/13/2000 - 05/31/2001	FY01: \$0	Total: \$335,877 Total: \$27,646
Prin. Invest.: I D ALEXANDER Tech. Officer: GRC/J C DUH, GRC/B S SINGH			Prin. Invest.: J ISHAC Tech. Officer: GRC/W HVANCIC		
			CASE Category: 39 – ENVIRONMENTAL SCI, OTHER		
<b>NAG 3 2204</b>	<b>CASE WESTERN RESERVE UNIV</b>	<b>7418</b>	<b>NAG 3 2504</b>	<b>CASE WESTERN RESERVE UNIV</b>	<b>7426</b>
ESTABLISH THE GLENNAN MICROSYSTEM INITIATIVE ESTABLISH THE GLENNAN MICROSYSTEM INITIATIVE 09/25/1998 - 01/01/2001	CASE Category: 45 – ELECTRICAL ENGR	FY01: \$0	INSITU MONITORING OF BIOLOGICAL MATERIAL USING LOW -COHERENCE INTERFEROMETRIC SENSORS 11/13/2000 - 09/30/2002	FY01: \$253,000	Total: \$2,258,000 Total: \$253,000
Prin. Invest.: M MEHREGANY Tech. Officer: GRC/L G MATUS			Prin. Invest.: B OVRYN Tech. Officer: GRC/F P CHIARAMONTE		
			CASE Category: 49 – ENGINEERING, OTHER		
<b>NAG 3 2210</b>	<b>CASE WESTERN RESERVE UNIV</b>	<b>7419</b>	<b>NAG 3 2541</b>	<b>CASE WESTERN RESERVE UNIV</b>	<b>7427</b>
THE FEASIBILITY OF APPLYING TOMOGRAPHIC TECHNIQUES IN THE ICING RESEARCH WIND TUNNEL 11/19/1998 - 05/20/2002	CASE Category: 29 – MATH/COMPUTER SCI, OTHER	FY01: \$40,437	TIME DEPENDENT NUMERICAL SIMULATIONS OF SOLIDIFICATION PROCESSES 02/09/2001 - 02/05/2003	FY01: \$0	Total: \$144,967 Total: \$0
Prin. Invest.: S H IZEN Tech. Officer: GRC/C R MERCER			Prin. Invest.: P L TAYLOR Tech. Officer: GRC/A CHAIT		
			CASE Category: 49 – ENGINEERING, OTHER		
<b>NAG 3 2238</b>	<b>CASE WESTERN RESERVE UNIV</b>	<b>7420</b>	<b>NAG 3 2578</b>	<b>CASE WESTERN RESERVE UNIV</b>	<b>7428</b>
IDENTIFICATION OF GRAVITY-RELATED EFFECTS ON CRYSTAL GROWTH FROM MELTS WITH AN IMISCIBILITY GAP 02/24/1999 - 08/04/2000	CASE Category: 49 – ENGINEERING, OTHER	FY01: \$0	RESEARCH INITIATIVE IN SPACE COMMUNICATIONS AND NETWORKS 03/30/2001 - 03/25/2002	FY01: \$390,000	Total: \$70,067 Total: \$390,000
Prin. Invest.: A SAYIR Tech. Officer: GRC/B S SINGH			Prin. Invest.: F L MERAT Tech. Officer: GRC/K BHASIN		
			CASE Category: 45 – ELECTRICAL ENGR		
<b>NAG 3 2239</b>	<b>CASE WESTERN RESERVE UNIV</b>	<b>7421</b>	<b>NAG 3 2581</b>	<b>CASE WESTERN RESERVE UNIV</b>	<b>7429</b>
CANDLE FLAMES IN MICROGRAVITY CANDLE FLAMES IN MICROGRAVITY 02/24/1999 - 05/02/2000	CASE Category: 46 – MECHANICAL ENGR	FY01: \$0	ANALYSIS OF DROPLET SPLASHING IN AIRCRAFT ICING CONDITIONS 04/02/2001 - 11/30/2001	FY01: \$47,774	Total: \$56,500 Total: \$47,774
Prin. Invest.: I ADAMOVICH Tech. Officer: GRC/S J SCHNEIDER			Prin. Invest.: J D ALEXANDER, NONE Tech. Officer: GRC/M G POTAPCZUK		
			CASE Category: 41 – AERONAUTICAL ENGR		

<b>NAG 3 2620</b>	<b>CASE WESTERN RESERVE UNIV</b>	<b>7430</b>	<b>NAG 8 1779</b>	<b>CASE WESTERN RESERVE UNIV</b>	<b>7438</b>
INVESTIGATION OF ROTARY BLOOD PUMP FLOW USING PIV INVESTIGATION OF ROTARY BLOOD PUMP FLOW USING PIV			SIMULATED MICROGRAVITY MEASUREMENT TECHNIQUES FOR THE STUDY OF DYNAMIC EFFECTS IN PHOSPHOLIPID SUR		
06/29/2001 - 10/31/2002	FY01: \$125,406	Total: \$125,406	04/24/2001 - 04/30/2005	FY01: \$80,000	Total: \$80,000
Prin. Invest.: J R KADAMBI			Prin. Invest.: C ROSENBLATT, P L TAYLOR		
Tech. Officer: GRC/J M SANKOVIC			Tech. Officer: MSFC/D HUBBARD		
CASE Category: 56 – MEDICAL			CASE Category: 19 – PHYSICAL SCIENCE, OTHER		
<b>NAG 3 2644</b>	<b>CASE WESTERN RESERVE UNIV</b>	<b>7431</b>	<b>NCA 3 201</b>	<b>CASE WESTERN RESERVE UNIV</b>	<b>7439</b>
INKJET METHODOLOGIES FOR THE FABRICATION OF SECOND ARY LITHIUM-ION MICROBATTERIES INCORPORATING NANO			GLENNAN MICROSYSTEMS INITIATIVE FY00 PROJECTS GLENNAN MICROSYSTEMS INITIATIVE FY00PROJECTS		
08/17/2001 - 06/30/2002	FY01: \$41,700	Total: \$41,700	05/12/2000 - 10/31/2001	FY01: \$1,114,001	Total: \$2,352,471
Prin. Invest.: D A SCHERSON			Prin. Invest.: M MEHREGANY, C LIU		
Tech. Officer: GRC/D L BRITTON			Tech. Officer: GRC/L G MATUS		
CASE Category: 12 – CHEMISTRY			CASE Category: 45 – ELECTRICAL ENGR		
<b>NAG 5 6715</b>	<b>CASE WESTERN RESERVE UNIV</b>	<b>7432</b>	<b>NCC 2 1204</b>	<b>CASE WESTERN RESERVE UNIV</b>	<b>7440</b>
AN ELECTRON MICROSCOPY SURVEY OF CARBONATE-BEARING REGIONS OF ALH84001			EFFECTS OF MICROGRAVITY DURING THE CRTICIAL PERIOD OF ZEBRAFISH VESTIBULAR DEVELOPMENT		
12/10/1997 - 11/30/2000	FY01: \$0	Total: \$120,000	09/29/2000 - 12/31/2001	FY01: \$10,000	Total: \$30,000
Prin. Invest.: R HARVEY			Prin. Invest.: S J MOORMAN		
Tech. Officer: HQ/J BOYCE			Tech. Officer: ARC/D REISS-BUBENHEIM, ARC/R W BERTHOLD		
CASE Category: 11 – ASTRONOMY			CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)		
<b>NAG 5 7019</b>	<b>CASE WESTERN RESERVE UNIV</b>	<b>7433</b>	<b>NCC 3 372</b>	<b>CASE WESTERN RESERVE UNIV</b>	<b>7441</b>
THE EVOLUTION OF GALAXIES HARBORING CENTRAL MASSIV E BLACK HOLES – ATP			A STUDY OF THE MECHANICAL PROPERTIES OF DIRECTION ALLY SOLIDIFIED & CHARACTERIZATION O HIGH TEMP MA		
02/19/1998 - 02/14/2002	FY01: \$0	Total: \$260,505	11/15/1994 - 04/30/2001	FY01: \$0	Total: \$1,322,773
Prin. Invest.: C MIHOS			Prin. Invest.: A SAYIR		
Tech. Officer: GSFC/D K WEST			Tech. Officer: GRC/J A DICARLO, GRC/S R LEVINE		
CASE Category: 11 – ASTRONOMY			CASE Category: 47 – METAL & MATERIALS ENGR		
<b>NAG 5 11059</b>	<b>CASE WESTERN RESERVE UNIV</b>	<b>7434</b>	<b>NCC 3 463</b>	<b>CASE WESTERN RESERVE UNIV</b>	<b>7442</b>
FEASIBILITY STUDY OF PLANS TO USE THE SUN AS AGRAVITATIONAL LENS FOR ASTRONOMY			MONOLITHIC CU-CR-NB ALLOYS FOR ELEVATED TEMPERATUR E HIGH HEAT FLUX APPLICATIONS		
06/27/2001 - 06/30/2002	FY01: \$99,995	Total: \$99,995	04/10/1996 - 01/18/2001	FY01: \$0	Total: \$367,032
Prin. Invest.: G STARKMAN			Prin. Invest.: G M MICHAL, D L ELLIS		
Tech. Officer: GSFC/G STRINGFELLOW			Tech. Officer: GRC/R V MINER, GRC/M V NATHAL		
CASE Category: 99 – MULTI INTERDISCPL, OTHER			CASE Category: 47 – METAL & MATERIALS ENGR		
<b>NAG 5 11122</b>	<b>CASE WESTERN RESERVE UNIV</b>	<b>7435</b>	<b>NCC 3 464</b>	<b>CASE WESTERN RESERVE UNIV</b>	<b>7443</b>
RECOVERY AND STUDY OF ANTARCTIC MARTIAN METEORITES			THE ROLE OF FIBER-ARCHITECTURE ON THE MECHANICAL P ROPERTIES OF TITANIUM MATRIX COMPOSITES		
07/18/2001 - 07/14/2002	FY01: \$186,415	Total: \$186,415	04/11/1996 - 06/30/2000	FY01: \$0	Total: \$243,492
Prin. Invest.: R HARVEY			Prin. Invest.: R M AIKEN, JR.		
Tech. Officer: GSFC/J BOYCE			Tech. Officer: GRC/S M ARNOLD		
CASE Category: 11 – ASTRONOMY			CASE Category: 41 – AERONAUTICAL ENGNR		
<b>NAG 8 1270</b>	<b>CASE WESTERN RESERVE UNIV</b>	<b>7436</b>	<b>NCC 3 587</b>	<b>CASE WESTERN RESERVE UNIV</b>	<b>7444</b>
DETERMINATION OF THE SURFACE ENERGY OF LIQUID CRYSTALS			TIME DEPENDENT NUMERICAL SIMULATIONS OF SOLIDIFICA TION PROCESSES		
05/03/1996 - 05/31/2001	FY01: \$0	Total: \$280,000	01/01/1998 - 12/31/2002	FY01: \$93,725	Total: \$362,842
Prin. Invest.: C ROSENBLATT, P L TAYLOR			Prin. Invest.: P L TAYLOR		
Tech. Officer: MSFC/C R TALLEY			Tech. Officer: GRC/A CHIT		
CASE Category: 13 – PHYSICS			CASE Category: 13 – PHYSICS		
<b>NAG 8 1727</b>	<b>CASE WESTERN RESERVE UNIV</b>	<b>7437</b>	<b>NCC 3 633</b>	<b>CASE WESTERN RESERVE UNIV</b>	<b>7445</b>
PROPOSAL "VIBRATION AND G-JITTER: TRANSPORT DISTIR BANCES DUE TO RESIDUAL ACCELERATION/LOW GRAVITY."			COMBUSTION OF SOLID FUEL IN VERY LOW SPEED OXYGEN STREAMS		
06/19/2000 - 11/30/2003	FY01: \$95,000	Total: \$139,837	06/30/1998 - 09/02/2003	FY01: \$182,400	Total: \$516,012
Prin. Invest.: J I ALEXANDER			Prin. Invest.: J S T'IENT		
Tech. Officer: MSFC/P DOTY			Tech. Officer: GRC/K SACKSTEDER		
CASE Category: 42 – ASTRONAUTICAL ENGR			CASE Category: 46 – MECHANICAL ENGR		

**NCC 3 653 CASE WESTERN RESERVE UNIV 7446**  
A STUDY OF THE TIME-DEPENDENT RESPONSE OF CERAMIC MATERIALS  
11/23/1998 - 11/30/2001 FY01: \$107,022 Total: \$305,664  
*Prin. Invest.: D A GASPARINI*  
*Tech. Officer: GRC/N N NEMETH*  
*CASE Category: 46 – MECHANICAL ENGR*

**NCC 3 658 CASE WESTERN RESERVE UNIV 7447**  
LOW STRETCH DIFFUSION FLAMES LOW STRETCH DIFFUSION FLAMES  
01/12/1999 - 12/08/2002 FY01: \$73,830 Total: \$185,659  
*Prin. Invest.: J S TIEN*  
*Tech. Officer: GRC/S L OLSON*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 3 669 CASE WESTERN RESERVE UNIV 7448**  
FLAME SPREADING IN PARTIAL GRAVITY FLAME SPREADING IN PARTIAL GRAVITY  
02/03/1999 - 01/03/2003 FY01: \$60,317 Total: \$128,756  
*Prin. Invest.: J S TIEN*  
*Tech. Officer: GRC/K R SACKSTEDER*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 3 679 CASE WESTERN RESERVE UNIV 7449**  
DEVELOPMENT OF ADVANCED SENSORS FOR BANTAM VEHICLE APPLICATIONS  
02/24/1999 - 01/31/2002 FY01: \$70,000 Total: \$220,000  
*Prin. Invest.: C LUI*  
*Tech. Officer: GRC/G W HUNTER*  
*CASE Category: 43 – CHEMICAL ENGR*

**NCC 3 681 CASE WESTERN RESERVE UNIV 7450**  
THERMO-PHYSICAL PROPERTIES OF MOLTEN SEMICONDUCTOR S  
02/24/1999 - 02/17/2002 FY01: \$0 Total: \$5,000  
*Prin. Invest.: D H MATTHIESSEN*  
*Tech. Officer: GRC/A CHAIT*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NCC 3 701 CASE WESTERN RESERVE UNIV 7451**  
DENTRITIC GROWTH AND COARSENING PHENOMENA IN SOLIDIFICATION  
04/20/1999 - 05/31/2002 FY01: \$118,809 Total: \$309,692  
*Prin. Invest.: P L TAYLOR*  
*Tech. Officer: GRC/A CHAIT*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NCC 3 714 CASE WESTERN RESERVE UNIV 7452**  
RAPID MANUFACTURING MONOLITHIC SILICON NITRIDE THRU ST CELLS  
07/12/1999 - 12/25/2001 FY01: \$241,961 Total: \$486,052  
*Prin. Invest.: J D CRAWLEY, NONE*  
*Tech. Officer: GRC/J LANG*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NCC 3 743 CASE WESTERN RESERVE UNIV 7453**  
DEVELOPMENT OF ADVANCED OIL-FREE TURBOMACHINERY DEVELOPMENT OF ADVANCED OIL-FREE TURBOMACHINERY  
11/23/1999 - 06/30/2000 FY01: \$0 Total: \$51,985  
*Prin. Invest.: J M PRAHL*  
*Tech. Officer: GRC/C DELLA CORTE*  
*CASE Category: 46 – MECHANICAL ENGR*

**NCC 3 766 CASE WESTERN RESERVE UNIV 7454**  
LONG TERM DURABILITY OF MATERIALS FOR AEROSPACE APPLICATIONS  
01/24/2000 - 11/30/2001 FY01: \$163,200 Total: \$259,332  
*Prin. Invest.: I E LOCCI, NONE*  
*Tech. Officer: GRC/M V NATHAL*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NCC 3 772 CASE WESTERN RESERVE UNIV 7455**  
THE DEVELOPMENT OF SOLID STATE CO AND CO<sub>2</sub> SENSOR FOR FIRE PROTECTION APPLICATIONS  
02/11/2000 - 01/23/2002 FY01: \$125,000 Total: \$220,000  
*Prin. Invest.: C C LIU*  
*Tech. Officer: GRC/G W HUNTER*  
*CASE Category: 43 – CHEMICAL ENGR*

**NCC 3 823 CASE WESTERN RESERVE UNIV 7456**  
GAS EVOLUTION EFFECT ON MASS TRANSFER IN ROTATING ELECTRO-CHEMICAL CELLS UNDER MICROGRAVITY CONDITION  
08/17/2000 - 11/30/2003 FY01: \$48,230 Total: \$98,155  
*Prin. Invest.: Y KAMOTANI*  
*Tech. Officer: GRC/D GREEN*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 3 830 CASE WESTERN RESERVE UNIV 7457**  
ADVANCED COPPER ALLOYS FOR REGENERATIVELY COOLED NOZZLE ENGINE COMBUSTION CHAMBERLINERS  
12/08/2000 - 11/30/2001 FY01: \$202,512 Total: \$202,512  
*Prin. Invest.: D L ELLIS*  
*Tech. Officer: GRC/M NATHAL*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NCC 3 838 CASE WESTERN RESERVE UNIV 7458**  
SOOT FORMATION IN PURELY CURVED PREMIXED FLAMES & LAMINAR FLAME SPEEDS OF SOOT FORMING FLAMES  
01/16/2001 - 11/30/2004 FY01: \$56,500 Total: \$56,500  
*Prin. Invest.: C SUNG*  
*Tech. Officer: GRC/K R SACKSTEDER*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 3 850 CASE WESTERN RESERVE UNIV 7459**  
NOVEL STRUCTURAL AND FUNCTIONAL CERAMICS  
01/17/2001 - 11/30/2001 FY01: \$389,905 Total: \$389,905  
*Prin. Invest.: S SAYIR*  
*Tech. Officer: GRC/S C FARMER*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NCC 3 892 CASE WESTERN RESERVE UNIV 7460**  
TECHNOLOGIES FOR ACTIVE CLEARANCE CONTROL  
05/22/2001 - 11/30/2001 FY01: \$44,995 Total: \$44,995  
*Prin. Invest.: S M PHILLIPS*  
*Tech. Officer: GRC/B STEINETZ*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 3 895 CASE WESTERN RESERVE UNIV 7461**  
THERMALLY STABLE OHMIC CONTACTS ON 6H-SiC THERMALLY STABLE OHMIC CONTACTS ON 6H-SiC  
06/01/2001 - 05/31/2002 FY01: \$59,400 Total: \$59,400  
*Prin. Invest.: P PIROUZ*  
*Tech. Officer: GRC/R OKOJIE*  
*CASE Category: 13 – PHYSICS*

<b>NCC 3 898</b>	<b>CASE WESTERN RESERVE UNIV</b>	<b>7462</b>	<b>NAG 3 2040</b>	<b>CLEVELAND STATE UNIV</b>	<b>7470</b>
CERAMIC CANTED COIL SPRINGS FOR AEROSPACE SEALING APPLICATIONS			FPGA BASED RECONFIGURABLE PACKET SWITCH TEST BED		
07/31/2001 - 10/02/2002	FY01: \$83,111	Total: \$83,111	04/29/1997 - 07/31/2001	FY01: \$0	Total: \$129,907
<i>Prin. Invest.: J D CAWLEY, NONE</i>			<i>Prin. Invest.: P P CHU</i>		
<i>Tech. Officer: GRC/P DUNLAP</i>			<i>Tech. Officer: GRC/R E JONES</i>		
<i>CASE Category: 46 – MECHANICAL ENGR</i>			<i>CASE Category: 45 – ELECTRICAL ENGR</i>		
<b>NCC 8 152</b>	<b>CASE WESTERN RESERVE UNIV</b>	<b>7463</b>	<b>NAG 3 2075</b>	<b>CLEVELAND STATE UNIV</b>	<b>7471</b>
DIFFUSION PROCESSES IN MOLTEN SEMICONDUCTORS			MINORITY ENGINEERING PROGRAM PIPELINE		
06/12/1998 - 03/31/2002	FY01: \$200,000	Total: \$1,769,997	09/17/1997 - 08/31/2002	FY01: \$19,392	Total: \$86,046
<i>Prin. Invest.: D H MATTHIESSEN</i>			<i>Prin. Invest.: P CHARITY</i>		
<i>Tech. Officer: MSFC/J BRUNSON</i>			<i>Tech. Officer: GRC/M L BOROWSKI</i>		
<i>CASE Category: 13 – PHYSICS</i>			<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>		
<b>NGT 3 52328</b>	<b>CASE WESTERN RESERVE UNIV</b>	<b>7464</b>	<b>NAG 3 2232</b>	<b>CLEVELAND STATE UNIV</b>	<b>7472</b>
GRADUATE STUDENT RESEARCHERS PROGRAM			MAPPING THE POSITION DEPENDENCE OF THE LIQUID WATER CONTENT		
06/10/1997 - 05/31/2000	FY01: -\$1,333	Total: \$64,667	02/18/1999 - 12/31/2001	FY01: \$0	Total: \$14,000
<i>Prin. Invest.: K LOPARO</i>			<i>Prin. Invest.: J LOCK</i>		
<i>Tech. Officer: GRC/F J MONTEGANI</i>			<i>Tech. Officer: GRC/C R MERCER</i>		
<i>CASE Category: 49 – ENGINEERING, OTHER</i>			<i>CASE Category: 13 – PHYSICS</i>		
<b>NGT 3 52350</b>	<b>CASE WESTERN RESERVE UNIV</b>	<b>7465</b>	<b>NAG 3 2273</b>	<b>CLEVELAND STATE UNIV</b>	<b>7473</b>
GRADUATE STUDENT RESEARCH PROGRAM GRADUATE STUDENT			THE ECONOMIC IMPACT OF GLENN RESEARCH CENTER THE ECONOMIC		
RESEARCH PROGRAM			IMPACT OF GLENN RESEARCH CENTER		
06/23/1999 - 06/30/2002	FY01: \$22,000	Total: \$66,000	06/23/1999 - 11/30/2000	FY01: \$0	Total: \$57,772
<i>Prin. Invest.: J S TIEN</i>			<i>Prin. Invest.: Z AUSTRIAN</i>		
<i>Tech. Officer: GRC/J J MONTEGANI</i>			<i>Tech. Officer: GRC/R C ALEXANDER</i>		
<i>CASE Category: 47 – METAL &amp; MATERIALS ENGR</i>			<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>		
<b>NGT 3 52352</b>	<b>CASE WESTERN RESERVE UNIV</b>	<b>7466</b>	<b>NAG 3 2296</b>	<b>CLEVELAND STATE UNIV</b>	<b>7474</b>
GRADUATE STUDENT RESEARCH PROGRAM GRADUATE STUDENT			REAL TIME MONITORING SYSTEM		
RESEARCH PROGRAM			09/30/1999 - 05/12/2002	FY01: \$30,434	Total: \$59,450
06/24/1999 - 08/31/2001	FY01: \$0	Total: \$44,000	<i>Prin. Invest.: D M KOCHER</i>		
<i>Prin. Invest.: J R KADAMBI</i>			<i>Tech. Officer: GRC/D WHITE</i>		
<i>Tech. Officer: GRC/F J MONTEGANI</i>			<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>		
<i>CASE Category: 49 – ENGINEERING, OTHER</i>					
<b>NGT 3 52374</b>	<b>CASE WESTERN RESERVE UNIV</b>	<b>7467</b>	<b>NAG 3 2306</b>	<b>CLEVELAND STATE UNIV</b>	<b>7475</b>
GRADUATE STUDENT RESEARCH			STRUCTURAL MODELING OF ENGINE COMPONENTS AND MATERIAL		
06/07/2001 - 06/30/2002	FY01: \$22,000	Total: \$22,000	PROCESSES		
<i>Prin. Invest.: J R KADAMBI</i>			12/01/1999 - 10/31/2001	FY01: \$0	Total: \$111,880
<i>Tech. Officer: GRC/F J MONTEGANI</i>			<i>Prin. Invest.: J HEMANN</i>		
<i>CASE Category: 46 – MECHANICAL ENGR</i>			<i>Tech. Officer: GRC/H KAUTZ</i>		
			<i>CASE Category: 49 – ENGINEERING, OTHER</i>		
<b>NGT 5 50274</b>	<b>CASE WESTERN RESERVE UNIV</b>	<b>7468</b>	<b>NAG 3 2326</b>	<b>CLEVELAND STATE UNIV</b>	<b>7476</b>
A MANTIS-LIKE ROBOT FOR AGILE OPERATION IN EXTREME ENVIRONMENTS/STUDENT: DANIEL KINGSLY			DEVELOPMENT OF A FAST ANALYSIS TOOL FOR THE INTERNATIONAL		
06/15/2000 - 08/31/2002	FY01: \$22,000	Total: \$44,000	SPACE STATION (ISS) USING SOFT COMPUTING		
<i>Prin. Invest.: R QUINN</i>			02/04/2000 - 01/31/2002	FY01: \$73,500	Total: \$113,500
<i>Tech. Officer: GSFC/K BLANDING</i>			<i>Prin. Invest.: P P LIN</i>		
<i>CASE Category: 46 – MECHANICAL ENGR</i>			<i>Prin. Invest.: NONE</i>		
			<i>Tech. Officer: GRC/K JULES</i>		
			<i>CASE Category: 49 – ENGINEERING, OTHER</i>		
<b>NGT 5 50369</b>	<b>CASE WESTERN RESERVE UNIV</b>	<b>7469</b>	<b>NAG 3 2423</b>	<b>CLEVELAND STATE UNIV</b>	<b>7477</b>
COMBUSTION OF BLACK LIQUOR DEPOSITS			OPTICAL SCATTERING CHARACTERIZATION FOR THE GLENN MICRO-		
06/13/2001 - 06/30/2002	FY01: \$22,000	Total: \$22,000	SYSTEMS MICROSCALE PARTICULATE CLASSIFIER		
<i>Prin. Invest.: J T'IEEN</i>			05/12/2000 - 04/15/2002	FY01: \$0	Total: \$10,000
<i>Tech. Officer: GSFC/K BLANDING</i>			<i>Prin. Invest.: J A LOCK</i>		
<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>			<i>Tech. Officer: GRC/P S GREENBERG</i>		
			<i>CASE Category: 49 – ENGINEERING, OTHER</i>		

**NAG 3 2482** CLEVELAND STATE UNIV 7478  
 DEVELOPMENT OF A MULTI-DIMENSIONAL STIRLING ENGINE CODE FOR THERMODYNAMICS PERFORMANCE  
 08/02/2000 - 07/31/2002 FY01: \$207,453 Total: \$262,453  
*Prin. Invest.: D IBRAHIM*  
*Tech. Officer: GRC/L THIEMENE*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 3 2490** CLEVELAND STATE UNIV 7479  
 PRELIMINARY DEVELOPMENT OF AN ENGINE MANUFACTURING COST ESTIMATING MODEL  
 09/29/2000 - 11/30/2000 FY01: \$93,500 Total: \$93,500  
*Prin. Invest.: Y LIOU*  
*Tech. Officer: GRC/F TORRES*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 3 2509** CLEVELAND STATE UNIV 7480  
 THE INTEGRATION OF LEGACY APPLICATIONS WITH CORBA THE INTEGRATION OF LEGACY APPLICATIONS WITH CORBA  
 11/30/2000 - 11/16/2001 FY01: \$52,997 Total: \$52,997  
*Prin. Invest.: J SANG*  
*Tech. Officer: GRC/C KIM*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 3 2514** CLEVELAND STATE UNIV 7481  
 STRUCTURAL MODELING OF ENGINE COMPONENTS AND MATERIAL PROCESSES  
 12/18/2000 - 12/31/2001 FY01: \$153,697 Total: \$153,697  
*Prin. Invest.: J HEMANN*  
*Tech. Officer: GRC/H E KAUTZ*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NAG 3 2531** CLEVELAND STATE UNIV 7482  
 POWER EFFICIENT REFLECTARRAY COMMUNICATIONS SYSTEM MODULATION  
 01/23/2001 - 12/31/2001 FY01: \$33,832 Total: \$33,832  
*Prin. Invest.: F XIONG*  
*Tech. Officer: GRC/R R ROMANOFSKY*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NAG 3 2573** CLEVELAND STATE UNIV 7483  
 ROTODYNAMIC ANALYSIS AND FEASIBILITY STUDY OF A DISK SPIN FACILITY  
 03/22/2001 - 12/31/2001 FY01: \$28,000 Total: \$28,000  
*Prin. Invest.: J T SAWICKI*  
*Tech. Officer: GRC/H KAUTZ*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 3 2607** CLEVELAND STATE UNIV 7484  
 HIGH-LEVEL QUANTUM CHEMICAL CALCULATIONS ON POTENTIAL JET FUELS  
 06/12/2001 - 03/14/2002 FY01: \$30,000 Total: \$30,000  
*Prin. Invest.: D W BALL*  
*Tech. Officer: GRC/M J ZEHE*  
*CASE Category: 12 – CHEMISTRY*

**NAG 3 2619** CLEVELAND STATE UNIV 7485  
 ROBUST TIMING SYNCHRONIZATION IN AERONAUTICAL MOBILE COMMUNICATIONS SYSTEMS  
 05/23/2001 - 05/20/2002 FY01: \$14,000 Total: \$14,000  
*Prin. Invest.: F XIONG*  
*Tech. Officer: GSFC/K CHUN*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NAG 3 2631** CLEVELAND STATE UNIV 7486  
 INERTING AIRCRAFT FUEL SYSTEMS USING EXHAUST GASSES  
 06/13/2001 - 05/31/2002 FY01: \$60,000 Total: \$60,000  
*Prin. Invest.: D G NEHEMANN*  
*Tech. Officer: GRC/K KUNDU*  
*CASE Category: 12 – CHEMISTRY*

**NAG 8 1584** CLEVELAND STATE UNIV 7487  
 R/S ACOUSTICALLY ASSISTED BIOREACTOR FOR TERRESTRIAL AND MICROGRAVITY APPLICATIONS  
 01/14/1999 - 11/30/2002 FY01: \$76,850 Total: \$391,850  
*Prin. Invest.: J M BELOVICH*  
*Tech. Officer: MSFC/B GUYNES*  
*CASE Category: 61 – PSYCHOLOGY BIOLOGY*

**NCC 3 444** CLEVELAND STATE UNIV 7488  
 COATINGS FOR CERAMIC MATRIX COMPOSITES  
 01/15/1996 - 07/17/2001 FY01: \$0 Total: \$561,144  
*Prin. Invest.: S N TEWARI*  
*Tech. Officer: GRC/L A GREENBAUER-SENG*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NCC 3 445** CLEVELAND STATE UNIV 7489  
 MODIFICATION OF ENVIRONMENTAL/THERMAL BARRIER COATINGS FOR SILICON-BASED CERAMICS  
 01/15/1996 - 07/17/2001 FY01: \$0 Total: \$607,229  
*Prin. Invest.: S N TEWARI*  
*Tech. Officer: GRC/L A GREENBAUER-SENG*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NCC 3 521** CLEVELAND STATE UNIV 7490  
 THE EFFECTS OF MULTIPLE SCATTERING IN PHOTON CORRELATION SPECTROSCOPY  
 12/26/1996 - 11/30/2001 FY01: \$0 Total: \$294,000  
*Prin. Invest.: J A LOCK*  
*Tech. Officer: GRC/A CHAIT*  
*CASE Category: 13 – PHYSICS*

**NCC 3 581** CLEVELAND STATE UNIV 7491  
 ULTRASONIC SCANNER CONTROL AND DATA ACQUISITION  
 12/09/1997 - 12/31/2001 FY01: \$187,893 Total: \$537,242  
*Prin. Invest.: J HEMANN*  
*Tech. Officer: GRC/H KAUTZ*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NCC 3 582** CLEVELAND STATE UNIV 7492  
 THE DEVELOPMENT OF ENGINEERING TOMOGRAPHY FOR MONOLITHIC AND COMPOSITE MATERIALS AND COMPONENTS  
 12/09/1997 - 12/31/2001 FY01: \$186,340 Total: \$520,141  
*Prin. Invest.: J HEMANN*  
*Tech. Officer: GRC/H E KAUTZ*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 3 595 CLEVELAND STATE UNIV 7493**  
 SIMULATION AND PERFORMANCE ANALYSIS OF HYBRID SATELLITE TERRESTRIAL NETWORKS  
 01/12/1998 - 02/04/2002 FY01: \$149,547 Total: \$376,038  
*Prin. Invest.: V K KONANGI*  
*Tech. Officer: GRC/T M WALLETT, GRC/K B BHASIN*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NCC 3 631 CLEVELAND STATE UNIV 7494**  
 STUDY OF MAGNETIC DAMPING EFFECTS ON CONVECTION DURING DIRECTIONAL SOLIDIFICATION  
 06/26/1998 - 06/07/2000 FY01: \$0 Total: \$87,720  
*Prin. Invest.: D N TEWARI*  
*Tech. Officer: GRC/H C DE GROH*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NCC 3 647 CLEVELAND STATE UNIV 7495**  
 THE STUDY OF THE APPLICATION OF MODERN METHODS OF CONTROL AND INTERFACE TO SCIENTIFIC EFFORTS  
 09/04/1998 - 09/30/2001 FY01: \$78,195 Total: \$246,970  
*Prin. Invest.: G L KRAMERICH*  
*Prin. Invest.: NONE*  
*Tech. Officer: GRC/J M MULLINS*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 3 699 CLEVELAND STATE UNIV 7496**  
 DEVELOPMENT OF DIGITAL CONTROL TECHNOLOGY FOR POWER MANAGEMENT AND DISTRIBUTION SYSTEMS  
 04/02/1999 - 05/14/2002 FY01: \$152,810 Total: \$437,669  
*Prin. Invest.: Z GAO*  
*Tech. Officer: GRC/J F SOEDER*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NCC 3 740 CLEVELAND STATE UNIV 7497**  
 PHYSICAL PROPERTIES AND DURABILITY OF NEW MATERIALS FOR SPACE AND COMMERCIAL APPLICATIONS  
 10/21/1999 - 12/02/2002 FY01: \$45,011 Total: \$179,561  
*Prin. Invest.: P HAMBOURGER*  
*Tech. Officer: GRC/S K RUTLEDGE*  
*CASE Category: 13 – PHYSICS*

**NCC 3 749 CLEVELAND STATE UNIV 7498**  
 ADVANCED MATERIALS DEVELOPMENT, EVALUATION, AND MODELING FOR PROPULSION APPLICATIONS  
 02/14/2000 - 02/28/2002 FY01: \$125,823 Total: \$215,475  
*Prin. Invest.: S N TEWARI*  
*Tech. Officer: GRC/M NATHAL*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NCC 3 759 CLEVELAND STATE UNIV 7499**  
 EPR INVESTIGATIONS OF SILANE POLYMERIZATIONS EPR INVESTIGATIONS OF SILANE POLYMERIZATIONS  
 12/30/1999 - 11/30/2001 FY01: \$113,279 Total: \$198,279  
*Prin. Invest.: J MASNOV*  
*Tech. Officer: GRC/S R LEVINE*  
*CASE Category: 43 – CHEMICAL ENGR*

**NCC 3 761 CLEVELAND STATE UNIV 7500**  
 DESIGN LIFE METHODOLOGIES AND COMPUTER ALGORITHMS FOR THE ANALYSIS OF COMPONENTS FABRICATED FROM CERA  
 01/11/2000 - 01/22/2002 FY01: \$65,009 Total: \$129,946  
*Prin. Invest.: S F DUFFY*  
*Tech. Officer: GRC/J MANDERSCHEID*  
*CASE Category: 46 – MECHANICAL ENGR*

**NCC 3 764 CLEVELAND STATE UNIV 7501**  
 SIMULATION AND PERFORMANCE ANALYSIS OF THE AERONAUTICAL TELECOMMUNICATION NETWORK  
 01/14/2000 - 03/14/2002 FY01: \$74,222 Total: \$142,222  
*Prin. Invest.: V K KONANGI*  
*Tech. Officer: GRC/R KERCZEWSKI*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NCC 3 817 CLEVELAND STATE UNIV 7502**  
 NEW SOLID POLYMER ELECTROLYTES FOR IMPROVED LITHIUM BATTERIES  
 07/24/2000 - 07/31/2001 FY01: \$90,509 Total: \$140,509  
*Prin. Invest.: D G HEHEMANN*  
*Tech. Officer: GRC/A E HEPP*  
*CASE Category: 12 – CHEMISTRY*

**NCC 3 818 CLEVELAND STATE UNIV 7503**  
 STUDY ON DAMPING EFFECTS ON CONVECTION DURING DIRECTIONAL SOLIDIFICATION  
 07/24/2000 - 07/09/2001 FY01: \$0 Total: \$24,000  
*Prin. Invest.: D TEWARI*  
*Tech. Officer: GRC/H DEGROH*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 3 829 CLEVELAND STATE UNIV 7504**  
 SOLUTAL REDISTRIBUTION DURING DIRECTIONAL SOLIDIFICATION  
 10/10/2000 - 08/31/2002 FY01: \$45,500 Total: \$45,500  
*Prin. Invest.: S N TEWARI*  
*Tech. Officer: GRC/H C DE GROH*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 3 853 CLEVELAND STATE UNIV 7505**  
 DEVELOPMENT OF HIGH TEMPERATURE LOW THERMAL CONDUCTIVITY ENVIRONMENTAL & THERMAL BARRIER COATING  
 01/23/2001 - 01/21/2002 FY01: \$145,309 Total: \$145,309  
*Prin. Invest.: S N TEWARI*  
*Tech. Officer: GRC/L GREENBAUER-SENG*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NCC 3 862 CLEVELAND STATE UNIV 7506**  
 ENVIRONMENTAL DURABILITY OF MATERIALS FOR SPACE TRANSPORTATION  
 02/14/2001 - 02/08/2002 FY01: \$134,058 Total: \$134,058  
*Prin. Invest.: S N TEWARI*  
*Tech. Officer: GRC/L A GREENBAUER-SENG*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NCC 3 869 CLEVELAND STATE UNIV 7507**  
 DYE-SENSITIZED SOLAR CELLS FOR SPACE POWER DYE-SENSITIZED SOLAR CELLS FOR SPACE POWER  
 02/27/2001 - 02/27/2002 FY01: \$70,000 Total: \$70,000  
*Prin. Invest.: J D HARRIS*  
*Tech. Officer: GRC/S G BAILEY*  
*CASE Category: 12 – CHEMISTRY*

**NCC 3 876 CLEVELAND STATE UNIV 7508**  
 FORMULATION & EVALUATION OF ORGANO-PHOSPHATE SOLUTIONS FOR HIGH TEMPERATURE LUBRICATION  
 03/14/2001 - 05/20/2002 FY01: \$26,168 Total: \$26,168  
*Prin. Invest.: J E GATICA*  
*Tech. Officer: GRC/W MORALES*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 3 883** CLEVELAND STATE UNIV 7509  
 ANALYSIS & CHARACTERIZATION OF ADVANCED MATERIALS FOR AEROSPACE APPLICATIONS  
 03/29/2001 - 03/31/2002 FY01: \$156,911 Total: \$156,911  
*Prin. Invest.: D G NEHEMANN*  
*Tech. Officer: GRC/S G BAILEY*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NCC 3 908** CLEVELAND STATE UNIV 7510  
 INVESTIGATION OF THE UTILIZATION OF MODERN INDUSTRIAL METHODS, PROCESSES, ERGONOMICS, AND THE INTER  
 08/13/2001 - 09/30/2002 FY01: \$80,000 Total: \$80,000  
*Prin. Invest.: G L KRAMERICH*  
*Tech. Officer: GRC/J MULLINS*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 3 909** CLEVELAND STATE UNIV 7511  
 REFLECTIVITY FREQUENCY RESPONSE OF IN-FIBER BRAGG GRATINGS  
 08/16/2001 - 07/31/2002 FY01: \$5,000 Total: \$5,000  
*Prin. Invest.: J A LOCK*  
*Tech. Officer: GRC/G ADAMOVSKY*  
*CASE Category: 13 – PHYSICS*

**NCC 3 914** CLEVELAND STATE UNIV 7512  
 THERMAL TESTING OF FIBER OPTIC BRAGG GRATINGS UNDER DYNAMIC EXCITATION  
 09/18/2001 - 12/30/2001 FY01: \$8,000 Total: \$8,000  
*Prin. Invest.: D FLANAGAN*  
*Tech. Officer: GRC/D ADAMOVSKY*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 10233** COLLEGE OF WOOSTER 7513  
 MULTIWAVELENGTH OBSERVATIONS OF HERCULES X-1; EUVE MINI-GRANT, #97-MINIGRANT-002  
 01/25/2001 - 01/31/2002 FY01: \$9,639 Total: \$9,639  
*Prin. Invest.: B BOROSON*  
*Tech. Officer: GSFC/K HARTNETT*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10396** COLLEGE OF WOOSTER 7514  
 WIND IONIZATION IN HIGH MASS X-RAY BINARIES FUSE  
 02/12/2001 - 02/14/2002 FY01: \$36,200 Total: \$36,200  
*Prin. Invest.: B BOROSON*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 8 1433** COLLEGE OF WOOSTER 7515  
 TURBIDITY AND UNIVERSALITY AROUND A LIQUID-LIQUID CRITICAL POINT  
 02/06/1998 - 01/31/2003 FY01: \$47,500 Total: \$149,500  
*Prin. Invest.: D T JACOBS*  
*Tech. Officer: MSFC/J W POE*  
*CASE Category: 13 – PHYSICS*

**NAG 3 1778** CUYAHOGA COMMUNITY COLLEGE 7516  
 MENTOR INTERSHIP PARTNERSHIP PROGRAM  
 08/16/1995 - 09/30/2001 FY01: \$1,501 Total: \$99,822  
*Prin. Invest.: R L MOSS*  
*Tech. Officer: GRC/F H YARRIS*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 3 2370** CUYAHOGA COMMUNITY COLLEGE 7517  
 SEMAA AND FIRST SCHOLARSHIP SUPPORT PROGRAM SEMAA AND FIRST SCHOLARSHIP SUPPORT PROGRAM  
 12/22/1999 - 03/31/2001 FY01: \$0 Total: \$14,000  
*Prin. Invest.: S CHAND*  
*Tech. Officer: GRC/R LAWRENCE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 3 2496** CUYAHOGA COMMUNITY COLLEGE 7518  
 CUYAHOGA COMMUNITY COLLEGE SCHOLARSHIP PROGRAM CUYAHOGA COMMUNITY COLLEGE SCHOLARSHIP PROGRAM  
 10/27/2000 - 06/11/2001 FY01: \$11,000 Total: \$11,000  
*Prin. Invest.: T L BUTLER*  
*Tech. Officer: GRC/R F LAWRENCE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAS 3 98099** CUYAHOGA COMMUNITY COLLEGE 7519  
 REPLICA OF SCIENCE ENGRG MATH. & AEROSPACE ACADEMY (SEMAA) IN CONNECTION W/NAS3-97168 (MAEL)  
 06/30/1998 - 09/30/2001 FY01: \$3,383,297 Total: \$9,583,920  
*Prin. Invest.: L L DARLING*  
*Tech. Officer: GRC/R L BONDURANT*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 4341** DENISON UNIV 7520  
 LAB SPECTROSCOPY CH4 AND H2  
 04/23/1997 - 11/30/2001 FY01: \$0 Total: \$112,808  
*Prin. Invest.: D E MICELSON*  
*Tech. Officer: GSFC/R BEEBE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 3 2564** JOHN CARROLL UNIV 7521  
 LIGHTING INNOVATIONS INST SUPPORT OF THE MEMS INCANDESCENT LIGHT SOURCE PROJECT  
 03/12/2001 - 01/31/2002 FY01: \$45,000 Total: \$45,000  
*Prin. Invest.: R L HANSLER*  
*Tech. Officer: GRC/S WRBANEK*  
*CASE Category: 13 – PHYSICS*

**NAG 2 1497** KENT STATE UNIV 7522  
 THE EFFECTS OF MICROGRAVITY ON THE ECOLOGY OF BIOFILM BACTERIA  
 07/05/2001 - 06/30/2002 FY01: \$90,664 Total: \$90,664  
*Prin. Invest.: L G LEFF*  
*Tech. Officer: ARC/M M AVERNER*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 3 2416** KENT STATE UNIV 7523  
 LANDSCAPE PARAMETERIZATION AND CLASSIFICATION FOR VISUALIZATION OF LANDSAT ETM - OHIOVIEW  
 05/09/2000 - 07/20/2001 FY01: \$0 Total: \$105,000  
*Prin. Invest.: D MUNRO-STASIUK*  
*Tech. Officer: GRC/T SCOTT*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

<b>NAG 3 2539</b>	<b>KENT STATE UNIV</b>	<b>7524</b>	<b>NCC 2 1200</b>	<b>MIAMI UNIV</b>	<b>7532</b>
LIQUID CRYSTAL BASED BEAM STEERING DEVICE AND OPTICAL TELESCOPES	THE EFFECT OF HYPERGRAVITY ON BONE CELL CULTURES	ANALYSIS OF A NOVEL SENSORY MECHANISM IN ROOT PHOTOTROPISM	Total: \$211,293	FY01: \$141,559	Total: \$161,559
02/08/2001 - 01/15/2004	FY01: \$211,293	09/05/2000 - 04/30/2002	Prin. Invest.: J Z KISS	Tech. Officer: ARC/D REISS-BUBENHEIM, ARC/R W BERTHLOD	CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)
Prin. Invest.: P BROS					
Tech. Officer: GRC/J POUCH					
CASE Category: 13 - PHYSICS					
<b>NAG 5 11266</b>	<b>KENT STATE UNIV</b>	<b>7525</b>	<b>NAG 5 7789</b>	<b>NORTHEASTERN OHIO UNIV COL OF MEDICINE</b>	<b>7533</b>
HYDRODYNAMIC INSTABILITIES AND EDDY-MEAN FLOW INTERACTION IN THE SOUTHERN OCEAN	THE EFFECT OF HYPERGRAVITY ON BONE CELL CULTURES	THE EFFECT OF HYPERGRAVITY ON BONE CELL CULTURES	Total: \$69,108	FY01: \$0	Total: \$374,743
09/10/2001 - 07/14/2003	FY01: \$69,108	11/16/1998 - 07/31/2002	Prin. Invest.: W J LANDIS	Tech. Officer: GSFC/M M AVERNER	CASE Category: 59 - LIFE SCIENCE, OTHER
Prin. Invest.: D L WITTER					
Tech. Officer: GSFC/M M AVERNER					
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER					
<b>NCC 3 563</b>	<b>KENT STATE UNIV</b>	<b>7526</b>	<b>NAG 3 2544</b>	<b>OHIO NORTHERN UNIV</b>	<b>7534</b>
THIN FILM BATTERIES	A FUZZY CONTROLLER REMOTE POWER SWITCH	A FUZZY CONTROLLER REMOTE POWER SWITCH	Total: \$147,000	FY01: \$2,500	Total: \$2,500
06/17/1997 - 01/31/2001	FY01: \$0	04/19/2001 - 07/08/2001	Prin. Invest.: F L GRISMORE	Tech. Officer: GRC/R BUTTON	CASE Category: 45 - ELECTRICAL ENGR
Prin. Invest.: C VARCAS ABURTO, R URIBE					
Tech. Officer: GRC/A F HEPP					
CASE Category: 12 - CHEMISTRY					
<b>NCC 3 721</b>	<b>KENT STATE UNIV</b>	<b>7527</b>	<b>NAG 2 1190</b>	<b>OHIO STATE UNIV</b>	<b>7535</b>
E-BEAM SENSITIVE POLYMIDES E-BEAM SENSITIVE POLYMIDES	THE REGULATION OF GROWTH IN THE DISTAL ELONGATION ZONE OF MAIZE ROOTS	THE REGULATION OF GROWTH IN THE DISTAL ELONGATION ZONE OF MAIZE ROOTS	Total: \$242,654	FY01: \$3,082	Total: \$264,202
07/02/1999 - 09/21/2002	FY01: \$117,556	03/20/1998 - 04/30/2001	Prin. Invest.: M L EVANS, H ISHIKAWA	Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY	CASE Category: 54 - ENVIRONMENTAL BIOLOGY
Prin. Invest.: R J TWIEG					
Tech. Officer: GRC/M A MEADOR					
CASE Category: 47 - METAL & MATERIALS ENGR					
<b>NCC 3 734</b>	<b>KENT STATE UNIV</b>	<b>7528</b>	<b>NAG 2 1411</b>	<b>OHIO STATE UNIV</b>	<b>7536</b>
THIN FILM TECHNOLOGY FOR SPACE POWER THIN FILM TECHNOLOGY FOR SPACE POWER	ANALYSIS OF THE INTERACTION OF ENVIRONMENTAL SIGNAL TRANSDUCTION PATHWAYS USING TRASDUCTION	ANALYSIS OF THE INTERACTION OF ENVIRONMENTAL SIGNAL TRANSDUCTION PATHWAYS USING TRASDUCTION	Total: \$99,994	FY01: \$170,087	Total: \$252,755
09/23/1999 - 02/28/2001	FY01: \$0	06/21/2000 - 06/14/2002	Prin. Invest.: M L EVANS	Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY	CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)
Prin. Invest.: D CHOWDHURY					
Tech. Officer: GRC/A F HEPP					
CASE Category: 19 - PHYSICAL SCIENCE, OTHER					
<b>NGT 3 52309</b>	<b>KENT STATE UNIV</b>	<b>7529</b>	<b>NAG 3 1979</b>	<b>OHIO STATE UNIV</b>	<b>7537</b>
GRADUATE STUDENT RESEARCHERS PROGRAM - HIGH PERFORMANCE COMPUTING AND COMMUNICATION (HPPC)	PLANETARY GEAR DYNAMICS & VIBRATION ISOLATION IN ROTORCRAFT TRANSMISSIONS	PLANETARY GEAR DYNAMICS & VIBRATION ISOLATION IN ROTORCRAFT TRANSMISSIONS	Total: \$66,000	FY01: \$0	Total: \$149,438
07/25/1995 - 10/01/2000	FY01: \$0	10/24/1996 - 02/28/2001	Prin. Invest.: R G PARKER	Tech. Officer: GRC/T L KANTZ	CASE Category: 41 - AERONAUTICAL ENGR
Prin. Invest.: S RYAN					
Tech. Officer: GRC/L SHAW					
CASE Category: 29 - MATH/COMPUTER SCI, OTHER					
<b>NAG 2 1017</b>	<b>MIAMI UNIV</b>	<b>7530</b>	<b>NAG 3 2084</b>	<b>OHIO STATE UNIV</b>	<b>7538</b>
GRAVIPERCEPTION IN STARCH-DEFICIENT PLANTS IN BIORACK	INTELLIGENT FAULT TOLERANT ENGINE CONTROL INTELLIGENT FAULT TOLERANT ENGINE CONTROL	INTELLIGENT FAULT TOLERANT ENGINE CONTROL	Total: \$297,282	FY01: \$0	Total: \$298,161
10/31/1995 - 12/31/2001	FY01: \$0	10/30/1997 - 10/31/2000	Prin. Invest.: K M PASSINO	Tech. Officer: GRC/T H GUO, GRC/J LITT	CASE Category: 41 - AERONAUTICAL ENGR
Prin. Invest.: J Z KISS					
Tech. Officer: ARC/C M WINGET, ARC/G C JAHNS					
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)					
<b>NAG 3 2436</b>	<b>MIAMI UNIV</b>	<b>7531</b>	<b>NAG 3 2138</b>	<b>OHIO STATE UNIV</b>	<b>7539</b>
BUILDING AND ENHANCING AN OHIOVIEW GEOSPATIAL DIGITAL LIBRARY FOR K-12, HIGHER EDUCATION AND THE GE	ULTRASOUND THERMAL FIELD IMAGING OF OPAQUE FLUIDS ULTRA SOUND THERMAL FIELD IMAGING OF OPAQUE FLUIDS	ULTRASOUND THERMAL FIELD IMAGING OF OPAQUE FLUIDS ULTRA SOUND THERMAL FIELD IMAGING OF OPAQUE FLUIDS	Total: \$105,000	FY01: \$81,700	Total: \$332,700
05/22/2000 - 05/15/2001	FY01: \$0	03/06/1998 - 12/31/2002	Prin. Invest.: C D ANDERECK	Tech. Officer: GRC/D W GRIFFIN	CASE Category: 19 - PHYSICAL SCIENCE, OTHER
Prin. Invest.: J MILLARD					
Tech. Officer: GRC/T M SCOTT					
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER					

**NAG 3 2157**           **OHIO STATE UNIV**           **7540**  
UNSTEADY EFFECTS (INCLUDING FILM COOLING) ON HIGH PRESSURE  
TUBINESS: AN ALALYTICAL AND EXPERIMENTAL  
04/22/1998 - 09/30/2000      FY01: \$0            Total: \$110,843  
*Prin. Invest.: M G DUNN, R S ABHARI*  
*Tech. Officer: GRC/K C CIVISKAS*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 3 2202**           **OHIO STATE UNIV**           **7541**  
MAGNETIC NOZZLE STUDIES FOR ADVANCED ROCKET PROPULSION  
09/25/1998 - 04/30/2001      FY01: \$0            Total: \$50,000  
*Prin. Invest.: P J TURCHI*  
*Tech. Officer: GRC/C H WILLIAMS*  
*CASE Category: 42 – ASTRONAUTICAL ENGR*

**NAG 3 2215**           **OHIO STATE UNIV**           **7542**  
DEVELOPMENT OF HIGH PERFORMANCE III-V SPACE PHOTOPVOLTAICS ON  
SI-BASED SUBSTRATES  
12/24/1998 - 08/01/2001      FY01: \$0            Total: \$77,995  
*Prin. Invest.: D A RINGEL*  
*Tech. Officer: GRC/D M WILT*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NAG 3 2233**           **OHIO STATE UNIV**           **7543**  
CHARACTERIZATION OF COMPOSITES RESPONSE AT HIGH RA TES OF  
DEFORMATION  
02/19/1999 - 11/12/2000      FY01: \$0            Total: \$45,000  
*Prin. Invest.: A GILAT*  
*Tech. Officer: GRC/G D ROBERTS*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NAG 3 2316**           **OHIO STATE UNIV**           **7544**  
MAGNETIC NOZZLE STUDIES FOR ADVANCED ROCKET PROPULSION  
01/07/2000 - 01/31/2002      FY01: \$0            Total: \$129,998  
*Prin. Invest.: P J TURCHI*  
*Tech. Officer: GRC/C H WILLIAMS*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 3 2339**           **OHIO STATE UNIV**           **7545**  
COMPUTATIONAL NONEQUILIBRIUM PLASMA DYNAMICS COMPUTATIONAL  
NONEQUILIBRIUM PLASMA DYNAMICS  
02/23/2000 - 06/30/2002      FY01: \$20,000        Total: \$80,000  
*Prin. Invest.: I ADAMOVICH*  
*Tech. Officer: GRC/S J SCHNEIDER*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 3 2410**           **OHIO STATE UNIV**           **7546**  
DEMONSTRATING THE VALUE OF SATELLITE INFORMATION F OR  
DEVELOPMENT AND PLANNING IN APPALACHIAN OHIO –  
05/11/2000 – 05/31/2001      FY01: \$0            Total: \$105,000  
*Prin. Invest.: J K KLEIN*  
*Tech. Officer: GRC/T M SCOTT*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 3 2412**           **OHIO STATE UNIV**           **7547**  
OHIOVIEW WORK (2 PROPOSALS) DESIGN OF A USER FRIENDLY DATA  
MINING APPROACH FOR GEO-REFERENCED IMAGE  
05/04/2000 - 09/30/2001      FY01: \$0            Total: \$230,000  
*Prin. Invest.: D L MORRISON*  
*Tech. Officer: GRC/T M SCOTT*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 3 2428**           **OHIO STATE UNIV**           **7548**  
OHIO VIEW PRODUCT DEFINITION WORKSHOPS OHIO VIEW PRODUCT  
DEFINITION WORKSHOPS  
05/31/2000 - 07/30/2001      FY01: \$0            Total: \$20,000  
*Prin. Invest.: S DAVIS*  
*Tech. Officer: GRC/T M SCOTT*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 3 2438**           **OHIO STATE UNIV**           **7549**  
PLASMA THRUSTERS RESEARCH (PARTS I AND III) PLASMA THRUSTERS  
RESEARCH (PARTS I AND III)  
05/19/2000 - 05/18/2002      FY01: \$0            Total: \$89,999  
*Prin. Invest.: D Y YORK*  
*Tech. Officer: GRC/E J PENCIL*  
*CASE Category: 13 – PHYSICS*

**NAG 3 2522**           **OHIO STATE UNIV**           **7550**  
CHARACTERIZATION OF COMPOSITE RESPONSE AT HIGH RAT ES OF  
LOADING  
01/09/2001 - 11/30/2001      FY01: \$45,070        Total: \$45,070  
*Prin. Invest.: GILAT*  
*Tech. Officer: GRC/R K GOLDBERG*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NAG 3 2549**           **OHIO STATE UNIV**           **7551**  
THERMALLY STABLE OHMIC CONTRACTS ON 4H & 6H-SIC MICRODEVICES  
FOR HIGH TEMPERATURE APPLICATION  
02/26/2001 - 01/06/2002      FY01: \$40,477        Total: \$40,477  
*Prin. Invest.: L BRILLSON*  
*Tech. Officer: GRC/R S OKOJIE*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 5 2996**           **OHIO STATE UNIV**           **7552**  
EXTRACTION AND INTERPRETATION OF POLAR LITHOSPHERE ANOMALIES  
FROM COMBINED OERSTED AND MAGSAT DATA  
07/10/1995 - 06/30/2000      FY01: -\$64            Total: \$174,912  
*Prin. Invest.: R VON FRESE*  
*Tech. Officer: GSFC/P TAYLOR*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 3525**           **OHIO STATE UNIV**           **7553**  
QUASAR ABSORPTION IN THE UV: PROBING THE INTERGALA  
11/13/1996 - 09/14/2002      FY01: \$0            Total: \$552,600  
*Prin. Invest.: D H WEINBERG*  
*Tech. Officer: GSFC/R K OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 3983**           **OHIO STATE UNIV**           **7554**  
MILLIMETER AND SUBMILLIMETER SPECTROSCOPY OF MOLEC IMPOR-  
TANCE  
03/03/1997 - 12/31/2001      FY01: \$130,677        Total: \$622,013  
*Prin. Invest.: F C DEELUCIA*  
*Tech. Officer: GSFC/M J KURYLO*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 4250**           **OHIO STATE UNIV**           **7555**  
SAR-BASED STRUCTURAL MAPPING OF THE TRANSANTARCTIC  
03/24/1997 - 03/31/2001      FY01: \$0            Total: \$165,420  
*Prin. Invest.: T J WILSON*  
*Tech. Officer: GSFC/S H GOGINENI*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 6001**           **OHIO STATE UNIV**           **7556**  
 SATELITE AND MODEL ANALYSIS OF THE ATMOSPHERIC MOI LATITUDES  
 09/10/1997 - 07/31/2001    FY01: \$0               Total: \$368,150  
*Prin. Invest.: D BROMWICH*  
*Tech. Officer: HQ/S GOGINENI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 6700**           **OHIO STATE UNIV**           **7557**  
 GFO-1 GEOPHYSICAL DATA RECORD AND ORBIT VERIFICATI ONS FOR  
 GLOBAL CHANGESSTUDIES  
 02/03/1998 - 11/30/2000    FY01: \$0               Total: \$284,175  
*Prin. Invest.: C K SHUM*  
*Tech. Officer: GSFC/E LINDSTROM*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 6817**           **OHIO STATE UNIV**           **7558**  
 SPATIAL AND TEMPORAL VARIABILITY OF NET ANNUAL ACC UMULATION  
 AND CLIMATE IN GREENLAND  
 01/07/1998 - 01/31/2001    FY01: \$0               Total: \$305,113  
*Prin. Invest.: E S MOSLEY-THOMPSON*  
*Tech. Officer: GSFC/S GOGINENI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 6818**           **OHIO STATE UNIV**           **7559**  
 DETERMINING GREENLAND ICESHEET ACCUMULATION RATES FROM  
 RADAR REMOTE SENSING  
 01/07/1998 - 12/31/2000    FY01: \$0               Total: \$265,722  
*Prin. Invest.: K C JEZEK*  
*Tech. Officer: GSFC/S GOGINENI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 6838**           **OHIO STATE UNIV**           **7560**  
 SURFACE GPS MEASUREMENTS FOR ICE SHEET MASS BALANC E AND  
 FIDUCIAL OF CONTROL ALTIMETRY  
 01/08/1998 - 06/30/2000    FY01: -\$40,742       Total: \$79,908  
*Prin. Invest.: G S HAMILTON*  
*Tech. Officer: GSFC/E LINDSTROM*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 6908**           **OHIO STATE UNIV**           **7561**  
 ATOMIC DATABASE FOR ASTROPHYSICS FROM THE IRON PR OJECT  
 01/23/1998 - 01/31/2001    FY01: \$0               Total: \$138,000  
*Prin. Invest.: A PRADHAN*  
*Tech. Officer: GSFC/D WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7116**           **OHIO STATE UNIV**           **7562**  
 STAR FORMATION AND THE INTERSTELLAR MEDIUM IN SO GALAXIES  
 USING ROSAT POINTED OB  
 04/15/1998 - 07/14/2001    FY01: -\$7,753       Total: \$810  
*Prin. Invest.: P ESKRIDGE*  
*Tech. Officer: GSFC/D WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7150**           **OHIO STATE UNIV**           **7563**  
 STANDARD & NONSTANDARD STELLAR MODELS: IMPLICATIONS FOR  
 CLUSTER AGES AND LATE EVOLUTIONAERY STAGES  
 04/02/1998 - 03/14/2002    FY01: \$0               Total: \$300,142  
*Prin. Invest.: M H PINSONNEAULT*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7252**           **OHIO STATE UNIV**           **7564**  
 SUBMILLIMETER LABORATORY INVESTIGATIONS: SPECTROS COPY &  
 COLLISIONS  
 05/07/1998 - 04/30/2002    FY01: \$0               Total: \$150,360  
*Prin. Invest.: E HERBST*  
*Tech. Officer: GSFC/H THRONSON*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7284**           **OHIO STATE UNIV**           **7565**  
 VERIFICATION AND IMPROVEMENT OF ERS-1/2 ALTIMETER GEOPHYSICAL  
 DATA RECORDERS FOR GLOBAL CHANGES  
 04/22/1998 - 06/30/2001    FY01: \$0               Total: \$132,378  
*Prin. Invest.: C K SHUM*  
*Tech. Officer: GSFC/E J LINDSTROM*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 7286**           **OHIO STATE UNIV**           **7566**  
 SHIFTING BOUNDARIES OF THE ANTARCTIC ICE SHEET  
 10/19/1998 - 10/31/2002    FY01: \$95,723       Total: \$278,474  
*Prin. Invest.: K C JEZEK*  
*Tech. Officer: GSFC/S GOGINENI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 7574**           **OHIO STATE UNIV**           **7567**  
 FUNDING FOR GRAVITY &TIME VARYING GRAVITY FIELD RE COVERY  
 (SENH98-0144)  
 08/04/1998 - 07/31/2002    FY01: \$50,000       Total: \$300,000  
*Prin. Invest.: C K SHUM*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 7589**           **OHIO STATE UNIV**           **7568**  
 SEARCHING FOR EXTRA-SOLAR SYSTEM PLANETS USING MUL TICOLOR  
 MICROLENSING OBSERVATIONS  
 06/30/1998 - 03/31/2001    FY01: \$0               Total: \$142,400  
*Prin. Invest.: D L DEPOY*  
*Tech. Officer: HQ/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7685**           **OHIO STATE UNIV**           **7569**  
 EDUCATIONAL OUTREACH FOR THE LANDSAT-7 MISSION SCI ENCE  
 OFFICE  
 09/11/1998 - 12/31/2001    FY01: \$0               Total: \$77,425  
*Prin. Invest.: C MERRY*  
*Tech. Officer: GSFC/D L WILLIAMS*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 7750**           **OHIO STATE UNIV**           **7570**  
 MODELING AND OBSERVATIONAL STUDY OF THE GLOBAL ATMOSPHERIC  
 IMPACTS OF ANTARCTIC SEA ICE ANOMALIES  
 10/20/1998 - 12/31/2002    FY01: \$84,049       Total: \$245,536  
*Prin. Invest.: D H BROMWICH*  
*Tech. Officer: GSFC/S GOGINENI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 7848**           **OHIO STATE UNIV**           **7571**  
 THE GLACIER DYNAMICS AND MASS FLUX OF ANTARCTIC IC E STREAMS  
 FROMRADARSAT INSAR  
 11/23/1998 - 12/31/2002    FY01: \$45,400       Total: \$130,318  
*Prin. Invest.: R R FORSTER*  
*Tech. Officer: GSFC/S GOGINENI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 7903**           **OHIO STATE UNIV**           **7572**  
 RADIATIVE AND COLLISIONAL ATOMIC DATA FOR UV AND OPTICAL ASTRONOMY  
 12/10/1998 - 12/31/2001     FY01: \$57,000         Total: \$157,868  
*Prin. Invest.: D K PRADHAN*  
*Tech. Officer: GSFC/H HASAN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8313**           **OHIO STATE UNIV**           **7573**  
 SUPPORT OF GRAVITATIONAL MICROLENSING FOLLOW-UP OBSERVATIONS BY THEPLANET COLLABORATION  
 03/23/1999 - 02/28/2001     FY01: \$0                 Total: \$125,000  
*Prin. Invest.: D L DEPOY*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8397**           **OHIO STATE UNIV**           **7574**  
 PROBING THE PHYSICS OF VARIABLE ACTIVE GALACTIC NUCLEI  
 04/16/1999 - 04/30/2002     FY01: \$87,400         Total: \$248,500  
*Prin. Invest.: B M PETERSON*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8423**           **OHIO STATE UNIV**           **7575**  
 ATOMIC PROCESSES IN X-RAY ASTROPHYSICS (ATP 98)  
 04/15/1999 - 04/14/2002     FY01: \$67,000         Total: \$189,346  
*Prin. Invest.: A K PRADHAN*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8455**           **OHIO STATE UNIV**           **7576**  
 BAYESIAN HIERARCHICAL AIR-SEA INTERACTION MODELING : DEVELOPMENT AND APPLICATION TO THE LABR  
 04/12/1999 - 05/31/2002     FY01: \$17,344         Total: \$49,620  
*Prin. Invest.: K N BERLINER*  
*Prin. Invest.: NONE*  
*Tech. Officer: GSFC/E LIDSTROM*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8608**           **OHIO STATE UNIV**           **7577**  
 RADARSAT: THE ANTARCTIC MAPPING PROJECT  
 06/10/1999 - 06/30/2001     FY01: \$0                 Total: \$432,220  
*Prin. Invest.: K C JEZEK*  
*Tech. Officer: GSFC/E LINDSTROM*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8632**           **OHIO STATE UNIV**           **7578**  
 MODELING GREENLAND OUTLET GLACIERS  
 06/28/1999 - 06/30/2001     FY01: \$0                 Total: \$70,761  
*Prin. Invest.: C DER VEEN*  
*Tech. Officer: GSFC/E LINDSTROM*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8913**           **OHIO STATE UNIV**           **7579**  
 ABSORBING OUTFLOWS IN AGN PI TRANSFER FROM SAO  
 06/22/2000 - 09/30/2001     FY01: \$125,000         Total: \$217,314  
*Prin. Invest.: S MATHUR*  
*Tech. Officer: GSFC/R OLIVERSEN*  
*CASE Category: 21 – MATHEMATICS*

**NAG 5 9270**           **OHIO STATE UNIV**           **7580**  
 UNDERSTANDING BROAD ABSORPTION LINE QUASARS WITH ASCA OBSERVATIONS (ADP - 99)  
 05/30/2000 - 05/31/2001     FY01: \$0                 Total: \$20,000  
*Prin. Invest.: S MATHUR*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9335**           **OHIO STATE UNIV**           **7581**  
 A GEOPHYSICAL APPROACH TO STUDY THE ROLE OF ICE SHEET MASS BALANCE IN GLOBAL SEA LEVEL CHANGE  
 03/30/2000 - 04/30/2002     FY01: \$177,872         Total: \$297,461  
*Prin. Invest.: C K SHUM*  
*Tech. Officer: GSFC/K PARTINGTON*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9518**           **OHIO STATE UNIV**           **7582**  
 REGIONAL SCALE METEOROLOGICAL ANALYSIS & PREDICTION USING GPS OCCULTATION & EOS DATA  
 05/10/2000 - 04/30/2002     FY01: \$258,542         Total: \$432,015  
*Prin. Invest.: D BROMWICH*  
*Tech. Officer: GSFC/R KAKAR*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9538**           **OHIO STATE UNIV**           **7583**  
 RADARSAT ANTARCTIC MAPPING PROJECT: ANTARCTIC IMAGING CAMPAIGN 2  
 05/23/2000 - 05/31/2002     FY01: \$877,912         Total: \$1,395,371  
*Prin. Invest.: K JEZEK*  
*Tech. Officer: GSFC/J DODGE*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9596**           **OHIO STATE UNIV**           **7584**  
 A REGIONAL INTEGRATED MONITORING SYSTEM FOR THE HYDROLOGY OF THE PAN-ARCTIC LAND MASS  
 05/11/2000 - 04/30/2002     FY01: \$41,910         Total: \$68,336  
*Prin. Invest.: D BROMWICH*  
*Tech. Officer: GSFC/P HOUSER*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9883**           **OHIO STATE UNIV**           **7585**  
 LITHOSPHERIC ANALYSIS OF SATELLITE MAGNETOMETER OBSERVATION  
 08/24/2000 - 08/31/2002     FY01: \$0                 Total: \$25,000  
*Prin. Invest.: R R VON FRESE*  
*Tech. Officer: GSFC/P TAYLOR*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 9936**           **OHIO STATE UNIV**           **7586**  
 LIFTING THE SHROUD AROUND BROAD ABSORPTION LINE QUASARS WITH XMM  
 09/06/2000 - 09/14/2002     FY01: \$16,300         Total: \$37,300  
*Prin. Invest.: S MATHUR*  
*Tech. Officer: GSFC/R MUSHOTZKY*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9937**           **OHIO STATE UNIV**           **7587**  
 X-RAY SPECTRA OF Z>4 QUASARS  
 09/06/2000 - 09/14/2002     FY01: \$14,000         Total: \$30,000  
*Prin. Invest.: S MATHUR*  
*Tech. Officer: GSFC/R MUSHOTZKY*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10112**           **OHIO STATE UNIV**           **7588**  
 MAPPING ANTARCTIC ICE SHEET MARGINS AND SNOW MELT ZONES OVER  
 DECADAL TIME SCALES FOR UNDERSTANDING  
 11/21/2000 - 11/14/2001      FY01: \$88,537      Total: \$88,537  
*Prin. Invest.: K JEZEK*  
*Tech. Officer: GSFC/K PARTINGTON*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10160**           **OHIO STATE UNIV**           **7589**  
 SATELLITE AND MODEL ANALYSIS OF THE ATMOSPHERIC MOISTURE  
 BUDGET IN HIGH LATITUDES  
 12/20/2000 - 12/31/2001      FY01: \$78,767      Total: \$78,767  
*Prin. Invest.: D BROMWICH*  
*Tech. Officer: GSFC/W ABDALATI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10199**           **OHIO STATE UNIV**           **7590**  
 AIRBORNE GEOPHYSICS AND REMOTE SENSING APPLIED TO STUDY  
 GREENLAND ICE DYNAMICS  
 12/21/2000 - 12/31/2001      FY01: \$63,604      Total: \$63,604  
*Prin. Invest.: B CSATHO*  
*Tech. Officer: GSFC/W ABDALATI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10207**           **OHIO STATE UNIV**           **7591**  
 SUBMILLIMETER LABORATORY INVESTIGATIONS: SPECTROSCOPY &  
 COLLISIONS  
 01/03/2001 - 12/31/2001      FY01: \$80,000      Total: \$80,000  
*Prin. Invest.: E HERBST*  
*Tech. Officer: GSFC/G STRINGFELLO*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10266**           **OHIO STATE UNIV**           **7592**  
 SPATIAL AND TEMPORAL VARIABILITY OF GREENLAND ACCUMULATION  
 AND CLIMATE FROM THE PARCA CORES  
 01/09/2001 - 12/31/2001      FY01: \$70,217      Total: \$70,217  
*Prin. Invest.: E MOSLEY-THOMPSON*  
*Tech. Officer: GSFC/W ABDALATI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10275**           **OHIO STATE UNIV**           **7593**  
 DETERMINING ICE SHEET ACCUMULATION RATES FROM RADAR REMOTE  
 SENSING  
 01/12/2001 - 01/14/2002      FY01: \$54,903      Total: \$54,903  
*Prin. Invest.: K JEZEK*  
*Tech. Officer: GSFC/W ABDALATI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10320**           **OHIO STATE UNIV**           **7594**  
 FUV SPECTROSCOPY OF NARROW LINE SEYFERT 1 GALAXIES FUSE 2000  
 01/30/2001 - 01/31/2002      FY01: \$83,900      Total: \$83,900  
*Prin. Invest.: S MATHUR*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10619**           **OHIO STATE UNIV**           **7595**  
 NEAR REAL-TIME GPS/LEO PRECISION ORBIT DETERMINATION FOR  
 OPERATIONAL WEATHER FORECASTING WITH GPS  
 03/19/2001 - 03/31/2002      FY01: \$117,889      Total: \$117,889  
*Prin. Invest.: D BRZEZINSKA*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10678**           **OHIO STATE UNIV**           **7596**  
 SEARCHING FOR EXTRA-SOLAR SYSTEM PLANETS USING GRAVITATIONAL  
 MICROLENSING  
 04/24/2001 - 04/30/2002      FY01: \$45,000      Total: \$45,000  
*Prin. Invest.: D DEPOY*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10978**           **OHIO STATE UNIV**           **7597**  
 MODELLING GREENLAND OUTLET GLACIERS  
 05/29/2001 - 05/31/2002      FY01: \$41,805      Total: \$41,805  
*Prin. Invest.: C V DER VEEN*  
*Tech. Officer: GSFC/W ABDALATI*  
*CASE Category: 33 – OCEANOGRAPHY*

**NAG 8 1267**           **OHIO STATE UNIV**           **7598**  
 REVERSE MICELLE BASED SYNTHESIS OF MICROPOROUS MATERIALS IN  
 MICROGRAVITY  
 05/23/1996 - 05/31/2000      FY01: \$0      Total: \$332,000  
*Prin. Invest.: P K DUTTA, R ANSARI, C T KRESGE*  
*Tech. Officer: MSFC/P DOTY, MSFC/R W ALLEN*  
*CASE Category: 13 – PHYSICS*

**NAG 8 1441**           **OHIO STATE UNIV**           **7599**  
 GRAVITATIONAL EFFECTS IN BOSE-EINSTEIN CONDENSATE OF ATOMIC  
 GASES  
 03/06/1998 - 01/31/2003      FY01: \$71,250      Total: \$213,250  
*Prin. Invest.: T HO*  
*Tech. Officer: MSFC/D HUBBARD*  
*CASE Category: 13 – PHYSICS*

**NAG 8 1470**           **OHIO STATE UNIV**           **7600**  
 R/S INTERDIFFUSION IN THE PRESENCE OF FREE CONVECTION  
 03/26/1998 - 01/31/2002      FY01: \$66,500      Total: \$240,833  
*Prin. Invest.: P K GUPTA*  
*Tech. Officer: MSFC/C TALLEY*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 8 1670**           **OHIO STATE UNIV**           **7601**  
 FUNDAMENTAL STUDIES OF CRYSTAL GROWTH OF MICROPOROUS  
 MATERIALS  
 06/05/2000 - 11/30/2003      FY01: \$138,700      Total: \$215,917  
*Prin. Invest.: P K DUTTA*  
*Tech. Officer: MSFC/P DOTY*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NAG 8 1765**           **OHIO STATE UNIV**           **7602**  
 QUANTUM GASES IN NOVEL ENVIRONMENTS: OPTICAL LATTICES AND  
 RAPIDLY ROTATING POTENTIALS  
 05/01/2001 - 04/30/2004      FY01: \$25,000      Total: \$25,000  
*Prin. Invest.: T L HO*  
*Tech. Officer: MSFC/D HUBBARD*  
*CASE Category: 13 – PHYSICS*

**NAG 9 1005**           **OHIO STATE UNIV**           **7603**  
 ORIENTATION FOR INTERVENTION: SUPPORTING MISSION AWARENESS IN  
 SPACE OPERATIONS  
 05/06/1998 - 06/30/2002      FY01: \$32,292      Total: \$242,292  
*Prin. Invest.: D D WOODS*  
*Tech. Officer: JSC/B J WOOLFORD*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NAG10 263**           **OHIO STATE UNIV**           **7604**  
 DEVELOPMENT OF GRAVITY SENSITIVE PLANT CELLS CERATODON IN MICROGRAVITY  
 07/14/1999 - 11/30/2001     FY01: \$138,359         Total: \$325,354  
*Prin. Invest.: F SACK*  
*Tech. Officer: KSC/G ETHERIDGE*  
*CASE Category: 55 – AGRICULTURE*

**NAG13 00039**           **OHIO STATE UNIV**           **7605**  
 HIERARCHICAL SEGMENTATION AND ATTRIBUTION OF HIGH RESOLUTION AERIAL IMAGES  
 05/19/2000 - 09/30/2001     FY01: \$0                 Total: \$200,000  
*Prin. Invest.: K BOYER*  
*Tech. Officer: SSC/B DAVIS*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAS 3 97030**           **OHIO STATE UNIV**           **7606**  
 NRA-ULTRASONIC CHARACTERIZATION OF FATIGE MICRO DA MAGE  
 11/08/1996 - 09/30/1999     FY01: \$0                 Total: \$110,977  
*Prin. Invest.: S ROKHLIN, G MAJOR, D WILLIARD*  
*Tech. Officer: GRC/D J ROTH*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NCA 3 206**           **OHIO STATE UNIV**           **7607**  
 GLENNAN MICROSYSTEMS INITIATIVE FY 01 PROJECTS  
 02/26/2001 - 11/30/2001     FY01: \$140,000         Total: \$140,000  
*Prin. Invest.: P DUTTA*  
*Tech. Officer: GRC/M V ZELLER*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NCC 2 1130**           **OHIO STATE UNIV**           **7608**  
 DISTRIBUTED & COOPERATIVE PROBLEM-SOLVING IN AIR CARRIER & AIR TRAFFICE COMMUNICATION  
 08/04/1999 - 07/14/2000     FY01: -\$1,784         Total: \$91,216  
*Prin. Invest.: C E MCCOY*  
*Tech. Officer: ARC/J M ORASANU*  
*CASE Category: 69 – PSYCHOLOGY, OTHER*

**NCC 2 1261**           **OHIO STATE UNIV**           **7609**  
 VISUALIZING TIME-VARYING DATA DISTRIBUTIONS IN EOS APPLICATIONS  
 04/26/2001 - 02/28/2002     FY01: \$47,478         Total: \$47,478  
*Prin. Invest.: H SHEN*  
*Tech. Officer: ARC/D L KAO, ARC/V R WATSON*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NCC 3 434**           **OHIO STATE UNIV**           **7610**  
 DEVELOPMENT OF LOW REYNOLDS NUMBER HEAT EXCHANGERS  
 09/25/1995 - 12/02/2000     FY01: \$0                 Total: \$824,635  
*Prin. Invest.: R N CHRISTENSEN, Y GUEZENNEC*  
*Tech. Officer: GRC/T T MOCKLER, GRC/D BENTS*  
*CASE Category: 46 – MECHANICAL ENGR*

**NCC 3 733**           **OHIO STATE UNIV**           **7611**  
 DESIGN AND DEVELOPMENT OF SMART ELECTROMAGNETIC STRUCTURES  
 09/22/1999 - 09/30/2000     FY01: -\$2,005         Total: \$16,495  
*Prin. Invest.: G WASHINGTON*  
*Tech. Officer: GRC/R ROMANOFSKY*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NCC 3 899**           **OHIO STATE UNIV**           **7612**  
 DEVELOPMENT OF ADVANCED SOLAR CELL TECHNOLOGY DEVELOPMENT OF ADVANCED SOLAR CELL TECHNOLOGY  
 06/20/2001 - 06/30/2002     FY01: \$23,000         Total: \$23,000  
*Prin. Invest.: S A RINGEL*  
*Tech. Officer: GRC/E B CLARK*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NGT 3 52355**           **OHIO STATE UNIV**           **7613**  
 GRADUATE STUDENT RESEARCH PROGRAM GRADUATE STUDENT RESEARCH PROGRAM  
 06/24/1999 - 06/30/2000     FY01: \$0                 Total: \$44,000  
*Prin. Invest.: S A RINGEL*  
*Tech. Officer: GRC/F J MONTEGANI*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NGT 3 52363**           **OHIO STATE UNIV**           **7614**  
 GRADUATE STUDENT RESEARCH PROGRAM GRADUATE STUDENT RESEARCH PROGRAM  
 06/12/2000 - 09/18/2002     FY01: \$22,000         Total: \$44,000  
*Prin. Invest.: P K DUTTA*  
*Tech. Officer: GRC/F J MONTEGANI*  
*CASE Category: 43 – CHEMICAL ENGR*

**NGT 3 52373**           **OHIO STATE UNIV**           **7615**  
 GRADUATE STUDENT RESEARCH 06/07/2001 - 08/31/2002     FY01: \$22,000         Total: \$22,000  
*Prin. Invest.: V V SUBRAMANIAM*  
*Tech. Officer: GRC/F J MONTEGANI*  
*CASE Category: 46 – MECHANICAL ENGR*

**NGT 5 30012**           **OHIO STATE UNIV**           **7616**  
 AN ICE CORE PALEOCIMATE STUDY OF WINDY DOME, FRAN DEVELOPMENT OF A SEA ICE PROXY FROM SATELLITE AND 10/14/1996 - 08/31/2000     FY01: \$0         Total: \$66,000  
*Prin. Invest.: L G THOMPSON*  
*Tech. Officer: GSFC/G ASRAR*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 30042**           **OHIO STATE UNIV**           **7617**  
 BIOMASS BURNING IN TROPICAL RAIN FORESTS: AN ANALY AND LAND USE PRACTICE TO ASSESS BURNING PATTERNS 10/17/1996 - 09/30/2000     FY01: \$0         Total: \$66,000  
*Prin. Invest.: L BROWN/SORRENSEN*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 30178**           **OHIO STATE UNIV**           **7618**  
 METEOROLOGICAL PROCESSES CONTROLLING THE SPATIAL & TEMPORAL VARIABILITY OF NET ANNUAL ACCUMULATION: 08/12/1999 - 08/31/2002     FY01: \$22,000         Total: \$66,000  
*Prin. Invest.: E MOSLEY-THOMPSON*  
*Tech. Officer: GSFC/L SMITH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50015**           **OHIO STATE UNIV**           **7619**  
 THE ROLE OF ELECTRICAL EVENTS IN CONTROLLING DIFFERENTROPISM IN THE DEZ  
 09/06/1997 - 12/31/2000     FY01: \$0               Total: \$66,000  
*Prin. Invest.: M EVANS*  
*Tech. Officer: HQ/A NURRIDIN*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 9 51**           **OHIO STATE UNIV**           **7620**  
 ACID SULFATE DRAINAGE: A MODEL SYSTEM FOR UNDERSTANDING POTENTIAL BIOMINERALIZATION PROCESSON MARS  
 07/11/2000 - 08/31/2002     FY01: \$22,000       Total: \$44,000  
*Prin. Invest.: J BIGHAM*  
*Tech. Officer: JSC/R MORRIS*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NAG 1 2036**           **OHIO UNIV**           **7621**  
 MODIFYING & TESTING ATC CONTROLLER INTERFACE (CI) FOR DATA LINK CLEARANCES  
 03/24/1998 - 02/28/2001     FY01: \$0               Total: \$386,981  
*Prin. Invest.: J M RANKIN, P MATTSON*  
*Tech. Officer: LARC/R W WILLS*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NAG 1 2099**           **OHIO UNIV**           **7622**  
 HAPTICS-AUGMENTED NASA EDUCATION VIA THE INTERNET  
 08/10/1998 - 09/30/1999     FY01: -\$1,540       Total: \$28,492  
*Prin. Invest.: R L WILLIAMS*  
*Tech. Officer: LARC/J M SEATON*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 1 2299**           **OHIO UNIV**           **7623**  
 HAPTICS-AUGMENTED SCIENCE EDUCATION  
 05/16/2000 - 05/15/2001     FY01: \$12,679       Total: \$30,430  
*Prin. Invest.: R L WILLIAMS*  
*Tech. Officer: LARC/J M SEATON*  
*CASE Category: 29 – MATH/COMPUTER SCI, OTHER*

**NAG 1 01094**           **OHIO UNIV**           **7624**  
 HAPTICS-AUGMENTED EDUCATION  
 06/01/2001 - 05/31/2004     FY01: \$14,000       Total: \$14,000  
*Prin. Invest.: R L WILLIAMS*  
*Tech. Officer: LARC/J M SEATON*  
*CASE Category: 29 – MATH/COMPUTER SCI, OTHER*

**NAG 3 2385**           **OHIO UNIV**           **7625**  
 WEATHER DATALINK RESEARCH WEATHER DATALINK RESEARCH  
 04/05/2000 - 07/10/2001     FY01: \$0               Total: \$199,976  
*Prin. Invest.: T A SKIDMORE*  
*Tech. Officer: GRC/P E POINSATTE*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NAG 3 2575**           **OHIO UNIV**           **7626**  
 AVIATION WEATHER DATALINK FLIGHT TEST EVALUATIONS RESEARCH AND DEVELOPMENT  
 03/23/2001 - 10/19/2001     FY01: \$49,723       Total: \$49,723  
*Prin. Invest.: T SKIDMORE*  
*Tech. Officer: GRC/P POINSATTE*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NAG 3 2612**           **OHIO UNIV**           **7627**  
 FLIGHT DEMONSTRATION OF A 3-DIMENSIONAL COCKPIT DISPLAY OF TRAFFIC INFORMATION  
 07/31/2001 - 09/30/2002     FY01: \$35,867       Total: \$35,867  
*Prin. Invest.: J RANKIN*  
*Tech. Officer: GRC/B BREAM*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 5 7645**           **OHIO UNIV**           **7628**  
 FUNDING FOR 'ANALYSIS OF POLAR OERSTED, SUNSAT, MADSAT, AND POGO DATA' (SENH98-0063)  
 08/27/1998 - 06/30/2002     FY01: \$37,000       Total: \$224,500  
*Prin. Invest.: R R VON FRESE*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 10349**           **OHIO UNIV**           **7629**  
 PROPOSAL #537 DEVELOP A DYNAMIC RESOURCE MANAGEMENT APPROACH FOR ADAPTIVE AGENT-BASED REAL-TIME  
 02/05/2001 - 02/14/2002     FY01: \$193,919       Total: \$193,919  
*Prin. Invest.: L WELCH*  
*Tech. Officer: GSFC/B B PFARR*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 5 11025**           **OHIO UNIV**           **7630**  
 COOLING FLOWS AND RADIO GALAXIES: THE CHANDRA ERA (LTS4 2000)  
 06/13/2001 - 06/14/2002     FY01: \$100,000       Total: \$100,000  
*Prin. Invest.: B MCNAMARA*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 8 1789**           **OHIO UNIV**           **7631**  
 FUTURE IMPROVEMENT OF A TRAJECTORY LINEARIZATION FLIGHT CONTROLLER FOR X-33  
 03/06/2001 - 12/31/2001     FY01: \$34,833       Total: \$34,833  
*Prin. Invest.: J J ZHU*  
*Tech. Officer: MSFC/D R KRUPP/C E HALL*  
*CASE Category: 42 – ASTRONAUTICAL ENGR*

**NAS 5 00185**           **OHIO UNIV**           **7632**  
 ADAPTIVE MANAGEMENT OF COMPUTING & NETWORK RESOURCES FOR REAL-TIME SENSOR WEBS  
 08/31/2000 - 08/30/2002     FY01: \$154,681       Total: \$342,988  
*Prin. Invest.: L WELCH, NONE*  
*Tech. Officer: GSFC/B PFAR*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAS 8 01105**           **OHIO UNIV**           **7633**  
 THEORETICAL VALIDATION, FEV & IMPLEMENTATION OF ALGORITHMS, & PERFORMING SIMULATION TESTING  
 05/18/2001 - 09/30/2005     FY01: \$369,018       Total: \$369,018  
*Prin. Invest.: J ZHU, D A LAWRENCE*  
*Tech. Officer: MSFC/J M RANKIN*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 1 351**           **OHIO UNIV**           **7634**  
 A DTED TERRAIN AVOIDANCE SYS UTILIZING GPS AND RADAR ALTIMETER  
 MONITORING, RE NRA 98-LARC-10  
 09/01/1999 - 12/31/2002      FY01: \$586,000      Total: \$953,000  
*Prin. Invest.:* J M RANKIN, D DIGGLE, M U DE HAAG  
*Tech. Officer:* LARC/R M HUESCHEN, LARC/R V PARRISH  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NCC 2 827**           **OHIO UNIV**           **7635**  
 DISTRIBUTED & COOPERATIVE PROBLEM-SOLVING IN THE NATIONAL  
 AVIATION SYSTEM  
 09/20/1993 - 05/31/2000      FY01: \$0      Total: \$341,713  
*Prin. Invest.:* C E MCCOY, P J SMITH  
*Tech. Officer:* ARC/J M ORASANU  
*CASE Category:* 59 – LIFE SCIENCE, OTHER

**NCC 2 1030**           **OHIO UNIV**           **7636**  
 WEATHER-RELATED PILOT DECISION-MAKING CONTEXT CATE GORIZA-  
 TION  
 03/25/1998 - 12/31/2000      FY01: \$0      Total: \$132,386  
*Prin. Invest.:* C E MCCOY  
*Tech. Officer:* ARC/J M ORASANU  
*CASE Category:* 69 – PSYCHOLOGY, OTHER

**NCC 2 1258**           **OHIO UNIV**           **7637**  
 EXTREME DECISION-MAKING: WEATHER RELATED PILOT DECISION-  
 MAKING  
 04/20/2001 - 11/14/2001      FY01: \$77,199      Total: \$77,199  
*Prin. Invest.:* C E MCCOY  
*Tech. Officer:* ARC/J M ORASANU  
*CASE Category:* 69 – PSYCHOLOGY, OTHER

**NCC 3 680**           **OHIO UNIV**           **7638**  
 A STUDY OF MULTI-USER TCP TRAFFIC OVER ACTS A STUDY OF MULTI-  
 USER TCP TRAFFIC OVER ACTS  
 03/10/1999 - 05/15/2001      FY01: \$3,312      Total: \$90,935  
*Prin. Invest.:* S OSTERMANN  
*Tech. Officer:* GRC/W D IVANCIC  
*CASE Category:* 49 – ENGINEERING, OTHER

**NAG 5 10453**           **OHIO WESLEYAN UNINERITY**           **7639**  
 INFORMAL & UNDERGRADUATE SCIENCE EDUCATION OPPORTUNITIES AT  
 OHIO WESLEYAN UNIV  
 02/28/2001 - 02/28/2003      FY01: \$1,373,000      Total: \$1,373,000  
*Prin. Invest.:* W LOUTHAN  
*Tech. Officer:* HQ/J ROSENDHAL  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NAG 3 1747**           **UNIV OF AKRON**           **7640**  
 DEVELOPMENTS IN COUPLED DEFORMATION-DAMAGE AND FAILURE  
 MODELING FOR LIFE PREDICTIONS OF STRUCTURES  
 05/19/1995 - 09/15/2000      FY01: \$0      Total: \$557,413  
*Prin. Invest.:* A F SALEEB  
*Tech. Officer:* GRC/S M ARNOLD  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NAG 3 2182**           **UNIV OF AKRON**           **7641**  
 FAST POTENTIAL THEORETIC METHODS FOR FAR-FIELD SOUND RADI-  
 ATION PROBLEMS  
 07/18/1998 - 06/30/2001      FY01: \$0      Total: \$30,000  
*Prin. Invest.:* D I HAIHARAN  
*Tech. Officer:* GRC/J R SCOTT  
*CASE Category:* 29 – MATH/COMPUTER SCI, OTHER

**NAG 3 2278**           **UNIV OF AKRON**           **7642**  
 IMPLEMENTATION AND PERFORMANCE EVALUATION OF A DC/DC  
 CONVERTER FOR CRYOGENIC APPLICATIONS  
 07/15/1999 - 06/23/2000      FY01: -\$5,981      Total: \$24,019  
*Prin. Invest.:* M E ELBULUK  
*Tech. Officer:* GRC/R L PATTERSON  
*CASE Category:* 45 – ELECTRICAL ENGR

**NAG 3 2279**           **UNIV OF AKRON**           **7643**  
 SYSTEM AND PROPAGATION AVAILABILITY ANALYSIS FOR NASA'S  
 ADVANCED AIR TRANSPORTATION TECHNOLOGIES (A)  
 07/12/1999 - 08/14/2001      FY01: \$0      Total: \$74,100  
*Prin. Invest.:* O C UGWEJE  
*Tech. Officer:* GRC/R J ACOSTA  
*CASE Category:* 45 – ELECTRICAL ENGR

**NAG 3 2312**           **UNIV OF AKRON**           **7644**  
 DISCRETE-FREQUENCY NOISE PREDICTIONS IN AN ANNULAR CASCADE  
 USING TIGER/AWAKEN/TURBO/LINFLUX  
 12/29/1999 - 12/31/2000      FY01: -\$2,567      Total: \$17,236  
*Prin. Invest.:* S SAWYER  
*Tech. Officer:* GRC/E ENVIA  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NAG 3 2390**           **UNIV OF AKRON**           **7645**  
 HIGH TEMPERATURE ADHESIVES AND STRUCTURAL RESINS HIGH  
 TEMPERATURE ADHESIVES AND STRUCTURAL RESINS  
 04/12/2000 - 06/30/2001      FY01: \$24,468      Total: \$65,832  
*Prin. Invest.:* F W HARRIS  
*Tech. Officer:* GRC/C CHUANG  
*CASE Category:* 47 – METAL & MATERIALS ENGR

**NAG 3 2420**           **UNIV OF AKRON**           **7646**  
 A NEW FINITE ELEMENT FORMULATION ANALYSIS OF AEROSPACE  
 STRUCTURES  
 05/11/2000 - 02/25/2002      FY01: \$50,034      Total: \$120,031  
*Prin. Invest.:* S N PATNAIK  
*Tech. Officer:* GRC/G R HALFORD  
*CASE Category:* 49 – ENGINEERING, OTHER

**NAG 3 2442**           **UNIV OF AKRON**           **7647**  
 STEREO IMAGING VELOCIMETRY OF MIXING DRIVEN BY BUOYANCY  
 INDUCED FLOW FIELDS  
 05/23/2000 - 11/30/2003      FY01: \$35,561      Total: \$72,994  
*Prin. Invest.:* C BATUR  
*Tech. Officer:* GRC/W B DUVAL  
*CASE Category:* 49 – ENGINEERING, OTHER

**NAG 3 2444**           **UNIV OF AKRON**           **7648**  
 NE OHIO URBAN GROWTH MONITORING AND MODELING PROTOTYPE  
 05/24/2000 - 09/30/2001      FY01: \$0      Total: \$105,000  
*Prin. Invest.:* D SIEBERT  
*Tech. Officer:* GRC/T M SCOTT  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NAG 3 2494**           **UNIV OF AKRON**           **7649**  
 COMPRESSOR SURGE INCEPTION AND SURGE DISCRIMINATION FROM  
 TIME SERIES  
 11/08/2000 - 04/27/2002      FY01: \$44,519      Total: \$44,519  
*Prin. Invest.:* H K QAMMAR  
*Tech. Officer:* GRC/M BRIGHT  
*CASE Category:* 21 – MATHEMATICS

**NAG 3 2512**           **UNIV OF AKRON**           **7650**  
 GRAVITATIONAL INFLUENCES ON FLAME PROPAGATION THRO UGH NON-  
 UNIFORM PRE-MIXED GAS SYSTEMS  
 12/08/2000 - 11/30/2004     FY01: \$16,688         Total: \$16,688  
*Prin. Invest.: D PERRY*  
*Tech. Officer: GRC/K R SACKSTEDER*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 3 2537**           **UNIV OF AKRON**           **7651**  
 APPLICATION OF PERIODIC BOUNDARY CONDITIONS IN THE AEROACOUSTICS OF TURBOMACHINERY  
 02/08/2001 - 01/31/2004     FY01: \$15,000         Total: \$15,000  
*Prin. Invest.: S SAWYER*  
*Tech. Officer: GRC/E ENVIA*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 3 2566**           **UNIV OF AKRON**           **7652**  
 INFRASTRUCTURE ADDITIONS FOR A PLYMER NATECHNOLOGYCENTER AT THE UNIV OF AKRON  
 03/16/2001 - 03/18/2002     FY01: \$998,000         Total: \$998,000  
*Prin. Invest.: F N KELLEY*  
*Tech. Officer: GRC/M A MEADOR*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NAG 3 2572**           **UNIV OF AKRON**           **7653**  
 LOW MELT VISCOSITY RESINS FOR RESIN TRANSFER MOLDING  
 03/22/2001 - 11/30/2001     FY01: \$44,637         Total: \$44,637  
*Prin. Invest.: F W HARRIS*  
*Tech. Officer: GRC/C CHUANG*  
*CASE Category: 12 – CHEMISTRY*

**NAG 3 2632**           **UNIV OF AKRON**           **7654**  
 DEVELOPMENT OF AN OPTICAL REAL-TIME POLARIMETRIC IMAGING SYSTEM FOR AEROSPACE APPLICATIONS  
 06/07/2001 - 05/31/2002     FY01: \$58,423         Total: \$58,423  
*Prin. Invest.: G C GIAKOS*  
*Tech. Officer: GRC/D NG*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NCC 3 441**           **UNIV OF AKRON**           **7655**  
 COMPUTATIONAL TOOL AND TECHNIQUES FOR THE MACRO/NUCRIMEMECHANICAL ANALYSIS OF COMPOSITE STRUCTURES  
 12/14/1995 - 09/03/2000     FY01: -\$42             Total: \$562,686  
*Prin. Invest.: A F SALEEB*  
*Tech. Officer: GRC/S M ARNOLD*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 3 526**           **UNIV OF AKRON**           **7656**  
 UTILIZATION OF FRACTIONAL ORDER SYSTEMS IN CONTROL IN ENGINEERING  
 01/06/1997 - 12/31/2001     FY01: -\$511          Total: \$84,569  
*Prin. Invest.: T T HARTLEY*  
*Tech. Officer: GRC/C LORENZO*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 3 567**           **UNIV OF AKRON**           **7657**  
 DETERMINATION OF OPTIMUM HEATING ZONE LENGTH & CONTROL TERMOCOUPLE PLACEMENT FOR GRIDGMAN CRYSTAL G  
 07/01/1997 - 07/31/2001     FY01: \$0                 Total: \$38,997  
*Prin. Invest.: C BATUR*  
*Tech. Officer: GRC/W B DUVAL*  
*CASE Category: 46 – MECHANICAL ENGR*

**NCC 3 578**           **UNIV OF AKRON**           **7658**  
 ENHANCEMENTS TO NURBS-BASED FEA AIRFOIL MODLER-SABER  
 10/24/1997 - 06/24/2002     FY01: \$25,000         Total: \$238,076  
*Prin. Invest.: A F SALEEB, D A TROWBRIDGE*  
*Tech. Officer: GRC/S A THORP*  
*CASE Category: 46 – MECHANICAL ENGR*

**NCC 3 682**           **UNIV OF AKRON**           **7659**  
 IMPROVED HIGH TEMPERATURE POLYIMIDE COMPOSITES IMPROVED HIGH TEMPERATURE POLYIMIDE COMPOSITES  
 02/24/1999 - 03/31/2001     FY01: \$21,894         Total: \$393,389  
*Prin. Invest.: R K EBY*  
*Tech. Officer: GRC/M A MEADOR*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NCC 3 716**           **UNIV OF AKRON**           **7660**  
 THEORY, MODELING, SOFTWARE AND HARDWARE DEVELOPMENT IN COMPUTATIONAL MATERIALS SCIENCE  
 06/25/1999 - 07/06/2003     FY01: \$142,222         Total: \$358,694  
*Prin. Invest.: G W YOUNG*  
*Tech. Officer: GRC/A CHAIT*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NCC 3 738**           **UNIV OF AKRON**           **7661**  
 ANALYSIS AND DESIGN OPTIMIZATION OF MULTI-LAYER PA NEL STRUCTURES WITH NEURAL NETWORK AND REGRESSION  
 10/20/1999 - 12/09/2000     FY01: \$0                 Total: \$86,086  
*Prin. Invest.: S N PATNAIK*  
*Tech. Officer: GRC/D HOPKINS*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 3 744**           **UNIV OF AKRON**           **7662**  
 DESIGN, PROGRESSIVE MODELING, MANUFACTURE, AND TESTING OF COMPOSITE SHIELD FOR TURBINE ENGINEBLADE  
 12/01/1999 - 11/17/2001     FY01: \$174,825         Total: \$363,515  
*Prin. Invest.: E SANCAKTA*  
*Tech. Officer: GRC/G D ROBERTS*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NCC 3 752**           **UNIV OF AKRON**           **7663**  
 STUDIES ON STRESS-STRAIN RELATIONSHIPS OF POLYMERIC MATERIALS USED IN SPACE APPLICATIONS  
 12/28/1999 - 09/30/2001     FY01: \$149,559         Total: \$234,212  
*Prin. Invest.: S C JANA*  
*Tech. Officer: GRC/A FREED*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 3 765**           **UNIV OF AKRON**           **7664**  
 DEVELOPMENT OF EFFICIENT NUMERICAL ALGORITHMS FOR PREDICTION OF FAR-FIELD ACOUSTIC NOISE  
 02/07/2000 - 01/02/2002     FY01: \$0                 Total: \$60,000  
*Prin. Invest.: K KREIDER*  
*Tech. Officer: GRC/J SCOTT*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 3 768**           **UNIV OF AKRON**           **7665**  
 ADVANCED STRUCTURAL, IMPACT AND LIFE ANALYSES OF A EROSPAC COMPONENTS  
 02/02/2000 - 02/25/2002     FY01: \$147,462         Total: \$300,317  
*Prin. Invest.: V K ARYA*  
*Tech. Officer: GRC/G R HALFORD*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 3 788**           **UNIV OF AKRON**           **7666**  
 DEFORMATION AND LIFE OR POLYMER MATRIX COMPOSITE ( PMC)  
 FLYWHEEL ROTORS  
 03/27/2000 - 02/28/2002      FY01: \$49,000      Total: \$96,932  
*Prin. Invest.: D F SALEEB*  
*Tech. Officer: GRC/A ARNOLD*  
*CASE Category: 46 – MECHANICAL ENGR*

**NCC 3 794**           **UNIV OF AKRON**           **7667**  
 HOMOPOLYROTAXANES AND HOMOPOLYROTAXAND NETWORKS OF PEO  
 04/20/2000 - 04/17/2002      FY01: \$85,698      Total: \$165,798  
*Prin. Invest.: C PUGH*  
*Tech. Officer: GRC/M MEADOR*  
*CASE Category: 12 – CHEMISTRY*

**NCC 3 802**           **UNIV OF AKRON**           **7668**  
 POLYMER SOLID ELECTROLYTES FOR RECHARGEABLE BATTERIES  
 05/23/2000 - 05/17/2001      FY01: \$103,427      Total: \$153,427  
*Prin. Invest.: F W HARRIS*  
*Tech. Officer: GRC/M MEADOR*  
*CASE Category: 12 – CHEMISTRY*

**NCC 3 808**           **UNIV OF AKRON**           **7669**  
 DEFECT DETECTION SCHEMES AND ALGORITHMIC DEVELOPMENT FOR  
 LARGE-SCALE SIMULATIONS OF DAMAGING VISCO-  
 06/16/2000 - 03/14/2002      FY01: \$297,000      Total: \$397,000  
*Prin. Invest.: A F SALEEB*  
*Tech. Officer: GRC/S M ARNOLD*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 3 820**           **UNIV OF AKRON**           **7670**  
 MODEL-BASED CONTROL OF BATTERIES AND FUEL CELLS FOR LONGER  
 LIFE  
 08/09/2000 - 08/31/2001      FY01: \$60,644      Total: \$112,644  
*Prin. Invest.: D T HARTLEY*  
*Tech. Officer: GRC/M MANZO*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 3 828**           **UNIV OF AKRON**           **7671**  
 RESEARCH AND DEVELOPMENT OF IMPROVED RF SIGNAL SWITCHING  
 AND DISTRIBUTION TECHNIQUES IN CIVIL AVIATION  
 09/29/2000 - 09/30/2001      FY01: \$24,739      Total: \$24,739  
*Prin. Invest.: O C UGWUJE*  
*Tech. Officer: GRC/H NGUYEN*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NCC 3 831**           **UNIV OF AKRON**           **7672**  
 DESIGN OPTIMIZATION OF STRUCTURAL PANELS WITH ANALYSIS  
 APPROXIMATORS AT THE SUBPROBLEM LEVEL  
 12/12/2000 - 11/30/2001      FY01: \$86,804      Total: \$86,804  
*Prin. Invest.: S N PATNAIK*  
*Tech. Officer: GRC/D HOPKINS*  
*CASE Category: 46 – MECHANICAL ENGR*

**NCC 3 839**           **UNIV OF AKRON**           **7673**  
 RESEARCH IN INNOVATIVE USE OF SMART MATERIALS IN PROPULSION  
 SYSTEM COMPONENTS-CONTROL AND EXPERIMENTATION  
 12/20/2000 - 12/31/2001      FY01: \$68,662      Total: \$68,662  
*Prin. Invest.: G SONG*  
*Tech. Officer: GRC/H LEE*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 3 877**           **UNIV OF AKRON**           **7674**  
 HIGH TEMPERATURE FUEL CELLS  
 03/14/2001 - 03/05/2002      FY01: \$164,334      Total: \$164,334  
*Prin. Invest.: R K EBY*  
*Tech. Officer: GRC/M A MEADOR*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NGT 2 52228**           **UNIV OF AKRON**           **7675**  
 THE DEVELOPMENT OF NEURAL-NETWORK-ENHANCED ELECTRIC AL  
 INDEPENDANCE CARDIOGRAPH FOR HEMODYNAMIC.....  
 08/14/1997 - 02/28/2001      FY01: \$0      Total: \$66,000  
*Prin. Invest.: B C TAYLOR*  
*Tech. Officer: ARC/P S COWINGS*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NGT 3 52327**           **UNIV OF AKRON**           **7676**  
 GRADUATE STUDENT RESEARCHERS PROGRAM  
 06/10/1997 - 01/31/2001      FY01: -\$855      Total: \$65,145  
*Prin. Invest.: R K EBY*  
*Tech. Officer: GRC/F J MONTEGANI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 3 52344**           **UNIV OF AKRON**           **7677**  
 GRADUATE STUDENT RESEARCHERS PROGRAM  
 07/28/1998 - 05/31/2000      FY01: -\$25,925      Total: \$40,075  
*Prin. Invest.: R K EBY*  
*Tech. Officer: GRC/F J MONTEGANI*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NGT 3 52364**           **UNIV OF AKRON**           **7678**  
 GRADUATE STUDENT RESEARCH PROGRAM      GRADUATE STUDENT  
 RESEARCH PROGRAM  
 06/13/2000 - 06/30/2002      FY01: \$22,000      Total: \$44,000  
*Prin. Invest.: D PERRY*  
*Tech. Officer: GRC/F J MONTEGANI*  
*CASE Category: 12 – CHEMISTRY*

**NAG 3 1987**           **UNIV OF CINCINNATI**           **7679**  
 INVESTIGATION OF SIMPLEX NOZZLES FOR ADVANCED COMBUSTORS  
 11/06/1996 - 11/01/2000      FY01: -\$4      Total: \$220,481  
*Prin. Invest.: S M JENG*  
*Tech. Officer: GRC/R R TACINA*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 3 2087**           **UNIV OF CINCINNATI**           **7680**  
 DATA BASE FOR REALISTIC COMPUTATIONAL MODELING OF INLET/COMPRESSOR  
 INTERFACES DURING RAPID FLOW TRANSITION  
 01/16/1998 - 12/31/2000      FY01: \$0      Total: \$252,017  
*Prin. Invest.: M SAJBN*  
*Tech. Officer: GRC/G L COLE*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 3 2281**           **UNIV OF CINCINNATI**           **7681**  
 DEVELOPMENT OF A MACROPOROUS SILICONE BASED HEAT EXCHANGER FOR  
 HEAT TRANSFER FROM MICRO DEVICES  
 07/20/1999 - 01/20/2000      FY01: \$0      Total: \$45,000  
*Prin. Invest.: H HENDERSON*  
*Tech. Officer: GRC/S M GENG*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NAG 3 2437**           **UNIV OF CINCINNATI**           **7682**  
 OHIOVIEW UNDERGRADUATE DISTANCE LEARNING PROTOTYPE OHIO-  
 VIEW UNDERGRADUATE DISTANCE LEARNING PROTOTYP  
 05/22/2000 - 09/30/2001     FY01: \$0                 Total: \$360,000  
*Prin. Invest.: D BECK*  
*Tech. Officer: GRC/T SCOTT*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 3 2451**           **UNIV OF CINCINNATI**           **7683**  
 MICROSCOPIC FLOW VISUALIZATION IN DE-MIXING FLUIDS DURING POLY-  
 MERIC MEMBRANE FORMATION IN LOW-G  
 06/01/2000 - 11/30/2003     FY01: \$95,000           Total: \$145,000  
*Prin. Invest.: W B KRANTZ*  
*Tech. Officer: GRC/H C DEGROH*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 3 2462**           **UNIV OF CINCINNATI**           **7684**  
 INTEGRATED ATOMIZER/SWIRLER FOR LEAN DIRECT INJECT ION COMBUSTION  
 06/14/2000 - 06/04/2002     FY01: \$83,205           Total: \$121,209  
*Prin. Invest.: S JENG*  
*Tech. Officer: GRC/R R TACINA*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 3 2487**           **UNIV OF CINCINNATI**           **7685**  
 A SIMULATION STUDY OF SIGE HBTS FOR POWER APPLICATORS AT  
 MICROWAVE FREQUENCIES  
 09/27/2000 - 09/07/2003     FY01: \$97,839           Total: \$97,839  
*Prin. Invest.: K P ROENKER*  
*Tech. Officer: GRC/G E PONCHAK*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NAG 5 6946**           **UNIV OF CINCINNATI**           **7686**  
 ORDOVICIAN BIODIVERSITY: GEOGRAPHY AND ENVIRONMENT  
 02/12/1998 - 06/30/2000     FY01: -\$3                 Total: \$99,997  
*Prin. Invest.: A I MILLER*  
*Tech. Officer: GSFC/M MEYER*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7098**           **UNIV OF CINCINNATI**           **7687**  
 USING LANDSAT DATA TO DEVELOP AN IMAGE BASED LOGISTIC REGRES-  
 SION MODEL FOR PREDICTING DEFORESTATION  
 05/28/1998 - 11/30/1999     FY01: -\$444           Total: \$153,434  
*Prin. Invest.: R C FROHN*  
*Tech. Officer: GSFC/D E WICKLAND*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8986**           **UNIV OF CINCINNATI**           **7688**  
 ULTRA-HOT WINDS FROM DO WHITE DWARFS - FUSE  
 01/27/2000 - 01/31/2002     FY01: \$0                 Total: \$10,600  
*Prin. Invest.: M L SITKO*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9418**           **UNIV OF CINCINNATI**           **7689**  
 ORDOVICIAN BIODIVERSITY: GEOGRAPHY AND ENVIRONMENT  
 04/11/2000 - 06/30/2002     FY01: \$50,900           Total: \$98,848  
*Prin. Invest.: A I MILLER*  
*Tech. Officer: GSFC/M MEYER*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9475**           **UNIV OF CINCINNATI**           **7690**  
 IR SPECTROSCOPY OF DUSTY PROTOSTELLAR DISKS  
 04/20/2000 - 04/30/2002     FY01: \$60,000           Total: \$120,000  
*Prin. Invest.: M SITKO*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 13 – PHYSICS*

**NAG 5 10384**           **UNIV OF CINCINNATI**           **7691**  
 DYNAMICS AND CONTROL OF DISTRIBUTED SPACECRAFT.  
 02/07/2001 - 01/14/2002     FY01: \$106,975           Total: \$106,975  
*Prin. Invest.: T WILLIAMS*  
*Tech. Officer: GSFC/D FOLTA*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAS 1 00123**           **UNIV OF CINCINNATI**           **7692**  
 PROOF OF CONCEPT MICRO LOOP HEAT PIPE SYSTEM FOR SPACE  
 SOLAR POWER SATELLITES  
 06/16/2000 - 10/31/2000     FY01: \$0                 Total: \$150,000  
*Prin. Invest.: H T HENDERSON, S BHANSALI*  
*Tech. Officer: LARC/C L MOORE, GRC/E GALIHER*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAS 3 01120**           **UNIV OF CINCINNATI**           **7693**  
 DEVELOPMENT OF AN INTEGRATED LOOP HEAT PIPE, USING COHERENT  
 POROUS SILICON AS A WICK  
 03/21/2001 - 12/31/2001     FY01: \$119,999           Total: \$119,999  
*Prin. Invest.: T HENSERSON*  
*Tech. Officer: GRC/E GOLLIHER*  
*CASE Category: 46 – MECHANICAL ENGR*

**NCC 2 1139**           **UNIV OF CINCINNATI**           **7694**  
 ADVANCED TRAJECTORY ANALYSIS WITH APPLICATION TO AIR TRAFFIC  
 CONTROL  
 09/03/1999 - 03/31/2002     FY01: \$55,427           Total: \$102,612  
*Prin. Invest.: G L SLATER*  
*Tech. Officer: ARC/T J DAVIS, ARC/D R ISAACSON*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NGT 5 30108**           **UNIV OF CINCINNATI**           **7695**  
 SPACE-TIME CHARACTERIZATION OF REMOTELY SENSED SOIL MOIS-  
 TURE  
 02/10/1998 - 09/30/2001     FY01: \$0                 Total: \$66,000  
*Prin. Invest.: S ISLAM*  
*Tech. Officer: GSFC/G ASRAR*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50040**           **UNIV OF CINCINNATI**           **7696**  
 A THEORY FOR THE EXACT INTEGRATION OF A REFERENCE ATTITUDE  
 PROGRAM FORMULATED AS PERTURBED JACOBI  
 08/15/1997 - 08/31/2000     FY01: \$0                 Total: \$44,000  
*Prin. Invest.: P L RICHARDSON*  
*Tech. Officer: GSFC/A NURRIDIN*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50265**           **UNIV OF CINCINNATI**           **7697**  
 NEGATIVE REGULATION OF OSTEOCLASTOGENESIS BY ESTROGENS VIA  
 DIRECT ACTIONS ON HEMATOPOIETIC CELLS  
 07/07/1999 - 06/30/2001     FY01: \$0                 Total: \$44,000  
*Prin. Invest.: J W PIKE*  
*Tech. Officer: GSFC/L SMITH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 8 52801**      **UNIV OF CINCINNATI**      **7698**  
 GRADSTUDENT RESEARCH PROGRAM  
 07/28/1995 – 08/31/2000      FY01: -\$75  
*Prin. Invest.:* K N GHIA  
*Tech. Officer:* MSFC/P K MCCONNAUGHEY  
*CASE Category:* 41 – AERONAUTICAL ENGR

Total: \$87,925

**NAG 3 2318**      **UNIV OF DAYTON**      **7699**  
 QUALITY OF SERVICE FOR REAL-TIME APPLICATIONS OVER NEXT  
 GENERATION DATA NETWORKS  
 02/09/2000 – 12/31/2000      FY01: \$0  
*Prin. Invest.:* M ATIQUZZAMAN  
*Tech. Officer:* GRC/W D IVANCIC  
*CASE Category:* 22 – COMPUTER SCIENCE

Total: \$130,000

**NAG 5 8451**      **UNIV OF DAYTON**      **7700**  
 DIAMOND, MOISSANITE, AND OSBORNITE: PHYSICS AND CHEMISTRY OF  
 INTER-STELLAR GRAIN FORMATION  
 04/09/1999 – 10/30/2000      FY01: -\$27  
*Prin. Invest.:* A W PHELPS  
*Tech. Officer:* HQ/J BOYCE  
*CASE Category:* 11 – ASTRONOMY

Total: \$21,973

**NAG 5 9804**      **UNIV OF DAYTON**      **7701**  
 STUDIES WITH SYNTHETIC INTERSTELLAR DIAMOND: RARE GAS  
 INCORPORATION AND PHASE STABILITY  
 07/14/2000 – 07/14/2002      FY01: \$30,000  
*Prin. Invest.:* A PHELPS  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 11 – ASTRONOMY

Total: \$60,000

**NAG 5 9808**      **UNIV OF DAYTON**      **7702**  
 FE-MG CARBONATES AS A MONITOR PHASE OF CARBON DIOXIDE AND  
 OXYGEN FUGACITY ON MARS  
 07/17/2000 – 06/30/2002      FY01: \$23,000  
*Prin. Invest.:* A M KOZIOL  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 11 – ASTRONOMY

Total: \$45,000

**NAS 1 99148**      **UNIV OF DAYTON**      **7703**  
 OPERATIONS AND MODELING ANALYSIS  
 09/27/1999 – 10/31/2002      FY01: \$78,000  
*Prin. Invest.:* C E EBELING  
*Tech. Officer:* LARC/W D MORRIS  
*CASE Category:* 29 – MATH/COMPUTER SCI, OTHER

Total: \$150,500

**NAS 8 98216**      **UNIV OF DAYTON**      **7704**  
 A NEW TECHNIQUE FOR ACHIEVING IMPACT VELOCITIES GREATER THAN  
 10KM/S  
 06/01/1998 – 07/31/2000      FY01: \$0  
*Prin. Invest.:* A J PIEKUTOWSKI  
*Tech. Officer:* MSFC/G S OLSEN  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

Total: \$299,558

**NCC 3 771**      **UNIV OF DAYTON**      **7705**  
 A FERROELECTRIC TUNABLE PRE-SELECT FILTER/LNA HYBRID CIRCUIT  
 WITH A VOLTAGE CONTROLLABLE IMPEDANCE  
 02/10/2000 – 11/08/2001      FY01: \$0  
*Prin. Invest.:* G SUBRAMANYAM  
*Tech. Officer:* GRC/F MIRANDA  
*CASE Category:* 45 – ELECTRICAL ENGR

Total: \$30,000

**NCC 3 824**      **UNIV OF DAYTON**      **7706**  
 INFRARED AVIONICS SIGNAL DISTRIBUTION: EXPERIMENTAL SETUP AND  
 VERIFICATION  
 09/20/2000 – 03/02/2001      FY01: -\$28,000  
*Prin. Invest.:* M ATIQUZZAMAN  
*Tech. Officer:* GRC/H NGUYEN  
*CASE Category:* 45 – ELECTRICAL ENGR

Total: \$0

**NCC 3 882**      **UNIV OF DAYTON**      **7707**  
 DESIGN OF FREQUENCY AGILE COMPONENTS USING PATTERNED  
 FERROELECTRIC FILMS FOR K- AND KA-BAND APPLICATION  
 04/18/2001 – 12/04/2001      FY01: \$22,633  
*Prin. Invest.:* G SUBRAMANYAN  
*Tech. Officer:* GRC/F A MIRANDA  
*CASE Category:* 45 – ELECTRICAL ENGR

Total: \$22,633

**NGT 3 52351**      **UNIV OF DAYTON**      **7708**  
 GRADUATE STUDENT RESEARCH PROGRAM GRADUATE STUDENT  
 RESEARCH PROGRAM  
 06/23/1999 – 07/31/2002      FY01: \$22,000  
*Prin. Invest.:* V JAIN  
*Tech. Officer:* GRC/F J MONTEGANI  
*CASE Category:* 49 – ENGINEERING, OTHER

Total: \$66,000

**NAG 1 2244**      **UNIV OF TOLEDO**      **7709**  
 DEV DYNAM CONFIGIBLE OBJ-ORIENTED FRAMEWORK FOR DISTRIB'D  
 MULTI-MODAL COMPUTAT'L AEROSP SYS SIMULAT  
 09/23/1999 – 08/31/2002      FY01: \$97,135  
*Prin. Invest.:* A ATEH, V A REED  
*Tech. Officer:* LARC/W K GERDES  
*CASE Category:* 22 – COMPUTER SCIENCE

Total: \$207,104

**NAG 3 1967**      **UNIV OF TOLEDO**      **7710**  
 BANDGAP ENGINEERING AND CIRCUIT DESIGN FOR LOW TEMPERATURE  
 SPACE-BORNE POWER ELECTRONICS  
 09/07/1996 – 12/31/1999      FY01: \$0  
*Prin. Invest.:* Y J KAPOOR, M A SMITH  
*Tech. Officer:* GRC/R L PATTERSON, GRC/J E DICKMAN  
*CASE Category:* 45 – ELECTRICAL ENGR

Total: \$105,386

**NAG 3 2264**      **UNIV OF TOLEDO**      **7711**  
 GEOMETRY INTEGRATION INTO NUMERICAL PROPULSION SYSTEMS  
 SIMULATION ARCHITECTURE  
 05/04/1999 – 04/26/2000      FY01: \$0  
*Prin. Invest.:* A A AFEH, NONE  
*Tech. Officer:* GRC/G J FOLLEN  
*CASE Category:* 41 – AERONAUTICAL ENGR

Total: \$60,000

**NAG 3 2269**      **UNIV OF TOLEDO**      **7712**  
 DEVELOPMENT OF NOVEL METHODS FOR THE REDUCTION OF NOISE AND  
 WEIGHT IN HELICOPTER TRANSMISSIONS  
 06/29/1999 – 12/31/2001      FY01: \$205,000  
*Prin. Invest.:* T G KEITH  
*Tech. Officer:* GRC/T L KRANTZ  
*CASE Category:* 46 – MECHANICAL ENGR

Total: \$320,052

<b>NAG 3 2282</b>	<b>UNIV OF TOLEDO</b>	<b>7713</b>	<b>NAG 3 2508</b>	<b>UNIV OF TOLEDO</b>	<b>7720</b>
DATA MINING AND OPTIMIZATION TOOLS FOR DEVELOPING ENGINE PARAMETER MODELS			ESTABLISHMENT OF A DATA EXCHANGE MECHANISM FOR ZOO MING IN THE NPSS ARCHITECTURE		
07/20/1999 - 07/01/2000	FY01: \$0	Total: \$55,985	11/29/2000 - 11/15/2001	FY01: \$60,014	Total: \$60,014
<i>Prin. Invest.: A P DHAWAN</i>			<i>Prin. Invest.: A A AFJEH</i>		
<i>Tech. Officer: GRC/J LITT</i>			<i>Tech. Officer: GRC/G J FOLLEN</i>		
<i>CASE Category: 29 – MATH/COMPUTER SCI, OTHER</i>			<i>CASE Category: 41 – AERONAUTICAL ENGR</i>		
<b>NAG 3 2338</b>	<b>UNIV OF TOLEDO</b>	<b>7714</b>	<b>NAG 3 2565</b>	<b>UNIV OF TOLEDO</b>	<b>7721</b>
CHEMISTRY OF AVIATION FUELS CHEMISTRY OF AVIATION FUELS			CRYOGENIC NANOELECTRONICS FOR SPACE BORNE POWER SYSTEMS		
02/23/2000 - 12/31/2001	FY01: \$156,414	Total: \$289,414	03/14/2001 - 03/14/2002	FY01: \$22,293	Total: \$22,293
<i>Prin. Invest.: K L DEWITT</i>			<i>Prin. Invest.: V J KAPOOR</i>		
<i>Tech. Officer: GRC/M RABINOWITZ</i>			<i>Tech. Officer: GRC/R L PATTERSON</i>		
<i>CASE Category: 43 – CHEMICAL ENGR</i>			<i>CASE Category: 45 – ELECTRICAL ENGR</i>		
<b>NAG 3 2408</b>	<b>UNIV OF TOLEDO</b>	<b>7715</b>	<b>NAG 3 2594</b>	<b>UNIV OF TOLEDO</b>	<b>7722</b>
INVESTIGATION OF PRESSURIZED WAVE BEARING INVESTIGATION OF PRESSURIZED WAVE BEARING			SIMULATION OF COORDINATED SATELITE OPERATION		
05/01/2000 - 02/17/2002	FY01: \$41,113	Total: \$76,138	04/17/2001 - 04/02/2004	FY01: \$49,999	Total: \$49,999
<i>Prin. Invest.: T G KEITH</i>			<i>Prin. Invest.: D D JOHNSON</i>		
<i>Tech. Officer: GRC/D P FLEMING</i>			<i>Tech. Officer: GRC/J D STEGEMAN</i>		
<i>CASE Category: 46 – MECHANICAL ENGR</i>			<i>CASE Category: 29 – MATH/COMPUTER SCI, OTHER</i>		
<b>NAG 3 2409</b>	<b>UNIV OF TOLEDO</b>	<b>7716</b>	<b>NAG 3 2641</b>	<b>UNIV OF TOLEDO</b>	<b>7723</b>
DISSEMINATION OF REMOTE SENSING TECHNOLOGY IN NORT HWEST OHIO THROUGH EDUCATIONAL AND COMMUNITY OUTR			INVESTIGATION OF DYNAMIC FORCE/VIBRATION TRANSMISS ION CHAR-ACTERISTICS OF FOUR-SQUARE TYPE GEAR DURA		
05/04/2000 - 09/30/2001	FY01: \$0	Total: \$105,000	07/16/2001 - 03/31/2002	FY01: \$31,295	Total: \$31,295
<i>Prin. Invest.: D P CZAJKOWSKI</i>			<i>Prin. Invest.: A KAHRAMAN</i>		
<i>Tech. Officer: GRC/T M SCOTT</i>			<i>Tech. Officer: GRC/R HANDSCHUH</i>		
<i>CASE Category: 39 – ENVIRONMENTAL SCI, OTHER</i>			<i>CASE Category: 46 – MECHANICAL ENGR</i>		
<b>NAG 3 2502</b>	<b>UNIV OF TOLEDO</b>	<b>7717</b>	<b>NAG 3 2646</b>	<b>UNIV OF TOLEDO</b>	<b>7724</b>
DEVELOPMENT OF COMPUTATIONAL AEROACOUSTICS CODE FO R JET AND FAN NOISE AND FLOW PREDICTION			ADVANCED CONCEPTS RESEARCH FOR FLYWHEEL TECHNOLOGY APPLICATIONS		
11/07/2000 - 10/31/2001	FY01: \$129,682	Total: \$129,682	08/30/2001 - 02/28/2002	FY01: \$49,999	Total: \$49,999
<i>Prin. Invest.: T G KEITH</i>			<i>Prin. Invest.: T G KEITH</i>		
<i>Tech. Officer: GRC/E ENVIA</i>			<i>Tech. Officer: GRC/R F BEACH</i>		
<i>CASE Category: 41 – AERONAUTICAL ENGR</i>			<i>CASE Category: 46 – MECHANICAL ENGR</i>		
<b>NAG 3 2505</b>	<b>UNIV OF TOLEDO</b>	<b>7718</b>	<b>NAG 5 3248</b>	<b>UNIV OF TOLEDO</b>	<b>7725</b>
CFD SIMULATION OF CASING TREATMENT OF AXIAL FLOW C OMPRES-SORS			THE EFFECT OF ROTATION ON STELLAR WINDS: ASYMMETRI ES AND BIPOLAR STRUCTURES IN CIRCUMS		
11/13/2000 - 09/30/2001	FY01: \$134,650	Total: \$134,650	10/09/1996 - 08/31/2001	FY01: \$0	Total: \$400,000
<i>Prin. Invest.: T G KEITH</i>			<i>Prin. Invest.: J E BJORKMAN</i>		
<i>Tech. Officer: GRC/J ADMACZYK</i>			<i>Tech. Officer: GSFC/D WEST</i>		
<i>CASE Category: 41 – AERONAUTICAL ENGR</i>			<i>CASE Category: 11 – ASTRONOMY</i>		
<b>NAG 3 2507</b>	<b>UNIV OF TOLEDO</b>	<b>7719</b>	<b>NAG 5 3447</b>	<b>UNIV OF TOLEDO</b>	<b>7726</b>
DEVELOPMENT OF ADVANCED CASING TREATMENTS FOR FLOW CONTROL			EFFECTS OF ROTATION AND REVISED IONIZATION BALANCE MASS-LOSS RATES FOR B STARS		
11/20/2000 - 11/05/2001	FY01: \$119,190	Total: \$119,190	10/10/1996 - 10/14/2000	FY01: \$0	Total: \$150,000
<i>Prin. Invest.: T G KEITH,JR.</i>			<i>Prin. Invest.: K BJORKMAN</i>		
<i>Tech. Officer: GRC/M D HATHAWAY</i>			<i>Tech. Officer: GSFC/D K WEST</i>		
<i>CASE Category: 41 – AERONAUTICAL ENGR</i>			<i>CASE Category: 11 – ASTRONOMY</i>		
<b>NAG 3 2507</b>	<b>UNIV OF TOLEDO</b>	<b>7719</b>	<b>NAG 5 3790</b>	<b>UNIV OF TOLEDO</b>	<b>7727</b>
DEVELOPMENT OF ADVANCED CASING TREATMENTS FOR FLOW CONTROL			OPTICAL PROPERTIES OF CARBONACEOUS GRAIN MANTLE MA PURITIES		
11/20/2000 - 11/05/2001	FY01: \$119,190	Total: \$119,190	03/10/1997 - 02/28/2001	FY01: \$0	Total: \$186,169
<i>Prin. Invest.: T G KEITH,JR.</i>			<i>Prin. Invest.: D N WITT</i>		
<i>Tech. Officer: GRC/M D HATHAWAY</i>			<i>Tech. Officer: GSFC/H HASAN</i>		
<i>CASE Category: 41 – AERONAUTICAL ENGR</i>			<i>CASE Category: 11 – ASTRONOMY</i>		

**NAG 5 4338**           **UNIV OF TOLEDO**           **7728**  
 NEAR-IR EMISSION AND ABSORPTION CHARACTERISTICS OF MANTLE MATERIALS  
 04/21/1997 - 03/31/2001      FY01: \$0      Total: \$156,000  
*Prin. Invest.: D N WITT*  
*Tech. Officer: GSFC/H THRONSON*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 4957**           **UNIV OF TOLEDO**           **7729**  
 THE EVOLUTION OF INTERSTELLAR GAS – MASSIVE STARS  
 06/27/1997 - 06/30/2002      FY01: \$98,200      Total: \$420,154  
*Prin. Invest.: S R FEDERMAN*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 6624**           **UNIV OF TOLEDO**           **7730**  
 MAPPING THE DIFFUSE GALACTIC LIGHT AND EXTENDED RED EMISSION WITH PIONEER10 AND 11  
 11/20/1997 - 12/31/2000      FY01: \$0      Total: \$103,052  
*Prin. Invest.: A WITT*  
*Tech. Officer: GSFC/J LING*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7754**           **UNIV OF TOLEDO**           **7731**  
 OSCILLATOR STRENGTHS FOR ULTRAVIOLET ATOMIC AND MOLECULAR TRANSITIONS  
 11/25/1998 - 06/30/2001      FY01: \$0      Total: \$117,462  
*Prin. Invest.: S R FEDERMAN*  
*Tech. Officer: GSFC/H HASAN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8052**           **UNIV OF TOLEDO**           **7732**  
 TERRESTRIAL ENVIRONMENT VARIABLES DERIVED FROM EOS PLATFORM SENSORS  
 01/15/1999 - 01/31/2002      FY01: \$42,603      Total: \$156,377  
*Prin. Invest.: K P CZAJKOWSKI, NONE*  
*Tech. Officer: GSFC/D E WICKLAND*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8054**           **UNIV OF TOLEDO**           **7733**  
 CIRCUMSTELLAR ENVIRONMENTS OF HIGH- AND INTERMEDIATE-MASS STARS: FROM THE PRE-MAIN-SEQUENCE TO LB  
 01/19/1999 - 01/14/2002      FY01: \$95,783      Total: \$286,188  
*Prin. Invest.: K S BJORKMAN*  
*Prin. Invest.: NONE*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8183**           **UNIV OF TOLEDO**           **7734**  
 DUST AND CONDENSATE CLOUDS IN THE MARTIAN POLAR REGIONS  
 02/16/1999 - 08/31/2002      FY01: \$59,000      Total: \$178,600  
*Prin. Invest.: P B JAMES*  
*Tech. Officer: HQ/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8671**           **UNIV OF TOLEDO**           **7735**  
 USE OF THERMAL INFRARED SATELLITE DATA IN CLIMATE CHANGE STUDIES  
 07/08/1999 - 07/14/2002      FY01: \$111,564      Total: \$334,317  
*Prin. Invest.: K P CZAJKOWSKI*  
*Tech. Officer: GSFC/M Y WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8785**           **UNIV OF TOLEDO**           **7736**  
 A NEW CLASS OF UNNATURAL FOLDING OLIGOMERS: HELICES WITH NANO-SIZED CAVITIES  
 08/26/1999 - 06/30/2000      FY01: \$0      Total: \$133,245  
*Prin. Invest.: B GONG*  
*Tech. Officer: GSFC/R CROUCH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 8794**           **UNIV OF TOLEDO**           **7737**  
 THE GEOMETRY AND EVOLUTION OF LOW-MASS STAR FORMAT ION (ATP 98)  
 09/07/1999 - 09/14/2002      FY01: \$41,782      Total: \$61,782  
*Prin. Invest.: J E BJORKMAN*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8961**           **UNIV OF TOLEDO**           **7738**  
 MOLECULAR HYDROGEN EXCITATION IN PHOTODISSOCIATION REGIONS – FUSE  
 01/21/2000 - 10/31/2001      FY01: \$0      Total: \$74,200  
*Prin. Invest.: S R FEDERMAN*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8982**           **UNIV OF TOLEDO**           **7739**  
 DUST SCATTERING PROPERTIES IN REFLECTION NEBULAE – FUSE  
 01/24/2000 - 01/31/2001      FY01: \$0      Total: \$33,100  
*Prin. Invest.: A N WITT*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9202**           **UNIV OF TOLEDO**           **7740**  
 MOVING BEYOND THE STANDARD PARADIGM: THE IMPORTANCE OF INTERSTELLAR DUST FROM THE MILKY WAY TO HIGH  
 03/14/2000 - 03/14/2002      FY01: \$33,694      Total: \$65,858  
*Prin. Invest.: A WITT*  
*Tech. Officer: GSFC/R OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9376**           **UNIV OF TOLEDO**           **7741**  
 INTERSTELLAR DUST IN GALAXIES (LTSA – 99)  
 04/11/2000 - 04/14/2002      FY01: \$94,745      Total: \$187,113  
*Prin. Invest.: A N WITT*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10305**           **UNIV OF TOLEDO**           **7742**  
 EFFECTS OF STAR FORMATION & STELLAR DEATH ON INTERSTELLAR GAS ASSOCIATED WITH CEP OB2 (FUSE00)  
 01/29/2001 - 01/31/2002      FY01: \$36,800      Total: \$36,800  
*Prin. Invest.: S R FEDERMAN*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 8 1380**           **UNIV OF TOLEDO**           **7743**  
 FOR RESEARCH ENTITLED "SEARCHING FOR THE BEST PROTEIN CRYSTALS"  
 06/19/1997 - 07/31/2001      FY01: \$116,395      Total: \$604,995  
*Prin. Invest.: G BORGOTAHL*  
*Tech. Officer: MSFC/B GUYNES, MSFC/J MAYO*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 8 1578**           **UNIV OF TOLEDO**           **7744**  
INFLUENCE OF IMPURITIES ON PROTEIN CRYSTAL GROWTH  
01/28/1999 - 11/30/2002      FY01: \$102,600      Total: \$307,600  
*Prin. Invest.: C A SCHALL*  
*Tech. Officer: MSFC/B GUYNES*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 8 1825**           **UNIV OF TOLEDO**           **7745**  
SEARCHING FOR THE BEST PROTEIN CRYSTALS; INTEGRATION OF SYNCHROTRON-BASED CRYSTAL MEASUREMENTS  
08/29/2001 - 11/30/2004      FY01: \$101,000      Total: \$101,000  
*Prin. Invest.: G E BORGSTAHL*  
*Tech. Officer: MSFC/B GUYNES*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAS 3 01116**           **UNIV OF TOLEDO**           **7746**  
AEROELASTIC MODELING AND ANALYSIS OF UNEET FAN AND COMPRESSOR DESIGN  
06/18/2001 - 09/18/2004      FY01: \$55,000      Total: \$55,000  
*Prin. Invest.: T KEITH*  
*Tech. Officer: GRC/J MINNS*  
*CASE Category: 46 – MECHANICAL ENGR*

**NCC 3 513**           **UNIV OF TOLEDO**           **7747**  
IMPROVED MODEL FOR THE OXIDATIVE PYROLYSIS OF HYDROCARBON FUELS  
11/06/1996 - 03/31/2000      FY01: \$0      Total: \$370,903  
*Prin. Invest.: K J DEWITT*  
*Tech. Officer: GRC/K P KUNDU*  
*CASE Category: 12 – CHEMISTRY*

**NCC 3 524**           **UNIV OF TOLEDO**           **7748**  
COMPUTATIONAL SIMULATION OF COMPOSITE BEHAVIOR  
12/26/1996 - 12/05/2001      FY01: \$138,287      Total: \$585,527  
*Prin. Invest.: T G KEITH*  
*Tech. Officer: GRC/P MURTHY*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 3 527**           **UNIV OF TOLEDO**           **7749**  
AEROELASTIC ANALYSIS FOR AEROPROPULSION APPLICATIONS  
12/26/1996 - 06/30/2001      FY01: \$0      Total: \$234,068  
*Prin. Invest.: T G KEITH, JR.*  
*Tech. Officer: GRC/O MEHMED, GRC/G L STEFKO*  
*CASE Category: 46 – MECHANICAL ENGR*

**NCC 3 596**           **UNIV OF TOLEDO**           **7750**  
APPLICATION OF AEROELASTIC SOLVERS BASED ON NAVIER -STOKES EQUATIONS  
01/14/1998 - 06/30/2000      FY01: \$0      Total: \$205,706  
*Prin. Invest.: T G KEITH*  
*Tech. Officer: GRC/D JANETZKE*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 3 605**           **UNIV OF TOLEDO**           **7751**  
AEROELASTIC STABILITY AND RESPONSE OF ROTATING STRUCTURES  
04/03/1998 - 02/08/2002      FY01: \$80,000      Total: \$403,759  
*Prin. Invest.: T KEITH*  
*Tech. Officer: GRC/O MEHMED*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 3 717**           **UNIV OF TOLEDO**           **7752**  
MULTI-STAGE AEROELASTIC ANALYSIS FOR PROPULSION MULTI-STAGE AEROELASTIC ANALYSIS FOR PROPULSION  
06/29/1999 - 11/19/2001      FY01: \$45,001      Total: \$127,731  
*Prin. Invest.: T G KEITH,JR.*  
*Tech. Officer: GRC/O MEHMED*  
*CASE Category: 46 – MECHANICAL ENGR*

**NCC 3 719**           **UNIV OF TOLEDO**           **7753**  
CENTRIFUGAL COMPRESSOR AEROELASTIC ANALYSIS CODEE  
CENTRIFUGAL COMPRESSOR AEROELASTIC ANALYSIS CODEE  
06/24/1999 - 10/31/2001      FY01: \$49,999      Total: \$168,729  
*Prin. Invest.: T G KEITH*  
*Tech. Officer: GRC/D C JANETZKE*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 3 774**           **UNIV OF TOLEDO**           **7754**  
ACTIVE CONTROL ANALYSIS FOR AEROELASTIC INSTABILITIES IN TURBO-MACHINES  
02/14/2000 - 11/01/2001      FY01: \$82,458      Total: \$115,916  
*Prin. Invest.: T KEITH*  
*Tech. Officer: GRC/D JANETZKE*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 3 855**           **UNIV OF TOLEDO**           **7755**  
NEXT GENERATION OF HALL THRUSTERS FOR SPACE PROPULSION  
01/25/2001 - 01/18/2002      FY01: \$147,162      Total: \$147,162  
*Prin. Invest.: T G KEITH*  
*Tech. Officer: GRC/D REDDY*  
*CASE Category: 13 – PHYSICS*

**NCC 3 881**           **UNIV OF TOLEDO**           **7756**  
MICROWAVE LOW NOISE AMPLIFIER USING SILICON GERMANIUM NANO-TECHNOLOGY  
03/26/2001 - 03/01/2002      FY01: \$79,632      Total: \$79,632  
*Prin. Invest.: V J KAPOOR*  
*Tech. Officer: GRC/G E PONCHAK*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NCC 3 907**           **UNIV OF TOLEDO**           **7757**  
NOVEL DAMPING CONCEPTS FOR MECHANICAL BACKUP BEARINGS AND PASSIVE MAGNETICALLY SUSPENDED ROTORS  
08/02/2001 - 07/31/2002      FY01: \$35,000      Total: \$35,000  
*Prin. Invest.: T G KEITH*  
*Tech. Officer: GRC/K MCLALLIN*  
*CASE Category: 46 – MECHANICAL ENGR*

**NCC 3 916**           **UNIV OF TOLEDO**           **7758**  
TECHNOLOGY VALIDATION AND RISK REDUCTION RESEARCH FOR FLYWHEEL TECHNOLOGY  
09/20/2001 - 12/06/2001      FY01: \$43,122      Total: \$43,122  
*Prin. Invest.: T G KEITH*  
*Tech. Officer: GRC/R BEACH*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NCC 8 196** **UNIV OF TOLEDO** **7759**  
 USE OF FLUORESCENCE SPECTROSCOPY AND X-RAY DIFFRACTION IN  
 INVEST. OF PROTEIN CRYSTAL GROWTH  
 11/17/1999 - 11/11/2000 FY01: \$0 Total: \$55,000  
*Prin. Invest.: A NADARAJAH*  
*Tech. Officer: MSFC/M PUSEY*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NGT 3 52342** **UNIV OF TOLEDO** **7760**  
 MICROMACHINED CANTILEVERED TRANSMISSION LINE SWITCHES FOR  
 MICROWAVE APPLICATIONS  
 07/18/1998 - 10/31/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.: D J KAPOOR*  
*Tech. Officer: GRC/D MONTEGANI*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NGT 3 52375** **UNIV OF TOLEDO** **7761**  
 GRADUATE STUDENT RESEARCH  
 06/07/2001 - 06/30/2002 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: V J KAPOOR*  
*Tech. Officer: GRC/F J MONTEGANI*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 3 2301** **WILBERFORCE UNIV** **7762**  
 STUDENT OUTREACH WITH RENEWABLE ENERGY TECHNOLOGY (SORET)  
 CONSORTIUM  
 11/05/1999 - 10/28/2002 FY01: \$299,957 Total: \$599,915  
*Prin. Invest.: D R BUFFINGER*  
*Tech. Officer: GRC/A F HEPP*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 2 1237** **WRIGHT STATE UNIV** **7763**  
 ROLES FOR TECHNOLOGY IN THE FACILITATION OF DISTRIBUTED WORK  
 IN COMPLEX DYNAMIC DOMAINS  
 07/16/1998 - 10/31/2000 FY01: \$0 Total: \$142,295  
*Prin. Invest.: V L SHALIN*  
*Tech. Officer: ARC/W J CLANCEY*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 3 2637** **WRIGHT STATE UNIV** **7764**  
 DEFECTS IN ALGaN/GaN HEMT DEVICES DEFECTS IN ALGaN/GaN HEMT  
 DEVICES  
 06/18/2001 - 06/30/2002 FY01: \$119,269 Total: \$119,269  
*Prin. Invest.: D C LOOK*  
*Tech. Officer: GRC/J FREEMAN*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NAG 5 4188** **WRIGHT STATE UNIV** **7765**  
 MODEL STUDIES OF EXCITED STATES OF N2 AND N2+ IN THE IONOSPHERE  
 03/27/1997 - 03/31/2002 FY01: \$0 Total: \$209,608  
*Prin. Invest.: D L FOX*  
*Tech. Officer: GSFC/M M MELLOTT, SR*  
*CASE Category: 13 – PHYSICS*

**NCC 2 1203** **WRIGHT STATE UNIV** **7766**  
 ROLES FOR TECHNOLOGY IN THE FACILITATION OF DISTRIBUTED WORK  
 IN COMPLEX DYNAMIC DOMAINS  
 09/15/2000 - 09/14/2001 FY01: \$34,232 Total: \$122,261  
*Prin. Invest.: V L SHALIN*  
*Tech. Officer: ARC/W J CLANCEY*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NGT 5 30091** **WRIGHT STATE UNIV** **7767**  
 AEROSPACE MEDICINE TRAINING PROGRAM  
 09/11/1997 - 12/30/2001 FY01: \$190,000 Total: \$2,058,212  
*Prin. Invest.: S R MOHLER*  
*Tech. Officer: GSFC/R J WILLIAMS*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NGT 5 50213** **WRIGHT STATE UNIV** **7768**  
 THREE-DIMENSIONAL AUDIO PRESENTATION SYSTEM EFFECTIVENESS  
 IN HYPERGRAVITY AND HYPOGRAVITY  
 07/22/1998 - 08/31/2001 FY01: \$0 Total: \$44,000  
*Prin. Invest.: R H GILKEY*  
*Tech. Officer: HQ/A NURRIDIN*  
*CASE Category: 69 – PSYCHOLOGY, OTHER*

## OKLAHOMA

**NAG 3 1852** **OKLAHOMA STATE UNIV** **7769**  
 STUDIES OF PARTICLES SEDIMENTATION BY NOVEL SCATTERING TECHNIQUE  
 05/01/1996 - 04/30/2002 FY01: \$0 Total: \$399,992  
*Prin. Invest.: O TONG, B ACKERSON, NONE*  
*Tech. Officer: GRC/B SINGH*  
*CASE Category: 13 – PHYSICS*

**NAG 4 176** **OKLAHOMA STATE UNIV** **7770**  
 CFD AEROSERVOELASTIC & FLIGHT DYNAMICS ANALYSIS  
 09/16/1999 - 09/16/2000 FY01: \$0 Total: \$55,607  
*Prin. Invest.: A ARENA, JR.*  
*Tech. Officer: DFRC/K GUPTA*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 4 216** **OKLAHOMA STATE UNIV** **7771**  
 CFD-BASED AEROSERVOELASTIC AND FLIGHT DYNAMICS ANALYSIS OF A  
 FLIGHT RESEARCH VEHICLE  
 01/11/2001 - 11/30/2001 FY01: \$59,995 Total: \$59,995  
*Prin. Invest.: D S ARENA*  
*Tech. Officer: DFRC/K K GUPTA*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 5 7451** **OKLAHOMA STATE UNIV** **7772**  
 TERRESTRIAL ENVIRONMENTAL VARIABLES DERIVED FROM EOS PLATFORM SENSORS  
 07/09/1998 - 07/31/2001 FY01: \$0 Total: \$47,226  
*Prin. Invest.: S J STADLER*  
*Tech. Officer: GSFC/D E WICKLAND*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 9 1159** **OKLAHOMA STATE UNIV** **7773**  
 ROLE OF VITAMIN E IN PREVENTING BOND DAMAGE  
 09/29/1999 - 06/30/2001 FY01: \$0 Total: \$206,262  
*Prin. Invest.: B J STOECKER*  
*Tech. Officer: JSC/C W LLOYD*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 9 1332** OKLAHOMA STATE UNIV 7774  
 MONOLITHIC INTERGRATED RADIATION\_SENSOR USING STIMULATED LUMINESCENSE FROM ALUMINA  
 07/17/2001 - 07/13/2004 FY01: \$468,398 Total: \$468,398  
*Prin. Invest.: S MCKEEVER*  
*Tech. Officer: JSC/M GOLIGHTLY*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NASW 5043** OKLAHOMA STATE UNIV 7775  
 OPERATION OF AEROSPACE EDUCATION SERVICES PROGRAM  
 09/25/1995 - 05/31/2001 FY01: \$3,099,752 Total: \$35,209,327  
*Prin. Invest.: K WIGGINS*  
*Tech. Officer: HQ/L BILBROUGH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 3 903** OKLAHOMA STATE UNIV 7776  
 INFRARED AVIONICS SIGNAL DISTRIBUTION: (PHASE 2: EXPERIMENT SETUP AND VERIFICATION)  
 07/13/2001 - 02/19/2002 FY01: \$29,882 Total: \$29,882  
*Prin. Invest.: M ATIQUZZAMAN*  
*Tech. Officer: GRC/D NGO*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NCC 5 185** OKLAHOMA STATE UNIV 7777  
 TEACHING FROM SPACE PROGRAM  
 04/03/1997 - 11/30/2001 FY01: \$855,248 Total: \$3,984,243  
*Prin. Invest.: K E WIGGINS*  
*Tech. Officer: GSFC/P L MOUNTJOY*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 5 561** OKLAHOMA STATE UNIV 7778  
 AEROSPACE EDUCATION SERVICES PROGRAM  
 06/28/2001 - 05/31/2002 FY01: \$3,000,000 Total: \$3,000,000  
*Prin. Invest.: T COLLINS*  
*Tech. Officer: GSFC/L BILLBROUGH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 4 52412** OKLAHOMA STATE UNIV 7779  
 AEROSEROELASTIC AND FLIGHT DYNAMICS  
 05/12/1999 - 06/30/2001 FY01: \$0 Total: \$44,000  
*Prin. Invest.: A ARENA*  
*Tech. Officer: DFRC/K GUPTA*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NGT 4 52425** OKLAHOMA STATE UNIV 7780  
 (GSRP) OPEN PORT STABILIZED SENSOR SYSTEM AEROSERV OELASTIC PREDICTION WITH COMPARISONS TO FLIGHT TE  
 07/16/2001 - 07/31/2002 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: D S ARENA*  
*Tech. Officer: DFRC/K K GUPTA*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 5 7378** ORAL ROBERTS UNIV 7781  
 EXPERIMENTAL APPARATUS TO TEST THE STABILITY OF SP INNING SPACECRAFTUNDER THRUST  
 05/06/1998 - 05/14/2001 FY01: \$0 Total: \$48,000  
*Prin. Invest.: D HALSMER*  
*Tech. Officer: GSFC/R HARMAN*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 1 2178** UNIV OF OKLAHOMA - NORMAN 7782  
 A STUDY ON EMBEDDED HIGH-SPEED WIRELESS TELEMETRY SYSTEMS FOR WIND TUNNEL APPLICATIONS, PHASE II  
 03/31/1999 - 12/31/2001 FY01: \$0 Total: \$221,218  
*Prin. Invest.: J R CRUZ*  
*Tech. Officer: LARC/S K KAHNG*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NAG 2 1427** UNIV OF OKLAHOMA - NORMAN 7783  
 EFFECT OF HYPERGRAVITY, VIBRATION, & RADIATION ON GENETIC & DEVELOPMENTAL STABILITY IN DROSOPHILIA..  
 08/03/2000 - 07/31/2002 FY01: \$244,853 Total: \$511,604  
*Prin. Invest.: J T THOMPSON, JR*  
*Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 3 2388** UNIV OF OKLAHOMA - NORMAN 7784  
 GRAVITATIONAL EFFECTS ON FLOW INSTABILITY AND TRAN SITION IN LOW DENSITY JETS  
 04/10/2000 - 11/30/2003 FY01: \$90,250 Total: \$140,250  
*Prin. Invest.: A K AGRAWAI*  
*Tech. Officer: GRC/F P CHIARAMONTE*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 3 2528** UNIV OF OKLAHOMA - NORMAN 7785  
 SCTP OVER LONG BANDWIDTH DELAY PRODUCT NETWORKS  
 01/22/2001 - 01/01/2002 FY01: \$75,243 Total: \$75,243  
*Prin. Invest.: D ATIQUZZAMAN*  
*Tech. Officer: GRC/W D IVANCIC/D FOLTZ*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 5 3505** UNIV OF OKLAHOMA - NORMAN 7786  
 MULTIWAVELENGTH STUDIES OF SUPERNOVAE  
 11/25/1996 - 09/30/2001 FY01: \$0 Total: \$250,000  
*Prin. Invest.: E A BARON*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NG 5 9165** UNIV OF OKLAHOMA - NORMAN 7787  
 COMPREHENSIVE SUPERNOVA SPECTROSCOPY - ADP - 99  
 03/31/2000 - 03/31/2002 FY01: \$40,000 Total: \$90,000  
*Prin. Invest.: D BRANCH*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9745** UNIV OF OKLAHOMA - NORMAN 7788  
 X-RAY SPECTRAL & VARIABILITY STUDIES OF AGN ADP 99  
 06/29/2000 - 08/14/2002 FY01: \$0 Total: \$50,440  
*Prin. Invest.: K M LEIGHLY*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9991** UNIV OF OKLAHOMA - NORMAN 7789  
 NGC 6300: A NEW, BRIGHT, COMPTON-THICK SEYFERT 2 GALAXY  
 09/14/2000 - 08/31/2002 FY01: \$12,433 Total: \$25,433  
*Prin. Invest.: K M LEIGHLY*  
*Tech. Officer: GSFC/R MUSHOTZKY*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10048** UNIV OF OKLAHOMA - NORMAN 7790  
 FAR UV SPECTROSCOPY OF NARROW-LINE SEYFERT 1 GALAXY RE 1034+39  
 10/04/2000 - 08/15/2002 FY01: \$35,500 Total: \$35,500  
*Prin. Invest.: K LEIGHLY*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 10171** UNIV OF OKLAHOMA - NORMAN 7791  
 NARROW-LINE SEYFERT 1 GALAXIES (LTSA 98)  
 12/18/2000 - 05/31/2002 FY01: \$83,240 Total: \$83,240  
*Prin. Invest.: K M LEIGHLY*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10366** UNIV OF OKLAHOMA - NORMAN 7792  
 WIND EMISSION IN NARROW-LINE SEYFERT 1 GALAXIES (FUSE 00)  
 02/05/2001 - 02/14/2002 FY01: \$70,000 Total: \$70,000  
*Prin. Invest.: K M LEIGHLY*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 8 1271** UNIV OF OKLAHOMA - NORMAN 7793  
 MICROGRAVITY IMPREGNATION OF FIBER PREFORMS  
 05/02/1996 - 05/15/2000 FY01: \$0 Total: \$400,000  
*Prin. Invest.: M C ALTAN, B GRADY, F C LAI*  
*Tech. Officer: MSFC/D R WOODARD, MSFC/R W ALLEN*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 9 1280** UNIV OF OKLAHOMA - NORMAN 7794  
 INTEGRATED CREW PERFORMANCE ASSESSMENT AND TRAINING  
 02/02/2001 - 12/31/2003 FY01: \$143,759 Total: \$143,759  
*Prin. Invest.: R SCHLEGEL*  
*Tech. Officer: JSC/B WOOLFORD*  
*CASE Category: 56 – MEDICAL*

**NCC 2 5382** UNIV OF OKLAHOMA - NORMAN 7795  
 MINERALS & SUBMICROMETER FORMS AS BIOSIGNATURES  
 05/16/2000 - 05/14/2002 FY01: \$24,607 Total: \$30,000  
*Prin. Invest.: R D ELMORE*  
*Tech. Officer: ARC/D BLAKE*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NCC 3 787** UNIV OF OKLAHOMA - NORMAN 7796  
 INSTABILITY AND BREAKUP OF GAS JETS INJECTED IN CO FLOWING LIQUIDS  
 03/28/2000 - 11/30/2003 FY01: \$80,000 Total: \$125,000  
*Prin. Invest.: D N PARTHASAEATHY*  
*Tech. Officer: GRC/J B MCQUELLEN*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 3 791** UNIV OF OKLAHOMA - NORMAN 7797  
 ENHANCEMENT OF MICROGRAVITY FIBER IMPREGNATION USING ELECTROHYDYNAMIC INDUCTION PUMPING  
 04/11/2000 - 05/31/2001 FY01: \$0 Total: \$44,997  
*Prin. Invest.: D C LAI*  
*Tech. Officer: GRC/H C DEGROH*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 5 171** UNIV OF OKLAHOMA - NORMAN 7798  
 TO SUPPORT RESEARCH UNDER THE EXPERIMENTAL PROGRAM COMPETITIVE RESEARCH  
 12/16/1996 - 11/14/2001 FY01: \$500,000 Total: \$2,500,000  
*Prin. Invest.: V DUCA-SNOWDEN*  
*Tech. Officer: GSFC/J DASCH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 5 398** UNIV OF OKLAHOMA - NORMAN 7799  
 NASA EPSCOR: PREPARATORY GRANT PROPOSAL  
 05/14/1999 - 09/30/2001 FY01: \$0 Total: \$448,800  
*Prin. Invest.: V DUCA-SNOWDEN*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 5 586** UNIV OF OKLAHOMA - NORMAN 7800  
 OKLAHOMA NASA/EPSCOR PROGRAM  
 08/31/2001 - 08/31/2004 FY01: \$310,813 Total: \$310,813  
*Prin. Invest.: V DUCA-SNOWDEN*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 30151** UNIV OF OKLAHOMA - NORMAN 7801  
 INVESTIGATION OF LAND-ATMOSPHERE INTERACTIONS USING THE OKLAHOMAMESONET/NASA EARTH SCIENCE  
 09/01/1998 - 08/31/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.: K CRAFTWORD*  
*Tech. Officer: GSFC/M Y WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 40013** UNIV OF OKLAHOMA - NORMAN 7802  
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATIONAL COLLEGE AND FELLOWSHIP PROGRAM  
 01/30/1997 - 02/28/2001 FY01: \$0 Total: \$807,500  
*Prin. Invest.: V DUCA*  
*Tech. Officer: GSFC/L KEFFER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 40111** UNIV OF OKLAHOMA - NORMAN 7803  
 OKLAHOMA SPACE GRANT COLLEGE & FELLOWSHIP PROGRAM  
 03/06/2001 - 02/28/2002 FY01: \$212,500 Total: \$212,500  
*Prin. Invest.: V DUCA-SNOWDEN*  
*Tech. Officer: GSFC/D D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

## OREGON

**NCC 2 1190** OREGON GRAD INST OF SCI & TECH 7804  
 IMPLEMENTATION OF SENSOR FUSION ALGORITHMS IN MATLAB AB  
 07/25/2000 - 03/31/2001 FY01: -\$3,705 Total: \$30,000  
*Prin. Invest.: M PAVEL*  
*Tech. Officer: ARC/A J AHUMADA*  
*CASE Category: 69 – PSYCHOLOGY, OTHER*

**NCC 2 1215** OREGON GRAD INST OF SCI & TECH 7805  
 HUMAN ERROR MODELING – PROCESS & EVALUATION  
 03/05/2001 - 10/31/2001 FY01: \$70,112 Total: \$70,112  
*Prin. Invest.: M PAVEL*  
*Tech. Officer: ARC/B L BEARD*  
*CASE Category: 69 – PSYCHOLOGY, OTHER*

**NCC 2 1218 OREGON GRAD INST OF SCI & TECH 7806**  
 ROBUST INTELLIGENT SYSTEMS BASED ON INFORMATION FU SION  
 03/14/2001 - 02/28/2002 FY01: \$269,000 Total: \$269,000  
*Prin. Invest.: M PAVEL*  
*Tech. Officer: ARC/J SKILES*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NCC 2 1253 OREGON GRAD INST OF SCI & TECH 7807**  
 BIOLOGICAL COMPUTING FOR ROBOT NAVIGATION & CONTROL  
 04/08/2001 - 02/28/2002 FY01: \$336,000 Total: \$336,000  
*Prin. Invest.: M A JABRI*  
*Tech. Officer: ARC/T R GOVINDAN*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NCC 2 1264 OREGON GRAD INST OF SCI & TECH 7808**  
 MODEL BIASED, DATA DRIVEN ADAAPTIVE FAILURE PREDIC ITON  
 05/21/2001 - 02/28/2002 FY01: \$120,000 Total: \$120,000  
*Prin. Invest.: T LEEN*  
*Tech. Officer: ARC/I TUMER*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 2 1199 OREGON HEALTH SCIENCES UNIV 7809**  
 HOW DO CELL DIVISION PLANCES SPECIFY REGIONAL GENE EXPRES-  
 SION PATTERNS IN EARLYEMBRYOS?  
 04/02/1998 - 04/30/2002 FY01: \$0 Total: \$490,495  
*Prin. Invest.: M V DANILCHIK*  
*Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 2 1287 OREGON STATE UNIV 7810**  
 TRAINING PILOTS TO PRIORITIZE TASKS  
 02/01/1999 - 02/14/2002 FY01: \$73,243 Total: \$192,520  
*Prin. Invest.: K H FUNK*  
*Tech. Officer: ARC/R K DISMUKES*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 2 1341 OREGON STATE UNIV 7811**  
 INTERACTIONS BETWEEN GRAVITY & LIGHT IN DETERMININ G PLANTFORM  
 ANALYSIS USING THE LAXY-2 MUTANT TOMA  
 07/21/1999 - 08/31/2002 FY01: \$163,428 Total: \$413,939  
*Prin. Invest.: T L LOMAX*  
*Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 3 2463 OREGON STATE UNIV 7812**  
 DEVELOPMENT AND EVALUATION OF HIGH TEMPERATURE AND SPECIAL-  
 IZED FIBER BRAGG GRATINGS  
 06/15/2000 - 09/30/2001 FY01: \$29,956 Total: \$47,953  
*Prin. Invest.: T K PLANT*  
*Tech. Officer: GRC/G ADAMOVSKY*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NAG 5 4947 OREGON STATE UNIV 7813**  
 "COUPLED ATMOSPHERE/OCEAN PROCESSES & PRIMARY PROD IN THE  
 SOUTHERN OCEAN"  
 06/23/1997 - 06/30/2001 FY01: \$412,000 Total: \$3,300,000  
*Prin. Invest.: M R ABBOTT*  
*Tech. Officer: GSFC/J A MARRA*  
*CASE Category: 33 – OCEANOGRAPHY*

**NAG 5 5311 OREGON STATE UNIV 7814**  
 ANALYSIS OF BIO-OPTICAL SIGNATURES FROM AUTONOMOUS ADOS  
 LAGRANGIAN DRIFTERS WITH SEAWIFS  
 01/23/2001 - 01/31/2002 FY01: \$16,497 Total: \$16,497  
*Prin. Invest.: R M LETELIER*  
*Tech. Officer: GSFC/J R MOISAN*  
*CASE Category: 33 – OCEANOGRAPHY*

**NAG 5 6156 OREGON STATE UNIV 7815**  
 EFFECT OF OCEAN TIDES ON THE LONG TERM ORBITAL AND OF THE  
 EARTH-MOON SYSTEM  
 09/11/1997 - 09/14/2000 FY01: \$0 Total: \$60,000  
*Prin. Invest.: G D EGBERT, NONE*  
*Tech. Officer: GSFC/B BILLS*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 6189 OREGON STATE UNIV 7816**  
 WAVES AND INSTABILITY IN THE ATMOSPHERE OF MARS  
 02/04/1998 - 06/30/2001 FY01: \$0 Total: \$250,105  
*Prin. Invest.: D BARNES*  
*Tech. Officer: GSFC/J BERGSTRALH*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 6242 OREGON STATE UNIV 7817**  
 MODELING CARBON DYNAMICS AND THEIR ECONOMIC IMPLIC REGIONS:  
 PACIFIC NORTHWESTERN USA AND NORTHWESTER  
 08/19/1997 - 08/31/2001 FY01: \$0 Total: \$580,000  
*Prin. Invest.: D E HARMON*  
*Tech. Officer: GSFC/G C GUTMAN*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 6530 OREGON STATE UNIV 7818**  
 THE IMPROVED ALGORITHM FOR ESTIMATING THE ATMOSPHE RIC  
 EFFECT IN SPACE MEASUREMENTS OF THE MARINE  
 12/09/1997 - 10/31/2001 FY01: \$0 Total: \$387,677  
*Prin. Invest.: K SHIFRIN*  
*Tech. Officer: GSFC/J CAMPBELL*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 6642 OREGON STATE UNIV 7819**  
 COMPREHENSIVE VALIDATION OF SATELLITE OCEAN WINDS: ADVANCED  
 TECHNIQUES AND MULTI-INSTRUMENT ANALYS  
 11/20/1997 - 04/30/2001 FY01: \$0 Total: \$585,985  
*Prin. Invest.: D FREILICH*  
*Tech. Officer: GSFC/J C DODGE*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 6647 OREGON STATE UNIV 7820**  
 RELATIONSHIPS BETWEEN THE INHERENT OPTICAL PROPERT IES  
 (IOP),BIOGEOCHEMICAL PARAMETERS A  
 12/04/1997 - 11/30/2000 FY01: \$0 Total: \$271,348  
*Prin. Invest.: J R ZANEVELD*  
*Tech. Officer: GSFC/J CAMPBELL*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 7416 OREGON STATE UNIV 7821**  
 SPATIALLY-AVERAGED FLUXES OF CO<sub>2</sub>, HEAT AND MOISTUR E  
 05/21/1998 - 12/31/2000 FY01: \$0 Total: \$126,866  
*Prin. Invest.: L MAHRT*  
*Tech. Officer: GSFC/D E WICKLAND*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 7506**           **OREGON STATE UNIV**           **7822**  
ASSESSING POTENTIAL AND ACTUAL FOREST PRODUCTIVITY ACROSS  
SOUTHWESTERN OREGON WITH TWO SIMULATION  
06/26/1998 – 06/30/2002      FY01: \$28,567      Total: \$260,910  
*Prin. Invest.: R H WARING* *Prin. Invest.: NONE*  
*Tech. Officer: GSFC/D E WICKLAND*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 7531**           **OREGON STATE UNIV**           **7823**  
EVALUATING MODEL PREDICTIONS OF CO<sub>2</sub> AND WATER VAPO R  
EXCHANGE WITHFLUX MEASUREMENTSIN A POND  
06/11/1998 – 06/30/2002      FY01: \$114,209      Total: \$651,594  
*Prin. Invest.: M H UNSWORTH*  
*Tech. Officer: GSFC/D E WICKLAND*  
*CASE Category: 39 – ENVIRONMENTALSCI, OTHER*

**NAG 5 7551**           **OREGON STATE UNIV**           **7824**  
REDUCING UNCERTAINTY IN CARBON AND ENERGY EXCHANGE OVER  
PINE FORESTS: INFLUENCE OF AGE,MANAGEMEN  
06/22/1998 – 06/30/2002      FY01: \$106,603      Total: \$841,355  
*Prin. Invest.: B LAW*  
*Tech. Officer: GSFC/D E WICKLAND*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 7686**           **OREGON STATE UNIV**           **7825**  
LIMITS TO CLOUD SUSCEPTIBILITY.  
09/15/1998 – 09/30/2001      FY01: \$98,000      Total: \$294,000  
*Prin. Invest.: J A COAKLEY, JR.*  
*Tech. Officer: GSFC/M I MISHCHENKO*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 7856**           **OREGON STATE UNIV**           **7826**  
BIGFOOT--CHARACTERIZING LAND COVER, LAI, AND NPP AT THE LAND-  
SCAPE SCALE FOR EOS/MODIS VALIDATION  
12/14/1998 – 11/30/2001      FY01: \$238,976      Total: \$711,925  
*Prin. Invest.: W B COHEN*  
*Tech. Officer: GSFC/D E WICKLAND*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8261**           **OREGON STATE UNIV**           **7827**  
CONSTRUCTION TO COMPLETE THE ENVIRONMENTAL COMPUTI NG  
CENTER  
02/17/1999 – 01/31/2002      FY01: \$0      Total: \$2,000,000  
*Prin. Invest.: G DALRYMPLE*  
*Tech. Officer: GSFC/R A SCHIFFER*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 8315**           **OREGON STATE UNIV**           **7828**  
INTEGRATING MICROWAVE AND HYPERSPECTRAL REMOTE SENSING FOR  
ESTIMATING VEGETATION STRUCTUREAND BIOMA  
03/24/1999 – 02/28/2002      FY01: \$39,345      Total: \$111,509  
*Prin. Invest.: B E LAW*  
*Tech. Officer: HQ/D WICKLAND*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8400**           **OREGON STATE UNIV**           **7829**  
USING DISTRIBUTED OBJECT-BASED FRAMEWORKS TO SUPPORT EOS  
DATA ACCESS AND VISUALIZATION  
05/20/1999 – 05/31/2002      FY01: \$0      Total: \$127,000  
*Prin. Invest.: M S ABBOTT*  
*Tech. Officer: GSFC/K MOE*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 5 8601**           **OREGON STATE UNIV**           **7830**  
SPATIAL VARIATION OF SURFACE MOISTURE FLUXES IN SPG  
06/17/1999 – 06/14/2002      FY01: \$60,116      Total: \$159,902  
*Prin. Invest.: L MAHRT*  
*Tech. Officer: GSFC/E T ENGMAN*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8969**           **OREGON STATE UNIV**           **7831**  
EOS TERRA DIRECT BROADCAST RECEIVING STATION: SUPPORT FOR  
OCEAN & TERRESTRIAL ECOLOGY  
01/24/2000 – 12/31/2001      FY01: \$0      Total: \$550,000  
*Prin. Invest.: M R ABBOTT*  
*Tech. Officer: GSFC/J DODGE*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9159**           **OREGON STATE UNIV**           **7832**  
JASON-1 INVESTIGATION: ALTIMETRIC STUDIES OF OCEAN TIDAL  
DYNAMICS  
03/06/2000 – 03/31/2002      FY01: \$62,791      Total: \$114,791  
*Prin. Invest.: G D EGBERT*  
*Tech. Officer: GSFC/R RAY*  
*CASE Category: 33 – OCEANOGRAPHY*

**NAG 5 9428**           **OREGON STATE UNIV**           **7833**  
SYNTHESIS & ALTERATION OF HIGHER MOLECULAR WEIGHT ORGANIC  
COMPOUNDS UNDER HYDROTHERMAL CONDITIONS  
04/11/2000 – 04/14/2002      FY01: \$100,000      Total: \$194,200  
*Prin. Invest.: B T SIMONEIT*  
*Tech. Officer: GSFC/M MEYER*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 9446**           **OREGON STATE UNIV**           **7834**  
MICROBES IN SILICATE ROCKS ON EARTH: ANALOGUES OF EXTANT &  
FOSSIL MICROBIAL HABITATS ON OTHER  
04/13/2000 – 04/14/2002      FY01: \$51,000      Total: \$99,042  
*Prin. Invest.: M FISK*  
*Tech. Officer: GSFC/M MEYER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9677**           **OREGON STATE UNIV**           **7835**  
SUPPORT FOR THE GOFC BOREAL FOREST WORKSHOP, NASA SIBERIAN  
NETWORK, AND EWG BOREAL FOREST PROJECT  
06/02/2000 – 10/31/2001      FY01: \$0      Total: \$38,641  
*Prin. Invest.: O N KRANKINA*  
*Tech. Officer: GSFC/G GUTMAN*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9771**           **OREGON STATE UNIV**           **7836**  
STUDIES OF MGS TES AND MPF MET DATA  
06/29/2000 – 06/30/2002      FY01: \$59,600      Total: \$119,200  
*Prin. Invest.: J R BARNES*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

<b>NAG 5 10614</b>	<b>OREGON STATE UNIV</b>	<b>7837</b>	<b>NAG 5 11223</b>	<b>OREGON STATE UNIV</b>	<b>7845</b>
GOFC SUPPORT, WORKSHOP IN RUSSIA 03/16/2001 - 08/31/2002	FY01: \$39,173	Total: \$39,173	USING REMOTE SENSING & IN SITU NETWORK OBSERVATION S TO EVALUATE & IMPROVE THE PERFORMANCE OF 08/09/2001 - 07/31/2004	FY01: \$76,090	Total: \$76,090
<i>Prin. Invest.: O N KRANKINA</i> <i>Tech. Officer: GSFC/G GUTMAN</i> <i>CASE Category: 99 - MULTI INTERDISCPL, OTHER</i>			<i>Prin. Invest.: B LAW</i> <i>Tech. Officer: GSFC/D WICKLAND</i> <i>CASE Category: 99 - MULTI INTERDISCPL, OTHER</i>		
<b>NAG 5 10623</b>	<b>OREGON STATE UNIV</b>	<b>7838</b>	<b>NAG 5 11231</b>	<b>OREGON STATE UNIV</b>	<b>7846</b>
THE REFINEMENT OF THE ATMOSPHERIC CORRECTION ALGORITHM FOR SPACE-DERIVING THE MARINE CHLOROPHYLL 03/19/2001 - 03/14/2002	FY01: \$145,495	Total: \$145,495	REGIONAL CARBON DIOXIDE FLUXES OVER HETEROGENEOUS TERRAIN 08/13/2001 - 08/14/2004	FY01: \$184,525	Total: \$184,525
<i>Prin. Invest.: K S SHIFRIN</i> <i>Prin. Invest.: NONE</i> <i>Tech. Officer: GSFC/J MARRA</i> <i>CASE Category: 33 - OCEANOGRAPHY</i>			<i>Prin. Invest.: L MAHRT</i> <i>Tech. Officer: GSFC/D WICKLAND</i> <i>CASE Category: 99 - MULTI INTERDISCPL, OTHER</i>		
<b>NAG 5 11046</b>	<b>OREGON STATE UNIV</b>	<b>7839</b>	<b>NAG 5 11250</b>	<b>OREGON STATE UNIV</b>	<b>7847</b>
DYNAMICS AND CIRCULATION OF THE MARTIAN ATMOSPHERE 06/20/2001 - 06/30/2002	FY01: \$74,000	Total: \$74,000	DRIVING FORCES OF CHANGE IN REGIONAL CARBON STOCKS : COMPARISON OF THE WESTERN OREGON, AND ST. PET 08/20/2001 - 08/14/2004	FY01: \$187,238	Total: \$187,238
<i>Prin. Invest.: J BARNES</i> <i>Tech. Officer: GSFC/D BOGAN</i> <i>CASE Category: 31 - ATMOSPHERIC SCIENCE</i>			<i>Prin. Invest.: O KRANKINA</i> <i>Tech. Officer: GSFC/G GUTMAN</i> <i>CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</i>		
<b>NAG 5 11105</b>	<b>OREGON STATE UNIV</b>	<b>7840</b>	<b>NAS 1 98140</b>	<b>OREGON STATE UNIV</b>	<b>7848</b>
ADVANCED VALIDATION OF AMSR WIND SPEED MEASUREMENT USING BUOY, SCATTEROMETER, AND NWP SURFACE ANALYS 07/13/2001 - 08/31/2002	FY01: \$28,809	Total: \$28,809	CHARACTERIZATION OF CLOUDS AND THE ANISOTROPY OF EMITTED AND REFLECTED RADIANCES 10/29/1998 - 10/28/2002	FY01: \$212,826	Total: \$561,235
<i>Prin. Invest.: M H FREILICH</i> <i>Tech. Officer: GSFC/D STARR</i> <i>CASE Category: 19 - PHYSICAL SCIENCE, OTHER</i>			<i>Prin. Invest.: J COAKLEY</i> <i>Tech. Officer: LARC/B A WIELICKI, LARC/R L HUFFMAN</i> <i>CASE Category: 31 - ATMOSPHERIC SCIENCE</i>		
<b>NAG 5 11125</b>	<b>OREGON STATE UNIV</b>	<b>7841</b>	<b>NAS 1 99104</b>	<b>OREGON STATE UNIV</b>	<b>7849</b>
COUPLED ATMOSPHERE/OCEAN PROCESSES AND PRIMARY PRODUCTION IN THE SOUTHERN OCEAN 08/01/2001 - 06/30/2003	FY01: \$270,027	Total: \$270,027	DETERMINATION OF THE INDIRECT RADIATIVE FORCING DUE TO AEROSOLS 05/17/1999 - 05/16/2002	FY01: \$10,850	Total: \$23,950
<i>Prin. Invest.: M R ABBOTT</i> <i>Tech. Officer: GSFC/J MARRA</i> <i>CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</i>			<i>Prin. Invest.: J M COAKLEY, JR.</i> <i>Tech. Officer: LARC/G GIBSON</i> <i>CASE Category: 31 - ATMOSPHERIC SCIENCE</i>		
<b>NAG 5 11148</b>	<b>OREGON STATE UNIV</b>	<b>7842</b>	<b>NAS 5 31360</b>	<b>OREGON STATE UNIV</b>	<b>7850</b>
A ONE-YEAR PILOT STUDY FOR THE INCLUSION OF ACTIVE OPTICAL SENSORS INTO PALACE FLOATS 07/30/2001 - 07/31/2002	FY01: \$27,977	Total: \$27,977	MODIS INVESTIGATION 12/30/1991 - 12/14/2001	FY01: \$611,000	Total: \$4,737,000
<i>Prin. Invest.: E BOSS</i> <i>Tech. Officer: GSFC/J MARRA</i> <i>CASE Category: 33 - OCEANOGRAPHY</i>			<i>Prin. Invest.: M R ABBOTT</i> <i>Tech. Officer: GSFC/H OSEROFF</i> <i>CASE Category: 33 - OCEANOGRAPHY</i>		
<b>NAG 5 11190</b>	<b>OREGON STATE UNIV</b>	<b>7843</b>	<b>NAS 5 32965</b>	<b>OREGON STATE UNIV</b>	<b>7851</b>
ECOSYSTEMS STRUCTURE AND CARBON CYCLING IN THE NOR TH PACIFIC: MODELING & DATA ASSIMILATION 08/17/2001 - 08/31/2004	FY01: \$216,950	Total: \$216,950	SEAWINDS PRINCIPAL INVESTIGATOR & SCIENCE TEAM ACTIVITIES 09/15/1995 - 12/31/2004	FY01: \$2,243,955	Total: \$7,540,085
<i>Prin. Invest.: Y SPITZ</i> <i>Tech. Officer: GSFC/J MARRA</i> <i>CASE Category: 99 - MULTI INTERDISCPL, OTHER</i>			<i>Prin. Invest.: D H FREILICH</i> <i>Tech. Officer: GSFC/C RABER</i> <i>CASE Category: 31 - ATMOSPHERIC SCIENCE</i>		
<b>NAG 5 11222</b>	<b>OREGON STATE UNIV</b>	<b>7844</b>	<b>NCC 2 1102</b>	<b>OREGON STATE UNIV</b>	<b>7852</b>
LINKING IN-SITU MEASUREMENTS, REMOTE SENSING, AND MODELS TO VALIDATE MODIS PRODUCTS RELATED TO TH 08/09/2001 - 07/31/2004	FY01: \$24,628	Total: \$24,628	INVESTIGATION OF THE CIRCULATION OF THE MARTIAN AT MOSPHERE USING DYNAMICAL MODELS 04/01/1999 - 12/31/2001	FY01: \$16,891	Total: \$49,306
<i>Prin. Invest.: D P TURNER</i> <i>Prin. Invest.: NONE</i> <i>Tech. Officer: GSFC/D WICKLAND</i> <i>CASE Category: 99 - MULTI INTERDISCPL, OTHER</i>			<i>Prin. Invest.: J R BARNES</i> <i>Tech. Officer: ARC/R M HABERLE</i> <i>CASE Category: 31 - ATMOSPHERIC SCIENCE</i>		

**NCC 2 5427**           **OREGON STATE UNIV**           **7853**  
 PREPARATION OF THE ZAPS INSTRUMENT PACKAGE FOR THE VAILULU MISSION  
 03/09/2001 - 01/31/2002     FY01: \$15,000           Total: \$15,000  
*Prin. Invest.: G P KLINKHAMMER*  
*Tech. Officer: ARC/M T FLYNN, ARC/C A STOCKER*  
*CASE Category: 33 – OCEANOGRAPHY*

**NCC13 98004**           **OREGON STATE UNIV**           **7854**  
 AFFILIATED RESEARCH CENTER PROGRAM SAME  
 08/04/1998 - 06/30/2001     FY01: \$14,959           Total: \$398,292  
*Prin. Invest.: KIMERLING*  
*Tech. Officer: SSC/N SOVIK*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 2 52245**           **OREGON STATE UNIV**           **7855**  
 MESOSCALE MODEL OF THE MARTIAN ATMOSPHERE  
 08/11/1998 - 08/14/2001     FY01: \$0                  Total: \$66,000  
*Prin. Invest.: J R BARNES*  
*Tech. Officer: ARC/R M HABERLE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NGT 5 96**              **OREGON STATE UNIV**           **7856**  
 GLOBAL CLIMATE CHANGE EFFECTS ON CARBON SEQUESTRATION  
 MEDIATED BY SOIL MICROORGANISMS  
 08/20/1999 - 08/31/2002     FY01: \$22,000           Total: \$66,000  
*Prin. Invest.: R P DICK, V GEWIN*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 30181**           **OREGON STATE UNIV**           **7857**  
 FUNCTIONAL GROUPING OF PLANTS IN FLORIDA SCRUB HABITAT/STUDENT: TAMMY FOSTER  
 08/23/1999 - 08/31/2002     FY01: \$0                  Total: \$44,000  
*Prin. Invest.: B BOND*  
*Tech. Officer: GSFC/M Y WEI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 30185**           **OREGON STATE UNIV**           **7858**  
 RIGHT WHALE ECOLOGY IN THE NORTHWEST ATLANTIC OCEAN/STUDENT--MARK BAUMGARTNER  
 08/19/1999 - 08/31/2002     FY01: \$22,000           Total: \$66,000  
*Prin. Invest.: B MATE*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 30214**           **OREGON STATE UNIV**           **7859**  
 COMBINING FIELD MEASUREMENTS AND SATELLITE IMAGERY WITH A PROBABILISTIC MODEL TO QUANTIFY UNCERTAIN  
 08/24/1999 - 08/31/2002     FY01: \$22,000           Total: \$44,000  
*Prin. Invest.: W B COHEN*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 30347**           **OREGON STATE UNIV**           **7860**  
 ASYSTEMATIC STUDY OF THE OPTICAL PROPERTIES OF NON SPHERICAL OCEANIC PARTICLES/STUDENT: SEAN HERRING  
 08/21/2000 - 08/31/2002     FY01: \$22,000           Total: \$44,000  
*Prin. Invest.: W PEGAU*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 30387**           **OREGON STATE UNIV**           **7861**  
 SCALING UP NOCTURNAL CO<sub>2</sub> AND WATER VAPOR FLUXES WITH MICRO-METEOROLOGICAL NETWORKS/REINA NAKAMURA  
 08/13/2001 - 08/31/2004     FY01: \$22,000           Total: \$22,000  
*Prin. Invest.: L MAHRT*  
*Tech. Officer: GSFC/W WEI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 40022**           **OREGON STATE UNIV**           **7862**  
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE AND FELLOWSHIP PROGRAM.  
 02/13/1997 - 02/28/2001     FY01: -\$148,553        Total: \$802,197  
*Prin. Invest.: A C KLEIN*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 40103**           **OREGON STATE UNIV**           **7863**  
 OREGON SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM  
 03/01/2001 - 02/28/2002     FY01: \$404,803        Total: \$404,803  
*Prin. Invest.: A C KLEIN*  
*Tech. Officer: GSFC/D D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9579**           **PORTRLAND STATE UNIV**           **7864**  
 RECOGNIZING THE SIGNATURES OF HYPERTHERMOPHILIC BIOFILMS: GEYSERITES, EPITHERMAL DEPOSITS & ANC  
 05/10/2000 - 04/30/2002     FY01: \$109,020        Total: \$178,960  
*Prin. Invest.: S CADY*  
*Tech. Officer: GSFC/M MEYER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 11309**           **PORTRLAND STATE UNIV**           **7865**  
 ICE SHELVES AND LANDFAST ICE ON THE ANTARCTIC PERI METER CHARACTERISTICS AND EFFECTS OF CLIMATE CHAN  
 08/30/2001 - 08/31/2003     FY01: \$10,300        Total: \$10,300  
*Prin. Invest.: C HULBE*  
*Tech. Officer: GSFC/W ABDALATI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 8 1283**           **PORTRLAND STATE UNIV**           **7866**  
 JOVE RESEARCH  
 01/21/1997 - 08/31/2000     FY01: -\$1,028        Total: \$53,886  
*Prin. Invest.: A M FRASER*  
*Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NCC 2 1152**           **PORTRLAND STATE UNIV**           **7867**  
 AN EXPLORATORY STUDY TO CHARACTERIZE AND EVALUATE IV & V ROI  
 01/19/2000 - 01/14/2001     FY01: \$0                Total: \$94,228  
*Prin. Invest.: D M RAFFO*  
*Tech. Officer: ARC/Y F SIAMAK*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 1 2010**           **UNIV OF OREGON - EUGENE**           **7868**  
 ATMOSPHERIC AND SPECTROSCOPIC RESEARCH IN THE FAR INFRARED  
 02/23/1998 - 02/21/2002     FY01: \$0                Total: \$112,000  
*Prin. Invest.: K PARK*  
*Tech. Officer: LARC/G NOLT*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 3 1934** UNIV OF OREGON - EUGENE 7869  
 NUCLEATION OF QUANTIZED VORTICES FROM ROTATING SUPERFLUID DROPS  
 08/05/1996 – 01/01/2001 FY01: \$10,000 Total: \$249,000  
*Prin. Invest.: D J DONNELLY*  
*Tech. Officer: GRC/B S SINGH*  
*CASE Category: 13 – PHYSICS*

**NAG 5 6109** UNIV OF OREGON - EUGENE 7870  
 THE FORMATION AND EVOLUTION OF LSB GALAXIES  
 07/24/1997 – 10/31/2001 FY01: \$0 Total: \$164,039  
*Prin. Invest.: D SCHOMBERT*  
*Tech. Officer: GSFC/D GOLOMBEK*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8505** UNIV OF OREGON - EUGENE 7871  
 INSTABILITIES IN PROTOSTELLAR STAR/DISK SYSTEMS (ATP – 98)  
 05/10/1999 – 04/30/2002 FY01: \$27,513 Total: \$76,358  
*Prin. Invest.: J IMAMURA*  
*Tech. Officer: GSFC/R K OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10709** UNIV OF OREGON - EUGENE 7872  
 ACCRETION FLOWS IN MAGNETIC WHITE DWARF SYSTEMS (ADP 2000)  
 04/23/2001 – 04/30/2002 FY01: \$28,250 Total: \$28,250  
*Prin. Invest.: J IMAMURA*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 11300** UNIV OF OREGON - EUGENE 7873  
 GALAXY PHOTOMETRY FOR NASA/IPAC EXTRAGALACTIC DATA BASE  
 08/29/2001 – 08/31/2004 FY01: \$37,709 Total: \$37,709  
*Prin. Invest.: J SCHOMBERT*  
*Tech. Officer: GSFC/P E HUNTER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 2 1089** UNIV OF OREGON - EUGENE 7874  
 AFFECT & AERONAUTICAL DECISION-MAKING  
 02/02/1999 – 01/14/2002 FY01: \$168,698 Total: \$368,313  
*Prin. Invest.: R MAURO*  
*Tech. Officer: ARC/I BARSHI*  
*CASE Category: 69 – PSYCHOLOGY, OTHER*

**NCC 2 5299** UNIV OF OREGON - EUGENE 7875  
 THE EFFECT OF UV RADIATION ON THE ESTABLISHMENT & INTEGRITY OF MICROBIAL MATS  
 07/11/2000 – 12/31/2000 FY01: \$0 Total: \$51,479  
*Prin. Invest.: R W CASTENHOLZ*  
*Tech. Officer: ARC/B M BEBOUT, ARC/D J DES MARAIS*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NCC 2 5306** UNIV OF OREGON - EUGENE 7876  
 CONSOLIDATED CULTURE COLLECTION OF MICROORGANISMS FOR EXTREME ENVIRONMENTS  
 01/21/1999 – 12/31/2000 FY01: \$0 Total: \$83,000  
*Prin. Invest.: R W CASTENHOLZ*  
*Tech. Officer: ARC/C P MCKAY*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NCC 2 5409** UNIV OF OREGON - EUGENE 7877  
 CULTURE COLLECTION OF MICRO-ORGANISMS FROM EXTREME ENVIRONMENTS & THE ROLE OF THE UV-SHIELDING PIGM  
 11/22/2000 – 12/31/2001 FY01: \$93,764 Total: \$93,764  
*Prin. Invest.: R W CASTENHOLZ*  
*Tech. Officer: ARC/B M BEBATH, ARC/M L FONDA*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NCC 3 880** UNIV OF OREGON - EUGENE 7878  
 DEVELOPMENT OF A SELF-PACED COMPUTER BASED TRAINING PROGRAM ON IN-FLIGHT ICING  
 03/23/2001 – 06/30/2002 FY01: \$210,874 Total: \$210,874  
*Prin. Invest.: R MAURO*  
*Tech. Officer: GRC/T H BOND*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NGT 5 50107** UNIV OF OREGON - EUGENE 7879  
 POTENTIAL VEGETATION CHANGE IN NORTH AMERICA IN RESPONSE TO CLIMATE WARMING  
 09/06/1997 – 02/28/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.: P BARTLEIN*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

## PENNSYLVANIA

**NAG 5 3617** ALLEGHENY COLLEGE 7880  
 ASSESSING THE IMPACTS OF EL NINO CLIMATIC EVENTS ON PHILIPPINE ECONOMY  
 02/21/1997 – 12/14/1999 FY01: -\$4,077 Total: \$131,064  
*Prin. Invest.: D BENSEL, NONE*  
*Tech. Officer: GSFC/A J TUYAHOV*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 7964** BLOOMSBURG UNIV 7881  
 REMOTE SENSING OF FRACTAL PLANETARY SURFACES  
 01/11/1999 – 01/14/2002 FY01: \$34,000 Total: \$146,300  
*Prin. Invest.: M K SHEPARD*  
*Tech. Officer: GSFC/J GRANT*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8679** BUCKNELL UNIV 7882  
 INVESTIGATION OF AERODYNAMIC AND RADIOMETRIC LAND SURFACE TEMPERATURES  
 07/27/1999 – 08/14/2002 FY01: \$65,645 Total: \$170,060  
*Prin. Invest.: R D CRAGO*  
*Tech. Officer: GSFC/E T ENGMAN*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8699** BUCKNELL UNIV 7883  
 IMPROVED PREDICTION OF MOMENTUM AND SCALAR FLUXES USING MODIS IMAGERY  
 08/17/1999 – 08/14/2002 FY01: \$19,330 Total: \$56,250  
*Prin. Invest.: R D CRAGO*  
*Tech. Officer: GSFC/E T ENGMAN*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 10129**            **BUCKNELL UNIV**            **7884**  
 SATELLITE-BASED ESTIMATION OF AERODYNAMIC ROUGHNESS FOR  
 GLOBAL CLIMATE STUDIES  
 12/06/2000 - 12/14/2001      FY01: \$5,000      Total: \$5,000  
*Prin. Invest.: R D CRAGO*  
*Tech. Officer: GSFC/M F JASINSKI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 10821**            **BUCKNELL UNIV**            **7885**  
 SOFTWARE AND HARDWARE SYSTEM FOR PREDICTING THE COMPUTATIONAL SPEED OF HIGH PERFORMANCE COMPUTERS  
 04/26/2001 - 05/14/2002      FY01: \$75,497      Total: \$75,497  
*Prin. Invest.: M F ABURDENE*  
*Tech. Officer: GSFC/J DORBAND*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NAG 1 2090**            **CARNEGIE – MELLON UNIV**            **7886**  
 NOVEL SCALABLE ALGORITHMS FOR AEROSPACE DESIGN OPTIMIZATION  
 ON MASSIVELY PARALLEL COMPUTERS  
 07/21/1998 - 08/31/2001      FY01: \$71,000      Total: \$276,403  
*Prin. Invest.: O GHATTAS*  
*Tech. Officer: LARC/R T BIEDRON, GSFC/J SOBIESKI*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 2 1230**            **CARNEGIE – MELLON UNIV**            **7887**  
 APPLICATION SPECIFIC SUPER COMPUTING  
 06/16/1998 - 04/30/2001      FY01: \$100,000      Total: \$1,149,288  
*Prin. Invest.: T C MOWRY, O C GHATTAS, D R O'HALLARON*  
*Tech. Officer: ARC/C H SCHULBACH*  
*CASE Category: 29 – MATH/COMPUTER SCI, OTHER*

**NAG 2 1276**            **CARNEGIE – MELLON UNIV**            **7888**  
 UAV MODELING & CONTROL  
 01/04/1999 - 11/30/2000      FY01: \$0      Total: \$144,372  
*Prin. Invest.: C E THORPE*  
*Tech. Officer: ARC/M B TISCHLER*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 2 1393**            **CARNEGIE – MELLON UNIV**            **7889**  
 MODEL-BASED PROGRAMMING SKUNKWORKS  
 02/01/2000 - 04/30/2002      FY01: \$50,000      Total: \$140,000  
*Prin. Invest.: R SIMMONS*  
*Tech. Officer: ARC/M SHIRLEY*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 2 1402**            **CARNEGIE – MELLON UNIV**            **7890**  
 AUTOMATED VERIFICATION OF DIAGNOSTIC MODELS  
 04/12/2000 - 05/31/2002      FY01: \$80,000      Total: \$145,000  
*Prin. Invest.: R G SIMMONS*  
*Tech. Officer: ARC/M LOWRY*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 2 1408**            **CARNEGIE – MELLON UNIV**            **7891**  
 MEMORY-BASED ACTIVE LEARNING OF DYNAMIC CONTROL  
 05/30/2000 - 09/30/2000      FY01: \$0      Total: \$30,777  
*Prin. Invest.: J SCHNEIDER*  
*Tech. Officer: ARC/N MUSCETTOLA*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 2 1441**            **CARNEGIE – MELLON UNIV**            **7892**  
 HUAV FLIGHTDYNAMICS & CONTROL  
 09/28/2000 - 08/31/2002      FY01: \$38,200      Total: \$197,070  
*Prin. Invest.: W C MESSNER, C E THORPE*  
*Tech. Officer: ARC/M B TISCHLER*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 2 1472**            **CARNEGIE – MELLON UNIV**            **7893**  
 EFFECTIVE TEAM SUPPORT: FROM MODELING TO SOFTWARE AGENTS  
 04/06/2001 - 03/31/2002      FY01: \$442,776      Total: \$442,776  
*Prin. Invest.: B JOHN, K SYCARA*  
*Tech. Officer: ARC/M P MATESSA*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 3 2159**            **CARNEGIE – MELLON UNIV**            **7894**  
 LATEAL MOTION OF PARTICLES AND BUBBLES CAUSED BY PHORETIC  
 FLOWS NEAR A SOLID INTERFACE  
 04/22/1998 - 12/31/2002      FY01: \$100,000      Total: \$380,000  
*Prin. Invest.: P J SIDES, Y E SOLOMENTSER, J L ANDERSON*  
*Tech. Officer: GRC/R B ROGERS*  
*CASE Category: 13 – PHYSICS*

**NAG 3 2449**            **CARNEGIE – MELLON UNIV**            **7895**  
 MICROSCALE HYDRODYNAMICS NEAR MOVING CONTACT LINES MICRO-  
 SCALE HYDRODYNAMICS NEAR MOVING CONTACT LINE  
 06/12/2000 - 05/18/2005      FY01: \$178,676      Total: \$236,696  
*Prin. Invest.: S GAROFF*  
*Tech. Officer: GRC/B S SINGH*  
*CASE Category: 13 – PHYSICS*

**NAG 3 2640**            **CARNEGIE – MELLON UNIV**            **7896**  
 NANOSTRUCTURAL ELECTROCHEMICALLY ACTIVE SYSTEMS FO R LITH-  
 IUM-ION BATTERIES  
 06/25/2001 - 05/31/2004      FY01: \$50,000      Total: \$50,000  
*Prin. Invest.: P N KUMTA*  
*Tech. Officer: GRC/D L BRITTON*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NAG 5 3651**            **CARNEGIE – MELLON UNIV**            **7897**  
 MISSION SCIENTIST FOR ESA'S X-RAY MULTI-MIRROR MIS  
 03/06/1997 - 02/29/2000      FY01: \$0      Total: \$410,000  
*Prin. Invest.: D GRIFFITHS*  
*Tech. Officer: GSFC/D MACHI*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 6548**            **CARNEGIE – MELLON UNIV**            **7898**  
 A NEW LOOK AT CLUSTER EVOLUTION (LTSA)  
 10/29/1997 - 10/31/2000      FY01: \$0      Total: \$149,500  
*Prin. Invest.: R NICHOL*  
*Tech. Officer: GSFC/D WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7707**            **CARNEGIE – MELLON UNIV**            **7899**  
 ANTARCTIC METEORITE SEARCH DEMONSTRATION  
 09/17/1998 - 08/31/2001      FY01: \$182,000      Total: \$1,182,000  
*Prin. Invest.: W WHITTAKER*  
*Tech. Officer: GSFC/D LAVERY*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7898**           **CARNEGIE - MELLON UNIV**           **7900**  
 CLUES TO THE ORIGIN OF THE HARD X-RAY BACKGROUND: ASCA DEEP  
 SURVEYS OF DEEP ROSAT FIELDS (ADP98)  
 01/12/1999 - 12/31/1999      FY01: -\$10      Total: \$46,716  
*Prin. Invest.: R E GRIFFITHS*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 7926**           **CARNEGIE - MELLON UNIV**           **7901**  
 THE VIPER SUNYAEV-ZELDOVICH SURVEY\_(LTSA 98)  
 01/03/1999 - 12/31/2001      FY01: \$90,000      Total: \$270,000  
*Prin. Invest.: A K ROMER*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 8093**           **CARNEGIE - MELLON UNIV**           **7902**  
 AN AUTOMATED SYSTEM FOR THE REDUCTION AND ANALYSIS OF X-RAY  
 DATA FROM GALAXIES  
 02/01/1999 - 06/30/2001      FY01: \$0      Total: \$146,198  
*Prin. Invest.: A F PATAK*  
*Tech. Officer: GSFC/P HUNTER*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 9242**           **CARNEGIE - MELLON UNIV**           **7903**  
 APPLICATION & ENGINEERING OF THIN FILM LITHIUM-ION BATTERIES  
 USING CARBON NANOTUBES & SOL-GEL DERIVE  
 03/10/2000 - 03/14/2001      FY01: \$0      Total: \$20,000  
*Prin. Invest.: P KUMTA*  
*Tech. Officer: GSFC/H SHAW*  
*CASE Category: 47 - METAL & MATERIALS ENGR*

**NAG 5 9309**           **CARNEGIE - MELLON UNIV**           **7904**  
 ARTIFICIAL INTELLIGENCE TECHNIQUES FOR MINERAL IDENTIFICATION  
 FROM NEAR INFRARED SPECTRA ONBOARD FUT  
 03/20/2000 - 03/14/2002      FY01: \$49,700      Total: \$97,500  
*Prin. Invest.: C GLYMOUR*  
*Tech. Officer: GSFC/J BREDEKAMP*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 9899**           **CARNEGIE - MELLON UNIV**           **7905**  
 XMM SURVEY OF THE SHARC SAMPLE: CONSTRAINING OMEGA AND  
 CLUSTER FORMATION  
 09/06/2000 - 09/14/2001      FY01: \$0      Total: \$12,700  
*Prin. Invest.: A ROMER*  
*Tech. Officer: GSFC/R F MUSHOTZKY*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9902**           **CARNEGIE - MELLON UNIV**           **7906**  
 MISSION SCIENTIST FOR ESA'S X-RAY MULTI-MIRROR MISSION  
 08/25/2000 - 08/31/2002      FY01: \$164,305      Total: \$324,305  
*Prin. Invest.: R E GRIFFITHS*  
*Tech. Officer: GSFC/N WHITE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9922**           **CARNEGIE - MELLON UNIV**           **7907**  
 XMM SEARCHES FOR IRON LINES IN LOW LUMINOSITY AGN: A TEST OF  
 ACCRETION THEORIES  
 09/05/2000 - 09/15/2001      FY01: \$0      Total: \$16,410  
*Prin. Invest.: A F PATAK*  
*Tech. Officer: GSFC/P M ATKINS*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10014**           **CARNEGIE - MELLON UNIV**           **7908**  
 'FOSSIL GROUPS' IN THE BRIGHT SHARC SURVEY  
 09/21/2000 - 09/30/2001      FY01: \$0      Total: \$18,100  
*Prin. Invest.: R C NICHOL*  
*Tech. Officer: GSFC/R MUSHOTZKY*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10043**           **CARNEGIE - MELLON UNIV**           **7909**  
 X-RAY SPECTRAL STATISTICS OF A COMPLETE HARD X-RAY -SELECTED  
 SAMPLE OF AGNS  
 11/02/2000 - 10/31/2002      FY01: \$33,400      Total: \$33,400  
*Prin. Invest.: T MIYAJI*  
*Tech. Officer: GSFC/R MUSHOTZKY*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10170**           **CARNEGIE - MELLON UNIV**           **7910**  
 X-RAY SPECTROSCOPY OF LOW-LUMINOSITY ACTIVE GALACTIC NUCLEI  
 WITH XMM  
 12/18/2000 - 12/31/2001      FY01: \$9,724      Total: \$9,724  
*Prin. Invest.: A F PATAK*  
*Tech. Officer: GSFC/R MUSHOTZKY*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10739**           **CARNEGIE - MELLON UNIV**           **7911**  
 VEXT: A VIRTUAL OBSERVATORY EXPLORATORY TOOLKIT. FULLY FUNDS  
 YEAR 1 OF AWARD  
 05/17/2001 - 05/31/2002      FY01: \$80,000      Total: \$80,000  
*Prin. Invest.: J SCHNEIDER*  
*Tech. Officer: GSFC/P E HUNTER*  
*CASE Category: 22 - COMPUTER SCIENCE*

**NAG 5 10740**           **CARNEGIE - MELLON UNIV**           **7912**  
 ADVANCED GALAXY CLUSTER DETECTION SOFTWARE.  
 04/12/2001 - 06/30/2002      FY01: \$130,000      Total: \$130,000  
*Prin. Invest.: R NICHOL*  
*Tech. Officer: GSFC/P E HUNTER*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 10875**           **CARNEGIE - MELLON UNIV**           **7913**  
 AGN X-RAY SPECTRAL EVOLUTION (LTSA 2000)  
 05/10/2001 - 08/31/2002      FY01: \$93,910      Total: \$93,910  
*Prin. Invest.: T MIYAJI*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 8 1674**           **CARNEGIE - MELLON UNIV**           **7914**  
 SHAPRE EVOLUTION KINETICS OF SMALL PARTICLES  
 06/28/2000 - 11/30/2003      FY01: \$90,250      Total: \$130,250  
*Prin. Invest.: G S ROHRER, W M MULLINS*  
*Tech. Officer: MSFC/P DOTY*  
*CASE Category: 12 - CHEMISTRY*

**NAG 8 1704**           **CARNEGIE - MELLON UNIV**           **7915**  
 LATTICE BOLTZMANN COMPUTATIONS OF BINARY DIFFUSION IN LIQUIDS  
 UNDER STOCHASTIC MICROGRAVITY  
 05/24/2000 - 11/30/2001      FY01: \$121,250      Total: \$121,250  
*Prin. Invest.: R F SEKERKA*  
*Tech. Officer: MSFC/P DOTY*  
*CASE Category: 19 - PHYSICAL SCIENCE, OTHER*

**NAG 8 1799**           **CARNEGIE - MELLON UNIV**           **7916**  
 RESEARCH ENTITLED, "ULTRA-HIGH DENSITY MEMS- ACTUATED-PROBE  
 MASS DATA STORAGE"  
 04/24/2001 - 04/23/2004      FY01: \$515,000      Total: \$515,000  
*Prin. Invest.: L R CARLEY*  
*Tech. Officer: MSFC/A KEYS*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 8 1842**           **CARNEGIE - MELLON UNIV**           **7917**  
 ELECTROOSMOTIC & ELECTROPHORETIC SELF-ASSEMBLY TECHNIQUES  
 TO PROMOTE MASS TRANSFER ON BIOSNESORS  
 08/31/2001 - 11/30/2004      FY01: \$67,000      Total: \$67,000  
*Prin. Invest.: R D TILTON*  
*Tech. Officer: MSFC/B GUYNES*  
*CASE Category: 12 – CHEMISTRY*

**NAG 9 1090**           **CARNEGIE - MELLON UNIV**           **7918**  
 ANTARTIC METEORITE SEARCH DEMONSTRATION  
 02/26/1999 - 04/15/2001      FY01: -\$182,199      Total: \$1,817,801  
*Prin. Invest.: T KANADE, W WHITAKER*  
*Tech. Officer: HQ/D LAVERY*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 9 1092**           **CARNEGIE - MELLON UNIV**           **7919**  
 AUTONOMOUS ROVER TECNOLOGY  
 03/15/1999 - 04/30/2002      FY01: \$271,800      Total: \$1,341,800  
*Prin. Invest.: T KANADE*  
*Tech. Officer: JSC/D LAVERY*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 9 1214**           **CARNEGIE - MELLON UNIV**           **7920**  
 PARTICIPATION IN THE FIRST COMPETITION 2000  
 03/03/2000 - 03/03/2001      FY01: \$0      Total: \$35,000  
*Prin. Invest.: W WHITTAKER, D APOSTOLOULOS*  
*Tech. Officer: JSC/C J CULBERT, JSC/C PRICE*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 9 1226**           **CARNEGIE - MELLON UNIV**           **7921**  
 DISTRIBUTED MULTI-ROBOT ASSEMBLY AND CONTRUCTION  
 05/12/2000 - 05/15/2001      FY01: \$0      Total: \$300,000  
*Prin. Invest.: R SIMMONS*  
*Tech. Officer: JSC/T PENDLETON, JSC/C CULBERT*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 9 1232**           **CARNEGIE - MELLON UNIV**           **7922**  
 STRATEGIC POSITIONING AND ATTITUDE COMPUTING ENGINE FOR  
 HOMING ORBITING GADGETRY  
 05/15/2000 - 12/31/2001      FY01: \$0      Total: \$250,000  
*Prin. Invest.: O AMIDI*  
*Tech. Officer: JSC/R D JUDAY*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 9 1240**           **CARNEGIE - MELLON UNIV**           **7923**  
 SKYWORKER PHASE II SPACE SOLAR POWER  
 06/29/2000 - 12/30/2000      FY01: \$0      Total: \$124,624  
*Prin. Invest.: R W WHITTAKER*  
*Tech. Officer: JSC/C J CULBERT, JSC/H ALDRIDGE*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 9 1242**           **CARNEGIE - MELLON UNIV**           **7924**  
 RESEARCH GRANT  
 06/30/2000 - 07/01/2001      FY01: \$0      Total: \$22,000  
*Prin. Invest.: D HERSHBERGER, D HERSHBERGER*  
*Tech. Officer: JSC/CFARMER, JSC/W TARKINGTON*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 9 1248**           **CARNEGIE - MELLON UNIV**           **7925**  
 AUTONOMOUS RECONNAISSANCE ROVER FOR EVA ROBOTIC AS  
 SISTANCE  
 07/18/2000 - 07/16/2003      FY01: \$50,000      Total: \$150,000  
*Prin. Invest.: D APOSTOLOPOULOS*  
*Tech. Officer: JSC/C J CULBERT, JSC/C FARMER*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 9 1256**           **CARNEGIE - MELLON UNIV**           **7926**  
 SUN SYNCHRONOUS CIRCUMNAVIGATION  
 08/21/2000 - 12/20/2001      FY01: \$0      Total: \$1,078,139  
*Prin. Invest.: W R WHITAKER*  
*Tech. Officer: JSC/C J CULBERT, JSC/H ALDRIDGE*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 9 1276**           **CARNEGIE - MELLON UNIV**           **7927**  
 PITTSBURGH PUBLIC SCHOOL DIST/CARNEGIE MELLON UNIV TEAM  
 PARTICIPATION IN FIRST COMPET  
 02/22/2001 - 05/01/2001      FY01: \$35,000      Total: \$35,000  
*Prin. Invest.: W WHITTAKER*  
*Tech. Officer: JSC/C CULBERT*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 9 1326**           **CARNEGIE - MELLON UNIV**           **7928**  
 DISTRIBUTED MULTI ROBOT ASSEMBLY AND CONSTRUCTION  
 06/19/2001 - 05/31/2002      FY01: \$181,000      Total: \$181,000  
*Prin. Invest.: R SIMMONS, S SINGH*  
*Tech. Officer: JSC/C L FARMER*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 9 1327**           **CARNEGIE - MELLON UNIV**           **7929**  
 SELF ADAPTIVE PERCEPTION SYSTEMS FOR VARYING ENVIROMENTS  
 06/21/2001 - 06/20/2002      FY01: \$22,000      Total: \$22,000  
*Prin. Invest.: R SIMMONS, S BURKETT*  
*Tech. Officer: JSC/C FARMER*  
*CASE Category: 46 – MECHANICAL ENGR*

**NCC 2 1026**           **CARNEGIE - MELLON UNIV**           **7930**  
 AUTONOMOUS SCIENCE SOFTWARE  
 03/06/1998 - 01/31/2001      FY01: \$0      Total: \$374,472  
*Prin. Invest.: C GLYMOUR*  
*Tech. Officer: ARC/TL ROUGH*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NCC 2 1188**           **CARNEGIE - MELLON UNIV**           **7931**  
 HIGH DEPENDABILITY COMPUTING CONSORTIUM  
 07/11/2000 - 12/31/2001      FY01: \$993,461      Total: \$1,043,461  
*Prin. Invest.: J H MORRIS*  
*Tech. Officer: ARC/M E DUENAS*  
*CASE Category: 22 – COMPUTER SCIENCE*

<b>NCC 2 1226</b>	<b>CARNEGIE - MELLON UNIV</b>	<b>7932</b>	<b>NGT 2 52277</b>	<b>CARNEGIE - MELLON UNIV</b>	<b>7940</b>
SIMULATING LEARNING OF COMPLEX, DYNAMIC TASKS 03/23/2001 - 02/28/2002	FY01: \$157,000	Total: \$157,000	AUTOMATED SURFACE MISSION PLANNING (STUDENT: PAUL D. THOMPSON) 06/12/2001 - 08/31/2002	FY01: \$22,000	Total: \$22,000
<i>Prin. Invest.: J R ANDERSON</i>			<i>Prin. Invest.: W L WHITTAKER, NONE</i>		
<i>Tech. Officer: ARC/M MATESSA</i>			<i>Tech. Officer: ARC/M H SIMS</i>		
<i>CASE Category: 22 – COMPUTER SCIENCE</i>			<i>CASE Category: 22 – COMPUTER SCIENCE</i>		
<b>NCC 2 1227</b>	<b>CARNEGIE - MELLON UNIV</b>	<b>7933</b>	<b>NGT 3 52370</b>	<b>CARNEGIE - MELLON UNIV</b>	<b>7941</b>
AUTOMATED DISCOVERY PROCEDURES FOR GENE EXPRESSION & REGULATION FROM MICROARRAY & SERIAL ANALYSIS O 03/16/2001 - 02/28/2002	FY01: \$298,000	Total: \$298,000	GRADUATE STUDENT RESEARCHERS PROGRAM GRADUATE STUDENT RESEARCHERS PROGRAM 06/20/2000 - 06/30/2002	FY01: \$22,000	Total: \$44,000
<i>Prin. Invest.: C GLYMOUR</i>			<i>Prin. Invest.: P N KUMTA</i>		
<i>Tech. Officer: ARC/J COUGHLAN</i>			<i>Tech. Officer: GRC/F J MONTEGANI</i>		
<i>CASE Category: 22 – COMPUTER SCIENCE</i>			<i>CASE Category: 49 – ENGINEERING, OTHER</i>		
<b>NCC 2 1241</b>	<b>CARNEGIE - MELLON UNIV</b>	<b>7934</b>	<b>NGT 3 52379</b>	<b>CARNEGIE - MELLON UNIV</b>	<b>7942</b>
FORMAL VERIFICATION TOOLS & TECHNIQUES FOR AUTOMONOUS SYSTEMS 03/28/2001 - 11/30/2001	FY01: \$75,000	Total: \$75,000	GRADUATE STUDENT RESEARCHERS PROGRAM GRADUATE STUDENT RESEARCHERS PROGRAM 06/21/2001 - 07/31/2002	FY01: \$22,000	Total: \$22,000
<i>Prin. Invest.: J WING</i>			<i>Prin. Invest.: M E MCHENRY</i>		
<i>Tech. Officer: ARC/R MORRIS, ARC/D J CLANCY</i>			<i>Tech. Officer: GRC/F J MONTEGANI</i>		
<i>CASE Category: 22 – COMPUTER SCIENCE</i>			<i>CASE Category: 49 – ENGINEERING, OTHER</i>		
<b>NCC 2 1243</b>	<b>CARNEGIE - MELLON UNIV</b>	<b>7935</b>	<b>NGT 5 50054</b>	<b>CARNEGIE - MELLON UNIV</b>	<b>7943</b>
HETEROGENEOUS MULTI-ROVER COORDINATION OF PLANETARY EXPLORATION 04/05/2001 - 02/28/2002	FY01: \$400,697	Total: \$400,697	INVESTIGATING THE MECH. OF AGGREGATION OF COLLOIDAL CRYPTOPHOTIC DEPOSITION 08/05/1997 - 12/31/1999	FY01: -\$2,380	Total: \$45,287
<i>Prin. Invest.: R SIMMONS, NONE</i>			<i>Prin. Invest.: J L ANDERSON</i>		
<i>Tech. Officer: ARC/R MORRIS, ARC/D J CLANCY</i>			<i>Tech. Officer: GSFC/L SMITH</i>		
<i>CASE Category: 22 – COMPUTER SCIENCE</i>			<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>		
<b>NCC 2 5438</b>	<b>CARNEGIE - MELLON UNIV</b>	<b>7936</b>	<b>NGT 5 50248</b>	<b>CARNEGIE - MELLON UNIV</b>	<b>7944</b>
INTELLIGENT SPACE ROBOTS IN THE NEXT 20 YEARS A SUMMER STUDY 06/21/2001 - 10/31/2001	FY01: \$20,647	Total: \$20,647	TASK EVALUATION FOR ROBOTIC EXPLORERS STUDENT: KIMBERLY SHILL-CUTT 06/04/1999 - 06/30/2001	FY01: \$0	Total: \$33,000
<i>Prin. Invest.: R SIMMONS</i>			<i>Prin. Invest.: W WHITTAKER</i>		
<i>Tech. Officer: ARC/D CLANCY, ARC/J LAN</i>			<i>Tech. Officer: GSFC/L SMITH</i>		
<i>CASE Category: 22 – COMPUTER SCIENCE</i>			<i>CASE Category: 11 – ASTRONOMY</i>		
<b>NCC 5 223</b>	<b>CARNEGIE - MELLON UNIV</b>	<b>7937</b>	<b>NGT 5 50279</b>	<b>CARNEGIE - MELLON UNIV</b>	<b>7945</b>
NATIONAL ROBOTICS ENGINEERING CONSORTIUM 08/26/1997 - 07/31/2002	FY01: \$2,874,615	Total: \$13,867,615	EFFICIENT MACHINE LEARNING ALGORITHMS FOR SCIENCE STUDENT: ALEXANDER G. GRAY 06/20/2000 - 07/31/2002	FY01: \$22,000	Total: \$44,000
<i>Prin. Invest.: T KANADE</i>			<i>Prin. Invest.: A W MOORE</i>		
<i>Tech. Officer: GSFC/B H HANKS</i>			<i>Tech. Officer: GSFC/K BLANDING</i>		
<i>CASE Category: 11 – ASTRONOMY</i>			<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>		
<b>NCC 5 431</b>	<b>CARNEGIE - MELLON UNIV</b>	<b>7938</b>	<b>NGT 5 50347</b>	<b>CARNEGIE - MELLON UNIV</b>	<b>7946</b>
EVENTSCOPE: A 3D, NETWORKED ROBOTIC LEARNING ENVIRONMENT. IN RESPONSE TO NASA COOPERATIVE AGREEMENT 09/20/1999 - 09/30/2002	FY01: \$106,835	Total: \$328,365	INTEGRATING FEATURE TRACKING AND SHAPE-FROM-MOTION FOR ROBOT VISUAL NAVIGATION/STUDENT: DENNIS STEL 05/07/2001 - 06/30/2002	FY01: \$22,000	Total: \$22,000
<i>Prin. Invest.: P COPPIN</i>			<i>Prin. Invest.: S SINGH</i>		
<i>Tech. Officer: GSFC/R E GABRYS</i>			<i>Tech. Officer: HQ/K BLANDING</i>		
<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>			<i>CASE Category: 19 – PHYSICAL SCIENCE, OTHER</i>		
<b>NCC 8 1704</b>	<b>CARNEGIE - MELLON UNIV</b>	<b>7939</b>			
LATTICE BOLTZMANN COMPUTATIONS OF BINARY DIFFUSION IN LIQUIDS UNDER STOCHASTIC MICROGRAVITY 05/24/2000 - 11/30/2001	FY01: -\$50,000	Total: \$0			
<i>Prin. Invest.: R F SEKERKA</i>					
<i>Tech. Officer: MSFC/P DOTY</i>					
<i>CASE Category: 19 – PHYSICAL SCIENCE, OTHER</i>					

**NAG 8 1312** CLARION UNIV OF PENNSYLVANIA 7947  
 JOVE RESEARCH  
 01/22/1997 - 08/31/2000 FY01: -\$22,621  
*Prin. Invest.:* A J VEGA, P T RYBERG  
*Tech. Officer:* MSFC/J F DOWDY, MSFC/J R PRUITT  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER  
 Total: \$63,379

**NAG 1 01118** DREXEL UNIV 7948  
 RECONFIGURABLE CONTROL OF AIRCRAFT IN NONLINEAR FLIGHT REGIMES  
 08/16/2001 - 08/31/2004 FY01: \$50,000 Total: \$50,000  
*Prin. Invest.:* B C CHANG  
*Tech. Officer:* LARC/C M BELCASTRO  
*CASE Category:* 41 – AERONAUTICAL ENGRN

**NAG 2 1436** DREXEL UNIV 7949  
 ALTERED SIGNAL TRANSDUCTION & DIFFERENTIAL GENE EXPRESSION IN PC12 PHEOCYTOMOCYTOMA CELLS IN CULTURE  
 09/19/2000 - 08/31/2002 FY01: \$231,594 Total: \$426,892  
*Prin. Invest.:* P I LELKES  
*Tech. Officer:* ARC/M M AVERNER, ARC/R D MACELROY  
*CASE Category:* 51 – BIOLOGY (EXCLUDING ENVIR)

**NAG 3 1884** DREXEL UNIV 7950  
 COMBUSTION OF UNCONFINED DROPLET CLUSTERS IN MICRO GRAVITY  
 06/01/1996 - 09/30/2000 FY01: \$0 Total: \$321,727  
*Prin. Invest.:* D A RUFF  
*Tech. Officer:* GRC/D D ROSS, GRC/M A SACKSTEDTER  
*CASE Category:* 46 – MECHANICAL ENGR

**NAG 3 2212** DREXEL UNIV 7951  
 DEVELOPMENT OF LEAN DIRECT WALL INJECTION (LDWI) CO-MBUSTOR  
 12/03/1998 - 09/30/2001 FY01: \$28,602 Total: \$141,182  
*Prin. Invest.:* K J CHOI  
*Tech. Officer:* GRC/R R TACINA  
*CASE Category:* 41 – AERONAUTICAL ENGRN

**NAG 3 2291** DREXEL UNIV 7952  
 ENZYMATIC CATARACTOLYSIS MONITORING USING A DYNAMIC LIGHT SCATTERING PROBE  
 09/09/1999 - 07/19/2000 FY01: -\$21,235 Total: \$0  
*Prin. Invest.:* M A DELLAVERCCHIA  
*Tech. Officer:* GRC/B S SINGH  
*CASE Category:* 49 – ENGINEERING, OTHER

**NAG 3 2295** DREXEL UNIV 7953  
 DEVELOPMENT AND VERIFICATION OF AN IMPROVED MODEL OF THE ICE ACCRETION PROCESS  
 09/29/1999 - 02/09/2001 FY01: \$0 Total: \$82,975  
*Prin. Invest.:* D A RUFF  
*Tech. Officer:* GRC/M G POTAPCZUK  
*CASE Category:* 41 – AERONAUTICAL ENGRN

**NAG 5 6029** DREXEL UNIV 7954  
 WORK IN SUPPORT OF THE NASA ESS HPCC PROGRAM  
 10/06/1997 - 03/31/2001 FY01: \$0 Total: \$520,218  
*Prin. Invest.:* B FRYSELL  
*Tech. Officer:* GSFC/J R FISCHER  
*CASE Category:* 29 – MATH/COMPUTER SCI, OTHER

**NAG 5 6964** DREXEL UNIV 7955  
 STELLAR AND BINARY EVOLUTION IN GLOBULAR CLUSTERS – ATP  
 02/10/1998 - 02/14/2002 FY01: \$0 Total: \$350,826  
*Prin. Invest.:* S L MCMILLAN  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 8929** DREXEL UNIV 7956  
 SCHOOL-BASED UV-B MONITORING PROJECT IN SUPPORT OF EOS-CHEM  
 01/13/2000 - 01/14/2002 FY01: \$101,739 Total: \$184,949  
*Prin. Invest.:* D R BROOKS  
*Tech. Officer:* GSFC/E HILSENRATH  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NAG 5 9264** DREXEL UNIV 7957  
 BINARY EVOLUTION IN GLOBULAR CLUSTERS – ATP  
 03/13/2000 - 03/31/2002 FY01: \$84,345 Total: \$152,411  
*Prin. Invest.:* S MCMILLAN  
*Tech. Officer:* GSFC/R OLIVERSEN  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 10026** DREXEL UNIV 7958  
 NASA ESS HPCC PROGRAM  
 10/27/2000 - 10/14/2002 FY01: \$215,000 Total: \$215,000  
*Prin. Invest.:* D VALLIERES  
*Tech. Officer:* GSFC/J FISCHER  
*CASE Category:* 22 – COMPUTER SCIENCE

**NAG 5 10775** DREXEL UNIV 7959  
 STELLAR AND BINARY EVOLUTION IN STAR CLUSTERS (ATP 2000)  
 04/24/2001 - 04/30/2002 FY01: \$70,000 Total: \$70,000  
*Prin. Invest.:* S L MCMILLAN  
*Tech. Officer:* GSFC/R J OLIVERSEN  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 11119** DREXEL UNIV 7960  
 NUMERICAL RELATIVISTIC ASTROPHYSICS AT THE LABORATORY OF HIGH ENERGY ASTROPHYSICS (LHEA).  
 08/09/2001 - 03/14/2003 FY01: \$36,181 Total: \$36,181  
*Prin. Invest.:* M VALLIERES  
*Tech. Officer:* GSFC/J CENTRELLA  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 11340** DREXEL UNIV 7961  
 LIPOSOME-ENCAPSULATED ENZYMES AS OPTICAL NANOSENSORS FOR THE DETECTION OF BIOLOGICAL PROCESSES  
 09/14/2001 - 09/14/2002 FY01: \$6,000 Total: \$6,000  
*Prin. Invest.:* M A WHEATLEY  
*Tech. Officer:* GSFC/H SHAW  
*CASE Category:* 51 – BIOLOGY (EXCLUDING ENVIR)

**NAG 9 1380** DREXEL UNIV 7962  
 INNOVATIVE CARDIAC TISSUE ENGINEERING IN RWV BIOCARS  
 09/13/2001 - 09/04/2002 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.:* P LELKES  
*Tech. Officer:* JSC/N PELLIS  
*CASE Category:* 61 – PSYCHOLOGY BIOLOGY

**NAG13 00040** DREXEL UNIV 7963  
 APPLICATION OF AN INTEGRATED MONITORING & MODELING SYSTEM  
 NARRAGANSETT BAY - INTERNET-BASED TECHNOLOGY  
 08/23/2000 - 08/22/2002 FY01: \$376,919 Total: \$886,504  
*Prin. Invest.:* M PIASECKI, M SPAULDING  
*Tech. Officer:* SSC/R MILLER  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NCC 1 278** DREXEL UNIV 7964  
 EFFECTS OF ELECTROMAGNETIC-INDUCED FAILURE MODES: MODELING  
 AND ANALYSIS MY 1/3  
 02/25/1998 - 12/31/2000 FY01: \$0 Total: \$190,900  
*Prin. Invest.:* A C LAU, B C CHANG  
*Tech. Officer:* LARC/C M BELCASTRO  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NCC 1 297** DREXEL UNIV 7965  
 A STUDY OF THE CHEMISTRY OF SULFUR IN THE INTER- TROPICAL AND  
 SOUTH PACIFIC CONVERGENCE AONES-----  
 04/28/1998 - 10/31/2002 FY01: \$0 Total: \$498,742  
*Prin. Invest.:* A R BANDY, D C THORNTON  
*Tech. Officer:* LARC/J L ROPER, LARC/R J BENDURA  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NCC 1 409** DREXEL UNIV 7966  
 AN AIRBORN STUDY OF THE CHEMISTRY OF SULFUR IN THE ATMOSPHERE  
 OF THE WESTERN NORTH PACIFIC OCEAN  
 09/11/2000 - 06/30/2002 FY01: \$158,304 Total: \$310,340  
*Prin. Invest.:* A R BANDY  
*Tech. Officer:* LARC/J L RAPER, SR  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NCC 3 822** DREXEL UNIV 7967  
 EXPERIMENTAL AND MODEL DEVELOPMENT FOR INVESTIGATION OF  
 SOOTING AND RADIATION EFFECTS IN MICROGRAVITY  
 08/17/2000 - 12/31/2002 FY01: \$160,244 Total: \$215,330  
*Prin. Invest.:* D CHOI  
*Tech. Officer:* GRC/D L URBAN  
*CASE Category:* 49 – ENGINEERING, OTHER

**NCC 3 825** DREXEL UNIV 7968  
 DEVELOPMENT OF THERMALLY SPRAYED FGM EROSION/OXIDATION  
 RESISTANT COATING FOR POLYMERIC SUBSTRATES  
 09/26/2000 - 08/31/2003 FY01: \$35,380 Total: \$70,760  
*Prin. Invest.:* D KNIGHT  
*Tech. Officer:* GRC/J K SUTTER  
*CASE Category:* 47 – METAL & MATERIALS ENGR

**NCC 3 835** DREXEL UNIV 7969  
 A PRELIMINARY INVESTIGATION OF THE E-BEAM INDUCED POLYMERIZATION  
 OF MALEIMIDE AND NORBORNENE END-CAP  
 12/15/2000 - 03/31/2002 FY01: \$92,381 Total: \$92,381  
*Prin. Invest.:* D R PALMESE  
*Tech. Officer:* GRC/M A MEADOR  
*CASE Category:* 47 – METAL & MATERIALS ENGR

**NCC 3 847** DREXEL UNIV 7970  
 COMBUSTION OF UNSUPPORTED DROPLET CLUSTERS IN MICRO GRAVITY  
 01/11/2001 - 12/18/2003 FY01: \$59,692 Total: \$59,692  
*Prin. Invest.:* D A RUFF  
*Tech. Officer:* GRC/D L URBAN  
*CASE Category:* 49 – ENGINEERING, OTHER

**NCC 3 913** DREXEL UNIV 7971  
 INVESTIGATION OF SOOTING AND RADIATION EFFECTS ON THE BURNING  
 OF LARGE ETHANOL AND HEPTANE DROPLETS  
 08/31/2001 - 07/12/2002 FY01: \$11,250 Total: \$11,250  
*Prin. Invest.:* D Y CHOI  
*Tech. Officer:* GRC/D L URBAN  
*CASE Category:* 49 – ENGINEERING, OTHER

**NCC 9 130** DREXEL UNIV 7972  
 PC12 PHEOCHROMOCYTOMA CELLS  
 05/29/2001 - 05/30/2003 FY01: \$168,150 Total: \$168,150  
*Prin. Invest.:* P LELKE  
*Tech. Officer:* JSC/D RISIN  
*CASE Category:* 51 – BIOLOGY (EXCLUDING ENVIR)

**NAG 5 6858** FRANKLIN-MARSHALL COLLEGE 7973  
 STATISTICAL ALGORITHMS FOR THE ANALYSIS OF SPACE-BASED DATA-  
 SETS  
 02/09/1998 - 02/14/2002 FY01: \$0 Total: \$63,912  
*Prin. Invest.:* D BACKMAN  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 – ASTRONOMY

**NCC 2 5365** FRANKLIN-MARSHALL COLLEGE 7974  
 THE NSTARS PROJECT: DATABASE, ASTROPHYSICS AND ASTRONOMY  
 RESEARCH AND SCIENTIFIC WORKSHOPS  
 02/01/2000 - 01/31/2001 FY01: \$0 Total: \$63,250  
*Prin. Invest.:* D BACKMAN  
*Tech. Officer:* ARC/L CAROFF  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NAG 8 1840** HAHNEMANN UNIV 7975  
 DETERGENT INTERACTIONS AFFECTING MEMBRANE PROTEIN CRYSTALLIZATION:  
 ANALYSIS & USE IN SCREEN DESIGN  
 09/28/2001 - 11/30/2004 FY01: \$81,000 Total: \$81,000  
*Prin. Invest.:* P J LOLI, J M WEINCKE  
*Prin. Invest.:* NONE  
*Tech. Officer:* MSFC/B GUYNES  
*CASE Category:* 19 – PHYSICAL SCIENCE, OTHER

**NAG 5 9285** HAVERFORD COLLEGE 7976  
 LARGE-SCALE STRUCTURE IN THE X-RAY BACKGROUND AND LIMITS ON  
 COSMOLOGICAL PARAMETERS FROM THE INTEGRAL  
 04/17/2000 - 04/30/2002 FY01: \$25,594 Total: \$54,764  
*Prin. Invest.:* S P BOUGHN  
*Tech. Officer:* GSFC/R J OLIVERSEN  
*CASE Category:* 11 – ASTRONOMY

**NAG 9 1196** LA SALLE UNIV 7977  
 ANALYSIS AND DESIGN OF AUTOMATION ASSISTANTS FOR FLIGHT  
 CONTROLLER TEAMS IN THE MISSION CONTROL CNT  
 01/24/2000 - 11/01/2000 FY01: \$0 Total: \$15,500  
*Prin. Invest.:* M TAVANA  
*Tech. Officer:* JSC/D G SICKOREZ, JSC/S E TORY  
*CASE Category:* 22 – COMPUTER SCIENCE

**NAG 5 10172** LINCOLN UNIV - PA. 7978  
 LINCOLN'S ADVANCED SCIENCE AND ENGINEERING REINFORCED CEMENT  
 (LASER) PROGRAM  
 01/03/2001 - 01/14/2002 FY01: \$30,000 Total: \$30,000  
*Prin. Invest.:* R LANGLEY  
*Tech. Officer:* GSFC/D MENCHAN  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NAG 5 3368** PENN. ST. U. @ ERIE-BEHREND COLLEGE 7979  
 ISO SOLAR SYSTEM MISSION-TEAM MEMBER SUPPORT  
 08/28/1996 - 09/30/2001 FY01: \$0 Total: \$60,000  
*Prin. Invest.:* R F KNACKE  
*Tech. Officer:* GSFC/R OLIVERSEN  
*CASE Category:* 22 – COMPUTER SCIENCE

**NAG 9 1034** PENNSYLVANIA STATE UNIV -HERSHEY MED. 7980  
 EFFECT OF HEAD MOVEMENTS ON SYMPATHETIC NERVE ACTIVITY IN HUMANS: ROLE OF THE VESTIBULAR SYSTEM  
 07/20/1998 - 07/19/2001 FY01: \$0 Total: \$227,063  
*Prin. Invest.:* C A RAY  
*Tech. Officer:* JSC/C W LLOYD  
*CASE Category:* 56 – MEDICAL

**NAG 9 1044** PENNSYLVANIA STATE UNIV -HERSHEY MED. 7981  
 NEUROVASCULAR RESPONSE TO BED REST  
 07/15/1998 - 07/14/2001 FY01: \$0 Total: \$340,560  
*Prin. Invest.:* LI SINOWAY  
*Tech. Officer:* JSC/C F SAWIN  
*CASE Category:* 56 – MEDICAL

**NAG 9 1259** PENNSYLVANIA STATE UNIV -HERSHEY MED. 7982  
 BED REST & NEUROVASCULAR FUNCTION  
 09/25/2000 - 08/31/2003 FY01: \$161,340 Total: \$193,608  
*Prin. Invest.:* D MACLEAN  
*Tech. Officer:* JSC/C W LLOYD  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NGT 5 50264** PENNSYLVANIA STATE UNIV -HERSHEY MED. 7983  
 TRANSGENIC ZEBRAFISH AS AN INDICATOR OF MUTAGENIC RISK  
 07/07/1999 - 06/30/2001 FY01: \$0 Total: \$44,000  
*Prin. Invest.:* C CHENGE  
*Tech. Officer:* GSFC/L SMITH  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NAG 1 1924** PENNSYLVANIA STATE UNIV. – UNIV. PARK 7984  
 NUMERICAL SIMULATION OF THE EFFECTS OF FUSELAGE SCATTERING ON THE NOISE RADIATED BY ROTORCRAFT  
 05/13/1997 - 08/31/2000 FY01: -\$1 Total: \$152,107  
*Prin. Invest.:* P J MORRIS  
*Tech. Officer:* LARC/D P LOCKAND  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NAG 1 2147** PENNSYLVANIA STATE UNIV. – UNIV. PARK 7985  
 NUMERICAL SIMULATIONS FOR LANDING GEAR NOISE GENERATION AND RADIATION (REF:NRA 98-LARC-5)  
 02/05/1999 - 12/31/2001 FY01: \$100,000 Total: \$386,954  
*Prin. Invest.:* P J MORRIS, L N LONG  
*Tech. Officer:* LARC/R R ANTOLIFF  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NAG 1 2208** PENNSYLVANIA STATE UNIV. – UNIV. PARK 7986  
 SIMULATION OF THE NOISE RADIATED BY RECTANGULAR JETS  
 06/24/1999 - 05/31/2001 FY01: \$0 Total: \$120,000  
*Prin. Invest.:* P J MORRIS, L N LONG  
*Tech. Officer:* LARC/R A GOLUB, LARC/D P GARBER  
*CASE Category:* 49 – ENGINEERING, OTHER

**NAG 1 2273** PENNSYLVANIA STATE UNIV. – UNIV. PARK 7987  
 ADAPTIVE INTERFACE APPROACK USING A REAL TIME BIOCYVERNETIC SYSTEM: CONTROL OF HAZARDOUS  
 02/25/2000 - 02/24/2002 FY01: \$0 Total: \$30,000  
*Prin. Invest.:* W J RAY  
*Tech. Officer:* LARC/I J PRINZEL/A T POPE  
*CASE Category:* 69 – PSYCHOLOGY, OTHER

**NAG 1 01009** PENNSYLVANIA STATE UNIV. – UNIV. PARK 7988  
 THE PHYSICAL MECHANISMS FOR TONAL NOISE GENERATION BY SLATS  
 01/23/2001 - 01/31/2004 FY01: \$99,903 Total: \$99,903  
*Prin. Invest.:* P J MORRIS  
*Tech. Officer:* LARC/M R KHORRAMI, LARC/B A SINGER  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NAG 1 01085** PENNSYLVANIA STATE UNIV. – UNIV. PARK 7989  
 AN EFFICIENT SCHEME FOR UPDATING SPARSE CHOLESKY FACTORS  
 05/24/2001 - 12/31/2001 FY01: \$20,002 Total: \$20,002  
*Prin. Invest.:* P RAGHAVAN, NONE  
*Tech. Officer:* LARC/J C NEWMAN  
*CASE Category:* 22 – COMPUTER SCIENCE

**NAG 2 1295** PENNSYLVANIA STATE UNIV. – UNIV. PARK 7990  
 WEATHER FORECASTING SUPPORT FOR SOLVE  
 03/03/1999 - 01/31/2001 FY01: \$0 Total: \$43,711  
*Prin. Invest.:* G S FORBES  
*Tech. Officer:* ARC/E P CONDON, ARC/R S HIPSICK  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NAG 2 1302** PENNSYLVANIA STATE UNIV. – UNIV. PARK 7991  
 PARTICIPATION AS MISSION SCIENTIST IN OBSEVATIONS FROM THE MIDDLE STRATOSPHERE DURING SOLVE  
 03/05/1999 - 01/31/2001 FY01: \$0 Total: \$104,000  
*Prin. Invest.:* W H BRUNE *Prin. Invest.:* NONE  
*Tech. Officer:* ARC/E P CONDON, ARC/R S HIPSICK  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NAG 2 1309** PENNSYLVANIA STATE UNIV. – UNIV. PARK 7992  
 MEASUREMENTS OF CIO, BRO & HOX DURING SOLVE  
 03/15/1999 - 03/31/2001 FY01: \$0 Total: \$95,097  
*Prin. Invest.:* W H BRUNE  
*Tech. Officer:* ARC/E P CONDON, ARC/R S HIPSICK  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NAG 2 1342** PENNSYLVANIA STATE UNIV. – UNIV. PARK 7993  
 MOLECULAR CONTROL OF CELL GROWTH DURING GRAVITY RE SPONSES OF MAIZE SEEDINGS  
 07/20/1999 - 07/14/2002 FY01: \$109,871 Total: \$280,398  
*Prin. Invest.:* D J COSGROVE  
*Tech. Officer:* ARC/M M AVERNER, ARC/D D MACELROY  
*CASE Category:* 51 – BIOLOGY (EXCLUDING ENVIR)

**NAG 2 1366** PENNSYLVANIA STATE UNIV. – UNIV. PARK 7994  
 GRAVITROPISM IN CHARA RHIZOIDS  
 07/30/1999 - 07/14/2002 FY01: \$71,345 Total: \$215,217  
*Prin. Invest.:* S G GILROY  
*Tech. Officer:* ARC/M M AVERNER, ARC/R D MACELROY  
*CASE Category:* 51 – BIOLOGY (EXCLUDING ENVIR)

**NAG 2 1410** PENNSYLVANIA STATE UNIV. - UNIV. PARK 7995  
 OBSTACLE DETECTION ALGORITHMS FOR ROTORCRAFT NAVIGATION  
 06/13/2000 - 05/14/2001 FY01: \$0 Total: \$59,240  
*Prin. Invest.:* R KASTURI, O I CAMPS  
*Tech. Officer:* ARC/A J AHUMADA, ARC/J B MULLIGAN  
*CASE Category:* 22 - COMPUTER SCIENCE

**NAG 2 1453** PENNSYLVANIA STATE UNIV. - UNIV. PARK 7996  
 MEASUREMENTS OF OH AND HO2 USING ATHOS ON THE DC-8 DURING SOLVE  
 01/26/2001 - 01/31/2002 FY01: \$100,000 Total: \$100,000  
*Prin. Invest.:* W H BRUNE  
*Tech. Officer:* ARC/E P CONDON, ARC/R S HIPS Kind  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 2 1487** PENNSYLVANIA STATE UNIV. - UNIV. PARK 7997  
 WIRE DETECTION ALGORITHMS FOR NAVIGATION  
 06/26/2001 - 12/31/2001 FY01: \$34,410 Total: \$34,410  
*Prin. Invest.:* R KASTURI, O I CAMPS  
*Tech. Officer:* ARC/A J AHUMADA, ARC/J B MULLIGAN  
*CASE Category:* 22 - COMPUTER SCIENCE

**NAG 2 1524** PENNSYLVANIA STATE UNIV. - UNIV. PARK 7998  
 EVALUATION OF SI-O-C FOAM CERAMICS IN SIMULATED AE ROTHEMAL ENVIRONMENTS  
 09/14/2001 - 08/31/2002 FY01: \$30,000 Total: \$30,000  
*Prin. Invest.:* J R HELLMANN  
*Tech. Officer:* ARC/D T ELLERBY, ARC/S M JOHNSON  
*CASE Category:* 47 - METAL & MATERIALS ENGR

**NAG 3 1871** PENNSYLVANIA STATE UNIV. - UNIV. PARK 7999  
 MICROGRAVITY EFFECTS ON TRANSENDOTHELIAL TRANSPORT  
 05/22/1996 - 10/21/2001 FY01: \$0 Total: \$460,000  
*Prin. Invest.:* J M TAZBELL  
*Tech. Officer:* GRC/J S LING, GRC/B S SINGH  
*CASE Category:* 13 - PHYSICS

**NAG 3 2151** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8000  
 MODELING OF COMBUSTION RESPONSE OF GAS TURBINE SPRAY SWIRL-STABILIZED INJECTORS TO ACOUSTIC OSCILLA  
 04/07/1998 - 12/31/2001 FY01: \$40,000 Total: \$135,000  
*Prin. Invest.:* V G YANG, NONE  
*Tech. Officer:* GRC/K L BREISACHER  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 3 2328** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8001  
 A NUMERICAL AND EXPERIMENTAL STUDY OF THE FLOW AND NOISE FROM SUBSONIC AND SUPERSONIC JETS  
 03/17/2000 - 06/20/2002 FY01: \$59,082 Total: \$181,700  
*Prin. Invest.:* P J MORRIS  
*Tech. Officer:* GRC/M D DAHL  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 3 2374** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8002  
 MOLECULAR DYNAMIC OF FLUID SOLID SYSTEMS MOLECULAR DYNAMIC OF FLUID SOLID SYSTEMS  
 03/31/2000 - 11/30/2003 FY01: \$50,000 Total: \$75,000  
*Prin. Invest.:* D BANAVAR  
*Tech. Officer:* GRC/F P CHIARAMONTE  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 3 2448** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8003  
 HEALTH MANAGEMENT AND LIFE EXTENDING CONTROL OF GAS TURBINE ENGINES  
 05/30/2000 - 05/14/2003 FY01: \$60,000 Total: \$95,000  
*Prin. Invest.:* A RAY  
*Tech. Officer:* GRC/T GUO  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 3 2470** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8004  
 DYNAMICS OF PARTICLES IN STATIONARY ISOTROPIC TURBULENCE  
 07/11/2000 - 11/30/2003 FY01: \$38,000 Total: \$68,000  
*Prin. Invest.:* D R COLLINS  
*Tech. Officer:* GRC/F P CHIARAMONTE  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 3 2501** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8005  
 COMBUSTION BEHAVIOR OF ADVANCED MONOPROPELLANTS COMBUSTION BEHAVIOR OF ADVANCED MONOPROPELLANTS  
 12/11/2000 - 10/31/2003 FY01: \$100,000 Total: \$100,000  
*Prin. Invest.:* D KUO  
*Tech. Officer:* GRC/B D REED  
*CASE Category:* 42 - ASTRONAUTICAL ENGR

**NAG 3 2546** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8006  
 EXPERIMENTAL AND THEORETICAL STUDIES OF WET GRANULAR MEDIA  
 02/26/2001 - 01/31/2004 FY01: \$76,145 Total: \$76,145  
*Prin. Invest.:* D E SCHIFFER  
*Tech. Officer:* GRC/J H AGUI  
*CASE Category:* 43 - CHEMICAL ENGR

**NAG 3 2561** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8007  
 DIELECTRIC MATERIALS DEVELOPMENT FOR HIGH TEMPERATURE  
 03/16/2001 - 02/08/2002 FY01: \$70,000 Total: \$70,000  
*Prin. Invest.:* D T LANAGAN  
*Tech. Officer:* GRC/G E SCHWARZE  
*CASE Category:* 47 - METAL & MATERIALS ENGR

**NAG 3 2590** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8008  
 MEMS NOZZLE OPTIMIZATION STUDIES FOR DECOMPOSING SOLID MICROPROPULSION TECHNOLOGY  
 04/19/2001 - 05/31/2004 FY01: \$58,903 Total: \$58,903  
*Prin. Invest.:* D A LEVIN  
*Tech. Officer:* GRC/B D REED  
*CASE Category:* 42 - ASTRONAUTICAL ENGR

**NAG 3 2598** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8009  
 FLYWHEEL TECHNOLOGY DEVELOPMENT FOR SMALL SATELITE APPLICATIONS  
 04/27/2001 - 04/30/2003 FY01: \$59,745 Total: \$59,745  
*Prin. Invest.:* H HOFMANN  
*Tech. Officer:* GRC/B KENNY  
*CASE Category:* 45 - ELECTRICAL ENGR

**NAG 3 2603** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8010  
 INVESTIGATION OF ULTRAHIGH POWER DENSITY MACHINE DESIGNS  
 05/04/2001 - 10/31/2001 FY01: \$79,997 Total: \$79,997  
*Prin. Invest.:* D HOFMANN, NONE  
*Tech. Officer:* GRC/G V BROWN  
*CASE Category:* 45 - ELECTRICAL ENGR

**NAG 4 160** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8011  
 LEARNING USING ERAST AIRCRAFT/LUAU  
 02/08/1999 - 09/30/2001 FY01: \$20,253 Total: \$230,418  
*Prin. Invest.:* B GRABOWSKI, J A GOODE  
*Tech. Officer:* DFRC/M MC CARTHY, DFRC/E L DUKE  
*CASE Category:* 99 - MULTI INTERDISCPL, OTHER

**NAG 5 2857** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8012  
 PHYSICS AND COSMOLOGY OF HIGH-ENERGY SOURCES  
 01/23/1995 - 09/30/2000 FY01: -\$1,364 Total: \$283,636  
*Prin. Invest.:* P MESZAROS  
*Tech. Officer:* GSFC/D WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 3856** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8013  
 ASSESSING THE IMPACT OF EXPANDING URBAN LAND USE USING  
 REMOTE SENSING DATA & PHYSICALLY BASED SOIL  
 12/19/1996 - 12/14/2000 FY01: \$0 Total: \$362,320  
*Prin. Invest.:* G W PETERSEN  
*Tech. Officer:* GSFC/M J IMHOFF  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 3970** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8014  
 USE OF ARABIDOPSIS TRANSPOSON MUTANTS IN THE STUDY  
 03/05/1997 - 02/28/2001 FY01: \$0 Total: \$470,187  
*Prin. Invest.:* N V FEDOROFF  
*Tech. Officer:* GSFC/M AVERNER  
*CASE Category:* 59 - LIFE SCIENCE, OTHER

**NAG 5 4301** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8015  
 A STUDY OF PLANETARY SYSTEMS AROUND NEUTRON STARS  
 04/09/1997 - 02/28/2002 FY01: \$65,000 Total: \$297,000  
*Prin. Invest.:* D WOLSZCZAN  
*Tech. Officer:* GSFC/D NAVA  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4553** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8016  
 THE GLOBAL WATER CYCLE: EXTENSION ACROSS THE EARTH  
 06/12/1997 - 06/30/2002 FY01: \$0 Total: \$5,263,454  
*Prin. Invest.:* E J BARRON  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 4840** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8017  
 THE REGENERATING PROTOPLAST AS A SINGLE CELL MODEL IN PLANTS  
 06/26/1997 - 05/31/2002 FY01: \$0 Total: \$366,770  
*Prin. Invest.:* R CYR  
*Tech. Officer:* GSFC/M AVERNER  
*CASE Category:* 59 - LIFE SCIENCE, OTHER

**NAG 5 5093** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8018  
 RESEARCH IN X-RAY ASTRONOMY  
 11/22/1996 - 09/30/2000 FY01: \$0 Total: \$1,367,429  
*Prin. Invest.:* D BURROWS, G P GARMIRE  
*Tech. Officer:* GSFC/W GURKIN  
*CASE Category:* 13 - PHYSICS

**NAG 5 5136** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8019  
 SPIRIT: STUDENT PROJECTS INVOLVING ROCKET INVESTIGATION TECHNIQUES  
 04/14/1997 - 04/13/2001 FY01: \$0 Total: \$35,000  
*Prin. Invest.:* J D MITCHELL  
*Tech. Officer:* GSFC/W B JOHNSON  
*CASE Category:* 13 - PHYSICS

**NAG 5 5169** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8020  
 PROJECT DROPPS: THE DISTRIBUTION AND ROLE OF PARTICLES IN THE POLAR SUMMER MESOSPHERE  
 03/13/1998 - 12/31/2001 FY01: \$0 Total: \$168,596  
*Prin. Invest.:* J D MITCHELL  
*Tech. Officer:* GSFC/W B JOHNSON  
*CASE Category:* 13 - PHYSICS

**NAG 5 5174** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8021  
 VALIDATION AND PROMPT DISTRIBUTION OF ACCESS DATA FUNDING FOR FIRST YEAR OF GRANT  
 03/09/1998 - 03/31/2002 FY01: \$0 Total: \$109,080  
*Prin. Invest.:* S COUTU  
*Tech. Officer:* GSFC/B A MERRITT  
*CASE Category:* 13 - PHYSICS

**NAG 5 5210** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8022  
 COSMIC RAY ENERGETICS AND MASS (CREAM) COSMIC RAY ENERGETICS AND MASS (CREAM)  
 09/22/1998 - 05/31/2000 FY01: \$0 Total: \$85,600  
*Prin. Invest.:* J J BEATTY  
*Tech. Officer:* WFF/B A MERRITT  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 5 5220** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8023  
 GRANT NAG5-5220 - HIGH ENERGY ANTIMATTER TELESCOPE (HEAT) - PI DR.JAMES BEATTY  
 03/16/1999 - 11/30/2001 FY01: \$100,000 Total: \$461,000  
*Prin. Invest.:* J J BEATTY  
*Tech. Officer:* GSFC/B A MERRITT  
*CASE Category:* 13 - PHYSICS

**NAG 5 5248** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8024  
 COSMIC RAY ENERGETICS AND MASS (CREAM) COSMIC RAY ENERGETICS AND MASS (CREAM)  
 03/12/2000 - 11/30/2002 FY01: \$152,000 Total: \$296,000  
*Prin. Invest.:* BEATTY  
*Tech. Officer:* GSFC/B MERRITT  
*CASE Category:* 13 - PHYSICS

**NAG 5 5250** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8025  
 FIRST YEAR OF THREE YEAR EFFORT FOR PI DR. STEPHANE COUTU  
 03/23/2000 - 11/30/2002 FY01: \$152,000 Total: \$296,000  
*Prin. Invest.:* S E COUTU  
*Tech. Officer:* WFF/B A MERRITT  
*CASE Category:* 13 - PHYSICS

**NAG 5 5256** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8026  
 MODIFICATION OF IONIZAITON PROPERTIES IN THE MIDDLE ATMOSPHERE BY GRAVITY WAVES  
 03/20/2000 - 02/10/2003 FY01: \$266,856 Total: \$514,256  
*Prin. Invest.:* C L CROSKEY  
*Tech. Officer:* GSFC/W B JOHNSON  
*CASE Category:* 13 - PHYSICS

**NAG 5 5277** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8027  
 RESEARCH IN X-RAY ASTRONOMY RESEARCH IN X-RAY ASTRONOMY  
 06/01/2000 - 05/15/2002 FY01: \$0 Total: \$265,000  
*Prin. Invest.:* D N BURROWS, G P GARMIRE  
*Tech. Officer:* GSFC/J C BRINTON  
*CASE Category:* 13 - PHYSICS

**NAG 5 5313** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8028  
 GRAVITY WAVE FORCING THE MESOSPHERE AND LOWER THERMO-  
 SPHERE MOUNTAIN AND CONNECTIVE WAVES  
 02/08/2001 - 02/07/2004 FY01: \$79,287 Total: \$79,287  
*Prin. Invest.:* C L CROSKEY  
*Tech. Officer:* GSFC/J C BRINTON  
*CASE Category:* 13 - PHYSICS

**NAG 5 6207** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8029  
 MECHANISM OF LENGTH-OF-DAY VARIABILITY  
 08/01/1997 - 12/31/2000 FY01: -\$3,484 Total: \$177,999  
*Prin. Invest.:* S FELDSTEIN  
*Tech. Officer:* GSFC/H FREY  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 6389** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8030  
 MODELING THE AIR-SEA FLUXES OF CARBONYL SYLFIDE AND CARBON  
 MONOXIDEUSING REMOTELY SENSED DATA  
 10/17/1997 - 08/31/2001 FY01: \$0 Total: \$179,506  
*Prin. Invest.:* R NAJJAR  
*Tech. Officer:* GSFC/J A MARRA  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6399** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8031  
 THE GAS AND THE STARS OF INTERMEDIATE REDSHIFT GALAXIES (LTSA)  
 10/10/1997 - 10/14/2002 FY01: \$58,100 Total: \$283,394  
*Prin. Invest.:* J CHARLTON  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 6451** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8032  
 EVALUATION AND INTERCOMPARISON OF THREE-DIMENSIONAL MARINE  
 CARBON CYCLE MODELS  
 10/24/1997 - 12/31/2001 FY01: \$0 Total: \$201,866  
*Prin. Invest.:* R NAJJAR  
*Tech. Officer:* GSFC/J CAMPBELL  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6656** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8033  
 SPACE-TIME SCALING OF WATER TRANSFERS BETWEEN THE LAND  
 SURFACE AND THE LOWER ATMOSPHERE  
 12/04/1997 - 10/31/2000 FY01: \$0 Total: \$163,955  
*Prin. Invest.:* A P BARROS  
*Tech. Officer:* GSFC/M Y WEI  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6713** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8034  
 PHASE COMPRESSED IMAGE DATA FOR BROAD-AREA LANDSCAPE  
 CHANGE ANALYSESANDHARMONIZATION OF IMAGE  
 12/30/1997 - 12/31/2000 FY01: \$0 Total: \$87,500  
*Prin. Invest.:* W MEYERS  
*Tech. Officer:* GSFC/D WILLIAMS  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6737** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8035  
 THE STATISTICAL CONSULTING CENTER FOR ASTRONOMY (S CCA)  
 12/17/1997 - 12/31/2001 FY01: \$0 Total: \$97,886  
*Prin. Invest.:* M AKRITAS  
*Tech. Officer:* GSFC/D WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 6852** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8036  
 AN RXTE LONG LOOK AT THE BRIGHT SEYFERT 1 GALAXY M CG-6-30-15  
 01/13/1998 - 01/14/2001 FY01: \$0 Total: \$10,772  
*Prin. Invest.:* W BRANDT  
*Tech. Officer:* GSFC/J SWANK  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 6907** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8037  
 SOFT X-RAY RADIATION FROM ISOLATED NEUTRON STARS  
 02/17/1998 - 07/31/2000 FY01: -\$3 Total: \$87,597  
*Prin. Invest.:* G PAVLOV  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7017** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8038  
 NEUTRON STAR ATMOSPHERES - ATP  
 02/17/1998 - 02/14/2002 FY01: \$0 Total: \$288,142  
*Prin. Invest.:* G G PAVLOV  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7121** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8039  
 MULTIFREQUENCY MONITORING OF MRK 501  
 04/13/1998 - 04/14/2000 FY01: -\$1,467 Total: \$7,408  
*Prin. Invest.:* R M SAMBRUNA  
*Tech. Officer:* GSFC/J SWANK  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7256** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8040  
 BROAD-BAND SPECTRA AND VARIABILITY OF THE BRIGHT N ARROW-LINE  
 SEYFERT1 GALAXY H0707-495 & COORDI  
 05/01/1998 - 06/30/2000 FY01: -\$861 Total: \$20,907  
*Prin. Invest.:* W N BRANDT  
*Tech. Officer:* GSFC/J SWANK  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7276** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8041  
 SIMULTANEOUS XTE AND AXAF OBSERVATIONS OF THE CIRC INUS  
 GALAXY;MULTIFREQUENCY MONITORING O  
 04/15/1998 - 04/14/2001 FY01: \$0 Total: \$11,554  
*Prin. Invest.:* G CHARTAS  
*Tech. Officer:* GSFC/J SWANK  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7443** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8042  
 INVESTIGATING MESOSCALE CONVECTIVE SYSTEMS & TROPICAL  
 EASTERLY WAVES IN CENTRAL & WEST AFRICA USING  
 06/12/1998 - 06/14/2001 FY01: \$0 Total: \$140,600  
*Prin. Invest.:* G JENKINS  
*Tech. Officer:* GSFC/R W LAWRENCE  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 7547 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8043**  
 SATELLITE TRACKING AND RAINFALL ESTIMATION FOR SHO RT-TERM,  
 HEAVILYPERCIPITATING STORM EVENTS  
 06/22/1998 - 06/30/2002 FY01: \$0 Total: \$235,764  
*Prin. Invest.: J L EVANS*  
*Tech. Officer: GSFC/E T ENGMAN*  
*CASE Category: 32 – GEOLOGICALSCIENCE*

**NAG 5 7776 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8044**  
 REMOTE SENSING OF WEST ANTARCTIC ICE SHEET SURFACE MELTING:  
 RECOGNITION,CONTROLS, AND SIGNIFICANCE  
 10/27/1998 - 12/31/2002 FY01: \$11,210 Total: \$31,220  
*Prin. Invest.: R ALLEY*  
*Tech. Officer: GSFC/S GOGINENI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 7781 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8045**  
 MEASUREMENT AND ANALYSIS OF THE SPATIAL AND TEMPOR AL VARIABILITY OFOROGRAPHIC PRECIPITATION IN  
 11/13/1998 - 10/31/1999 FY01: -\$1,530 Total: \$158,470  
*Prin. Invest.: A P BARROS*  
*Tech. Officer: GSFC/R J LAWRENCE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 7925 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8046**  
 HIGH-ENERGY ABSORPTION IN BLAZARS: PROBING THE INNER JET ENVIRONMNT(ADP 98)  
 01/03/1999 - 09/14/2000 FY01: -\$70,923 Total: \$6,831  
*Prin. Invest.: R M SAMBRUNA*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8005 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8047**  
 A SMALL, LIGHTWEIGHT RADIOMETER TO IMPROVE THE TEM PORAL  
 SAMPLING OFRAINFALL  
 01/12/1999 - 09/30/2000 FY01: -\$21,630 Total: \$194,187  
*Prin. Invest.: C S RUF*  
*Tech. Officer: GSFC/C D KUMMEROW*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 8107 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8048**  
 AXAF, XMM AND ASTRO-E INVESTIGATIONS OF SEYFERT/QU ASAR  
 CENTRAL ENGINES: EXPLORING THE ENVIRONMENTS  
 02/05/1999 - 02/14/2002 FY01: \$64,700 Total: \$188,500  
*Prin. Invest.: W N BRANDT*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8369 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8049**  
 A METASTABLE ASSOCIATED ABSORBER IN THE BROAD-LINE RADIO  
 GALAXY ARP 102B(ADP98)  
 03/02/1999 - 02/28/2001 FY01: \$0 Total: \$19,942  
*Prin. Invest.: M ERACELOUS*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8401 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8050**  
 SWIFT – PHASE A CONCEPT STUDY  
 03/05/1999 - 08/31/2000 FY01: -\$1,949 Total: \$578,490  
*Prin. Invest.: J NOUSEK*  
*Tech. Officer: GSFC/L HILLARD*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8422 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8051**  
 2-RAY STUDIES OF YOUNG STELLAR OBJECTS\_(LTSA 98)  
 04/01/1999 - 04/30/2001 FY01: \$0 Total: \$53,117  
*Prin. Invest.: E D FEIGELSON*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8710 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8052**  
 METHANE & HYDROGEN IN EARTH'S PRIMITIVE ATMOSPHERE  
 08/02/1999 - 09/30/2001 FY01: \$79,200 Total: \$158,579  
*Prin. Invest.: J F KASTING*  
*Tech. Officer: GSFC/M MEYER*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8735 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8053**  
 MERGING MODELS AND OBSERVATIONS OF THE ATMOSPHERIC  
 BOUNDARY LAYER'S MESOSCALE STRUCTURE DURING SGP-9  
 08/17/1999 - 08/14/2002 FY01: \$0 Total: \$117,240  
*Prin. Invest.: D R STAUFFER*  
*Tech. Officer: GSFC/P R HOUSER*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8738 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8054**  
 SPACE-TIME DYNAMICS OF SOIL MOISTURE & TEMPERATURE -SCALE  
 ISSUES  
 08/17/1999 - 08/14/2002 FY01: \$23,667 Total: \$71,000  
*Prin. Invest.: D MILLER*  
*Tech. Officer: GSFC/E T ENGMAN*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9039 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8055**  
 TECTONIC-CLIMATE INTERACTIONS IN ACTION OROGENIC BELTS: QUANTIFICATION OF DYNAMIC TOPOGRAPHY WITH S  
 02/10/2000 - 12/31/2000 FY01: -\$9,468 Total: \$82,032  
*Prin. Invest.: D W BURBANK*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 9089 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8056**  
 SEARCH FOR NEW EVIDENCE IN PRE-2.0 GA PALEOSOLS & SHALES FOR  
 THE EARLY EVOLUTION OF ATMOSPHERIC OXYG  
 02/17/2000 - 01/31/2002 FY01: \$60,000 Total: \$120,000  
*Prin. Invest.: H OHMOTO, NONE*  
*Tech. Officer: GSFC/M MEYER*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9133 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8057**  
 CONSTRAINING THE STRUCTURE OF THE CENTRAL ENGINE OF RADIO-LOUD AGN ADP99  
 02/28/2000 - 09/14/2000 FY01: -\$28,219 Total: \$1,446  
*Prin. Invest.: R M SAMBRUNA*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9134 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8058**  
 INTENSIVE RXTE MONITORING OF THE TEV BLAZAR MRK501 (ADP 99)  
 02/28/2000 - 01/31/2001 FY01: -\$23,678 Total: \$0  
*Prin. Invest.: R M SAMBRUNA*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9153 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8059**  
 THEORETICAL STUDIES OF GAMMA-RAY BURSTS WITH SWIFT  
 03/02/2000 - 06/30/2002 FY01: \$30,989 Total: \$60,989  
*Prin. Invest.: P I MESZAROS*  
*Tech. Officer: GSFC/N GEHRELS*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9192 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8060**  
 PHYSICS OF GAMMA RAY BURST SOURCES  
 03/08/2000 - 03/14/2002 FY01: \$106,443 Total: \$210,900  
*Prin. Invest.: P MESZAROS*  
*Tech. Officer: GSFC/R OLIVERSEN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9377 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8061**  
 THE ORIGINS AND PROPERTIES OF INTRACLUSTER STARS (LTSA 99)  
 04/05/2000 - 03/31/2002 FY01: \$104,747 Total: \$212,803  
*Prin. Invest.: R CIARDULLO*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9586 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8062**  
 A RADICAL-VELOCITY ASSESSMENT OF CANDIDATE SIM GRID STARS FOR  
 ASTROMETRIC STABILITY, USING  
 05/10/2000 - 05/14/2002 FY01: \$35,000 Total: \$70,000  
*Prin. Invest.: R A WADE*  
*Tech. Officer: GSFC/P CRANE*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 9587 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8063**  
 "THIN FILM TRANSISTOR ADDRESSING ARRAYS FOR MICRO- WELL  
 GAMMA RAY DETECTORS"  
 05/12/2000 - 05/14/2001 FY01: \$0 Total: \$100,000  
*Prin. Invest.: T JACKSON*  
*Tech. Officer: GSFC/S D HUNTER*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9918 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8064**  
 AN X-RAY STUDY OF THE MOST DISTANT QUASARS FROM THE SLOAN  
 DIGITAL SKY SURVEY  
 09/05/2000 - 09/14/2002 FY01: \$14,000 Total: \$28,100  
*Prin. Invest.: W N BRANDT*  
*Tech. Officer: GSFC/R F MUSKOTZKY*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9924 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8065**  
 A DETAILED STUDY OF TWO NLS1  
 09/05/2000 - 09/14/2002 FY01: \$0 Total: \$6,964  
*Prin. Invest.: W N BRANDT*  
*Tech. Officer: GSFC/P M ATKINS*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9932 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8066**  
 XMM SPECTROSCOPY OF THE X-RAY DETECTED BROAD ABSORPTION  
 LINEQS0 CSO 755  
 09/07/2000 - 09/14/2002 FY01: \$15,700 Total: \$32,700  
*Prin. Invest.: W N BRANDT*  
*Tech. Officer: GSFC/D F MUSHOTZKY*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9933 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8067**  
 XMM STUDY OF THE BRIGHT ULTRASOFT NARROW-LINE QUASAR NAB  
 0205+024  
 09/07/2000 - 09/14/2002 FY01: \$0 Total: \$5,945  
*Prin. Invest.: W N BRANDT*  
*Tech. Officer: GSFC/D F MUSHOTZKY*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9934 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8068**  
 CONSTRAINTS ON HO FROM TIME-DELAY MEASUREMENTS OF  
 PG1115+080  
 09/06/2000 - 09/14/2002 FY01: \$16,000 Total: \$36,600  
*Prin. Invest.: G CHARTAS*  
*Tech. Officer: GSFC/R F MUSHOTZKY*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9938 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8069**  
 SPECTRUM AND PULSATIONS OF THE NEUTRON STAR CANDIDATE RX  
 J0002+6246  
 09/06/2000 - 09/14/2002 FY01: \$0 Total: \$5,991  
*Prin. Invest.: G PAVLOV*  
*Tech. Officer: GSFC/R F MUSHOTZKY*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9939 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8070**  
 AN XMM STUDY OF THE BRIGHT NARROW-LINE SEYFERT 1 GALAXY  
 ARAKELIAN 564  
 09/06/2000 - 09/14/2002 FY01: \$14,400 Total: \$28,800  
*Prin. Invest.: W BRANDT*  
*Tech. Officer: GSFC/R F MUSHOTZKY*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9940 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8071**  
 XMM SPECTROSCOPY OF MARKARIAN 6: INTRINSIC ABSORPTION AND  
 BLACK HOLE REGION  
 09/06/2000 - 09/14/2002 FY01: \$15,000 Total: \$30,300  
*Prin. Invest.: W N BRANDT*  
*Tech. Officer: GSFC/R F MUSHOTZKY*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9949 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8072**  
 THROUGH BAL QUASARS BRIGHTLY  
 09/07/2000 - 08/31/2002 FY01: \$15,900 Total: \$33,900  
*Prin. Invest.: G CHARTAS*  
*Tech. Officer: GSFC/R F MUSHOTZKY*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9970 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8073**  
 PROBING CLASS O PROTOSTARS WITH HARD X-RAYS --OMC2 -3  
 REGION--  
 09/13/2000 - 09/14/2002 FY01: \$16,000 Total: \$38,300  
*Prin. Invest.: Y TSUBOI*  
*Tech. Officer: GSFC/R F MUSHOTZKY*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9976** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8074  
 RGS ABUNDANCE MEASUREMENT OF WOLF-RAYET STELLAR WIND  
 09/12/2000 - 09/14/2001 FY01: \$0 Total: \$17,000  
*Prin. Invest.:* Y MAEDA  
*Tech. Officer:* GSFC/R MUSHOTZKY  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9982** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8075  
 STRUCTURE OF THE ACCRETION FLOWS IN BROAD-LINE RADIO GALAXIES  
 09/13/2000 - 09/14/2002 FY01: \$16,444 Total: \$37,444  
*Prin. Invest.:* M ERACLEOUS  
*Tech. Officer:* GSFC/R MUSHOTZKY  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 10050** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8076  
 MERGING MODELS AND OBSERVATIONS OF THE ATMOSPHERIC BOUNDARY LAYER'S MESOSCALE STRUCTURE DURING S  
 09/28/2000 - 05/31/2002 FY01: \$0 Total: \$41,578  
*Prin. Invest.:* K DAVIS  
*Tech. Officer:* GSFC/E ENGMAN  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 10079** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8077  
 MAPPING SPECTRAL LINES FROM THE DIFFUSE X-RAY BACK GROUND  
 10/27/2000 - 10/31/2001 FY01: \$9,500 Total: \$9,500  
*Prin. Invest.:* D N BURROWS, NONE  
*Tech. Officer:* GSFC/R MUSHOTZKY  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 10080** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8078  
 SHADOWING OF THE EXTRAGALACTIC SOFT X-RAY BACK- GROUND  
 10/27/2000 - 10/31/2001 FY01: \$8,900 Total: \$8,900  
*Prin. Invest.:* D N BURROWS  
*Tech. Officer:* GSFC/R MUSHOTZKY  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 10089** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8079  
 THE X-RAY PROPERTIES OF LOCAL GALAXIES: BRIDGING THE GAP TO HIGH-Z  
 11/20/2000 - 11/30/2001 FY01: \$6,703 Total: \$6,703  
*Prin. Invest.:* N BRANDT  
*Tech. Officer:* GSFC/R MUSHOTZKY  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 10541** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8080  
 PATTERN-BASED MONITORING OF CHANGE AT MULTIPLE SCALES THROUGH REMOTE SENSING& GIS IN FOREST  
 03/20/2001 - 03/14/2002 FY01: \$50,000 Total: \$50,000  
*Prin. Invest.:* W L MYERS  
*Tech. Officer:* GSFC/D L WILLIAMS  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 10542** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8081  
 STATISTICAL CHALLENGES IN MODERN ASTRONOMY III  
 03/13/2001 - 03/14/2002 FY01: \$20,000 Total: \$20,000  
*Prin. Invest.:* G BABU  
*Tech. Officer:* GSFC/D GOLOMBEK  
*CASE Category:* 99 - MULTI INTERDISCPL, OTHER

**NAG 5 10617** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8082  
 PENN STATE ACTIVITIES IN THE NASA GSFC TRANSMISSIV E MICRO-SHUTTER ARRAY TECHNOLOGY DEVELOPMENT PROGR  
 03/19/2001 - 03/31/2002 FY01: \$64,156 Total: \$64,156  
*Prin. Invest.:* D GE  
*Tech. Officer:* GSFC/S H MOSELY  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 10706** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8083  
 SOFT X-RAY BACKGROUND IN THE GALACTIC ANTI-CENTER (ADP - 2000)  
 04/19/2001 - 04/30/2002 FY01: \$5,209 Total: \$5,209  
*Prin. Invest.:* S PARK, NONE  
*Tech. Officer:* GSFC/R J OLIVERSEN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 10817** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8084  
 A COMPREHENSIVE STUDY OF THE NARROW ABSORPTION- LINE GAS INSTRINSIC TO QUASARS  
 04/24/2001 - 04/30/2002 FY01: \$86,821 Total: \$86,821  
*Prin. Invest.:* M ERACLEOUS  
*Tech. Officer:* GSFC/R J OLIVERSEN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 10865** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8085  
 X-RAY RADIATION FROM NEUTRON STARS (LTSA 2000)  
 05/08/2001 - 05/14/2002 FY01: \$89,000 Total: \$89,000  
*Prin. Invest.:* G PAVLOV  
*Tech. Officer:* GSFC/R J OLIVERSEN  
*CASE Category:* 11 - ASTRONOMY

**NAG 8 1272** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8086  
 GRAVITATIONAL EFFECT ON THE DEVELOPMENT OF LASER WELDPOOL AND SOLIDIFICATIONMICROSTRUCTURE  
 05/09/1996 - 06/22/2002 FY01: \$0 Total: \$600,000  
*Prin. Invest.:* J SINGH  
*Tech. Officer:* MSFC/P DOTY, MSFC/R POWER  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1286** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8087  
 JOVE RESEARCH  
 01/21/1997 - 08/31/2000 FY01: -\$3,831 Total: \$30,472  
*Prin. Invest.:* G SUBRAMANIAM  
*Tech. Officer:* MSFC/J F DOWDY, MSFC/J R PRUITT  
*CASE Category:* 99 - MULTI INTERDISCPL, OTHER

**NAG 8 1452** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8088  
 R/S GRAVITATIONAL EFFECTS ON DISTORTION IN SINTERING  
 02/01/1998 - 01/31/2002 FY01: \$148,750 Total: \$565,000  
*Prin. Invest.:* R M GERMAN  
*Tech. Officer:* MSFC/C TALLEY  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1530** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8089  
 NUMERICAL STUDY OF THE ROLE OF SHALLOW CONVECTION ON MOISTURE TRANSPORT AND CLIMATE  
 05/06/1998 - 05/30/2001 FY01: \$0 Total: \$423,849  
*Prin. Invest.:* N L SEAMAN  
*Tech. Officer:* MSFC/J ARNOLD  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 8 1732** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8090  
DEMONSTRATION OF THROTTLEABLE LOX/H @ INJECTOR CONCEPTS  
07/01/2000 - 09/30/2001 FY01: \$0 Total: \$98,000  
*Prin. Invest.:* R J SANTORO, R D WOODWARD  
*Tech. Officer:* MSFC/W ANDERSON  
*CASE Category:* 46 - MECHANICAL ENGR

**NAG 8 1761** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8091  
CRITICAL CASMIR FORCES  
05/01/2001 - 04/30/2005 FY01: \$115,000 Total: \$115,000  
*Prin. Invest.:* M CHAN  
*Tech. Officer:* MSFC/D HUBBARD  
*CASE Category:* 13 - PHYSICS

**NAG 8 1792** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8092  
RESEARCH ENTITLED, "VALIDATION DATA FOR FULL FLOW STAGED COMBUSTION INJECTORS"  
03/13/2001 - 03/31/2005 FY01: \$367,650 Total: \$367,650  
*Prin. Invest.:* R J SANTORO  
*Tech. Officer:* MSFC/K TUCKER  
*CASE Category:* 43 - CHEMICAL ENGR

**NAG 8 1844** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8093  
FOCUSED ROCKET-EJECTOR ROCKET-BASED COMBINED-CYCLE EXPERIMENTS (RBCC)  
07/16/2001 - 06/30/2002 FY01: \$60,000 Total: \$60,000  
*Prin. Invest.:* R J SANTORO, S PAL  
*Tech. Officer:* MSFC/J H RUFF  
*CASE Category:* 42 - ASTRONAUTICAL ENGR

**NAG 9 1173** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8094  
FACILITATED BLOOD PRESSURE CONTROL  
09/22/1999 - 09/30/2002 FY01: \$133,367 Total: \$281,449  
*Prin. Invest.:* J A PAWELCZYK  
*Tech. Officer:* JSC/C LLOYD  
*CASE Category:* 59 - LIFE SCIENCE, OTHER

**NAG 9 1264** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8095  
BONE STRAIN DURING OG EXERCISE  
11/28/2000 - 10/31/2003 FY01: \$247,831 Total: \$247,831  
*Prin. Invest.:* P CAVANAGH  
*Tech. Officer:* JSC/C W LLOYD  
*CASE Category:* 56 - MEDICAL

**NAG 9 1372** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8096  
MICROFABRICATED OPTICAL BIOSENSOR ARRAYS FOR AIR QUALITY MONITORING  
08/01/2001 - 09/03/2003 FY01: \$101,397 Total: \$101,397  
*Prin. Invest.:* M V PISHKO  
*Tech. Officer:* JSC/D RUSSO  
*CASE Category:* 54 - ENVIRONMENTAL BIOLOGY

**NAS 3 01082** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8097  
REDUCED THERMAL CONDUCTIVITY ZIRCONIA BASED THERMAL BARRIER COATINGS TBC APPLIED ON ALUMINIDE BON  
03/08/2001 - 03/01/2002 FY01: \$100,000 Total: \$100,000  
*Prin. Invest.:*  
*Tech. Officer:* GRC/R DRAPER  
*CASE Category:* 47 - METAL & MATERIALS ENGR

**NAS 5 00024** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8098  
CONTRACTOR WILL PROVIDE 3-DIMENSIONAL FIELDS OF ATMOSPHERIC TRACE GASES.  
11/30/1999 - 11/29/2000 FY01: \$0 Total: \$20,000  
*Prin. Invest.:* W H BRUNE  
*Tech. Officer:* GSFC/J F GLEASON, GSFC/E H HILSENRATH  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAS 5 00136** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8099  
SWIFT ULTRAVIOLET & OPTICAL TELESCOPES X-RAY TELESCOPE, GROUND STATION SYSTEM  
04/27/2000 - 12/31/2006 FY01: \$6,876,000 Total: \$10,782,000  
*Prin. Invest.:* J A NOUSEK  
*Tech. Officer:* GSFC/R BORELLI  
*CASE Category:* 11 - ASTRONOMY

**NAS 8 38252** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8100  
AXAF CCD IMAGING SPECTROMETER  
06/27/1990 - 03/01/2002 FY01: \$2,773,000 Total: \$11,442,000  
*Prin. Invest.:* G P GARMIRE  
*Tech. Officer:* MSFC/M E ROSENTHAL  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAS 8 40890** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8101  
R/S "EXPERIMENTAL & ANALYTICAL MODELING OF THE ROCKET EJECTOR MODE"  
09/04/1996 - 07/01/2001 FY01: \$0 Total: \$1,136,163  
*Prin. Invest.:* S PAL, R J SANTORO  
*Tech. Officer:* MSFC/J C MCARTHUR, MSFC/R L MOORE  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAS 9 99095** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8102  
FOOT REACTION FORCES DURING SPACE FLIGHT  
05/01/1999 - 04/30/2002 FY01: \$117,500 Total: \$558,015  
*Prin. Invest.:* P CAVANAGH  
*Tech. Officer:* JSC/M KAMMAN  
*CASE Category:* 56 - MEDICAL

**NCC 1 300** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8103  
HOX MEASUREMENTS IN PEM TROPOSPHERIC B WITH THE AIRBORNE TROPOSPHERIC HYDROGEN OXIDES SENSOR  
07/07/1998 - 07/30/2001 FY01: \$1 Total: \$720,141  
*Prin. Invest.:* W H BRUNE  
*Tech. Officer:* LARC/J M HOELL, JR., LARC/R J BENDURA  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NCC 1 382** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8104  
NASTRAN DMAP FUZZY STRUCTURES PROGRAMMING  
03/15/2000 - 09/30/2001 FY01: \$49,957 Total: \$104,028  
*Prin. Invest.:* V W SPARROW  
*Tech. Officer:* LARC/R D BUEHRLE/J H ROBINSON  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCC 1 406** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8105  
MODELING THE NOISE OF ARBITRARY, MANEUVERING ROTORS  
09/07/2000 - 08/31/2003 FY01: \$1 Total: \$62,131  
*Prin. Invest.:* K S BRENTNER  
*Tech. Officer:* LARC/H E JONES  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCC 1 414** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8106  
 TRACE-P OH & HO<sub>2</sub> MEAS'S W/AIRBORNE TROPOSPHERIC HYDROGEN OXIDES (ATHOS) ON THE NASA DC-8  
 09/25/2000 - 06/30/2002 FY01: \$189,815 Total: \$472,947  
*Prin. Invest.:* W H BRUNE  
*Tech. Officer:* LARC/J L RAPER, SR  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NCC 2 943** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8107  
 PENN STATE ROTORCRAFT CENTER OF EXCELLENCE  
 02/26/1996 - 12/31/2000 FY01: \$0 Total: \$1,962,492  
*Prin. Invest.:* F C SMITH, L N LONG  
*Tech. Officer:* ARC/Y H YU, ARC/J M DAVIS  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NCC 2 1057** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8108  
 CREATING THE PENN STATE ASTROBIOLOGY RESEARCH CENTER  
 09/17/1998 - 06/30/2003 FY01: \$1,421,457 Total: \$3,441,143  
*Prin. Invest.:* H OHMOTO  
*Tech. Officer:* ARC/R A GRYMES, ARC/W W DOLCI  
*CASE Category:* 59 – LIFE SCIENCE, OTHER

**NCC 2 1122** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8109  
 A NOVEL OXIDATION-RESISTANT THERMAL PROTECTION MATERIAL  
 06/07/1999 - 08/31/2001 FY01: \$0 Total: \$71,820  
*Prin. Invest.:* L R RADOVIC  
*Tech. Officer:* ARC/C E JOHNSON, ARC/M D REZIN  
*CASE Category:* 49 – ENGINEERING, OTHER

**NCC 2 1211** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8110  
 NEW TECHNIQUES FOR DATA FUSION VISUALIZATION & CONDITION MONITORING OF COMPLEX SYSTEMS  
 01/12/2001 - 12/31/2001 FY01: \$235,000 Total: \$235,000  
*Prin. Invest.:* J L WISE  
*Tech. Officer:* ARC/J E PALLIX  
*CASE Category:* 22 – COMPUTER SCIENCE

**NCC 2 5307** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8111  
 DETERMINING THE EFFECT OF CARBON DIOXIDE CLOUDS ON MARTIAN PALEOCLIMATE  
 02/11/1999 - 08/31/2000 FY01: \$0 Total: \$83,000  
*Prin. Invest.:* J F KASTING  
*Tech. Officer:* ARC/R E YOUNG, ARC/R M HABERLE  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NCC 2 5410** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8112  
 GREENHOUSE MECHANISMS FOR WARMING EARLY MARS  
 11/22/2000 - 11/30/2001 FY01: \$45,260 Total: \$45,260  
*Prin. Invest.:* J F KASTINGS  
*Tech. Officer:* ARC/R E YOUNG, ARC/D DESMARAIIS  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NCC 3 597** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8113  
 MULTIAXIAL DEFORMATION STUDY OF HIGH TEMPERATURE METALLIC MATERIALS  
 01/28/1998 - 11/30/2001 FY01: \$0 Total: \$238,796  
*Prin. Invest.:* C J LISSENOEN  
*Tech. Officer:* GRC/B A LERCH, GRC/J R ELLIS  
*CASE Category:* 46 – MECHANICAL ENGR

**NCC 3 718** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8114  
 COMPUTATIONAL AND EXPERIMENTAL STUDY OF ENERGETIC MATERIALS IN A COUNTERLOW MICROGRAVITY ENVIRONMENT  
 06/28/1999 - 06/09/2003 FY01: \$18,798 Total: \$61,980  
*Prin. Invest.:* R A YETTER  
*Tech. Officer:* GRC/D L UBRAN  
*CASE Category:* 19 – PHYSICAL SCIENCE, OTHER

**NCC 3 767** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8115  
 LOW CONDUCTIVE THERMAL BARRIER COATINGS PRODUCED BY ION BEAM ASSISTED EB-PVD WITH CONTROLLED POROSITY  
 02/01/2000 - 01/31/2003 FY01: \$75,000 Total: \$150,000  
*Prin. Invest.:* D SINGH  
*Tech. Officer:* GRC/J ELDREDGE  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NCC 3 848** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8116  
 DEFORMATON RESPONSE AND LIFE OF METALLIC COMPOSITES  
 01/12/2001 - 12/17/2001 FY01: \$100,764 Total: \$100,764  
*Prin. Invest.:* D J LISSENDEN  
*Tech. Officer:* GRC/S M ARNOLD  
*CASE Category:* 47 – METAL & MATERIALS ENGR

**NCC 5 432** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8117  
 LUAU II: LEARNING USING ERNST AIRCRAFT MISSIONS FOR UNDERSTANDING REMOTE SENSING, ATMOSPHERIC SAMPLING  
 09/20/1999 - 09/30/2002 FY01: \$194,990 Total: \$538,637  
*Prin. Invest.:* D L GRABOWSKI  
*Tech. Officer:* GSFC/R E GABRYS  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NCC 5 508** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8118  
 NASA/GSFC COOPERATIVE ENTERPRISE, PROP # 3552  
 08/15/2000 - 08/14/2002 FY01: \$0 Total: \$50,000  
*Prin. Invest.:* J E FREDLEY  
*Tech. Officer:* GSFC/M HAGOPIAN  
*CASE Category:* 46 – MECHANICAL ENGR

**NGT 1 01018** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8119  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) PREVIOUS GRANT NO. NGT-1-52249  
 05/25/2001 - 06/30/2003 FY01: \$12,000 Total: \$12,000  
*Prin. Invest.:* S T KIEMARA  
*Tech. Officer:* LARC/M G BALLEN  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NGT 1 52191** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8120  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 05/20/1998 - 06/30/2002 FY01: \$24,000 Total: \$78,001  
*Prin. Invest.:* P K MC LAUGHLIN  
*Tech. Officer:* LARC/T NORUM, LARC/B J JANSEN  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NGT 1 52249** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8121  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 08/01/2000 - 06/30/2001 FY01: \$12,000 Total: \$22,000  
*Prin. Invest.:* M D LATORELLA  
*Tech. Officer:* LARC/M G BALLIN  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NGT 2 52275** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8122  
 NATIONAL ROTORCRAFT TECHNOLOGY CENTER (NRTC) ROTOR CRAFT CENTER OF EXCELLENCE (RCOE)  
 02/14/2001 - 01/31/2002 FY01: \$623,995 Total: \$623,995  
*Prin. Invest.:* E C SMITH  
*Tech. Officer:* GSFC/AWKERR  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NGT 3 52359** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8123  
 GRADUATE STUDENT RESEARCHERS PROGRAM GRADUATE STUDENT RESEARCHERS PROGRAM  
 07/15/1999 - 08/14/2002 FY01: \$22,000 Total: \$66,000  
*Prin. Invest.:* K W WANG  
*Tech. Officer:* GRC/F J MONTEGANI  
*CASE Category:* 49 – ENGINEERING, OTHER

**NGT 3 52368** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8124  
 GRADUATE STUDENT RESEARCHERS PROGRAM GRADUATE STUDENT RESEARCHERS PROGRAM  
 06/19/2000 - 08/14/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.:* D A SANTAVICCA  
*Tech. Officer:* GRC/F J MONTEGANI  
*CASE Category:* 46 – MECHANICAL ENGR

**NGT 5 118** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8125  
 MODELING OF THE WEST ANTARCTIC ICE SHEET TO ASSESS DIVIDE STABILITY & ICE STREAM EVOLUTION/STUDENT  
 05/31/2001 - 08/14/2002 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.:* R B ALLEY  
*Tech. Officer:* GSFC/M S BURRELL  
*CASE Category:* 32 – GEOLOGICAL SCIENCE

**NGT 5 119** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8126  
 CHARTING THE COURSE OF CIRCUMSTELLAR MATERIAL STUDENT: JOHN DEBES  
 05/31/2001 - 07/31/2002 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.:* JIAN GE  
*Tech. Officer:* GSFC/M S BURRELL  
*CASE Category:* 11 – ASTRONOMY

**NGT 5 127** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8127  
 TESTING BINARY BLACK HOLE CODES IN STRONG FIELD REGIMES (STUDENT: DAVID GARRISON)  
 06/12/2001 - 06/30/2002 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.:* P LAGUNA  
*Tech. Officer:* GSFC/M S BURRELL  
*CASE Category:* 13 – PHYSICS

**NGT 5 30060** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8128  
 IMPROVING SHORT-TERM QUANTITATIVE PRECIPITATION FO RECASTING IN MOUNTAINOUS REGIONS  
 10/18/1997 - 08/31/2000 FY01: \$0 Total: \$66,000  
*Prin. Invest.:* A BARROS  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NGT 5 30139** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8129  
 STUDIES OF OH AND HO2 IN THE PRESENCE OF CIRRUS CLOUDS NEAR THE TROPOPAUSE  
 08/27/1998 - 08/31/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.:* BRUNES, W SIMPAS  
*Tech. Officer:* HQ/M WEI  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NGT 5 30171** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8130  
 INTEGRATED SATELLITE, MODEL, AND FIELD-BASED STUDIES OF CONTROLSON THE EXTENT OF SURFACE MELTING I  
 09/04/1998 - 08/31/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.:* R B ALLEY, B DAS  
*Tech. Officer:* GSFC/M Y WEI  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NGT 5 30193** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8131  
 EDDY CORRELATION MEASUREMENT OF CO2 FLUX IN VOLCANIC-HYDROTHERMAL ENVIRONMENTS SYS/STUDENT J. LEWIC  
 08/19/1999 - 08/31/2002 FY01: \$22,000 Total: \$60,668  
*Prin. Invest.:* S BRANTLEY  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NGT 5 30208** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8132  
 UNDERSTANDING HIGH TROPICAL CIRRUS/STUDENT: MATTHEW T. BOEHM  
 08/18/1999 - 08/31/2001 FY01: \$0 Total: \$44,000  
*Prin. Invest.:* J VERLINDE  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NGT 5 30224** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8133  
 A UNIFIED DATABASE MODEL FOR THE EXPLORATION AND ANALYSIS OF SPATIOTEMPORAL ENVIRONMENTAL  
 08/14/2000 - 08/31/2001 FY01: \$0 Total: \$22,000  
*Prin. Invest.:* D PEUQUET  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NGT 5 30420** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8134  
 PREDICTIVE SIGNATURES ASSOCIATED WITH THE DEVELOPMENT OF TROPICALWEATHER SYSTEMS IN THE EAST  
 09/07/2001 - 08/31/2004 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.:* G JENKINS, NONE  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NGT 5 40064** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8135  
 SUPPORT TO PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE AND FELLOWSHIP PROGRAM.  
 02/25/1997 - 01/31/2001 FY01: \$0 Total: \$1,865,000  
*Prin. Invest.:* R DEVON  
*Tech. Officer:* HQ/J DASCH  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NGT 5 40090** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8136  
 PENNSYLVANIA SPACE GRANT COLLEGE AND FELLOWSHIP PR OGRAM  
 02/22/2001 - 01/31/2002 FY01: \$482,500 Total: \$482,500  
*Prin. Invest.:* R DEVON  
*Tech. Officer:* GSFC/D DETROYE  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NGT 5 50178** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8137  
 AN INVESTIGATION OF CARBON DIOXIDE FLUX MEASUREMENTS IN VOLCANIC & GEOTHERMAL SYSTEMS/GSRP:WERNER C  
 10/09/1997 - 12/31/2000 FY01: \$0 Total: \$66,000  
*Prin. Invest.: S BRANTLEY*  
*Tech. Officer: HQ/L SMITH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50236** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8138  
 GALAXY DISK EVOLUTION\_(STUDENT: DAVID ANDERSEN)  
 05/27/1999 - 06/30/2002 FY01: \$11,000 Total: \$55,000  
*Prin. Invest.: M BERSHADY*  
*Tech. Officer: GSFC/K BLANDING*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50247** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8139  
 DEEP OBSERVATIONS WITH NASA'S CHANDRA X-RAY OBSERVATORY: RESOLVING THE DISCRETE SOURCES OF THE COS  
 06/02/1999 - 06/30/2002 FY01: \$22,000 Total: \$66,000  
*Prin. Invest.: N BRANDT*  
*Tech. Officer: GSFC/L SMITH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50272** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8140  
 AOTF SPECTROMETER SYSTEM FOR THE REMOTE DETECTION OF PLANT CANOPY NUTRIENT STRESSES IN A NASA CELSS/  
 09/08/1999 - 10/31/2000 FY01: \$0 Total: \$22,000  
*Prin. Invest.: P N WALKER*  
*Tech. Officer: GSFC/L SMITH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50277** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8141  
 PEERING THROUGH THE CLOUDS: ABSORPTION STUDIES OF LUMINOUS ACTIVE GALAXIES WITH THE NEW GENERA  
 06/20/2000 - 07/31/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.: W BRANDT*  
*Tech. Officer: GSFC/L K SMITH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50296** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8142  
 COSMIC RAY ENERGETICS AND MASS BALLOON EXPERIMENT STUDENT: ROBERT KILLOREN  
 06/26/2000 - 07/31/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.: S COUTU*  
*Tech. Officer: GSFC/L SMITH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 8 52856** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8143  
 ADVANCED SPACE PROPULSION USING ANTIMATTER  
 07/01/1998 - 08/14/2001 FY01: -\$10,898 Total: \$55,102  
*Prin. Invest.: G A SMITH*  
*Tech. Officer: MSFC/J F DOWDY*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NGT 8 52876** PENNSYLVANIA STATE UNIV. - UNIV. PARK 8144  
 ADVANCED SPACE PROPULSION USING ANTIMATTER, (GSRP)  
 08/13/1999 - 08/14/2002 FY01: \$22,000 Total: \$66,000  
*Prin. Invest.: G A SMITH*  
*Tech. Officer: MSFC/J DOWDY*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 3 2424** PHIL COLLEGE OF PHARMACY & SCIENCE 8145  
 IN VIVO EVALUATION OF A NOVEL AND IMPROVED INSTRUMENT FOR OBJECTIVE EVALUATION OF OPHTHALMIC LENS  
 05/15/2000 - 08/15/2001 FY01: \$0 Total: \$49,872  
*Prin. Invest.: D DUBLIN*  
*Tech. Officer: GRC/B S SINGH*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 5 10094** SWARTHMORE COLLEGE 8146  
 HIGH RESOLUTION SPECTROSCOPIC DIAGNOSTICS OF HOT PLASMA IN THE STELLAR WIND OF EPSILON CANIS MAJORI  
 11/21/2000 - 11/30/2001 FY01: \$23,396 Total: \$23,396  
*Prin. Invest.: D H COHEN*  
*Tech. Officer: GSFC/R MUSHOTZKY*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8649** TEMPLE UNIV 8147  
 TO DEVELOP A PROTOTYPE AUTOMATED NETWORK FAULT DIAGNOSIS SYSTEM FOR A MULTI-CAST BASED IP NETWORK  
 07/28/1999 - 01/31/2001 FY01: \$0 Total: \$59,967  
*Prin. Invest.: S K BISWAS*  
*Tech. Officer: GSFC/B C DRAKE*  
*CASE Category: 29 – MATH/COMPUTER SCI, OTHER*

**NAG 9 1023** THOMAS JEFFERSON UNIV 8148  
 FACTORS MODULATING RADIATION INDUCED G2-DELAYS  
 07/01/1998 - 06/30/2001 FY01: \$91,200 Total: \$599,124  
*Prin. Invest.: C ILIAKIS*  
*Tech. Officer: JSC/F A CUCINOTTA*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 9 1342** THOMAS JEFFERSON UNIV 8149  
 GENETICALLY ENGINEERED COLLAGEN II FOR SMART BIOMATERIALS  
 08/22/2001 - 09/30/2004 FY01: \$54,000 Total: \$54,000  
*Prin. Invest.: A FERTALA*  
*Tech. Officer: JSC/D RISEN*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 3 2172** UNIV OF PENNSYLVANIA 8150  
 COLLOIDAL ASSEMBLY IN ENTROPICALLY DRIVEN LOW-VOLUME-FRACTION BINARY PARTICLE SUSPENSION  
 06/08/1998 - 02/28/2002 FY01: \$207,250 Total: \$629,241  
*Prin. Invest.: A G YODH*  
*Tech. Officer: GRC/R A WILKINSEN*  
*CASE Category: 13 – PHYSICS*

**NAG 3 2417** UNIV OF PENNSYLVANIA 8151  
 ENGINEERING NOVEL BIOCOLLOID SUSPENSIONS ENGINEERING NOVEL BIOCOLLOID SUSPENSIONS  
 05/08/2000 - 11/30/2003 FY01: \$66,500 Total: \$141,500  
*Prin. Invest.: D A HAMMER*  
*Tech. Officer: GRC/D W GRIFFIN*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 5 8767** UNIV OF PENNSYLVANIA 8152  
 COUPLING COMPUTER VISION AND ASTRONAUT PERFORMANCE FOR MULTI-PERSON MODELING AND ANALYSIS  
 08/25/1999 - 08/31/2001 FY01: \$190,894 Total: \$399,750  
*Prin. Invest.: D N METAXAS*  
*Tech. Officer: GSFC/R CROUCH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9194**           **UNIV OF PENNSYLVANIA**           **8153**  
 MICROWAVE FOREGROUNDS AND THEIR POLARIZATION (PI TRANSF. INST  
 ADV STUDIES NAG5-6034)  
 03/08/2000 - 09/30/2002      FY01: \$93,578      Total: \$249,941  
*Prin. Invest.: M TEGMARK*  
*Tech. Officer: GSFC/R OLIVERSEN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9229**           **UNIV OF PENNSYLVANIA**           **8154**  
 BLAST: A BALLOON-BORNE LARGE-APERTURE SUB-MILLIMETER TELESCOPE - A COMPREHENSIVE PLAN FOR GALAC  
 03/20/2000 - 03/30/2002      FY01: \$310,000      Total: \$621,000  
*Prin. Invest.: M DEVLIN*  
*Tech. Officer: GSFC/G STRINGFELLOW*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9241**           **UNIV OF PENNSYLVANIA**           **8155**  
 SELF-HEALING OF CARBON NANOTUBES  
 03/10/2000 - 03/14/2001      FY01: \$0      Total: \$22,190  
*Prin. Invest.: D LUZZI*  
*Tech. Officer: GSFC/H SHAW*  
*CASE Category: 47 - METAL & MATERIALS ENGR*

**NAG 5 10731**           **UNIV OF PENNSYLVANIA**           **8156**  
 A VERY WIDE AREA SURVEY FOR TRANS-NEPTUNIAN OBJECTS  
 04/11/2001 - 04/14/2002      FY01: \$35,000      Total: \$35,000  
*Prin. Invest.: C ALCOCK*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10923**           **UNIV OF PENNSYLVANIA**           **8157**  
 MAPPING LARGE-SCALE STRUCTURE IN THE UNIVERSE  
 05/22/2001 - 03/14/2002      FY01: \$129,447      Total: \$129,447  
*Prin. Invest.: B JAIN*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10924**           **UNIV OF PENNSYLVANIA**           **8158**  
 THE CLUSTERING OF GALAXIES AND DARK MATTER AT INTERMEDIATE REDSHIFTS(ATP 99)  
 05/22/2001 - 03/14/2002      FY01: \$67,762      Total: \$67,762  
*Prin. Invest.: B JAIN*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 11099**           **UNIV OF PENNSYLVANIA**           **8159**  
 CMB POLARIZATION ANALYSIS (LTSA 2000)  
 07/24/2001 - 10/31/2002      FY01: \$91,884      Total: \$91,884  
*Prin. Invest.: M TEGMARK*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 8 1350**           **UNIV OF PENNSYLVANIA**           **8160**  
 FOR RESEARCH ENTITLED: QUANTITATIVE ANALYSIS INTER ACTIONS DURING MEMBRANE PROTEIN CRYSTALLIZATION"  
 06/19/1997 - 10/31/2001      FY01: \$173,411      Total: \$847,373  
*Prin. Invest.: P LOLLI*  
*Prin. Invest.: NONE*  
*Tech. Officer: MSFC/R CROMISE, MSFC/C R TALLEY*  
*CASE Category: 19 - PHYSICAL SCIENCE, OTHER*

**NAG 8 1483**           **UNIV OF PENNSYLVANIA**           **8161**  
 SURFACE TRANSFORMATION OF REACTIVE GLASS IN A MICROGRAVITY ENVIRONMENT  
 02/03/1998 - 01/31/2002      FY01: \$99,750      Total: \$380,250  
*Prin. Invest.: P DUCHEYNE*  
*Tech. Officer: MSFC/P M DOTY*  
*CASE Category: 19 - PHYSICAL SCIENCE, OTHER*

**NAG 8 1683**           **UNIV OF PENNSYLVANIA**           **8162**  
 RESEARCH POLYOMOSOMES: TOUGH, GRANT VESICLES FROM BLOCK COPOLYMERS  
 05/26/2000 - 11/30/2003      FY01: \$114,000      Total: \$164,000  
*Prin. Invest.: D A*  
*Tech. Officer: MSFC/P DOTY*  
*CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)*

**NAG 9 1047**           **UNIV OF PENNSYLVANIA**           **8163**  
 MEASURE UROPONTIN FROM SAMPLE COLLECTION  
 07/21/1998 - 07/31/2000      FY01: -\$1      Total: \$11,999  
*Prin. Invest.: J R HOYER*  
*Tech. Officer: JSC/C SAMS*  
*CASE Category: 56 - MEDICL*

**NAG 9 1161**           **UNIV OF PENNSYLVANIA**           **8164**  
 PREDICTING VULNERABILITY OF PERFORMANCE IMPAIRMENT FROM SLEEP LOSS  
 09/21/1999 - 09/20/2002      FY01: \$167,500      Total: \$317,500  
*Prin. Invest.: H VAN D*  
*Tech. Officer: JSC/C W LLOYD*  
*CASE Category: 59 - LIFE SCIENCE, OTHER*

**NAG 9 1265**           **UNIV OF PENNSYLVANIA**           **8165**  
 ENVIRONMENTAL BIOMEDICAL STRESS DATA  
 12/14/2000 - 10/31/2001      FY01: \$70,000      Total: \$70,000  
*Prin. Invest.: C J LAMBERTSEN*  
*Tech. Officer: JSC/J STANFORD*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 9 1279**           **UNIV OF PENNSYLVANIA**           **8166**  
 CREW TASK SIMULATION FOR MAINTENANCE, TRAINING AND SAFETY  
 02/22/2001 - 09/30/2003      FY01: \$142,500      Total: \$142,500  
*Prin. Invest.: N BADLER*  
*Tech. Officer: JSC/B WOOLFORD*  
*CASE Category: 56 - MEDICL*

**NAG 9 1357**           **UNIV OF PENNSYLVANIA**           **8167**  
 IMPACT OF MICROGRAVITY ON HUMAN OSTEBLAST LIFE HIS TORY: EXPERIMENTAL INVESTIGATION & NUMERICAL STUD  
 08/22/2001 - 09/30/2004      FY01: \$68,000      Total: \$68,000  
*Prin. Invest.: L M SHAPIRO*  
*Tech. Officer: JSC/D RISEN*  
*CASE Category: 59 - LIFE SCIENCE, OTHER*

**NGT 5 30165**           **UNIV OF PENNSYLVANIA**           **8168**  
 DEVELOPMENT OF A TIME RESOLVED VISIBLE AND ULTRAVIOLET SPECTROSCOPIC TECHNIQUE FOR MEASURING RES  
 08/31/1998 - 08/31/2001      FY01: \$0      Total: \$66,000  
*Prin. Invest.: H DAI, L LETENDRE*  
*Tech. Officer: GSFC/M Y WEI*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NGT 5 50210**           **UNIV OF PENNSYLVANIA**           **8169**  
 THE INFLUENCE OF MOLECULAR PROPERTIES ON THE DYNAMICS OF  
 CELL ADHESION  
 07/10/1998 - 06/30/2000      FY01: \$0                   Total: \$44,000  
*Prin. Invest.: D A HAMMER*  
*Tech. Officer: HQ/A NURRIDDIN*  
*CASE Category: 43 – CHEMICAL ENGR*

**NGT 5 50267**           **UNIV OF PENNSYLVANIA**           **8170**  
 ENGINEERING BIOADHESIVE COLLOIDAL SUSPENSIONS  
 07/07/1999 - 06/30/2002      FY01: \$22,000           Total: \$66,000  
*Prin. Invest.: D A HAMMER*  
*Tech. Officer: GSFC/L SMITH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 2 1186**           **UNIV OF PITTSBURGH**           **8171**  
 VESTIBULO-AUTONOMIC CIRCUITS  
 03/17/1998 - 03/31/2002      FY01: \$0                   Total: \$542,675  
*Prin. Invest.: C D BALABAN, C A SCUDER*  
*Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 3 1833**           **UNIV OF PITTSBURGH**           **8172**  
 THE DISSOLUTION OF AN INTERFACE BETWEEN MISCELLANEOUS LIQUIDS  
 05/28/1996 - 05/28/2000      FY01: -\$60,000           Total: \$115,000  
*Prin. Invest.: J V MAHER*  
*Tech. Officer: GRC/R A WILKINSON*  
*CASE Category: 13 – PHYSICS*

**NAG 3 2132**           **UNIV OF PITTSBURGH**           **8173**  
 SMALL - SCALE STRUCTURE OF TURBULENCE SMALL STRUCTURE OF  
 TURBULENCE  
 02/27/1998 - 01/20/2001      FY01: \$0                   Total: \$70,000  
*Prin. Invest.: W GOLDBURG*  
*Tech. Officer: GRC/R SKARICH*  
*CASE Category: 13 – PHYSICS*

**NAG 3 2149**           **UNIV OF PITTSBURGH**           **8174**  
 SPECTROSCOPY STUDIES OF SILICON CARBIDE FOR HIGH POWERED  
 APPLICATIONS  
 04/02/1998 - 01/24/2001      FY01: \$0                   Total: \$200,000  
*Prin. Invest.: W J CHOYKE, R P DEVATY*  
*Tech. Officer: GRC/J A POWELL*  
*CASE Category: 13 – PHYSICS*

**NAG 3 2396**           **UNIV OF PITTSBURGH**           **8175**  
 FORCED TWO-DIMENSIONAL TURBULENCE IN FREELY SUSPENDED FILMS  
 04/14/2000 - 11/30/2003      FY01: \$95,000           Total: \$170,000  
*Prin. Invest.: D WI*  
*Tech. Officer: GRC/F P CHIARAMONTE*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 3 2538**           **UNIV OF PITTSBURGH**           **8176**  
 FUNDING  
 02/06/2001 - 01/19/2002      FY01: \$60,015           Total: \$60,015  
*Prin. Invest.: W J CHOYKE*  
*Tech. Officer: GRC/D J LARKIN*  
*CASE Category: 13 – PHYSICS*

**NAG 5 661**           **UNIV OF PITTSBURGH**           **8177**  
 SUBORBITAL PROGRAM IN MAGNETOSPHERIC & IONOSPHERIC PHYSICS  
 05/04/1990 - 10/31/2001      FY01: \$0                   Total: \$1,006,693  
*Prin. Invest.: E C ZIPF*  
*Tech. Officer: GSFC/W B JOHNSON, GSFC/R H PLESS*  
*CASE Category: 13 – PHYSICS*

**NAG 5 3642**           **UNIV OF PITTSBURGH**           **8178**  
 GEOLOGIC MAPPING OF REULL VALLIS, MARS  
 02/13/1997 - 09/30/2000      FY01: \$0                   Total: \$120,565  
*Prin. Invest.: D A CROWN*  
*Tech. Officer: GSFC/J G GRANT*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 3723**           **UNIV OF PITTSBURGH**           **8179**  
 PHOTOMETRIC ANALYSIS OF SPACECRAFT PLANETARY IMAGE  
 02/12/1997 - 10/31/2000      FY01: \$0                   Total: \$305,442  
*Prin. Invest.: S W HAPKE*  
*Tech. Officer: GSFC/P G ROGERS*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 4116**           **UNIV OF PITTSBURGH**           **8180**  
 ELECTRON-ION RECOMBINATION PROCESSES RELATING TO P  
 03/03/1997 - 12/31/2001      FY01: \$65,000           Total: \$399,775  
*Prin. Invest.: D JOHNSON*  
*Tech. Officer: GSFC/J BERGSTRAHL*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 5267**           **UNIV OF PITTSBURGH**           **8181**  
 LABORATORY SUPPORT FOR THE CRYOGENIC WHOLE AIR SAMPLING OF  
 CARBON DIOXIDE IN THE UPPER MESOSPHERE  
 06/01/2000 - 05/24/2003      FY01: \$68,870           Total: \$131,870  
*Prin. Invest.: E ZIPF*  
*Tech. Officer: GSFC/J C BINTON*  
*CASE Category: 13 – PHYSICS*

**NAG 5 6164**           **UNIV OF PITTSBURGH**           **8182**  
 A CROSS DISCIPLINARY LITERACY COURSE ON EARTH SYSTEM IN THE 21ST  
 CENTURY.  
 08/27/1997 - 12/30/2001      FY01: \$19,839           Total: \$66,868  
*Prin. Invest.: A A PANAH*  
*Tech. Officer: GSFC/N KHAZENIE*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 7930**           **UNIV OF PITTSBURGH**           **8183**  
 THE NATURE AND EVOLUTION OF THE GASEOUS AND STELLAR  
 COMPONENTS OF THE GALAXY POPULATION ASSOCIATE  
 12/14/1998 - 12/14/2001      FY01: \$108,598           Total: \$310,981  
*Prin. Invest.: D A TURNSHEK*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8211**           **UNIV OF PITTSBURGH**           **8184**  
 QUANTITATIVE SPECTROSCOPIC ANALYSES OF MASSIVE STARS (LTSA98)  
 02/26/1999 - 02/28/2002      FY01: \$75,419           Total: \$227,653  
*Prin. Invest.: J D HILLIER*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8531** UNIV OF PITTSBURGH 8185  
 MINIATURE IN SITU GEOCHRONOLOGY INSTRUMENT FOR PLANETARY SURFACE DEPLOYMENT: BREADBOARD DEVELOPMENT  
 06/15/1999 - 06/30/2001 FY01: \$0 Total: \$121,128  
*Prin. Invest.: B W STEWART*  
*Tech. Officer: GSFC/B BETTS*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8546** UNIV OF PITTSBURGH 8186  
 UNRAVELING THE EVOLUTION OF GALAXIES (LTS4 98)  
 05/21/1999 - 03/31/2002 FY01: \$95,395 Total: \$279,861  
*Prin. Invest.: A CONNOLLY*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9051** UNIV OF PITTSBURGH 8187  
 AN INTERDISCIPLINARY TEACHER TRAINING PROGRAM ON EARTH SYSTEM SCIENCE USING INFORMATION TECHNOLOGY  
 02/14/2000 - 02/14/2002 FY01: \$36,469 Total: \$76,692  
*Prin. Invest.: A I PANAH*  
*Tech. Officer: GSFC/N KHAZENIE*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9399** UNIV OF PITTSBURGH 8188  
 MULTIFREQUENCY, MULTIRESOLUTION IMAGE DETECTION  
 04/12/2000 - 03/31/2001 FY01: \$0 Total: \$77,300  
*Prin. Invest.: A CONNOLLY*  
*Tech. Officer: GSFC/J BREDEKAMP*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9438** UNIV OF PITTSBURGH 8189  
 MULTI-SPECTRAL REMOTE SENSING OF BRUSH FIRE SCARS IN ARID URBAN REGIONS: ANALYSIS OF FUTURE FIRE AND  
 04/14/2000 - 04/30/2002 FY01: \$59,356 Total: \$105,703  
*Prin. Invest.: M S RAMSEY*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 9439** UNIV OF PITTSBURGH 8190  
 MONITORING THE HAZARDS OF SILICI VOLCANOES WITH REMOTE SENSING  
 04/14/2000 - 04/30/2002 FY01: \$83,465 Total: \$124,715  
*Prin. Invest.: M S RAMSEY*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 9466** UNIV OF PITTSBURGH 8191  
 EMPLACEMENT OF TERRESTRIAL & PLANETARY LAVA FLOWS  
 04/18/2000 - 04/14/2003 FY01: \$0 Total: \$58,200  
*Prin. Invest.: D A CROWN*  
*Tech. Officer: GSFC/J A GRANT*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 9836** UNIV OF PITTSBURGH 8192  
 MULTI-DIMENSIONAL RADIATIVE TRANSFER IN THE CIRCUM STELLAR MEDIUM  
 10/05/2000 - 10/14/2001 FY01: \$11,736 Total: \$11,736  
*Prin. Invest.: D HILLIER*  
*Tech. Officer: GSFC/S HEAP*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10222** UNIV OF PITTSBURGH 8193  
 REMOTE SENSING OF PLANETARY SURFACES: MODELING & APPLICATIONS  
 01/11/2001 - 01/14/2002 FY01: \$74,200 Total: \$74,200  
*Prin. Invest.: B W HAPKE*  
*Tech. Officer: GSFC/D SENSKA*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 10377** UNIV OF PITTSBURGH 8194  
 TOWARDS UNDERSTANDING STARBURST GALAXIES AT LOW & HIGH REDSHIFT (FUSE-00)  
 02/08/2001 - 02/14/2002 FY01: \$17,000 Total: \$17,000  
*Prin. Invest.: J D HILLIER*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10378** UNIV OF PITTSBURGH 8195  
 JUST WHAT IS ETA CARINAE (FUSE 00)  
 02/08/2001 - 02/14/2002 FY01: \$30,500 Total: \$30,500  
*Prin. Invest.: J D HILLIER*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10628** UNIV OF PITTSBURGH 8196  
 ASTROMETRIC OBSERVATION OF PLANETARY SYSTEMS DISCOVERED BY RADIAL VELOCITY TECHNIQUES  
 03/17/2001 - 03/14/2002 FY01: \$24,800 Total: \$24,800  
*Prin. Invest.: G GATEWOOD*  
*Tech. Officer: GSFC/J M BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 8 1360** UNIV OF PITTSBURGH 8197  
 RESEARCH "USE OF NASA BIOREACTOR TO STUDY CELL CYCLE REGULATION"  
 06/05/1997 - 11/29/2000 FY01: -\$95,522 Total: \$271,906  
*Prin. Invest.: C TALLEY*  
*Tech. Officer: MSFC/P VAUGHN*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 8 1587** UNIV OF PITTSBURGH 8198  
 R/S FREELY SUSPENDED LIQUID FILMS AND THEIR APPLICATIONS IN BIOLOGICAL RESEARCH  
 01/28/1999 - 11/30/2002 FY01: \$54,050 Total: \$283,050  
*Prin. Invest.: X L WU*  
*Tech. Officer: MSFC/B GUYNES*  
*CASE Category: 61 – PSYCHOLOGY BIOLOGY*

**NAG 9 835** UNIV OF PITTSBURGH 8199  
 GROWTH, METABOLISM, AND DIFFERENTIATION OF MIP  
 09/19/1995 - 03/17/2000 FY01: -\$99 Total: \$759,860  
*Prin. Invest.: J M JESSUP*  
*Tech. Officer: JSC/N PELLIS*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 9 1036** UNIV OF PITTSBURGH 8200  
 SLEEPING SHORT  
 06/22/1998 - 07/26/2001 FY01: \$217,550 Total: \$695,951  
*Prin. Invest.: T H MONK*  
*Tech. Officer: JSC/C W LLOYD*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

<b>NAG 9 1234</b>	<b>UNIV OF PITTSBURGH</b>	<b>8201</b>	<b>NGT 5 50318</b>	<b>UNIV OF PITTSBURGH</b>	<b>8209</b>
SLEEP STUDY 10/18/2000 - 09/30/2003	FY01: \$267,523	Total: \$267,523	CORTICAL REPRESENTATION OF SPACE IN HUMANS/STUDENT ELISHA MERRIAM 07/11/2000 - 07/14/2002	FY01: \$22,000	Total: \$44,000
Prin. Invest.: T H MONK Tech. Officer: JSC/C W LLOYD CASE Category: 56 – MEDICL			Prin. Invest.: C L COLBY Tech. Officer: GSFC/L SMITH CASE Category: 99 – MULTI INTERDISCPL, OTHER		
<b>NAS 8 97111</b>	<b>UNIV OF PITTSBURGH</b>	<b>8202</b>	<b>NAG 5 3136</b>	<b>VILLANOVA UNIV</b>	<b>8210</b>
OPERATION AND MANAGEMENT OF THE NASA MID-ATLANTIC TECHNOLOGY CENTER 01/29/1997 - 02/23/2001	FY01: \$354,998	Total: \$5,354,999	EVOLUTION OF THE CORONAL STRUCTURE OF THE SUN IN TIME 11/01/1995 - 11/14/2000	FY01: \$0	Total: \$52,646
Prin. Invest.: L HUMMEL Tech. Officer: LARC/P I CARAWAY CASE Category: 42 – ASTRONAUTICAL ENGR			Prin. Invest.: E F GUINAN Tech. Officer: GSFC/R OLIVERSEN CASE Category: 11 – ASTRONOMY		
<b>NGT 5 125</b>	<b>UNIV OF PITTSBURGH</b>	<b>8203</b>	<b>NAG 5 7113</b>	<b>VILLANOVA UNIV</b>	<b>8211</b>
EVOLUTION OF THE MARTIAN HIGHLANDS: IMPLICATIONS FROM DRAINAGE BASIN CHARACTERISTICS AND VALLEY 06/11/2001 - 06/30/2002	FY01: \$22,000	Total: \$22,000	DETERMINING THE PHYSICAL PROPERTIES OF THE MAIN SEQUENCE B STARS 03/25/1998 - 03/31/2002	FY01: \$0	Total: \$44,393
Prin. Invest.: D A CROWN Tech. Officer: GSFC/M S BURRELL CASE Category: 32 – GEOLOGICAL SCIENCE			Prin. Invest.: E FITZPATRICK Tech. Officer: GSFC/D K WEST CASE Category: 11 – ASTRONOMY		
<b>NGT 5 50174</b>	<b>UNIV OF PITTSBURGH</b>	<b>8204</b>	<b>NAG 5 8388</b>	<b>VILLANOVA UNIV</b>	<b>8212</b>
AN INVESTIGATION OF RAMAN SCATTERING IN SYMBIOTIC STARS_(STUDENT – BIRRIEL, J.) 05/22/1998 - 10/31/2000	FY01: -\$19,252	Total: \$46,748	NEW INSIGHTS INTO THE STRUCTURE & EVOLUTION OF CV WHITE DWARFS USING THE IUE NEWSIPS FINAL ARCHIVE 03/05/1999 - 03/14/2002	FY01: \$0	Total: \$81,017
Prin. Invest.: R SCHULTE-LADBECK Tech. Officer: HQ/A NURRIDIN CASE Category: 11 – ASTRONOMY			Prin. Invest.: E M SION Tech. Officer: GSFC/D K WEST CASE Category: 11 – ASTRONOMY		
<b>NGT 5 50207</b>	<b>UNIV OF PITTSBURGH</b>	<b>8205</b>	<b>NAG 5 8985</b>	<b>VILLANOVA UNIV</b>	<b>8213</b>
TWO-DIMENSIONAL HYDRODYNAMICS IN SOAP FILMS UNDERGOING ELECTROMAGNETIC CONVECTION 07/09/1998 - 06/30/2001	FY01: \$0	Total: \$66,000	SOLAR PHYSICS WITH FUSE: FUV STUDIES OF SOLAR ANALOGS & TWINS - FUSE 01/27/2000 - 01/31/2002	FY01: \$0	Total: \$65,700
Prin. Invest.: X WU Tech. Officer: HQ/A NURRIDIN CASE Category: 13 – PHYSICS			Prin. Invest.: E F GUINAN Tech. Officer: GSFC/G SONNEBORN CASE Category: 11 – ASTRONOMY		
<b>NGT 5 50252</b>	<b>UNIV OF PITTSBURGH</b>	<b>8206</b>	<b>NAG 5 10369</b>	<b>VILLANOVA UNIV</b>	<b>8214</b>
AUTOMATED LEARNING WITH PROBABILISTIC NETWORKS FOR STUDY & EXPLORATION OF THE UNIVERSE/STUDENT: DENV 06/08/1999 - 06/30/2002	FY01: \$22,000	Total: \$66,000	THE COSMIC DISTANCE SCALE: AN ACCURATE DISTANCE TO THE LMC USING ECLIPSING BINARIES (FUSE 00) 02/08/2001 - 02/14/2002	FY01: \$62,500	Total: \$62,500
Prin. Invest.: M DRUDZEL Tech. Officer: GSFC/K BLANDING CASE Category: 99 – MULTI INTERDISCPL, OTHER			Prin. Invest.: E F GUINAN Tech. Officer: GSFC/G SONNEBORN CASE Category: 11 – ASTRONOMY		
<b>NGT 5 50256</b>	<b>UNIV OF PITTSBURGH</b>	<b>8207</b>	<b>NAG 5 10385</b>	<b>VILLANOVA UNIV</b>	<b>8215</b>
THE ROLE OF THE CEREBELLUM IN CARDIOVASCULAR RESPONSES TO CHANGES IN GRAVITY STUDENT: MICHAEL HOLME 07/07/1999 - 06/30/2001	FY01: \$0	Total: \$44,000	A STUDY OF THE ATMOSPHERES OF THE MAIN SEQUENCE B STARS (FUSE 00) 02/08/2001 - 02/14/2002	FY01: \$42,500	Total: \$42,500
Prin. Invest.: B J YATES Tech. Officer: GSFC/L SMITH CASE Category: 99 – MULTI INTERDISCPL, OTHER			Prin. Invest.: E L FITZPATRICK Tech. Officer: GSFC/G SONNEBORN CASE Category: 11 – ASTRONOMY		
<b>NGT 5 50292</b>	<b>UNIV OF PITTSBURGH</b>	<b>8208</b>	<b>NAG 5 10386</b>	<b>VILLANOVA UNIV</b>	<b>8216</b>
MULTISENSORY INTEGRATION IN THE VESTIBULAR NUCLEI: IMPLICATIONS FOR RECOVERY OF FUNCTION FOLLOWING 07/06/2000 - 06/30/2002	FY01: \$22,000	Total: \$44,000	PHYSICS OF BOUNDARY LAYERWHITE DWARF ACCRETION IN DWARF NOVAE (FUSE 00) 02/08/2001 - 05/31/2002	FY01: \$57,900	Total: \$57,900
Prin. Invest.: B J YATES Tech. Officer: GSFC/L SMITH CASE Category: 99 – MULTI INTERDISCPL, OTHER			Prin. Invest.: E M SION Tech. Officer: GSFC/G SONNEBORN CASE Category: 11 – ASTRONOMY		

**NAG 5 10387** VILLANOVA UNIV 8217  
 THE FUV SUN IN TIME A STUDY OF SOLAR ANALOGS OF DIFFERENT AGES  
 (FUSE 00)  
 02/08/2001 - 02/14/2002 FY01: \$30,400 Total: \$30,400  
*Prin. Invest.:* E F GUINAN  
*Tech. Officer:* GSFC/G SONNEBORN  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 10686** VILLANOVA UNIV 8218  
 CNO ABUNDANCES IN LMC BN AND BC SUPERGIANTS (FUSE 2000)  
 04/04/2001 - 04/14/2002 FY01: \$27,208 Total: \$27,208  
*Prin. Invest.:* E L FITPATRICK  
*Tech. Officer:* GSFC/G SONNEBORN  
*CASE Category:* 11 – ASTRONOMY

### RHODE ISLAND

**NAG 1 2070** BROWN UNIV 8219  
 HI ORDER DISCONTINUOUS GALERKIN METHODS FOR CONVECTION  
 DOMINATED PROBLEMS W/APPLIC TO AEROACOUSTICS  
 05/14/1998 - 11/30/2000 FY01: -\$1 Total: \$44,999  
*Prin. Invest.:* C SHU  
*Tech. Officer:* LARC/H L ATKINS  
*CASE Category:* 41 – AERONAUTICAL ENGRN

**NAG 1 2201** BROWN UNIV 8220  
 REGRESSION MODELS AND ALGORITHMS FOR AERODYNAMICS APPLICATIONS  
 06/01/1999 - 09/30/2000 FY01: \$0 Total: \$50,000  
*Prin. Invest.:* A E PEARSON  
*Tech. Officer:* LARC/P C MURPHY  
*CASE Category:* 41 – AERONAUTICAL ENGRN

**NAG 3 1927** BROWN UNIV 8221  
 DYNAMICS AND MORPHOLOGY OF SUPERFLUID HELIUM DROPS IN A  
 MICROGRAVITY ENVIRONMENT  
 07/24/1996 - 01/08/2001 FY01: \$25,000 Total: \$675,000  
*Prin. Invest.:* G M SEIDEL, H MARIS  
*Tech. Officer:* GRC/B S SINGH  
*CASE Category:* 13 – PHYSICS

**NAG 3 1929** BROWN UNIV 8222  
 KINETIC AND THERMODYNAMIC STUDIES OF MELTING-FREEZING OF  
 HELIUM MICROGRAVITY  
 07/24/1996 - 05/31/2002 FY01: \$49,923 Total: \$403,923  
*Prin. Invest.:* D ELBAUM, J M KOSTERLITZ  
*Tech. Officer:* GRC/B S SINGH  
*CASE Category:* 13 – PHYSICS

**NAG 5 3659** BROWN UNIV 8223  
 PLANETARY GEOPHYSICS AND TECTONICS  
 03/07/1997 - 10/31/2001 FY01: \$77,000 Total: \$379,644  
*Prin. Invest.:* E PARMENTIER  
*Tech. Officer:* GSFC/J G GRANTS  
*CASE Category:* 32 – GEOLOGICAL SCIENCE

**NAG 5 3871** BROWN UNIV 8224  
 REFLECTANCE EXPERIMENT LABORATORY  
 02/14/1997 - 09/30/2001 FY01: \$108,000 Total: \$521,039  
*Prin. Invest.:* C M PIETERS  
*Tech. Officer:* GSFC/J G GRANT  
*CASE Category:* 32 – GEOLOGICAL SCIENCE

**NAG 5 3872** BROWN UNIV 8225  
 BROWN REGIONAL PLANETARY DATA CENTER  
 02/14/1997 - 09/30/2001 FY01: \$0 Total: \$216,769  
*Prin. Invest.:* P H SCHULTZ  
*Tech. Officer:* GSFC/P G ROGERS  
*CASE Category:* 32 – GEOLOGICAL SCIENCE

**NAG 5 3877** BROWN UNIV 8226  
 PLANETARY IMPACT PROCESSES  
 02/14/1997 - 09/30/2002 FY01: \$145,000 Total: \$704,152  
*Prin. Invest.:* P H SCHULTZ  
*Tech. Officer:* GSFC/D G SENSKY  
*CASE Category:* 32 – GEOLOGICAL SCIENCE

**NAG 5 3933** BROWN UNIV 8227  
 GEOLOGICAL MAPPING OF VENUS: ORIGIN OF BASINS AND STRATIGRAPHY  
 02/13/1997 - 02/14/2002 FY01: \$88,200 Total: \$290,950  
*Prin. Invest.:* D W HEAD,III  
*Tech. Officer:* GSFC/P G ROGERS  
*CASE Category:* 32 – GEOLOGICAL SCIENCE

**NAG 5 4366** BROWN UNIV 8228  
 REMOTE SENSING INFO APPLIED TO GEOLOGICAL STUDIES  
 04/29/1997 - 12/31/2000 FY01: \$0 Total: \$170,000  
*Prin. Invest.:* C M PIETERS  
*Tech. Officer:* GSFC/P G ROGERS  
*CASE Category:* 32 – GEOLOGICAL SCIENCE

**NAG 5 4585** BROWN UNIV 8229  
 TECTONIC DEFORMATION PATTERNS ON VENUS: RELATION LITHOSPHERIC PROCESSES AND EVOLUTION  
 05/20/1997 - 09/30/2000 FY01: \$0 Total: \$215,000  
*Prin. Invest.:* J W HEAD,III  
*Tech. Officer:* GSFC/P G ROGERS  
*CASE Category:* 32 – GEOLOGICAL SCIENCE

**NAG 5 4723** BROWN UNIV 8230  
 PLANETARY VOLCANIC PROCESSES: SHALLOW MAGMA RESER  
 DIVERSITY OF ERUPTION CONDITIONS  
 06/11/1997 - 09/30/2000 FY01: \$0 Total: \$322,000  
*Prin. Invest.:* J W HEAD,III  
*Tech. Officer:* GSFC/P G ROGERS  
*CASE Category:* 32 – GEOLOGICAL SCIENCE

**NAG 5 5133** BROWN UNIV 8231  
 A HIGH RESOLUTION X-RAY DETECTOR USING MAGNETIC BOLOMETERS  
 03/12/1997 - 09/30/2001 FY01: \$0 Total: \$400,000  
*Prin. Invest.:* G SEIDEL  
*Tech. Officer:* GSFC/B FLOWERS  
*CASE Category:* 13 – PHYSICS

**NAG 5 6003** BROWN UNIV 8232  
 THE DYNAMICS OF A SEMI-ARID REGION IN RESPONSE TO POLICY  
 08/26/1997 - 12/31/2000 FY01: \$0 Total: \$355,000  
*Prin. Invest.:* J MUSTART  
*Tech. Officer:* GSFC/A JANETOS  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NAG 5 6144** BROWN UNIV 8233  
 MARS OBSERVER LASER ALTIMETER (MOLA) PARTICIPATION  
 08/19/1997 - 12/31/2001 FY01: \$100,000 Total: \$560,000  
*Prin. Invest.: J W HEAD*  
*Tech. Officer: GSFC/D E SMITH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 7082** BROWN UNIV 8234  
 AN ULTRASPECTROMETER (MEMUS) FOR PLANETARY SURFACE ANALYSIS  
 03/10/1998 - 03/31/2002 FY01: \$0 Total: \$455,444  
*Prin. Invest.: P H SCHULTZ*  
*Tech. Officer: GSFC/B CAMPBELL*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7866** BROWN UNIV 8235  
 DIAPIRISM AND SOLID-STATE CONVECTION ON EUROPA  
 01/12/1999 - 12/31/2001 FY01: \$0 Total: \$80,000  
*Prin. Invest.: D T PAPPALARDO*  
*Tech. Officer: GSFC/R BEEBE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8046** BROWN UNIV 8236  
 ORIGIN, STRUCTURE, AND EVOLUTION OF GROOVED TERRAIN ON GANYMEDE AND COMPARISON TO EUROPA  
 01/15/1999 - 01/14/2002 FY01: \$0 Total: \$126,523  
*Prin. Invest.: D T PAPPALARDO*  
*Tech. Officer: GSFC/D BOGAN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8144** BROWN UNIV 8237  
 CRYOMAGMATISM ON GANYMEDE AND EUROPA: PRINCIPLES OF EMPLACEMENT AND ERUPTION AND COMPARISON TO O  
 02/01/1999 - 09/30/2000 FY01: \$0 Total: \$105,000  
*Prin. Invest.: D W HEAD, 111*  
*Tech. Officer: GSFC/R BEEBE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8174** BROWN UNIV 8238  
 KINETICS OF MELTING AND DISSOLUTION IN LUNAR MATERIALS  
 02/04/1999 - 04/30/2002 FY01: \$63,000 Total: \$188,000  
*Prin. Invest.: D C HESS*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8181** BROWN UNIV 8239  
 EXPERIMENTS AND SPECTRAL STUDIES OF MARTIAN VOLCANIC ROCKS: IMPLICATIONS FOR THE ORIGIN OF PATHFINDER  
 02/16/1999 - 03/31/2002 FY01: \$58,000 Total: \$169,300  
*Prin. Invest.: M J RUTHERFORD*  
*Tech. Officer: HQ/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8283** BROWN UNIV 8240  
 NORTHERN LOWLANDS OF MARS: TESTS FOR THE PRESENCE OF LAKES, SEAS AND OCEANS IN THE PAST HISTORY  
 02/19/1999 - 02/28/2001 FY01: \$0 Total: \$158,400  
*Prin. Invest.: J W HEAD*  
*Tech. Officer: HQ/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8302** BROWN UNIV 8241  
 MINERALOGY OF LUNAR MATERIALS FROM REFLECTANCE SPECTROSCOPY  
 03/05/1999 - 03/31/2001 FY01: \$0 Total: \$104,000  
*Prin. Invest.: D M PIETERS*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8972** BROWN UNIV 8242  
 MINERALOGY OF THE MARTIAN SURFACE: CRUSTAL COMPOSITION TO SURFACE PROCESSES  
 01/28/2000 - 02/28/2002 FY01: \$74,000 Total: \$144,300  
*Prin. Invest.: J F MUSTARD*  
*Tech. Officer: GSFC/J GRANT*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 9287** BROWN UNIV 8243  
 REMOTE SENSING INFORMATION APPLIED TO GEOLOGICAL STUDIES OF PLANETS  
 03/16/2000 - 03/31/2002 FY01: \$10,000 Total: \$48,000  
*Prin. Invest.: C PIETERS*  
*Tech. Officer: GSFC/J GRANT*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 9453** BROWN UNIV 8244  
 BLAST: A BALLOON-BORNE LARGE-APERTURE SUB-MILLIMETER TELESCOPE - A COMPREHENSIVE PLAN FOR GALAC  
 04/13/2000 - 04/14/2002 FY01: \$115,000 Total: \$215,000  
*Prin. Invest.: G TUCKER*  
*Tech. Officer: GSFC/G STRINGFELLOW*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9522** BROWN UNIV 8245  
 EXPERIMENTAL STUDY OF LUNAR MAGMAS & MAGMATIC PROCESSES  
 04/26/2000 - 04/30/2002 FY01: \$46,000 Total: \$92,000  
*Prin. Invest.: M J RUTHERFRD*  
*Tech. Officer: GSFC/D NAVA*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9589** BROWN UNIV 8246  
 REFLECTANCE & THERMAL INFRARED SPECTROSCOPY OF MAR RELATIONSHIP BETWEEN ISM & TES FOR COMPOS  
 05/12/2000 - 05/14/2002 FY01: \$50,000 Total: \$103,600  
*Prin. Invest.: J F MUSTARD*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9780** BROWN UNIV 8247  
 MARTIAN VOLCANIC EDIFICE & DEPOSIT CHARACTERIZATION: VOLCANIC STYLE, MAGMA TRANSPORT & EDIFICE/CALD  
 07/10/2000 - 06/30/2002 FY01: \$73,000 Total: \$146,000  
*Prin. Invest.: J W HEAD*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

<b>NAG 5 10010</b>	<b>BROWN UNIV</b>	<b>8248</b>	<b>NAG 5 10690</b>	<b>BROWN UNIV</b>	<b>8256</b>
REGOLITH PROCESSES AND THE COMPOSITIONAL DIVERSITY OF MARE BASALTS			VOLCANIC LANDFORMS & DEPOSITS: DIVERSITY OF ERUPTION CONDITIONS & IMPLICATIONS FOR THE ASCENT		
09/25/2000 - 09/30/2002	FY01: \$40,000	Total: \$74,000	03/30/2001 - 03/31/2002	FY01: \$36,000	Total: \$36,000
<i>Prin. Invest.: C M PIETERS</i>			<i>Prin. Invest.: J HEAD</i>		
<i>Tech. Officer: GSFC/J BOYCE</i>			<i>Tech. Officer: GSFC/D SENSKE</i>		
<i>CASE Category: 11 – ASTRONOMY</i>			<i>CASE Category: 11 – ASTRONOMY</i>		
<b>NAG 5 10031</b>	<b>BROWN UNIV</b>	<b>8249</b>	<b>NAG 5 11145</b>	<b>BROWN UNIV</b>	<b>8257</b>
ANALYSIS OF LUNAR PROSPECTOR MAGNETOMETER/ELECTRON REFLECTOMETER (MAG/ER) EXPERIMENT DATA TO ASSIST			LANDSCAPE DYNAMICS AND LAND-USE/LAND-COVER CHANGE IN THE GREAT BASIN/MOJAVE DESERT REGION		
09/28/2000 - 09/30/2002	FY01: \$35,000	Total: \$67,000	07/25/2001 - 08/14/2002	FY01: \$61,387	Total: \$61,387
<i>Prin. Invest.: J W HEAD III</i>			<i>Prin. Invest.: J F MUSTARD</i>		
<i>Tech. Officer: GSFC/J BOYCE</i>			<i>Tech. Officer: GSFC/G GUTMAN</i>		
<i>CASE Category: 11 – ASTRONOMY</i>			<i>CASE Category: 39 – ENVIRONMENTAL SCI, OTHER</i>		
<b>NAG 5 10188</b>	<b>BROWN UNIV</b>	<b>8250</b>	<b>NAG 8 1774</b>	<b>BROWN UNIV</b>	<b>8258</b>
NORTHEAST REGIONAL PLANETARY DATA CENTER			COALESCENCE OF SUPERFLUID HELIUM DROPS IN A MICRO- GRAVITY ENVIRONMENT		
01/03/2001 - 01/14/2002	FY01: \$50,900	Total: \$50,900	04/30/2001 - 04/29/2005	FY01: \$79,946	Total: \$79,946
<i>Prin. Invest.: P H SCHULTZ</i>			<i>Prin. Invest.: H J MARIS</i>		
<i>Tech. Officer: GSFC/D SENSKE</i>			<i>Tech. Officer: MSFC/D HUBBARD</i>		
<i>CASE Category: 11 – ASTRONOMY</i>			<i>CASE Category: 13 – PHYSICS</i>		
<b>NAG 5 10383</b>	<b>BROWN UNIV</b>	<b>8251</b>	<b>NAG 9 1302</b>	<b>BROWN UNIV</b>	<b>8259</b>
DETECTORS WITH BREAK THROUGH ENERGY RESOLUTION USING MAGNETIC SENSORS			SNC OXYGEN FUGACITY RECORDED PYROXENES: AN EXPERIMENTAL & ANALYTICAL STUDY		
02/07/2001 - 01/14/2002	FY01: \$260,030	Total: \$260,030	06/15/2001 - 06/30/2002	FY01: \$22,000	Total: \$22,000
<i>Prin. Invest.: G SEIDEL</i>			<i>Prin. Invest.: M Rutherford</i>		
<i>Tech. Officer: GSFC/C STAHEL</i>			<i>Tech. Officer: JSC/J JONES</i>		
<i>CASE Category: 11 – ASTRONOMY</i>			<i>CASE Category: 56 – MEDICAL</i>		
<b>NAG 5 10401</b>	<b>BROWN UNIV</b>	<b>8252</b>	<b>NAG13 39</b>	<b>BROWN UNIV</b>	<b>8260</b>
REMOTE SENSING INFORMATION APPLIED TO GEOLOGICAL STUDIES OF PLANETS			RHODE ISLAND'S NARRAGANSETT BAY FROM SPACE: A PERSPECTIVE FOR THE 21ST CENTURY		
02/13/2001 - 01/31/2002	FY01: \$40,000	Total: \$40,000	08/01/1996 - 12/31/2000	FY01: \$0	Total: \$627,750
<i>Prin. Invest.: C M PIETERS</i>			<i>Prin. Invest.: MUSTARD</i>		
<i>Tech. Officer: GSFC/D SENSKE</i>			<i>Tech. Officer: SSC/R MCKELLIP</i>		
<i>CASE Category: 32 – GEOLOGICAL SCIENCE</i>			<i>CASE Category: 31 – ATMOSPHERIC SCIENCE</i>		
<b>NAG 5 10469</b>	<b>BROWN UNIV</b>	<b>8253</b>	<b>NCC 1 01035</b>	<b>BROWN UNIV</b>	<b>8261</b>
MINERALOGY OF LUNAR SAMPLES FROM REFLECTANCE SPECTROSCOPY			RELAXATN & PRECONDITNG 4 HI-ORDER DISCONTINUOUS GALERKIN METHODS W/APPLIC AEROACOUSTICS & H/S FLOW		
02/27/2001 - 03/31/2002	FY01: \$35,000	Total: \$35,000	03/21/2001 - 11/30/2003	FY01: \$20,129	Total: \$20,129
<i>Prin. Invest.: C PIETERS</i>			<i>Prin. Invest.: C W SHU</i>		
<i>Tech. Officer: GSFC/J BOYCE</i>			<i>Tech. Officer: LARC/H L ATKINS/2</i>		
<i>CASE Category: 12 – CHEMISTRY</i>			<i>CASE Category: 29 – MATH/COMPUTER SCI, OTHER</i>		
<b>NAG 5 10573</b>	<b>BROWN UNIV</b>	<b>8254</b>	<b>NCC 2 1217</b>	<b>BROWN UNIV</b>	<b>8262</b>
TESTS FOR STANDING BODIES OF WATER IN THE NORTHERN LOWLANDS AND RELATION TO SOUTH POLAR DEPOSITS IN			CAUSAL REASONING		
03/13/2001 - 03/14/2002	FY01: \$80,000	Total: \$80,000	03/13/2001 - 02/28/2002	FY01: \$115,000	Total: \$115,000
<i>Prin. Invest.: J HEAD</i>			<i>Prin. Invest.: S A SLOMAN</i>		
<i>Tech. Officer: GSFC/J M BOYCE</i>			<i>Tech. Officer: ARC/M SHAFTO</i>		
<i>CASE Category: 11 – ASTRONOMY</i>			<i>CASE Category: 22 – COMPUTER SCIENCE</i>		
<b>NAG 5 10665</b>	<b>BROWN UNIV</b>	<b>8255</b>	<b>NCC 5 487</b>	<b>BROWN UNIV</b>	<b>8263</b>
HYDROGEN ISOTOPIC COMPOSITIONS OF INDIVIDUAL ORGANIC COMPOUNDS IN CARBONACEOUS METEORITES			PRECISION AND ACCURACY OF ALI DATA FOR THE DETERMINATION OF VEGETATION ABUNDANCE		
03/21/2001 - 03/31/2002	FY01: \$70,000	Total: \$70,000	04/05/2000 - 12/31/2001	FY01: \$55,540	Total: \$98,900
<i>Prin. Invest.: Y HUANG</i>			<i>Prin. Invest.: J F MUSTARD</i>		
<i>Tech. Officer: GSFC/M MEYER</i>			<i>Tech. Officer: GSFC/S G UNGAR</i>		
<i>CASE Category: 11 – ASTRONOMY</i>			<i>CASE Category: 39 – ENVIRONMENTAL SCI, OTHER</i>		

**NCC13 98005**      **BROWN UNIV**      **8264**  
 BROWN UNIV AFFILIATED RESEARCH CENTER FOR THE NORTHEAST  
 09/15/1998 - 12/31/2001      FY01: \$150,000      Total: \$500,000  
*Prin. Invest.: J F MUSTARD*  
*Tech. Officer: SSC/H CARR*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 1 01024**      **BROWN UNIV**      **8265**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) MY 1/3  
 06/11/2001 - 06/30/2004      FY01: \$22,000      Total: \$22,000  
*Prin. Invest.: A KANESKY*  
*Tech. Officer: LARC/M H CARPENTER*  
*CASE Category: 29 – MATH/COMPUTER SCI, OTHER*

**NGT 1 01037**      **BROWN UNIV**      **8266**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) MY 1/2  
 06/28/2001 - 06/30/2003      FY01: \$22,000      Total: \$22,000  
*Prin. Invest.: C SHA*  
*Tech. Officer: LARC/H L ATKINS*  
*CASE Category: 29 – MATH/COMPUTER SCI, OTHER*

**NGT 1 52243**      **BROWN UNIV**      **8267**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 06/29/2000 - 06/30/2001      FY01: -\$38      Total: \$21,962  
*Prin. Invest.: J RYAN, C W SHU*  
*Tech. Officer: LARC/H L ATKINS*  
*CASE Category: 29 – MATH/COMPUTER SCI, OTHER*

**NGT 3 52369**      **BROWN UNIV**      **8268**  
 GRADUATE STUDENT RESEARCHERS PROGRAM GRADUATE STUDENT  
 RESEARCHERS PROGRAM  
 06/20/2000 - 08/31/2002      FY01: \$22,000      Total: \$44,000  
*Prin. Invest.: G P CRAWFORD*  
*Tech. Officer: GRC/F J MONTEGANI*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NGT 5 91**      **BROWN UNIV**      **8269**  
 SWITCHABLE/TUNABLE INTERFERENCE FILTERS FOR REMOTE SENSING  
 APPLICATIONS STUDENT:ADAM FONTECCHIO  
 06/10/1999 - 08/31/2002      FY01: \$22,000      Total: \$66,000  
*Prin. Invest.: G CRAWFORD*  
*Tech. Officer: GSFC/G A SOFFEN*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NGT 5 40106**      **BROWN UNIV**      **8270**  
 RHODE ISLAND SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM  
 03/06/2001 - 02/28/2002      FY01: \$344,317      Total: \$344,317  
*Prin. Invest.: P H SCHULTZ*  
*Tech. Officer: GSFC/D D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50166**      **BROWN UNIV**      **8271**  
 EFFECTS OF HIGH STRAIN-RATE DEFORMATION ON IMPACT MELT  
 GENERATION  
 06/04/1999 - 06/30/2002      FY01: \$22,000      Total: \$66,000  
*Prin. Invest.: P H SCHULTZ*  
*Tech. Officer: GSFC/L SMITH*  
*CASE Category: 11 – ASTRONOMY*

**NGT 5 50355**      **BROWN UNIV**      **8272**  
 INHOMOGENEITIES IN SUPERSTRING COSMOLOGY  
 05/14/2001 - 08/31/2002      FY01: \$22,000      Total: \$22,000  
*Prin. Invest.: R BRANDENBERGER*  
*Tech. Officer: HQ/K BLANDING*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 90014**      **BROWN UNIV**      **8273**  
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE  
 AND FELLOWSHIP PROGRAM.  
 02/03/1997 - 02/28/2001      FY01: -\$96,817      Total: \$780,683  
*Prin. Invest.: P H SCHULTZ*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 9 53**      **BROWN UNIV**      **8274**  
 TRAINING GRANT/REGOLITH PROCESS ON AIRLESS BODIES  
 06/06/2001 - 06/30/2002      FY01: \$22,000      Total: \$22,000  
*Prin. Invest.: C PIETERS*  
*Tech. Officer: JSC/D MACKAY*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 3 2208**      **UNIV OF RHODE ISLAND**      **8275**  
 CERAMIC BASED STRAIN SENSORS FOR USE AT HIGH TEMPE RATURE  
 11/17/1998 - 07/12/2001      FY01: \$60,000      Total: \$180,000  
*Prin. Invest.: O GREGORY*  
*Tech. Officer: GRC/J LEI*  
*CASE Category: 41 – AERONAUTICAL ENGNR*

**NAG 3 2229**      **UNIV OF RHODE ISLAND**      **8276**  
 NUMERICAL SIMULATIONS FOR THE DESIGN OF TERRESTRIAL AND  
 MICROGRAVITY WETTING MICROHYDRODYNAMICS EXP  
 03/09/1999 - 12/31/2000      FY01: \$0      Total: \$30,888  
*Prin. Invest.: A BOSE*  
*Tech. Officer: GRC/D A JACQUMIN*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 3 2434**      **UNIV OF RHODE ISLAND**      **8277**  
 PHASE CHANGE IN LOW AND JITTERING GRAVITY ENVIRONM ENT  
 SIMULATED VIA ELECTROMAGNETIC FIELD  
 05/30/2000 - 11/30/2003      FY01: \$36,126      Total: \$71,811  
*Prin. Invest.: D FAGHIRI*  
*Tech. Officer: GRC/H C DEGROH*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 5 3736**      **UNIV OF RHODE ISLAND**      **8278**  
 SURVEY OF OCEAN FRONTS WITH SST, ALTIMETER AND IN  
 03/06/1997 - 09/30/2000      FY01: \$0      Total: \$509,922  
*Prin. Invest.: P CORNILLION*  
*Tech. Officer: GSFC/E LINDSTROM*  
*CASE Category: 33 – OCEANOGRAPHY*

**NAG 5 6077**      **UNIV OF RHODE ISLAND**      **8279**  
 PRODUCTION OF WESTERN N ATLANTIC FULL RESOLUTION S ST FIELDS  
 FROM THEAVHRR SENSOR  
 10/24/1997 - 06/30/2000      FY01: -\$1,416      Total: \$212,584  
*Prin. Invest.: D CORNILLION*  
*Tech. Officer: GSFC/E LINDSTROM*  
*CASE Category: 33 – OCEANOGRAPHY*

**NAG 5 6320** UNIV OF RHODE ISLAND 8280  
 PRODUCTION OF WESTERN NORTH ATLANTIC FULL RESOLUTI THE AVHRR SENSOR  
 09/11/1997 – 05/31/2000 FY01: \$0 Total: \$100,000  
*Prin. Invest.: P CORNILLON*  
*Tech. Officer: GSFC/E LINDSTROM*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 6560** UNIV OF RHODE ISLAND 8281  
 DETERMINATION OF OCEAN COLOR PROVINCES IN THE NORT H ATLANTIC  
 10/27/1997 – 10/31/2002 FY01: \$36,814 Total: \$400,122  
*Prin. Invest.: P M STEGMANN*  
*Tech. Officer: GSFC/J YODER*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 6645** UNIV OF RHODE ISLAND 8282  
 SATELLITE STUDIES OF PHYTOPLANKTON DYNAMICS AND PR ODUCTIVITY  
 IN THEGLOBAL OCEAN AND IN OCEAN M  
 12/01/1997 – 10/14/2001 FY01: \$0 Total: \$553,256  
*Prin. Invest.: J A YODER*  
*Tech. Officer: GSFC/J CAMPBELL*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8739** UNIV OF RHODE ISLAND 8283  
 INVESTIGATION OF AERODYNAMIC AND RADOMETRIC LAND SURFACE  
 TEMPERATURES  
 08/19/1999 – 08/14/2002 FY01: \$10,678 Total: \$30,998  
*Prin. Invest.: Y WANG*  
*Tech. Officer: GSFC/E T ENGMAN*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8829** UNIV OF RHODE ISLAND 8284  
 MULTIPLE INNOVATIVE MODELS IN REGIONAL LAND COVER CHANGE  
 STUDIES  
 09/08/1999 – 09/30/2001 FY01: \$0 Total: \$182,484  
*Prin. Invest.: Y WANG*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9633** UNIV OF RHODE ISLAND 8285  
 EXTENSION OF THE 1KM PATHFINDER AVHRR SST ARCHIVE BOTH IN TIME  
 AND SPACE  
 05/26/2000 – 04/30/2002 FY01: \$132,500 Total: \$226,250  
*Prin. Invest.: P CORNILLON*  
*Tech. Officer: GSFC/J DODGE*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9724** UNIV OF RHODE ISLAND 8286  
 U.S. COASTAL BLENDED IN SITU AND REMOTELY-SENSED OCEAN CHLOROPHYLL DATA SETS  
 06/29/2000 – 06/30/2002 FY01: \$22,231 Total: \$38,467  
*Prin. Invest.: J YODER*  
*Tech. Officer: GSFC/J DODGE*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 10554** UNIV OF RHODE ISLAND 8287  
 WIND-INDUCED SHORT TIME-SCALE FLUCTUATIONS OF PHYTOPLANKTON BIOMASS  
 03/12/2001 – 03/14/2002 FY01: \$65,264 Total: \$65,264  
*Prin. Invest.: B UZ*  
*Tech. Officer: GSFC/J MARRA*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10555** UNIV OF RHODE ISLAND 8288  
 SATELLITE STUDIES OF COUPLED BIOLOGICAL & PHYSICAL VARIABILITY IN  
 OCEAN MARGIN WATERS OF THE NORTHWE  
 03/12/2001 – 03/14/2002 FY01: \$180,571 Total: \$180,571  
*Prin. Invest.: J YODER*  
*Tech. Officer: GSFC/J MARRA*  
*CASE Category: 33 – OCEANOGRAPHY*

**NCC 1 302** UNIV OF RHODE ISLAND 8289  
 HYDROGEN PEROXIDE, METHYDROPEROXIDE & FORMALDEHYDE --THEIR  
 RELATIONSHIP TO TROPOSPHERICOXIDANT CHEM  
 07/14/1998 – 06/30/2001 FY01: \$0 Total: \$319,007  
*Prin. Invest.: B HEIKES*  
*Tech. Officer: LARC/J L RAPER, LARC/R J BENDURA*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 1 408** UNIV OF RHODE ISLAND 8290  
 HYDROGEN PEROXIDE,METHYLHYDROGEN PEROXIDE, & FOR- MALDE-  
 HYDE TRANSPORT & CHEM EVOLUTION OVER PACIFIC  
 09/07/2000 – 02/14/2003 FY01: \$90,329 Total: \$199,870  
*Prin. Invest.: D W O'SULLIVAN, B G HEIKES*  
*Tech. Officer: LARC/J L RAPER, SR*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 2 1275** UNIV OF RHODE ISLAND 8291  
 SUBSURFACE BIOSPHERES  
 07/20/2001 – 06/30/2006 FY01: \$292,933 Total: \$292,933  
*Prin. Invest.: S D'HONDRT, A TESKE, K HINRICHNS*  
*Tech. Officer: ARC/R A GRIMES, ARC/W DOLCI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 5 307** UNIV OF RHODE ISLAND 8292  
 THE DISTRIBUTED OCEANOGRAPHIC DATA SYSTEM (DODS):A FRAME-  
 WORK FOR ACCESS TO SCIENTIFIC DATA IN THE EO  
 04/27/1998 – 11/30/2001 FY01: \$210,000 Total: \$2,279,200  
*Prin. Invest.: P CORNILLON*  
*Tech. Officer: GSFC/M MAIDEN*  
*CASE Category: 33 – OCEANOGRAPHY*

## SOUTH CAROLINA

**NAG 2 1164** BENEDICT COLLEGE 8293  
 IDENTIFICATION & ISOLATION OF MICROGRAVITY RESPONS IVE CDNA'S  
 10/06/1997 – 01/14/2001 FY01: \$0 Total: \$298,346  
*Prin. Invest.: L LOWE*  
*Tech. Officer: ARC/R E GRINDELAND, ARC/G S LEE*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 3 2214** CLEMSON UNIV - CLEMSON 8294  
 THERMAL CONTROL AND ENHANCEMENT OF HEAT CAPACITY O F CRYO-  
 GENIC CAPILLARY PUMPED LOOP AND HEAT PIPE W  
 01/22/1999 – 11/01/2002 FY01: \$28,310 Total: \$69,658  
*Prin. Invest.: D M OCHTERBECK*  
*Tech. Officer: GRC/F P CHIARAMONTE*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 5 3699** CLEMSON UNIV - CLEMSON 8295  
 ANALYSIS OF COMPTEL AND OSSE OBSERVATIONS OF SUPER  
 01/24/1997 – 01/31/2001 FY01: \$0 Total: \$52,297  
*Prin. Invest.: M D LEISING*  
*Tech. Officer: GSFC/J P NORRIS*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 4703** CLEMSON UNIV - CLEMSON 8296  
 THE HISTORY OF THE NUCLEI COMPRISING PLANETARY MAT  
 06/11/1997 – 05/31/2001 FY01: \$0 Total: \$136,074  
*Prin. Invest.: D S MEYER*  
*Tech. Officer: GSFC/D F NAVA*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 6210** CLEMSON UNIV - CLEMSON 8303  
 RECONFIGURABLE COMPUTING SYSTEMS FOR REGIONAL VALI APPLICATIONS, CONTROL NUMBER GSFC5-3265  
 08/06/1997 – 06/30/2001 FY01: \$49,924 Total: \$299,772  
*Prin. Invest.: D LIGON, III*  
*Tech. Officer: GSFC/W CAMPBELL*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 5 5186** CLEMSON UNIV - CLEMSON 8297  
 COUPLING OF DYNAMICS IN AURORA FUNDING FOR FIRST YEAR OF GRANT  
 03/30/1998 – 12/31/2002 FY01: \$110,400 Total: \$383,363  
*Prin. Invest.: M F LARSEN*  
*Tech. Officer: GSFC/W B JOHNSON*  
*CASE Category: 13 – PHYSICS*

**NAG 5 7592** CLEMSON UNIV - CLEMSON 8304  
 INVESTIGATING THE FEASIBILITY OF, AND LIMITATIONS ASSOCIATED WITH, RECOVERING GRAVITYWAVE PARAMETER  
 07/07/1998 – 06/30/2001 FY01: \$0 Total: \$158,676  
*Prin. Invest.: M P HICKEY*  
*Prin. Invest.: NONE*  
*Tech. Officer: GSFC/M MELLOTT*  
*CASE Category: 13 – PHYSICS*

**NAG 5 5242** CLEMSON UNIV - CLEMSON 8298  
 A SOUNDING ROCKET INVESTIGATION OF THE FINE STRUCTURE IN THE MESOPAUSE REGION  
 03/16/1999 – 02/28/2002 FY01: \$34,900 Total: \$244,100  
*Prin. Invest.: M F LARSEN*  
*Tech. Officer: GSFC/W B JOHNSON*  
*CASE Category: 13 – PHYSICS*

**NAG 5 7782** CLEMSON UNIV - CLEMSON 8305  
 PHYSICAL VARIATIONS IN THE RAINDROP SIZE DISTRIBUTION & THEIR EFFECTS ONTHE QUANTITATIVE ESTIMATION  
 11/13/1998 – 05/14/2002 FY01: \$44,910 Total: \$149,730  
*Prin. Invest.: C W ULRICH*  
*Tech. Officer: GSFC/O W THIELE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 5259** CLEMSON UNIV - CLEMSON 8299  
 FIRST YEAR OF THREE YEAR EFFORT/ A SEQUENTIAL ROCKET INVESTIGATION OF WINDS AND PLASMA LAYERS  
 04/11/2000 – 03/23/2003 FY01: \$99,000 Total: \$206,700  
*Prin. Invest.: M F LARSEN*  
*Tech. Officer: GSFC/W B JOHNSON*  
*CASE Category: 13 – PHYSICS*

**NAG 5 8075** CLEMSON UNIV - CLEMSON 8306  
 OSSE OBSERVATIONS OF 44TI IN SNR G266.2-1.2  
 01/15/1999 – 01/14/2001 FY01: \$0 Total: \$11,200  
*Prin. Invest.: M D LEISING*  
*Tech. Officer: GSFC/J P NORRIS*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 5317** CLEMSON UNIV - CLEMSON 8300  
 MAPPING THE E-REGION AND ZONAL WINDS NEAR A STABLE AURORAL ARC, USING A NEAR-HORIZONTAL CHEMICAL TRA  
 03/19/2001 – 02/28/2004 FY01: \$96,100 Total: \$96,100  
*Prin. Invest.: M F LARSEN*  
*Tech. Officer: GSFC/J C BRINTON*  
*CASE Category: 13 – PHYSICS*

**NAG 5 8304** CLEMSON UNIV - CLEMSON 8307  
 PRESOLAR DUST GRAINS IN METEORITES: ORIGIN AND MEANING  
 02/25/1999 – 04/14/2002 FY01: \$58,000 Total: \$167,000  
*Prin. Invest.: D CLAYTON*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 5320** CLEMSON UNIV - CLEMSON 8301  
 MULTIPLE-SCALE STUDY OF HIGH-LATITUDE JOULE HEATING DURING A SUBSTORM EVENT  
 04/26/2001 – 12/31/2003 FY01: \$144,700 Total: \$144,700  
*Prin. Invest.: M LARSON*  
*Tech. Officer: GSFC/J BRINTON*  
*CASE Category: 13 – PHYSICS*

**NAG 5 8448** CLEMSON UNIV - CLEMSON 8308  
 RELATING SOLAR BIRTH TO THE GALAXY  
 04/07/1999 – 03/31/2002 FY01: \$45,000 Total: \$130,000  
*Prin. Invest.: D D CLAYTON*  
*Tech. Officer: HQ/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 5325** CLEMSON UNIV - CLEMSON 8302  
 OBSERVING AND MEASURING EARLY OPTICAL LIGHT CURVES FROM GAMMA-RAY BURSTS WITH LOTIS  
 03/21/2001 – 03/31/2002 FY01: \$15,000 Total: \$15,000  
*Prin. Invest.: D H HARTMANN*  
*Tech. Officer: WFF/B A MERRITT*  
*CASE Category: 13 – PHYSICS*

**NAG 5 8605** CLEMSON UNIV - CLEMSON 8309  
 A PROBLEM SOLVING ENVIRONMENT FOR SCALABLE REMOTE SENSING APPLICATIONS  
 06/24/1999 – 03/31/2001 FY01: \$0 Total: \$149,920  
*Prin. Invest.: W LIGON*  
*Tech. Officer: GSFC/K MOE*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 5 8759** CLEMSON UNIV - CLEMSON 8310  
 MANIPULATION AND CONTACT SENSING VIA TRUNKS, TENTACLES, AND WHISKERS  
 08/26/1999 – 08/31/2002 FY01: \$120,039 Total: \$276,852  
*Prin. Invest.: I D WALKER*  
*Tech. Officer: GSFC/S DAVISON*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9267** CLEMSON UNIV - CLEMSON 8311  
 INVESTIGATION OF PLASMA TURBULENCE IN THE EQUATORIAL IONOSPHERE  
 03/13/2000 - 02/28/2002 FY01: \$31,082 Total: \$61,782  
*Prin. Invest.: D HYSELL*  
*Tech. Officer: GSFC/M MELLOTT*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NAG 5 9459** CLEMSON UNIV - CLEMSON 8312  
 SILICON - CARBON NANOTUBE HYBRID DEVICE DESIGN: A ROUTE TO NANOSCALE INTEGRATION  
 04/13/2000 - 04/14/2001 FY01: \$0 Total: \$25,000  
*Prin. Invest.: D L CARROLL*  
*Tech. Officer: GSFC/H C SHAW*  
*CASE Category: 47 - METAL & MATERIALS ENGR*

**NAG 5 9702** CLEMSON UNIV - CLEMSON 8313  
 MEASURING THE TI44 MASS IN CAS A WITH OSSE  
 06/15/2000 - 06/14/2002 FY01: \$0 Total: \$5,000  
*Prin. Invest.: L THE*  
*Tech. Officer: GSFC/J P NORRIS*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9802** CLEMSON UNIV - CLEMSON 8314  
 CU/GSFC GCN/SUPER-LOTIS PROJECT COLLABORATION  
 07/19/2000 - 01/31/2001 FY01: \$0 Total: \$19,885  
*Prin. Invest.: D HARTMANN*  
*Tech. Officer: GSFC/N GEHRELS*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9824** CLEMSON UNIV - CLEMSON 8315  
 EXTRACTION OF SINGLE EVENT UPSET PARAMETERS FROM CIRCUIT SIMULATION CODE  
 07/25/2000 - 07/31/2001 FY01: \$0 Total: \$25,000  
*Prin. Invest.: P MCNULTY*  
*Tech. Officer: GSFC/J BARTH*  
*CASE Category: 49 - ENGINEERING, OTHER*

**NAG 5 10018** CLEMSON UNIV - CLEMSON 8316  
 PVFS 2000: AN OPERATIONAL PARALLEL FILE SYSTEM FOR BEOWULF  
 10/02/2000 - 09/30/2002 FY01: \$152,447 Total: \$152,447  
*Prin. Invest.: D LIGON III*  
*Tech. Officer: GSFC/J DORBAND*  
*CASE Category: 22 - COMPUTER SCIENCE*

**NAG 5 10251** CLEMSON UNIV - CLEMSON 8317  
 STUDIES OF WIND SHEAR INSTABILITIES & GRAVITY WAVES IN THE MLT REGION AIRGLOW & RELATED EFFECTS  
 01/05/2001 - 01/14/2002 FY01: \$79,898 Total: \$79,898  
*Prin. Invest.: M HICKEY*  
*Tech. Officer: GSFC/M MELLOTT*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 10367** CLEMSON UNIV - CLEMSON 8318  
 MINIATURE HEAT TRANSPORT SYSTEM FOR SPACECRAFT THE RMAL CONTROL  
 03/19/2001 - 03/31/2002 FY01: \$39,300 Total: \$39,300  
*Prin. Invest.: D M OCHTERBECK*  
*Tech. Officer: GSFC/J KU*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 10454** CLEMSON UNIV - CLEMSON 8319  
 HISTORY OF THE NUCLEI IMPORTANT FOR COSMOCHEMISTRY  
 02/21/2001 - 05/31/2002 FY01: \$37,000 Total: \$37,000  
*Prin. Invest.: B MEYER*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 12 - CHEMISTRY*

**NAG 5 10764** CLEMSON UNIV - CLEMSON 8320  
 THE RADIOACTIVE MILKY WAY & SUPERNOVAE (LTSA 2000)  
 04/23/2001 - 04/30/2002 FY01: \$77,538 Total: \$77,538  
*Prin. Invest.: M D LEISING*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 11293** CLEMSON UNIV - CLEMSON 8321  
 NANO-ELECTRONCS: CIRCUIT DESIGN FOR SILICON/CARBON NANOTUBE INTEGRATION  
 08/22/2001 - 07/31/2002 FY01: \$25,000 Total: \$25,000  
*Prin. Invest.: D L CARROLL*  
*Tech. Officer: GSFC/H SHAW*  
*CASE Category: 13 - PHYSICS*

**NAG 5 11329** CLEMSON UNIV - CLEMSON 8322  
 ALTERNATIVE COMPUTING ROADMAP PROJECT  
 09/25/2001 - 09/30/2004 FY01: \$33,800 Total: \$33,800  
*Prin. Invest.: D SASS*  
*Tech. Officer: GSFC/P CORONADO*  
*CASE Category: 22 - COMPUTER SCIENCE*

**NCC 1 01036** CLEMSON UNIV - CLEMSON 8323  
 ADVANCED CROSS ENTERPRISE TECHNOLOGY DEVELOPMENT FOR NASA MISSIONS  
 04/12/2001 - 04/30/2004 FY01: \$158,123 Total: \$158,123  
*Prin. Invest.: Y SUN*  
*Tech. Officer: LARC/J W CONWELL*  
*CASE Category: 12 - CHEMISTRY*

**NCC 2 1114** CLEMSON UNIV - CLEMSON 8324  
 VIRTUAL REALITY TECHNOLOGY FOR AIRCRAFT VISUAL INS PECTION: TRAINING & JOB AIDING  
 04/23/1999 - 12/31/2001 FY01: \$105,441 Total: \$248,169  
*Prin. Invest.: A K GRAMOPADHYE*  
*Tech. Officer: ARC/B G KANKI, ARC/M M CONNORS*  
*CASE Category: 49 - ENGINEERING, OTHER*

**NCC 2 5421** CLEMSON UNIV - CLEMSON 8325  
 COMBINATORIAL APPROACH FOR SYNTHESIS & CHARACTERIZ ATION OF CARBON NANOTUBES - A CHARACTERIZATION LA  
 02/15/2001 - 01/31/2002 FY01: \$91,802 Total: \$91,802  
*Prin. Invest.: A M RAO*  
*Tech. Officer: ARC/M MEYYAPPAN, ARC/H PATRIDGE*  
*CASE Category: 13 - PHYSICS*

**NGT 1 01036** CLEMSON UNIV - CLEMSON 8326  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) MY 1/2  
 06/28/2001 - 06/30/2003 FY01: \$12,000 Total: \$12,000  
*Prin. Invest.: Y P SUN*  
*Tech. Officer: LARC/J W CONNELL, LARC/J G SMITH*  
*CASE Category: 12 - CHEMISTRY*

**NGT 1 52238** CLEMSON UNIV - CLEMSON 8327  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 05/03/2000 - 06/30/2001 FY01: \$12,000 Total: \$22,000  
*Prin. Invest.:* Y P SUN  
*Tech. Officer:* LARC/J W CONNELL, LARC/J G SMITH,JR  
*CASE Category:* 12 – CHEMISTRY

**NGT 5 78** CLEMSON UNIV - CLEMSON 8328  
 IMPROVING HIGH PERFORMANCE I/O IN COMPUTATIONAL DATA PROCESSING SYSTEMS PREVIOUS AWARD WAS ON NGT5-  
 04/15/1999 - 06/30/2000 FY01: \$0 Total: \$22,000  
*Prin. Invest.:* LIGON, 11  
*Tech. Officer:* GSFC/G A SOFFEN  
*CASE Category:* 22 – COMPUTER SCIENCE

**NGT 5 85** CLEMSON UNIV - CLEMSON 8329  
 COTS CUSTOM HARDWARE: THE RECONFIGURABLE APPROACH TO CLUSTER BASED PARALLEL: STUDENT/KEITH UNDERWOOD  
 05/20/1999 - 08/14/2002 FY01: \$22,000 Total: \$66,000  
*Prin. Invest.:* W LIGON  
*Tech. Officer:* GSFC/G A SOFFEN  
*CASE Category:* 22 – COMPUTER SCIENCE

**NGT 5 109** CLEMSON UNIV - CLEMSON 8330  
 ALGORITHMS & SCHEDULING FOR PARALLEL I/O (STUDENT: PHILIP CARNS)  
 06/12/2000 - 08/14/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.:* W B LIGON  
*Tech. Officer:* GSFC/G SOFFEN  
*CASE Category:* 22 – COMPUTER SCIENCE

**NGT 8 52858** CLEMSON UNIV - CLEMSON 8331  
 ROBUST SPEECH RECOGNITION SCHEME USING PARALLEL MODEL COMBINATION WITH AN ADAPTIVE HYBRID  
 07/23/1998 - 08/14/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.:* J N GOWDY  
*Tech. Officer:* MSFC/J F DOWDY  
*CASE Category:* 45 – ELECTRICAL ENGR

**NGT10 52611** CLEMSON UNIV - CLEMSON 8332  
 GRADUATE STUDENT RESEARCH GRANT  
 09/01/1997 - 07/30/2000 FY01: \$0 Total: \$66,000  
*Prin. Invest.:* D DAWSON  
*Tech. Officer:* KSC/G BUCKINGHAM  
*CASE Category:* 45 – ELECTRICAL ENGR

**NAG 5 7183** COLLEGE OF CHARLESTON 8333  
 EXPLORING THE SOLAR SYSTEM IN THE CLASSROOM  
 03/16/1998 - 03/14/2002 FY01: \$0 Total: \$48,000  
*Prin. Invest.:* C R COOMBS  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 10313** COLLEGE OF CHARLESTON 8334  
 BETA PIC-LIKE CIRCUMSTELLAR GAS DISK AROUND 2 AND -- FUSE-00  
 01/26/2001 - 01/31/2002 FY01: \$16,000 Total: \$16,000  
*Prin. Invest.:* J E NEFF  
*Tech. Officer:* GSFC/G SONNEBORN  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 10625** COLLEGE OF CHARLESTON 8335  
 AN ARTIFICIAL INTELLIGENCE CLASSIFICATION TOOL & ITS APPLICATION TO GAMMA-RAY BURSTS  
 03/22/2001 - 01/31/2002 FY01: \$104,054 Total: \$104,054  
*Prin. Invest.:* J HAKKILA  
*Tech. Officer:* GSFC/P HUNTER  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NAG 5 10633** COLLEGE OF CHARLESTON 8336  
 EXPLORING THE SOLAR SYSTEM IN THE CLASSROOM: A DIFFERENTIATED MULTISENSORY APPROACH  
 03/17/2001 - 03/14/2002 FY01: \$40,000 Total: \$40,000  
*Prin. Invest.:* C RUNYON  
*Tech. Officer:* GSFC/J M BOYCE  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 11017** COLLEGE OF CHARLESTON 8337  
 EARLY BATSE GRB AFTERGLOWS (ADP 2000)  
 06/12/2001 - 06/14/2002 FY01: \$30,000 Total: \$30,000  
*Prin. Invest.:* T W GIBLIN  
*Tech. Officer:* GSFC/R J OLIVERSEN  
*CASE Category:* 11 – ASTRONOMY

**NCC 5 263** COLLEGE OF CHARLESTON 8338  
 SOUTHEASTERN OSS-SPACE GRANT REGIONAL EDUCATION CO ALITION: KEYS TO IMPLEMENTING NASA'S OSS EDUCATIO  
 01/12/1998 - 01/14/2002 FY01: \$270,000 Total: \$1,030,000  
*Prin. Invest.:* M COLGAN  
*Tech. Officer:* GSFC/J ROSENDHAL  
*CASE Category:* 11 – ASTRONOMY

**NCC 5 413** COLLEGE OF CHARLESTON 8339  
 EPSCOR PREPARATION PROGRAM  
 06/18/1999 - 06/14/2002 FY01: \$0 Total: \$450,000  
*Prin. Invest.:* M COLGAN  
*Tech. Officer:* GSFC/D DETROYE  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NCC 5 575** COLLEGE OF CHARLESTON 8340  
 SOUTH CAROLINA NASA EPSCOR PROGRAM  
 08/23/2001 - 07/31/2004 FY01: \$300,000 Total: \$300,000  
*Prin. Invest.:* M COLGAN  
*Tech. Officer:* GSFC/D DETROYE  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NGT 5 40050** COLLEGE OF CHARLESTON 8341  
 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRA  
 02/03/1997 - 02/28/2002 FY01: \$0 Total: \$1,072,676  
*Prin. Invest.:* M COLGAN  
*Tech. Officer:* GSFC/L KEFFER  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NGT 5 40099** COLLEGE OF CHARLESTON 8342  
 SOUTH CAROLINA SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM  
 02/28/2001 - 02/28/2002 FY01: \$256,250 Total: \$256,250  
*Prin. Invest.:* M COLGAN  
*Tech. Officer:* GSFC/D DETROYE  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NCC 2 1085** FURMAN UNIV 8343  
 PROSPECTIVE REMEMBERING UNDER COMPLEX, DEMANDING & FLUID CONDITIONS  
 01/27/1999 - 01/14/2002 FY01: \$130,000 Total: \$401,024  
*Prin. Invest.:* G O EINSTEIN, M A McDANIEL  
*Tech. Officer:* ARC/R K DISMUKES  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NAG 2 1415** MEDICAL UNIV OF SOUTH CAROLINA 8344  
 EMBRYONIC CELL MIGRATION & METALLOPROTEINASE ACTIVITY ARE AFFECTED BY RANDOMIZATION OF THE GRAVITY  
 07/11/2000 - 06/30/2002 FY01: \$175,655 Total: \$266,175  
*Prin. Invest.:* S HOFFMAN  
*Tech. Officer:* ARC/M M AVERNER/R D MACELROY  
*CASE Category:* 51 – BIOLOGY (EXCLUDING ENVIR)

**NAG 8 1385** MEDICAL UNIV OF SOUTH CAROLINA 8345  
 RESEARCH "GASTRIC MUCOSAL CELL CULTURE IN SIMULATED MICROGRAVITY  
 06/13/1997 - 12/30/2001 FY01: \$46,976 Total: \$572,093  
*Prin. Invest.:* A J SMOKA  
*Tech. Officer:* MSFC/N R PELLIS, MSFC/J MAYO  
*CASE Category:* 56 – MEDICL

**NAG 5 8246** SOUTH CAROLINA STATE UNIV 8346  
 SHARE WITH A PAIR OF PEERS (SWAPO II)  
 02/19/1999 - 02/28/2002 FY01: \$199,164 Total: \$586,190  
*Prin. Invest.:* J D SALLEY  
*Tech. Officer:* GSFC/D MENCHAN  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NAG 5 10145** SOUTH CAROLINA STATE UNIV 8347  
 ENHANCEMENT OF THE SPACE SCIENCE RESEARCH PROGRAM AT SOUTH CAROLINA STATE UNIV  
 01/05/2001 - 12/31/2001 FY01: \$227,000 Total: \$227,000  
*Prin. Invest.:* D K WALTER  
*Tech. Officer:* GSFC/P SAKIMOTO  
*CASE Category:* 11 – ASTRONOMY

**NCC 5 116** SOUTH CAROLINA STATE UNIV 8348  
 CENTER FOR NETWORK RESOURCES AND TRAINING AT SOUTH CAROLINA STATE UNIV  
 08/15/1995 - 08/14/2001 FY01: \$0 Total: \$3,114,000  
*Prin. Invest.:* D K WALTER  
*Tech. Officer:* GSFC/J BENNETT  
*CASE Category:* 22 – COMPUTER SCIENCE

**NCC 5 454** SOUTH CAROLINA STATE UNIV 8349  
 CURRICULUM ENHANCEMENT THROUGH SPACE SCIENCE RSCH  
 02/11/2000 - 02/28/2001 FY01: \$0 Total: \$300,000  
*Prin. Invest.:* D K WALTER  
*Tech. Officer:* GSFC/M MATTHEWS  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NCC 5 534** SOUTH CAROLINA STATE UNIV 8350  
 THE CENTER FOR NASA RESEARCH AND TECHNOLOGY (CNRT) /MUSPIN NRTS PROGRAM.  
 02/01/2001 - 01/31/2002 FY01: \$350,000 Total: \$350,000  
*Prin. Invest.:* D WALTER  
*Tech. Officer:* GSFC/J HARRINGTON  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NAG 1 2108** UNIV OF SOUTH CAROLINA-COLUMBIA 8351  
 A FUNDAMENTAL STUDY OF MATERIAL FLOW IN FRICTION STIR WELDS  
 09/08/1998 - 07/31/2001 FY01: \$0 Total: \$37,407  
*Prin. Invest.:* A P REYNOLDS, NONE  
*Tech. Officer:* LARC/R A HAFLY  
*CASE Category:* 47 – METAL & MATERIALS ENGR

**NAG 1 2237** UNIV OF SOUTH CAROLINA-COLUMBIA 8352  
 DEV OF A NOVEL METH FOR DETERMINATION OF RESIDUAL STRESSES IN A FRICTION STIR WELD - NRA-99-LARC-1  
 09/21/1999 - 07/31/2001 FY01: -\$1 Total: \$50,693  
*Prin. Invest.:* A P REYNOLDS  
*Tech. Officer:* LARC/R S PLASCIK, LARC/J C NEWMAN, JR.  
*CASE Category:* 47 – METAL & MATERIALS ENGR

**NAG 5 8837** UNIV OF SOUTH CAROLINA-COLUMBIA 8353  
 STUDY OF LAND-ATMOSPHERE INTERACTIONS USING SATELLITE DATA ASSIMILATION  
 09/22/1999 - 09/30/2001 FY01: \$0 Total: \$114,265  
*Prin. Invest.:* V LAKSHMI  
*Tech. Officer:* GSFC/P T Houser  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NAG 5 8875** UNIV OF SOUTH CAROLINA-COLUMBIA 8354  
 COUPLING SATELLITE REMOTE SENSING & UNSTEADY FLOW MODELING FOR DISCHARGE ESTIMATION  
 11/16/1999 - 10/31/2001 FY01: \$0 Total: \$44,880  
*Prin. Invest.:* V LAKSHMI  
*Tech. Officer:* GSFC/E T ENGMAN  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NAG 5 9233** UNIV OF SOUTH CAROLINA-COLUMBIA 8355  
 THE INFLUENCE OF LAND-ATMOSPHERE INTERACTIONS ON VARIABILITY OF THE NORTH AMERICAN MONSOON  
 04/06/2000 - 04/30/2002 FY01: \$66,109 Total: \$116,848  
*Prin. Invest.:* V LAKSHMI  
*Tech. Officer:* GSFC/D WICKLAND  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NAG 5 10322** UNIV OF SOUTH CAROLINA-COLUMBIA 8356  
 FUNDING GRANT FOR PROPOSAL # NRA-99-055-05 TITLED HIGH PERF ULTRAVIOLET DETECTORS BASED ON QUATERNAR  
 01/31/2001 - 12/31/2001 FY01: \$472,615 Total: \$472,615  
*Prin. Invest.:* D KHAN  
*Tech. Officer:* GSFC/B MOTT  
*CASE Category:* 19 – PHYSICAL SCIENCE, OTHER

**NAG 5 11128** UNIV OF SOUTH CAROLINA-COLUMBIA 8357  
 EXTENDED VALIDATION OF AMSR-E SOIL MOISTURE PROduc TS (AQUA-0084-0032)  
 07/27/2001 - 08/31/2002 FY01: \$30,790 Total: \$30,790  
*Prin. Invest.:* V LAKSHMI  
*Tech. Officer:* GSFC/D STARR  
*CASE Category:* 19 – PHYSICAL SCIENCE, OTHER

**NAG 5 11253** UNIV OF SOUTH CAROLINA-COLUMBIA 8358  
 AN ASSESSMENT OF GLOBAL ORGANIC CARBON FLUX ALONG CONTINENTAL\_MARGINS  
 08/20/2001 - 08/31/2004 FY01: \$48,613 Total: \$48,613  
*Prin. Invest.:* R THUNELL  
*Tech. Officer:* GSFC/J MARRA  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NCC 5 174 UNIV OF SOUTH CAROLINA-COLUMBIA 8359**  
 EXPERIMENTAL PROGRAM TO STIMULATE COMPETITIVE RESE  
 12/16/1996 - 03/31/2002 FY01: \$500,000 Total: \$2,499,009  
*Prin. Invest.: J D ODOM*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC13 00003 UNIV OF SOUTH CAROLINA-COLUMBIA 8360**  
 PROGRAM FOR A NASA AFFILIATED RESEARCH CENTER PROGRAM AT  
 THE UNIV OF SOUTH CAROLINA  
 02/01/2000 - 01/31/2002 FY01: \$150,000 Total: \$365,750  
*Prin. Invest.: J JENSEN*  
*Tech. Officer: SSC/N SOVIK*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT13 52712 UNIV OF SOUTH CAROLINA-COLUMBIA 8361**  
 NASA GRADUATE STUDENT PROGRAM-LEWIS HYPERSPECTRAL CHAR-  
 ACTERIZATION OF HAZARDOUS WASTE SITE CLAY CAPS  
 07/22/1997 - 07/31/2000 FY01: -\$6,491 Total: \$59,509  
*Prin. Invest.: J JENSEN*  
*Tech. Officer: JSC/A JOYCE*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT13 52723 UNIV OF SOUTH CAROLINA-COLUMBIA 8362**  
 MACHINE LEARING GMDH NEURO-FUZZY TECHNIQUES INHERENT  
 OPTICAL PROPERTY ESTIMATED  
 07/22/1999 - 07/31/2002 FY01: \$22,000 Total: \$66,000  
*Prin. Invest.: J JENSEN*  
*Tech. Officer: SSC/R TRAVIS*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 5 9624 VOORHEES COLLEGE 8363**  
 EARTH SCIENCE EDUCATION AND RESEARCH INITIATIVE  
 05/23/2000 - 05/14/2002 FY01: \$139,980 Total: \$279,960  
*Prin. Invest.: C SMITH*  
*Tech. Officer: GSFC/C PERSON*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 8 1310 WOFFORD COLLEGE 8364**  
 JOVE RESEARCH  
 01/21/1997 - 08/31/2000 FY01: -\$5,620 Total: \$30,150  
*Prin. Invest.: D M SCOTT*  
*Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT*  
*CASE Category: 49 – ENGINEERING, OTHER*

## SOUTH DAKOTA

**NAG 5 6299 AUGUSTANA COLLEGE 8365**  
 AUGUSTANA COLLEGE, EARTH SYSTEM SCIENCE, CURRICULU  
 09/19/1997 - 08/31/2000 FY01: -\$9,585 Total: \$47,632  
*Prin. Invest.: V K OLNESS*  
*Tech. Officer: GSFC/N KHAZENIE*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 7548 OGLALA LAKOTA COLLEGE 8366**  
 OGLALA LAKOTA COLLEGE PACE/MSET  
 07/01/1998 - 09/30/2001 FY01: \$0 Total: \$300,000  
*Prin. Invest.: J HAAS*  
*Tech. Officer: GSFC/T GULL*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10935 OGLALA LAKOTA COLLEGE 8367**  
 NASA/OGLALA LAKOTA COLLEGE SUMMER INST AND RESEARCH INST.  
 NASA HONORS SUPPLEMENTAL SUC  
 06/07/2001 - 06/14/2002 FY01: \$41,500 Total: \$41,500  
*Prin. Invest.: S PHELPS*  
*Tech. Officer: GSFC/D MENCHAN*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 3 1680 SOUTH DAKOTA SCHOOL OF MINES & TECH 8368**  
 STUDY OF SOLID STATE SURFACE FOR ELECTRON EMISSION APPLICA-  
 TIONS  
 12/05/1994 - 10/15/2000 FY01: \$0 Total: \$50,708  
*Prin. Invest.: A PETUKHOV*  
*Tech. Officer: GRC/I L KRAINSKY*  
*CASE Category: 13 – PHYSICS*

**NAG 5 7746 SOUTH DAKOTA SCHOOL OF MINES & TECH 8369**  
 PROVIDE FOR SCIENTIFIC KNOWLEDGE FOR INDIAN LEARNI NG AND  
 LEADERSHIP FOR MISSION TO PLANET EARTH  
 10/21/1998 - 08/31/2001 FY01: \$100,000 Total: \$300,000  
*Prin. Invest.: F CAMPONE*  
*Tech. Officer: GSFC/N KHAZENIE*  
*CASE Category: 21 – MATHEMATICS*

**NAG 5 8973 SOUTH DAKOTA SCHOOL OF MINES & TECH 8370**  
 EARTH SYSTEMS CONNECTIONS: AN INTEGRATED K-4 SCIENCE, MATH-  
 EMATICS, & TECHNOLOGY CURRICULUM  
 02/15/2000 - 12/31/2001 FY01: \$161,600 Total: \$309,100  
*Prin. Invest.: L A VIERLING*  
*Tech. Officer: GSFC/N KHAZENIE*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 8 1447 SOUTH DAKOTA SCHOOL OF MINES & TECH 8371**  
 UPPER MISSOURI RIVER BASIN HYDROLOGY: PILOT PROJECT  
 02/23/1998 - 09/30/2000 FY01: \$0 Total: \$800,000  
*Prin. Invest.: S O FAREWELL, P L SMITH*  
*Tech. Officer: MSFC/J ARNOLD*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG13 99021 SOUTH DAKOTA SCHOOL OF MINES & TECH 8372**  
 APPLICATION OF REMOTE SENSING TO FOREST RESOURCE INVENTORY  
 AND HABITAT MODELING  
 08/13/1999 - 10/31/2002 FY01: \$101,404 Total: \$200,040  
*Prin. Invest.: M PRICE*  
*Tech. Officer: JSC/R MCKELLIP*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NCC 5 402 SOUTH DAKOTA SCHOOL OF MINES & TECH 8373**  
 NASA EPSCOR: PREPARATORY GRANT PROPOSAL  
 05/14/1999 - 12/31/2001 FY01: \$0 Total: \$450,000  
*Prin. Invest.: S FARWELL*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 5 588 SOUTH DAKOTA SCHOOL OF MINES & TECH 8374**  
 THE USE OF REMOTE SENSING FOR MONITORING, PREDICTI ON, AND  
 MANAGEMENT OF HYDROLIC, AGRICULTURAL, AND  
 08/31/2001 - 08/31/2004 FY01: \$512,100 Total: \$512,100  
*Prin. Invest.: S O FARWELL*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 30402**    **SOUTH DAKOTA SCHOOL OF MINES & TECH**    **8375**  
 SEMI-ARID GRASSLAND ECOSYSTEM FORCING: REPLACING NATIVE,  
 FREE-RANGING UNGULATE GRAZING WITH HUMAN-  
 09/05/2001 - 08/31/2004    FY01: \$22,000    Total: \$22,000  
*Prin. Invest.: P R ZIMMERMAN*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 40042**    **SOUTH DAKOTA SCHOOL OF MINES & TECH**    **8376**  
 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRA  
 01/24/1997 - 02/28/2001    FY01: -\$48,281    Total: \$759,219  
*Prin. Invest.: S O FARWELL*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 40095**    **SOUTH DAKOTA SCHOOL OF MINES & TECH**    **8377**  
 SOUTH DAKOTA SPACE GRANT COLLEGE AND FELLOWSHIP PR OGGRAM  
 02/28/2001 - 02/28/2002    FY01: \$260,781    Total: \$260,781  
*Prin. Invest.: S O FARWELL, NONE*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 3445**    **SOUTH DAKOTA STATE UNIV**    **8378**  
 CHARACTERIZATION OF LANDSAT-7 GEOMETRY AND RADIOME TRY FOR  
 LAND COVER ANALYSIS.  
 10/04/1996 - 06/30/2001    FY01: \$24,769    Total: \$342,782  
*Prin. Invest.: HELDER*  
*Tech. Officer: GSFC/D L WILLIAMS*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 3540**    **SOUTH DAKOTA STATE UNIV**    **8379**  
 TM RADIOMETRIC CALIBRATION  
 11/19/1996 - 06/30/2001    FY01: \$0    Total: \$266,146  
*Prin. Invest.: D HELDER*  
*Tech. Officer: GSFC/DL WILLIAMS*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 11351**    **SOUTH DAKOTA STATE UNIV**    **8380**  
 LANDSAT RADOMETRIC CALIBRATION: TOWARDS A 20 YEAR RECORD OF  
 CALIBRATED THEMATIC MAPPER CLASS DAT FO  
 09/14/2001 - 09/14/2004    FY01: \$99,975    Total: \$99,975  
*Prin. Invest.: D HELDER*  
*Tech. Officer: GSFC/B L MARKHAM*  
*CASE Category: 39 – ENVIRONMENTALSCI, OTHER*

**NCC 5 472**    **SOUTH DAKOTA STATE UNIV**    **8381**  
 AN INTEGRATED ASSESSMENT OF THE EARTH OBSRVER - 1 INSTRUMENT  
 SUITE & THE LANDSAT 7 ENHANCED THEMATIC  
 03/08/2000 - 12/31/2001    FY01: \$146,674    Total: \$188,090  
*Prin. Invest.: D HELDER*  
*Tech. Officer: GSFC/S UNGAR*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 10344**    **EAST TENNESSEE STATE UNIV**    **8383**  
 THE OUTER ATMOSPHERE OF MIRA VARIABLES (FUSE 00)  
 01/31/2001 - 01/31/2002    FY01: \$20,623    Total: \$20,623  
*Prin. Invest.: D G LUTTERMOSER*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 8 1375**    **EAST TENNESSEE STATE UNIV**    **8384**  
 METASTABLE SOLUTION STRUCTURE AND OPTIMIZATION STRAGEGIES IN  
 PROTEIN CRYSTAL GROWTH  
 06/18/1997 - 09/30/2003    FY01: \$121,057    Total: \$477,499  
*Prin. Invest.: L WILSON*  
*Tech. Officer: MSFC/B GUYNES, MSFC/J MAYO*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NAG 3 2298**    **FISK UNIV**    **8385**  
 SURFACE AND INTERFACIAL STRUCTURES OF METAL ULTRA- THIN FILM  
 ON SIC AT Elevated TEMPERATURES  
 10/14/1999 - 11/10/2001    FY01: \$0    Total: \$192,484  
*Prin. Invest.: D E COLLINS*  
*Tech. Officer: GRC/G HUNTER*  
*CASE Category: 43 – CHEMICAL ENGR*

**NAG 3 2308**    **FISK UNIV**    **8386**  
 SIZE GRADED QUANTUM DOT SOLAR ENERGY CELLS FOR SPA CE POWER  
 TECHNOLOGY  
 12/10/1999 - 11/30/2001    FY01: \$147,963    Total: \$282,963  
*Prin. Invest.: D O HENDERSON*  
*Tech. Officer: GRC/E CLARK*  
*CASE Category: 13 – PHYSICS*

**NAG 5 8876**    **FISK UNIV**    **8387**  
 NOVEL METHODS OF FABRICATION & EVALUATION OF ROOM TEMPERA-  
 TURE X-RAY & GAMMA-RAY CDZNTÉ DETECTORS  
 11/24/1999 - 10/31/2000    FY01: \$0    Total: \$35,000  
*Prin. Invest.: A BURGER*  
*Tech. Officer: GSFC/N GEHRELS*  
*CASE Category: 13 – PHYSICS*

**NAG 8 1604**    **FISK UNIV**    **8388**  
 OPTICAL TRAPPING AND MANIPULATION OF NANOCRYSTALS CREATED IN  
 A LASER ABATION PLUME  
 04/21/1999 - 04/20/2002    FY01: \$96,355    Total: \$300,971  
*Prin. Invest.: D O HENDERSON*  
*Tech. Officer: MSFC/U*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NCC 8 133**    **FISK UNIV**    **8389**  
 FOR RESEARCH "FISK UNIV CENTER FOR PHOTONIC MATERIALS AND  
 DEVICES"  
 04/21/1997 - 12/31/2001    FY01: \$1,200,000    Total: \$5,200,000  
*Prin. Invest.: E SILHERMAN*  
*Tech. Officer: MSFC/D O FRAZIER*  
*CASE Category: 13 – PHYSICS*

**NCC 8 195**    **FISK UNIV**    **8390**  
 CHARACTERIZATION OF CRYSTALLINE PERFECTION OF BINARY AND  
 TERNARY GAP SEMICONDUCTORS  
 09/30/1999 - 09/29/2001    FY01: \$79,824    Total: \$199,759  
*Prin. Invest.: A BURGER*  
*Tech. Officer: MSFC/C HUA SU*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

## TENNESSEE

**NAG 3 2454**    **CHRISTIAN BROTHERS COLLEGE**    **8382**  
 ROBUST STRATEGY FOR ROCKET ENGINE HEALTH MONITORIN G  
 06/07/2000 - 05/31/2001    FY01: \$57,737    Total: \$144,264  
*Prin. Invest.: D SANTI*  
*Tech. Officer: GRC/E WONG*  
*CASE Category: 42 – ASTRONAUTICAL ENGR*

**NAG 8 1486** MIDDLE TENNESSEE STATE UNIV 8391  
 R/S DEVELOPMENT OF ANIONIC POLYELECTROLYTES FOR SOLID STATE BATTERY APPLICATION  
 04/21/1998 - 01/31/2002 FY01: \$15,531 Total: \$164,531  
*Prin. Invest.:* A C FRIEDLI  
*Tech. Officer:* MSFC/C TALLEY  
*CASE Category:* 19 – PHYSICAL SCIENCE, OTHER

**NAG 5 6049** RHODES COLLEGE 8392  
 ACCELERATION OF THE SOLAR WIND  
 07/25/1997 - 08/31/2000 FY01: \$0 Total: \$20,370  
*Prin. Invest.:* D MACQUEEN  
*Tech. Officer:* GSFC/M FORMAN  
*CASE Category:* 11 – ASTRONOMY

**NAG 2 1419** TENNESSEE STATE UNIV 8393  
 QUALITY OF SERVICE COMPARISONS BETWEEN SATELLITE, MIRCOWAVE, & T1 COMMUNICATIONS  
 07/13/2000 - 06/14/2002 FY01: \$100,000 Total: \$200,000  
*Prin. Invest.:* W A SMITH  
*Tech. Officer:* ARC/K A FREEMAN, ARC/D CHOW  
*CASE Category:* 22 – COMPUTER SCIENCE

**NAG 2 1473** TENNESSEE STATE UNIV 8394  
 EMBODIMENT OF INTELLIGENT BEHAVIORS ON MOBILE ROBOTS  
 04/18/2001 - 10/31/2001 FY01: \$132,567 Total: \$132,567  
*Prin. Invest.:* M S ZEIN-SABATTO  
*Tech. Officer:* ARC/S P COLOMBANO, ARC/S LAU  
*CASE Category:* 22 – COMPUTER SCIENCE

**NAG 2 6052** TENNESSEE STATE UNIV 8395  
 A PARTNERSHIP BETWEEN THE TENNESSEE STATE UNIV CTR. OF EXCELLENCE, THE NM SUPERCOMPUTING CHALLENGE &  
 09/27/2001 - 09/30/2002 FY01: \$100,000 Total: \$100,000  
*Prin. Invest.:* W A SMITH  
*Tech. Officer:* ARC/B J COLLINS, ARC/A CARDENAS  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NAG 3 1797** TENNESSEE STATE UNIV 8396  
 MELTING OF SOLID PARTICLES IN A FLUID UNDER MICROGRAVITY  
 11/28/1995 - 08/31/2000 FY01: \$0 Total: \$599,924  
*Prin. Invest.:* P X TAO  
*Tech. Officer:* GRC/D S SINGH  
*CASE Category:* 46 – MECHANICAL ENGR

**NAG 3 2272** TENNESSEE STATE UNIV 8397  
 TECHNICAL RESEARCH/MENTORSHIP SYMPOSIUM '99 INTEGRATION OF EDUCATION, WORK CYCLES, AND GRADUATE SCH  
 06/23/1999 - 06/30/2001 FY01: \$0 Total: \$200,000  
*Prin. Invest.:* D B ROGERS  
*Tech. Officer:* GRC/R F LAWRENCE  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NAG 3 2441** TENNESSEE STATE UNIV 8398  
 COLLEGE BOUND TO GRADUATE SCHOOL COLLEGE BOUND TO GRADUATE SCHOOL  
 05/24/2000 - 11/30/2000 FY01: \$0 Total: \$49,750  
*Prin. Invest.:* D B ROGERS  
*Tech. Officer:* GRC/M CAWTHON  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NAG 3 2471** TENNESSEE STATE UNIV 8399  
 TSU RESEARCH PROJECTS FOR INCREASING THE POOL OF MINORITY ENGINEERS  
 07/10/2000 - 06/30/2002 FY01: \$92,400 Total: \$164,800  
*Prin. Invest.:* D ROGERS, NONE  
*Tech. Officer:* GRC/S MERRITT  
*CASE Category:* 49 – ENGINEERING, OTHER

**NAG 3 2577** TENNESSEE STATE UNIV 8400  
 THE NASA ENGINEERING AND SCIENCE COLLABORATIVE THE NASA ENGINEERING AND SCIENCE COLLABORATIVE  
 04/18/2001 - 09/30/2001 FY01: \$762,940 Total: \$762,940  
*Prin. Invest.:* D ROGERS  
*Tech. Officer:* GRC/R LAWRENCE  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NAG 3 2606** TENNESSEE STATE UNIV 8401  
 COLLEGE BOUND TO GRADUATE SCHOOL PROGRAM COLLEGE BOUND TO GRADUATE SCHOOL PROGRAM  
 05/23/2001 - 09/30/2001 FY01: \$53,212 Total: \$53,212  
*Prin. Invest.:* D ROGERS  
*Tech. Officer:* GRC/M BOROWSKI  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NAG 5 10896** TENNESSEE STATE UNIV 8402  
 TSU SPACE SCIENCE AND ASTROBIOLOGY INITIATIVE  
 05/04/2001 - 04/30/2002 FY01: \$200,000 Total: \$200,000  
*Prin. Invest.:* M BUSBY  
*Tech. Officer:* GSFC/M MATHEWS  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NAG10 217** TENNESSEE STATE UNIV 8403  
 NEW AUTOMATED WEB BASED TRACKING SYSTEM  
 09/01/1997 - 09/30/2000 FY01: -\$78,110 Total: \$252,490  
*Prin. Invest.:* S SINGH DEVGAN  
*Tech. Officer:* KSC/K BALLARD  
*CASE Category:* 22 – COMPUTER SCIENCE

**NCC 2 1205** TENNESSEE STATE UNIV 8404  
 A PARTNERSHIP BETWEEN THE TSU CTR. OF EXCELLENCE & THE NM SUPERCOMPUTING CHALLENGE  
 09/26/2000 - 09/30/2001 FY01: \$0 Total: \$70,800  
*Prin. Invest.:* W A SMITH  
*Tech. Officer:* ARC/M E DUENAS, ARC/K FREEMAN  
*CASE Category:* 22 – COMPUTER SCIENCE

**NCC 5 96** TENNESSEE STATE UNIV 8405  
 NASA/TSU NETWORK RESOURCE AND TRAINING SITE  
 08/15/1995 - 08/14/2001 FY01: \$0 Total: \$2,878,000  
*Prin. Invest.:* W A SMITH  
*Tech. Officer:* GSFC/J HARRINGTON  
*CASE Category:* 22 – COMPUTER SCIENCE

**NCC 5 228** TENNESSEE STATE UNIV 8406  
 UNIV RESEARCH CENTER FOR AUTOMATED SPACE SCI 7/1/97 - 6/30/98.  
 09/05/1997 - 06/30/2000 FY01: \$0 Total: \$3,525,000  
*Prin. Invest.:* M BUSBY  
*Tech. Officer:* GSFC/P SAKIMOTO  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

<b>NCC 5 511</b>	<b>TENNESSEE STATE UNIV</b>	<b>8407</b>	<b>NGT 8 52911</b>	<b>TENNESSEE TECHNOLOGICAL UNIV</b>	<b>8415</b>
CENTER FOR AUTOMATED SPACE SCIENCE			DEV & EVALUATION OF CAPTURE DEVICES FOR RENDEZVOUS WITH TETHER-DRIVEN TRANSFER VEHICLES		
08/23/2000 - 06/30/2002	FY01: \$1,065,401	Total: \$1,500,000	06/26/2001 - 06/30/2004	FY01: \$22,000	Total: \$22,000
<i>Prin. Invest.:</i> M BUSBY			<i>Prin. Invest.:</i> S CANFIELD		
<i>Tech. Officer:</i> GSFC/M MATHEWS			<i>Tech. Officer:</i> MSFC/S NASH-STEVENSON		
<i>CASE Category:</i> 99 – MULTI INTERDISCPL, OTHER			<i>CASE Category:</i> 46 – MECHANICAL ENGR		
<b>NCC 5 531</b>	<b>TENNESSEE STATE UNIV</b>	<b>8408</b>	<b>NAG 5 7197</b>	<b>UNIV OF MEMPHIS</b>	<b>8416</b>
NASA/TSU MINORITY UNIVERSITIES INFORMATION NETWORK FOR RESEARCH & EDUCATION/MUSPIN NRTSPROGRAM			NEW DIAGNOSTIC CONSTRAINTS FOR CORONAL HEATING AND LOOP DYNAMICS MODELS		
02/01/2001 - 01/31/2002	FY01: \$365,321	Total: \$365,321	04/14/1998 - 04/30/2000	FY01: -\$1,504	Total: \$42,033
<i>Prin. Invest.:</i> W A SMITH			<i>Prin. Invest.:</i> J T SCHMELZ		
<i>Tech. Officer:</i> GSFC/J HARRINGTON			<i>Tech. Officer:</i> GSFC/W WAGNER		
<i>CASE Category:</i> 99 – MULTI INTERDISCPL, OTHER			<i>CASE Category:</i> 11 – ASTRONOMY		
<b>NAG 8 1279</b>	<b>TENNESSEE TECHNOLOGICAL UNIV</b>	<b>8409</b>	<b>NAG 5 7617</b>	<b>UNIV OF MEMPHIS</b>	<b>8417</b>
RESEARCH FOR JOVE			FUNDING FOR 'LANDSLIDE HAZARD IN RESPONSE TO SHORT TERM CLIMATE CHANGE' (SENH98-0020)		
01/21/1997 - 08/31/2000	FY01: -\$5	Total: \$74,995	07/24/1998 - 06/30/2002	FY01: \$37,500	Total: \$225,000
<i>Prin. Invest.:</i> J C CHAI			<i>Prin. Invest.:</i> M ELLIS		
<i>Tech. Officer:</i> MSFC/J P DOWDY, MSFC/J R PRUITT			<i>Tech. Officer:</i> GSFC/H V FREY		
<i>CASE Category:</i> 99 – MULTI INTERDISCPL, OTHER			<i>CASE Category:</i> 32 – GEOLOGICAL SCIENCE		
<b>NAG 8 1631</b>	<b>TENNESSEE TECHNOLOGICAL UNIV</b>	<b>8410</b>	<b>NAG 5 9783</b>	<b>UNIV OF MEMPHIS</b>	<b>8418</b>
ANALYSIS OF NEARLY STEADY PHOTOSPHERIC FLOWS			OBSERVATIONAL CONSTRAINTS FOR CORONAL HEATING MODELS		
09/07/1999 - 09/08/2002	FY01: \$58,000	Total: \$87,000	07/06/2000 - 06/30/2002	FY01: \$29,166	Total: \$60,429
<i>Prin. Invest.:</i> S HAN			<i>Prin. Invest.:</i> J T SCHMELZ		
<i>Tech. Officer:</i> MSFC/D HATHAWAY			<i>Tech. Officer:</i> GSFC/W J WAGNER		
<i>CASE Category:</i> 59 – LIFE SCIENCE, OTHER			<i>CASE Category:</i> 13 – PHYSICS		
<b>NAG 8 1749</b>	<b>TENNESSEE TECHNOLOGICAL UNIV</b>	<b>8411</b>	<b>NCC 2 1244</b>	<b>UNIV OF MEMPHIS</b>	<b>8419</b>
ACTIVE CONTROL OF LARGE, FLEXIBLE SPACE STRUCTURES USING SHAPE MEMORY ALLOYS			SODAS: MODELS OF SELF-ORGANIZING ONTOGENETIC DEVELOPMENT FOR AUTONOMOUS ADAPTIVE SYSTEMS		
10/02/2000 - 10/01/2001	FY01: \$37,813	Total: \$37,813	04/05/2001 - 02/28/2002	FY01: \$150,000	Total: \$150,000
<i>Prin. Invest.:</i> S CANFIELD			<i>Prin. Invest.:</i> R KOZMA		
<i>Tech. Officer:</i> MSFC/C K CARRINGTON			<i>Tech. Officer:</i> ARC/T R GOVINDAN, ARC/S LAU		
<i>CASE Category:</i> 99 – MULTI INTERDISCPL, OTHER			<i>CASE Category:</i> 22 – COMPUTER SCIENCE		
<b>NAG 8 1793</b>	<b>TENNESSEE TECHNOLOGICAL UNIV</b>	<b>8412</b>	<b>NAG 5 9031</b>	<b>UNIV OF TENNESSEE - CHATTANOOGA</b>	<b>8420</b>
CONCEPT DEL AND EVAL OF CAPTURE DEVICES FOR RENEDE ZOUS WITH TETHER-DRIVEN TRANSFER VEHICLES			PRE-SERVICE TEACHER ENHANCEMENT PROGRAM		
03/06/2001 - 02/15/2002	FY01: \$38,000	Total: \$38,000	02/04/2000 - 02/14/2002	FY01: \$109,673	Total: \$201,390
<i>Prin. Invest.:</i> S CANFIELD			<i>Prin. Invest.:</i> T L PATTY		
<i>Tech. Officer:</i> MSFC/K WELZN			<i>Tech. Officer:</i> GSFC/B MEESON		
<i>CASE Category:</i> 46 – MECHANICAL ENGR			<i>CASE Category:</i> 39 – ENVIRONMENTAL SCI, OTHER		
<b>NAG 8 1794</b>	<b>TENNESSEE TECHNOLOGICAL UNIV</b>	<b>8413</b>	<b>NAG 1 2163</b>	<b>UNIV OF TENNESSEE - KNOXVILLE</b>	<b>8421</b>
ENHANCEMENT OF EJECTOR EFFICIENCY IN ADVANCE RE- USABLE PROPULSION ENGINE			ATMOSPHERIC ENTRY STUDIES FOR MARS MISSIONS		
03/13/2001 - 09/30/2003	FY01: \$60,000	Total: \$60,000	04/20/1999 - 06/30/2000	FY01: \$0	Total: \$20,000
<i>Prin. Invest.:</i> S S HAN, J PIEDDIESON			<i>Prin. Invest.:</i> J E LYNE		
<i>Tech. Officer:</i> MSFC/J J HUTT			<i>Tech. Officer:</i> LARC/M M MUNK		
<i>CASE Category:</i> 46 – MECHANICAL ENGR			<i>CASE Category:</i> 42 – ASTRONAUTICAL ENGR		
<b>NGT 8 52883</b>	<b>TENNESSEE TECHNOLOGICAL UNIV</b>	<b>8414</b>	<b>NAG 1 2292</b>	<b>UNIV OF TENNESSEE - KNOXVILLE</b>	<b>8422</b>
HYDROSTATIC EFFECTS ON YIELDING AND FATIGUE LIFE			HIGH-SPEED PROPULSION SYSTEMS MODELING & ANALYSIS MY 1/3		
09/10/1999 - 09/09/2002	FY01: \$22,000	Total: \$66,000	04/18/2000 - 07/31/2000	FY01: -\$3,556	Total: \$62,030
<i>Prin. Invest.:</i> C WILSON			<i>Prin. Invest.:</i> D W RIGGINS		
<i>Tech. Officer:</i> MSFC/J DOWDY			<i>Tech. Officer:</i> LARC/C R MCCLINTON, LARC/S H STACK		
<i>CASE Category:</i> 46 – MECHANICAL ENGR			<i>CASE Category:</i> 41 – AERONAUTICAL ENGR		

<b>NAG 5 4541</b>	<b>UNIV OF TENNESSEE - KNOXVILLE</b>	<b>8423</b>	<b>NAG 5 9158</b>	<b>UNIV OF TENNESSEE - KNOXVILLE</b>	<b>8431</b>
METEORITE PETROGENESIS			PETROGENESIS OF LUNAR AND PLANETARY CRUSTS AND MANTLES		
05/06/1997 - 03/31/2002	FY01: \$106,000	Total: \$537,000	03/03/2000 - 02/28/2001	FY01: \$0	Total: \$109,000
<i>Prin. Invest.:</i> D V MCSWEEN, JR.			<i>Prin. Invest.:</i> L A TAYLOR		
<i>Tech. Officer:</i> GSFC/J BOYCE			<i>Tech. Officer:</i> GSFC/J BOYCE		
<i>CASE Category:</i> 11 – ASTRONOMY			<i>CASE Category:</i> 11 – ASTRONOMY		
<b>NAG 5 4842</b>	<b>UNIV OF TENNESSEE - KNOXVILLE</b>	<b>8424</b>	<b>NAG 5 10414</b>	<b>UNIV OF TENNESSEE - KNOXVILLE</b>	<b>8432</b>
MINERALOGY AND SPECTRAL PROPERTIES OF LUNAR SOIL			PETROGENESIS OF PLANETARY CRUSTS AND MANTLES AND METEORITES		
06/19/1997 - 04/30/2001	FY01: \$0	Total: \$102,000	02/14/2001 - 02/14/2002	FY01: \$110,000	Total: \$110,000
<i>Prin. Invest.:</i> D A TAYLOR			<i>Prin. Invest.:</i> L A TAYLOR		
<i>Tech. Officer:</i> HQ/J BOYCE			<i>Tech. Officer:</i> GSFC/J BOYCE		
<i>CASE Category:</i> 11 – ASTRONOMY			<i>CASE Category:</i> 11 – ASTRONOMY		
<b>NAG 5 8405</b>	<b>UNIV OF TENNESSEE - KNOXVILLE</b>	<b>8425</b>	<b>NAG 5 10525</b>	<b>UNIV OF TENNESSEE - KNOXVILLE</b>	<b>8433</b>
TOWARD THE CORE COLLAPSE SUPERNOVA MECHANISM: THE NEXT GENERATION INNEUTRINO TRANSPORT AND CONVE			DUST AND FELDSPAR MINERALOGY ON MARS FROM THERMAL EMISSION SPECTRA		
03/16/1999 - 08/31/2002	FY01: \$59,000	Total: \$167,694	03/06/2001 - 03/14/2002	FY01: \$60,700	Total: \$60,700
<i>Prin. Invest.:</i> A MEZZACAPPA			<i>Prin. Invest.:</i> H MCSWEEN		
<i>Tech. Officer:</i> GSFC/R J OLIVERSEN			<i>Tech. Officer:</i> GSFC/J BOYCE		
<i>CASE Category:</i> 11 – ASTRONOMY			<i>CASE Category:</i> 11 – ASTRONOMY		
<b>NAG 5 8726</b>	<b>UNIV OF TENNESSEE - KNOXVILLE</b>	<b>8426</b>	<b>NAG 5 10582</b>	<b>UNIV OF TENNESSEE - KNOXVILLE</b>	<b>8434</b>
PLANETARY PETROLOGY AND GEOCHEMISTRY			AN INVESTIGATION OF THE PREHISTORY, FORMATION & EVOLUTION OF THE SOLAR SYSTEM THROUGH ULTRASENSIT		
08/04/1999 - 07/31/2002	FY01: \$24,000	Total: \$70,500	03/19/2001 - 04/30/2002	FY01: \$25,000	Total: \$25,000
<i>Prin. Invest.:</i> L A TAYLOR			<i>Prin. Invest.:</i> N THONNARD		
<i>Tech. Officer:</i> GSFC/J BOYCE			<i>Tech. Officer:</i> GSFC/J BOYCE		
<i>CASE Category:</i> 11 – ASTRONOMY			<i>CASE Category:</i> 11 – ASTRONOMY		
<b>NAG 5 8760</b>	<b>UNIV OF TENNESSEE - KNOXVILLE</b>	<b>8427</b>	<b>NAG 5 10635</b>	<b>UNIV OF TENNESSEE - KNOXVILLE</b>	<b>8435</b>
TOWARDS INTELLIGENT DISTRIBUTED BIOLUMINESCENCE DETECTION OF BIOLOGICAL CONTAMINATION AND STRESSORS			SPECIAL CONSIDERATIONS IN THE INTERPRETATION OF THERMAL INFRARED SPECTROSCOPY FROM LANDERS AN		
08/26/1999 - 02/28/2002	FY01: \$131,155	Total: \$375,057	03/17/2001 - 03/14/2002	FY01: \$73,000	Total: \$73,000
<i>Prin. Invest.:</i> G S SAYLER			<i>Prin. Invest.:</i> J MOERSCH		
<i>Tech. Officer:</i> GSFC/R CROUCH			<i>Tech. Officer:</i> GSFC/J BOYCE		
<i>CASE Category:</i> 99 – MULTI INTERDISCPL, OTHER			<i>CASE Category:</i> 11 – ASTRONOMY		
<b>NAG 5 8773</b>	<b>UNIV OF TENNESSEE - KNOXVILLE</b>	<b>8428</b>	<b>NAG 5 10666</b>	<b>UNIV OF TENNESSEE - KNOXVILLE</b>	<b>8436</b>
NHSE – THE NATIONAL HPCC SOFTWARE EXCHANGE			RECOGNIZING BIOTIC INFLUENCES ON PLANETARY EVOLU- TION: INVESTIGATING THE BIOGEOCHEMICAL RECORD OF		
09/07/1999 - 08/31/2002	FY01: \$50,000	Total: \$340,000	03/21/2001 - 03/31/2002	FY01: \$82,200	Total: \$82,200
<i>Prin. Invest.:</i> J DONGARRA			<i>Prin. Invest.:</i> L KAH		
<i>Tech. Officer:</i> GSFC/J R FISCHER			<i>Tech. Officer:</i> GSFC/M MEYER		
<i>CASE Category:</i> 22 – COMPUTER SCIENCE			<i>CASE Category:</i> 11 – ASTRONOMY		
<b>NAG 5 8926</b>	<b>UNIV OF TENNESSEE - KNOXVILLE</b>	<b>8429</b>	<b>NAG 5 10788</b>	<b>UNIV OF TENNESSEE - KNOXVILLE</b>	<b>8437</b>
THE POROSITY OF ASTEROIDS			REMOTE SENSING FOR MARTIAN EXOPALEONTOLOGY: DETECTABILITY THRESHOLDS FOR AQUEOUS MINERALS AS A BASIS		
01/07/2000 - 12/31/2001	FY01: \$33,000	Total: \$64,350	04/23/2001 - 04/30/2002	FY01: \$50,000	Total: \$50,000
<i>Prin. Invest.:</i> D BRITT			<i>Prin. Invest.:</i> J E MOERSCH		
<i>Tech. Officer:</i> GSFC/J GRANT			<i>Tech. Officer:</i> GSFC/M MEYER		
<i>CASE Category:</i> 11 – ASTRONOMY			<i>CASE Category:</i> 11 – ASTRONOMY		
<b>NAG 5 9061</b>	<b>UNIV OF TENNESSEE - KNOXVILLE</b>	<b>8430</b>	<b>NAG 5 10794</b>	<b>UNIV OF TENNESSEE - KNOXVILLE</b>	<b>8438</b>
THE MINERALOGY OF THE INNER ASTEROID BELT			MINERALOGY & SPECTRAL PROPERTIES OF LUNAR SOILS		
02/15/2000 - 02/14/2003	FY01: \$40,900	Total: \$79,443	04/25/2001 - 04/30/2002	FY01: \$24,000	Total: \$24,000
<i>Prin. Invest.:</i> D T BRITT			<i>Prin. Invest.:</i> L TAYLOR		
<i>Tech. Officer:</i> GSFC/T MORGAN			<i>Tech. Officer:</i> GSFC/J BOYCE		
<i>CASE Category:</i> 11 – ASTRONOMY			<i>CASE Category:</i> 11 – ASTRONOMY		

**NAG 5 11201**      **UNIV OF TENNESSEE - KNOXVILLE**      **8439**  
MINERALOGICAL MAPPING OF PUTATIVE MARTIAN PALEOLAK E BASINS  
08/07/2001 - 08/14/2002      FY01: \$50,000      Total: \$50,000  
*Prin. Invest.: J E MOERSCH*  
*Tech. Officer: GSFC/J M BOYCE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 8 1442**      **UNIV OF TENNESSEE - KNOXVILLE**      **8440**  
R/S PROJECT SEE (SATELITE ENERGY EXHANGE) TEST OF EQUIVALENCE  
PRINCIPLE & MEASUREMENT OF GRAVITATION  
04/24/1998 - 01/31/2003      FY01: \$57,000      Total: \$177,000  
*Prin. Invest.: A J SANDERS*  
*Tech. Officer: MSFC/J POE*  
*CASE Category: 13 - PHYSICS*

**NAG 8 1568**      **UNIV OF TENNESSEE - KNOXVILLE**      **8441**  
REVERSIBLE CRYOGENIC STORAGE OF MACROMOLECULAR CRYSTALS  
GROWN IN MICROGRAVITY  
01/15/1999 - 11/30/2002      FY01: \$146,300      Total: \$414,300  
*Prin. Invest.: G J BUNICK*  
*Tech. Officer: MSFC/B V GUYNES, MSFC/D CHAFEE*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 8 1669**      **UNIV OF TENNESSEE - KNOXVILLE**      **8442**  
RESEARCH ENTITLED, "DEVELOPMENT OF A MONTE CARLO RADIATION  
TRANSPORT CODE SYSTEM FOR HEDS"  
08/16/2000 - 11/30/2003      FY01: \$57,000      Total: \$107,000  
*Prin. Invest.: L W TOWNSEND, T A GABRIEL, T W ARMSTRONG*  
*Tech. Officer: MSFC/P DOTY*  
*CASE Category: 13 - PHYSICS*

**NAG 8 1826**      **UNIV OF TENNESSEE - KNOXVILLE**      **8443**  
STRUCTURAL STUDIES OF NUCLEOSOMES AND CHROMATIN  
09/06/2001 - 11/30/2004      FY01: \$57,000      Total: \$57,000  
*Prin. Invest.: G J BUNICK*  
*Tech. Officer: MSFC/B GUYNES*  
*CASE Category: 19 - PHYSICAL SCIENCE, OTHER*

**NAG 9 1080**      **UNIV OF TENNESSEE - KNOXVILLE**      **8444**  
BIOLUMINESCENT BIOREPORTER INGETRATED CIRCUITS FOR  
MONITORING SPACECRAFT ENVIRONMENTS  
03/15/1999 - 03/14/2002      FY01: \$93,066      Total: \$386,132  
*Prin. Invest.: G S SAYLER*  
*Tech. Officer: JPL/D JAN*  
*CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)*

**NAG 9 1121**      **UNIV OF TENNESSEE - KNOXVILLE**      **8445**  
PREDICTING ASTRONAUT RADIATION DOSE FR SOLAR ENERGETIC  
07/01/1999 - 06/30/2000      FY01: \$0      Total: \$22,000  
*Prin. Invest.: J S NEAL*  
*Tech. Officer: JSC/G BADHWAR*  
*CASE Category: 59 - LIFE SCIENCE, OTHER*

**NAG 9 1123**      **UNIV OF TENNESSEE - KNOXVILLE**      **8446**  
MEASUREMENT OF SECONDARY NEUTRON AND CHARGES PARTICAL  
SPECTRA  
07/01/1999 - 06/30/2002      FY01: \$22,000      Total: \$66,000  
*Prin. Invest.: L W TOWNSEND*  
*Tech. Officer: JSC/F A CUCINOTTA*  
*CASE Category: 59 - LIFE SCIENCE, OTHER*

**NAG 9 1269**      **UNIV OF TENNESSEE - KNOXVILLE**      **8447**  
FUNDING FOR RADIATION IMPACT STUDY  
03/29/2001 - 06/30/2001      FY01: \$22,000      Total: \$22,000  
*Prin. Invest.: J NEAL*  
*Tech. Officer: JSC/G D BADHER*  
*CASE Category: 56 - MEDICAL*

**NAG10 221**      **UNIV OF TENNESSEE - KNOXVILLE**      **8448**  
GRAVITATIONAL EFFECTS ON EMBRYOGENESIS  
07/31/1997 - 10/31/2000      FY01: -\$690      Total: \$239,788  
*Prin. Invest.: R CONGES*  
*Tech. Officer: KSC/W KNOTT*  
*CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)*

**NCC 2 1187**      **UNIV OF TENNESSEE - KNOXVILLE**      **8449**  
IN SITU & REMOTE SENSING OF MARTIAN GEOLOGY  
06/29/2000 - 06/30/2001      FY01: \$0      Total: \$29,534  
*Prin. Invest.: J E MOERSCH, E J HENRIKSEN*  
*Tech. Officer: ARC/T L ROUSH, ARC*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NCC 2 5310**      **UNIV OF TENNESSEE - KNOXVILLE**      **8450**  
DEVELOPING INFORMATION POWER GRID BASED ALGORITHMS & SOFT-  
WARE  
03/15/1999 - 02/29/2000      FY01: \$0      Total: \$95,000  
*Prin. Invest.: J DONGARRA*  
*Tech. Officer: ARC/S SAINI*  
*CASE Category: 22 - COMPUTER SCIENCE*

**NCC 2 5312**      **UNIV OF TENNESSEE - KNOXVILLE**      **8451**  
PERFORMANCE MODELING  
03/19/1999 - 02/29/2000      FY01: \$0      Total: \$90,000  
*Prin. Invest.: J DONGARRA*  
*Tech. Officer: ARC/SSAINI*  
*CASE Category: 22 - COMPUTER SCIENCE*

**NGT 1 52218**      **UNIV OF TENNESSEE - KNOXVILLE**      **8452**  
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
06/04/1999 - 08/30/2000      FY01: \$0      Total: \$22,000  
*Prin. Invest.: B R STARR*  
*Tech. Officer: LARC/T A TALAY, LARC/R A LEPSCH*  
*CASE Category: 42 - ASTRONAUTICAL ENGR*

**NGT 5 50206**      **UNIV OF TENNESSEE - KNOXVILLE**      **8453**  
EVALUATION OF CONSTRUCTED MICROBIAL COMMUNITIES AS INOCULA  
FORBIOLOGIGAL SUPPORT SYSTEMS  
07/09/1998 - 07/14/2001      FY01: \$0      Total: \$66,000  
*Prin. Invest.: G SAYLER*  
*Tech. Officer: HQ/A NURRIDIN*  
*CASE Category: 61 - PSYCHOLOGY BIOLOGY*

**NGT 5 50286**      **UNIV OF TENNESSEE - KNOXVILLE**      **8454**  
THE PETROLOGY & TEMPORAL & SPATIAL EVOLUTION OF MARTIAN  
VOLCANISM FROM THERMALEMISISON DATA OF  
06/22/2000 - 07/31/2002      FY01: \$22,000      Total: \$44,000  
*Prin. Invest.: H Y MCSWEEN*  
*Tech. Officer: GSFC/K BLANDING*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 4387** UNIV OF TENN SPACE INST - TULLAHOMA 8455  
 CONSTRAINING ACCRETION AND DIFFERENTIATION OF PLAN MODELLING  
 04/24/1997 - 02/28/2002 FY01: \$50,000 Total: \$244,100  
*Prin. Invest.:* D Y MCSWEEN, JR.  
*Tech. Officer:* HQ/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAS 8 97301** UNIV OF TENN SPACE INST - TULLAHOMA 8456  
 CRITICAL PHYSICAL PROCESSES, IGNITION, DDT LENGTHS AND TIME  
 ACCURATE TREATMENTS  
 07/30/1997 - 12/28/2001 FY01: \$59,000 Total: \$254,000  
*Prin. Invest.:* J W MUELHAUSER  
*Tech. Officer:* MSFC/J COLE  
*CASE Category:* 13 - PHYSICS

**NCC 2 5413** UNIV OF TENN SPACE INST - TULLAHOMA 8457  
 ALGORITHMIC ENHANCEMENTS FOR UNSTEADY AERODYNAMICS &  
 COMBUSTION APPLICATIONS  
 12/14/2000 - 09/30/2001 FY01: \$40,224 Total: \$40,224  
*Prin. Invest.:* S VENKATESWARAN  
*Tech. Officer:* ARC/M E OLSEN  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 3 2401** VANDERBILT UNIV 8458  
 SEPARATION OF CARBON MONOXIDE AND CARBON DIOXIDE F OR MARS  
 ISRU  
 04/25/2000 - 11/30/2003 FY01: \$91,738 Total: \$138,305  
*Prin. Invest.:* D LEVAN  
*Tech. Officer:* GRC/R D GREEN  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 5 4988** VANDERBILT UNIV 8459  
 MODEL ATMOSPHERES AND SPECTRA FOR EXTRASOLAR GIANT  
 06/26/1997 - 06/14/2000 FY01: \$0 Total: \$89,354  
*Prin. Invest.:* D SAUMON  
*Tech. Officer:* GSFC/R BEEBE  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 7103** VANDERBILT UNIV 8460  
 INVESTIGATION OF GROUND-BASED SINGLE EVENT EFFECTS : RELATION-  
 SHIP TO SCALING, LOW-POWER, AND OTHER M  
 03/13/1998 - 12/31/1999 FY01: -\$213 Total: \$49,739  
*Prin. Invest.:* L MASSENGILL  
*Tech. Officer:* GSFC/M M GATES  
*CASE Category:* 45 - ELECTRICAL ENGR

**NAG 5 8295** VANDERBILT UNIV 8461  
 AN ADDITIONAL CONSTRAINT ON THE TIMESCALE FOR PLAN ET BUILDING  
 02/22/1999 - 03/31/2001 FY01: \$0 Total: \$29,000  
*Prin. Invest.:* D A WEINTRAUB  
*Tech. Officer:* HQ/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8618** VANDERBILT UNIV 8462  
 A STUDY OF ION OUTFLOW AS A SOURCE FOR THE MAGNETO SPHERE  
 06/14/1999 - 06/30/2002 FY01: \$102,044 Total: \$172,044  
*Prin. Invest.:* R CHAPPELL  
*Tech. Officer:* GSFC/R HOFFMAN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8906** VANDERBILT UNIV 8463  
 THE PRESSURE IONIZATION OF HYDROGEN & THE INTERIOR OF JUPITER  
 & SATURN  
 12/29/1999 - 01/31/2002 FY01: \$27,000 Total: \$52,650  
*Prin. Invest.:* D SAUMON  
*Tech. Officer:* GSFC/J GRANT  
*CASE Category:* 13 - PHYSICS

**NAG 5 9565** VANDERBILT UNIV 8464  
 NEW ISTP SOLAR MAX: A MULTI-SPACECRAFT STUDY OF THE FLOW OF  
 NOSPHERIC PLASMA  
 05/09/2000 - 05/14/2002 FY01: \$0 Total: \$70,000  
*Prin. Invest.:* C CHAPPELL  
*Tech. Officer:* GSFC/R HOFFMAN  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 9828** VANDERBILT UNIV 8465  
 SINGLE EVENT EFFECTS IN COMBINATIONAL LOGIC.  
 08/23/2000 - 08/31/2001 FY01: \$0 Total: \$25,000  
*Prin. Invest.:* L MASSENGILL  
*Tech. Officer:* GSFC/J BARTH  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 5 10572** VANDERBILT UNIV 8466  
 THE TIMESCALE FOR THE FORMATION OF PLANETARY SYSTEMS  
 03/13/2001 - 03/31/2002 FY01: \$15,000 Total: \$15,000  
*Prin. Invest.:* D WEINTRAUB  
*Tech. Officer:* GSFC/J M BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 8 1662** VANDERBILT UNIV 8467  
 RECOVERY OF MINERALS IN MARTIAN SOILS VIA SUPERCRITICAL FLUID  
 EXTRACTIONS.  
 06/01/2000 - 11/30/2003 FY01: \$90,250 Total: \$135,250  
*Prin. Invest.:* K A DEBELAK  
*Tech. Officer:* MSFC/P DOTY  
*CASE Category:* 99 - MULTI INTERDISCPL, OTHER

**NAG 8 1677** VANDERBILT UNIV 8468  
 INVESTIGATION OF THE RELATIONSHIP BETWEEN UNDERCOOLING AND  
 SOLIDIFICATION VELOCITY.  
 05/08/2000 - 11/30/2003 FY01: \$142,500 Total: \$222,493  
*Prin. Invest.:* R J BAYUZICK  
*Tech. Officer:* MSFC/P DOTY  
*CASE Category:* 99 - MULTI INTERDISCPL, OTHER

**NAG 8 1745** VANDERBILT UNIV 8469  
 FLOW VISUALIZATION STUDIES IN MOLTEN ZONES  
 09/29/2000 - 04/30/2002 FY01: \$32,500 Total: \$62,500  
*Prin. Invest.:* A V ANIKUMER  
*Tech. Officer:* MSFC/R GRUGEL  
*CASE Category:* 59 - LIFE SCIENCE, OTHER

**NAG 9 1273** VANDERBILT UNIV 8470  
 DESIGN THROUGH MANUFACTURING: SOLID MODEL-FINITE ELEMENT  
 ANALYSIS INTERFACE  
 01/09/2001 - 09/30/2002 FY01: \$15,500 Total: \$15,500  
*Prin. Invest.:* C HACHEY  
*Tech. Officer:* JSC/R ARONOFF  
*CASE Category:* 22 - COMPUTER SCIENCE

**NCC 1 01018** VANDERBILT UNIV 8471  
 AEROELASTICITY IN ORNITHOPIC MICRO-AERIAL VEHICLES MY 1/3  
 01/22/2001 - 09/30/2003 FY01: \$33,330 Total: \$33,330  
*Prin. Invest.:* K D FRAMPTON  
*Tech. Officer:* LARC/D L RANEY, LARC/D E COX  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NCC 1 01031** VANDERBILT UNIV 8472  
 SYSTEMS RISK ASSESSMENT AND ALLOCATION IN CONCEPTUAL DESIGN  
 03/12/2001 - 12/31/2002 FY01: \$100,000 Total: \$100,000  
*Prin. Invest.:* S MAHADEVAN  
*Tech. Officer:* LARC/T A ZHANG  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NCC 2 1127** VANDERBILT UNIV 8473  
 ADSORPTION EQUILIBRIUM & FIXED BED PERFORMANCE FOR REGENERABLE INCINERATOR EXHAUST PURIFICATION & T  
 06/21/1999 - 06/30/2002 FY01: \$68,008 Total: \$180,404  
*Prin. Invest.:* M D LEVAN  
*Tech. Officer:* ARC/J E FINN  
*CASE Category:* 43 – CHEMICAL ENGR

**NCC 2 1238** VANDERBILT UNIV 8474  
 ROBUST METHODS FOR AUTONOMOUS FAULT ADAPTIVE CONTROL OF COMPLEX SYSTEMS  
 04/06/2001 - 02/28/2002 FY01: \$90,000 Total: \$90,000  
*Prin. Invest.:* G BISWAS  
*Tech. Officer:* ARC/R MORRIS, ARC/D J CLANCY  
*CASE Category:* 22 – COMPUTER SCIENCE

**NCC 2 5384** VANDERBILT UNIV 8475  
 MODELING OF HYBRID MEMBRANE/ADSORBER FOR CARBON DI OXIDE REMOVAL AND COMPARISON WITH FOUR-BED MOLE..  
 05/30/2000 - 06/30/2002 FY01: \$36,876 Total: \$48,637  
*Prin. Invest.:* M D LEVAN  
*Tech. Officer:* ARC/J E FINN  
*CASE Category:* 43 – CHEMICAL ENGR

**NGT 1 52227** VANDERBILT UNIV 8476  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 01/20/2000 - 12/31/2001 FY01: \$12,001 Total: \$34,001  
*Prin. Invest.:* A COX  
*Tech. Officer:* LARC/G C HORNER  
*CASE Category:* 46 – MECHANICAL ENGR

**NGT 5 105** VANDERBILT UNIV 8477  
 CHARACTERIZATION OF PROTON RADIATION EFFECTS IN LI NEAR BIPOLEAR DEVICES & CIRCUITS/STUDENT: H BARNAB  
 05/26/2000 - 06/30/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.:* R D SCHRIMPFF *Prin. Invest.:* NONE  
*Tech. Officer:* GSFC/G A SOFFEN  
*CASE Category:* 45 – ELECTRICAL ENGR

**NGT 5 40054** VANDERBILT UNIV 8478  
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE AND FELLOWSHIP PROGRAM.  
 02/12/1997 - 01/31/2001 FY01: \$0 Total: \$1,790,750  
*Prin. Invest.:* A M STRAUSS  
*Tech. Officer:* GSFC/L KEFFER  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NGT 5 40074** VANDERBILT UNIV 8479  
 TENNESSEE SPACE GRANT COLLEGE & FELLOWSHIP PROGRAM  
 02/09/2001 - 01/31/2002 FY01: \$460,750 Total: \$460,750  
*Prin. Invest.:* A M STRAUSS  
*Tech. Officer:* GSFC/D D DETROYE  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NGT 5 50209** VANDERBILT UNIV 8480  
 INVESTIGATION OF EFFECTS OF DILUTE OXYGEN SOLUTE ON NUCLEATION OF ZIRCONIUM  
 07/10/1998 - 06/30/2002 FY01: \$0 Total: \$66,000  
*Prin. Invest.:* R BAYUZICK  
*Tech. Officer:* HQ/A NURRIDIN  
*CASE Category:* 43 – CHEMICAL ENGR

**NGT 8 52839** VANDERBILT UNIV 8481  
 R/S "GRADUATE STUDENT RESEARCH PROGRAM" FELLOWSHIP  
 07/23/1997 - 01/31/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.:* M GOLDFARB  
*Tech. Officer:* MSFC/J F DOWDY, MSFC/J R PRUITT  
*CASE Category:* 46 – MECHANICAL ENGR

**NGT 8 52852** VANDERBILT UNIV 8482  
 RELIABILITY METHODS FOR AEROSPACE STRUCTURES  
 07/01/1998 - 06/14/2000 FY01: -\$491 Total: \$43,017  
*Prin. Invest.:* S MAHADEVAN  
*Tech. Officer:* MSFC/J F DOWDY  
*CASE Category:* 49 – ENGINEERING, OTHER

**NGT 8 52857** VANDERBILT UNIV 8483  
 SCALED FORCE REFLECTIVE TELEMANIPULATION FOR ONBOARD DEXTEROUS MANIPULATION OF MICROGRAVITY  
 07/23/1998 - 08/12/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.:* M GOLDFARB  
*Tech. Officer:* MSFC/J F DOWDY  
*CASE Category:* 46 – MECHANICAL ENGR

**NGT 8 52859** VANDERBILT UNIV 8484  
 INTEGRATION OF HAPTIC FEEDBACK INTO VIRTUAL ENVIRONMENTS FOR MISSION OPERATION APPLICATION  
 07/23/1998 - 08/14/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.:* M GOLDFARB  
*Tech. Officer:* MSFC/J F DOWDY  
*CASE Category:* 46 – MECHANICAL ENGR

**NGT 8 52868** VANDERBILT UNIV 8485  
 RELIABILITY ASSURANCE OF AEROSPACE SYSTEMS  
 09/09/1999 - 09/08/2000 FY01: -\$181 Total: \$17,819  
*Prin. Invest.:* S MAHADEVAN  
*Tech. Officer:* MSFC/J DOWDY  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NGT 8 52905** VANDERBILT UNIV 8486  
 DESIGN AND FABRICATION OF INDIUM-TIN-OXIDE (ITO) MICRO-SCALE STRAIN SENSORS  
 05/25/2001 - 07/01/2004 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.:* R A WELLER  
*Tech. Officer:* MSFC/S NASH-STEVENSON  
*CASE Category:* 46 – MECHANICAL ENGR

**NGT 8 52907** VANDERBILT UNIV 8487  
 AEROSPACE STRUCTURAL SYSTEM RELIABILITY ASSESSMENT  
 05/25/2001 - 07/01/2004 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: S MAHADEVAN*  
*Tech. Officer: MSFC/S NASH-STEVENSON*  
*CASE Category: 44 – CIVIL ENGR*

**NGT 8 52910** VANDERBILT UNIV 8488  
 UV RAMAN LINESHAPES FOR TEMPERATURE DETERMINATION  
 05/31/2001 - 06/30/2001 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: R W PITZ*  
*Tech. Officer: MSFC/S NASH-STEVENSON*  
*CASE Category: 46 – MECHANICAL ENGR*

**NGT 9 52** VANDERBILT UNIV 8489  
 MACHINE PERCEPTION TO FACILITATE HUMAN-ROBOT INTER ACTION  
 07/17/2000 - 08/31/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.: R A PETERS II*  
*Tech. Officer: JSC/C J CULBERT*  
*CASE Category: 49 – ENGINEERING, OTHER*

## TEXAS

**NAG 5 10102** AUSTIN COLLEGE-SHERMAN 8490  
 FLOOD FORECASTING USING A REGIONAL SCALE ATMOSPHERE/LAND-SURFACE MODELING SYSTEM.  
 12/11/2000 - 12/14/2001 FY01: \$32,134 Total: \$32,134  
*Prin. Invest.: D R BAKER*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 2 1355** BAYLOR COLLEGE OF MEDICINE 8491  
 ROLE OF MATH1 IN DEVELOPMENT & FUNCTION OF PROPRIO RECEPTORS  
 07/22/1999 - 07/14/2002 FY01: \$199,554 Total: \$494,733  
*Prin. Invest.: H J BELLEN, H Y ZOGHBI*  
*Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 2 1357** BAYLOR COLLEGE OF MEDICINE 8492  
 THE INTERACTIVE COUPLING OF CYTOSKELETON & SIGNAL TRANSDUCTION ELEMENTS IN GRAVITY SENSITIVITY OF T-  
 07/23/1999 - 07/31/2002 FY01: \$178,021 Total: \$435,419  
*Prin. Invest.: B B HASHEMI*  
*Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 2 1496** BAYLOR COLLEGE OF MEDICINE 8493  
 SENSELESS AND GFI1 IN SENSORY NEURON AND HAIR CELL DEVELOPMENT  
 07/11/2001 - 06/30/2002 FY01: \$139,783 Total: \$139,783  
*Prin. Invest.: H J BELLEN*  
*Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 8 1383** BAYLOR COLLEGE OF MEDICINE 8494  
 FOR RESEARCH ENTITLED "LIVER TISSUE ENGINEERING IN MICROGRAVITY ENVIRONMENT"  
 06/26/1997 - 11/30/2001 FY01: \$100,000 Total: \$619,000  
*Prin. Invest.: B YOFE*  
*Tech. Officer: MSFC/C R TALLEY*  
*CASE Category: 56 – MEDICAL*

**NAG 8 1387** BAYLOR COLLEGE OF MEDICINE 8495  
 FOR RESEARCH ENTITLED: "TWO DIMENSIONAL CRYSTAL GROWTH IN MICROGRAVITY"  
 06/23/1997 - 11/30/2000 FY01: \$0 Total: \$493,348  
*Prin. Invest.: T G WENSEL*  
*Tech. Officer: MSFC/B GUYBES, MSFC/J MAYO*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 8 1583** BAYLOR COLLEGE OF MEDICINE 8496  
 ISLET CELL ASSEMBLY AND FUNCTION IN A NASA MICROGRAVITY BIOREACTOR  
 02/02/1999 - 11/30/2002 FY01: \$137,750 Total: \$394,748  
*Prin. Invest.: A S RAJAN, NONE*  
*Tech. Officer: JSC/N R PELLIS*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 9 1052** BAYLOR COLLEGE OF MEDICINE 8497  
 BIOPHYSICAL MODELS OF DNA DAMAGE,MUTATION,&...  
 08/25/1998 - 09/24/2001 FY01: \$15,000 Total: \$271,674  
*Prin. Invest.: L E PETERSON*  
*Tech. Officer: JSC/F A CUCINOTTA*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NAG 9 1133** BAYLOR COLLEGE OF MEDICINE 8498  
 DSO MAGNETIC RESONANCE IMAGING MRI AFTER EXPOSURE TO MICROGRAVITY  
 07/21/1999 - 01/30/2001 FY01: \$0 Total: \$90,072  
*Prin. Invest.: A LEBLANC*  
*Tech. Officer: JSC/L SHACKE/FORD*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NAG 9 1153** BAYLOR COLLEGE OF MEDICINE 8499  
 PROTECTING SCIENTIFIC INTEGRITY THROUGH DISCLOSURE OF CONFLICTS OF INTERESTS  
 09/13/1999 - 09/30/2002 FY01: \$238,541 Total: \$534,934  
*Prin. Invest.: B A BRODY*  
*Tech. Officer: JSC/C LLOYD*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 9 1158** BAYLOR COLLEGE OF MEDICINE 8500  
 ROLE OF GROWTH HORMONE SECRETOGOUS AND EXERCISE ON MUSCLE HOMEOSTASIS UNDER MICROGRAVITY  
 10/01/1999 - 10/31/2002 FY01: \$261,666 Total: \$535,172  
*Prin. Invest.: B J SCHWARTZ*  
*Tech. Officer: JSC/C LLOYD*  
*CASE Category: 56 – MEDICAL*

**NAG 9 1253** BAYLOR COLLEGE OF MEDICINE 8501  
 EFFECTS OF ANTI-ORTHOSTATIC SUSPENSION ON INNATE IMMUNITY  
 09/11/2000 - 08/31/2003 FY01: \$152,259 Total: \$182,711  
*Prin. Invest.: C SMITH*  
*Tech. Officer: JSC/C LLOYD*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

<b>NAG 9 1361</b>	<b>BAYLOR COLLEGE OF MEDICINE</b>	<b>8502</b>	<b>NAG 9 1174</b>	<b>LE TOURNEAU UNIV</b>	<b>8510</b>
LIVER TISSUE ENGINEERING IN MICROGRAVITY ENVIRONMENT 07/13/2001 - 09/30/2004	FY01: \$47,000	Total: \$47,000	DIAGNOSTIC OF CARNON NANOTUBE FORMATION IN A LASER PRODUCED PLUME 10/25/1999 - 10/25/2000	FY01: -\$291	Total: \$15,209
Prin. Invest.: B YOFEE			Prin. Invest.: G D DEBOER		
Tech. Officer: JSC/D RISIN			Tech. Officer: JSC/B S FILES, JSC/C SCOTT		
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)			CASE Category: 13 – PHYSICS		
<b>NCC 9 58</b>	<b>BAYLOR COLLEGE OF MEDICINE</b>	<b>8503</b>	<b>NAG 9 1274</b>	<b>LE TOURNEAU UNIV</b>	<b>8511</b>
NATIONAL SPACE BIOMEDICAL RESEARCH INST 03/26/1997 - 09/30/2002	FY01: \$26,478,997	Total: \$68,173,063	ANALYSIS OF ARBON NAONTUBE FORMATION & EMISSION SP ECTRA IN LASER ABLATION PROCESS 01/09/2001 - 01/30/2002	FY01: \$15,500	Total: \$15,500
Prin. Invest.: B R ALFORD, M.D.			Prin. Invest.: G DE BOER		
Tech. Officer: JSC/C F SAWIN			Tech. Officer: JSC/C SCOTT		
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)			CASE Category: 47 – METAL & MATERIALS ENGR		
<b>NCC 9 61</b>	<b>BAYLOR COLLEGE OF MEDICINE</b>	<b>8504</b>	<b>NAG 9 1170</b>	<b>OUR LADY OF THE LAKE UNIV</b>	<b>8512</b>
PREVENTION OF BED REST OSTEOPOROSIS 05/23/1997 - 05/23/2002	FY01: \$419,527	Total: \$2,320,039	ENGAGING EDUCATORS IN THE EARTH/SCIENCE ENTERP 09/24/1999 - 09/29/2001	FY01: \$60,152	Total: \$199,304
Prin. Invest.: A D LE BLANC			Prin. Invest.: K A WARD		
Tech. Officer: JSC/L C SHACKELFORD			Tech. Officer: JSC/L ARMENDARIZ		
CASE Category: 56 – MEDICL			CASE Category: 99 – MULTI INTERDISCPL, OTHER		
<b>NCC 9 88</b>	<b>BAYLOR COLLEGE OF MEDICINE</b>	<b>8505</b>	<b>NAG 3 2065</b>	<b>PRAIRIE VIEW A&amp;M UNIV</b>	<b>8513</b>
COMPARISON OF STRENGTH TRAINING WITH ISS INTERIM RESISTANCE EXERCISE DEVISE VS FREE 07/20/1999 - 01/31/2002	FY01: \$6,720	Total: \$29,760	RADIATION EFFECTS ON DC-DC CONVERTERS RADIATION EFFECTS ON DC-DC CONVERTER 08/01/1997 - 09/30/1999	FY01: -\$1,557	Total: \$392,157
Prin. Invest.: A BEBLANC			Prin. Invest.: J O ATTIA, R SCHRIMPFF, K F GALLOWAY		
Tech. Officer: JSC/S SCHNEIDER			Tech. Officer: GRC/M D KANKAM		
CASE Category: 19 – PHYSICAL SCIENCE, OTHER			CASE Category: 45 – ELECTRICAL ENGR		
<b>NAG 5 8566</b>	<b>HOUSTON COMMUNITY COLLEGE</b>	<b>8506</b>	<b>NAG 4 148</b>	<b>PRAIRIE VIEW A&amp;M UNIV</b>	<b>8514</b>
NASA/HCC SCIENCE CHALLENGE PROGRAM 05/20/1999 - 12/31/2000	FY01: \$0	Total: \$150,000	RADIATION EFFECTS ON ELECTRONIC MATERIAL AND DEVICES 03/03/1998 - 02/27/2002	FY01: \$0	Total: \$266,999
Prin. Invest.: C GARCIA			Prin. Invest.: R WILKINS		
Tech. Officer: GSFC/M MATEU			Tech. Officer: DFRC/E COX		
CASE Category: 99 – MULTI INTERDISCPL, OTHER			CASE Category: 41 – AERONAUTICAL ENGNR		
<b>NAG 5 10239</b>	<b>HOUSTON COMMUNITY COLLEGE</b>	<b>8507</b>	<b>NAG 4 210</b>	<b>PRAIRIE VIEW A&amp;M UNIV</b>	<b>8515</b>
NASA HCC SCIENCE CHALLENGE PROGRAM 01/10/2001 - 12/31/2001	FY01: \$149,298	Total: \$149,298	MITIGATION OF HIGH ALTITUDE AND LOW EARTH ORBIT RA DIATION EFFECTS ON MICROELECTRONICS VIA SHIELDING 06/07/2000 - 06/06/2003	FY01: \$100,000	Total: \$200,000
Prin. Invest.: C GARCIA			Prin. Invest.: D K KIRBY		
Tech. Officer: GSFC/M MATEU			Tech. Officer: DFRC/D GUPTA		
CASE Category: 99 – MULTI INTERDISCPL, OTHER			CASE Category: 41 – AERONAUTICAL ENGNR		
<b>NAG 9 1065</b>	<b>JARVIS CHRISTIAN COLLEGE</b>	<b>8508</b>	<b>NAG 5 5130</b>	<b>PRAIRIE VIEW A&amp;M UNIV</b>	<b>8516</b>
PACE/MSET SUMMER CAMP CAMP FOR TRAINING & MENTORING 01/07/1999 - 12/31/2001	FY01: \$100,000	Total: \$300,000	STUDY OF RADIATION EFFECTS ON ELECTRONIC DEVICES AT HIGH ATMOSPHERE ALTITUDES 07/02/1997 - 09/30/2000	FY01: \$0	Total: \$33,941
Prin. Invest.: M J MCKINNEY			Prin. Invest.: R WILKINS		
Tech. Officer: JSC/L ARMENDARIZ			Tech. Officer: GSFC/H NEEDLEMAN		
CASE Category: 99 – MULTI INTERDISCPL, OTHER			CASE Category: 13 – PHYSICS		
<b>NCC 9 126</b>	<b>LAMAR UNIV</b>	<b>8509</b>	<b>NAG 5 6823</b>	<b>PRAIRIE VIEW A&amp;M UNIV</b>	<b>8517</b>
DEVELOPMENT OF MINIATURE LASER MASS SPECTROMETER SYSTEM FOR PLANETARY STUDIES 04/20/2001 - 07/14/2003	FY01: \$200,000	Total: \$200,000	ENHANCEMENT OF TEXGED, PVAMU TO BE A CENTER OF EXCELLENCE IN APPLICATIONS OF REMOTE SENSING TO REGI 01/30/1998 - 12/31/2000	FY01: \$0	Total: \$53,308
Prin. Invest.: S L JORDAN, G M IRWIN			Prin. Invest.: S H SHAKIR		
Tech. Officer: SSC/G A MCKAY			Tech. Officer: GSFC/M WEI		
CASE Category: 19 – PHYSICAL SCIENCE, OTHER			CASE Category: 39 – ENVIRONMENTAL SCI, OTHER		

**NAG 5 11070** PRAIRIE VIEW A&M UNIV 8518  
 CENTER FOR APPLIED RADIATION RESEARCH PARTNERSHIP PROGRAM  
 06/29/2001 - 05/31/2002 FY01: \$200,000 Total: \$200,000  
*Prin. Invest.:* R WILKINS  
*Tech. Officer:* GSFC/J MALONE  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NAG 8 1338** PRAIRIE VIEW A&M UNIV 8519  
 ESTABLISHMENT OF A SOLAR OBSERVATORY AND STUDIES ON THE  
 SOLAR ATMOSPHERE  
 03/18/1997 - 03/31/2003 FY01: \$100,000 Total: \$438,700  
*Prin. Invest.:* T HUANG  
*Tech. Officer:* MSFC/J M DAVIS  
*CASE Category:* 11 – ASTRONOMY

**NAG 8 1644** PRAIRIE VIEW A&M UNIV 8520  
 ADVANCED FUEL INJECTOR OPTIMIZATION FOR RBCC ENGINE CONCEPT  
 09/30/1999 - 09/30/2002 FY01: \$100,000 Total: \$200,000  
*Prin. Invest.:* Z HAQUE, N BUTUK  
*Tech. Officer:* MSFC/A BEAM, MSFC/W LOVE  
*CASE Category:* 43 – CHEMICAL ENGR

**NAG 9 1136** PRAIRIE VIEW A&M UNIV 8521  
 POWER QUALITY AND RELIABILITY  
 08/24/1999 - 08/23/2001 FY01: \$0 Total: \$100,000  
*Prin. Invest.:* W F TROTTY, J ATTIA  
*Tech. Officer:* JSC/W C ROEH, JSC/L M ARMENDARIZ  
*CASE Category:* 46 – MECHANICAL ENGR

**NAG 9 1241** PRAIRIE VIEW A&M UNIV 8522  
 USE OF ELECTROMIGRATION TO IMMOBILIZE METAL IONS  
 06/22/2000 - 05/31/2003 FY01: \$60,000 Total: \$120,000  
*Prin. Invest.:* R CUERO  
*Tech. Officer:* JSC/D S MCKAY, JSC/L M ARMENDARIZ  
*CASE Category:* 55 – AGRICULTURE

**NAG 9 1370** PRAIRIE VIEW A&M UNIV 8523  
 RADIATION EXPOSURE EFFECTS & SHIELDING ANALYSIS OF CARBON  
 NANTUBE MATERIALS  
 07/30/2001 - 12/29/2001 FY01: \$37,000 Total: \$37,000  
*Prin. Invest.:* R WILKINS  
*Tech. Officer:* JSC/A LEE, JSC/L M ARMENDARIZ  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NAG13 46** PRAIRIE VIEW A&M UNIV 8524  
 TEXAS GULF COAST ENVIRONMENTAL DATA CENTER SAME  
 10/04/1995 - 04/20/2001 FY01: \$0 Total: \$270,125  
*Prin. Invest.:* S SHAKIR  
*Tech. Officer:* SSC/A JOYCE  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NCC 3 577** PRAIRIE VIEW A&M UNIV 8525  
 RESEARCH TO SIGNIFICANTLY ENHANCE COMPOSITES SURVIVAL ABILITY AT  
 550 DEGREES F IN OXIDATIVE ENVIRONMENT  
 09/26/1997 - 05/31/2002 FY01: \$136,102 Total: \$336,102  
*Prin. Invest.:* L E CARSON-ISABELLE  
*Tech. Officer:* GRC/M A MEADOR  
*CASE Category:* 12 – CHEMISTRY

**NCC 5 115** PRAIRIE VIEW A&M UNIV 8526  
 ESTABLISHMENT OF A NASA SOUTHWEST REGIONAL NETWORK  
 RESOURCES TRAINING SITE  
 08/15/1995 - 09/14/2001 FY01: \$62,418 Total: \$2,926,418  
*Prin. Invest.:* J R WILLIAMS  
*Tech. Officer:* GSFC/J HARRINGTON  
*CASE Category:* 22 – COMPUTER SCIENCE

**NCC 5 529** PRAIRIE VIEW A&M UNIV 8527  
 NASA SOUTHWEST REGIONAL NETWORK RESOURCES AND TRAINING  
 SITE/MUSPIN NRTS PROGRAM  
 02/01/2001 - 01/31/2002 FY01: \$350,000 Total: \$350,000  
*Prin. Invest.:* J WILLIAMS  
*Tech. Officer:* GSFC/J HARRINGTON  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NCC 5 591** PRAIRIE VIEW A&M UNIV 8528  
 IMPROVEMENT OF THE SOLAR OBSERVATION FACILITIES AT PRAIRIE  
 VIEW SOLAR OBSERVATORY  
 09/14/2001 - 09/14/2002 FY01: \$35,500 Total: \$35,500  
*Prin. Invest.:* D HUANG  
*Tech. Officer:* GSFC/J HARRINGTON  
*CASE Category:* 11 – ASTRONOMY

**NCC 9 50** PRAIRIE VIEW A&M UNIV 8529  
 TRANSFERRED FROM HQ (NCCW-0086) & INCR FUND  
 02/13/1997 - 08/30/2000 FY01: -\$3,323 Total: \$4,401,470  
*Prin. Invest.:* T N FOGARTY  
*Tech. Officer:* JSC/J D ATKINSON  
*CASE Category:* 19 – PHYSICAL SCIENCE, OTHER

**NCC 9 66** PRAIRIE VIEW A&M UNIV 8530  
 SOFTWARE ENGINEERING INITIATIVE  
 09/25/1997 - 12/31/2002 FY01: \$526,692 Total: \$1,923,119  
*Prin. Invest.:* J D OLIVER  
*Tech. Officer:* JSC/L MCWHORTER, JSC/K MARTINDALE  
*CASE Category:* 49 – ENGINEERING, OTHER

**NCC 9 114** PRAIRIE VIEW A&M UNIV 8531  
 CENTER APPLIED RADIATION RESEARCH  
 09/27/2000 - 08/31/2005 FY01: \$999,999 Total: \$1,419,999  
*Prin. Invest.:* R WILKINS  
*Tech. Officer:* JSC/F A CUCINOTTA  
*CASE Category:* 19 – PHYSICAL SCIENCE, OTHER

**NAG 1 2134** RICE UNIV 8532  
 NONLINEAR RECEPITIVITY AND BY-PASS TRANSITION IN THREE-DIMEN-  
 SIONAL BOUNDARY LAYERS NRA 98 LARC5  
 02/10/1999 - 01/31/2002 FY01: \$39,508 Total: \$117,458  
*Prin. Invest.:* S S COLLIS  
*Tech. Officer:* LARC/R R ANTOLIFF  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NAG 2 1401** RICE UNIV 8533  
 VIRTUAL PROTOTYPING FOR CARBON NANOTUBES  
 04/24/2000 - 03/14/2002 FY01: \$43,212 Total: \$113,437  
*Prin. Invest.:* B YAKOBSON  
*Tech. Officer:* ARC/M MEYYAPPAN, ARC/H PARTRIDGE  
*CASE Category:* 13 – PHYSICS

**NAG 3 2365** RICE UNIV 8534  
 THERMAL PROTECTIVE COATING FOR HIGH TEMRPERATURE P OLYMER COMPOSITES  
 03/23/2000 - 03/31/2001 FY01: \$0 Total: \$35,000  
*Prin. Invest.:* A BARRON  
*Tech. Officer:* GRC/K C CHUANG  
*CASE Category:* 12 – CHEMISTRY

**NAG 3 2534** RICE UNIV 8535  
 AD HOC NETWORKS IN SPACE AND SURFACE SYSTEMS AD HOC NETWORKS IN SPACE AND SURFACE SYSTEMS  
 03/07/2001 - 12/31/2003 FY01: \$325,082 Total: \$325,082  
*Prin. Invest.:* D B JOHNSON  
*Tech. Officer:* GRC/D FOLTZ  
*CASE Category:* 22 – COMPUTER SCIENCE

**NAG 5 2736** RICE UNIV 8536  
 NATIONAL SOFTWARE EXCHANGE FOR THE HIGH PERFORMANCE COMPUTING COMMUNICATIONS PROGRAM  
 09/22/1994 - 09/30/2000 FY01: \$0 Total: \$4,187,500  
*Prin. Invest.:* K KENNEDY  
*Tech. Officer:* GSFC/J R FISCHER  
*CASE Category:* 22 – COMPUTER SCIENCE

**NAG 5 4072** RICE UNIV 8537  
 NASA SPECIALIZED CENTER OF RESEARCH AND TRAINING ( AL BIOLOGY  
 04/07/1997 - 02/28/2002 FY01: \$362,511 Total: \$3,309,837  
*Prin. Invest.:* L MCINTIRE  
*Tech. Officer:* GSFC/D LASKOWSKY  
*CASE Category:* 59 – LIFE SCIENCE, OTHER

**NAG 5 4267** RICE UNIV 8538  
 COMPREHENSIVE COMPUTATIONAL MODEL OF THE EARTH'S R  
 03/25/1997 - 05/14/2001 FY01: \$0 Total: \$153,886  
*Prin. Invest.:* D A WOLF  
*Tech. Officer:* GSFC/J BOHLIN  
*CASE Category:* 13 – PHYSICS

**NAG 5 4726** RICE UNIV 8539  
 DEVELOPMENT AND APPLICATIONS OF A MODULAR MODEL OF MAGNETOSPHERE  
 06/19/1997 - 05/14/2002 FY01: \$0 Total: \$268,344  
*Prin. Invest.:* D R TOFFOLETTO  
*Tech. Officer:* GSFC/D EVANS  
*CASE Category:* 13 – PHYSICS

**NAG 5 4822** RICE UNIV 8540  
 THE OPEN POLAR CAP: COMPARISON OF POLAR IMAGES WI  
 06/17/1997 - 06/14/2001 FY01: \$0 Total: \$188,000  
*Prin. Invest.:* D W HILL  
*Tech. Officer:* GSFC/J GREBOWSKY  
*CASE Category:* 13 – PHYSICS

**NAG 5 6432** RICE UNIV 8541  
 MAGNETOSPHERIC CONVECTION AT JUPITER & SATURN  
 10/14/1997 - 07/14/2002 FY01: \$0 Total: \$216,449  
*Prin. Invest.:* D HILL  
*Tech. Officer:* GSFC/J BERGSTRAHL  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NAG 5 7037** RICE UNIV 8542  
 SOLAR WIND INTERACTION AT VENUS TO MARS, INCLUDING THE MAGNETIC EFFECTS OF THE MARTIAN CRUSTAL MAGN  
 02/20/1998 - 02/28/2002 FY01: \$20,000 Total: \$189,498  
*Prin. Invest.:* P A CLOUTIER  
*Tech. Officer:* GSFC/M H ACUNA  
*CASE Category:* 13 – PHYSICS

**NAG 5 7980** RICE UNIV 8543  
 MODELING BATSE GAMMA-RAY BURST CONTINUUM SPECTRA AND SPECTRAL EVOLUTION  
 01/19/1999 - 01/14/2002 FY01: \$0 Total: \$32,000  
*Prin. Invest.:* E P LIANG  
*Tech. Officer:* GSFC/J P NORRIS  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 8131** RICE UNIV 8544  
 NUMERICAL SIMULATION OF ROTATION-DRIVEN PLASMA TRANSPORT IN THE JOVIAN MAGNETOSPHERE  
 01/28/1999 - 01/31/2002 FY01: \$74,497 Total: \$212,054  
*Prin. Invest.:* D W HILL  
*Tech. Officer:* GSFC/D EVANS  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 8136** RICE UNIV 8545  
 "COMPREHENSIVE QUANTITATIVE MODEL OF INNER-MAGNETOSPHERE DYNAMICS."  
 01/29/1999 - 01/31/2002 FY01: \$290,000 Total: \$711,296  
*Prin. Invest.:* R A WOLF  
*Tech. Officer:* GSFC/J GREBOWSKY  
*CASE Category:* 13 – PHYSICS

**NAG 5 8380** RICE UNIV 8546  
 DATA ANALYSIS FOR POLAR MAGNETIC FIELD EXPERIMENT  
 04/26/1999 - 12/31/2000 FY01: \$0 Total: \$65,000  
*Prin. Invest.:* P REIFF  
*Tech. Officer:* GSFC/R HOFFMAN  
*CASE Category:* 19 – PHYSICAL SCIENCE, OTHER

**NAG 5 9011** RICE UNIV 8547  
 FAR-UV OBSERVATIONS OF LOW AND HIGH-EXCITATION HER BIG-HARO SHOCKS – FUSE  
 02/02/2000 - 01/31/2002 FY01: \$0 Total: \$28,200  
*Prin. Invest.:* P HARTIGAN  
*Tech. Officer:* GSFC/G SONNEBORN  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 9077** RICE UNIV 8548  
 ACCELERATION & TRANSPORT OF ENERGETIC PARTICLES IN THE OUTER MAGNETOSPHERE  
 02/23/2000 - 08/31/2002 FY01: \$82,349 Total: \$157,749  
*Prin. Invest.:* R WOLF  
*Tech. Officer:* GSFC/J SHARBER  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NAG 5 9212** RICE UNIV 8549  
 SIMULTANEOUS MULTIWAVELENGTH OBSERVATIONS OF GX 339-4 IN 1999  
 AUGUST (ADP 99)  
 03/10/2000 - 03/14/2001 FY01: \$0 Total: \$50,000  
*Prin. Invest.: E LANG*  
*Tech. Officer: GSFC/R OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9223** RICE UNIV 8550  
 NUMERICAL SIMULATION OF HIGH ENERGY EMISSIONS FROM COMPACT  
 OBJECTS  
 03/14/2000 - 03/14/2002 FY01: \$104,043 Total: \$199,102  
*Prin. Invest.: E LIANG*  
*Tech. Officer: GSFC/R OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9904** RICE UNIV 8551  
 STUDY OF THE SOFT GAMMA-RAY REPEATERS  
 08/29/2000 - 08/31/2001 FY01: \$0 Total: \$7,900  
*Prin. Invest.: E P LIANG*  
*Tech. Officer: GSFC/J P NORRIS*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10432** RICE UNIV 8552  
 "PRECISION MINING" OF LARGE SPECTRAL DATA VOLUMES FOR RAPID  
 IDENTIFICATION OF PLANETARY  
 02/27/2001 - 08/31/2002 FY01: \$306,719 Total: \$306,719  
*Prin. Invest.: E MERENYI*  
*Tech. Officer: GSFC/P HUNTER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10816** RICE UNIV 8553  
 MULTIWAVELENGTH STUDY OF LMC X-1 (ADP 2000)  
 04/24/2001 - 04/30/2002 FY01: \$50,000 Total: \$50,000  
*Prin. Invest.: E P LIANG*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10841** RICE UNIV 8554  
 EMISSION FROM MAGNETIZED NEUTRON STARS (ATP 2000)  
 05/03/2001 - 05/14/2002 FY01: \$31,005 Total: \$31,005  
*Prin. Invest.: M G BARING*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 8 1444** RICE UNIV 8555  
 A QUANTUM DEGENERATE FERMI GAS OF 6LI ATOMS  
 02/11/1998 - 01/31/2001 FY01: -\$4 Total: \$206,996  
*Prin. Invest.: R G HULET*  
*Tech. Officer: MSFC/D HUBBARD*  
*CASE Category: 13 – PHYSICS*

**NAG 8 1467** RICE UNIV 8556  
 INFLUENCE OF REDUCED GRAVITY CONDITIONS ON THE OPTIMIZED  
 GROWTH AND DEPOSITION OF METAL NANOSHELL  
 03/06/1998 - 01/31/2002 FY01: \$61,750 Total: \$232,917  
*Prin. Invest.: N J HALAS*  
*Tech. Officer: MSFC/C L TALLEY*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 8 1766** RICE UNIV 8557  
 SUPERFLUID PHASE TRANSITION IN AN ULTRACOLD PERMI GAS  
 04/24/2001 - 04/30/2005 FY01: \$86,663 Total: \$86,663  
*Prin. Invest.: R G HULET*  
*Tech. Officer: MSFC/D S HUBBARD*  
*CASE Category: 13 – PHYSICS*

**NAG 9 978** RICE UNIV 8558  
 DEVELOPMENT OF PLASMA INJECTOR FOR VSIPR  
 10/17/1997 - 09/30/2001 FY01: \$42,000 Total: \$170,412  
*Prin. Invest.: A A CHAN*  
*Tech. Officer: JSC/F CHANG-DIAZ*  
*CASE Category: 13 – PHYSICS*

**NAG 9 1049** RICE UNIV 8559  
 LASER ABSORPTION SENSORS  
 08/04/1998 - 08/05/2001 FY01: \$119,956 Total: \$419,720  
*Prin. Invest.: F K TITTLE*  
*Tech. Officer: JPL/D L JAN*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NAG 9 1059** RICE UNIV 8560  
 COMPUTATIONAL METHODS  
 12/14/1998 - 12/31/2001 FY01: \$51,704 Total: \$138,187  
*Prin. Invest.: T E TEZDUYAR*  
*Tech. Officer: JSC/F MARTIN*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 9 1193** RICE UNIV 8561  
 TO PROVIDE ANALYTICAL MEASUREMENT SERVICES  
 02/03/2000 - 08/30/2000 FY01: -\$6 Total: \$42,994  
*Prin. Invest.: F K TITTEL*  
*Tech. Officer: JSC/J GRAF*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 9 1249** RICE UNIV 8562  
 APPLICATION OF MACHINE LEARNING TO THE CONTROL OF ADVANCED  
 LIFE SUPPORT SYSTEMS  
 07/19/2000 - 12/31/2001 FY01: \$0 Total: \$20,000  
*Prin. Invest.: D SUBRAMANIAN*  
*Tech. Officer: JSC/C L FARMER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 9 1285** RICE UNIV 8563  
 MATRIX OF HYPERVELOCITY IMPACT TESTS  
 03/02/2001 - 12/31/2001 FY01: \$40,000 Total: \$40,000  
*Prin. Invest.: E V BARRERA*  
*Tech. Officer: JSC/J CREWS*  
*CASE Category: 46 – MECHANICAL ENGR*

**NCC 2 1219** RICE UNIV 8564  
 INTEGRATED MODELING OF COGNITION AND THE INFORMATION ENVIRONMENT  
 03/16/2001 - 09/30/2001 FY01: \$95,591 Total: \$95,591  
*Prin. Invest.: M BYRNE, A KIRLIK*  
*Tech. Officer: ARC/B L BEARD*  
*CASE Category: 69 – PSYCHOLOGY, OTHER*

**NCC 2 1279** RICE UNIV 8565  
 TECHNOLOGY DEVELOPMENT OF MINIATURIZED FAR-INFRARED SOURCES FOR BIOMOLECULAR SPECTROSCOPY  
 08/23/2001 - 10/14/2002 FY01: \$40,380 Total: \$40,380  
*Prin. Invest.: J KONO*  
*Tech. Officer: ARC/B BIEGEL*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NCC 2 5458** RICE UNIV 8566  
 ELECTRONIC PROPERTIES OF ANTIMONIDE-BASE SEMICONDUCTOR NANOSTRUCTURES FOR THZ GENERATION  
 08/23/2001 - 08/31/2002 FY01: \$59,620 Total: \$59,620  
*Prin. Invest.: J KONO*  
*Tech. Officer: ARC/T R GOVINDAN, ARC/B BIEGEL*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NCC 5 311** RICE UNIV 8567  
 MUSEUMS TEACHING PLANET EARTH(UTPE)  
 04/11/1998 - 02/28/2003 FY01: \$400,000 Total: \$1,753,000  
*Prin. Invest.: P REIFF*  
*Tech. Officer: GSFC/A TUYAHOV*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 9 77** RICE UNIV 8568  
 ADVANCED NANOTECHNOLOGY MATERIALS AND APPLICATIONS  
 10/29/1998 - 10/30/2002 FY01: \$906,000 Total: \$2,306,000  
*Prin. Invest.: R C SMALLEY*  
*Tech. Officer: JSC/G K HORIUCHI*  
*CASE Category: 12 – CHEMISTRY*

**NGT 1 52215** RICE UNIV 8569  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 06/01/1999 - 08/31/2000 FY01: -\$369 Total: \$25,297  
*Prin. Invest.: S M KELLOGG, S S CULLIS*  
*Tech. Officer: LARC/P J HALEY, LARC/R JOSLIN*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NGT 2 52252** RICE UNIV 8570  
 MULTIWAVELENGTH STUDIES OF WOLF-RAYET GALAXIES  
 09/30/1998 - 10/31/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.: D J DUFOUR*  
*Tech. Officer: ARC/D J HOLLENBACH*  
*CASE Category: 11 – ASTRONOMY*

**NGT 8 52899** RICE UNIV 8571  
 THE BROADBAND ANALYSIS OF SPECTRAL AND TEMPORAL PROPERTIES OF GAMMA-RAY BURSTS  
 05/25/2001 - 07/01/2004 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: E P LIANG*  
*Tech. Officer: MSFC/S NASH-STEVENSON*  
*CASE Category: 11 – ASTRONOMY*

**NGT 9 19** RICE UNIV 8572  
 NOVEL LASER BASED GAS SENSORS FOR TRAVE GAS DETECTION IN A SPACECRAFT HABITAT  
 08/23/1999 - 06/30/2002 FY01: \$22,000 Total: \$66,000  
*Prin. Invest.: F K TITTEL*  
*Tech. Officer: JSC/J C GRAF*  
*CASE Category: 54 – ENVIRONMENTAL BIOLOGY*

**NGT 9 23** RICE UNIV 8573  
 UNDERSTANDING PROPERTIES OF NANOTUBE REINFORCED ..  
 05/30/1997 - 06/30/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.: E V BARRERA*  
*Tech. Officer: JSC/B FILES*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 9 975** SAN ANTONIO COLLEGE 8574  
 SPACE AND GEOSCIENCE PROJECT  
 09/25/1997 - 01/15/2000 FY01: -\$4,296 Total: \$386,071  
*Prin. Invest.: C GONZALES*  
*Tech. Officer: JSC/L ARMENDARIZ*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAS 9 00106** SAN JACINTO COLLEGE 8575  
 COMPUTER TRAINING  
 09/29/2000 - 09/30/2001 FY01: \$208,729 Total: \$358,729  
*Prin. Invest.: N J ANTHA*  
*Tech. Officer: JSC/D DENTON-MISFELDT*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 9 137** SAN JACINTO COLLEGE 8576  
 KC 135 STUDENT FLIGHT PROGRAM  
 09/21/2001 - 08/31/2004 FY01: \$96,328 Total: \$96,328  
*Prin. Invest.: M DALTON*  
*Tech. Officer: JSC/D SICKOREZ*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 9 141** SAN JACINTO COLLEGE 8577  
 PROVIDE AREOSPACE RELATED EXPERIENCE FOR NON TRADITIONAL COMMUNITY COLLEGE  
 08/15/2001 - 08/31/2003 FY01: \$15,000 Total: \$15,000  
*Prin. Invest.: N AVAILABLE*  
*Tech. Officer: JSC/N AVAILABLE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 4562** SOUTHERN METHODIST UNIV 8578  
 CORONAE AND CHASMATA:IMPLICATIONS FOR TERRRESTRIAL  
 05/29/1997 - 11/30/2001 FY01: \$0 Total: \$249,866  
*Prin. Invest.: D L HANSEN*  
*Tech. Officer: GSFC/J GRANT*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 4609** SOUTHERN METHODIST UNIV 8579  
 TECTONIC EVOLUTION OF PLANET SURFACES  
 05/19/1997 - 05/14/2001 FY01: \$0 Total: \$64,435  
*Prin. Invest.: D L HANSEN*  
*Tech. Officer: GSFC/P ROGERS*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 9142** SOUTHERN METHODIST UNIV 8580  
 TECTONIC EVOLUTION OF PLANET SURFACES  
 02/29/2000 - 04/14/2003 FY01: \$25,000 Total: \$48,750  
*Prin. Invest.: V L HANSEN*  
*Tech. Officer: GSFC/D A SENSKA*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

<b>NAG 5 10586</b>	<b>SOUTHERN METHODIST UNIV</b>	<b>8581</b>	<b>NCC 9 54</b>	<b>SOUTHWEST TEXAS STATE UNIV</b>	<b>8589</b>
TERRESTRIAL PLANET EVOLUTION			ORAL HISTORY RESEARCH PROJECT		
03/13/2001 - 05/14/2002	FY01: \$65,000	Total: \$65,000	03/01/1999 - 09/30/2001	FY01: \$10,904	Total: \$38,683
<i>Prin. Invest.:</i> V L HANSEN			<i>Prin. Invest.:</i> K MARGERISON		
<i>Tech. Officer:</i> GSFC/D SENSKE			<i>Tech. Officer:</i> JSC/W A LARSEN		
<i>CASE Category:</i> 11 - ASTRONOMY			<i>CASE Category:</i> 73 - HISTORY		
<b>NAS 1 01104</b>	<b>SOUTHERN METHODIST UNIV</b>	<b>8582</b>	<b>NAG 1 01005</b>	<b>TEXAS A&amp;M UNIV</b>	<b>8590</b>
BROAD BAND PYROELECTRIC IR DETECTOR FOR FIRST (FAR-INFRAED SPECTROSCOPY OF THE TROPOSPHERE)			UNSTEADY RANS COMPUTATIONS OF COMPLEX TURBULENT FLOWS: MODELING & IMPLEMENTATION		
09/07/2001 - 12/06/2001	FY01: \$50,000	Total: \$50,000	02/15/2001 - 12/31/2003	FY01: \$68,009	Total: \$68,009
<i>Prin. Invest.:</i> Z CELIK-BUTLER, D BUTLER			<i>Prin. Invest.:</i> S GIRIMAJI		
<i>Tech. Officer:</i> LARC/D G JOHNSON			<i>Tech. Officer:</i> LARC/B A SINGER		
<i>CASE Category:</i> 41 - AERONAUTICAL ENGNR			<i>CASE Category:</i> 41 - AERONAUTICAL ENGNR		
<b>NAS 1 99100</b>	<b>SOUTHERN METHODIST UNIV</b>	<b>8583</b>	<b>NAG 1 01015</b>	<b>TEXAS A&amp;M UNIV</b>	<b>8591</b>
UNCOOLED YTTRIUM BARIUM COPPER OXIDE THERMAL DETECTORS FOR ADVANCED BROAD BAND IR AND FIR			ACTIVE SKIN FOR TURBULENT DRAG REDUCTION		
09/27/1999 - 09/26/2000	FY01: \$0	Total: \$110,122	02/15/2001 - 02/28/2002	FY01: \$65,000	Total: \$65,000
<i>Prin. Invest.:</i> Z CELIK-BUTLER, D BUTLER			<i>Prin. Invest.:</i> O K REDINIOTIS, D C LAGOUDAS		
<i>Tech. Officer:</i> LARC/E KIST, JR.			<i>Tech. Officer:</i> LARC/M J WALSH		
<i>CASE Category:</i> 45 - ELECTRICAL ENGR			<i>CASE Category:</i> 41 - AERONAUTICAL ENGNR		
<b>NAG 9 1019</b>	<b>SOUTHWEST TEXAS JUNIOR COLLEGE</b>	<b>8584</b>	<b>NAG 1 01080</b>	<b>TEXAS A&amp;M UNIV</b>	<b>8592</b>
PRECOLLEGE AWARD FOR EXCELLENCE PACE/MSET			HIERARCHICAL STRATEGY FOR RAPID ANALYSIS ENVIRONMENT		
05/28/1998 - 08/31/2001	FY01: \$0	Total: \$298,420	05/11/2001 - 01/31/2004	FY01: \$60,000	Total: \$60,000
<i>Prin. Invest.:</i> A HERNANDEZ, JR.			<i>Prin. Invest.:</i> J D WHITCOMB		
<i>Tech. Officer:</i> JSC/L ARMENDARIZ			<i>Tech. Officer:</i> LARC/I S RAJU, LARC/J B RANSOM		
<i>CASE Category:</i> 99 - MULTI INTERDISCPL, OTHER			<i>CASE Category:</i> 46 - MECHANICAL ENGR		
<b>NAG 8 1367</b>	<b>SOUTHWEST TEXAS STATE UNIV</b>	<b>8585</b>	<b>NAG 2 1340</b>	<b>TEXAS A&amp;M UNIV</b>	<b>8593</b>
A NASA/UNIV JOINT VENTURE IN SPACE SCIENCE (JOVE). PROVIDES 1ST YEAR FUNDING			ADAPTATIONS OF VISCRAL & CEREBRAL RESISTANCE ARTERIES TO SIMULATED MICROGRAVITY		
05/28/1997 - 08/31/2000	FY01: -\$106	Total: \$31,708	07/16/1999 - 07/14/2002	FY01: \$129,582	Total: \$368,261
<i>Prin. Invest.:</i> S F TARSITANO			<i>Prin. Invest.:</i> M D DELP		
<i>Tech. Officer:</i> MSFC/J F DOWDY, MSFC/J R PRUITT			<i>Tech. Officer:</i> ARC/M M AVERNER, ARC/R MACELROY		
<i>CASE Category:</i> 19 - PHYSICAL SCIENCE, OTHER			<i>CASE Category:</i> 51 - BIOLOGY (EXCLUDING ENVIR)		
<b>NCC 1 324</b>	<b>SOUTHWEST TEXAS STATE UNIV</b>	<b>8586</b>	<b>NAG 3 2002</b>	<b>TEXAS A&amp;M UNIV</b>	<b>8594</b>
LOW DIELECTRIC POLYMERS			TURBINE BLADE TIP HEAT TRANSFER & FILM COOLING STUDY USING A TRANSIENT LIQUID CRYSTAL IMAGE METHOD		
12/08/1998 - 11/30/1999	FY01: -\$10,657	Total: \$59,215	01/21/1997 - 12/30/2000	FY01: -\$40	Total: \$233,656
<i>Prin. Invest.:</i> P E CASSIDY, M BLANDA			<i>Prin. Invest.:</i> J C HAN, S V EKKAD		
<i>Tech. Officer:</i> LARC/A K ST. CLAIR, LARC/D M STOAKLEY			<i>Tech. Officer:</i> GRC/R J BOYLE		
<i>CASE Category:</i> 12 - CHEMISTRY			<i>CASE Category:</i> 41 - AERONAUTICAL ENGR		
<b>NCC 1 376</b>	<b>SOUTHWEST TEXAS STATE UNIV</b>	<b>8587</b>	<b>NAG 3 2551</b>	<b>TEXAS A&amp;M UNIV</b>	<b>8595</b>
LOW DIELECTRIC POLYMERS			MULTI-BEAM PHASED ARRAY ANTENNAS MULTI-BEAM PHASED ARRAY ANTENNAS		
03/22/2000 - 08/31/2001	FY01: \$0	Total: \$50,000	02/28/2001 - 02/04/2002	FY01: \$100,000	Total: \$100,000
<i>Prin. Invest.:</i> P E CASSIDY, M T BLANDA			<i>Prin. Invest.:</i> D CHANG		
<i>Tech. Officer:</i> LARC/D M STOAKLEY/C C FAY			<i>Tech. Officer:</i> GRC/R LEE		
<i>CASE Category:</i> 12 - CHEMISTRY			<i>CASE Category:</i> 45 - ELECTRICAL ENGR		
<b>NCC 1 01033</b>	<b>SOUTHWEST TEXAS STATE UNIV</b>	<b>8588</b>	<b>NAG 3 2617</b>	<b>TEXAS A&amp;M UNIV</b>	<b>8596</b>
LOW DIELECTRIC POLYMERS			ADVANCED LITHIUM ION POLYMER BATTERIES FOR AEROSPACE APPLICATION		
05/10/2001 - 05/09/2002	FY01: \$50,000	Total: \$50,000	05/23/2001 - 05/31/2004	FY01: \$106,000	Total: \$106,000
<i>Prin. Invest.:</i> P E CASSIDY, S R VENUMBKA			<i>Prin. Invest.:</i> D APPLEBY		
<i>Tech. Officer:</i> LARC/D M STOAKLEY, LARC/C C FAY			<i>Tech. Officer:</i> GRC/R BALDWIN		
<i>CASE Category:</i> 12 - CHEMISTRY			<i>CASE Category:</i> 12 - CHEMISTRY		

<b>NAG 4 212</b>	<b>TEXAS A&amp;M UNIV</b>	<b>8597</b>	<b>NAG 5 8706</b>	<b>TEXAS A&amp;M UNIV</b>	<b>8605</b>
A STUDY OF SYSTEM IDENTIFICATION APPROACHES FOR FL UTER FLIGHT TESTS TEES #00-564			NOX PRODUCTION BY LIGHTNING AND ITS IMPACT ON THE CHEMISTRY OF THE UPPERTROPOSPHERE AND LOWERSTRATO		
06/28/2000 - 05/31/2001	FY01: \$0	Total: \$35,000	07/19/1999 - 08/31/2002	FY01: \$87,449	Total: \$270,455
<i>Prin. Invest.: D STRGANAC</i>			<i>Prin. Invest.: R ZHANG</i>		
<i>Tech. Officer: DFRC/R LIND</i>			<i>Tech. Officer: GSFC/M Y WEI</i>		
<i>CASE Category: 41 – AERONAUTICAL ENGNR</i>			<i>CASE Category: 39 – ENVIRONMENTAL SCI, OTHER</i>		
<b>NAG 5 3754</b>	<b>TEXAS A&amp;M UNIV</b>	<b>8598</b>	<b>NAG 5 9409</b>	<b>TEXAS A&amp;M UNIV</b>	<b>8606</b>
SKELETAL MUSCLE ARTERIOLAR ADAPTATIONS TO STIMULAT			MODELING TROPICAL ATLANTIC VARIABILITY		
11/22/1996 - 05/14/2000	FY01: -\$239	Total: \$223,430	04/06/2000 - 06/30/2003	FY01: \$35,000	Total: \$70,000
<i>Prin. Invest.: M D DELP</i>			<i>Prin. Invest.: P CHANG</i>		
<i>Tech. Officer: GSFC/M A SHEPANEK</i>			<i>Tech. Officer: GSFC/K BERGMAN</i>		
<i>CASE Category: 59 – LIFE SCIENCE, OTHER</i>			<i>CASE Category: 39 – ENVIRONMENTAL SCI, OTHER</i>		
<b>NAG 5 4746</b>	<b>TEXAS A&amp;M UNIV</b>	<b>8599</b>	<b>NAG 5 9455</b>	<b>TEXAS A&amp;M UNIV</b>	<b>8607</b>
MICROWAVE RADIOMETER AND MULTI-INSTRUMENT ALGORITHM			CONTINUED DEVELOPMENT OF SNOW AND SEA ICE ALBEDO ALGORITHMS FOR MODERATE RESOLUTION IMAGING		
06/26/1997 - 06/30/2001	FY01: -\$65	Total: \$350,335	04/12/2000 - 12/31/2000	FY01: \$0	Total: \$19,849
<i>Prin. Invest.: T T WILHEIT</i>			<i>Prin. Invest.: A KLEIN</i>		
<i>Tech. Officer: GSFC/O A THIELE</i>			<i>Tech. Officer: GSFC/D K HALL</i>		
<i>CASE Category: 31 – ATMOSPHERIC SCIENCE</i>			<i>CASE Category: 39 – ENVIRONMENTAL SCI, OTHER</i>		
<b>NAG 5 4753</b>	<b>TEXAS A&amp;M UNIV</b>	<b>8600</b>	<b>NAG 5 9485</b>	<b>TEXAS A&amp;M UNIV</b>	<b>8608</b>
STATISTICAL SAMPLING AND ESTIMATION PROBLEMS USING			DEVELOPMENT OF A LONG-RANGE SCIENCE PLAN FOR SUB- GLACIAL LAKE EXPLORATION		
06/27/1997 - 06/30/2000	FY01: -\$47	Total: \$346,392	04/25/2000 - 04/30/2001	FY01: \$0	Total: \$27,335
<i>Prin. Invest.: G R NORTH</i>			<i>Prin. Invest.: M C KENNICUT</i>		
<i>Tech. Officer: GSFC/O W THEILE</i>			<i>Tech. Officer: GSFC/M MEYER</i>		
<i>CASE Category: 31 – ATMOSPHERIC SCIENCE</i>			<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>		
<b>NAG 5 4776</b>	<b>TEXAS A&amp;M UNIV</b>	<b>8601</b>	<b>NAG 5 9649</b>	<b>TEXAS A&amp;M UNIV</b>	<b>8609</b>
VALIDATION AND ESTIMATES OF TROPICAL RAIN AND DIAB			STATISTICAL SAMPLING AND ESTIMATION PROBLEMS USING TRMM DATA		
06/27/1997 - 06/30/2001	FY01: -\$36	Total: \$723,066	06/26/2000 - 11/30/2001	FY01: \$99,000	Total: \$139,180
<i>Prin. Invest.: M I BIGGERSTAFF</i>			<i>Prin. Invest.: G R NORTH</i>		
<i>Tech. Officer: GSFC/O W THIELE</i>			<i>Tech. Officer: GSFC/R J LAWRENCE</i>		
<i>CASE Category: 31 – ATMOSPHERIC SCIENCE</i>			<i>CASE Category: 31 – ATMOSPHERIC SCIENCE</i>		
<b>NAG 5 4796</b>	<b>TEXAS A&amp;M UNIV</b>	<b>8602</b>	<b>NAG 5 9697</b>	<b>TEXAS A&amp;M UNIV</b>	<b>8610</b>
VALIDATION AND TRANSFERABILITY OF TROPICAL RAIN			VALIDATION OF TRMM RAINFALL AND HEATING ESTIMATES		
08/22/1997 - 09/30/2000	FY01: -\$35	Total: \$391,094	07/26/2000 - 11/30/2001	FY01: \$190,000	Total: \$200,000
<i>Prin. Invest.: G J NORTH</i>			<i>Prin. Invest.: M I BIGGERSTAFF</i>		
<i>Tech. Officer: GSFC/O THIELE</i>			<i>Tech. Officer: GSFC/R J LAWRENCE</i>		
<i>CASE Category: 31 – ATMOSPHERIC SCIENCE</i>			<i>CASE Category: 31 – ATMOSPHERIC SCIENCE</i>		
<b>NAG 5 6446</b>	<b>TEXAS A&amp;M UNIV</b>	<b>8603</b>	<b>NAG 5 9729</b>	<b>TEXAS A&amp;M UNIV</b>	<b>8611</b>
WORLD OCEAN CIRCULATION EXPERIMENT: SUPPORT FOR TH E U.S. WOCE OFFICE			PHYSICAL VALIDATION OF TMI OCEANIC RAINFALL RETRIE VALS		
11/25/1997 - 12/31/2001	FY01: \$0	Total: \$375,000	06/22/2000 - 11/30/2001	FY01: \$113,000	Total: \$163,600
<i>Prin. Invest.: W D NOWLIN</i>			<i>Prin. Invest.: T WILHEIT</i>		
<i>Tech. Officer: GSFC/J CAMPBELL</i>			<i>Tech. Officer: GSFC/R LAWRENCE</i>		
<i>CASE Category: 39 – ENVIRONMENTAL SCI, OTHER</i>			<i>CASE Category: 31 – ATMOSPHERIC SCIENCE</i>		
<b>NAG 5 7751</b>	<b>TEXAS A&amp;M UNIV</b>	<b>8604</b>	<b>NAG 5 10549</b>	<b>TEXAS A&amp;M UNIV</b>	<b>8612</b>
DOES SOUTHERN OCEAN SEA ICE AFFECT INTERANNUAL OCEAN VARIABILITY			AIRCRAFT-BASED MEASUREMENT OF AEROSOL OPTICAL PROPERTIES		
11/19/1998 - 12/31/2001	FY01: \$59,424	Total: \$178,940	03/09/2001 - 03/14/2002	FY01: \$111,414	Total: \$111,414
<i>Prin. Invest.: A STOESEL</i>			<i>Prin. Invest.: D COLLINS</i>		
<i>Tech. Officer: GSFC/S GOGINENI</i>			<i>Tech. Officer: GSFC/M WEI</i>		
<i>CASE Category: 39 – ENVIRONMENTAL SCI, OTHER</i>			<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>		

**NAG 5 10641** TEXAS A&M UNIV 8613  
ASSIMILATING SATELLITE-DERIVED SEA-ICE CONCENTRATION IN A GLOBAL COUPLED SEA-ICE-OCEAN GCM  
03/17/2001 - 03/14/2002 FY01: \$65,640 Total: \$65,640  
*Prin. Invest.:* S STOESSEL  
*Tech. Officer:* GSFC/W ABDALATI  
*CASE Category:* 33 – OCEANOGRAPHY

**NAG 5 10829** TEXAS A&M UNIV 8614  
SUPPORT FOR U.S. WOCE OFFICE AND U.S. GOOS OFFICE  
04/25/2001 - 04/30/2002 FY01: \$75,000 Total: \$75,000  
*Prin. Invest.:* W NOWLIN  
*Tech. Officer:* GSFC/E LINDSTROM  
*CASE Category:* 33 – OCEANOGRAPHY

**NAG 5 10877** TEXAS A&M UNIV 8615  
CONTINUED DEVELOPMENT OF SNOW AND SEA ICE ALBEDO ALGORITHMS FOR THE MODERATE RESOLUTION IMAGING  
05/16/2001 - 08/31/2001 FY01: \$15,000 Total: \$15,000  
*Prin. Invest.:* A KLEIN  
*Tech. Officer:* GSFC/D K HALL  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NAG 5 11013** TEXAS A&M UNIV 8616  
IMPROVEMENT OF RAIN ESTIMATION IN TROPICAL CYCLONE  
07/10/2001 - 06/14/2002 FY01: \$228,000 Total: \$228,000  
*Prin. Invest.:* M BOGGERSTAFF  
*Tech. Officer:* GSFC/R LAWRENCE  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NAG 5 11144** TEXAS A&M UNIV 8617  
EFFECTS OF URBANIZATION ON ECOLOGICAL SERVICES IN A SEMI-ARID REGION OF THE UNITED STATES  
07/25/2001 - 08/14/2002 FY01: \$94,341 Total: \$94,341  
*Prin. Invest.:* R LACEY  
*Tech. Officer:* GSFC/G GUTMAN  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NAG 8 1395** TEXAS A&M UNIV 8618  
R/S "BULK FLOW ANALYSIS OF HYBRID THRUST BEARINGS FOR ADVANCED CRYOGENIC TURBOPUMPS"  
07/21/1997 - 12/31/2000 FY01: -\$44 Total: \$73,420  
*Prin. Invest.:* L SAN ANDREAS  
*Tech. Officer:* MSFC/R L THOM, MSFC/T JETT  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NAG 8 1491** TEXAS A&M UNIV 8619  
INTENSITY AND ORGANIZATION OF CONVECTION IN HURRICANES AND TROPICAL CYCLONES BEFORE AND AFTER  
01/30/1998 - 01/31/2001 FY01: -\$45,141 Total: \$108,815  
*Prin. Invest.:* E J ZIPSER  
*Tech. Officer:* MSFC/J ARNOLD, MSFC/R K KAKAR  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NAG 8 1618** TEXAS A&M UNIV 8620  
R&D OF HIGH GAIN, HIGH EFFICIENCY, CIRCULAR POLARIZED RECTENNASES  
07/06/1999 - 01/31/2001 FY01: \$0 Total: \$350,000  
*Prin. Invest.:* K CHANG  
*Tech. Officer:* MSFC/J HOWELL  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NAG 8 1802** TEXAS A&M UNIV 8621  
THERMOPHYSICAL ESEM & TEM CHARACTERIZATION OF CARBON FIBERS" CTE, SPECTROSCOPY & ROUGHNESS STUDY  
04/20/2001 - 04/19/2002 FY01: \$64,304 Total: \$64,304  
*Prin. Invest.:* O O OCHOA  
*Tech. Officer:* MSFC/M R EFFINGER, MSFC/P VALENTINE  
*CASE Category:* 47 – METAL & MATERIALSENGR

**NAG 9 1067** TEXAS A&M UNIV 8622  
PLANT GROWTH AND METABOLISM AT SUB-AMBIENT ATMOSPHERE PRESURES  
01/06/1999 - 12/31/2001 FY01: \$118,284 Total: \$465,446  
*Prin. Invest.:* M C DREW  
*Tech. Officer:* JSC/D BARTA  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NAG 9 1070** TEXAS A&M UNIV 8623  
NONINTRUSIVE METHOD FOR STIRRED SEPARATOR INVENTORY SENSING  
01/22/1999 - 12/31/2000 FY01: -\$62 Total: \$55,677  
*Prin. Invest.:* R WILLIAMS, F BEST, I CARSON  
*Tech. Officer:* JSC/S D GLEN  
*CASE Category:* 13 – PHYSICS

**NAG 9 1086** TEXAS A&M UNIV 8624  
LOW THRUST VARIABLE ISP ROCKET TRAJECTORY OPTIMIZATION AND ANALYSIS STUDY  
02/08/1999 - 09/30/2000 FY01: -\$1,870 Total: \$28,130  
*Prin. Invest.:* S R VACALIC  
*Tech. Officer:* JSC/E M BRADEN  
*CASE Category:* 42 – ASTRONAUTICAL ENGR

**NAG 9 1119** TEXAS A&M UNIV 8625  
STABILITY OF RETORT PROCESSED MILK PRODUCTS  
07/01/1999 - 06/30/2001 FY01: \$0 Total: \$60,000  
*Prin. Invest.:* R L RICHTER  
*Tech. Officer:* JSC/C T BOURLAND  
*CASE Category:* 55 – AGRICULTURE

**NAG 9 1145** TEXAS A&M UNIV 8626  
SEPARATION OF LIQUID PHASE FR GAS PHASE  
09/09/1999 - 01/31/2002 FY01: \$0 Total: \$150,000  
*Prin. Invest.:* J SEYED-YAGOobi, F R BEST  
*Tech. Officer:* JSC/E K UNGAR  
*CASE Category:* 46 – MECHANICAL ENGR

**NAG 9 1188** TEXAS A&M UNIV 8627  
NAVIGATION SYSTEMS & TECHNOLOGY LAB (NSR) ATTITUDE DETERMINATION  
01/28/2000 - 12/31/2002 FY01: \$0 Total: \$159,345  
*Prin. Invest.:* J L CRASSIDIS  
*Tech. Officer:* JSC/J W BELL  
*CASE Category:* 42 – ASTRONAUTICAL ENGR

**NAG 9 1231** TEXAS A&M UNIV 8628  
SYNTHESIS AND EVALUATION OF ROBUST DYNAMIC INVERSION  
05/22/2000 - 09/30/2001 FY01: \$0 Total: \$97,320  
*Prin. Invest.:* J L VALASEK  
*Tech. Officer:* JSC/S R MONDAY  
*CASE Category:* 41 – AERONAUTICAL ENGR

<b>NAG 9 1239</b>	<b>TEXAS A&amp;M UNIV</b>	<b>8629</b>	<b>NAS 9 99096</b>	<b>TEXAS A&amp;M UNIV</b>	<b>8637</b>
VARIABLE ISP ROCKET TRAJECTORY OPTIMIZATION 06/30/2000 - 12/31/2001	FY01: \$30,000	Total: \$60,000	PROPORTIONAL COUNTERS FOR NEUTRON MEASUREMENTS 08/17/1999 - 06/29/2001	FY01: \$0	Total: \$117,096
<i>Prin. Invest.: S R VADALI</i>			<i>Prin. Invest.: L A BRABY</i>		
<i>Tech. Officer: JSC/E M BRADEN</i>			<i>Tech. Officer: JSC/G D BADHWAR</i>		
<i>CASE Category: 42 – ASTRONAUTICAL ENGR</i>			<i>CASE Category: 41 – AERONAUTICAL ENGR</i>		
<b>NAG 9 1268</b>	<b>TEXAS A&amp;M UNIV</b>	<b>8630</b>	<b>NCC 1 386</b>	<b>TEXAS A&amp;M UNIV</b>	<b>8638</b>
FLIGHT TESTS OF AN UNMANNED POWERED PARACHUTE 01/11/2001 - 12/31/2001	FY01: \$219,534	Total: \$219,534	MICRO SPACECRAFT ATTITUDE SENSOR SYSTEM (MSAS) NASA HQS CETDP COMPETITION 03/13/2000 - 01/31/2003	FY01: \$160,000	Total: \$360,000
<i>Prin. Invest.: D T WARD, J L CRASSIDS, D W LUND</i>			<i>Prin. Invest.: J L JUNKINS</i>		
<i>Tech. Officer: JSC/A STRAHAN, JSC/C J CERIMELE</i>			<i>Tech. Officer: LARC/L G HORTA</i>		
<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>			<i>CASE Category: 42 – ASTRONAUTICAL ENGR</i>		
<b>NAG 9 1277</b>	<b>TEXAS A&amp;M UNIV</b>	<b>8631</b>	<b>NCC 2 1166</b>	<b>TEXAS A&amp;M UNIV</b>	<b>8639</b>
MICROFABRICATED OPTICAL BIOSENSOR ARRAYS FOR AIR QUALITY MONITORING 01/24/2001 - 09/30/2003	FY01: \$0	Total: \$0	ARTERIAL REMODELING AND FUNCTIONAL ADAPTATIONS INDUCED BY MICROGRAVITY 03/22/2000 - 03/14/2002	FY01: \$316,193	Total: \$706,193
<i>Prin. Invest.: M V PISHKO</i>			<i>Prin. Invest.: M D DELP</i>		
<i>Tech. Officer: JSC/D RUSSO</i>			<i>Tech. Officer: ARC/M F VASQUES</i>		
<i>CASE Category: 54 – ENVIRONMENTAL BIOLOGY</i>			<i>CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)</i>		
<b>NAG 9 1328</b>	<b>TEXAS A&amp;M UNIV</b>	<b>8632</b>	<b>NCC 3 516</b>	<b>TEXAS A&amp;M UNIV</b>	<b>8640</b>
IMMWPS SEPARATOR KC-135 FLIGHT DIAGNOSTIC TESTING 06/18/2001 - 08/01/2002	FY01: \$50,000	Total: \$50,000	THE CENTER FOR SPACE POWER 11/26/1996 - 11/03/2001	FY01: \$1,015,500	Total: \$3,727,501
<i>Prin. Invest.: F R BEST</i>			<i>Prin. Invest.: F R BEST</i>		
<i>Tech. Officer: JSC/K HURLBERT</i>			<i>Tech. Officer: GRC/J E CALOGERAS, GRC/R L SOVIE</i>		
<i>CASE Category: 46 – MECHANICAL ENGR</i>			<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>		
<b>NAG10 304</b>	<b>TEXAS A&amp;M UNIV</b>	<b>8633</b>	<b>NCC 3 602</b>	<b>TEXAS A&amp;M UNIV</b>	<b>8641</b>
SCOPING DESIGN FOR ZERO GRAVITY ULLAGE TESTING SCOPING DESIGN FOR ZERO GRAVITY ULLAGE TESTING 08/08/2001 - 09/30/2001	FY01: \$22,500	Total: \$22,500	THERMAL CONTROL AND ENHANCEMENT OF HEAT TRANSPORT CAPACITY OF CRYOGENICS CAPILLARY PUMPED LOOPS AND 03/20/1998 - 01/28/2002	FY01: \$51,276	Total: \$257,963
<i>Prin. Invest.: F R BEST</i>			<i>Prin. Invest.: J SEYED-YAGOABI, J M OCHTERBECK, J 3 BYRAN</i>		
<i>Tech. Officer: KSC/T R REINARTS</i>			<i>Tech. Officer: GRC/F P CHIARAMONTE</i>		
<i>CASE Category: 46 – MECHANICAL ENGR</i>			<i>CASE Category: 46 – MECHANICAL ENGR</i>		
<b>NAS 5 32593</b>	<b>TEXAS A&amp;M UNIV</b>	<b>8634</b>	<b>NCC 3 762</b>	<b>TEXAS A&amp;M UNIV</b>	<b>8642</b>
STUDY ENTITLED MIMR SCIENCE TEAM MEMBERSHIP 12/15/1993 - 12/30/2001	FY01: \$245,000	Total: \$1,277,013	SMART STRUCTURAL COMPONENTS FOR INCREASED FLIGHT SPEED, SAFETY & CAPACITY USING MAGNETIC BEARINGS A 01/18/2000 - 12/02/2001	FY01: \$105,641	Total: \$213,464
<i>Prin. Invest.: T T WILHEIT</i>			<i>Prin. Invest.: B D PALAZZOLO</i>		
<i>Tech. Officer: GSFC/P HWONG</i>			<i>Tech. Officer: GRC/G T MONTAGUE</i>		
<i>CASE Category: 31 – ATMOSPHERIC SCIENCE</i>			<i>CASE Category: 41 – AERONAUTICAL ENGR</i>		
<b>NAS 9 00100</b>	<b>TEXAS A&amp;M UNIV</b>	<b>8635</b>	<b>NCC 3 793</b>	<b>TEXAS A&amp;M UNIV</b>	<b>8643</b>
OPERATION & MANAGEMENT OF RTTC 12/22/2000 - 12/21/2001	FY01: \$900,000	Total: \$900,000	EXPERIMENTAL STUDY OF THE EFFECTS OF WAKES ON SEPARATION IN LOW PRESSURE TURBINE FLOW 04/20/2000 - 05/31/2002	FY01: \$45,000	Total: \$131,735
<i>Prin. Invest.: G SERA, B CORNWELL, B NAUKE</i>			<i>Prin. Invest.: I SCHOBEBRI</i>		
<i>Tech. Officer: GRC/K W LASSMAN</i>			<i>Tech. Officer: GRC/D ASHPIS</i>		
<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>			<i>CASE Category: 41 – AERONAUTICAL ENGR</i>		
<b>NAS 9 97002</b>	<b>TEXAS A&amp;M UNIV</b>	<b>8636</b>	<b>NCC 3 836</b>	<b>TEXAS A&amp;M UNIV</b>	<b>8644</b>
TEXAS A & M LOW-SPEED WIND TUNNEL (LSWT) TESTING 04/02/1997 - 04/02/2001	FY01: \$15,225	Total: \$204,145	LOW POWER LOSS, FAIL SAFE MAGNETIC SUSPENSIONS FOR ENERGY STORAGE AND ATTITUDE CONTROL FLYWHEELS 01/04/2001 - 01/01/2004	FY01: \$337,470	Total: \$337,470
<i>Prin. Invest.: J L MARTINEZ</i>			<i>Prin. Invest.: D PALAZZOLO</i>		
<i>Tech. Officer: JSC/S G LABBE, JSC/C J CERIMELE</i>			<i>Tech. Officer: GRC/K P MCCLALLIN</i>		
<i>CASE Category: 41 – AERONAUTICAL ENGR</i>			<i>CASE Category: 46 – MECHANICAL ENGR</i>		

**NCC 4 152** TEXAS A&M UNIV 8645  
 CONTINUOUS COMMISSIONING PROPOSAL CONTINUOUS COMMISSIONING PROPOSAL  
 06/18/2001 - 05/31/2002 FY01: \$70,000 Total: \$70,000  
*Prin. Invest.: W TURNER*  
*Tech. Officer: DFRC/J TORRES*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 5 359** TEXAS A&M UNIV 8646  
 MISSION GEOGRAPHY  
 08/24/1998 - 01/31/2002 FY01: \$0 Total: \$900,542  
*Prin. Invest.: S BEDNARZ*  
*Tech. Officer: HQ/P MOUNTJPOY*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 5 448** TEXAS A&M UNIV 8647  
 VISION-BASED NAVIGATION FOR SPACECRAFT FORMATION FLYING  
 12/21/1999 - 12/31/2001 FY01: \$64,970 Total: \$353,730  
*Prin. Invest.: D L JUNKINS*  
*Tech. Officer: GSFC/L MARKLEY*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NCC 5 456** TEXAS A&M UNIV 8648  
 UNSOLICITED PROPOSAL FOR A COOPERATIVE AGREEMENT BETWEEN THE TEXAS ENGINEERING EXPERIMENT STATION  
 03/03/2000 - 02/28/2002 FY01: \$0 Total: \$1,045,000  
*Prin. Invest.: F R BEST*  
*Tech. Officer: GSFC/J LANDERS*  
*CASE Category: 11 – ASTRONOMY*

**NCC 5 517** TEXAS A&M UNIV 8649  
 BUILDING AN INTERDISCIPLINARY RESEARCH INFRASTRUCTURE IN APPLIED COMPUTER SCIENCE, GEOGRAPHIC INFOR  
 09/25/2000 - 09/30/2001 FY01: \$386,604 Total: \$486,604  
*Prin. Invest.: C STEIDLEY*  
*Tech. Officer: GSFC/C PERSON*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 8 169** TEXAS A&M UNIV 8650  
 R/S INVESTIGATION OF NEURONAL PHYSIOLOGY IN SIMULATED MICROGRAVITY USING SMART FLUORESCENT ...  
 03/12/1999 - 11/30/2002 FY01: \$133,000 Total: \$371,000  
*Prin. Invest.: G COTE*  
*Tech. Officer: JSC/M ANDERSON*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NCC 8 226** TEXAS A&M UNIV 8651  
 PROMOTE COMMERCIALLY FUNDED ENGINEERING RESEARCH & TECHNOLOGY DEVELOPMENT ON THE INT'L SPACE STATION  
 05/01/2001 - 10/31/2001 FY01: \$716,000 Total: \$716,000  
*Prin. Invest.: D BOYLE*  
*Tech. Officer: MSFC/S LAMBING*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 9 69** TEXAS A&M UNIV 8652  
 NASA COMMERCIAL SPACE TO ADBOCATE & SUPPORT COMMERCIAL ENGINEERING ON ISS  
 05/07/1998 - 05/06/2001 FY01: \$200,000 Total: \$2,132,789  
*Prin. Invest.: D R BOYLE, M SCHULLER, F R BEST*  
*Tech. Officer: JSC/C G PARRA, JSC/R C HAHL*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NGT 5 30211** TEXAS A&M UNIV 8653  
 HYDROLOGIC CONSEQUENCES OF SHRUB SAVANNA EXPANSION STUDENT: WYLIE N. HARRIS  
 08/20/1999 - 08/31/2001 FY01: \$0 Total: \$22,000  
*Prin. Invest.: T BOUTTON*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 30408** TEXAS A&M UNIV 8654  
 EVALUATION OF SHRUB ENCROACHMENT ON WATER AVAILABILITY IN SEMI-ARID RANGELAND OF THE SOUTHWESTE  
 08/15/2001 - 08/31/2004 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: C MUNSTER*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 30417** TEXAS A&M UNIV 8655  
 UNDERSTANDING AND ASSESSING POTENTIAL PREDICTABILITY OF THE SACZ & SPCZ USING NASA/NSIPP AND NCAR/C  
 09/06/2001 - 08/31/2004 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: P CHANG*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 9 34** TEXAS A&M UNIV 8656  
 KINETICS OF NITRIFICATION BY ISO TOPE DILUTION IN GROWTH OF WHEAT USING ZEOPONICS  
 06/04/1998 - 07/01/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.: R W WEAVER*  
*Tech. Officer: JSC/D G SICKOREZ*  
*CASE Category: 55 – AGRICULTURE*

**NGT 9 39** TEXAS A&M UNIV 8657  
 1999 SUMMER FACULTY FELLOWSHIP PROGRAM  
 04/21/1999 - 12/31/2000 FY01: \$0 Total: \$385,000  
*Prin. Invest.: W A HYMAN, R BANNEROT*  
*Tech. Officer: JSC/D SICKOREZ*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 9 54** TEXAS A&M UNIV 8658  
 2001 SUMMER FACULTY FELLOWSHIP PROGRAM  
 06/29/2001 - 12/31/2002 FY01: \$359,417 Total: \$359,417  
*Prin. Invest.: W A HYMAN*  
*Tech. Officer: JSC/D SICKOREZ*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9196** TEXAS A&M UNIV-CORPUS CHRISTI 8659  
 THE TRANSLINGUAL EARTH SYSTEM SCIENCE EDUCATION CENTER  
 03/10/2000 - 09/14/2001 FY01: \$0 Total: \$154,580  
*Prin. Invest.: G BLOUNT*  
*Tech. Officer: GSFC/N KHAZENIE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 7159** TEXAS A&M UNIV-KINGSVILLE 8660  
 SIMULATION SUPPORT FOR THE DEVELOPMENT OF GLAST  
 03/16/1998 - 08/31/2001 FY01: \$0 Total: \$104,000  
*Prin. Invest.: D SUSON*  
*Tech. Officer: GSFC/D THOMPSON*  
*CASE Category: 13 – PHYSICS*

<b>NAG 8 1650</b>	<b>TEXAS A&amp;M UNIV-KINGSVILLE</b>	<b>8661</b>	<b>NAG 9 1194</b>	<b>TEXAS SOUTHERN UNIV</b>	<b>8669</b>
EXPANDABLE SOFTWARE REUSE LIBRARY 01/20/2000 - 01/19/2002	FY01: \$0	Total: \$29,291	MOLD DEVELOPMENT IN HYDROPONICS 04/25/2000 - 04/24/2003	FY01: \$72,000	Total: \$132,000
Prin. Invest.: B SCHREUR			Prin. Invest.: O A JEJELOWO		
Tech. Officer: MSFC/W LOVE			Tech. Officer: JSC/L ARMENDARIZ		
CASE Category: 22 – COMPUTER SCIENCE			CASE Category: 55 – AGRICULTURE		
<b>NAG 9 1093</b>	<b>TEXAS A&amp;M UNIV-KINGSVILLE</b>	<b>8662</b>	<b>NAG 9 1227</b>	<b>TEXAS SOUTHERN UNIV</b>	<b>8670</b>
DESIGN OF LOW BIT RATE SIGNAL COMPRESSOR FOR EFFICIENT RECORDING 04/26/1999 - 04/30/2002	FY01: \$84,669	Total: \$263,313	SILICON UPTAKE IN HYDROPONICS BY GRAMINACEOUS CROP PLANTS 06/22/2000 - 06/30/2003	FY01: \$50,000	Total: \$112,000
Prin. Invest.: S W PARK			Prin. Invest.: G A JEJEDOWO		
Tech. Officer: JSC/K L HAMES			Tech. Officer: JSC/L ARMENDARIZ		
CASE Category: 45 – ELECTRICAL ENGR			CASE Category: 55 – AGRICULTURE		
<b>NAG 5 7040</b>	<b>TEXAS CHRISTIAN UNIV</b>	<b>8663</b>	<b>NCC 9 80</b>	<b>TEXAS SOUTHERN UNIV</b>	<b>8671</b>
CRITICAL TESTS OF STELLAR EVOLUTION_(LTS) 03/02/1998 - 02/28/2002	FY01: \$8,900	Total: \$33,800	HIGH PRESSURE LABORATORY 12/02/1998 - 05/31/2004	FY01: \$300,000	Total: \$899,675
Prin. Invest.: P MARCUM			Prin. Invest.: B L WILSON		
Tech. Officer: GSFC/D K WEST			Tech. Officer: JSC/C B AGEE		
CASE Category: 11 – ASTRONOMY			CASE Category: 12 – CHEMISTRY		
<b>NAG 8 1356</b>	<b>TEXAS CHRISTIAN UNIV</b>	<b>8664</b>	<b>NAG 1 2192</b>	<b>TEXAS TECH UNIV</b>	<b>8672</b>
EXPERIMENTAL ASSESSMENT OF MULTICOMPONENT EFFECTS IN DIFFUSION-DOMINATED TRANSPORT PROTEIN CRYSTAL 05/23/1997 - 05/31/2001	FY01: \$29,362	Total: \$298,362	THE HEAVY OZONE PROBLEM NRA-98-OES-04 09/28/1999 - 12/31/2002	FY01: \$51,106	Total: \$101,235
Prin. Invest.: J G ALBRIGHT			Prin. Invest.: G I GELLENE		
Tech. Officer: MSFC/B L GUYNES, MSFC/J MAYO			Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE		
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)			CASE Category: 31 – ATMOSPHERIC SCIENCE		
<b>NAG 5 8934</b>	<b>TEXAS COLLEGE</b>	<b>8665</b>	<b>NAG 3 2005</b>	<b>TEXAS TECH UNIV</b>	<b>8673</b>
TEXAS COLLEGE CENTER FOR EXCELLENCE IN MATHEMATICS SCIENCE & TECHNOLOGY & A TECHNOLOGY PLACE FOR KID 01/19/2000 - 01/14/2001	FY01: \$0	Total: \$915,000	ARCJET ELECTRODE DEGRADATION RESEARCH 01/24/1997 - 08/31/2001	FY01: \$0	Total: \$690,930
Prin. Invest.: T NAMBOODIRI			Prin. Invest.: E A O'HAIR, M KRISTIANSEN, J C DICKENS		
Tech. Officer: GSFC/C PERSON			Tech. Officer: GRC/L R PINERO		
CASE Category: 99 – MULTI INTERDISCPL, OTHER			CASE Category: 45 – ELECTRICAL ENGR		
<b>NAG 5 11002</b>	<b>TEXAS COLLEGE</b>	<b>8666</b>	<b>NAG 5 5156</b>	<b>TEXAS TECH UNIV</b>	<b>8674</b>
TEXAS COLLEGE CENTER FOR EXCELLENCE IN MATHEMATICS SCIENCE & TECHNOLOGY & A TECHNOLOGY PLACE FOR KID 06/01/2001 - 05/31/2002	FY01: \$998,000	Total: \$998,000	OPTIMIZATION STUDIES FOR ACCESS CALORIMETRY INCREMENTAL FUNDING FOR FIRST YEAR OF GRANT 03/26/1998 - 05/31/2001	FY01: \$0	Total: \$251,762
Prin. Invest.: M NAMBOODIRI			Prin. Invest.: R WIGMANS		
Tech. Officer: GSFC/C PERSON			Tech. Officer: GSFC/B A MERRITT		
CASE Category: 99 – MULTI INTERDISCPL, OTHER			CASE Category: 13 – PHYSICS		
<b>NAG 2 1447</b>	<b>TEXAS SOUTHERN UNIV</b>	<b>8667</b>	<b>NAG 5 9505</b>	<b>TEXAS TECH UNIV</b>	<b>8675</b>
DEVELOPMENT OF NATURAL LANGUAGE UNDERSTANDING GRAM MARS FOR INTELLIGENT MONITORING 09/29/2000 - 09/14/2001	FY01: \$14,998	Total: \$99,998	DEVELOPMENT OF A PARALLEL VERSION OF SEQUENCER WITH EXPERIMENTS ON & APPLICATION TO NEURAL NETWORK 04/26/2000 - 08/31/2001	FY01: \$0	Total: \$90,000
Prin. Invest.: O H CRINER			Prin. Invest.: D COOKE		
Tech. Officer: ARC/Y O GAWDIAK, ARC/B J COLLINS			Tech. Officer: GSFC/J BREDEKAMP		
CASE Category: 22 – COMPUTER SCIENCE			CASE Category: 99 – MULTI INTERDISCPL, OTHER		
<b>NAG 9 1132</b>	<b>TEXAS SOUTHERN UNIV</b>	<b>8668</b>	<b>NCC 2 5257</b>	<b>TEXAS TECH UNIV</b>	<b>8676</b>
FIELD TESTING 07/16/1999 - 07/31/2001	FY01: \$0	Total: \$43,000	INFORMATION INTEGRATION IN JUDGEMENTS OF TEMPORAL RANGE 03/02/1998 - 06/30/2000	FY01: \$0	Total: \$74,992
Prin. Invest.: D C DAVIS			Prin. Invest.: P R DELUCIA		
Tech. Officer: JSC/M K EWERT			Tech. Officer: ARC/M K KAISER		
CASE Category: 46 – MECHANICAL ENGR			CASE Category: 69 – PSYCHOLOGY, OTHER		

<b>NCC 9 108</b>	<b>TEXAS TECH UNIV</b>	<b>8677</b>	<b>NAG 5 8126</b>	<b>UNIV HOUSTON-HOUSTON</b>	<b>8685</b>
PLANT RESEARCH IN EDU & WATER REUSE/RECYCLING 07/07/2000 - 09/30/2001	FY01: \$0	Total: \$915,000	SUPERCONDUCTING COATING ON SAPPHIRE MEMBRANE--GOAL IS TO ATTEMPT IMPROVED STABILITY OF COATING 02/04/1999 - 01/31/2000	FY01: \$0	Total: \$3,600
<i>Prin. Invest.: J L SMITH, L V URBAN, E B PEFFLEY</i>			<i>Prin. Invest.: C (PAUL CHU)</i>		
<i>Tech. Officer: JSC/D L HENNINGER, JSC/K R DAUES</i>			<i>Tech. Officer: GSFC/J C BRASUNAS</i>		
<i>CASE Category: 59 - LIFE SCIENCE, OTHER</i>			<i>CASE Category: 47 - METAL &amp; MATERIALS ENGR</i>		
<b>NCC 9 143</b>	<b>TEXAS TECH UNIV</b>	<b>8678</b>	<b>NAG 5 8140</b>	<b>UNIV HOUSTON-HOUSTON</b>	<b>8686</b>
PLANT RESEARCH IN EDU, WATER REUSE/RECYCLING 09/28/2001 - 09/30/2002	FY01: \$1,497,000	Total: \$1,497,000	THE ORIGINS OF TRANSLATION 02/03/1999 - 01/31/2002	FY01: \$80,000	Total: \$235,360
<i>Prin. Invest.: J L SMITH</i>			<i>Prin. Invest.: D FOX</i>		
<i>Tech. Officer: JSC/D L HENNINGER</i>			<i>Tech. Officer: GSFC/M MEYER</i>		
<i>CASE Category: 49 - ENGINEERING, OTHER</i>			<i>CASE Category: 11 - ASTRONOMY</i>		
<b>NAG 9 1192</b>	<b>TEXAS WOMAN'S UNIV</b>	<b>8679</b>	<b>NAG 5 10714</b>	<b>UNIV HOUSTON-HOUSTON</b>	<b>8687</b>
VALIDATION OF A DETAILED MECHANISM FOR HYDRAZINE DECOMPOSITION 01/21/2000 - 07/06/2000	FY01: \$0	Total: \$15,499	ADVANCED ADIABATIC DEMAGNETIZATION REFRIGERATORS FOR CONTINUOUS COOLING FROM 10K TO 50MK 04/12/2001 - 05/31/2002	FY01: \$15,000	Total: \$15,000
<i>Prin. Invest.: N E MEAGHER</i>			<i>Prin. Invest.: P W CHU</i>		
<i>Tech. Officer: JSC/R SAULSBERRY</i>			<i>Tech. Officer: GSFC/P J SHIRRON</i>		
<i>CASE Category: 61 - PSYCHOLOGY BIOLOGY</i>			<i>CASE Category: 19 - PHYSICAL SCIENCE, OTHER</i>		
<b>NAG 9 1278</b>	<b>TRINITY UNIV</b>	<b>8680</b>	<b>NAG 8 1363</b>	<b>UNIV HOUSTON-HOUSTON</b>	<b>8688</b>
KALMAN FILTER BASED SENSOR FUSION FOR ESTIMATION OF MOBILE ROBOT LOCATION AND ORIENTATION 01/12/2001 - 12/31/2001	FY01: \$15,400	Total: \$15,400	"EPITAXIAL GROWTH OF PROTEIN CRYSTALS ON SELF- ASSEMBLED MONOLAYERS" 06/02/1997 - 11/30/2001	FY01: \$0	Total: \$419,000
<i>Prin. Invest.: K NICKELS</i>			<i>Prin. Invest.: J M FRIEDMAN</i>		
<i>Tech. Officer: JSC/K BAKER</i>			<i>Tech. Officer: MSFC/B GUYNES, MSFC/J MAYO</i>		
<i>CASE Category: 49 - ENGINEERING, OTHER</i>			<i>CASE Category: 19 - PHYSICAL SCIENCE, OTHER</i>		
<b>NAG 2 1284</b>	<b>UNIV HOUSTON-HOUSTON</b>	<b>8681</b>	<b>NAG 8 1658</b>	<b>UNIV HOUSTON-HOUSTON</b>	<b>8689</b>
A NON-INVASIVE ANALYSIS OF MUSCULOSKETAL COLLAGEN METABOLISM FROM URINE OF RHESUS MONKEYS DURING A 01/26/1999 - 11/30/1999	FY01: \$0	Total: \$25,000	DEVELOPMENT OF SPACE RADIATION MONTE-CARLO COMPUT-ER SIMULATION BASED ON FLUKA & ROOT CODE 05/01/2000 - 11/30/2003	FY01: \$114,000	Total: \$184,000
<i>Prin. Invest.: A C VAILAS</i>			<i>Prin. Invest.: L S PINSKY</i>		
<i>Tech. Officer: ARC/R E GRINDELAND, ARC/K L SOUZA</i>			<i>Tech. Officer: MSFC/P DOTY</i>		
<i>CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)</i>			<i>CASE Category: 19 - PHYSICAL SCIENCE, OTHER</i>		
<b>NAG 3 1840</b>	<b>UNIV HOUSTON-HOUSTON</b>	<b>8682</b>	<b>NAG 9 867</b>	<b>UNIV HOUSTON-HOUSTON</b>	<b>8690</b>
TWO-PHASE GAS-LIQUID FLOWS IN MICROGRAVITY: EXPERIMENTAL AND THEORETICAL INVESTIGATION OF ANNULAR 05/02/1996 - 05/01/2001	FY01: \$0	Total: \$320,000	NASA-ASEE SUMMER FACULTY FELLOWSHIPS 05/09/1996 - 06/06/2002	FY01: \$0	Total: \$1,213,000
<i>Prin. Invest.: V BALAKOTAIAH, S JAYAWARDENA</i>			<i>Prin. Invest.: R B BANNEROT</i>		
<i>Tech. Officer: GRC/B S MOTIL</i>			<i>Tech. Officer: JSC/D SICKOREZ</i>		
<i>CASE Category: 46 - MECHANICAL ENGR</i>			<i>CASE Category: 46 - MECHANICAL ENGR</i>		
<b>NAG 5 4765</b>	<b>UNIV HOUSTON-HOUSTON</b>	<b>8683</b>	<b>NAG 9 904</b>	<b>UNIV HOUSTON-HOUSTON</b>	<b>8691</b>
LL CHODRITES 06/06/1997 - 05/31/2001	FY01: \$0	Total: \$71,674	CHARACTERIZATION OF EXHAUST PLUME OF VARIABLE IMPULSE PLASMA ROCKET 09/23/1996 - 08/31/2000	FY01: \$0	Total: \$59,500
<i>Prin. Invest.: D M REID</i>			<i>Prin. Invest.: D B BERNING</i>		
<i>Tech. Officer: GSFC/D NAVATECH. Officer: NONE</i>			<i>Tech. Officer: JSC/F CHANG-DIAZ</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 19 - PHYSICAL SCIENCE, OTHER</i>		
<b>NAG 5 7840</b>	<b>UNIV HOUSTON-HOUSTON</b>	<b>8684</b>	<b>NAG 9 985</b>	<b>UNIV HOUSTON-HOUSTON</b>	<b>8692</b>
WINDS, WATER BUDGETS, AND STABLE ISOTOPES IN TROPICAL CYCLONES USING TRMM AND QUICKSCAT 01/06/1999 - 12/31/2001	FY01: \$44,054	Total: \$148,877	INVESTIGATE & DEVELOP ADVANCED TRAINING TECHN 01/16/1998 - 08/31/2002	FY01: -\$93,094	Total: \$1,123,078
<i>Prin. Invest.: J R LAWRENCE</i>			<i>Prin. Invest.: B LOFTIN</i>		
<i>Tech. Officer: GSFC/R W LAWRENCE</i>			<i>Tech. Officer: JSC/R SAVELY</i>		
<i>CASE Category: 31 - ATMOSPHERIC SCIENCE</i>			<i>CASE Category: 22 - COMPUTER SCIENCE</i>		

<b>NAG 9 1012</b>	<b>UNIV HOUSTON-HOUSTON</b>	<b>8693</b>	<b>NAG 9 1305</b>	<b>UNIV HOUSTON-HOUSTON</b>	<b>8701</b>
TWO PHASE SYSTEMS FOR MARS-G 05/20/1998 - 06/30/2001	FY01: \$0	Total: \$70,411	GRADUATE STUDENT RESERACH PROGRAM CARBON NANOTUBE POLYMER NANOCOMPOSITES 06/14/2001 - 07/31/2002	FY01: \$22,000	Total: \$22,000
<i>Prin. Invest.: L C WHITTE</i>			<i>Prin. Invest.: R KRISHNAMOORTI</i>		
<i>Tech. Officer: JSC/J D CORNWELL</i>			<i>Tech. Officer: JSC/B FILES</i>		
<i>CASE Category: 46 – MECHANICAL ENGR</i>			<i>CASE Category: 43 – CHEMICAL ENGR</i>		
<b>NAG 9 1055</b>	<b>UNIV HOUSTON-HOUSTON</b>	<b>8694</b>	<b>NAG 9 1347</b>	<b>UNIV HOUSTON-HOUSTON</b>	<b>8702</b>
URBAN EXPERIENCE PROGRAM 09/22/1998 - 09/30/2001	FY01: \$0	Total: \$105,000	NOVEL TISSUE ASSEMBLIES: MODELS FOR ENTERIC PATHOGENESIS 07/07/2001 - 07/31/2002	FY01: \$25,894	Total: \$25,894
<i>Prin. Invest.: T MINDIOLA, JR.</i>			<i>Prin. Invest.: L S PINSKY</i>		
<i>Tech. Officer: JSC/L ARMENDARIZ</i>			<i>Tech. Officer: JSC/G BADHWAR</i>		
<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>			<i>CASE Category: 13 – PHYSICS</i>		
<b>NAG 9 1103</b>	<b>UNIV HOUSTON-HOUSTON</b>	<b>8695</b>	<b>NAG 9 1363</b>	<b>UNIV HOUSTON-HOUSTON</b>	<b>8703</b>
THE SEARCH FOR MICROBIAL BIOMARKERS IN TERRESTRIAL DEPOSITS 05/04/1999 - 03/09/2004	FY01: \$20,000	Total: \$60,000	URBAN EXPERIENCE PROGRAM 07/10/2001 - 07/11/2004	FY01: \$25,000	Total: \$25,000
<i>Prin. Invest.: H S CHAFETZ</i>			<i>Prin. Invest.: T MINDIOLA</i>		
<i>Tech. Officer: JSC/E K GIBSON</i>			<i>Tech. Officer: JSC/L M ARMENDARIZ</i>		
<i>CASE Category: 39 – ENVIRONMENTAL SCI, OTHER</i>			<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>		
<b>NAG 9 1140</b>	<b>UNIV HOUSTON-HOUSTON</b>	<b>8696</b>	<b>NCC 2 5394</b>	<b>UNIV HOUSTON-HOUSTON</b>	<b>8704</b>
OPTIMAL CHARACTERIZATION OF THE ORBITAL DEBRIS ENVIR FROM MULTIPLE MEASMTNS 08/15/1999 - 08/14/2000	FY01: \$0	Total: \$32,061	THE SCALABILITY OF OPENMP ON LARGE-SCALE DISTRIBUTED SHARED-MEMORY ARCHITECTURES SUCH AS THESGI OR 08/14/2000 - 08/31/2001	FY01: \$70,000	Total: \$95,000
<i>Prin. Invest.: T J HEBERT</i>			<i>Prin. Invest.: B CHAPMAN</i>		
<i>Tech. Officer: JSC/E G STANSBERY, JSC/J R THEALL</i>			<i>Tech. Officer: ARC/J YAN</i>		
<i>CASE Category: 49 – ENGINEERING, OTHER</i>			<i>CASE Category: 22 – COMPUTER SCIENCE</i>		
<b>NAG 9 1152</b>	<b>UNIV HOUSTON-HOUSTON</b>	<b>8697</b>	<b>NCC 2 5396</b>	<b>UNIV HOUSTON-HOUSTON</b>	<b>8705</b>
THERAPEUTIC EFFICACY OF GROWTH HORMONE 09/20/1999 - 11/08/2002	FY01: \$179,551	Total: \$384,418	MINERALS & SUBMICROMETER FORMS AS BIOSIGNATURES 08/28/2000 - 08/31/2002	FY01: \$15,000	Total: \$30,000
<i>Prin. Invest.: D A MARTINEZ</i>			<i>Prin. Invest.: A D HAYMET</i>		
<i>Tech. Officer: JSC/C W LLOYD</i>			<i>Tech. Officer: ARC/D F BLAKE</i>		
<i>CASE Category: 59 – LIFE SCIENCE, OTHER</i>			<i>CASE Category: 12 – CHEMISTRY</i>		
<b>NAG 9 1223</b>	<b>UNIV HOUSTON-HOUSTON</b>	<b>8698</b>	<b>NCC 8 127</b>	<b>UNIV HOUSTON-HOUSTON</b>	<b>8706</b>
TEXAS LEARNING AND COMPUTATIONAL CENTER 10/23/2000 - 08/16/2002	FY01: \$3,661,000	Total: \$3,661,000	FOR RESEARCH "CONTINUATION OF SUPPORT FOR THE COMMERCIAL SPACE CENTER, SPACE VACUUM EPITAXY CTR 01/21/1997 - 10/14/2001	FY01: \$1,000,000	Total: \$7,500,000
<i>Prin. Invest.: G VALIAS, B BOYCO</i>			<i>Prin. Invest.: A IGNATIEV, S S PEI</i>		
<i>Tech. Officer: JSC/R P KEHOE, JSC/S P CAMPBELL</i>			<i>Tech. Officer: MSFC/S J LAMBING</i>		
<i>CASE Category: 22 – COMPUTER SCIENCE</i>			<i>CASE Category: 47 – METAL &amp; MATERIALS ENGR</i>		
<b>NAG 9 1287</b>	<b>UNIV HOUSTON-HOUSTON</b>	<b>8699</b>	<b>NCC 9 57</b>	<b>UNIV HOUSTON-HOUSTON</b>	<b>8707</b>
ADVANCED CROSS ENTERPRISE TECHNOLOGY DEVELOPMENT FOR NASA MISSIONS 03/27/2001 - 03/31/2003	FY01: \$382,000	Total: \$382,000	VIRTUAL REALITY TRAINING CYBERSICKNESS & EFFECTS OF SENSORIMOTOR FUNCTIONS 02/22/2000 - 09/30/2000	FY01: -\$3,153	Total: \$20,053
<i>Prin. Invest.: A IGNATIEV</i>			<i>Prin. Invest.: R B LOFTIN</i>		
<i>Tech. Officer: JSC/R S BAIRD</i>			<i>Tech. Officer: JSC/D HARM</i>		
<i>CASE Category: 49 – ENGINEERING, OTHER</i>			<i>CASE Category: 61 – PSYCHOLOGY BIOLOGY</i>		
<b>NAG 9 1293</b>	<b>UNIV HOUSTON-HOUSTON</b>	<b>8700</b>	<b>NCC 9 70</b>	<b>UNIV HOUSTON-HOUSTON</b>	<b>8708</b>
DEVELOPMENT OF REDUCED SURFACE WAVE ANTENNAS FOR THE NASA/JSC NAVIGATION 04/16/2001 - 04/30/2004	FY01: \$39,394	Total: \$39,394	UH NASA TECHNOLOGY COMMERCIALIZATION 03/24/1998 - 12/31/2001	FY01: \$400,000	Total: \$1,200,000
<i>Prin. Invest.: J T WILLIAMS</i>			<i>Prin. Invest.: A V VAILLAS</i>		
<i>Tech. Officer: JSC/J W BELL</i>			<i>Tech. Officer: JSC/H L DAVIS</i>		
<i>CASE Category: 42 – ASTRONAUTICAL ENGR</i>			<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>		

**NGT 3 52356** UNIV HOUSTON-HOUSTON 8709  
 GRADUATE STUDENT RESEARCH PROGRAM GRADUATE STUDENT  
 RESEARCH PROGRAM  
 07/01/1999 - 08/31/2001 FY01: \$0 Total: \$44,000  
*Prin. Invest.: V BALAKOTAIAH*  
*Tech. Officer: GRC/F J MONTEGANI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50182** UNIV HOUSTON-HOUSTON 8710  
 PRIMORDIAL PEPTIDE SYNTHESIS IN THE ORIGIN OF LIFE  
 05/27/1998 - 06/30/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.: G E FOX*  
*Tech. Officer: HQ/A NURRIDIN*  
*CASE Category: 12 – CHEMISTRY*

**NAG 9 859** UNIV OF TEXAS MEDICAL BRANCH - GALVESTON 8711  
 SPACE MEDICINE FELLOWSHIP PROPOSAL  
 06/10/1996 - 06/30/2001 FY01: \$0 Total: \$136,188  
*Prin. Invest.: W A WASSON*  
*Tech. Officer: JSC/R BILICA*  
*CASE Category: 56 – MEDICL*

**NAG 9 1155** UNIV OF TEXAS MEDICAL BRANCH - GALVESTON 8712  
 NUTRITIONAL INTERVENTION TO IMPROVE MUSCLE PROTEIN METABOLISM DURING STRESS  
 09/16/1999 - 11/30/2002 FY01: \$207,426 Total: \$386,092  
*Prin. Invest.: A A FERRANDO*  
*Tech. Officer: JSC/C LLOYD*  
*CASE Category: 56 – MEDICL*

**NAS 9 01006** UNIV OF TEXAS MEDICAL BRANCH - GALVESTON 8713  
 ISS FLIGHT EXPERIMENT E129  
 01/23/2001 - 12/31/2004 FY01: \$226,059 Total: \$226,059  
*Prin. Invest.: A D BARRET*  
*Tech. Officer: JSC/M ANDERSON*  
*CASE Category: 56 – MEDICL*

**NAS 9 97147** UNIV OF TEXAS MEDICAL BRANCH - GALVESTON 8714  
 PROTEIN TURNOVER DURING SPACE FLIGHT  
 02/24/1997 - 08/31/2002 FY01: \$160,000 Total: \$618,000  
*Prin. Invest.: A FERRANDO*  
*Tech. Officer: JSC/A LEE*  
*CASE Category: 56 – MEDICL*

**NAS 9 98138** UNIV OF TEXAS MEDICAL BRANCH - GALVESTON 8715  
 SMALL PAYLOAD EXPERIMENT  
 10/28/1998 - 10/27/2001 FY01: \$104,356 Total: \$299,356  
*Prin. Invest.: M MCGINNIS*  
*Tech. Officer: JSC/C HAVEN*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NCC 2 1160** UNIV OF TEXAS MEDICAL BRANCH - GALVESTON 8716  
 STREPTOCOCCUS PNEUMONIAE GENE EXPRESSION AND VIRULENCE POTENTIAL IN THE SPACE ENVIRONMENT  
 02/11/2000 - 01/14/2002 FY01: \$86,901 Total: \$237,517  
*Prin. Invest.: D NIESSEL*  
*Tech. Officer: ARC/C M WINGET, ARC/D REISS-BUBENHEIM*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NCC 8 170** UNIV OF TEXAS MEDICAL BRANCH - GALVESTON 8717  
 R/S DIFFERENTIATION OF 3 DIMENSIONAL CO-CULTURES OF MYOFIBROBLASTS, PRENEOPLASTIC  
 03/23/1999 - 11/30/2002 FY01: \$176,800 Total: \$440,800  
*Prin. Invest.: V CHOPPA*  
*Tech. Officer: MSFC/V CHOPPA*  
*CASE Category: 56 – MEDICL*

**NCC 9 81** UNIV OF TEXAS MEDICAL BRANCH - GALVESTON 8718  
 UTMB/NASA-JSC GRADUATE MED TRAINING IN AEROSPACE MEDICINE  
 12/07/1998 - 09/30/2003 FY01: \$355,654 Total: \$687,534  
*Prin. Invest.: J R DAVIS*  
*Tech. Officer: JSC/R BILICA*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NCC 9 123** UNIV OF TEXAS MEDICAL BRANCH - GALVESTON 8719  
 SPATIAL REORIENTATION OF SENSORIMOTOR BALANCE CONTROL IN ALTERED GRAVITY  
 02/22/2001 - 11/30/2003 FY01: \$7,450 Total: \$7,450  
*Prin. Invest.: G KAUFMAN*  
*Tech. Officer: JSC/B PALOSKI*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NGT 9 47** UNIV OF TEXAS MEDICAL BRANCH - GALVESTON 8720  
 TRAINING PROGRAM FOR TWO STUDENTS @ GRADUATE SCHOOL OF BIOMEDICAL SCIENCES  
 04/12/2000 - 05/31/2002 FY01: \$50,000 Total: \$100,000  
*Prin. Invest.: C W COOPER*  
*Tech. Officer: JSC/C W LLOYD*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 2 952** UNIV OF TEXAS-HLTH SCI CTR-SAN ANTONIO 8721  
 DEVELOPMENT OF BESTIBULAR ORGANS IN MICROGRAVITY  
 12/16/1994 - 11/30/2000 FY01: \$0 Total: \$757,735  
*Prin. Invest.: M L WIEDERHOLD*  
*Tech. Officer: ARC/W E HINDS, ARC/C M WINGET*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 9 1206** UNIV OF TEXAS-HLTH SCI CTR-SAN ANTONIO 8722  
 USE OF NASA BIOREACTOR TO STUDY CELL CYCLE REGULATION  
 03/01/2000 - 02/28/2002 FY01: \$150,000 Total: \$337,785  
*Prin. Invest.: J M JESSUP*  
*Tech. Officer: JSC/S GONDA*  
*CASE Category: 56 – MEDICL*

**NAG10 180** UNIV OF TEXAS-HLTH SCI CTR-SAN ANTONIO 8723  
 FUNCT DEV IN A MODEL VESTIBULAS SYS  
 01/18/1996 - 09/30/2002 FY01: -\$6,750 Total: \$703,425  
*Prin. Invest.: M L WIEDERHOLD*  
*Tech. Officer: KSC/W M KNOTT*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NAG 8 1634** UNIV OF TEXAS-PAN AMERICAN 8724  
 OPTIMAL DESIGN OF HYBRID PASSIVE VISCOELASTIC AND ACTIVE PIEZOELECTRIC DAMPING LAYERS  
 09/30/1999 - 09/30/2001 FY01: \$98,256 Total: \$196,469  
*Prin. Invest.: A LUMSDAINE*  
*Tech. Officer: MSFC/A BEAM, MSFC/W LOVE*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

<b>NAG 9 1169</b>	<b>UNIV OF TEXAS-PAN AMERICAN</b>	<b>8725</b>	<b>NAG 8 1348</b>	<b>UNIV. OF TEXAS MD ANDERSON CANCER CENTER</b>	<b>8733</b>
PAARTNERSHIP FOR SCIENCE AND ENGR STUDENT SUCCESS			APPLICATION OF BIOREACTOR TECHNOLOGY ANALYSIS AND COUNTER		
09/27/1999 - 09/29/2001	FY01: \$58,861	Total: \$195,825	MEASURE DEVELOPMENT OF MICROGRAVITY		
<i>Prin. Invest.:</i> R FOWLER, J LANAGABEER			06/18/1997 - 11/30/2001	FY01: \$35,000	Total: \$404,467
<i>Tech. Officer:</i> JSC/S GONZALEZ, JSC/L ARMENDARIZ			<i>Prin. Invest.:</i> E H GRIMM		
<i>CASE Category:</i> 54 – ENVIRONMENTAL BIOLOGY			<i>Tech. Officer:</i> JSC/S R GONDAS		
 			<i>CASE Category:</i> 51 – BIOLOGY (EXCLUDING ENVIR)		
<b>NAG 2 962</b>	<b>UNIV OF TEXAS, HEALTH SCI CTR-DALLAS</b>	<b>8726</b>	<b>NAG 8 1570</b>	<b>UNIV. OF TEXAS MD ANDERSON CANCER CENTER</b>	<b>8734</b>
SPACE FLIGHT, STRESS & PLASTICITY			APPLICATION OF BIOREACTOR TECHNOLOGY FOR A PRECLINICAL HUMAN		
02/07/1995 - 12/31/2000	FY01: \$0	Total: \$573,376	MODEL OF MELANOMA		
<i>Prin. Invest.:</i> S T BRADY			03/19/1999 - 11/02/2003	FY01: \$128,250	Total: \$364,250
<i>Tech. Officer:</i> ARC/D REISS-BUBENHEIM, ARC/W E HINDS			<i>Prin. Invest.:</i> E A GRIMM		
<i>CASE Category:</i> 51 – BIOLOGY (EXCLUDING ENVIR)			<i>Tech. Officer:</i> MSFC/B V GUYNES		
 			<i>CASE Category:</i> 51 – BIOLOGY (EXCLUDING ENVIR)		
<b>NAG 5 4846</b>	<b>UNIV OF TEXAS, HEALTH SCI CTR-DALLAS</b>	<b>8727</b>	<b>NAG 2 1261</b>	<b>UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON</b>	<b>8735</b>
THE ROLE OF CARDIAC MECHANICS IN BLOOD PRESSURE REGULATION			RELATIONSHIP OF MORPHOGENESIS & MINERALIZATION TO GRAVITY IN		
STRESS			SPACEFLOWN ALGAE		
06/27/1997 - 09/30/2001	FY01: \$0	Total: \$525,000	09/01/1998 - 12/31/2001	FY01: \$78,079	Total: \$236,387
<i>Prin. Invest.:</i> B LEVINE, NONE			<i>Prin. Invest.:</i> P J DUKE		
<i>Tech. Officer:</i> GSFC/V SCHNEIDER			<i>Tech. Officer:</i> ARC/O SANTOS, ARC/P D SAVAGE		
<i>CASE Category:</i> 59 – LIFE SCIENCE, OTHER			<i>CASE Category:</i> 51 – BIOLOGY (EXCLUDING ENVIR)		
<b>NAG 9 1033</b>	<b>UNIV OF TEXAS, HEALTH SCI CTR-DALLAS</b>	<b>8728</b>	<b>NAG 2 1498</b>	<b>UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON</b>	<b>8736</b>
MICROCIRCULATORY ADJUSTMENT TO SIMULATED MICROGRAVITY EXPOSURE IN HUMANS			CYTOSPLASMIC/GOLGI INTERACTIONS IN THE NANOFABRICATION OF		
07/16/1998 - 07/14/2002	FY01: \$107,722	Total: \$475,700	BIOMINERAL COMPOSITES – A GENETIC APPROACH		
<i>Prin. Invest.:</i> C G CRANDALL			07/05/2001 - 06/30/2002	FY01: \$92,688	Total: \$92,688
<i>Tech. Officer:</i> JSC/C W LLOYD			<i>Prin. Invest.:</i> M E MARSH		
<i>CASE Category:</i> 56 – MEDICAL			<i>Tech. Officer:</i> ARC/M M AVERNER, ARC/R D MACELROY		
 			<i>CASE Category:</i> 51 – BIOLOGY (EXCLUDING ENVIR)		
<b>NAS 9 19429</b>	<b>UNIV OF TEXAS, HEALTH SCI CTR-DALLAS</b>	<b>8729</b>	<b>NAG 5 4710</b>	<b>UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON</b>	<b>8737</b>
INTEGRATION OF NEURAL CARDIOVASCULAR CONTROL IN SPACE			GRAVITY AND THE REGULATION OF A CENTRAL GROWTH FACTOR		
10/31/1995 - 09/30/2000	FY01: \$0	Total: \$889,471	06/11/1997 - 01/31/2002	FY01: \$0	Total: \$409,271
<i>Prin. Invest.:</i> C G BLOMQVIST			<i>Prin. Invest.:</i> E DURBAN		
<i>Tech. Officer:</i> JSC/A M LEE			<i>Tech. Officer:</i> GSFC/M AVERNER		
<i>CASE Category:</i> 59 – LIFE SCIENCE, OTHER			<i>CASE Category:</i> 59 – LIFE SCIENCE, OTHER		
<b>NAS 9 19540</b>	<b>UNIV OF TEXAS, HEALTH SCI CTR-DALLAS</b>	<b>8730</b>	<b>NAG 8 1585</b>	<b>UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON</b>	<b>8738</b>
ADAPTIVE CHANGES IN CARDIOVASCULAR CONTROL AT MICROGRAVITY			IMPACT/MICROGRAVITY ON IMMUNOGENICITY ASSOCIATED WITH		
02/13/1996 - 07/31/2000	FY01: \$0	Total: \$965,190	BISTRUCTURAL CHANGES/PANCRATIC ISLETS		
<i>Prin. Invest.:</i> C G BLOMQVIST, NONE			03/19/1999 - 12/31/2002	FY01: \$120,650	Total: \$333,083
<i>Tech. Officer:</i> JSC/C M SMITH			<i>Prin. Invest.:</i> L P RUTZKY		
<i>CASE Category:</i> 56 – MEDICAL			<i>Tech. Officer:</i> MSFC/B V GUYNES		
 			<i>CASE Category:</i> 51 – BIOLOGY (EXCLUDING ENVIR)		
<b>NAG 2 1505</b>	<b>UNIV. OF TEXAS MD ANDERSON CANCER CENTER</b>	<b>8731</b>	<b>NAG 9 813</b>	<b>UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON</b>	<b>8739</b>
GRAVITY AND INTERGRIN MEDIATED HUMAN LYMPHOCYTE ADHESION			EFFECT OF MICROGRAVITY ON HUMAN SKIN EQUIVALENT		
07/26/2001 - 07/14/2002	FY01: \$119,339	Total: \$119,339	08/11/1995 - 12/19/2000	FY01: -\$1,303	Total: \$237,697
<i>Prin. Invest.:</i> B W MCINTYRE			<i>Prin. Invest.:</i> D DIMITRIJEVICH		
<i>Tech. Officer:</i> ARC/M M AVERNER, ARC/R D MACELROY			<i>Tech. Officer:</i> JSC/N PELLIS		
<i>CASE Category:</i> 51 – BIOLOGY (EXCLUDING ENVIR)			<i>CASE Category:</i> 51 – BIOLOGY (EXCLUDING ENVIR)		
<b>NAG 8 1347</b>	<b>UNIV. OF TEXAS MD ANDERSON CANCER CENTER</b>	<b>8732</b>	<b>NAG 9 834</b>	<b>UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON</b>	<b>8740</b>
USE OF NASA BIOREACTORS IN A NOVEL SCHEME FOR IMMUNIZATION AGAINST CANCER			USE OF ROTATING WALL VESSEL TO FACILITATE CULTURE OF NORWALK VIRUS		
06/18/1997 - 12/31/2000	FY01: \$0	Total: \$457,338	08/22/1995 - 08/31/2000	FY01: -\$773	Total: \$699,227
<i>Prin. Invest.:</i> C A SAVARY			<i>Prin. Invest.:</i> P JOHNSON		
<i>Tech. Officer:</i> JSC/S R GONDAS			<i>Tech. Officer:</i> JSC/N PELLIS		
<i>CASE Category:</i> 51 – BIOLOGY (EXCLUDING ENVIR)			<i>CASE Category:</i> 51 – BIOLOGY (EXCLUDING ENVIR)		

**NAG 9 952 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON 8741**  
 EXERCISE DURING PREBREATHE: REDUCTION OF THE H-2-O  
 PREBREATHE TIME  
 08/14/1997 - 02/14/2001 FY01: \$0 Total: \$54,000  
*Prin. Invest.: C FIFE*  
*Tech. Officer: JSC/M R POWELL*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 9 1040 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON 8742**  
 EFFECTS OF CIRCADIAN RHYTHMS ON DEPRESSION OUTCOME  
 06/22/1998 - 06/30/2002 FY01: \$65,519 Total: \$294,519  
*Prin. Invest.: B BUTLER*  
*Tech. Officer: JSC/C SAWIN*  
*CASE Category: 56 – MEDICL*

**NAG 9 1144 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON 8743**  
 DUST STIMULANTS ON LUNG INFLAMMATION AND ALVEOLAR MACROPHAGE FUNCTION  
 09/20/1999 - 09/19/2002 FY01: -\$2,994 Total: \$7,006  
*Prin. Invest.: A HOLIAN*  
*Tech. Officer: JSC/J T JAMES*  
*CASE Category: 56 – MEDICL*

**NAG 9 1247 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON 8744**  
 DEVELOP REINFORCEMENT LEARNING TECHNIQUES FOR EFFICIENT TRAINING ROBOTIC SYSTEMS  
 07/18/2000 - 07/19/2002 FY01: \$0 Total: \$60,000  
*Prin. Invest.: H WANG, J ZHANG, T R JOHNSON*  
*Tech. Officer: JSC/R T SAVELY*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 9 1353 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON 8745**  
 EFFECT OF MICROGRAVITY ON PANCREATIC ISLET XENOTRANSPLANTATION, VASCULARIZATION & STEM CELL  
 07/27/2001 - 09/30/2004 FY01: \$37,000 Total: \$37,000  
*Prin. Invest.: L P RUTZKY, S M STEPKOWSKI, S M KATZ*  
*Tech. Officer: JSC/D RISIN*  
*CASE Category: 56 – MEDICL*

**NCC 2 1234 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON 8746**  
 HUMAN CENTERED INTELLIGENT FLIGHT SURGEON CONSOLE  
 03/29/2001 - 02/28/2002 FY01: \$98,000 Total: \$98,000  
*Prin. Invest.: J ZHANG*  
*Tech. Officer: ARC/P M JONES, ARC/M G SHAFTO*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NCC 8 168 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON 8747**  
 NUTRITION IMMUNOMODULATION IN MICROGRAVITY  
 03/05/1999 - 11/30/2002 FY01: \$139,650 Total: \$421,650  
*Prin. Invest.: A D KULKARNI*  
*Tech. Officer: JSC/S GONDAS*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NCC 9 82 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON 8748**  
 EVA PREBREATHE REDUCTION PROTOCOL  
 03/11/1999 - 03/10/2003 FY01: \$0 Total: \$275,000  
*Prin. Invest.: B BUTLER*  
*Tech. Officer: JSC/M GERNHARDT*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 9 90 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON 8749**  
 GAS PHASE FORMATION, GROWTH AND EFFECTS OF SURFACE TENSION  
 02/11/2000 - 02/20/2002 FY01: \$0 Total: \$55,162  
*Prin. Invest.: B D BUTLER, NONE*  
*Tech. Officer: JSC/M R POWELL*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NCC 9 103 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON 8750**  
 CHARACTERIZATION OF AUTONOMIC FUNCTION  
 02/21/2000 - 02/20/2003 FY01: \$7,417 Total: \$14,834  
*Prin. Invest.: R F LODATO*  
*Tech. Officer: JSC/J MECK*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NGT 9 46 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON 8751**  
 TRAINING PROGRAM FOR TWO STUDENTS AT THE GRADUATE SCHOOL OF BIOMEDICAL SCIENCES  
 04/07/2000 - 05/31/2002 FY01: \$50,000 Total: \$100,000  
*Prin. Invest.: J WEINDER*  
*Tech. Officer: JSC/C W LLOYD*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 9 1083 UNIV OF HOUSTON - CLEAR LAKE 8752**  
 COX REGRESSION MODELING AND ANALYSIS OF NASA/JSC EXPERIMENTAL DATA ON DECOMPRESSION SICKNESS  
 02/20/1999 - 09/30/2001 FY01: \$0 Total: \$30,000  
*Prin. Invest.: R S CHHIKARA*  
*Tech. Officer: JSC/M POWELL*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NAG 9 1295 UNIV OF HOUSTON - CLEAR LAKE 8753**  
 OPC-BASED CONTROL SYSTEM FOR BIO-PLEX  
 04/23/2001 - 05/31/2001 FY01: \$3,000 Total: \$3,000  
*Prin. Invest.: T FEAGIN*  
*Tech. Officer: JSC/D OVERLAND*  
*CASE Category: 29 – MATH/COMPUTER SCI, OTHER*

**NCC 9 30 UNIV OF HOUSTON - CLEAR LAKE 8754**  
 RESEARCH FOR COMPUTING & INFORMATION SYSTEMS  
 08/08/1994 - 06/30/2002 FY01: \$9,039,548 Total: \$32,550,998  
*Prin. Invest.: E T DICKERSON*  
*Tech. Officer: JSC/R T SAVELY*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NCC 9 76 UNIV OF HOUSTON - CLEAR LAKE 8755**  
 STATISTICAL PROCESS CONTROL OF SHUTTLE MAINT OPS  
 09/24/1998 - 09/23/2000 FY01: -\$57 Total: \$32,628  
*Prin. Invest.: R S CHHIKARA*  
*Tech. Officer: JSC/JARRELL*  
*CASE Category: 29 – MATH/COMPUTER SCI, OTHER*

**NGT 9 48 UNIV OF HOUSTON - CLEAR LAKE 8756**  
 NASA IMAGE INST FOR GEOGRAPHY & EARTH SCIENCE TEACHERS  
 06/01/2000 - 12/31/2000 FY01: \$0 Total: \$21,900  
*Prin. Invest.: J N MACIR*  
*Tech. Officer: JSC/N G ROBERTSON*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10149 UNIV OF HOUSTON - DOWNTOWN 8757**  
 AN URBAN OUTREACH PROGRAM IN SPACE SCIENCE: A COLLABORATIVE EFFORT BETWEEN NASA,HISPANIC SERVING &  
 01/03/2001 - 12/31/2001 FY01: \$212,998 Total: \$212,998  
*Prin. Invest.: P A MORRIS-SMITH*  
*Tech. Officer: GSFC/P SAKIMOTO*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 9 1018 UNIV OF HOUSTON - DOWNTOWN 8758**  
 PRECOLLEGE AWARD FOR EXCELLENCE PACE/MSET  
 05/01/1998 - 04/30/2001 FY01: \$0 Total: \$299,400  
*Prin. Invest.: R ALO*  
*Tech. Officer: JSC/L ARMENDARIZ*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 9 1113 UNIV OF HOUSTON - DOWNTOWN 8759**  
 ACIENT LIFE IN ROCKS ON EARTH  
 05/14/1999 - 05/13/2002 FY01: \$10,000 Total: \$30,000  
*Prin. Invest.: P A MORRIS-SMITH*  
*Tech. Officer: JSC/E K GIBSON*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 9 1114 UNIV OF HOUSTON - DOWNTOWN 8760**  
 ACIENT LIFE IN ROCKS ON EARTH  
 05/14/1999 - 05/13/2002 FY01: \$10,000 Total: \$30,000  
*Prin. Invest.: P A MORRIS-SMITH*  
*Tech. Officer: JSC/E K GIBSON*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 4891 UNIV OF NORTH TEXAS 8761**  
 THE PRODUCTION, CONCENTRATION, AND ARRANGEMENT OF INORGANIC HOSTS  
 06/19/1997 - 08/31/2000 FY01: \$0 Total: \$210,000  
*Prin. Invest.: D S BRATERMAN*  
*Tech. Officer: GSFC/M MEYER*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 5 3744 UNIV OF NORTH TEXAS HLTH SCI.CTR AT FT.WORTH 8762**  
 MICROGRAVITY: SLEEP DEPRIVATION AND AUTONOMIC CONT  
 03/11/1997 - 03/14/2001 FY01: \$0 Total: \$263,844  
*Prin. Invest.: M SMITH, NONE*  
*Tech. Officer: GSFC/V SCHNEIDER*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NAG 5 4668 UNIV OF NORTH TEXAS HLTH SCI.CTR AT FT.WORTH 8763**  
 CARTOID BAROREFLEX FUNCTION DURING PROLONGED EXERC  
 06/17/1997 - 05/31/2001 FY01: \$0 Total: \$301,896  
*Prin. Invest.: P B RAVEN*  
*Tech. Officer: GSFC/V SCHNEIDER*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NAG 9 1262 UNIV OF NORTH TEXAS HLTH SCI.CTR AT FT.WORTH 8764**  
 VESTIBULAR MODULATION OF AUTONOMIC RESPONSES TO ORTHOSTASIS  
 11/16/2000 - 10/31/2003 FY01: \$173,598 Total: \$173,598  
*Prin. Invest.: M L SMITH, D ORR, D E WATENPAUGH*  
*Tech. Officer: JSC/C W LLOYD*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50179 UNIV OF NORTH TEXAS HLTH SCI.CTR AT FT.WORTH 8765**  
 SLEEP RESTRICTION AND MECHANISMS OF ORTHOSTATIC TOLERANCE  
 10/31/1997 - 08/31/2000 FY01: \$0 Total: \$66,000  
*Prin. Invest.: M SMITH*  
*Tech. Officer: HQ/A NURRIDIN*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 1 01017 UNIV OF TEXAS - ARLINGTON 8766**  
 NANO-FILM OF HIGH RESOLUTION PRESSURE SENSING  
 03/01/2001 - 12/15/2001 FY01: \$23,239 Total: \$23,239  
*Prin. Invest.: S P JOSHI*  
*Tech. Officer: LARC/S K KAHNG*  
*CASE Category: 43 – CHEMICAL ENGR*

**NCC 2 5395 UNIV OF TEXAS - ARLINGTON 8767**  
 SCHEDULING & LOAD BALANCING ON THE INFORMATION POWER GRID  
 08/15/2000 - 10/31/2001 FY01: \$60,320 Total: \$85,320  
*Prin. Invest.: S K DAS*  
*Tech. Officer: ARC/R BISWAS, ARC/D KWAK*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NGT 5 30382 UNIV OF TEXAS - ARLINGTON 8768**  
 MINING OF STRUCTURAL DATA TO DISCOVER PRABALISTIC SUBSTRUCTURES JOSEPH T.POTTS  
 08/13/2001 - 08/31/2004 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: D COOK*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 1 2197 UNIV OF TEXAS - AUSTIN 8769**  
 A COMPUTATIONAL PROCEDURE FOR THREE DIMENSIONAL STRESS ANALYSIS FRACTURES  
 05/19/1999 - 05/31/2000 FY01: -\$2,300 Total: \$61,893  
*Prin. Invest.: M E MEAR*  
*Tech. Officer: LARC/J C NEWMAN, JR., LARC/I S RAJU*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 1 01109 UNIV OF TEXAS - AUSTIN 8770**  
 APPLICATION OF HOS AND VOLterra MODELS TO AEROELASTIC SYSTEM IDENTIFICATION  
 07/18/2001 - 12/17/2001 FY01: \$35,000 Total: \$35,000  
*Prin. Invest.: E J POWERS*  
*Tech. Officer: LARC/W A SILVA*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 2 1053 UNIV OF TEXAS - AUSTIN 8771**  
 FAR-INFRARED EMISSION-LINE OBSERVATIONS FROM THE KAOS  
 06/17/1996 - 02/29/2000 FY01: -\$5,883 Total: \$4,877  
*Prin. Invest.: H L DINERSTEIN*  
*Tech. Officer: ARC/L QUAIFE, ARC/C B WILTSEE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 2 1347 UNIV OF TEXAS - AUSTIN 8772**  
 CELLULAR BASES OF LIGHT REGULATED GRAVITY RESPONSES  
 07/23/1999 - 06/30/2002 FY01: \$116,663 Total: \$305,884  
*Prin. Invest.: S J ROUX*  
*Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 2 1349** UNIV OF TEXAS - AUSTIN 8773  
EVOLUTIONARY ORIGIN OF BODY AXIS SEGMENTATION IN ANNELIDS &  
ARTHROPODS  
07/20/1999 - 07/14/2002 FY01: \$179,476 Total: \$397,675  
*Prin. Invest.:* S M SHANKLAND  
*Tech. Officer:* ARC/M M AVERNER, ARC/R D MACELROY  
*CASE Category:* 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 3 1839** UNIV OF TEXAS - AUSTIN 8774  
INSTABILITIES IN SURFACE-TENSION DRIVEN CONVECTION  
05/06/1996 - 05/05/2001 FY01: \$0 Total: \$500,000  
*Prin. Invest.:* H L SWINNEY  
*Tech. Officer:* GRC/A T CHAI  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 3 1901** UNIV OF TEXAS - AUSTIN 8775  
PRECISION MEASUREMENTS WITH TRAPPED LASER-COOLED AT OMS IN A  
MICROGRAVITY ENVIRONMENT  
06/14/1996 - 01/01/2001 FY01: \$17,000 Total: \$432,000  
*Prin. Invest.:* D J HEINZEN  
*Tech. Officer:* GRC/B S SINGH  
*CASE Category:* 13 - PHYSICS

**NAG 3 2240** UNIV OF TEXAS - AUSTIN 8776  
LASER VELOCIMETER FOR STUDIES OF MICROGRAVITY COMBUSTION  
FLOWFIELDS  
02/26/1999 - 01/13/2002 FY01: \$89,750 Total: \$247,750  
*Prin. Invest.:* P L VARGHESE  
*Tech. Officer:* GRC/P S GREENBERG  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 3 2265** UNIV OF TEXAS - AUSTIN 8777  
COMPOSITE FLYWHEEL PRELOAD MONITOR COMPOSITE FLYWHEEL  
PRELOAD MONITOR  
05/12/1999 - 03/31/2000 FY01: \$0 Total: \$50,153  
*Prin. Invest.:* J L BENO  
*Tech. Officer:* GRC/D CHRISTOPHER  
*CASE Category:* 45 - ELECTRICAL ENGR

**NAG 3 2602** UNIV OF TEXAS - AUSTIN 8778  
ADVANCED FLYWHEEL MATERIALS DEVELOPMENT PROGRAM FOR HIGH  
SPECIFIC ENERGY, SPACE APPLICATIONS  
05/01/2001 - 03/31/2002 FY01: \$50,030 Total: \$50,030  
*Prin. Invest.:* R THOMPSON  
*Tech. Officer:* GRC/K MCLALLIN  
*CASE Category:* 47 - METAL & MATERIALS ENGR

**NAG 3 2633** UNIV OF TEXAS - AUSTIN 8779  
HIGH PERFORMANCE ALIGAN AND GAN POWER ELECTRONIC DEVICES  
06/18/2001 - 08/31/2002 FY01: \$35,914 Total: \$35,914  
*Prin. Invest.:* D D DUPUIS  
*Tech. Officer:* GRC/G SCHWARZE  
*CASE Category:* 13 - PHYSICS

**NAG 5 1603** UNIV OF TEXAS - AUSTIN 8780  
HST - GTO  
05/20/1991 - 09/30/2000 FY01: \$0 Total: \$8,767,603  
*Prin. Invest.:* W H JEFFERYS  
*Tech. Officer:* GSFC/J JELETIC  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 1616** UNIV OF TEXAS - AUSTIN 8781  
STELLAR SPECTROSCOPY AND THE HUBBLE SPACE TELESCOPE  
05/24/1991 - 10/31/2000 FY01: -\$924 Total: \$483,130  
*Prin. Invest.:* D L LAMBERT  
*Tech. Officer:* GSFC/E RUITBERG  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 3348** UNIV OF TEXAS - AUSTIN 8782  
ANALYSIS OF ISO DATA  
08/12/1996 - 08/14/2000 FY01: \$0 Total: \$264,800  
*Prin. Invest.:* D L LAMBERT  
*Tech. Officer:* GSFC/D WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 3431** UNIV OF TEXAS - AUSTIN 8783  
PARASEC-SCALE ENVIRONMENT OF LUMINOUS AGN: SPECTROSCOPIC  
CLUES TO WINDS, JETS, AND ACCRETION  
10/01/1996 - 09/30/2002 FY01: \$0 Total: \$712,606  
*Prin. Invest.:* B J WILLS  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 3649** UNIV OF TEXAS - AUSTIN 8784  
OBTAINING RELATIVITY AND OTHER RELEVANT PARAMETERS RANGING  
DATA  
03/06/1997 - 02/28/2001 FY01: \$0 Total: \$118,376  
*Prin. Invest.:* D J SHELLUS  
*Tech. Officer:* GSFC/H HASAN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 3786** UNIV OF TEXAS - AUSTIN 8785  
MCDONALD OBSERVATORY SUPPORT: HARLAN SMITH POST-DO PLANETARY SCIENCE  
03/19/1997 - 12/31/2001 FY01: \$32,820 Total: \$251,849  
*Prin. Invest.:* D N BASH  
*Tech. Officer:* GSFC/J BERGSTRAHL  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 3930** UNIV OF TEXAS - AUSTIN 8786  
COMBUSTION IN ASTROPHYSICS  
03/12/1997 - 03/14/2000 FY01: -\$1 Total: \$47,579  
*Prin. Invest.:* C J WHEELER  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4208** UNIV OF TEXAS - AUSTIN 8787  
INVESTIGATIONS OF COMETS: HALE-BOPP, THE KUIPER BELT OF OPPORTUNITY  
03/14/1997 - 09/14/2000 FY01: \$0 Total: \$261,131  
*Prin. Invest.:* D L COCHRAN  
*Tech. Officer:* GSFC/J BERGSTRAHL  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4209** UNIV OF TEXAS - AUSTIN 8788  
MICROMACHINED DIFFRACTION GRATINGS FOR COMPACT IR  
03/14/1997 - 03/30/2001 FY01: \$0 Total: \$217,746  
*Prin. Invest.:* D JAFFE  
*Tech. Officer:* GSFC/G STRINGFELLOW  
*CASE Category:* 11 - ASTRONOMY

<b>NAG 5 4384</b>	<b>UNIV OF TEXAS - AUSTIN</b>	<b>8789</b>	<b>NAG 5 7002</b>	<b>UNIV OF TEXAS - AUSTIN</b>	<b>8797</b>
RADIAL VELOCITY DETECTION OF EXTRA-SOLAR PLANETARY			TIME SERIES ANALYSIS OF THE UV FLICKERING IN AGN		
04/24/1997 - 02/28/2001	FY01: \$0	Total: \$510,003	02/09/1998 - 02/14/2001	FY01: \$0	Total: \$100,000
<i>Prin. Invest.: D D COCHRAN</i>			<i>Prin. Invest.: E ROBINSON</i>		
<i>Tech. Officer: GSFC/J BOYCE</i>			<i>Tech. Officer: GSFC/D K WEST</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 11 - ASTRONOMY</i>		
<b>NAG 5 5170</b>	<b>UNIV OF TEXAS - AUSTIN</b>	<b>8790</b>	<b>NAG 5 7203</b>	<b>UNIV OF TEXAS - AUSTIN</b>	<b>8798</b>
DETERMINATION OF TIME-VARYING EARTH GRAVITY FIELD F Y			TRACING THE MASS IN AN EVOLUTIONARY SEQUENCE		
07/17/1997 - 12/31/2000	FY01: \$0	Total: \$170,000	04/23/1998 - 04/14/2002	FY01: \$0	Total: \$165,643
<i>Prin. Invest.: M CHENG</i>			<i>Prin. Invest.: N J EVANS, 11</i>		
<i>Tech. Officer: GSFC/H V FREY</i>			<i>Tech. Officer: HQ/J BOYCE</i>		
<i>CASE Category: 32 - GEOLOGICAL SCIENCE</i>			<i>CASE Category: 11 - ASTRONOMY</i>		
<b>NAG 5 5171</b>	<b>UNIV OF TEXAS - AUSTIN</b>	<b>8791</b>	<b>NAG 5 7363</b>	<b>UNIV OF TEXAS - AUSTIN</b>	<b>8799</b>
MEASUREMENT AND INTERPRETATION OF TEMPORAL VARIATI VITY FIELD			THE EVOLUTION OF THE INTERGALACTIC MEDIUM AND THE FORMATION		
USING GPS AND SLR			OF GALAXIES AND LARGE-SCALE STRUCTURE IN		
07/17/1997 - 07/14/2001	FY01: \$0	Total: \$162,000	04/30/1998 - 05/31/2000	FY01: -\$2,644	Total: \$47,356
<i>Prin. Invest.: R R EM</i>			<i>Prin. Invest.: P R SHAPIRO</i>		
<i>Tech. Officer: GSFC/H V FREY</i>			<i>Tech. Officer: GSFC/D K WEST</i>		
<i>CASE Category: 32 - GEOLOGICAL SCIENCE</i>			<i>CASE Category: 11 - ASTRONOMY</i>		
<b>NAG 5 6309</b>	<b>UNIV OF TEXAS - AUSTIN</b>	<b>8792</b>	<b>NAG 5 7582</b>	<b>UNIV OF TEXAS - AUSTIN</b>	<b>8800</b>
EARTH SYSTEM DYNAMICS: THE DETERMINATION & INTERPR ETATION OF			"MAPPING NEAR-SURFACE SALINIZATION USING LONG-WAVE LENGTH-		
THE GLOBAL ANGULAR MOMENTUM BUDGET USI			AIRSAR" (SENH98-0113)		
10/10/1997 - 12/31/2000	FY01: \$0	Total: \$3,759,000	08/04/1998 - 07/31/2002	FY01: \$21,000	Total: \$126,000
<i>Prin. Invest.: B TAPLEY</i>			<i>Prin. Invest.: J G PINEPrin. Invest.: NONE</i>		
<i>Tech. Officer: GSFC/J LABRECQUE</i>			<i>Tech. Officer: GSFC/H V FREY</i>		
<i>CASE Category: 99 - MULTI INTERDISCPL, OTHER</i>			<i>CASE Category: 32 - GEOLOGICAL SCIENCE</i>		
<b>NAG 5 6368</b>	<b>UNIV OF TEXAS - AUSTIN</b>	<b>8793</b>	<b>NAG 5 7660</b>	<b>UNIV OF TEXAS - AUSTIN</b>	<b>8801</b>
ASTROMETRY AND DYNAMICS OF NEAR-EARTH OBJECTS AND KIRKWOOD			'PATTERNS OF SHORELINE CHANGE AND HURRICANE WASHOV ER ON		
GAPS			BARRIERISLANDS' (SENH98-0094)		
09/25/1997 - 03/31/2001	FY01: \$0	Total: \$196,812	09/09/1998 - 08/31/2002	FY01: \$100,000	Total: \$600,000
<i>Prin. Invest.: D S BARKER</i>			<i>Prin. Invest.: J C GIBEAUT</i>		
<i>Tech. Officer: GSFC/T MORGAN</i>			<i>Tech. Officer: GSFC/H V FREY</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 32 - GEOLOGICAL SCIENCE</i>		
<b>NAG 5 6395</b>	<b>UNIV OF TEXAS - AUSTIN</b>	<b>8794</b>	<b>NAG 5 7693</b>	<b>UNIV OF TEXAS - AUSTIN</b>	<b>8802</b>
MULTISCALE SOIL MOISTURE VARIABILITY FROM COMBINED REMOTE			FUNDING FOR 'REMOTE SENSING, GIS AND THE ANCIENT TERRITORY: A		
SENSING, MODELING, AND OBSERVATIONS			PROJECT FOR THE CHORA OF CHERONESOS		
10/21/1997 - 06/30/2000	FY01: -\$11,832	Total: \$162,238	09/17/1998 - 03/31/2001	FY01: \$0	Total: \$250,023
<i>Prin. Invest.: J FAMIGLIETTI</i>			<i>Prin. Invest.: J C CARTERPrin. Invest.: NONE</i>		
<i>Tech. Officer: GSFC/M WEI</i>			<i>Tech. Officer: GSFC/H V FREY</i>		
<i>CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</i>			<i>CASE Category: 32 - GEOLOGICAL SCIENCE</i>		
<b>NAG 5 6728</b>	<b>UNIV OF TEXAS - AUSTIN</b>	<b>8795</b>	<b>NAG 5 7791</b>	<b>UNIV OF TEXAS - AUSTIN</b>	<b>8803</b>
GENERAL RELATIVISTIC AND GRAVITATIONAL PHYSICS PAR AMETERS			SPATIALLY-RESOLVED, GROUND-BASED OBSERVATIONS OF M ARTIAN		
FROM LUNAR LASER RANGING DATA			ATMOSPHERIC WATER VAPOR: 1999-2002 APP		
12/11/1997 - 12/31/2001	FY01: \$0	Total: \$198,000	12/14/1998 - 08/30/2002	FY01: \$134,008	Total: \$203,708
<i>Prin. Invest.: P J SHELUS</i>			<i>Prin. Invest.: D S BARKER</i>		
<i>Tech. Officer: GSFC/H HASAN</i>			<i>Tech. Officer: GSFC/T MORGAN</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 11 - ASTRONOMY</i>		
<b>NAG 5 6754</b>	<b>UNIV OF TEXAS - AUSTIN</b>	<b>8796</b>	<b>NAG 5 7821</b>	<b>UNIV OF TEXAS - AUSTIN</b>	<b>8804</b>
GROUND BASED STUDIES OF THE OUTER PLANETS			THE EVOLUTION OF THE INTERGALACTIC MEDIUM AND THE FORMATION		
12/15/1997 - 12/31/2000	FY01: \$0	Total: \$243,476	OF GALAXIES AND LARGE-SCALE STRUCTURE IN		
<i>Prin. Invest.: L M TRAFTON</i>			02/19/1999 - 02/28/2001	FY01: \$0	Total: \$78,000
<i>Tech. Officer: GSFC/T MORGAN</i>			<i>Prin. Invest.: P R SHAPIRO</i>		
<i>CASE Category: 32 - GEOLOGICAL SCIENCE</i>			<i>Tech. Officer: GSFC/D K WEST</i>		
			<i>CASE Category: 11 - ASTRONOMY</i>		

**NAG 5 7910** UNIV OF TEXAS - AUSTIN 8805  
 CHARACTERIZING THE SIPLE COAST ICE STREAM SYSTEM USING SATELLITE IMAGES, IMPROVED TOPOGRAPHY, AND IN  
 12/07/1998 - 12/31/2001 FY01: \$29,721 Total: \$82,341  
*Prin. Invest.: D D BLANKENSHIP*  
*Tech. Officer: GSFC/S GOGINENI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 7937** UNIV OF TEXAS - AUSTIN 8806  
 SUPERNOVAE AND COSMOLOGY  
 12/21/1998 - 12/31/2001 FY01: \$109,307 Total: \$314,815  
*Prin. Invest.: P HOEFLICH*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8143** UNIV OF TEXAS - AUSTIN 8807  
 IMPROVED NUMERICAL MODELING OF LOW-DENSITY ATMOSPHERIC FLOW ON IO  
 02/01/1999 - 12/31/2001 FY01: \$47,776 Total: \$152,688  
*Prin. Invest.: D GOLDSTEIN*  
*Tech. Officer: GSFC/D BOGAN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8290** UNIV OF TEXAS - AUSTIN 8808  
 OPTIMAL LAND INITIALIZATION FOR SEASONAL CLIMATE PREDICTIONS  
 02/24/1999 - 02/28/2002 FY01: \$99,181 Total: \$297,543  
*Prin. Invest.: J S FAMIGLIETTI*  
*Tech. Officer: GSFC/M RIENECKER*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8301** UNIV OF TEXAS - AUSTIN 8809  
 PHOTOMETRIC DETECTION OF EXTRA-SOLAR PLANETS  
 02/24/1999 - 02/28/2002 FY01: \$97,300 Total: \$269,600  
*Prin. Invest.: W P COCHRAN*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8381** UNIV OF TEXAS - AUSTIN 8810  
 PHYSICS OF ULTRA-MAGNETIZED NEUTRON STARS (ATP 98)  
 05/13/1999 - 05/15/2000 FY01: -\$6,290 Total: \$43,710  
*Prin. Invest.: R C DUNCAN*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8611** UNIV OF TEXAS - AUSTIN 8811  
 SOIL MOISTURE VARIABILITY AND ITS ROLE IN LAND ATMOSPHERE INTERACTION DURING SGP97  
 06/11/1999 - 06/14/2001 FY01: \$0 Total: \$124,590  
*Prin. Invest.: J S FAMIGLIETTI*  
*Tech. Officer: GSFC/E T ENGMAN*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8704** UNIV OF TEXAS - AUSTIN 8812  
 USING THE IMPACT OF THE LUNAR PROSPECTOR ORBITER INTO A POLAR COLD TRAP TO DETECT WATER ICE  
 07/21/1999 - 07/14/2000 FY01: \$0 Total: \$50,000  
*Prin. Invest.: D B GOLDSTEIN*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8798** UNIV OF TEXAS - AUSTIN 8813  
 VARIATIONS IN SPACE GEODETIC IN TIME SERIES DUE TO WATER REDISTRIBUTION AND OTHER SOURCES.  
 11/02/1999 - 11/14/2001 FY01: \$100,000 Total: \$210,000  
*Prin. Invest.: C R WILSON*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 8858** UNIV OF TEXAS - AUSTIN 8814  
 HIGH INDEX GRISMS FOR MID-INFRARED SPECTROSCOPY  
 09/28/1999 - 01/31/2002 FY01: \$137,475 Total: \$288,671  
*Prin. Invest.: D T JAFFE*  
*Tech. Officer: GSFC/F HERRERO*  
*CASE Category: 13 – PHYSICS*

**NAG 5 9003** UNIV OF TEXAS - AUSTIN 8815  
 THE CHEMICAL COMPOSITION OF PRIMITIVE BODIES IN THE SOLAR SYSTEM  
 01/27/2000 - 01/31/2003 FY01: \$121,186 Total: \$205,886  
*Prin. Invest.: A L COCHRAN*  
*Tech. Officer: GSFC/T H MORGAN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9144** UNIV OF TEXAS - AUSTIN 8816  
 RECONSTRUCTION OF HISTORICAL SEA LEVEL VARIATIONS USING TIDE GAUGE DATA AND EMPIRICAL ORTHOGONAL  
 02/29/2000 - 02/28/2002 FY01: \$25,000 Total: \$50,000  
*Prin. Invest.: D P CHAMBERS*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9163** UNIV OF TEXAS - AUSTIN 8817  
 IMPROVEMENT IN GEOID MODELS FOR OCEAN CIRCULATION STUDIES  
 03/08/2000 - 03/14/2002 FY01: \$40,000 Total: \$80,000  
*Prin. Invest.: B TAPLEY*  
*Tech. Officer: GSFC/F HERBERT*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 9227** UNIV OF TEXAS - AUSTIN 8818  
 RADIAL VELOCITY DETECTION OF EXTRA-SOLAR PLANETARY SYSTEMS  
 03/13/2000 - 03/30/2002 FY01: \$140,000 Total: \$280,000  
*Prin. Invest.: W COCHRAN*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9230** UNIV OF TEXAS - AUSTIN 8819  
 IMPROVED SILICON DIFFRACTION GRATINGS FOR NEAR-IR SPECTROSCOPY FROM SPACE  
 03/20/2000 - 03/20/2002 FY01: \$143,000 Total: \$244,736  
*Prin. Invest.: D JAFFE*  
*Tech. Officer: GSFC/G STRINGFELLOW*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9239** UNIV OF TEXAS - AUSTIN 8820  
 FAR-UV ABSORPTION-LINE SPECTROSCOPY OF THE NEUTRAL ENVELOPES OF PLANETARY NEBULAE - FUSE  
 03/09/2000 - 03/14/2002 FY01: \$0 Total: \$73,600  
*Prin. Invest.: G SONNEBORN*  
*Tech. Officer: GSFC/H DINERSTEIN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9302** UNIV OF TEXAS - AUSTIN 8821  
 REQUEST FOR SUPPLEMENTAL FUNDING FOR COX POSTDOCTORAL FELLOW  
 03/20/2000 - 03/31/2002 FY01: \$0 Total: \$22,500  
*Prin. Invest.: C WHEELER*  
*Tech. Officer: GSFC/D GOLOMBEK*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9321** UNIV OF TEXAS - AUSTIN 8822  
 A PARALLEL GENETICS-ALGORITHM-BASED APPROACH TO WHITE DWARF PULSATION MODELS  
 03/22/2000 - 03/31/2002 FY01: \$77,200 Total: \$152,900  
*Prin. Invest.: D E WINGET*  
*Tech. Officer: GSFC/J BREDEKAMP*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9829** UNIV OF TEXAS - AUSTIN 8823  
 SPACECRAFT RENDEZVOUS NAVIGATION WITH INTEGRATED INS-GPS.  
 08/23/2000 - 08/31/2001 FY01: \$0 Total: \$80,382  
*Prin. Invest.: R H BISHOP*  
*Tech. Officer: GSFC/R CARPENTER*  
*CASE Category: 41 - AERONAUTICAL ENGRN*

**NAG 5 9989** UNIV OF TEXAS - AUSTIN 8824  
 EARTH SYSTEM DYNAMICS: THE DETERMINATION & INTERPRETATION OF THE GLOBAL ANGULAR MOMENTUM BUDGET USI  
 09/21/2000 - 03/31/2002 FY01: \$540,000 Total: \$1,087,000  
*Prin. Invest.: B D TAPLEY*  
*Tech. Officer: GSFC/J LABRECQUE*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 10121** UNIV OF TEXAS - AUSTIN 8825  
 20TH TEXAS SYMPOSIUM ON RELATIVISTIC ASTROPHYSICS  
 11/28/2000 - 05/31/2001 FY01: \$15,000 Total: \$15,000  
*Prin. Invest.: J C WHEELER*  
*Tech. Officer: GSFC/L KALUZIENSKI*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10183** UNIV OF TEXAS - AUSTIN 8826  
 ASTROMETRY OF NEW & UNDER-OBSERVED NEAR-EARTH-OBJECTS-(NEOS) AT MCDONALD OBSERVATORY  
 01/22/2001 - 01/31/2002 FY01: \$99,400 Total: \$99,400  
*Prin. Invest.: E BARKER*  
*Tech. Officer: GSFC/T MORGAN*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 10195** UNIV OF TEXAS - AUSTIN 8827  
 GENERAL RELATIVISTIC & GRAVITATIONAL PHYSICS PARAMETERS FROM LUNAR LASERRANGING DATA  
 12/28/2000 - 12/31/2001 FY01: \$50,000 Total: \$50,000  
*Prin. Invest.: P J SHELUS*  
*Tech. Officer: GSFC/P CRANE*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 10435** UNIV OF TEXAS - AUSTIN 8828  
 GROUND BASED STUDIES OF THE OUTER PLANETS  
 02/20/2001 - 02/28/2002 FY01: \$130,600 Total: \$130,600  
*Prin. Invest.: L TRAFTON*  
*Tech. Officer: GSFC/T MORGAN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10458** UNIV OF TEXAS - AUSTIN 8829  
 INFRARED SPECTRAL SURVEY OF YOUNG STELLAR/PLANETARY SYSTEMS WITH SUB-AU SPATIAL RESOLUTION  
 02/26/2001 - 02/28/2002 FY01: \$35,000 Total: \$35,000  
*Prin. Invest.: P HARVEY*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10488** UNIV OF TEXAS - AUSTIN 8830  
 FROM MOLECULAR CLOUD CORE TO PROTOPLANETARY DISK: TRACING THE MASS  
 02/27/2001 - 02/28/2002 FY01: \$60,000 Total: \$60,000  
*Prin. Invest.: N J EVANS, II*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10766** UNIV OF TEXAS - AUSTIN 8831  
 JETS FROM NEUTRON STARS (ATP-2000)  
 04/23/2001 - 04/30/2002 FY01: \$53,900 Total: \$53,900  
*Prin. Invest.: J WHEELER*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10767** UNIV OF TEXAS - AUSTIN 8832  
 SUPPLEMENT FOR THEORY POSTDOC (ATP-2000)  
 05/03/2001 - 04/30/2002 FY01: \$16,000 Total: \$16,000  
*Prin. Invest.: J WHEELER*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10825** UNIV OF TEXAS - AUSTIN 8833  
 REIONIZATION OF THE UNIVERSE (ATP - 2000)  
 05/01/2001 - 05/14/2002 FY01: \$111,390 Total: \$111,390  
*Prin. Invest.: P R SHAPIRO*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10826** UNIV OF TEXAS - AUSTIN 8834  
 FORMATION OF STAR CLUSTERS (ATP - 2000)  
 05/01/2001 - 05/14/2002 FY01: \$79,332 Total: \$79,332  
*Prin. Invest.: H MARTEL*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 11203** UNIV OF TEXAS - AUSTIN 8835  
 SATELLITE LASER RANGING DATA ANALYSIS AND QUALITY CONTROL  
 08/09/2001 - 08/14/2004 FY01: \$50,000 Total: \$50,000  
*Prin. Invest.: R J EANES*  
*Tech. Officer: GSFC/D L CARTER*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 11278** UNIV OF TEXAS - AUSTIN 8836  
 DECENTRALIZED CONTROL FOR SATELLITES  
 08/21/2001 - 08/31/2002 FY01: \$86,835 Total: \$86,835  
*Prin. Invest.: E LIGHTSEY*  
*Tech. Officer: GSFC/J R CARPENTER*  
*CASE Category: 41 - AERONAUTICAL ENGRN*

**NAG 8 1764** UNIV OF TEXAS - AUSTIN 8837  
 SEARCH FOR TIME REVERSALS SYMETRY VIOLATION WITH LASER-COOLED ATOMS  
 05/01/2001 - 04/30/2005 FY01: \$80,000 Total: \$80,000  
*Prin. Invest.: D J HEINZMAN*  
*Tech. Officer: MSFC/D HUBBARD*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 9 841** UNIV OF TEXAS - AUSTIN 8838  
 DESIGN OF AUTOMATIC CONTROL FOR HUMAN/LCG THERMAL INTERACTION  
 09/25/1995 - 10/25/1999 FY01: -\$4,778 Total: \$128,829  
*Prin. Invest.: K R DILLER*  
*Tech. Officer: JSC/C LIN*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 9 994** UNIV OF TEXAS - AUSTIN 8839  
 1998 NASA REDUCED GRAVITY STUDENT FLIGHT OPS  
 02/23/1998 - 01/31/2001 FY01: \$0 Total: \$606,263  
*Prin. Invest.: B D TAPLEY, B O FORT*  
*Tech. Officer: JSC/D G SICKOREZ, JSC/N G ROBERTSON*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 9 1060** UNIV OF TEXAS - AUSTIN 8840  
 NASA STUDENT COMPETITION  
 12/14/1998 - 08/31/2002 FY01: \$47,000 Total: \$161,029  
*Prin. Invest.: B D TAPLEY*  
*Tech. Officer: JSC/H C MANDELL*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 9 1117** UNIV OF TEXAS - AUSTIN 8841  
 DEVELOP SINGLE COMPUTATIONAL APPROACH TO  
 05/24/1999 - 05/26/2000 FY01: \$0 Total: \$14,000  
*Prin. Invest.: D B GOLDSTEIN, P L VARGHESE*  
*Tech. Officer: JSC/F E LUMPKIN*  
*CASE Category: 42 – ASTRONAUTICAL ENGR*

**NAG 9 1124** UNIV OF TEXAS - AUSTIN 8842  
 X381CRV GPS RECEIVER SUPPORT  
 07/01/1999 - 12/31/1999 FY01: -\$3,295 Total: \$42,917  
*Prin. Invest.: G E LIGHTSEY*  
*Tech. Officer: JSC/G C BLACKBURN, JSC/K W DUNN*  
*CASE Category: 42 – ASTRONAUTICAL ENGR*

**NAG 9 1187** UNIV OF TEXAS - AUSTIN 8843  
 INTERNATIONAL SPACE STATION GPS RECEIVER SUPPORT  
 02/02/2000 - 01/31/2002 FY01: \$97,443 Total: \$197,271  
*Prin. Invest.: G E LIGHTSEY*  
*Tech. Officer: JSC/G C BLACKBURN, JSC/J M COX*  
*CASE Category: 42 – ASTRONAUTICAL ENGR*

**NAG 9 1189** UNIV OF TEXAS - AUSTIN 8844  
 NAVIGATION SYSTEMS AND TECHNOLOGY LAB  
 01/28/2000 - 12/31/2002 FY01: \$100,720 Total: \$198,377  
*Prin. Invest.: G LIGHTSEY*  
*Tech. Officer: JSC/J W BELL*  
*CASE Category: 42 – ASTRONAUTICAL ENGR*

**NAG 9 1213** UNIV OF TEXAS - AUSTIN 8845  
 ANALYSIS AND MEASUREMENT OF THERMAL INSULATION PROPERNES OF  
 EVAC HOLLOW FIBERS  
 03/01/2000 - 05/31/2001 FY01: \$0 Total: \$37,718  
*Prin. Invest.: H L PAUL, K R DILLER*  
*Tech. Officer: JSC/L A TREVINO*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 9 1225** UNIV OF TEXAS - AUSTIN 8846  
 MARS PRECISION LANDING TASK  
 04/13/2000 - 09/30/2002 FY01: \$145,500 Total: \$247,503  
*Prin. Invest.: R BISHOP*  
*Tech. Officer: JSC/E M BRADEN*  
*CASE Category: 42 – ASTRONAUTICAL ENGR*

**NAG 9 1244** UNIV OF TEXAS - AUSTIN 8847  
 HYBIRD PARTICLE ELEMENT SIMULATION OF IMPACT ON COMPOSITE  
 ORBITAL DEBRIS SHIELDS  
 07/11/2000 - 06/30/2002 FY01: \$52,000 Total: \$123,539  
*Prin. Invest.: E P FAHRENTHOLD*  
*Tech. Officer: JSC/E L CHRISTIANSEN, JSC/J H KERR*  
*CASE Category: 42 – ASTRONAUTICAL ENGR*

**NAG 9 1275** UNIV OF TEXAS - AUSTIN 8848  
 CULTURAL AND PERSONALITY DETERMINANTS OF PERFORMANCE AND  
 ERROR MANAGEMENT  
 02/22/2001 - 01/31/2003 FY01: \$137,548 Total: \$137,548  
*Prin. Invest.: R L HELMREICH*  
*Tech. Officer: JSC/C LLOYD*  
*CASE Category: 56 – MEDICL*

**NAG 9 1286** UNIV OF TEXAS - AUSTIN 8849  
 NASA REDUCED GRAVEITY STUDENT FLIGHT CAMPAIGN 2001  
 03/05/2001 - 12/31/2001 FY01: \$405,444 Total: \$405,444  
*Prin. Invest.: B D TAPLEY*  
*Tech. Officer: JSC/D SICKOREZ*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 9 1323** UNIV OF TEXAS - AUSTIN 8850  
 LOW THRUST CAPTURE INVESTIGATION  
 06/13/2001 - 10/31/2001 FY01: \$20,000 Total: \$20,000  
*Prin. Invest.: R BISHOP*  
*Tech. Officer: JSC/T CRANE*  
*CASE Category: 42 – ASTRONAUTICAL ENGR*

**NAG10 202** UNIV OF TEXAS - AUSTIN 8851  
 EARLY DEVELOPMENT OF FERN GAMETOPHYTES IN MICROSCAVITY  
 10/16/1996 - 12/31/2000 FY01: \$0 Total: \$400,625  
*Prin. Invest.: S J POUX*  
*Tech. Officer: KSC/W M KNOTT*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG10 288** UNIV OF TEXAS - AUSTIN 8852  
 MAG-LEV LAUNCH ASSIST TECHNOLOGY DEMONSTRATOR MAG-LEV  
 LAUNCH ASSIST TECHNOLOGY DEMONSTRATOR  
 07/17/2000 - 03/31/2001 FY01: \$0 Total: \$94,998  
*Prin. Invest.: R ZOWARKA*  
*Tech. Officer: KSC/F ADAMS*  
*CASE Category: 45 – ELECTRICAL ENGR*

<b>NAG10 295</b>	<b>UNIV OF TEXAS - AUSTIN</b>	<b>8853</b>	<b>NAS 5 99005</b>	<b>UNIV OF TEXAS - AUSTIN</b>	<b>8861</b>
EARLY DEVELOPMENT OF FERN GAMETOPHYES IN MICROGRAVITY			GLAS SCIENCE TEAM LEADER.		
02/05/2001 - 04/30/2005	FY01: \$30,000	Total: \$30,000	11/25/1998 - 12/01/2002	FY01: \$1,455,000	Total: \$3,505,000
<i>Prin. Invest.: D ROUX</i>			<i>Prin. Invest.: R SCHUTZ</i>		
<i>Tech. Officer: KSC/D SCHULTZ</i>			<i>Tech. Officer: GSFC/G SMITH</i>		
<i>CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)</i>			<i>CASE Category: 31 - ATMOSPHERIC SCIENCE</i>		
<b>NAS 3 00119</b>	<b>UNIV OF TEXAS - AUSTIN</b>	<b>8854</b>	<b>NCC 1 303</b>	<b>UNIV OF TEXAS - AUSTIN</b>	<b>8862</b>
FLYWHEEL ROTOR HEALTH MONITORING RESEARCH & DEVELOPMENT			DURABILITY OF SANDWICH STRUCTURES		
04/26/2000 - 04/25/2003	FY01: \$85,000	Total: \$115,000	06/04/1998 - 04/30/2000	FY01: -\$3,593	Total: \$110,324
<i>Prin. Invest.: J BENO</i>			<i>Prin. Invest.: K LIECHTI, S KYRIAKIDES</i>		
<i>Tech. Officer: GRC/K MCLALLIN</i>			<i>Tech. Officer: LARC/T S GRITES</i>		
<i>CASE Category: 49 - ENGINEERING, OTHER</i>			<i>CASE Category: 41 - AERONAUTICAL ENGR</i>		
<b>NAS 3 00135</b>	<b>UNIV OF TEXAS - AUSTIN</b>	<b>8855</b>	<b>NCC 3 677</b>	<b>UNIV OF TEXAS - AUSTIN</b>	<b>8863</b>
DC-DC HIGH VOLTAGE CONVERTER TECHNOLOGY DEMONSTRATION			INVESTIGATION OF STRAIN/VORTICITY AND LARGE-SCALE FLOW STRUCTURE IN TURBULENT NONPREMIXED JET FLAMES		
05/25/2000 - 11/24/2000	FY01: \$0	Total: \$168,618	02/26/1999 - 01/13/2003	FY01: \$118,540	Total: \$292,697
<i>Prin. Invest.: W A WALLS</i>			<i>Prin. Invest.: N T CLEMENS</i>		
<i>Tech. Officer: GRC/P GEORGE</i>			<i>Tech. Officer: GRC/K SACKSTEDER</i>		
<i>CASE Category: 49 - ENGINEERING, OTHER</i>			<i>CASE Category: 49 - ENGINEERING, OTHER</i>		
<b>NAS 3 01133</b>	<b>UNIV OF TEXAS - AUSTIN</b>	<b>8856</b>	<b>NCC 5 154</b>	<b>UNIV OF TEXAS - AUSTIN</b>	<b>8864</b>
FLYWHEEL ARBOR DEVELOPMENT			GRAND CHALLENGE RESEARCH		
05/30/2001 - 05/29/2002	FY01: \$357,000	Total: \$357,000	08/21/1996 - 06/30/2000	FY01: \$0	Total: \$900,000
<i>Prin. Invest.: R H BENO, R THOMPSON</i>			<i>Prin. Invest.: G CAREY</i>		
<i>Tech. Officer: GRC/K L MCLALLIN</i>			<i>Tech. Officer: GSFC/J R FISCHER</i>		
<i>CASE Category: 46 - MECHANICAL ENGR</i>			<i>CASE Category: 29 - MATH/COMPUTER SCI, OTHER</i>		
<b>NAS 3 99169</b>	<b>UNIV OF TEXAS - AUSTIN</b>	<b>8857</b>	<b>NCC 5 463</b>	<b>UNIV OF TEXAS - AUSTIN</b>	<b>8865</b>
FLYWHEEL ROTOR HUB AND RIM HARDWARE FOR THE ACESE FOR ISS			EVALUATION AND VALIDATION OF EO-1 AND LANDSAT 7 IMAGERY THROUGH AN ANALYSIS OF LAND COVER/LAND USE		
07/08/1999 - 03/07/2002	FY01: \$1,751,233	Total: \$3,656,324	02/29/2000 - 12/31/2001	FY01: \$166,237	Total: \$206,250
<i>Prin. Invest.: J H BENO, R C THOMPSON</i>			<i>Prin. Invest.: W A WHITE</i>		
<i>Tech. Officer: JSC/K KONNO</i>			<i>Tech. Officer: GSFC/S G UNGAR</i>		
<i>CASE Category: 46 - MECHANICAL ENGR</i>			<i>CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</i>		
<b>NAS 5 01096</b>	<b>UNIV OF TEXAS - AUSTIN</b>	<b>8858</b>	<b>NCC 9 73</b>	<b>UNIV OF TEXAS - AUSTIN</b>	<b>8866</b>
MCDONALD LASER RANGING STATION SUPPORT SERVICES			SIMULATION OF HYPERVELOCITY IMPACT ON AL-NEXTEL KEVLAR ORBITAL DEBRIS SHIELDS		
03/01/2001 - 02/28/2004	FY01: \$307,000	Total: \$307,000	08/10/1998 - 06/30/2000	FY01: -\$194	Total: \$81,558
<i>Prin. Invest.: P J SHELUS</i>			<i>Prin. Invest.: E P FAHRENTHOLD</i>		
<i>Tech. Officer: GSFC/D L CARTER</i>			<i>Tech. Officer: JSC/E L CHRISTIANSEN</i>		
<i>CASE Category: 99 - MULTI INTERDISCPL, OTHER</i>			<i>CASE Category: 29 - MATH/COMPUTER SCI, OTHER</i>		
<b>NAS 5 32997</b>	<b>UNIV OF TEXAS - AUSTIN</b>	<b>8859</b>	<b>NGT 1 52147</b>	<b>UNIV OF TEXAS - AUSTIN</b>	<b>8867</b>
OPERATION, MAINTENANCE AND ENGINEERING DEVELOPMENT OF THE UNIV OF TX LASER RANGING STATION			GRADUATE STUDENT RESEARCH PROGRAM (GSRP)		
04/17/1996 - 02/28/2001	FY01: \$135,000	Total: \$2,258,846	07/26/1996 - 12/31/2001	FY01: \$12,000	Total: \$110,001
<i>Prin. Invest.: P J SHELUS, R RICKLETS, J WIANT</i>			<i>Prin. Invest.: W T FOWLER</i>		
<i>Tech. Officer: GSFC/J MCGARRY</i>			<i>Tech. Officer: LARC/T A TOLAY</i>		
<i>CASE Category: 99 - MULTI INTERDISCPL, OTHER</i>			<i>CASE Category: 41 - AERONAUTICAL ENGR</i>		
<b>NAS 5 97213</b>	<b>UNIV OF TEXAS - AUSTIN</b>	<b>8860</b>	<b>NGT 5 72</b>	<b>UNIV OF TEXAS - AUSTIN</b>	<b>8868</b>
GRAVITY RECOVERY AND CLIMATE EXPERIMENT (GRACE)			GSRP TRAINING GRANT - PAUL THOMPSON - MASS DISTRIBUTION IN THE EARTH'S SYSTEMS: SPACE GEODETIC MEA		
08/12/1997 - 06/12/2006	FY01: \$1,841,500	Total: \$6,286,000	06/04/1998 - 08/31/2001	FY01: \$0	Total: \$66,000
<i>Prin. Invest.: B TAPLEY</i>			<i>Prin. Invest.: B D TAPLEY</i>	<i>Prin. Invest.: NONE</i>	
<i>Tech. Officer: GSFC/R FITZGERALD</i>			<i>Tech. Officer: GSFC/G S SOFFEN</i>		
<i>CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</i>			<i>CASE Category: 41 - AERONAUTICAL ENGR</i>		

**NGT 5 81**           **UNIV OF TEXAS - AUSTIN**           **8869**  
 A STUDY OF LAND/ATMOSPHERE INTERACTIONS IN THE DEVELOPMENT  
 OF MESOSCALE CONVECTIVE SYSTEMS USING A  
 05/11/1999 - 08/31/2000    FY01: \$0                   Total: \$22,000  
*Prin. Invest.: J S FAMIGLIETTI*  
*Tech. Officer: GSFC/M S BURRELL*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NGT 5 30162**          **UNIV OF TEXAS - AUSTIN**          **8870**  
 ESTIMATING CHANGES IN CONTINENTAL WATER STORAGE FROM  
 SATELLITE OBSERVATIONS OF THE TIME DEPENDENT  
 08/31/1998 - 08/31/2001    FY01: \$0                   Total: \$66,000  
*Prin. Invest.: J S FAMIGLIETTI, ROD*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NGT 5 40053**          **UNIV OF TEXAS - AUSTIN**          **8871**  
 TEXAS SPACE GRANT CONSORTIUM & GLOBE TEACHER TRAINING  
 02/12/1997 - 01/31/2001    FY01: -\$29,600           Total: \$2,060,783  
*Prin. Invest.: B D TAPLEY*  
*Tech. Officer: GSFC/D D DETROYE*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NGT 5 40083**          **UNIV OF TEXAS - AUSTIN**          **8872**  
 TEXAS SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM  
 02/09/2001 - 01/31/2002    FY01: \$504,600           Total: \$504,600  
*Prin. Invest.: B TAPLEY*  
*Tech. Officer: GSFC/D D DETROYE*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NGT 5 50239**          **UNIV OF TEXAS - AUSTIN**          **8873**  
 IMPROVED ESTIMATION OF SURFACE TOPOGRAPHY & VEGETATION  
 STRUCTURE BY COMBINING INTERFEROMETRIC SAR  
 06/03/1999 - 06/30/2002    FY01: \$22,000           Total: \$66,000  
*Prin. Invest.: M CRAWFORD*  
*Tech. Officer: GSFC/K BLANDING*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NGT 5 50301**          **UNIV OF TEXAS - AUSTIN**          **8874**  
 GALAXY EVOLUTION AT REDSHIFTS OF Z=1-2  
 06/29/2000 - 06/30/2002    FY01: \$22,000           Total: \$44,000  
*Prin. Invest.: G J HILL*  
*Tech. Officer: GSFC/L SMITH*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NGT 5 50361**          **UNIV OF TEXAS - AUSTIN**          **8875**  
 AUTONOMOUS RENDEZVOUS BETWEEN MULTIPLE SPACECRAFT IN A  
 CENTRAL BODY GRAVITY FIELD WITH DETAILED SENSORS  
 05/31/2001 - 08/31/2002    FY01: \$22,000           Total: \$22,000  
*Prin. Invest.: C OCAMPO*  
*Tech. Officer: GSFC/K BLANDING*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NGT 5 50371**          **UNIV OF TEXAS - AUSTIN**          **8876**  
 RNAI ANALYSIS OF GRAVITY SIGNAL TRANSDUCTION IN CERATOPERIS  
 RICHARDII  
 06/13/2001 - 07/31/2002    FY01: \$22,000           Total: \$22,000  
*Prin. Invest.: S ROUX, NONE*  
*Tech. Officer: GSFC/K BLANDING*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NGT 9 20**           **UNIV OF TEXAS - AUSTIN**           **8877**  
 TRAINING GRANT  
 07/08/1999 - 08/31/2002    FY01: \$22,000           Total: \$66,000  
*Prin. Invest.: R H BISHOP*  
*Tech. Officer: JSC/D J PEARSON*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NGT 9 35**           **UNIV OF TEXAS - AUSTIN**           **8878**  
 TRAINING GRANT  
 06/04/1998 - 12/31/2000    FY01: \$0                   Total: \$44,000  
*Prin. Invest.: R H BISHOP*  
*Tech. Officer: JSC/B COCKRELL*  
*CASE Category: 22 - COMPUTER SCIENCE*

**NAG 5 4187**          **UNIV OF TEXAS - DALLAS**          **8879**  
 DEVELOPMENT AND DEMONSTRATION OF A ROBUST MICRO-EL PRESSURE  
 TRANSDUCER FOR LOW ALTITUDE SATELLITE AN  
 04/01/1997 - 10/30/2000    FY01: \$0                   Total: \$183,721  
*Prin. Invest.: D D EARLE*  
*Tech. Officer: GSFC/M M MELLOTT*  
*CASE Category: 13 - PHYSICS*

**NAG 5 4465**          **UNIV OF TEXAS - DALLAS**          **8880**  
 THE SPATIAL DISTRIBUTION OF IONOSPHERIC PLASMA AND HIGH  
 LATITUDES  
 05/27/1997 - 04/30/2001    FY01: \$0                   Total: \$282,115  
*Prin. Invest.: D A HEELIS*  
*Tech. Officer: GSFC/M M MELLOTT*  
*CASE Category: 13 - PHYSICS*

**NAG 5 5257**          **UNIV OF TEXAS - DALLAS**          **8881**  
 A SEQUENTIAL ROCKET INVESTIGATION OF WINDS AND PLASMAS LAYERS  
 IN THE NIGHTTIME E-REGION  
 02/28/2000 - 02/21/2003    FY01: \$396,987           Total: \$728,087  
*Prin. Invest.: G D EARLE*  
*Tech. Officer: GSFC/W B JOHNSON*  
*CASE Category: 13 - PHYSICS*

**NAG 5 9297**          **UNIV OF TEXAS - DALLAS**          **8882**  
 A WEB-BASED DISTRIBUTION OF IONOSPHERIC THERMAL PLASMA DATA  
 FROM THE DMSP SPACECRAFT  
 04/17/2000 - 04/30/2002    FY01: \$80,000           Total: \$155,000  
*Prin. Invest.: M HAIRSTON*  
*Tech. Officer: GSFC/J BREDEKAMP*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 9476**          **UNIV OF TEXAS - DALLAS**          **8883**  
 TURBO CODES & THEIR APPLICATION IN MOBILE SYSTEMS  
 04/24/2000 - 04/30/2002    FY01: \$50,000           Total: \$99,999  
*Prin. Invest.: J P FONSEKA*  
*Tech. Officer: GSFC/P H YEH*  
*CASE Category: 49 - ENGINEERING, OTHER*

**NAG 5 10271**          **UNIV OF TEXAS - DALLAS**          **8884**  
 A MODEL OF IONOSPHERIC VELOCITY STRUCTURE IN THE HIGH  
 LATITUDE F-REGION  
 01/08/2001 - 01/31/2002    FY01: \$64,902           Total: \$64,902  
*Prin. Invest.: R HEELIS*  
*Tech. Officer: GSFC/M MELLOTT*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

<b>NAG 5 10335</b>	<b>UNIV OF TEXAS - DALLAS</b>	<b>8885</b>	<b>NAG 5 6163</b>	<b>UNIV OF TEXAS - EL PASO</b>	<b>8893</b>
DEVELOPMENT OF A RAM WIND SENSOR FOR PLANETARY THERMO-SPHERIC STUDIES-PROPOSAL #273			INTRODUCTORY TRAINING FOR PRE-SERVICE TEACHERS IN		
02/06/2001 - 12/31/2001	FY01: \$329,980	Total: \$329,980	08/01/1997 - 07/31/2000	FY01: \$0	Total: \$60,000
<i>Prin. Invest.: G D EARLE</i>			<i>Prin. Invest.: V HARDER</i>		
<i>Tech. Officer: GSFC/C STAHL</i>			<i>Tech. Officer: GSFC/N KHAZENIE</i>		
<i>CASE Category: 13 - PHYSICS</i>			<i>CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</i>		
<b>NAS 5 01068</b>	<b>UNIV OF TEXAS - DALLAS</b>	<b>8886</b>	<b>NAG 5 8881</b>	<b>UNIV OF TEXAS - EL PASO</b>	<b>8894</b>
THE COUPLED ION-NEUTRAL DYNAMICS INVESTIGATION.			DATA ASSIMILATIVE ANALYSIS OF THE GGS DATA SET USING GLOBAL		
12/13/2000 - 12/31/2005	FY01: \$1,275,000	Total: \$1,275,000	SIMULATIONS		
<i>Prin. Invest.: R A HEELIS</i>			11/30/1999 - 05/31/2001	FY01: \$0	Total: \$18,070
<i>Tech. Officer: GSFC/J BYRD</i>			<i>Prin. Invest.: D E LOPEZ</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>Tech. Officer: GSFC/D EVANS</i>		
<b>NGT 5 50354</b>	<b>UNIV OF TEXAS - DALLAS</b>	<b>8887</b>	<b>NAG 5 8882</b>	<b>UNIV OF TEXAS - EL PASO</b>	<b>8895</b>
LOW-LATITUDE IONOSPHERIC PLASMA DEPLETION: STRUTURE AND			SCIENCE EDUCATIONAL INSTRUCTIONAL MATERIALS FOR ISTP/SOLARMAX		
DYNAMICS			11/30/1999 - 01/14/2002	FY01: \$0	Total: \$53,228
05/11/2001 - 05/14/2002	FY01: \$22,000	Total: \$22,000	<i>Prin. Invest.: R E LOPEZ</i>		
<i>Prin. Invest.: R A HEELIS</i>			<i>Tech. Officer: GSFC/M H ACUNA</i>		
<i>Tech. Officer: GSFC/M E MELLOTT</i>			<i>CASE Category: 13 - PHYSICS</i>		
<i>CASE Category: 99 - MULTI INTERDISCPL, OTHER</i>			<b>NAG 5 8883</b>	<b>UNIV OF TEXAS - EL PASO</b>	<b>8896</b>
<b>NAG 2 1012</b>	<b>UNIV OF TEXAS - EL PASO</b>	<b>8888</b>	THE ASSIMILATION OF SATELLITE DATA INTO GLOBAL MHD SIMULATIONS		
MONITORING SOFTWARE THROUGH INTEGRITY CONSTRAINTS			(SEC GI PROGRAM)		
09/21/1995 - 08/31/2000	FY01: \$0	Total: \$180,487	11/30/1999 - 08/31/2000	FY01: \$0	Total: \$8,275
<i>Prin. Invest.: A Q GATES</i>			<i>Prin. Invest.: R E LOPEZ</i>		
<i>Tech. Officer: ARC/M R LOWRY, ARC/G S LEE</i>			<i>Tech. Officer: GSFC/M H ACUNA</i>		
<i>CASE Category: 22 - COMPUTER SCIENCE</i>			<i>CASE Category: 13 - PHYSICS</i>		
<b>NAG 2 1138</b>	<b>UNIV OF TEXAS - EL PASO</b>	<b>8889</b>	<b>NAG 5 9213</b>	<b>UNIV OF TEXAS - EL PASO</b>	<b>8897</b>
VERIFICATION OF NASA MISSION-CRITICAL SOFTWARE WIT HOUT			PROBING NEUTRINO-INDUCED NUCLEOSYNTHESIS FROM THE ABUN-		
SACRIFICING PERFORMANCE			DANCES OF FLUORINEBORON, LITHIUM, & OXYGEN		
07/14/1997 - 06/30/2001	FY01: \$0	Total: \$199,887	03/23/2000 - 03/31/2002	FY01: \$95,985	Total: \$180,925
<i>Prin. Invest.: P J TELLER</i>			<i>Prin. Invest.: V E SMITH</i>		
<i>Tech. Officer: ARC/LOWRY</i>			<i>Tech. Officer: GSFC/R J OLIVERSEN</i>		
<i>CASE Category: 45 - ELECTRICAL ENGR</i>			<i>CASE Category: 11 - ASTRONOMY</i>		
<b>NAG 3 1820</b>	<b>UNIV OF TEXAS - EL PASO</b>	<b>8890</b>	<b>NAG 5 9542</b>	<b>UNIV OF TEXAS - EL PASO</b>	<b>8898</b>
NOVEL CDS-CTDE SOLAR CELL STRUCTURES ON FLEXBILE METAL FOIL			REMOTE SENSING SPECTRAL IDENTIFICATION OF FRESHWATER		
SUBSTRATES			PLANKTON		
04/16/1996 - 04/15/2000	FY01: -\$402	Total: \$263,838	05/09/2000 - 05/14/2002	FY01: \$99,957	Total: \$199,849
<i>Prin. Invest.: V P SINGH, J C MCCLURE, G B LUSH</i>			<i>Prin. Invest.: D SCHULZ-MAKUCH</i>		
<i>Tech. Officer: GRC/E B CLARK</i>			<i>Tech. Officer: GSFC/D MENCHAN</i>		
<i>CASE Category: 47 - METAL &amp; MATERIALS ENGR</i>			<i>CASE Category: 32 - GEOLOGICAL SCIENCE</i>		
<b>NAG 3 2303</b>	<b>UNIV OF TEXAS - EL PASO</b>	<b>8891</b>	<b>NAG 5 10151</b>	<b>UNIV OF TEXAS - EL PASO</b>	<b>8899</b>
THIN-FILM SOLAR CELLS FOR SPACE APPLICATION			CONNECTING SUN CITY WITH SUN-EARTH CONNECTIONS		
THIN-FILM SOLAR CELLS FOR SPACE APPLICATION			01/03/2001 - 12/31/2001	FY01: \$223,990	Total: \$223,990
11/23/1999 - 10/28/2002	FY01: \$199,449	Total: \$399,394	<i>Prin. Invest.: R LOPEZ</i>		
<i>Prin. Invest.: G B LUSH</i>			<i>Tech. Officer: GSFC/P SAKIMOTO</i>		
<i>Tech. Officer: GRC/A HEPP</i>			<i>CASE Category: 11 - ASTRONOMY</i>		
<i>CASE Category: 45 - ELECTRICAL ENGR</i>			<b>NAG 5 10507</b>	<b>UNIV OF TEXAS - EL PASO</b>	<b>8900</b>
<b>NAG 4 150</b>	<b>UNIV OF TEXAS - EL PASO</b>	<b>8892</b>	STUDIES OF SOLAR WIND-MAGNETOSPHERE COUPLING THRU DETAILED		
(FAR) AN IMAGING FRANWORK FOR AERODYNAMIC, FLUID MECHANIC,			COMPARISON OF OBSERVATIONS & RESULTS		
AND HEAT TRANSFER SCIENTIFIC-GRADE			03/01/2001 - 02/28/2002	FY01: \$95,916	Total: \$95,916
03/03/1998 - 02/27/2001	FY01: \$0	Total: \$294,177	<i>Prin. Invest.: R WICKER</i>		
<i>Prin. Invest.: R WICKER</i>			<i>Tech. Officer: GSFC/J SPANN</i>		
<i>Tech. Officer: DFRC/J BRADEN, DFRC/K K GUPTA</i>			<i>CASE Category: 32 - GEOLOGICAL SCIENCE</i>		
<i>CASE Category: 99 - MULTI INTERDISCPL, OTHER</i>					

**NAG 8 1393**            **UNIV OF TEXAS - EL PASO**            **8901**  
 R/S "PLASTIC OPTICAL FIBERS FOR ELECTRO-OPTIC ALL- OPTIC AND  
 OPTICAL SENSING APPLICATIONS"  
 08/18/1997 - 08/17/2000      FY01: \$0      Total: \$299,870  
*Prin. Invest.: C DIRK*  
*Tech. Officer: MSFC/B PENN*  
*CASE Category: 13 – PHYSICS*

**NAG 8 1645**            **UNIV OF TEXAS - EL PASO**            **8902**  
 INVESTIGATION OF FRICTION STIR WELDING  
 09/30/1999 - 09/30/2001      FY01: \$30,000      Total: \$200,000  
*Prin. Invest.: J C MCCLURE*  
*Tech. Officer: MSFC/A BEAM, MSFC/W LOVE*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NAG 9 1099**            **UNIV OF TEXAS - EL PASO**            **8903**  
 DATA FUSION METHODOLOGISTS FOR DAMAGE MONITORING OF AERO-  
 SPACE STRUCTURES  
 05/15/1999 - 05/14/2002      FY01: \$50,000      Total: \$155,189  
*Prin. Invest.: C FERREGUT*  
*Tech. Officer: JSC/A R ROCHA*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 9 1100**            **UNIV OF TEXAS - EL PASO**            **8904**  
 FUNDAMENTAL STUDIES OF CRATERING PHENOMMENA  
 05/21/1999 - 05/31/2002      FY01: \$52,000      Total: \$155,773  
*Prin. Invest.: L E MURR*  
*Tech. Officer: JSC/F HORZ*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NAG 9 1171**            **UNIV OF TEXAS - EL PASO**            **8905**  
 EXPERIMENTS FOR THE GRANTS AND COOP AGREEMENT HANDBOOKS  
 09/28/1999 - 08/31/2002      FY01: \$60,995      Total: \$199,339  
*Prin. Invest.: L E MURR*  
*Tech. Officer: JSC/LARMENDARIZ*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NAG10 225**            **UNIV OF TEXAS - EL PASO**            **8906**  
 CONTINUOUS HAZARD TRACKING & FAILURE ANALYSIS METHODOLOGY  
 09/17/1997 - 09/30/2002      FY01: \$99,600      Total: \$298,983  
*Prin. Invest.: R QUINTANA*  
*Tech. Officer: KSC/B DELIWALA*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG10 287**            **UNIV OF TEXAS - EL PASO**            **8907**  
 NONPARAMETRIC INFERENCE UNDER ORDER CONSTRAINTS FO R  
 COMPLETE AND CENSORED DATE: MATERIALS SCIENCE  
 06/28/2000 - 06/27/2003      FY01: \$87,000      Total: \$180,089  
*Prin. Invest.: D ROJO*  
*Tech. Officer: KSC/R LEE*  
*CASE Category: 21 – MATHEMATICS*

**NCC 2 5441**            **UNIV OF TEXAS - EL PASO**            **8908**  
 SCIENCE OPPORTUNITY PLANNING FOR THE CASSINI SATUR N MISSION  
 06/26/2001 - 07/31/2002      FY01: \$7,840      Total: \$7,840  
*Prin. Invest.: S M ROACH*  
*Tech. Officer: ARC/J N CUZZI*  
*CASE Category: 11 – ASTRONOMY*

**NCC 5 97**            **UNIV OF TEXAS - EL PASO**            **8909**  
 THE UNIV OF TEXAS AT EL PASO NETWORK RESOURCES AND TRAINING  
 SITES  
 08/15/1995 - 08/14/2001      FY01: \$0      Total: \$2,623,999  
*Prin. Invest.: M KOLITSKY*  
*Tech. Officer: GSFC/J BENNETT*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NCC 5 207**            **UNIV OF TEXAS - EL PASO**            **8910**  
 DISTANCE LEARNING STRATEGIES PROMOTING MINORITY AC AND  
 RESOURCES  
 06/11/1997 - 05/31/2000      FY01: \$0      Total: \$392,605  
*Prin. Invest.: M A KOLITSKY*  
*Tech. Officer: GSFC/R D EASON*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 5 209**            **UNIV OF TEXAS - EL PASO**            **8911**  
 PAN AMERICAN CENTER FOR EARTH AND ENVIRONMENTAL ST  
 07/24/1997 - 06/30/2001      FY01: \$0      Total: \$3,379,953  
*Prin. Invest.: S A STARKS*  
*Tech. Officer: GSFC/P SAKIMOTO*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 5 468**            **UNIV OF TEXAS - EL PASO**            **8912**  
 CERTIFICATION OF MATHEMATICS AND SCIENCE TEACHERS  
 03/07/2000 - 03/14/2002      FY01: \$179,697      Total: \$377,157  
*Prin. Invest.: S BLAKE*  
*Tech. Officer: GSFC/C HOLLINGSWORTH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 5 498**            **UNIV OF TEXAS - EL PASO**            **8913**  
 PAN AMERICAN CENTER FOR EARTH AND ENVIRONMENTAL STUDIES  
 05/01/2000 - 06/30/2001      FY01: \$565,401      Total: \$1,000,000  
*Prin. Invest.: S STARKS*  
*Tech. Officer: GSFC/J LAMBRECQUE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 5 535**            **UNIV OF TEXAS - EL PASO**            **8914**  
 PROPELLING SCIENCE CONTENT INTO THE NEW MILLENNIUM /MUSPIN  
 NRTS PROGRAM.  
 02/01/2001 - 01/31/2002      FY01: \$350,000      Total: \$350,000  
*Prin. Invest.: H L SCHULTE*  
*Tech. Officer: GSFC/J HARRINGTON*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 8 137**            **UNIV OF TEXAS - EL PASO**            **8915**  
 R/S "ANALYSIS OF FRICTION STIR WELDING"  
 05/27/1997 - 05/26/2000      FY01: -\$15      Total: \$398,518  
*Prin. Invest.: J MCCLURE*  
*Tech. Officer: MSFC/J DING*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NAG 9 1054**            **UNIV OF TEXAS AT BROWNSVILLE**            **8916**  
 PRE MATH, SCIENCE, ENGINEERING & TECH SPT PROGRAM  
 09/18/1998 - 08/31/2001      FY01: \$0      Total: \$75,578  
*Prin. Invest.: O RIVAS*  
*Tech. Officer: JSC/L ARMENDARIZ*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

<b>NAG 9 1064</b>	<b>UNIV OF TEXAS AT BROWNSVILLE</b>	<b>8917</b>	<b>NAG 9 950</b>	<b>UNIV OF TEXAS AT SAN ANTONIO</b>	<b>8925</b>
NRA PACE/MSET BLAST-OFF TO AN ENGINEERING CAREER 01/07/1999 - 01/06/2002	TEXAS PREFRESHMAN ENGINEERING PROGRAM FY01: \$100,000	Total: \$300,000	TEXAS PREFRESHMAN ENGINEERING 07/16/1997 - 09/26/2001	FY01: \$0	Total: \$792,812
<i>Prin. Invest.: W WELLS</i>			<i>Prin. Invest.: M P BERRIOZABAL</i>		
<i>Tech. Officer: JSC/L ARMENDARIZ</i>			<i>Tech. Officer: JSC/L ARMENDARIZ</i>		
<i>CASE Category: 49 – ENGINEERING, OTHER</i>			<i>CASE Category: 21 – MATHEMATICS</i>		
<b>NAG 9 1238</b>	<b>UNIV OF TEXAS AT BROWNSVILLE</b>	<b>8918</b>	<b>NAG 9 1301</b>	<b>UNIV OF TEXAS AT SAN ANTONIO</b>	<b>8926</b>
SOUTH TEXAS ENGINEERING MATH & SCIENCE PROGRAM 06/15/2000 - 05/18/2001	TEXAS PREFRESHMAN ENGINEERING (TEXPREP) 2001 FY01: \$0	Total: \$4,000	TEXAS PREFRESHMAN ENGINEERING (TEXPREP) 05/08/2001 - 08/28/2002	FY01: \$198,000	Total: \$198,000
<i>Prin. Invest.: J GARCIA</i>			<i>Prin. Invest.: M P BERRIOZABAL</i>		
<i>Tech. Officer: JSC/L ARMENDARIZ</i>			<i>Tech. Officer: JSC/L ARMENDARIZ</i>		
<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>			<i>CASE Category: 21 – MATHEMATICS</i>		
<b>NAG 9 1304</b>	<b>UNIV OF TEXAS AT BROWNSVILLE</b>	<b>8919</b>	<b>NAG 9 1382</b>	<b>UNIV OF TEXAS AT TYLER</b>	<b>8927</b>
PRE MATH SCIENCE ENGINEERING & TECH SPT (MSET) 05/18/2001 - 08/26/2002	CFD ANALYSIS OF LASER-ABLATION CARBON NANOTUBE PRODUCTION FY01: \$25,000	Total: \$25,000	CFD ANALYSIS OF LASER-ABLATION CARBON NANOTUBE PRODUCTION 09/17/2001 - 08/31/2002	FY01: \$15,000	Total: \$15,000
<i>Prin. Invest.: A RIVAS</i>			<i>Prin. Invest.: R B GREENDYKE</i>		
<i>Tech. Officer: JSC/L ARMENDARIZ</i>			<i>Tech. Officer: JSC/C D SCOTT</i>		
<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>			<i>CASE Category: 46 – MECHANICAL ENGR</i>		
<b>NCC 5 438</b>	<b>UNIV OF TEXAS AT BROWNSVILLE</b>	<b>8920</b>	<b>NCC 5 465</b>	<b>UNIV OF THE INCARNATE WORD</b>	<b>8928</b>
C+P=M2T: SOUTH TEXAS MASTER MATHEMATICS TEACHER PREPARATION PROGRAMS 03/03/2000 - 02/28/2002	INTEGRATING MATH AND SCIENCE FOR PRE-SERVICE & IN-SERVICE PARTNERSHIPS FY01: \$35,689	Total: \$231,849	INTEGRATING MATH AND SCIENCE FOR PRE-SERVICE & IN-SERVICE PARTNERSHIPS 03/08/2000 - 02/28/2003	FY01: \$140,048	Total: \$280,180
<i>Prin. Invest.: J TELESE</i>			<i>Prin. Invest.: J BEAUFORD</i>		
<i>Tech. Officer: GSFC/B WHITE</i>			<i>Tech. Officer: GSFC/B WHITE</i>		
<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>			<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>		
<b>NAG 2 1383</b>	<b>UNIV OF TEXAS AT SAN ANTONIO</b>	<b>8921</b>	<b>NAG 4 215</b>	<b>BRIGHAM YOUNG UNIV</b>	<b>8929</b>
PARALLEL AERODYNAMICS SIMULATION IN DISTRIBUTED ENVIRONMENTS 09/14/1999 - 08/31/2002	FY01: \$0	Total: \$194,961	ROBUST COMMAND LINKS FOR FLIGHT TERMINATION ROBUST COMMAND LINKS FOR FLIGHT TERMINATION 10/30/2000 - 09/30/2001	FY01: \$72,034	Total: \$72,034
<i>Prin. Invest.: A T CHRONPOULOS</i>			<i>Prin. Invest.: M D RICE</i>		
<i>Tech. Officer: ARC/B J COLLINS, ARC/G S LEE</i>			<i>Tech. Officer: DFRC/R D SAKAHARA</i>		
<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>			<i>CASE Category: 45 – ELECTRICAL ENGR</i>		
<b>NAG 2 6040</b>	<b>UNIV OF TEXAS AT SAN ANTONIO</b>	<b>8922</b>	<b>NAG 5 7711</b>	<b>BRIGHAM YOUNG UNIV</b>	<b>8930</b>
CHANGING THE PARADIGM; PREPARING STUDENTS FOR THE COMPUTING PROFESSION IN THE 21ST CENTURY 12/15/1999 - 02/28/2002	FY01: \$100,000	Total: \$190,713	FDG FOR 'GEOLOGIC AND ARCHAEOLOGIC APPLICATIONS OF HIGH-RES- OLUTION SAR' PI: DAVID V. ARNOLD, SENH98 09/28/1998 - 09/30/2002	FY01: \$187,310	Total: \$374,778
<i>Prin. Invest.: R F SINCOVEC</i>			<i>Prin. Invest.: D V ARNOLD</i>		
<i>Tech. Officer: ARC/M J LEON</i>			<i>Tech. Officer: GSFC/H V FREY</i>		
<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>			<i>CASE Category: 32 – GEOLOGICAL SCIENCE</i>		
<b>NAG 3 2297</b>	<b>UNIV OF TEXAS AT SAN ANTONIO</b>	<b>8923</b>	<b>NAG 5 8746</b>	<b>BRIGHAM YOUNG UNIV</b>	<b>8931</b>
PARTNERSHIP IN PROBABILISTIC STRUCTURAL ANALYSIS METHODS 10/05/1999 - 08/31/2002	FY01: \$100,000	Total: \$200,000	POLAR ICE SHEET MONITORING FROM LONG TERM SCATTERO METER AND RADIOMETER OBSERVATIONS 08/18/1999 - 08/31/2002	FY01: \$90,086	Total: \$266,355
<i>Prin. Invest.: R D MANTEUFEL</i>			<i>Prin. Invest.: D LONG</i>		
<i>Tech. Officer: GRC/C CHAMIS</i>			<i>Tech. Officer: GSFC/E LINDSTROM</i>		
<i>CASE Category: 41 – AERONAUTICAL ENGR</i>			<i>CASE Category: 39 – ENVIRONMENTAL SCI, OTHER</i>		
<b>NAG 8 1720</b>	<b>UNIV OF TEXAS AT SAN ANTONIO</b>	<b>8924</b>	<b>NAG 5 9625</b>	<b>BRIGHAM YOUNG UNIV</b>	<b>8932</b>
LATIN HYPERCUBE SAMPLING IN RELIABILITY ANALYSIS 06/07/2000 - 06/06/2003	FY01: \$96,084	Total: \$192,102	SCATTEROMETER CLIMATE RECORD PATHFINDER 05/23/2000 - 04/30/2002	FY01: \$160,333	Total: \$265,000
<i>Prin. Invest.: R MANTUEFEL</i>			<i>Prin. Invest.: D LONG</i>		
<i>Tech. Officer: MSFC/F SAFIE</i>			<i>Tech. Officer: GSFC/J DODGE</i>		
<i>CASE Category: 49 – ENGINEERING, OTHER</i>			<i>CASE Category: 39 – ENVIRONMENTAL SCI, OTHER</i>		

<b>NAG 5 9638</b>	<b>BRIGHAM YOUNG UNIV</b>	<b>8933</b>	<b>NAG 3 2548</b>	<b>UNIV OF UTAH</b>	<b>8941</b>
SYNERGISTIC USE OF TRMM AND SEAWINDS DATA 06/08/2000 - 11/30/2001	FY01: \$50,000	Total: \$64,583	SECONDARY FIRES: INITIATION & EXTINGUISHMENT INITIATION & EXTINGUISHMENT 02/23/2001 - 11/30/2004	FY01: \$30,001	Total: \$30,001
<i>Prin. Invest.: D G LONG</i>			<i>Prin. Invest.: W MELL</i>		
<i>Tech. Officer: GSFC/R J LAWRENCE</i>			<i>Tech. Officer: GRC/H D ROSS</i>		
<i>CASE Category: 31 – ATMOSPHERIC SCIENCE</i>			<i>CASE Category: 49 – ENGINEERING, OTHER</i>		
<b>NGT 8 52877</b>	<b>BRIGHAM YOUNG UNIV</b>	<b>8934</b>	<b>NAG 3 2624</b>	<b>UNIV OF UTAH</b>	<b>8942</b>
HEAT ADDITION IN A FIXED GEOMETRY SCRAMJET ENGINE. 08/24/1999 - 08/14/2001	FY01: \$0	Total: \$44,000	A JOINT SIMULATION AND EXPERIMENTAL STUDY OF NANOC OMPOSITE SOLID POLYMERN ELECTROLYTES 05/25/2001 - 12/31/2003	FY01: \$90,000	Total: \$90,000
<i>Prin. Invest.: R DAINES</i>			<i>Prin. Invest.: G D SMITH</i>		
<i>Tech. Officer: MSFC/J DOWDY</i>			<i>Tech. Officer: GRC/B MCKISSOCK</i>		
<i>CASE Category: 46 – MECHANICAL ENGR</i>			<i>CASE Category: 47 – METAL &amp; MATERIALS ENGR</i>		
<b>NAG 1 2048</b>	<b>UNIV OF UTAH</b>	<b>8935</b>	<b>NAG 5 3902</b>	<b>UNIV OF UTAH</b>	<b>8943</b>
CLOUD SCALE NUMERICAL MODELING OF THE ARCTIC BOUND ARY LAYER 04/01/1998 - 06/30/2001	FY01: \$1	Total: \$256,654	ORBITING ARRAY OF WIDE-ANGLE LIGHT COLLECTORS (OWL ORBITING "EYES" TO STUDY AIR SHOWERS INITIATED BY 03/03/1997 - 02/28/2002	FY01: \$0	Total: \$120,646
<i>Prin. Invest.: S K KRUEGER</i>			<i>Prin. Invest.: E C LOH</i>		
<i>Tech. Officer: LARC/D S MCDOUGAL, LARC/J RAPER</i>			<i>Tech. Officer: GSFC/L M BARBIER</i>		
<i>CASE Category: 31 – ATMOSPHERIC SCIENCE</i>			<i>CASE Category: 11 – ASTRONOMY</i>		
<b>NAG 1 2083</b>	<b>UNIV OF UTAH</b>	<b>8936</b>	<b>NAG 5 4452</b>	<b>UNIV OF UTAH</b>	<b>8944</b>
FACILITY FOR ATMOSPHERIC REMOTE SENSING (FARS) CIRRUS MEASUREMENTS FOR FIRE III 06/30/1998 - 05/31/2001	FY01: \$1	Total: \$171,001	RADIATION ANTICARCINOGENESIS BY THIAZOLIDINE PRODR 05/20/1997 - 02/28/2000	FY01: \$0	Total: \$362,768
<i>Prin. Invest.: K SASSON</i>			<i>Prin. Invest.: R WARTERS</i>		
<i>Tech. Officer: LARC/V E DELNORE, LARC/J L RAPER</i>			<i>Tech. Officer: GSFC/W SHIMMERLING</i>		
<i>CASE Category: 31 – ATMOSPHERIC SCIENCE</i>			<i>CASE Category: 59 – LIFE SCIENCE, OTHER</i>		
<b>NAG 1 2250</b>	<b>UNIV OF UTAH</b>	<b>8937</b>	<b>NAG 5 6458</b>	<b>UNIV OF UTAH</b>	<b>8945</b>
USING GRIOND-BASED MEASUREMENTS AND RETRIEVALS TO VALIDATE SATELLITE DATA 01/19/2000 - 10/31/2002	FY01: \$73,869	Total: \$134,028	CLOUD PROPERTY & SURFACE RADIATION OBSERVATIONS & DIAGNOS- TICS IN SUPPORT OF EOS, CERES, MODIA & MISR 10/14/1997 - 03/31/2002	FY01: \$260,627	Total: \$1,735,394
<i>Prin. Invest.: X DONG</i>			<i>Prin. Invest.: G MACE</i>		
<i>Tech. Officer: LARC/P MINNIS</i>			<i>Tech. Officer: GSFC/D STARR</i>		
<i>CASE Category: 31 – ATMOSPHERIC SCIENCE</i>			<i>CASE Category: 19 – PHYSICAL SCIENCE, OTHER</i>		
<b>NAG 1 2319</b>	<b>UNIV OF UTAH</b>	<b>8938</b>	<b>NAG 5 7447</b>	<b>UNIV OF UTAH</b>	<b>8946</b>
MOLECULAR DYNAMICS SIMULATIONS OF RANDOM IONOMERS AND NANOCOMPOSITES 07/14/2000 - 06/30/2003	FY01: \$85,473	Total: \$117,438	CONTINUED SUPPORT OF THE GCTE FOCUS 1 OFFICE (ECOS YSTEM PHYSIOLOGY) 06/19/1998 - 01/31/2002	FY01: \$151,419	Total: \$450,420
<i>Prin. Invest.: G D SMITH, M A GLASSER, NONE</i>			<i>Prin. Invest.: J R EHLERINGER</i>		
<i>Tech. Officer: LARC/J A HINKLEY, LARC/T S GATES</i>			<i>Tech. Officer: GSFC/D E WICKLAND</i>		
<i>CASE Category: 12 – CHEMISTRY</i>			<i>CASE Category: 39 – ENVIRONMENTAL SCI, OTHER</i>		
<b>NAG 2 1444</b>	<b>UNIV OF UTAH</b>	<b>8939</b>	<b>NAG 5 7521</b>	<b>UNIV OF UTAH</b>	<b>8947</b>
THE UAV CIRRUS CLOUD MEASUREMENT PROGRAM: A PROPO SAL IN SUPPORT THE NASA ESE UAV 09/27/2000 - 12/31/2000	FY01: \$0	Total: \$90,000	INVESTIGATION OF PHYSICAL PROCESS DYNAMICS DURING COLD SEASON FLOODING 06/18/1998 - 06/14/2001	FY01: \$0	Total: \$37,247
<i>Prin. Invest.: G G MACE, NONE</i>			<i>Prin. Invest.: D TARBOTON</i>		
<i>Tech. Officer: ARC/S S WEGENER, ARC/R S HIPSKIN</i>			<i>Tech. Officer: GSFC/E ENGMAN</i>		
<i>CASE Category: 31 – ATMOSPHERIC SCIENCE</i>			<i>CASE Category: 39 – ENVIRONMENTAL SCI, OTHER</i>		
<b>NAG 3 2403</b>	<b>UNIV OF UTAH</b>	<b>8940</b>	<b>NAG 5 7828</b>	<b>UNIV OF UTAH</b>	<b>8948</b>
SIMULATION OF COMBUSTION SYSTEMS WITH REALISTIC G- JITTER 04/26/2000 - 03/22/2003	FY01: \$40,755	Total: \$85,601	EGRET OBSERVING TIME REQUEST FOR GAMMA-RAY BURSTS 11/16/1998 - 11/30/1999	FY01: \$0	Total: \$14,997
<i>Prin. Invest.: D E MELL</i>			<i>Prin. Invest.: B J DINGUS</i>		
<i>Tech. Officer: GRC/H D ROSS</i>			<i>Tech. Officer: GSFC/J P NORRIS</i>		
<i>CASE Category: 49 – ENGINEERING, OTHER</i>			<i>CASE Category: 11 – ASTRONOMY</i>		

**NAG 5 7871**           **UNIV OF UTAH**           **8949**  
 THE GLACIER DYNAMICS AND MASS FLUX OF ANTARCTIC ICE STREAMS  
 FROM RADARSAT INSAR  
 01/21/1999 - 12/31/2001    FY01: \$49,386        Total: \$146,060  
*Prin. Invest.: R FORESTER*  
*Tech. Officer: GSFC/S GOGINENI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8277**           **UNIV OF UTAH**           **8950**  
 ACCRETION ONTO SUPERMASSIVE BLACK HOLES: OBSERVATIONAL  
 SIGNALS FROM 3-D33-DIMENSION (ATP 98)  
 03/02/1999 - 02/28/2002    FY01: \$44,645        Total: \$109,239  
*Prin. Invest.: B C BROMLEY*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8339**           **UNIV OF UTAH**           **8951**  
 GLOBAL DISTRIBUTION OF LIGHTNING FROM THE DTD AND RELATED  
 GLOBAL DISTRIBUTION OF MCSS FROM TH  
 04/26/1999 - 03/31/2001    FY01: \$0               Total: \$142,337  
*Prin. Invest.: E ZIPSER*  
*Tech. Officer: GSFC/J C DODGE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 8550**           **UNIV OF UTAH**           **8952**  
 THE SPATIAL AND TEMPORAL CHARACTERISTICS OF HIGH LATITUDE  
 SEASONAL SNOW MELT AS DETECTED BY PASSIVE  
 06/02/1999 - 05/31/2002    FY01: \$0               Total: \$128,886  
*Prin. Invest.: K JEZEK*  
*Tech. Officer: GSFC/J C DODGE*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8561**           **UNIV OF UTAH**           **8953**  
 VALIDATION AND TRANSFERABILITY OF TROPICAL RAIN ESTIMATION  
 METHODS  
 05/17/1999 - 09/30/2001    FY01: \$0               Total: \$313,521  
*Prin. Invest.: E J ZIPSER*  
*Tech. Officer: GSFC/R W LAWRENCE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 9717**           **UNIV OF UTAH**           **8954**  
 VALIDATION AND TRANSFERABILITY OF TROPICAL LATENT HEATING ESTI-  
 MATES  
 06/21/2000 - 11/30/2001    FY01: \$172,000       Total: \$217,924  
*Prin. Invest.: E J ZIPSER*  
*Tech. Officer: GSFC/R J LAWRENCE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 10136**           **UNIV OF UTAH**           **8955**  
 SAR ANALYSIS OF THE WESTERN SAINT ELIAS OROGEN, ALASKA  
 12/04/2000 - 11/30/2001    FY01: \$46,997        Total: \$46,997  
*Prin. Invest.: R L BRUHN*  
*Tech. Officer: GSFC/E LINDSTROM*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 10682**           **UNIV OF UTAH**           **8956**  
 REMOTE SENSING OF INTENSITY & ORGANIZATION OF CONVECTION IN  
 HURRICANES & TROPICAL CYCLONES BEFORE  
 05/10/2001 - 05/14/2002    FY01: \$89,500        Total: \$89,500  
*Prin. Invest.: E J ZIPSER*  
*Tech. Officer: GSFC/R J LAWRENCE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 8 1665**           **UNIV OF UTAH**           **8957**  
 NOVEL MICROSTRUCTURES FOR POLYMER-LIQUID CRYSTAL CO-COPOLY-  
 MATERIALS  
 06/15/2000 - 11/30/2003    FY01: \$104,500       Total: \$154,500  
*Prin. Invest.: J J MAGDA*  
*Tech. Officer: MSFC/P DOTY*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 8 1797**           **UNIV OF UTAH**           **8958**  
 INTENSITY & ORGANIZATION OF CONVECTION IN HURRICANES AND  
 TROPICAL CYCLONES BEFORE & AFTER LANDFALL  
 03/07/2001 - 01/31/2002    FY01: \$45,140        Total: \$45,140  
*Prin. Invest.: E J ZIPSER*  
*Tech. Officer: MSFC/J ARNOLD*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAS 5 00120**           **UNIV OF UTAH**           **8959**  
 MEASUREMENT OF THE ATMOSPHERIC UV NIGHTGLOW FROM A HIGH  
 ALTITUDE BALLOON (NIGHTGLOW).  
 02/01/2000 - 05/31/2002    FY01: \$52,540        Total: \$102,540  
*Prin. Invest.: E LOHBER, E LOH*  
*Tech. Officer: GSFC/L BARBIER*  
*CASE Category: 11 – ASTRONOMY*

**NCC 1 256**           **UNIV OF UTAH**           **8960**  
 DEVELOPMENT OF PREDICTIVE CAPABILITIES FOR DAMAGE TOLERANCE  
 IN STITCHED COMPOSITE MATERIALS  
 05/01/1997 - 04/30/2001    FY01: -\$1              Total: \$207,021  
*Prin. Invest.: D O ADAMS*  
*Tech. Officer: LARC/J R REEDERS*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NCC 5 297**           **UNIV OF UTAH**           **8961**  
 CARBON AND OXYGEN ISOTOPE RATIO CO2 FLUX ANALYSES AT THE SOIL,  
 CANOPY, AND LANDSCAPE SCALES  
 06/16/1998 - 12/31/2001    FY01: \$250,535       Total: \$855,598  
*Prin. Invest.: J EHLERINGER*  
*Tech. Officer: GSFC/D DEERING*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 30184**           **UNIV OF UTAH**           **8962**  
 IMPLICATIONS OF ARCTIC WARMING AS DETERMINED BY SNOWMELT  
 ONSET DATES OBSERVED WITH REMOTELY SENSED  
 08/19/1999 - 08/31/2002    FY01: \$22,000        Total: \$66,000  
*Prin. Invest.: R R FORSTER*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 30202**           **UNIV OF UTAH**           **8963**  
 THE CO2 OF ATMOSPHERIC CO2: SEEING THE GRASSLAND THROUGH THE  
 BLADES/STUDENT: BRENT HELIKER  
 08/19/1999 - 08/31/2001    FY01: \$0               Total: \$44,000  
*Prin. Invest.: J R EHLERINGER*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 30398**           **UNIV OF UTAH**           **8964**  
 RETRIEVAL OF CIRRUS CLOUD MICROPHYSICAL PARAMETERS AND ANAL-  
 YSIS OF THE RELATIONSHIP BETWEEN PROPERTY  
 08/14/2001 - 08/31/2004    FY01: \$22,000        Total: \$22,000  
*Prin. Invest.: G MACE*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 30423**           **UNIV OF UTAH**           **8965**  
 PRECIPITATION FEATURES ACCORDING TO TRMM: DIURNAL CYCLE AND  
 EVALUATION OF RAINFALL PRODUCTS (STUDE)  
 09/07/2001 - 08/31/2004      FY01: \$22,000      Total: \$22,000  
*Prin. Invest.: E SIPZER*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 40066**           **UNIV OF UTAH**           **8966**  
 SPACE GRANT GEOSPATIAL EXTENSION SPECIALIST PROGRAM  
 03/09/2000 - 03/14/2001      FY01: \$0      Total: \$431,250  
*Prin. Invest.: D WESTENSKOW*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 40101**           **UNIV OF UTAH**           **8967**  
 ROCKY MOUNTAIN UTAH SPACE GRANT COLLEGE AND FELLOWSHIP  
 PROGRAM  
 03/01/2001 - 01/31/2002      FY01: \$431,250      Total: \$431,250  
*Prin. Invest.: W WESTENSKOW*  
*Tech. Officer: GSFC/D D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 1484**           **UTAH STATE UNIV**           **8968**  
 THE FLOW OF PLASMA IN THE SOLAR TERRESTRIAL ENVIRONMENT  
 11/26/1990 - 09/30/1999      FY01: \$0      Total: \$2,127,745  
*Prin. Invest.: R W SCHUNK*  
*Tech. Officer: GSFC/T J BIRMINGHAM*  
*CASE Category: 13 – PHYSICS*

**NAG 5 4469**           **UTAH STATE UNIV**           **8969**  
 SATELLITE STUDIES OF STORM TIME MID- AND LOW-LATIT ODYNAMICS  
 05/21/1997 - 09/30/2001      FY01: \$0      Total: \$309,200  
*Prin. Invest.: D G FEJER*  
*Tech. Officer: GSFC/M M MELLOTT*  
*CASE Category: 13 – PHYSICS*

**NAG 5 5046**           **UTAH STATE UNIV**           **8970**  
 A ROCKET INVESTIGATION OF MESOSPHERIC EDDY DIFFUSION  
 EFFECTS ON AIRGLOW & ODD OXYGEN CHEMISTRY  
 08/03/1995 - 06/30/2001      FY01: \$0      Total: \$271,756  
*Prin. Invest.: J C ULWICK*  
*Tech. Officer: GSFC/P H PLESS*  
*CASE Category: 13 – PHYSICS*

**NAG 5 5187**           **UTAH STATE UNIV**           **8971**  
 CODA - COUPLING OF DYNAMICS AND AURORA FUNDING FOR FIRST  
 YEAR OF GRANT  
 03/30/1998 - 03/31/2003      FY01: \$103,391      Total: \$411,231  
*Prin. Invest.: C M SWENSON, NONE*  
*Tech. Officer: GSFC/W B JOHNSON*  
*CASE Category: 13 – PHYSICS*

**NAG 5 5189**           **UTAH STATE UNIV**           **8972**  
 A ROCKET INVESTIGATION OF ELECTRON DENSITY STRUCTURE,  
 E-FIELDS AND AEROSOLS DURING PMSE AND N  
 03/27/1998 - 03/31/2001      FY01: \$0      Total: \$419,648  
*Prin. Invest.: J C ULWICK*  
*Tech. Officer: GSFC/W B JOHNSON*  
*CASE Category: 13 – PHYSICS*

**NAG 5 5245**           **UTAH STATE UNIV**           **8973**  
 FIRST YEAR OF A THREE YEAR GRANT NAG5-5245 PI DR. JAMES C.  
 ULWICK  
 03/29/1999 - 03/28/2002      FY01: \$99,289      Total: \$390,470  
*Prin. Invest.: J C ULWICK*  
*Tech. Officer: GSFC/W B JOHNSON*  
*CASE Category: 13 – PHYSICS*

**NAG 5 5258**           **UTAH STATE UNIV**           **8974**  
 FIRST YEAR OF THREE YEAR EFFORT/ ROCKET INVESTIGATION OF WINDS  
 ASSOCIATED W/E-REGION  
 04/11/2000 - 03/23/2003      FY01: \$94,700      Total: \$147,900  
*Prin. Invest.: C M SWENSON*  
*Tech. Officer: GSFC/W B JOHNSON*  
*CASE Category: 13 – PHYSICS*

**NAG 5 5293**           **UTAH STATE UNIV**           **8975**  
 IONOSPHERIC NANOSATELLITE FORMATION (ION-F) IONOSPHERIC NANO-  
 SATELLITE FORMATION (ION-F)  
 05/23/2000 - 05/17/2003      FY01: \$200,770      Total: \$317,170  
*Prin. Invest.: B G FEJER*  
*Tech. Officer: GSFC/J C BRINTON*  
*CASE Category: 13 – PHYSICS*

**NAG 5 7597**           **UTAH STATE UNIV**           **8976**  
 SNOW HYDROLOGY: THE PARAMETERIZATION OF SUBGRID PROCESSES  
 WITHIN APHYSICALLY BASED SNOW ENERGY  
 07/21/1998 - 07/14/2002      FY01: \$0      Total: \$163,240  
*Prin. Invest.: D G TARBOTON*  
*Tech. Officer: GSFC/E T ENGMAN*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 8227**           **UTAH STATE UNIV**           **8977**  
 "THE FLOW OF PLASMA IN THE SOLAR TERRESTRIAL ENVIRONMENT".  
 02/24/1999 - 03/31/2002      FY01: \$290,000      Total: \$838,470  
*Prin. Invest.: R W SCHUNK*  
*Tech. Officer: GSFC/J M GREBOWSKY*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8638**           **UTAH STATE UNIV**           **8978**  
 PLASMAPAUSE AND ITS ENVIRONMENT: A PROPOSAL FOR COOPERATIVE  
 STUDIES  
 08/11/1999 - 07/31/2002      FY01: \$24,000      Total: \$70,500  
*Prin. Invest.: B G FEJER*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9290**           **UTAH STATE UNIV**           **8979**  
 ION-F: A SPACE-BASED TESTBED FOR DISTRIBUTED FORMATION  
 CONTROL USING THE USUSAT NANOSATELLITE  
 03/17/2000 - 03/31/2001      FY01: \$0      Total: \$47,000  
*Prin. Invest.: R FULLMER*  
*Tech. Officer: GSFC/K LUU*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 5 10215**           **UTAH STATE UNIV**           **8980**  
 SATELLITE STUDIES OF STORM-TIME THERMOSPHERIC WINDS  
 01/05/2001 - 01/14/2002      FY01: \$81,000      Total: \$81,000  
*Prin. Invest.: B G FEJER*  
*Tech. Officer: GSFC/M MELLOTT*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

<b>NAG 5 10716</b>	<b>UTAH STATE UNIV</b>	<b>8981</b>	<b>NAS 8 97107</b>	<b>UTAH STATE UNIV</b>	<b>8989</b>
MULTIPLIERLESS FILTERS FOR REAL-TIME PROCESSING OF HYPERSPECTRAL IMAGES			REMOTE SENSING AND MODELING OF URBAN LANDCOVER		
04/10/2001 - 04/30/2002	FY01: \$62,000	Total: \$62,000	01/29/1997 - 01/28/2001	FY01: \$0	Total: \$135,127
<i>Prin. Invest.: T BOSE</i>			<i>Prin. Invest.: R R GILLIES</i>		
<i>Tech. Officer: GSFC/P E HUNTER</i>			<i>Tech. Officer: MSFC/T MILLER</i>		
<i>CASE Category: 22 – COMPUTER SCIENCE</i>			<i>CASE Category: 31 – ATMOSPHERIC SCIENCE</i>		
<b>NAG 5 11282</b>	<b>UTAH STATE UNIV</b>	<b>8982</b>	<b>NAS 8 98221</b>	<b>UTAH STATE UNIV</b>	<b>8990</b>
USING REMOTE SENSING & IN SITU NETWORK OBSERVATION TO EVALUATE & IMPROVE THE PERFORMANCE OF			ELECTRONIC PROPERTIES OF MATERIALS WITH APPLICATION TO SPACE-CRAFT CHARGING		
08/17/2001 - 08/31/2004	FY01: \$82,344	Total: \$82,344	06/18/1998 - 09/17/2002	FY01: \$55,202	Total: \$331,736
<i>Prin. Invest.: M WHITE</i>			<i>Prin. Invest.: J R DENNISON</i>		
<i>Tech. Officer: GSFC/D WICKLAND</i>			<i>Tech. Officer: MSFC/S PEARSON</i>		
<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>			<i>CASE Category: 39 – ENVIRONMENTAL SCI, OTHER</i>		
<b>NAG 8 1750</b>	<b>UTAH STATE UNIV</b>	<b>8983</b>	<b>NCC 2 831</b>	<b>UTAH STATE UNIV</b>	<b>8991</b>
EXTENSION OF ATLANTA/HOUSTON URBAN HEAT ISLAND STUDIES USING ASTER IMAGERY			SEED-TO-SEED EXPERIMENT (EXPERIMENTS ON RUSSIAN SP ACE STATION MIR)		
11/13/2000 - 11/19/2001	FY01: \$11,573	Total: \$11,573	10/26/1993 - 06/30/2000	FY01: \$0	Total: \$3,535,217
<i>Prin. Invest.: R GILES</i>			<i>Prin. Invest.: W F CAMPBELL, G E BINGHAM, D L BUBENHEIM</i>		
<i>Tech. Officer: MSFC/D QUATTROCHI</i>			<i>Tech. Officer: ARC/G C JAHNS, ARC/C M WINGET</i>		
<i>CASE Category: 31 – ATMOSPHERIC SCIENCE</i>			<i>CASE Category: 55 – AGRICULTURE</i>		
<b>NAG 9 999</b>	<b>UTAH STATE UNIV</b>	<b>8984</b>	<b>NCC 2 5466</b>	<b>UTAH STATE UNIV</b>	<b>8992</b>
CROP OPTIMIZATION AND FAILURE ANALYSIS USING CO2			FLOUROMETRIC DETECTION OF MICROORGANISMS ON STERILIZED SURFACES		
04/25/1998 - 04/25/2004	FY01: \$216,919	Total: \$619,240	09/26/2001 - 09/14/2002	FY01: \$60,570	Total: \$60,570
<i>Prin. Invest.: B G BUGBEE, L R JOHNSON</i>			<i>Prin. Invest.: L S POWERS</i>		
<i>Tech. Officer: KSC/R M WHEELER</i>			<i>Tech. Officer: ARC/C P MCKAY, ARC/B F SMITH</i>		
<i>CASE Category: 54 – ENVIRONMENTAL BIOLOGY</i>			<i>CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)</i>		
<b>NAG 9 1237</b>	<b>UTAH STATE UNIV</b>	<b>8985</b>	<b>NCC 5 219</b>	<b>UTAH STATE UNIV</b>	<b>8993</b>
CO2 GAS EXCHANGE TO DETERMINE THE FACTORS CONTROLLING RESPIRATION & CARBON USE IN CROP PLANTS			HOLOGRAPHIC LIDAR CONCEPTS AND APPLICATIONS		
06/16/2000 - 07/01/2003	FY01: \$21,219	Total: \$42,275	08/19/1997 - 10/31/2001	FY01: \$0	Total: \$79,520
<i>Prin. Invest.: B BUGBEE</i>			<i>Prin. Invest.: T D WILKERSON</i>		
<i>Tech. Officer: JSC/D BARTA</i>			<i>Tech. Officer: GSFC/G SCHWEMMER</i>		
<i>CASE Category: 55 – AGRICULTURE</i>			<i>CASE Category: 11 – ASTRONOMY</i>		
<b>NAG 9 1284</b>	<b>UTAH STATE UNIV</b>	<b>8986</b>	<b>NCC 8 162</b>	<b>UTAH STATE UNIV</b>	<b>8994</b>
OPTIMIZATION OF ROOT ZONE SUBSTRATES FOR REDUCED GRAVITY EXPERIMENTS			ANALYSIS OF SPATIAL AND TEMPORAL VARIABILITY OF THE WARM SEASON LAND SURFACE ENERGY BUDGET		
02/22/2001 - 01/31/2002	FY01: \$95,000	Total: \$95,000	11/02/1998 - 10/31/2001	FY01: \$0	Total: \$75,115
<i>Prin. Invest.: G BINGHAM</i>			<i>Prin. Invest.: R R GILLIES</i>		
<i>Tech. Officer: JSC/K DAUES</i>			<i>Tech. Officer: MSFC/W LAPENTA</i>		
<i>CASE Category: 56 – MEDICAL</i>			<i>CASE Category: 31 – ATMOSPHERIC SCIENCE</i>		
<b>NAS 1 00071</b>	<b>UTAH STATE UNIV</b>	<b>8987</b>	<b>NCC13 18</b>	<b>UTAH STATE UNIV</b>	<b>8995</b>
SENSOR MODULE DEVELOPMENT AND SUPPORT FOR GIFTS			NASA-SPONSORED VISING INVESTIGATOR PROGRAM AFFILIATE CENTER FOR THE WESTERN UNITED STATES		
06/19/2000 - 02/14/2002	FY01: \$4,433,550	Total: \$9,313,550	09/12/1996 - 12/31/1999	FY01: \$0	Total: \$515,023
<i>Prin. Invest.: G BINGHAM, W SMITH</i>			<i>Prin. Invest.: D BAKER</i>		
<i>Tech. Officer: LARC/W A ROETTKER, LARC/J B MILLER</i>			<i>Tech. Officer: SSC/R MCKELLIP</i>		
<i>CASE Category: 31 – ATMOSPHERIC SCIENCE</i>			<i>CASE Category: 79 – SOCIAL SCIENCE, OTHER</i>		
<b>NAS 1 20467</b>	<b>UTAH STATE UNIV</b>	<b>8988</b>	<b>NCC13 00005</b>	<b>UTAH STATE UNIV</b>	<b>8996</b>
SONDING OF THE ATMOSPHERE USING BROADBAND EMISSION RADIOMETRY (SABER) INSTRUMENT			AFFILIATED RESEARCH CENTER PROGRAM SAME		
03/28/1995 - 10/31/2001	FY01: \$120,000	Total: \$17,051,680	03/06/2000 - 03/05/2005	FY01: \$153,212	Total: \$365,666
<i>Prin. Invest.: J ULWICK, D J BAKER, R ESPLIN</i>			<i>Prin. Invest.: R D RAMSEY, D BAKER, C HALL</i>		
<i>Tech. Officer: LARC/M D VANEK, LARC/T C DENKINS</i>			<i>Tech. Officer: SSC/A PEEK</i>		
<i>CASE Category: 42 – ASTRONAUTICAL ENGR</i>			<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>		

**NGT 5 40047** UTAH STATE UNIV 8997  
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE  
 AND FELLOWSHIP PROGRAM  
 02/11/1997 - 01/31/2002 FY01: \$0 Total: \$1,354,372  
*Prin. Invest.: D BAKER*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 8 52866** UTAH STATE UNIV 8998  
 MONITORING OZONE CONCENTRATIONS AND INJURY IN HIGH ELEVATION  
 DOUGLAS FIR NEAR SALT LAKE CITY  
 07/24/1998 - 06/30/2001 FY01: \$0 Total: \$44,000  
*Prin. Invest.: F BAKER*  
*Tech. Officer: MSFC/J F DOWDY*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 8 52885** UTAH STATE UNIV 8999  
 EXPERIMENTAL STUDY OF THE SECONDARY ELECTRON EMISSION  
 06/22/2000 - 08/31/2003 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.: J DENNISON*  
*Tech. Officer: MSFC/S NASH-STEVENSON*  
*CASE Category: 13 – PHYSICS*

**NGT10 52617** UTAH STATE UNIV 9000  
 PLANT RESIDE DEGRADATION PRODUCTS IN REGENERATIVE LIFE  
 SUPPORT SYSTEMS  
 07/14/1998 - 12/01/2001 FY01: \$7,500 Total: \$73,500  
*Prin. Invest.: P GROSSEL*  
*Tech. Officer: KSC/R WHEELER*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

## VERMONT

**NAG 5 6118** MIDDLEBURY COLLEGE 9001  
 CORONAL MASS EJECTIONS AND LARGE-SCALE EVOLUTION O  
 08/08/1997 - 09/14/2000 FY01: \$0 Total: \$87,880  
*Prin. Invest.: P WOLFSON*  
*Tech. Officer: GSFC/W J WAGNER*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8020** MIDDLEBURY COLLEGE 9002  
 SN 1006: PROBING THE SYNCHROTRON ORIGIN OF THE X- RAYS AND  
 MEASURINGPROPER MOTIONS \_ADP98  
 01/06/1999 - 12/31/2001 FY01: \$0 Total: \$39,632  
*Prin. Invest.: P WINKLER*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9733** MIDDLEBURY COLLEGE 9003  
 ENERGETICS & INITIATION OF CORONAL MASS EJECTIONS  
 06/30/2000 - 06/30/2002 FY01: \$30,950 Total: \$56,328  
*Prin. Invest.: R WOLFSON*  
*Tech. Officer: GSFC/W J WAGNER*  
*CASE Category: 13 – PHYSICS*

**NAG 5 4138** UNIV OF VERMONT 9004  
 MAPPING NORTHERN METHANE SOURCES AND SINKS IN THE USING  
 RADARSAT  
 03/17/1997 - 12/31/2000 FY01: \$0 Total: \$237,500  
*Prin. Invest.: D MORRISSEY*  
*Tech. Officer: GSFC/R H THOMAS*  
*CASE Category: 54 – ENVIRONMENTAL BIOLOGY*

**NAG 5 5135** UNIV OF VERMONT 9005  
 EFFECTS OF A SOUNDING ROCKET FLIGHT ON DROSOPHIA- TEST BED  
 FOR MOTILITY & METABOLISM EXPERIMENTS  
 04/14/1997 - 10/13/2000 FY01: \$0 Total: \$34,947  
*Prin. Invest.: T KELLER*  
*Tech. Officer: GSFC/W JOHNSON*  
*CASE Category: 13 – PHYSICS*

**NAG 5 7247** UNIV OF VERMONT 9006  
 CORE FORMATION UNDER DYNAMIC CONDITIONS: AN EXPERIMENTAL  
 STUDY  
 04/28/1998 - 12/31/2000 FY01: \$0 Total: \$60,000  
*Prin. Invest.: T RUSHMER*  
*Tech. Officer: HQ/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9532** UNIV OF VERMONT 9007  
 CORE FORMATION UNDER DYNAMIC CONDITIONS: SILICATE- METAL  
 DISTRIBUTION WITH DIFFERENTIAL STRESS  
 04/27/2000 - 04/30/2001 FY01: \$0 Total: \$20,000  
*Prin. Invest.: T RUSHMER*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10463** UNIV OF VERMONT 9008  
 CORE FORMATION UNDER DYNAMIC CONDITIONS: AN EXPERIMENTAL  
 DEFORMATION INVESTIGATION  
 02/27/2001 - 02/28/2002 FY01: \$40,000 Total: \$40,000  
*Prin. Invest.: T RUCHMER*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 12 – CHEMISTRY*

**NAG 8 1281** UNIV OF VERMONT 9009  
 JOVE RESEARCH  
 01/21/1997 - 08/31/2000 FY01: -\$2,876 Total: \$52,124  
*Prin. Invest.: G MIRCHANDANI*  
*Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 2 5342** UNIV OF VERMONT 9010  
 LAND COVER MAPPING IN NORTHERN EXOSYSTEMS USING AD EOS/  
 POLDER  
 08/17/1999 - 04/30/2000 FY01: \$0 Total: \$35,000  
*Prin. Invest.: G P LIVINGSTON, L A MORRISSEY*  
*Tech. Officer: ARC/V C VANDERBILT*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NCC 2 5399** UNIV OF VERMONT 9011  
 LAND COVER MAPPING IN NORTHERN ECOSYSTEMS USING AD EOS/  
 POLDER  
 09/18/2000 - 07/31/2001 FY01: \$0 Total: \$30,000  
*Prin. Invest.: G P LIVINGSTON*  
*Tech. Officer: ARC/V C VANDERBILT, ARC/E P CONDON*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NCC 5 394**           **UNIV OF VERMONT**           **9012**  
 NASA EPSCOR: PREPARATORY GRANT PROPOSAL  
 05/13/1999 – 11/01/2001      FY01: \$0  
*Prin. Invest.:* W LAKIN  
*Tech. Officer:* GSFC/D DETROYE  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NCC 5 581**           **UNIV OF VERMONT**           **9013**  
 VERMONT NASA EPSCOR PROGRAM  
 08/15/2001 – 07/31/2004      FY01: \$125,000  
*Prin. Invest.:* W D LAKIN  
*Tech. Officer:* GSFC/D DETROYE  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NGT 5 40045**           **UNIV OF VERMONT**           **9014**  
 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM  
 01/24/1997 – 02/28/2001      FY01: \$0            Total: \$973,750  
*Prin. Invest.:* W D LAKIN  
*Tech. Officer:* HQ/J DASCH  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NGT 5 40110**           **UNIV OF VERMONT**           **9015**  
 VERMOUNT SPACE GRANT COLLEGE & FELLOWSHIP PROGRAM  
 03/02/2001 – 02/28/2002      FY01: \$256,250    Total: \$256,250  
*Prin. Invest.:* W LAKIN  
*Tech. Officer:* GSFC/D DETROYE  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

## VIRGINIA

**NAG 1 2219**           **CHRISTOPHER NEWPORT UNIV**           **9016**  
 TECHNOLOGY DEVELOPMENT IMPLEMENTATION, AND ASSESS- MENT:  
 K-16 PRE-SERVICE, IN-SERVICE, AND DISTANCE  
 08/20/1999 – 07/31/2002      FY01: \$537,835        Total: \$1,112,468  
*Prin. Invest.:* R CATON  
*Tech. Officer:* LARC/T E PINELLI, LARC/R A HATHAWAY  
*CASE Category:* 41 – AERONAUTICAL ENGRN

**NAG 1 2284**           **CHRISTOPHER NEWPORT UNIV**           **9017**  
 AN EXPERIMENT IN EDUCATIONAL TECHNOLOGY-EVALUATING A CYBER-  
 BASED MODEL FOR LEARNING  
 03/28/2000 – 12/15/2001      FY01: \$0            Total: \$88,000  
*Prin. Invest.:* L LAMBERT  
*Tech. Officer:* LARC/D BUSHNELL  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NAG 1 01070**           **CHRISTOPHER NEWPORT UNIV**           **9018**  
 LOW TEMP SUPERCONDUCTING QUANTUM INTERFERENCE (SQUID)  
 NONDESTRUCTIVE EVALUATION (NDE) APPLIC'S  
 06/01/2001 – 05/31/2002      FY01: \$30,070        Total: \$30,070  
*Prin. Invest.:* R SELIM  
*Tech. Officer:* LARC/M NAMKUNG  
*CASE Category:* 47 – METAL & MATERIALS ENGR

**NAG 5 6503**           **CHRISTOPHER NEWPORT UNIV**           **9019**  
 VALIDATION OF MSMT. OF POLLUTION IN THE TROPOSPHERE (MOPITT)  
 EXPERIMENT BY GROUND-BASED INFRARED SO  
 10/29/1997 – 03/31/2002      FY01: \$95,705        Total: \$496,543  
*Prin. Invest.:* N POUGATCHEV  
*Tech. Officer:* GSFC/D STARR  
*CASE Category:* 11 – ASTRONOMY

**NCC 1 277**           **CHRISTOPHER NEWPORT UNIV**           **9020**  
 DEV OF A 3-DIMENSIONAL HEAVY ION, CHARGED PARTICLE BOLTZMANN  
 TRANSPORT SOLVER  
 02/13/1998 – 01/31/2001      FY01: -\$14,121        Total: \$244,484  
*Prin. Invest.:* C K CHANG  
*Tech. Officer:* LARC/R C SINGLETERRY, JR., LARC/J W WILSON  
*CASE Category:* 13 – PHYSICS

**NCC 1 318**           **CHRISTOPHER NEWPORT UNIV**           **9021**  
 AIRCRAFT AND GROUND-BASED SPECTROSCOPIC MEASURE- MENTS OF  
 TROPOSPHERIC CO, CO2,CH4,N2O, AND H2O  
 09/18/1998 – 04/30/2001      FY01: -\$9,354        Total: \$200,365  
*Prin. Invest.:* N POUGATCHEV, M BUONCRISTIANI  
*Tech. Officer:* LARC/G W SOCHSE, LARC/D E HINTON  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NCC 1 01028**           **CHRISTOPHER NEWPORT UNIV**           **9022**  
 THEORETICAL AND COMPUTATIONAL DEVELOPMENT OF A GALACTIC  
 COSMIC RAY (GCR) BOUNDARY CONDITION MODEL  
 03/08/2001 – 01/31/2004      FY01: \$92,586        Total: \$92,586  
*Prin. Invest.:* K CHANG  
*Tech. Officer:* LARC/R C SINGLETERRY  
*CASE Category:* 41 – AERONAUTICAL ENGRN

**NCC 5 435**           **CHRISTOPHER NEWPORT UNIV**           **9023**  
 THE NASA WHY FILES, PROBLEM-BASED LEARNING INTEGRA TING  
 BROADCAST VIDEO AND THE INTERNET.  
 09/24/1999 – 09/30/2002      FY01: \$96,459        Total: \$244,396  
*Prin. Invest.:* N B FREEMAN  
*Tech. Officer:* GSFC/D GABRYS  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NAG 1 2077**           **COLLEGE OF WILLIAM AND MARY**           **9024**  
 BELL-CURVE BASED EVOLUTIONARY STRATEGIES FOR STRUCTURAL  
 OPTIMIZATION  
 06/08/1998 – 07/31/2000      FY01: -\$4            Total: \$86,446  
*Prin. Invest.:* R K KINCAID  
*Tech. Officer:* LARC/J SOBIESKI  
*CASE Category:* 41 – AERONAUTICAL ENGRN

**NAG 1 2168**           **COLLEGE OF WILLIAM AND MARY**           **9025**  
 AN ADVANCED HIERARCHICAL HYBRID ENVIRONMENT FOR RELIABILITY  
 AND PERFORMANCE MODELING  
 03/24/1999 – 02/28/2002      FY01: \$112,025        Total: \$302,429  
*Prin. Invest.:* G CIARDO  
*Tech. Officer:* LARC/P W GOODE  
*CASE Category:* 22 – COMPUTER SCIENCE

**NAG 1 2271**           **COLLEGE OF WILLIAM AND MARY**           **9026**  
 A UNIFORM ONTOLOGY FOR SOFTWARE INTERFACES  
 03/21/2000 – 02/28/2002      FY01: \$0            Total: \$44,752  
*Prin. Invest.:* S FEYOCK  
*Tech. Officer:* LARC/P C SCHUTTE/A C TRUJILLO  
*CASE Category:* 29 – MATH/COMPUTER SCI, OTHER

**NAG 1 2314**           **COLLEGE OF WILLIAM AND MARY**           **9027**  
 PREPARATION AND CHARACTERIZATION OF POLYIMIDE NANOCOMPO-  
 SITES  
 06/26/2000 – 06/14/2002      FY01: \$0            Total: \$17,495  
*Prin. Invest.:* R A ORWOLL  
*Tech. Officer:* LARC/J W CONNELL, LARC/J G SMITH  
*CASE Category:* 12 – CHEMISTRY

**NAG 1 2320** COLLEGE OF WILLIAM AND MARY 9028  
 BELL-CURVE BASED EVOLUTIONARY STRATEGIES FOR STRUCTURAL OPTIMIZATION  
 07/07/2000 - 07/31/2001 FY01: \$26,000 Total: \$42,245  
*Prin. Invest.: R K KINCAID*  
*Tech. Officer: LARC/J SOBIESKI*  
*CASE Category: 41 - AERONAUTICAL ENGR*

**NAG 1 01107** COLLEGE OF WILLIAM AND MARY 9029  
 PREPARATION AND CHARACTERIZATION OF POLYIMIDE NANOCOMPOSITES  
 07/09/2001 - 06/14/2002 FY01: \$2,920 Total: \$2,920  
*Prin. Invest.: R A ORWOLL*  
*Tech. Officer: LARC/J W CONNELL*  
*CASE Category: 12 - CHEMISTRY*

**NAS 1 00146** COLLEGE OF WILLIAM AND MARY 9030  
 SPECTROSCOPIC RESEARCH AND ANALYSES OF SAGE III DATA PRODUCTS  
 01/19/2001 - 01/18/2006 FY01: \$101,000 Total: \$101,000  
*Prin. Invest.: D BRENNER*  
*Tech. Officer: LARC/W CHU*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAS 1 98039** COLLEGE OF WILLIAM AND MARY 9031  
 SAGE SCIENCE INVESTIGATION  
 06/30/1998 - 08/31/2000 FY01: \$0 Total: \$207,437  
*Prin. Invest.: D C BENNER*  
*Tech. Officer: LARC/W P CHU*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NCC 1 239** COLLEGE OF WILLIAM AND MARY 9032  
 THE DEVELOPMENT OF MATERIALS FOR STRUCTURES AND RADIATION SHIELDING IN SPACE  
 07/17/1996 - 12/31/2000 FY01: -\$1,620 Total: \$169,738  
*Prin. Invest.: R L KIEFER, R A ORWOLL*  
*Tech. Officer: LARC/S A THIBEAULT*  
*CASE Category: 12 - CHEMISTRY*

**NCC 1 327** COLLEGE OF WILLIAM AND MARY 9033  
 PREDICTION FOR RADIATION SHIELDING MATERIALS  
 01/27/1999 - 12/18/2001 FY01: \$99,660 Total: \$294,189  
*Prin. Invest.: R L KIEFER*  
*Tech. Officer: LARC/S A THIBEAULT*  
*CASE Category: 19 - PHYSICAL SCIENCE, OTHER*

**NCC 1 356** COLLEGE OF WILLIAM AND MARY 9034  
 CYBER SIMULATION FOR COMPOSITE MAT'L'S & STRUCTURES IN AERONAUTICS AND AEROSPACE  
 09/28/1999 - 09/30/2002 FY01: \$150,000 Total: \$324,060  
*Prin. Invest.: D M MANOS, R B PIPES*  
*Tech. Officer: LARC/J H STARNES, JR.*  
*CASE Category: 41 - AERONAUTICAL ENGR*

**NCC 1 390** COLLEGE OF WILLIAM AND MARY 9035  
 HIGH RESOLUTION SPECTROSCOPY TO SUPPORT ATMOS- PHERIC MEASUREMENTS  
 03/29/2000 - 03/31/2003 FY01: \$139,600 Total: \$292,100  
*Prin. Invest.: D C BENNER, M D VENKATARAMAN*  
*Tech. Officer: LARC/M H SMITH/C P RINSLAND*  
*CASE Category: 13 - PHYSICS*

**NCC 1 01030** COLLEGE OF WILLIAM AND MARY 9036  
 DEV & APPLIC NON-LINEAR IMAGE ENHANCEMENT & MULTI- SENSOR FUSION TECHNIQ'S HAZY/DARK IMAG'G CONDITIO  
 03/06/2001 - 02/08/2004 FY01: \$100,000 Total: \$100,000  
*Prin. Invest.: Z RAHMAD*  
*Tech. Officer: LARC/D J JOBSON, LARC/S D HARRAH*  
*CASE Category: 41 - AERONAUTICAL ENGR*

**NCC 1 01056** COLLEGE OF WILLIAM AND MARY 9037  
 LARGE SCALE PRODUCTION OF CARBON NANOTUBES USING THE JEFFERSON LAB FREE ELECTRON LASER  
 07/25/2001 - 07/24/2002 FY01: \$60,000 Total: \$60,000  
*Prin. Invest.: B C HOLLOWAY*  
*Tech. Officer: LARC/M W SMITH*  
*CASE Category: 47 - METAL & MATERIALS ENGR*

**NGT 1 01008** COLLEGE OF WILLIAM AND MARY 9038  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) MY 1/3  
 06/04/2001 - 06/30/2004 FY01: \$12,000 Total: \$12,000  
*Prin. Invest.: N M ALEXANDROV, V TORCZON*  
*Tech. Officer: LARC/R A HATHAWAY*  
*CASE Category: 22 - COMPUTER SCIENCE*

**NGT 1 01010** COLLEGE OF WILLIAM AND MARY 9039  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) MY 1/3  
 06/04/2001 - 06/30/2004 FY01: \$12,000 Total: \$12,000  
*Prin. Invest.: M HINDERS*  
*Tech. Officer: LARC/R A HATHAWAY*  
*CASE Category: 41 - AERONAUTICAL ENGR*

**NGT 1 52180** COLLEGE OF WILLIAM AND MARY 9040  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 01/12/1998 - 12/31/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.: J S BOGHOSIAN*  
*Tech. Officer: LARC/P H JOHNSTON*  
*CASE Category: 13 - PHYSICS*

**NGT 1 52195** COLLEGE OF WILLIAM AND MARY 9041  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) YEAR ONE  
 06/26/1998 - 06/30/2000 FY01: \$0 Total: \$44,000  
*Prin. Invest.: A S MINER, G CIARDO*  
*Tech. Officer: LARC/P W GOODE*  
*CASE Category: 22 - COMPUTER SCIENCE*

**NGT 1 52200** COLLEGE OF WILLIAM AND MARY 9042  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 07/21/1998 - 08/31/2002 FY01: \$24,000 Total: \$78,000  
*Prin. Invest.: R A ORWOLL*  
*Tech. Officer: LARC/J W CONNELL, LARC/J A HINKLEY*  
*CASE Category: 47 - METAL & MATERIALS ENGR*

**NGT 1 52204** COLLEGE OF WILLIAM AND MARY 9043  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 09/04/1998 - 08/31/2002 FY01: \$14,500 Total: \$82,000  
*Prin. Invest.: M HINDERS*  
*Tech. Officer: LARC/T E PINELLI*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NCC 1 310 ESTRN VA MED SCHL-ESTRN VA MED AUTHORITY 9044**  
 STRESS COUNTER-RESPONSE TRAINING VIA PHYSIOLOGICAL SELF REGULATIONS DURING FLIGHT SIMULATION  
 07/29/1998 - 06/30/2000 FY01: \$0 Total: \$60,762  
*Prin. Invest.: O S PALSSON*  
*Tech. Officer: LARC/A T POPE, LARC/P C SCHUTTE*  
*CASE Category: 69 – PSYCHOLOGY, OTHER*

**NAG 1 2258 GEORGE MASON UNIV 9045**  
 INVENTIVE DESIGN: AN EVOLUTIONARY COMPUTATION APPROACH  
 01/05/2000 - 08/31/2001 FY01: \$18,999 Total: \$133,999  
*Prin. Invest.: T ARCISZEWSKI, D A SCHUM, K DEJONG*  
*Tech. Officer: LARC/J J REHDER*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 1 2316 GEORGE MASON UNIV 9046**  
 MIDDLE ATMOSPHERIC HYDROGEN PHOTOCHEMISTRY  
 06/23/2000 - 06/22/2001 FY01: \$1 Total: \$32,001  
*Prin. Invest.: M SUMMERS*  
*Tech. Officer: LARC/G MADDREA*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 1 01030 GEORGE MASON UNIV 9047**  
 INVENTIVE DESIGN: AN EVOLUTIONARY COMPUTATION APPROACH  
 03/09/2001 - 09/30/2004 FY01: \$179,069 Total: \$179,069  
*Prin. Invest.: T ARCISZEWSKI, K D JONG*  
*Tech. Officer: LARC/J J RENDER*  
*CASE Category: 29 – MATH/COMPUTER SCI, OTHER*

**NAG 2 1289 GEORGE MASON UNIV 9048**  
 ABATEMENT OF AUTOMATION ERRORS BY TRAINING BASED ON COGNITIVE MODELS  
 02/01/1999 - 12/31/2001 FY01: \$108,167 Total: \$279,804  
*Prin. Invest.: D B DAVIS, P A IKOMI, R WHOLT*  
*Tech. Officer: ARC/S M CASNER*  
*CASE Category: 69 – PSYCHOLOGY, OTHER*

**NAG 5 4140 GEORGE MASON UNIV 9049**  
 MULTISENSOR MAPPING OF AFRICAN SETTLEMENTS AND REF  
 04/12/1997 - 06/30/2001 FY01: \$0 Total: \$125,771  
*Prin. Invest.: B HAACK*  
*Tech. Officer: GSFC/R H THOMAS*  
*CASE Category: 79 – SOCIAL SCIENCE, OTHER*

**NAG 5 7065 GEORGE MASON UNIV 9050**  
 INTERPLANETARY DUST DISTRIBUTION AND THE DIRBE D ATA  
 03/11/1998 - 03/14/2000 FY01: \$0 Total: \$123,700  
*Prin. Invest.: L OZNEROV*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8834 GEORGE MASON UNIV 9051**  
 THE REDSHIFT DEPENDENCE OF THE INTERACTION- ACTIVITY CONNECTION AMONG ULTRALUMINOUS STARBURST  
 11/18/1999 - 09/30/2001 FY01: \$29,734 Total: \$58,845  
*Prin. Invest.: J WALLIN*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9035 GEORGE MASON UNIV 9052**  
 ANALYSES OF OCEANIC MONTHLY RAIN RATE PARAMETERS DERIVED FROM TMI  
 02/09/2000 - 02/14/2001 FY01: \$0 Total: \$50,232  
*Prin. Invest.: L S CHIU*  
*Tech. Officer: GSFC/A T CHANG*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9636 GEORGE MASON UNIV 9053**  
 CONTINUOUS PRECIPITATION ESTIMATES FROM TRMM & MESOSCALE MODELS  
 05/25/2000 - 07/14/2001 FY01: \$67,901 Total: \$82,901  
*Prin. Invest.: L CHIU*  
*Tech. Officer: GSFC/J A WEINMAN*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9669 GEORGE MASON UNIV 9054**  
 HYDROGEN CHEMISTRY IN THE POLAR MESOSPHERE  
 06/22/2000 - 06/30/2002 FY01: \$100,900 Total: \$193,100  
*Prin. Invest.: M E SUMMERS*  
*Tech. Officer: GSFC/M MELLOTT*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9781 GEORGE MASON UNIV 9055**  
 PROBLEM SOLVING ON LOOSELY COUPLED SYSTEM  
 07/07/2000 - 01/31/2002 FY01: \$30,283 Total: \$62,283  
*Prin. Invest.: P Y WANG*  
*Tech. Officer: GSFC/J DORBAND*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 5 10038 GEORGE MASON UNIV 9056**  
 LOW-LUMINOSITY NUCLEAR ACCRETION IN NGC 4261 & NGC 6251  
 09/27/2000 - 09/30/2002 FY01: \$16,000 Total: \$38,518  
*Prin. Invest.: R M SAMBRUNA*  
*Tech. Officer: GSFC/R MUSHOTZKY*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10073 GEORGE MASON UNIV 9057**  
 HIGH-ENERGY ABSORPTION IN BLAZARS: PROBING THE INNER JET ENVIRONMENT(ADP 98)  
 10/30/2000 - 06/30/2002 FY01: \$70,923 Total: \$70,923  
*Prin. Invest.: R M SAMBRUNA*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10177 GEORGE MASON UNIV 9058**  
 A PROTOTYPE CLUSTERING TECHNIQUE FOR DATA MINING & KNOWLEDGE DISCOVERY BASED ON A DATA PYRAMID MODE  
 01/04/2001 - 01/14/2002 FY01: \$132,000 Total: \$132,000  
*Prin. Invest.: D KAFATOS*  
*Prin. Invest.: NONE*  
*Tech. Officer: GSFC/K L MOE*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 5 10243 GEORGE MASON UNIV 9059**  
 CONSTRAINING THE STRUCTURE OF THE CENTRAL ENGINE OF RADIOLOUD AGN ADP99  
 01/17/2001 - 09/14/2002 FY01: \$28,219 Total: \$28,219  
*Prin. Invest.: R M SAMBRUNA*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

<b>NAG 5 10244</b>	<b>GEORGE MASON UNIV</b>	<b>9060</b>	<b>NCC 5 245</b>	<b>GEORGE MASON UNIV</b>	<b>9068</b>
INTENSIVE RXTE MONITORING OF THE TEV BLAZAR MRK501 (ADP 99)			DEVELOPMENT OF POSEIDON OCEAN MODEL FOR NSIPP		
01/18/2001 - 01/31/2002	FY01: \$23,678	Total: \$23,678	10/08/1997 - 10/14/2000	FY01: \$0	Total: \$207,650
<i>Prin. Invest.:</i> R M SAMBRUNA			<i>Prin. Invest.:</i> P SCHOPF		
<i>Tech. Officer:</i> GSFC/R J OLIVERSEN			<i>Tech. Officer:</i> GSFC/M RIENECKER		
<i>CASE Category:</i> 11 - ASTRONOMY			<i>CASE Category:</i> 33 - OCEANOGRAPHY		
<b>NAG 5 10708</b>	<b>GEORGE MASON UNIV</b>	<b>9061</b>	<b>NCC 5 306</b>	<b>GEORGE MASON UNIV</b>	<b>9069</b>
STRUCTURE OF THE ACCRETION FLOW IN RADIO-LOUD AGN			SEASONAL & INTERANNUAL EARTH SCIENCE INFORMATION PARTNER (SIESIP)		
04/23/2001 - 04/30/2002	FY01: \$104,959	Total: \$104,959	04/09/1998 - 11/30/2001	FY01: \$115,000	Total: \$2,350,000
<i>Prin. Invest.:</i> R M SAMBRUNA			<i>Prin. Invest.:</i> M KAFATOS		
<i>Tech. Officer:</i> GSFC/R J OLIVERSEN			<i>Tech. Officer:</i> GSFC/M MAIDEN		
<i>CASE Category:</i> 11 - ASTRONOMY			<i>CASE Category:</i> 99 - MULTI INTERDISCPL, OTHER		
<b>NAG 5 10776</b>	<b>GEORGE MASON UNIV</b>	<b>9062</b>	<b>NCC 5 360</b>	<b>GEORGE MASON UNIV</b>	<b>9070</b>
COBE/DIRBE DATA AND THE ZODIACAL CLOUD (ADP 2000)			CONTINUING CAREER PROGRAM (CCP)		
04/26/2001 - 04/30/2002	FY01: \$121,000	Total: \$121,000	08/26/1998 - 08/31/2003	FY01: \$951,813	Total: \$1,732,716
<i>Prin. Invest.:</i> L OZNEROY			<i>Prin. Invest.:</i> R R STOUGH		
<i>Tech. Officer:</i> GSFC/R J OLIVERSEN			<i>Tech. Officer:</i> GSFC/A J MATURO		
<i>CASE Category:</i> 11 - ASTRONOMY			<i>CASE Category:</i> 99 - MULTI INTERDISCPL, OTHER		
<b>NAG 5 10879</b>	<b>GEORGE MASON UNIV</b>	<b>9063</b>	<b>NCC 5 522</b>	<b>GEORGE MASON UNIV</b>	<b>9071</b>
ANALYSES OF RAIN RATE PARAMETERS DERIVED FROM TMI: CONDITIONAL RAIN RATE AND RAIN FRACTIONS			DEVELOPMENT OF POSEIDON OCEAN MODEL FOR NSIPP		
05/10/2001 - 05/14/2002	FY01: \$25,162	Total: \$25,162	12/18/2000 - 12/31/2001	FY01: \$150,207	Total: \$150,207
<i>Prin. Invest.:</i> L CHIU			<i>Prin. Invest.:</i> P S SCHOPF		
<i>Tech. Officer:</i> GSFC/A T CHANG			<i>Tech. Officer:</i> GSFC/M RIENECKER		
<i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER			<i>CASE Category:</i> 33 - OCEANOGRAPHY		
<b>NAG 5 11346</b>	<b>GEORGE MASON UNIV</b>	<b>9064</b>	<b>NCC 5 555</b>	<b>GEORGE MASON UNIV</b>	<b>9072</b>
SATELLITE MICROWAVE ESTIMATES OF OCEANIC RAINFALL AND SNOW OVER LAND			JOINT INTERDISCIPLINARY EARTH SCIENCE		
09/13/2001 - 09/14/2002	FY01: \$110,158	Total: \$110,158	05/04/2001 - 06/14/2002	FY01: \$2,441,161	Total: \$2,441,161
<i>Prin. Invest.:</i> L CHIU			<i>Prin. Invest.:</i> M KAFATOS		
<i>Tech. Officer:</i> GSFC/A T CHANG			<i>Tech. Officer:</i> GSFC/M MCCUMBER		
<i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER			<i>CASE Category:</i> 11 - ASTRONOMY		
<b>NAG13 01009</b>	<b>GEORGE MASON UNIV</b>	<b>9065</b>	<b>NAG 1 1936</b>	<b>HAMPTON UNIV</b>	<b>9073</b>
VIRGINIA ACCESS			MIXING, NOISE, AND THRUST BENEFITS USING CORRU-GATED DESIGNS		
09/19/2001 - 09/18/2002	FY01: \$997,800	Total: \$997,800	05/27/1997 - 06/05/2000	FY01: -\$1,088	Total: \$348,912
<i>Prin. Invest.:</i> M KAFATOS			<i>Prin. Invest.:</i> M H MORGAN, M M GILINSKY		
<i>Tech. Officer:</i> SSC/W GRAHAM			<i>Tech. Officer:</i> LARC/J W POSEY, LARC/M K PONTON		
<i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER			<i>CASE Category:</i> 41 - AERONAUTICAL ENGRN		
<b>NCA 1 01004</b>	<b>GEORGE MASON UNIV</b>	<b>9066</b>	<b>NAG 1 1941</b>	<b>HAMPTON UNIV</b>	<b>9074</b>
VIRGINIA SATSLAB			CHARACTERIZATION OF MOLECULAR INTERACTIONS AT METAL/POLYMER COMPOSITE SURFACES AND INTERPHASES		
08/31/2001 - 04/30/2002	FY01: \$500,000	Total: \$500,000	05/30/1997 - 12/31/2000	FY01: \$0	Total: \$300,000
<i>Prin. Invest.:</i> G DONOHUE			<i>Prin. Invest.:</i> J C WILLIAMS		
<i>Tech. Officer:</i> LARC/J R BURLEY			<i>Tech. Officer:</i> LARC/T L ST. CLAIR, LARC/S H LOWTHER		
<i>CASE Category:</i> 41 - AERONAUTICAL ENGRN			<i>CASE Category:</i> 12 - CHEMISTRY		
<b>NCC 5 143</b>	<b>GEORGE MASON UNIV</b>	<b>9067</b>	<b>NAG 1 1947</b>	<b>HAMPTON UNIV</b>	<b>9075</b>
EARTH SYSTEM SCIENCE DATA SUPPORT			CONCEPTS FOR ATMOSPHERIC SCIENCE EDUCATION (CASE)		
07/15/1996 - 06/14/2001	FY01: \$1,501,220	Total: \$7,132,077	06/17/1997 - 06/30/2000	FY01: -\$355	Total: \$361,595
<i>Prin. Invest.:</i> M KAFATOS			<i>Prin. Invest.:</i> M P MCCORMICK, J M RUSSELL, III		
<i>Tech. Officer:</i> GSFC/S KEMPLER			<i>Tech. Officer:</i> LARC/L R POOLE		
<i>CASE Category:</i> 11 - ASTRONOMY			<i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE		

**NAG 1 1963**           **HAMPTON UNIV**           **9076**  
 INVESTIGATIONS OF TROPICAL ATMOSPHERIC RADIATIVE ENERGY  
 BALANCE USING CERS AND TRMM DATA  
 09/03/1997 - 02/28/2001    FY01: -\$11,437       Total: \$1,018,385  
*Prin. Invest.: B LIN*  
*Tech. Officer: LARC/B A WIENCKI*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 1 2135**           **HAMPTON UNIV**           **9077**  
 STUDY OF CONTRAILS AND ATMOSPHERIC RADIATION MEAS (ARM) DATA  
 PROJECT DEVELOPMENT  
 01/19/1999 - 01/18/2002    FY01: \$115,057       Total: \$285,939  
*Prin. Invest.: M P MCCORMICK, J M RUSSELL, 111*  
*Tech. Officer: LARC/P MINNIS*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 1 2170**           **HAMPTON UNIV**           **9078**  
 DEVELOPMENT AND COMPARISON OF GLOBAL AEROSOL, WATER VAPOR,  
 AND OZONE CLIMATOLOGIES USING SAGE II  
 03/25/1999 - 02/28/2002    FY01: \$63,000       Total: \$213,000  
*Prin. Invest.: M P MCCORMICK*  
*Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 1 2206**           **HAMPTON UNIV**           **9079**  
 TOP-OF-ATMOSPHERE CLEAR-SKY BROADBAND RADIATIVE FLUX AND  
 DIRECT AEROSOL RADIATIVE FORCING FROM  
 06/21/1999 - 06/30/2002    FY01: \$57,548       Total: \$164,555  
*Prin. Invest.: N G LOEB, B LIN, J HU*  
*Tech. Officer: LARC/V E DELNORE, LARC/J L RAVER*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 1 2207**           **HAMPTON UNIV**           **9080**  
 OPENING NATIVE AMERICAN CAREER PATHS IN\_MATHEMATIC SCIENCE,  
 AND TECHNOLOGY  
 07/01/1999 - 06/30/2000    FY01: -\$7,138       Total: \$67,862  
*Prin. Invest.: C LOWE*  
*Tech. Officer: LARC/R HATHAWAY*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 1 2223**           **HAMPTON UNIV**           **9081**  
 EVALUATION OF THE EFFECT OF WATER VAPOR ON THE PERFORMANCE  
 OF NASA'S NMRO CATALYSIT FOR CARBON  
 08/31/1999 - 03/31/2002    FY01: \$74,869       Total: \$199,869  
*Prin. Invest.: A AKYURTLU*  
*Tech. Officer: LARC/D R SCHRYER*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 1 2224**           **HAMPTON UNIV**           **9082**  
 STUDENT FIELD TESTING OF THE HAMPTON UNIV COMPACT OZONE LIDAR  
 SYSTEM CERTIFICATION OF  
 08/24/1999 - 12/31/2001    FY01: \$75,000       Total: \$200,000  
*Prin. Invest.: T H CHYBA*  
*Tech. Officer: LARC/J FISHMAN*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 1 2256**           **HAMPTON UNIV**           **9083**  
 HAMPTON UNIV-COLLEGE OF CONTINUING EDUCATION AEROSCIENCE  
 CENTER  
 12/22/1999 - 11/30/2000    FY01: -\$4,460       Total: \$145,540  
*Prin. Invest.: C REEVES*  
*Tech. Officer: LARC/S MOSSENBERG*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 1 2318**           **HAMPTON UNIV**           **9084**  
 THEORET & OBSERVAT'L DETERM OF GLOBAL & REGIONAL RADIATION  
 BUDG,FORC'G & FEEDBACK TOP-OF-ATMOSPHERE  
 07/18/2000 - 10/31/2003    FY01: \$463,052       Total: \$524,152  
*Prin. Invest.: N G LOEB*  
*Tech. Officer: LARC/G G GIBSON*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 1 2331**           **HAMPTON UNIV**           **9085**  
 THE AMERICAN INDIAN EDUCATIONAL OPPORTUNITIES 2000 PROGRAM  
 09/29/2000 - 07/31/2002    FY01: \$0               Total: \$75,000  
*Prin. Invest.: R SCHWAN*  
*Tech. Officer: LARC/R A HATHAWAY*  
*CASE Category: 79 – SOCIAL SCIENCE, OTHER*

**NAG 1 01075**           **HAMPTON UNIV**           **9086**  
 STATISTICAL METHODS FOR RAPID AEROTHERMAL ANALYSIS AND DESIGN  
 TECHNOLOGY  
 04/27/2001 - 01/09/2002    FY01: \$80,000       Total: \$80,000  
*Prin. Invest.: D J DEPRIEST, C B MORGAN*  
*Tech. Officer: LARC/R A THOMPSON*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 1 01089**           **HAMPTON UNIV**           **9087**  
 THE AMERICAN INDIAN EDUCATIONAL OPPORTUNITIES 2001 PROGRAM  
 06/13/2001 - 06/10/2002    FY01: \$100,000       Total: \$100,000  
*Prin. Invest.: R SCHWAN*  
*Tech. Officer: LARC/R A HATHAWAY*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 1 01096**           **HAMPTON UNIV**           **9088**  
 TOP-OF-ATMOSPHERE ALBEDO ESTIMATION FROM POLDER MULTI-  
 ANGLE MEASUREMENTS: EVALUATION OF WATER AND  
 06/20/2001 - 05/31/2004    FY01: \$52,279       Total: \$52,279  
*Prin. Invest.: N G LOEB, Y HU*  
*Tech. Officer: LARC/V E DELNORE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 2 1331**           **HAMPTON UNIV**           **9089**  
 APPLIED CFD RESEARCH & TRAINING  
 06/21/1999 - 06/14/2002    FY01: \$100,000       Total: \$300,000  
*Prin. Invest.: H HU*  
*Tech. Officer: ARC/R C STRAWN*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 3 2189**           **HAMPTON UNIV**           **9090**  
 OPTICAL ELECTRONIC BRAGG REFLECTION SENSOR SYSTEM WITH  
 HYDRODYNAMIC FLOW APPLICATIONS  
 08/07/1998 - 05/30/2002    FY01: \$95,000       Total: \$439,999  
*Prin. Invest.: D R LYONS*  
*Tech. Officer: GRC/D GRIFFIN*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 3 2249**           **HAMPTON UNIV**           **9091**  
 ADVANCED METHODS FOR AIRCRAFT ENGINE THRUST AND NOISE BENEFITS. NOZZLE-INLET FLOW ANALYSIS  
 04/01/1999 - 01/26/2002    FY01: \$100,000       Total: \$300,000  
*Prin. Invest.:* M H MORGAN  
*Tech. Officer:* GRC/I BLANKSON  
*CASE Category:* 49 – ENGINEERING, OTHER

**NAG 3 2422**           **HAMPTON UNIV**           **9092**  
 NUMERICAL SIMULATION OF ONE-AND TWO-PHASE FLOWS IN PROPULSION SYSTEMS  
 05/31/2000 - 12/31/2002    FY01: \$100,000       Total: \$200,000  
*Prin. Invest.:* M GILLINSKY  
*Tech. Officer:* GRC/I M BLANKSON  
*CASE Category:* 41 – AERONAUTICAL ENGRN

**NAG 3 2495**           **HAMPTON UNIV**           **9093**  
 CORRUGATED AND COMPOSED NOZZLES APPLICATION FOR THRUST AND JET NOISE BENEFITS VIA UUET PROGRAM  
 10/27/2000 - 09/30/2003    FY01: \$125,000       Total: \$125,000  
*Prin. Invest.:* D GILLINSKY  
*Tech. Officer:* GRC/D W LAM  
*CASE Category:* 41 – AERONAUTICAL ENGRN

**NAG 3 2618**           **HAMPTON UNIV**           **9094**  
 ANALYSIS OF ANTIOXIDANT AND PHOSPHOINOSITOL SIGNAL TRANSDUCTION PATHWAY(S) IN PLANTS AFTER EXPOSURE  
 05/31/2001 - 04/30/2005    FY01: \$55,000       Total: \$55,000  
*Prin. Invest.:* C M OKPODU  
*Tech. Officer:* GRC/D W GRIFFIN  
*CASE Category:* 49 – ENGINEERING, OTHER

**NAG 5 5299**           **HAMPTON UNIV**           **9095**  
 DYNAMICAL INTERPRETATION OF AEROSOL INFLUENCES ON DOBSON SPECTROPHOTOMETER  
 07/18/2000 - 08/31/2001    FY01: \$11,640       Total: \$49,078  
*Prin. Invest.:* D P MCCORMICK  
*Tech. Officer:* GSFC/F SCHMIDLIN  
*CASE Category:* 12 – CHEMISTRY

**NAG 5 6296**           **HAMPTON UNIV**           **9096**  
 HAMPTON UNIV – OPTICAL RADIATION IN ATMOSPHERE  
 09/19/1997 - 02/28/2001    FY01: \$0           Total: \$224,973  
*Prin. Invest.:* D A TEMPLE  
*Tech. Officer:* GSFC/N KHAZENIE  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NAG 5 7001**           **HAMPTON UNIV**           **9097**  
 STUDIES OF THE CLIMATOLOGY, LONG-TERM TRENDS, AND QUASI-BIENNIAL OSCILLATION OF CHEMICAL TRACERS IN  
 04/07/1998 - 03/31/2001    FY01: \$0           Total: \$151,599  
*Prin. Invest.:* D M RUSSELL,111  
*Tech. Officer:* GSFC/C JACKMAN  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NAG 5 8648**           **HAMPTON UNIV**           **9098**  
 "PROPOSAL FOR MEMBERSHIP TO THE AEROSOL RADIATIVE FORCING SCIENCE TEAM"  
 08/16/1999 - 01/31/2002    FY01: \$14,910       Total: \$44,730  
*Prin. Invest.:* M MCCORMICK  
*Tech. Officer:* GSFC/M I MISHCHENKO  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NAG 5 9156**           **HAMPTON UNIV**           **9099**  
 PROGRAM FOR IMPROVING SUCCESS IN SCIENCE, ENGINEERING, AND MATHEMATICS (PRISEM)  
 03/03/2000 - 02/28/2003    FY01: \$85,487       Total: \$183,864  
*Prin. Invest.:* C RANKINS  
*Tech. Officer:* GSFC/M STOUTSENBERGER  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NAG 5 9171**           **HAMPTON UNIV**           **9100**  
 STUDIES OF POLAR MESOPHERIC CLOUDS FROM OBSERVATIONS BY THE STUDENT NITRIC OXIDE EXPLORER  
 03/08/2000 - 02/28/2002    FY01: \$77,307       Total: \$149,307  
*Prin. Invest.:* S M BAILEY  
*Tech. Officer:* GSFC/M MELLOTT  
*CASE Category:* 32 – GEOLOGICAL SCIENCE

**NAG 5 10015**           **HAMPTON UNIV**           **9101**  
 HAMPTON UNIV COLLEGE OF CONTINUING EDUCATION AEROSCIENCE CENTER  
 09/21/2000 - 09/30/2001    FY01: \$250,000       Total: \$300,000  
*Prin. Invest.:* C L REAVES  
*Tech. Officer:* GSFC/C S PERSON  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NAG 5 10063**           **HAMPTON UNIV**           **9102**  
 ANALYSIS OF STUDENT NITRIC OXIDE EXPLORER SOLAR X-RAY PHOTOMETER MEASUREMENTS  
 11/15/2000 - 11/30/2001    FY01: \$35,000       Total: \$35,000  
*Prin. Invest.:* S M BAILEY  
*Tech. Officer:* GSFC/C P HOLMES  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NAG 5 10163**           **HAMPTON UNIV**           **9103**  
 A SPACE SCIENCE CURRICULUM AT HAMPTON UNIV: DEVELOPMENT OF A MINOR, FACULTY ENHANCEMENT,  
 12/13/2000 - 12/31/2001    FY01: \$244,997       Total: \$244,997  
*Prin. Invest.:* S M BAILEY  
*Tech. Officer:* GSFC/P SAKIMOTO  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 10796**           **HAMPTON UNIV**           **9104**  
 CONCEPT STUDY FOR THE "AERONOMY OF ICE IN THE MESOSPHERE" (AIM) MISSION AO-99-OSS-05  
 05/01/2001 - 04/30/2002    FY01: \$347,116       Total: \$347,116  
*Prin. Invest.:* D M RUSSELL  
*Tech. Officer:* GSFC/J R BYRD  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 11065**           **HAMPTON UNIV**           **9105**  
 STD'S OF CLIMATOLOGY & LONG-TERM CHANGES OF CHEM TRACERS IN THE MIDDLE ATMOS USING UARS DATA & HALO  
 06/28/2001 - 06/30/2002    FY01: \$44,492       Total: \$44,492  
*Prin. Invest.:* J M RUSSELL  
*Tech. Officer:* GSFC/C JACKMAN  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NAG 5 11126**           **HAMPTON UNIV**           **9106**  
 AURORA 2001 )ADVANCED UNDERGRADUATE RESEARCH USING OPTICAL RADIATION IN THE ATMOSPHERE)  
 07/18/2001 - 07/14/2002    FY01: \$75,000       Total: \$75,000  
*Prin. Invest.:* J RUSSELL  
*Tech. Officer:* GSFC/B W MEESON  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

<b>NAS 1 97042</b>	<b>HAMPTON UNIV</b>	<b>9107</b>	<b>NCC 5 348</b>	<b>HAMPTON UNIV</b>	<b>9115</b>
PRINCIPAL INVESTIGATOR SERVICES TO SUPPORT SAGE II AND III, SABER, HALOE, LITE AND LIDAR PROGRAMS.			CENTER FOR LIDAR AND ATMOSPHERIC SCIENCES STUDENTS		
09/29/1997 - 09/30/2001	FY01: \$222,672	Total: \$1,119,104	06/29/1998 - 06/30/2003	FY01: \$0	Total: \$1,495,533
<i>Prin. Invest.: P MCCORMICK</i>			<i>Prin. Invest.: D A TEMPLE</i>		
<i>Tech. Officer: LARC/R L DUNCAN/</i>			<i>Tech. Officer: HQ/B WHITE</i>		
<i>CASE Category: 31 – ATMOSPHERIC SCIENCE</i>			<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>		
<b>NAS 1 99108</b>	<b>HAMPTON UNIV</b>	<b>9108</b>	<b>NGT 2 52261</b>	<b>HAMPTON UNIV</b>	<b>9116</b>
PICASSO-CENA INTERNATIONAL SCIENCE ADVISORY PANEL, SCIENCE ACTIVITIES, ALGORITHM IMPLEMENTATION& OU			DEVELOPMENT OF AN ASTROBIOLOGY EDUCATION CURRICULUM AT HAMPTON UNIV		
02/01/2000 - 01/31/2002	FY01: \$799,421	Total: \$1,749,171	12/06/1999 - 10/31/2001	FY01: \$103,000	Total: \$199,877
<i>Prin. Invest.: M P MCCORMICK, A H OMAR</i>			<i>Prin. Invest.: B FAISON</i>		
<i>Tech. Officer: LARC/G G GIBSON</i>			<i>Tech. Officer: ARC/D DESMARAIS</i>		
<i>CASE Category: 31 – ATMOSPHERIC SCIENCE</i>			<i>CASE Category: 19 – PHYSICAL SCIENCE, OTHER</i>		
<b>NCC 1 251</b>	<b>HAMPTON UNIV</b>	<b>9109</b>	<b>NGT 3 52354</b>	<b>HAMPTON UNIV</b>	<b>9117</b>
RESEARCH CENTER FOR OPTICAL PHYSICS MY 1/5			UV INDUCED DENSIFICATION AND ABLATION DURING THE FORMATION OF BRAGG GRATINGS IN GE-DOPED SI02 PREFO		
03/18/1997 - 12/31/2001	FY01: \$1,218,999	Total: \$5,218,999	06/25/1999 - 06/30/2001	FY01: \$21,850	Total: \$65,850
<i>Prin. Invest.: D A TEMPLE</i>			<i>Prin. Invest.: D R LYONS</i>		
<i>Tech. Officer: LARC/R HATHAWAY</i>			<i>Tech. Officer: GRC/F J MONTEGANI</i>		
<i>CASE Category: 13 – PHYSICS</i>			<i>CASE Category: 13 – PHYSICS</i>		
<b>NCC 1 358</b>	<b>HAMPTON UNIV</b>	<b>9110</b>	<b>NAG 1 2155</b>	<b>JAMES MADISON UNIV</b>	<b>9118</b>
NASA-ASEE SUMMER FACULTY FELLOWSHIP PROGRAM 2000			CHAOS AND TERMAL SCIENCES LABORATORY (CATS LAB) MY 1/3		
03/27/2000 - 12/31/2001	FY01: \$0	Total: \$584,055	03/05/1999 - 12/31/2001	FY01: \$0	Total: \$89,892
<i>Prin. Invest.: D DEPRIEST</i>			<i>Prin. Invest.: A A TEATE</i>		
<i>Tech. Officer: LARC/R HATHAWAY</i>			<i>Tech. Officer: LARC/R A HATHAWAY</i>		
<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>			<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>		
<b>NCC 1 366</b>	<b>HAMPTON UNIV</b>	<b>9111</b>	<b>NAG 1 2186</b>	<b>JAMES MADISON UNIV</b>	<b>9119</b>
DEVELOPMENT OF ADVANCED AIRCRAFT ANTENNA DESIGN AND ANALYSIS TECHNIQUES			INFARED DEVELOPMENT AND TESTING LABORATORY WITH DEVELOPMENT OF ATMOSPHERIC CO IMAGING INSTRUMENT		
01/11/2000 - 12/31/2002	FY01: \$1	Total: \$77,034	04/29/1999 - 02/28/2002	FY01: \$0	Total: \$141,800
<i>Prin. Invest.: A O OLADIPUPO, C J REDDY, NONE</i>			<i>Prin. Invest.: J J MILES</i>		
<i>Tech. Officer: LARC/F B BECK, LARC/M C BAILEY</i>			<i>Tech. Officer: LARC/A D LITTLE</i>		
<i>CASE Category: 45 – ELECTRICAL ENGR</i>			<i>CASE Category: 49 – ENGINEERING, OTHER</i>		
<b>NCC 1 379</b>	<b>HAMPTON UNIV</b>	<b>9112</b>	<b>NAG 1 01093</b>	<b>JAMES MADISON UNIV</b>	<b>9120</b>
2000 LANGLEY AEROSCIENCE RESEARCH SUMMER SCHOLARS PROGRAM (LARSS)			DETERMINATION OF MATL NEAR THE GLASS TRANSITION TEMPERATURE FOR AN ISOGRID BOOM		
03/02/2000 - 03/02/2001	FY01: \$22,797	Total: \$833,950	06/25/2001 - 11/30/2001	FY01: \$14,974	Total: \$14,974
<i>Prin. Invest.: C LOWE</i>			<i>Prin. Invest.: J R BLANDINO</i>		
<i>Tech. Officer: LARC/R A HATHAWAY, LARC/C T PRIOR</i>			<i>Tech. Officer: LARC/J A WOODS-VEDELER</i>		
<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>			<i>CASE Category: 41 – AERONAUTICAL ENGNR</i>		
<b>NCC 1 01034</b>	<b>HAMPTON UNIV</b>	<b>9113</b>	<b>NAG 5 10701</b>	<b>JAMES MADISON UNIV</b>	<b>9121</b>
2001 LANGLEY AEROSCIENCE RESEARCH SUMMER SCHOLARS (LARSS) PROGRAM			DEVELOPMENT OF TEST TECHNOLOGY FOR THIN-FILM MEMBRANE STRUCTURES		
03/20/2001 - 03/02/2002	FY01: \$885,074	Total: \$885,074	04/05/2001 - 04/14/2002	FY01: \$49,965	Total: \$49,965
<i>Prin. Invest.: R SCHWAN</i>			<i>Prin. Invest.: J BLANDINO</i>		
<i>Tech. Officer: LARC/R A HATHAWAY</i>			<i>Tech. Officer: GSFC/J JOHNSON</i>		
<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>			<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>		
<b>NCC 1 01059</b>	<b>HAMPTON UNIV</b>	<b>9114</b>	<b>NCC 1 394</b>	<b>MARY WASHINGTON COLLEGE</b>	<b>9122</b>
CENTER FOR LIDAR & ATMOSPHERIC SCIENCES STUDENTS (FORMERLY GSFC NCC-5-348)			A PROPOSAL FOR THE ESTABLISHMENT OF A CENTER FOR EXPERIMENTAL AERODYNAMICS (CEA)		
08/22/2001 - 06/30/2003	FY01: \$500,000	Total: \$500,000	04/24/2000 - 03/31/2005	FY01: \$240,820	Total: \$340,820
<i>Prin. Invest.: D A TEMPLE, A OMAR</i>			<i>Prin. Invest.: C P BRITCHER, R LASH, R LASH</i>		
<i>Tech. Officer: LARC/R A HATHAWAY</i>			<i>Tech. Officer: LARC/J C YU</i>		
<i>CASE Category: 31 – ATMOSPHERIC SCIENCE</i>			<i>CASE Category: 41 – AERONAUTICAL ENGNR</i>		

<b>NAG 1 1944</b>	<b>NORFOLK STATE UNIV</b>	<b>9123</b>	<b>NAG 3 2289</b>	<b>NORFOLK STATE UNIV</b>	<b>9131</b>
VISUALIZATION OF ATMOSPHERIC WATER VAPOR DATA FOR SAGE 06/09/1997 – 12/29/2000	FY01: \$0	Total: \$282,643	NOVEL HIGH EFFICIENT ORGANIC PHOTOVOLTAIC MATERIALS 08/30/1999 – 07/21/2001	FY01: \$0	Total: \$299,816
Prin. Invest.: M KUNG			Prin. Invest.: S SUN		
Tech. Officer: LARC/W P CHU			Tech. Officer: GRC/A F HEPP		
CASE Category: 31 – ATMOSPHERIC SCIENCE			CASE Category: 12 – CHEMISTRY		
<b>NAG 1 1948</b>	<b>NORFOLK STATE UNIV</b>	<b>9124</b>	<b>NAG 4 165</b>	<b>NORFOLK STATE UNIV</b>	<b>9132</b>
RURAL OUTREACH PROGRAM 06/19/1997 – 06/30/2000	FY01: -\$31,509	Total: \$328,491	VARIATIONAL METHOD IN DESIGN OPTIMIZATION 02/26/1999 – 02/26/2002	FY01: \$91,845	Total: \$293,464
Prin. Invest.: C COLEMAN			Prin. Invest.: D HULBERT		
Tech. Officer: LARC/S CANRIGHT, LARC/E PRIOR			Tech. Officer: DFRC/K GUPTA, DFRC/E COX		
CASE Category: 99 – MULTI INTERDISCPL, OTHER			CASE Category: 41 – AERONAUTICAL ENGNR		
<b>NAG 1 2125</b>	<b>NORFOLK STATE UNIV</b>	<b>9125</b>	<b>NAG 5 6298</b>	<b>NORFOLK STATE UNIV</b>	<b>9133</b>
TECHNICAL EDUCATION OUTREACH MATERIALS SCIENCE AND TECHNOLOGY BASED ON NASAS MATERIALS RESEARCH 01/12/1999 – 12/31/2001	FY01: \$44,000	Total: \$119,000	NORFOLK STATE UNIV RESEARCH EXPERIENCE IN EA 09/15/1997 – 07/31/2002	FY01: \$75,608	Total: \$223,270
Prin. Invest.: J JACOGS, S R CHAUDHURY			Prin. Invest.: W J RODRIGUEZ		
Tech. Officer: LARC/E T PRIOR, LARC/R HATHAWAY			Tech. Officer: GSFC/N KHAZENIE		
CASE Category: 47 – METAL & MATERIALS ENGR			CASE Category: 39 – ENVIRONMENTAL SCI, OTHER		
<b>NAG 1 2172</b>	<b>NORFOLK STATE UNIV</b>	<b>9126</b>	<b>NAG 5 8541</b>	<b>NORFOLK STATE UNIV</b>	<b>9134</b>
DEVELOPMENT OF SOLID-STATE LASER MATERIALS FOR APPLICATION IN LASERES FOR ATMOSPHERIC OZONE & WATER 03/30/1999 – 12/31/2001	FY01: \$0	Total: \$100,000	SUMMER WORKSHOP PROGRAM TO PROVIDE EMERGING EDUCATORS WITH THE FAMILIARITY & KNOWLEDGE TO UTILIZE IN C 05/12/1999 – 05/14/2002	FY01: \$20,346	Total: \$40,295
Prin. Invest.: M NOGINOV, G LOUTTSPrin. Invest.: NONE			Prin. Invest.: S CHAUDHURY		
Tech. Officer: LARC/N P BARNES, LARC/J C BARNES			Tech. Officer: GSFC/N KHAZENIE		
CASE Category: 13 – PHYSICS			CASE Category: 99 – MULTI INTERDISCPL, OTHER		
<b>NAG 1 2226</b>	<b>NORFOLK STATE UNIV</b>	<b>9127</b>	<b>NAG 5 8653</b>	<b>NORFOLK STATE UNIV</b>	<b>9135</b>
PORTSMOUTH ATMOSPHERIC SCIENCE SCHOOL PROJECT (PASS) 08/24/1999 – 07/31/2002	FY01: \$0	Total: \$199,728	DESIGN AND PERFORMANCE TESTS OF ULTRA-COMPACT CALORIMETERS FOR HIGH ENERGY ASTROPHYSICS 08/19/1999 – 07/31/2002	FY01: \$80,075	Total: \$279,385
Prin. Invest.: C COLEMAN			Prin. Invest.: C W SALGADO		
Tech. Officer: LARC/R A HATHAWAY			Tech. Officer: GSFC/R E STREITMATTER		
CASE Category: 31 – ATMOSPHERIC SCIENCE			CASE Category: 13 – PHYSICS		
<b>NAG 1 2228</b>	<b>NORFOLK STATE UNIV</b>	<b>9128</b>	<b>NAG 5 9257</b>	<b>NORFOLK STATE UNIV</b>	<b>9136</b>
NONSELECTIVE ROOMTEMPERATURE MICROBOLOMETERS BASED ON CMB THIN FILMS 08/30/1999 – 07/31/2001	FY01: \$73,412	Total: \$196,520	BRINGING EDUCATION & SCIENCE TOGETHER FOR SYSTEMIC TRAINING & EMPOWERMENT OF PRESERVICE TEACHERS 03/15/2000 – 02/28/2002	FY01: \$199,832	Total: \$379,977
Prin. Invest.: E S GILLMAN			Prin. Invest.: G GOLEMBIEWSKI		
Tech. Officer: LARC/J C BARNES			Tech. Officer: GSFC/B L WHITE		
CASE Category: 31 – ATMOSPHERIC SCIENCE			CASE Category: 99 – MULTI INTERDISCPL, OTHER		
<b>NAG 1 2230</b>	<b>NORFOLK STATE UNIV</b>	<b>9129</b>	<b>NAG 5 9374</b>	<b>NORFOLK STATE UNIV</b>	<b>9137</b>
PRE-SERVICE TEACHER CONFERENCE MY 1/2 09/03/1999 – 07/31/2001	FY01: -\$21,000	Total: \$204,000	SCENARIO BASED LEARNING: INQUIRY FOR A DIGITAL EARTH 04/05/2000 – 03/31/2002	FY01: \$77,461	Total: \$172,370
Prin. Invest.: P TUCKER-HOGAN			Prin. Invest.: W J RODRIGUEZ		
Tech. Officer: LARC/R A HATHAWAY			Tech. Officer: GSFC/N KHAZENIE		
CASE Category: 41 – AERONAUTICAL ENGR			CASE Category: 39 – ENVIRONMENTAL SCI, OTHER		
<b>NAG 1 01127</b>	<b>NORFOLK STATE UNIV</b>	<b>9130</b>	<b>NAG 5 10140</b>	<b>NORFOLK STATE UNIV</b>	<b>9138</b>
THE CHROME HONORS PROGRAM 09/26/2001 – 09/30/2002	FY01: \$50,000	Total: \$50,000	A NASA-HBCU PARTNERSHIP TO ENHANCE MINORITY EDUCATION & RESEARCH PARTICIPATION IN THE SPACE SCIENCE 12/12/2000 – 12/31/2001	FY01: \$203,891	Total: \$203,891
Prin. Invest.: E WILSON			Prin. Invest.: C W SALGADO		
Tech. Officer: LARC/R HATHAWAY			Tech. Officer: GSFC/P SAKIMOTO		
CASE Category: 41 – AERONAUTICAL ENGR			CASE Category: 11 – ASTRONOMY		

**NCC 1 280 NORFOLK STATE UNIV 9139**  
 FEASIBILITY STUDY OF PIEZOELECTRIC ACTUATORS DRIVE N BY A MICRO-WAVE  
 03/06/1998 - 03/05/2002 FY01: \$0 Total: \$300,000  
*Prin. Invest.: K D SONG*  
*Tech. Officer: LARC/S H CHOI*  
*CASE Category: 46 – MECHANICAL ENGR*

**NCC 1 338 NORFOLK STATE UNIV 9140**  
 1999 SUMMER PRE-SERVICE TEACHER ENHANCEMENT INST  
 04/15/1999 - 03/31/2000 FY01: -\$25,719 Total: \$220,253  
*Prin. Invest.: R TUCKER-HOGAN, R CHAUCHURY*  
*Tech. Officer: LARC/R A HATHAWAY, LARC/E J PRIOR*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 1 391 NORFOLK STATE UNIV 9141**  
 2000 - PRE-SERVICE TEACHER ENHANCEMENT INST  
 04/13/2000 - 03/31/2001 FY01: -\$46,887 Total: \$200,147  
*Prin. Invest.: P TUCKER-HOGAN*  
*Tech. Officer: LARC/R A HATHAWAY*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 1 01049 NORFOLK STATE UNIV 9142**  
 DEVELOPMENT OF NOVEL COMPOSITE AND RANDOM MATERIAL FOR NONLINEAR OPTICS AND LASERS - TRANSFER FROM  
 06/06/2001 - 09/14/2004 FY01: \$420,000 Total: \$420,000  
*Prin. Invest.: L MATTIX*  
*Tech. Officer: LARC/J C BARNES*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NCC 1 01053 NORFOLK STATE UNIV 9143**  
 2001 PRE-SERVICE TEACHER INST  
 05/10/2001 - 03/31/2002 FY01: \$225,000 Total: \$225,000  
*Prin. Invest.: P TUCKER-HOGAN*  
*Tech. Officer: LARC/R A HATHAWAY*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 1 01055 NORFOLK STATE UNIV 9144**  
 MISSION-LEVERAGED EDUCATION: NSU-NASA INNOVATIVE UNDERGRADUATE MODEL MILENIUM A NASA PAIR PROJECT  
 06/29/2001 - 02/28/2002 FY01: \$297,940 Total: \$297,940  
*Prin. Invest.: W RODRIGUEZ*  
*Tech. Officer: LARC/R A HATHAWAY*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 1 01057 NORFOLK STATE UNIV 9145**  
 2001 PRE-SERVICE TEACHER CONFERENCE  
 08/14/2001 - 07/31/2002 FY01: \$150,029 Total: \$150,029  
*Prin. Invest.: P E MCNEIL, S PROCTOR*  
*Tech. Officer: LARC/R HATHAWAY, LARC/E J PRIOR*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NCC 5 457 NORFOLK STATE UNIV 9146**  
 MISSION-LEVERAGED EDUCATION: NSU-NASA INNOVATIVE UNDERGRADUATE MODEL  
 02/22/2000 - 03/31/2001 FY01: \$0 Total: \$292,845  
*Prin. Invest.: L MATTIX*  
*Tech. Officer: GSFC/M MATTHEWS*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 5 514 NORFOLK STATE UNIV 9147**  
 DEVELOPMENT OF NOVEL COMPOSITE & RANDOM MATERIALS FOR NONLINEAR OPTICS & LASERS  
 08/31/2000 - 03/31/2001 FY01: -\$450,044 Total: \$49,956  
*Prin. Invest.: L MATTIX*  
*Tech. Officer: GSFC/C PERSON*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 1 1982 OLD DOMINION UNIV 9148**  
 FINITE ELEMENT ANALYSIS OF REVERBERATION CHAMBERS MY 1/3  
 12/15/1997 - 12/31/2000 FY01: \$9,588 Total: \$193,508  
*Prin. Invest.: C F BUNTING, D T NGUYEN*  
*Tech. Officer: LARC/K J MOELLER*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NAG 1 2100 OLD DOMINION UNIV 9149**  
 TRANSITION IN SUPERSONIC FLOWS WITH CORNERS  
 08/11/1998 - 12/31/2000 FY01: -\$145 Total: \$62,264  
*Prin. Invest.: P BALAKUMAR*  
*Tech. Officer: LARC/C R MCCLINTON, LARC/D E REUBUSH*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 1 2101 OLD DOMINION UNIV 9150**  
 THE INFLUENCE OF NAT. CULTURE ON FLT CREW PERF: A CULTURE-CENTERED APPROACH TO HUMAN FACTORS  
 08/25/1998 - 08/31/2000 FY01: -\$12,019 Total: \$72,955  
*Prin. Invest.: D DAVIS*  
*Tech. Officer: LARC/P C SCHUTTE*  
*CASE Category: 62 – PSYCHOLOGY SOCIAL ASPECTS*

**NAG 1 2141 OLD DOMINION UNIV 9151**  
 EXPERIMENTAL & NUMERICAL ANALYSIS OF STRUCTURAL ACOUSTIC CONTROL FOR INTERIOR NOISE REDUCTION  
 02/03/1999 - 05/15/2000 FY01: -\$88 Total: \$59,912  
*Prin. Invest.: C MEI*  
*Tech. Officer: LARC/T L TURNER, LARC/K P SHEPHERD*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 1 2143 OLD DOMINION UNIV 9152**  
 OBJECT-ORIENTED APPROACH TO HIGHER-LEVEL NETWORK MONITORING AND MANAGEMENT  
 02/01/1999 - 05/30/2000 FY01: -\$3 Total: \$31,214  
*Prin. Invest.: R MUKKAMALA*  
*Tech. Officer: LARC/E SIMAN-TOV*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 1 2150 OLD DOMINION UNIV 9153**  
 PANEL FLUTTER AND SONIC FATIGUE ANALYSIS FOR RLV  
 02/09/1999 - 09/30/2000 FY01: -\$13 Total: \$44,987  
*Prin. Invest.: C MEI*  
*Tech. Officer: LARC/M L BLOSSER, LARC/S J SCOTTI*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 1 2195 OLD DOMINION UNIV 9154**  
 PROCESS COST MODELING FOR MULTIDISCIPLINARY DESIGN APPLICATIONS  
 05/21/1999 - 03/31/2002 FY01: \$60,000 Total: \$145,000  
*Prin. Invest.: H P BAO*  
*Tech. Officer: LARC/W T FREEMAN*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 1 2211**           **OLD DOMINION UNIV**           **9155**  
 DEVELOPMENT OF A TRANSIENT CUT-OFF GRID FOR FOCUS SCHLIEREN  
 07/12/1999 - 06/14/2002      FY01: \$0                Total: \$26,000  
*Prin. Invest.:* G R HOY, K S SCHANZE  
*Tech. Officer:* LARC/M A TALLEY, LARC/A W BURNER  
*CASE Category:* 19 – PHYSICAL SCIENCE, OTHER

**NAG 1 2251**           **OLD DOMINION UNIV**           **9156**  
 DISTURBANCE DYNAMICS IN TRANSITIONAL & TURBULENT BOUNDARY  
 LAYERS  
 11/23/1999 - 11/01/2000      FY01: -\$1,097        Total: \$25,903  
*Prin. Invest.:* C E GROSCH  
*Tech. Officer:* LARC/T B GATSKI  
*CASE Category:* 41 – AERONAUTICAL ENGRN

**NAG 1 2252**           **OLD DOMINION UNIV**           **9157**  
 USER ACCEPTABILITY OF PHYSIOLOGICAL AND OTHER MEASURES OF  
 HAZARDOUS STATES OF AWARENESS  
 11/23/1999 - 02/28/2001      FY01: \$0                Total: \$29,180  
*Prin. Invest.:* T L DICKINSON, F G FREEMAN, P M MIKULKA  
*Tech. Officer:* LARC/A T POPE  
*CASE Category:* 69 – PSYCHOLOGY, OTHER

**NAG 1 2254**           **OLD DOMINION UNIV**           **9158**  
 EXTERNAL VALIDITY CONSIDERATIONS OF A BIOCYBER NETIC SYSTEM  
 FOR ADAPTIVE AUTOMATION  
 11/23/1999 - 12/31/2000      FY01: -\$569            Total: \$15,644  
*Prin. Invest.:* M W SCERBO, P J MIKULKA, F G FREEMAN  
*Tech. Officer:* LARC/A T POPE  
*CASE Category:* 69 – PSYCHOLOGY, OTHER

**NAG 1 2265**           **OLD DOMINION UNIV**           **9159**  
 DUCTED FAN NOISE PREDICTION -- ENHANCEMENT TO TRIEM3D AND  
 APPLICATIONS  
 02/01/2000 - 08/30/2000      FY01: -\$13            Total: \$51,153  
*Prin. Invest.:* M H DUNN, J TWEED  
*Tech. Officer:* LARC/F FARASSAT, LARC/J W POSEY  
*CASE Category:* 41 – AERONAUTICAL ENGRN

**NAG 1 2266**           **OLD DOMINION UNIV**           **9160**  
 NUMERICAL SIMULATIONS OF MIXING AND COMBUSTION IN SCRAMJET  
 ENGINES  
 01/31/2000 - 12/31/2002      FY01: \$39,734        Total: \$77,991  
*Prin. Invest.:* S W TIWARI, T O MOHIELDIN  
*Tech. Officer:* LARC/D E REUBUSH, LARC/C R MCCLINTON  
*CASE Category:* 41 – AERONAUTICAL ENGRN

**NAG 1 2278**           **OLD DOMINION UNIV**           **9161**  
 IMPLICATIONS OF AUTOMOTIVE AND TRUCKING ON-BOARD INFORMATION  
 SYSTEMS FOR GENERAL AVIATION COCKPIT  
 03/15/2000 - 03/31/2002      FY01: \$0                Total: \$45,380  
*Prin. Invest.:* P KACHROO, P J KAUFFMAN  
*Tech. Officer:* LARC/E J JOHNSON/H P STOUGH  
*CASE Category:* 41 – AERONAUTICAL ENGRN

**NAG 1 2279**           **OLD DOMINION UNIV**           **9162**  
 DESIGN & ANALYSIS OF ARCHITECTURES FOR STRUCTURAL HEALTH  
 MONITORING SYSTEMS  
 03/13/2000 - 02/28/2002      FY01: \$50,458        Total: \$92,995  
*Prin. Invest.:* R MUKKAMALA  
*Tech. Officer:* LARC/S L VAZQUEZ/E G COOPER  
*CASE Category:* 22 – COMPUTER SCIENCE

**NAG 1 2289**           **OLD DOMINION UNIV**           **9163**  
 NOISE PREDICTION FOR ADVANCED ENGINE/AIRFRAME CONFIGURATIONS  
 USING THE EQUIVALENT SOURCE METHOD  
 04/04/2000 - 03/03/2001      FY01: \$0                Total: \$139,831  
*Prin. Invest.:* J TWEED, M H DUNN  
*Tech. Officer:* LARC/R A GOLUB/D P GARBER  
*CASE Category:* 41 – AERONAUTICAL ENGRN

**NAG 1 2294**           **OLD DOMINION UNIV**           **9164**  
 COMPARISON OF FATIGUE LIFE ESTIMATION USING EQUIVALENT LINEARIZATION & TIME DOMAIN SIMULATION METHODS  
 05/03/2000 - 09/30/2000      FY01: \$0                Total: \$12,000  
*Prin. Invest.:* C MEI  
*Tech. Officer:* LARC/S A RIZZI, LARC/K P SHEPHERD  
*CASE Category:* 41 – AERONAUTICAL ENGRN

**NAG 1 2297**           **OLD DOMINION UNIV**           **9165**  
 N-FACTOR COMPUTATIONS FOR THE X-33 VEHICLE  
 06/01/2000 - 10/31/2000      FY01: -\$3                Total: \$27,401  
*Prin. Invest.:* P BALAKUMAR  
*Tech. Officer:* LARC/H H HAMILTON  
*CASE Category:* 41 – AERONAUTICAL ENGRN

**NAG 1 2300**           **OLD DOMINION UNIV**           **9166**  
 STRUCTURE-COMPATIBLE NONLINEAR HEAT TRANSFER ANALYSIS  
 ESTIMATED, ORDER ADAPTIVITY & DESIGN OPTIMIZATION  
 05/26/2000 - 05/14/2003      FY01: \$60,000        Total: \$95,000  
*Prin. Invest.:* G HOU  
*Tech. Officer:* LARC/K S BEY  
*CASE Category:* 49 – ENGINEERING, OTHER

**NAG 1 2303**           **OLD DOMINION UNIV**           **9167**  
 NATIONAL CULTURE, CREW RESOURCES MANAGEMENT, AND TEAM  
 PERFORMANCE IN A FLOGLT SIMULATION  
 06/02/2000 - 05/15/2003      FY01: \$146,952        Total: \$229,952  
*Prin. Invest.:* D D DAVIS  
*Tech. Officer:* LARC/P C SHUTTIE, LARC/A C TRUJILLO  
*CASE Category:* 62 – PSYCHOLOGY SOCIAL ASPECTS

**NAG 1 2315**           **OLD DOMINION UNIV**           **9168**  
 MANAGEMENT (BY VSGC) OF THE 2000 NATIONAL GENERAL AVIATION  
 DESIGN COMPETITION (AWARDS AT OSHKOSH)  
 06/28/2000 - 09/30/2000      FY01: -\$2,251        Total: \$67,120  
*Prin. Invest.:* M L SANDY  
*Tech. Officer:* LARC/H W JARRETT III  
*CASE Category:* 41 – AERONAUTICAL ENGRN

**NAG 1 2323**           **OLD DOMINION UNIV**           **9169**  
 AN APPROACH TO THE REUSE OF TECHNICAL MATERIALS FOR EDUCATIONAL PURPOSES  
 08/25/2000 - 01/31/2001      FY01: -\$267            Total: \$29,322  
*Prin. Invest.:* I B LEVINSTEIN  
*Tech. Officer:* LARC/W H BRYANT, LARC/C L HARRELL  
*CASE Category:* 22 – COMPUTER SCIENCE

**NAG 1 2330**           **OLD DOMINION UNIV**           **9170**  
 INVESTIGATION OF ERROR PATTERNS IN GEOGRAPHICAL DATABASES  
 09/29/2000 - 07/31/2002      FY01: \$74,678        Total: \$79,678  
*Prin. Invest.:* D A DRYER, P KAUFFMAN  
*Tech. Officer:* LARC/D R JONES, LARC/P W GOODE  
*CASE Category:* 29 – MATH/COMPUTER SCI, OTHER

**NAG 1 01012**      **OLD DOMINION UNIV**      **9171**  
 MODELING DISTURBANCE DYNAMICS IN TRANSITIONAL AND TURBULENT  
 BOUNDARY LAYERS  
 12/20/2000 - 10/31/2001      FY01: \$27,000      Total: \$27,000  
*Prin. Invest.: C E GROSCH*  
*Tech. Officer: LARC/T B GATSKI*  
*CASE Category: 41 - AERONAUTICAL ENGR*

**NAG 1 01028**      **OLD DOMINION UNIV**      **9172**  
 NONLINEAR AND FAILURE ANALYSIS OF COMPOSITE STRUCTURES  
 02/05/2001 - 12/31/2001      FY01: \$60,000      Total: \$60,000  
*Prin. Invest.: A K NOOR*  
*Tech. Officer: LARC/J H STARNES, JR*  
*CASE Category: 41 - AERONAUTICAL ENGR*

**NAG 1 01033**      **OLD DOMINION UNIV**      **9173**  
 PARALLEL DOMAIN DECOMPOSITION FORMULATION AND SOFTWARE FOR  
 LARGE-SCALE UNSYMETRICAL 3D APPLICATI  
 02/22/2001 - 01/14/2004      FY01: \$30,000      Total: \$30,000  
*Prin. Invest.: D T NGUYEN*  
*Tech. Officer: LARC/W R WATSON, LARC/M G JONES*  
*CASE Category: 41 - AERONAUTICAL ENGR*

**NAG 1 01043**      **OLD DOMINION UNIV**      **9174**  
 ULTRA NANOSTRUCTURED COMPOSITE FIBERS  
 03/26/2001 - 03/25/2004      FY01: \$80,000      Total: \$80,000  
*Prin. Invest.: R B PIPES*  
*Tech. Officer: LARC/T S GATES*  
*CASE Category: 47 - METAL & MATERIALS ENGR*

**NAG 1 01044**      **OLD DOMINION UNIV**      **9175**  
 INVESTIGATION WAVE PROPAGATIONS IN DISCONTINUOUS GALERKIN  
 METHOD  
 03/26/2001 - 02/28/2004      FY01: \$19,021      Total: \$19,021  
*Prin. Invest.: F HU*  
*Tech. Officer: LARC/H L ATKINS*  
*CASE Category: 41 - AERONAUTICAL ENGR*

**NAG 1 01047**      **OLD DOMINION UNIV**      **9176**  
 MANAGEMENT (BY VSGC) OF 2000-2001 NATIONAL GENERAL AVIATION  
 DESIGN COMPETITION  
 04/12/2001 - 09/30/2001      FY01: \$25,000      Total: \$25,000  
*Prin. Invest.: M L SANDY*  
*Tech. Officer: LARC/H W JARRETT*  
*CASE Category: 41 - AERONAUTICAL ENGR*

**NAG 1 01068**      **OLD DOMINION UNIV**      **9177**  
 NOISE PREDICTION FOR ADVANCED AIRCRAFT CONFIGUR- ATIONS USING  
 THE EQUIVALENT SOURCE METHOD  
 04/23/2001 - 04/22/2003      FY01: \$90,000      Total: \$90,000  
*Prin. Invest.: M H DUNN*  
*Tech. Officer: LARC/D P GARBER, LARC/R A GOLUB*  
*CASE Category: 29 - MATH/COMPUTER SCI, OTHER*

**NAG 1 01071**      **OLD DOMINION UNIV**      **9178**  
 MODIFICATION OF EXISTING METHOD OF MONENT CODE FOR LARGE  
 OBJECTS USING PHYSICAL OPTICS  
 04/20/2001 - 05/31/2002      FY01: \$30,212      Total: \$30,212  
*Prin. Invest.: R P JOSHI*  
*Tech. Officer: LARC/M D DESHBADE*  
*CASE Category: 45 - ELECTRICAL ENGR*

**NAG 1 01076**      **OLD DOMINION UNIV**      **9179**  
 PARALLEL COMPUTATIONAL STUDIES OF THE DIRECT SIMULATION MONTE  
 CARLO METHOD IN FLUID DYNAMICS  
 05/16/2001 - 05/31/2004      FY01: \$34,618      Total: \$34,618  
*Prin. Invest.: D E KEYES, P BOGACKI*  
*Tech. Officer: LARC/J N MOSS*  
*CASE Category: 22 - COMPUTER SCIENCE*

**NAG 1 01077**      **OLD DOMINION UNIV**      **9180**  
 DEV NUMERICAL MODELS 4 PERF PREDICTIONS OF SINGLE PHOTON  
 AVALANCHE PHOTODETECTORS 4 2-MICRON REGIME  
 05/16/2001 - 12/31/2001      FY01: \$20,000      Total: \$20,000  
*Prin. Invest.: R P JOSHI*  
*Tech. Officer: GSFC/M N ABEDIN*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 1 01086**      **OLD DOMINION UNIV**      **9181**  
 REDUCING DESIGN RISK USING DESIGN METHODS  
 05/17/2001 - 03/17/2002      FY01: \$9,988      Total: \$9,988  
*Prin. Invest.: R UNAL*  
*Tech. Officer: LARC/R A LEPSCH*  
*CASE Category: 41 - AERONAUTICAL ENGR*

**NAG 1 01092**      **OLD DOMINION UNIV**      **9182**  
 ERROR ANALYSIS FOR DISCONTINUOUS GALERKIN METHOD FOR  
 PARABOLIC PROBLEMS  
 06/27/2001 - 06/30/2003      FY01: \$20,000      Total: \$20,000  
*Prin. Invest.: H KANEKO, NONE*  
*Tech. Officer: LARC/K S BEY*  
*CASE Category: 21 - MATHEMATICS*

**NAG 1 01097**      **OLD DOMINION UNIV**      **9183**  
 A PROJECT DEV MODEL FOR ASSESSING THE FEAS OF AUTO MOTIVE-  
 TRUCKING INFO SYS W/APPLCS TO GEN AVIATIO  
 06/29/2001 - 06/30/2002      FY01: \$59,990      Total: \$59,990  
*Prin. Invest.: P J KAUFFMANN, P KACHROO*  
*Tech. Officer: LARC/E J JOHNSON, LARC/H P STOUGH*  
*CASE Category: 41 - AERONAUTICAL ENGR*

**NAG 1 01121**      **OLD DOMINION UNIV**      **9184**  
 YOUNG PHD'S IN HUMAN SPACE FLIGHT INST  
 08/31/2001 - 08/31/2002      FY01: \$29,852      Total: \$29,852  
*Prin. Invest.: E WILSON*  
*Tech. Officer: LARC/R HATHAWAY*  
*CASE Category: 41 - AERONAUTICAL ENGR*

**NAG 2 1319**      **OLD DOMINION UNIV**      **9185**  
 PRELIMINARY ANALYSIS OF PHOTOREADING  
 04/21/1999 - 09/30/1999      FY01: -\$10      Total: \$9,955  
*Prin. Invest.: D S McNAMARA*  
*Tech. Officer: ARC/I BARSHI*  
*CASE Category: 69 - PSYCHOLOGY, OTHER*

**NAG 2 1481**      **OLD DOMINION UNIV**      **9186**  
 DATA-LINK AIRCRAFT COMMUNICATIONS: AN EXAMINATION OF INTER-  
 FERENCE, COHERENCE, & WORKLOAD  
 05/04/2001 - 04/30/2002      FY01: \$80,000      Total: \$80,000  
*Prin. Invest.: D S McNAMARA, M SCERBO*  
*Tech. Officer: ARC/I BARSHI, ARC/S LOZITO*  
*CASE Category: 69 - PSYCHOLOGY, OTHER*

**NAG 3 2483**           **OLD DOMINION UNIV**           **9187**  
 THREE DIMENSIONAL THERMAL SIMULATION STUDIES OF SI C JUNCTION  
 DIODES CONTAINING SCREW DISLOCATIONS U  
 08/18/2000 – 12/31/2000      FY01: \$0            Total: \$20,916  
*Prin. Invest.: D P JOSHI*  
*Tech. Officer: GRC/P G NEUDECK*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NAG 5 4515**           **OLD DOMINION UNIV**           **9188**  
 STUDYING THE EARTH'S ENVIRONMENT IN SPACE: CLASSR ACTIVITIES  
 WITH INSTRUCTION RESOURCES.  
 06/02/1997 – 12/31/2000      FY01: \$0            Total: \$166,896  
*Prin. Invest.: E SMITH*  
*Tech. Officer: GSFC/N KHAZENIE*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 5131**           **OLD DOMINION UNIV**           **9189**  
 INVOLVING STUDENTS IN THE DESIGNING AND DEVELOPING OF A SCIENTIFIC BALLOON PAYLOAD-BALLOONLAUNCH PR  
 07/02/1997 – 03/31/2000      FY01: \$0            Total: \$35,000  
*Prin. Invest.: A PIERCE*  
*Tech. Officer: GSFC/H NEEDLEMAN*  
*CASE Category: 12 – CHEMISTRY*

**NAG 5 10528**           **OLD DOMINION UNIV**           **9190**  
 RESPONSE OF SEA ICE AND MARINE ECOSYSTEMS TO THE OBSERVED  
 WARMING TRENDS IN THE ARTIC  
 03/19/2001 – 03/14/2002      FY01: \$116,806        Total: \$116,806  
*Prin. Invest.: G F COTA*  
*Tech. Officer: GSFC/J MARRA*  
*CASE Category: 33 – OCEANOGRAPHY*

**NAG 5 11259**           **OLD DOMINION UNIV**           **9191**  
 PHYSICAL BIOLOGICAL INTERACTIONS AND THE CARBON CYCLE OF THE  
 TROPICAL PACIFIC AND ATLANTIC\_OCEANS  
 08/20/2001 – 08/31/2004      FY01: \$92,899        Total: \$92,899  
*Prin. Invest.: E HOFMANN*  
*Tech. Officer: GSFC/J MARRA*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 8 1813**           **OLD DOMINION UNIV**           **9192**  
 RESEARCH GRANT  
 04/30/2001 – 01/31/2002      FY01: \$20,000        Total: \$20,000  
*Prin. Invest.: R PRABHAKARAN*  
*Tech. Officer: MSFC/A T NETTLES*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NAG 9 1270**           **OLD DOMINION UNIV**           **9193**  
 VIRTUAL REALITY TRAINING  
 12/18/2000 – 12/18/2003      FY01: \$96,246        Total: \$96,246  
*Prin. Invest.: R LOFTIN*  
*Tech. Officer: JSC/R SAVELY, JSC/D G SICKOREZ*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAS 1 99160**           **OLD DOMINION UNIV**           **9194**  
 TESTBED OF INTEROPERABLE MULTIDISCIPLINARY DIGITAL LIBRARIES  
 09/22/1999 – 09/21/2002      FY01: \$284,000        Total: \$497,970  
*Prin. Invest.: K MALY*  
*Tech. Officer: LARC/M M LITTLE, LARC/N R KAPLAN*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAS 5 97132**           **OLD DOMINION UNIV**           **9195**  
 REMOTE SENSING OF OCEAN COLOR IN THE ARCTIC  
 09/01/1997 – 02/28/2001      FY01: \$0            Total: \$640,608  
*Prin. Invest.: G F COTA*  
*Tech. Officer: GSFC/C MCCLAIN*  
*CASE Category: 33 – OCEANOGRAPHY*

**NCA 1 188**           **OLD DOMINION UNIV**           **9196**  
 VA SPACE GRANT CONSORTIUM ENVIRONMENT IMPACT  
 08/04/2000 – 10/31/2001      FY01: \$15,000        Total: \$75,000  
*Prin. Invest.: M L SANDY*  
*Tech. Officer: LARC/S A COOKE*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 1 227**           **OLD DOMINION UNIV**           **9197**  
 INVESTIGATION OF ADVANCED COMPOSITE MATERIALS AND AUTOMATED  
 PROCESS  
 05/17/1996 – 09/30/2000      FY01: -\$9,068        Total: \$730,725  
*Prin. Invest.: S TIWARI*  
*Tech. Officer: LARC/N J JOHNSTON, LARC/R J CANO*  
*CASE Category: 46 – MECHANICAL ENGR*

**NCC 1 320**           **OLD DOMINION UNIV**           **9198**  
 STUDY OF APPLICATION OF GREEN'S FUNCTION METHODS APPLIED TO  
 SPACE RADIATION PROTECTION  
 09/23/1998 – 09/30/2001      FY01: \$0            Total: \$106,507  
*Prin. Invest.: J H HEINBOCKEL*  
*Tech. Officer: LARC/R C SINGLETERRY, LARC/J W WILSON*  
*CASE Category: 13 – PHYSICS*

**NCC 1 322**           **OLD DOMINION UNIV**           **9199**  
 EXPERIMENTAL DEVELOPMENT AND PHYSICAL ANALYSIS OF JET AND  
 VORTEX ACTUATORS  
 11/17/1998 – 08/31/2000      FY01: -\$31            Total: \$58,464  
*Prin. Invest.: O A KANDIL, J T LACHOWICZ*  
*Tech. Officer: LARC/C YAO*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 1 349**           **OLD DOMINION UNIV**           **9200**  
 INST FOR SCIENTIFIC & EDUCATIONAL TECHNOLOGY (FOLLOW-ON TO  
 NCC-1-232)  
 06/28/1999 – 02/15/2002      FY01: \$321,761        Total: \$1,005,542  
*Prin. Invest.: S N TIWARI*  
*Tech. Officer: LARC/S E MASSENBERG, LARC/E J PRIOR*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 1 363**           **OLD DOMINION UNIV**           **9201**  
 AUTOMATED, NON-AUTOCLAVE, COMPOSITE MATERIALS FABRICATION  
 (NRA 99–LARC–1)  
 11/29/1999 – 11/30/2002      FY01: \$135,325        Total: \$285,325  
*Prin. Invest.: R B PIPES*  
*Tech. Officer: LARC/T HOU*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NCC 1 364**           **OLD DOMINION UNIV**           **9202**  
 PSYCHOPHYSIOLOGICAL CONTROL OF ACOGNITIVE TASK USING ADAPTIVE AUTOMATION  
 12/09/1999 – 11/30/2001      FY01: \$0            Total: \$31,530  
*Prin. Invest.: F G FREEMAN*  
*Tech. Officer: LARC/A T POPE*  
*CASE Category: 69 – PSYCHOLOGY, OTHER*

**NCC 1 369**           **OLD DOMINION UNIV**           **9203**  
 DOCUMENT AND DISSEMINATE THE RESULTS OF WIND TUNNEL TESTS OF  
 WRIGHT FLYER AIRCRAFT AND  
 01/31/2000 - 12/31/2001      FY01: \$75,000      Total: \$175,000  
*Prin. Invest.: R L ASH*  
*Tech. Officer: LARC/A G PRICE*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 1 371**           **OLD DOMINION UNIV**           **9204**  
 TWO AND THREE DIMENSIONAL ELASTIC-PLASTIC FINITE ELEMENT ANAL-  
 YSES OF TAPERED/COLDWORKED FASTENERS  
 02/07/2000 - 12/31/2002      FY01: \$93,774      Total: \$168,070  
*Prin. Invest.: S A TIWARI, B R SESHADRI*  
*Tech. Officer: LARC/J C NEWMAN, LARC/D R AMBUR*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 1 389**           **OLD DOMINION UNIV**           **9205**  
 A COMPARISON OF QUASI-STATE INDENTATION & DROP-WT IMPACT  
 TESTING ON CARBON/EPOXY LAMINATES  
 03/14/2000 - 09/30/2001      FY01: \$0      Total: \$45,000  
*Prin. Invest.: R PRABHAKARAN*  
*Tech. Officer: LARC/D R AMBUR*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 1 392**           **OLD DOMINION UNIV**           **9206**  
 STOCHASTIC DYNAMICAL MODELS FOR DIGITAL CONTROL SYSTEMS IN  
 ELECTROMAGNETIC ENVIRONMENTS (EME)  
 04/07/2000 - 03/31/2003      FY01: \$179,326      Total: \$304,326  
*Prin. Invest.: W S GRAY, O R GONZALEZ*  
*Tech. Officer: LARC/C M BELCASTRO*  
*CASE Category: 46 – MECHANICAL ENGR*

**NCC 1 396**           **OLD DOMINION UNIV**           **9207**  
 AN ALGORITHM FOR TRANSPORT OF ANISOTROPIC NEUTRONS  
 05/03/2000 - 09/30/2002      FY01: \$60,000      Total: \$79,321  
*Prin. Invest.: J TWEED*  
*Tech. Officer: LARC/R C SINGLETERRY, LARC/J W WILSON*  
*CASE Category: 13 – PHYSICS*

**NCC 1 403**           **OLD DOMINION UNIV**           **9208**  
 LASER MATERIALS PROCESSING FOR NASA AEROSPACE STRUCTURAL  
 MATERIALS  
 06/23/2000 - 12/30/2000      FY01: -\$1,569      Total: \$29,307  
*Prin. Invest.: K NAGARATHNAM*  
*Tech. Officer: LARC/K M TAMINGER*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NCC 1 404**           **OLD DOMINION UNIV**           **9209**  
 BOLTZMANN TRANSPORT CODE UPDATE: PARALLELIZATION AND INTE-  
 GRATED DESIGN METHODS  
 07/11/2000 - 07/16/2003      FY01: \$143,000      Total: \$188,000  
*Prin. Invest.: J H HEINBOCKEL, J NEALY*  
*Tech. Officer: LARC/R C SINGLETERRY JR, LARC/J W WILSON*  
*CASE Category: 29 – MATH/COMPUTER SCI, OTHER*

**NCC 1 01012**           **OLD DOMINION UNIV**           **9210**  
 EVALUATING THE ABILITY OF HEART RATE AND EEG TO CONTROL ALERT-  
 NESS DURING PERFORMANCE  
 12/29/2000 - 08/31/2002      FY01: \$70,895      Total: \$70,895  
*Prin. Invest.: F G FREEMAN, M W SCERBO, P J MIKULKA*  
*Tech. Officer: LARC/L J PRINZEL*  
*CASE Category: 69 – PSYCHOLOGY, OTHER*

**NCC 1 01014**           **OLD DOMINION UNIV**           **9211**  
 CENTER FOR ADVANCED ENGINEERING ENVIRONMENTS  
 01/24/2001 - 12/31/2003      FY01: \$550,000      Total: \$550,000  
*Prin. Invest.: A K NOOR*  
*Tech. Officer: LARC/R D BRAUN, LARC/K A CANNON*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NCC 1 01015**           **OLD DOMINION UNIV**           **9212**  
 ADV'D APPLIC'S FOR ADIFOR 3.0 FOR EFFICIENT CALCULATION OF  
 1ST&2ND-ORDER CFD SENSITIVITY DERIVITIV  
 02/01/2001 - 12/31/2001      FY01: \$62,562      Total: \$62,562  
*Prin. Invest.: A C TAYLOR, III*  
*Tech. Officer: LARC/P A NEWMAN*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NCC 1 01032**           **OLD DOMINION UNIV**           **9213**  
 FIELD PENETRATION STUDIES STATISTICS AND BOUNDING  
 03/23/2001 - 12/31/2001      FY01: \$61,411      Total: \$61,411  
*Prin. Invest.: C F BUNTING, L L VAHALA*  
*Tech. Officer: LARC/T X NGUYEN*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NCC 1 01040**           **OLD DOMINION UNIV**           **9214**  
 RESERCH ON INTELLIGENT SYNTHESIS ENVIRONMENT  
 03/27/2001 - 03/31/2002      FY01: \$500,000      Total: \$500,000  
*Prin. Invest.: A K NOOR, R B LOFFIN*  
*Tech. Officer: LARC/J J REHDER*  
*CASE Category: 29 – MATH/COMPUTER SCI, OTHER*

**NCC 1 01043**           **OLD DOMINION UNIV**           **9215**  
 NASA - ASEE SUMMER FACULTY RESEARCH PROGRAM 2001  
 04/06/2001 - 12/31/2001      FY01: \$593,708      Total: \$593,708  
*Prin. Invest.: B TIWARI, D DEPRIEST*  
*Tech. Officer: LARC/R A HATHAWAY*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 1 01052**           **OLD DOMINION UNIV**           **9216**  
 AUTOMATED TOW PLACEMENT PROCESSING & CHARACTERI-  
 ZATION OF  
 COMPOSITES  
 06/22/2001 - 12/31/2003      FY01: \$29,940      Total: \$29,940  
*Prin. Invest.: R PRABHAKARAN, NONE*  
*Tech. Officer: LARC/T H HOU*  
*CASE Category: 13 – PHYSICS*

**NCC 5 258**           **OLD DOMINION UNIV**           **9217**  
 PHYSICAL-BIOLOGICAL INTERACTIONS IN THE GLOBAL EQUATORIAL  
 SURFACE LAYER  
 11/17/1997 - 10/31/2001      FY01: \$0      Total: \$376,303  
*Prin. Invest.: E HOFMANN*  
*Tech. Officer: GSFC/J MARRA*  
*CASE Category: 11 – ASTRONOMY*

**NCC 5 592**           **OLD DOMINION UNIV**           **9218**  
 NASA USRP UNDERGRADUATE STUDENT RESEARCH PROGRAM, VIRGINIA  
 SPACEGRANT CONSORTIUM.  
 09/19/2001 - 09/14/2004      FY01: \$999,626      Total: \$999,626  
*Prin. Invest.: M SANDY*  
*Tech. Officer: GSFC/J GORMAN*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 9 135**           **OLD DOMINION UNIV**           **9219**  
 VIRTUAL REALITY TRAINING/CYBERSICKNESS & EFFECTS ON SENSOR-  
 MOTOR FUNCTIONS  
 07/20/2001 - 09/30/2002      FY01: \$23,206      Total: \$23,206  
*Prin. Invest.: R B LOFTIN*  
*Tech. Officer: JSC/D L HARM*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 1 01001**           **OLD DOMINION UNIV**           **9220**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 11/02/2000 - 09/30/2001      FY01: \$22,000      Total: \$22,000  
*Prin. Invest.: M D LEE*  
*Tech. Officer: LARC/J L BURT, LARC/D B SHAFER*  
*CASE Category: 41 – AERONAUTICAL ENGNR*

**NGT 1 01005**           **OLD DOMINION UNIV**           **9221**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) MY 1/3  
 05/22/2001 - 06/30/2004      FY01: \$12,000      Total: \$12,000  
*Prin. Invest.: M SCERBO*  
*Tech. Officer: LARC/R HATHAWAY*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 1 01011**           **OLD DOMINION UNIV**           **9222**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) MY 1/3  
 06/04/2001 - 06/30/2004      FY01: \$12,000      Total: \$12,000  
*Prin. Invest.: D A JACOBS*  
*Tech. Officer: LARC/S D YOUNG, LARC/D L BLACKSTOCK*  
*CASE Category: 29 – MATH/COMPUTER SCI, OTHER*

**NGT 1 01013**           **OLD DOMINION UNIV**           **9223**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) MY 1/3  
 06/06/2001 - 06/30/2004      FY01: \$22,000      Total: \$22,000  
*Prin. Invest.: L VAHALA*  
*Tech. Officer: LARC/T X NGUYEN*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NGT 1 01014**           **OLD DOMINION UNIV**           **9224**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) MY 1/3  
 06/06/2001 - 06/30/2004      FY01: \$22,000      Total: \$22,000  
*Prin. Invest.: D H ELSAYED-ALII*  
*Tech. Officer: LARC/R DEYOUNG*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NGT 1 01015**           **OLD DOMINION UNIV**           **9225**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) MY 1/2  
 05/25/2001 - 06/30/2003      FY01: \$12,000      Total: \$12,000  
*Prin. Invest.: F G FREEMAN*  
*Tech. Officer: LARC/L J PRENZEL, LARC/A T POPE*  
*CASE Category: 69 – PSYCHOLOGY, OTHER*

**NGT 1 01019**           **OLD DOMINION UNIV**           **9226**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) MY 1/2  
 05/29/2001 - 06/30/2003      FY01: \$12,000      Total: \$12,000  
*Prin. Invest.: M W SCERBO*  
*Tech. Officer: LARC/J R COMSTOCK, JR, LARC/A T POPE*  
*CASE Category: 69 – PSYCHOLOGY, OTHER*

**NGT 1 01020**           **OLD DOMINION UNIV**           **9227**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) MY 1/2  
 05/30/2001 - 06/30/2003      FY01: \$12,000      Total: \$12,000  
*Prin. Invest.: M SCERBO*  
*Tech. Officer: LARC/D B SHAFER, LARC/V CRISP*  
*CASE Category: 41 – AERONAUTICAL ENGNR*

**NGT 1 01021**           **OLD DOMINION UNIV**           **9228**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) MY 1/2  
 05/31/2001 - 06/30/2003      FY01: \$22,000      Total: \$22,000  
*Prin. Invest.: D D DOVES*  
*Tech. Officer: LARC/P C SCHUTTE*  
*CASE Category: 69 – PSYCHOLOGY, OTHER*

**NGT 1 01027**           **OLD DOMINION UNIV**           **9229**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) MY 1/3  
 06/12/2001 - 06/30/2004      FY01: \$12,000      Total: \$12,000  
*Prin. Invest.: J HUANG*  
*Tech. Officer: LARC/P FERGEN*  
*CASE Category: 46 – MECHANICAL ENGR*

**NGT 1 01029**           **OLD DOMINION UNIV**           **9230**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) MY 1/2  
 06/14/2001 - 06/30/2003      FY01: \$12,000      Total: \$12,000  
*Prin. Invest.: S ZOHORIOD*  
*Tech. Officer: LARC/D B SHAFER*  
*CASE Category: 41 – AERONAUTICAL ENGNR*

**NGT 1 01030**           **OLD DOMINION UNIV**           **9231**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) MY 1/2  
 06/15/2001 - 09/30/2003      FY01: \$12,000      Total: \$12,000  
*Prin. Invest.: M SCERBO*  
*Tech. Officer: LARC/J L BURT*  
*CASE Category: 41 – AERONAUTICAL ENGNR*

**NGT 1 52124**           **OLD DOMINION UNIV**           **9232**  
 GRADUATE STUDENT RESEARCHER PROGRAM (GSRP)  
 05/15/1996 - 06/30/2000      FY01: \$0      Total: \$88,000  
*Prin. Invest.: K L WISE, J B COOPER*  
*Tech. Officer: LARC/B J JENSEN*  
*CASE Category: 12 – CHEMISTRY*

**NGT 1 52171**           **OLD DOMINION UNIV**           **9233**  
 GRADUATE STUDENT RESEARCHERS PROGRAM  
 05/29/1997 - 12/31/2000      FY01: \$0      Total: \$77,000  
*Prin. Invest.: C P BRITCHER*  
*Tech. Officer: LARC/N J GROOW*  
*CASE Category: 41 – AERONAUTICAL ENGNR*

**NGT 1 52193**           **OLD DOMINION UNIV**           **9234**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 05/20/1998 - 06/30/2000      FY01: -\$93      Total: \$43,907  
*Prin. Invest.: A FITZGIBBONS*  
*Tech. Officer: LARC/P C SHUTTE*  
*CASE Category: 62 – PSYCHOLOGY SOCIAL ASPECTS*

<b>NGT 1 52201</b>	<b>OLD DOMINION UNIV</b>	<b>9235</b>	<b>NGT 1 52231</b>	<b>OLD DOMINION UNIV</b>	<b>9244</b>
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) 08/31/1998 - 06/30/2000			GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) 04/21/2000 - 06/30/2001		
FY01: -\$9,611		Total: \$34,389	FY01: \$12,000		Total: \$22,000
<i>Prin. Invest.: C K AASEN</i>			<i>Prin. Invest.: F G FREEMAN</i>		
<i>Tech. Officer: LARC/A E MOTLEY, III, LARC/A G HAGEMANN</i>			<i>Tech. Officer: LARC/L J PRINZEL</i>		
<i>CASE Category: 49 – ENGINEERING, OTHER</i>			<i>CASE Category: 69 – PSYCHOLOGY, OTHER</i>		
<b>NGT 1 52208</b>	<b>OLD DOMINION UNIV</b>	<b>9236</b>	<b>NGT 1 52232</b>	<b>OLD DOMINION UNIV</b>	<b>9245</b>
NASA-ASEE SUMMER FACULTY RESEARCH PROGRAM 03/11/1999 - 12/31/2000			GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) 04/24/2000 - 06/30/2001		
FY01: -\$4,429		Total: \$572,585	FY01: \$12,000		Total: \$22,000
<i>Prin. Invest.: S N TUIVORE</i>			<i>Prin. Invest.: J M STARK</i>		
<i>Tech. Officer: LARC/R A HATHAWAY</i>			<i>Tech. Officer: LARC/J R COMSTOCK, JR, LARC/A T POPE</i>		
<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>			<i>CASE Category: 59 – LIFE SCIENCE, OTHER</i>		
<b>NGT 1 52210</b>	<b>OLD DOMINION UNIV</b>	<b>9237</b>	<b>NGT 1 52235</b>	<b>OLD DOMINION UNIV</b>	<b>9246</b>
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) 05/26/1999 - 06/30/2002			GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) 04/25/2000 - 06/30/2001		
FY01: \$22,000		Total: \$66,000	FY01: \$12,001		Total: \$22,001
<i>Prin. Invest.: D T NGUYEN</i>			<i>Prin. Invest.: P HIX, S ZAHORIAN</i>		
<i>Tech. Officer: LARC/J SOBIESKI</i>			<i>Tech. Officer: LARC/D B SHAVER</i>		
<i>CASE Category: 41 – AERONAUTICAL ENGR</i>			<i>CASE Category: 41 – AERONAUTICAL ENGR</i>		
<b>NGT 1 52211</b>	<b>OLD DOMINION UNIV</b>	<b>9238</b>	<b>NGT 1 52236</b>	<b>OLD DOMINION UNIV</b>	<b>9247</b>
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) 05/26/1999 - 06/30/2001			GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) 04/27/2000 - 06/30/2001		
FY01: -\$9,066		Total: \$34,934	FY01: \$12,000		Total: \$22,000
<i>Prin. Invest.: H SAYID ELE</i>			<i>Prin. Invest.: M SCERBO</i>		
<i>Tech. Officer: LARC/R J DEYOUNG</i>			<i>Tech. Officer: LARC/D B SHAVER/V CRISP</i>		
<i>CASE Category: 45 – ELECTRICAL ENGR</i>			<i>CASE Category: 41 – AERONAUTICAL ENGR</i>		
<b>NGT 1 52219</b>	<b>OLD DOMINION UNIV</b>	<b>9239</b>	<b>NGT 1 52241</b>	<b>OLD DOMINION UNIV</b>	<b>9248</b>
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) 06/04/1999 - 06/30/2001			GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) 06/08/2000 - 05/31/2001		
FY01: \$12,001		Total: \$44,001	FY01: \$0		Total: \$22,000
<i>Prin. Invest.: F G FREEMAN</i>			<i>Prin. Invest.: D LOCKWOOD</i>		
<i>Tech. Officer: LARC/A T POPE, LARC/L J PRINZEL, 111</i>			<i>Tech. Officer: LARC/G W SACHSE</i>		
<i>CASE Category: 61 – PSYCHOLOGY BIOLOGY</i>			<i>CASE Category: 31 – ATMOSPHERIC SCIENCE</i>		
<b>NGT 1 52220</b>	<b>OLD DOMINION UNIV</b>	<b>9240</b>	<b>NGT 1 52245</b>	<b>OLD DOMINION UNIV</b>	<b>9249</b>
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) 06/04/1999 - 06/30/2001			GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) 07/10/2000 - 06/30/2002		
FY01: \$12,000		Total: \$44,000	FY01: \$34,001		Total: \$44,001
<i>Prin. Invest.: G D COATES</i>			<i>Prin. Invest.: R UNAL</i>		
<i>Tech. Officer: LARC/A T POPE, LARC/L J PRINZEL, 111</i>			<i>Tech. Officer: LARC/A A MOORE</i>		
<i>CASE Category: 61 – PSYCHOLOGY BIOLOGY</i>			<i>CASE Category: 42 – ASTRONAUTICAL ENGR</i>		
<b>NGT 1 52221</b>	<b>OLD DOMINION UNIV</b>	<b>9241</b>	<b>NGT 5 40059</b>	<b>OLD DOMINION UNIV</b>	<b>9250</b>
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) 06/29/1999 - 12/31/2000			IN SUPPORT OF THE NATIONAL SPACE GRANT COLLEGE PROGRAM 02/21/1997 - 01/31/2001		
FY01: -\$4,274		Total: \$27,726	FY01: -\$219,809		Total: \$1,733,189
<i>Prin. Invest.: A A FINK, D A MAJOR</i>			<i>Prin. Invest.: M L SANDY</i>		
<i>Tech. Officer: LARC/P C SCHUTTE</i>			<i>Tech. Officer: GSFC/L KEFFER</i>		
<i>CASE Category: 62 – PSYCHOLOGY SOCIAL ASPECTS</i>			<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>		
<b>NGT 1 52229</b>	<b>OLD DOMINION UNIV</b>	<b>9242</b>	<b>NGT 5 40070</b>	<b>OLD DOMINION UNIV</b>	<b>9251</b>
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) 04/21/2000 - 06/30/2001			GENERAL AVIATION DESIGN COMPETITION FUNDING IN SUP PORT OF THE VIRGINIA NATIONAL SPACE GRANT COLLEGE 01/03/2001 - 12/31/2001		
FY01: \$0		Total: \$22,000	FY01: \$874,114		Total: \$874,114
<i>Prin. Invest.: H ELSAVIDELE</i>			<i>Prin. Invest.: M SANDY</i>		
<i>Tech. Officer: LARC/R J DEYOUNG</i>			<i>Tech. Officer: GSFC/D DETROYE</i>		
<i>CASE Category: 46 – MECHANICAL ENGR</i>			<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>		
<b>NGT 1 52230</b>	<b>OLD DOMINION UNIV</b>	<b>9243</b>	<b>NGT 5 40080</b>	<b>OLD DOMINION UNIV</b>	<b>9252</b>
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) 04/21/2000 - 06/30/2001			VIRGINIA SPACE GRANT COLLEGE & FELLOWSHIP PROGRAM 02/09/2001 - 01/31/2002		
FY01: \$0		Total: \$22,000	FY01: \$694,809		Total: \$694,809
<i>Prin. Invest.: M MIHALECZ</i>			<i>Prin. Invest.: M SANDY</i>		
<i>Tech. Officer: LARC/P C SCHUTTE</i>			<i>Tech. Officer: GSFC/D D DETROYE</i>		
<i>CASE Category: 69 – PSYCHOLOGY, OTHER</i>			<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>		

**NAG 5 5165** ROANOKE COLLEGE 9253  
 IMPROVED MODELING FOR THE COSMIC RAY ORIGIN FUNDING FOR FIRST  
 YEAR OF GRANT  
 03/09/1998 - 03/31/2002 FY01: \$0 Total: \$115,750  
*Prin. Invest.: C H TSAO*  
*Tech. Officer: GSFC/B A MERRITT*  
*CASE Category: 13 – PHYSICS*

**NAG 8 1208** ROANOKE COLLEGE 9254  
 JOVE  
 09/25/1995 - 08/31/2000 FY01: \$0 Total: \$51,008  
*Prin. Invest.: A F BARGHOUTY*  
*Tech. Officer: MSFC/D SIX*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 1 1964** UNIV OF VIRGINIA 9255  
 INTELLIGENT PROCESSING OF MATERIALS FOR DESIGN AND MANUFACTURING, ETC.  
 09/30/1997 - 12/31/2000 FY01: \$0 Total: \$4,877,789  
*Prin. Invest.: H N WADLEY*  
*Tech. Officer: LARC/C MOORE*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 1 2016** UNIV OF VIRGINIA 9256  
 EFFECT OF DISCONTINUITIES AND UNCERTAINTIES ON THE RESPONSE  
 AND FAILURE OF COMPOSITE STRUCTURES  
 02/27/1998 - 01/31/2001 FY01: -\$5,885 Total: \$283,396  
*Prin. Invest.: A K NOOR*  
*Tech. Officer: LARC/J H STARNES*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 1 2031** UNIV OF VIRGINIA 9257  
 LOAD DIFFUSION IN COMPOSITE STRUCTURES  
 03/25/1998 - 03/24/2000 FY01: -\$1 Total: \$39,333  
*Prin. Invest.: C O HORGAN*  
*Tech. Officer: LARC/J H STARNES, LARC/M P NEMETH*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 1 2131** UNIV OF VIRGINIA 9258  
 DUAL-MODE COMBUSTION (FOLLOW-ON TO NAG-1-2085)  
 01/26/1999 - 10/31/2001 FY01: \$144,412 Total: \$469,412  
*Prin. Invest.: J C McDANIEL, E H MASLAN, H K CHELLIAH*  
*Tech. Officer: LARC/D E REUBUSH, LARC/C R MCCLINTON*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 1 2176** UNIV OF VIRGINIA 9259  
 DAMAGE-TOLERANCE OF LIGHT AEROSPACE ALLOYS UNDER DEMANDING  
 MECHANICAL & ELECTROCHEMICAL CONDITIONS  
 03/31/1999 - 12/31/2000 FY01: \$0 Total: \$343,937  
*Prin. Invest.: R P GANGLOFF, E A STARKE*  
*Tech. Officer: LARC/D L DICUS, LARC/N S DOMACK*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NAG 1 2282** UNIV OF VIRGINIA 9260  
 METALLURGICAL FACTORS CONTROLLING LOCALIZED CORROSION AND  
 STRESS CORROSION CRACK INITIATIONIN  
 03/22/2000 - 02/28/2001 FY01: \$1 Total: \$49,501  
*Prin. Invest.: D A LITTLE, J R SCULLY*  
*Tech. Officer: LARC/M S DOMACK/D L DICUS*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NAG 1 2290** UNIV OF VIRGINIA 9261  
 PRACTICAL USE OF FORMAL TECHNIQUES IN AEROSPACE IN SOFTWARE  
 SYSTEMS  
 05/01/2000 - 11/30/2002 FY01: \$217,616 Total: \$367,616  
*Prin. Invest.: J C KNIGHT, D E EVANS*  
*Tech. Officer: LARC/K J HAYHURST*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 1 2321** UNIV OF VIRGINIA 9262  
 DEVELOPMENT OF SENSORY ALLOYS FOR ACCOUSTIC STRAIN MONITORS  
 08/14/2000 - 08/31/2001 FY01: \$89,977 Total: \$129,977  
*Prin. Invest.: G SHIFLET*  
*Tech. Officer: LARC/R PIASCIK*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NAG 1 01022** UNIV OF VIRGINIA 9263  
 END EFFECTS AND LOAD DIFFUSION IN COMPOSITE STRUCTURES  
 03/21/2001 - 12/31/2001 FY01: \$50,000 Total: \$50,000  
*Prin. Invest.: C O HORGAN*  
*Tech. Officer: LARC/M P NEMETH*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NAG 1 01051** UNIV OF VIRGINIA 9264  
 EXPERIMENTAL CHARACTERIZATION OF CONTINUUM/ RAREFIELD FLOWS  
 05/18/2001 - 02/29/2004 FY01: \$49,972 Total: \$49,972  
*Prin. Invest.: J C McDANIEL, JR, D E CECIL*  
*Tech. Officer: LARC/C E GLASS*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 1 01120** UNIV OF VIRGINIA 9265  
 UNSTEADY AERODYNAMICS OF FLAPPING WINGS  
 08/16/2001 - 08/31/2004 FY01: \$50,000 Total: \$50,000  
*Prin. Invest.: N NAJ-HARERI*  
*Tech. Officer: LARC/D D MOERDER*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 3 1916** UNIV OF VIRGINIA 9266  
 INSTABILITY MECHANISMS OF THERMALLY-DRIVEN INTERFA CIAL FLOWS  
 IN LIGHT-ENCAPSULATED CRYSTALGROWTH  
 07/16/1996 - 07/16/2001 FY01: \$0 Total: \$336,000  
*Prin. Invest.: H HAJ-HARIRI*  
*Tech. Officer: GRC/T GLASGOW*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 3 1928** UNIV OF VIRGINIA 9267  
 HETEROGENEOUS COMB OF POROUS SOLLID FUEL PART UNDE R MICRO-  
 GRAV: A COMPREHENSIVE THERO & EXPSTUDIES  
 07/23/1996 - 07/24/2001 FY01: \$0 Total: \$215,705  
*Prin. Invest.: H CHELLIAH, F MILLER*  
*Tech. Officer: GRC/H ROSS*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 3 2359** UNIV OF VIRGINIA 9268  
 RLV THRUST CELL LINER COATING ANALYSIS AND OPTIMIZ ATION  
 03/16/2000 - 09/30/2001 FY01: \$23,000 Total: \$81,500  
*Prin. Invest.: M J PINDERA*  
*Tech. Officer: GRC/S M ARNOLD*  
*CASE Category: 49 – ENGINEERING, OTHER*

<b>NAG 3 2411</b>	<b>UNIV OF VIRGINIA</b>	<b>9269</b>	<b>NAG 5 4779</b>	<b>UNIV OF VIRGINIA</b>	<b>9277</b>
IMPACT OF INTERNALLY-COOLED FUNCTIONALLY GRADED CY LINDERS			AQUARIUS		
05/09/2000 - 04/04/2001	FY01: \$0	Total: \$30,000	06/18/1997 - 12/31/2000	FY01: -\$881	Total: \$594,192
<i>Prin. Invest.: M J PINDERA</i>			<i>Prin. Invest.: M GARSTANG</i>		
<i>Tech. Officer: GRC/S M ARNOLD</i>			<i>Tech. Officer: GSFC/R J LAWRENCE</i>		
<i>CASE Category: 49 – ENGINEERING, OTHER</i>			<i>CASE Category: 31 – ATMOSPHERIC SCIENCE</i>		
<b>NAG 3 2524</b>	<b>UNIV OF VIRGINIA</b>	<b>9270</b>	<b>NAG 5 6043</b>	<b>UNIV OF VIRGINIA</b>	<b>9278</b>
HOMOGENIZED AND SMART HOTFGM			EFFECTS OF THE DEVELOPMENT OF THE BAIKAL-AMUR MAIN PATTERNS		
01/19/2001 - 11/30/2001	FY01: \$160,057	Total: \$160,057	OF BOREAL FOREST COVER AND CARBON FLUXES		
<i>Prin. Invest.: M PINDERA</i>			07/23/1997 - 07/31/2000	FY01: \$0	Total: \$159,113
<i>Tech. Officer: GRC/S M ARNOLD</i>			<i>Prin. Invest.: H SHUGART</i>		
<i>CASE Category: 44 – CIVIL ENGR</i>			<i>Tech. Officer: GSFC/A JANETOS</i>		
<b>NAG 5 3633</b>	<b>UNIV OF VIRGINIA</b>	<b>9271</b>	<i>CASE Category: 39 – ENVIRONMENTAL SCI, OTHER</i>		
CHARGED PARTICLE INDUCED ALTERATIONS OF SURFACES I			<b>NAG 5 6351</b>	<b>UNIV OF VIRGINIA</b>	<b>9279</b>
03/13/1997 - 01/31/2002	FY01: \$0	Total: \$145,005	VEMAP PHASE II.		
<i>Prin. Invest.: R E JOHNSON</i>			09/12/1997 - 05/31/2001	FY01: \$0	Total: \$292,215
<i>Tech. Officer: GSFC/P G ROGERS</i>			<i>Prin. Invest.: T SMITH</i>		
<i>CASE Category: 32 – GEOLOGICAL SCIENCE</i>			<i>Tech. Officer: GSFC/A JANETOS</i>		
<b>NAG 5 3931</b>	<b>UNIV OF VIRGINIA</b>	<b>9272</b>	<i>CASE Category: 39 – ENVIRONMENTAL SCI, OTHER</i>		
EROSIONAL PROCESSES ON MARS			<b>NAG 5 6384</b>	<b>UNIV OF VIRGINIA</b>	<b>9280</b>
03/12/1997 - 02/28/2002	FY01: \$60,000	Total: \$293,763	THE COUPLING LAND-USE AND LAND-COVER CHANGES, AND MIOMBO		
<i>Prin. Invest.: A D HOWARD</i>			WOODLANDS		
<i>Tech. Officer: GSFC/J G GRANT</i>			09/26/1997 - 10/31/2001	FY01: \$0	Total: \$570,165
<i>CASE Category: 32 – GEOLOGICAL SCIENCE</i>			<i>Prin. Invest.: P DESANKER</i>		
<b>NAG 5 3973</b>	<b>UNIV OF VIRGINIA</b>	<b>9273</b>	<i>Tech. Officer: GSFC/A C JANETOS</i>		
ADVANCED COMPUTATIONAL METHODS FOR THE NUMERICAL S METEOROLOGICAL FLOW PROBLEMS			<i>CASE Category: 39 – ENVIRONMENTAL SCI, OTHER</i>		
03/03/1997 - 01/31/2001	FY01: \$0	Total: \$326,830	<b>NAG 5 6403</b>	<b>UNIV OF VIRGINIA</b>	<b>9281</b>
<i>Prin. Invest.: J J DORNING</i>			CRITICAL TESTS OF STELLAR EVOLUTION (LTSA)		
<i>Tech. Officer: GSFC/K H BERGMAN</i>			10/10/1997 - 10/14/2002	FY01: \$86,400	Total: \$400,799
<i>CASE Category: 31 – ATMOSPHERIC SCIENCE</i>			<i>Prin. Invest.: R O'CONNELL</i>		
<b>NAG 5 4192</b>	<b>UNIV OF VIRGINIA</b>	<b>9274</b>	<i>Tech. Officer: GSFC/R K OLIVERSEN</i>		
ION COLLISON PROCESSES:PLASMA INTERACTIONS WITH AN NEUTRAL CORONA			<i>CASE Category: 11 – ASTRONOMY</i>		
04/10/1997 - 03/31/2002	FY01: \$83,600	Total: \$408,848	<b>NAG 5 6507</b>	<b>UNIV OF VIRGINIA</b>	<b>9282</b>
<i>Prin. Invest.: D E JOHNSON</i>			THE DEVELOPMENT OF SUBMILLIMETER WAVELENGTH RECEIVERS FOR		
<i>Tech. Officer: GSFC/J BERGSTRAHL</i>			MICROWAVE/REMOTE SENSING		
<i>CASE Category: 31 – ATMOSPHERIC SCIENCE</i>			11/04/1997 - 05/31/2000	FY01: \$0	Total: \$356,217
<b>NAG 5 4283</b>	<b>UNIV OF VIRGINIA</b>	<b>9275</b>	<i>Prin. Invest.: J HESLER</i>		
EROSION AND ALTERATION OF INTERSTELLAR AND INTERPL			<i>Tech. Officer: GSFC/L HILLIARD</i>		
04/07/1997 - 05/31/2002	FY01: \$35,000	Total: \$177,700	<i>CASE Category: 31 – ATMOSPHERIC SCIENCE</i>		
<i>Prin. Invest.: D E JOHNSON</i>			<b>NAG 5 6828</b>	<b>UNIV OF VIRGINIA</b>	<b>9283</b>
<i>Tech. Officer: GSFC/D BOYCE</i>			GAS EVOLUTION FROM ICY SURFACES		
<i>CASE Category: 11 – ASTRONOMY</i>			01/15/1998 - 07/31/2001	FY01: \$0	Total: \$130,643
<b>NAG 5 4332</b>	<b>UNIV OF VIRGINIA</b>	<b>9276</b>	<i>Prin. Invest.: R BARAGIOLA</i>		
SUBLIMATION AND OPTICAL PROPERTIES OF ICES AT LOW TO SOLAR			<i>Tech. Officer: GSFC/R BEEBE</i>		
SYSTEM OBJECTS			<i>CASE Category: 11 – ASTRONOMY</i>		
04/30/1997 - 08/31/2001	FY01: \$0	Total: \$193,971	<b>NAG 5 7033</b>	<b>UNIV OF VIRGINIA</b>	<b>9284</b>
<i>Prin. Invest.: D A BARAGIOLA</i>			EVALUATION OF INCREMENTAL RELEASES OF ECS USER INTERFACES		
<i>Tech. Officer: GSFC/P ROGERS</i>			AND THE DEVELOPMENT OF HDF/HDF-EOS		
<i>CASE Category: 32 – GEOLOGICAL SCIENCE</i>			02/19/1998 - 09/30/2000	FY01: -\$571	Total: \$113,280

**NAG 5 7104**           **UNIV OF VIRGINIA**           **9285**  
 ULTRAVIOLET SPECTRAL DIAGNOSTICS FOR OLD STELLAR POPULATIONS  
 03/13/1998 – 03/31/2001     FY01: \$0               Total: \$41,875  
*Prin. Invest.: R T ROOD*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7266**           **UNIV OF VIRGINIA**           **9286**  
 SOUTHERN AFRICAN VALIDATION OF EOS GROUND AND AIRB ORNE  
 INSTRUMENTATION AND VALIDATION ACTIVITIES  
 04/30/1998 – 08/30/2001     FY01: \$0               Total: \$499,858  
*Prin. Invest.: R J SWAPP*  
*Tech. Officer: GSFC/J PRIVETTE*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 7417**           **UNIV OF VIRGINIA**           **9287**  
 CENTRAL AFRICAN REGIONAL PROJECT FOR THE ENVIRONME NT:  
 REMOTE SENSING AND GIS SUPPORT ACTIVITIES  
 05/22/1998 – 01/31/2000     FY01: -\$789           Total: \$178,211  
*Prin. Invest.: C JUSTICE*  
*Tech. Officer: GSFC/C TUCKER*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 7500**           **UNIV OF VIRGINIA**           **9288**  
 MAGNETOHYDRODYNAMICS OF THE SOLAR NEBULA  
 06/01/1998 – 05/31/2002     FY01: \$0               Total: \$164,000  
*Prin. Invest.: S BALBUS*  
*Tech. Officer: HQ/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7749**           **UNIV OF VIRGINIA**           **9289**  
 SPUTTERING OF THE MARTIAN ATMOSPHERE  
 11/04/1998 – 12/31/2001     FY01: \$59,370       Total: \$173,751  
*Prin. Invest.: R E JOHNSON*  
*Tech. Officer: GSFC/R BEEBE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 7862**           **UNIV OF VIRGINIA**           **9290**  
 SAFARI 2000: A SOUTHERN AFRICAN REGIONAL SCIENCE I INITIATIVE  
 01/08/1999 – 01/31/2002     FY01: \$95,347       Total: \$252,864  
*Prin. Invest.: C O JUSTICE*  
*Tech. Officer: GSFC/D WICKLAND*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 7939**           **UNIV OF VIRGINIA**           **9291**  
 "COLLABORATIVE PARTICIPATION OF SOUTH AFRICAN AIRB ORNE VALIDA-  
 TIONPLATFORM IN SAFARI2000"  
 01/04/1999 – 09/14/2001     FY01: \$0               Total: \$300,704  
*Prin. Invest.: R J SWAP*  
*Tech. Officer: GSFC/M KING*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 7956**           **UNIV OF VIRGINIA**           **9292**  
 LAND SURFACE CHARACTERIZATION OF SOUTHERN AFRICAN SAVANNAS:  
 CARBONCYCLING AND SENSITIVITY TO E  
 01/07/1999 – 01/31/2002     FY01: \$170,833       Total: \$605,642  
*Prin. Invest.: H H SHUGART*  
*Tech. Officer: GSFC/D E WICKLAND*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8088**           **UNIV OF VIRGINIA**           **9293**  
 SUPERNOVA-INFLUENCED STAR FORMATION  
 01/27/1999 – 12/31/2001     FY01: \$45,000       Total: \$130,000  
*Prin. Invest.: D A CHEVALIER*  
*Tech. Officer: HQ/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8130**           **UNIV OF VIRGINIA**           **9294**  
 MODELS OF PULSAR NEBULAE (ATP 98)  
 02/11/1999 – 02/14/2002     FY01: \$63,700       Total: \$185,500  
*Prin. Invest.: R A CHEVALIER*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8162**           **UNIV OF VIRGINIA**           **9295**  
 LAND COVER AND LAND USE CHANGE PROJECT SCIENTIST S UPPORT  
 02/08/1999 – 08/31/2001     FY01: \$0               Total: \$537,535  
*Prin. Invest.: C O JUSTICE*  
*Tech. Officer: GSFC/A C JANETOS*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8232**           **UNIV OF VIRGINIA**           **9296**  
 SUPERNOVA REMNANTS: INTERSTELLAR AND CIRCUMSTELLAR INTER-  
 ACTIONS (ATP98)  
 02/11/1999 – 02/14/2002     FY01: \$60,000       Total: \$180,000  
*Prin. Invest.: R A CHEVALIER*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8444**           **UNIV OF VIRGINIA**           **9297**  
 LABORATORY SIMULATIONS OF RADIATION EFFECTS ON PLA NETARY  
 SURFACES  
 04/07/1999 – 05/31/2002     FY01: \$109,000       Total: \$164,000  
*Prin. Invest.: R A BARAGIOLA, NONE*  
*Tech. Officer: HQ/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8585**           **UNIV OF VIRGINIA**           **9298**  
 EXTENDING THE VOCABULARY FOR CROSS-DISCIPLINARY SEARCHING  
 OF EOS DATA  
 06/24/1999 – 06/30/2001     FY01: \$0               Total: \$153,917  
*Prin. Invest.: J C FRENCH*  
*Tech. Officer: GSFC/K MOE*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 5 8612**           **UNIV OF VIRGINIA**           **9299**  
 TOWARD REAL-TIME ANALYSIS OF TERRESTRIAL CARBON CYCLING  
 06/11/1999 – 01/31/2000     FY01: -\$460          Total: \$65,540  
*Prin. Invest.: W R EMANUEL*  
*Tech. Officer: GSFC/D E WICKLAND*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8663**           **UNIV OF VIRGINIA**           **9300**  
 LOW COST TERAHERTZ FREQUENCY MULTIPLIERS FOR SOFIA AND  
 EXPLORER MISSIONS  
 07/07/1999 – 01/14/2002     FY01: \$0               Total: \$267,552  
*Prin. Invest.: T CROWE*  
*Tech. Officer: GSFC/G MUCKLOW*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NAG 5 8670**           **UNIV OF VIRGINIA**           **9301**  
ESTIMATING ROOT ZONE SOIL MOISTURE AND EXPLORING SCALE ASPECTS OF ITS COUPLING TO THE ATMOSPHERIC  
07/08/1999 - 07/14/2002    FY01: \$119,291           Total: \$346,695  
*Prin. Invest.: J D ALBERTSON*  
*Tech. Officer: GSFC/M Y WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8749**           **UNIV OF VIRGINIA**           **9302**  
TO DEVELOPE A COMPACT, AMBIENT TEMPERATURE 500 GHZ RECEIVER FOR USE IN PASSIVE MICROWAVE REMOTE SEN  
08/25/1999 - 09/30/2001    FY01: \$0                  Total: \$97,000  
*Prin. Invest.: J L HESLER*  
*Tech. Officer: GSFC/J R WANG*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 8838**           **UNIV OF VIRGINIA**           **9303**  
CENTRAL AFRICAN REGIONAL PROJECT FOR THE ENVIRON MENT: REMOTE SENSING AND GIS SUPPORT ACTIVITIES  
09/23/1999 - 09/30/2000    FY01: \$0                  Total: \$158,271  
*Prin. Invest.: C O JUSTICE*  
*Tech. Officer: GSFC/C J TUCKER*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8902**           **UNIV OF VIRGINIA**           **9304**  
MARTIAN CRATERED HIGHLANDS FIELD CONFERENCE  
12/28/1999 - 12/31/2001    FY01: \$0                  Total: \$22,000  
*Prin. Invest.: A HOWARD*  
*Tech. Officer: GSFC/J GRANT*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8954**           **UNIV OF VIRGINIA**           **9305**  
FAR-ULTRAVIOLET STUDIES OF METAL-DEFICIENT BLUE COMPACT DWARF GALAXIES – FUSE  
01/24/2000 - 01/31/2002    FY01: \$0                  Total: \$54,300  
*Prin. Invest.: T X THUAN*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9266**           **UNIV OF VIRGINIA**           **9306**  
NUMERICAL MAGNETOHYDRODYNAMIC STUDIES OF ACCRETION DISKS (ATP 99)  
03/13/2000 - 03/14/2002    FY01: \$94,530           Total: \$184,364  
*Prin. Invest.: J HAWLEY*  
*Tech. Officer: GSFC/R OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9289**           **UNIV OF VIRGINIA**           **9307**  
OPERATIONALIZING GOFC IN THE MIOMBO REGION & QUES TIONS OF CARBON MIOMBO REGION A SOURCE ORSINK  
03/27/2000 - 04/30/2002    FY01: \$129,986           Total: \$216,693  
*Prin. Invest.: P V DESANKER*  
*Tech. Officer: GSFC/G GUTMAN*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9357**           **UNIV OF VIRGINIA**           **9308**  
REGIONAL ANALYSIS OF LAND-ATMOSPHERE FEEDBACKS IN SOUTHERN AFRICAN SAVANNAS: A SYNTHESIS ACTIVITIES  
04/05/2000 - 04/30/2002    FY01: \$281,176           Total: \$463,121  
*Prin. Invest.: H H SHUGART*  
*Tech. Officer: GSFC/D E WICKLAND*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9654**           **UNIV OF VIRGINIA**           **9309**  
PRODUCTION OF DIABATIC HEATING IN THE TROPICAL TROPOSPHERE  
06/05/2000 - 05/31/2002    FY01: \$111,000           Total: \$183,333  
*Prin. Invest.: J D FUENTES*  
*Tech. Officer: GSFC/R J LAWRENCE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 9747**           **UNIV OF VIRGINIA**           **9310**  
INTEGRATING A MANUAL THESAURUS WITH AUTOMATED TERM SUGGESTION TECHNIQUES FOR CROSS-DISCIPLINARY  
07/11/2000 - 01/14/2002    FY01: \$0                  Total: \$82,338  
*Prin. Invest.: J FRENCH*  
*Tech. Officer: GSFC/K MOE*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 5 9758**           **UNIV OF VIRGINIA**           **9311**  
MOLECULAR ISTOPIC COMPOSITION OF ORGANIC COMPOUNDS IN ANTARCTIC METEORITES  
06/28/2000 - 06/30/2001    FY01: \$0                  Total: \$51,810  
*Prin. Invest.: S MACKO*  
*Tech. Officer: GSFC/M MEYER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 9900**           **UNIV OF VIRGINIA**           **9312**  
ARE THE SCUBA DEEP SURVEY SOURCES STARBURSTS OR AGN?  
09/06/2000 - 09/14/2001    FY01: \$0                  Total: \$12,300  
*Prin. Invest.: T X THUAN*  
*Tech. Officer: GSFC/R F MUSHOTZKY*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10074**           **UNIV OF VIRGINIA**           **9313**  
STELLAR MASS LOSS VERSUS EXTERNAL ACCRETION IN X-RAY BRIGHT ELLIPTICALS  
10/27/2000 - 10/31/2002    FY01: \$40,000           Total: \$40,000  
*Prin. Invest.: C L SARAZIN*  
*Tech. Officer: GSFC/R MUSHOTZKY*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10075**           **UNIV OF VIRGINIA**           **9314**  
MERGER SHOCKS IN CLUSTERS OF GALAXIES  
10/27/2000 - 10/31/2002    FY01: \$38,700           Total: \$38,700  
*Prin. Invest.: C L SARAZIN*  
*Tech. Officer: GSFC/R MUSHOTZKY*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10173**           **UNIV OF VIRGINIA**           **9315**  
CHARGED PARTICLE ALTERATIONS OF THE SURFACES IN THE OUTER SOLAR SYSTEM  
12/21/2000 - 01/31/2002    FY01: \$39,000           Total: \$39,000  
*Prin. Invest.: R E JOHNSON, NONE*  
*Tech. Officer: GSFC/D SENSKA*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 10250**           **UNIV OF VIRGINIA**           **9316**  
 OBSERVATIONS OF O VI EMISSION IN THE HOT HALO OF NGC 891 (FUSE 00)  
 02/15/2001 - 02/14/2002      FY01: \$69,997      Total: \$69,997  
*Prin. Invest.:* E M MURPHY  
*Tech. Officer:* GSFC/G SONNEBORN  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 10341**           **UNIV OF VIRGINIA**           **9317**  
 THE INTERSTELLAR MEDIUM OF BLUE COMPACT DWARF GALAXIES (FUSE 00)  
 02/05/2001 - 02/14/2002      FY01: \$77,800      Total: \$77,800  
*Prin. Invest.:* T X THUAN  
*Tech. Officer:* GSFC/G SONNEBORN  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 10436**           **UNIV OF VIRGINIA**           **9318**  
 STRUCTURE & REFLECTANCE OF SURFACES OF ICY BODIES: LABORATORY SIMULATIONS  
 02/20/2001 - 02/28/2002      FY01: \$50,500      Total: \$50,500  
*Prin. Invest.:* R A BARAGIOLA  
*Tech. Officer:* GSFC/D SENSKA  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 10606**           **UNIV OF VIRGINIA**           **9319**  
 ANALYSIS OF IN-SITU OBSERVATIONS OF AEROSOLS OVER SOUTHERN AFRICA  
 03/15/2001 - 03/14/2002      FY01: \$71,973      Total: \$71,973  
*Prin. Invest.:* R SWAP  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NAG 5 10655**           **UNIV OF VIRGINIA**           **9320**  
 MAGNETOHYDRODYNAMICS IN PROTOSTELLAR DISKS  
 03/20/2001 - 05/31/2002      FY01: \$30,000      Total: \$30,000  
*Prin. Invest.:* S BALBUS  
*Tech. Officer:* GSFC/J M BOYCE  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 10956**           **UNIV OF VIRGINIA**           **9321**  
 ADVANCED IMAGE PROCESSING FOR IMAGE2000 ENHANCE- MENTS  
 05/30/2001 - 05/31/2002      FY01: \$50,000      Total: \$50,000  
*Prin. Invest.:* G WILLIAMS  
*Tech. Officer:* WFF/B MERRITT  
*CASE Category:* 29 – MATH/COMPUTER SCI, OTHER

**NAG 5 10985**           **UNIV OF VIRGINIA**           **9322**  
 SOUTHERN AFRICAN VALIDATION OF EOS GROUND AND AIR- BORNE INSTRUMENTATION AND VALIDATION ACTIVITIES  
 05/31/2001 - 05/31/2002      FY01: \$58,997      Total: \$58,997  
*Prin. Invest.:* R J SWAPP  
*Tech. Officer:* GSFC/J PRIVETTE  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NAG 5 11341**           **UNIV OF VIRGINIA**           **9323**  
 CARPE GIS MAPPING ACTIVITY  
 09/24/2001 - 09/30/2002      FY01: \$9,004      Total: \$9,004  
*Prin. Invest.:* C O JUSTICE  
*Tech. Officer:* GSFC/C J TUCKER  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NAG 8 1567**           **UNIV OF VIRGINIA**           **9324**  
 MEMBRANE PROTEIN CRYSTALLIZATION SCREENS BASED UPON FUNDAMENTAL PHENOMENOLOGY OF SOLUTIONS  
 12/22/1998 - 11/30/2002      FY01: \$101,550      Total: \$459,550  
*Prin. Invest.:* M C WIENER  
*Tech. Officer:* MSFC/B GUYNES  
*CASE Category:* 13 – PHYSICS

**NAG 8 1832**           **UNIV OF VIRGINIA**           **9325**  
 A DIRECTED APPROACH TO MEMBRANE PROTEIN CRYSTALLO- GRAPHY  
 09/05/2001 - 11/30/2004      FY01: \$91,000      Total: \$91,000  
*Prin. Invest.:* M C WIENER  
*Tech. Officer:* MSFC/B Q GUYNES  
*CASE Category:* 59 – LIFE SCIENCE, OTHER

**NAS 1 99098**           **UNIV OF VIRGINIA**           **9326**  
 ANALYTICAL AERONAUTICAL SAFETY SOFTWARE TOOL  
 03/26/1999 - 11/25/2001      FY01: \$228,087      Total: \$700,087  
*Prin. Invest.:* J BECHTA-DUGAN, K J SULLIZAN  
*Tech. Officer:* LARC/H A ROELANT, LARC/D J PORTER,JR.  
*CASE Category:* 49 – ENGINEERING, OTHER

**NAS 3 97190**           **UNIV OF VIRGINIA**           **9327**  
 HOTFGM CYLINDER A COUPLED MICRO MACROSTRUCTURAL TH EORY  
 10/29/1997 - 03/01/2000      FY01: \$0      Total: \$157,629  
*Prin. Invest.:* M PINDERG, J ABOUDI  
*Tech. Officer:* GRC/S ARNOLD  
*CASE Category:* 41 – AERONAUTICAL ENGRN

**NCC 1 237**           **UNIV OF VIRGINIA**           **9328**  
 NASA-VIRGINIA CONSORTIUM OF ENGINEERING & SCIENCE UNIVERSITIES PH.D RESEARCH ASSISTANTSHIP PROGRAM  
 07/16/1996 - 08/31/2000      FY01: -\$7,828      Total: \$469,099  
*Prin. Invest.:* D CHESTNUTT  
*Tech. Officer:* LARC/S E MASSENBERG, LARC/E J PRIOR  
*CASE Category:* 41 – AERONAUTICAL ENGRN

**NCC 1 263**           **UNIV OF VIRGINIA**           **9329**  
 CENTER FOR ADVANCED COMPUTATIONAL TECHNOLOGY MY 1/3  
 08/20/1997 - 12/31/2000      FY01: -\$71,498      Total: \$1,653,503  
*Prin. Invest.:* A K NOORE  
*Tech. Officer:* LARC/K A CANNON  
*CASE Category:* 41 – AERONAUTICAL ENGRN

**NCC 1 342**           **UNIV OF VIRGINIA**           **9330**  
 ROBUST ADAPTIVE CONTROL IN THE PRESENCE OF UNCERTAINTIES AND FAILURES  
 06/08/1999 - 05/31/2002      FY01: \$52,000      Total: \$129,001  
*Prin. Invest.:* G TAO  
*Tech. Officer:* LARC/S M JOSHI, LARC/C M BELCASTRO  
*CASE Category:* 41 – AERONAUTICAL ENGRN

**NCC 1 361**           **UNIV OF VIRGINIA**           **9331**  
 NONLINEAR IMPEDANCE OF POROUS MATERIALS  
 11/12/1999 - 11/14/2002      FY01: \$54,473      Total: \$106,473  
*Prin. Invest.:* W E ZORUMSKI  
*Tech. Officer:* LARC/T L PARROTT, LARC/M G JONES  
*CASE Category:* 13 – PHYSICS

**NCC 1 01009**           **UNIV OF VIRGINIA**           **9332**  
 DEVELOPMENT & EVALUATION OF LAP JOINT SIMULANT ENVIRONMENTS  
 FOR ACCELERATED TESTING  
 12/14/2000 - 12/31/2002     FY01: \$60,000         Total: \$60,000  
*Prin. Invest.:* R G KELLY  
*Tech. Officer:* LARC/R S PIASCICK  
*CASE Category:* 47 – METAL & MATERIALS ENGR

**NCC 2 1093**           **UNIV OF VIRGINIA**           **9333**  
 WHEN ARE THE IMMERSIVE DISPLAYS USEFUL: PERCEPTUAL & TASK  
 CONSIDERATIONS?  
 03/09/1999 - 02/28/2002     FY01: \$145,117         Total: \$441,768  
*Prin. Invest.:* D R PROFFITT  
*Tech. Officer:* ARC/M K KAISER  
*CASE Category:* 69 – PSYCHOLOGY, OTHER

**NCC 2 1192**           **UNIV OF VIRGINIA**           **9334**  
 THE TOPOGRAPHY & BASIN DEPOSITS OF THE EQUATORIAL HIGHLANDS  
 08/28/2000 - 08/31/2001     FY01: \$11,000         Total: \$22,000  
*Prin. Invest.:* A D HOWARD  
*Tech. Officer:* ARC/J M MOORE  
*CASE Category:* 19 – PHYSICAL SCIENCE, OTHER

**NCC 2 5415**           **UNIV OF VIRGINIA**           **9335**  
 THEORETICAL CALCULATIONS OF POLYNUCLEAR TRANSITION METAL  
 CARBONYLS  
 01/19/2001 - 01/31/2002     FY01: \$60,000         Total: \$60,000  
*Prin. Invest.:* L S ANDREWS  
*Tech. Officer:* ARC/H PARTRIDGE  
*CASE Category:* 12 – CHEMISTRY

**NCC 8 171**           **UNIV OF VIRGINIA**           **9336**  
 MODELING PROSTATE CANCER SKELETAL METASTASIS AND GENE  
 THERAPY  
 03/01/1999 - 11/30/2002     FY01: \$169,100         Total: \$463,100  
*Prin. Invest.:* L W CHUNG  
*Tech. Officer:* MSFC/D R MORRISON  
*CASE Category:* 51 – BIOLOGY (EXCLUDING ENVIR)

**NGT 1 01016**           **UNIV OF VIRGINIA**           **9337**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) MY 1/2  
 06/22/2001 - 06/30/2003     FY01: \$12,000         Total: \$12,000  
*Prin. Invest.:* B W JOHNSON  
*Tech. Officer:* LARC/P M GOODE, LARC/A T MORRIS  
*CASE Category:* 29 – MATH/COMPUTER SCI, OTHER

**NGT 1 01031**           **UNIV OF VIRGINIA**           **9338**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) MY 1/2  
 06/22/2001 - 06/30/2003     FY01: \$12,000         Total: \$12,000  
*Prin. Invest.:* J C McDANIEL, JR  
*Tech. Officer:* LARC/C E GLASS  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NGT 1 52187**           **UNIV OF VIRGINIA**           **9339**  
 GRADUATE STUDENT RESEARCHERS PROGRAM  
 06/04/1998 - 09/30/2000     FY01: \$0                 Total: \$44,000  
*Prin. Invest.:* C T HEROKOVICH  
*Tech. Officer:* LARC/J H STORRIES  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NGT 1 52212**           **UNIV OF VIRGINIA**           **9340**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 05/28/1999 - 06/30/2000     FY01: -\$589             Total: \$21,411  
*Prin. Invest.:* D A STAACK, J C McDANREL  
*Tech. Officer:* LARC/C E GLASS, LARC/C G MILLER  
*CASE Category:* 13 – PHYSICS

**NGT 1 52234**           **UNIV OF VIRGINIA**           **9341**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 05/26/2000 - 12/31/2000     FY01: -\$3                 Total: \$11,914  
*Prin. Invest.:* H G WOOD  
*Tech. Officer:* LARC/R H THOMAS  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NGT 1 52237**           **UNIV OF VIRGINIA**           **9342**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 04/27/2000 - 06/30/2001     FY01: \$12,000         Total: \$22,000  
*Prin. Invest.:* C R ELKS  
*Tech. Officer:* LARC/P W GOODE, LARC/A T MORRIS  
*CASE Category:* 29 – MATH/COMPUTER SCI, OTHER

**NGT 1 52244**           **UNIV OF VIRGINIA**           **9343**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 08/07/2000 - 06/30/2001     FY01: \$12,000         Total: \$22,000  
*Prin. Invest.:* R W KENT  
*Tech. Officer:* LARC/L E JONES  
*CASE Category:* 49 – ENGINEERING, OTHER

**NGT 1 52247**           **UNIV OF VIRGINIA**           **9344**  
 GRADUATE STUDENT RESEARCHERS PROGRAM  
 08/01/2000 - 06/30/2001     FY01: \$12,000         Total: \$22,000  
*Prin. Invest.:* J C McDANIEL JR, D E CECIL  
*Tech. Officer:* GSFC/C E GLASS  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NGT 5 30365**           **UNIV OF VIRGINIA**           **9345**  
 NEE MODIFICATION BY AEROSOL RADIATIVE FORCING/JORDAN G. BARR  
 08/13/2001 - 08/31/2004     FY01: \$22,000         Total: \$22,000  
*Prin. Invest.:* J FUENTES  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NGT 5 30418**           **UNIV OF VIRGINIA**           **9346**  
 STRUCTURAL DYNAMICS OF SOUTHERN AFRICAN SAVANNAS A LONG THE  
 KALAHARI TRANSECT--STUDENT: KELLY C  
 09/10/2001 - 08/31/2004     FY01: \$22,000         Total: \$22,000  
*Prin. Invest.:* H SHUGART  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NGT 5 50062**           **UNIV OF VIRGINIA**           **9347**  
 APPROACHES FOR IMPROVING ACCESS TO NASA'S SCIENTIFIC  
 08/04/1997 - 06/30/2000     FY01: -\$73                 Total: \$65,927  
*Prin. Invest.:* J FRENCH  
*Tech. Officer:* HQ/A NURRIDIN  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NGT 5 50305**      **UNIV OF VIRGINIA**      **9348**  
 USING NOVEL MEMBRANE PROTEIN CRYSTALLIZATION SCREE NS FOR  
 THE STRUCTURE DETERMINATION OF ACHLORIDE  
 07/07/2000 - 06/30/2002      FY01: \$21,140      Total: \$42,252  
*Prin. Invest.: M C WIENER*  
*Tech. Officer: GSFC/L SMITH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT10 52620**      **UNIV OF VIRGINIA**      **9349**  
 TRAINING GRANT UNDER A GRADUATE STUDENT RESEARCHER'S  
 PROGRAM  
 06/22/1999 - 07/30/2002      FY01: \$22,000      Total: \$66,000  
*Prin. Invest.: A MILLS*  
*Tech. Officer: KSC/R WHEELER*  
*CASE Category: 55 – AGRICULTURE*

**NAG 1 1851**      **VA POLYTECHNIC INST & ST UNIV**      **9350**  
 AIRCRAFT NONLINEAR DYNAMICS STUDIES  
 06/26/1996 - 08/15/2000      FY01: -\$1      Total: \$229,641  
*Prin. Invest.: F H LUTZE, W H MASON*  
*Tech. Officer: LARC/J V FOSTER*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 1 1881**      **VA POLYTECHNIC INST & ST UNIV**      **9351**  
 RESIN FILM INFUSION (RFI) PROCESS MODELING FOR LARGE TRANSPORT  
 AIRCRAFT WING STRUCTURES  
 11/22/1996 - 05/15/2000      FY01: -\$1      Total: \$437,187  
*Prin. Invest.: A C LOOS*  
*Tech. Officer: LARC/H B DEXTTER*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NAG 1 1895**      **VA POLYTECHNIC INST & ST UNIV**      **9352**  
 THE NASA-VIRGINIA TECH COMPOSITE PROGRAM: INVESTIGATION OF  
 COMPOSITE STRUCTURES  
 01/29/1997 - 08/31/2000      FY01: \$0      Total: \$202,273  
*Prin. Invest.: M W HYER*  
*Tech. Officer: LARC/J H STAMES*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 1 1942**      **VA POLYTECHNIC INST & ST UNIV**      **9353**  
 TURBULENCE IN HELICOPTER ROTOR FLOWS AND THE MECHA NISM OF  
 NOISE PRODUCTION  
 06/04/1997 - 12/31/2000      FY01: -\$39      Total: \$272,827  
*Prin. Invest.: W J DEVENPORT*  
*Tech. Officer: LARC/C L BURLEY, LARC/T F BROOKS*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 1 1959**      **VA POLYTECHNIC INST & ST UNIV**      **9354**  
 EARTH RADIATION MEASUREMENT SCIENCE MY 1/3  
 08/05/1997 - 08/15/2000      FY01: -\$14,501      Total: \$298,184  
*Prin. Invest.: G L SMITH, J R MAHAN*  
*Tech. Officer: LARC/R B LEE, III, LARC/R L HUFFMAN, JR.*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 1 2106**      **VA POLYTECHNIC INST & ST UNIV**      **9355**  
 EVALUATION AND IMPROVEMENT OF EARTH RADIATION BUDGET DATA  
 SETS  
 09/17/1998 - 09/30/2001      FY01: \$237,527      Total: \$674,454  
*Prin. Invest.: M P HAEFFELIN*  
*Tech. Officer: LARC/D F YOUNG*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 1 2111**      **VA POLYTECHNIC INST & ST UNIV**      **9356**  
 AIRPLANE CONTROL ALLOCATION STUDY  
 09/16/1998 - 08/07/2000      FY01: -\$1      Total: \$99,500  
*Prin. Invest.: W C DURHAM*  
*Tech. Officer: LARC/J V FOSTER*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 1 2128**      **VA POLYTECHNIC INST & ST UNIV**      **9357**  
 INVESTIGATION OF NOVEL SPACE-BORNE BROADBAND RADIO METER  
 CONCEPTS  
 01/07/1999 - 10/31/2001      FY01: \$105,319      Total: \$297,806  
*Prin. Invest.: J R MAHAN*  
*Tech. Officer: LARC/R B LEE, ARC/R L HUFFMAN, JR.*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 1 2137**      **VA POLYTECHNIC INST & ST UNIV**      **9358**  
 CONTROL OF FAN NOISE FROM TURBOFAN ENGINES USING ADAPTIVE  
 HERSCHEL-QUINCKE TUBES, NRA 98-LARC-3  
 01/28/1999 - 04/15/2001      FY01: \$0      Total: \$179,377  
*Prin. Invest.: R A BURDISSO*  
*Tech. Officer: LARC/C H GERHOLD, LARC/J W POSEY*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 1 2158**      **VA POLYTECHNIC INST & ST UNIV**      **9359**  
 HYBRID ACTIVE-PASSIVE SYSTEMS FOR CONTROL OF AIRCR AFT  
 INTERIOR NOISE  
 03/09/1999 - 12/31/2001      FY01: \$146,739      Total: \$414,882  
*Prin. Invest.: C R FULLER*  
*Tech. Officer: LARC/D L PALUMBO*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 1 2190**      **VA POLYTECHNIC INST & ST UNIV**      **9360**  
 EFFICIENT HYBRID ACTUATION USING SOLID-STATE ACTUATORS  
 07/06/1999 - 04/30/2002      FY01: -\$300      Total: \$314,123  
*Prin. Invest.: D J LEO, H H CUDNEY*  
*Tech. Officer: LARC/G C HORNER, LARC/R G REMUS*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 1 2246**      **VA POLYTECHNIC INST & ST UNIV**      **9361**  
 CONTROL LAW -- CONTROL ALLOCATION INTERACTION  
 09/17/1999 - 09/30/2000      FY01: \$0      Total: \$25,000  
*Prin. Invest.: W C DURHAM*  
*Tech. Officer: LARC/J B DAVIDSON*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 1 2272**      **VA POLYTECHNIC INST & ST UNIV**      **9362**  
 AERODYNAMIC STUDIES RELATED TO THE AEROACOUSTICS OF  
 TILTROTOR BLADES  
 03/24/2000 - 02/28/2003      FY01: \$80,000      Total: \$160,000  
*Prin. Invest.: W J DAVENPORT*  
*Tech. Officer: LARC/C L BURLEY, LARC/T F BROOKS*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 1 2277**      **VA POLYTECHNIC INST & ST UNIV**      **9363**  
 FINITE ELEMENT MODEL UPDATING OF UNCERTAIN SYSTEMS  
 03/08/2000 - 02/28/2003      FY01: \$30,000      Total: \$62,117  
*Prin. Invest.: R KAPANIA*  
*Tech. Officer: LARC/L G HORTA, LARC/J JUANG*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 1 2281 VA POLYTECHNIC INST & ST UNIV 9364**  
 AEROELASTIC MODELING & BEHAVIOR OF LIFTING SURFACES INCORPORATING AERODYNAMIC & STRUCTURAL  
 03/21/2000 - 09/30/2000 FY01: \$0 Total: \$26,000  
*Prin. Invest.: L LIBRESCU*  
*Tech. Officer: LARC/W A SILVA*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 1 2286 VA POLYTECHNIC INST & ST UNIV 9365**  
 ANALYSIS OF COMPOSITE STRUCTURES USING NON- TRADITIONAL METHODS  
 03/30/2000 - 03/31/2001 FY01: \$0 Total: \$30,000  
*Prin. Invest.: R K KAPAUJA*  
*Tech. Officer: LARC/I S RAJU*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 1 2298 VA POLYTECHNIC INST & ST UNIV 9366**  
 RESIDUAL STRESS EFFECTS IN ANISOTROPIC COMPOSITE LAMINATES  
 05/24/2000 - 05/15/2003 FY01: \$50,000 Total: \$80,000  
*Prin. Invest.: M W HYER*  
*Tech. Officer: LARC/D R AMBUR*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 1 2309 VA POLYTECHNIC INST & ST UNIV 9367**  
 ANALYSIS FOR THE PROGRESSIVE FAILURE RESPONSE OF TEXTILE COMPOSITE FUSELAGE FRAMES  
 06/14/2000 - 06/09/2001 FY01: \$29,312 Total: \$49,312  
*Prin. Invest.: E R JOHNSON*  
*Tech. Officer: LARC/R L BOITNOTT*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 1 2310 VA POLYTECHNIC INST & ST UNIV 9368**  
 PUNCTURE-HEALING PROPERTIES OF CARBON NANOTUBE- FILLED IONOMERS  
 07/05/2000 - 07/31/2003 FY01: \$62,980 Total: \$102,870  
*Prin. Invest.: T C WARD*  
*Tech. Officer: LARC/E J SIOCHI, LARC/T L ST. CLAIR*  
*CASE Category: 12 – CHEMISTRY*

**NAG 1 2324 VA POLYTECHNIC INST & ST UNIV 9369**  
 FORMATION OF METAL NANAPHASES IN POLYMERIC MATRICES VIA SUPERCRITICAL FLUID INFUSION  
 08/24/2000 - 04/30/2001 FY01: \$7,000 Total: \$39,053  
*Prin. Invest.: L T TAYLOR*  
*Tech. Officer: LARC/T L ST. CLAIR, LARC/E J SIOCHI*  
*CASE Category: 12 – CHEMISTRY*

**NAG 1 2325 VA POLYTECHNIC INST & ST UNIV 9370**  
 FUNDAMENTAL STUDIES OF HQ TUBES WITH MODE MEASURE- MENTS  
 08/30/2000 - 08/15/2001 FY01: \$42,316 Total: \$62,316  
*Prin. Invest.: R A BURDISSO*  
*Tech. Officer: LARC/C H GERHOLD, LARC/J W POSEY*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 1 01007 VA POLYTECHNIC INST & ST UNIV 9371**  
 NONLINEAR AEROELASTICITY OF LIFTING SURFACES BY FUNCTIONAL SERIES TECHNIQUES: SUBCRITICAL  
 11/21/2000 - 09/30/2003 FY01: \$50,000 Total: \$50,000  
*Prin. Invest.: L LEBESCU*  
*Tech. Officer: LARC/W A SILVA*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 1 01018 VA POLYTECHNIC INST & ST UNIV 9372**  
 OPTICAL FIBER STRAIN SENSOR INSTRUMENTATION FOR HIGH TEMPERATURE AEROSPACE STRUCTURAL MONITORING  
 01/18/2001 - 12/31/2001 FY01: \$66,999 Total: \$66,999  
*Prin. Invest.: A WANG, G PICKRELL, R MAY*  
*Tech. Officer: LARC/R S ROGOWSKI*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NAG 1 01021 VA POLYTECHNIC INST & ST UNIV 9373**  
 VIRGINIA FIRST LEGO (VAFL).....COMPLETITION  
 02/16/2001 - 02/28/2001 FY01: \$7,500 Total: \$7,500  
*Prin. Invest.: C E NUNNALLY, W DUGGINS, E L NELSON*  
*Tech. Officer: LARC/J M SEATON, LARC/J L EVANS*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 1 01072 VA POLYTECHNIC INST & ST UNIV 9374**  
 FAILURE OF NONCIRCULAR COMPOSITE CYLINDERS MY 1/3  
 04/24/2001 - 05/15/2004 FY01: \$42,000 Total: \$42,000  
*Prin. Invest.: M W HYER*  
*Tech. Officer: LARC/M P NEMETH*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NAG 1 01100 VA POLYTECHNIC INST & ST UNIV 9375**  
 STUDY OF REQUIREMENTS ASND CONSTRAINTS FOR FOUR PASSENGER PERSONAL AIR VEHICLE EXPLORATION CONCEPT  
 06/16/2001 - 12/31/2001 FY01: \$50,000 Total: \$50,000  
*Prin. Invest.: J MARCHMAN, W MASON*  
*Tech. Officer: LARC/M D MOORE*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 1 01101 VA POLYTECHNIC INST & ST UNIV 9376**  
 THIN-WALLED STRUCTURES MULTIPLE INTERACTIVE FUNCTIONS- FOUNDATIONS OF THE THEORY AND BEHAVIOR  
 07/16/2001 - 07/15/2004 FY01: \$35,000 Total: \$35,000  
*Prin. Invest.: L LIBRESCU*  
*Tech. Officer: LARC/D R AMBUR*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NAG 1 01104 VA POLYTECHNIC INST & ST UNIV 9377**  
 INTEGRATION OF MACRO FIBER COMPOSITES INTO THE DYNAMICS AND CONTROL OF AN INFLATED TORUS  
 06/16/2001 - 06/15/2002 FY01: \$39,999 Total: \$39,999  
*Prin. Invest.: D J INMAN*  
*Tech. Officer: LARC/W K WILKIE*  
*CASE Category: 42 – ASTRONAUTICAL ENGR*

**NAG 1 01105 VA POLYTECHNIC INST & ST UNIV 9378**  
 EVOLUTIONARY STRATEGIES FOR PASSIVE/ACTIVE TAILORING OF THIN AND MODERATELY THICK WALLED  
 06/20/2001 - 06/19/2004 FY01: \$43,517 Total: \$43,517  
*Prin. Invest.: Z GURDAL*  
*Tech. Officer: LARC/D R AMBUR*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NAG 1 01112 VA POLYTECHNIC INST & ST UNIV 9379**  
 NEW MEAS & INTERPRETATION PROTOCOLS FOR SATELLITE- BASED EARTH RADIATION BUDGET (ERB) OBSERVATIONS  
 08/15/2001 - 09/30/2004 FY01: \$36,835 Total: \$36,835  
*Prin. Invest.: M A HAEFFLIN*  
*Tech. Officer: LARC/D F YOUNG*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 1 01123**      **VA POLYTECHNIC INST & ST UNIV**      **9380**  
ANALYSIS FOR THE PROGRESSIVE FAILURE RESPONSE OF TEXTILE COMPOSITE FUSELAGE FRAMES  
09/18/2001 - 06/09/2002      FY01: \$19,000      Total: \$19,000  
*Prin. Invest.: E R JOHNSON*  
*Tech. Officer: LARC/R B OITNOTT*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 2 1180**      **VA POLYTECHNIC INST & ST UNIV**      **9381**  
DESIGN SPACE EXPLORATION FOR MDO ON A TERAFLIP COMPUTER  
02/26/1998 - 01/31/2001      FY01: \$0      Total: \$102,830  
*Prin. Invest.: B GROSSMAN, L T WATSON, W H MASON*  
*Tech. Officer: ARC/G H KLOPFER*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 2 1292**      **VA POLYTECHNIC INST & ST UNIV**      **9382**  
NON-PARAMETRIC METHODS FOR AUTOMATED FLIGHT DATA CLASSIFICATION  
02/12/1999 - 08/31/2000      FY01: -\$7,593      Total: \$153,024  
*Prin. Invest.: M R ANDERSON*  
*Tech. Officer: ARC/J C STALER*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 2 1486**      **VA POLYTECHNIC INST & ST UNIV**      **9383**  
PERFORMANCE PREDICTION & VALIDATION FOR SMALL VTOL UAV'S  
06/18/2001 - 02/28/2002      FY01: \$123,980      Total: \$123,980  
*Prin. Invest.: A MYKLEBUST*  
*Tech. Officer: ARC/T NAUMONICE, ARC/C E HANGE*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 2 1521**      **VA POLYTECHNIC INST & ST UNIV**      **9384**  
ACCELERATING DESIGN INTEGRATED AIRCRAFT SYNTHESIS TOOLS  
09/10/2001 - 08/31/2002      FY01: \$159,020      Total: \$159,020  
*Prin. Invest.: A MYKLEBUST, J H BOHN*  
*Tech. Officer: ARC/D A WARDWELL*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 3 2093**      **VA POLYTECHNIC INST & ST UNIV**      **9385**  
AN INTEGRATED SYSTEMS APPROACH TOWARDS ACTIVE CONTROL OF THERMO-ACOUSTIC INSTABILITIES  
12/15/1997 - 10/31/2001      FY01: \$0      Total: \$292,803  
*Prin. Invest.: U VANDSBURGER, W R SAUNDERS, B GANESHAN*  
*Tech. Officer: GRC/J E MAY*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 3 2098**      **VA POLYTECHNIC INST & ST UNIV**      **9386**  
ACTIVE & PASSIVE BLADE VIBRATION CONTROL USING MEMS  
12/22/1997 - 11/30/2001      FY01: \$0      Total: \$292,228  
*Prin. Invest.: W NG*  
*Tech. Officer: GRC/O MEHMED, GRC/G L STEFKO*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 3 2100**      **VA POLYTECHNIC INST & ST UNIV**      **9387**  
DURABILITY OF CERAMIC MATRIX COMPOSITES AT HIGH TEMPERATURES: EXPERIMENTAL STUDIES & PREDICTIVE MODELS  
01/06/1998 - 11/19/2001      FY01: \$0      Total: \$200,184  
*Prin. Invest.: W A CURTIN*  
*Tech. Officer: GRC/M H JASKOWIAK*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NAG 4 204**      **VA POLYTECHNIC INST & ST UNIV**      **9388**  
DIRECT MEASUREMENTS OF SKIN FRICTION ON HIGH-SPEED FLIGHT VEHICLES  
03/30/2000 - 03/30/2001      FY01: -\$161      Total: \$74,839  
*Prin. Invest.: J A SCHETZ*  
*Tech. Officer: DFRC/T T BUI*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 4 218**      **VA POLYTECHNIC INST & ST UNIV**      **9389**  
RESEARCH AND DEVELOPMENT OF SCRAMJET SKIN FRICTION AND HEAT FLUX INSTRUMENTATION FOR FLIGHT RESEARCH  
01/31/2001 - 01/03/2002      FY01: \$75,000      Total: \$75,000  
*Prin. Invest.: J A SCHETZ*  
*Tech. Officer: DFRC/T T BUI*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 5 5099**      **VA POLYTECHNIC INST & ST UNIV**      **9390**  
UNDERSTANDING SIGMA NAUGHT BLOOMS AND THEIR EFFECTS ON RADAR ALTIMETERS  
12/11/1996 - 11/30/1999      FY01: -\$69      Total: \$81,931  
*Prin. Invest.: G E BROWN*  
*Tech. Officer: GSFC/G E KAYNE*  
*CASE Category: 33 – OCEANOGRAPHY*

**NAG 5 5295**      **VA POLYTECHNIC INST & ST UNIV**      **9391**  
IONOSPHERIC NANOSATELLITE FORMATION (ION-F) SCIENCE  
06/01/2000 - 05/25/2003      FY01: \$51,970      Total: \$99,070  
*Prin. Invest.: W SCALES*  
*Tech. Officer: GSFC/J C BRINTON*  
*CASE Category: 13 – PHYSICS*

**NAG 5 8343**      **VA POLYTECHNIC INST & ST UNIV**      **9392**  
FLUID INCLUSION STUDY OF VOLATILES IN SNC METEORITES  
04/08/1999 - 12/31/2000      FY01: \$0      Total: \$71,000  
*Prin. Invest.: R J BODNAR*  
*Tech. Officer: HQ/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9291**      **VA POLYTECHNIC INST & ST UNIV**      **9393**  
ION-F: A SPACE-BASED TESTBED FOR DISTRIBUTED FORMATION CONTROL USING THE HOKIESAT NANOSATELLITE  
03/17/2000 - 03/31/2002      FY01: \$110,000      Total: \$157,000  
*Prin. Invest.: C HALL*  
*Prin. Invest.: NONE*  
*Tech. Officer: GSFC/K LUU*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 5 9744**      **VA POLYTECHNIC INST & ST UNIV**      **9394**  
LEONARDO MISSION UNIQUE ORBITS  
06/29/2000 - 12/01/2000      FY01: -\$867      Total: \$16,383  
*Prin. Invest.: D FOLTA*  
*Tech. Officer: GSFC/S HUGHES*  
*CASE Category: 41 – AERONAUTICAL ENGR*

**NAG 5 10548**      **VA POLYTECHNIC INST & ST UNIV**      **9395**  
NET ECOSYSTEM PRODUCTIVITY OF MANAGED FORESTS  
03/14/2001 - 03/14/2002      FY01: \$107,659      Total: \$107,659  
*Prin. Invest.: R WYNNE*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 10733 VA POLYTECHNIC INST & ST UNIV 9396**  
 FLUID AND MELT INCLUSION STUDIES OF VOLATILES IN PLANETARY SAMPLES  
 04/11/2001 - 04/14/2002 FY01: \$25,000 Total: \$25,000  
*Prin. Invest.: R BODNAR, NONE*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10818 VA POLYTECHNIC INST & ST UNIV 9397**  
 "CONTROL EFFECTIVENESS FOR LEONARDO MISSION ORBITS"  
 04/24/2001 - 09/30/2001 FY01: \$40,000 Total: \$40,000  
*Prin. Invest.: C HALL*  
*Tech. Officer: GSFC/S HUGHES*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NAG 5 11315 VA POLYTECHNIC INST & ST UNIV 9398**  
 TETHERED FORMATION FLYING STUDY-CROSS ENTERPRISE TECH. DEV. PROGRAM  
 09/05/2001 - 08/31/2004 FY01: \$32,447 Total: \$32,447  
*Prin. Invest.: C HALL*  
*Tech. Officer: GSFC/D QUINN*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NAG 8 1846 VA POLYTECHNIC INST & ST UNIV 9399**  
 MATERIAL CHARACTERIZATION OF ELASTOMERIC ADHESIVE  
 08/09/2001 - 08/09/2002 FY01: \$66,983 Total: \$66,983  
*Prin. Invest.: D A DILLIARD*  
*Tech. Officer: MSFC/M E PRINCE*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NAS 1 99128 VA POLYTECHNIC INST & ST UNIV 9400**  
 ADVANCED MODELING AND ANALYSIS TECHNIQUES FOR ADVANCED BROADBAND DETECTOR DEVELOPMENT  
 07/30/1999 - 07/28/2000 FY01: \$0 Total: \$39,923  
*Prin. Invest.: J R MAHAN*  
*Tech. Officer: LARC/E KIST, JR.*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCA 1 01002 VA POLYTECHNIC INST & ST UNIV 9401**  
 VA POLYTECHNIC INST FOR NAT. DECISION SPT SIM MODEL FRAMEWORK DEV  
 03/15/2001 - 10/31/2001 FY01: \$94,100 Total: \$94,100  
*Prin. Invest.: A A TRANI, H SWINGLE*  
*Tech. Officer: LARC/S A COOKE*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NCC 1 344 VA POLYTECHNIC INST & ST UNIV 9402**  
 INNOVATIVE LINER CONCEPTS  
 06/17/1999 - 09/30/2000 FY01: -\$8,785 Total: \$120,515  
*Prin. Invest.: R H THOMAS*  
*Tech. Officer: LARC/T L PARROTT, LARC/M G JONES*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NCC 1 346 VA POLYTECHNIC INST & ST UNIV 9403**  
 A UNIFIED PROGRAM FOR THE FLIGHT DYNAMICS AND AERO SERVOELASTICITY OF WHOLE AIRCRAFT  
 06/17/1999 - 06/15/2002 FY01: \$50,000 Total: \$115,000  
*Prin. Invest.: L MEIROVITCH*  
*Tech. Officer: LARC/M R WAZAK*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NCC 1 367 VA POLYTECHNIC INST & ST UNIV 9404**  
 LOW SPEED ROTOR/FUSELAGE INTERACTIONAL AERODYNAMICS  
 01/12/2000 - 10/30/2002 FY01: \$35,186 Total: \$137,867  
*Prin. Invest.: D D BOYD, R W BARNWELL*  
*Tech. Officer: LARC/H E JONES/Z T APPLIN*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NCC 1 398 VA POLYTECHNIC INST & ST UNIV 9405**  
 INTERFACE FINITE ELEMENTS FOR ANALYSIS OF FRACTURE INITIATION & PROGRESSION  
 05/15/2000 - 05/14/2003 FY01: \$84,284 Total: \$107,278  
*Prin. Invest.: E R JOHNSON*  
*Tech. Officer: LARC/D R AMBUR*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NCC 1 405 VA POLYTECHNIC INST & ST UNIV 9406**  
 SCIENTIFIC INVESTIGATIONS WITH RADIATION BUDGET DATA  
 08/10/2000 - 08/15/2003 FY01: \$111,068 Total: \$135,383  
*Prin. Invest.: G L SMITH*  
*Tech. Officer: LARC/R B LEE III, LARC/R L HUFFMAN JR.*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 1 01029 VA POLYTECHNIC INST & ST UNIV 9407**  
 DEVELOPMENT OF AN EFFICIENT BINAURAL SIMULATION FOR THE ANALYSIS OF STRUCTURAL ACOUSTIC DATA  
 03/14/2001 - 12/31/2002 FY01: \$50,757 Total: \$50,757  
*Prin. Invest.: M E JOHNSON*  
*Tech. Officer: LARC/S A RIZZI*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NCC 1 01037 VA POLYTECHNIC INST & ST UNIV 9408**  
 VARTM MODEL DEVELOPMENT AND VERIFICATION  
 04/12/2001 - 04/11/2004 FY01: \$74,989 Total: \$74,989  
*Prin. Invest.: A C LOOS*  
*Tech. Officer: LARC/R J CANO, LARC/B J JENSEN*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NCC 1 01044 VA POLYTECHNIC INST & ST UNIV 9409**  
 NEW NANO-SPHERE MATERIALS: MAGNETIC AND DIELECTRIC PROPERTIES OF THE A3N@C80 ENDOHEDRAL  
 04/12/2001 - 01/12/2004 FY01: \$70,650 Total: \$70,650  
*Prin. Invest.: H C DORN*  
*Tech. Officer: LARC/S H CHOI, LARC/G C KING*  
*CASE Category: 12 – CHEMISTRY*

**NCC 2 5433 VA POLYTECHNIC INST & ST UNIV 9410**  
 AEROELASTIC DESIGN OF WINGS USING NON-TRADITIONAL METHODS  
 04/25/2001 - 09/30/2002 FY01: \$47,023 Total: \$47,023  
*Prin. Invest.: R K KAPANIA*  
*Tech. Officer: ARC/T L HOLST, ARC/G GURASWANY*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NCC 3 866 VA POLYTECHNIC INST & ST UNIV 9411**  
 HIGH TEMPERATURE PROTON EXCHANGE MEMBRANDS FOR FUE L CELLS  
 02/20/2001 - 12/31/2001 FY01: \$69,815 Total: \$69,815  
*Prin. Invest.: J E MCGRATH*  
*Tech. Officer: GRC/M B MEADOR*  
*CASE Category: 12 – CHEMISTRY*

<b>NGT 1 01002</b>	<b>VA POLYTECHNIC INST &amp; ST UNIV</b>	<b>9412</b>	<b>NGT 1 52224</b>	<b>VA POLYTECHNIC INST &amp; ST UNIV</b>	<b>9421</b>
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)			GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)		
11/14/2000 - 10/31/2001	FY01: \$17,721	Total: \$17,721	09/27/1999 - 08/31/2001	FY01: \$12,000	Total: \$44,000
<i>Prin. Invest.: J J KELLEY</i>			<i>Prin. Invest.: G J OGLE</i>		
<i>Tech. Officer: LARC/R H THOMAS</i>			<i>Tech. Officer: LARC/J M SEATON</i>		
<i>CASE Category: 41 – AERONAUTICAL ENGR</i>			<i>CASE Category: 22 – COMPUTER SCIENCE</i>		
<b>NGT 1 01003</b>	<b>VA POLYTECHNIC INST &amp; ST UNIV</b>	<b>9413</b>	<b>NGT 1 52226</b>	<b>VA POLYTECHNIC INST &amp; ST UNIV</b>	<b>9422</b>
GRADUATE STUDENT RESEARCHERS PROGRAM			GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)		
01/26/2001 - 12/31/2001	FY01: \$22,000	Total: \$22,000	12/20/1999 - 12/31/2000	FY01: \$0	Total: \$22,000
<i>Prin. Invest.: T C WARD</i>			<i>Prin. Invest.: A C LOOS</i>		
<i>Tech. Officer: LARC/E J SIOCHI, LARC/J A HINKLEY</i>			<i>Tech. Officer: LARC/N J JOHNSTON</i>		
<i>CASE Category: 12 – CHEMISTRY</i>			<i>CASE Category: 41 – AERONAUTICAL ENGR</i>		
<b>NGT 1 01033</b>	<b>VA POLYTECHNIC INST &amp; ST UNIV</b>	<b>9414</b>	<b>NGT 1 52246</b>	<b>VA POLYTECHNIC INST &amp; ST UNIV</b>	<b>9423</b>
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) MY 1/3			TRAINING GRANT – ADAPTIVE SYSTEM IDENTIFICATION AND CONTROL		
06/22/2001 - 06/30/2004	FY01: \$12,000	Total: \$12,000	TECHNIQUES FOR STRUCTURAL NOISE REDUC-		
<i>Prin. Invest.: T LONG</i>			08/25/2000 - 06/14/2001	FY01: \$24,543	Total: \$36,543
<i>Tech. Officer: LARC/E J SIOCHI</i>			<i>Prin. Invest.: M AHMODEON</i>		
<i>CASE Category: 41 – AERONAUTICAL ENGR</i>			<i>Tech. Officer: LARC/D L PALOMBO</i>		
<b>NGT 1 01035</b>	<b>VA POLYTECHNIC INST &amp; ST UNIV</b>	<b>9415</b>	<i>CASE Category: 49 – ENGINEERING, OTHER</i>		
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) MY 1/3			<b>NGT 1 52248</b>	<b>VA POLYTECHNIC INST &amp; ST UNIV</b>	<b>9424</b>
06/25/2001 - 06/30/2004	FY01: \$22,000	Total: \$22,000	GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)		
<i>Prin. Invest.: D P TELIONES</i>			08/01/2000 - 06/30/2002	FY01: \$24,001	Total: \$34,001
<i>Tech. Officer: LARC/A E WASHBURN, LARC/W L SELLERS</i>			<i>Prin. Invest.: A M SMITH, J R MAHAN</i>		
<i>CASE Category: 41 – AERONAUTICAL ENGR</i>			<i>Tech. Officer: LARC/K J PRIESTLEY, LARC/R B LEE III</i>		
<b>NGT 1 01038</b>	<b>VA POLYTECHNIC INST &amp; ST UNIV</b>	<b>9416</b>	<i>CASE Category: 46 – MECHANICAL ENGR</i>		
GSRP			<b>NGT 5 30198</b>	<b>VA POLYTECHNIC INST &amp; ST UNIV</b>	<b>9425</b>
09/10/2001 - 12/31/2002	FY01: \$10,000	Total: \$10,000	ESTIMATING FOREST VEGETATION BIOMASS USING AIRBORNE LIDAR		
<i>Prin. Invest.: M AHMADIAN</i>			MEASUREMENTS STUDENT: SORIN POPESCU		
<i>Tech. Officer: LARC/D L PALUMBO</i>			08/24/1999 - 08/31/2002	FY01: \$22,000	Total: \$66,000
<i>CASE Category: 46 – MECHANICAL ENGR</i>			<i>Prin. Invest.: R H WYNNE</i>		
<b>NGT 1 52112</b>	<b>VA POLYTECHNIC INST &amp; ST UNIV</b>	<b>9417</b>	<i>Tech. Officer: GSFC/M WEI</i>		
GRADUATE STUDENT RESEARCHER PROGRAM			<i>CASE Category: 39 – ENVIRONMENTAL SCI, OTHER</i>		
06/19/1995 - 06/30/2000	FY01: \$1	Total: \$110,001	<b>NGT 5 50260</b>	<b>VA POLYTECHNIC INST &amp; ST UNIV</b>	<b>9426</b>
<i>Prin. Invest.: M W HYER</i>			A SHARED AUGMENTED REALITY SYSTEM FOR COMMUNICATION ACROSS		
<i>Tech. Officer: LARC/J H STARNES, JR.</i>			ENVIRONMENTS STUDENT: WILLIAM STADERMAN		
<i>CASE Category: 41 – AERONAUTICAL ENGR</i>			07/07/1999 - 06/30/2002	FY01: \$22,000	Total: \$66,000
<b>NGT 1 52174</b>	<b>VA POLYTECHNIC INST &amp; ST UNIV</b>	<b>9418</b>	<i>Prin. Invest.: B M KLEINER</i>		
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)			<i>Tech. Officer: GSFC/L SMITH</i>		
05/29/1997 - 08/31/2000	FY01: -\$2,227	Total: \$63,773	<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>		
<i>Prin. Invest.: J A NEWMAN</i>			<b>NGT 5 50262</b>	<b>VA POLYTECHNIC INST &amp; ST UNIV</b>	<b>9427</b>
<i>Tech. Officer: LARC/R S PIASCLK</i>			SHORT-TERM TIME COURSE SKELETAL RESPONSES TO HIGH INTENSITY		
<i>CASE Category: 49 – ENGINEERING, OTHER</i>			PHYSICAL ACTIVITY		
<b>NGT 1 52184</b>	<b>VA POLYTECHNIC INST &amp; ST UNIV</b>	<b>9419</b>	07/08/1999 - 06/30/2000	FY01: \$0	Total: \$22,000
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)			<i>Prin. Invest.: W HERBERT</i>		
05/12/1998 - 06/30/2001	FY01: \$24,000	Total: \$78,000	<i>Tech. Officer: GSFC/L SMITH</i>		
<i>Prin. Invest.: J BURTON</i>			<i>CASE Category: 99 – MULTI INTERDISCPL, OTHER</i>		
<i>Tech. Officer: LARC/J M SEATON</i>			<b>NGT 8 52909</b>	<b>VA POLYTECHNIC INST &amp; ST UNIV</b>	<b>9428</b>
<i>CASE Category: 31 – ATMOSPHERIC SCIENCE</i>			DEVELOPMENT OF SELF-MONITORING AND SELF-HEALING BOLTED JOINTS		
<b>NGT 1 52202</b>	<b>VA POLYTECHNIC INST &amp; ST UNIV</b>	<b>9420</b>	05/25/2001 - 07/01/2004	FY01: \$22,000	Total: \$22,000
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)			<i>Prin. Invest.: D J INMAN</i>		
09/01/1998 - 06/30/2000	FY01: -\$1,584	Total: \$42,416	<i>Tech. Officer: MSFC/S NASH-STEVENSON</i>		
<i>Prin. Invest.: J R MOHAN</i>			<i>CASE Category: 46 – MECHANICAL ENGR</i>		
<i>Tech. Officer: LARC/M HENDERSON</i>					
<i>CASE Category: 31 – ATMOSPHERIC SCIENCE</i>					

**NAG 1 2302** VIRGINIA COMMONWEALTH UNIV 9429  
 ELECTRIC FIELD-MEDIATED PROCESSING OF POLYMERS  
 06/07/2000 - 01/14/2002 FY01: \$0  
*Prin. Invest.:* G E WNEK, T W HAAS, G L BOWLIN  
*Tech. Officer:* LARC/J S HARRISON, LARC/E J SIOCHI  
*CASE Category:* 43 – CHEMICAL ENGR  
 Total: \$38,512

**NAG 1 01042** VIRGINIA COMMONWEALTH UNIV 9430  
 A MINIATURE EMBEDDED RECONFIGURABLE COMPUTER AND LOGIC  
 MODULE  
 04/09/2001 - 02/21/2002 FY01: \$39,957  
*Prin. Invest.:* J H TUCKER, NONE  
*Tech. Officer:* LARC/Q A SHAMS  
*CASE Category:* 45 – ELECTRICAL ENGR  
 Total: \$39,957

**NAG 8 1276** VIRGINIA COMMONWEALTH UNIV 9431  
 STUDIES ON POLYMERIZATION AND NANOPARTICLE COMPOSITES  
 04/25/1996 - 04/30/2000 FY01: -\$255  
*Prin. Invest.:* S EL-SHALL  
*Tech. Officer:* MSFC/D R WOODARD, MSFC/B G PENN  
*CASE Category:* 19 – PHYSICAL SCIENCE, OTHER  
 Total: \$339,745

**NAG 8 1484** VIRGINIA COMMONWEALTH UNIV 9432  
 R/S GAS PHASE POLYMERIZATION AND NUCLEATION EXPERIMENTS IN  
 MICROGRAVITY  
 02/01/1998 - 01/31/2002 FY01: \$114,000  
*Prin. Invest.:* M S EL-SHALL  
*Tech. Officer:* MSFC/P M DOTY  
*CASE Category:* 12 – CHEMISTRY  
 Total: \$430,000

**NAS 9 19539** VIRGINIA COMMONWEALTH UNIV 9433  
 NEUROLAB EXPERIMENT DOCUMENT FOR E-049  
 02/22/1996 - 09/30/2001 FY01: \$0  
*Prin. Invest.:* D ECKBURG  
*Tech. Officer:* JSC/A LEE  
*CASE Category:* 56 – MEDICAL  
 Total: \$915,438

**NAS 9 19541** VIRGINIA COMMONWEALTH UNIV 9434  
 AUTONOMIC MECHANISMS DURING PROLONGED WEIGHTLESSNESS  
 03/14/1996 - 02/28/2002 FY01: \$0  
*Prin. Invest.:* H B CHERMSIDE  
*Tech. Officer:* JSC/C M BUNTIN  
*CASE Category:* 54 – ENVIRONMENTAL BIOLOGY  
 Total: \$749,668

**NCC 3 645** VIRGINIA COMMONWEALTH UNIV 9435  
 INVESTIGATION OF BOUNDARY LAYER DEVELOPMENT I LOW- PRESSURE  
 TURBINE STAGES  
 09/03/1998 - 10/31/2000 FY01: \$0  
*Prin. Invest.:* D J DORNEY  
*Tech. Officer:* GRC/D E ASHPIS  
*CASE Category:* 41 – AERONAUTICAL ENGR  
 Total: \$127,310

**NCC 9 87** VIRGINIA COMMONWEALTH UNIV 9436  
 MEDICAL INFORMATICS AND TECH APPLICATIONS CONSORTIUM  
 07/01/1999 - 06/30/2002 FY01: \$2,528,884  
*Prin. Invest.:* R C MERRELL  
*Tech. Officer:* JSC/J S LOGAN  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER  
 Total: \$5,772,199

**WASHINGTON**

**NAG 5 7672** CENTRAL WASHINGTON UNIV 9437  
 FUNDING FOR 'VARIATIONS IN SEA LEVEL CHANGE ALONG THE CASCADIA  
 MARGIN..'(SENH98-0083)  
 09/01/1998 - 06/30/2002 FY01: \$37,000  
*Prin. Invest.:* M MILLER  
*Tech. Officer:* GSFC/H V FREY  
*CASE Category:* 32 – GEOLOGICAL SCIENCE  
 Total: \$294,208

**NAG 5 10501** CENTRAL WASHINGTON UNIV 9438  
 APPLICATIONS OF DIGITAL ELEVATION MODELS TO THE ACTIVE  
 TECTONICS & PALEOCLIMATE OF CENTRAL ASIA  
 03/02/2001 - 02/28/2002 FY01: \$19,000  
*Prin. Invest.:* C RUBIN  
*Tech. Officer:* GSFC/H V FREY  
*CASE Category:* 22 – COMPUTER SCIENCE  
 Total: \$19,000

**NAG 2 6041** EASTERN WASHINGTON UNIV 9439  
 THE SCIENCE OLYMPIAD PROJECT  
 02/08/2000 - 01/31/2001 FY01: \$0  
*Prin. Invest.:* R SOLTERO  
*Tech. Officer:* ARC/D JAMES  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER  
 Total: \$25,000

**NAG 2 6034** HERITAGE COLLEGE 9440  
 ENHANCING SCIENCE TEACHER TRAINING USING WATER RESOURCES &  
 GLOBE  
 06/10/1999 - 03/31/2002 FY01: \$182,311  
*Prin. Invest.:* P T ALEXANDER  
*Tech. Officer:* ARC/B J COLLINS, ARC/G S LEE  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER  
 Total: \$512,930

**NAG13 99027** HERITAGE COLLEGE 9441  
 APPLICATION OF REMOTELY SENSED INFORMATION TO ENVIRONMENTAL  
 PROBLEMS OF HISPANICS AND NATIVE AM  
 09/08/1999 - 09/26/2001 FY01: \$51,950  
*Prin. Invest.:* J W FALCO  
*Tech. Officer:* SSC/R TRAVIS  
*CASE Category:* 62 – PSYCHOLOGY SOCIAL ASPECTS  
 Total: \$198,642

**NCC 5 423** NORTHWEST INDIAN COLLEGE 9442  
 ASSESSING AGRICULTURAL LAND CONVERSION IMPACTS TO TRIBAL FISHERIES  
 USING NASA SATELLITE IMAGERY  
 09/13/1999 - 08/31/2001 FY01: \$97,754  
*Prin. Invest.:* G BLEDSOE  
*Tech. Officer:* GSFC/M JASINSKI  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER  
 Total: \$175,043

**NAG 1 2055** UNIV OF WASHINGTON 9443  
 STRUCTURAL DESIGN METHODOLOGY BASED ON CONCEPTS OF UNCERTAINTY  
 05/08/1998 - 06/30/2000 FY01: -\$976  
*Prin. Invest.:* K Y LIN  
*Tech. Officer:* LARC/W J STROUD  
*CASE Category:* 41 – AERONAUTICAL ENGR  
 Total: \$200,547

**NAG 1 2072** UNIV OF WASHINGTON 9444  
 COORD'D PARAMETERIZATION DEV & LG-EDDY SIMULATION FOR MARINE & ARCTIC CLOUD-TOPPED BOUNDARY LAYERS  
 06/12/1998 - 03/31/2002 FY01: \$19,000 Total: \$236,000  
*Prin. Invest.:* C S BRETHERTON  
*Tech. Officer:* LARC/D S MCDOUGAL, LARC/J RAPER  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NAG 1 2079** UNIV OF WASHINGTON 9445  
 AIRBORNE STUDIES IN THE ARCTIC IN SUPPORT OF FIRE III  
 06/12/1998 - 03/11/2002 FY01: \$41,000 Total: \$736,064  
*Prin. Invest.:* P V HOBBS, D A HEGG  
*Tech. Officer:* LARC/D S MCDOUGAL, LARC/J RAPER  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NAG 1 2193** UNIV OF WASHINGTON 9446  
 DYNAMICAL COUPLING OF STRATOSPHERE & TROPOSPHERE  
 05/12/1999 - 03/30/2002 FY01: \$112,524 Total: \$354,994  
*Prin. Invest.:* J R HOLTON  
*Tech. Officer:* LARC/G L MADDREA, LARC/L R POOLE  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NAG 1 2200** UNIV OF WASHINGTON 9447  
 COUPLING SATELLITE AND GROUND-BASED INSTRUMENTS TO MAP CLIMATE FORCING BY ANTHROPOGENIC AEROSOLS  
 06/04/1999 - 08/15/2000 FY01: -\$197 Total: \$76,866  
*Prin. Invest.:* R J CHARLSON  
*Tech. Officer:* LARC/C A HOSTELER  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NAG 1 2296** UNIV OF WASHINGTON 9448  
 PROBABILISTIC STRUCTURAL INSPECTION OPTIMIZATION WITH BAYESIAN UPDATING OF DAMAGE CHARACTERISTICS  
 06/01/2000 - 06/30/2002 FY01: \$72,000 Total: \$130,000  
*Prin. Invest.:* K Y LIN  
*Tech. Officer:* LARC/W J STOUD, LARC/I S RAJU  
*CASE Category:* 49 – ENGINEERING, OTHER

**NAG 1 01029** UNIV OF WASHINGTON 9449  
 INTEGRATED AEROSERVOELASTIC OPTIMIZATION OF FULL-SCALE STRAIN-ACTUATED AIRPLANES: TOOLSDEVELOP-  
 02/15/2001 - 12/31/2003 FY01: \$53,000 Total: \$53,000  
*Prin. Invest.:* E LIVNE  
*Tech. Officer:* LARC/C D WIESEMAN, LARC/R C SCOTT  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NAG 1 01078** UNIV OF WASHINGTON 9450  
 TOUGHENED RESIN DEVELOPMENT AND COMPOSITE SYSTEMS FOR VARTM APPLICATIONS  
 05/24/2001 - 05/30/2004 FY01: \$118,500 Total: \$118,500  
*Prin. Invest.:* J C SEFERIS  
*Tech. Officer:* LARC/B J JENSEN, LARC/R J CANO  
*CASE Category:* 47 – METAL & MATERIALS ENGR

**NAG 2 1157** UNIV OF WASHINGTON 9451  
 PRESSURE SENSITIVE PAINT: IMPROVED QUALITY CONTROL & REFERNCING  
 08/27/1997 - 01/14/2000 FY01: -\$361 Total: \$371,639  
*Prin. Invest.:* M P GOUTERMAN  
*Tech. Officer:* ARC/J H BELL, ARC/E T SCHAIRER  
*CASE Category:* 12 – CHEMISTRY

**NAG 2 1450** UNIV OF WASHINGTON 9452  
 NETWORK SERVER PARADIGMS FOR AIR TRAFFIC MANAGEMEN T AUTOMATION  
 12/14/2000 - 12/31/2001 FY01: \$27,939 Total: \$27,939  
*Prin. Invest.:* S DEVASIA  
*Tech. Officer:* ARC/G MEYER  
*CASE Category:* 49 – ENGINEERING, OTHER

**NAG 2 1514** UNIV OF WASHINGTON 9453  
 THE ROLE OF THE HOMEobox TRANSCRIPTION FACTOR, CPRO X1, IN DEVELOPMENT OF THE VESTIBULAR PERIPHERY IN  
 08/17/2001 - 07/14/2002 FY01: \$71,220 Total: \$71,220  
*Prin. Invest.:* J S STONE *Prin. Invest.:* NONE  
*Tech. Officer:* ARC/M M AVERNER  
*CASE Category:* 51 – BIOLOGY (EXCLUDING ENVIR)

**NAG 3 1837** UNIV OF WASHINGTON 9454  
 PHORETIC AND RADIMEDTRIC FORCE MEASUREMENT ON MICR OPARTCLS UN MICROGRAVITY CONDITIONS  
 04/22/1996 - 09/30/2000 FY01: -\$1,971 Total: \$318,029  
*Prin. Invest.:* E J DAVIS  
*Tech. Officer:* GRC/J S LING, GRC/B S SINGH  
*CASE Category:* 13 – PHYSICS

**NAG 3 1865** UNIV OF WASHINGTON 9455  
 INDIUM MONO-ION OSCILLATOR II  
 07/23/1996 - 01/01/2001 FY01: \$0 Total: \$450,000  
*Prin. Invest.:* W NAGOURNEY, M DEHMELT  
*Tech. Officer:* GRC/B S SINGH  
*CASE Category:* 13 – PHYSICS

**NAG 3 2379** UNIV OF WASHINGTON 9456  
 BUOYANCY-DRIVEN INSTABILITIES IN SINGLE-BUBBLE SON OLUMINESCENCE (REF.# 123814)  
 04/04/2000 - 11/30/2003 FY01: \$95,000 Total: \$160,000  
*Prin. Invest.:* T J MATULA  
*Tech. Officer:* GRC/N R HALL  
*CASE Category:* 49 – ENGINEERING, OTHER

**NAG 3 2455** UNIV OF WASHINGTON 9457  
 PRESSURE SENSITIVE (PSP) FOR TWO SENSOR LIFETIME M EASUREMENT OF PRESSURE AND TEMPERATURE  
 06/07/2000 - 09/30/2002 FY01: \$65,000 Total: \$105,000  
*Prin. Invest.:* D GOUTERMAN  
*Tech. Officer:* GRC/T BENCIC  
*CASE Category:* 12 – CHEMISTRY

**NAG 3 2517** UNIV OF WASHINGTON 9458  
 INVESTIGATION OF THE LIFTOFF AND BLOWOUT OF TRANSITIONAL AND TURBULENT JET FLAMES  
 01/09/2001 - 11/30/2004 FY01: \$80,000 Total: \$80,000  
*Prin. Invest.:* D RILEY  
*Tech. Officer:* GRC/J E BROOKER  
*CASE Category:* 49 – ENGINEERING, OTHER

**NAG 5 2767** UNIV OF WASHINGTON 9459  
 THE ACCRETION AND SPECTRUM OF U GEM IN QUIESCENCE  
 10/26/1994 - 11/14/1999 FY01: -\$346 Total: \$27,950  
*Prin. Invest.:* P SZKODY  
*Tech. Officer:* GSFC/N WHITE  
*CASE Category:* 11 – ASTRONOMY

<b>NAG 5 3023</b>	<b>UNIV OF WASHINGTON</b>	<b>9460</b>	<b>NAG 5 4630</b>	<b>UNIV OF WASHINGTON</b>	<b>9468</b>
THE EVOLUTION OF GALAXIES AND CLUSTERS OF GALAXIES 10/02/1995 - 09/30/2000	FY01: \$0	Total: \$270,000	AEROSOL CONCENTRATIONS AND LARGE SCALE CLOUD DISTR BOUNDARY LAYER 05/21/1997 - 01/31/2000	FY01: -\$490	Total: \$120,807
<i>Prin. Invest.: G R LAKE</i>			<i>Prin. Invest.: M B BAKER</i>		
<i>Tech. Officer: GSFC/D WEST</i>			<i>Tech. Officer: GSFC/M CHOU</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 31 - ATMOSPHERIC SCIENCE</i>		
<b>NAG 5 3121</b>	<b>UNIV OF WASHINGTON</b>	<b>9461</b>	<b>NAG 5 4681</b>	<b>UNIV OF WASHINGTON</b>	<b>9469</b>
A STUDY OF MAGNETIC ACCRETION IN VV PUP AND BL HYI 10/18/1995 - 10/31/2000	FY01: \$0	Total: \$20,346	ENERGY DISTRIBUTION WITHIN THE TERRESTRIAL MAGNETO WITH NUMERICAL MODELS 06/17/1997 - 03/31/2000	FY01: -\$7	Total: \$105,129
<i>Prin. Invest.: P SZKODY</i>			<i>Prin. Invest.: D MCCARTHY, NONE</i>		
<i>Tech. Officer: GSFC/R OLIVERSEN</i>			<i>Tech. Officer: GSFC/J GREBOWSKY</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 13 - PHYSICS</i>		
<b>NAG 5 3170</b>	<b>UNIV OF WASHINGTON</b>	<b>9462</b>	<b>NAG 5 4712</b>	<b>UNIV OF WASHINGTON</b>	<b>9470</b>
POLAR ULTRAVIOLET IMAGING DATA ANALYSIS 02/22/1996 - 12/31/1999	FY01: -\$9	Total: \$1,880,266	TITLE: THE REGIONAL AMAZON MODEL SYNOPTIC SCALE H BIOGEOCHEMICAL CYCLES FROM EOS (EOSRAM) 06/23/1997 - 06/30/2001	FY01: \$0	Total: \$1,169,956
<i>Prin. Invest.: G K PARKS</i>			<i>Prin. Invest.: J RICHEY</i>		
<i>Tech. Officer: GSFC/R A HOFFMAN</i>			<i>Tech. Officer: GSFC/A C JANETOS</i>		
<i>CASE Category: 69 - PSYCHOLOGY, OTHER</i>			<i>CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</i>		
<b>NAG 5 3345</b>	<b>UNIV OF WASHINGTON</b>	<b>9463</b>	<b>NAG 5 4739</b>	<b>UNIV OF WASHINGTON</b>	<b>9471</b>
SPACE SPECTROSCOPY OF THE WHITE DWARFS IN CATACLYSMIC VARIABLES: PROBES OF ACCRETION PROCESSES..... 08/13/1996 - 08/14/2000	FY01: \$0	Total: \$99,837	RADIATIVE TRANSFER IN SNOW TERRAIN FOR APPLICATION REMOTE SENSING 06/17/1997 - 03/14/2001	FY01: \$0	Total: \$106,208
<i>Prin. Invest.: P SZKODY</i>			<i>Prin. Invest.: L TSANG</i>		
<i>Tech. Officer: GSFC/D WEST</i>			<i>Tech. Officer: GSFC/A T CHANG</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</i>		
<b>NAG 5 4242</b>	<b>UNIV OF WASHINGTON</b>	<b>9464</b>	<b>NAG 5 4791</b>	<b>UNIV OF WASHINGTON</b>	<b>9472</b>
A THEORETICAL STUDY OF PROCESSES DRIVING THE FORMA 04/17/1997 - 04/14/2001	FY01: \$0	Total: \$204,872	MONITORING THE ACCRETION OF TWO OLD NOVAE 06/17/1997 - 12/31/2000	FY01: \$0	Total: \$5,000
<i>Prin. Invest.: T QUINN</i>			<i>Prin. Invest.: P SZKODY</i>		
<i>Tech. Officer: GSFC/D K WEST</i>			<i>Tech. Officer: GSFC/J SWANK</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 11 - ASTRONOMY</i>		
<b>NAG 5 4375</b>	<b>UNIV OF WASHINGTON</b>	<b>9465</b>	<b>NAG 5 4795</b>	<b>UNIV OF WASHINGTON</b>	<b>9473</b>
POLAR EXCHANGE AT THE SEA SURFACE 06/11/1997 - 05/31/2001	FY01: \$0	Total: \$2,914,703	TRMM VALIDATION: INTEGRATION OF TRMM SATELLITE AND DATA TO DETERMINE TROPICAL HEATING 09/08/1997 - 03/15/2001	FY01: \$0	Total: \$806,179
<i>Prin. Invest.: D A ROTHROCK</i>			<i>Prin. Invest.: R A HOUZE, JR.</i>		
<i>Tech. Officer: GSFC/S GOGINENI</i>			<i>Tech. Officer: GSFC/R W LAWRENCE</i>		
<i>CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</i>			<i>CASE Category: 31 - ATMOSPHERIC SCIENCE</i>		
<b>NAG 5 4473</b>	<b>UNIV OF WASHINGTON</b>	<b>9466</b>	<b>NAG 5 5183</b>	<b>UNIV OF WASHINGTON</b>	<b>9474</b>
INTERPLANETARY DUST 06/02/1997 - 03/14/2001	FY01: \$0	Total: \$552,000	DROPPS: DISTRIBUTION AND ROLE OF PARTICLES IN THE POLAR SUMMER MESOSPHERE 03/13/1998 - 03/31/2002	FY01: \$0	Total: \$168,353
<i>Prin. Invest.: D E BROWNLEE</i>			<i>Prin. Invest.: R H HOLZWORTH</i>		
<i>Tech. Officer: GSFC/J BOYCE</i>			<i>Tech. Officer: GSFC/W B JOHNSON</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 13 - PHYSICS</i>		
<b>NAG 5 4540</b>	<b>UNIV OF WASHINGTON</b>	<b>9467</b>	<b>NAG 5 5190</b>	<b>UNIV OF WASHINGTON</b>	<b>9475</b>
THERMAL HISTORY OF LUNAR CRUSTAL ROCKS 05/06/1997 - 12/14/2001	FY01: \$34,000	Total: \$165,000	ATMOSPHERIC LIGHTNING ATMOSPHERIC LIGHTNING 04/16/1998 - 04/20/2002	FY01: \$0	Total: \$201,960
<i>Prin. Invest.: D S MCCALLUM</i>			<i>Prin. Invest.: M MCCARTHY</i>		
<i>Tech. Officer: GSFC/J BOYCE</i>			<i>Tech. Officer: GSFC/W B JOHNSON</i>		
<i>CASE Category: 11 - ASTRONOMY</i>			<i>CASE Category: 13 - PHYSICS</i>		

**NAG 5 5294** UNIV OF WASHINGTON 9476  
 IONOSPHERIC NANOSATELLITE FORMATION (ION-F) SCIENCE  
 06/01/2000 - 05/25/2003 FY01: \$70,792 Total: \$91,092  
*Prin. Invest.: J D SAHR*  
*Tech. Officer: GSFC/J C BRINTON*  
*CASE Category: 13 - PHYSICS*

**NAG 5 6067** UNIV OF WASHINGTON 9477  
 IMPACT OF FOREST CLEARCUTTING IN THE PACIFIC NORTH OD EVENTS  
 07/28/1997 - 07/31/2001 FY01: \$0 Total: \$255,000  
*Prin. Invest.: A GILLESPIE*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NAG 5 6101** UNIV OF WASHINGTON 9478  
 CLIMATE PROCESSES OVER THE OCEAN  
 07/24/1997 - 07/31/2001 FY01: \$0 Total: \$1,674,000  
*Prin. Invest.: D HARTMANN*  
*Tech. Officer: GSFC/J A CURRAN*  
*CASE Category: 33 - OCEANOGRAPHY*

**NAG 5 6297** UNIV OF WASHINGTON 9479  
 UNIV OF WASHINGTON - RESEARCH EARTH SYSTEM S  
 09/15/1997 - 08/31/2000 FY01: \$0 Total: \$225,000  
*Prin. Invest.: J M DECOSMO*  
*Tech. Officer: GSFC/N KHAZENIE*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 6328** UNIV OF WASHINGTON 9480  
 PLASMODESMATA AND THE CONTROL OF GRAVITROPISM  
 09/11/1997 - 09/30/2001 FY01: \$0 Total: \$65,000  
*Prin. Invest.: D CLELAND*  
*Tech. Officer: GSFC/M AVERNER*  
*CASE Category: 59 - LIFE SCIENCE, OTHER*

**NAG 5 6463** UNIV OF WASHINGTON 9481  
 BROADBAND INFRARED THERMOMETER MEASUREMENTS FOR MO DIS  
 VALIDATION  
 10/14/1997 - 03/31/2002 FY01: \$175,168 Total: \$801,752  
*Prin. Invest.: A T JESSUP*  
*Tech. Officer: GSFC/D O STARR*  
*CASE Category: 19 - PHYSICAL SCIENCE, OTHER*

**NAG 5 6493** UNIV OF WASHINGTON 9482  
 VALIDATION OF RADARSAT GEOPHYSICAL PROCESSOR SYSTE MS PROD-  
 UCTS  
 10/27/1997 - 09/30/2001 FY01: \$0 Total: \$366,447  
*Prin. Invest.: R LINDSAY*  
*Tech. Officer: GSFC/J DODGE*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 6505** UNIV OF WASHINGTON 9483  
 "ESTIMATION OF FLOOD HAZARDS THROUGH REMOTE S ENSI NG AND  
 MODELING (SENH 06-0114, LETTENMAIR AND WOO)  
 10/24/1997 - 04/30/2001 FY01: \$0 Total: \$152,500  
*Prin. Invest.: D LETTENMAIER*  
*Prin. Invest.: NONE*  
*Tech. Officer: GSFC/H FREY*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NAG 5 6626** UNIV OF WASHINGTON 9484  
 CODES TO ENABLE DIRECT SIMULATION OF SOLAR SYSTEM FORMATION.  
 11/17/1997 - 11/14/2001 FY01: \$0 Total: \$451,354  
*Prin. Invest.: G LAKE*  
*Tech. Officer: GSFC/J FISCHER*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 6688** UNIV OF WASHINGTON 9485  
 A CONTINUED STUDY OF ACCRETION IN MAGNETIC SYSTEMS WITH  
 LARGE RATIOS OF SOFT/HARD X-RAYS  
 12/01/1997 - 10/31/2000 FY01: \$0 Total: \$11,520  
*Prin. Invest.: P SZKODY*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 6819** UNIV OF WASHINGTON 9486  
 SATELLITE OBSERVATIONS OF ICE SHEET CLIMATE VARIAT IONS ON  
 DECADAL TIME SCALES  
 01/08/1998 - 12/31/2000 FY01: -\$263 Total: \$339,203  
*Prin. Invest.: D WINEBRENNER*  
*Tech. Officer: GSFC/S GOGINENI*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 6894** UNIV OF WASHINGTON 9487  
 SATELLITE STUDIES OF THE ICE COVERS OF THE OKHOTSK & SIBERIAN  
 SHELF SEAS  
 01/16/1998 - 12/31/2000 FY01: \$0 Total: \$162,550  
*Prin. Invest.: S MARTIN*  
*Tech. Officer: GSFC/S GOGINENI*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 6924** UNIV OF WASHINGTON 9488  
 GRANT  
 02/04/1998 - 01/31/2001 FY01: \$0 Total: \$478,269  
*Prin. Invest.: G PARKS*  
*Tech. Officer: GSFC/M HESSE*  
*CASE Category: 13 - PHYSICS*

**NAG 5 7090** UNIV OF WASHINGTON 9489  
 WAVE DYNAMICS AND TRANSPORT IN THE MIDDLE ATMOSPHE RE (UARS)  
 02/24/1998 - 02/28/2001 FY01: \$0 Total: \$297,883  
*Prin. Invest.: D R HOLTON*  
*Tech. Officer: GSFC/A DOUGLASS*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 7114** UNIV OF WASHINGTON 9490  
 WIND DATA ANALYSIS USING THE 3-D INSTRUMENT  
 03/31/1998 - 03/31/2002 FY01: \$0 Total: \$392,000  
*Prin. Invest.: G PARKS*  
*Tech. Officer: GSFC/K OGILVIE*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 7278** UNIV OF WASHINGTON 9491  
 XTE PROPOSAL - THE OUTBURST CYCLE OF V803 CEN  
 04/15/1998 - 04/30/2001 FY01: \$0 Total: \$10,353  
*Prin. Invest.: P SZKODY*  
*Tech. Officer: GSFC/J SWANK*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 7300** UNIV OF WASHINGTON 9492  
 EVALUATION OF HYDROLOGIC CONTROLS ON CATCHMENT SCALE ENERGY & MOISTUREREFLUXES  
 05/27/1998 - 04/30/2001 FY01: \$0 Total: \$107,072  
*Prin. Invest.:* D LETTENMAIER  
*Tech. Officer:* GSFC/D WICKLAND  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NAG 5 7330** UNIV OF WASHINGTON 9493  
 XTE PROPOSAL - TIMING THE X-RAY SOURCE IN NCG 6652 : THE REMAININGLUMINOUS GLOBULAR CLUSTER  
 04/24/1998 - 04/30/2002 FY01: \$0 Total: \$20,200  
*Prin. Invest.:* B MARGON  
*Tech. Officer:* GSFC/L KALUZIENSKI  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 7495** UNIV OF WASHINGTON 9494  
 MAPPING THE SPATIAL DISTRIBUTION AND TIME EVOLUTIO N OF SNOW-WATER EQUIVALENT WITH PASSIVE MICROWAVE  
 06/29/1998 - 09/14/2001 FY01: \$0 Total: \$350,000  
*Prin. Invest.:* L TSANG  
*Tech. Officer:* GSFC/E T ENGMAN  
*CASE Category:* 32 – GEOLOGICAL SCIENCE

**NAG 5 7526** UNIV OF WASHINGTON 9495  
 EVALUATION OF OCEANIC COOL-SKIN AND WARM LAYER MOD ELS USING LONG-TERM MEASUREMENTS  
 06/08/1998 - 05/31/2002 FY01: \$100,000 Total: \$435,721  
*Prin. Invest.:* A T JESSUP  
*Tech. Officer:* GSFC/E LINDSTROM  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NAG 5 7550** UNIV OF WASHINGTON 9496  
 AIRBORNE MICROWAVE IMAGING OF RIVER VELOCITIES  
 06/30/1998 - 12/31/2001 FY01: \$0 Total: \$330,000  
*Prin. Invest.:* W J PLANT  
*Tech. Officer:* GSFC/E T ENGMAN  
*CASE Category:* 32 – GEOLOGICAL SCIENCE

**NAG 5 7604** UNIV OF WASHINGTON 9497  
 CIS NET: IN SITU AND REMOTE MONITORING OF PRODUCTI VITY AND NUTRIENTCYCLES IN PUGET SOUND  
 07/21/1998 - 09/30/2001 FY01: \$23,691 Total: \$179,832  
*Prin. Invest.:* B FROST  
*Tech. Officer:* GSFC/J W MARRA  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NAG 5 7675** UNIV OF WASHINGTON 9498  
 UTILIZATION OF THE UNIV OF WASHINGTON'S AIRBORN ME ASUREMENTS FOR STUDIESOF THE RADIATIVEFFECTS OF  
 09/09/1998 - 08/31/2002 FY01: \$138,062 Total: \$396,062  
*Prin. Invest.:* P V HOBBS  
*Tech. Officer:* GSFC/M I MISHCHENKO  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NAG 5 7732** UNIV OF WASHINGTON 9499  
 POLAR UVI MISSION DATA ANALYSIS EXTENDED MISSION  
 09/29/1998 - 09/30/2001 FY01: \$0 Total: \$1,141,740  
*Prin. Invest.:* G K PARKS  
*Tech. Officer:* GSFC/R HOFFMAN  
*CASE Category:* 13 – PHYSICS

**NAG 5 7819** UNIV OF WASHINGTON 9500  
 EOS OBSERVATION RESOURCE  
 12/14/1998 - 12/31/2001 FY01: \$0 Total: \$549,872  
*Prin. Invest.:* P V HOBBS  
*Tech. Officer:* GSFC/M D KING  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NAG 5 7847** UNIV OF WASHINGTON 9501  
 VARIABILITY OF NET PRECIPITATION OVER ANTARCTIC SE A ICE AND ITS EFFECTS ON ICE-OCEAN INTERACTIONS  
 11/23/1998 - 12/31/2001 FY01: \$110,629 Total: \$328,625  
*Prin. Invest.:* A SCHWEIGER  
*Tech. Officer:* GSFC/S GOGINENI  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NAG 5 7886** UNIV OF WASHINGTON 9502  
 VALIDATION OF ACOUSTICAL RAINFALL MEASUREMENTS  
 12/02/1998 - 09/30/2001 FY01: \$31,893 Total: \$201,504  
*Prin. Invest.:* J A NYSTUEN  
*Tech. Officer:* GSFC/O W THIELE  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NAG 5 7932** UNIV OF WASHINGTON 9503  
 THE COUNTERPARTS OF THE LUMINOUS, BURSTING X-RAY S OURCES IN GLOBULARCLUSTERS – LTSA98  
 01/04/1999 - 01/14/2002 FY01: \$49,033 Total: \$141,508  
*Prin. Invest.:* S F ANDERSON  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 8089** UNIV OF WASHINGTON 9504  
 SOLAR WIND/IONOSPHERIC COUPLING IN THE MASS LOADIN G OF THE MAGNETOSPHEREAND THE FORMATION OF THE GE  
 01/28/1999 - 02/28/2002 FY01: \$81,870 Total: \$224,963  
*Prin. Invest.:* R M WINGLEE  
*Tech. Officer:* GSFC/J SHARBER  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 8109** UNIV OF WASHINGTON 9505  
 AIRBORNE IN SITU MEASUREMENTS FOR TRMM VALIDATION STUDIES AT KWAJALEIN  
 02/08/1999 - 02/14/2002 FY01: \$80,927 Total: \$690,698  
*Prin. Invest.:* P V HOBBS  
*Tech. Officer:* GSFC/R W LAWRENCE  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NAG 5 8164** UNIV OF WASHINGTON 9506  
 TOOLS TO PROBE THE OUTER COMETARY SYSTEM AND TO SI MULATE THE FORMATION AND EVOLUTION OFTHE SOLAR  
 02/08/1999 - 01/31/2002 FY01: \$163,200 Total: \$470,969  
*Prin. Invest.:* G LAKE  
*Tech. Officer:* GSFC/P HUNTER  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 8296** UNIV OF WASHINGTON 9507  
 DYNAMICS AND THERMODYNAMICS OF THE NORTH PACIFIC O CEAN  
 02/23/1999 - 02/28/2002 FY01: \$155,047 Total: \$456,973  
*Prin. Invest.:* K KELLY  
*Tech. Officer:* GSFC/E LINDSTROM  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NAG 5 8363** UNIV OF WASHINGTON 9508  
 VALIDATION OF THE LIDAR RETRIEVAL OF AEROSOL EXTINCTION  
 03/15/1999 - 03/14/2001 FY01: \$0 Total: \$168,058  
*Prin. Invest.: D S COVERT*  
*Tech. Officer: GSFC/M MISHCHENKO*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 8374** UNIV OF WASHINGTON 9509  
 ANALYSIS OF ASCA AND ROSAT OBSERVATIONS OF CATAclySMIC VARI-  
 ABLES\_(ADP98)  
 03/03/1999 - 03/14/2001 FY01: \$0 Total: \$20,000  
*Prin. Invest.: P SZKODY*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 8684** UNIV OF WASHINGTON 9510  
 INVESTIGATION OF THE RELATIONSHIPS BETWEEN AEROSOL PHYSICAL  
 AND CHEMICAL PROPERTIES  
 07/16/1999 - 07/14/2002 FY01: \$14,600 Total: \$43,841  
*Prin. Invest.: D A HEGG*  
*Tech. Officer: GSFC/M I MISHCHENKO*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 8784** UNIV OF WASHINGTON 9511  
 MOTOR PROTEINS AS SHUTTLES FOR DIRECTED TRANSPORT IN  
 SYNTHETIC MATRICES  
 09/27/1999 - 01/31/2003 FY01: \$197,600 Total: \$477,605  
*Prin. Invest.: V VOGEL*  
*Tech. Officer: GSFC/S DAVISON*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 8801** UNIV OF WASHINGTON 9512  
 "AIRCRAFT SUPPORT FOR SAFARI-2000"  
 12/13/1999 - 12/14/2001 FY01: \$0 Total: \$582,932  
*Prin. Invest.: P V HOBBS*  
*Tech. Officer: GSFC/M D KING*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 8966** UNIV OF WASHINGTON 9513  
 O VI EMISSION LINES IN HYADES F STARS - FUSE  
 01/24/2000 - 01/31/2002 FY01: \$0 Total: \$33,400  
*Prin. Invest.: E H BOHM-VITENSE*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 8981** UNIV OF WASHINGTON 9514  
 THE ORIGIN OF PECULIAR UV LINE RATIOS IN MAGNETIC CATAcLYSMIC  
 VARIABLES - FUSE  
 01/24/2000 - 01/31/2002 FY01: \$0 Total: \$14,900  
*Prin. Invest.: P SZKODY*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9022** UNIV OF WASHINGTON 9515  
 "UNIV OF WASHINGTON PARTICIPATION IN SAFARI- 2000"  
 02/08/2000 - 02/14/2002 FY01: \$183,000 Total: \$467,176  
*Prin. Invest.: P V HOBBS*  
*Tech. Officer: GSFC/M D KING*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 9086** UNIV OF WASHINGTON 9516  
 ENHANsing THE LASER-LUNAR RANGING TEST OF THE STRONG EQUIV-  
 ALENCE PRINCIPLE  
 02/17/2000 - 01/31/2002 FY01: \$40,000 Total: \$77,500  
*Prin. Invest.: J GUNDLACH*  
*Tech. Officer: GSFC/P CRANE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9250** UNIV OF WASHINGTON 9517  
 ION-F: A SPACE-BASED TESTBED FOR DISTRIBUTED FORMA TION  
 CONTROL USING THE DAWGSTAR NANOSAT  
 03/17/2000 - 03/31/2002 FY01: \$40,000 Total: \$87,000  
*Prin. Invest.: M CAMELL*  
*Tech. Officer: GSFC/K LUU*  
*CASE Category: 41 - AERONAUTICAL ENGR*

**NAG 5 9324** UNIV OF WASHINGTON 9518  
 NEXT GENERATION SPACE TELESCOPE (NGST) AD HOC SCIENCE  
 WORKING GROUP (ASWG) ACTIVITY  
 03/21/2000 - 03/14/2001 FY01: \$0 Total: \$22,779  
*Prin. Invest.: B MARGON*  
*Tech. Officer: GSFC/E P SMITH*  
*CASE Category: 42 - ASTRONAUTICAL ENGR*

**NAG 5 9334** UNIV OF WASHINGTON 9519  
 ROLE OF THE POLAR OCEANS IN GLOBAL CLIMATE  
 06/19/2000 - 08/31/2002 FY01: \$310,000 Total: \$485,000  
*Prin. Invest.: D A ROTHROCK*  
*Tech. Officer: GSFC/K PATRINGTON*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 9416** UNIV OF WASHINGTON 9520  
 UNDERSTANDING WATER, CLIMATE AND GLOBAL CHANGE: A GEWEX  
 GLOBAL WATER AND ENERGY PATHFINDER DATA SET  
 04/25/2000 - 04/30/2002 FY01: \$67,965 Total: \$111,665  
*Prin. Invest.: D LETTENMAIER*  
*Tech. Officer: GSFC/J DODGE*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 9454** UNIV OF WASHINGTON 9521  
 TERRESTRIAL HYDROLOGY & CLIMATE STUDIES USING EOS- ERA DATA  
 05/17/2000 - 04/14/2002 FY01: \$91,211 Total: \$154,023  
*Prin. Invest.: D LETTENMAIER*  
*Tech. Officer: GSFC/P HOUSER*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 9657** UNIV OF WASHINGTON 9522  
 RELATIONSHIP BETWEEN PRECIPITATING CONVECTION AND EASTERLY  
 WAVE DYNAMICS IN THE WESTERN CENTRAL PACI  
 06/22/2000 - 05/31/2002 FY01: \$91,000 Total: \$147,000  
*Prin. Invest.: C BRETHERTON*  
*Tech. Officer: GSFC/R LAWRENCE*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 9668** UNIV OF WASHINGTON 9523  
 COMBINED USE OF TRMM SATELLITE GROUND-VALIDATION DATA TO MAP  
 CONVECTIVE & STRATIFORM PRECIPITATION  
 06/19/2000 - 11/30/2001 FY01: \$243,000 Total: \$290,070  
*Prin. Invest.: R A HOUZEP*  
*Prin. Invest.: R A HOUZE*  
*Tech. Officer: GSFC/R J LAWRENCE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9720** UNIV OF WASHINGTON 9524  
 JOINT-PROBABILITY ANALYSIS OF THE NATURAL VARIABILITY OF TROPICAL OCEANIC PRECIPITATION  
 06/21/2000 - 06/30/2002 FY01: \$164,000 Total: \$231,083  
*Prin. Invest.: S E YUTER*  
*Tech. Officer: GSFC/R J LAWRENCE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 9830** UNIV OF WASHINGTON 9525  
 USE OF TRMM DATA TO EVALUATE BENEFITS OF POST-2002 GLOBAL PRECIPITATION MISSION FOR LAND SURFACE HYD  
 08/23/2000 - 08/31/2002 FY01: \$62,000 Total: \$124,000  
*Prin. Invest.: D LETTENMAIER*  
*Tech. Officer: GSFC/R J LAWRENCE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 9835** UNIV OF WASHINGTON 9526  
 MICROWAVE PASSIVE REMOTE SENSING OF SNOW: SCATTERING MODELS  
 07/26/2000 - 09/14/2001 FY01: \$0 Total: \$44,104  
*Prin. Invest.: L TSANG*  
*Tech. Officer: GSFC/A T CHANG*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9854** UNIV OF WASHINGTON 9527  
 SEA ICE KINEMATICS & THICKNESS FROM RGPS: OBSERVATIONS & THEORY  
 08/03/2000 - 09/30/2001 FY01: \$80,853 Total: \$197,355  
*Prin. Invest.: H STERN*  
*Tech. Officer: GSFC/K PARTINGTON*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 9906** UNIV OF WASHINGTON 9528  
 ESTIMATION OF WEST ANTARCTIC MASS BALANCE USING ICESAT/GLAS  
 09/08/2000 - 09/14/2002 FY01: \$44,197 Total: \$87,101  
*Prin. Invest.: C F RAYMOND*  
*Tech. Officer: GSFC/J ZWALLY*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 10092** UNIV OF WASHINGTON 9529  
 USE OF RADARSAT DATA TO PREDICT THE EFFECTS OF LAKE & WETLAND STORAGE ON THE FLOW OF ARTIC RIVERS  
 11/20/2000 - 11/30/2001 FY01: \$74,049 Total: \$74,049  
*Prin. Invest.: D LETTENMAIER*  
*Tech. Officer: GSFC/K PARTINGTON*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10114** UNIV OF WASHINGTON 9530  
 SURFACE WIND SPEED & FLUXES FROM SYNTHETIC APERTURE RADAR: VALIDATION & APPLICATION TO THE  
 11/22/2000 - 11/30/2001 FY01: \$158,480 Total: \$158,480  
*Prin. Invest.: P MOURAD*  
*Tech. Officer: GSFC/K PARTINGTON*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10225** UNIV OF WASHINGTON 9531  
 ICE SHEETS SURFACE AND BED BOUNDARY CONDITIONS FROM REMOTE SENSING  
 01/04/2001 - 01/14/2002 FY01: \$116,663 Total: \$116,663  
*Prin. Invest.: D WINEBRENNER*  
*Tech. Officer: GSFC/W ABDALATI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10246** UNIV OF WASHINGTON 9532  
 UNDERSTANDING THE ENIGMATIC SW SEX STARS (FUSE 00)  
 02/12/2001 - 02/14/2002 FY01: \$46,000 Total: \$46,000  
*Prin. Invest.: P SZKODY*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10342** UNIV OF WASHINGTON 9533  
 MODELING CONTINENTAL SCALE EROSION IN MOUNTAINOUS REGIONS  
 02/05/2001 - 01/31/2002 FY01: \$98,864 Total: \$98,864  
*Prin. Invest.: D R MONTGOMERY*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 10343** UNIV OF WASHINGTON 9534  
 ACCRETION ONTO MAGNETIC WHITE DWARFS (FUSE 00)  
 01/31/2001 - 01/31/2002 FY01: \$48,845 Total: \$48,845  
*Prin. Invest.: P SZKODY*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10400** UNIV OF WASHINGTON 9535  
 THE ORIGIN OF PECULIAR UV LINE RATIOS IN THE MAGNETIC CATAclysmic VARIABLE AE AQR (FUSE 2000)  
 04/02/2001 - 05/31/2002 FY01: \$14,440 Total: \$14,440  
*Prin. Invest.: P SZKODY*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10404** UNIV OF WASHINGTON 9536  
 VALIDATION OF LIDAR RETRIEVAL OF AEROSOL EXTINCTION  
 04/02/2001 - 03/31/2002 FY01: \$85,488 Total: \$85,488  
*Prin. Invest.: D S COVERT*  
*Tech. Officer: GSFC/M I MISHCHENKO*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 10499** UNIV OF WASHINGTON 9537  
 INTERPLANETARY DUST  
 03/13/2001 - 03/14/2003 FY01: \$361,000 Total: \$361,000  
*Prin. Invest.: D E BROWNLEE*  
*Tech. Officer: GSFC/J M BOYCE*  
*CASE Category: 12 – CHEMISTRY*

**NAG 5 10570** UNIV OF WASHINGTON 9538  
 NUMERICAL CALCULATION OF THE MAGNETIC FIELDS GENERATED BY OCEAN TIDES & THEIR COMPARISON WITH SATEL  
 03/13/2001 - 03/14/2002 FY01: \$80,000 Total: \$80,000  
*Prin. Invest.: R TYLER*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10621** UNIV OF WASHINGTON 9539  
 LAGRANGIAN ASSIMILATION OF SATELLITE DATA FOR CLIMATE STUDIES  
 03/19/2001 - 03/31/2002 FY01: \$79,269 Total: \$79,269  
*Prin. Invest.: R LINDSAY*  
*Tech. Officer: GSFC/W ABDALATI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10624** UNIV OF WASHINGTON 9540  
 CLIMATE PROCESSES OVER THE OCEANS  
 03/20/2001 - 03/31/2002 FY01: \$596,979 Total: \$596,979  
*Prin. Invest.:* D L HARTMANN  
*Tech. Officer:* GSFC/A ANDERSON  
*CASE Category:* 33 – OCEANOGRAPHY

**NAG 5 10745** UNIV OF WASHINGTON 9541  
 "UNIV OF WASHINGTON AIRBORNE STUDIES IN SUPPORT OF THE CLAMS-2001 FIELD STUDY"  
 04/17/2001 - 02/28/2002 FY01: \$384,511 Total: \$384,511  
*Prin. Invest.:* P V HOBBS  
*Tech. Officer:* GSFC/M D KING  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NAG 5 10903** UNIV OF WASHINGTON 9542  
 A KINETIC STUDY OF PARTICLE ACCELERATION IN MAGNETOSPHERIC CURRENT SHEETS & COMPARISON WITH OBSERVATIONS  
 05/08/2001 - 05/14/2002 FY01: \$87,737 Total: \$87,737  
*Prin. Invest.:* M J BRITTNACHER  
*Tech. Officer:* GSFC/J F SPANN  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NAG 5 10962** UNIV OF WASHINGTON 9543  
 MODELING IONOSPHERIC OUTFLOW IN GEOPHYSICALLY RELEVANT COORDINATE SYSTEMS  
 05/23/2001 - 05/31/2002 FY01: \$68,222 Total: \$68,222  
*Prin. Invest.:* R M WINGLEE  
*Tech. Officer:* GSFC/J SPANN  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 11057** UNIV OF WASHINGTON 9544  
 MULTISENSOR ASSESSMENT OF ARCTIC POLYNYA VARIABILITY & ITS ASSOCIATION WITH LARGE-SCALE CHANGE  
 06/22/2001 - 06/30/2002 FY01: \$46,515 Total: \$46,515  
*Prin. Invest.:* S MARTIN  
*Tech. Officer:* GSFC/W ABDALATI  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NAG 5 11079** UNIV OF WASHINGTON 9545  
 A ONE-YEAR PILOT STUDY FOR THE INCLUSION OF ACTIVE OPTICAL SENSORS INTO PALACE FLOATS  
 08/06/2001 - 08/14/2002 FY01: \$56,557 Total: \$56,557  
*Prin. Invest.:* S RISER  
*Tech. Officer:* GSFC/J MARRA  
*CASE Category:* 33 – OCEANOGRAPHY

**NAG 7 99001** UNIV OF WASHINGTON 9546  
 GRANT FOR PI OF THE STARDUST PROGRAM (PHASE E)  
 05/21/1999 - 06/30/2004 FY01: \$0 Total: \$183,221  
*Prin. Invest.:* D E BROWNLEE  
*Tech. Officer:* HQ/M DAHL  
*CASE Category:* 11 – ASTRONOMY

**NAG 8 1424** UNIV OF WASHINGTON 9547  
 R/S IMPROVING OCEANIC STORM FORECASTING AND ANALYSIS THROUGH ASSIMILATION OF REMOTE SENSING  
 01/13/1998 - 12/31/2001 FY01: -\$300 Total: \$340,596  
*Prin. Invest.:* R A BROWN  
*Tech. Officer:* MSFC/J M SIMONDS  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NAG 8 1512** UNIV OF WASHINGTON 9548  
 WATER TRANSPORT TO THE UPPER TROPOSPHERE BY CONVECTIVE SYSTEMS, AS INFERRED FROM GLOBAL  
 04/06/1998 - 04/05/2002 FY01: \$0 Total: \$126,560  
*Prin. Invest.:* M BAKER  
*Tech. Officer:* MSFC/J R BLOCKER  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NAG 8 1647** UNIV OF WASHINGTON 9549  
 POLLUTION AND LIGHTNING  
 10/15/1999 - 09/30/2002 FY01: \$0 Total: \$95,177  
*Prin. Invest.:* M B BAKER  
*Tech. Officer:* MSFC/D SAMUELSON  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE

**NAG 8 1756** UNIV OF WASHINGTON 9550  
 FEASIBILITY STUDY FOR A SPACE-BASED TEST OF THE STRONG EQUIVALENCE PRINCIPLE USING LUNAR RANGING  
 04/23/2001 - 02/01/2006 FY01: \$120,000 Total: \$120,000  
*Prin. Invest.:* E G ADELBERGER, K NORDVEDT, C STUBBS  
*Tech. Officer:* MSFC/D HUBBARD  
*CASE Category:* 19 – PHYSICAL SCIENCE, OTHER

**NAG 8 1776** UNIV OF WASHINGTON 9551  
 ULTRAHIGH RESOLUTION OPTICAL FREQUENCY STANDARD USING INDIVIDUAL INDIUM IONS  
 04/20/2001 - 02/01/2004 FY01: \$80,000 Total: \$80,000  
*Prin. Invest.:* W NAGOURNEY  
*Tech. Officer:* MSFC/D HUBBARD  
*CASE Category:* 19 – PHYSICAL SCIENCE, OTHER

**NAG 8 1849** UNIV OF WASHINGTON 9552  
 FRC ACCELERATION SPACE THRUSTER (FAST)  
 08/30/2001 - 11/30/2001 FY01: \$9,273 Total: \$9,273  
*Prin. Invest.:* J SLOUGH  
*Tech. Officer:* MSFC/A MARTIN, MSFC/F THIO  
*CASE Category:* 41 – AERONAUTICAL ENGR

**NAG 9 1258** UNIV OF WASHINGTON 9553  
 VISUAL ANATOMIC GUIDANCE TO FACILITATE ULTRASOUND IMAGE ACQUISITION  
 09/07/2000 - 08/31/2001 FY01: \$169,943 Total: \$203,932  
*Prin. Invest.:* F H SHEEHAN, NONE  
*Tech. Officer:* JSC/C W LLOYD  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NAG 9 1271** UNIV OF WASHINGTON 9554  
 DNA MICROCHIP BASED MICROBIAL MONITORING  
 12/08/2000 - 11/30/2002 FY01: \$260,856 Total: \$260,856  
*Prin. Invest.:* D STAHL  
*Tech. Officer:* JSC/D L JAN  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER

**NAG 9 1343** UNIV OF WASHINGTON 9555  
 MICROARRAYS OF CELLULAR MEMBRANE PATCHES FOR INFLIGHT STUDIES OF ION CHANNEL FUNCTION  
 08/01/2001 - 09/30/2004 FY01: \$54,000 Total: \$54,000  
*Prin. Invest.:* A FOLCH  
*Tech. Officer:* JSC/D RISIN  
*CASE Category:* 43 – CHEMICAL ENGR

<b>NAS 1 18940</b>	<b>UNIV OF WASHINGTON</b>	<b>9556</b>	<b>NCC 2 5463</b>	<b>UNIV OF WASHINGTON</b>	<b>9564</b>
SAGE III SCIENCE INVESTIGATION SUPPORT, P.I. PETER V. HOBBS 10/27/1989 - 01/31/2005	SAGE III SCIENCE INVESTIGATION SUPPORT, P.I. PETER V. HOBBS FY01: \$26,147	Total: \$428,027	MATHEMATICAL MODELING OF METABOLIC NETWORKS AND AL GORITHMIC DEVELOPMENT FOR HIGH-THROUGHPUT MULTIDI 09/14/2001 - 09/14/2002	MATHEMATICAL MODELING OF METABOLIC NETWORKS AND AL GORITHMIC DEVELOPMENT FOR HIGH-THROUGHPUT MULTIDI FY01: \$29,994	Total: \$29,994
Prin. Invest.: P V HOBBS			Prin. Invest.: H QIAN		
Tech. Officer: LARC/G MADDREA			Tech. Officer: ARC/S LIANG, ARC/B A BIEGEL		
CASE Category: 19 – PHYSICAL SCIENCE, OTHER			CASE Category: 29 – MATH/COMPUTER SCI, OTHER		
 <b>NAS 1 99105</b>	 <b>UNIV OF WASHINGTON</b>	 <b>9557</b>	 <b>NCC 5 326</b>	 <b>UNIV OF WASHINGTON</b>	 <b>9565</b>
COUPLING PICASSO-CENA TO IN SITU MEASUREMENTS FOR ESTIMATION OF DIRECT AEROSOL RADIATIVE FORCING 05/17/1999 - 05/16/2002	COUPLING PICASSO-CENA TO IN SITU MEASUREMENTS FOR ESTIMATION OF DIRECT AEROSOL RADIATIVE FORCING FY01: \$95,000	Total: \$153,650	SUPPORT OF THE UNIV OF WASHINGTON'S RESEARCH AIRCRAFT FOR NASASTUDIES (PROPOSAL #111017) 03/23/1998 - 02/28/2002	SUPPORT OF THE UNIV OF WASHINGTON'S RESEARCH AIRCRAFT FOR NASASTUDIES (PROPOSAL #111017) FY01: \$0	Total: \$934,204
Prin. Invest.: R J CHARLSON Tech. Officer: LARC/G GIBSON	Prin. Invest.: NONE		Prin. Invest.: P V HOBBS Tech. Officer: GSFC/M D KING		
CASE Category: 31 – ATMOSPHERIC SCIENCE			CASE Category: 31 – ATMOSPHERIC SCIENCE		
 <b>NAS 5 00212</b>	 <b>UNIV OF WASHINGTON</b>	 <b>9558</b>	 <b>NCC 5 345</b>	 <b>UNIV OF WASHINGTON</b>	 <b>9566</b>
MATLAB-BASED ADAPTIVE COMPUTING FOR NASA IMAGE 09/29/2000 - 09/28/2002	MATLAB-BASED ADAPTIVE COMPUTING FOR NASA IMAGE FY01: \$227,273	Total: \$227,273	BIOGEOCHEMICAL DYNAMICS IN RIVER CORRIDORS OF THE AMAZON BASIN AND THEIR RESPONSE TO ANTHROPOGENIC C 06/25/1998 - 12/31/2001	BIOGEOCHEMICAL DYNAMICS IN RIVER CORRIDORS OF THE AMAZON BASIN AND THEIR RESPONSE TO ANTHROPOGENIC C FY01: \$193,552	Total: \$537,352
Prin. Invest.: S HAUCK Tech. Officer: GSFC/J STEPHENS			Prin. Invest.: J E RICHEY Tech. Officer: GSFC/D W DEERING		
CASE Category: 22 – COMPUTER SCIENCE			CASE Category: 39 – ENVIRONMENTAL SCI, OTHER		
 <b>NAS 5 00213</b>	 <b>UNIV OF WASHINGTON</b>	 <b>9559</b>	 <b>NCC 5 363</b>	 <b>UNIV OF WASHINGTON</b>	 <b>9567</b>
RECONFIGURABLE COMPUTING BASED COMPRESSION FOR SPACEBORNE HYPERSPECTRAL IMAGES. 09/29/2000 - 09/28/2002	RECONFIGURABLE COMPUTING BASED COMPRESSION FOR SPACEBORNE HYPERSPECTRAL IMAGES. FY01: \$187,143	Total: \$187,143	TWO-HANDED INTERFACE IMPROVEMENTS FOR THE STEREOSCOPIC ANALYZER 09/22/1998 - 09/30/2000	TWO-HANDED INTERFACE IMPROVEMENTS FOR THE STEREOSCOPIC ANALYZER FY01: \$0	Total: \$81,830
Prin. Invest.: S HAUCK Tech. Officer: GSFC/J STEPHENS			Prin. Invest.: T FURNNESS Tech. Officer: GSFC/A ROBERTS		
CASE Category: 22 – COMPUTER SCIENCE			CASE Category: 22 – COMPUTER SCIENCE		
 <b>NAS 5 30613</b>	 <b>UNIV OF WASHINGTON</b>	 <b>9560</b>	 <b>NCC 5 550</b>	 <b>UNIV OF WASHINGTON</b>	 <b>9568</b>
INVESTIGATION DEFINITION PHASE FOR CLUSTER PLASMA SPECTROMETRY 02/21/1989 - 02/09/2001	INVESTIGATION DEFINITION PHASE FOR CLUSTER PLASMA SPECTROMETRY FY01: \$5	Total: \$5,175,503	SUPPORT OF THE UNIV OF WASHINGTON'S RESEARCH AIRCRAFT FOR NASA STUDIES 05/11/2001 - 04/30/2002	SUPPORT OF THE UNIV OF WASHINGTON'S RESEARCH AIRCRAFT FOR NASA STUDIES FY01: \$340,214	Total: \$340,214
Prin. Invest.: G K PARKS Tech. Officer: GSFC/J L CHRISTENSEN			Prin. Invest.: P HOBBS Tech. Officer: GSFC/C YUHAS		
CASE Category: 13 – PHYSICS			CASE Category: 99 – MULTI INTERDISCPL, OTHER		
 <b>NAS 5 31372</b>	 <b>UNIV OF WASHINGTON</b>	 <b>9561</b>	 <b>NCC 5 584</b>	 <b>UNIV OF WASHINGTON</b>	 <b>9569</b>
INTERMEDIATE THERMAL INFRARED RADIOMETER (EOS INVESTIGATION) 02/19/1992 - 12/14/2001	INTERMEDIATE THERMAL INFRARED RADIOMETER (EOS INVESTIGATION) FY01: \$418,503	Total: \$3,484,852	MICROWAVE REMOTE SENSING OF FROZEN PRECIPITATION 08/23/2001 - 08/31/2004	MICROWAVE REMOTE SENSING OF FROZEN PRECIPITATION FY01: \$36,000	Total: \$36,000
Prin. Invest.: A R GILLESPIE Tech. Officer: GSFC/H BLODGET			Prin. Invest.: R HOUZE Tech. Officer: GSFC/J A WEINMAN		
CASE Category: 31 – ATMOSPHERIC SCIENCE			CASE Category: 39 – ENVIRONMENTAL SCI, OTHER		
 <b>NCC 1 402</b>	 <b>UNIV OF WASHINGTON</b>	 <b>9562</b>	 <b>NCC 8 231</b>	 <b>UNIV OF WASHINGTON</b>	 <b>9570</b>
REMOTE & IN-SITU MEASUREMENT OF AEROSOL OPTICAL PROPERTIES IN THE BOUNDARY LAYER 07/24/2000 - 09/14/2003	REMOTE & IN-SITU MEASUREMENT OF AEROSOL OPTICAL PROPERTIES IN THE BOUNDARY LAYER FY01: -\$20,000	Total: \$3,200	MINI-MAGNETOSPHERIC PLASMA PROPULSION-RADIATION SHIELDING (M2PS-S) 09/05/2001 - 12/31/2002	MINI-MAGNETOSPHERIC PLASMA PROPULSION-RADIATION SHIELDING (M2PS-S) FY01: \$86,311	Total: \$86,311
Prin. Invest.: T L COVERT, T L ANDERSON Tech. Officer: LARC/C A HOSTETLER			Prin. Invest.: R M WINGLEE Tech. Officer: MSFC/J H ADAMS		
CASE Category: 31 – ATMOSPHERIC SCIENCE			CASE Category: 31 – ATMOSPHERIC SCIENCE		
 <b>NCC 2 1273</b>	 <b>UNIV OF WASHINGTON</b>	 <b>9563</b>	 <b>NCC 9 56</b>	 <b>UNIV OF WASHINGTON</b>	 <b>9571</b>
HABITABLE PLANETS AND EVOLUTION OF BIOLOGICAL COMPLEXITY 07/20/2001 - 06/30/2002	HABITABLE PLANETS AND EVOLUTION OF BIOLOGICAL COMPLEXITY FY01: \$575,000	Total: \$575,000	RESEARCH GRANT 02/22/2000 - 01/15/2002	RESEARCH GRANT FY01: \$37,955	Total: \$48,392
Prin. Invest.: P D WARD, J T STALEY, D A KRING Tech. Officer: ARC/R A GRYMES, ARC/W W DOLCI			Prin. Invest.: D E PARKER Tech. Officer: JSC/D HARM, JSC/J BLOOMBERG		
CASE Category: 99 – MULTI INTERDISCPL, OTHER			CASE Category: 99 – MULTI INTERDISCPL, OTHER		

**NGT 2 52219** UNIV OF WASHINGTON 9572  
 INFRARED STUDY OF HERBIG AE/BE SYSTEMS  
 08/19/1996 - 08/31/2002 FY01: \$0 Total: \$76,000  
*Prin. Invest.: D BROWNLEE*  
*Tech. Officer: ARC/D H WOODEN, ARC/F C WITTEBORN*  
*CASE Category: 11 - ASTRONOMY*

**NGT 2 52281** UNIV OF WASHINGTON 9573  
 A PRESSURE SENSITIVE PAINT FOR THE STUDY OF UNSTEADY FLOWS  
 OVER FLEXIBLE BOUNDARIES  
 07/27/2001 - 08/31/2002 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: J B CALLIS*  
*Tech. Officer: ARC/J H BELL, ARC/E S SCHAIRER*  
*CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)*

**NGT 5 66** UNIV OF WASHINGTON 9574  
 COMPUTATIONAL OPTICS YEAR 1 OF 2 YEAR COMMITMENT PERIOD OF  
 PERFORMANCE SEPT. 1, 1998 TO AUG. 31, 1  
 05/27/1998 - 08/31/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.: J BURKE*  
*Tech. Officer: GSFC/G SOFFEN*  
*CASE Category: 21 - MATHEMATICS*

**NGT 5 98** UNIV OF WASHINGTON 9575  
 A NEW MECHANISM FOR DEGASSING AT HIGH-SULFUR VOLCANOES  
 08/23/1999 - 08/31/2002 FY01: \$22,000 Total: \$66,000  
*Prin. Invest.: C NEWHALL*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NGT 5 126** UNIV OF WASHINGTON 9576  
 SIMULATING GALAXY GROUPS. STUDENT: DARREN S. REED  
 06/11/2001 - 06/30/2002 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: T QUINN*  
*Tech. Officer: GSFC/M S BURRELL*  
*CASE Category: 29 - MATH/COMPUTER SCI, OTHER*

**NGT 5 30120** UNIV OF WASHINGTON 9577  
 PREDICTING LAND SURFACE FLUXES OF FRESH WATER TO THE ARCTIC  
 OCEAN ESSF RECIPIENT: SANTIAGO GASSO  
 10/01/1997 - 08/31/2000 FY01: -\$9 Total: \$65,991  
*Prin. Invest.: D LETTENMAIER*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NGT 5 30121** UNIV OF WASHINGTON 9578  
 ASSESSING THE GLOBAL CHARACTERISTICS OF AEROSOLS: WHAT IS THE  
 INFLUENCE OF HUMIDITY IN COLUMNAR AERO  
 10/01/1997 - 03/31/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.: D HEgg*  
*Tech. Officer: GSFC/G ASRAR*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NGT 5 30149** UNIV OF WASHINGTON 9579  
 COMBINED USE OF REMOTE SENSING AND BIOGEOCHEMICAL MODELING  
 TO ESTIMATE PRIMARY PRODUCTION AND CARBO  
 08/28/1998 - 08/31/2001 FY01: \$0 Total: \$55,000  
*Prin. Invest.: J E RICHEY, WILHELM*  
*Tech. Officer: GSFC/M Y WEI*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NGT 5 30157** UNIV OF WASHINGTON 9580  
 MODELING THE FLAMMABILITY OF BRAZILIAN AMAZON FORESTS AT THE  
 FOREST-SAVANNA ECOTONE  
 08/28/1998 - 08/31/2001 FY01: \$0 Total: \$44,000  
*Prin. Invest.: T M HINCKLEY*  
*Tech. Officer: GSFC/M Y WEI*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NGT 5 30161** UNIV OF WASHINGTON 9581  
 COUPLING LAND-SURFACE AND RIVERINE WATER AND CARBON CYCLES  
 IN THE AMAZON BASIN: DEVELOPMENT OF A MODEL  
 08/31/1998 - 08/31/2001 FY01: \$0 Total: \$66,000  
*Prin. Invest.: J E RICHEY, MAYORGa*  
*Tech. Officer: GSFC/M Y WEI*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NGT 5 30195** UNIV OF WASHINGTON 9582  
 THE ARCTIC OSCILLATION SIGNATURE IN NORTHERN HEMISPHERE  
 CLIMATE  
 08/18/1999 - 12/31/2000 FY01: \$0 Total: \$23,727  
*Prin. Invest.: J M WALLACE*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NGT 5 30213** UNIV OF WASHINGTON 9583  
 IMPROVING MODEL PARAMETERIZATIONS OF GAS EXCHANGE: QUANTIFICATION OF BUBBLE DYNAMICS BY MEASUREMENT  
 08/20/1999 - 08/31/2002 FY01: \$22,000 Total: \$66,000  
*Prin. Invest.: S R EMERSON*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NGT 5 30220** UNIV OF WASHINGTON 9584  
 OPPORTUNITIES FOR IMPROVING WESTERN WATER MANAGEMENT  
 THROUGH REMOTE SENSING & HYDROLOGIC MODEL  
 08/24/1999 - 08/31/2002 FY01: \$22,000 Total: \$66,000  
*Prin. Invest.: D P LETTENMAIER*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NGT 5 30343** UNIV OF WASHINGTON 9585  
 TROPICAL FOREST PHENOLOGY ACROSS ENVIRONMENTAL GRADIENTS  
 IN PANAMA: A MULTIPLE SCALE STUDY USING RE  
 08/21/2000 - 08/31/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.: T HINCKLEY*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NGT 5 30378** UNIV OF WASHINGTON 9586  
 TRMM-OBSERVED STARTIFORM PRECIPITATION FRACTION RELATED TO  
 LARGE-SCALE TROPICAL CIRCULATION/COURTN  
 08/13/2001 - 08/31/2004 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: R HOUZE, JR*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NGT 5 40017** UNIV OF WASHINGTON 9587  
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE  
 AND FELLOWSHIP PROGRAM.  
 12/19/1996 - 01/31/2001 FY01: \$0 Total: \$1,664,616  
*Prin. Invest.: G K PARKS*  
*Tech. Officer: GSFC/L KEFFER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 40084** UNIV OF WASHINGTON 9588  
 WASHINGTON SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM  
 02/09/2001 - 01/31/2002 FY01: \$447,050 Total: \$447,050  
*Prin. Invest.: J DECOSMO*  
*Tech. Officer: GSFC/D D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50078** UNIV OF WASHINGTON 9589  
 NUMERICAL SIMULATION OF DAMPED LYMAN-ALPHA SYSTEMS  
 08/26/1997 - 12/30/2000 FY01: \$0 Total: \$66,000  
*Prin. Invest.: G LAKE*  
*Tech. Officer: GSFC/A NURRIDIN*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50285** UNIV OF WASHINGTON 9590  
 THREE DIMENTIONAL SIMULATIONS OF THE SOLAR WIND INTERACTION  
 WITH MAGNETIC ANOMALIES ON THE SURFACE  
 06/23/2000 - 08/31/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.: R WINGLEE*  
*Tech. Officer: GSFC/L SMITH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50298** UNIV OF WASHINGTON 9591  
 CALCULATION OF THE MERGER PHASE OF BINARY BLACK HOLES USING  
 NUMERICAL RELATIVITY/STUDENT LUISA BU  
 06/28/2000 - 06/30/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.: J BARDEEN*  
*Tech. Officer: GSFC/K BLANDING*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50299** UNIV OF WASHINGTON 9592  
 AN EMPIRICAL MEASURE OF GALAXY EVOLUTION IN CLUSTERS  
 06/28/2000 - 06/30/2002 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.: J DALCANTON*  
*Tech. Officer: GSFC/L SMITH*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 50334** UNIV OF WASHINGTON 9593  
 DETERMINING THE EFFECTS OF CLOUDS & SEA ICE ON THE EARTH RADIA-  
 TION BUDGET IN THE SOUTHERNOCEAN  
 08/17/2000 - 08/31/2001 FY01: \$22,000 Total: \$44,000  
*Prin. Invest.: S WARREN*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 8 52862** UNIV OF WASHINGTON 9594  
 MODELING OF ELECTRICAL EFFECTS ON THE DYNAMICS OF SOLIDIFICA-  
 TION  
 07/27/1998 - 08/13/2000 FY01: \$0 Total: \$22,000  
*Prin. Invest.: L N BRUSH*  
*Tech. Officer: MSFC/J F DOWDY*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NAG 2 1198** WASHINGTON STATE UNIV 9595  
 LIGNIFICATION: A NEW PARADIGM  
 04/02/1998 - 05/31/2002 FY01: \$0 Total: \$375,000  
*Prin. Invest.: N G LEWIS*  
*Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY*  
*CASE Category: 54 – ENVIRONMENTAL BIOLOGY*

**NAG 2 1513** WASHINGTON STATE UNIV 9596  
 DETERMINING THE COMPLEX ORGAIZATIONAL NATURE OF PH ENOLIC  
 RADICAL-RADICAL COUPLING IN VASCULAR PLANT  
 08/17/2001 - 07/14/2002 FY01: \$64,999 Total: \$64,999  
*Prin. Invest.: N G LEWIS*  
*Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 3 2114** WASHINGTON STATE UNIV 9597  
 SINGLE BUBBLE SONOLUMINESCENCE IN LOW GRAVITY AND OPTICAL  
 RADIATION PRESSURE POSITIONING OF THE BUBB  
 02/24/1998 - 09/30/2000 FY01: \$0 Total: \$130,000  
*Prin. Invest.: P L MARSTON, W E TORRUELLAS*  
*Tech. Officer: GRC/N R HALL*  
*CASE Category: 13 – PHYSICS*

**NAG 3 2378** WASHINGTON STATE UNIV 9598  
 PASSIVE AND ACTIVE STABILIZATION OF LIQUID BRIDGES IN LOW  
 GRAVITY  
 04/04/2000 - 03/09/2004 FY01: \$155,612 Total: \$255,612  
*Prin. Invest.: D MARSTON*  
*Tech. Officer: GRC/C NIEDERHAUS*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NAG 5 4035** WASHINGTON STATE UNIV 9599  
 RECONSTRUCTION OF THREE-DIMENSIONAL SHAPE AND SPIN FROM  
 RADAR DATA  
 02/27/1997 - 03/31/2001 FY01: \$0 Total: \$173,975  
*Prin. Invest.: D HUDSON*  
*Tech. Officer: GSFC/J G GRANT*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 4841** WASHINGTON STATE UNIV 9600  
 CALCIUM/CALMODULIN-MEDIATED GRAVITROPIC RESPONSE I  
 06/19/1997 - 09/15/2001 FY01: \$0 Total: \$497,400  
*Prin. Invest.: B POOVAIAH*  
*Tech. Officer: GSFC/M AVERNER*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NAG 5 9345** WASHINGTON STATE UNIV 9601  
 ACCRETION OF INTERPLANETARY DUST: A NEW RECORD FROM 3-HE IN  
 POLAR ICE CORES  
 03/30/2000 - 03/31/2002 FY01: \$30,000 Total: \$60,000  
*Prin. Invest.: E BROOK*  
*Tech. Officer: GSFC/J BOYCE*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10462** WASHINGTON STATE UNIV 9602  
 PHYSICAL MODELING OF ASTEROIDS USING RADAR & OPICAL DATA  
 02/26/2001 - 03/31/2002 FY01: \$45,000 Total: \$45,000  
*Prin. Invest.: D HUDSON*  
*Tech. Officer: GSFC/D SENSKY*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 10637**      **WASHINGTON STATE UNIV**      **9603**  
 USING SATELLITE OBSERVATIONS TO QUANTIFY BIOMASS BURNING EMISSIONS OF NOX & HYDROCARBONS IN THE  
 03/19/2001 - 03/14/2002      FY01: \$83,167      Total: \$83,167  
*Prin. Invest.: L JAEGLE*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 11364**      **WASHINGTON STATE UNIV**      **9604**  
 CALCIUM/CALMODULIN MEDIATED GRAVITROPIC RESPONSE IN PLANTS  
 09/27/2001 - 09/30/2002      FY01: \$163,806      Total: \$163,806  
*Prin. Invest.: B W POOVAIAH*  
*Tech. Officer: GSFC/M AVERNER*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 8 1477**      **WASHINGTON STATE UNIV**      **9605**  
 R/S A COMPARATIVE MODELING STUDY OF MAGNETIC AND ELECTROSTATIC LEVITATION IN MICROGRAVITY  
 03/26/1998 - 01/31/2003      FY01: \$0      Total: \$254,167  
*Prin. Invest.: B Q LI*  
*Tech. Officer: MSFC/C TALLEY*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 8 1693**      **WASHINGTON STATE UNIV**      **9606**  
 R/S "STUDY OF MAGNETIC FIELD EFFECTS ON CONVECTION AND SOLIDIFICATION IN NORMAL AND MICROGRAVITY"  
 06/02/2000 - 11/30/2003      FY01: \$0      Total: \$45,000  
*Prin. Invest.: B Q LI*  
*Tech. Officer: MSFC/P M DOTY*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAS 5 00177**      **WASHINGTON STATE UNIV**      **9607**  
 PARTICIPATION IN THE OZONE MONITORING INSTRUMENT SCIENCE TEAM  
 06/09/2000 - 10/31/2004      FY01: \$68,217      Total: \$118,217  
*Prin. Invest.: G MOUNT*  
*Tech. Officer: GSFC/J C RIVERA*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 2 5346**      **WASHINGTON STATE UNIV**      **9608**  
 LOW-POWER FAST SOI ELECTRONICS FOR SPACE APPLICATIONS  
 08/22/1999 - 07/31/2001      FY01: \$0      Total: \$49,100  
*Prin. Invest.: M A OSMAN*  
*Tech. Officer: ARC/B A BIEGEL, ARC/T R GOVINDAN*  
*CASE Category: 29 – MATH/COMPUTER SCI, OTHER*

**NCC 2 5407**      **WASHINGTON STATE UNIV**      **9609**  
 TRANSPORT IN MOLECULAR STRUCTURES  
 10/30/2000 - 12/31/2001      FY01: \$60,910      Total: \$60,910  
*Prin. Invest.: M A OSMAN*  
*Tech. Officer: ARC/N HALL*  
*CASE Category: 13 – PHYSICS*

**NCC 8 92**      **WASHINGTON STATE UNIV**      **9610**  
 "STUDY OF MAGNETIC DUMPING EFFECT ON CONVECTION & SOLIDIFICATION UNDER G-JITTER CONDITIONS"  
 04/19/1996 - 04/21/2001      FY01: \$0      Total: \$360,000  
*Prin. Invest.: B Q LI*  
*Tech. Officer: MSFC/C R TALLEY*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NGT 3 52330**      **WASHINGTON STATE UNIV**      **9611**  
 GRADUATE STUDENT RESEARCHERS PROGRAM  
 06/10/1997 - 08/15/2000      FY01: \$0      Total: \$66,000  
*Prin. Invest.: P MARSTON*  
*Tech. Officer: GRC/F J MONTEGANI*  
*CASE Category: 13 – PHYSICS*

**NAG 5 8248**      **WHITMAN COLLEGE**      **9612**  
 ORFEUS IMAPS MISSION SUPPORT  
 03/09/1999 - 09/30/2000      FY01: \$0      Total: \$31,299  
*Prin. Invest.: U J SOFIA*  
*Tech. Officer: GSFC/R POLIDAN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 8249**      **WHITMAN COLLEGE**      **9613**  
 THE PROPERTIES OF INTERSTELLAR DUST & APPLICATIONS TO ASTROPHYSICAL PROBLEMS  
 03/09/1999 - 09/30/2000      FY01: \$0      Total: \$25,500  
*Prin. Invest.: U SOFIA*  
*Tech. Officer: GSFC/D WEST*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 9249**      **WHITMAN COLLEGE**      **9614**  
 FUV EXTINCTION: UNIQUE INSIGHTS INTO THE NATURE & ROLE OF SMALL DUST GRAINS – FUSE  
 03/16/2000 - 03/14/2002      FY01: \$0      Total: \$21,954  
*Prin. Invest.: U SOFIA*  
*Tech. Officer: GSFC/G SONNEBORN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 3 2510**      **WHITWORTH COLLEGE**      **9615**  
 DEVELOPMENT OF A METHOD TO SPECTROSCOPICALLY ANALYZE CARBON GRID EROSION IN ION THRUSTERS  
 12/07/2000 - 12/31/2001      FY01: \$15,924      Total: \$15,924  
*Prin. Invest.: D STEVENS*  
*Tech. Officer: GRC/D DOMOMKOS*  
*CASE Category: 13 – PHYSICS*

## WEST VIRGINIA

**NAG 5 11072**      **BLUEFIELD STATE COLLEGE**      **9616**  
 EMERGING LEADER'S INST  
 07/06/2001 - 07/14/2002      FY01: \$100,000      Total: \$100,000  
*Prin. Invest.: F WOOTEN BLANKS*  
*Tech. Officer: GSFC/M MATHEWS*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 2 1194**      **MARSHALL UNIV**      **9617**  
 CALBINDINS & APOPTOSIS AFTERSHORT TERM SPACE FLIGHT  
 03/25/1998 - 05/31/2001      FY01: \$0      Total: \$103,026  
*Prin. Invest.: W B RHOTEN, I N SERGEEV*  
*Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NCC 5 542**      **MARSHALL UNIV**      **9618**  
 RCBI ADVANCED COMPOSITES TECHNOLOGY INITIATIVE  
 03/20/2001 - 03/31/2002      FY01: \$2,300,000      Total: \$2,300,000  
*Prin. Invest.: M R JULIAN*  
*Tech. Officer: GSFC/M KIENLEN*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NGT 9 24 UNIV OF CHARLESTON -WEST VIRGINIA** 9619  
 GRADUATE STUDENT RESEARCH PROGRAM  
 06/02/1997 - 06/30/2000 FY01: -\$14,851  
*Prin. Invest.:* C COOMBS, J NETTLES  
*Tech. Officer:* JSC/D A MORRISON  
*CASE Category:* 32 – GEOLOGICAL SCIENCE  
 Total: \$29,149

**NAG 5 11088 WEST VIRGINIA STATE COLLEGE** 9620  
 APPLICATION OF NASA'S REMOTE SENSING SATELLITES TO ENVIRONMENTAL RESEARCH AND EARTH SCIENCE EDUCATION  
 07/25/2001 - 06/30/2002 FY01: \$70,000  
*Prin. Invest.:* J MAYHUGH  
*Tech. Officer:* GSFC/M MATHEWS  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER  
 Total: \$70,000

**NAG 5 11103 WEST VIRGINIA STATE COLLEGE** 9621  
 NASA SCIENCE AND TECHNOLOGY SCHOLAR PROGRAM  
 07/31/2001 - 07/31/2002 FY01: \$30,000  
*Prin. Invest.:* E V GRIFFIN, SR  
*Tech. Officer:* GSFC/M MATHEWS  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER  
 Total: \$30,000

**NAG 1 2096 WEST VIRGINIA UNIV** 9622  
 ROLE OF TURBULENCE IN CHEMICAL AND DYNAMICAL PROCESSES IN THE NEAR-FIELD WAKE OF SUBSONIC AIRCR  
 09/14/1998 - 12/15/2001 FY01: \$102,570  
*Prin. Invest.:* R F TURCO, W S LEWELLEN  
*Tech. Officer:* LARC/W L GROSE, LARC/B E ANDERSON  
*CASE Category:* 31 – ATMOSPHERIC SCIENCE  
 Total: \$299,190

**NAG 1 2132 WEST VIRGINIA UNIV** 9623  
 INVESTIGATION OF POINT DOPPLER VELOCIMETRY (PDV) FOR TRANSITION DETECTION IN BOUNDARY LAYERS  
 01/15/1999 - 01/12/2000 FY01: -\$89  
*Prin. Invest.:* J M KUHLMAN  
*Tech. Officer:* LARC/J F MEYERS  
*CASE Category:* 41 – AERONAUTICAL ENGR  
 Total: \$47,558

**NAG 2 1158 WEST VIRGINIA UNIV** 9624  
 AIRNET REMOTELY CONTROLLED B747 SCAL MODEL; TRANS FR AMES  
 10/2000; GSFC STARTS SUPP 2  
 08/25/1997 - 01/31/2001 FY01: \$0  
*Prin. Invest.:* M R NAPOLITANO  
*Tech. Officer:* ARC/W F BROOKS  
*CASE Category:* 41 – AERONAUTICAL ENGR  
 Total: \$150,000

**NAG 5 6468 WEST VIRGINIA UNIV** 9625  
 INVESTIGATION OF THE ENERGY BALANCE OF SOLAR WIND ELECTRONS: ULYSSES OBSERVATIONS  
 11/13/1997 - 01/31/2001 FY01: \$0  
*Prin. Invest.:* E SCIME  
*Tech. Officer:* GSFC/J LING  
*CASE Category:* 11 – ASTRONOMY  
 Total: \$113,529

**NAG 5 10218 WEST VIRGINIA UNIV** 9626  
 LABORATORY MEASUREMENTS OF BROADBAND EXTREMELY-LOW - FREQUENCY(BB-ELF) WAVE EXCITATION THRESHOLDS &  
 01/05/2001 - 01/14/2002 FY01: \$98,769  
*Prin. Invest.:* M KOEPKE  
*Tech. Officer:* GSFC/M MELLOTT  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER  
 Total: \$98,769

**NGT 8 1494 WEST VIRGINIA UNIV** 9627  
 MARS ENVIRONMENTAL COMPATIBILITY ASSESSMENT  
 06/11/1998 - 05/31/2002 FY01: \$50,000  
*Prin. Invest.:* T MELOY  
*Tech. Officer:* MSFC/P POE  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER  
 Total: \$243,541

**NAG 8 1496 WEST VIRGINIA UNIV** 9628  
 TECHNOLOGY EDUCATION BIOTECHNOLOGY CURRICULUM (TBEC)  
 09/23/1998 - 08/31/2000 FY01: -\$863  
*Prin. Invest.:* J G WELLS  
*Tech. Officer:* MSFC/D LONGEDDY  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER  
 Total: \$93,817

**NCC 2 979 WEST VIRGINIA UNIV** 9629  
 APPLIED RESEARCH IN SOFTWARE VERIF & VALIDATION TRANS. FROM  
 ARC 10/1/00 START MOD 21 HERE  
 02/27/1997 - 02/28/2002 FY01: \$1,909,964  
*Prin. Invest.:* A C COGLEY, J SHAUB, S M EASTERBROOK  
*Tech. Officer:* ARC/D S OSBURN  
*CASE Category:* 29 – MATH/COMPUTER SCI, OTHER  
 Total: \$11,843,674

**NCC 2 6043 WEST VIRGINIA UNIV** 9630  
 NASA AMES FACILITY EDUCATION OUTREACH PROGRAM  
 05/10/2000 - 10/31/2000 FY01: \$147,692  
*Prin. Invest.:* K DAVIS, E PULE  
*Tech. Officer:* ARC/D OZBURN, ARC/S YASSINI  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER  
 Total: \$227,054

**NCC 5 406 WEST VIRGINIA UNIV** 9631  
 NASA EPSCOR: PREPARATORY GRANT PROPOSAL  
 05/17/1999 - 06/30/2001 FY01: \$0  
*Prin. Invest.:* M JARAIEDI  
*Tech. Officer:* GSFC/D DETROYE  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER  
 Total: \$450,000

**NCC 5 570 WEST VIRGINIA UNIV** 9632  
 WEST VIRGINIA NASA EPSCOR PROGRAM  
 07/13/2001 - 07/31/2002 FY01: \$291,600  
*Prin. Invest.:* M JARAIEDI  
*Tech. Officer:* GSFC/D DETROYE  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER  
 Total: \$291,600

**NGT 5 40055 WEST VIRGINIA UNIV** 9633  
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE AND FELLOWSHIP PROGRAM.  
 02/12/1997 - 02/28/2001 FY01: -\$1,584  
*Prin. Invest.:* M JARAIEDI  
*Tech. Officer:* GSFC/L KEFFER  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER  
 Total: \$972,166

**NGT 5 40120 WEST VIRGINIA UNIV** 9634  
 WEST VIRGINIA SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM  
 03/14/2001 - 02/28/2002 FY01: \$257,834  
*Prin. Invest.:* M JARAIEDI  
*Tech. Officer:* GSFC/D DETROYE  
*CASE Category:* 99 – MULTI INTERDISCPL, OTHER  
 Total: \$257,834

**NGT 5 50009**            **WEST VIRGINIA UNIV**            **9635**  
 ASSESSING THE CONSEQUENCES OF OZONE DEPLETION ON EFFECTS OF  
 ULTRAVIOLET-B RADIATION ON PLANT LITER Q  
 02/10/1997 - 08/31/2000      FY01: \$0      Total: \$66,000  
*Prin. Invest.: W T PETERJOHN*  
*Tech. Officer: GSFC/A NURRIDIN*  
*CASE Category: 51 – BIOLOGY (EXCLUDINGENVIR)*

**NGT 5 50103**            **WEST VIRGINIA UNIV**            **9636**  
 DEBRIS SLIDE HAZARDS IN THE CENTRAL APPALACHIAN: CONTROLLING  
 FACTORS VIA LARGE SCALE SURFICIAL MAPP  
 09/06/1997 - 08/31/2000      FY01: \$0      Total: \$44,000  
*Prin. Invest.: S KITE*  
*Tech. Officer: GSFC/G ASRAR*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 6961**            **WHEELING JESUIT UNIV**            **9637**  
 CLASSROOM OF THE FUTURE  
 02/06/1998 - 06/30/2000      FY01: -\$195      Total: \$299,748  
*Prin. Invest.: R MYERS*  
*Tech. Officer: GSFC/N KHAZENIE*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 8628**            **WHEELING JESUIT UNIV**            **9638**  
 EARTH SYSTEM SCIENCE EDUCATION ALLIANCE  
 06/24/1999 - 06/30/2002      FY01: \$200,815      Total: \$588,498  
*Prin. Invest.: R J MEYERS*  
*Tech. Officer: GSFC/M Y WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NCC 3 858**            **WHEELING JESUIT UNIV**            **9639**  
 THE SYNTHESIS OF INDIUM, GALLIUM AND COPPER DITHIO CARBAMATE  
 COMPLEXES FOR DEPOSITION FOR SPACE AND  
 02/01/2001 - 12/31/2001      FY01: \$9,020      Total: \$9,020  
*Prin. Invest.: N N DUFFY*  
*Tech. Officer: GRC/A F HEPP*  
*CASE Category: 12 – CHEMISTRY*

**NCC 5 440**            **WHEELING JESUIT UNIV**            **9640**  
 NATIONAL TECHNOLOGY TRANSFER CENTER: NASA TECHN. TRANSFER &  
 COMMERCIALIZATION PROGRAM  
 11/09/1999 - 11/30/2001      FY01: \$7,284,000      Total: \$14,457,000  
*Prin. Invest.: J P ALLEN*  
*Tech. Officer: GSFC/N CHEEKS*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 5 451**            **WHEELING JESUIT UNIV**            **9641**  
 CLASSROOM OF THE FUTURE PROGRAM  
 01/28/2000 - 12/31/2001      FY01: \$1,900,000      Total: \$3,840,000  
*Prin. Invest.: N NAIK*  
*Tech. Officer: GSFC/S CANRIGHT*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**WISCONSIN**

**NAG 3 2293**            **LAC COURTE OREILLES OJIBWA COMM COLL**            **9642**  
 RENEWABLE ENERGY AND SUSTAINABLE DEVELOPMENT INST PROJECT  
 09/24/1999 - 09/30/2001      FY01: \$100,000      Total: \$200,000  
*Prin. Invest.: D H ANDERSON*  
*Tech. Officer: GRC/A F HEPP*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 9 1156**            **MARQUETTE UNIV**            **9643**  
 LIMB MUSCLE FUNCTION WITH UNLOADING AND COUNTERMEASURES  
 09/15/1999 - 09/30/2002      FY01: \$186,026      Total: \$404,487  
*Prin. Invest.: R H FITTS*  
*Tech. Officer: JSC/C W LLOYD*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAS 9 18768**            **MARQUETTE UNIV**            **9644**  
 EFFECTS OF WEIGHTLESSNESS ON HUMAN SINGLE MUSCLE FIBER  
 FUNCTION FOR SLS-3  
 08/31/1992 - 12/31/1999      FY01: \$2,466      Total: \$972,628  
*Prin. Invest.: R H FITTS, NONE*  
*Tech. Officer: JSC/V ELLERBEE*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NCC 9 116**            **MARQUETTE UNIV**            **9645**  
 LIFE SCIENCE EXPERIMENT EFFECT OF PROLONGED SPACEFLIGHT ON  
 HUMAN SKELETAL MUSCLE  
 01/05/2001 - 04/01/2004      FY01: \$300,000      Total: \$300,000  
*Prin. Invest.: D L COSTILL, D R RILEY, R H FITTS*  
*Tech. Officer: JSC/D BAUMANN*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NAG 2 956**            **MEDICAL COLLEGE OF WISCONSIN**            **9646**  
 THE EFFECTS OF MICROGRAVITY ON NEUROMUSCULAR DEVELOPMENT  
 01/20/1995 - 10/31/2001      FY01: \$0      Total: \$871,961  
*Prin. Invest.: D A RILEY*  
*Tech. Officer: ARC/W E HINDS, ARC/D M WINGET*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 2 1422**            **MEDICAL COLLEGE OF WISCONSIN**            **9647**  
 EVALUATION OF THE QUALITY OF PRESERVATION OF ARCHIVED FIXED  
 TISSUE SAMPLES FOR ULTRASTRUCTURAL STUDY  
 07/18/2000 - 07/31/2002      FY01: \$0      Total: \$42,000  
*Prin. Invest.: D A RILEY*  
*Tech. Officer: ARC/R D MACELROY, ARC/M M AVERNER*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 3 2242**            **UNIV WISCONSIN-PLATTEVILLE**            **9648**  
 SLOW CRACK GROWTH AND FATIGUE LIFE PREDICTION OF CERAMIC  
 COMPONENTS SUBJECTED TO VARIABLE LOAD HISTORY  
 03/10/1999 - 11/01/2000      FY01: \$0      Total: \$42,000  
*Prin. Invest.: O JADAAN*  
*Tech. Officer: GRC/N N NEMETH*  
*CASE Category: 46 – MECHANICAL ENGR*

**NGT 5 40097**            **UNIV OF WISCONSIN – GREEN BAY**            **9649**  
 WISCONSIN SPACE GRANT COLLEGE & FELLOWSHIP PROGRAM  
 03/06/2001 - 02/28/2002      FY01: \$473,250      Total: \$473,250  
*Prin. Invest.: R A YINGST*  
*Tech. Officer: GSFC/D D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 2 1163**      **UNIV OF WISCONSIN - LA CROSSE**      **9650**  
 A WORKBENCH FOR VOLUMETRIC DATA FILTERING AND SEGMENTATION  
 ALGORITHMS  
 03/16/2000 – 12/31/2001      FY01: \$0      Total: \$31,901  
*Prin. Invest.: S O SENGER*  
*Tech. Officer: ARC/J D SMITH/P*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NAG 1 2073**      **UNIV OF WISCONSIN - MADISON**      **9651**  
 THE COLLECTION AND ANALYSIS OF HIGH SPECTRAL- RESOLUTION  
 INFRARED RADIANCES AS PART OF FIRE  
 05/26/1998 – 11/30/2001      FY01: \$0      Total: \$354,000  
*Prin. Invest.: S A ACKERMAN, H RECERCOMB*  
*Tech. Officer: LARC/V E DELNORE, LARC/J RAPER*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 1 2162**      **UNIV OF WISCONSIN - MADISON**      **9652**  
 MODELING AND ANALYSIS OF SAGE CONSTITUENT MIXING IN THE LOWER  
 STRATOSPHERE AND UPPER TROPOSPHERE  
 03/16/1999 – 12/31/2001      FY01: \$90,000      Total: \$310,000  
*Prin. Invest.: M H HITCHMAN*  
*Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 1 2196**      **UNIV OF WISCONSIN - MADISON**      **9653**  
 THE CONTINUATION OF CLOUD STATISTICS FOR NASA CLIMATE CHANGE  
 STUDIES (NAG-1-1830 FOLLOW-ON/NRA)  
 05/21/1999 – 04/17/2001      FY01: \$0      Total: \$80,000  
*Prin. Invest.: D P WYLIE*  
*Prin. Invest.: NONE*  
*Tech. Officer: LARC/V E DELNORE, LARC/J L ROPER*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 1 2322**      **UNIV OF WISCONSIN - MADISON**      **9654**  
 OVERLAPPING CLOUD INVESTIGATIONS USING MODIS,CERES AND ARM  
 CART SITE DATA  
 08/18/2000 – 12/31/2001      FY01: \$64,891      Total: \$139,891  
*Prin. Invest.: S ACKERMAN*  
*Tech. Officer: LARC/J A GREEN*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 2 1189**      **UNIV OF WISCONSIN - MADISON**      **9655**  
 MOLECULAR GENETICS OF ROOT THIGMORESPONSIVENESS IN ARABI-  
 DOPSIS THALIANA  
 03/19/1998 – 03/31/2001      FY01: \$0      Total: \$451,867  
*Prin. Invest.: P H MASSON*  
*Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 2 1220**      **UNIV OF WISCONSIN - MADISON**      **9656**  
 SKELETAL MUSCLE GROWTH OF REPAIR DURING MICROGRAVITY  
 05/20/1998 – 06/30/2001      FY01: \$0      Total: \$347,962  
*Prin. Invest.: E SCHULTZ*  
*Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 2 1336**      **UNIV OF WISCONSIN - MADISON**      **9657**  
 MOLECULAR CLONING & CHARACTERIZATION OF THE AGR1 GENE OF  
 ARABIDOPSIS THALIANA  
 07/15/1999 – 06/30/2002      FY01: \$156,379      Total: \$392,490  
*Prin. Invest.: P MASSON*  
*Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 2 1380**      **UNIV OF WISCONSIN - MADISON**      **9658**  
 EFFECT OF SPACE FLIGHT ON ADRENAL MEDULLARY FUNCTION  
 09/01/1999 – 02/28/2001      FY01: \$0      Total: \$90,070  
*Prin. Invest.: P I LELKES*  
*Tech. Officer: ARC/R D MACELROY, ARC/M M AVERNER*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 2 1492**      **UNIV OF WISCONSIN - MADISON**      **9659**  
 MOLECULAR GENETICS OF ROOT THIGMORESPONSIVENESS IN ARABI-  
 DOPSIS  
 07/05/2001 – 08/30/2002      FY01: \$61,049      Total: \$61,049  
*Prin. Invest.: P H MASSON*  
*Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 2 1510**      **UNIV OF WISCONSIN - MADISON**      **9660**  
 SKELETAL MUSCLE GROWTH AND REPAIR DURING MICROGRAVITY  
 07/24/2001 – 11/30/2002      FY01: \$71,752      Total: \$71,752  
*Prin. Invest.: E SCHULTZ*  
*Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NAG 5 647**      **UNIV OF WISCONSIN - MADISON**      **9661**  
 DEVELOPMENT & FLIGHT OF WIDE FIELD IMAGING SURVEY POLARMETER  
 03/01/1988 – 12/31/2000      FY01: \$0      Total: \$3,639,890  
*Prin. Invest.: K H NORDSIECK*  
*Tech. Officer: GSFC/L J EARLY, GSFC/R H PLESS*  
*CASE Category: 13 – PHYSICS*

**NAG 5 674**      **UNIV OF WISCONSIN - MADISON**      **9662**  
 SPARTIAL HETERODYNE SPECTROMETER FOR INVESTIGATION OF  
 INTERSTELLAR FAR ULTRAVIOLET EMISSION LINES  
 11/30/1990 – 01/31/2002      FY01: \$0      Total: \$2,125,999  
*Prin. Invest.: R J REYNOLDS*  
*Tech. Officer: GSFC/L J EARLY, GSFC/R H PLESS*  
*CASE Category: 13 – PHYSICS*

**NAG 5 679**      **UNIV OF WISCONSIN - MADISON**      **9663**  
 COSMIC X-RAY PHYSICS  
 03/25/1991 – 04/30/2001      FY01: \$0      Total: \$3,194,189  
*Prin. Invest.: D MCCAMMON*  
*Tech. Officer: GSFC/L J EARLY, GSFC/R H PLESS*  
*CASE Category: 13 – PHYSICS*

**NAG 5 2720**      **UNIV OF WISCONSIN - MADISON**      **9664**  
 CONTINUING INVESTIGATION OF SINGLE-PHOTON CALORIMETERS FOR  
 X-RAY SPECTROSCOPY  
 09/08/1994 – 07/31/2000      FY01: \$0      Total: \$454,788  
*Prin. Invest.: D MCCAMMON*  
*Tech. Officer: GSFC/R L KELLEY*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 2854**      **UNIV OF WISCONSIN - MADISON**      **9665**  
 MULTI-WAVELENGTH DIAGNOSTICS OF ROTATION AND NON-S PHERICAL  
 WINDS IN THE WOLF-RAYET STAR  
 12/22/1994 - 09/30/1999      FY01: -\$1,846      Total: \$226,153  
*Prin. Invest.: J P CASSINELLI*  
*Tech. Officer: GSFC/D WEST*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 3513**      **UNIV OF WISCONSIN - MADISON**      **9666**  
 INTEGRATING BIOGEOCHEMICAL ECOLOGICAL AND HYDROLOG DYNAMIC  
 BIOSPHERE  
 11/18/1996 - 11/14/2000      FY01: \$0      Total: \$903,971  
*Prin. Invest.: J A FOLEY*  
*Tech. Officer: GSFC/D E WICKLAND*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 3524**      **UNIV OF WISCONSIN - MADISON**      **9667**  
 STUDIES OF THE HOT INTERSTELLAR MEDIUM AND HALO OF STRUCTURE  
 & SPECTRAL CHARACTERISTICS OF THE LOW E  
 11/13/1996 - 05/14/2002      FY01: \$144,000      Total: \$575,390  
*Prin. Invest.: W T SANDERS, NONE*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 3769**      **UNIV OF WISCONSIN - MADISON**      **9668**  
 NEW MATHEMATICAL METHODS FOR VARIATIONAL OBJECTIVE ESTIMA-  
 TION  
 02/13/1997 - 09/30/2002      FY01: \$0      Total: \$360,000  
*Prin. Invest.: G WAHBA*  
*Tech. Officer: GSFC/K H BERGMAN*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 4484**      **UNIV OF WISCONSIN - MADISON**      **9669**  
 CO-INVESTIGATOR TO NRA-96-OSS-07 "PRECISION BALLOON OF ANISO-  
 TROPY IN THE CMBR"  
 05/30/1997 - 05/31/2000      FY01: \$0      Total: \$123,000  
*Prin. Invest.: P TIMBIE*  
*Tech. Officer: GSFC/R SILVERBERG*  
*CASE Category: 13 - PHYSICS*

**NAG 5 4751**      **UNIV OF WISCONSIN - MADISON**      **9670**  
 CHARACTERIZING THE SPATIAL AND TEMPORAL DISTRIBUT THICKNESS  
 OVER THE ATLANTIC BASIN UTILIZING GOES-  
 06/17/1997 - 05/31/2000      FY01: \$0      Total: \$150,000  
*Prin. Invest.: E PRINS*  
*Tech. Officer: GSFC/B N HOLBEN*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 5252**      **UNIV OF WISCONSIN - MADISON**      **9671**  
 FLIGHT OF FAR-ULTRAVIOLET SPECTROPOLARIMETER (FUSP) AND  
 DEVELOPMENT AND FLIGHT OF CUPID PI NORDSIECK  
 02/04/2000 - 02/03/2003      FY01: \$420,000      Total: \$815,640  
*Prin. Invest.: K H NORDSIECK, NONE*  
*Tech. Officer: GSFC/W B JOHNSON*  
*CASE Category: 13 - PHYSICS*

**NAG 5 5253**      **UNIV OF WISCONSIN - MADISON**      **9672**  
 UV POLARIMETRIC OBSERVATIONS OR RESONANCE LINE AND DUST SCAT-  
 TERING  
 02/18/2000 - 02/03/2003      FY01: \$0      Total: \$136,000  
*Prin. Invest.: W HARIS*  
*Tech. Officer: GSFC/W B JOHNSON*  
*CASE Category: 13 - PHYSICS*

**NAG 5 5270**      **UNIV OF WISCONSIN - MADISON**      **9673**  
 STUDIES OF THE COSMIC X-RAY BACKGROUND FIRST YEAR FUNDING  
 04/11/2000 - 04/06/2003      FY01: \$350,000      Total: \$667,000  
*Prin. Invest.: D MCCAMMON*  
*Tech. Officer: GSFC/J BRINTON*  
*CASE Category: 13 - PHYSICS*

**NAG 5 5272**      **UNIV OF WISCONSIN - MADISON**      **9674**  
 FIRST FUNDING FOR PHASE 1 OF CIRRUS PROJECT FIRST FUNDING FOR  
 PHASE 1 OF CIRRUS PROJECT  
 04/17/2000 - 04/13/2006      FY01: \$0      Total: \$299,808  
*Prin. Invest.: S ACKERMAN*  
*Tech. Officer: GSFC/D L PIERCE*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 6032**      **UNIV OF WISCONSIN - MADISON**      **9675**  
 THE EVOLUTION OF GALAXY IMAGE STRUCTURE TO Z=3  
 10/08/1997 - 10/14/2001      FY01: \$55,100      Total: \$270,000  
*Prin. Invest.: M BERSHADY*  
*Tech. Officer: GSFC/D WEST*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 6248**      **UNIV OF WISCONSIN - MADISON**      **9676**  
 PLANETARY IMAGING FOURIER TRANSFORM SPECTROMETER  
 08/19/1997 - 07/31/2000      FY01: \$0      Total: \$405,000  
*Prin. Invest.: D A SROMOVSKY*  
*Tech. Officer: GSFC/B CAMPBELL*  
*CASE Category: 32 - GEOLOGICAL SCIENCE*

**NAG 5 6457**      **UNIV OF WISCONSIN - MADISON**      **9677**  
 VALIDATION OF ASTER AND MODIS SURFACE-TEMPERATURE AND  
 VEGETATION PRODUCTS WITH SURFACE-FLUX APPLICAT  
 10/15/1997 - 03/31/2002      FY01: \$200,274      Total: \$849,751  
*Prin. Invest.: S T GOWER*  
*Tech. Officer: GSFC/D O STARR*  
*CASE Category: 19 - PHYSICALSCIENCE, OTHER*

**NAG 5 6535**      **UNIV OF WISCONSIN - MADISON**      **9678**  
 REMOTE SENSING TEACHING AND RESEARCH IN SUPPORT OF CREATING  
 A VISION FOR THE ENVIRONMENT AS A WHOLE  
 10/24/1997 - 09/30/1999      FY01: -\$12,264      Total: \$411,705  
*Prin. Invest.: D MACKAY*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 6546**      **UNIV OF WISCONSIN - MADISON**      **9679**  
 SYNOPTIC MONITORING OF THE IO TORUS: SPECTROSCOPY, DOPPLER  
 IMAGERY, AND PHOTOMETRY  
 10/29/1997 - 10/31/2000      FY01: \$0      Total: \$151,084  
*Prin. Invest.: F SCHERB*  
*Tech. Officer: GSFC/R OLIVERSEN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 6787**      **UNIV OF WISCONSIN - MADISON**      **9680**  
 GROUND-BASED OBSERVATION OF [IO] 6300A EMISSION FR OM IO'S ATMOSPHERE  
 02/06/1998 - 03/31/2001      FY01: \$0      Total: \$180,000  
*Prin. Invest.: F SCHERB*  
*Tech. Officer: GSFC/T MORGAN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 6788**      **UNIV OF WISCONSIN - MADISON**      **9681**  
 CLOUDS ON NEPTUNE: MOTIONS, EVOLUTION, STRUCTURE  
 02/06/1998 - 03/31/2001      FY01: \$0      Total: \$230,780  
*Prin. Invest.: L A SROMOVSKY*  
*Tech. Officer: GSFC/T MORGAN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 6833**      **UNIV OF WISCONSIN - MADISON**      **9682**  
 THE MEASUREMENT OF VACUUM ULTRAVIOLET ATOMIC TRANS ITION PROBABILITIES OF ASTROPHYSICAL INTEREST  
 01/07/1998 - 12/31/2000      FY01: \$0      Total: \$264,780  
*Prin. Invest.: J LAWLER*  
*Prin. Invest.: NONE*  
*Tech. Officer: GSFC/H HASAN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 7026**      **UNIV OF WISCONSIN - MADISON**      **9683**  
 AN ULTRA-LOW BANDWIDTH DIGITAL IMAGING SYSTEM FOR SPACECRAFT  
 02/26/1998 - 06/30/2001      FY01: \$0      Total: \$138,000  
*Prin. Invest.: J W PERCIVAL*  
*Tech. Officer: GSFC/R SPAGNUOLO*  
*CASE Category: 42 - ASTRONAUTICAL ENGR*

**NAG 5 7192**      **UNIV OF WISCONSIN - MADISON**      **9684**  
 ENHANCEMENTS TO THE GOES ARCHIVE  
 03/23/1998 - 03/31/2000      FY01: \$0      Total: \$132,561  
*Prin. Invest.: F BRETHERTON*  
*Tech. Officer: GSFC/J DODGE*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 7214**      **UNIV OF WISCONSIN - MADISON**      **9685**  
 PRESIDENTIAL EARLY CAREER AWARD FOR SCIENTISTS AND ENGINEERS  
 04/06/1998 - 04/30/2002      FY01: \$100,000      Total: \$366,666  
*Prin. Invest.: J FOLEY, NONE*  
*Tech. Officer: GSFC/D E WICKLAND*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 7298**      **UNIV OF WISCONSIN - MADISON**      **9686**  
 CARBON BUDGETS FOR BOREAS AND OTHER BOREAL FORESTS : TOWARDS A BETTERUNDERSTANDING OF FACTORS IN  
 04/24/1998 - 04/30/2000      FY01: \$0      Total: \$148,350  
*Prin. Invest.: S T GOWER*  
*Tech. Officer: GSFC/D E WICKLAND*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 7444**      **UNIV OF WISCONSIN - MADISON**      **9687**  
 A COMPREHENSIVE INVESTIGATION OF THE STRUCTURING O F THE INTERSTELLAR MEDMEDIUM BY MASSIVE STARS - L  
 06/09/1998 - 06/14/2000      FY01: -\$5      Total: \$59,995  
*Prin. Invest.: B P WAKKER*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 7572**      **UNIV OF WISCONSIN - MADISON**      **9688**  
 "A STUDY OF ATMOSPHERIC SCATTERING CONTRIBUTIONS TO GLAS LIDAR RETURNS FROM THE EARTH'S SURFACE"  
 07/24/1998 - 09/30/2001      FY01: \$80,000      Total: \$220,000  
*Prin. Invest.: E W ELORANTA*  
*Tech. Officer: GSFC/J D SPINHIRNE*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 7605**      **UNIV OF WISCONSIN - MADISON**      **9689**  
 CRITICAL REVIEW OF CHINESE RESEARCH ON THE SOLAR I NFLUENCES ON CLIMATE  
 07/22/1998 - 07/31/2002      FY01: \$0      Total: \$218,976  
*Prin. Invest.: P WANG*  
*Tech. Officer: GSFC/J SHARBER*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 7626**      **UNIV OF WISCONSIN - MADISON**      **9690**  
 ANALYSIS OF THE IUE SPECTRA OBTAINED DURING THE SH OEMAKER/ LEVY ENCOUNTER  
 08/03/1998 - 09/30/1999      FY01: \$0      Total: \$62,665  
*Prin. Invest.: D M HARRIS*  
*Tech. Officer: GSFC/R BEEBE*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 7661**      **UNIV OF WISCONSIN - MADISON**      **9691**  
 A STUDY OF UNCERTAINTIES FOR MODIS CLOUD RETRIEVAL S OF OPTICAL THICKNESSAND EFFECTIVE RADIUS  
 09/02/1998 - 03/31/2001      FY01: -\$49,408      Total: \$110,269  
*Prin. Invest.: D PINCUS*  
*Tech. Officer: GSFC/D STARR*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 7931**      **UNIV OF WISCONSIN - MADISON**      **9692**  
 PHYSICS OF AN UNSTABLE WIND FROM THE UNSTABLE STAR P CYGNI ADP-98  
 12/14/1998 - 12/14/2001      FY01: \$0      Total: \$121,000  
*Prin. Invest.: K H NORDSIECK*  
*Tech. Officer: GSFC/D K WEST*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 7952**      **UNIV OF WISCONSIN - MADISON**      **9693**  
 INTEGRATED STUDIES OF COMET C/199501 (HALE-BOPP) USING THE RESULTS OF THE UNIV WI/GSFC OBSER CAMPAI  
 12/17/1998 - 12/31/2002      FY01: \$98,357      Total: \$276,256  
*Prin. Invest.: D M HARRIS*  
*Tech. Officer: GSFC/R BEEBE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 8057**      **UNIV OF WISCONSIN - MADISON**      **9694**  
 INTERPRETATION OF RADIATIVE ENERGY FLUXES IN JUPIT ER'S ATMOSPHERE  
 01/15/1999 - 01/31/2001      FY01: \$0      Total: \$128,085  
*Prin. Invest.: L A SROMOVSKY*  
*Tech. Officer: GSFC/R BEEBE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 8069**      **UNIV OF WISCONSIN - MADISON**      **9695**  
 BIGFOOT--CHARACTERIZING LAND COVER, LAI AND NPP AT THE LAND-  
 SCAPE SCALE FOR EOS/MODIS VALIDATION  
 01/28/1999 - 12/31/2001      FY01: \$169,401      Total: \$575,038  
*Prin. Invest.:* S T GOWER  
*Tech. Officer:* GSFC/D E WICKLAND  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NAG 5 8280**      **UNIV OF WISCONSIN - MADISON**      **9696**  
 THE HISTORY AND INITIAL MASS FUNCTION OF THE LAMBD A ORIONIS  
 STAR FORMING REGION(ADP 98)  
 04/15/1999 - 02/28/2002      FY01: \$0      Total: \$56,505  
*Prin. Invest.:* R D MATHIEU  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 8333**      **UNIV OF WISCONSIN - MADISON**      **9697**  
 X-RAY OBSERVATIONS OF INTRIGUING NOVAE (ADP98)  
 03/02/1999 - 02/29/2000      FY01: \$0      Total: \$29,190  
*Prin. Invest.:* H B OGELMAN  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 8417**      **UNIV OF WISCONSIN - MADISON**      **9698**  
 THEORETICAL STUDIES OF THE DIFFUSE INTERSTELLAR ME DIUM (ATP 98)  
 03/25/1999 - 03/31/2002      FY01: \$199,925      Total: \$290,025  
*Prin. Invest.:* D P COX  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 8537**      **UNIV OF WISCONSIN - MADISON**      **9699**  
 X-RAY DETECTORS FOR SPECTROSCOPY OF 0.1-0.3 KEV EXTENDED  
 SOURCES WITH SUB-EV RESOLUTION.  
 07/09/1999 - 07/14/2002      FY01: \$139,500      Total: \$284,116  
*Prin. Invest.:* D MCCAMMON  
*Prin. Invest.:* NONE  
*Tech. Officer:* GSFC/G MUCKLOW  
*CASE Category:* 13 – PHYSICS

**NAG 5 8554**      **UNIV OF WISCONSIN - MADISON**      **9700**  
 LONG-TERM WATER FLUX CHANGES FROM COVERING OLD- GROWTH  
 PINE FOREST TO HARDWOOD FORESTS IN NORTH  
 06/17/1999 - 06/30/2002      FY01: \$118,552      Total: \$319,128  
*Prin. Invest.:* D MACKAY  
*Tech. Officer:* GSFC/E T ENGMAN  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NAG 5 8588**      **UNIV OF WISCONSIN - MADISON**      **9701**  
 A LOW COST ATTITUDE DETERMINATION SYSTEM & IMAGER WITH  
 EMBEDDED COMPRESSION.  
 07/09/1999 - 07/14/2001      FY01: \$0      Total: \$560,530  
*Prin. Invest.:* J W PERCIVAL  
*Tech. Officer:* GSFC/G MUCKLOW  
*CASE Category:* 42 – ASTRONAUTICAL ENGR

**NAG 5 8597**      **UNIV OF WISCONSIN - MADISON**      **9702**  
 THE ROLE OF LAND USE AND LAND COVER CHANGE ON THE TERRES-  
 TRIAL WATER BALANCE OF THE MISSISSIPPI BASIN  
 06/11/1999 - 06/30/2002      FY01: \$111,735      Total: \$294,621  
*Prin. Invest.:* J A FOLEY  
*Tech. Officer:* GSFC/E T ENGMAN  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NAG 5 8625**      **UNIV OF WISCONSIN - MADISON**      **9703**  
 DOCUMENTING, UNDERSTANDING, AND PREDICTING THE AGGREGATE  
 SURFACE RADIATION FLUXES FOR SHEBA  
 08/31/1999 - 06/14/2000      FY01: \$0      Total: \$57,159  
*Prin. Invest.:* J R KEY  
*Tech. Officer:* GSFC/S GOGINENI  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NAG 5 8639**      **UNIV OF WISCONSIN - MADISON**      **9704**  
 SIMPLE MODELS OF THE SPATIAL DISTRIBUTION OF CLOUD RADIATIVE  
 PROPERTIES FOR REMOTE SENSING STUDIES  
 06/29/1999 - 09/30/2001      FY01: -\$42,593      Total: \$47,887  
*Prin. Invest.:* R PINCUS  
*Tech. Officer:* GSFC/W WISCOMBE  
*CASE Category:* 31 – ATMOSPHERICSCIENCE

**NAG 5 8652**      **UNIV OF WISCONSIN - MADISON**      **9705**  
 CONTINUING INVESTIGATION OF SINGLE-PHOTON CALORIMETERS FOR  
 X-RAY SPECTROSCOPY  
 08/19/1999 - 09/30/2001      FY01: \$0      Total: \$100,000  
*Prin. Invest.:* D MCCAMMON  
*Tech. Officer:* GSFC/R L KELLEY  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 8967**      **UNIV OF WISCONSIN - MADISON**      **9706**  
 OBSERVATIONAL CONSTRAINTS FOR THE GALACTIC FOUNDATION - FUSE  
 01/24/2000 - 01/31/2003      FY01: \$0      Total: \$56,200  
*Prin. Invest.:* R BENJAMIN  
*Tech. Officer:* GSFC/G SONNEBORN  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 9024**      **UNIV OF WISCONSIN - MADISON**      **9707**  
 OBSERVATIONAL CONSTRAINTS FOR THE GALACTIC FOUNTAIN-FUSE  
 HIGH VELOCITY CLOUDS: ORIGIN  
 02/28/2000 - 02/28/2002      FY01: \$0      Total: \$70,459  
*Prin. Invest.:* B P WAKKER  
*Tech. Officer:* GSFC/G SONNEBORN  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 9028**      **UNIV OF WISCONSIN - MADISON**      **9708**  
 EARTH SCIENCE COMPONENT FOR ACADEMIC PROFESSIONAL ENHANCE-  
 MENT (ESCAPE)  
 02/04/2000 - 02/14/2002      FY01: \$43,781      Total: \$86,975  
*Prin. Invest.:* S S LIMAYE  
*Tech. Officer:* GSFC/N KHAZENIE  
*CASE Category:* 39 – ENVIRONMENTAL SCI, OTHER

**NAG 5 9084**      **UNIV OF WISCONSIN - MADISON**      **9709**  
 STATISTICAL ANALYSIS OF ATMOSPHERIC OZONE DATA FOR TREND  
 FEATURES & STUDIES ON STATISTICAL METHODOLO  
 02/16/2000 - 08/31/2001      FY01: \$0      Total: \$30,000  
*Prin. Invest.:* G C REINSEL  
*Tech. Officer:* GSFC/P K BHARTIA  
*CASE Category:* 31 – ATMOSPHERICSCIENCE

**NAG 5 9179**      **UNIV OF WISCONSIN - MADISON**      **9710**  
 THE ORIGINS OF GALACTIC HALO GAS: ACCRETION AND FOUNTAIN  
 FLOWS (LTSA 99)  
 03/07/2000 - 03/14/2002      FY01: \$104,421      Total: \$201,637  
*Prin. Invest.:* B P WAKKER  
*Tech. Officer:* GSFC/R J OLIVERSEN  
*CASE Category:* 11 – ASTRONOMY

**NAG 5 9226**      **UNIV OF WISCONSIN - MADISON**      **9711**  
 SPECTRAL DIAGNOSTICS FOR EARLY-TYPE STARS IN SUPPORT OF HIGH-  
 RESOLUTION SATELLITE OBSERVATIONS (LTS)  
 03/09/2000 - 03/14/2002      FY01: \$20,033      Total: \$39,060  
*Prin. Invest.: J CASSINELLI*  
*Tech. Officer: GSFC/R OLIVERSEN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9295**      **UNIV OF WISCONSIN - MADISON**      **9712**  
 DIAGNOSTIC & PREDICTIVE STUDIES OF THE EARTH'S HYDROLOGIC  
 CYCLE USING MODEL-ASSIMILATED & REMOTE  
 04/13/2000 - 12/31/2001      FY01: \$195,000      Total: \$305,000  
*Prin. Invest.: D R JOHNSON*  
*Tech. Officer: GSFC/R ATLAS*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 9389**      **UNIV OF WISCONSIN - MADISON**      **9713**  
 INTERNATIONAL MODIS/AIRS PROCESSING PACKAGE (IMAPP) FOR EOS  
 DIRECT BROADCAST DATA  
 04/04/2000 - 04/14/2003      FY01: \$250,000      Total: \$500,000  
*Prin. Invest.: A HUANG*  
*Tech. Officer: GSFC/J DODGE*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 9436**      **UNIV OF WISCONSIN - MADISON**      **9714**  
 MONITORING AND MODELING OF LAND-SURFACE ENERGY AND WATER  
 FLUXES USING ANENHANCEDPATHFINDER DATABASE  
 04/13/2000 - 04/30/2002      FY01: \$192,532      Total: \$343,710  
*Prin. Invest.: G DIAK*  
*Tech. Officer: GSFC/J DODGE*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 9452**      **UNIV OF WISCONSIN - MADISON**      **9715**  
 HUMAN ACTIVITY AND A CHANGING BIOSPHERE  
 04/13/2000 - 04/30/2002      FY01: \$298,535      Total: \$495,681  
*Prin. Invest.: J FOLLEY*  
*Tech. Officer: GSFC/D WICKLAND*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 9483**      **UNIV OF WISCONSIN - MADISON**      **9716**  
 COLLABORATIVE ANALYSIS AND VISUALIZATION OF SPACE SCIENCE DATA  
 USING JAVA AND VISAD  
 04/21/2000 - 04/30/2001      FY01: \$0      Total: \$85,000  
*Prin. Invest.: W T SANDERS*  
*Tech. Officer: GSFC/J BREDEKAMP*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 9567**      **UNIV OF WISCONSIN - MADISON**      **9717**  
 PRECISION BALLOON-BORNE MEASUREMENTS OF THE ANISOTROPY IN  
 THE COSMIC INFRARED & FAR-INFRARED BACKGR  
 05/05/2000 - 05/14/2001      FY01: \$0      Total: \$79,980  
*Prin. Invest.: P TIMBIE*  
*Tech. Officer: GSFC/E S CHENG*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9673**      **UNIV OF WISCONSIN - MADISON**      **9718**  
 DETERMINATION OF MOMENTUM TRANSPORT, ORGANIZATION, &  
 TEMPORAL INTENSITY OF DEEP TROPICAL CONVECTION  
 06/01/2000 - 05/31/2002      FY01: \$40,000      Total: \$60,339  
*Prin. Invest.: J R MECIKALSKI, NONE*  
*Tech. Officer: GSFC/R J LAWRENCE*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 9688**      **UNIV OF WISCONSIN - MADISON**      **9719**  
 APPLICATION OF REMOTE SENSING TO ASSESS THE IMPACT OF SHORT  
 TERM CLIMATEVARIABILITY ON COASTAL SEDIM  
 06/14/2000 - 06/14/2002      FY01: \$150,000      Total: \$200,000  
*Prin. Invest.: P MENZEL*  
*Tech. Officer: GSFC/H V FREY*  
*CASE Category: 32 - GEOLOGICALSCIENCE*

**NAG 5 9712**      **UNIV OF WISCONSIN - MADISON**      **9720**  
 GLAST: A GEV ALL-SKY MONITOR OF TRANSIENT PHENOME NA  
 06/15/2000 - 06/14/2002      FY01: \$34,994      Total: \$54,989  
*Prin. Invest.: P DINGUS*  
*Tech. Officer: GSFC/S LAMBROS*  
*CASE Category: 13 - PHYSICS*

**NAG 5 9894**      **UNIV OF WISCONSIN - MADISON**      **9721**  
 IMPROVED TRMM RAINFALL ESTIMATES FROM A COMBINA- TION OF  
 SATELLITE & SURFACE HYDROLOGICAL OBSERA  
 08/25/2000 - 11/30/2001      FY01: \$105,000      Total: \$163,020  
*Prin. Invest.: G W PETTY*  
*Tech. Officer: GSFC/R J LAWRENCE*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 9931**      **UNIV OF WISCONSIN - MADISON**      **9722**  
 THE NEARBY STARBURST DWARF GALAXY NGC 625  
 09/07/2000 - 09/14/2001      FY01: \$0      Total: \$6,400  
*Prin. Invest.: H A KOBULNICKY*  
*Tech. Officer: GSFC/D F MUSHOTZKY*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 9999**      **UNIV OF WISCONSIN - MADISON**      **9723**  
 OPTIMIZATION OF THE GODDARD PROFILING (GPROF) ALGO RITHM FOR  
 SUBTROPICAL AND EXTRATROPICAL RAINFALL  
 11/17/2000 - 12/31/2001      FY01: \$34,641      Total: \$34,641  
*Prin. Invest.: G W PETTY*  
*Tech. Officer: GSFC/R J LAWRENCE*  
*CASE Category: 31 - ATMOSPHERIC SCIENCE*

**NAG 5 10196**      **UNIV OF WISCONSIN - MADISON**      **9724**  
 THE MEASUREMENT OF ATOMIC TRANSITION PROBABILITIES FOR SPEC-  
 TRAL LINES IN THE FUSE BAND  
 01/04/2001 - 12/31/2001      FY01: \$60,000      Total: \$60,000  
*Prin. Invest.: J E LAWLER*  
*Tech. Officer: GSFC/P CRANE*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 10204**      **UNIV OF WISCONSIN - MADISON**      **9725**  
 MINIATURE ADIABATIC DEMAGNETIZATION REFRIGERATOR  
 12/28/2000 - 12/31/2001      FY01: \$160,000      Total: \$160,000  
*Prin. Invest.: P TIMBIE*  
*Tech. Officer: GSFC/G STRINGFELLOW*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 10258**      **UNIV OF WISCONSIN - MADISON**      **9726**  
 ANTENNA COUPLED TRANSITION EDGE MICROBOLOMETERS WITH  
 ON-CHIP FILTERING & DUAL POLARIZATION SENSITI  
 01/31/2001 - 12/31/2001      FY01: \$223,105      Total: \$223,105  
*Prin. Invest.: P TIMBIE*  
*Tech. Officer: GSFC/J CHERVENAK*  
*CASE Category: 13 – PHYSICS*

**NAG 5 10273**      **UNIV OF WISCONSIN - MADISON**      **9727**  
 SOME NEW MATHEMATICAL METHODS FOR VARIATIONAL OBJECTIVE  
 ANALYSIS & ACCURACY ESTIMATION, WITH EM  
 01/16/2001 - 01/14/2002      FY01: \$65,000      Total: \$65,000  
*Prin. Invest.: G WAHBA*  
*Tech. Officer: GSFC/Y SUD*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10415**      **UNIV OF WISCONSIN - MADISON**      **9728**  
 LMC 1995, THE THIRD SUPERSOFT X-RAY NOVA  
 02/21/2001 - 02/28/2003      FY01: \$21,667      Total: \$21,667  
*Prin. Invest.: M ORIO*  
*Tech. Officer: GSFC/R MUSHOTZKY*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10729**      **UNIV OF WISCONSIN - MADISON**      **9729**  
 CONTINUED DEVELOPMENT OF A PLANETARY IMAGING FOURIER TRANS-  
 FORM SPECTROMETER (PIFTS)  
 04/10/2001 - 04/14/2002      FY01: \$50,000      Total: \$50,000  
*Prin. Invest.: L SRAMOVSKY*  
*Tech. Officer: GSFC/B BETTS*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 10770**      **UNIV OF WISCONSIN - MADISON**      **9730**  
 STAR FORMATION FEEDBACK ON GALAXY EVOLUTION (LTSA 2000)  
 04/26/2001 - 04/30/2002      FY01: \$114,544      Total: \$114,544  
*Prin. Invest.: H A KOBULNICKY*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 11085**      **UNIV OF WISCONSIN - MADISON**      **9731**  
 CLIMATE AND HUMAN IMPACTS ON WATER RESOURCES IN AFRICA  
 07/20/2001 - 08/14/2002      FY01: \$80,503      Total: \$80,503  
*Prin. Invest.: M COE*  
*Tech. Officer: GSFC/G GUTMAN*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 11155**      **UNIV OF WISCONSIN - MADISON**      **9732**  
 VALIDATION OF THE ATMOSPHERIC INFRARED SOUNDER (AI RS) OVER  
 THE ANTARCTIC PLATEAU(AQUA-0080-033) NRA  
 08/08/2001 - 08/31/2004      FY01: \$21,375      Total: \$21,375  
*Prin. Invest.: D C TOBIN*  
*Tech. Officer: GSFC/D STARR*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 11221**      **UNIV OF WISCONSIN - MADISON**      **9733**  
 MAGNETIC FIELDS ON OB STARS (ATP 2000)  
 08/09/2001 - 08/14/2004      FY01: \$5,023      Total: \$5,023  
*Prin. Invest.: J P CASSINELLI*  
*Tech. Officer: GSFC/R J OLIVERSEN*  
*CASE Category: 11 – ASTRONOMY*

**NAG 5 11242**      **UNIV OF WISCONSIN - MADISON**      **9734**  
 LINKING IN-SITU MEASUREMENTS, REMOTE SENSING, AND MODELS TO  
 VALIDATE MODIS PRODUCTS RELATED TO TH  
 08/17/2001 - 08/31/2004      FY01: \$93,203      Total: \$93,203  
*Prin. Invest.: S T GOWER*  
*Tech. Officer: GSFC/D WICKLAND*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 11245**      **UNIV OF WISCONSIN - MADISON**      **9735**  
 INTERANNUAL TO DECADEL AIR-SEA CARBON FLUXES: ANAL YSIS OF  
 MARINE PRODUCTIVITY ANF NUTRIENT D  
 08/16/2001 - 08/31/2004      FY01: \$117,204      Total: \$117,204  
*Prin. Invest.: A WINGUTH*  
*Tech. Officer: GSFC/J MARRA*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 11303**      **UNIV OF WISCONSIN - MADISON**      **9736**  
 ANALYSIS OF DYNAMICAL PROCESSES IMPORTANT TO CLIMATE CHANGE  
 08/31/2001 - 08/31/2003      FY01: \$100,002      Total: \$100,002  
*Prin. Invest.: M HITCHMAN*  
*Tech. Officer: GSFC/P DECOLA*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 8 1320**      **UNIV OF WISCONSIN - MADISON**      **9737**  
 RESEARCH DEVELOPMENT OF ATMOSPHERIC PHYSICAL RETRIEVAL  
 METHODOLOGIES USING SATELLITE DATA  
 01/31/1997 - 01/31/2002      FY01: \$0      Total: \$200,000  
*Prin. Invest.: G DIAK*  
*Tech. Officer: MSFC/F R ROBERTSON, MSFC/J ARNOLD*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 8 1459**      **UNIV OF WISCONSIN - MADISON**      **9738**  
 R/S PHYSICAL SIMULATION OF MARANGONI CONVECTION IN WELD POOLS  
 02/01/1998 - 01/31/2002      FY01: \$90,250      Total: \$340,417  
*Prin. Invest.: S KOU*  
*Tech. Officer: MSFC/P M DOTY*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NAG 8 1460**      **UNIV OF WISCONSIN - MADISON**      **9739**  
 R/S DYNAMIC REDUCTION AND THE CREATION OF FINE GRAINED  
 CERAMICS FROM INVISCID MELTS  
 02/01/1998 - 01/31/2002      FY01: \$79,800      Total: \$306,467  
*Prin. Invest.: R F COOPER*  
*Tech. Officer: MSFC/C TALLEY*  
*CASE Category: 13 – PHYSICS*

**NAG 8 1651**      **UNIV OF WISCONSIN - MADISON**      **9740**  
 INVESTIGATION OF SENSOR AND ACTUATOR PLACEMENT TECHNIQUES  
 11/09/1999 - 11/15/2000      FY01: \$0      Total: \$32,640  
*Prin. Invest.: D C KAMMER*  
*Tech. Officer: MSFC/M L TINKER, MSFC/F M BUGG*  
*CASE Category: 46 – MECHANICAL ENGR*

**NAG 8 1672**      **UNIV OF WISCONSIN - MADISON**      **9741**  
 ANALYSIS OF CONTAINERLESS SOLIDIFICATION MICRO- STRUCTURES IN  
 UNDERCOOLED MELTSAND COMPOSITES SYS  
 05/26/2000 - 11/30/2003      FY01: \$85,500      Total: \$125,500  
*Prin. Invest.: J N PEREZKO*  
*Tech. Officer: MSFC/P DOTY*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

<b>NAG 8 1719</b>	<b>UNIV OF WISCONSIN - MADISON</b>	<b>9742</b>	<b>NAS 1 96004</b>	<b>UNIV OF WISCONSIN - MADISON</b>	<b>9750</b>
FILED REVERSED CONFIGURATION FUSION PROPULSION 05/04/2000 - 04/15/2003	UNIV OF WISCONSIN - MADISON FY01: \$27,000	Total: \$59,000	IDIQ FOR SATELLITE DATA/SITE LICENSE 05/01/1996 - 04/29/2001	UNIV OF WISCONSIN - MADISON FY01: \$0	Total: \$317,171
<i>Prin. Invest.: J SANTARIUS</i>			<i>Prin. Invest.: N APPLICABLE</i>		
<i>Tech. Officer: MSFC/F THEO</i>			<i>Tech. Officer: LARC/R C HUFFMAN, JR., LARC/P MINNIS</i>		
<i>CASE Category: 22 - COMPUTER SCIENCE</i>			<i>CASE Category: 31 - ATMOSPHERIC SCIENCE</i>		
<b>NAG 8 1783</b>	<b>UNIV OF WISCONSIN - MADISON</b>	<b>9743</b>	<b>NAS 1 99106</b>	<b>UNIV OF WISCONSIN - MADISON</b>	<b>9751</b>
ALL-OPTICAL HIGH DENSITY COLD ATOM SOURCES 05/04/2001 - 03/30/2005	UNIV OF WISCONSIN - MADISON FY01: \$60,000	Total: \$60,000	ANALYSIS OF COMBINED PICASSO-CENA AND MODIS DATA 05/17/1999 - 05/16/2002	UNIV OF WISCONSIN - MADISON FY01: \$69,354	Total: \$149,754
<i>Prin. Invest.: T G WALKER</i>			<i>Prin. Invest.: S A ACKERMAN</i>		
<i>Tech. Officer: MSFC/D S HUBBARD</i>			<i>Tech. Officer: LARC/G GIBSON</i>		
<i>CASE Category: 19 - PHYSICAL SCIENCE, OTHER</i>			<i>CASE Category: 31 - ATMOSPHERIC SCIENCE</i>		
<b>NAG 8 1820</b>	<b>UNIV OF WISCONSIN - MADISON</b>	<b>9744</b>	<b>NAS 5 30131</b>	<b>UNIV OF WISCONSIN - MADISON</b>	<b>9752</b>
INVESTIGATION OF TECHNIQUES FOR SENSOR PLACEMENT, ACTUATOR PLACEMENT, AND TARGETMODE SELECTION... 05/15/2001 - 05/15/2002	UNIV OF WISCONSIN - MADISON FY01: \$39,940	Total: \$39,940	SPACE TELESCOPE IMAGINE SPECTROGRAPH SUPPORT 09/22/1987 - 01/31/2002	UNIV OF WISCONSIN - MADISON FY01: \$157,000	Total: \$1,290,954
<i>Prin. Invest.: D C KAMMER</i>			<i>Prin. Invest.: F ROESLER</i>		
<i>Tech. Officer: MSFC/M L TINKER</i>			<i>Tech. Officer: GSFC/H D VITAGLIANO</i>		
<i>CASE Category: 46 - MECHANICAL ENGR</i>			<i>CASE Category: 11 - ASTRONOMY</i>		
<b>NAG 9 1008</b>	<b>UNIV OF WISCONSIN - MADISON</b>	<b>9745</b>	<b>NAS 5 31367</b>	<b>UNIV OF WISCONSIN - MADISON</b>	<b>9753</b>
CONTROL-CREW NETWORK COMMUNICATIONS DURING ROUTINE AND NON-ROUTINE EVENTS 05/01/1998 - 11/01/2000	UNIV OF WISCONSIN - MADISON FY01: \$0	Total: \$304,650	EOS STUDY 12/30/1991 - 12/14/2001	UNIV OF WISCONSIN - MADISON FY01: \$792,750	Total: \$5,576,095
<i>Prin. Invest.: B S CALDWELL</i>			<i>Prin. Invest.: P MENZEL</i>		
<i>Tech. Officer: JSC/B WOOLFORD</i>			<i>Tech. Officer: GSFC/D TOLL, GSFC/B CONBOY</i>		
<i>CASE Category: 59 - LIFE SCIENCE, OTHER</i>			<i>CASE Category: 31 - ATMOSPHERIC SCIENCE</i>		
<b>NAG 9 1039</b>	<b>UNIV OF WISCONSIN - MADISON</b>	<b>9746</b>	<b>NAS 5 31375</b>	<b>UNIV OF WISCONSIN - MADISON</b>	<b>9754</b>
MEASUREMENT OF BODY COMPOSITION FOR NUTRITIONAL ASSESSMENT IN MICROGRAVITY 06/13/1998 - 07/15/2001	UNIV OF WISCONSIN - MADISON FY01: \$0	Total: \$284,907	EOS AIRS INVESTIGATION 01/13/1992 - 12/14/2001	UNIV OF WISCONSIN - MADISON FY01: \$425,000	Total: \$2,652,889
<i>Prin. Invest.: D SCHOELLER</i>			<i>Prin. Invest.: H REVERCOMB</i>		
<i>Tech. Officer: KSC/C LLYOD</i>			<i>Tech. Officer: GSFC/E KREINS</i>		
<i>CASE Category: 59 - LIFE SCIENCE, OTHER</i>			<i>CASE Category: 31 - ATMOSPHERIC SCIENCE</i>		
<b>NAG13 99008</b>	<b>UNIV OF WISCONSIN - MADISON</b>	<b>9747</b>	<b>NAS 5 31377</b>	<b>UNIV OF WISCONSIN - MADISON</b>	<b>9755</b>
MIDWEST CENTER FOR NATURAL RESOURCE MGMT SAME 03/03/1999 - 03/02/2002	UNIV OF WISCONSIN - MADISON FY01: \$0	Total: \$1,500,000	EOS INVESTIGATION: ALGORITHM DEVELOPMENT WITH HIS/AIRS 01/08/1992 - 12/14/2001	UNIV OF WISCONSIN - MADISON FY01: \$210,000	Total: \$1,998,640
<i>Prin. Invest.: G DIAK</i>			<i>Prin. Invest.: W L SMITH</i>		
<i>Tech. Officer: SSC/C HILL</i>			<i>Tech. Officer: GSFC/E KREINS</i>		
<i>CASE Category: 99 - MULTI INTERDISCPL, OTHER</i>			<i>CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</i>		
<b>NAS 1 00070</b>	<b>UNIV OF WISCONSIN - MADISON</b>	<b>9748</b>	<b>NAS 5 99004</b>	<b>UNIV OF WISCONSIN - MADISON</b>	<b>9756</b>
ENG.& SCIENTIFIC SUPPORT FOR NAST-I 09/15/2000 - 10/30/2001	UNIV OF WISCONSIN - MADISON FY01: \$476,434	Total: \$1,100,485	GLAS SCIENCE TEAM LEADER. 11/25/1998 - 12/01/2002	UNIV OF WISCONSIN - MADISON FY01: \$85,000	Total: \$273,000
<i>Prin. Invest.: F A BEST</i>			<i>Prin. Invest.: C BENTLEY</i>		
<i>Tech. Officer: LARC/A ROYAL</i>			<i>Tech. Officer: GSFC/G SMITH</i>		
<i>CASE Category: 31 - ATMOSPHERIC SCIENCE</i>			<i>CASE Category: 31 - ATMOSPHERIC SCIENCE</i>		
<b>NAS 1 00072</b>	<b>UNIV OF WISCONSIN - MADISON</b>	<b>9749</b>	<b>NCC 1 01011</b>	<b>UNIV OF WISCONSIN - MADISON</b>	<b>9757</b>
ALGORITHM DEVELOPMENT, MEASUREMENT CONCEPT VALIDATION, DATA PROCESSING AND ED./PUBLIC OUTREACH 11/06/2000 - 10/30/2001	UNIV OF WISCONSIN - MADISON FY01: \$1,698,000	Total: \$1,698,000	TROPOSPHERIC MODELING STUDIES OF TRACE P FIELD DATA: REGIONAL ASSESMT OF STRATOSPH-TROPOSPH EXCHANGE 01/19/2001 - 01/31/2003	UNIV OF WISCONSIN - MADISON FY01: \$42,224	Total: \$42,224
<i>Prin. Invest.: H REVERCOMB</i>			<i>Prin. Invest.: M H HITCHMAN, G J TRIPOLI</i>		
<i>Tech. Officer: LARC/V PARSONS</i>			<i>Tech. Officer: LARC/J H CRAWFORD</i>		
<i>CASE Category: 31 - ATMOSPHERIC SCIENCE</i>			<i>CASE Category: 31 - ATMOSPHERIC SCIENCE</i>		

**NCC 2 542**      **UNIV OF WISCONSIN - MADISON**      **9758**  
 PSYCHOPHYSICAL EVALUATION OF THREE-DIMENSIONAL AUDITORY DISPLAYS  
 05/01/1988 - 03/31/2000      FY01: \$0      Total: \$1,583,828  
*Prin. Invest.: F L WIGHTMAN*  
*Tech. Officer: ARC/E M WENZEL*  
*CASE Category: 69 – PSYCHOLOGY, OTHER*

**NCC 2 5260**      **UNIV OF WISCONSIN - MADISON**      **9759**  
 STUDY OF MEMORY SYSTEM PERFORMANCE FOR FLUID FLOW POST-PROCESSING TOOLS  
 03/17/1998 - 10/31/1999      FY01: \$0      Total: \$66,630  
*Prin. Invest.: P CAO*  
*Tech. Officer: ARC/M GERALD-YAMASAKI*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NCC 2 5323**      **UNIV OF WISCONSIN - MADISON**      **9760**  
 TOWARDS A COMMON SERVICE SPECIFICATION & MATCHMAKING FRAMEWORK FOR GRID APPLICATIONS  
 05/07/1999 - 04/30/2001      FY01: \$0      Total: \$40,000  
*Prin. Invest.: M LIVNY*  
*Tech. Officer: ARC/W E JOHNSTON, ARC/G F MORELLO*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NCC 2 5449**      **UNIV OF WISCONSIN - MADISON**      **9761**  
 FE ISOTOPE STUDIES OF MICROBIAL ECOLOGY  
 07/27/2001 - 07/31/2002      FY01: \$93,518      Total: \$93,518  
*Prin. Invest.: C M JOHNSON, B L BEARD*  
*Tech. Officer: ARC/W W DOLCI*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 5 294**      **UNIV OF WISCONSIN - MADISON**      **9762**  
 HIGH RESOLUTION CARBON EXCHANGE OVER LARGE-SCALE AMAZONIA BASED ON MODELING AND GOES SATELLITE  
 06/10/1998 - 12/31/2001      FY01: \$34,885      Total: \$149,659  
*Prin. Invest.: J M NORMAN*  
*Tech. Officer: GSFC/D W DEERING*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NCC 5 335**      **UNIV OF WISCONSIN - MADISON**      **9763**  
 THE EFFECTS OF TROPICAL FOREST CONVERSION: ECOLOGICAL RESEARCH IN THE LARGE-SCALE BIOSPHERE-ATMOSPHERE  
 06/16/1998 - 12/31/2001      FY01: \$25,684      Total: \$92,579  
*Prin. Invest.: J FOLEY*  
*Tech. Officer: GSFC/D DEERING*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NCC 5 354**      **UNIV OF WISCONSIN - MADISON**      **9764**  
 "GSFC COOPERATIVE GRADUATE RESEARCH ASSISTANTSHIPS"  
 08/04/1998 - 08/31/2001      FY01: \$0      Total: \$124,644  
*Prin. Invest.: M H HITCHMAN*  
*Tech. Officer: GSFC/A J NEGRI*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 5 365**      **UNIV OF WISCONSIN - MADISON**      **9765**  
 MODELING WETLANDS AND THEIR ROLE IN HYDROLOGICAL AND BIOGEOCHEMICAL CYCLES  
 09/24/1998 - 09/30/2001      FY01: \$0      Total: \$50,033  
*Prin. Invest.: J A FOLEY*  
*Tech. Officer: HQ/L TRAVIS*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 8 129**      **UNIV OF WISCONSIN - MADISON**      **9766**  
 R/S "CONTINUATION SUPPORT FOR WISCONSIN CENTER FOR SPACE AUTHORIZATION & ROBOTICS"  
 01/30/1997 - 10/31/2001      FY01: \$2,683,000      Total: \$10,148,486  
*Prin. Invest.: W L ZHOU, J R BULA*  
*Tech. Officer: MSFC/A L MATISAK*  
*CASE Category: 54 – ENVIRONMENTAL BIOLOGY*

**NCC13 00004**      **UNIV OF WISCONSIN - MADISON**      **9767**  
 MAXIMIZING MUTUAL OPPORTUNITIES: PARTNERSHIP AMONG NASA, UW-MAD AND PRIVATE INDUSTRY  
 03/06/2000 - 03/05/2002      FY01: \$195,000      Total: \$345,000  
*Prin. Invest.: T LILLESAND*  
*Tech. Officer: SSC/A PEEK*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 46**      **UNIV OF WISCONSIN - MADISON**      **9768**  
 017RECISE MEASUREMENT OF COSMOLOGICAL PARAMETERS V COSMIC MICROWAVE BACKGROUND ANISOTROPY  
 06/23/1997 - 06/30/2001      FY01: \$0      Total: \$88,000  
*Prin. Invest.: P TIMBIE*  
*Tech. Officer: GSFC/M S BURRELL*  
*CASE Category: 11 – ASTRONOMY*

**NGT 5 115**      **UNIV OF WISCONSIN - MADISON**      **9769**  
 THREE-DIMENSIONAL MULTIWAVELENGTH MODELING TECHNIQUES FOR ANALYSIS OF ASPHERICAL STELLAR  
 06/04/2001 - 06/30/2002      FY01: \$21,383      Total: \$21,383  
*Prin. Invest.: K H NORDSIECK*  
*Tech. Officer: GSFC/M S BURRELL*  
*CASE Category: 11 – ASTRONOMY*

**NGT 5 30119**      **UNIV OF WISCONSIN - MADISON**      **9770**  
 EVALUATING THE ROLE OF LAND USE IN THE TERRESTRIAL BIOSPHERE OVER THE LAST CENTURY-ESSF RECIPIENT:NA  
 10/01/1997 - 08/31/2000      FY01: \$0      Total: \$66,000  
*Prin. Invest.: J FOLEY*  
*Tech. Officer: GSFC/G ASRAR*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 30146**      **UNIV OF WISCONSIN - MADISON**      **9771**  
 POROElastic ANALYSIS OF COSEISMIC AND POSTSEISMIC DEFORMATION ASSOCIATED WITH THE 1992 LANDERS, CALIF  
 08/31/1998 - 08/31/2001      FY01: \$0      Total: \$66,000  
*Prin. Invest.: H F WANG*  
*Tech. Officer: GSFC/M Y WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 30160**      **UNIV OF WISCONSIN - MADISON**      **9772**  
 SCALE-DEPENDENT CLIMATE CHANGE DUE TO DEFORESTATION IN AMAZONIA  
 08/31/1998 - 08/31/2001      FY01: \$0      Total: \$66,000  
*Prin. Invest.: W BRINKMANN, NONE*  
*Tech. Officer: GSFC/M Y WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 30176**      **UNIV OF WISCONSIN - MADISON**      **9773**  
 EFFECTS OF LOGGING ACTIVITY ON BIOPHYSICAL PROCESSSES AND  
 CARBON CYCLING WITHIN CANADIAN BOREAL FOREST  
 08/12/1999 - 08/31/2002      FY01: \$22,000      Total: \$66,000  
*Prin. Invest.: J FOLEY*  
*Tech. Officer: GSFC/L SMITH*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NGT 5 30396**      **UNIV OF WISCONSIN - MADISON**      **9774**  
 THE IMPACT OF CLIMATE AND AGRICULTURE ACTIVITY ON NITRATE  
 EXPORT TO THE OCEAN  
 08/14/2001 - 08/31/2004      FY01: \$22,000      Total: \$22,000  
*Prin. Invest.: J FOLEY*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NGT 5 50185**      **UNIV OF WISCONSIN - MADISON**      **9775**  
 PRECISION MEASUREMENTS OF THE POLARIZATION OF THE COSMIC  
 MICROWAVE BACKGROUND RADIATION  
 05/27/1998 - 08/31/2001      FY01: \$0      Total: \$66,000  
*Prin. Invest.: P TIMBIE*  
*Tech. Officer: HQ/A NURRIDDIN*  
*CASE Category: 13 - PHYSICS*

**NGT 5 50295**      **UNIV OF WISCONSIN - MADISON**      **9776**  
 DWARF ELLIPTICALS IN CLUSTERS: THE FIRST GALAXIES STUDENT:  
 CHRISTOPHER CONSELICE  
 06/26/2000 - 12/31/2001      FY01: \$0      Total: \$22,000  
*Prin. Invest.: J S GALLAGHER*  
*Tech. Officer: GSFC/L SMITH*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NGT 8 52865**      **UNIV OF WISCONSIN - MADISON**      **9777**  
 PARAMETERIZATION AND SCALE ISSUES ASSOCIATED WITH MACROSCALE  
 WATERSHET MODELING  
 07/27/1998 - 05/13/2002      FY01: \$0      Total: \$66,000  
*Prin. Invest.: J F CRUISE*  
*Tech. Officer: MSFC/J F DOWDY*  
*CASE Category: 49 - ENGINEERING, OTHER*

**NCC 1 354**      **UNIV OF WISCONSIN - MILWAUKEE**      **9778**  
 PION PRODUCTION CROSS SECTIONS  
 08/02/1999 - 06/26/2002      FY01: \$60,000      Total: \$128,671  
*Prin. Invest.: J W NORBURY*  
*Tech. Officer: LARC/R C SINGLETERRY, JR., LARC/J W WILSON*  
*CASE Category: 13 - PHYSICS*

**NCC 8 173**      **UNIV OF WISCONSIN - MILWAUKEE**      **9779**  
 PC12 PHEOCHROMOCYTOMA CELLS: A PROVEN MODEL SYSTEM FOR  
 OPTIMIZING 3-D CELL CULTURE  
 03/01/1999 - 11/30/2002      FY01: -\$127,376      Total: \$151,876  
*Prin. Invest.: P I LELKES*  
*Tech. Officer: JSC/D R MORRISON*  
*CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)*

**NGT 1 52217**      **UNIV OF WISCONSIN - MILWAUKEE**      **9780**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 06/01/1999 - 06/30/2002      FY01: \$22,000      Total: \$66,000  
*Prin. Invest.: S R BLATTNING, J W NORBURY*  
*Tech. Officer: LARC/R C SINGLETERRY, JR., LARC/J W WILSON*  
*CASE Category: 13 - PHYSICS*

**NGT 5 40039**      **UNIV OF WISCONSIN - MILWAUKEE**      **9781**  
 THE NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM  
 01/29/1997 - 02/28/2001      FY01: -\$217,000      Total: \$889,673  
*Prin. Invest.: J W NORBURY*  
*Tech. Officer: GSFC/D E DETROYE*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 5 4108**      **UNIVERSITY OF WISCONSIN-OSHKOSH**      **9782**  
 REMOTE SENSING OF PHYTOPLANKTON PRODUCTION IN THE SOUTHERN  
 OCEAN  
 04/01/1997 - 03/31/2000      FY01: \$0      Total: \$79,528  
*Prin. Invest.: M P LIZOTTE*  
*Tech. Officer: GSFC/K R ARRIGO*  
*CASE Category: 33 - OCEANOGRAPHY*

## WYOMING

**NAG 1 2164**      **UNIV OF WYOMING**      **9783**  
 EVALUATION OF SAGE II AND BALLOON-BARNE STRATO- SPHERIC  
 AEROSOL MEASUREMENTS  
 03/18/1999 - 12/31/2001      FY01: \$46,493      Total: \$138,058  
*Prin. Invest.: T DESHLER*  
*Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE*  
*CASE Category: 99 - MULTI INTERDISCPL, OTHER*

**NAG 1 01063**      **UNIV OF WYOMING**      **9784**  
 SYNTHETIC JET INTERACTION WITH A TURBULENT BOUNDARY LAYER  
 FLOW  
 04/11/2001 - 04/10/2002      FY01: \$32,885      Total: \$32,885  
*Prin. Invest.: D R SMITH*  
*Tech. Officer: LARC/F J CHEN*  
*CASE Category: 41 - AERONAUTICAL ENGRN*

**NAG 4 208**      **UNIV OF WYOMING**      **9785**  
 REDUCTION OF BASE DRUG ON LAUNCH VEHICLES REDUCTION OF BASE  
 DRUG ON LAUNCH VEHICLES  
 05/22/2000 - 03/31/2002      FY01: \$38,974      Total: \$74,384  
*Prin. Invest.: D W NAUGHTON*  
*Tech. Officer: DFRC/S A WHITMORE*  
*CASE Category: 41 - AERONAUTICAL ENGRN*

**NAG 5 3861**      **UNIV OF WYOMING**      **9786**  
 ASSESSMENT OF CLIMATIC AND ANTHROPOGENIC IMPACTS ON CYCLE  
 CONSTRAINED BY ATMOSPHERIC MEASUREMENTS AND  
 02/03/1997 - 01/14/2002      FY01: \$0      Total: \$129,885  
*Prin. Invest.: E HUNT, JR.*  
*Tech. Officer: GSFC/D E WICKLAND*  
*CASE Category: 39 - ENVIRONMENTAL SCI, OTHER*

**NAG 5 3935**      **UNIV OF WYOMING**      **9787**  
 INFRARED SPECKLE INTERFEROMETRY OF IO  
 03/25/1997 - 11/30/2000      FY01: \$0      Total: \$134,084  
*Prin. Invest.: D R HOWELL*  
*Tech. Officer: GSFC/T MORGAN*  
*CASE Category: 11 - ASTRONOMY*

**NAG 5 6628**           **UNIV OF WYOMING**           **9788**  
 INVESTIGATIONS OF SULFATE AEROSOLS AND POLAR STRATOSPHERIC CLOUDS USING COMBINED OBSERVATIONS FROM  
 11/18/1997 - 11/30/2000      FY01: \$0      Total: \$169,003  
*Prin. Invest.: D E HERVIG*  
*Tech. Officer: GSFC/A DOUGLASS*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NAG 5 8904**           **UNIV OF WYOMING**           **9789**  
 THERMAL EMISSION FROM LAVA FLOWS  
 12/28/1999 - 12/31/2001      FY01: \$0      Total: \$14,400  
*Prin. Invest.: R HOWELL*  
*Tech. Officer: GSFC/J GRANT*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 8917**           **UNIV OF WYOMING**           **9790**  
 MULTI-WAVELENGTH MODELING OF HOT SPOTS ON LO  
 01/18/2000 - 12/31/2001      FY01: \$0      Total: \$20,100  
*Prin. Invest.: R N HOWELL*  
*Tech. Officer: GSFC/D BOGAN*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 11191**           **UNIV OF WYOMING**           **9791**  
 TO ENHANCE GROUND-BASED OBSERVATIONAL SUPPORT FOR TRANSIENT ASTRONOMY RESEARCH  
 09/07/2001 - 09/14/2002      FY01: \$18,160      Total: \$18,160  
*Prin. Invest.: R CANTERNA*  
*Tech. Officer: GSFC/J P NORRIS*  
*CASE Category: 11 – ASTRONOMY*

**NAG 9 1176**           **UNIV OF WYOMING**           **9792**  
 DEVELOP SECURE INTERNET BASED DATA TRANSFER SYSTEM FOR COUNTERMEASURES EVALUATION & VALIDATION PROJ  
 11/15/1999 - 11/14/2001      FY01: \$0      Total: \$70,931  
*Prin. Invest.: R E GANTENBEIN*  
*Tech. Officer: GSFC/C LUNDQUIST*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NAS 1 18945**           **UNIV OF WYOMING**           **9793**  
 SAGE III SCIENCE INVESTIGATION SUPPORT P.I. – DR. GABOR VALI  
 01/17/1990 - 01/31/2005      FY01: \$20,000      Total: \$438,300  
*Prin. Invest.: G VALI*  
*Tech. Officer: LARC/G L MADDREA, LARC/L R MCMASTER*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 2 5315**           **UNIV OF WYOMING**           **9794**  
 AUTOMATIC FRINGE DETECTION FOR OIL FILM INTERFEROMETRY SKIN-FRICTION MEASUREMENT  
 04/12/1999 - 06/30/2001      FY01: \$0      Total: \$40,108  
*Prin. Invest.: J W NAUGHTON*  
*Tech. Officer: ARC/D M DRIVER, ARC/G ZILLIAC*  
*CASE Category: 41 – AERONAUTICAL ENGRN*

**NCC 5 414**           **UNIV OF WYOMING**           **9795**  
 EPSCOR PREPARATION PROGRAM  
 06/18/1999 - 08/31/2001      FY01: \$0      Total: \$428,236  
*Prin. Invest.: P JOHNSON*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 30350**           **UNIV OF WYOMING**           **9796**  
 EFFECTS OF WIND ON SNOWPACK DISTRIBUTION & SUBSEQUENT MELTING/WATER ROUTING ON ECOSYSTEM PROPERTIES/STUDY  
 08/24/2000 - 08/31/2002      FY01: \$21,996      Total: \$43,992  
*Prin. Invest.: W REINER*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 40008**           **UNIV OF WYOMING**           **9797**  
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATIONAL COLLEGE AND FELLOWSHIP PROGRAM  
 02/03/1997 - 02/28/2001      FY01: -\$36,504      Total: \$770,996  
*Prin. Invest.: P E JOHNSON*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 40102**           **UNIV OF WYOMING**           **9798**  
 WYOMING SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM  
 03/01/2001 - 02/28/2002      FY01: \$249,004      Total: \$249,004  
*Prin. Invest.: P E JOHNSON*  
*Tech. Officer: GSFC/D D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 9 36**           **UNIV OF WYOMING**           **9799**  
 TRAINING GRANT  
 06/04/1998 - 11/01/2001      FY01: \$22,000      Total: \$66,000  
*Prin. Invest.: R 3 GANTENBEIN*  
*Tech. Officer: JSC/D G SICKOREZ*  
*CASE Category: 22 – COMPUTER SCIENCE*

## PUERTO RICO

**NAG 2 1176**           **PONCE SCHOOL OF MEDICINE**           **9800**  
 MECHANISMS OF UV-B INDUCED FREE RADICAL OXIDATIVE DAMAGE IN BOVINE LENSES & HUMAN FIBROBLASTS  
 02/11/1998 - 08/28/2002      FY01: \$0      Total: \$300,000  
*Prin. Invest.: J L MATTIA*  
*Tech. Officer: ARC/H L D'ANTONI*  
*CASE Category: 54 – ENVIRONMENTAL BIOLOGY*

**NAG 2 1385**           **PONCE SCHOOL OF MEDICINE**           **9801**  
 DNA REPAIR & SUSCEPTIBILITY TO UV-INDUCED BASAL CELL CARCINOMA IN PUERTO RICAN POPULATIONS  
 10/26/1999 - 10/31/2001      FY01: \$67,000      Total: \$200,000  
*Prin. Invest.: J L MATTIA*  
*Tech. Officer: ARC/H L D'ANTONI*  
*CASE Category: 56 – MEDICAL*

**NAG 5 5302**           **UNIV OF PUERTO RICO - MAYAGUEZ**           **9802**  
 CORAL REEF MONITORING BY REMOTE SENSING OF CORAL SPAWN  
 09/05/2000 - 12/31/2002      FY01: \$0      Total: \$17,000  
*Prin. Invest.: E WEIL, J LOPEZ, R ARMSTRONG*  
*Tech. Officer: WFF/C W WRIGHT*  
*CASE Category: 33 – OCEANOGRAPHY*

**NAG 5 6031 UNIV OF PUERTO RICO - MAYAQUEZ 9803**  
 DYNAMIC TOPOGRAPHY, GRAVITY, & SURFACE DEFORMATION : APPLICATION TO HAZARD ASSESSMENT OF ERUPTING IS  
 10/02/1997 - 09/30/1999 FY01: \$0 Total: \$194,327  
*Prin. Invest.: G MATTIOLI*  
*Tech. Officer: GSFC/H FREY*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

**NAG 5 7198 UNIV OF PUERTO RICO - MAYAQUEZ 9804**  
 CATS-CARIBBEAN TIME SERIES: A SERIAL OBSERVING STATION IN THE NORTHEASTERN CARIBBEAN SEA  
 05/04/1998 - 06/30/2001 FY01: \$0 Total: \$126,000  
*Prin. Invest.: J CORREDOR*  
*Tech. Officer: GSFC/J W CAMPBELL*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 10255 UNIV OF PUERTO RICO - MAYAQUEZ 9805**  
 CURRICULUM INTEGRATION THROUGH SOLAR EDUCATION PROGRAM (CITSEP)  
 01/12/2001 - 01/14/2002 FY01: \$55,106 Total: \$55,106  
*Prin. Invest.: J G GONZALEZ LAGOA*  
*Tech. Officer: GSFC/G COLON*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 5 11296 UNIV OF PUERTO RICO - MAYAQUEZ 9806**  
 CATS CARIBBEAN TIME SERIES: A SERIAL OBSERVING STATION IN THE NORTHEASTERN CARIBBEAN SEA  
 08/29/2001 - 09/30/2002 FY01: \$65,200 Total: \$65,200  
*Prin. Invest.: J CORREDOR*  
*Tech. Officer: GSFC/J MARRA*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 8 1344 UNIV OF PUERTO RICO - MAYAQUEZ 9807**  
 RESEARCH "ELECTROOPTICAL EFFECTS ON THIN ORGANIC FILMS OF 3-NITROANILINE & 2-CYCLO-OCTYLALMINO...."  
 04/24/1997 - 04/23/2000 FY01: -\$5,565 Total: \$289,916  
*Prin. Invest.: A LYDERMAN, NONE*  
*Tech. Officer: MSFC/B PENN*  
*CASE Category: 13 – PHYSICS*

**NAG 8 1389 UNIV OF PUERTO RICO - MAYAQUEZ 9808**  
 RES: "THERMAL PROPERTIES OF MELT-GLASS TRANSITIONS OF ORGANIC COMPOUNDS FOR NONLINEAR OPTICAL APPLICATIONS  
 07/09/1997 - 08/15/2001 FY01: \$0 Total: \$433,378  
*Prin. Invest.: A BARRIENTOS*  
*Tech. Officer: MSFC/M VLASSE*  
*CASE Category: 13 – PHYSICS*

**NAG10 243 UNIV OF PUERTO RICO - MAYAQUEZ 9809**  
 MASTAP - TEACHER ENHANCEMENT PROJECT  
 04/15/1998 - 10/18/2001 FY01: \$0 Total: \$574,328  
*Prin. Invest.: B RAMIREZ*  
*Tech. Officer: KSC/J DIGGS*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG10 257 UNIV OF PUERTO RICO - MAYAQUEZ 9810**  
 SODIUM CHLORIDE AND NITRATE SEPARATION/RECOVERY FROM CELSS WASTES  
 04/20/1999 - 04/19/2002 FY01: \$82,537 Total: \$264,146  
*Prin. Invest.: G COLON*  
*Tech. Officer: KSC/J SAYER*  
*CASE Category: 59 – LIFE SCIENCE, OTHER*

**NAG13 54 UNIV OF PUERTO RICO - MAYAQUEZ 9811**  
 ANALYSIS OF THE INHERENT AND APPARENT OPTICAL PROPERTIES  
 07/16/1997 - 12/31/2000 FY01: \$0 Total: \$299,899  
*Prin. Invest.: R A ARMSTRONG*  
*Tech. Officer: SSC/R L MILLER*  
*CASE Category: 33 – OCEANOGRAPHY*

**NAG13 99029 UNIV OF PUERTO RICO - MAYAQUEZ 9812**  
 DEVELOPMENT AND VALIDATION OF BIO-OPTICAL ALGORITHMS IN COASTAL WATER  
 09/15/1999 - 09/25/2002 FY01: \$52,990 Total: \$199,980  
*Prin. Invest.: F GILBES*  
*Tech. Officer: SSC/R TRAVIS*  
*CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)*

**NCC 5 215 UNIV OF PUERTO RICO - MAYAQUEZ 9813**  
 "TROPICAL ATMOSPHERIC SCIENCES CENTER" THE NASA/PUERTO RICO EPSCOR PROGRAM.  
 07/07/1997 - 06/30/2002 FY01: \$0 Total: \$1,800,000  
*Prin. Invest.: B G WEINER*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

**NCC 5 252 UNIV OF PUERTO RICO - MAYAQUEZ 9814**  
 TROPICAL CENTER FOR EARTH AND SPACE STUDIES  
 10/29/1997 - 09/30/2000 FY01: \$0 Total: \$3,612,115  
*Prin. Invest.: R FERNANDEZ-SEIN*  
*Tech. Officer: GSFC/D WILLIAMS*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 5 340 UNIV OF PUERTO RICO - MAYAQUEZ 9815**  
 PARTNERSHIP FOR SPATIAL AND COMPUTATIONAL RESEARCH  
 06/22/1998 - 05/31/2002 FY01: \$462,561 Total: \$1,838,192  
*Prin. Invest.: R VASQUEZ*  
*Tech. Officer: HQ/B WHITE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 5 518 UNIV OF PUERTO RICO - MAYAQUEZ 9816**  
 TROPICAL CENTER FOR EARTH AND SPACE STUDIES  
 10/05/2000 - 09/30/2001 FY01: \$1,190,981 Total: \$1,190,981  
*Prin. Invest.: R FERNANDEZ-SEIN*  
*Tech. Officer: GSFC/D L WILLIAMS*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 5 30364 UNIV OF PUERTO RICO - MAYAQUEZ 9817**  
 THEORETICAL QUANTUM STUDY OF THE DISSOCIATION & ADSORPTION DYNAMICS OF HC1 ON STRATOSPHERIC AEROSOL  
 08/24/2000 - 08/31/2001 FY01: \$0 Total: \$22,000  
*Prin. Invest.: A J CRUZ*  
*Tech. Officer: GSFC/M WEI*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NGT 5 40012 UNIV OF PUERTO RICO - MAYAGUEZ 9818**  
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE  
 AND FELLOWSHIP PROGRAM.  
 01/30/1997 - 08/31/2001 FY01: \$0 Total: \$1,150,000  
*Prin. Invest.: D G WEINER*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT13 52746 UNIV OF PUERTO RICO - MAYAGUEZ 9819**  
 VERTICAL VARIABILITY IN BIO-OPTICAL PROPERTIES OF COASTAL WATERS  
 -ROLE IN DEV OF NEW REMOTE SENSING  
 09/25/2000 - 09/24/2002 FY01: \$22,000 Total: \$33,000  
*Prin. Invest.: M ROSADO*  
*Tech. Officer: SSC/R TRAVIS*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAG 3 2636 UNIV OF PUERTO RICO HUMACAO UNIV COLLEGE 9820**  
 RF PROPAGATION EFFECTS IN TROPICAL RAIN ZONE RF PROPAGATION  
 EFFECTSIN TROPICAL RAIN ZONE  
 09/24/2001 - 09/14/2002 FY01: \$10,000 Total: \$10,000  
*Prin. Invest.: J C CERSOSIMO*  
*Tech. Officer: GRC/R ACOSTA*  
*CASE Category: 45 – ELECTRICAL ENGR*

**NAG 5 9050 UNIV OF PUERTO RICO-RIO PIEDRAS 9821**  
 INTERACTIONS AND DIVERSITY: EARTH SYSTEM SCIENCE & BEYOND  
 03/01/2000 - 02/14/2001 FY01: \$0 Total: \$50,000  
*Prin. Invest.: I LAPONTE-AVELLANE*  
*Tech. Officer: GSFC/N KHAZENIE*  
*CASE Category: 39 – ENVIRONMENTAL SCI, OTHER*

**NAG 5 10321 UNIV OF PUERTO RICO-RIO PIEDRAS 9822**  
 FUNDING FOR GRANT FOR PROPOSAL NUMBER NRA-99-05-05 5-1085  
 TITLED "DIAMOND ULTRAVIOLET SENSORS  
 01/31/2001 - 12/31/2001 FY01: \$260,883 Total: \$260,883  
*Prin. Invest.: D MORELL*  
*Tech. Officer: GSFC/B MOTT*  
*CASE Category: 19 – PHYSICAL SCIENCE, OTHER*

**NAG 8 1709 UNIV OF PUERTO RICO-RIO PIEDRAS 9823**  
 LAND MANAGEMENT IN THE TROPIC AND ITS EFFECTS ON THE GLOBAL  
 ENVIRONMENT  
 03/20/2000 - 03/19/2003 FY01: \$500,000 Total: \$1,000,000  
*Prin. Invest.: B R WEINER*  
*Tech. Officer: MSFC/W J LOVE*  
*CASE Category: 54 – ENVIRONMENTAL BIOLOGY*

**NCC 5 407 UNIV OF PUERTO RICO-RIO PIEDRAS 9824**  
 NASA EPSCOR: PREPARATORY GRANT PROPOSAL  
 05/17/1999 - 07/31/2002 FY01: \$0 Total: \$450,000  
*Prin. Invest.: B R WEINER*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NCC 5 595 UNIV OF PUERTO RICO-RIO PIEDRAS 9825**  
 PUERTO RICO NASA EPSCOR PROGRAM  
 09/24/2001 - 08/31/2004 FY01: \$350,000 Total: \$350,000  
*Prin. Invest.: B WEINER*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NGT 3 52376 UNIV OF PUERTO RICO-RIO PIEDRAS 9826**  
 GRADUATE STUDENT RESEARCH  
 06/08/2001 - 08/31/2002 FY01: \$22,000 Total: \$22,000  
*Prin. Invest.: C R CABRERA*  
*Tech. Officer: GRC/F J MONTEGANI*  
*CASE Category: 12 – CHEMISTRY*

**NGT 5 40091 UNIV OF PUERTO RICO-RIO PIEDRAS 9827**  
 PUERTO RICO SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM  
 02/22/2001 - 02/28/2002 FY01: \$406,250 Total: \$406,250  
*Prin. Invest.: W WEINER*  
*Tech. Officer: GSFC/D DETROYE*  
*CASE Category: 99 – MULTI INTERDISCPL, OTHER*

**NAG 5 10240 UNIV OF TURABO 9828**  
 ENGINEERING PREPATORY PROJECT FOR HISPANIC HIGH SCHOOL  
 STUDENTS  
 01/05/2001 - 02/28/2002 FY01: \$192,998 Total: \$192,998  
*Prin. Invest.: A COURTIER*  
*Tech. Officer: GSFC/M MATEU*  
*CASE Category: 49 – ENGINEERING, OTHER*

**NGT 5 90064 UNIV OF TURABO 9829**  
 ENGINEERING PREPARATORY PROJECT FOR HISPANIC HIGH  
 03/04/1997 - 02/28/2001 FY01: \$0 Total: \$773,678  
*Prin. Invest.: B A MARRERO*  
*Tech. Officer: GSFC/M MATEU*  
*CASE Category: 49 – ENGINEERING, OTHER*

## AUSTRALIA

**NAG 1 2113 UNIV OF QUEENSLAND 9832**  
 SCRAMJET GROUND TEST TO FLIGHT TEST CORRELATION  
 10/28/1998 - 09/30/1999 FY01: \$0 Total: \$50,000  
*Prin. Invest.: A PAULL*  
*Tech. Officer: LARC/A H AUSLENDER, LARC/R T VOLAND*  
*CASE Category: 41 – AERONAUTICAL ENGNR*

## CANADA

**NAG 5 9875 BROCK UNIV 9833**  
 U.S.-CANADA:FLUORESCENCE-BASED DIAGNOSTIC OF IRON LIMITATION  
 FOR ANALYSIS OF NATURAL PHYTOPLANKTON  
 08/22/2000 - 08/31/2001 FY01: \$0 Total: \$21,000  
*Prin. Invest.: D BRUCE*  
*Tech. Officer: GSFC/M BEHRENFELD*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

## GREAT BRITAIN

**NAG 2 1339 UNIV OF GREENWICH 9834**  
 TOOLS FOR RAPID PARALLELIZATION OF LEGACY FORTRAN COMPUTATIONAL MECHANICS CODES  
 07/27/1999 - 06/30/2000 FY01: \$0 Total: \$150,000  
*Prin. Invest.: M CROSS*  
*Tech. Officer: ARC/S SAINI*  
*CASE Category: 22 – COMPUTER SCIENCE*

**NAGW 2127 UNIV OF WALES 9835**  
 SOLUTION ALGORITHMS FOR HIGH SPEED COMPRESSIBLE FLOWS  
 06/15/1990 - 04/30/2002 FY01: \$14,000 Total: \$672,400  
*Prin. Invest.: O C ZIENKIEWICZ*  
*Tech. Officer: ARC/K K GUPTA, ARC/K L PETERSEN*  
*CASE Category: 41 – AERONAUTICAL ENGNR*

### NETHERLANDS

**NAG 1 2129 DELFT UNIV OF TECHNOLOGY-NETHERLANDS 9836**  
 INVESTIGATION OF THE SENSITIVITY OF THE BUCKLING LOAD TO VARIATIONS IN DESIGN PARAMETERS AND GEOMETRY  
 01/14/1999 - 12/31/2001 FY01: \$25,000 Total: \$75,001  
*Prin. Invest.: J ARBOCZ*  
*Tech. Officer: LARC/J H STARNES, JR., LARC/M P NEMETH*  
*CASE Category: 41 – AERONAUTICAL ENGNR*

### NEW ZEALAND

**NAG 2 1395 UNIV OF OTAGO 9837**  
 THE ROLE OF AIRCRAFT ACCIDENT AND INCIDENT CASE HISTORY STORIES IN AVIATION SAFETY AND TRAINING  
 02/03/2000 - 01/31/2002 FY01: \$83,292 Total: \$171,484  
*Prin. Invest.: D O'HARE*  
*Tech. Officer: ARC/I BARSHI*  
*CASE Category: 41 – AERONAUTICAL ENGNR*

### PERU

**NAS 5 99121 UNIV NACIONAL DE SAN AGUSTIN - AREQUIPA 9838**  
 OPERATE & MAINTAIN LASER TRACKING STATION AT AREQUIPA PERU  
 03/18/1999 - 01/23/2002 FY01: \$152,587 Total: \$429,377  
*Prin. Invest.: N APPLICABLE*  
*Tech. Officer: GSFC/D L CARTER*  
*CASE Category: 32 – GEOLOGICAL SCIENCE*

### RUSSIA

**NCC 1 353 ALL RUSSIAN SCI RES INST VIAM 9830**  
 EVALUATION OF LIGHTWEIGHT ALLOYS & ADVANCED MATERIALS PROCESSING FOR AIRFRAMES & SPACE VEHICLE  
 01/13/2000 - 11/30/2001 FY01: \$67,000 Total: \$222,000  
*Prin. Invest.: J FRIDLJANDER*  
*Tech. Officer: LARC/R K BIRD*  
*CASE Category: 47 – METAL & MATERIALS ENGR*

**NCC 1 01005 MOSCOW INST OF PHYSICS & TECHNOLOGY 9831**  
 INVESTIGATE WAKE MOD 4 MITIGATN/REDUCTN OF HARMFUL ATMOSPHERIC EFFECTS SUBSONIC/SUPRSONIC A/C ENGINE EXHAUST  
 09/20/2001 - 09/19/2004 FY01: \$100,000 Total: \$100,000  
*Prin. Invest.: M L KOGAN, W L GROSS*  
*Tech. Officer: LARC/W L GROSS, LARC/R S ECKMAN*  
*CASE Category: 31 – ATMOSPHERIC SCIENCE*

# NASA'S UNIVERSITY PROGRAM

## APPENDIX

### CROSS INDEX BY FIELD OF SCIENCE AND ENGINEERING

The fields used here are specified by Amendment J, "Standard Classification of Fields of Science and Engineering," to Office of Management and Budget (OMB) Circular A-46, "Standards for Statistical Surveys." Field codes are interpreted as follows:

PHYSICAL SCIENCES		ENVIRONMENTAL SCIENCES (Terrestrial and extraterrestrial)		LIFE SCIENCES		SOCIAL SCIENCES	
11	ASTRONOMY	31	ATMOSPHERIC SCIENCES	51	BIOLOGICAL SCIENCES	71	ANTHROPOLOGY
12	CHEMISTRY	32	GEOLOGICAL SCIENCES	54	ENVIRONMENTAL BIOLOGY	72	ECONOMICS
13	PHYSICS	33	OCEANOGRAPHY	55	AGRICULTURAL SCIENCES	73	HISTORY
19	PHYSICAL SCIENCES, NEC*	39	ENVIRONMENTAL SCIENCES, NEC*	56	MEDICAL SCIENCES	74	LINGUISTICS
				59	LIFE SCIENCES, NEC*	75	POLITICAL SCIENCE
						76	SOCIOLOGY
						79	SOCIAL SCIENCE, NEC*
MATHEMATICAL/ COMPUTER SCIENCE		ENGINEERING		PSYCHOLOGY		OTHER SCIENCES**	
21	MATHEMATICS	41	AERONAUTICAL	61	BIOLOGICAL	99	ALL DISCIPLINE(S)
22	COMPUTER SCIENCES	42	ASTRONAUTICAL	62	SOCIAL SCIENCES		
29	MATHEMATICAL COMPUTER SCIENCES, NEC*	43	CHEMICAL	69	PSYCHOLOGY, NEC*		
		44	CIVIL				
		45	ELECTRICAL				
		46	MECHANICAL				
		47	METALLURGY AND MATERIALS				
		49	ENGINEERING, NEC*				

\* Not elsewhere classified (For interdisciplinary projects and others not listed by discipline name)

\*\* For interdisciplinary projects which cannot be classified within any of the preceding main fields

Abbreviations used in the *Technical Officer Location* column are discussed in the prefatory pages.

11	ARIZONA STATE UNIV	D BOGAN	GSFC	R GREELY	NAG 5 8897	21
11	ARIZONA STATE UNIV	D BOGAN	GSFC	S A FAGENTS	NAG 5 8898	21
11	ARIZONA STATE UNIV	D K WEST	GSFC	M POLITANO	NAG 5 8481	21
11	ARIZONA STATE UNIV	D K WEST	GSFC	S G STARRFIELD	NAG 5 8278	20
11	ARIZONA STATE UNIV	D K WEST	GSFC	S STARRFIELD	NAG 5 6741	20
11	ARIZONA STATE UNIV	D NAVA	GSFC	T G SHARP	NAG 5 9381	21
11	ARIZONA STATE UNIV	D SENSKA	GSFC	R GREELY	NAG 5 10460	22
11	ARIZONA STATE UNIV	G SONNEBORN	GSFC	A P COWLEY	NAG 5 8805	21
11	ARIZONA STATE UNIV	G SONNEBORN	GSFC	J B HOLBERG	NAG 5 10316	22
11	ARIZONA STATE UNIV	G SONNEBORN	GSFC	S G STARRFIELD	NAG 5 9395	21
11	ARIZONA STATE UNIV	J BOYCE	GSFC	D R HUSS	NAG 5 8173	20
11	ARIZONA STATE UNIV	J BOYCE	GSFC	D WYCKOFF	NAG 5 4280	20
11	ARIZONA STATE UNIV	J BOYCE	GSFC	G HUSS	NAG 5 10449	22
11	ARIZONA STATE UNIV	J BOYCE	GSFC	L A LEOSHIN	NAG 5 8286	21
11	ARIZONA STATE UNIV	J BOYCE	GSFC	P R BUSECK	NAG 5 9352	21
11	ARIZONA STATE UNIV	J BOYCE	GSFC	P R CHRISTIANSON	NAG 5 10310	22
11	ARIZONA STATE UNIV	J BOYCE	GSFC	R GREELEY	NAG 5 8721	21
11	ARIZONA STATE UNIV	J BOYCE	GSFC	R GREELY	NAG 5 9773	22
11	ARIZONA STATE UNIV	J BOYCE	GSFC	S WYCKOFF	NAG 5 10077	22
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11	ARIZONA STATE UNIV	J BOYCE	HQ	D R HUSS	NAG 5 8158	20
11	ARIZONA STATE UNIV	J BOYCE	HQ	L LEOSHIN	NAG 5 7540	20
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11	ARIZONA STATE UNIV	J BOYCE	HQ	R GREELEY	NAG 5 8453	21
11	ARIZONA STATE UNIV	J BOYCE	HQ	T G SHARP	NAG 5 7285	20
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11	ARIZONA STATE UNIV	J M BOYCE	GSFC	S WYCKOFF	NAG 5 10753	22
11	ARIZONA STATE UNIV	R OLIVERSEN	GSFC	S STARRFIELD	NAG 5 9263	21
11	AUBURN UNIV	D BRUNNER	GSFC	H W BRANDHORST	NCC 5 459	3
11	AUBURN UNIV	D EVANS	GSFC	D LIN	NAG 5 8081	3
11	BLOOMSBURG UNIV	J GRANT	GSFC	M K SHEPARD	NAG 5 7964	435
11	BOSTON COLLEGE	R J OLIVERSEN	GSFC	S J CAREY	NAG 5 10824	276
11	BOSTON UNIV	D K WEST	GSFC	A P MARSCHER	NAG 5 3839	277
11	BOSTON UNIV	D WEST	GSFC	J R MATTOX	NAG 5 3384	276
11	BOSTON UNIV	H HASAN	GSFC	D CHAKRABARTI	NAG 5 3999	277

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
11	BOSTON UNIV	J BREDEKAMP	GSFC	J D SULLIVAN	NAG 5 8147	278
11	BOSTON UNIV	J LING	GSFC	N CROOKER	NAG 5 6658	277
11	BOSTON UNIV	J M BOYCE	GSFC	M MENDILLO	NAG 5 11077	279
11	BOSTON UNIV	J R BYRD	GSFC	P CHAKRABARTI	NAG 5 10801	279
11	BOSTON UNIV	J SWANK	GSFC	A MARSCHER	NAG 5 7331	277
11	BOSTON UNIV	L CHRISTENSEN	GSFC	N U CROOKER	NAG 5 7049	277
11	BOSTON UNIV	L KALUZIENSKI	GSFC	T BRAINERD	NAG 5 8756	278
11	BOSTON UNIV	R BEEBEE	GSFC	D A YOUNG	NAG 5 7861	278
11	BOSTON UNIV	R BEEBEE	GSFC	M MENDILLO	NAG 5 6755	277
11	BOSTON UNIV	R J OLIVERSEN	GSFC	J M JACKSON	NAG 5 10808	279
11	BOSTON UNIV	R OLIVERSEN	GSFC	A MARSCHER	NAG 5 9161	278
11	BOSTON UNIV	T MORGAN	GSFC	J BAUMGARDNER	NAG 5 10496	279
11	BOSTON UNIV	T MORGAN	GSFC	M MENDILLO	NAG 5 8012	278
11	BOWIE STATE UNIV	J TILTON	GSFC	M MAREBOYANA	NAG 5 2829	239
11	BROWN UNIV	B CAMPBELL	GSFC	P H SCHULTZ	NAG 5 7082	458
11	BROWN UNIV	C STAHL	GSFC	G SEIDEL	NAG 5 10383	459
11	BROWN UNIV	D BOGAN	GSFC	D T PAPPALARDO	NAG 5 8046	458
11	BROWN UNIV	D NAVA	GSFC	M J RUTHERFRD	NAG 5 9522	458
11	BROWN UNIV	D SENSK	GSFC	J HEAD	NAG 5 10690	459
11	BROWN UNIV	D SENSK	GSFC	P H SCHULTZ	NAG 5 10188	459
11	BROWN UNIV	G STRINGFELLOW	GSFC	G TUCKER	NAG 5 9453	458
11	BROWN UNIV	J BOYCE	GSFC	C M PIETERS	NAG 5 10010	459
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11	BROWN UNIV	J BOYCE	GSFC	J F MUSTARD	NAG 5 9589	458
11	BROWN UNIV	J BOYCE	GSFC	J W HEAD III	NAG 5 10031	459
11	BROWN UNIV	J BOYCE	HQ	J W HEAD	NAG 5 8283	458
11	BROWN UNIV	J BOYCE	HQ	M J RUTHERFORD	NAG 5 8181	458
11	BROWN UNIV	J M BOYCE	GSFC	J HEAD	NAG 5 10573	459
11	BROWN UNIV	L SMITH	GSFC	P H SCHULTZ	NGT 5 50166	460
11	BROWN UNIV	M MEYER	GSFC	Y HUANG	NAG 5 10665	459
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11	CALIFORNIA INST OF TECH	D K WEST	GSFC	S KULKARNI	NAG 5 6402	44
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11	CALIFORNIA INST OF TECH	D NAVA	GSFC	D S BURNETT	NAG 5 4319	43
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11	CALIFORNIA INST OF TECH	G STRINGFELLOW	GSFC	P A BLAKE	NAG 5 4692	43
11	CALIFORNIA INST OF TECH	H HASAN	GSFC	K THORNE	NAG 5 6840	44
11	CALIFORNIA INST OF TECH	H HASAN	GSFC	P A BLAKE	NAG 5 4097	42
11	CALIFORNIA INST OF TECH	H THRONSON	GSFC	D E LANGE	NAG 5 6573	44
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11	CALIFORNIA INST OF TECH	J BOYCE	GSFC	A P INGERSOL	NAG 5 9601	46
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11	CALIFORNIA INST OF TECH	J BOYCE	GSFC	D A PAPANASTASSIOU	NAG 5 8251	45
11	CALIFORNIA INST OF TECH	J BOYCE	GSFC	D I SARGENT	NAG 5 4599	43

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11	CALIFORNIA INST OF TECH	J BOYCE	GSFC	S R KULKARNI	NAG 5 8318	45
11	CALIFORNIA INST OF TECH	J BOYCE	GSFC	S SARGENT	NAG 5 9530	46
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11	CALIFORNIA INST OF TECH	J BOYCE	HQ	D HILLENBRAND	NAG 5 7501	45
11	CALIFORNIA INST OF TECH	J BOYCE	HQ	P LINDBLOM	NAG 5 4093	42
11	CALIFORNIA INST OF TECH	J M BOYCE	GSFC	D STEVENSON	NAG 5 10587	47
11	CALIFORNIA INST OF TECH	J M BOYCE	GSFC	S KULKARNI	NAG 5 10558	47
11	CALIFORNIA INST OF TECH	J R BYRD	GSFC	D A MEWALDT	NAG 5 10804	48
11	CALIFORNIA INST OF TECH	M MEYER	GSFC	J L KIRSCHVINK	NAG 5 10618	47
11	CALIFORNIA INST OF TECH	R BEEBE	GSFC	D P INGERSOLL	NAG 5 8049	45
11	CALIFORNIA INST OF TECH	R F MUSHOTZKY	GSFC	F WALTER	NAG 5 9919	46
11	CALIFORNIA INST OF TECH	R F MUSHOTZKY	GSFC	L M LUBIN	NAG 5 9920	46
11	CALIFORNIA INST OF TECH	R H PLESS	GSFC	C MARTIN	NAG 5 5052	43
11	CALIFORNIA INST OF TECH	R J OLIVERSEN	GSFC	D THOMPSON	NAG 5 10955	48
11	CALIFORNIA INST OF TECH	R J OLIVERSEN	GSFC	E PHINNEY	NAG 5 10707	48
11	CALIFORNIA INST OF TECH	R J OLIVERSEN	GSFC	M P KAMIONKOWSKI	NAG 5 9821	46
11	CALIFORNIA INST OF TECH	R J OLIVERSEN	GSFC	R J BRUNNER	NAG 5 10885	48
11	CALIFORNIA INST OF TECH	R MUSHOTZKY	GSFC	F A HARRISON	NAG 5 10047	47
11	CALIFORNIA INST OF TECH	T MORGAN	GSFC	E SERABYN	NAG 5 6816	44
11	CALIFORNIA INST OF TECH	W J WAGNER	GSFC	D G LIBBRECHT	NAG 5 6173	44
11	CALIFORNIA INST OF TECH	W WAGNER	GSFC	I SACKMANN	NAG 5 7166	44
11	CALIFORNIA STATE UNIV - FULLERTON	G SONNEBORN	GSFC	K CHEN	NAG 5 10312	51
11	CALIFORNIA STATE UNIV - FULLERTON	J BOYCE	GSFC	D WOODLUM	NAG 5 9433	51
11	CALIFORNIA STATE UNIV - FULLERTON	J BOYCE	GSFC	D WOOLUM	NAG 5 4945	51
11	CALIFORNIA STATE UNIV - FULLERTON	J BOYCE	GSFC	D WOOLUM	NAG 5 10695	51
11	CALIFORNIA STATE UNIV - LOS ANGELES	D BOGAN	GSFC	K KHURANA	NAG 5 8945	52
11	CALIFORNIA STATE UNIV - NORTHRIDGE	J E ALLEN	GSFC	M J PENN	NCC 5 381	53
11	CALIFORNIA STATE UNIV - NORTHRIDGE	J SHARBER	GSFC	D A CHAPMAN	NAG 5 7778	52
11	CALIFORNIA STATE UNIV - NORTHRIDGE	W J WAGNER	GSFC	G A CHAPMAN	NAG 5 4973	52
11	CALIFORNIA STATE UNIV - NORTHRIDGE	W WAGNER	GSFC	G A CHAPMAN	NAG 5 7191	52
11	CARNEGIE - MELLON UNIV	B H HANKS	GSFC	T KANADE	NCC 5 223	439
11	CARNEGIE - MELLON UNIV	D K WEST	GSFC	A K ROMER	NAG 5 7926	437
11	CARNEGIE - MELLON UNIV	D K WEST	GSFC	R E GRIFFITHS	NAG 5 7898	437
11	CARNEGIE - MELLON UNIV	D LAVERY	GSFC	W WHITTAKER	NAG 5 7707	436
11	CARNEGIE - MELLON UNIV	D MACHI	GSFC	D GRIFFITHS	NAG 5 3651	436
11	CARNEGIE - MELLON UNIV	D WEST	GSFC	R NICHOL	NAG 5 6548	436
11	CARNEGIE - MELLON UNIV	L SMITH	GSFC	W WHITTAKER	NGT 5 50248	439
11	CARNEGIE - MELLON UNIV	N WHITE	GSFC	R E GRIFFITHS	NAG 5 9902	437
11	CARNEGIE - MELLON UNIV	P M ATKINS	GSFC	A F PTAK	NAG 5 9922	437
11	CARNEGIE - MELLON UNIV	R F MUSHOTZKY	GSFC	A ROMER	NAG 5 9899	437
11	CARNEGIE - MELLON UNIV	R J OLIVERSEN	GSFC	T MIYAJI	NAG 5 10875	437
11	CARNEGIE - MELLON UNIV	R MUSHOTZKY	GSFC	A F PTAK	NAG 5 10170	437
11	CARNEGIE - MELLON UNIV	R MUSHOTZKY	GSFC	R C NICHOL	NAG 5 10014	437
11	CARNEGIE - MELLON UNIV	R MUSHOTZKY	GSFC	T MIYAJI	NAG 5 10043	437
11	CASE WESTERN RESERVE UNIV	D K WEST	GSFC	C MIHOS	NAG 5 7019	407
11	CASE WESTERN RESERVE UNIV	J BOYCE	GSFC	R HARVEY	NAG 5 11122	407
11	CASE WESTERN RESERVE UNIV	J BOYCE	HQ	R HARVEY	NAG 5 6715	407
11	CHRISTOPHER NEWPORT UNIV	D STARR	GSFC	N POUGATCHEV	NAG 5 6503	507
11	CITY UNIV COLL OF NY YORK COLLEGE	P SAKIMOTO	GSFC	M SPERGEL	NAG 5 10152	367
11	CLAREMONT MCKENNA COLLEGE	M C GUATHAKURTA	GSFC	D C HIGDON	NAG 5 8017	53
11	CLARK ATLANTA UNIV	R BEEBE	GSFC	S TAYAL	NAG 5 6889	180
11	CLEMSON UNIV - CLEMSON	D F NAVA	GSFC	D S MEYER	NAG 5 4703	462
11	CLEMSON UNIV - CLEMSON	J BOYCE	HQ	D D CLAYTON	NAG 5 8448	462
11	CLEMSON UNIV - CLEMSON	J P NORRIS	GSFC	L THE	NAG 5 9702	463
11	CLEMSON UNIV - CLEMSON	J P NORRIS	GSFC	M D LEISING	NAG 5 3699	461
11	CLEMSON UNIV - CLEMSON	J P NORRIS	GSFC	M D LEISING	NAG 5 8075	462
11	CLEMSON UNIV - CLEMSON	N GEHRELS	GSFC	D HARTMANN	NAG 5 9802	463
11	CLEMSON UNIV - CLEMSON	R J OLIVERSEN	GSFC	M D LEISING	NAG 5 10764	463
11	COLLEGE OF CHARLESTON	G SONNEBORN	GSFC	J E NEFF	NAG 5 10313	464

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11	COLLEGE OF CHARLESTON	J BOYCE	GSFC	C R COOMBS	NAG 5 7183	464
11	COLLEGE OF CHARLESTON	J M BOYCE	GSFC	C RUNYON	NAG 5 10633	464
11	COLLEGE OF CHARLESTON	J ROSENDHAL	GSFC	M COLGAN	NCC 5 263	464
11	COLLEGE OF CHARLESTON	R J OLIVERSEN	GSFC	T W GIBLIN	NAG 5 11017	464
11	COLLEGE OF WOOSTER	G SONNEBORN	GSFC	B BOROSON	NAG 5 10396	412
11	COLLEGE OF WOOSTER	K HARTNETT	GSFC	B BOROSON	NAG 5 10233	412
11	COLORADO SCH OF MINES	J BOYCE	GSFC	M B DUKE	NAG 5 9684	119
11	COLUMBIA UNIV	B A MERRITT	GSFC	E APRILE	NAG 5 5280	370
11	COLUMBIA UNIV	C ROSENZWEIG	GSFC	M CANE	NAG 5 4058	369
11	COLUMBIA UNIV	D F MUSHOTZKY	GSFC	F B PAERLES	NAG 5 9929	373
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11	COLUMBIA UNIV	D K WEST	GSFC	D HELFAND	NAG 5 6035	370
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11	COLUMBIA UNIV	J SWANK	GSFC	E GOTTHELF	NAG 5 7740	371
11	COLUMBIA UNIV	N E WHITE	GSFC	S M KAHN	NAG 5 7737	371
11	COLUMBIA UNIV	P ATKINS	GSFC	D HELFAND	NAG 5 9870	372
11	COLUMBIA UNIV	R F MUSHOTZKY	GSFC	D J HELFAND	NAG 5 9946	373
11	COLUMBIA UNIV	R F MUSHOTZKY	GSFC	F B PAERELS	NAG 5 9898	372
11	COLUMBIA UNIV	R J OLIVERSEN	GSFC	E V GOTTHELF	NAG 5 9136	372
11	COLUMBIA UNIV	R J OLIVERSEN	GSFC	J P HALPERN	NAG 5 9094	372
11	COLUMBIA UNIV	R J OLIVERSEN	GSFC	J P HALPERN	NAG 5 9095	372
11	COLUMBIA UNIV	R J OLIVERSEN	GSFC	M P KAMIONKOWSKI	NAG 5 8506	371
11	COLUMBIA UNIV	R M MUSHOTZKY	GSFC	E V GOTTHELF	NAG 5 9911	373
11	COLUMBIA UNIV	R MUSHOTZKY	GSFC	C A SCHARF	NAG 5 10082	373
11	COLUMBIA UNIV	R MUSHOTZKY	GSFC	J P HALPERN	NAG 5 9950	373
11	CORNELL UNIV	A CARRO	GSFC	D VEVERKA	NAG 5 8067	377
11	CORNELL UNIV	D B JARRETT	HQ	J F VEVERKA	NASW 00005	380
11	CORNELL UNIV	D K WEST	GSFC	D LAI	NAG 5 8484	378
11	CORNELL UNIV	D K WEST	GSFC	S TUEKOLSKY	NAG 5 7264	377
11	CORNELL UNIV	D K WEST	GSFC	T J LOREDO	NAG 5 3427	376
11	CORNELL UNIV	D SENSKA	GSFC	B E CLARK	NAG 5 10289	379
11	CORNELL UNIV	D SENSKA	GSFC	J F BELL	NAG 5 10636	379
11	CORNELL UNIV	D SENSKA	GSFC	J VEVERKA	NAG 5 10434	379
11	CORNELL UNIV	D SENSKA	GSFC	P NICHOLSON	NAG 5 10438	379
11	CORNELL UNIV	F M FLASAR	GSFC	B J CONRATH	NCC 5 375	381
11	CORNELL UNIV	F M FLASAR	GSFC	P J GIERASCH	NCC 5 322	381
11	CORNELL UNIV	F M FLASAR	GSFC	P J GIERASCH	NCC 5 539	381
11	CORNELL UNIV	G MUCKLOW	GSFC	G J STACEY	NAG 5 8673	378
11	CORNELL UNIV	G STRINGFELLOW	GSFC	D L HERTER	NAG 5 6495	377
11	CORNELL UNIV	J BERGSTRALH	GSFC	D J GIERABCH	NAG 5 3862	376
11	CORNELL UNIV	J BOYCE	GSFC	J F BELL	NAG 5 9774	379
11	CORNELL UNIV	J BOYCE	GSFC	P GIERASCH	NAG 5 10579	379
11	CORNELL UNIV	J BOYCE	GSFC	R LOVELACE	NAG 5 9735	379
11	CORNELL UNIV	J BOYCE	GSFC	R O POHL	NAG 5 10584	379
11	CORNELL UNIV	J BOYCE	GSFC	R V LOVELACE	NAG 5 10559	379
11	CORNELL UNIV	J BOYCE	HQ	D F CHERNOFF	NAG 5 8356	378
11	CORNELL UNIV	J BOYCE	HQ	D J BANDFIELD	NAG 5 8282	378
11	CORNELL UNIV	J BOYCE	HQ	R O POHL	NAG 5 7508	377
11	CORNELL UNIV	J GRANT	GSFC	D E CLARK	NAG 5 7892	377
11	CORNELL UNIV	J M BOYCE	GSFC	B CONRATH	NAG 5 10580	379
11	CORNELL UNIV	J M BOYCE	GSFC	R SULLIVAN	NAG 5 10574	379
11	CORNELL UNIV	J PNORRIS	GSFC	I M WASSERMAN	NAG 5 3800	376
11	CORNELL UNIV	J T BERGSTRALH	HQ	J R HOUCK	NASW 99008	380
11	CORNELL UNIV	J W POE	MSFC	J M PARPIA	NAG 8 1438	380
11	CORNELL UNIV	L D DEMING	GSFC	J HARRINGTON	NAG 5 7373	377
11	CORNELL UNIV	L D DEMING	GSFC	J HARRINGTON	NAG 5 9594	378
11	CORNELL UNIV	P CRANE	GSFC	A SIEVERS	NAG 5 9140	378
11	CORNELL UNIV	R BEEBE	GSFC	D HARRINGTON	NAG 5 7965	377
11	CORNELL UNIV	R BEEBE	GSFC	D J GIERASCH	NAG 5 7864	377

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11	CORNELL UNIV	R BEEBE	GSFC	P HELFENSTEIN	NAG 5 8010	377
11	CORNELL UNIV	R OLIVERSEN	GSFC	R LOVELACE	NAG 5 9047	378
11	CORNELL UNIV	T H MORGAN	GSFC	W BOTTKE	NAG 5 9082	378
11	CORNELL UNIV	T MORGAN	GSFC	D BANFIELD	NAG 5 7919	377
11	CORNELL UNIV	T MORGAN	GSFC	D S HOWELL	NAG 5 8070	377
11	DARTMOUTH COLLEGE	D EVANS	GSFC	B U SONNERUP	NAG 5 7185	344
11	DARTMOUTH COLLEGE	D EVANS	GSFC	M K HUDSON	NAG 5 7689	344
11	DARTMOUTH COLLEGE	L ZANETTI	GSFC	M K HUDSON	NGT 5 95	345
11	DARTMOUTH COLLEGE	R OLIVERSEN	GSFC	B CHABOYER	NAG 5 9225	344
11	DARTMOUTH COLLEGE	R PETRE	GSFC	J THORSTENSEN	NAG 5 3212	343
11	DEPAUL UNIV	J ROSENDHAL	GSFC	C C NARASIMHAN	NCC 5 272	200
11	DINE COLLEGE	P SAKIMOTO	GSFC	S SEMKEN	NAG 5 10254	24
11	DRAKE UNIV	D K WEST	GSFC	A MARSTON	NAG 5 6854	222
11	DREXEL UNIV	D K WEST	GSFC	S L McMILLAN	NAG 5 6964	440
11	DREXEL UNIV	J CENTRELLA	GSFC	M VALLIERES	NAG 5 11119	440
11	DREXEL UNIV	R J OLIVERSEN	GSFC	S L McMILLAN	NAG 5 10775	440
11	DREXEL UNIV	R OLIVERSEN	GSFC	S McMILLAN	NAG 5 9264	440
11	EAST TENNESSEE STATE UNIV	G SONNEBORN	GSFC	D G LUTTERMOSER	NAG 5 10344	467
11	EASTERN NEW MEX. UNIV - MAIN CAMP.	P SAKIMOTO	GSFC	S NUTTER	NAG 5 10150	360
11	FAIRFIELD UNIV	G MUCKLOW	GSFC	N HAEGEL	NAG 5 8650	144
11	FLA INTERNATIONAL UNIV	R HARTLE	GSFC	K HARDY	NAG 5 3826	162
11	FLORIDA A&M UNIV	P SAKIMOTO	GSFC	C A WEATHERFORD	NAG 5 10148	164
11	FLORIDA INST OF TECH	D WEST	GSFC	M A WOOD	NAG 5 3103	165
11	FLORIDA INST OF TECH	R J OLIVERSEN	GSFC	M ZHANG	NAG 5 10888	165
11	FLORIDA STATE UNIV	J BOYCE	HQ	J C CAIN	NAG 5 8284	167
11	FLORIDA STATE UNIV	M MEYER	GSFC	I FRIEDMAN	NAG 5 9845	168
11	FRANKLIN-MARSHALL COLLEGE	D K WEST	GSFC	D BACKMAN	NAG 5 6858	441
11	GEORGE MASON UNIV	D K WEST	GSFC	J WALLIN	NAG 5 8834	509
11	GEORGE MASON UNIV	D K WEST	GSFC	L OZNEROY	NAG 5 7065	509
11	GEORGE MASON UNIV	M MCCUMBER	GSFC	M KAFATOS	NCC 5 555	510
11	GEORGE MASON UNIV	R J OLIVERSEN	GSFC	L OZNEROY	NAG 5 10776	510
11	GEORGE MASON UNIV	R J OLIVERSEN	GSFC	R M SAMBRUNA	NAG 5 10073	509
11	GEORGE MASON UNIV	R J OLIVERSEN	GSFC	R M SAMBRUNA	NAG 5 10243	509
11	GEORGE MASON UNIV	R J OLIVERSEN	GSFC	R M SAMBRUNA	NAG 5 10244	510
11	GEORGE MASON UNIV	R J OLIVERSEN	GSFC	R M SAMBRUNA	NAG 5 10708	510
11	GEORGE MASON UNIV	R MUSHOTZKY	GSFC	R M SAMBRUNA	NAG 5 10038	509
11	GEORGE MASON UNIV	S KEMPLER	GSFC	M KAFATOS	NCC 5 143	510
11	GEORGE WASHINGTON UNIV	J BOYCE	GSFC	G M KEATING	NAG 5 8287	152
11	GEORGE WASHINGTON UNIV	R BEEBE	GSFC	D A LEVIN	NAG 5 8068	152
11	GEORGIA INST OF TECH	J BOYCE	HQ	D P BRADLEY	NAG 5 7450	184
11	GEORGIA INST OF TECH	J M BOYCE	GSFC	J BRADLEY	NAG 5 10632	184
11	GEORGIA STATE UNIV	D K WEST	GSFC	D GIES	NAG 5 6904	188
11	GEORGIA STATE UNIV	H HASAN	GSFC	S T MANSON	NAG 5 7752	188
11	GEORGIA STATE UNIV	H THRONSON	GSFC	D PERERA	NAG 5 4950	188
11	GRAMBLING STATE UNIV	B PENN	MSFC	C WALTON	NAG 8 1392	233
11	HAMPTON UNIV	J R BYRD	GSFC	D M RUSSELL	NAG 5 10796	512
11	HAMPTON UNIV	P SAKIMOTO	GSFC	S M BAILEY	NAG 5 10163	512
11	HARVARD UNIV	D K WEST	GSFC	L E HERNQUIST	NAG 5 8727	284
11	HARVARD UNIV	D NAVA	GSFC	D B JACOBSEN	NAG 5 4720	283
11	HARVARD UNIV	D NAVA	GSFC	D G AGEE	NAG 5 4713	283
11	HARVARD UNIV	D RIND	GSFC	D JACOB	NAG 5 3553	283
11	HARVARD UNIV	E SMITH	GSFC	R KIRSHNER	NAG 5 7768	284
11	HARVARD UNIV	G SONNEBORN	GSFC	J C RAYMOND	NAG 5 9019	284
11	HARVARD UNIV	H HASAN	GSFC	W H PARKINSON	NAG 5 4348	283
11	HARVARD UNIV	H THRONSON	GSFC	P NAHUM	NAG 5 4522	283
11	HARVARD UNIV	J BERGSTRALH	GSFC	D X SASSELOV	NAG 5 4216	283
11	HARVARD UNIV	J BOYCE	GSFC	A W CAMERON	NAG 5 8467	284
11	HARVARD UNIV	J BOYCE	GSFC	D B JACOBSEN	NAG 5 4430	283
11	HARVARD UNIV	J BOYCE	GSFC	S B JACOBSEN	NAG 5 9571	284
11	HARVARD UNIV	J BOYCE	HQ	D SISTERSON	NAG 5 4302	283
11	HARVARD UNIV	M MEYER	GSFC	H D HOLLAND	NAG 5 10631	285
11	HARVARD UNIV	R BEEBE	GSFC	W H PARKINSON	NAG 5 7859	284
11	HARVARD UNIV	R J OLIVERSEN	GSFC	A LOEB	NAG 5 7039	283
11	HARVARD UNIV	R J OLIVERSEN	GSFC	R NARAYAN	NAG 5 10780	285
11	HARVARD UNIV	R MUSHOTZKY	GSFC	J E GRINDLAY	NAG 5 10040	284
11	HARVARD UNIV	R MUSHOTZKY	GSFC	J E GRINDLAY	NAG 5 10046	284

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11	HAVERFORD COLLEGE	R J OLIVERSEN	GSFC	S P BOUGHN	NAG 5 9285	441
11	HOWARD UNIV	R BEEBE	GSFC	J HALPERN	NAG 5 6835	154
11	INDIANA UNIV - BLOOMINGTON	B MERRIT	WFF	J MUSSER	NAG 5 5224	215
11	INDIANA UNIV - BLOOMINGTON	D WEST	GSFC	STEIMAN-CAMERON	NAG 5 6773	215
11	INDIANA UNIV - BLOOMINGTON	G SONNEBORN	GSFC	S SHORE	NAG 5 9236	215
11	INDIANA UNIV - BLOOMINGTON	J BOYCE	GSFC	A BASU	NAG 5 9369	215
11	INDIANA UNIV - BLOOMINGTON	J BOYCE	GSFC	D H DURISEN	NAG 5 4295	215
11	IAWA STATE UNIV	D K WEST	GSFC	S D KAWALER	NAG 5 8352	223
11	IAWA STATE UNIV	J GRANT	GSFC	D J SCHEERES	NAG 5 7756	223
11	IAWA STATE UNIV	J SWANK	GSFC	M A CATANESE	NAG 5 7070	222
11	IAWA STATE UNIV	J SWANK	GSFC	M A CATANESE	NAG 5 7423	223
11	IAWA STATE UNIV	W WAGNER	GSFC	L A WILLSON	NAG 5 8465	223
11	JOHNS HOPKINS UNIV	B BETTS	GSFC	R L MCNUTT	NAG 5 8516	244
11	JOHNS HOPKINS UNIV	B BETTS	GSFC	R W MCENTIRE	NAG 5 9719	247
11	JOHNS HOPKINS UNIV	B BETTS	GSFC	W BRINCKERHOFF	NAG 5 10693	249
11	JOHNS HOPKINS UNIV	BCAMPBELL	GSFC	A F CHENG	NAG 5 7080	243
11	JOHNS HOPKINS UNIV	D CLING	GSFC	D M RUST	NAG 5 7921	244
11	JOHNS HOPKINS UNIV	D EVANS	GSFC	D G SIBECK	NAG 5 7920	243
11	JOHNS HOPKINS UNIV	D EVANS	GSFC	D Y LUI	NAG 5 7797	243
11	JOHNS HOPKINS UNIV	D K WEST	GSFC	A S SZALAY	NAG 5 3503	242
11	JOHNS HOPKINS UNIV	D K WEST	GSFC	G R MEURER	NAG 5 8279	244
11	JOHNS HOPKINS UNIV	D R MENGER	GSFC	H W MOOS	NAS 5 32985	252
11	JOHNS HOPKINS UNIV	D R MENGER	GSFC	K R SEMBACH	NAG 5 3485	242
11	JOHNS HOPKINS UNIV	D WEST	GSFC	D A NEUFELD	NAG 5 3542	242
11	JOHNS HOPKINS UNIV	D WEST	GSFC	G A KRIS	NAG 5 3255	242
11	JOHNS HOPKINS UNIV	G H MUCKLOW	GSFC	D G MITCHELL	NAG 5 8687	245
11	JOHNS HOPKINS UNIV	G SONNEBORN	GSFC	A FULLERTON	NAG 5 10650	249
11	JOHNS HOPKINS UNIV	G SONNEBORN	GSFC	C HOWK	NAG 5 10957	250
11	JOHNS HOPKINS UNIV	G SONNEBORN	GSFC	H A WEAVER	NAG 5 10921	250
11	JOHNS HOPKINS UNIV	G SONNEBORN	GSFC	J A MORSE	NAG 5 8955	245
11	JOHNS HOPKINS UNIV	G SONNEBORN	GSFC	L BIANCHI	NAG 5 8965	245
11	JOHNS HOPKINS UNIV	G SONNEBORN	GSFC	L BIANCHI	NAG 5 10364	248
11	JOHNS HOPKINS UNIV	G SONNEBORN	GSFC	P CHAYER	NAG 5 10647	249
11	JOHNS HOPKINS UNIV	G SONNEBORN	GSFC	R L SHELTON	NAG 5 10394	248
11	JOHNS HOPKINS UNIV	G SONNEBORN	GSFC	R SANKRIT	NAG 5 10248	248
11	JOHNS HOPKINS UNIV	G SONNEBORN	GSFC	R SANKRIT	NAG 5 10380	248
11	JOHNS HOPKINS UNIV	G SONNEBORN	GSFC	S D FRIEDMAN	NAG 5 10355	248
11	JOHNS HOPKINS UNIV	G SONNEBORN	GSFC	S R MCCANDLISS	NAG 5 8994	245
11	JOHNS HOPKINS UNIV	G SONNEBORN	GSFC	S R MCCANDLISS	NAG 5 10403	248
11	JOHNS HOPKINS UNIV	G SONNEBORN	GSFC	T M HECKMAN	NAG 5 9012	245
11	JOHNS HOPKINS UNIV	G SONNEBORN	GSFC	T M HECKMAN	NAG 5 10302	248
11	JOHNS HOPKINS UNIV	G SONNEBORN	GSFC	W V DIXON	NAG 5 10405	249
11	JOHNS HOPKINS UNIV	H HASAN	GSFC	D R MCCANDLISS	NAG 5 4261	242
11	JOHNS HOPKINS UNIV	J BOYCE	GSFC	D MAUK	NAG 5 8191	244
11	JOHNS HOPKINS UNIV	J BOYCE	GSFC	S L MURCHIE	NAG 5 8171	244
11	JOHNS HOPKINS UNIV	J E ROBINSON	GSFC	N AVAILABLE	NAS 5 01072	252
11	JOHNS HOPKINS UNIV	J J WOLFF	GSFC	D GRANT	NAS 5 97179	252
11	JOHNS HOPKINS UNIV	J JELETIC	GSFC	H FORD	NAG 5 7697	243
11	JOHNS HOPKINS UNIV	J M BOYCE	GSFC	O BARNOUIN-JHA	NAG 5 11211	251
11	JOHNS HOPKINS UNIV	J R BYRD	GSFC	D ZHENG	NAG 5 10798	249
11	JOHNS HOPKINS UNIV	J SPANN	GSFC	S WING	NAG 5 10971	250
11	JOHNS HOPKINS UNIV	J WOLFF	GSFC	T COUGHLIN	NAS 5 97271	252
11	JOHNS HOPKINS UNIV	K E WEAVER	GSFC	E T VISHNIAC	NCC 5 447	252
11	JOHNS HOPKINS UNIV	L CAROFF	ARC	T HENRY	NAG 2 1392	241
11	JOHNS HOPKINS UNIV	M MELLOTT	GSFC	R E ERLANDSON	NAG 5 9118	246
11	JOHNS HOPKINS UNIV	M SMITH	MSFC	R GIACCONI	NAG 8 1527	251
11	JOHNS HOPKINS UNIV	P HUNTER	GSFC	S R NYLUND	NAG 5 8149	244
11	JOHNS HOPKINS UNIV	R A HOFFMAN	GSFC	N J FOX	NAG 5 9903	247
11	JOHNS HOPKINS UNIV	R BEEBE	GSFC	C P PARANICAS	NAG 5 7863	243
11	JOHNS HOPKINS UNIV	R BEEBE	GSFC	D STROBEL	NAG 5 7769	243
11	JOHNS HOPKINS UNIV	R J OLIVERESSEN	GSFC	M A HOUDASHELT	NAG 5 10922	250
11	JOHNS HOPKINS UNIV	R J OLIVERSEN	GSFC	A S SZALAY	NAG 5 9186	246
11	JOHNS HOPKINS UNIV	R J OLIVERSEN	GSFC	C A NORMAN	NAG 5 10807	250
11	JOHNS HOPKINS UNIV	R J OLIVERSEN	GSFC	E COLBERT	NAG 5 9878	247
11	JOHNS HOPKINS UNIV	R J OLIVERSEN	GSFC	J H KROLIK	NAG 5 9187	246

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11	JOHNS HOPKINS UNIV	R J OLIVERSEN	GSFC	S RIDGWAY	NAG 5 10762	249
11	JOHNS HOPKINS UNIV	R J OLIVERSEN	GSFC	T HECKMAN	NAG 5 6400	243
11	JOHNS HOPKINS UNIV	R J OLIVERSEN	GSFC	T YAQOOB	NAG 5 10769	249
11	JOHNS HOPKINS UNIV	R J OLIVERSEN	GSFC	W V DIXON	NAG 5 10916	250
11	JOHNS HOPKINS UNIV	R M MUSHOTZKY	GSFC	T HECKMAN	NAG 5 9910	247
11	JOHNS HOPKINS UNIV	R MUSHOTSKY	GSFC	J H KROLIK	NAG 5 10304	248
11	JOHNS HOPKINS UNIV	R MUSHOTZKY	GSFC	H FORD	NAG 5 10176	247
11	JOHNS HOPKINS UNIV	R MUSHOTZKY	GSFC	L M LUBIN	NAG 5 10511	249
11	JOHNS HOPKINS UNIV	R MUSHOTZKY	GSFC	M E KAISER	NAG 5 9837	247
11	JOHNS HOPKINS UNIV	R MUSHOTZKY	GSFC	T HECKMAN	NAG 5 9948	247
11	JOHNS HOPKINS UNIV	R MUSHOTZKY	GSFC	W BLAIR	NAG 5 9963	247
11	JOHNS HOPKINS UNIV	R OLIVERSEN	GSFC	B S JAIN	NAG 5 9220	246
11	JOHNS HOPKINS UNIV	R OLIVERSEN	GSFC	E PERLMAN	NAG 5 9278	246
11	JOHNS HOPKINS UNIV	R OLIVERSEN	GSFC	E S PEARLMAN	NAG 5 9533	246
11	JOHNS HOPKINS UNIV	R OLIVERSEN	GSFC	L BIANCHI	NAG 5 9219	246
11	JOHNS HOPKINS UNIV	R POLIDAN	GSFC	G KRISHNA	NAG 5 6764	243
11	JOHNS HOPKINS UNIV	S CURTIS	GSFC	R GREEWALD	NAG 5 8361	244
11	JOHNS HOPKINS UNIV	T MORGAN	GSFC	H WEAVER	NAG 5 7186	243
11	JOHNS HOPKINS UNIV	WWAGNER	GSFC	D M RUST	NAG 5 8331	244
11	LOUISIANA STATE UNIV - BATON ROUGE	D K WEST	GSFC	G C CLAYATON	NAG 5 7933	234
11	LOUISIANA STATE UNIV - BATON ROUGE	D WEST	GSFC	G CHANMUGAM	NAG 5 3082	233
11	LOUISIANA STATE UNIV - BATON ROUGE	G SONNEBORN	GSFC	G C CLAYTON	NAG 5 10185	234
11	LOUISIANA STATE UNIV - BATON ROUGE	J NORRIS	GSFC	J STACY	NAG 5 8100	234
11	LOUISIANA STATE UNIV - BATON ROUGE	J P NORRIS	GSFC	J STACY	NAG 5 7355	234
11	LOUISIANA STATE UNIV - BATON ROUGE	R J OLIVERSEN	GSFC	G C CLAYTON	NAG 5 9709	234
11	LOUISIANA STATE UNIV - BATON ROUGE	R J OLIVERSEN	GSFC	J FRANK	NAG 5 8497	234
11	LOUISIANA STATE UNIV - BATON ROUGE	R OLIVERSEN	GSFC	G CLAYTON	NAG 5 9203	234
11	LOYOLA MARYMOUNT UNIV	D EVANS	GSFC	J SANNY	NAG 5 7050	53
11	MASSACHUSETTS INST OF TECH	D C LING	GSFC	D J LAZARUS	NAG 5 7794	292
11	MASSACHUSETTS INST OF TECH	D C LING	GSFC	D J LAZARUS	NAG 5 7967	292
11	MASSACHUSETTS INST OF TECH	D K WEST	GSFC	M H VAN PUTTEN	NAG 5 7012	291
11	MASSACHUSETTS INST OF TECH	D K WEST	GSFC	S A RAPPAPORT	NAG 5 8368	293
11	MASSACHUSETTS INST OF TECH	D K WEST	GSFC	V M KASPI	NAG 5 8063	292
11	MASSACHUSETTS INST OF TECH	D K WEST	GSFC	W H LEWIN	NAG 5 3558	289
11	MASSACHUSETTS INST OF TECH	G MUCKLOW	GSFC	M W BAUTZ	NAG 5 8668	293
11	MASSACHUSETTS INST OF TECH	J BERGSTRALH	GSFC	B BURKE	NAG 5 6523	291
11	MASSACHUSETTS INST OF TECH	J BERGSTRALH	GSFC	D L ELLIOT	NAG 5 3940	289
11	MASSACHUSETTS INST OF TECH	J BERGSTRALH	GSFC	D P BINZEL	NAG 5 3939	289
11	MASSACHUSETTS INST OF TECH	J BOYCE	GSFC	D L GROVE	NAG 5 10522	295
11	MASSACHUSETTS INST OF TECH	J BOYCE	GSFC	J I RICHARDSON	NAG 5 8720	293
11	MASSACHUSETTS INST OF TECH	J BOYCE	GSFC	M T ZUBER	NAG 5 8707	293
11	MASSACHUSETTS INST OF TECH	J BOYCE	GSFC	T GROVE	NAG 5 10728	295
11	MASSACHUSETTS INST OF TECH	J BOYCE	GSFC	T L GROVE	NAG 5 9525	294
11	MASSACHUSETTS INST OF TECH	J BOYCE	HQ	P L GROVE	NAG 5 4768	290
11	MASSACHUSETTS INST OF TECH	J KING	GSFC	A J LAZARUS	NAG 5 8031	292
11	MASSACHUSETTS INST OF TECH	J LING	GSFC	K PAULARENA	NAG 5 6473	291
11	MASSACHUSETTS INST OF TECH	J N CUZZI	ARC	J L ELLIOT	NAG 2 855	287
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	D CHAKRABARTY	NAG 5 7517	292
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	G CLARK	NAG 5 4485	290
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	G W CLARK	NAG 5 7279	291
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	R A REMILLARD	NAG 5 7375	292
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	R A REMILLARD	NAG 5 7480	292
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	S A RAPPAPORT	NAG 5 8244	293
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	S RAPPAPORT	NAG 5 4115	290
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	V KASPI	NAG 5 4879	290
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	W LEWIN	NAG 5 4733	290
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	W LEWIN	NAG 5 7481	292
11	MASSACHUSETTS INST OF TECH	M MEYER	GSFC	J GROTZINGER	NAG 5 6722	291
11	MASSACHUSETTS INST OF TECH	M MEYER	GSFC	S A BOWRING	NAG 5 8814	293
11	MASSACHUSETTS INST OF TECH	N B CUMINGS	MSFC	G RICKER	NAS 8 37716	297
11	MASSACHUSETTS INST OF TECH	P CRANE	GSFC	B F BURKE	NAG 5 9763	294
11	MASSACHUSETTS INST OF TECH	R J OLIVERSEN	GSFC	F A RASIO	NAG 5 8460	293
11	MASSACHUSETTS INST OF TECH	R J OLIVERSEN	GSFC	W H LEWIN	NAG 5 9135	293
11	MASSACHUSETTS INST OF TECH	R J OLIVERSEN	GSFC	W H LEWIN	NAG 5 10815	295
11	MASSACHUSETTS INST OF TECH	R K OLIVERSEN	GSFC	W CUI	NAG 5 7990	292
11	MASSACHUSETTS INST OF TECH	R MUSHOTZKY	GSFC	B M GAENSLER	NAG 5 9962	294

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11	MASSACHUSETTS INST OF TECH	R MUSHOTZKY	GSFC	D S DAVIS	NAG 5 10107	295
11	MASSACHUSETTS INST OF TECH	R MUSHOTZKY	GSFC	W LEWIN	NAG 5 10192	295
11	MASSACHUSETTS INST OF TECH	R OLIVERSEN	GSFC	G ALLEN	NAG 5 9237	294
11	MASSACHUSETTS INST OF TECH	R PETRE	GSFC	M SCHATTENBURG	NCC 5 330	299
11	MASSACHUSETTS INST OF TECH	R PETRE	GSFC	M SCHATTENBURG	NCC 5 525	299
11	MASSACHUSETTS INST OF TECH	T MORGAN	GSFC	A RIVKIN	NAG 5 10604	295
11	MASSACHUSETTS INST OF TECH	T MORGAN	GSFC	J ELLIOT	NAG 5 10444	295
11	MASSACHUSETTS INST OF TECH	W DAVIS	GSFC	H BRADT	NAS 5 30612	297
11	MEDGAR EVERS COLLEGE	P SAKIMOTO	GSFC	L P JOHNSON	NAG 5 10142	382
11	MICHIGAN STATE UNIV	W J WAGNER	GSFC	R F STEIN	NAG 5 9563	307
11	MICHIGAN TECHNOLOGICAL UNIV	D K WEST	GSFC	A BORYSOW	NAG 5 3689	308
11	MICHIGAN TECHNOLOGICAL UNIV	J P NORRIS	GSFC	R J NEMIROFF	NAG 5 4756	309
11	MIDDLEBURY COLLEGE	D K WEST	GSFC	P WINKLER	NAG 5 8020	506
11	MIDDLEBURY COLLEGE	W J WAGNER	GSFC	P WOLFSON	NAG 5 6118	506
11	MONTANA STATE UNIV	D DETROYE	GSFC	W HISCOCK	NCC 5 240	338
11	MONTANA STATE UNIV	M J HAGYARD	MSFC	R C CANFIELD	NAG 8 1399	337
11	MONTANA STATE UNIV	M MEYER	GSFC	D M WARD	NAG 5 8824	337
11	MONTANA STATE UNIV	M MEYER	GSFC	T R MCDERMOTT	NAG 5 8807	337
11	MONTANA STATE UNIV	W WAGNER	GSFC	D CANFIELD	NAG 5 6110	337
11	MOORHEAD STATE UNIV	J BOYCE	HQ	R O COLSON	NAG 5 7366	320
11	MOREHOUSE COLLEGE	J BERGSTRALH	GSFC	J KING	NAG 5 6602	188
11	NEW JERSEY INST OF TECH	D EVANS	GSFC	P R GOODE	NAG 5 7454	350
11	NEW JERSEY INST OF TECH	H NEEDLEMAN	GSFC		NAG 5 5144	350
11	NEW JERSEY INST OF TECH	W J WAGNER	GSFC	D R GOODE	NAG 5 4919	350
11	NEW JERSEY INST OF TECH	W WAGNER	GSFC	D E GARY	NAG 5 8466	351
11	NEW JERSEY INST OF TECH	W WAGNER	GSFC	H WANG	NAG 5 7085	350
11	NEW JERSEY INST OF TECH	W WAGNER	GSFC	M F WOODARD	NAG 5 8485	351
11	NEW JERSEY INST OF TECH	W WAGNER	GSFC	P R GOODE	NAG 5 11007	351
11	NEW MEXICO HIGHLANDS UNIV	T MORGAN	GSFC	D V RYAN	NAG 5 8734	361
11	NEW MEXICO INST OF MINING & TECH	M Y WEI	GSFC	F M PHILLIPS	NGT 5 30169	362
11	NEW MEXICO STATE UNIV - LAS CRUCES	B A MERRITT	GSFC	S J STOCHAJ	NAG 5 5159	362
11	NEW MEXICO STATE UNIV - LAS CRUCES	C P MCKAY	ARC	M MARLEY	NAG 2 6007	362
11	NEW MEXICO STATE UNIV - LAS CRUCES	D C LING	GSFC	D R WEBBER	NAG 5 7795	362
11	NEW MEXICO STATE UNIV - LAS CRUCES	D K WEST	GSFC	A KLYPIN	NAG 5 3842	362
11	NEW MEXICO STATE UNIV - LAS CRUCES	D K WEST	GSFC	A KLYPIN	NAG 5 8242	363
11	NEW MEXICO STATE UNIV - LAS CRUCES	F C JONES	GSFC	W R WEBBER	NAG 5 7524	362
11	NEW MEXICO STATE UNIV - LAS CRUCES	J HARRINGTON	GSFC	H BAPTISTE	NAG 5 11311	363
11	NEW MEXICO STATE UNIV - LAS CRUCES	J M BOYCE	GSFC	J R MURPHY	NAG 5 11164	363
11	NEW MEXICO STATE UNIV - LAS CRUCES	J M BOYCE	GSFC	V SOLOMATOV	NAG 5 10578	363
11	NEW MEXICO STATE UNIV - LAS CRUCES	R J OLIVERSEN	GSFC	M S MARLEY	NAG 5 9273	363
11	NEW MEXICO STATE UNIV - LAS CRUCES	T MORGAN	GSFC	D J CHANOVER	NAG 5 7904	362
11	NY UNIV	R OLIVERSEN	GSFC	G FARRAR	NAG 5 9246	383
11	NORFOLK STATE UNIV	P SAKIMOTO	GSFC	C W SALGADO	NAG 5 10140	514
11	NORTH CAROLINA STATE UNIV	D K WEST	GSFC	S P REYNOLDS	NAG 5 7153	400
11	NORTH CAROLINA STATE UNIV	N WHITE	GSFC	K BORKOWSKI	NAG 5 7406	400
11	NORTH CAROLINA STATE UNIV	R J OLIVERSEN	GSFC	S P REYNOLDS	NAG 5 10940	400
11	NORTH DAKOTA STATE UNIV	R PATER	LARC	M SOUCEK	NGT 1 52159	404
11	NORTHEAST LOUISIANA UNIV	J M BOYCE	GSFC	D A DE HON	NAG 5 4293	235
11	NORTHERN ARIZONA UNIV	J BERGSTRALH	GSFC	C GRIFFITH	NAG 5 8525	24
11	NORTHERN ARIZONA UNIV	J BERGSTRALH	GSFC	D BARNES	NAG 5 4995	24
11	NORTHERN ARIZONA UNIV	J BOYCE	HQ	C A GRIFFITH	NAG 5 8146	24
11	NORTHERN ARIZONA UNIV	J BOYCE	HQ	D M CORNELISON	NAG 5 8203	24
11	NORTHERN ARIZONA UNIV	T MORGAN	GSFC	C A GRIFFITH	NAG 5 6790	24
11	NORTHERN ARIZONA UNIV	T MORGAN	GSFC	S C TEGLER	NAG 5 7757	24
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11	NORTHWESTERN UNIV	G SONNEBORN	GSFC	D M MEYER	NAG 5 10323	202
11	NORTHWESTERN UNIV	G SONNEBORN	GSFC	D M MEYER	NAG 5 10465	202
11	NORTHWESTERN UNIV	G SONNEBORN	GSFC	J T LAUROESCH	NAG 5 10324	202
11	NORTHWESTERN UNIV	J BOYCE	HQ	M S ROBINSON	NAG 5 8294	202
11	NORTHWESTERN UNIV	J D JORDAN	LARC	C A MIRKIN	NAG 1 01058	201
11	NORTHWESTERN UNIV	R J OLIVERSEN	GSFC	F YUSEF-ZADEH	NAG 5 9188	202
11	NORTHWESTERN UNIV	R OLIVERSEN	GSFC	D MEYER	NAG 5 9272	202
11	NORTHWESTERN UNIV	W ZHANG	GSFC	M ULMER	NAG 5 10598	202
11	OHIO STATE UNIV	D K WEST	GSFC	A K PRADHAN	NAG 5 8423	416

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11	OHIO STATE UNIV	D WEST	GSFC	A PRADHAN	NAG 5 6908	415
11	OHIO STATE UNIV	D WEST	GSFC	P ESKRIDGE	NAG 5 7116	415
11	OHIO STATE UNIV	G SONNEBORN	GSFC	S MATHUR	NAG 5 10320	417
11	OHIO STATE UNIV	H HASAN	GSFC	D K PRADHAN	NAG 5 7903	416
11	OHIO STATE UNIV	H THRONSON	GSFC	E HERBST	NAG 5 7252	415
11	OHIO STATE UNIV	J BOYCE	GSFC	D DEPOY	NAG 5 10678	417
11	OHIO STATE UNIV	J BOYCE	GSFC	D L DEPOY	NAG 5 8313	416
11	OHIO STATE UNIV	J BOYCE	HQ	D L DEPOY	NAG 5 7589	415
11	OHIO STATE UNIV	R J OLIVERSEN	GSFC	S MATHUR	NAG 5 9270	416
11	OHIO STATE UNIV	R K OLIVERSEN	GSFC	D H WEINBERG	NAG 5 3525	414
11	OHIO STATE UNIV	R MUSHOTZKY	GSFC	S MATHUR	NAG 5 9936	416
11	OHIO STATE UNIV	R MUSHOTZKY	GSFC	S MATHUR	NAG 5 9937	416
11	OHIO UNIV	R J OLIVERSEN	GSFC	B MCNAMARA	NAG 5 11025	419
11	OLD DOMINION UNIV	J MARRA	GSFC	E HOFMANN	NCC 5 258	519
11	OREGON STATE UNIV	J BOYCE	GSFC	J R BARNES	NAG 5 9771	432
11	PENN STATE UNIV	D F MUSHOTZKY	GSFC	W N BRANDT	NAG 5 9932	447
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11	PENN STATE UNIV	D K WEST	GSFC	G PAVLOV	NAG 5 6907	445
11	PENN STATE UNIV	D K WEST	GSFC	J CHARLTON	NAG 5 6399	445
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11	PENN STATE UNIV	L HILLARD	GSFC	J NOUSEK	NAG 5 8401	446
11	PENN STATE UNIV	M MEYER	GSFC	H OHMOTO	NAG 5 9089	446
11	PENN STATE UNIV	M MEYER	GSFC	J F KASTING	NAG 5 8710	446
11	PENN STATE UNIV	M S BURRELL	GSFC	JIAN GE	NGT 5 119	451
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11	PENN STATE UNIV	P M ATKINS	GSFC	W N BRANDT	NAG 5 9924	447
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11	PENN STATE UNIV	R J OLIVERSEN	GSFC	E D FEIGELSON	NAG 5 8422	446
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11	PENN STATE UNIV	R MUSHOTZKY	GSFC	D N BURROWS	NAG 5 10079	448
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11	POMONA COLLEGE	J BOYCE	GSFC	E GROSFILS	NAG 5 10498	54
11	PRAIRIE VIEW A&M UNIV	J HARRINGTON	GSFC	D HUANG	NCC 5 591	476
11	PRAIRIE VIEW A&M UNIV	J M DAVIS	MSFC	T HUANG	NAG 8 1338	476
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11	PRINCETON UNIV	D K WEST	GSFC	D N SPERGEL	NAG 5 7154	353
11	PRINCETON UNIV	D K WEST	GSFC	R CEN	NAG 5 8365	353
11	PRINCETON UNIV	D K WEST	GSFC	S D TREMAINE	NAG 5 7066	353
11	PRINCETON UNIV	D K WEST	GSFC	U SELJAK	NAG 5 8084	353
11	PRINCETON UNIV	D VITAGLINO	GSFC	E JENKINS	NAS 5 30110	355
11	PRINCETON UNIV	D WEST	GSFC	G KNAPP	NAG 5 6734	352
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11	PRINCETON UNIV	J BOYCE	GSFC	J GOODMAN	NAG 5 8385	353
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11	PRINCETON UNIV	R J OLIVERSEN	GSFC	B T DRAINE	NAG 5 10811	354
11	PRINCETON UNIV	R J OLIVERSEN	GSFC	G R KNAPP	NAG 5 11094	354
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11	PRINCETON UNIV	R J OLIVERSEN	GSFC	T M TRIPP	NAG 5 11136	354
11	PRINCETON UNIV	R OLIVERSEN	GSFC	E TURNER	NAG 5 9274	353
11	PRINCETON UNIV	S SOBIESKI	GSFC	E J GROTH	NAG 5 1629	352
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11	RENSSELAER POLYTECH INST	T MORGAN	GSFC	M J GAFFEY	NAG 5 8976	385
11	RHODES COLLEGE	M FORMAN	GSFC	D MACQUEEN	NAG 5 6049	468
11	RICE UNIV	D EVANS	GSFC	D W HILL	NAG 5 8131	477
11	RICE UNIV	D J HOLLENBACH	ARC	D J DUFOUR	NGT 2 52252	479
11	RICE UNIV	G SONNEBORN	GSFC	P HARTIGAN	NAG 5 9011	477
11	RICE UNIV	J P NORRIS	GSFC	E P LIANG	NAG 5 7980	477
11	RICE UNIV	J P NORRIS	GSFC	E P LIANG	NAG 5 9904	478
11	RICE UNIV	R J OLIVERSEN	GSFC	E P LIANG	NAG 5 10816	478
11	RICE UNIV	R J OLIVERSEN	GSFC	M G BARING	NAG 5 10841	478
11	RICE UNIV	R OLIVERSEN	GSFC	E LANG	NAG 5 9212	478
11	RICE UNIV	R OLIVERSEN	GSFC	E LIANG	NAG 5 9223	478
11	RICE UNIV	S NASH-STEVENSON	MSFC	E P LIANG	NGT 8 52899	479
11	ROCHESTER INST OF TECH	H HASAN	GSFC	D NINKOV	NAG 5 3728	386
11	ROCHESTER INST OF TECH	P CRANE	GSFC	Z NINKOV	NAG 5 9090	386
11	ROWAN UNIV	J M BOYCE	GSFC	D R KLASSEN	NAG 5 11076	356
11	ROWAN UNIV	T MORGAN	GSFC	D KLASSEN	NAG 5 6776	356
11	RUTGERS ST UNIV N	D F MUSHOTZKY	GSFC	J P HUGHES	NAG 5 9927	358
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11	RUTGERS ST UNIV N	D K WEST	GSFC	D MERRITT	NAG 5 6037	357
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11	RUTGERS ST UNIV N	J BOYCE	GSFC	R HEWINS	NAG 5 10495	358
11	RUTGERS ST UNIV N	J BOYCE	HQ	J S DELANEY	NAG 5 8820	357
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11	SONOMA STATE UNIV	A M PARSONS	GSFC	L R COMINSKY	NAG 5 11328	59
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11	SONOMA STATE UNIV	N GEHRELS	GSFC	D COMINSKY	NAG 5 7267	58
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11	SONOMA STATE UNIV	N GEHRELS	GSFC	L R COMINSKY	NAG 5 9782	59
11	SOUTH CAROLINA STATE UNIV	P SAKIMOTO	GSFC	D K WALTER	NAG 5 10145	465
11	SOUTHERN METHODIST UNIV	D SENSKY	GSFC	V L HANSEN	NAG 5 10586	480
11	SOUTHERN UNIV & A&M COLLEGE	P SAKIMOTO	GSFC	G STACY	NAG 5 10253	236
11	SOUTHWESTERN INDIAN POLYTECH INST	P SAKIMOTO	GSFC	C L ABEITA	NAG 5 10143	364
11	STANFORD UNIV	D WEST	GSFC	R V WAGONER	NAG 5 3102	60
11	STANFORD UNIV	D WEST	GSFC	R W ROMANI	NAG 5 3263	60
11	STANFORD UNIV	G D HOLMAN	GSFC	V PETROSIAN	NAG 5 8600	61
11	STANFORD UNIV	H HASAN	GSFC	A C WALKER	NAG 5 7464	61
11	STANFORD UNIV	H HASAN	GSFC	D A LIPA	NAG 5 3985	60
11	STANFORD UNIV	H HASAN	GSFC	P CABRERA	NAG 5 3775	60
11	STANFORD UNIV	J BOYCE	GSFC	P H SCHERRER	NAG 5 8714	61
11	STANFORD UNIV	J BOYCE	GSFC	T IRELAND	NAG 5 9887	62
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11	STANFORD UNIV	J BOYCE	HQ	T IRELAND	NAG 5 7609	61
11	STANFORD UNIV	J GRADY	GSFC	B CABRERA	NAS 5 98151	64
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11	STANFORD UNIV	J R BYRD	GSFC	C EVERITT	NAG 5 10799	63
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11	STANFORD UNIV	S LAMBROSS	GSFC	P MICHELSON	NAS 5 00147	64
11	STANFORD UNIV	W J WAGNER	GSFC	D H SCHERRER	NAG 5 6112	61
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11	STATE UNIV OF NY - BUFFALO	B BETTS	GSFC	J GRANT	NAG 5 9658	388
11	STATE UNIV OF NY - STONY BROOK	D BOGAN	GSFC	J L FOX	NAG 5 6879	389
11	STATE UNIV OF NY - STONY BROOK	D K WEST	GSFC	F M WALTER	NAG 5 7978	389
11	STATE UNIV OF NY - STONY BROOK	D K WEST	GSFC	F M WALTER	NAG 5 8437	390
11	STATE UNIV OF NY - STONY BROOK	D WEST	GSFC	J M LATTIMER	NAG 5 2863	388
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11	STATE UNIV OF NY - STONY BROOK	J BERGSTRALH	GSFC	D LISSAUER	NAG 5 6544	389
11	STATE UNIV OF NY - STONY BROOK	J BOYCE	GSFC	D J LISSAUER	NAG 5 4640	389
11	STATE UNIV OF NY - STONY BROOK	J BOYCE	GSFC	J J LISSAUER	NAG 5 9680	390
11	STATE UNIV OF NY - STONY BROOK	J BOYCE	HQ	M SIMON	NAG 5 8462	390
11	STATE UNIV OF NY - STONY BROOK	J BOYCE	HQ	S M MCLENNAN	NAG 5 8169	389
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11	STATE UNIV OF NY - STONY BROOK	J M BOYCE	GSFC	S MCLENNAN	NAG 5 10583	390
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11	UNIV OF CALIFORNIA - BERKELEY	D GOORVITCH	ARC	M COHEN	NCC 2 1125	76
11	UNIV OF CALIFORNIA - BERKELEY	D J HOLLENBACH	ARC	C F MCKEE	NGT 2 52278	77
11	UNIV OF CALIFORNIA - BERKELEY	D J HOLLENBACH	ARC	F H SHU	NCC 2 1080	76
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11	UNIV OF CALIFORNIA - BERKELEY	D K WEST	GSFC	C M JOHNS-KRULL	NAG 5 8209	71
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11	UNIV OF CALIFORNIA - BERKELEY	D K WEST	GSFC	K C HURLEY	NAG 5 3500	69
11	UNIV OF CALIFORNIA - BERKELEY	D K WEST	GSFC	M COHEN	NAG 5 7936	71
11	UNIV OF CALIFORNIA - BERKELEY	D K WEST	GSFC	M I DAVIS	NAG 5 3499	69
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11	UNIV OF CALIFORNIA - BERKELEY	D WEST	GSFC	B FLYNN	NAG 5 6748	70
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11	UNIV OF CALIFORNIA - BERKELEY	F SNOW	GSFC	R P LIN	NAS 5 98033	76
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11	UNIV OF CALIFORNIA - BERKELEY	G SONNEBORN	GSFC	G H FISHER	NAG 5 8984	72
11	UNIV OF CALIFORNIA - BERKELEY	G SONNEBORN	GSFC	J DUPUIS	NAG 5 10393	74
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11	UNIV OF CALIFORNIA - BERKELEY	J BOYCE	GSFC	C M JOHNS-KRULL	NAG 5 8098	71
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11	UNIV OF CALIFORNIA - BERKELEY	J HILLMAN	GSFC	I DE PATER	NAG 5 6890	70
11	UNIV OF CALIFORNIA - BERKELEY	J LING	GSFC	J G LUHMANN	NAG 5 7951	71
11	UNIV OF CALIFORNIA - BERKELEY	J LING	GSFC	S D BAILE	NAG 5 7961	71
11	UNIV OF CALIFORNIA - BERKELEY	J M BOYCE	GSFC	F H SHU	NAG 5 9909	73
11	UNIV OF CALIFORNIA - BERKELEY	J M BOYCE	GSFC	P MARCUS	NAG 5 10664	74
11	UNIV OF CALIFORNIA - BERKELEY	J M BOYCE	GSFC	W DIETRICH	NAG 5 11179	75
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11	UNIV OF CALIFORNIA - BERKELEY	L SMITH	GSFC	C F MCKEE	NGT 5 50253	79
11	UNIV OF CALIFORNIA - BERKELEY	M L KAISER	GSFC	S BALE	NAG 5 9115	72
11	UNIV OF CALIFORNIA - BERKELEY	N GEHRELS	GSFC	K HURLEY	NAG 5 9210	72
11	UNIV OF CALIFORNIA - BERKELEY	P CRANE	GSFC	J EDELSTEIN	NAG 5 9091	72
11	UNIV OF CALIFORNIA - BERKELEY	P CRANE	GSFC	O SIEGMUND	NAG 5 9149	72
11	UNIV OF CALIFORNIA - BERKELEY	R J OLIVERSEN	GSFC	G F SMOOT	NAG 5 6552	70
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11	UNIV OF CALIFORNIA - BERKELEY	R J OLIVERSEN	GSFC	O H SIEGMUND	NAG 5 9130	72
11	UNIV OF CALIFORNIA - BERKELEY	R J OLIVERSEN	GSFC	R MALINA	NCC 5 138	77
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11	UNIV OF CALIFORNIA - BERKELEY	R OLIVERSEN	GSFC	K H HURLEY	NAG 5 9126	72
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11	UNIV OF CALIFORNIA - DAVIS	R F MUSHOTZKY	GSFC	S A STANFORD	NAG 5 9897	81
11	UNIV OF CALIFORNIA - DAVIS	R J OLIVERSEN	GSFC	N ARAV	NAG 5 9540	81
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11	UNIV OF CALIFORNIA - LOS ANGELES	G SONNEBORN	GSFC	M A JURA	NAG 5 10351	93
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11	UNIV OF CALIFORNIA - LOS ANGELES	R MUSHOTZKY	GSFC	R EDELSON	NAG 5 10032	93
11	UNIV OF CALIFORNIA - LOS ANGELES	W J WAGNER	GSFC	D K ULRICH	NAG 5 6332	89
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11	UNIV OF CALIFORNIA - LOS ANGELES	W WAGNER	GSFC	J M PAP	NAG 5 8507	91
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11	UNIV OF CHICAGO	P CRANE	GSFC	T OKA	NAG 5 9583	206
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11	UNIV OF CHICAGO	R BEEBE	GSFC	R PIERREHUMBERT	NAG 5 7731	205
11	UNIV OF CHICAGO	R J OLIVERSEN	GSFC	A KONIGL	NAG 5 9063	206
11	UNIV OF CHICAGO	R J OLIVERSEN	GSFC	D Q LAMB	NAG 5 10759	206
11	UNIV OF CHICAGO	R J OLIVERSEN	GSFC	J J CONNELL	NAG 5 10878	207
11	UNIV OF CHICAGO	R OLIVERSEN	GSFC	A KONIGL	NAG 5 3687	204
11	UNIV OF CHICAGO	R OLIVERSEN	GSFC	D E WELTY	NAG 5 3228	204
11	UNIV OF CHICAGO	S NASH-STEVENSON	MSFC	J CARLSTROM	NGT 8 52906	207
11	UNIV OF CHICAGO	T MORGAN	GSFC	P PALMER	NAG 5 8708	206
11	UNIV OF CHICAGO	W J WAGNER	GSFC	W HU	NAG 5 10840	207
11	UNIV OF CHICAGO	W WAGNER	GSFC	R MCKIBBEN	NAG 5 7163	205
11	UNIV OF CINCINNATI	G SONNEBORN	GSFC	M L SITKO	NAG 5 8986	423
11	UNIV OF CINCINNATI	M MEYER	GSFC	A I MILLER	NAG 5 6946	423
11	UNIV OF CINCINNATI	M MEYER	GSFC	A I MILLER	NAG 5 9418	423
11	UNIV OF COLORADO - BOULDER	A NURRIDIN	HQ	F BAGENAL	NGT 5 50197	142
11	UNIV OF COLORADO - BOULDER	A NURRIDIN	HQ	J C GREEN	NGT 5 50176	142
11	UNIV OF COLORADO - BOULDER	A NURRIDIN	HQ	P S CONTI	NGT 5 50194	142
11	UNIV OF COLORADO - BOULDER	A SMITH	GSFC	J C BRANDT	NAG 5 1853	124
11	UNIV OF COLORADO - BOULDER	D BOGAN	GSFC	D R PRYOR	NAG 5 8096	130
11	UNIV OF COLORADO - BOULDER	D BOGAN	GSFC	L W ESPOSITO	NAG 5 8338	131
11	UNIV OF COLORADO - BOULDER	D BOGAN	GSFC	W PRYOR	NAG 5 8256	131
11	UNIV OF COLORADO - BOULDER	D EVANS	GSFC	D RUSCH	NAG 5 7725	130
11	UNIV OF COLORADO - BOULDER	D EVANS	GSFC	F BAGENAL	NAG 5 7088	129
11	UNIV OF COLORADO - BOULDER	D K WEST	GSFC	A J HAMILTON	NAG 5 7128	129
11	UNIV OF COLORADO - BOULDER	D K WEST	GSFC	J BALLY	NAG 5 8108	130
11	UNIV OF COLORADO - BOULDER	D K WEST	GSFC	J T STOCKE	NAG 5 6936	128
11	UNIV OF COLORADO - BOULDER	D K WEST	GSFC	M BEGELMAN	NAG 5 6337	127
11	UNIV OF COLORADO - BOULDER	D K WEST	GSFC	M C BEGELMAN	NAG 5 4061	125
11	UNIV OF COLORADO - BOULDER	D K WEST	GSFC	M C BEGELMAN	NAG 5 7723	130
11	UNIV OF COLORADO - BOULDER	D K WEST	GSFC	M J SHULL	NAG 5 4063	125
11	UNIV OF COLORADO - BOULDER	D K WEST	GSFC	P BENNETT	NAG 5 6901	128
11	UNIV OF COLORADO - BOULDER	D K WEST	GSFC	R A MCCRAY	NAG 5 8236	131
11	UNIV OF COLORADO - BOULDER	D SENSEKE	GSFC	R E GRIMM	NAG 5 10461	135
11	UNIV OF COLORADO - BOULDER	D WEST	GSFC	G HARPER	NAG 5 4804	126
11	UNIV OF COLORADO - BOULDER	D WEST	GSFC	G S STRINGFELLOW	NAG 5 3394	125

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11	UNIV OF COLORADO - BOULDER	D WEST	GSFC	S L SKINNER	NAG 5 3224	125
11	UNIV OF COLORADO - BOULDER	D WEST	GSFC	T A AYRES	NAG 5 3226	125
11	UNIV OF COLORADO - BOULDER	E T ENGMAN	GSFC	A FREI	NAG 5 7496	129
11	UNIV OF COLORADO - BOULDER	F HERRERO	GSFC	A L BETZ	NAG 5 8538	131
11	UNIV OF COLORADO - BOULDER	G SONNEBORN	GSFC	G HARPER	NAG 5 9010	132
11	UNIV OF COLORADO - BOULDER	G SONNEBORN	GSFC	G HARPER	NAG 5 10339	135
11	UNIV OF COLORADO - BOULDER	G SONNEBORN	GSFC	J A MORSE	NAG 5 10319	135
11	UNIV OF COLORADO - BOULDER	G SONNEBORN	GSFC	J SHULL	NAG 5 9018	132
11	UNIV OF COLORADO - BOULDER	G SONNEBORN	GSFC	J SHULL	NAG 5 10948	136
11	UNIV OF COLORADO - BOULDER	G SONNEBORN	GSFC	M GIROUX	NAG 5 10950	136
11	UNIV OF COLORADO - BOULDER	G SONNEBORN	GSFC	T R AYRES	NAG 5 10340	135
11	UNIV OF COLORADO - BOULDER	H HASAN	GSFC	D L BENDER	NAG 5 4095	126
11	UNIV OF COLORADO - BOULDER	H HASAN	GSFC	D T STEBBINS	NAG 5 7638	129
11	UNIV OF COLORADO - BOULDER	H HASAN	GSFC	D WILKINSON	NAG 5 7465	129
11	UNIV OF COLORADO - BOULDER	H HASAN	GSFC	D WILKINSON	NAG 5 7851	130
11	UNIV OF COLORADO - BOULDER	H HASAN	GSFC	P T STOCKE	NAG 5 3794	125
11	UNIV OF COLORADO - BOULDER	H HASAN	GSFC	T P SNOW	NAG 5 6758	128
11	UNIV OF COLORADO - BOULDER	H THRONSON	GSFC	D M SHULL	NAG 5 4312	126
11	UNIV OF COLORADO - BOULDER	J BOYCE	GSFC	G R STEWART	NAG 5 10508	135
11	UNIV OF COLORADO - BOULDER	J BOYCE	GSFC	G STEWART	NAG 5 10000	134
11	UNIV OF COLORADO - BOULDER	J BOYCE	GSFC	J M FORBES	NAG 5 8755	132
11	UNIV OF COLORADO - BOULDER	J BOYCE	GSFC	M MELON	NAG 5 10581	136
11	UNIV OF COLORADO - BOULDER	J BOYCE	GSFC	S W LEE	NAG 5 9631	134
11	UNIV OF COLORADO - BOULDER	J BOYCE	GSFC	T SNOW	NAG 5 10601	136
11	UNIV OF COLORADO - BOULDER	J BOYCE	HQ	A W NOLIN	NAG 5 8259	131
11	UNIV OF COLORADO - BOULDER	J BOYCE	HQ	D STEWART	NAG 5 6048	127
11	UNIV OF COLORADO - BOULDER	J BOYCE	HQ	J M FORBES	NAG 5 8266	131
11	UNIV OF COLORADO - BOULDER	J BOYCE	HQ	T P SNOW	NAG 5 7449	129
11	UNIV OF COLORADO - BOULDER	J M BOYCE	GSFC	B JAKOSKY	NAG 5 10616	136
11	UNIV OF COLORADO - BOULDER	J M BOYCE	GSFC	F BAGENAL	NAG 5 11177	137
11	UNIV OF COLORADO - BOULDER	J M GREBOWSKY	GSFC	J TOOMRE	NAG 5 8133	130
11	UNIV OF COLORADO - BOULDER	J R BYRD	GSFC	D M SCHNEIDER	NAG 5 10797	136
11	UNIV OF COLORADO - BOULDER	J SHARBER	HQ	D W RUSCH	NAG 5 7652	130
11	UNIV OF COLORADO - BOULDER	J SWANK	GSFC	A BROWN	NAG 5 7398	129
11	UNIV OF COLORADO - BOULDER	J SWANK	GSFC	C REYNOLDS	NAG 5 7329	129
11	UNIV OF COLORADO - BOULDER	L D DEMING	GSFC	L W ESPOSITO	NAG 5 9694	134
11	UNIV OF COLORADO - BOULDER	L FEINBERG	GSFC	J GREEN	NAS 5 98043	138
11	UNIV OF COLORADO - BOULDER	L LING	GSFC	D PRYOR	NAG 5 6474	127
11	UNIV OF COLORADO - BOULDER	M L KAISER	GSFC	R ERGUN	NAG 5 9114	132
11	UNIV OF COLORADO - BOULDER	M MELLOTT	GSFC	M CODRESCU	NAG 5 6984	128
11	UNIV OF COLORADO - BOULDER	M MELLOTT	GSFC	M V GOLDMAN	NAG 5 9026	132
11	UNIV OF COLORADO - BOULDER	M MELLOTT	GSFC	S PALO	NAG 5 6791	128
11	UNIV OF COLORADO - BOULDER	M S BURRELL	GSFC	D N BAKER	NGT 5 49	140
11	UNIV OF COLORADO - BOULDER	N R HALL	GRC	D R OHLSEN	NAG 3 1848	124
11	UNIV OF COLORADO - BOULDER	N WHITE	GSFC	A BROWN	NAG 5 4783	126
11	UNIV OF COLORADO - BOULDER	P CRANE	GSFC	J GREEN	NAG 5 9092	132
11	UNIV OF COLORADO - BOULDER	P CRANE	GSFC	R T STEBBINS	NAG 5 6880	128
11	UNIV OF COLORADO - BOULDER	P CRANE	GSFC	T AYRES	NAG 5 11241	138
11	UNIV OF COLORADO - BOULDER	R BEEBE	GSFC	A HENDRIX	NAG 5 8178	131
11	UNIV OF COLORADO - BOULDER	R BEEBE	GSFC	N M SCHNEIDER	NAG 5 8047	130
11	UNIV OF COLORADO - BOULDER	R BEEBE	GSFC	O TOON	NAG 5 6900	128
11	UNIV OF COLORADO - BOULDER	R J OLIVERSEN	GSFC	A J HAMILTON	NAG 5 10763	136
11	UNIV OF COLORADO - BOULDER	R J OLIVERSEN	GSFC	B WOOD	NAG 5 9041	132
11	UNIV OF COLORADO - BOULDER	R J OLIVERSEN	GSFC	G S STRINGFELLOW	NAG 5 7223	129
11	UNIV OF COLORADO - BOULDER	R J OLIVERSEN	GSFC	J SHULL	NAG 5 7262	129
11	UNIV OF COLORADO - BOULDER	R MUSHOTZKY	GSFC	C S REYNOLDS	NAG 5 10083	134
11	UNIV OF COLORADO - BOULDER	R MUSHOTZKY	GSFC	S L SKINNER	NAG 5 10325	135
11	UNIV OF COLORADO - BOULDER	R MUSHOTZKY	GSFC	S L SKINNER	NAG 5 10326	135
11	UNIV OF COLORADO - BOULDER	R MUSHOTZKY	GSFC	S L SKINNER	NAG 5 10362	135
11	UNIV OF COLORADO - BOULDER	R OLIVERSSEN	GSFC	A BROWN	NAG 5 2259	125
11	UNIV OF COLORADO - BOULDER	T H MORGAN	GSFC	N M SCHNEIDER	NAG 5 9007	132
11	UNIV OF CONNECTICUT	J I TROMBKA	GSFC	J S SCHWEITZER	NAG 5 8602	145
11	UNIV OF CONNECTICUT	M MEYER	GSFC	P J GOGARTEN	NAG 5 7915	145
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11	UNIV OF DAYTON	J BOYCE	GSFC	A PHELPS	NAG 5 9804	424

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11	UNIV OF DELAWARE - BARTOL RES. INST	D K WEST	GSFC	S P OWOCKI	NAG 5 3530	150
11	UNIV OF DELAWARE - BARTOL RES. INST	D WEST	HQ	D MULLAN	NAG 5 6905	151
11	UNIV OF DELAWARE - BARTOL RES. INST	J H BREDEKAMP	GSFC	R PYLE	NAG 5 8014	151
11	UNIV OF DELAWARE - BARTOL RES. INST	J LING	GSFC	G ZANK	NAG 5 6469	151
11	UNIV OF DELAWARE - BARTOL RES. INST	J LING	GSFC	J A LE ROUX	NAG 5 6969	151
11	UNIV OF DELAWARE - BARTOL RES. INST	J LING	HQ	C SMITH	NAG 5 6570	151
11	UNIV OF DELAWARE - BARTOL RES. INST	J LING	HQ	J BIEBER	NAG 5 7142	151
11	UNIV OF DELAWARE - BARTOL RES. INST	J LING	HQ	S OWOCKI	NAG 5 6470	151
11	UNIV OF DELAWARE - BARTOL RES. INST	R K OLIVERSEN	GSFC	K GAYLEY	NAG 5 4065	150
11	UNIV OF DELAWARE - BARTOL RES. INST	R SILVERBERG	GSFC	PICCIRILLO	NAG 5 6061	150
11	UNIV OF DELAWARE - BARTOL RES. INST	W WAGNER	GSFC	W H MATTHAEUS	NAG 5 7164	151
11	UNIV OF DELAWARE	D K WEST	GSFC	T STANOV	NAG 5 7009	149
11	UNIV OF DELAWARE	E T ENGMAN	GSFC	D R WEBSTER	NAG 5 8696	149
11	UNIV OF DELAWARE	G SONNEBORN	GSFC	S P OWOCKI	NAG 5 11095	150
11	UNIV OF DELAWARE	R J OLIVERSEN	GSFC	D MULLAN	NAG 5 11228	150
11	UNIV OF DELAWARE	R J OLIVERSEN	GSFC	T STANLEV	NAG 5 10919	150
11	UNIV OF DELAWARE	R MUSHOTZKY	GSFC	J McDONALD	NAG 5 10416	149
11	UNIV OF DELAWARE	W WAGNER	GSFC	W H MATTHAEUS	NAG 5 11006	150
11	UNIV OF DENVER	M SMITH	GSFC	T A STEPHEN	NAG 5 3386	143
11	UNIV OF DENVER	S NASH-STEVENSON	MSFC	R AMME	NGT 8 52894	144
11	UNIV OF DENVER	T MOORE	GSFC	T M STEPHEN	NCC 5 506	144
11	UNIV OF FLORIDA	D WEST	GSFC	E LADA	NAG 5 6751	173
11	UNIV OF FLORIDA	E F ERICKSON	ARC	C M TELESCO	NCC 2 5246	175
11	UNIV OF FLORIDA	E F ERICKSON	ARC	R K PINA	NCC 2 5424	175
11	UNIV OF FLORIDA	H THRONSON	GSFC	D T VALA	NAG 5 4287	172
11	UNIV OF FLORIDA	K BLANDING	HQ	C TELESCO	NGT 5 50177	175
11	UNIV OF FLORIDA	R J OLIVERSEN	GSFC	K GROGAN	NAG 5 9280	173
11	UNIV OF FLORIDA	R K OLIVERSEN	GSFC	F W HAMANN	NAG 5 8522	173
11	UNIV OF GEORGIA	D K WEST	GSFC	L MAGNANI	NAG 5 8376	190
11	UNIV OF GEORGIA	D K WEST	GSFC	P H HAUSCHILD	NAG 5 8425	190
11	UNIV OF GEORGIA	D WEST	GSFC	P HAUSCHILD	NAG 5 3619	190
11	UNIV OF GEORGIA	G SONNEBORN	GSFC	P H HAUSCHILD	NAG 5 9396	191
11	UNIV OF GEORGIA	J BOYCE	GSFC	P C STANCIL	NAG 5 10551	191
11	UNIV OF GEORGIA	P CRANE	GSFC	P C STANCIL	NAG 5 9088	190
11	UNIV OF GEORGIA	R J OLIVERSEN	GSFC	P H HAUSCHILD	NAG 5 9222	191
11	UNIV OF HAWAII AT MANOA - HONOLULU	A NURRIDIN	HQ	J HENRY	NGT 5 50175	199
11	UNIV OF HAWAII AT MANOA - HONOLULU	B BETTS	GSFC	P LUCEY	NAG 5 10704	197
11	UNIV OF HAWAII AT MANOA - HONOLULU	B BETTS	GSFC	P LUCEY	NAG 5 20704	198
11	UNIV OF HAWAII AT MANOA - HONOLULU	B CAMPBELL	GSFC	S K SHARMA	NAG 5 7139	193
11	UNIV OF HAWAII AT MANOA - HONOLULU	D K WEST	GSFC	T SIMON	NAG 5 8216	194
11	UNIV OF HAWAII AT MANOA - HONOLULU	D NAVA	GSFC	D C JEWITT	NAG 5 4669	192
11	UNIV OF HAWAII AT MANOA - HONOLULU	D SENSKE	GSFC	B R HAWKE	NAG 5 10237	197
11	UNIV OF HAWAII AT MANOA - HONOLULU	D SENSKE	GSFC	S K ROWLAND	NAG 5 10228	197
11	UNIV OF HAWAII AT MANOA - HONOLULU	D WEST	GSFC	T SIMON	NAG 5 6753	193
11	UNIV OF HAWAII AT MANOA - HONOLULU	E BARKER	HQ	D N HALL	NASW 5062	198
11	UNIV OF HAWAII AT MANOA - HONOLULU	E SMITH	GSFC	D N HALL	NAG 5 8421	194
11	UNIV OF HAWAII AT MANOA - HONOLULU	G L BJORAKER	GSFC	T C OWEN	NCC 5 373	198
11	UNIV OF HAWAII AT MANOA - HONOLULU	G SONNEBORN	GSFC	T SIMON	NAG 5 8979	195
11	UNIV OF HAWAII AT MANOA - HONOLULU	G SONNEBORN	GSFC	T SIMON	NAG 5 10646	197
11	UNIV OF HAWAII AT MANOA - HONOLULU	J BERGSTRALH	GSFC	D J MEECH	NAG 5 4495	192
11	UNIV OF HAWAII AT MANOA - HONOLULU	J BERGSTRALH	GSFC	D J RODDIER	NAG 5 3731	192
11	UNIV OF HAWAII AT MANOA - HONOLULU	J BERGSTRALH	GSFC	D OWEN	NAG 5 6561	193
11	UNIV OF HAWAII AT MANOA - HONOLULU	J BOYCE	GSFC	B HAWKE	NAG 5 9765	196
11	UNIV OF HAWAII AT MANOA - HONOLULU	J BOYCE	GSFC	D JEWITT	NAG 5 10427	197
11	UNIV OF HAWAII AT MANOA - HONOLULU	J BOYCE	GSFC	G TAYLOR	NAG 5 9190	195
11	UNIV OF HAWAII AT MANOA - HONOLULU	J BOYCE	GSFC	K KEIL	NAG 5 8713	194
11	UNIV OF HAWAII AT MANOA - HONOLULU	J BOYCE	GSFC	K KEIL	NAG 5 9354	195
11	UNIV OF HAWAII AT MANOA - HONOLULU	J BOYCE	GSFC	P MOUGINIS-MARK	NAG 5 9576	196
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11	UNIV OF HAWAII AT MANOA - HONOLULU	J GRANT	GSFC	S K ROWLAND	NAG 5 8921	195
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11	UNIV OF HAWAII AT MANOA - HONOLULU	J M BOYCE	GSFC	A KROT	NAG 5 10610	197
11	UNIV OF HAWAII AT MANOA - HONOLULU	J SWANK	GSFC	H EBELING	NAG 5 6336	192

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11	UNIV OF HAWAII AT MANOA - HONOLULU	M MEYER	GSFC	T C OWEN	NAG 5 8863	195
11	UNIV OF HAWAII AT MANOA - HONOLULU	P SAKIMOTO	HQ	R A CROWE	NAG 5 10141	197
11	UNIV OF HAWAII AT MANOA - HONOLULU	R BEEBE	GSFC	D P FANALE	NAG 5 7868	193
11	UNIV OF HAWAII AT MANOA - HONOLULU	R BEEBE	GSFC	T B MCCORD	NAG 5 8275	194
11	UNIV OF HAWAII AT MANOA - HONOLULU	R F MUSHOTZKY	GSFC	T SIMON	NAG 5 9896	196
11	UNIV OF HAWAII AT MANOA - HONOLULU	R F MUSHOTZKY	GSFC	W BRANDNER	NAG 5 9921	196
11	UNIV OF HAWAII AT MANOA - HONOLULU	R J OLIVERSEN	GSFC	H EBELING	NAG 5 8253	194
11	UNIV OF HAWAII AT MANOA - HONOLULU	R J OLIVERSEN	GSFC	H EBELING	NAG 5 10773	197
11	UNIV OF HAWAII AT MANOA - HONOLULU	R J OLIVERSEN	GSFC	N KAISER	NAG 5 7038	193
11	UNIV OF HAWAII AT MANOA - HONOLULU	R J OLIVERSEN	GSFC	W D HEACOX	NAG 5 9042	195
11	UNIV OF HAWAII AT MANOA - HONOLULU	R MUSHOTZKY	GSFC	D B SANDERS	NAG 5 10025	196
11	UNIV OF HAWAII AT MANOA - HONOLULU	R MUSHOTZKY	GSFC	E MARTIN	NAG 5 9992	196
11	UNIV OF HAWAII AT MANOA - HONOLULU	R MUSHOTZKY	GSFC	H EBELING	NAG 5 10041	196
11	UNIV OF HAWAII AT MANOA - HONOLULU	R MUSHOTZKY	GSFC	H EBELING	NAG 5 10085	196
11	UNIV OF HAWAII AT MANOA - HONOLULU	R MUSHOTZKY	GSFC	I M GIOIA	NAG 5 9994	196
11	UNIV OF HAWAII AT MANOA - HONOLULU	R MUSHOTZKY	GSFC	T SIMON	NAG 5 10128	196
11	UNIV OF HAWAII AT MANOA - HONOLULU	R MUSHOTZKY	GSFC	T SIMON	NAG 5 10564	197
11	UNIV OF HAWAII AT MANOA - HONOLULU	R OLIVERSEN	GSFC	J HENRY	NAG 5 9166	195
11	UNIV OF HAWAII AT MANOA - HONOLULU	R OLIVERSON	GSFC	H EBELING	NAG 5 9238	195
11	UNIV OF HAWAII AT MANOA - HONOLULU	T H MORGAN	GSFC	D J THOLEN	NAG 5 8989	195
11	UNIV OF HAWAII AT MANOA - HONOLULU	T MORGAN	GSFC	D G LUCEY	NAG 5 7855	193
11	UNIV OF HAWAII AT MANOA - HONOLULU	T MORGAN	GSFC	D J THOLEN	NAG 5 4524	192
11	UNIV OF HAWAII AT MANOA - HONOLULU	T MORGAN	GSFC	D JEWITT	NAG 5 7056	193
11	UNIV OF HAWAII AT MANOA - HONOLULU	T MORGAN	GSFC	D JEWITT	NAG 5 10437	197
11	UNIV OF HAWAII AT MANOA - HONOLULU	T MORGAN	GSFC	P G LUCEY	NAG 5 8991	195
11	UNIV OF HAWAII AT MANOA - HONOLULU	V KUNDE	GSFC	T OWEN	NAG 5 2663	191
11	UNIV OF HAWAII AT MANOA - HONOLULU	W HUEBNER	GSFC	D J THOLEN	NAG 5 4223	192
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11	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	D K WEST	GSFC	Y CHU	NAG 5 8103	211
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11	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	G SONNEBORN	GSFC	Y CHU	NAG 5 9020	211
11	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	G SONNEBORN	GSFC	Y CHU	NAG 5 10303	212
11	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	J BOYCE	GSFC	F LAMB	NAG 5 8740	211
11	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	J BREDEKAMP	GSFC	R PLANTE	NAG 5 8514	211
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12	CARNEGIE - MELLON UNIV	B GUYNES	MSFC	R D TILTON	NAG 8 1842	438
12	CARNEGIE - MELLON UNIV	P DOTY	MSFC	G S ROHRER	NAG 8 1674	437
12	CASE WESTERN RESERVE UNIV	D L BRITTON	GRC	D A SCHERSON	NAG 3 2644	407
12	CHARLES COUNTY COMM COLLEGE	J A NUTH	GSFC	G KRAUSE	NCC 5 400	240
12	CLARK ATLANTA UNIV	M A MEADOR	GRC	D PANG	NCC 3 911	181
12	CLARK ATLANTA UNIV	M A MEADOR	GRC	D R BU	NCC 3 910	181
12	CLARK ATLANTA UNIV	M A MEADOR	GRC	E A MINTZ	NAS 3 01201	181
12	CLARKSON UNIV	P DOTY	MSFC	W R WILCOX	NAG 8 1703	369
12	CLEMSON UNIV - CLEMSON	J BOYCE	GSFC	B MEYER	NAG 5 10454	463
12	CLEMSON UNIV - CLEMSON	J W CONNELL	LARC	Y P SUN	NGT 1 01036	463
12	CLEMSON UNIV - CLEMSON	J W CONNELL	LARC	Y P SUN	NGT 1 52238	464
12	CLEMSON UNIV - CLEMSON	J W CONWELL	LARC	Y SUN	NCC 1 01036	463
12	CLEVELAND STATE UNIV	A E HEPP	GRC	D G HEHEMANN	NCC 3 817	411
12	CLEVELAND STATE UNIV	K KUNDU	GRC	D G NEHEMANN	NAG 3 2631	410
12	CLEVELAND STATE UNIV	M J ZEHE	GRC	D W BALL	NAG 3 2607	410
12	CLEVELAND STATE UNIV	S G BAILEY	GRC	J D HARRIS	NCC 3 869	411
12	COLLEGE OF WILLIAM AND MARY	J W CONNELL	LARC	R A ORWOLL	NAG 1 2314	507
12	COLLEGE OF WILLIAM AND MARY	J W CONNELL	LARC	R A ORWOLL	NAG 1 01107	508
12	COLLEGE OF WILLIAM AND MARY	S A THIBEAULT	LARC	R L KIEFER	NCC 1 239	508
12	COLUMBIA UNIV	D J BOGAN	GSFC	R BERSOHN	NAG 5 11049	373
12	ECKERD COLLEGE	M H MOORE	GSFC	R L HUDSON	NAG 5 11097	162
12	GEORGIA SOUTHERN UNIV	J ALLEN	GSFC	R NELSON	NCC 5 254	188
12	HAMPTON UNIV	F SCHMIDLIN	GSFC	D P MCCORMICK	NAG 5 5299	512
12	HAMPTON UNIV	T L ST. CLAIR	LARC	J C WILLIAMS	NAG 1 1941	510
12	HARVARD UNIV	J BOYCE	GSFC	S JACOBSEN	NAG 5 10484	285
12	INDIANA STATE UNIV	D BRITTON	GRC	D W ZWANZIGER	NAG 3 2588	214
12	INDIANA UNIV - BLOOMINGTON	J BOYCE	GSFC	A BASU	NAG 5 10459	215
12	IOWA STATE UNIV	N H HAGEDORN	GRC	S W MARTIN	NAG 3 2540	222
12	IOWA STATE UNIV	P J HALEY	LARC	M S GORDON	NCC 2 5349	224
12	JACKSON STATE UNIV	A POHORILLE	ARC	J LESZCZYNSKI	NCC 2 5398	327
12	KENT STATE UNIV	A F HEPP	GRC	C VARCAS ABURTO	NCC 3 563	413
12	KNOX COLLEGE	J FISHMAN	LARC	L C BUSH	NAG 1 2269	201
12	MICHIGAN STATE UNIV	S G CAMPBELL	GRC	T J PINNAVIAIA	NAG 3 2472	307
12	MICHIGAN TECHNOLOGICAL UNIV	J HINKLEY	LARC	L DRZAL	NAG 1 01004	308
12	MONTANA STATE UNIV	M MEYER	GSFC	M G WARD	NAG 5 3652	337
12	MT HOLYOKE COLLEGE	J BOYCE	GSFC	D DYAR	NAG 5 10424	300
12	NY UNIV	S NASH-STEVEN	MSFC	S WILSON	NGT 8 52893	383
12	NORFOLK STATE UNIV	A F HEPP	GRC	S SUN	NAG 3 2289	514
12	NORTHWESTERN UNIV	R S BALDWIN	GRC	D F SHRIVER	NAG 3 2628	202
12	OAKWOOD COLLEGE	W BRANTLEY	MSFC	A VOLKOV	NAG 8 1734	4
12	OLD DOMINION UNIV	B J JENSEN	LARC	K L WISE	NGT 1 52124	520
12	OLD DOMINION UNIV	H NEEDLEMAN	GSFC	A PIERCE	NAG 5 5131	518
12	PRairie View A&M UNIV	M A MEADOR	GRC	L E CARSON-ISABELLE	NCC 3 577	476

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12	PRINCETON UNIV	E J SIOCHI	LARC	I A AKSAY	NCC 1 01010	355
12	PRINCETON UNIV	T L STCLAIR	WFF	A AKSAY	NAG 1 01010	352
12	RENSSELAER POLYTECH INST	D LARKIN	GRC	D INTERRANTE	NAG 3 2525	384
12	RENSSELAER POLYTECH INST	D LARKIN	GRC	L V INTERRANTE	NAG 3 2304	384
12	RICE UNIV	G K HORIUCHI	JSC	R C SMALLEY	NCC 9 77	479
12	RICE UNIV	K C CHUANG	GRC	A BARRON	NAG 3 2365	477
12	ROCHESTER INST OF TECH	N HAGEDORN	GRC	D P RAFFAELLE	NAG 3 2484	385
12	RUTGERS ST UNIV N	J BOYCE	GSFC	R HEWINS	NAG 5 10494	358
12	RUTGERS ST UNIV N	N J JOHNSON	LARC	M JAFFE	NAG 1 2182	356
12	SAN FRANCISCO STATE UNIV	T L ROUSH	ARC	J B ORENBERG	NCC 2 5324	55
12	SAN JOSE STATE UNIV	L T IRACI	ARC	P J HAMILL	NCC 2 5452	58
12	SOUTHWEST TEXAS STATE UNIV	A K ST. CLAIR	LARC	P E CASSIDY	NCC 1 324	480
12	SOUTHWEST TEXAS STATE UNIV	D M STOAKLEY	LARC	P E CASSIDY	NCC 1 376	480
12	SOUTHWEST TEXAS STATE UNIV	D M STOAKLEY	LARC	P E CASSIDY	NCC 1 01033	480
12	STANFORD UNIV	H PARTIDGE	ARC	K J CHO	NCC 2 5400	65
12	STANFORD UNIV	H PARTRIDGE	ARC	Z X SHEN	NCC 2 5446	66
12	STANFORD UNIV	J M BOYCE	GSFC	R ZARE	NAG 5 10544	63
12	STANFORD UNIV	P DOTY	MSFC	G M HOMSY	NAG 8 1692	63
12	STANFORD UNIV	T R GOVINDAN	ARC	H DAI	NCC 2 5270	65
12	STATE UNIV OF NY - STONY BROOK	J BOYCE	GSFC	S MCLENNAN	NAG 5 10506	390
12	STATE UNIV OF NY - STONY BROOK	P DOTY	MSFC	M RAFAILOVICH	NAG 8 1698	391
12	TEXAS A&M UNIV	R BALDWIN	GRC	D APPLEBY	NAG 3 2617	480
12	TEXAS SOUTHERN UNIV	C B AGEE	JSC	B L WILSON	NCC 9 80	485
12	THE CATHOLIC UNIV OF AMERICA	J E ALLEN	GSFC	T THORN	NCC 5 452	161
12	THE CATHOLIC UNIV OF AMERICA	L J STIEF	GSFC	F L NESBITT	NCC 5 68	160
12	TUFTS UNIV	N HAGEDORN	GRC	D B GOLDNER	NAG 3 2563	300
12	UNIV HOUSTON-HOUSTON	A NURRIDIN	HQ	G E FOX	NGT 5 50182	488
12	UNIV HOUSTON-HOUSTON	D F BLAKE	ARC	A D HAYMET	NCC 2 5396	487
12	UNIV OF MINN	H C NEDDLEMAN	GSFC	C J WADDINGTON	NAG 5 5113	321
12	UNIV OF MINN	NH HAGEDORN	GRC	W H SMYRL	NAG 3 2600	321
12	UNIV OF AKRON	F J MONTEGANI	GRC	D PERRY	NGT 3 52364	422
12	UNIV OF AKRON	M A MEADOR	GRC	F W HARRIS	NAG 3 2572	421
12	UNIV OF AKRON	M MEADOR	GRC	C PUGH	NCC 3 794	422
12	UNIV OF AKRON	M MEADOR	GRC	F W HARRIS	NCC 3 802	422
12	UNIV OF ALABAMA - HUNTSVILLE	J CAMPBELL	MSFC	L SMALLEY	NAG 8 1403	11
12	UNIV OF ALABAMA - UNIV	D E LUECK	KSC	R D ROGERS	NAG10 305	16
12	UNIV OF ARIZONA	J BOYCE	GSFC	D LAURETTA	NAG 5 11355	36
12	UNIV OF ARIZONA	J BOYCE	GSFC	J GANGULY	NAG 5 10486	34
12	UNIV OF ARIZONA	J BOYCE	HQ	D J DRAKE	NAG 5 4084	26
12	UNIV OF ARK MAIN CAMP - FAYETTEVILLE	J BOYCE	GSFC	P BENOIT	NAG 5 10736	41
12	UNIV OF CALIFORNIA - BERKELEY	J F BOYCE	GSFC	D NISHIZUMI	NAG 5 4992	69
12	UNIV OF CALIFORNIA - BERKELEY	M MEYER	GSFC	J BLANK	NAG 5 9260	73
12	UNIV OF CALIFORNIA - BERKELEY	R F PFAFF, JR.	GSFC	C W CARLSON	NAG 5 3596	69
12	UNIV OF CALIFORNIA - IRVINE	D HUBBARD	MSFC	P TABOREK	NAG 8 1437	85
12	UNIV OF CALIFORNIA - LOS ANGELES	D F NAVA	GSFC	D T WASSON	NAG 5 4331	89
12	UNIV OF CALIFORNIA - LOS ANGELES	D NAVA	GSFC	J WASSON	NAG 5 10421	93
12	UNIV OF CALIFORNIA - LOS ANGELES	J BOYCE	GSFC	D H WARREN	NAG 5 4215	89
12	UNIV OF CALIFORNIA - LOS ANGELES	J BOYCE	GSFC	P WARREN	NAG 5 10490	93
12	UNIV OF CALIFORNIA - SAN FRANCISCO	M H NEW	ARC	M A WILSON	NCC 2 1126	105
12	UNIV OF CALIFORNIA - SAN FRANCISCO	R L JAFFE	ARC	M A WILSON	NCC 2 5294	105
12	UNIV OF CALIFORNIA - SANTA BARBARA	E J SIOCHI	LARC	D E MORSE	NAG 1 01003	105
12	UNIV OF CALIFORNIA - SANTA CRUZ	A POHORILLE	ARC	A KANAVARIOTI	NCC 2 5309	113
12	UNIV OF CHICAGO	J BOYCE	GSFC	D N CLAYTON	NAG 5 3986	204
12	UNIV OF CHICAGO	J BOYCE	GSFC	R CLAYTON	NAG 5 10634	206
12	UNIV OF COLORADO - BOULDER	P L LOYSALLE	GRC	J MICHL	NAG 3 2651	124
12	UNIV OF DELAWARE	M A MEADOR	GRC	G R PALMESE	NCC 3 784	150
12	UNIV OF FLORIDA	B T UPCHURCH	LARC	K S SCHANZE	NAG 1 1809	171
12	UNIV OF FLORIDA	F ADAMS	KSC	R A YOST	NGT10 52626	176
12	UNIV OF FLORIDA	R R ANTELIFF	LARC	K S SCHANZE	NAG 1 2161	171
12	UNIV OF HAWAII AT MANOA - HONOLULU	D NAVA	GSFC	D KEIL	NAG 5 4212	192
12	UNIV OF HAWAII AT MANOA - HONOLULU	J BOYCE	GSFC	T MCCORD	NAG 5 10514	197
12	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	R S OKOJIE	GRC	I ADESIDA	NAG 3 2599	210
12	UNIV OF IOWA	B GUYNES	MSFC	J M WIENCEK	NAG 8 1386	227
12	UNIV OF MASSACHUSETTS - AMHERST	J BOYCE	GSFC	J GOLDSTEIN	NAG 5 10515	303
12	UNIV OF MICHIGAN - ANN ARBOR	J BOYCE	GSFC	J BLUM	NAG 5 10552	315

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12	UNIV OF NEW ORLEANS	W B ALSTON	GRC	J P DROSKE	NAG 3 1906	237
12	UNIV OF NORTH CAROLINA - CHAPEL HILL	E J SIOCHI	LARC	E T SAMULSKI	NAG 1 2301	402
12	UNIV OF NOTRE DAME	J BOYCE	GSFC	C NEAL	NAG 5 10638	221
12	UNIV OF PUERTO RICO-RIO PIEDRAS	F J MONTEGANI	GRC	C R CABRERA	NGT 3 52376	558
12	UNIV OF TOLEDO	K P KUNDU	GRC	K J DEWITT	NCC 3 513	427
12	UNIV OF UTAH	J A HINKLEY	LARC	G D SMITH	NAG 1 2319	502
12	UNIV OF VERMONT	J BOYCE	GSFC	T RUCHMER	NAG 5 10463	506
12	UNIV OF VIRGINIA	H PARTRIDGE	ARC	L S ANDREWS	NCC 2 5415	527
12	UNIV OF WASHINGTON	J H BELL	ARC	M P GOUTERMAN	NAG 2 1157	534
12	UNIV OF WASHINGTON	J M BOYCE	GSFC	D E BROWNLEE	NAG 5 10499	539
12	UNIV OF WASHINGTON	T BENCLIC	GRC	D GOUTERMAN	NAG 3 2455	534
12	VA POLYTECH INST & ST UNIV	E J SIOCHI	LARC	T C WARD	NAG 1 2310	529
12	VA POLYTECH INST & ST UNIV	E J SIOCHI	LARC	T C WARD	NGT 1 01003	532
12	VA POLYTECH INST & ST UNIV	M B MEADOR	GRC	J E MCGRATH	NCC 3 866	531
12	VA POLYTECH INST & ST UNIV	S H CHOI	LARC	H C DORN	NCC 1 01044	531
12	VA POLYTECH INST & ST UNIV	T L ST.CLAIR	LARC	L T TAYLOR	NAG 1 2324	529
12	VIRGINIA COMMONWEALTH UNIV	P M DOTY	MSFC	M S EL-SHALL	NAG 8 1484	533
12	WASHINGTON UNIV - ST	G MUCKLOW	GSFC	D LEOPOLD	NAG 5 8536	334
12	WASHINGTON UNIV - ST	J BOYCE	GSFC	D A HASKIN	NAG 5 4172	332
12	WASHINGTON UNIV - ST	J BOYCE	GSFC	D HOHENBERG	NAG 5 4173	332
12	WASHINGTON UNIV - ST	J BOYCE	GSFC	F PODOSEK	NAG 5 10513	335
12	WASHINGTON UNIV - ST	J BOYCE	GSFC	L HASKIN	NAG 5 10485	335
12	WASHINGTON UNIV - ST	J BOYCE	GSFC	L HASKIN	NAG 5 10533	335
12	WASHINGTON UNIV - ST	J BOYCE	GSFC	T BERNATOWICZ	NAG 5 10426	335
12	WESTERN KENTUCKY UNIV	F J MONTEGANI	GRC	W PAN	NGT 3 52353	233
12	WHEELING JESUIT UNIV	A F HEPP	GRC	N N DUFFY	NCC 3 858	546
13	ALABAMA A&M UNIV	A CHOW	MSFC	K HE	NAG 8 1335	1
13	ALABAMA A&M UNIV	B G PENN	MSFC	N KUKHATAREV	NAG 8 1620	1
13	ALABAMA A&M UNIV	B PENN	MSFC	S SARKISOV	NAG 8 1498	1
13	ALABAMA A&M UNIV	D FRAZIER	MSFC	M D AGGARWAL	NAG 8 1390	1
13	ALABAMA A&M UNIV	D PIERSON	JSC	M TADROS	NAG 9 1095	2
13	ALABAMA A&M UNIV	G ADAMOVSKY	GRC	D CURLEY	NCC 3 736	2
13	ALABAMA A&M UNIV	G ADAVOVSKY	GRC	P VENKATESWARLY	NAG 3 1956	1
13	ALABAMA A&M UNIV	S NASH-STEVENSON	MSFC	J C WANG	NGT 8 52902	2
13	ARIZONA STATE UNIV	I KRAINSKY	GRC	N NEWMAN	NAG 3 2591	20
13	ARIZONA STATE UNIV	M MEYYAPPAN	ARC	Y H ZHANG	NCC 2 5331	23
13	ARIZONA STATE UNIV	M MEYYAPPAN	ARC	Y ZHANG	NCC 2 5362	23
13	AUBURN UNIV	G E SCHWARZE	GRC	J R WILLIAMS	NAG 3 2639	3
13	AUBURN UNIV	R REED	GSFC	J D CRESSLER	NAG 5 11121	3
13	BETHUNE - COOKMAN COLLEGE	S E HETHERINGTON	GSFC	E F EKPO	NCC 5 426	162
13	BIRMINGHAM SOUTHERN COLLEGE	J F DOWDY	MSFC	K B BACHMANN	NAG 8 1280	4
13	BOSTON COLLEGE	N P BARNES	LARC	B DIBARTOIO	NAG 1 2057	276
13	BOSTON COLLEGE	N P BARNES	LARC	B DIBARTOLO	NAG 1 01019	276
13	BOSTON UNIV	J C BARNES	LARC	K P HARLING	NGT 1 52199	280
13	BOSTON UNIV	J GREBOWSKY	GSFC	D MENDILLO	NAG 5 4246	277
13	BOSTON UNIV	J GREBOWSKY	GSFC	G L SISCOE	NAG 5 8135	278
13	BOSTON UNIV	M GOLDSTEIN	GSFC	T FRITZ	NAG 5 10108	279
13	BOSTON UNIV	M H ACUNA	GSFC	H E SPENCE	NAG 5 8039	278
13	BOSTON UNIV	M M MELLOTT	GSFC	D E SPENCE	NAG 5 4273	277
13	BOSTON UNIV	M M MELLOTT	GSFC	D MENDILLO	NAG 5 4707	277
13	BOSTON UNIV	M MELLOTT	GSFC	M OPPENHEIM	NAG 5 7452	278
13	BOSTON UNIV	N R HALL	GRC	R G HOLT	NAG 3 2143	276
13	BOSTON UNIV	P CRANE	GSFC	S CHAKRABARTI	NAG 5 9582	279
13	BOSTON UNIV	R B ROGERS	GRC	R G HOLT	NAG 3 2121	276
13	BOSTON UNIV	R H PLESS	GSFC	S CHAKRABARTI	NAG 5 690	276
13	BOSTON UNIV	R HOWARD	GSFC	D E SPENCE	NAG 5 3748	276
13	BOSTON UNIV	W B JOHNSON	WFF	S CHAKRABARTI	NAG 5 5251	277
13	BOSTON UNIV	W J WAGNER	GSFC	N U CROOKER	NAG 5 10856	279
13	BOSTON UNIV	W JOHNSON	GSFC	S CHAKRABARTI	NAG 5 5137	277
13	BROWN UNIV	B FLOWERS	GSFC	G SEIDEL	NAG 5 5133	457
13	BROWN UNIV	B S SINGH	GRC	D ELBAUM	NAG 3 1929	457
13	BROWN UNIV	B S SINGH	GRC	G M SEIDEL	NAG 3 1927	457
13	BROWN UNIV	D HUBBARD	MSFC	H J MARIS	NAG 8 1774	459
13	CALIFORNIA INST OF TECH	B A MERRITT	GSFC	E C STONE	NAG 5 5216	43
13	CALIFORNIA INST OF TECH	B A MERRITT	GSFC	E C STONE	NAG 5 5227	43

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13	CALIFORNIA INST OF TECH	B A MERRITT	GSFC	R A MEWALDT	NAG 5 5166	43
13	CALIFORNIA INST OF TECH	B A MERRITT	WFF	F HARRISON	NAG 5 5322	44
13	CALIFORNIA INST OF TECH	C D ARMSTRONG	LARC	H A ATWATER	NAG 1 01038	41
13	CALIFORNIA INST OF TECH	C STAHL	GSFC	J ZMUZINAS	NAG 5 10358	47
13	CALIFORNIA INST OF TECH	G MUCKLOW	GSFC	F A HARRISON	NAG 5 8535	45
13	CALIFORNIA INST OF TECH	J C BRINTON	WFF	C MARTIN	NAG 5 5303	43
13	CALIFORNIA STATE UNIV - LONG BEACH	K HSIEH	GRC	J LIU	NAG 3 1830	51
13	CARNEGIE - MELLON UNIV	B S SINGH	GRC	S GAROFF	NAG 3 2449	436
13	CARNEGIE - MELLON UNIV	R B ROGERS	GRC	P J SIDES	NAG 3 2159	436
13	CASE WESTERN RESERVE UNIV	A CHIT	GRC	P L TAYLOR	NCC 3 587	407
13	CASE WESTERN RESERVE UNIV	C R TALLEY	MSFC	C ROSENBLATT	NAG 8 1270	407
13	CASE WESTERN RESERVE UNIV	J BRUNSON	MSFC	D H MATTHIESEN	NCC 8 152	409
13	CASE WESTERN RESERVE UNIV	R OKOJIE	GRC	P PIROUZ	NCC 3 895	408
13	CHRISTOPHER NEWPORT UNIV	R C SINGLETERRY, JR.	LARC	C K CHANG	NCC 1 277	507
13	CITY UNIV OF NY CITY COLLEGE	B S SINGH	GRC	C MALDARELLI	NAG 3 2167	367
13	CITY UNIV OF NY CITY COLLEGE	B SINGH	GRC	J KOPLIK	NAG 3 1836	367
13	CITY UNIV OF NY CITY COLLEGE	N P BARNES	LARC	R A ALFANO	NAG 1 2259	367
13	CLARK ATLANTA UNIV	A TEMKIN	GSFC	A MSEZANE	NAG 5 8792	181
13	CLEMSON UNIV - CLEMSON	B A MERRITT	WFF	D H HARTMANN	NAG 5 5325	462
13	CLEMSON UNIV - CLEMSON	H SHAW	GSFC	D L CARROLL	NAG 5 11293	463
13	CLEMSON UNIV - CLEMSON	J BRINTON	GSFC	M LARSON	NAG 5 5320	462
13	CLEMSON UNIV - CLEMSON	J C BRINTON	GSFC	M F LARSEN	NAG 5 5317	462
13	CLEMSON UNIV - CLEMSON	M MELLOTT	GSFC	M P HICKEY	NAG 5 7592	462
13	CLEMSON UNIV - CLEMSON	M MEYYAPPAN	ARC	A M RAO	NCC 2 5421	463
13	CLEMSON UNIV - CLEMSON	W B JOHNSON	GSFC	M F LARSEN	NAG 5 5186	462
13	CLEMSON UNIV - CLEMSON	W B JOHNSON	GSFC	M F LARSEN	NAG 5 5242	462
13	CLEMSON UNIV - CLEMSON	W B JOHNSON	GSFC	M F LARSEN	NAG 5 5259	462
13	CLEVELAND STATE UNIV	A CHAIT	GRC	J A LOCK	NCC 3 521	410
13	CLEVELAND STATE UNIV	C R MERCER	GRC	J LOCK	NAG 3 2232	409
13	CLEVELAND STATE UNIV	G ADAMOVSKY	GRC	J A LOCK	NCC 3 909	412
13	CLEVELAND STATE UNIV	S K RUTLEDGE	GRC	P HAMBOURGER	NCC 3 740	411
13	COLLEGE OF WILLIAM AND MARY	M H SMITH	LARC	D C BENNER	NCC 1 390	508
13	COLLEGE OF WILLIAM AND MARY	P H JOHNSTON	LARC	J S BOGHOSIAN	NGT 1 52180	508
13	COLLEGE OF WOOSTER	J W POE	MSFC	D T JACOBS	NAG 8 1433	412
13	COLORADO STATE UNIV	V K RAWLIN	GRC	P J WILBUR	NAG 3 1801	120
13	COLORADO STATE UNIV	V K RAWLIN	GRC	P J WILBUR	NAG 8 1801	122
13	COLUMBIA UNIV	F BLIVEN	GSFC	P SCHOSSER	NAG 5 5247	370
13	COLUMBIA UNIV	H C NEEDLEMAN	GSFC	E APRILE	NAG 5 5108	370
13	COLUMBIA UNIV	L J EARLY	GSFC	R NOVICK	NAG 5 618	369
13	COLUMBIA UNIV	W B JOHNSON	GSFC	D L WINDT	NAG 5 5254	370
13	COLUMBIA UNIV	W B JOHNSON	GSFC	D W SAVIN	NAG 5 5261	370
13	COLUMBIA UNIV	W B JOHNSON	GSFC	S M KAHN	NAG 5 5123	370
13	COLUMBIA UNIV	W J WAGNER	GSFC	D W SAVIN	NAG 5 9581	372
13	COLUMBIA UNIV	W J WAGNER	GSFC	D WINDT	NAG 5 9615	372
13	CORNELL UNIV	J W POE	MSFC	D M LEE	NAG 8 1445	380
13	CORNELL UNIV	S K KAHNG	LARC	P L MCEUEN	NAG 1 01034	375
13	CORNELL UNIV	W B JOHNSON	GSFC	M C KELLEY	NAG 5 5244	377
13	CORNELL UNIV	W B JOHNSON	MSFC	P M KINTNER	NAG 5 5233	376
13	CORNELL UNIV	W JOHNSON	GSFC	P KINTNER	NAG 5 5134	376
13	CORNELL UNIV	W M SATTMAN	JSC	W M SALTZMAN	NAG 8 1372	380
13	DARTMOUTH COLLEGE	J BOHLIN	GSFC	D O SONNERUP	NAG 5 6268	344
13	DARTMOUTH COLLEGE	J C BRINTON	GSFC	J W LABELLE	NAG 5 5318	343
13	DARTMOUTH COLLEGE	J M GREBOWSKY	GSFC	W LOTKO	NAG 5 8441	344
13	DARTMOUTH COLLEGE	M H ACUNA	GSFC	W LOTKO	NAG 5 7803	344
13	DARTMOUTH COLLEGE	M M MELLOTT	GSFC	D LOTKO	NAG 5 4529	343
13	DARTMOUTH COLLEGE	W B JOHNSON	GSFC	J W LABELLE	NAG 5 5238	343
13	DARTMOUTH COLLEGE	W B JOHNSON	GSFC	J W LABELLE	NAG 5 5239	343
13	DELAWARE STATE UNIV	W C EDWARDS	LARC	N MELIKECHI	NAG 1 2030	149
13	DUKE UNIV	B S SINGH	GRC	H MEYER	NAG 3 1838	394
13	EMBRY-RIDDLE AERONAUTICAL UNIV	W B JOHNSON	GSFC	P J ESPY	NAG 5 5199	162
13	EMBRY-RIDDLE AERONAUTICAL UNIV	W B JOHNSON	GSFC	P W ERDMAN	NAG 5 5265	162
13	FISK UNIV	D O FRAZIER	MSFC	E SILHERMAN	NCC 8 133	467
13	FISK UNIV	E CLARK	GRC	D O HENDERSON	NAG 3 2308	467
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13	GEORGE WASHINGTON UNIV	B A MERRITT	WFF	F BAGINSKI	NAG 5 5292	152
13	GEORGIA INST OF TECH	S NASH-STEVENSON	MSFC	J OLDS	NGT 8 52898	188
13	HAMPTON UNIV	F J MONTEGANI	GRC	D R LYONS	NGT 3 52354	513
13	HAMPTON UNIV	R HATHAWAY	LARC	D A TEMPLE	NCC 1 251	513
13	HARVARD UNIV	B A MERRITT	GSFC	G GRINDLAY	NAG 5 5279	283
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13	HARVARD UNIV	H C NEEDLEMAN	GSFC	J E GRINDLAY	NAG 5 5103	283
13	HOWARD UNIV	J TUTTLE	GSFC	T HUBER	NAG 5 10371	155
13	HOWARD UNIV	W R HOEGY	GSFC	S T SMITH	NCC 5 387	155
13	JOHN CARROLL UNIV	S WRBANEK	GRC	R L HANSLER	NAG 3 2564	412
13	JOHNS HOPKINS UNIV	B J FLOWERS	GSFC	P D FELDMAN	NAG 5 5122	242
13	JOHNS HOPKINS UNIV	C P HOLMES	GSFC	D M KRIMIGIS	NAG 5 4365	242
13	JOHNS HOPKINS UNIV	D EVANS	GSFC	D OHTANI	NAG 5 6178	243
13	JOHNS HOPKINS UNIV	F HERRERO	GSFC	J L CHAMPION	NAG 5 10084	247
13	JOHNS HOPKINS UNIV	J BARTH	GSFC	A GARRISON-DARRIN	NAG 5 9968	247
13	JOHNS HOPKINS UNIV	J BOHLIN	GSFC	D E ERLANDSON	NAG 5 4549	242
13	JOHNS HOPKINS UNIV	J BOHLIN	GSFC	D H MAUK	NAG 5 6182	243
13	JOHNS HOPKINS UNIV	J BREDEKAMP	GSFC	D MORRISON	NAG 5 9432	246
13	JOHNS HOPKINS UNIV	J C BRINTON	GSFC	P D FELDMAN	NAG 5 5315	242
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13	JOHNS HOPKINS UNIV	W J WAGNER	GSFC	D M RUST	NAG 5 10998	250
13	KANSAS STATE UNIV	F P CHIARAMONTE	GRC	C SORENSEN	NAG 3 2360	228
13	KENT STATE UNIV	J POUCH	GRC	P BROS	NAG 3 2539	413
13	KETTERING UNIV	M MANTENIEKS	GRC	S ROY	NAG 3 2520	306
13	LE TOURNEAU UNIV	B S FILES	JSC	G D DEBOER	NAG 9 1174	475
13	LOMA LINDA UNIV	F A CUCINOTTA	JSC	G A NELSON	NCC 9 79	53
13	LOMA LINDA UNIV	F CUCINOTTA	JSC	G NELSON	NCC 9 118	53
13	LOUISIANA STATE UNIV - BATON ROUGE	B A MERRITT	GSFC	J P WEFEL	NAG 5 5306	234
13	LOUISIANA STATE UNIV - BATON ROUGE	B A MERRITT	GSFC	M L CHERRY	NAG 5 5177	233
13	LOUISIANA STATE UNIV - BATON ROUGE	B A MERRITT	GSFC	M L CHERRY	NAG 5 5323	234
13	LOUISIANA STATE UNIV - BATON ROUGE	B A MERRITT	WFF	M L CHERRY	NAG 5 5297	233
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13	LOUISIANA STATE UNIV - BATON ROUGE	H NEEDLEMAN	GSFC	M CHERRY	NAG 5 5127	233
13	LOUISIANA STATE UNIV - BATON ROUGE	T ROBERTSON	MSFC	R G GOODRICH	NAG 8 1731	234
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13	MASSACHUSETTS INST OF TECH	D HUBBARD	MSFC	W KETTERLE	NAG 8 1435	296
13	MASSACHUSETTS INST OF TECH	D HUBBARD	MSFC	W KETTERLE	NAG 8 1768	296
13	MASSACHUSETTS INST OF TECH	F R CHANG-DIAZ	JSC	K MOLVIG	NAG 9 1224	297
13	MASSACHUSETTS INST OF TECH	J BRINTON	GSFC	A LEVINE	NAG 5 5329	291
13	MASSACHUSETTS INST OF TECH	J C BRINTON	GSFC	M SCHATTENBURG	NAG 5 5271	290
13	MASSACHUSETTS INST OF TECH	M H ACUNA	GSFC	A J LAZARUS	NAG 5 8045	292
13	MASSACHUSETTS INST OF TECH	M M HASAN	GRC	A A SONIN	NAG 3 1845	288
13	MASSACHUSETTS INST OF TECH	P DOTY	MSFC	M C FLEMING	NAG 8 1685	296
13	MASSACHUSETTS INST OF TECH	W J WAGNER	GSFC	T CHANG	NAG 5 9616	294
13	MICHIGAN STATE UNIV	E CHENG	GSFC	E D LOH	NAG 5 3218	307
13	MICHIGAN STATE UNIV	H SHAW	GSFC	D TOMANEK	NAG 5 9276	307
13	MICHIGAN TECHNOLOGICAL UNIV	B A MERRITT	WFF	R NEIMIROFF	NAG 5 5278	309
13	MIDDLEBURY COLLEGE	W J WAGNER	GSFC	R WOLFSON	NAG 5 9733	506
13	MONTANA STATE UNIV	W J WAGNER	GSFC	C C KANKELBORG	NAG 5 10997	337
13	MORGAN STATE UNIV	J CHITWOOD	GSFC	C WILLIAMS	NAG 5 8857	253
13	MORGAN STATE UNIV	J S CHITWOOD	GSFC	C WILLIAMS	NCC 5 204	254
13	NEW JERSEY INST OF TECH	W J WAGNER	GSFC	H WANG	NAG 5 9501	351
13	NEW JERSEY INST OF TECH	W J WAGNER	GSFC	M F WOODARD	NAG 5 9519	351
13	NEW JERSEY INST OF TECH	W J WAGNER	GSFC	P R GOODE	NAG 5 9682	351
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13	NEW MEXICO STATE UNIV - LAS CRUCES	H C NEEDLEMAN	GSFC	S J STOCHAJ	NAG 5 5060	362
13	NEW MEXICO STATE UNIV - LAS CRUCES	H C NEEDLEMAN	GSFC	S J STOCHAJ	NAG 5 5068	362
13	NEW MEXICO STATE UNIV - LAS CRUCES	J GRANT	GSFC	V SOLOMATOV	NAG 5 8803	363
13	NORFOLK STATE UNIV	N P BARNES	LARC	M NOGINOV	NAG 1 2172	514
13	NORFOLK STATE UNIV	R E STREITMATTER	GSFC	C W SALGADO	NAG 5 8653	514
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13	NORTH CAROLINA STATE UNIV	J M GREBOWSKY	GSFC	D C ELLISON	NAG 5 8215	400
13	NORTH CAROLINA STATE UNIV	M S BURRELL	GSFC	S O REYNOLDS	NGT 5 65	402
13	NORTHWESTERN UNIV	A NURRIDIN	HQ	MILLER	NGT 5 50172	203
13	NORTHWESTERN UNIV	L W GURKIN	GSFC	M P ULMER	NAG 5 5094	202
13	NORTHWESTERN UNIV	M S BURRELL	GSFC	G NOVAK	NGT 5 88	203
13	NORTHWESTERN UNIV	M WEISLOGEL	GRC	S LICHTER	NAG 3 1892	201
13	OHIO STATE UNIV	D HUBBARD	MSFC	T HO	NAG 8 1441	417
13	OHIO STATE UNIV	D HUBBARD	MSFC	T L HO	NAG 8 1765	417
13	OHIO STATE UNIV	E J PENCIL	GRC	D Y YORK	NAG 3 2438	414
13	OHIO STATE UNIV	P DOTY	MSFC	P K DUTTA	NAG 8 1267	417
13	OKLAHOMA STATE UNIV	B SINGH	GRC	O TONG	NAG 3 1852	428
13	OLD DOMINION UNIV	R C SINGLETERRY	LARC	J H HEINBOCKEL	NCC 1 320	518
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13	OLD DOMINION UNIV	T H HOU	LARC	R PRABHAKARAN	NCC 1 01052	519
13	PENN STATE UNIV	B A MERRITT	GSFC	J J BEATTY	NAG 5 5220	444
13	PENN STATE UNIV	B A MERRITT	GSFC	S COUTU	NAG 5 5174	444
13	PENN STATE UNIV	B A MERRITT	WFF	S E COUTU	NAG 5 5250	444
13	PENN STATE UNIV	B MERRITT	GSFC	BEATTY	NAG 5 5248	444
13	PENN STATE UNIV	D HUBBARD	MSFC	M CHAN	NAG 8 1761	449
13	PENN STATE UNIV	J C BRINTON	GSFC	C L CROSKEY	NAG 5 5313	445
13	PENN STATE UNIV	J C BRINTON	GSFC	D N BURROWS	NAG 5 5277	445
13	PENN STATE UNIV	J S LING	GRC	J M TAZBELL	NAG 3 1871	443
13	PENN STATE UNIV	M S BURRELL	GSFC	P LAGUNA	NGT 5 127	451
13	PENN STATE UNIV	W B JOHNSON	GSFC	C L CROSKEY	NAG 5 5256	444
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13	PENN STATE UNIV	W GURKIN	GSFC	D BURROWS	NAG 5 5093	444
13	PRAIRIE VIEW A&M UNIV	H NEEDLEMAN	GSFC	R WILKINS	NAG 5 5130	475
13	PREScott COLLEGE	E P CONDON	ARC	W W ORR	NAG 2 1409	25
13	PRINCETON UNIV	W B JOHNSON	GSFC	E B JENKINS	NAG 5 616	352
13	RICE UNIV	D EVANS	GSFC	D R TOFOLETTTO	NAG 5 4726	477
13	RICE UNIV	D HUBBARD	MSFC	R G HULET	NAG 8 1444	478
13	RICE UNIV	D S HUBBARD	MSFC	R G HULET	NAG 8 1766	478
13	RICE UNIV	F CHANG-DIAZ	JSC	A A CHAN	NAG 9 978	478
13	RICE UNIV	J BOHLIN	GSFC	D A WOLF	NAG 5 4267	477
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13	RICE UNIV	J GREBOWSKY	GSFC	R A WOLF	NAG 5 8136	477
13	RICE UNIV	M H ACUNA	GSFC	P A CLOUTIER	NAG 5 7037	477
13	RICE UNIV	M MEYYAPPAN	ARC	B YAKOBSON	NAG 2 1401	476
13	ROANOKE COLLEGE	B A MERRITT	GSFC	C H TSAO	NAG 5 5165	522
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13	ROCHESTER INST OF TECH	S BAILEY	GRC	D RAFFAELLE	NAG 3 2593	385
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13	ROWAN UNIV	M J MUMMA	GSFC	K MAGEE-SAUER	NAG 5 9593	356
13	RUTGERS ST UNIV N	C STAHL	GSFC	M GERSHENSON	NAG 5 10357	358
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13	SOUTHERN UNIV & A&M COLLEGE	D SCHMIDT	MSFC	H L LAWRENCE	NAG 8 1495	236
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13	SOUTHERN UNIV & A&M COLLEGE	J TUELLER	GSFC	J STACY	NAG 5 7157	235
13	STANFORD UNIV	B S SINGH	GRC	E G SHAQTEH	NAG 3 1843	59
13	STANFORD UNIV	D EVANS	GSFC	D S INAN	NAG 5 4554	60
13	STANFORD UNIV	D HUBBARD	MSFC	J A LIPA	NAG 8 1431	63
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13	STANFORD UNIV	D MENCHAN	GSFC	B CABRERA	NAG 5 10519	62

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13	STANFORD UNIV	J C BRINTON	HQ	B C WALKER	NAG 5 5300	61
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13	STANFORD UNIV	M L FONDA	ARC	R B LAUGHLIN	NCC 2 5359	65
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13	STANFORD UNIV	W B JOHNSON	GSFC	A B WALKER	NAG 5 5200	60
13	STANFORD UNIV	W J WAGNER	GSFC	P T SCHERER	NAG 5 9784	62
13	STANFORD UNIV	W J WAGNER	GSFC	V PETROSIAN	NAG 5 10976	63
13	STANFORD UNIV	W M HUO	ARC	C H KRUGER	NAG 2 1079	59
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13	STATE UNIV OF NY - STONY BROOK	C TALLEY	MSFC	M DUDLEY	NCC 8 93	391
13	STATE UNIV OF NY - STONY BROOK	P M DOTY	MSFC	D LARSON	NAG 8 1700	391
13	STATE UNIV OF NY - STONY BROOK	W WAGNER	GSFC	M A FORMAN	NAG 5 10995	390
13	STATE UNIV OF NY COL - PLATTSBURGH	E K GIBSON	JSC	G J FLYNN	NAG 9 1109	391
13	TAYLOR UNIV	W B JOHNSON	GSFC	H D VOSS	NAG 5 5184	220
13	TEXAS A&M UNIV	S D GLEN	JSC	R WILLIAMS	NAG 9 1070	482
13	TEXAS A&M UNIV-KINGSVILLE	N KHAZENIE	GSFC	D SUSON	NAG 5 7159	484
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13	THE AMERICAN UNIV	J L BUFTON	GSFC	R B KAY	NCC 5 269	156
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13	THE CATHOLIC UNIV OF AMERICA	M J MUMMA	GSFC	N DELLO RUSSO	NCC 5 445	161
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13	THE UNIV OF CENTRAL FLORIDA	A F HEPP	GRC	N G DHERE	NCC 3 712	170
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13	UNIV HOUSTON-HOUSTON	G BADHWAR	JSC	L S PINSKY	NAG 9 1347	487
13	UNIV OF MINN	A NURRIDIN	HQ	R L LYSAK	NGT 5 50186	325
13	UNIV OF MINN	B A MERRITT	GSFC	T W JONES	NAG 5 5182	321
13	UNIV OF MINN	C TALLEY	MSFC	J J DERBY	NAG 8 1474	323
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13	UNIV OF MINN	L J EARLY	GSFC	J R WINCKLER	NSG 5088	326
13	UNIV OF MINN	L J SALERNO	ARC	J MAPS	NAG 2 1474	321
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13	UNIV OF MINN	M M MELLOTT	GSFC	D L LYSAK	NAG 5 4466	321
13	UNIV OF MINN	R HOWARD	GSFC	D A CATTELL	NAG 5 3735	321
13	UNIV OF MINN	R J MACDOWALL	GSFC	P J KELLOGG	NAG 5 10274	323
13	UNIV OF MINN	W B JOHNSON	GSFC	J R WYGANT	NAG 5 5172	321
13	UNIV	F THIO	MSFC	F WINTERBERG	NAG 8 1718	342
13	UNIV OF ALABAMA - BIRMINGHAM	J F DOWDY	MSFC	C M LAWSON	NGT 8 52845	7
13	UNIV OF ALABAMA - BIRMINGHAM	R KING	MSFC	J B ANDREWS	NAS 8 99059	6
13	UNIV OF ALABAMA - HUNTSVILLE	A NURRIDIN	HQ	E EMSLIE	NGT 5 50163	14
13	UNIV OF ALABAMA - HUNTSVILLE	B A MERRITT	WFF	PENDLETON	NAG 5 5298	7
13	UNIV OF ALABAMA - HUNTSVILLE	H C NEEDLEMAN	GSFC	G N PENDLETON	NAG 5 5112	7
13	UNIV OF ALABAMA - HUNTSVILLE	J BOHLIN	GSFC	D H COMFORT	NAG 5 4268	7
13	UNIV OF ALABAMA - HUNTSVILLE	J BOHLIN	GSFC	N SINGH	NAG 5 4893	7
13	UNIV OF ALABAMA - HUNTSVILLE	J BREDEKAMP	GSFC	D EMSLIE	NAG 5 4027	7
13	UNIV OF ALABAMA - HUNTSVILLE	J F DOWDY	MSFC	J V PARADIJS	NGT 8 52863	14
13	UNIV OF ALABAMA - HUNTSVILLE	M H ACUNA	GSFC	R SHELDON	NAG 5 7979	8
13	UNIV OF ALABAMA - HUNTSVILLE	U URBAN	MSFC	S T WU	NCC 8 65	13
13	UNIV OF ALABAMA - HUNTSVILLE	W B ROSSOW	GSFC	Q HAN	NAG 5 8646	9
13	UNIV OF ALABAMA - HUNTSVILLE	W J WAGNER	GSFC	J A MILLER	NAG 5 4951	7
13	UNIV OF ALABAMA - HUNTSVILLE	W J WAGNER	GSFC	J K MILLER	NAG 5 9598	10
13	UNIV OF ALABAMA - HUNTSVILLE	W J WAGNER	GSFC	S WU	NAG 5 9508	10
13	UNIV OF ALABAMA - UNIV	W J WAGNER	GSFC	D WU	NAG 5 6174	15
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13	UNIV OF ALASKA - FAIRBANKS	J C BRINTON	GSFC	M CONDE	NAG 5 5316	17
13	UNIV OF ALASKA - FAIRBANKS	M H ACUNA	GSFC	J D CRAVEN	NAG 5 8042	18
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13	UNIV OF ALASKA - FAIRBANKS	W B JOHNSON	GSFC	R COLLINS	NAG 5 5243	17
13	UNIV OF ALASKA - FAIRBANKS	W JOHNSON	GSFC	COLLINS	NAG 5 5218	17
13	UNIV OF ALASKA - FAIRBANKS	W JOHNSON	GSFC	H NIELSEN	NAG 5 5153	17
13	UNIV OF ARIZONA	B A MERRITT	GSFC	G M WEBB	NAG 5 5180	27
13	UNIV OF ARIZONA	B MERRITT	WFF	G WILLIAMS	NAG 5 5336	27
13	UNIV OF ARIZONA	C R TALLEY	MSFC	K A JACKSON	NAG 8 1234	36
13	UNIV OF ARIZONA	G A SOFFEN	GSFC	J A REAGAN	NGT 5 111	39
13	UNIV OF ARIZONA	J S LING	GRC	K R SRIDHAR	NAG 3 2154	25
13	UNIV OF ARIZONA	L C SHACKELFORD	JSC	H B	NAG 9 1212	37
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13	UNIV OF ARIZONA	PROGERS	GSFC	J JOKIPII	NAG 5 4559	27
13	UNIV OF ARIZONA	W JOHNSON	GSFC	J HOLBERG	NAG 5 5143	27
13	UNIV OF CALIFORNIA - BERKELEY	A HARPER	GSFC	J LUHMAN	NAS 5 00133	76
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13	UNIV OF CALIFORNIA - BERKELEY	A NURRIDIN	HQ	R JEANLOZ	NGT 5 50188	78
13	UNIV OF CALIFORNIA - BERKELEY	B A MERRITT	GSFC	A J WESTPHAL	NAG 5 5231	70
13	UNIV OF CALIFORNIA - BERKELEY	B J MOTIL	GRC	V P CAREY	NAG 3 2105	68
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13	UNIV OF TEXAS - DALLAS	W B JOHNSON	GSFC	G D EARLE	NAG 5 5257	498
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13	UNIV OF TEXAS - EL PASO	D EVANS	GSFC	D E LOPEZ	NAG 5 8881	499
13	UNIV OF TEXAS - EL PASO	M H ACUNA	GSFC	R E LOPEZ	NAG 5 8882	499
13	UNIV OF TEXAS - EL PASO	M H ACUNA	GSFC	R E LOPEZ	NAG 5 8883	499
13	UNIV OF TOLEDO	D REDDY	GRC	T G KEITH	NCC 3 855	427
13	UNIV OF VERMONT	W JOHNSON	GSFC	T KELLER	NAG 5 5135	506
13	UNIV OF VIRGINIA	B GUYNES	MSFC	M C WIENER	NAG 8 1567	526
13	UNIV OF VIRGINIA	J H STORRIES	LARC	D A STAACK	NGT 1 52212	527
13	UNIV OF VIRGINIA	T L PARROTT	LARC	W E ZORUMSKI	NCC 1 361	526
13	UNIV OF WASHINGTON	B S SINGH	GRC	W NAGOURNEY	NAG 3 1865	534
13	UNIV OF WASHINGTON	J C BRINTON	GSFC	J D SAHR	NAG 5 5294	536
13	UNIV OF WASHINGTON	J GREBOWSKY	GSFC	D MCCARTHY	NAG 5 4681	535
13	UNIV OF WASHINGTON	J L CHRISTENSEN	GSFC	G K PARKS	NAS 5 30613	541
13	UNIV OF WASHINGTON	J S LING	GRC	E J DAVIS	NAG 3 1837	534
13	UNIV OF WASHINGTON	M HESSE	GSFC	G PARKS	NAG 5 6924	536
13	UNIV OF WASHINGTON	R HOFFMAN	GSFC	G K PARKS	NAG 5 7732	537
13	UNIV OF WASHINGTON	W B JOHNSON	GSFC	M MCCARTHY	NAG 5 5190	535
13	UNIV OF WASHINGTON	W B JOHNSON	GSFC	R H HOLZWORTH	NAG 5 5183	535
13	UNIV OF WISCONSIN - MADISON	A NURRIDIN	HQ	P TIMBIE	NGT 5 50185	555
13	UNIV OF WISCONSIN - MADISON	C TALLEY	MSFC	R F COOPER	NAG 8 1460	552
13	UNIV OF WISCONSIN - MADISON	G MUCKLOW	GSFC	D MCCAMMON	NAG 5 8537	550
13	UNIV OF WISCONSIN - MADISON	J BRINTON	GSFC	D MCCAMMON	NAG 5 5270	548
13	UNIV OF WISCONSIN - MADISON	J CHERVENAK	GSFC	P TIMBIE	NAG 5 10258	552
13	UNIV OF WISCONSIN - MADISON	L J EARLY	GSFC	D MCCAMMON	NAG 5 679	547
13	UNIV OF WISCONSIN - MADISON	L J EARLY	GSFC	K H NORDSIECK	NAG 5 647	547
13	UNIV OF WISCONSIN - MADISON	L J EARLY	GSFC	R J REYNOLDS	NAG 5 674	547
13	UNIV OF WISCONSIN - MADISON	R SILVERBERG	GSFC	P TIMBIE	NAG 5 4484	548
13	UNIV OF WISCONSIN - MADISON	S LAMBROS	GSFC	P DINGUS	NAG 5 9712	551
13	UNIV OF WISCONSIN - MADISON	W B JOHNSON	GSFC	K H NORDSIECK	NAG 5 5252	548

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13	UNIV OF WISCONSIN - MILWAUKEE	R C SINGLETERRY, JR.	LARC	J W NORBURY	NCC 1 354	555
13	UNIV OF WISCONSIN - MILWAUKEE	R C SINGLETERRY, JR.	LARC	S R BLATTNING	NGT 1 52217	555
13	UTAH STATE UNIV	J C BRINTON	GSFC	B G FEJER	NAG 5 5293	504
13	UTAH STATE UNIV	M M MELLOTT	GSFC	D G FEJER	NAG 5 4469	504
13	UTAH STATE UNIV	P H PLESS	GSFC	J C ULWICK	NAG 5 5046	504
13	UTAH STATE UNIV	S NASH-STEVENSON	MSFC	J DENNISON	NGT 8 52885	506
13	UTAH STATE UNIV	T J BIRMINGHAM	GSFC	R W SCHUNK	NAG 5 1484	504
13	UTAH STATE UNIV	W B JOHNSON	GSFC	C M SWENSON	NAG 5 5187	504
13	UTAH STATE UNIV	W B JOHNSON	GSFC	C M SWENSON	NAG 5 5258	504
13	UTAH STATE UNIV	W B JOHNSON	GSFC	J C ULWICK	NAG 5 5189	504
13	UTAH STATE UNIV	W B JOHNSON	GSFC	J C ULWICK	NAG 5 5245	504
13	VA POLYTECH INST & ST UNIV	J C BRINTON	GSFC	W SCALES	NAG 5 5295	530
13	VANDERBILT UNIV	J GRANT	GSFC	D SAUMON	NAG 5 8906	472
13	WASHINGTON STATE UNIV	F J MONTEGANI	GRC	P MARSTON	NGT 3 52330	544
13	WASHINGTON STATE UNIV	N HALL	ARC	M A OSMAN	NCC 2 5407	544
13	WASHINGTON STATE UNIV	N R HALL	GRC	P L MARSTON	NAG 3 2114	543
13	WASHINGTON UNIV - ST	B A MERRITT	WFF	W R BINNS	NAG 5 5296	333
13	WASHINGTON UNIV - ST	H C NEEDLEMAN	GSFC	R W BINNS	NAG 5 5078	333
13	WASHINGTON UNIV - ST	H C NEEDLEMAN	GSFC	P L HINK	NAG 5 5114	333
13	WASHINGTON UNIV - ST	H NEEDLEMAN	GSFC	R BINNS	NAG 5 5110	333
13	WASHINGTON UNIV - ST	H NEEDLEMAN	GSFC	W R BINNS	NAG 5 5154	333
13	WASHINGTON UNIV - ST	K E BLANDING	GSFC	P L HINK	NGT 5 50170	336
13	WASHINGTON UNIV - ST	M CHRISTI	MSFC	K R WATERS	NGT 1 52197	336
13	WASHINGTON UNIV - ST	M MILLIS	GRC	M S CONRAD	NAS 3 00094	336
13	WESTERN MICHIGAN UNIV	P CRANE	GSFC	T GORCZYCA	NAG 5 10448	320
13	WHITWORTH COLLEGE	D DOMOMKOS	GRC	D STEVENS	NAG 3 2510	544
13	WORCESTER POLYTECH INST	E J PENCIL	GRC	D GATSONIS	NAG 3 2405	305
13	WRIGHT STATE UNIV	M M MELLOTT, SR.	GSFC	D L FOX	NAG 5 4188	428
13	YALE UNIV	C TALLEY	MSFC	R E APFEL	NAG 8 1461	148
13	YALE UNIV	D HUBBARD	MSFC	K GIBBLE	NAG 8 1449	148
13	YALE UNIV	D HUBBARD	MSFC	M A KASEVICH	NAG 8 1443	148
13	YALE UNIV	D HUBBARD	MSFC	M A KASEVICH	NAG 8 1767	148
13	YALE UNIV	F HERRERO	GSFC	R J SCHOELKOPF	NAG 5 10755	148
13	YALE UNIV	M S BURRELL	GSFC	D SCHOELKOPF	NGT 5 121	148
13	YALE UNIV	N J DENNEHY	GSFC	P KASEVICH	NAG 5 10439	148
13	YALE UNIV	W B JOHNSON	GSFC	D E PROBER	NAG 5 5255	147
19	ALABAMA A&M UNIV	B PENN	MSFC	B PENN	NAG 8 1400	1
19	ALABAMA A&M UNIV	R C ANDERSON	GRC	E W ROTHE	NAG 8 1800	2
19	AUBURN UNIV	P J GEORGE	GRC	H W BRANDHORST	NAS 3 99200	3
19	BAYLOR COLLEGE OF MED	B GUYBES	MSFC	T G WENSEL	NAG 8 1387	474
19	BAYLOR COLLEGE OF MED	S SCHNEIDER	JSC	A BEBLANC	NCC 9 88	475
19	BOSTON COLLEGE	J C BARNES	LARC	B DIBARTOLOL	NAG 1 01067	276
19	BOSTON UNIV	J GURMAN	GSFC	N U CROOKER	NAG 5 10881	279
19	BOSTON UNIV	L CHRISTENSEN	GSFC	T FRITZ	NAG 5 9191	278
19	BOSTON UNIV	P BUCHANAN	GSFC	D SPENCE	NAG 5 10419	279
19	BOSTON UNIV	R HOFFMAN	GSFC	H E SPENCER	NAG 5 7706	278
19	BOSTON UNIV	R HOFFMAN	GSFC	H SPENCE	NAG 5 9557	279
19	BOSTON UNIV	R HOFFMAN	GSFC	J CHEN	NAG 5 9562	279
19	BOSTON UNIV	R HOFFMAN	GSFC	T FRITZ	NAG 5 7677	278
19	CALIFORNIA INST OF TECH	D HUBBARD	MSFC	D GOODSTEIN	NAG 8 1763	49
19	CALIFORNIA INST OF TECH	D S HUBBARD	MSFC	A PONCE	NAG 8 1785	49
19	CALIFORNIA INST OF TECH	E K STANSBERY	JSC	D S BURNETT	NAG 9 1013	49
19	CALIFORNIA INST OF TECH	P DOTY	MSFC	J BRADY	NAG 8 1661	48
19	CALIFORNIA STATE UNIV - FULLERTON	E K STANSBERY	JSC	D S WOOLUM	NAG 9 1009	51
19	CALIFORNIA STATE UNIV - NORTHRIDGE	J GURMAN	GSFC	A CADAVID	NAG 5 10880	52
19	CALIFORNIA STATE UNIV - NORTHRIDGE	J GURMAN	GSFC	G A CHAPMAN	NAG 5 7878	52
19	CARNEGIE - MELLON UNIV	K BLANDING	HQ	S SINGH	NGT 5 50347	439
19	CARNEGIE - MELLON UNIV	P DOTY	MSFC	R F SEKERKA	NAG 8 1704	437
19	CARNEGIE - MELLON UNIV	P DOTY	MSFC	R F SEKERKA	NCC 8 1704	439
19	CASE WESTERN RESERVE UNIV	D F CHAO	GRC	Y KAMOTANI	NAG 3 1913	406
19	CASE WESTERN RESERVE UNIV	D HUBBARD	MSFC	C ROSENBLATT	NAG 8 1779	407
19	CLARKSON UNIV	C TALLEY	MSFC	L L REGEL	NAG 8 1482	369
19	CLARKSON UNIV	M E HILL	GRC	S P LIN	NAG 3 1891	369
19	CLARKSON UNIV	P DOTY	MSFC	W R WILCOX	NAG 8 1266	369
19	CLEVELAND STATE UNIV	D ADAMOVSKY	GRC	D FLANAGAN	NCC 3 914	412

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19	COLLEGE OF WILLIAM AND MARY	S A THIBEAULT	LARC	R L KIEFER	NCC 1 327	508
19	COLORADO STATE UNIV	D STARR	GSFC	G L STEPHENS	NAG 5 11109	121
19	COLUMBIA UNIV	W B JOHNSON	GSFC	C J HAILEY	NAG 5 5260	370
19	CORNELL UNIV	B GUYNES	MSFC	R THORNE	NAG 8 1357	380
19	CORNELL UNIV	D HUBBARD	MSFC	L POLLACK	NAG 8 1778	380
19	CORNELL UNIV	D SHUBBARD	MSFC	C A BATT	NAG 8 1759	380
19	CORNELL UNIV	G GUYNES	MSFC	R E THORNE	NAG 8 1831	380
19	DARTMOUTH COLLEGE	S CURTIS	GSFC	M HUDSON	NAG 5 7442	344
19	DUKE UNIV	D HUBBARD	MSFC	J E THOMAS	NAG 8 1781	395
19	FISK UNIV	U	MSFC	D O HENDERSON	NAG 8 1604	467
19	FLORIDA ATLANTIC UNIV	R J GUNDERMAN	GRC	H F HELMKEN	NAS 3 26956	165
19	FLORIDA STATE UNIV	D HUBBARD	MSFC	E MANOUSAKIS	NAG 8 1773	168
19	GEORGETOWN UNIV	S M SMITH	JSC	E WASTNEY	NAG 9 1058	154
19	HAHNEMANN UNIV	B GUYNES	MSFC	P J LOLL	NAG 8 1840	441
19	HAMPTON UNIV	D DESMARAIS	ARC	B FAISON	NGT 2 52261	513
19	HARVARD UNIV	G MADDREA	LARC	S C WOFSY	NAS 1 18946	285
19	HARVARD UNIV	P DOTY	MSFC	M J AZIZ	NAG 8 1256	285
19	INDIANA UNIV - BLOOMINGTON	D HUBBARD	MSFC	V A KOSTELECKY	NAG 8 1770	216
19	INDIANA UNIV - BLOOMINGTON	W CULPEPPER	JSC	C FOSTER	NAS 9 98121	216
19	IOWA STATE UNIV	M HAMMOND	MSFC	R K TRivedi	NCC 8 98	224
19	IOWA STATE UNIV	W P WINFREE	LARC	J GRAY	NAG 1 1933	222
19	JOHNS HOPKINS UNIV	B GUYNES	MSFC	D WIRTZ	NAG 8 1377	251
19	JOHNS HOPKINS UNIV	D FAIRFIELD	GSFC	D WILLIAMS	NAG 5 8800	245
19	JOHNS HOPKINS UNIV	H K NAHRA	GRC	H N OGUZ	NAG 3 2118	241
19	JOHNS HOPKINS UNIV	M ACUNA	GSFC	R MCENTIRE	NAG 5 10242	248
19	JOHNS HOPKINS UNIV	M DESCH	GSFC	D G SIBECK	NAG 5 9569	247
19	JOHNS HOPKINS UNIV	P DOTY	MSFC	R MAUER	NAG 8 1695	251
19	JOHNS HOPKINS UNIV	P DOWNEY	MSFC	J L KATZ	NAG 8 1257	251
19	JOHNS HOPKINS UNIV	R HOFFMAN	GSFC	C I MENG	NAG 5 7724	243
19	JOHNS HOPKINS UNIV	R HOFFMAN	GSFC	P NEWELL	NAG 5 9558	247
19	JOHNS HOPKINS UNIV	S CURTIS	GSFC	R GREENWALD	NAG 5 10597	249
19	JOHNS HOPKINS UNIV	S M SMITH	SSC	K O O	NAG 9 1146	251
19	JOHNS HOPKINS UNIV	W P WINFREE	LARC	J M GREEN	NAG 1 2304	241
19	KANSAS STATE UNIV	B BILLS	GSFC	A ARCHER	NCC 5 234	228
19	KANSAS STATE UNIV	P DOTY	MSFC	C M KLABUNDE	NAG 8 1687	228
19	KANSAS STATE UNIV	P DOTY	MSFC	M D HOLLINGSWORTH	NAG 8 1702	228
19	KENT STATE UNIV	A HEPP	GRC	D CHOWDHURY	NCC 3 734	413
19	LAMAR UNIV	G A MCKAY	SSC	S L JORDAN	NCC 9 126	475
19	LOUISIANA STATE UNIV - BATON ROUGE	B A MERRITT	WFF	M CHERRY	NAG 5 5208	233
19	LOUISIANA STATE UNIV - BATON ROUGE	B GUYNES	MSFC	K ALSHIBLI	NAS 8 01042	234
19	MASSACHUSETTS INST OF TECH	J KING	GSFC	K PAULARENA	NAG 5 9622	294
19	MASSACHUSETTS INST OF TECH	K OGILVIE	GSFC	A LAZARUS	NAG 5 10915	295
19	MASSACHUSETTS INST OF TECH	K W OGILVIE	GSFC	A J LAZARUS	NAS 5 99181	297
19	MASSACHUSETTS INST OF TECH	N R HALL	GRC	G H MCKINLEY	NAG 3 2155	288
19	MASSACHUSETTS INST OF TECH	N R HALL	GRC	G H MCKINLEY	NCC 3 610	298
19	MASSACHUSETTS INST OF TECH	P DOTY	MSFC	G BENEDEK	NAG 8 1659	296
19	MASSACHUSETTS INST OF TECH	P DOTY	MSFC	M CIMA	NAG 8 1688	296
19	MASSACHUSETTS INST OF TECH	P DOTY	MSFC	R A BROWN	NAG 8 1253	296
19	MASSACHUSETTS INST OF TECH	S OLESON	GRC	D MARTINEZ-SANCHEZ	NCC 3 875	298
19	MICHIGAN STATE UNIV	J GURMAN	GSFC	R F STEIN	NAG 5 8053	307
19	MICHIGAN TECHNOLOGICAL UNIV	C TALLEY	MSFC	T H COURTNEY	NAG 8 1478	309
19	MIDDLE TENNESSEE STATE UNIV	C TALLEY	MSFC	A C FRIEDLI	NAG 8 1486	468
19	NEW JERSEY INST OF TECH	J GURMAN	GSFC	H WANG	NAG 5 7837	350
19	NEW JERSEY INST OF TECH	J GURMAN	GSFC	H WANG	NAG 5 9738	351
19	NEW JERSEY INST OF TECH	J GURMAN	GSFC	H WANG	NAG 5 10910	351
19	NEW JERSEY INST OF TECH	J GURMAN	GSFC	J CHAE	NAG 5 10894	351
19	NEW JERSEY INST OF TECH	J GURMAN	GSFC	J LEE	NAG 5 10891	351
19	NEW JERSEY INST OF TECH	J GURMAN	GSFC	P GOODE	NAG 5 9730	351
19	NEW MEXICO STATE UNIV - LAS CRUCES	W LOVE	MSFC	C YING	NAG 8 1710	363
19	NORTH CAROLINA STATE UNIV	C TALLEY	MSFC	J BERNHOLC	NAG 8 1479	401
19	NORTH CAROLINA STATE UNIV	G MADDREA	LARC	V SAXENA	NAS 1 18944	401
19	NORTH CAROLINA STATE UNIV	P DOTY	MSFC	N DIETZ	NAG 8 1686	401
19	NORTHEASTERN UNIV	C TALLEY	MSFC	A SACCO	NAG 8 1485	300
19	NORTHEASTERN UNIV	P DOTY	MSFC	A KARMA	NAG 8 1254	300
19	NORTHWESTERN UNIV	P DOTY	MSFC	J ALKEMPER	NAG 8 1660	202

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19	OHIO STATE UNIV	D W GRIFFIN	GRC	C D ANDERECK	NAG 3 2138	413
19	OLD DOMINION UNIV	M A TALLEY	LARC	G R HOY	NAG 1 2211	516
19	OREGON STATE UNIV	B BILLS	GSFC	G D EGBERT	NAG 5 6156	431
19	OREGON STATE UNIV	D STARR	GSFC	M H FREILICH	NAG 5 11105	433
19	PENN STATE UNIV	C TALLEY	MSFC	R M GERMAN	NAG 8 1452	448
19	PENN STATE UNIV	D L UBRAN	GRC	R A YETTER	NCC 3 718	450
19	PENN STATE UNIV	P DOTY	MSFC	J SINGH	NAG 8 1272	448
19	POLYTECH UNIV - BROOKLYN	B GUYNES	MSFC	A MYERSON	NAG 8 1370	384
19	PRAIRIE VIEW A&M UNIV	F A CUCINOTTA	JSC	R WILKINS	NCC 9 114	476
19	PRAIRIE VIEW A&M UNIV	J D ATKINSON	JSC	T N FOGARTY	NCC 9 50	476
19	PRINCETON UNIV	D STARR	GSFC	E F WOOD	NAG 5 11111	354
19	PRINCETON UNIV	F P CHIARAMONTE	GRC	D A SAVILLE	NAG 3 2380	352
19	PURDUE UNIV	B V GUYNES	MSFC	B L GOLDEN	NAG 8 1833	219
19	PURDUE UNIV	P DOTY	MSFC	D JOHNSON	NAG 8 1691	219
19	RENSSELAER POLYTECH INST	A JACKMAN	MSFC	M B KOSS	NAG 8 1488	385
19	RENSSELAER POLYTECH INST	J C DUH	GRC	P C WAYNER	NAG 3 1834	384
19	RENSSELAER POLYTECH INST	L B JETER	MSFC	M E GLICKSMAN	NAG 8 1468	385
19	RICE UNIV	C L TALLEY	MSFC	N J HALAS	NAG 8 1467	478
19	RICE UNIV	R HOFFMAN	GSFC	P REIFF	NAG 5 8380	477
19	ROCHESTER INST OF TECH	A F HEPP	GRC	D P RAFFAELLE	NCC 3 806	386
19	RUTGERS ST UNIV N	B MOTTA	GSFC	D JOSEPH	NAG 5 9813	358
19	RUTGERS ST UNIV N	D HUBBARD	MSFC	H KOJIMA	NAG 8 1769	358
19	RUTGERS STATE UNIV OF NJ NEW BRUNS	B MOTTA	GSFC	D JOSEPH	NAG 5 9833	359
19	SAINT LOUIS UNIV	L SMITH	HQ	N C PARTRIDGE	NGT 5 50201	329
19	SAN JOSE STATE UNIV	A BARNES	ARC	P J HAMILL	NCC 2 1060	56
19	SOUTHEASTERN LOUISIANA UNIV	J F DOWDY	MSFC	W A PARKISON	NAG 8 1206	235
19	SOUTHWEST TEXAS STATE UNIV	J F DOWDY	MSFC	S F TARSITANO	NAG 8 1367	480
19	SPELMAN COLLEGE	C MOORE	MSFC	B CARDELINO	NCC 8 144	190
19	STANFORD UNIV	C TALLEY	MSFC	R S FEIGELSON	NAG 8 1457	63
19	STANFORD UNIV	D A REISS	MSFC	R S FEIGELSON	NAG 8 1151	63
19	STANFORD UNIV	D HUBBARD	MSFC	D D OSHEROFF	NAG 8 1777	63
19	STANFORD UNIV	D HUBBARD	MSFC	J A LIPA	NAG 8 1772	63
19	STANFORD UNIV	J C DUH	GRC	G M HOMSY	NAG 3 1943	60
19	STANFORD UNIV	J GURMAN	GSFC	D B GALARCE	NAG 5 7835	61
19	STANFORD UNIV	J GURMAN	GSFC	P H SCHERRER	NAG 5 10483	62
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19	STANFORD UNIV	R HOFFMAN	GSFC	M WALT	NAG 5 8025	61
19	TAYLOR UNIV	R HOFFMAN	GSFC	H D VOSS	NAG 5 8077	220
19	THE CATHOLIC UNIV OF AMERICA	J A SLAVIN	GSFC	Y C WHANG	NAG 5 8619	157
19	THE CATHOLIC UNIV OF AMERICA	J GURMAN	GSFC	M GUATHAKURTA	NAG 5 8018	157
19	THE CATHOLIC UNIV OF AMERICA	J GURMAN	GSFC	N GOPALSWAMY	NCC 5 418	161
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19	THE CATHOLIC UNIV OF AMERICA	L F BURLAGA	GSFC	Y C WHANG	NAG 5 11131	160
19	THE CATHOLIC UNIV OF AMERICA	M ACUNA	GSFC	N GOPALSWAMY	NAG 5 11162	160
19	THE SCRIPPS REASERCH INST	B GUYNES	MSFC	G A CHANG	NAG 8 1834	67
19	TUFTS UNIV	J GURMAN	GSFC	K R LANG	NAG 5 8115	300
19	TUFTS UNIV	P M DOTY	MSFC	P CEBE	NAG 8 1480	301
19	UNIV HOUSTON-HOUSTON	B GUYNES	MSFC	J M FRIEDMAN	NAG 8 1363	486
19	UNIV HOUSTON-HOUSTON	F CHANG-DIAZ	JSC	D BERING	NAG 9 904	486
19	UNIV HOUSTON-HOUSTON	P DOTY	MSFC	L S PINSKY	NAG 8 1658	486
19	UNIV HOUSTON-HOUSTON	P J SHIRRON	GSFC	P W CHU	NAG 5 10714	486
19	UNIV OF MINN	E K STANSBERY	JSC	R O PEPIN	NAG 9 1007	324
19	UNIV OF MINN	P DOTY	MSFC	J DERBY	NAG 8 1258	323
19	UNIV OF MINN	R HOFFMAN	GSFC	C CATELL	NAG 5 7885	322
19	UNIV OF MINN	R J MACDOWELL	GSFC	K GOETZ	NAS 5 32994	324
19	UNIV OF TEXAS-PAN AMERICAN	A BEAM	MSFC	A LUMSDAINE	NAG 8 1634	488
19	UNIV OF AKRON	D NG	GRC	G C GIAKOS	NAG 3 2632	421
19	UNIV OF ALABAMA - BIRMINGHAM	C HUA SU	MSFC	R SCRIPPA	NCC 8 204	6
19	UNIV OF ALABAMA - BIRMINGHAM	P DOTY	MSFC	J B ANDREWS	NAG 8 1228	6
19	UNIV OF ALABAMA - BIRMINGHAM	P M DOTY	MSFC	J W MAYS	NAG 8 1678	6
19	UNIV OF ALABAMA - HUNTSVILLE	C H SU	MSFC	J BAIRD	NAG 8 1850	12
19	UNIV OF ALABAMA - HUNTSVILLE	D STARR	GSFC	M J NEWCHURCH	NAG 5 11100	11
19	UNIV OF ALABAMA - HUNTSVILLE	E ETHRIDGE	MSFC	W KINKLER	NCC 8 207	13
19	UNIV OF ALABAMA - HUNTSVILLE	H K HIGGINBOTHAM	MSFC	R JUDGE	NAG 8 1816	12

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19	UNIV OF ALABAMA - HUNTSVILLE	P DOTY	MSFC	S FETH	NCC 8 205	13
19	UNIV OF ALABAMA - HUNTSVILLE	R HOFFMAN	GSFC	R SHELDON	NAG 5 9741	10
19	UNIV OF ALABAMA - HUNTSVILLE	R N GRUGEL	MSFC	A FEDOSEYEV	NCC 8 209	14
19	UNIV OF ALABAMA - HUNTSVILLE	S NASH-STEVENSON	MSFC	W PACIESAS	NGT 8 52886	14
19	UNIV OF ALABAMA - UNIV	M PURVEY	MSFC	D M STEFANESCU	NAS 8 00207	16
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19	UNIV OF ARIZONA	A T CHAI	GRC	J JACOBS	NAG 3 1869	25
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19	UNIV OF ARIZONA	J GURMAN	GSFC	J JOKIPII	NAG 5 10893	35
19	UNIV OF ARIZONA	P DOTY	MSFC	K J JACKSON	NAG 8 1667	37
19	UNIV OF ARKANSAS - LITTLE ROCK	C J BRYAN	KSC	T VISWANATHAN	NAG10 277	40
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19	UNIV OF CALIFORNIA - BERKELEY	M ACUNA	GSFC	C CARLSON	NAG 5 9650	73
19	UNIV OF CALIFORNIA - BERKELEY	M GOLDSTEIN	GSFC	F MOZER	NAG 5 9975	74
19	UNIV OF CALIFORNIA - BERKELEY	M GOLDSTEIN	GSFC	G K PARKS	NAG 5 10131	74
19	UNIV OF CALIFORNIA - BERKELEY	P J SHIRRON	GSFC	P L RICHARDS	NAG 5 10713	75
19	UNIV OF CALIFORNIA - BERKELEY	P M DOTY	MSFC	J W EVANS	NAG 8 1458	75
19	UNIV OF CALIFORNIA - BERKELEY	R HOFFMAN	GSFC	F MOZER	NAG 5 8078	71
19	UNIV OF CALIFORNIA - BERKELEY	R HOFFMAN	GSFC	G PARKS	NAG 5 10466	74
19	UNIV OF CALIFORNIA - BERKELEY	W B JOHNSON	GSFC	C W CARLSON	NAG 6 10	75
19	UNIV OF CALIFORNIA - IRVINE	J DORBAND	GSFC	I SCHERSON	NAG 5 9695	85
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19	UNIV OF CALIFORNIA - LOS ANGELES	M MELLOTT	GSFC	P L PRITCHETT	NAG 5 8060	90
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19	UNIV OF CALIFORNIA - RIVERSIDE	J GURMAN	GSFC	G ZANK	NAG 5 10932	96
19	UNIV OF CALIFORNIA - SAN DIEGO	D STARR	GSFC	D STRAMSKI	NAG 5 6466	98
19	UNIV OF CALIFORNIA - SAN DIEGO	E K STANSBERY	JSC	M H THIEMENS	NAG 9 1002	102
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19	UNIV OF COLORADO - BOULDER	C P MCKAY	ARC	M A TOLBERT	NGT 2 52270	140
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19	WASHINGTON UNIV - ST	E K STANSBERY	JSC	F A PODOSEK	NAG 9 1010	336
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22	ARIZONA STATE UNIV	R A MORRIS	ARC	S KAMBHAMPPATI	NAG 2 1461	19
22	ARIZONA STATE UNIV	R MORRIS	ARC	C BARAL	NCC 2 1232	23
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22	BOWIE STATE UNIV	W TRUSzkowski	GSFC	S SRIVASTAVA	NCC 5 235	240
22	BROWN UNIV	M SHAFTO	ARC	S A SLOMAN	NCC 2 1217	459
22	CALIFORNIA INST OF TECH	J FISCHER	GSFC	T STERLING	NAG 5 8576	45
22	CARNEGIE - MELLON UNIV	C L FARMER	JSC	R SIMMONS	NAG 9 1326	438
22	CARNEGIE - MELLON UNIV	D CLANCY	ARC	R SIMMONS	NCC 2 5438	439
22	CARNEGIE - MELLON UNIV	J COUGHLAN	ARC	C GLYMOUR	NCC 2 1227	439
22	CARNEGIE - MELLON UNIV	M E DUENAS	ARC	J H MORRIS	NCC 2 1188	438
22	CARNEGIE - MELLON UNIV	M H SIMS	ARC	W L WHITTAKER	NGT 2 52277	439
22	CARNEGIE - MELLON UNIV	M LOWRY	ARC	R G SIMMONS	NAG 2 1402	436
22	CARNEGIE - MELLON UNIV	M MATESSA	ARC	J R ANDERSON	NCC 2 1226	439
22	CARNEGIE - MELLON UNIV	M P MATESSA	ARC	B JOHN	NAG 2 1472	436
22	CARNEGIE - MELLON UNIV	M SHIRLEY	ARC	R SIMMONS	NAG 2 1393	436
22	CARNEGIE - MELLON UNIV	N MUSCETTOLA	ARC	J SCHNEIDER	NAG 2 1408	436
22	CARNEGIE - MELLON UNIV	P E HUNTER	GSFC	J SCHNEIDER	NAG 5 10739	437
22	CARNEGIE - MELLON UNIV	R MORRIS	ARC	J WING	NCC 2 1241	439
22	CARNEGIE - MELLON UNIV	R MORRIS	ARC	R SIMMONS	NCC 2 1243	439
22	CARNEGIE - MELLON UNIV	TL ROUGH	ARC	C GLYMOUR	NCC 2 1026	438
22	CAYUGA COUNTY COMM COLLEGE	W CAMPBELL	GSFC	R BROWN	NAG 5 7473	367
22	CENTRAL WASHINGTON UNIV	H V FREY	GSFC	C RUBIN	NAG 5 10501	533
22	CITY UNIV OF NY CITY COLLEGE	J HARRINGTON	GSFC	S AUSTIN	NCC 5 98	368
22	CITY UNIV OF NY CITY COLLEGE	J TILTON	GSFC	G WOLBERG	NAG 5 7129	368
22	CLEMSON UNIV - CLEMSON	G A SOFFEN	GSFC	LIGON	NGT 5 78	464
22	CLEMSON UNIV - CLEMSON	G A SOFFEN	GSFC	W LIGON	NGT 5 85	464
22	CLEMSON UNIV - CLEMSON	G SOFFEN	GSFC	W B LIGON	NGT 5 109	464
22	CLEMSON UNIV - CLEMSON	J DORBAND	GSFC	D LIGON III	NAG 5 10018	463
22	CLEMSON UNIV - CLEMSON	K MOE	GSFC	W LIGON	NAG 5 8605	462
22	CLEMSON UNIV - CLEMSON	P CORONADO	GSFC	D SASS	NAG 5 11329	463
22	CLEVELAND STATE UNIV	C KIM	GRC	J SANG	NAG 3 2509	410
22	COLLEGE OF WILLIAM AND MARY	P W GOODE	LARC	A S MINER	NGT 1 52195	508
22	COLLEGE OF WILLIAM AND MARY	P W GOODE	LARC	G CIARDO	NAG 1 2168	507
22	COLLEGE OF WILLIAM AND MARY	R HATHAWAY	LARC	N M ALEXANDROV	NGT 1 01008	508
22	DEPAUL UNIV	R W REMINGTON	ARC	C S MILLER	NCC 2 5414	200
22	DINE COLLEGE	L K ALDERETE	ARC	A SAM	NAG 2 6012	24
22	DREXEL UNIV	J FISCHER	GSFC	D VALLIERES	NAG 5 10026	440
22	EAST CAROLINA UNIV	J P ZIEBARTH	ARC	J C HUSKAMP	NAG 2 6045	396

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22	ELIZABETH CITY STATE UNIV	J HARRINGTON	GSFC	L HAYDEN	NCC 5 121	396
22	FLA INTERNATIONAL UNIV	M GROH-HAMMOND	KSC	M CENTENO	NAG10 292	163
22	FLA INTERNATIONAL UNIV	O MELENDEZ	KSC	I BECERRA-FERNANDEZ	NAG10 307	163
22	FLA INTERNATIONAL UNIV	S ROBERTS	KSC	I BECERRA-FERNANDEZ	NAG10 259	163
22	FLORIDA ATLANTIC UNIV	S YASSINI	ARC	T G KHOSGOFTAR	NCC 2 1141	165
22	GEORGE MASON UNIV	J DORBAND	GSFC	P Y WANG	NAG 5 9781	509
22	GEORGE MASON UNIV	J J REHDER	LARC	T ARCISZEWSKI	NAG 1 2258	509
22	GEORGE MASON UNIV	K L MOE	GSFC	D KAFATOS	NAG 5 10177	509
22	GEORGE WASHINGTON UNIV	E TORREZ-MARTINEZ	GSFC	D A WILLIAMSON	NAG 5 10539	152
22	GEORGE WASHINGTON UNIV	G A SOFFEN	GSFC	M H LOEW	NGT 5 30	154
22	GEORGE WASHINGTON UNIV	J LE MOIGNE	GSFC	T EL-GHAZAWI	NAG 5 11101	152
22	GEORGE WASHINGTON UNIV	R BISWAS	ARC	M MYERS	NAG 2 1456	152
22	GEORGIA INST OF TECH	C M FALSETTI	ARC	I F AKYILDIZ	NAG 2 1262	182
22	GEORGIA INST OF TECH	F J MONTEGANI	GRC	E W ZEGURA	NGT 3 52329	187
22	GEORGIA INST OF TECH	J CATENA	GSFC	C MITCHELL	NAG 5 7519	184
22	GEORGIA INST OF TECH	P C SCHUTTE	LARC	A R PRITCHETT	NAG 1 2175	182
22	GEORGIA INST OF TECH	W TRUSZOKWSKI	GSFC	C MITCHELL	NAG 5 7420	184
22	HARVARD UNIV	R A MORRIS	ARC	A J PFEFFER	NCC 2 1236	285
22	HOWARD UNIV	J STEPHENS	GSFC	C GLOTZER	NAS 5 00214	155
22	HOWARD UNIV	W TRUSZOKWSKI	GSFC	J TRIMBLE	NAG 5 8790	155
22	INDIANA UNIV	T BABRAUCKAS	GRC	A ECER	NAG 3 2260	214
22	INDIANA UNIV - BLOOMINGTON	M E LIVINGSTON	ARC	D B LEAKE	NCC 2 1035	216
22	INDIANA UNIV - BLOOMINGTON	M G SHAFTO	ARC	D B LEAKE	NCC 2 1216	216
22	INDIANA UNIV - BLOOMINGTON	P S MINER	LARC	S D JOHNSON	NGT 1 01009	216
22	IOWA STATE UNIV	M R LOWRY	ARC	A KELKAR	NAG 2 1471	222
22	JACKSON STATE UNIV	B A BIEGEL	ARC	Q MALLUHI	NAG 2 1485	326
22	JOHNS HOPKINS UNIV	G H MUCKLOW	GSFC	S HAWKINS	NAG 5 8688	245
22	JOHNS HOPKINS UNIV	H STEWART	ARC	K J HEERES	NAG 2 1476	241
22	JOHNS HOPKINS UNIV	M SHIRLEY	ARC	K J HEERES	NAG 2 1477	241
22	JOHNS HOPKINS UNIV	P E HUNTER	GSFC	P Z KUNSZT	NAG 5 10742	249
22	KANSAS STATE UNIV	M R LOWRY	ARC	D A SCHMIDT	NAG 2 1209	228
22	LA SALLE UNIV	D G SICKOREZ	JSC	M TAVANA	NAG 9 1196	441
22	LOUISIANA STATE UNIV - BATON ROUGE	S SAINI	ARC	A NAKANO	NCC 2 5320	234
22	LOYOLA COLLEGE	J LE MOIGNE	GSFC	P EASTMAN	NAG 5 10230	253
22	MASSACHUSETTS INST OF TECH	D E ECKMARDT	LARC	N LEVESON	NAG 1 2239	287
22	MASSACHUSETTS INST OF TECH	D L KAO	ARC	R HAIMES	NCC 2 985	298
22	MASSACHUSETTS INST OF TECH	J REUTHER	ARC	R HAIMES	NCC 2 1269	298
22	MASSACHUSETTS INST OF TECH	M J AFTOSMIS	ARC	R HAIMES	NAG 2 1458	288
22	MASSACHUSETTS INST OF TECH	M M ESHOW	ARC	D N JACKSON	NAG 2 1338	287
22	MASSACHUSETTS INST OF TECH	P M JONES	ARC	N G LEVESON	NCC 2 1223	298
22	MASSACHUSETTS INST OF TECH	R A MORRIS	ARC	S ZILBERSTEIN	NAG 2 1463	288
22	MASSACHUSETTS INST OF TECH	R MORRIS	ARC	B C WILLIAMS	NCC 2 1235	298
22	MASSACHUSETTS INST OF TECH	R MORRIS	ARC	B WILLIAMS	NAG 2 1466	288
22	MASSACHUSETTS INST OF TECH	R MORRIS	ARC	L KAELBLING	NCC 2 1237	298
22	MASSACHUSETTS INST OF TECH	S LAU	ARC	B C WILLIAMS	NAG 2 1388	288
22	MASSACHUSETTS INST OF TECH	S LAU	ARC	L R YOUNG	NCC 2 570	298
22	MASSACHUSETTS INST OF TECH	S YASSINI	ARC	N LEVESON	NCC 2 1150	298
22	MASSACHUSETTS INST OF TECH	Y K LIU	ARC	R L RIVEST	NAG 2 1136	287
22	MICHIGAN TECHNOLOGICAL UNIV	J R FISCHER	GSFC	D MERKEY	NAG 5 8796	309
22	MORGAN STATE UNIV	J BENNETT	GSFC	W LUPTON	NCC 5 122	254
22	MORGAN STATE UNIV	J MOIGNE	GSFC	D COLE-RHODES	NAG 5 10934	254
22	NEW MEXICO STATE UNIV - LAS CRUCES	R E STREITMATTER	GSFC	S STOCHAJ	NCC 5 422	363
22	NORTH CAROLINA A&T STATE UNIV	M G SHATTO	ARC	A C ESTERLINE	NAG 2 1413	397
22	NORTH CAROLINA A&T STATE UNIV	W TRUSZKOWSKI	GSFC	A ESTERLINE	NAG 5 4102	398
22	NORTH CAROLINA STATE UNIV	P S GHUMAN	GSFC	C GLOSTER	NAG 5 7942	400
22	NORTHWESTERN UNIV	A GRADY	ARC	V E TAYLOR	NCC 2 1013	203
22	NORTHWESTERN UNIV	M H SHIRLEY	ARC	K D FORBUS	NCC 2 1017	203
22	OHIO STATE UNIV	D L KAO	ARC	H SHEN	NCC 2 1261	418
22	OHIO UNIV	B B PFARR	GSFC	L WELCH	NAG 5 10349	419
22	OHIO UNIV	B PFAR	GSFC	L WELCH	NAS 5 00185	419
22	OHIO UNIV	J M SEATON	LARC	R L WILLIAMS	NAG 1 2099	419
22	OLD DOMINION UNIV	E SIMAN-TOV	LARC	R MUKKAMALA	NAG 1 2143	515
22	OLD DOMINION UNIV	J N MOSS	LARC	D E KEYES	NAG 1 01076	517
22	OLD DOMINION UNIV	M M LITTLE	LARC	K MALY	NAS 1 99160	518
22	OLD DOMINION UNIV	R SAVELY	JSC	R LOFTIN	NAG 9 1270	518

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22	OLD DOMINION UNIV	W H BRYANT	LARC	I B LEVINSTEIN	NAG 1 2323	516
22	OREGON GRADUATE INST OF SCI & TECH	I TUMER	ARC	T LEEN	NCC 2 1264	431
22	OREGON GRADUATE INST OF SCI & TECH	J SKILES	ARC	M PAVEL	NCC 2 1218	431
22	OREGON GRADUATE INST OF SCI & TECH	T R GOVINDAN	ARC	M A JABRI	NCC 2 1253	431
22	OREGON STATE UNIV	K MOE	GSFC	M S ABBOTT	NAG 5 8400	432
22	PENN	R OLIVERSEN	GSFC	R F KNACKE	NAG 5 3368	442
22	PENN STATE UNIV	A J AHUMADA	ARC	R KASTURI	NAG 2 1410	443
22	PENN STATE UNIV	A J AHUMADA	ARC	R KASTURI	NAG 2 1487	443
22	PENN STATE UNIV	J C NEWMAN	LARC	P RAGHAVAN	NAG 1 01085	442
22	PENN STATE UNIV	J E PALLIX	ARC	J L WISE	NCC 2 1211	450
22	PRAIRIE VIEW A&M UNIV	J HARINGTON	GSFC	J R WILLIAMS	NCC 5 115	476
22	PRINCETON UNIV	M MEYYAPPAN	ARC	I AKSAY	NAG 2 1475	352
22	PURDUE UNIV	A NURRIDIN	HQ	L H JAMIESON	NGT 5 50222	220
22	PURDUE UNIV	C A HLAVKA	ARC	C BRODLEY	NCC 2 1245	219
22	RICE UNIV	D FOLTZ	GRC	D B JOHNSON	NAG 3 2534	477
22	RICE UNIV	J R FISCHER	GSFC	K KENNEDY	NAG 5 2736	477
22	RUTGERS ST UNIV N	M R LOWRY	ARC	S AMAREL	NAG 2 1234	356
22	RUTGERS ST UNIV N	R PETRE	GSFC	J HUGHES	NAG 5 6420	357
22	RUTGERS STATE UNIV OF NJ NEW BRUNS	M SCHWABACHER	ARC	H HIRSCH	NCC 2 1259	360
22	SAN FRANCISCO STATE UNIV	P R GRAMS	ARC	H SHAHNASSER	NCC 2 5301	55
22	SAN JOSE STATE UNIV	D KOZARSKY	ARC	G POUR	NAG 2 1421	55
22	SAN JOSE STATE UNIV	M E LIVINGSTON	ARC	R FATOOGHI	NCC 2 1015	56
22	SAN JOSE STATE UNIV	T A LASINSKI	ARC	R FATOOGHI	NCC 2 1071	56
22	SOUTH CAROLINA STATE UNIV	J BENNETT	GSFC	D K WALTER	NCC 5 116	465
22	SOUTHERN UNIV & A&M COLLEGE	D F NOGA	GRC	D MOREMAN	NAG 3 2076	235
22	SOUTHERN UNIV & A&M COLLEGE	G S LEE	ARC	S K TRivedi	NAG 2 1159	235
22	SOUTHERN UNIV & A&M COLLEGE	P NORVIG	ARC	C DEBESSONET	NAG 2 1273	235
22	SOUTHERN UNIV & A&M COLLEGE	R MORRIS	ARC	C DEBESSONER	NAG 2 1468	235
22	STANFORD UNIV	J A KURIEN	ARC	R E FIKEs	NAG 2 1337	59
22	STANFORD UNIV	M G BUALAT	ARC	S ROCK	NCC 2 1154	64
22	STANFORD UNIV	M GERALD-YAMASAKI	ARC	H GARCIA-MOLINA	NCC 2 5278	65
22	STANFORD UNIV	N N MANSOUR	ARC	E F DARVE	NCC 2 5467	66
22	STANFORD UNIV	P S MINER	LARC	D L DILL	NAS 1 98139	64
22	STANFORD UNIV	R MORRIS	ARC	S M ROCK	NAG 2 1464	59
22	STANFORD UNIV	W J CLANCY	ARC	L J LEIFFER	NAG 2 1257	59
22	STATE UNIV OF NY - STONY BROOK	D WEST	GSFC	F SWETSY	NAG 5 8377	390
22	SYRACUSE UNIV	C COLES-HAMILTON	GRC	N AVAILABLE	NAS 3 00172	393
22	SYRACUSE UNIV	E J MASUOKA	GSFC	P K VARSHNEY	NAG 5 11227	393
22	TENNESSEE STATE UNIV	J HARRINGTON	GSFC	W A SMITH	NCC 5 96	468
22	TENNESSEE STATE UNIV	K A FREEMAN	ARC	W A SMITH	NAG 2 1419	468
22	TENNESSEE STATE UNIV	K BALLARD	KSC	S SINGH DEVGAN	NAG10 217	468
22	TENNESSEE STATE UNIV	M E DUENAS	ARC	W A SMITH	NCC 2 1205	468
22	TENNESSEE STATE UNIV	S P COLOMBANO	ARC	M S ZEIN-SABATTO	NAG 2 1473	468
22	TEXAS A&M UNIV-KINGSVILLE	W LOVE	MSFC	B SCHREUR	NAG 8 1650	485
22	TEXAS SOUTHERN UNIV	Y O GAWDIAK	ARC	O H CRINER	NAG 2 1447	485
22	THE UNIV OF CENTRAL FLORIDA	C G STEVENSON	KSC	F J GOMEZ	NAG10 273	170
22	THE UNIV OF CENTRAL FLORIDA	J PENIX	ARC	G H WALTON	NAG 2 1465	169
22	TOWSON STATE UNIV	W TRUSzkowski	GSFC	B N NAG	NCC 5 488	254
22	TUFTS UNIV	J F DOWDY	MSFC	K P LENTL	NAG 8 1311	301
22	UNIV HOUSTON-HOUSTON	J YAN	ARC	B CHAPMAN	NCC 2 5394	487
22	UNIV HOUSTON-HOUSTON	R P KEHOE	JSC	G VALIAS	NAG 9 1223	487
22	UNIV HOUSTON-HOUSTON	R SAVELY	JSC	B LOFTIN	NAG 9 985	486
22	UNIV OF MINN	C S POTTER	ARC	V KUMAR	NCC 2 1231	324
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22	UNIV OF MINN	R MORRIS	ARC	M HEIMDAHL	NCC 2 1240	324
22	UNIV OF MINN	R W BUTLER	LARC	M E HEMDAHL	NAG 1 2242	320
22	UNIV	P M JONES	ARC	J ZHANG	NCC 2 1234	490
22	UNIV	R T SAVELY	JSC	H WANG	NAG 9 1247	490
22	UNIV OF ALABAMA - HUNTSVILLE	J BEHNKE	GSFC	D GRAVES	NAG 5 9585	10
22	UNIV OF ALABAMA - HUNTSVILLE	J BREDEKAMP	GSFC	D G RICHARDS	NAG 5 4003	7
22	UNIV OF ALABAMA - HUNTSVILLE	K L MOE	GSFC	D GRAVES	NAG 5 10407	10
22	UNIV OF ALABAMA - HUNTSVILLE	S LAU	ARC	M BOTTS	NAS 2 00102	12
22	UNIV OF ALABAMA - HUNTSVILLE	S LAU	ARC	S GRAVES	NAS 2 01003	12
22	UNIV OF ARIZONA	P E HUNTER	GSFC	M V SYKES	NAG 5 10749	35
22	UNIV OF ARIZONA	S LAU	ARC	T MILSTER	NAS 2 00117	38

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22	UNIV OF CALIFORNIA - BERKELEY	J D SMITH	ARC	S S SASTRY	NGT 2 52259	77
22	UNIV OF CALIFORNIA - BERKELEY	M M SIMS	ARC	L W STARK	NAG 2 1135	67
22	UNIV OF CALIFORNIA - BERKELEY	M R LOWREY	ARC	T A HENZINGER	NAG 2 1214	68
22	UNIV OF CALIFORNIA - BERKELEY	M R LOWRY	ARC	A AOLEM	NAG 2 1210	67
22	UNIV OF CALIFORNIA - DAVIS	A VAZIRI	ARC	B HAMANN	NAG 2 1216	80
22	UNIV OF CALIFORNIA - DAVIS	C M FALSETTI	ARC	M BISHOP	NAG 2 1251	80
22	UNIV OF CALIFORNIA - DAVIS	D KWAK	ARC	M HAFEZ	NCC 2 5387	82
22	UNIV OF CALIFORNIA - DAVIS	S DAINI	ARC	J DONGARRA	NCC 2 5313	82
22	UNIV OF CALIFORNIA - DAVIS	W R VAN DALSEM	ARC	J J CHATTOT	NAG 2 1459	80
22	UNIV OF CALIFORNIA - LOS ANGELES	B H WHITAKER	ARC	M GERLA	NAG 2 1249	87
22	UNIV OF CALIFORNIA - LOS ANGELES	T J BARTH	ARC	T F CHAN	NAG 2 1238	87
22	UNIV OF CALIFORNIA - SAN DIEGO	C H SCHULBACK	ARC	F BERMAN	NGT 2 52251	104
22	UNIV OF CALIFORNIA - SAN DIEGO	J BREDEKAMP	GSFC	D C PUETTER	NAG 5 3944	97
22	UNIV OF CALIFORNIA - SANTA BARBARA	K MOE	GSFC	L L HILL	NAG 5 8542	107
22	UNIV OF CALIFORNIA - SANTA CRUZ	A VAZIRI	ARC	A PANG	NCC 2 5281	113
22	UNIV OF CALIFORNIA - SANTA CRUZ	A VAZIRI	ARC	A VANGELDER	NAG 2 1239	111
22	UNIV OF CALIFORNIA - SANTA CRUZ	D L KAO	ARC	A PANG	NCC 2 1260	113
22	UNIV OF CHICAGO	D SPICER	GSFC	D OLSON	NAG 5 9016	206
22	UNIV OF COLORADO - BOULDER	D CAREK	GRC	E HANSEN	NAG 3 2643	124
22	UNIV OF COLORADO - BOULDER	G MUCKLOW	GSFC	E R HANSEN	NAG 5 8643	131
22	UNIV OF COLORADO - BOULDER	J BREDEKAMP	GSFC	M M LIGHTNER	NAG 5 3997	125
22	UNIV OF COLORADO - BOULDER	K L MOE	GSFC	R L WEAVER	NAG 5 11292	138
22	UNIV OF COLORADO - BOULDER	K MOE	GSFC	R L WEAVER	NAG 5 8399	131
22	UNIV OF CONNECTICUT	F MARTIN	JSC	M MOREAU	NAG 9 1243	145
22	UNIV OF DAYTON	W D IVANCIC	GRC	M ATIQUZZAMAN	NAG 3 2318	424
22	UNIV OF DELAWARE	J RASH	GSFC	C SHEN	NAG 5 11232	150
22	UNIV OF FLORIDA	A T LEE	JSC	Y H LEE	NCC 9 84	175
22	UNIV OF FLORIDA	H PARTRIDGE	ARC	S SINNOTT	NCC 2 5403	175
22	UNIV OF GREENWICH	S SAINI	ARC	M CROSS	NAG 2 1339	558
22	UNIV OF HAWAII AT MANOA - HONOLULU	R OLIVERSEN	GSFC	R D JOSEPH	NAG 5 3370	191
22	UNIV OF HOUSTON - CLEAR LAKE	R T SAVELY	JSC	E T DICKERSON	NCC 9 30	490
22	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	C CARLISLE	GSFC	M FOLK	NAG 5 2040	210
22	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	G A SOFFEN	GSFC	P SAYLOR	NGT 5 84	214
22	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	K A FREEMAN	ARC	K NAHRSTEDT	NAG 2 1250	209
22	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	K A FREEMEN	ARC	K NAHRSTEDT	NAG 2 1406	209
22	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	R MORRIS	ARC	B J WAH	NCC 2 1230	213
22	UNIV OF IOWA	M H SIMS	ARC	G W THOMAS	NAG 2 1167	225
22	UNIV OF MARYLAND - COLLEGE PARK	H PARK	GSFC	C F MARTIN	NCC 5 353	270
22	UNIV OF MARYLAND - COLLEGE PARK	J BREDEKAMP	GSFC	D C GOODRICH	NAG 5 4313	257
22	UNIV OF MARYLAND - COLLEGE PARK	J LEMONIGNE	GSFC	J JAJA	NAG 5 6699	259
22	UNIV OF MARYLAND - COLLEGE PARK	P E HUNTER	GSFC	M G WOLFIRE	NAG 5 10751	266
22	UNIV OF MARYLAND BALTIMORE COUNTY	A ROBERTS	GSFC	D S EBERT	NCC 5 361	275
22	UNIV OF MARYLAND BALTIMORE COUNTY	J SKILES	ARC	H KARGUPTA	NCC 2 1252	275
22	UNIV OF MASSACHUSETTS - AMHERST	J BRESINA	ARC	S ZILBERSTEIN	NAG 2 1394	302
22	UNIV OF MASSACHUSETTS - AMHERST	J BRESINA	ARC	S ZILBERSTEIN	NGT 2 52276	304
22	UNIV OF MASSACHUSETTS - AMHERST	M LIVINGSTON	ARC	A DESHMUKH	NCC 2 1265	304
22	UNIV OF MEMPHIS	T R GOVINDAN	ARC	R KOZMA	NCC 2 1244	469
22	UNIV OF MICHIGAN - ANN ARBOR	A NURRIDIN	HQ	M WELLMAN	NGT 5 50199	319
22	UNIV OF MONTANA	A PATTERSON-HINE	ARC	J HENRY	NCC 2 5397	339
22	UNIV OF MONTANA	K P GOODEN	ARC	R NEMANI	NCC 2 1263	339
22	UNIV OF NEVADA - LAS VEGAS	J BREDEKAMP	GSFC	D LATIFI	NAG 5 3994	342
22	UNIV OF NEW ORLEANS	A JOYCE	SSC	E RUSSO	NGT13 52714	237
22	UNIV OF NORTH CAROLINA - CHAPEL HILL	H THOMAS	ARC	G BISHOP	NGT 2 52254	403
22	UNIV OF NORTH CAROLINA - CHAPEL HILL	R OLIVERSEN	GSFC	C EVANS	NAG 5 3100	402
22	UNIV OF NORTH DAKOTA	D R PLUMER	GRC	M S ALI	NAG 3 1911	404
22	UNIV OF OKLAHOMA - NORMAN	W D IVANCIC	GRC	D ATIQUZZAMAN	NAG 3 2528	429
22	UNIV OF PUERTO RICO - MAYAGUEZ	R TRAVIS	SSC	M ROSADO	NGT13 52746	558
22	UNIV OF SOUTH CAROLINA-COLUMBIA	R TRAVIS	SSC	J JENSEN	NGT13 52723	466
22	UNIV OF SOUTHERN CALIFORNIA	C J PLAUNT	ARC	M TAMBE	NAG 2 1489	115
22	UNIV OF SOUTHERN CALIFORNIA	L STONE	ARC	T W BERGER	NCC 2 1242	118
22	UNIV OF SOUTHERN CALIFORNIA	T R GOVINDAN	ARC	L ADLEMAN	NCC 2 1224	118
22	UNIV OF TENNESSEE - KNOXVILLE	J R FISCHER	GSFC	J DONGARRA	NAG 5 8773	470
22	UNIV OF TENNESSEE - KNOXVILLE	S SAINI	ARC	J DONGARRA	NCC 2 5310	471
22	UNIV OF TENNESSEE - KNOXVILLE	SSAINI	ARC	J DONGARRA	NCC 2 5312	471
22	UNIV OF TEXAS - ARLINGTON	R BISWAS	ARC	S K DAS	NCC 2 5395	491

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22	UNIV OF TEXAS - AUSTIN	B COCKRELL	JSC	R H BISHOP	NGT 9 35	498
22	UNIV OF TEXAS - EL PASO	J BENNETT	GSFC	M KOLITSKY	NCC 5 97	500
22	UNIV OF TEXAS - EL PASO	M R LOWRY	ARC	A Q GATES	NAG 2 1012	499
22	UNIV OF TOLEDO	W K GERDES	LARC	A AETEH	NAG 1 2244	424
22	UNIV OF VIRGINIA	K J HAYHURST	LARC	J C KNIGHT	NAG 1 2290	522
22	UNIV OF VIRGINIA	K MOE	GSFC	J C FRENCH	NAG 5 8585	524
22	UNIV OF VIRGINIA	K MOE	GSFC	J FRENCH	NAG 5 9747	525
22	UNIV OF WASHINGTON	A ROBERTS	GSFC	T FURNESS	NCC 5 363	541
22	UNIV OF WASHINGTON	J STEPHENS	GSFC	S HAUCK	NAS 5 00212	541
22	UNIV OF WASHINGTON	J STEPHENS	GSFC	S HAUCK	NAS 5 00213	541
22	UNIV OF WEST FLORIDA	D CLANCY	ARC	J M BRADSHAW	NCC 2 1283	180
22	UNIV OF WEST FLORIDA	J SKILES	ARC	C M TENG	NCC 2 1239	180
22	UNIV OF WEST FLORIDA	M E DUENAS	ARC	K M FORD	NCC 2 1191	180
22	UNIV OF WEST FLORIDA	R L ALENA	ARC	J M BRADSHAW	NCC 2 1254	180
22	UNIV OF WISCONSIN - MADISON	F THEO	MSFC	J SANTARIUS	NAG 8 1719	553
22	UNIV OF WISCONSIN - MADISON	M GERALD-YAMASAKI	ARC	P CAO	NCC 2 5260	554
22	UNIV OF WISCONSIN - MADISON	W E JOHNSTON	ARC	M LIVNY	NCC 2 5323	554
22	UNIV OF WYOMING	D G SICKOREZ	JSC	R	NGT 9 36	556
22	UTAH STATE UNIV	P E HUNTER	GSFC	T BOSE	NAG 5 10716	505
22	VA POLYTECH INST & ST UNIV	J M SEATON	LARC	G J OGLE	NGT 1 52224	532
22	VA POLYTECH INST & ST UNIV	T L HOLST	ARC	R K KAPANIA	NCC 2 5433	531
22	VALENCIA COMM COLLEGE	G BUCKINGHAM	KSC	K WOODBERRY	NAG10 165	180
22	VANDERBILT UNIV	R ARONOFF	JSC	C HACHEY	NAG 9 1273	472
22	VANDERBILT UNIV	R MORRIS	ARC	G BISWAS	NCC 2 1238	473
22	WESTERN MICHIGAN UNIV	J L DUNGAN	ARC	C W EMERSON	NCC 2 1246	320
22	WINSTON-SALEM STATE UNIV	G FOLLEN	GRC	A RADENSKI	NAG 3 2011	404
22	WINSTON-SALEM STATE UNIV	G J FOLLEN	GRC	D RADENSKI	NAG 3 2515	404
22	WRIGHT STATE UNIV	W J CLANCEY	ARC	V L SHALIN	NAG 2 1237	428
22	WRIGHT STATE UNIV	W J CLANCEY	ARC	V L SHALIN	NCC 2 1203	428
22	YALE UNIV	R MORRIS	ARC	P HUDAK	NCC 2 1229	148
29	ALABAMA A&M UNIV	R TILLEY	KSC	M ELSHAMY	NAG10 245	2
29	ARIZONA STATE UNIV	P W GOODE	LARC	M P MIGNOLET	NAG 1 2233	19
29	BROWN UNIV	H L ATKINS	LARC	C SHA	NGT 1 01037	460
29	BROWN UNIV	H L ATKINS	LARC	C W SHU	NCC 1 01035	459
29	BROWN UNIV	H L ATKINS	LARC	J RYAN	NGT 1 52243	460
29	BROWN UNIV	M H CARPENTER	LARC	A KANESKY	NGT 1 01024	460
29	CALIFORNIA INST OF TECH	J J RENTHER	ARC	N A PIERRE	NCC 2 5431	49
29	CARNEGIE - MELLON UNIV	C H SCHULBACH	ARC	T C MOWRY	NAG 2 1230	436
29	CASE WESTERN RESERVE UNIV	C R MERCER	GRC	S H IZEN	NAG 3 2210	406
29	CITY UNIV	D CENTENO-GOMEZ	GRC	G MELENDEZ-DELANEY	NAG 3 2057	367
29	COLLEGE OF WILLIAM AND MARY	P C SCHUTTE	LARC	S FEYOCK	NAG 1 2271	507
29	DINE COLLEGE	L ARMENDARIZ	JSC	M C BAUER	NAG 9 968	24
29	DREXEL UNIV	J R FISCHER	GSFC	B FRYXELL	NAG 5 6029	440
29	ELIZABETH CITY STATE UNIV	D C ROBINSON	GRC	D PENDHARKAR	NAG 3 2556	396
29	FAYETTEVILLE STATE UNIV	R F LAWRENCE	GRC	L EDWARDS	NAG 3 2072	397
29	FLA INTERNATIONAL UNIV	R J MCKINNEY	KSC	G A ROIG	NAG10 268	163
29	FLORIDA A&M UNIV	T GUO	GRC	E G COLLINS	NAG 3 2193	163
29	FLORIDA MEMORIAL COLLEGE	R MC KINNEY	KSC	H HUISSO	NAG10 247	166
29	GEORGE MASON UNIV	J J RENDER	LARC	T ARCISZEWSKI	NAG 1 01030	509
29	GEORGE WASHINGTON UNIV	G D BLANEY	ARC	M KRUPSAW	NGT 2 52223	153
29	GEORGE WASHINGTON UNIV	G D BLANEY	ARC	M KRUPSAW	NGT 2 52263	154
29	GEORGIA INST OF TECH	C T RAMOS	GRC	I F AKYILDIZ	NAG 3 2580	183
29	GEORGIA INST OF TECH	P W GOODE	LARC	A J CALISE	NAG 1 2243	182
29	HOWARD UNIV	R M BUTTON	GRC	D A MOMOH	NAG 3 2429	154
29	JOHNS HOPKINS UNIV	J BREDEKAMP	GSFC	G MURPHY	NAG 5 8548	244
29	KENT STATE UNIV	L SHAW	GRC	S RYAN	NGT 3 52309	413
29	MASSACHUSETTS INST OF TECH	D R ISSACSON	ARC	A R ODONI	NAG 2 1128	287
29	MASSACHUSETTS INST OF TECH	G FOLLEN	GRC	R HAIMES	NAG 3 2523	289
29	MT HOLYOKE COLLEGE	CHOLLINGSWORTH	GSFC	J MORROW	NAG 5 10238	300
29	NEW JERSEY INST OF TECH	J LITT	GRC	D P DHAWAN	NAG 3 2475	350
29	NORTHEASTERN UNIV	M S BURRELL	GSFC	M LEESER	NGT 5 122	300
29	OHIO UNIV	J M SEATON	LARC	R L WILLIAMS	NAG 1 2299	419
29	OHIO UNIV	J M SEATON	LARC	R L WILLIAMS	NAG 1 01094	419
29	OLD DOMINION UNIV	D P GARBER	LARC	M H DUNN	NAG 1 01068	517
29	OLD DOMINION UNIV	D R JONES	LARC	D A DRYER	NAG 1 2330	516
29	OLD DOMINION UNIV	J J REHDER	LARC	A K NOOR	NCC 1 01040	519

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29	OLD DOMINION UNIV	R C SINGLETERRY JR	LARC	J H HEINBOCKEL	NCC 1 404	519
29	OLD DOMINION UNIV	S D YOUNG	LARC	D A JACOBS	NGT 1 01011	520
29	SOUTHERN UNIV & A&M COLLEGE	G JERMAN	MSFC	J DYER	NCC 8 156	236
29	TEMPLE UNIV	B C DRAKE	GSFC	S K BISWAS	NAG 5 8649	452
29	THE UNIV OF CENTRAL FLORIDA	C M CLESKEY	KSC	R HOFER	NCA10 35	170
29	UNIV OF MINN	A NURRIDIN	HQ	L RUDNICK	NGT 5 50123	325
29	UNIV OF AKRON	J R SCOTT	GRC	D I HAIHARAN	NAG 3 2182	420
29	UNIV OF ALABAMA - HUNTSVILLE	F MAYHALL	MSFC	W MORSE	NCC 8 178	13
29	UNIV OF CALIFORNIA - BERKELEY	J BREDEKAMP	GSFC	D L BUZASI	NAG 5 8489	72
29	UNIV OF CALIFORNIA - DAVIS	D KWAK	ARC	M HAFEZ	NCC 2 5426	82
29	UNIV OF CALIFORNIA - LOS ANGELES	J R FISCHER	GSFC	C MECHOSO	NCC 5 149	94
29	UNIV OF CALIFORNIA - SAN DIEGO	A POHORILLE	ARC	V GALINSKY	NCC 2 5302	103
29	UNIV OF CALIFORNIA - SAN DIEGO	M H NEW	ARC	V GALLINSKY	NCC 2 5448	103
29	UNIV OF DAYTON	W D MORRIS	LARC	C E EBELING	NAS 1 99148	424
29	UNIV OF HOUSTON - CLEAR LAKE	D OVERLAND	JSC	T FEAGIN	NAG 9 1295	490
29	UNIV OF HOUSTON - CLEAR LAKE	JARRELL	JSC	R S CHHIKARA	NCC 9 76	490
29	UNIV OF MARYLAND - COLLEGE PARK	J R FISCHER	GSFC	P LYSTER	NCC 5 150	270
29	UNIV OF MICHIGAN - ANN ARBOR	J R FISCHER	GSFC	T GOMBOSI	NCC 5 146	317
29	UNIV OF NEW HAMPSHIRE - DURHAM	M MAIDEN	GSFC	B MOORE	NCC 5 304	349
29	UNIV OF TEXAS - AUSTIN	E L CHRISTIANSEN	JSC	E P FAHRENTHOLD	NCC 9 73	497
29	UNIV OF TEXAS - AUSTIN	J R FISCHER	GSFC	G CAREY	NCC 5 154	497
29	UNIV OF TOLEDO	J D STEGEMAN	GRC	D D JOHNSON	NAG 3 2594	425
29	UNIV OF TOLEDO	J LITT	GRC	A P DHAWAN	NAG 3 2282	425
29	UNIV OF VIRGINIA	B MERRITT	WFF	G WILLIAMS	NAG 5 10956	526
29	UNIV OF VIRGINIA	P M GOODE	LARC	B W JOHNSON	NGT 1 01016	527
29	UNIV OF VIRGINIA	P W GOODE	LARC	C R ELKS	NGT 1 52237	527
29	UNIV OF WASHINGTON	M WEI	GSFC	T QUINN	NGT 5 126	542
29	UNIV OF WASHINGTON	S LIANG	ARC	H QIAN	NCC 2 5463	541
29	WASHINGTON STATE UNIV	B A BIEGEL	ARC	M A OSMAN	NCC 2 5346	544
29	WEST VIRGINIA UNIV	D S OSBURN	ARC	A C COGLEY	NCC 2 979	545
29	WINSTON-SALEM STATE UNIV	F SIX	MSFC	F LEE	NAG 8 1099	404
31	ALABAMA A&M UNIV	P SAKIMOTO	GSFC	A TAN	NAG 5 10202	1
31	ALABAMA A&M UNIV	R ARNOLD	MSFC	T L COLEMAN	NCC 8 140	2
31	ALMA COLLEGE	M J MCGILL	GSFC	J H GIBSON	NAG 5 10118	306
31	ARIZONA STATE UNIV	R LAWRENCE	GSFC	P R BUSECK	NAG 5 9838	22
31	BOSTON UNIV	B SINGH	GRC	A NADIM	NAG 3 1844	276
31	BOSTON UNIV	C S POTTER	ARC	R B MYNNENI	NAG 2 1432	276
31	BOSTON UNIV	D TOLL	GSFC	R B MYNNENI	NAS 5 96061	280
31	BOSTON UNIV	H OSEROFF	GSFC	W STRAHLER	NAS 5 31369	280
31	BOSTON UNIV	J ARNOLD	MSFC	G D SALVUCCI	NAG 8 1522	280
31	BRIGHAM YOUNG UNIV	R J LAWRENCE	GSFC	D G LONG	NAG 5 9638	502
31	BROWN UNIV	R MCKELLIP	SSC	MUSTARD	NAG13 39	459
31	CALIFORNIA INST OF TECH	E HILSENRATH	GSFC	Y L YUNG	NAG 5 7230	45
31	CALIFORNIA INST OF TECH	G L MADDREA	LARC	Y L YUNG	NAG 1 2151	41
31	CALIFORNIA INST OF TECH	H HASAN	GSFC	D P INGERSOLL	NAG 5 4191	42
31	CALIFORNIA INST OF TECH	J BERGSTRALH	GSFC	D L YUNG	NAG 5 6263	44
31	CALIFORNIA INST OF TECH	M CHOU	GSFC	Y L YUNG	NAG 5 7680	45
31	CALIFORNIA INST OF TECH	M J KURYLO	GSFC	D OKUMURA	NAG 5 3911	42
31	CALIFORNIA INST OF TECH	R J LAWRENCE	GSFC	P O WENNBERG	NAG 5 11157	48
31	CALIFORNIA INST OF TECH	R LAWRENCE	GSFC	D O WENNBERG	NAG 5 9307	45
31	CARNEGIE - MELLON UNIV	P HUNTER	GSFC	A F PTKA	NAG 5 8093	437
31	CHRISTOPHER NEWPORT UNIV	G W SOCHSE	LARC	N POGATCHER	NCC 1 318	507
31	CITY UNIV OF NY CITY COLLEGE	L TRAVIS	GSFC	N A PARKER	NCC 5 343	368
31	CITY UNIV OF NY CITY COLLEGE	L TRAVIS	GSFC	N A PARKER	NCC 5 520	368
31	CITY UNIV OF NY CITY COLLEGE	O W THIELE	GSFC	S GEDZELMAN	NAG 5 7827	368
31	CITY UNIV OF NY CITY COLLEGE	S GLICKER	GSFC	D AKINS	NAG 5 4019	368
31	CITY UNIV OF NY SYSTEM	J SIMMONDS	MSFC	W J PIERSON	NAG 8 1423	368
31	CLEMSON UNIV - CLEMSON	J BOYCE	GSFC	D CLAYTON	NAG 5 8304	462
31	CLEMSON UNIV - CLEMSON	O W THIELE	GSFC	C W ULBRICH	NAG 5 7782	462
31	COLLEGE OF CHARLESTON	P HUNTER	GSFC	J HAKKILA	NAG 5 10625	464
31	COLLEGE OF WILLIAM AND MARY	W CHU	LARC	D BRENNER	NAS 1 00146	508
31	COLORADO STATE UNIV	A J NEGR	GSFC	G L STEPHENS	NCC 5 288	122
31	COLORADO STATE UNIV	A J NEGR	GSFC	M T MONTGOMERY	NAG 5 11140	121
31	COLORADO STATE UNIV	B A WIELICKI	LARC	D A	NAS 1 98125	122
31	COLORADO STATE UNIV	D LEWIS	GSFC	G STEPHENS	NAS 5 99237	122
31	COLORADO STATE UNIV	D S McDUGAL	LARC	D A RANDALL	NAG 1 2081	119

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31	COLORADO STATE UNIV	D S MCDUGAL	LARC	D C ROGERS	NAG 1 2063	119
31	COLORADO STATE UNIV	D S MCDUGAL	LARC	W COTTON	NAG 1 2045	119
31	COLORADO STATE UNIV	G GIBSON	LARC	G L STEPHENS	NAS 1 99103	122
31	COLORADO STATE UNIV	J ARNOLD	MSFC	R A PIELKE	NAG 8 1511	121
31	COLORADO STATE UNIV	J R HERMAN	GSFC	J SLUSSER	NAG 5 11018	121
31	COLORADO STATE UNIV	M MISHCHENKO	GSFC	S M KREIDENWEIS	NAG 5 7783	120
31	COLORADO STATE UNIV	O THIELE	GSFC	D RANDALL	NAG 5 4749	120
31	COLORADO STATE UNIV	O W THIELE	GSFC	G L STEPHENS	NAG 5 7719	120
31	COLORADO STATE UNIV	O W THIELE	GSFC	V CHANDRASEKAR	NAG 5 7876	120
31	COLORADO STATE UNIV	O W THIELE	GSFC	V N BRINGI	NAG 5 7717	120
31	COLORADO STATE UNIV	R A ALDER	GSFC	S A RUTLEDGE	NAG 5 4754	120
31	COLORADO STATE UNIV	R J LAWRENCE	GSFC	D A RANDALL	NAG 5 9647	121
31	COLORADO STATE UNIV	R J LAWRENCE	GSFC	R H JOHNSON	NAG 5 9665	121
31	COLORADO STATE UNIV	R J LAWRENCE	GSFC	S A RUTLEDGE	NAG 5 9642	121
31	COLORADO STATE UNIV	R J LAWRENCE	GSFC	V CHANDRASEKAR	NAG 5 9655	121
31	COLORADO STATE UNIV	R J LAWRENCE	GSFC	W H SCHUBERT	NAG 5 11010	121
31	COLORADO STATE UNIV	R J LAWRENCE	GSFC	W K BERG	NAG 5 10482	121
31	COLORADO STATE UNIV	R L LAWRENCE	GSFC	C D KUMMEROW	NAG 5 11189	121
31	COLORADO STATE UNIV	R LAWRENCE	GSFC	D J DEMOTT	NAG 5 9308	121
31	COLORADO STATE UNIV	T MILLER	MSFC	S Q KIDDER	NAS 8 97082	122
31	COLORADO STATE UNIV	V DELNORE	LARC	G STEPHENS	NAG 1 2247	119
31	COLUMBIA UNIV	A LACIS	GSFC	L DRUYAN	NCC 5 473	374
31	COLUMBIA UNIV	A LACIS	GSFC	L M DRUYAN	NCC 5 270	373
31	COLUMBIA UNIV	A LACIS	GSFC	L M DRUYAN	NCC 5 546	374
31	COLUMBIA UNIV	B CARLSON	GSFC	C HARRIS	NCC 5 470	374
31	COLUMBIA UNIV	B CARLSON	GSFC	C HARRIS	NCC 5 549	374
31	COLUMBIA UNIV	D RIND	GSFC	M A CHANDLER	NCC 5 328	374
31	COLUMBIA UNIV	D RIND	GSFC	M CHANDLER	NCC 5 505	374
31	COLUMBIA UNIV	M I MISHCHENKO	GSFC	G KUKLA	NAG 5 7687	371
31	COLUMBIA UNIV	M KHAZENIE	GSFC	W BROECKER	NAG 5 6294	370
31	COLUMBIA UNIV	M S BURRELL	GSFC	A D DELGENIO	NGT 5 44	374
31	COLUMBIA UNIV	R B STOTHERS	GSFC	C K CHU	NCC 5 485	374
31	COLUMBIA UNIV	R B STOTHERS	GSFC	C K CHU	NCC 5 547	374
31	COLUMBIA UNIV	R STOTHERS	GSFC	L M POLVANI	NCC 5 558	374
31	COLUMBIA UNIV	R STOTHERS	GSFC	L POLVANI	NCC 5 278	374
31	COLUMBIA UNIV	R STOTHERS	GSFC	L POLVANI	NCC 5 469	374
31	COLUMBIA UNIV	R W STEWART	GSFC	T HALL	NAG 5 7138	371
31	CONCORDIA COLLEGE IN MOORHEAD	P R MAHAFFY	GSFC	H L MANNING	NAG 5 8626	320
31	CORNELL UNIV	G ASRAR	GSFC	L O HEDIN	NGT 5 30038	381
31	CORNELL UNIV	J ARNOLD	MSFC	W BRUTSAERT	NAG 8 1518	380
31	CORNELL UNIV	S NASH-STEVENSON	MSFC	K H COOK	NGT 8 52897	382
31	DENISON UNIV	R BEEBE	GSFC	D E MICKELSON	NAG 5 4341	412
31	DREXEL UNIV	E HILSENRATH	GSFC	D R BROOKS	NAG 5 8929	440
31	DREXEL UNIV	J L RAPER, SR.	LARC	A R BANDY	NCC 1 409	441
31	DREXEL UNIV	J L ROPER	LARC	A R BANDY	NCC 1 297	441
31	DUKE UNIV	R ROOD	GSFC	P KABIBHATLA	NAG 5 3665	394
31	FLORIDA A&M UNIV	R LEE	KSC	F B GROSS	NAG10 264	164
31	FLORIDA STATE UNIV	A J KRUEGER	GSFC	X ZOU	NAG 5 9410	168
31	FLORIDA STATE UNIV	A J NEGRIG	GSFC	E A SMITH	NAG 5 4752	166
31	FLORIDA STATE UNIV	J ARNOLD	MSFC	J J O	NCC 8 158	169
31	FLORIDA STATE UNIV	J ARNOLD	MSFC	T N KRISHNAMURTI	NAG 8 1537	168
31	FLORIDA STATE UNIV	J E ARNOLD	MSFC	T N KRISHNAMURTI	NAG 8 1848	168
31	FLORIDA STATE UNIV	J L RAPER, SR.	LARC	H E FUELBERG	NCC 1 412	168
31	FLORIDA STATE UNIV	J M HOELL, JR.	LARC	H E FUELBERG	NCC 1 308	168
31	FLORIDA STATE UNIV	J R RAPER	LARC	T N KRISHNAURTI	NAG 1 2127	166
31	FLORIDA STATE UNIV	M HALL	GSFC	I NAVON	NAG 5 4873	167
31	FLORIDA STATE UNIV	O W THIELE	GSFC	S E NICHOLSON	NAG 5 7718	167
31	FLORIDA STATE UNIV	O W THIELE	GSFC	T N KRISHNAMURTI	NAG 5 4729	166
31	FLORIDA STATE UNIV	P K BHARTA	GSFC	X ZOU	NAG 5 11067	168
31	FLORIDA STATE UNIV	R J LAWRENCE	GSFC	H A COOPER	NAG 5 10001	168
31	FLORIDA STATE UNIV	R J LAWRENCE	GSFC	T N KRISHNAMURTI	NAG 5 9662	168
31	FLORIDA STATE UNIV	W B ROSSOW	GSFC	G LIU	NAG 5 8647	167
31	GEORGE MASON UNIV	G MADDREA	LARC	M SUMMERS	NAG 1 2316	509
31	GEORGE WASHINGTON UNIV	R J LAWRENCE	GSFC	R H LANG	NAG 5 9550	152
31	GEORGE WASHINGTON UNIV	S HOWARD	GSFC	D M KEATING	NAG 5 6081	152
31	GEORGIA INST OF TECH	A DOUGLASS	GSFC	D FU	NAG 5 8895	184

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31	GEORGIA INST OF TECH	G L MADDREA	LARC	D M CUNNOLD	NAG 1 2202	182
31	GEORGIA INST OF TECH	G L MADDREA	LARC	D M CUNNOLD	NAS 1 18938	185
31	GEORGIA INST OF TECH	J BERGSTRALH	GSFC	D G STEFFES	NAG 5 4190	183
31	GEORGIA INST OF TECH	J C RIVERA	GSFC	D M CUNNOLD	NAS 5 00171	185
31	GEORGIA INST OF TECH	J L RAPER	LARC	H W GUAN	NCC 1 375	185
31	GEORGIA INST OF TECH	J L RAPER, SR.	LARC	F L EISELE	NCC 1 421	186
31	GEORGIA INST OF TECH	J L RAPER, SR.	LARC	R J WEBER	NCC 1 411	186
31	GEORGIA INST OF TECH	J L RAPER, SR.	LARC	S T SANDHOLM	NCC 1 417	186
31	GEORGIA INST OF TECH	J L RAPERS	LARC	D D DAVIS	NCC 1 01024	186
31	GEORGIA INST OF TECH	J L ROPER	LARC	F L EISELE	NCC 1 301	185
31	GEORGIA INST OF TECH	J M HOELL, JR.	LARC	D D DAVIS	NCC 1 306	185
31	GEORGIA INST OF TECH	J M HOELL	LARC	S C LIU	NCC 1 317	185
31	GEORGIA INST OF TECH	J M HOELL, JR.	LARC	S T SANDHOLM	NCC 1 296	185
31	GEORGIA INST OF TECH	M I MISHCHENKO	GSFC	M CHIN	NAG 5 7682	184
31	GEORGIA INST OF TECH	R MCPETERS	GSFC	P GINOUX	NAG 5 11063	184
31	GEORGIA INST OF TECH	S SCHUBERG	GSFC	R X BLACK	NAG 5 7471	184
31	GEORGIA INST OF TECH	S SCHUBERT	GSFC	R X BLACK	NAG 5 10374	184
31	GEORGIA INST OF TECH	Y SUD	GSFC	R DICKINSON	NAG 5 10209	184
31	HAMPTON UNIV	B A WIENCKI	LARC	B LIN	NAG 1 1963	511
31	HAMPTON UNIV	C JACKMAN	GSFC	D M RUSSELL	NAG 5 7001	512
31	HAMPTON UNIV	C JACKMAN	GSFC	J M RUSSELL	NAG 5 11065	512
31	HAMPTON UNIV	G G GIBSON	LARC	M P MCCORMICK	NAS 1 99108	513
31	HAMPTON UNIV	G G GIBSON	LARC	N G LOEB	NAG 1 2318	511
31	HAMPTON UNIV	G L MADDREA	LARC	M P MCCORMICK	NAG 1 2170	511
31	HAMPTON UNIV	J FISHMAN	LARC	T H CHYBA	NAG 1 2224	511
31	HAMPTON UNIV	L R POOLE	LARC	M P MCCORMICK	NAG 1 1947	510
31	HAMPTON UNIV	M I MISHCHENKO	GSFC	M MCCORMICK	NAG 5 8648	512
31	HAMPTON UNIV	P MINNIS	LARC	M P MCCORMICK	NAG 1 2135	511
31	HAMPTON UNIV	R A HATHAWAY	LARC	D A TEMPLE	NCC 1 01059	513
31	HAMPTON UNIV	R L DUNCAN	LARC	P MCCORMICK	NAS 1 97042	513
31	HAMPTON UNIV	V E DELNORE	LARC	N G LOEB	NAG 1 2206	511
31	HAMPTON UNIV	V E DELNORE	LARC	N G LOEB	NAG 1 01096	511
31	HARVARD UNIV	E P CONDON	ARC	J G ANDERSON	NAG 2 1300	282
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31	SAN JOSE STATE UNIV	D QUATTROCHI	MSFC	R BORNSTEIN	NAG 8 1735	56
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31	UNIV OF MICHIGAN - ANN ARBOR	C H JACKMAN	GSFC	W R SKINNER	NAG 5 10812	315
31	UNIV OF MICHIGAN - ANN ARBOR	C H JACKMAN	GSFC	W SKINNER	NAG 5 7474	313
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31	UNIV OF MICHIGAN - ANN ARBOR	D BOGAN	GSFC	S K ATREYA	NAG 5 11004	316
31	UNIV OF MICHIGAN - ANN ARBOR	D J BOGAN	GSFC	J H WAITE	NAG 5 11031	316
31	UNIV OF MICHIGAN - ANN ARBOR	G L MADDREA	LARC	J E PENNER	NAG 1 2042	309
31	UNIV OF MICHIGAN - ANN ARBOR	G R MADDREA	LARC	M A CARROLL	NAG 1 2181	309
31	UNIV OF MICHIGAN - ANN ARBOR	J BERGSTRALH	GSFC	D F NAGY	NAG 5 4912	312
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31	UNIV OF MICHIGAN - ANN ARBOR	J E RICHARDS	GSFC	S K ATREYA	NAG 5 10138	315
31	UNIV OF MICHIGAN - ANN ARBOR	J F SPANN	GSFC	M W LIEMOHN	NAG 5 10850	315
31	UNIV OF MICHIGAN - ANN ARBOR	J RICHARDS	GSFC	G ARIGNAN	NAS 5 99174	317
31	UNIV OF MICHIGAN - ANN ARBOR	M I MISHCHENKO	GSFC	J PENNER	NAG 5 7681	313
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31	UNIV OF MICHIGAN - ANN ARBOR	M W CASTLEMAN	MSFC	B GILCHRIST	NAS 8 37108	317
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31	UNIV OF MICHIGAN - ANN ARBOR	S WAY	GSFC	G CARIGNAN	NAS 5 32989	317
31	UNIV OF MICHIGAN - ANN ARBOR	W J WAGNER	GSFC	T H ZURBUCHEN	NAG 5 11000	316
31	UNIV OF MISSOURI - COLUMBIA	A NEGRI	GSFC	K PALANIAPPAN	NAG 5 3900	330
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31	UNIV OF NORTH DAKOTA	J GERLACH	WFF	P KUCERA	NAG 5 5340	404
31	UNIV OF NORTH DAKOTA	R J LAWRENCE	HQ	C A GRAINGER	NAG 5 9656	405
31	UNIV OF OREGON - EUGENE	I G NOLT	LARC	K PARK	NAG 1 2010	434
31	UNIV OF PITTSBURGH	J BERGSTRALH	GSFC	D JOHNSON	NAG 5 4116	454
31	UNIV OF PUERTO RICO - MAYAGUEZ	D DETROYE	GSFC	B G WEINER	NCC 5 215	557
31	UNIV OF RHODE ISLAND	J L RAPER	LARC	B HEIKES	NCC 1 302	461
31	UNIV OF RHODE ISLAND	J L RAPER, SR.	LARC	D W O	NCC 1 408	461
31	UNIV OF SOUTH FLORIDA	H OSEROFF	GSFC	K R CARDER	NAS 5 31716	179
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31	UNIV OF SOUTHERN CALIFORNIA	D J BOGAN	GSFC	C WU	NAG 5 11042	117
31	UNIV OF TEXAS - AUSTIN	D L CARTER	GSFC	R JEANES	NAG 5 11203	495
31	UNIV OF TEXAS - AUSTIN	G SMITH	GSFC	R SCHUTZ	NAS 5 99005	497
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31	UNIV OF UTAH	R J LAWRENCE	GSFC	E J ZIPSER	NAG 5 9717	503
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31	UNIV OF UTAH	R W LAWRENCE	GSFC	E J ZIPSER	NAG 5 8561	503
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31	UNIV OF UTAH	V E DELNORE	LARC	K SASSON	NAG 1 2083	502
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31	UNIV OF VIRGINIA	K H BERGMAN	GSFC	J J DORNING	NAG 5 3973	523
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31	UNIV OF VIRGINIA	M KING	GSFC	R J SWAP	NAG 5 7939	524
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31	UNIV OF WASHINGTON	C A HOSTELER	LARC	R J CHARLSON	NAG 1 2200	534
31	UNIV OF WASHINGTON	C A HOSTETLER	LARC	T L COVERT	NCC 1 402	541
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31	UNIV OF WASHINGTON	H BLODGET	GSFC	A R GILLESPIE	NAS 5 31372	541
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31	UNIV OF WASHINGTON	J M SIMONDS	MSFC	R A BROWN	NAG 8 1424	540
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31	UNIV OF WASHINGTON	M D KING	GSFC	P V HOBBS	NAG 5 10745	540
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31	UNIV OF WASHINGTON	O W THIELE	GSFC	J A NYSTUEN	NAG 5 7886	537
31	UNIV OF WASHINGTON	R J LAWRENCE	GSFC	D LETTENMAIER	NAG 5 9830	539
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31	UNIV OF WISCONSIN - MADISON	A ROYAL	LARC	F A BEST	NAS 1 00070	553
31	UNIV OF WISCONSIN - MADISON	D STARR	GSFC	D PINCUS	NAG 5 7661	549
31	UNIV OF WISCONSIN - MADISON	D TOLL	GSFC	P MENZEL	NAS 5 31367	553
31	UNIV OF WISCONSIN - MADISON	E KREINS	GSFC	H REVERCOMB	NAS 5 31375	553
31	UNIV OF WISCONSIN - MADISON	F R ROBERTSON	MSFC	G DIAK	NAG 8 1320	552
31	UNIV OF WISCONSIN - MADISON	G GIBSON	LARC	S A ACKERMAN	NAS 1 99106	553
31	UNIV OF WISCONSIN - MADISON	G L MADDREA	LARC	M H HITCHMAN	NAG 1 2162	547
31	UNIV OF WISCONSIN - MADISON	G SMITH	GSFC	C BENTLEY	NAS 5 99004	553
31	UNIV OF WISCONSIN - MADISON	J A GREEN	LARC	S ACKERMAN	NAG 1 2322	547
31	UNIV OF WISCONSIN - MADISON	J D SPINHIRNE	GSFC	E W ELORANTA	NAG 5 7572	549
31	UNIV OF WISCONSIN - MADISON	J H CRAWFORD	LARC	M H HITCHMAN	NCC 1 01011	553
31	UNIV OF WISCONSIN - MADISON	K H BERGMAN	GSFC	G WAHBA	NAG 5 3769	548
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31	UNIV OF WISCONSIN - MADISON	R J LAWRENCE	GSFC	G W PETTY	NAG 5 9894	551
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31	UNIV OF WISCONSIN - MADISON	V E DELNORE	LARC	D P WYLIE	NAG 1 2196	547
31	UNIV OF WISCONSIN - MADISON	V E DELNORE	LARC	S A ACKERMAN	NAG 1 2073	547
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31	UNIV OF WYOMING	G L MADDREA	LARC	G VALI	NAS 1 18945	556
31	UTAH STATE UNIV	D QUATTROCHI	MSFC	R GILES	NAG 8 1750	505
31	UTAH STATE UNIV	T MILLER	MSFC	R R GILLIES	NAS 8 97107	505
31	UTAH STATE UNIV	W A ROETTKER	LARC	G BINGHAM	NAS 1 00071	505
31	UTAH STATE UNIV	W LAPENTA	MSFC	R R GILLIES	NCC 8 162	505
31	VA POLYTECH INST & ST UNIV	D F YOUNG	LARC	M A HAEFFELIN	NAG 1 01112	529
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31	VA POLYTECH INST & ST UNIV	R B LEE III	LARC	G L SMITH	NCC 1 405	531
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31	VANDERBILT UNIV	R BEEBE	GSFC	D SAUMON	NAG 5 4988	472
31	WASHINGTON STATE UNIV	J C RIVERA	GSFC	G MOUNT	NAS 5 00177	544
31	WASHINGTON UNIV - ST	D BOGAN	GSFC	B FEGLAY	NAG 5 11037	335
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31	WELLESLEY COLLEGE	D BOGAN	GSFC	D STARK	NAG 5 9059	304
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31	WEST VIRGINIA UNIV	W L GROSE	LARC	R F TURCO	NAG 1 2096	545
31	YALE UNIV	A J TUYAHOV	GSFC	R B SMITH	NAG 5 3853	147
31	YALE UNIV	M R SCHOEBERL	GSFC	S SHERWOOD	NAG 5 9839	147
32	ARIZONA STATE UNIV	H V FREY	GSFC	J FINK	NAG 5 9070	21
32	ARIZONA STATE UNIV	P G ROGERS	GSFC	D FINK	NAG 5 3783	20
32	ARIZONA STATE UNIV	P G ROGERS	GSFC	D R CHRISTENSEN	NAG 5 3628	20
32	ARIZONA STATE UNIV	P G ROGERS	GSFC	R GREELEY	NAG 5 3909	20
32	ARIZONA STATE UNIV	P ROGERS	GSFC	D GREELEY	NAG 5 3908	20
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32	AUSTIN COLLEGE-SHERMAN	H V FREY	GSFC	D R BAKER	NAG 5 10102	474
32	BRIGHAM YOUNG UNIV	H V FREY	GSFC	D V ARNOLD	NAG 5 7711	501
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32	CALIFORNIA INST OF TECH	D SENSKA	GSFC	K A FARLEY	NAG 5 10470	47
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32	NEW MEXICO STATE UNIV - LAS CRUCES	P ROGERS	GSFC	V SOLOMATOV	NAG 5 6897	362
32	NORTHWESTERN UNIV	H V FREY	GSFC	S STEIN	NAG 5 10306	202
32	NORTHWESTERN UNIV	R S BALDWIN	GRC	D S ROBINSON	NAG 5 4354	202
32	OHIO STATE UNIV	B DAVIS	SSC	K BOYER	NAG13 00039	418
32	OHIO STATE UNIV	H V FREY	GSFC	C K SHUM	NAG 5 7574	415
32	OHIO STATE UNIV	P TAYLOR	GSFC	R R VON FRESE	NAG 5 9883	416
32	OHIO STATE UNIV	P TAYLOR	GSFC	R VON FRESE	NAG 5 2996	414
32	OHIO STATE UNIV	S H GOGINENI	GSFC	T J WILSON	NAG 5 4250	414
32	OHIO UNIV	H V FREY	GSFC	R R VON FRESE	NAG 5 7645	419
32	PENN STATE UNIV	E T ENGMAN	GSFC	J L EVANS	NAG 5 7547	446
32	PENN STATE UNIV	H FREY	GSFC	S FELDSTEIN	NAG 5 6207	445
32	PENN STATE UNIV	H V FREY	GSFC	D W BURBANK	NAG 5 9039	446
32	PENN STATE UNIV	M S BURRELL	GSFC	R B ALLEY	NGT 5 118	451
32	POMONA COLLEGE	J BOYCE	GSFC	E GROSFILS	NAG 5 9618	54
32	PRINCETON UNIV	E T ENGMAN	GSFC	J A SMITH	NAG 5 7544	353
32	PRINCETON UNIV	H V FREY	GSFC	E WOOD	NAG 5 6511	352

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32	RENSSELAER POLYTECH INST	P G ROGERS	GSFC	M J GAFFEY	NAG 5 3725	384
32	RUTGERS ST UNIV N	E T ENGMAN	GSFC	D ROBINSON	NAG 5 7564	357
32	SAN JOSE STATE UNIV	H L D'ANTONI	ARC	P MESSINA	NCC 2 5402	58
32	SAN JOSE STATE UNIV	I STATLER	ARC	D A MAROUF	NAG 5 4372	55
32	SOUTHERN ILLINOIS UNIV - CARBONDALE	H V FREY	GSFC	D RAVAT	NAG 5 7662	203
32	SOUTHERN ILLINOIS UNIV - CARBONDALE	P T TAYLOR	GSFC	D RAVAT	NAG 5 7771	204
32	SOUTHERN ILLINOIS UNIV - CARBONDALE	P TAYLOR	GSFC	D RAVAT	NAG 5 9832	204
32	SOUTHERN METHODIST UNIV	D A SENSEKE	GSFC	V L HANSEN	NAG 5 9142	479
32	SOUTHERN METHODIST UNIV	J GRANT	GSFC	D L HANSEN	NAG 5 4562	479
32	SOUTHERN METHODIST UNIV	P ROGERS	GSFC	D L HANSEN	NAG 5 4609	479
32	STANFORD UNIV	D J DES MARAIS	ARC	D R LOWE	NCC 2 721	64
32	STANFORD UNIV	H V FREY	GSFC	H A ZEBKER	NAG 5 6148	61
32	STANFORD UNIV	H V FREY	GSFC	H A ZEBKER	NAG 5 9040	62
32	STANFORD UNIV	H V FREY	GSFC	H ZEBKER	NAG 5 3441	60
32	STANFORD UNIV	H V FREY	GSFC	P SEGALL	NAG 5 6167	61
32	STANFORD UNIV	P G ROGERS	GSFC	G TYLER	NAG 5 3906	60
32	STATE UNIV OF NY - ALBANY	H V FREY	GSFC	H MASSONE	NAG 5 9690	387
32	STATE UNIV OF NY - BINGHAMTON	H FREY	GSFC	S DICKMAN	NAG 5 9069	387
32	STATE UNIV OF NY - BUFFALO	J A GRANT	GSFC	T GREGG	NAG 5 9390	387
32	STATE UNIV OF NY - STONY BROOK	H V FREY	GSFC	W E HOLT	NAG 5 9053	390
32	STATE UNIV OF NY COL - PURCHASE	T MORGAN	GSFC	D A GRANT	NAG 5 4157	391
32	STATE UNIV OF NY COL	H V FREY	GSFC	M BURSIK	NAG 5 7581	392
32	STATE UNIV OF NY COL	H V FREY	GSFC	M F SHERIDAN	NAG 5 7579	392
32	STATE UNIV OF NY COL	H V FREY	GSFC	M I BURSIK	NAG 5 10648	392
32	STATE UNIV OF NY COL	J G GRANT	GSFC	GREGG	NAG 5 4544	392
32	THE AMERICAN UNIV	P TAYLOR	GSFC	J KUTINA	NAG 5 10027	156
32	THE UNIV OF CENTRAL FLORIDA	J QUINN	KSC	C GEIGER	NAG10 215	169
32	UNIV OF MINN	C HILL	SSC	M E BAUER	NAG13 99002	324
32	UNIV OF MINN	D SENKE	GSFC	D L KOHLSTEDT	NAG 5 10509	323
32	UNIV OF MINN	E T ENGMAN	GSFC	M PERSON	NAG 5 7599	322
32	UNIV OF MINN	J ARNOLD	MSFC	E FOUFOULA-GEORGIOU	NAG 8 1519	324
32	UNIV OF MINN	M MELLOTT	GSFC	R LYSAK	NAG 5 9254	323
32	UNIV OF MINN	P ROGERS	GSFC	D L KOHLSTEDT	NAG 5 6797	322
32	UNIV	D SENSEKE	GSFC	G M MARION	NAG 5 10445	341
32	U NACIONAL DE SAN AGUSTIN - AREQUIPA	D L CARTER	GSFC	N APPLICABLE	NAS 5 99121	559
32	UNIV OF ALABAMA - HUNTSVILLE	M MELLOTT	GSFC	P RICHARDS	NAG 5 9200	9
32	UNIV OF ALASKA - FAIRBANKS	H V FREY	GSFC	J T FREYMUELLER	NAG 5 7659	17
32	UNIV OF ARIZONA	D BOGAN	GSFC	J I LUNINE	NAG 5 8949	31
32	UNIV OF ARIZONA	D SENSEKE	GSFC	D KRING	NAG 5 10332	34
32	UNIV OF ARIZONA	D SENSEKE	GSFC	E TURTLE	NAG 5 10166	33
32	UNIV OF ARIZONA	D SENSEKE	GSFC	J I LUNINE	NAG 5 10294	34
32	UNIV OF ARIZONA	D SENSEKE	GSFC	R MALHOTRA	NAG 5 10346	34
32	UNIV OF ARIZONA	D SENSEKE	GSFC	R TUFTS	NAG 5 10167	33
32	UNIV OF ARIZONA	E ENGMAN	GSFC	W SHUTTLEWORTH	NAG 5 7554	28
32	UNIV OF ARIZONA	G A SOFFEN	GSFC	A S MCEWEN	NGT 5 110	39
32	UNIV OF ARIZONA	H V FREY	GSFC	V R BAKER	NAG 5 9293	32
32	UNIV OF ARIZONA	J GRANT	GSFC	L KESZTHELYI	NAG 5 9176	31
32	UNIV OF ARIZONA	M S BURRELL	GSFC	A S MCEWEN	NGT 5 114	39
32	UNIV OF ARIZONA	P G ROGERS	GSFC	R G STROM	NAG 5 3914	26
32	UNIV OF ARIZONA	P G ROGERS	GSFC	R GREENBERG	NAG 5 3631	26
32	UNIV OF ARIZONA	P ROGERS	GSFC	D H BROWN	NAG 5 3796	26
32	UNIV OF ARIZONA	P ROGERS	GSFC	H MELOSH	NAG 5 6543	27
32	UNIV OF ARIZONA	PROGERS	GSFC	D C PORCO	NAG 5 4451	27
32	UNIV OF ARIZONA	T MORGAN	GSFC	R S MCMILLAN	NAG 5 6611	27
32	UNIV OF ARIZONA	T MORGAN	GSFC	S LARSON	NAG 5 10543	34
32	UNIV OF CALIFORNIA - BERKELEY	H V FREY	GSFC	R BURGMANN	NAG 5 7580	71
32	UNIV OF CALIFORNIA - BERKELEY	H V FREY	GSFC	W E DIETRICH	NAG 5 9629	73
32	UNIV OF CALIFORNIA - BERKELEY	P TAYLOR	GSFC	M RICHARDS	NAG 5 9864	73
32	UNIV OF CALIFORNIA - DAVIS	H V FREY	GSFC	J MINSTER	NAG 5 3001	80
32	UNIV OF CALIFORNIA - DAVIS	R MCKELLIP	SSC	D W TATE	NAG13 99023	81
32	UNIV OF CALIFORNIA - LOS ANGELES	E T ENGMAN	GSFC	L C SMITH	NAG 5 7555	90
32	UNIV OF CALIFORNIA - LOS ANGELES	E T ENGMAN	GSFC	Y XUE	NAG 5 9014	91
32	UNIV OF CALIFORNIA - LOS ANGELES	H V FREY	GSFC	D E ALSDORF	NAG 5 10685	93
32	UNIV OF CALIFORNIA - LOS ANGELES	J SHARBER	GSFC	M EL-ALAQUI	NAG 5 9255	92
32	UNIV OF CALIFORNIA - LOS ANGELES	J SPANN	GSFC	D SCHRIVER	NAG 5 10473	93

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32	UNIV OF CALIFORNIA - LOS ANGELES	P G ROGERS	GSFC	W M KAULA	NAG 5 3956	88
32	UNIV OF CALIFORNIA - LOS ANGELES	W ABDALATI	GSFC	G PEITZER	NAG 5 11102	94
32	UNIV OF CALIFORNIA - SAN DIEGO	B CAMPBELL	GSFC	P L BADA	NAG 5 4938	97
32	UNIV OF CALIFORNIA - SAN DIEGO	H B FREY	GSFC	R L PARKER	NAG 5 7612	99
32	UNIV OF CALIFORNIA - SAN DIEGO	H V FREY	GSFC	C G CONSTABLE	NAG 5 7614	99
32	UNIV OF CALIFORNIA - SAN DIEGO	H V FREY	GSFC	D C AGNEW	NAG 5 6149	97
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32	UNIV OF CALIFORNIA - SAN DIEGO	H V FREY	GSFC	D T SANDWELL	NAG 5 5176	97
32	UNIV OF CALIFORNIA - SAN DIEGO	H V FREY	GSFC	D T SANDWELL	NAG 5 9623	101
32	UNIV OF CALIFORNIA - SAN DIEGO	H V FREY	GSFC	J B RAND	NAG 5 6150	98
32	UNIV OF CALIFORNIA - SANTA BARBARA	H V FREY	GSFC	D E ALSDORF	NAG 5 9055	108
32	UNIV OF CALIFORNIA - SANTA BARBARA	H V FREY	GSFC	D W BURBANK	NAG 5 10520	108
32	UNIV OF CALIFORNIA - SANTA BARBARA	H V FREY	GSFC	L K MERTES	NAG 5 9811	108
32	UNIV OF CALIFORNIA - SANTA BARBARA	J G GRANT	GSFC	S J PEALE	NAG 5 3646	106
32	UNIV OF CALIFORNIA - SANTA BARBARA	R MCKELLIP	JSC	O CHADWICK	NAG13 99025	109
32	UNIV OF CALIFORNIA - SANTA BARBARA	T BRAKKE	GSFC	D DOZLER	NAS 5 31710	109
32	UNIV OF CALIFORNIA - SANTA CRUZ	D SENSKE	GSFC	E ASPHAUG	NAG 5 10676	113
32	UNIV OF CALIFORNIA - SANTA CRUZ	J A GRANT	GSFC	E ASPHAUG	NAG 5 9391	112
32	UNIV OF CHARLESTON -WEST VIRGINIA	D A MORRISON	JSC	C COOMBS	NGT 9 24	545
32	UNIV OF COLORADO - BOULDER	A T CHANG	GSFC	R L ARMSTRONG	NAG 5 4506	126
32	UNIV OF COLORADO - BOULDER	C P MCKAY	ARC	B TOON	NGT 2 52279	140
32	UNIV OF COLORADO - BOULDER	D SENSKE	GSFC	B JAKOSKY	NAG 5 10413	135
32	UNIV OF COLORADO - BOULDER	D SENSKE	GSFC	M T MELLON	NAG 5 10155	134
32	UNIV OF COLORADO - BOULDER	E T ENGMAN	GSFC	A FREI	NAG 5 7543	129
32	UNIV OF COLORADO - BOULDER	H V FREY	GSFC	J B RUNDLE	NAG 5 5168	127
32	UNIV OF COLORADO - BOULDER	H V FREY	GSFC	J B RUNDLE	NAG 5 9448	133
32	UNIV OF COLORADO - BOULDER	H V FREY	GSFC	J M WAHR	NAG 5 7703	130
32	UNIV OF COLORADO - BOULDER	H V FREY	GSFC	K M LARSON	NAG 5 6147	127
32	UNIV OF COLORADO - BOULDER	H V FREY	GSFC	R G BILHAM	NAG 5 10418	135
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32	UNIV OF COLORADO - BOULDER	H V FREY	GSFC	V GUPTA	NAG 5 10954	137
32	UNIV OF COLORADO - BOULDER	J A GRANT	GSFC	R E GRIMM	NAG 5 9491	133
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32	UNIV OF COLORADO - BOULDER	J SPANN	GSFC	X LI	NAG 5 10474	135
32	UNIV OF COLORADO - BOULDER	P G ROGERS	GSFC	B M JAKOSKY	NAG 5 3763	125
32	UNIV OF COLORADO - BOULDER	P ROGERS	GSFC	D R STEWART	NAG 5 4163	126
32	UNIV OF COLORADO - BOULDER	P T TAYLOR	GSFC	J WAHR	NAG 5 3143	125
32	UNIV OF DELAWARE - BARTOL RES. INST	E T ENGMAN	GSFC	D LEATHERS	NAG 5 7545	151
32	UNIV OF FLORIDA	P ROGERS	HQ	D F DERMOTT	NAG 5 4531	172
32	UNIV OF GEORGIA	E T ENGMAN	GSFC	T L MOTE	NAG 5 8469	190
32	UNIV OF HAWAII AT MANOA - HONOLULU	H V FREY	GSFC	P J MOUGINIS-MARK	NAG 5 7578	193
32	UNIV OF HAWAII AT MANOA - HONOLULU	H V FREY	GSFC	P J MOUGINIS-MARK	NAG 5 9038	195
32	UNIV OF HAWAII AT MANOA - HONOLULU	J GRANT	GSFC	B HAWKE	NAG 5 8903	195
32	UNIV OF HAWAII AT MANOA - HONOLULU	J GRANT	GSFC	S K ROWLAND	NAG 5 7963	194
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32	UNIV OF HAWAII AT MANOA - HONOLULU	P G ROGERS	GSFC	E R HAWKE	NAG 5 3875	192
32	UNIV OF HAWAII AT MANOA - HONOLULU	P G ROGERS	GSFC	J F BELL	NAG 5 3625	191
32	UNIV OF HAWAII AT MANOA - HONOLULU	P G ROGERS	GSFC	P G LUCEY	NAG 5 3766	192
32	UNIV OF HAWAII AT MANOA - HONOLULU	P ROGERS	GSFC	T OWEN	NAG 5 6829	193
32	UNIV OF HAWAII AT MANOA - HONOLULU	R H THOMAS	GSFC	P MOUGINIS-MARK	NAG 5 4257	192
32	UNIV OF HOUSTON - DOWNTOWN	E K GIBSON	JSC	P A MORRIS-SMITH	NAG 9 1113	491
32	UNIV OF HOUSTON - DOWNTOWN	E K GIBSON	JSC	P A MORRIS-SMITH	NAG 9 1114	491
32	UNIV OF ILLINOIS - CHICAGO CIRCLE	E T ENGMAN	GSFC	R D CRAGO	NAG 5 7600	208
32	UNIV OF KANSAS	R MCKALLIP	SSC	M JAKUBAUSKAS	NAG13 99019	229
32	UNIV OF MARYLAND - COLLEGE PARK	H V FREY	GSFC	G SUN	NAG 5 10388	265
32	UNIV OF MARYLAND - COLLEGE PARK	J B GARVIN	GSFC	R DUBAYAH	NAG 5 8105	260
32	UNIV OF MARYLAND BALTIMORE COUNTY	H V FREY	GSFC	E C PAVLIS	NAG 5 9054	273
32	UNIV OF MASSACHUSETTS - AMHERST	H V FREY	GSFC	C C DUNCAN	NAG 5 10649	303
32	UNIV OF MASSACHUSETTS - AMHERST	P ROGERS	GSFC	D E MCGILL	NAG 5 4373	302
32	UNIV OF MASSACHUSETTS - AMHERST	P ROGERS	GSFC	G MCGILL	NAG 5 4999	302
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32	UNIV OF MIAMI	H V FREY	GSFC	T H DIXON	NAG 5 9068	177
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32	UNIV OF MICHIGAN - ANN ARBOR	H V FREY	GSFC	K SARABANDI	NAG 5 8930	314
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32	UNIV OF MISSISSIPPI - UNIV	N SOVIK	SSC	G EAISON	NAG13 00037	328
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32	UNIV OF NEVADA - RENO	D A SENSKE	GSFC	R A SCHULTZ	NAG 5 10926	342
32	UNIV OF NEVADA - RENO	D SENKE	GSFC	W CALVIN	NAG 5 10290	342
32	UNIV OF NEVADA - RENO	J A GRANT	GSFC	G M MARION	NAG 5 9467	342
32	UNIV OF NEVADA - RENO	J A GRANT	GSFC	W CALVIN	NAG 5 9298	342
32	UNIV OF NEW HAMPSHIRE - DURHAM	E T ENGMAN	GSFC	L D DINGMAN	NAG 5 7601	347
32	UNIV OF NEW HAMPSHIRE - DURHAM	P BUCHANAN	GSFC	K LYNCH	NAG 5 10472	348
32	UNIV OF NEW MEXICO-ALBUQUERQUE	E K GIBSON	JSC	J J PAPIKE	NAG 9 1111	366
32	UNIV OF NEW MEXICO-ALBUQUERQUE	J GRANT	GSFC	H NEWSOM	NAG 5 8804	365
32	UNIV OF NEW MEXICO-ALBUQUERQUE	J H JONES	JSC	C D HERD	NGT 9 31	366
32	UNIV OF PITTSBURGH	D SENSKE	GSFC	B W HAPKE	NAG 5 10222	455
32	UNIV OF PITTSBURGH	H V FREY	GSFC	M S RAMSEY	NAG 5 9438	455
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32	UNIV OF TENNESSEE - KNOXVILLE	T L ROUSH	ARC	J E MOERSCH	NCC 2 1187	471
32	UNIV OF TEXAS - AUSTIN	F HERBERT	GSFC	B TAPLEY	NAG 5 9163	494
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32	UNIV OF TEXAS - AUSTIN	H V FREY	GSFC	J C CARTER	NAG 5 7693	493
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32	UNIV OF TEXAS - AUSTIN	H V FREY	GSFC	J G PAIN	NAG 5 7582	493
32	UNIV OF TEXAS - AUSTIN	H V FREY	GSFC	M CHENG	NAG 5 5170	493
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32	UNIV OF TEXAS - AUSTIN	M S BURRELL	GSFC	J S FAMIGLIETTI	NGT 5 81	498
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32	UNIV OF TEXAS - EL PASO	D MENCHAN	GSFC	D SCHULZ-MAKUCH	NAG 5 9542	499
32	UNIV OF TEXAS - EL PASO	J SPANN	GSFC	R LOPEZ	NAG 5 10507	499
32	UNIV OF UTAH	R J LAWRENCE	GSFC	R L BRUHN	NAG 5 10136	503
32	UNIV OF VIRGINIA	D SENSKE	GSFC	R E JOHNSON	NAG 5 10173	525
32	UNIV OF VIRGINIA	J G GRANT	GSFC	A D HOWARD	NAG 5 3931	523
32	UNIV OF VIRGINIA	P G ROGERS	GSFC	R E JOHNSON	NAG 5 3633	523
32	UNIV OF VIRGINIA	P ROGERS	GSFC	D A BARAGIOLA	NAG 5 4332	523
32	UNIV OF WASHINGTON	E T ENGMAN	GSFC	L TSANG	NAG 5 7495	537
32	UNIV OF WASHINGTON	E T ENGMAN	GSFC	W J PLANT	NAG 5 7550	537
32	UNIV OF WASHINGTON	H FREY	GSFC	D LETTENMAIER	NAG 5 6505	536
32	UNIV OF WASHINGTON	H V FREY	GSFC	A GILLESPIE	NAG 5 6067	536
32	UNIV OF WASHINGTON	H V FREY	GSFC	D R MONTGOMERY	NAG 5 10342	539
32	UNIV OF WISCONSIN - MADISON	B CAMPBELL	GSFC	D A SROMOVSKY	NAG 5 6248	548
32	UNIV OF WISCONSIN - MADISON	H V FREY	GSFC	P MENZEL	NAG 5 9688	551
32	UTAH STATE UNIV	E T ENGMAN	GSFC	D G TARBOTON	NAG 5 7597	504
32	WASHINGTON STATE UNIV	D SENSKE	GSFC	D HUDSON	NAG 5 10462	543
32	WASHINGTON STATE UNIV	J G GRANT	GSFC	D HUDSON	NAG 5 4035	543
32	WASHINGTON UNIV - ST	B CAMPBELL	GSFC	D FEGLY	NAG 5 6125	333
32	WASHINGTON UNIV - ST	D G SENSKE	GSFC	R E ARVIDSON	NAG 5 3870	332
32	WASHINGTON UNIV - ST	D SENSKE	GSFC	R E ARVIDSON	NAG 5 10190	335
32	WASHINGTON UNIV - ST	H V FREY	GSFC	R E ARVIDSON	NAG 5 7613	334
32	WASHINGTON UNIV - ST	J GRANT	GSFC	B L JOLLIFF	NAG 5 8905	334
32	WASHINGTON UNIV - ST	P G ROGERS	GSFC	W B MCKINNON	NAG 5 3657	332
32	WASHINGTON UNIV - ST	P ROGERS	GSFC	B L JOLLIFF	NAG 5 6784	333
32	WASHINGTON UNIV - ST	P ROGERS	GSFC	D J PHILLIPS	NAG 5 4448	333
32	WASHINGTON UNIV - ST	P ROGERS	GSFC	R ARVIDSON	NAG 5 6756	333
32	WELLESLEY COLLEGE	J G GRANT	GSFC	R G FRENCH	NAG 5 4046	304
33	CALIFORNIA INST OF TECH	S LONG	WFF	T WU	NAG 5 5338	44
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33	DUKE UNIV	J CAMPBELL	GSFC	R T BARBER	NAG 5 6988	395
33	FLORIDA STATE UNIV	E LINDSRROM	GSFC	D NOF	NAG 5 10860	168
33	FLORIDA STATE UNIV	E LINDSTROM	GSFC	J J O	NAG 5 7254	167
33	FLORIDA STATE UNIV	M RIENECKER	GSFC	W WEWAR	NAG 5 8291	167
33	FLORIDA STATE UNIV	W ESAIAS	GSFC	R L IVERSON	NAG 5 7618	167
33	GEORGE MASON UNIV	M RIENECKER	GSFC	P S SCHOPF	NCC 5 522	510
33	GEORGE MASON UNIV	M RIENECKER	GSFC	P SCHOPF	NCC 5 245	510
33	JOHNS HOPKINS UNIV	R MILLER	SSC	D R THOMPSON	NAG13 00045	251
33	JOHNS HOPKINS UNIV	S J KATZBERG	LARC	M S ASHER	NAG 1 2257	240
33	JOHNS HOPKINS UNIV	S R LONG	GSFC	E GROSS	NAG 5 5314	242
33	JOHNS HOPKINS UNIV	S R LONG	GSFC	O PHILLIPS	NAG 5 5047	242
33	MASSACHUSETTS INST OF TECH	J A YODER	GSFC	S W CHISHOLM	NAG 5 3727	289
33	MISSISSIPPI STATE UNIV	D POWE	SSC	L RITCHIE	NAS13 98033	328
33	NORTH CAROLINA STATE UNIV	J A MARRA	GSFC	D KAMYKOWSKI	NAG 5 6586	400
33	OHIO STATE UNIV	W ABDALATI	GSFC	C V DER VEEN	NAG 5 10978	417
33	OLD DOMINION UNIV	C MCCLAIN	GSFC	G F COTA	NAS 5 97132	518
33	OLD DOMINION UNIV	J MARRA	GSFC	G F COTA	NAG 5 10528	518
33	OREGON STATE UNIV	H OSEROFF	GSFC	M R ABBOTT	NAS 5 31360	433
33	OREGON STATE UNIV	J A MARRA	GSFC	M R ABBOTT	NAG 5 4947	431
33	OREGON STATE UNIV	J MARRA	GSFC	E BOSS	NAG 5 11148	433
33	OREGON STATE UNIV	J MARRA	GSFC	K S SHIFRIN	NAG 5 10623	433
33	OREGON STATE UNIV	J R MOISAN	GSFC	R M LETELIER	NAG 5 5311	431
33	OREGON STATE UNIV	M T FLYNN	ARC	G P KLINKHAMMER	NCC 2 5427	434
33	OREGON STATE UNIV	R RAY	GSFC	G D EGBERT	NAG 5 9159	432
33	SAN DIEGO STATE UNIV	C R CRANE	GSFC	J L MUELLER	NAS 5 00199	54
33	SAN DIEGO STATE UNIV	C R MCCLAIN	GSFC	C C TREES	NAS 5 00202	54
33	SAN DIEGO STATE UNIV	C R MCCLAIN	GSFC	J L MUELLER	NAS 5 97126	54
33	STANFORD UNIV	J MARRA	GSFC	K ARRIGO	NAG 5 11264	63
33	STATE UNIV OF NY - STONY BROOK	E LINDSTROM	GSFC	D WALISER	NAG 5 11033	390
33	STEVENS INST OF TECH	C MCCLAIN	GSFC	K STAMNES	NAS 5 99238	360
33	TEXAS A&M UNIV	E LINDSTROM	GSFC	W NOWLIN	NAG 5 10829	482
33	TEXAS A&M UNIV	W ABDALATI	GSFC	S STOESSEL	NAG 5 10641	482
33	U OF MD CTR FOR ENVIR SCI-CAMBRIDGE	C R MCCLAIN	GSFC	L W HARDING	NAS 5 00195	255
33	UNIV OF MINN	M T FLYNN	ARC	W E SEYFRIED	NCC 2 5340	324
33	UNIV OF ARIZONA	C R MCCCLAIN	GSFC	J ZALEWSKI	NAS 5 00197	38
33	UNIV OF CALIFORNIA - IRVINE	S R LONG	GSFC	J N YANG	NAG 5 5149	85
33	UNIV OF CALIFORNIA - SAN DIEGO	C KOBLINSKY	GSFC	P P NIILER	NAG 5 8351	99
33	UNIV OF CALIFORNIA - SAN DIEGO	C R MCCAIN	GSFC	R FROUIN	NAS 5 00194	102
33	UNIV OF CALIFORNIA - SAN DIEGO	C R MCCLAIN	GSFC	B G MITCHELL	NAS 5 01002	102
33	UNIV OF CALIFORNIA - SAN DIEGO	C R MCCLAIN	GSFC	B G MITCHELL	NAS 5 97130	103
33	UNIV OF CALIFORNIA - SAN DIEGO	E LINDSTROM	GSFC	W WHITE	NAG 5 7096	98
33	UNIV OF CALIFORNIA - SAN DIEGO	G A SOFFEN	GSFC	B G MITCHELL	NGT 5 106	104
33	UNIV OF CALIFORNIA - SAN DIEGO	J A YODER	GSFC	R KEELING	NAG 5 6179	98
33	UNIV OF CALIFORNIA - SAN DIEGO	J MARRA	GSFC	R KEELING	NAG 5 10737	102
33	UNIV OF CALIFORNIA - SAN DIEGO	J MUELLER	GSFC	K STAMNES	NAS 5 97139	103
33	UNIV OF CALIFORNIA - SANTA BARBARA	C MCCLAIN	GSFC	D A SIEGEL	NAS 5 97125	109
33	UNIV OF CALIFORNIA - SANTA BARBARA	C MCCLAIN	GSFC	T D DICKEY	NAS 5 97127	109
33	UNIV OF CALIFORNIA - SANTA BARBARA	C R MCCLAIN	GSFC	D A SIEGEL	NAS 5 00200	109
33	UNIV OF CALIFORNIA - SANTA BARBARA	C R MCCLAIN	GSFC	D A SIEGEL	NAS 5 00201	109
33	UNIV OF CALIFORNIA - SANTA BARBARA	C R MCCLAIN	GSFC	D SIEGEL	NAS 5 99083	109
33	UNIV OF CALIFORNIA - SANTA BARBARA	C R MCCLAIN	GSFC	S MARITORENA	NAS 5 00196	109
33	UNIV OF CALIFORNIA - SANTA BARBARA	H OSEROFF	GSFC	Z WAN	NAS 5 31370	109
33	UNIV OF COLORADO - BOULDER	E LINDSTROM	GSFC	P AXELRAD	NAG 5 9727	134
33	UNIV OF COLORADO - BOULDER	E LINDSTROM	GSFC	W EMERY	NAG 5 7365	129
33	UNIV OF DELAWARE	S K RUNCO	JSC	V KLEMAS	NAG 9 989	150
33	UNIV OF GEORGIA	G ASRAR	GSFC	B BINDER	NGT 5 30017	191
33	UNIV OF HAWAII AT MANOA - HONOLULU	C MCCLAIN	GSFC	J PORTER	NAS 5 97136	198
33	UNIV OF HAWAII AT MANOA - HONOLULU	P GLOERSEN	GSFC	L MAGAARD	NAG 5 7485	193
33	UNIV OF MAINE - ORONO	J MARRA	GSFC	A THOMAS	NAG 5 10620	239
33	UNIV OF MARYLAND - COLLEGE PARK	C R MCCLAIN	GSFC	A SUBRAMANIAM	NAS 5 00192	268
33	UNIV OF MARYLAND - COLLEGE PARK	E LINDSTROM	GSFC	R MURTUGUDDE	NAG 5 10981	267
33	UNIV OF MARYLAND - COLLEGE PARK	E LINDSTROM	GSFC	R WAJSOWICZ	NAG 5 3960	257
33	UNIV OF MARYLAND - COLLEGE PARK	M RIENECKER	GSFC	R WAJSOWICZ	NAG 5 11291	268
33	UNIV OF MARYLAND - COLLEGE PARK	N MAYNARD	GSFC	L WANG	NAG 5 4186	257

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33	UNIV OF MARYLAND BALTIMORE COUNTY	C R MCCLAIN	GSFC	M WANG	NAS 5 00203	275
33	UNIV OF MIAMI	H OSEROFF	GSFC	O B BROWN	NAS 5 31361	177
33	UNIV OF MIAMI	J DODGE	GSFC	R EVANS	NAG 5 10588	177
33	UNIV OF PUERTO RICO - MAYAGUEZ	C W WRIGHT	WFF	E WEIL	NAG 5 5302	556
33	UNIV OF PUERTO RICO - MAYAGUEZ	R L MILLER	SSC	R A ARMSTRONG	NAG13 54	557
33	UNIV OF RHODE ISLAND	E LINDSTROM	GSFC	D CONRILLON	NAG 5 6077	460
33	UNIV OF RHODE ISLAND	E LINDSTROM	GSFC	P CORNILLON	NAG 5 3736	460
33	UNIV OF RHODE ISLAND	J MARRA	GSFC	J YODER	NAG 5 10555	461
33	UNIV OF RHODE ISLAND	M MAIDEN	GSFC	P CORNILLON	NCC 5 307	461
33	UNIV OF SOUTH FLORIDA	C R MCCLAIN	GSFC	F E MULLER-KARGER	NAS 5 97128	179
33	UNIV OF SOUTH FLORIDA	G S HAYNE	GSFC	G T MITCHUM	NAG 5 5202	178
33	UNIV OF SOUTH FLORIDA	J MARRA	GSFC	C CHU	NAG 5 10738	178
33	UNIV OF SOUTH FLORIDA	J YODER	GSFC	P COBLE	NAG 5 6301	178
33	UNIV OF SOUTHERN CALIFORNIA	C MCCLAIN	GSFC	D G CAPONE	NAS 5 99232	118
33	UNIV OF SOUTHERN CALIFORNIA	J A YODER	GSFC	D A KIEFER	NAG 5 6360	116
33	UNIV OF SOUTHERN MISSISSIPPI	J A CAMPBELL	GSFC	S LOHRENZ	NAG 5 4570	329
33	UNIV OF SOUTHERN MISSISSIPPI	J MARRA	GSFC	S E LOHRENZ	NAG 5 9770	329
33	UNIV OF WASHINGTON	A ANDERSON	GSFC	D L HARTMANN	NAG 5 10624	540
33	UNIV OF WASHINGTON	J A CURRAN	GSFC	D HARTMANN	NAG 5 6101	536
33	UNIV OF WASHINGTON	J MARRA	GSFC	S RISER	NAG 5 11079	540
33	UNIVERSITY OF WISCONSIN-OSHKOSH	K R ARRIGO	GSFC	M P LIZOTTE	NAG 5 4108	555
33	VA POLYTECH INST & ST UNIV	G E KAYNE	GSFC	G E BROWN	NAG 5 5099	530
33	WOODS HOLE OCEANOGRAPHIC INST	C R MCCLAIN	GSFC	J R MORRISON	NAS 5 00198	305
33	WOODS HOLE OCEANOGRAPHIC INST	J A YODER	GSFC	D M GLOVER	NAG 5 6456	305
33	WOODS HOLE OCEANOGRAPHIC INST	J COMISO	GSFC	J YANG	NAG 5 7348	305
33	WOODS HOLE OCEANOGRAPHIC INST	J MARRA	GSFC	D M GLOVER	NAG 5 9858	305
33	WOODS HOLE OCEANOGRAPHIC INST	M RIENECKER	GSFC	L YU	NCC 5 441	305
39	ALABAMA A&M UNIV	R HOOVER	MSFC	M G TADROS	NAG 8 1624	2
39	ALLEGHENY COLLEGE	A J TUYAHOV	GSFC	D BENSEL	NAG 5 3617	435
39	ARIZONA STATE UNIV	H BLODGET	GSFC	P CHRISTENSEN	NAS 5 31371	23
39	ARIZONA STATE UNIV	M WEI	GSFC	J R ARROWSMITH	NGT 5 30221	23
39	AUBURN UNIV	D DEERING	GSFC	K MCNABB	NCC 5 333	3
39	AUBURN UNIV	J R ARNOLD	MSFC	U HATCH	NCC 8 151	4
39	AUGUSTANA COLLEGE	N KHAZENIE	GSFC	V K OLNESS	NAG 5 6299	466
39	BOISE STATE UNIV	E ENGMAN	GSFC	P DAWSON	NAG 5 7537	199
39	BOSTON UNIV	C TUCKER	GSFC	R MYNENI	NAG 5 7472	278
39	BOSTON UNIV	D E WICKLAND	GSFC	M FRIEDL	NAG 5 7218	277
39	BOSTON UNIV	D E WICKLAND	GSFC	X LI	NAG 5 7217	277
39	BOSTON UNIV	D L WILLIAMS	GSFC	C WOODCOCK	NAG 5 3439	276
39	BOSTON UNIV	D WICKLAND	GSFC	C SCHAAF	NAG 5 11263	280
39	BOSTON UNIV	DODGE	GSFC	R MYNENI	NAG 5 9547	279
39	BOSTON UNIV	E T ENGMAN	GSFC	M A FRIEDL	NAG 5 8584	278
39	BOSTON UNIV	G C GUTMAN	GSFC	D K KAUFMANN	NAG 5 6214	277
39	BOSTON UNIV	G GUTMAN	GSFC	G SALVUCCI	NAG 5 11338	280
39	BOSTON UNIV	J PRIVETTE	GSFC	R MYNENI	NAG 5 8659	278
39	BOSTON UNIV	M WEI	GSFC	G SALVUCCI	NAG 5 6716	277
39	BOSTON UNIV	M WEI	GSFC	R MYNENI	NGT 5 30223	280
39	BOSTON UNIV	P R HOUSER	GSFC	G D SALVUCCI	NAG 5 8666	278
39	BOWIE STATE UNIV	E MIDDLETON	GSFC	W T LAWRENCE	NCC 5 507	240
39	BOWIE STATE UNIV	M L IMHOFF	GSFC	W LAWRENCE	NAG 5 6476	239
39	BOWIE STATE UNIV	M L IMHOFF	GSFC	W LAWRENCE	NAG 5 7669	239
39	BOWIE STATE UNIV	M L IMHOFF	GSFC	W LAWRENCE	NAG 5 10034	240
39	BOWLING GREEN STATE UNIV	T M SCOTT	GRC	D K VINCENT	NAG 3 2443	405
39	BRANDEIS UNIV	C W LLOYD	JSC	J R LACKNER	NAG 9 1263	281
39	BRIGHAM YOUNG UNIV	E LINDSTROM	GSFC	D LONG	NAG 5 8746	501
39	BRIGHAM YOUNG UNIV	J DODGE	GSFC	D LONG	NAG 5 9625	501
39	BROWN UNIV	A JANETOS	GSFC	J MUSTART	NAG 5 6003	457
39	BROWN UNIV	G GUTMAN	GSFC	J F MUSTARD	NAG 5 11145	459
39	BROWN UNIV	S G UNGAR	GSFC	J F MUSTARD	NCC 5 487	459
39	BUCKNELL UNIV	E T ENGMAN	GSFC	R D CRAGO	NAG 5 8679	435
39	BUCKNELL UNIV	E T ENGMAN	GSFC	R D CRAGO	NAG 5 8699	435
39	BUCKNELL UNIV	M F JASINSKI	GSFC	R D CRAGO	NAG 5 10129	436
39	CALIFORNIA INST OF TECH	D WICKLAND	GSFC	J RANDERSON	NAG 5 9462	46
39	CALIFORNIA INST OF TECH	M Y WEI	GSFC	B C MURRAY	NGT 5 30138	49
39	CALIFORNIA INST OF TECH	P DECOLA	GSFC	P WENNBERG	NAG 5 8922	45
39	CALIFORNIA INST OF TECH	P HOUSER	GSFC	Y L YUNG	NAG 5 9487	46

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39	CALIFORNIA POLYTECH STATE U-SAN LUIS	M WEI	GSFC	M A MOLINE	NAG 5 8674	50
39	CALIFORNIA STATE UNIV - LONG BEACH	A J TUYAHOV	GSFC	C T LEE	NAG 5 9310	51
39	CALIFORNIA STATE UNIV - LONG BEACH	B MEESON	GSFC	E AMBOS	NCC 5 329	51
39	CALIFORNIA STATE UNIV - LOS ANGELES	D E WICKLAND	GSFC	J A GAMON	NAG 5 7401	52
39	CALIFORNIA STATE UNIV - LOS ANGELES	H M ADELMAN	LARC	H HASEMIAN	NAG 1 2029	51
39	CALIFORNIA STATE UNIV - MONTERY BAY	A JANETOS	GSFC	L PIERCE	NAG 5 6529	52
39	CALIFORNIA STATE UNIV - MONTERY BAY	J C COUGHLAN	ARC	S E ALEXANDER	NCC 2 1186	52
39	CALIFORNIA STATE UNIV - MONTERY BAY	R MCKELLIP	SSC	L F JOHNSON	NAG13 99020	52
39	CARNEGIE - MELLON UNIV	CFARMER	JSC	D HERSHBERGER	NAG 9 1242	438
39	CASE WESTERN RESERVE UNIV	W HVANCIC	GRC	J ISHAC	NAG 3 2391	406
39	CLARION UNIV OF PENNSYLVANIA	J F DOWDY	MSFC	A J VEGA	NAG 8 1312	440
39	CLARK UNIV	A JANETOS	GSFC	B TURNER	NAG 5 6046	281
39	CLARK UNIV	M WEI	GSFC	B L TURNER	NGT 5 97	281
39	CLARK UNIV	M WEI	GSFC	B L TURNER	NGT 5 30197	282
39	CLARK UNIV	M WEI	GSFC	B L TURNER	NGT 5 30217	282
39	CLARK UNIV	M Y WEI	GSFC	B L TURNER	NGT 5 30153	281
39	CLARK UNIV	M Y WEI	GSFC	B L TURNER	NGT 5 30147	281
39	CLARK UNIV	M Y WEI	GSFC	J GEOGHEGAN	NAG 5 8559	281
39	CLARK UNIV	S S WEGENER	ARC	S HERWITZ	NCC 2 1270	281
39	COLLEGE OF SAN MATEO	N KHAZENIE	GSFC	K D KENNEDY	NAG 5 4883	53
39	COLORADO STATE UNIV	D E WICKLAND	GSFC	N HANAN	NAG 5 8705	120
39	COLORADO STATE UNIV	D W DEERING	GSFC	A DENNING	NCC 5 284	122
39	COLORADO STATE UNIV	D WICKLAND	HQ	W PARTON	NAG 5 4983	120
39	COLORADO STATE UNIV	G C GUTMAN	GSFC	D OJIMA	NAG 5 4646	120
39	COLORADO STATE UNIV	G GUTMAN	GSFC	D OJIMA	NAG 5 11073	121
39	COLORADO STATE UNIV	J C DODGE	GSFC	P L STEPHENS	NAG 5 6637	120
39	COLORADO STATE UNIV	J RANSON	GSFC	D OJIMA	NAG 5 6228	120
39	COLORADO STATE UNIV	M WEI	GSFC	R CONANT	NAG 5 10593	121
39	COLORADO STATE UNIV	M WEI	GSFC	S A RUTLEDGE	NGT 5 30218	122
39	COLORADO STATE UNIV	M WEI	GSFC	V CHANDRAEKAR	NGT 5 30421	122
39	COLORADO STATE UNIV	R H THOMAS	GSFC	D LISTON	NAG 5 4073	120
39	COLUMBIA UNIV	D E WICKLAND	GSFC	E MATTHEWS	NAG 5 6321	370
39	COLUMBIA UNIV	D KAHLER	GSFC	R MILLER	NAG 5 8808	372
39	COLUMBIA UNIV	D L PIERCE	GSFC	B CAIRNS	NAG 5 5275	370
39	COLUMBIA UNIV	D RIND	GSFC	M A CANE	NAG 5 7044	371
39	COLUMBIA UNIV	E LINDSTROM	GSFC	A L FIELD	NAG 5 6948	371
39	COLUMBIA UNIV	E LINDSTROM	GSFC	A L GORDON	NAG 5 8297	371
39	COLUMBIA UNIV	E LINDSTROM	GSFC	R SEAGER	NAG 5 6315	370
39	COLUMBIA UNIV	J MARRA	GSFC	O ANDERSON	NAG 5 11215	373
39	COLUMBIA UNIV	J MARRA	GSFC	T TAKAHASHI	NAG 5 6877	370
39	COLUMBIA UNIV	J MARRA	GSFC	T TAKAHASHI	NAG 5 11357	373
39	COLUMBIA UNIV	M WEI	GSFC	A SOBEL	NAG 5 10607	373
39	COLUMBIA UNIV	M WEI	GSFC	D L WITTER	NAG 5 8675	372
39	COLUMBIA UNIV	M WEI	GSFC	D MARTINSON	NGT 5 30391	375
39	COLUMBIA UNIV	M WEI	GSFC	M CANE	NGT 5 50323	375
39	COLUMBIA UNIV	M WEI	GSFC	W MENKE	NGT 5 30374	375
39	COLUMBIA UNIV	M WEI	GSFC	W MENKE	NGT 5 30388	375
39	COLUMBIA UNIV	M Y WEI	GSFC	T TAKAHASHI	NGT 5 30167	374
39	COLUMBIA UNIV	P R Houser	GSFC	M STIEGLITZ	NAG 5 9759	372
39	COLUMBIA UNIV	Q BARKER	GSFC	R S CHEN	NAS 5 98162	373
39	COLUMBIA UNIV	R H THOMAS	GSFC	D M HOLLAND	NAG 5 4028	369
39	COLUMBIA UNIV	R KOSTER	GSFC	M STIEGLITZ	NCC 5 218	373
39	COLUMBIA UNIV	R KOSTER	GSFC	M STIEGLITZ	NCC 5 510	374
39	COLUMBIA UNIV	S GOGINENI	GSFC	D G MARTINSON	NAG 5 6876	370
39	COLUMBIA UNIV	S GOGINENI	GSFC	D MARTINSON	NAG 5 7922	371
39	COLUMBIA UNIV	S GOGINENI	GSFC	S S JACOBS	NAG 5 7461	371
39	CORNELL UNIV	D DEERING	GSFC	E FERNANDES	NCC 5 298	381
39	CORNELL UNIV	J BOYCE	GSFC	R J SULLIVAN	NAG 5 9794	379
39	CORNELL UNIV	J CAMPBELL	GSFC	B MONGER	NAG 5 8188	378
39	CORNELL UNIV	J JODER	GSFC	G CHARLES	NAG 5 6273	377
39	CORNELL UNIV	J MARRA	GSFC	B MONGER	NAG 5 10848	379
39	CORNELL UNIV	M WEI	GSFC	L O HEDIN	NGT 5 30210	381
39	CORNELL UNIV	M Y WEI	GSFC	C H GREENE	NGT 5 50218	382
39	DARTMOUTH COLLEGE	P Houser	GSFC	R BRAKENRIDGE	NAG 5 9470	344
39	DREXEL UNIV	R MILLER	SSC	M PIASECKI	NAG13 00040	441
39	DUKE UNIV	A NURRIDINN	HQ	R T BARBER	NGT 5 50224	396

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39	DUKE UNIV	E T ENGMAN	GSFC	S ROJSTACZER	NAG 5 8533	395
39	DUKE UNIV	J MARRA	GSFC	R T BARBER	NAG 5 9348	395
39	DUKE UNIV	M S BURRELL	GSFC	B SCHESINGER	NGT 5 69	395
39	DUKE UNIV	M WEI	GSFC	J REYNOLDS	NGT 5 30355	395
39	DUKE UNIV	P DECOLA	GSFC	P KASIBHATLA	NAG 5 9605	395
39	DUKE UNIV	R KNOX	GSFC	D L URBAN	NCC 5 233	395
39	ELIZABETH CITY STATE UNIV	B MEESON	GSFC	L HAYDEN	NAG 5 9371	396
39	ELIZABETH CITY STATE UNIV	N KHAZENIE	GSFC	L B HAYDEN	NAG 5 9372	396
39	FLA INTERNATIONAL UNIV	J W CAMPBELL	GSFC	L L RICHARDSON	NAG 5 8156	162
39	FLORIDA STATE UNIV	D E WICKLAND	GSFC	E A SMITH	NAG 5 7302	167
39	FLORIDA STATE UNIV	D E WICKLAND	GSFC	E A SMITH	NAG 5 9866	168
39	FLORIDA STATE UNIV	D W DEERING	GSFC	E A SMITH	NCC 5 292	168
39	FLORIDA STATE UNIV	D WICKLAND	GSFC	E SMITH	NAG 5 6258	167
39	FLORIDA STATE UNIV	E LINDSTROM	GSFC	J J O	NAG 5 8327	167
39	FLORIDA STATE UNIV	E T ENGMAN	GSFC	S E NICHOLSON	NAG 5 8598	167
39	FLORIDA STATE UNIV	J C DODGE	GSFC	E A SMITH	NAG 5 6665	167
39	FLORIDA STATE UNIV	M WEI	GSFC	S E NICHOLSON	NGT 5 30186	169
39	FLORIDA STATE UNIV	M WEI	GSFC	T KRISHNAMURTI	NGT 5 30191	169
39	FLORIDA STATE UNIV	M Y WEI	GSFC	D NOF	NGT 5 30164	169
39	FLORIDA STATE UNIV	M Y WEI	GSFC	J J OBIEN	NGT 5 30158	169
39	FLORIDA STATE UNIV	W ESAIAS	GSFC	W DEWAR	NAG 5 7630	167
39	FORT HAYS STATE UNIV	E LINDSTROM	GSFC	J HEINRICHS	NAG 5 8633	227
39	GEORGE MASON UNIV	A T CHANG	GSFC	L CHIU	NAG 5 10879	510
39	GEORGE MASON UNIV	A T CHANG	GSFC	L CHIU	NAG 5 11346	510
39	GEORGE MASON UNIV	A T CHANG	GSFC	L S CHIU	NAG 5 9035	509
39	GEORGE MASON UNIV	J A WEINMAN	GSFC	L CHIU	NAG 5 9636	509
39	GEORGE MASON UNIV	W GRAHAM	SSC	M KAFATOS	NAG13 01009	510
39	GEORGE WASHINGTON UNIV	J GASCH	GSFC	D WILLIAMSON	NAG 5 3957	152
39	GEORGIA INST OF TECH	A J TUYAHOV	GSFC	W L CHAMEIDES	NAG 5 3855	183
39	GEORGIA INST OF TECH	A J TUYAHOV	GSFC	W L CHAMEIDES	NAG 5 9868	184
39	GEORGIA INST OF TECH	E T ENGMAN	GSFC	C D PETERS-LIDARD	NAG 5 8698	184
39	GEORGIA INST OF TECH	M KURYLO	GSFC	P H WINE	NAG 5 8931	184
39	GEORGIA INST OF TECH	M WEI	GSFC	W L CHAMEIDES	NGT 5 50330	188
39	GEORGIA INST OF TECH	M Y WEI	GSFC	R E DICKINSON	NAG 5 8880	184
39	GEORGIA INST OF TECH	P DECOLA	GSFC	F EISELE	NAG 5 8891	184
39	GEORGIA INST OF TECH	R TRAVIS	SSC	K MAXWELL	NGT13 52742	188
39	HARVARD UNIV	D E WICKLAND	GSFC	S C WORSY	NAG 5 7534	284
39	HARVARD UNIV	D W DEERING	GSFC	S C WOFSY	NCC 5 341	285
39	HARVARD UNIV	M WEI	GSFC	J ANDERSON	NGT 5 30336	286
39	HARVARD UNIV	M WEI	GSFC	S C WOFSY	NGT 5 30205	286
39	HARVARD UNIV	M Y WEI	GSFC	R FORMAN	NGT 5 30144	286
39	HARVARD UNIV	M Y WEI	GSFC	S C WOFSY	NGT 5 30152	286
39	HARVARD UNIV	P DECOLA	GSFC	D J JACOB	NAG 5 9643	284
39	HARVARD UNIV	R CURRAN	GSFC	J ANDERSON	NAG 5 8779	284
39	HOFSTRA UNIV	E J LINDSTROM	GSFC	D E WEISSMAN	NAG 5 7503	382
39	IDaho STATE UNIV	W TURNER	GSFC	K T WEBER	NAG 5 10982	199
39	ILLINOIS STATE UNIV	J F DOWNDY	MSFC	D HOLLAND	NAG 8 1262	200
39	INDIANA UNIV - BLOOMINGTON	D DEERING	GSFC	E MORAN	NCC 5 334	216
39	INDIANA UNIV - BLOOMINGTON	G GUTMAN	GSFC	E F MORAN	NAG 5 9852	215
39	IOWA STATE UNIV	E K GIBSON	JSC	P A BAZLINSKI	NAG 9 1115	223
39	IOWA STATE UNIV	M WEI	GSFC	T CHEN	NGT 5 30419	224
39	JOHNS HOPKINS UNIV	E LINDSTROM	GSFC	K RANEY	NAG 5 9113	246
39	JOHNS HOPKINS UNIV	K H BERGMAN	GSFC	M B PARLANGE	NAG 5 9426	246
39	JOHNS HOPKINS UNIV	M WEI	GSFC	D WAUGH	NGT 5 50328	253
39	JOHNS HOPKINS UNIV	P E HUNTER	GSFC	A SZALAY	NAG 5 8590	245
39	JOHNS HOPKINS UNIV	S GOGINENI	GSFC	B L GOTWOLS	NAG 5 8007	244
39	KANSAS STATE UNIV	A JANETOS	GSFC	D JOHNSON	NAG 5 6213	228
39	KANSAS STATE UNIV	G GUTMAN	GSFC	L JOHNSON	NAG 5 11337	228
39	KENT STATE UNIV	M WEI	GSFC	D L WITTER	NAG 5 11266	413
39	KENT STATE UNIV	T SCOTT	GRC	D MUNRO-STASIUK	NAG 3 2416	412
39	LAC COURTE OREILLES OJIBWA COMM COL	A F HEPP	GRC	D H ANDERSON	NAG 3 2293	546
39	LOUISIANA STATE UNIV - BATON ROUGE	C E HALL	MSFC	J ZHU	NCC 8 201	235
39	LOUISIANA STATE UNIV - BATON ROUGE	R TRAVIS	SSC	B S GOODWIN	NGT13 52743	235
39	MASSACHUSETTS INST OF TECH	E J LINSTROM	GSFC	B HAGER	NAG 5 6352	291
39	MASSACHUSETTS INST OF TECH	E LINDSTROM	GSFC	C WUNSCH	NAG 5 7857	292
39	MASSACHUSETTS INST OF TECH	E LINDSTROM	GSFC	P RIZZOLI	NAG 5 7194	291

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39	MASSACHUSETTS INST OF TECH	E LINDSTROM	GSFC	P RIZZOLI	NAG 5 10793	295
39	MASSACHUSETTS INST OF TECH	E T ENGMAN	GSFC	D MCLAUGHLIN	NCC 5 416	299
39	MASSACHUSETTS INST OF TECH	E T ENGMAN	GSFC	E B ELTAHIR	NAG 5 8617	293
39	MASSACHUSETTS INST OF TECH	J MARRA	GSFC	J MARSHALL	NCC 5 244	299
39	MASSACHUSETTS INST OF TECH	M WEI	GSFC	B TROUT	NGT 5 30334	299
39	MASSACHUSETTS INST OF TECH	M WEI	GSFC	C WUNSCH	NGT 5 30337	299
39	MASSACHUSETTS INST OF TECH	M WEI	GSFC	D ENTEKHABI	NGT 5 30190	299
39	MASSACHUSETTS INST OF TECH	M WEI	GSFC	E ELTAHIR	NAG 5 7525	292
39	MASSACHUSETTS INST OF TECH	M WEI	GSFC	J MARSHALL	NGT 5 30189	299
39	MASSACHUSETTS INST OF TECH	M WEI	GSFC	K X WHIPPLE	NGT 5 30188	299
39	MASSACHUSETTS INST OF TECH	M WEI	GSFC	R A PLUMB	NGT 5 30200	299
39	MASSACHUSETTS INST OF TECH	M WEI	GSFC	R BRAS	NGT 5 30339	299
39	MASSACHUSETTS INST OF TECH	M WEI	GSFC	R L BRAS	NGT 5 30212	299
39	MASSACHUSETTS INST OF TECH	P DECOLA	GSFC	M MOLINA	NAG 5 8887	293
39	MIAMI UNIV	T M SCOTT	GRC	J MILLARD	NAG 3 2436	413
39	MICHIGAN STATE UNIV	A C JANETOS	GSFC	J LIU	NAG 5 8317	307
39	MICHIGAN STATE UNIV	A JANETOS	GSFC	D SKOLE	NAG 5 6538	307
39	MICHIGAN STATE UNIV	A JOYCE	SSC	P SORRANO	NGT13 52715	308
39	MICHIGAN STATE UNIV	D DEERING	GSFC	D SKOLE	NCC 5 291	308
39	MICHIGAN STATE UNIV	D WILLIAMS	GSFC	D SKOLE	NAG 5 4810	307
39	MICHIGAN STATE UNIV	G GUTMAN	GSFC	R WALKER	NAG 5 9232	307
39	MICHIGAN STATE UNIV	G GUTMAN	HQ	J QI	NAG 5 9286	307
39	MICHIGAN STATE UNIV	M WEI	GSFC	D J CAMPBELL	NGT 5 30340	308
39	MICHIGAN STATE UNIV	M Y WEI	GSFC	J LIU	NGT 5 30166	308
39	MICHIGAN TECHNOLOGICAL UNIV	M Y WEI	GSFC	G BLUTH	NGT 5 30154	309
39	MICHIGAN TECHNOLOGICAL UNIV	S GOGINENI	GSFC	D PILANT	NAG 5 7051	309
39	MISSISSIPPI STATE UNIV	R MCKELLIP	SSC	S ROBERTS	NAG13 99018	328
39	MONTANA STATE UNIV	A C JANETOS	GSFC	A HASEN	NAG 5 6005	337
39	MONTANA STATE UNIV	G GUTMAN	GSFC	A HANSEN	NAG 5 9300	337
39	MONTANA STATE UNIV	G GUTMAN	GSFC	A HANSEN	NAG 5 9806	337
39	MONTANA STATE UNIV	G GUTMAN	GSFC	A HANSEN	NAG 5 11158	337
39	MONTANA TECH OF THE U OF MONTANA	N KHAZENIE	GSFC	T MOON	NAG 5 9139	338
39	MT HOLYOKE COLLEGE	M Y WEI	GSFC	J L BUBIER	NAG 5 8635	300
39	NEW MEXICO HIGHLANDS UNIV	K KRISHEN	JSC	J CAIBACA	NAG 9 1374	361
39	NEW MEXICO HIGHLANDS UNIV	L M ARMEDARIZ	JSC	J C	NAG 9 1139	361
39	NEW MEXICO INST OF MINING & TECH	D WICKLAND	GSFC	E E SMALL	NAG 5 9328	361
39	NEW MEXICO INST OF MINING & TECH	F K GIBSON	JSC	T L KIEFT	NAG 9 1106	361
39	NEW MEXICO STATE UNIV - LAS CRUCES	C E WADE	ARC	E E SERRANO	NAG 2 1334	362
39	NY UNIV	M REINECKER	GSFC	R KLEEMAN	NAG 5 9871	383
39	NY UNIV	S GOGINENI	GSFC	D M HOLLAND	NAG 5 8475	383
39	NORFOLK STATE UNIV	N KHAZENIE	GSFC	W J RODRIGUEZ	NAG 5 6298	514
39	NORFOLK STATE UNIV	N KHAZENIE	GSFC	W J RODRIGUEZ	NAG 5 9374	514
39	NORTH CAROLINA STATE UNIV	J CAMPBELL	GSFC	J MORRISON	NAG 5 6520	400
39	NORTH CAROLINA STATE UNIV	J MARRA	GSFC	J MORRISON	NAG 5 8865	400
39	NORTH CAROLINA STATE UNIV	M WEI	GSFC	J M MORRISON	NGT 5 30192	402
39	OHIO STATE UNIV	D L WILLIAMS	GSFC	C MERRY	NAG 5 7685	415
39	OHIO STATE UNIV	E J LINDSTROM	GSFC	C K SHUM	NAG 5 7284	415
39	OHIO STATE UNIV	E LINDSTROM	GSFC	K N BERLINER	NAG 5 8455	416
39	OHIO STATE UNIV	E LINDSTROM	GSFC	C DER VEEN	NAG 5 8632	416
39	OHIO STATE UNIV	E LINDSTROM	GSFC	C K SHUM	NAG 5 6700	415
39	OHIO STATE UNIV	E LINDSTROM	GSFC	G S HAMILTON	NAG 5 6838	415
39	OHIO STATE UNIV	E LINDSTROM	GSFC	K C JEZEK	NAG 5 8608	416
39	OHIO STATE UNIV	G ASRAR	GSFC	L G THOMPSON	NGT 5 30012	418
39	OHIO STATE UNIV	J DODGE	GSFC	K JEZEK	NAG 5 9538	416
39	OHIO STATE UNIV	K PARTINGTON	GSFC	C K SHUM	NAG 5 9335	416
39	OHIO STATE UNIV	M WEI	GSFC	L BROWN	NGT 5 30042	418
39	OHIO STATE UNIV	P HOUSER	GSFC	D BROMWICH	NAG 5 9596	416
39	OHIO STATE UNIV	R KAKAR	GSFC	D BROMWICH	NAG 5 9518	416
39	OHIO STATE UNIV	S GOGINENI	GSFC	D H BROMWICH	NAG 5 7750	415
39	OHIO STATE UNIV	S GOGINENI	GSFC	E S MOSLEY-THOMPSON	NAG 5 6817	415
39	OHIO STATE UNIV	S GOGINENI	GSFC	K C JEZEK	NAG 5 6818	415
39	OHIO STATE UNIV	S GOGINENI	GSFC	K C JEZEK	NAG 5 7286	415
39	OHIO STATE UNIV	S GOGINENI	GSFC	R R FORSTER	NAG 5 7848	415
39	OHIO STATE UNIV	S GOGINENI	HQ	D BROMWICH	NAG 5 6001	415
39	OHIO STATE UNIV	T M SCOTT	GRC	D L MORRISON	NAG 3 2412	414
39	OHIO STATE UNIV	T M SCOTT	GRC	J K KLEIN	NAG 3 2410	414

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39	OKLAHOMA STATE UNIV	D E WICKLAND	GSFC	S J STADLER	NAG 5 7451	428
39	OLD DOMINION UNIV	N KHAZENIE	GSFC	E SMITH	NAG 5 4515	518
39	OREGON STATE UNIV	D E WICKLAND	GSFC	B LAW	NAG 5 7551	432
39	OREGON STATE UNIV	D E WICKLAND	GSFC	L MAHRT	NAG 5 7416	431
39	OREGON STATE UNIV	D E WICKLAND	GSFC	M H UNSWORTH	NAG 5 7531	432
39	OREGON STATE UNIV	D E WICKLAND	GSFC	R H WARING	NAG 5 7506	432
39	OREGON STATE UNIV	D E WICKLAND	GSFC	W B COHEN	NAG 5 7856	432
39	OREGON STATE UNIV	D WICKLAND	HQ	B E LAW	NAG 5 8315	432
39	OREGON STATE UNIV	E T ENGMAN	GSFC	L MAHRT	NAG 5 8601	432
39	OREGON STATE UNIV	G C GUTMAN	GSFC	D E HARMON	NAG 5 6242	431
39	OREGON STATE UNIV	G GUTMAN	GSFC	O KRANKINA	NAG 5 11250	433
39	OREGON STATE UNIV	G GUTMAN	GSFC	O N KRANKINA	NAG 5 9677	432
39	OREGON STATE UNIV	J C DODGE	GSFC	D FREILICH	NAG 5 6642	431
39	OREGON STATE UNIV	J CAMPBELL	GSFC	J R ZANEVELD	NAG 5 6647	431
39	OREGON STATE UNIV	J CAMPBELL	GSFC	K SHIFRIN	NAG 5 6530	431
39	OREGON STATE UNIV	J DODGE	GSFC	M R ABBOTT	NAG 5 8969	432
39	OREGON STATE UNIV	J MARRA	GSFC	M R ABBOTT	NAG 5 11125	433
39	OREGON STATE UNIV	M WEI	GSFC	B MATE	NGT 5 30185	434
39	OREGON STATE UNIV	M WEI	GSFC	R P DICK	NGT 5 96	434
39	OREGON STATE UNIV	M WEI	GSFC	W B COHEN	NGT 5 30214	434
39	PENN STATE UNIV	D L WILLIAMS	GSFC	W L MYERS	NAG 5 10541	448
39	PENN STATE UNIV	D WILLIAMS	GSFC	W MEYERS	NAG 5 6713	445
39	PENN STATE UNIV	E ENGMAN	GSFC	K DAVIS	NAG 5 10050	448
39	PENN STATE UNIV	E T ENGMAN	GSFC	D MILLER	NAG 5 8738	446
39	PENN STATE UNIV	J A MARRA	GSFC	R NAJJAR	NAG 5 6389	445
39	PENN STATE UNIV	J CAMPBELL	GSFC	R NAJJAR	NAG 5 6451	445
39	PENN STATE UNIV	M J IMHOFF	GSFC	G W PETERSEN	NAG 5 3856	444
39	PENN STATE UNIV	M WEI	GSFC	D PEUQUET	NGT 5 30224	451
39	PENN STATE UNIV	M WEI	GSFC	E J BARRON	NAG 5 4553	444
39	PENN STATE UNIV	M WEI	GSFC	G JENKINS	NGT 5 30420	451
39	PENN STATE UNIV	M WEI	GSFC	J VERLINDE	NGT 5 30208	451
39	PENN STATE UNIV	M WEI	GSFC	S BRANTLEY	NGT 5 30193	451
39	PENN STATE UNIV	M WEI	HQ	BRUNES	NGT 5 30139	451
39	PENN STATE UNIV	M Y WEI	GSFC	A P BARROS	NAG 5 6656	445
39	PENN STATE UNIV	M Y WEI	GSFC	R B ALLEY	NGT 5 30171	451
39	PENN STATE UNIV	P R HOUSER	GSFC	D R STAUFFER	NAG 5 8735	446
39	PENN STATE UNIV	S GOGINENI	GSFC	R ALLEY	NAG 5 7776	446
39	PORTLAND STATE UNIV	J F DOWDY	MSFC	A M FRASER	NAG 8 1283	434
39	PRAIRIE VIEW A&M UNIV	M WEI	GSFC	S H SHAKIR	NAG 5 6823	475
39	PRINCETON UNIV	D E WICKLAND	GSFC	E F WOOD	NAG 5 7297	353
39	PRINCETON UNIV	G ASRAR	GSFC	J L SARMIENTO	NAG 5 6591	352
39	PRINCETON UNIV	J DODGE	GSFC	E WOOD	NAG 5 6494	352
39	PRINCETON UNIV	J DODGE	GSFC	E WOOD	NAG 5 9414	353
39	PRINCETON UNIV	J DODGE	GSFC	E WOOD	NAG 5 9635	354
39	PRINCETON UNIV	M WEI	GSFC	A DOBSON	NGT 5 30341	355
39	PRINCETON UNIV	M WEI	GSFC	E F WOOD	NGT 5 50333	355
39	PRINCETON UNIV	M WEI	GSFC	G PHILANDER	NGT 5 30333	355
39	PRINCETON UNIV	M WEI	GSFC	J SARMIENTO	NGT 5 30356	355
39	PRINCETON UNIV	M WEI	GSFC	L RUSSELL	NAG 5 8676	353
39	PRINCETON UNIV	M Y WEI	GSFC	G PHILANDER	NGT 5 30134	355
39	PRINCETON UNIV	M Y WEI	GSFC	H LEVY	NGT 5 30137	355
39	PRINCETON UNIV	M Y WEI	GSFC	I M HELD	NGT 5 30156	355
39	PRINCETON UNIV	P DECOLA	GSFC	D L MAUZERALL	NAG 5 9810	354
39	PRINCETON UNIV	P HOUSER	GSFC	E WOOD	NAG 5 9486	353
39	PURDUE UNIV	A TUYAHOV	GSFC	B A ENGEL	NAG 5 7954	218
39	PURDUE UNIV	D E WICKLAND	GSFC	C E BRODLEY	NAG 5 6971	218
39	PURDUE UNIV	M Y WEI	GSFC	P B SHEPSON	NGT 5 30163	220
39	PURDUE UNIV	R MCKELLIP	SSC	C J JOHANNSEN	NAG13 00001	219
39	PURDUE UNIV	T BENIC	GRC	D A LANGREBE	NAG 5 3975	217
39	ROCHESTER INST OF TECH	B L MARKHAM	GSFC	J SCHOTT	NAG 5 11298	386
39	ROCHESTER INST OF TECH	D L WILLIAMS	GSFC	J SCHOTT	NAG 5 3443	386
39	ROCHESTER INST OF TECH	T D GUBBELS	GSFC	A VODECEK	NAG 5 10051	386
39	RUTGERS ST UNIV N	E LINSTROM	GSFC	D HAIDVOGEL	NAG 5 9847	358
39	RUTGERS ST UNIV N	E T ENGMAN	GSFC	R AVISSAR	NAG 5 8213	357
39	RUTGERS ST UNIV N	J CAMPBELL	GSFC	M J BEHRENFELD	NAG 5 7437	357

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39	RUTGERS ST UNIV N	J MARRA	GSFC	M J BEHRENFELD	NAG 5 9787	357
39	RUTGERS ST UNIV N	J MARRA	GSFC	P G FALKONSKI	NAG 5 11345	358
39	RUTGERS ST UNIV N	J MARRA	GSFC	Y GAO	NAG 5 9340	357
39	RUTGERS ST UNIV N	J W CAMPBELL	GSFC	P G FALKOWSKI	NAG 5 6982	357
39	RUTGERS ST UNIV N	P R Houser	GSFC	R AVIASSAR	NAG 5 9746	357
39	RUTGERS STATE UNIV OF NJ COOK CAMP	K BERGMAN	GSFC	R AVIASSAR	NAG 5 9359	359
39	RUTGERS STATE UNIV OF NJ NEW BRUNS	J MARRA	GSFC	P G FALKOWSKI	NAG 5 11356	359
39	SALISH KOOTENAI COLLEGE	B MEESON	GSFC	J M GOBERT	NAG 5 9368	338
39	SALISH KOOTENAI COLLEGE	N K HAZENIE	GSFC	T S OLSON	NAG 5 9102	338
39	SAN DIEGO STATE UNIV	G GUTMAN	GSFC	A HOPE	NAG 5 11141	54
39	SAN DIEGO STATE UNIV	G GUTMAN	GSFC	J FRANKLIN	NAG 5 9301	54
39	SAN DIEGO STATE UNIV	M WEI	GSFC	A S HOPE	NGT 5 30335	54
39	SAN DIEGO STATE UNIV	M Y WEI	GSFC	R MELLORS	NAG 5 8560	54
39	SAN DIEGO STATE UNIV	R MCKELLIP	JSC	D STOW	NAG13 99017	54
39	SAN FRANCISCO STATE UNIV	J W CAMPBELL	GSFC	D H ROBINSON	NAG 5 8013	55
39	SAN FRANCISCO STATE UNIV	J W MARRA	GSFC	D H ROBINSON	NAG 5 7511	55
39	SAN JOSE STATE UNIV	V VANDERBILT	ARC	P A HAMILL	NCC 2 1132	57
39	SOUTH DAKOTA SCH OF MINES & TECH	J ARNOLD	MSFC	S O FAREWELL	NAG 8 1447	466
39	SOUTH DAKOTA SCH OF MINES & TECH	M WEI	GSFC	P R ZIMMERMAN	NGT 5 30402	467
39	SOUTH DAKOTA SCH OF MINES & TECH	N KHAZENIE	GSFC	L A VIERLING	NAG 5 8973	466
39	SOUTH DAKOTA SCH OF MINES & TECH	R MCKELLIP	JSC	M PRICE	NAG13 99021	466
39	SOUTH DAKOTA STATE UNIV	B L MARKHAM	GSFC	D HELDER	NAG 5 11351	467
39	SOUTH DAKOTA STATE UNIV	D L WILLIAMS	GSFC	HELDER	NAG 5 3445	467
39	SOUTH DAKOTA STATE UNIV	DL WILLIAMS	GSFC	D HELDER	NAG 5 3540	467
39	SOUTH DAKOTA STATE UNIV	S UNGAR	GSFC	D HELDER	NCC 5 472	467
39	SOUTHERN ILLINOIS UNIV - CARBONDALE	M WEI	GSFC	N PINTER	NGT 5 50321	204
39	ST UN NY COL-ENV SCI & FORESTRY	N SOVIK	SSC	P HOPKINS	NCC13 98001	386
39	STANFORD UNIV	A KELLEY	MSFC	F CHANG	NCC 8 197	66
39	STANFORD UNIV	D E WICKLAND	GSFC	H A MOONEY	NAG 5 9862	62
39	STANFORD UNIV	J MARRA	GSFC	K ARRIGO	NAG 5 8866	62
39	STANFORD UNIV	M L IMHOFF	GSFC	M L IMHOFF	NAG 5 8563	61
39	STANFORD UNIV	M L IMHOFF	GSFC	P EHRLICH	NAG 5 9760	62
39	STANFORD UNIV	M WEI	GSFC	G W ERNST	NGT 5 30360	66
39	STANFORD UNIV	M WEI	GSFC	H ZEBKER	NGT 5 30342	66
39	STANFORD UNIV	M WEI	GSFC	M Z JACOBSON	NAG 5 8645	61
39	STANFORD UNIV	M WEI	GSFC	P M VITOUSEK	NGT 5 30216	66
39	STANFORD UNIV	M WEI	GSFC	P MATSON	NGT 5 30204	66
39	STANFORD UNIV	M Y WEI	GSFC	K SETO	NAG 5 10534	63
39	STANFORD UNIV	R H THOMAS	GSFC	D ZEBKER	NAG 5 3732	60
39	STANFORD UNIV	W ABDALATI	GSFC	H ZEBKER	NAG 5 9853	62
39	ST UN NY COL-ENV SCI & FORESTRY	N SOVIK	SSC	P HOPKINS	NAG13 01003	386
39	STATE UNIV OF NY - ALBANY	A J TUYAHOV	GSFC	P F HOPKINS	NAG 5 9676	387
39	STATE UNIV OF NY - ALBANY	D W DEERING	GSFC	D R FRITZJARRALD	NCC 5 283	387
39	STATE UNIV OF NY - BUFFALO	M BECKER	GSFC	M BECKER	NAG 5 10608	388
39	STATE UNIV OF NY - STONY BROOK	B CARLSON	GSFC	GELLER	NCC 5 126	391
39	STATE UNIV OF NY - STONY BROOK	D WICKLAND	GSFC	M LERDAU	NAG 5 6601	389
39	STATE UNIV OF NY - STONY BROOK	M WEI	GSFC	D WALISER	NGT 5 50322	391
39	STATE UNIV OF NY - STONY BROOK	N AVAILABLE	LARC	N AVAILABLE	NAS 1 96006	391
39	STATE UNIV OF NY - STONY BROOK	P DECOLA	GSFC	M A GELLER	NAG 5 9786	390
39	TEXAS A&M UNIV	D K HALL	GSFC	A KLEIN	NAG 5 9455	481
39	TEXAS A&M UNIV	D K HALL	GSFC	A KLEIN	NAG 5 10877	482
39	TEXAS A&M UNIV	G GUTMAN	GSFC	R LACEY	NAG 5 11144	482
39	TEXAS A&M UNIV	J CAMPBELL	GSFC	W D NOWLIN	NAG 5 6446	481
39	TEXAS A&M UNIV	K BERGMAN	GSFC	P CHANG	NAG 5 9409	481
39	TEXAS A&M UNIV	M WEI	GSFC	C MUNSTER	NGT 5 30408	484
39	TEXAS A&M UNIV	M WEI	GSFC	T BOUTTON	NGT 5 30211	484
39	TEXAS A&M UNIV	M Y WEI	GSFC	R ZHANG	NAG 5 8706	481
39	TEXAS A&M UNIV	S GOGINENI	GSFC	A STOESEL	NAG 5 7751	481
39	THE SCRIPPS REASERCH INST	F E HOGE	GSFC	M VERNET	NAG 5 5191	67
39	THE SCRIPPS REASERCH INST	J DODGE	GSFC	J J SIMPSON	NAG 5 9604	67
39	THE UNIV OF CENTRAL FLORIDA	J W QUINN	KSC	D R REINHART	NAG10 301	170
39	THE UNIV OF CENTRAL FLORIDA	M COLLINS	KSC	D C COOPER	NCC10 35	170
39	TULANE UNIV	R TRAVIS	JSC	B MCKEE	NGT13 52722	237
39	TULANE UNIV	R TRAVIS	SSC	J CORBINO	NGT13 52745	237
39	U OF MD CTR FOR ENV SCI-CAMBRIDGE	A C JANETOS	GSFC	P R FISHER	NAG 5 6249	254

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39	U OF MD CTR FOR ENV SCI-CAMBRIDGE	J HARDING	GSFC	L HARDING	NAG 5 6286	254
39	U OF MD CTR FOR ENV SCI-CAMBRIDGE	J MARRA	GSFC	R G HOOD	NAG 5 6387	254
39	U OF MD CTR FOR ENV SCI-CAMBRIDGE	J MARRA	GSFC	T MALONE	NAG 5 9527	254
39	U OF MD CTR FOR ENV SCI-CAMBRIDGE	J W CAMPBELL	GSFC	L W HARDING	NAG 5 7602	254
39	U OF MD CTR FOR ENV SCI-CAMBRIDGE	J W CAMPBELL	GSFC	T C MALONE	NAG 5 7455	254
39	U OF MD CTR FOR ENV SCI-CAMBRIDGE	S G UNGAR	GSFC	P A TOWNSEND	NCC 5 493	255
39	UNIV HOUSTON-HOUSTON	E K GIBSON	JSC	H S CHAFETZ	NAG 9 1103	487
39	UNIV OF MINN	D E WICKLAND	GSFC	P B REICH	NAG 5 7917	322
39	UNIV OF MINN	G GUTMAN	GSFC	J PASTOR	NAG 5 9312	323
39	UNIV OF MINN	G GUTMAN	GSFC	P BOLSTAD	NAG 5 11130	323
39	UNIV OF MINN	M KURYLO	GSFC	R W CARR	NAG 5 8869	322
39	UNIV OF MINN	M Y WEI	GSFC	E FOFOULA-GEORGI	NAG 5 6191	322
39	UNIV OF MINN	M Y WEI	GSFC	S HOBBIE	NGT 5 30111	325
39	UNIV OF MINN	R MCKELLIP	SSC	M BAUER	NAG13 99022	324
39	UNIV OF MINN	T M SANDERS	GRC	D H PUI	NAG 3 2187	321
39	UNIV	S G UNGAR	GSFC	K C MCGWIRE	NCC 5 486	342
39	UNIV	S GOGINENI	GSFC	G L DANA	NAG 5 7870	341
39	UNIV OF AKRON	T M SCOTT	GRC	D SIEBERT	NAG 3 2444	420
39	UNIV OF ALABAMA - BIRMINGHAM	E PAYLOR	GSFC	L DELUCAS	NAG 5 8786	6
39	UNIV OF ALABAMA - BIRMINGHAM	E PAYLOR	GSFC	L DELUCAS	NAG 5 11267	6
39	UNIV OF ALABAMA - HUNTSVILLE	D L PIERCE	GSFC	J DIMMOCK	NAG 5 5273	7
39	UNIV OF ALABAMA - HUNTSVILLE	M Y WEI	GSFC	D M WELCH	NGT 5 30168	14
39	UNIV OF ALABAMA - HUNTSVILLE	R GREENWOOD	MSFC	R MCNIDER	NCC 8 141	13
39	UNIV OF ALABAMA - HUNTSVILLE	R J OLIVERSEN	GSFC	W PACIESAS	NAG 5 9045	9
39	UNIV OF ALABAMA - HUNTSVILLE	S GOGINENI	GSFC	R T MCNIDER	NAG 5 7844	8
39	UNIV OF ALABAMA - HUNTSVILLE	T BRAKE	GSFC	R WELCH	NAS 5 31718	12
39	UNIV OF ALASKA - FAIRBANKS	A JANETOS	GSFC	D MCGUIRE	NAG 5 6275	17
39	UNIV OF ALASKA - FAIRBANKS	D E WICKLAND	GSFC	A D MCGUIRE	NAG 5 9859	18
39	UNIV OF ALASKA - FAIRBANKS	D WICKLAND	GSFC	C L WILLIAMS	NAG 5 7507	17
39	UNIV OF ALASKA - FAIRBANKS	E LINDSTROM	GSFC	L MCNUTT	NAG 5 9915	18
39	UNIV OF ALASKA - FAIRBANKS	E LINDSTROM	GSFC	S R OKKONEN	NAG 5 7603	17
39	UNIV OF ALASKA - FAIRBANKS	E T ENGMAN	GSFC	S LI	NAG 5 8614	18
39	UNIV OF ALASKA - FAIRBANKS	G GUTMAN	GSFC	C WILLIAMS	NAG 5 9315	18
39	UNIV OF ALASKA - FAIRBANKS	G GUTMAN	GSFC	D MCGUIRE	NAG 5 11142	18
39	UNIV OF ALASKA - FAIRBANKS	M WEI	GSFC	S F CHAPIN	NGT 5 50324	19
39	UNIV OF ALASKA - FAIRBANKS	P J ONDRUS	GSFC	N AVAILBLE	NAS 5 98129	18
39	UNIV OF ALASKA - FAIRBANKS	R H THOMAS	GSFC	D JEFFRIES	NAG 5 4170	16
39	UNIV OF ALASKA - FAIRBANKS	S GOGINENI	GSFC	M O JEFFRIES	NAG 5 7299	17
39	UNIV OF ALASKA - FAIRBANKS	S H GOGINENI	GSFC	C LINGLE	NAG 5 4068	16
39	UNIV OF ALASKA - FAIRBANKS	S K HALL	GSFC	C S BENSON	NCC 5 379	19
39	UNIV OF ARIZONA	A TUYAHOV	GSFC	C F HUTCHINSON	NAG 5 9174	31
39	UNIV OF ARIZONA	A TUYAHOV	GSFC	D YOUNG	NAG 5 8157	30
39	UNIV OF ARIZONA	A TUYAHOV	GSFC	S E MARSH	NAG 5 8341	30
39	UNIV OF ARIZONA	B L MARKHAM	GSFC	K THOME	NAG 5 11339	36
39	UNIV OF ARIZONA	D L WILLIAMS	GSFC	C J THOME	NAG 5 3436	26
39	UNIV OF ARIZONA	D W DEERING	GSFC	A R HUETE	NAG 5 11316	36
39	UNIV OF ARIZONA	E T ENGMAN	GSFC	J W SHUTTLEWORTH	NAG 5 8214	30
39	UNIV OF ARIZONA	E WOOD	GSFC	S SOROOSHIAN	NAG 5 8503	30
39	UNIV OF ARIZONA	E Y WOOD	GSFC	S SOROOSHAIN	NAG 5 3640	26
39	UNIV OF ARIZONA	J PRIVETTE	GSFC	A HAUTE	NAG 5 8660	30
39	UNIV OF ARIZONA	M WEI	GSFC	M W WALLENDORF	NAG 5 10007	33
39	UNIV OF ARIZONA	M WEI	GSFC	R E DICKSON	NGT 5 30013	39
39	UNIV OF ARIZONA	M Y WEI	GSFC	C E GLASS	NGT 5 30148	39
39	UNIV OF ARIZONA	M Y WEI	GSFC	C HUTCHINSON	NGT 5 30140	39
39	UNIV OF ARIZONA	P R Houser	GSFC	W SHUTTLEWORTH	NAG 5 9796	33
39	UNIV OF ARIZONA	R H THOMAS	GSFC	V R BAKER	NAG 5 4124	26
39	UNIV OF ARIZONA	R SCHIEFFER	GSFC	S ROROOSHIAN	NAG 5 8502	30
39	UNIV OF ARIZONA	S G UNGAR	GSFC	S F BIGGAR	NCC 5 460	39
39	UNIV OF ARIZONA	S G UNGER	GSFC	A R HUETE	NCC 5 478	39
39	UNIV OF ARIZONA	S GOGINENI	GSFC	R BALES	NAG 5 6779	28
39	UNIV OF ARK MAIN CAMP - FAYETTEVILLE	J BOYCE	GSFC	P BENOIT	NAG 5 9496	41
39	UNIV OF CALIFORNIA - BERKELEY		GSFC	K BOERING	NGT 5 30424	78
39	UNIV OF CALIFORNIA - BERKELEY	A NURRIDDIN	HQ	O E GRANGER	NGT 5 50223	79
39	UNIV OF CALIFORNIA - BERKELEY	D E WICKLAND	GSFC	D BALDOCCHI	NAG 5 8510	72
39	UNIV OF CALIFORNIA - BERKELEY	D E WICKLAND	GSFC	W SILVER	NCC 5 352	77

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39	UNIV OF CALIFORNIA - BERKELEY	G ASRAR	GSFC	D G AMUNDSON	NGT 5 30044	77
39	UNIV OF CALIFORNIA - BERKELEY	G GUTMAN	GSFC	P GONG	NAG 5 9231	73
39	UNIV OF CALIFORNIA - BERKELEY	M WEI	GSFC	D M KAMMEN	NGT 5 30361	78
39	UNIV OF CALIFORNIA - BERKELEY	M WEI	GSFC	I CHAPELA	NGT 5 30351	78
39	UNIV OF CALIFORNIA - BERKELEY	M WEI	GSFC	R C COHEN	NGT 5 30219	78
39	UNIV OF CALIFORNIA - BERKELEY	M WEI	GSFC	T L BENNING	NGT 5 30183	78
39	UNIV OF CALIFORNIA - BERKELEY	M WEI	GSFC	W SILVER	NGT 5 50331	79
39	UNIV OF CALIFORNIA - BERKELEY	M Y WEI	GSFC	F S CHAPIN	NGT 5 50216	79
39	UNIV OF CALIFORNIA - BERKELEY	M Y WEI	GSFC	W L SILVER	NGT 5 30141	78
39	UNIV OF CALIFORNIA - BERKELEY	N KHAZENIE	GSFC	A GOULD	NAG 5 9317	73
39	UNIV OF CALIFORNIA - BERKELEY	P DECOLA	GSFC	A GOLDSTEIN	NAG 5 7173	70
39	UNIV OF CALIFORNIA - BERKELEY	P T Houser	GSFC	X LIANG	NAG 5 8737	72
39	UNIV OF CALIFORNIA - BERKELEY	S G UNGAR	GSFC	P GONG	NCC 5 492	77
39	UNIV OF CALIFORNIA - BERKELEY	W ABDALATI	GSFC	X LIANG	NAG 5 10673	74
39	UNIV OF CALIFORNIA - DAVIS	D E WICKLAND	GSFC	S L USTIN	NAG 5 7216	80
39	UNIV OF CALIFORNIA - DAVIS	D E WICKLAND	GSFC	S USTIN	NAG 5 9360	81
39	UNIV OF CALIFORNIA - DAVIS	D L JAN	HQ	S D COLLINS	NAG 9 1048	81
39	UNIV OF CALIFORNIA - DAVIS	M WEI	GSFC	C ANASTASIO	NGT 5 30187	83
39	UNIV OF CALIFORNIA - DAVIS	M WEI	GSFC	S USTIN	NGT 5 30352	83
39	UNIV OF CALIFORNIA - DAVIS	V C VANDERBILT	ARC	S L USTIN	NCC 2 5343	82
39	UNIV OF CALIFORNIA - IRVINE	A NURRIDIN	HQ	R J RICE	NGT 5 50226	87
39	UNIV OF CALIFORNIA - IRVINE	D DEERING	GSFC	S TRUMBORE	NCC 5 336	86
39	UNIV OF CALIFORNIA - IRVINE	D W DEERING	GSFC	M L GOULDEN	NCC 5 280	86
39	UNIV OF CALIFORNIA - IRVINE	D WICKLAND	GSFC	S TRUMBORE	NAG 5 7301	85
39	UNIV OF CALIFORNIA - IRVINE	M KURYLO	GSFC	D R BLAKE	NAG 5 8935	85
39	UNIV OF CALIFORNIA - IRVINE	M W WEI	GSFC	R J CICERONE	NGT 5 50325	87
39	UNIV OF CALIFORNIA - IRVINE	M WEI	GSFC	G MAGNUSDOTTIR	NGT 5 30203	86
39	UNIV OF CALIFORNIA - IRVINE	M WEI	GSFC	ZENDER	NAG 5 10546	85
39	UNIV OF CALIFORNIA - LOS ANGELES	E LINDSTROM	GSFC	J MCWILLIAMS	NAG 5 9860	93
39	UNIV OF CALIFORNIA - LOS ANGELES	K BERGMAN	GSFC	D J NEELIN	NAG 5 9358	92
39	UNIV OF CALIFORNIA - LOS ANGELES	M JACKSON	GSFC	J KIM	NAG 5 11363	94
39	UNIV OF CALIFORNIA - LOS ANGELES	M WEI	GSFC	A ELDERING	NAG 5 8812	91
39	UNIV OF CALIFORNIA - LOS ANGELES	M WEI	GSFC	L SMITH	NGT 5 30338	95
39	UNIV OF CALIFORNIA - LOS ANGELES	M WEI	GSFC	R P TURCO	NGT 5 30215	95
39	UNIV OF CALIFORNIA - LOS ANGELES	M WEI	GSFC	R TURCO	NGT 5 50332	95
39	UNIV OF CALIFORNIA - LOS ANGELES	M Y WEI	GSFC	K LIU	NGT 5 30133	95
39	UNIV OF CALIFORNIA - LOS ANGELES	P R Houser	GSFC	Y XUE	NAG 5 9713	92
39	UNIV OF CALIFORNIA - RIVERSIDE	E T ENGMAN	GSFC	B P MOHANTY	NAG 5 8682	96
39	UNIV OF CALIFORNIA - SAN DIEGO	D E WICKLAND	GSFC	C KEELING	NAG 5 11217	102
39	UNIV OF CALIFORNIA - SAN DIEGO	D E WICKLAND	GSFC	D D KEELING	NAG 5 3528	96
39	UNIV OF CALIFORNIA - SAN DIEGO	D E WICKLANS	GSFC	R F KEELING	NAG 5 7637	99
39	UNIV OF CALIFORNIA - SAN DIEGO	E LINDSTORM	GSFC	D MILLER	NAG 5 6497	98
39	UNIV OF CALIFORNIA - SAN DIEGO	E LINDSTROM	GSFC	D STAMMER	NAG 5 8623	100
39	UNIV OF CALIFORNIA - SAN DIEGO	E LINDSTROM	GSFC	D STAMMER	NAG 5 8901	100
39	UNIV OF CALIFORNIA - SAN DIEGO	E LINDSTROM	GSFC	P NILER	NAG 5 8322	99
39	UNIV OF CALIFORNIA - SAN DIEGO	E LINSTROM	GSFC	A MILLER	NAG 5 9788	101
39	UNIV OF CALIFORNIA - SAN DIEGO	E PAYLOR	GSFC	J ROADS	NAG 5 8780	100
39	UNIV OF CALIFORNIA - SAN DIEGO	J A YODER	GSFC	R FROUIN	NAG 5 6202	98
39	UNIV OF CALIFORNIA - SAN DIEGO	J CAMPBELL	GSFC	R F KEELING	NAG 5 6668	98
39	UNIV OF CALIFORNIA - SAN DIEGO	J DODGE	GSFC	J J SIMPSON	NAG 5 9721	101
39	UNIV OF CALIFORNIA - SAN DIEGO	J W CAMPBELL	GSFC	D STRAMSKI	NAG 5 7100	98
39	UNIV OF CALIFORNIA - SAN DIEGO	J YODER	GSFC	B MITCHELL	NAG 5 6559	98
39	UNIV OF CALIFORNIA - SAN DIEGO	P DECOLA	GSFC	R F WEISS	NAG 5 8180	99
39	UNIV OF CALIFORNIA - SANTA BARBARA	A J TUYAHOV	GSFC	D C CLARKE	NAG 5 3620	106
39	UNIV OF CALIFORNIA - SANTA BARBARA	A TUYAHOV	GSFC	J E ESTES	NAG 5 10457	108
39	UNIV OF CALIFORNIA - SANTA BARBARA	D DEERING	GSFC	J MELACK	NCC 5 281	110
39	UNIV OF CALIFORNIA - SANTA BARBARA	D E WICKLAND	GSFC	D A ROBERTS	NAG 5 7248	107
39	UNIV OF CALIFORNIA - SANTA BARBARA	D W DEERING	GSFC	D A ROBERTS	NCC 5 589	110
39	UNIV OF CALIFORNIA - SANTA BARBARA	D W DEERING	GSFC	O A CHADWICK	NCC 5 282	110
39	UNIV OF CALIFORNIA - SANTA BARBARA	E KRIENS	GSFC	C GAUTIER	NAS 5 31374	109
39	UNIV OF CALIFORNIA - SANTA BARBARA	E LINDSTROM	GSFC	J C DOZIER	NAG 5 9844	108
39	UNIV OF CALIFORNIA - SANTA BARBARA	E T ENGMAN	GSFC	J SHI	NAG 5 8616	107
39	UNIV OF CALIFORNIA - SANTA BARBARA	E T ENGMAN	GSFC	T DUNNE	NAG 5 8396	107
39	UNIV OF CALIFORNIA - SANTA BARBARA	G A SHELTON	ARC	D A ROBERTS	NAG 2 1140	105
39	UNIV OF CALIFORNIA - SANTA BARBARA	J A MARRA	GSFC	R C SMITH	NAG 5 6434	107

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39	UNIV OF CALIFORNIA - SANTA BARBARA	J W CAMPBELL	GSFC	D A SIEGEL	NAG 5 8319	107
39	UNIV OF CALIFORNIA - SANTA BARBARA	J YODER	GSFC	D SIEGEL	NAG 5 6288	106
39	UNIV OF CALIFORNIA - SANTA BARBARA	M WEI	GSFC	D A ROBERTS	NGT 5 50327	111
39	UNIV OF CALIFORNIA - SANTA BARBARA	M WEI	GSFC	D A SIEGEL	NGT 5 30194	110
39	UNIV OF CALIFORNIA - SANTA BARBARA	M WEI	GSFC	D SIEGEL	NAG 5 6478	107
39	UNIV OF CALIFORNIA - SANTA BARBARA	M WEI	GSFC	K C CLARKE	NGT 5 30201	110
39	UNIV OF CALIFORNIA - SANTA BARBARA	M WEI	GSFC	MERTES	NGT 5 30173	110
39	UNIV OF CALIFORNIA - SANTA BARBARA	M WEI	GSFC	O CHADWICK	NGT 5 30357	111
39	UNIV OF CALIFORNIA - SANTA BARBARA	M WEI	GSFC	T DUNNE	NGT 5 30225	110
39	UNIV OF CALIFORNIA - SANTA BARBARA	M WEI	GSFC	T DUNNE	NGT 5 30332	111
39	UNIV OF CALIFORNIA - SANTA BARBARA	M Y WEI	GSFC	N M MAHOWALD	NAG 5 8680	108
39	UNIV OF CALIFORNIA - SANTA BARBARA	N KHAZENIE	GSFC	C GAUTIER	NAG 5 4963	106
39	UNIV OF CALIFORNIA - SANTA BARBARA	P DECOLA	GSFC	N M MAHOWALD	NAG 5 9671	108
39	UNIV OF CALIFORNIA - SANTA BARBARA	S G UNGAR	GSFC	D A ROBERTS	NCC 5 496	110
39	UNIV OF CALIFORNIA - SANTA BARBARA	S GOGINENI	GSFC	J C DOZIER	NAG 5 4814	106
39	UNIV OF CALIFORNIA - SANTA BARBARA	T JANETOS	GSFC	T DUNNE	NAG 5 6120	106
39	UNIV OF CALIFORNIA - SANTA BARBARA	W ABDALATI	GSFC	J SHI	NAG 5 10671	108
39	UNIV OF CALIFORNIA - SANTA CRUZ	D DESMARAIS	ARC	G H RAU	NCC 2 5456	114
39	UNIV OF CALIFORNIA - SANTA CRUZ	D J DES MARAIS	ARC	G H RAU	NCC 2 5339	113
39	UNIV OF CALIFORNIA - SANTA CRUZ	J MARRA	GSFC	R KUDELA	NAG 5 8855	112
39	UNIV OF CALIFORNIA - SANTA CRUZ	J W MARRA	GSFC	R KUDELA	NAG 5 8750	112
39	UNIV OF CALIFORNIA - SANTA CRUZ	M Y WEI	GSFC	R S ANDERSON	NGT 5 30112	114
39	UNIV OF CHICAGO	E G STANSBERY	JSC	A J TUZZOLINO	NAG 9 1306	207
39	UNIV OF CINCINNATI	D E WICKLAND	GSFC	R C FROHN	NAG 5 7098	423
39	UNIV OF CINCINNATI	T SCOTT	GRC	D BECK	NAG 3 2437	423
39	UNIV OF COLORADO - BOULDER	A C JANETOS	GSFC	D A WEISSMAN	NAG 5 6134	127
39	UNIV OF COLORADO - BOULDER	A	GSFC	K STEFFEN	NAG 5 10857	136
39	UNIV OF COLORADO - BOULDER	B A WIELICKI	LARC	E C WEATHERHEAD	NCC 1 01048	139
39	UNIV OF COLORADO - BOULDER	B A WIELICKI	LARC	E C	NAG 1 01081	123
39	UNIV OF COLORADO - BOULDER	D C WICKLAND	GSFC	G P ASNER	NAG 5 8320	131
39	UNIV OF COLORADO - BOULDER	D E WICKLAND	GSFC	A TOWNSEND	NAG 5 7402	129
39	UNIV OF COLORADO - BOULDER	D J KAHLE	GSFC	W EMERY	NAG 5 3847	125
39	UNIV OF COLORADO - BOULDER	D L PIERCE	WFF	W EMERY	NAG 5 5274	127
39	UNIV OF COLORADO - BOULDER	D L WILLIAMS	GSFC	A GOETZ	NAG 5 3437	125
39	UNIV OF COLORADO - BOULDER	D L WILLIAMS	GSFC	T SCAMBOS	NAG 5 3438	125
39	UNIV OF COLORADO - BOULDER	D WICKLAND	GSFC	A GOETZ	NAG 5 8912	132
39	UNIV OF COLORADO - BOULDER	E ENGMAN	GSFC	D YATES	NAG 5 7541	129
39	UNIV OF COLORADO - BOULDER	E LINDSTROM	GSFC	J MASLANIK	NAG 5 9861	134
39	UNIV OF COLORADO - BOULDER	E LINDSTROM	GSFC	J STROEVE	NAG 5 9602	134
39	UNIV OF COLORADO - BOULDER	G ASRAR	HQ	D WEISMAN	NGT 5 30026	140
39	UNIV OF COLORADO - BOULDER	G C GUTMIN	GSFC	D WEBB	NAG 5 6051	127
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39	UNIV OF COLORADO - BOULDER	J C DODGE	GSFC	D EMERY	NAG 5 6521	127
39	UNIV OF COLORADO - BOULDER	J C DODGE	GSFC	D FOWLER	NAG 5 6666	128
39	UNIV OF COLORADO - BOULDER	J C DODGE	GSFC	D L ARMSTRONG	NAG 5 6636	128
39	UNIV OF COLORADO - BOULDER	J C DODGE	GSFC	W EMERY	NAG 5 10288	135
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39	UNIV OF COLORADO - BOULDER	J DODGE	GSFC	R ARMSTRONG	NAG 5 9412	133
39	UNIV OF COLORADO - BOULDER	J L PRIVETTE	GSFC	N KHATIB	NGT 5 93	140
39	UNIV OF COLORADO - BOULDER	J ZWALLY	GSFC	K STEFFEN	NAG 5 7466	129
39	UNIV OF COLORADO - BOULDER	J ZWALLY	GSFC	K STEFFEN	NAG 5 9692	134
39	UNIV OF COLORADO - BOULDER	K H BERGMAN	GSFC	D EVANS	NAG 5 7021	129
39	UNIV OF COLORADO - BOULDER	L MILAN	GSFC	J GILLE	NAS 5 97046	138
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39	UNIV OF COLORADO - BOULDER	M WEI	GSFC	J WAHR	NGT 5 50320	143
39	UNIV OF COLORADO - BOULDER	M WEI	GSFC	L M AVALLONE	NGT 5 30209	141
39	UNIV OF COLORADO - BOULDER	M WEI	GSFC	M A TOLBERT	NGT 5 30363	141
39	UNIV OF COLORADO - BOULDER	M Y WEI	GSFC	A H LYNCH	NGT 5 30170	141
39	UNIV OF COLORADO - BOULDER	M Y WEI	GSFC	B TOON	NGT 5 30155	141
39	UNIV OF COLORADO - BOULDER	M Y WEI	GSFC	G ASNER	NAG 5 8709	132
39	UNIV OF COLORADO - BOULDER	M Y WEI	GSFC	M TOLBERT	NGT 5 30136	141
39	UNIV OF COLORADO - BOULDER	P HAUSER	GSFC	M SERREZE	NAG 5 9568	133
39	UNIV OF COLORADO - BOULDER	P HOUSER	GSFC	J WAHR	NAG 5 9450	133
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39	UNIV OF COLORADO - BOULDER	R THOMAS	GSFC	D STEFFEN	NAG 5 4248	126
39	UNIV OF COLORADO - BOULDER	S G UNGAR	GSFC	A F GOETZ	NCC 5 458	139
39	UNIV OF COLORADO - BOULDER	S G UNGAR	GSFC	G P ASNER	NCC 5 480	139
39	UNIV OF COLORADO - BOULDER	S G UNGAR	GSFC	G P ASNER	NCC 5 481	140
39	UNIV OF COLORADO - BOULDER	S GOGINENI	GSFC	A LYNCH	NAG 5 6820	128
39	UNIV OF COLORADO - BOULDER	S GOGINENI	GSFC	D CURRY	NAG 5 4901	126
39	UNIV OF COLORADO - BOULDER	S GOGINENI	GSFC	J WAHR	NAG 5 6875	128
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39	UNIV OF COLORADO - BOULDER	S GOGINENI	GSFC	T A SCAMBOS	NAG 5 7760	130
39	UNIV OF COLORADO - BOULDER	W ABDALATI	GSFC	J STROEVE	NAG 5 10600	136
39	UNIV OF CONNECTICUT	J W MARRA	GSFC	C ROESLER	NAG 5 7654	145
39	UNIV OF CONNECTICUT	M Y WEI	GSFC	E N ANAGOSTOU	NAG 5 8636	145
39	UNIV OF DAYTON	G S OLSEN	MSFC	A J PIEKUTOWSKI	NAS 8 98216	424
39	UNIV OF DELAWARE	E LINDSTROM	GSFC	F WEBSTER	NAG 5 8556	149
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39	UNIV OF DISTRICT OF COLUMBIA	D T TOLL	GSFC	G WYCHE-MOORE	NCC 5 421	161
39	UNIV OF FLORIDA	A JOYCE	JSC	S SHIH	NGT13 52710	176
39	UNIV OF FLORIDA	D W DEERING	GSFC	H L GHOLZ	NAG 5 7559	173
39	UNIV OF FLORIDA	G GUTMAN	GSFC	M W BINFORD	NAG 5 9331	173
39	UNIV OF FLORIDA	M WEI	GSFC	J JACOBS	NAG 5 10567	173
39	UNIV OF FLORIDA	N MAYNARD	GSFC	D WOOD	NAG 5 3772	172
39	UNIV OF GEORGIA	E K GIBSON	JSC	C S ROMANEK	NAG 9 1110	191
39	UNIV OF HAWAII AT MANOA - HONOLULU	D L PIERCE	GSFC	M ATKINSON	NAG 5 5276	192
39	UNIV OF HAWAII AT MANOA - HONOLULU	D L WILLIAMS	GSFC	FLYNN	NAG 5 3451	191
39	UNIV OF HAWAII AT MANOA - HONOLULU	E D PAYLOR	GSFC	P J MOUGINIS-MARK	NAG 5 8920	195
39	UNIV OF HAWAII AT MANOA - HONOLULU	E LINDSTROM	GSFC	B QIU	NAG 5 6442	193
39	UNIV OF HAWAII AT MANOA - HONOLULU	E LINDSTROM	GSFC	J MCCREARY	NAG 5 10045	196
39	UNIV OF HAWAII AT MANOA - HONOLULU	E PAYLOR	GSFC	G J FRYER	NAG 5 8745	194
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39	UNIV OF HAWAII AT MANOA - HONOLULU	E PAYLOR	GSFC	M BEVIS	NAG 5 8757	194
39	UNIV OF HAWAII AT MANOA - HONOLULU	E PAYLOR	GSFC	S BUSINGER	NAG 5 9580	196
39	UNIV OF HAWAII AT MANOA - HONOLULU	J DODGE	GSFC	L FLYNN	NAG 5 9413	196
39	UNIV OF HAWAII AT MANOA - HONOLULU	J DODGE	GSFC	T NEILSEN	NAG 5 6433	193
39	UNIV OF HAWAII AT MANOA - HONOLULU	J DODGE	HQ	T NIELSEN	NAG 5 9252	195
39	UNIV OF HAWAII AT MANOA - HONOLULU	J MARRA	GSFC	R R BIDIGARE	NAG 5 9757	196
39	UNIV OF HAWAII AT MANOA - HONOLULU	J W CAMPBELL	GSFC	M J ATKINSON	NAG 5 7513	193
39	UNIV OF HAWAII AT MANOA - HONOLULU	M WEI	GSFC	B POPP	NGT 5 30207	199
39	UNIV OF HAWAII AT MANOA - HONOLULU	M WEI	GSFC	P MOUGINIS-MARK	NGT 5 50319	199
39	UNIV OF HAWAII AT MANOA - HONOLULU	N KHAZENIE	GSFC	L P FLYNN	NAG 5 7730	193
39	UNIV OF HAWAII AT MANOA - HONOLULU	R H THOMAS	GSFC	B M DOUSSET	NAG 5 4024	192
39	UNIV OF HAWAII AT MANOA - HONOLULU	S G UNGAR	GSFC	L P FLYNN	NCC 5 461	198
39	UNIV OF HAWAII WINDWARD COMM COLL	M Y WEI	GSFC	J E CIOTTI	NAG 5 6799	199
39	UNIV OF IDAHO - MOSCOW	N KHAZENIE	GSFC	M R ODELL	NAG 5 9052	199
39	UNIV OF IDAHO - MOSCOW	P HOUSER	GSFC	R QUALLS	NAG 5 9876	199
39	UNIV OF IDAHO - MOSCOW	P R HOUSER	GSFC	R J QUALLS	NAG 5 9846	199
39	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	D E WICKLAND	GSFC	D DELUCIA	NAG 5 4858	210
39	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	E T ENGMAN	GSFC	P KUMAR	NAG 5 8555	211
39	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	M WEI	GSFC	D WUEBBLES	NGT 5 50326	214
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39	UNIV OF IOWA	E T ENGMAN	GSFC	A BRADLEY	NAG 5 8873	226
39	UNIV OF IOWA	M WEI	GSFC	G CARMICHAEL	NGT 5 30199	227
39	UNIV OF KANSAS	B DAVIS	SSC	K P PRICE	NAG13 01008	229
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39	UNIV OF KANSAS	E LINDSTROM	GSFC	S GOGINENI	NAG 5 9840	229
39	UNIV OF KANSAS	M Y WEI	GSFC	G S PRASAD	NGT 5 50219	230
39	UNIV OF KANSAS	R THOMAS	GSFC	D A BRAATEN	NAG 5 7053	229
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39	UNIV OF MAINE - ORONO	C PERSON	GSFC	R RINDFUSS	NAG 5 6002	238
39	UNIV OF MAINE - ORONO	E LINDSTROM	GSFC	G HAMILTON	NAG 5 10035	238
39	UNIV OF MAINE - ORONO	G GUTMAN	GSFC	S A SADER	NAG 5 8712	238
39	UNIV OF MAINE - ORONO	J A MARRA	GSFC	A C THOMAS	NAG 5 6558	238
39	UNIV OF MAINE - ORONO	J MARRA	GSFC	A THOMAS	NAG 5 6604	238
39	UNIV OF MAINE - ORONO	J MARRA	GSFC	M PERRY	NAG 5 9959	238
39	UNIV OF MAINE - ORONO	J ZWALLY	GSFC	G S HAMILTON	NAG 5 9913	238

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39	UNIV OF MARYLAND - COLLEGE PARK	A C JANETOS	GSFC	R DEFRIES	NAG 5 8177	261
39	UNIV OF MARYLAND - COLLEGE PARK	C J TUCKER	GSFC	C J TUCKER	NAG 5 10235	265
39	UNIV OF MARYLAND - COLLEGE PARK	C J TUCKER	GSFC	C O JUSTICE	NAG 5 9892	265
39	UNIV OF MARYLAND - COLLEGE PARK	C J TUCKER	GSFC	C O JUSTICE	NAG 5 9893	265
39	UNIV OF MARYLAND - COLLEGE PARK	C J TUCKER	GSFC	D R TOWNSEND	NAG 5 10527	266
39	UNIV OF MARYLAND - COLLEGE PARK	C J TUCKER	GSFC	J R TOWNSHEND	NAG 5 4056	257
39	UNIV OF MARYLAND - COLLEGE PARK	C J TUCKER	GSFC	J TOWNSHEND	NAG 5 8575	261
39	UNIV OF MARYLAND - COLLEGE PARK	C J TUCKER	GSFC	N T LAPORTE-GOETZ	NAG 5 8789	262
39	UNIV OF MARYLAND - COLLEGE PARK	D E WICKLAND	GSFC	R E DEFRIES	NAG 5 6970	259
39	UNIV OF MARYLAND - COLLEGE PARK	D E WICKLAND	GSFC	S D PRINCE	NAG 5 6421	258
39	UNIV OF MARYLAND - COLLEGE PARK	D E WICKLAND	GSFC	S D PRINCE	NAG 5 8121	260
39	UNIV OF MARYLAND - COLLEGE PARK	D E WICKLAND	GSFC	S LIANG	NAG 5 8179	261
39	UNIV OF MARYLAND - COLLEGE PARK	D E WICKLAND	GSFC	S N GOWARD	NAG 5 7587	260
39	UNIV OF MARYLAND - COLLEGE PARK	D E WICKLAND	GSFC	S PRINCE	NAG 5 10859	266
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39	UNIV OF MARYLAND - COLLEGE PARK	D WICKLAND	GSFC	K KASISCHKE	NAG 5 9440	263
39	UNIV OF MARYLAND - COLLEGE PARK	E LINDSTROM	GSFC	R MURTUGUDDE	NAG 5 8263	261
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39	UNIV OF MARYLAND - COLLEGE PARK	F HALL	GSFC	K HUMMERICK	NAG 5 7536	260
39	UNIV OF MARYLAND - COLLEGE PARK	G C GUTMAN	GSFC	D DEFRIES	NAG 5 6004	258
39	UNIV OF MARYLAND - COLLEGE PARK	G C GUTMAN	GSFC	S PRINCE	NAG 5 4811	257
39	UNIV OF MARYLAND - COLLEGE PARK	G GUTMAN	GSFC	C JUSTICE	NAG 5 10858	266
39	UNIV OF MARYLAND - COLLEGE PARK	G GUTMAN	GSFC	E S KASISCHKE	NAG 5 9644	264
39	UNIV OF MARYLAND - COLLEGE PARK	G GUTMAN	GSFC	G SUN	NAG 5 9338	263
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39	UNIV OF MARYLAND - COLLEGE PARK	G GUTMAN	GSFC	N BOCKSTAEL	NAG 5 11149	267
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39	UNIV OF MARYLAND - COLLEGE PARK	J MARRA	GSFC	T MALONE	NAG 5 9481	263
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39	UNIV OF MARYLAND - COLLEGE PARK	J W CAMPBELL	GSFC	R MURTUGUDDE	NAG 5 8595	261
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39	UNIV OF MARYLAND - COLLEGE PARK	M WEI	GSFC	F BAER	NGT 5 30196	271
39	UNIV OF MARYLAND - COLLEGE PARK	M WEI	GSFC	R DUBAYAH	NAG 5 6319	258
39	UNIV OF MARYLAND - COLLEGE PARK	M WEI	GSFC	R DUBAYAH	NGT 5 99	271
39	UNIV OF MARYLAND - COLLEGE PARK	M Y WEI	GSFC	A VERNEKAR	NGT 5 30142	271
39	UNIV OF MARYLAND - COLLEGE PARK	M Y WEI	GSFC	K PICKERING	NGT 5 50217	272
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39	UNIV OF MARYLAND - COLLEGE PARK	P DECOLA	GSFC	K E PICKERING	NAG 5 9672	264
39	UNIV OF MARYLAND - COLLEGE PARK	P Houser	GSFC	R DUBAYAH	NAG 5 9447	263
39	UNIV OF MARYLAND - COLLEGE PARK	P R Houser	GSFC	R DUBAYAH	NAG 5 9809	264
39	UNIV OF MARYLAND - COLLEGE PARK	P R Houser	GSFC	R T PINKER	NAG 5 9916	265
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39	UNIV OF MARYLAND - COLLEGE PARK	S SAMADI	GSFC	A J FLAG	NCC 5 128	270
39	UNIV OF MARYLAND - COLLEGE PARK	W J WAGNER	GSFC	M R KUNDU	NAG 5 8192	261
39	UNIV OF MARYLAND BALTIMORE COUNTY	E R KREINS	GSFC	L L STROW	NAS 5 31378	275
39	UNIV OF MARYLAND BALTIMORE COUNTY	G GUTMAN	GSFC	Y SOHN	NAG 5 9645	273
39	UNIV OF MARYLAND BALTIMORE COUNTY	J DODGE	GSFC	A MEHTA	NAG 5 9707	273
39	UNIV OF MARYLAND BALTIMORE COUNTY	M KURYLO	GSFC	J M SIROTA	NAG 5 9588	273
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39	UNIV OF MASSACHUSETTS - AMHERST	M N ABEDIN	LARC	S K YNGVESSON	NAS 1 01058	303
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39	UNIV OF MASSACHUSETTS-DARTMOUTH	D R KAHL	GSFC	B J ROTHSCHILD	NAG 5 9752	304
39	UNIV OF MASSACHUSETTS-DARTMOUTH	J MARRA	GSFC	J J BISAGNI	NAG 5 6605	304
39	UNIV OF MIAMI	A R TUYAHOV	GSFC	T DIXON	NAG 5 9627	177
39	UNIV OF MIAMI	J C DODGE	GSFC	P J MINNETT	NAG 5 6577	176
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39	UNIV OF MIAMI	M RIENECKER	GSFC	G HALIWELL	NAG 5 8229	176
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39	UNIV OF MICHIGAN - ANN ARBOR	D E WICKLAND	GSFC	K SARABANDI	NAG 5 4939	312
39	UNIV OF MICHIGAN - ANN ARBOR	D W DEERING	GSFC	M C DOBSON	NCC 5 296	318
39	UNIV OF MICHIGAN - ANN ARBOR	E G STANSBERY	JSC	P O SIEZTER	NAG 9 1373	316
39	UNIV OF MICHIGAN - ANN ARBOR	G GUTMAN	GSFC	D BROWN	NAG 5 11271	316
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39	UNIV OF MICHIGAN - ANN ARBOR	J RANSON	GSFC	D G BROWN	NAG 5 8630	313
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39	UNIV OF MICHIGAN - ANN ARBOR	M WEI	GSFC	J PENNER	NGT 5 30359	319
39	UNIV OF MICHIGAN - ANN ARBOR	M Y WEI	GSFC	C OLSON	NGT 5 30172	318
39	UNIV OF MICHIGAN - ANN ARBOR	P E O'NEILL	GSFC	A ENGLAND	NAG 5 10036	315
39	UNIV OF MICHIGAN - ANN ARBOR	P T Houser	GSFC	A W ENGLAND	NAG 5 8661	313
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39	UNIV OF MISSOURI - COLUMBIA	E LINDSTROM	GSFC	C DAVIS	NAG 5 8557	330
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39	UNIV OF MONTANA	D WICKLAND	GSFC	S RUNNING	NAG 5 6719	339
39	UNIV OF MONTANA	E G ENGMAN	GSFC	S W RUNNING	NAG 5 8599	339
39	UNIV OF MONTANA	G GUTMAN	GSFC	J KIMBALL	NAG 5 9333	339
39	UNIV OF MONTANA	G GUTMAN	GSFC	R NEMANI	NAG 5 9332	339
39	UNIV OF MONTANA	H OSEROFF	GSFC	S W RUNNING	NAS 5 31368	339
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39	UNIV OF NEW HAMPSHIRE - DURHAM	D WICKLAND	GSFC	B ROCK	NAG 5 5192	345
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39	UNIV OF NEW HAMPSHIRE - DURHAM	S G UNGAR	GSFC	M E MARTIN	NCC 5 477	349
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39	UNIV OF NEW MEXICO-ALBUQUERQUE	A C JANETOS	GSFC	C N DAHM	NAG 5 6999	364
39	UNIV OF NEW MEXICO-ALBUQUERQUE	A PEEK	SSC	S A MORAIN	NCC13 98002	366
39	UNIV OF NORTH ALABAMA	N KHAZENIE	GSFC	W R STRONG	NAG 5 9085	16
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39	UNIV OF NO CAROLINA AT WILMINGTON	J W CAMPBELL	GSFC	S D EMSLIE	NAG 5 8114	403
39	UNIV OF NORTH DAKOTA	B A SPIERING	SSC	G A SEIELSTAD	NAG13 01006	405
39	UNIV OF NORTH DAKOTA	C YUHAS	GSFC	M POELLET	NCC 5 503	405
39	UNIV OF NORTH DAKOTA	D E WICKLAND	GSFC	C A GRAINGER	NAG 5 7950	404
39	UNIV OF NORTH DAKOTA	F HASLER	GSFC	C A WOOD	NAG 5 2696	404
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39	UNIV OF PUERTO RICO - MAYAGUEZ	J W CAMPBELL	GSFC	J CORREDOR	NAG 5 7198	557
39	UNIV OF PUERTO RICO - MAYAGUEZ	M WEI	GSFC	A J CRUZ	NGT 5 30364	557
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39	UNIV OF RHODE ISLAND	J YODER	GSFC	P M STEGMANN	NAG 5 6560	461
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39	UNIV OF SAN DIEGO	M MAIDEN	GSFC	J J SIMPSON	NCC 5 308	115
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41	UNIV OF SOUTH FLORIDA	J A DIGGS	KSC	R E HENNING	NAG10 204	179
41	UNIV OF SOUTHERN CALIFORNIA	J R CURZ	LARC	P B LISSAMAN	NAG 1 1996	115
41	UNIV OF SOUTHERN COLORADO	A E MOTLEY	LARC	L M GARRETT	NGT 1 52209	144
41	UNIV OF TENNESSEE - KNOXVILLE	C R MCCLINTON	LARC	D W RIGGINS	NAG 1 2292	469
41	UNIV OF TEXAS - AUSTIN	G S SOFFEN	GSFC	B D TAPLEY	NGT 5 72	497
41	UNIV OF TEXAS - AUSTIN	J R CARPENTER	GSFC	E LIGHTSEY	NAG 5 11278	495
41	UNIV OF TEXAS - AUSTIN	R CARPENTER	GSFC	R H BISHOP	NAG 5 9829	495
41	UNIV OF TEXAS - AUSTIN	T A TOLAY	LARC	W T FOWLER	NGT 1 52147	497
41	UNIV OF TEXAS - AUSTIN	T S GRITES	LARC	K LIECHTI	NCC 1 303	497
41	UNIV OF TEXAS - AUSTIN	W A SILVA	LARC	E J POWERS	NAG 1 01109	491
41	UNIV OF TEXAS - EL PASO	A R ROCHA	JSC	C FERREGUT	NAG 9 1099	500
41	UNIV OF TEXAS AT SAN ANTONIO	C CHAMIS	GRC	R D MANTEUFEL	NAG 3 2297	501
41	UNIV OF TOLEDO	D JANETZKE	GRC	T G KEITH	NCC 3 596	427
41	UNIV OF TOLEDO	E ENVIA	GRC	T G KEITH	NAG 3 2502	425
41	UNIV OF TOLEDO	G J FOLLEN	GRC	A A AFEH	NAG 3 2264	424
41	UNIV OF TOLEDO	G J FOLLEN	GRC	A A AFJEH	NAG 3 2508	425
41	UNIV OF TOLEDO	J ADMACZYK	GRC	T G KEITH	NAG 3 2505	425
41	UNIV OF TOLEDO	M D HATHAWAY	GRC	T G KEITH	NAG 3 2507	425
41	UNIV OF TOLEDO	O MEHMED	GRC	T KEITH	NCC 3 605	427
41	UNIV OF VIRGINIA	A NURRIDIN	HQ	J FRENCH	NGT 5 50062	527
41	UNIV OF VIRGINIA	C E GLASS	GSFC	J C MCDANIEL JR	NGT 1 52247	527
41	UNIV OF VIRGINIA	C E GLASS	LARC	J C MCDANIEL	NAG 1 01051	522
41	UNIV OF VIRGINIA	C E GLASS	LARC	J C MCDANIEL	NGT 1 01031	527
41	UNIV OF VIRGINIA	C MOORE	LARC	H N WADLEY	NAG 1 1964	522
41	UNIV OF VIRGINIA	D D MOERDER	LARC	N NAJ-HARERI	NAG 1 01120	522
41	UNIV OF VIRGINIA	D E REUBUSH	LARC	J C MCDANIEL	NAG 1 2131	522
41	UNIV OF VIRGINIA	J H STARNES	LARC	A K NOOR	NAG 1 2016	522
41	UNIV OF VIRGINIA	J H STARNES	LARC	C O HORGAN	NAG 1 2031	522
41	UNIV OF VIRGINIA	K A CANNON	LARC	A K NOORE	NCC 1 263	526
41	UNIV OF VIRGINIA	R H THOMAS	LARC	H G WOOD	NGT 1 52234	527
41	UNIV OF VIRGINIA	S ARNOLD	GRC	M PINDERG	NAS 3 97190	526
41	UNIV OF VIRGINIA	S E MASSENBERG	LARC	D CHESTNUTT	NCC 1 237	526
41	UNIV OF VIRGINIA	S M JOSHI	LARC	G TAO	NCC 1 342	526
41	UNIV OF WALES	K K GUPTA	ARC	O C ZIENKIEWICZ	NGW 2127	559
41	UNIV OF WASHINGTON	A MARTIN	MSFC	J SLOUGH	NAG 8 1849	540
41	UNIV OF WASHINGTON	C D WIESEMAN	LARC	E LIVNE	NAG 1 01029	534
41	UNIV OF WASHINGTON	K LUU	GSFC	M CAMPELL	NAG 5 9250	538
41	UNIV OF WASHINGTON	W J STROUD	LARC	K Y LIN	NAG 1 2055	533
41	UNIV OF WEST FLORIDA	J DEMAO	ARC	N SURI	NAG 2 1226	179
41	UNIV OF WEST FLORIDA	W K GERDEN	LARC	A K RAV	NAG 1 2236	179
41	UNIV OF WYOMING	D M DRIVER	ARC	J W NAUGHTON	NCC 2 5315	556
41	UNIV OF WYOMING	F J CHEN	LARC	D R SMITH	NAG 1 01063	555
41	UNIV OF WYOMING	S A WHITMORE	DFRC	D W NAUGHTON	NAG 4 208	555
41	UTAH STATE UNIV	K LUU	GSFC	R FULLMER	NAG 5 9290	504
41	VA POLYTECH INST & ST UNIV	A E WASHBURN	LARC	D P TELIONES	NGT 1 01035	532
41	VA POLYTECH INST & ST UNIV	C H GERHOLD	LARC	R A BURDISSO	NAG 1 2137	528
41	VA POLYTECH INST & ST UNIV	C L BURLEY	LARC	W J DAVENPORT	NAG 1 2272	528
41	VA POLYTECH INST & ST UNIV	C L BURLEY	LARC	W J DEVENPORT	NAG 1 1942	528
41	VA POLYTECH INST & ST UNIV	D A WARDWELL	ARC	A MYKLEBUST	NAG 2 1521	530
41	VA POLYTECH INST & ST UNIV	D QUINN	GSFC	C HALL	NAG 5 11315	531
41	VA POLYTECH INST & ST UNIV	D R AMBUR	LARC	E R JOHNSON	NCC 1 398	531
41	VA POLYTECH INST & ST UNIV	D R AMBUR	LARC	M W HYER	NAG 1 2298	529
41	VA POLYTECH INST & ST UNIV	E J SIOCHI	LARC	T LONG	NGT 1 01033	532
41	VA POLYTECH INST & ST UNIV	G H KLOPTER	ARC	B GROSSMAN	NAG 2 1180	530
41	VA POLYTECH INST & ST UNIV	H E JONES	LARC	D D BOYD	NCC 1 367	531
41	VA POLYTECH INST & ST UNIV	I S RAJU	LARC	R K KAPAUIA	NAG 1 2286	529
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41	VA POLYTECH INST & ST UNIV	J H STARNES, JR.	LARC	M W HYER	NGT 1 52112	532
41	VA POLYTECH INST & ST UNIV	J V FOSTER	LARC	F H LUTZE	NAG 1 1851	528
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41	VA POLYTECH INST & ST UNIV	M R WAZAK	LARC	L MEIROVITCH	NCC 1 346	531
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41	VA POLYTECH INST & ST UNIV	R H THOMAS	LARC	J J KELLEY	NGT 1 01002	532
41	VA POLYTECH INST & ST UNIV	R L BOITNOTT	LARC	E R JOHNSON	NAG 1 2309	529
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41	VA POLYTECH INST & ST UNIV	S A RIZZI	LARC	M E JOHNSON	NCC 1 01029	531
41	VA POLYTECH INST & ST UNIV	S HUGHES	GSFC	C HALL	NAG 5 10818	531
41	VA POLYTECH INST & ST UNIV	S HUGHES	GSFC	D FOLTA	NAG 5 9744	530
41	VA POLYTECH INST & ST UNIV	T L PARROTT	LARC	R H THOMAS	NCC 1 344	531
41	VA POLYTECH INST & ST UNIV	T NAUMONICE	ARC	A MYKLEBUST	NAG 2 1486	530
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41	VA POLYTECH INST & ST UNIV	W A SILVA	LARC	L LEBESCU	NAG 1 01007	529
41	VA POLYTECH INST & ST UNIV	W A SILVA	LARC	L LIBRESCU	NAG 1 2281	529
41	VANDERBILT UNIV	D L RANEY	LARC	K D FRAMPTOM	NCC 1 01018	473
41	VANDERBILT UNIV	J DOWDY	MSFC	S MAHADEVAN	NGT 8 52868	473
41	VANDERBILT UNIV	T A ZHANG	LARC	S MAHADEVAN	NCC 1 01031	473
41	VIRGINIA COMMONWEALTH UNIV	D E ASHPIS	GRC	D J DORNEY	NCC 3 645	533
41	WASHINGTON UNIV - ST	A NURRIDIN	GSFC	SPOSATO	NGT 5 50023	336
41	WASHINGTON UNIV - ST	A NURRIDIN	GSFC	W B MCKINNON	NGT 5 50063	336
41	WASHINGTON UNIV - ST	B MERRITT	GSFC	P HINK	NAG 5 5215	333
41	WASHINGTON UNIV - ST	R W CLAUS	GRC	D L LEVINE	NCC 3 777	336
41	WAYNE STATE UNIV	P C JORGENSEN	GRC	S T YU	NCC 3 580	320
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41	WEST VIRGINIA UNIV	J F MEYERS	LARC	J M KUHLMAN	NAG 1 2132	545
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41	WESTERN MICHIGAN UNIV	S CHANG	GRC	W W LIOU	NAG 3 2529	320
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41	WICHITA STATE UNIV	W E RICKS	LARC	H WILLIFORD	NCA 1 106	230
41	YALE UNIV	A NURRIDIN	HQ	K GIBBLE	NGT 5 50067	148
42	ARIZONA STATE UNIV	C L MOORE	LARC	B WIE	NAS 1 00122	23
42	AUBURN UNIV	D R KRUP	MSFC	A S HODEL	NAG 8 1806	3
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42	BOSTON UNIV	L CHRISTENSEN	GSFC	T FRITZ	NAG 5 6926	277
42	BOWIE STATE UNIV	M S BURRELL	GSFC	N T WAKIM	NAG 5 9544	239
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42	CALIFORNIA POLYTECH STATE U-SAN LUIS	T A TALAY	LARC	D DETURRIS	NAG 1 2327	50
42	CALIFORNIA POLYTECH STATE U-SAN LUIS	T A TALAY	LARC	D J DETURRIS	NAG 1 2293	50
42	CASE WESTERN RESERVE UNIV	P DOTY	MSFC	J I ALEXANDER	NAG 8 1727	407
42	CHRISTIAN BROTHERS COLLEGE	E WONG	GRC	D SANTI	NAG 3 2454	467
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42	DUKE UNIV	M L TINKER	MSFC	L N VIRGIN	NAG 8 1736	395
42	GEORGE WASHINGTON UNIV	K L BRINKLEY	LARC	P A COOPER	NCC 1 01017	153
42	GEORGE WASHINGTON UNIV	R W BUCHAN	LARC	R H TOLSON	NCC 1 331	153
42	GEORGE WASHINGTON UNIV	T E HUBER	GSFC	G FRIEDER	NCC 5 51	153
42	GEORGIA INST OF TECH	T A TALAY	LARC	J R OLDS	NAG 1 2280	182
42	JOHNS HOPKINS UNIV	C KREBS	GSFC	D FORD	NAS 5 32865	252
42	JOHNS HOPKINS UNIV	C M MC ARTHUR	MSFC	P J WALTRUP	NAG 8 1648	251
42	JOHNS HOPKINS UNIV	G H MUCKLOW	GSFC	P A STADTER	NAG 5 8665	245
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42	MOREHOUSE SCH MED	L PUTCHA	JSC	D POTTER	NAG 9 971	189
42	NORTH CAROLINA A&T STATE UNIV	S E WOODARD	LARC	F VAINSTEIN	NGT 1 52178	399
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42	OHIO STATE UNIV	C H WILLIAMS	GRC	P J TURCHI	NAG 3 2202	414
42	OHIO UNIV	D R KRUPP	MSFC	J J ZHU	NAG 8 1789	419
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42	PENN STATE UNIV	J H RUFF	MSFC	R J SANTORO	NAG 8 1844	449
42	PRINCETON UNIV	F L MARKLEY	GSFC	J KASDIN	NAG 5 10933	354
42	PURDUE UNIV	B WOOLFORD	JSC	B S CALDWELL	NAG 9 1292	219
42	PURDUE UNIV	J A LEITNER	GSFC	J L GARRISON	NAG 5 10747	218
42	PURDUE UNIV	J ANTO	LARC	J L GARRISON	NAG 1 01083	216
42	RUTGERS ST UNIV N	L KALUZIENSKI	GSFC	J P HUGHES	NGT 5 50376	359
42	SANTA CLARA UNIV	P KOLODZIEJ	ARC	C A KITTS	NCC 2 1195	58
42	STANFORD UNIV	D G SICKOREZ	JSC	J HOW	NGT 9 28	67
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42	TEXAS A&M UNIV	L G HORTA	LARC	J L JUNKINS	NCC 1 386	483
42	UNIV HOUSTON-HOUSTON	J W BELL	JSC	J T WILLIAMS	NAG 9 1293	487
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42	UNIV OF ALABAMA - HUNTSVILLE	C C LAPENTA	MSFC	S J GRAVES	NCC 8 180	13
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42	UNIV OF ARIZONA	E P SMITH	GSFC	M MEYER	NAG 5 9325	32
42	UNIV OF CALIFORNIA - BERKELEY	M H ACUNA	GSFC	R LIN	NAG 5 9305	73
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42	UNIV OF CALIFORNIA - LOS ANGELES	R CARPENTER	GSFC	J L SPEYER	NAG 5 8879	91
42	UNIV OF COLORADO - BOULDER	C MOORE	LARC	A BETY	NAG 1 01074	123
42	UNIV OF COLORADO - BOULDER	J A LEITNER	GSFC	P AXELRAD	NCC 5 564	140
42	UNIV OF COLORADO - BOULDER	M S LAKE	LARC	L D PETERSON	NCC 1 281	139
42	UNIV OF COLORADO - BOULDER	M S LAKE	LARC	M M MIKULAS	NAG 1 2068	123
42	UNIV OF COLORADO - BOULDER	V GRIFFIN	GSFC	G ROTTMAN	NAS 5 97045	138
42	UNIV OF COLORADO - BOULDER	W K BELVIN	LARC	M M MIKULAS	NCC 1 01046	139
42	UNIV OF COLORADO - BOULDER	W K BELVIN	LARC	T O MANN	NGT 1 01023	140
42	UNIV OF CONNECTICUT	W K BELVIN	LARC	K D MURPHY	NGT 1 01025	145
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42	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	D G SICKOREZ	JSC	S R WHITE	NGT 9 33	214
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42	UNIV OF MISSOURI - COLUMBIA	J M HANSON	MSFC	C A KLUEVER	NAG 8 1741	330
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42	UNIV OF TEXAS - AUSTIN	G C BLACKBURN	JSC	G E LIGHTSEY	NAG 9 1124	496
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42	UNIV OF WASHINGTON	E P SMITH	GSFC	B MARGON	NAG 5 9324	538
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42	UTAH STATE UNIV	M D VANEK	LARC	J ULWICK	NAS 1 20467	505
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43	CLEVELAND STATE UNIV	S R LEVINE	GRC	J MASNOVI	NCC 3 759	411
43	CORNELL UNIV	B S SINGH	GRC	P H STEEN	NAG 3 1854	375
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43	FLORIDA STATE UNIV	P H RHODES	MSFC	B R LOCKE	NAG 8 1163	168
43	GEORGETOWN UNIV	D RISIN	JSC	J M JESSUP	NAG 9 1366	154
43	GEORGIA INST OF TECH	E WEISER	LARC	W H REES	NGT 1 52225	187
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43	PRAIRIE VIEW A&M UNIV	A BEAM	MSFC	Z HAQUE	NAG 8 1644	476
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43	RUTGERS STATE UNIV OF NJ NEW BRUNS	V KLOERIS	JSC	J L KOKINI	NAG 9 1318	359
43	SYRACUSE UNIV	H K NAHRA	GRC	A S SANGANI	NAG 3 1853	392
43	TUSKEGEE UNIV	M COLLINS	KSC	N VAHDAT	NAG10 253	5
43	UNIV HOUSTON-HOUSTON	B FILES	JSC	R KRISHNAMOORTI	NAG 9 1305	487
43	UNIV OF ALABAMA - HUNTSVILLE	S NASH-STEVENSON	MSFC	R CERRO	NGT 8 52908	14
43	UNIV OF ARIZONA	R S BAIRD	JSC	K R SRIDHAR	NAG 9 1175	37
43	UNIV OF CALIFORNIA - DAVIS	F P CHIARAMONTE	GRC	B L POWELL	NAG 3 2153	80
43	UNIV OF CALIFORNIA - SANTA BARBARA	B S SINGH	GRC	L G LEAL	NAG 3 2115	106
43	UNIV OF CALIFORNIA - SANTA BARBARA	D MONTEGANI	GRC	S BANERJEE	NGT 3 52317	110
43	UNIV OF COLORADO - BOULDER	B S SINGH	GRC	R H DAVIS	NAG 3 2116	124
43	UNIV OF DELAWARE	B S SINGH	GRC	E W KALER	NAG 3 1955	149
43	UNIV OF FLORIDA	M LONERGAN	KSC	C SEGAL	NAG10 285	174
43	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	T L PANONTIN	ARC	J S MOORE	NGT 3 52345	213
43	UNIV OF KENTUCKY	M MEYYA	ARC	S SINNOT	NCC 2 5383	232
43	UNIV OF MICHIGAN - ANN ARBOR	F J MONTEGANI	GRC	A ATREYA	NGT 3 52365	318
43	UNIV OF NEVADA - RENO	D RISIN	JSC	G ALMEIDA-PORADA	NAG 9 1340	343
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43	UNIV OF ROCHESTER	G A SOFFEN	GSFC	R H HEIST	NGT 5 104	394
43	UNIV OF TEXAS - ARLINGTON	S K KAHNG	LARC	S P JOSHI	NAG 1 01017	491
43	UNIV OF TOLEDO	M RABINOWITZ	GRC	K L DEWITT	NAG 3 2338	425
43	UNIV OF WASHINGTON	D RISIN	JSC	A FOLCH	NAG 9 1343	540
43	VANDERBILT UNIV	A NURRIDIN	HQ	R BAYUZICK	NGT 5 50209	473
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43	VANDERBILT UNIV	J E FINN	ARC	M D LEVAN	NCC 2 5384	473
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43	YALE UNIV	B S SINGH	GRC	D E ROSNER	NAG 3 1951	146
43	YALE UNIV	B SINGH	GRC	M LOEWENBERG	NAG 3 1935	146
43	YALE UNIV	F MONTEGANI	GRC	M LOEWENGBERG	NGT 3 52347	148

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44	UNIV OF VIRGINIA	S M ARNOLD	GRC	M PINDER	NAG 3 2524	523
44	VANDERBILT UNIV	S NASH-STEVENSON	MSFC	S MAHADEVAN	NGT 8 52907	474
45	ALABAMA A&M UNIV	D J LARKIN	GRC	DILA	NAG 3 2302	1
45	ALABAMA A&M UNIV	J MONTENEGRO	MSFC	A BOND	NAG 8 1497	1
45	ALCORN STATE UNIV	W C ROEH	JSC	N W MOSES	NAG 9 1135	326
45	ARIZONA STATE UNIV	T X NGUYEN	LARC	C BALANIS	NAG 1 1781	19
45	ARIZONA STATE UNIV	T X NGUYEN	LARC	C BALANIS	NCC 1 01051	23
45	AUBURN UNIV	C SHAFER	MSFC	I HRBUD	NAG 8 1717	3
45	AUBURN UNIV	D K HALL	MSFC	S A MERRYMAN	NAS 8 98249	3
45	AUBURN UNIV	F B BECK	LARC	M L WALLER	NGT 1 52205	4
45	AUBURN UNIV	S NASH-STEVENSON	MSFC	A S HODEL	NGT 8 52904	4
45	BRIGHAM YOUNG UNIV	R D SAKAHARA	DFRC	M D RICE	NAG 4 215	501
45	BROWN UNIV	F J MONTEGANI	GRC	G P CRAWFORD	NGT 3 52369	460
45	BUCKNELL UNIV	J DORBAND	GSFC	M F ABURDENE	NAG 5 10821	436
45	CASE WESTERN RESERVE UNIV	K BHASIN	GRC	F L MERAT	NAG 3 2578	406
45	CASE WESTERN RESERVE UNIV	L G MATUS	GRC	M MEHREGANY	NAG 3 2204	406
45	CASE WESTERN RESERVE UNIV	L G MATUS	GRC	M MEHREGANY	NCA 3 201	407
45	CITY UNIV OF NY CITY COLLEGE	J TILTON	GSFC	N SCHEINBERG	NAG 5 7160	368
45	CLARK ATLANTA UNIV	S A ALTERNOVITZ	GRC	M D WILLIAMS	NAG 3 1973	180
45	CLEMSON UNIV - CLEMSON	G BUCKINGHAM	KSC	D DAWSON	NGT10 52611	464
45	CLEMSON UNIV - CLEMSON	J F DOWDY	MSFC	J N GOWDY	NGT 8 52858	464
45	CLEVELAND STATE UNIV	J F SOEDER	GRC	Z GAO	NCC 3 699	411
45	CLEVELAND STATE UNIV	K CHUN	GSFC	F XIONG	NAG 3 2619	410
45	CLEVELAND STATE UNIV	R E JONES	GRC	P P CHU	NAG 3 2040	409
45	CLEVELAND STATE UNIV	R KERCZEWSKI	GRC	V K KONANGI	NCC 3 764	411
45	CLEVELAND STATE UNIV	R R ROMANOFSKY	GRC	F XIONG	NAG 3 2531	410
45	CLEVELAND STATE UNIV	S G BAILEY	GRC	D G NEHEMANN	NCC 3 883	412
45	CLEVELAND STATE UNIV	T M WALLET	GRC	V K KONANGI	NCC 3 595	411
45	EMBRY-RIDDLE AERONAUTICAL UNIV	P G NEUDECK	GRC	A HELFRICK	NCC 3 685	162
45	FLORIDA A&M UNIV	F MCKENZIE	KSC	B A HARVEY	NAG10 289	164
45	FLORIDA A&M UNIV	G C RYBICKI	GRC	S M DURBIN	NAG 3 1971	163
45	FLORIDA ATLANTIC UNIV	T P BIZON	GRC	W E GLENN	NAG 3 2023	165
45	GEORGE WASHINGTON UNIV	M DUTTA	GSFC	M ZAGHLoul	NAG 5 11343	152
45	GEORGIA INST OF TECH	C T RAMOS	GRC	D F AKYILDIZ	NAG 3 2585	183
45	GEORGIA INST OF TECH	G E PONCHAK	GRC	D M TENTZERIS	NAG 3 2329	183
45	GEORGIA INST OF TECH	G E PONCHAK	GRC	D PAPAPOLYMEROU	NCC 3 900	186
45	GEORGIA INST OF TECH	S D HARRAH	LARC	G GIMMESTAD	NAS 1 99073	185
45	HAMPTON UNIV	F B BECK	LARC	A O OLADIPOPO	NCC 1 366	513
45	HOWARD UNIV	A SHARMA	GSFC	D MOHAMMAD	NAG 5 11118	155
45	HOWARD UNIV	D F NOGA	GRC	A RUBARI	NAG 3 2030	154
45	HOWARD UNIV	D F NOGA	GRC	D RUBAAI	NAG 3 2287	154
45	HOWARD UNIV	J L DOLCE	GRC	J A MOMOH	NAG 3 1978	154
45	HOWARD UNIV	R M BUTTON	GRC	D A MOMOH	NAG 3 2621	154
45	IOWA STATE UNIV	W P WINFREE	LARC	S S UPDA	NAG 1 01040	222
45	JOHNS HOPKINS UNIV	D C VANDERMARK	WFF	D R THOMPSON	NAG 5 5301	242
45	JOHNS HOPKINS UNIV	E WEBB	GSFC	P EISENREICH	NAG 5 10778	249
45	JOHNS HOPKINS UNIV	F SELDON- JONES	GSFC	J KANG	NAS 5 00166	252
45	JOHNS HOPKINS UNIV	H C SHAW	GSFC	D B KHURGIN	NAG 5 8841	245
45	JOHNS HOPKINS UNIV	H SHAW	GSFC	J B KHURGIN	NAG 5 11332	251
45	JOHNS HOPKINS UNIV	M E BEATTY, III	LARC	M A DARRIN	NCC 1 01019	252
45	JOHNS HOPKINS UNIV	P J LUERS	GSFC	M G DARRIN	NAG 5 10464	249
45	JOHNS HOPKINS UNIV	P J LUERS	GSFC	R CONDE	NAG 5 8852	245
45	JOHNS HOPKINS UNIV	P LUERS	GSFC	B ANDREWS	NAG 5 10234	248
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45	JOHNS HOPKINS UNIV	P MILLAR	GSFC	M DAVIDSON	NAG 5 2232	241
45	JOHNS HOPKINS UNIV	Q A SHAMS	LARC	P D SCHWARTZ	NAG 1 01059	241
45	MANCHESTER COLLEGE	C HUNG	GRC	G W CLARK	NCC 3 873	216
45	MICHIGAN TECHNOLOGICAL UNIV	M S BURRELL	GSFC	E ROTHWELL	NGT 5 120	309
45	MORGAN STATE UNIV	B MOTT	GSFC	C J SCOTT	NAG 5 7136	253
45	MORGAN STATE UNIV	D NGUYEN	GSFC	C WHITE	NAG 5 10913	253
45	MORGAN STATE UNIV	J PIEDMEIER	GSFC	C WHITE	NCC 5 565	254
45	MORGAN STATE UNIV	J PIEDMEIER	GSFC	D WHITE	NAG 5 9895	253
45	NEW JERSEY INST OF TECH	E WONG	GRC	D P DHAWAN	NAG 3 2459	350
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45	NORTHWESTERN UNIV	M S BURRELL	GSFC	P KUMAR	NGT 5 90	203
45	OHIO NORTHERN UNIV	R BUTTON	GRC	F L GRISMORE	NAG 3 2544	413
45	OHIO STATE UNIV	D M WILT	GRC	D A RINGEL	NAG 3 2215	414
45	OHIO STATE UNIV	E B CLARK	GRC	S A RINGEL	NCC 3 899	418
45	OHIO STATE UNIV	F J MONTEGANI	GRC	S A RINGEL	NGT 3 52355	418
45	OHIO STATE UNIV	R ROMANOFSKY	GRC	G WASHINGTON	NCC 3 733	418
45	OHIO UNIV	P E POINSATTE	GRC	T A SKIDMORE	NAG 3 2385	419
45	OHIO UNIV	P POINSATTE	GRC	T SKIDMORE	NAG 3 2575	419
45	OHIO UNIV	R W WILLS	LARC	J M RANKIN	NAG 1 2036	419
45	OKLAHOMA STATE UNIV	D NGO	GRC	M ATIQUZZAMAN	NCC 3 903	429
45	OLD DOMINION UNIV	K J MOELLER	LARC	C F BUNTING	NAG 1 1982	515
45	OLD DOMINION UNIV	M D DESHBADE	LARC	R P JOSHI	NAG 1 01071	517
45	OLD DOMINION UNIV	P G NEUDECK	GRC	D P JOSHI	NAG 3 2483	518
45	OLD DOMINION UNIV	R J DEYOUNG	LARC	H SAYID ELE	NGT 1 52211	521
45	OLD DOMINION UNIV	S D YOUNG	LARC	L VAHALA	NGT 1 01013	520
45	OLD DOMINION UNIV	T X NGUYEN	LARC	C F BUNTING	NCC 1 01032	519
45	OREGON STATE UNIV	G ADAMOVSKY	GRC	T K PLANT	NAG 3 2463	431
45	PENN STATE UNIV	B KENNY	GRC	H HOFMANN	NAG 3 2598	443
45	PENN STATE UNIV	G V BROWN	GRC	D HOFMANN	NAG 3 2603	443
45	PRAIRIE VIEW A&M UNIV	M D KANKAM	GRC	J O ATTIA	NAG 3 2065	475
45	PURDUE UNIV	K CHUN	GRC	D S LEHNERT	NAG 3 2550	217
45	RICE UNIV	B BIEGEL	ARC	J KONO	NCC 2 1279	479
45	RICE UNIV	D L JAN	JPL	F K TITTLE	NAG 9 1049	478
45	RICE UNIV	T R GOVINDAN	ARC	J KONO	NCC 2 5458	479
45	SOUTHERN METHODIST UNIV	E KIST, JR.	LARC	Z CELIK-BUTLER	NAS 1 99100	480
45	STANFORD UNIV	K BHASIN	GRC	A FOX	NAG 3 2579	60
45	STANFORD UNIV	M S BURRELL	GSFC	U UMRAN	NGT 5 92	66
45	STATE UNIV OF NY - ALBANY	P NEUDECK	GRC	D DUDLEY	NCC 3 891	387
45	TEXAS A&M UNIV	R LEE	GRC	D CHANG	NAG 3 2551	480
45	TEXAS A&M UNIV-KINGSVILLE	K L HAMES	JSC	S W PARK	NAG 9 1093	485
45	TEXAS TECH UNIV	L R PINERO	GRC	E A O	NAG 3 2005	485
45	TUSKEGEE UNIV	D C FERGUSON	GRC	C V DORESWAMY	NCC 3 726	5
45	TUSKEGEE UNIV	S A ALTEROVITZ	GRC	K K DAS	NAG 3 2127	4
45	UNIV OF MINN	B H KENNY	GRC	P MOHAN	NAG 3 2468	321
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45	UNIV OF ALABAMA - HUNTSVILLE	D J LARKIN	GRC	D A GEORGE	NAG 3 2285	7
45	UNIV OF ALABAMA - HUNTSVILLE	K MCCALL	MSFC	Y B SHTESSEL	NAG 8 1787	12
45	UNIV OF CALIFORNIA - SANTA BARBARA	T DOIRON	GSFC	M SHERWIN	NAG 5 10299	108
45	UNIV OF CALIFORNIA - SANTA BARBARA	T R GOVINDAN	ARC	M W WU	NCC 2 5368	110
45	UNIV OF CINCINNATI	G E PONCHAK	GRC	K P ROENKER	NAG 3 2487	423
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45	UNIV OF COLORADO - BOULDER	R Q LEE	GRC	Z POPOVIC	NAG 3 2587	124
45	UNIV OF COLORADO - BOULDER	W HEAPS	GSFC	J L HALL	NAG 5 10368	135
45	UNIV OF DAYTON	F A MIRANDA	GRC	G SUBRAMANYAN	NCC 3 882	424
45	UNIV OF DAYTON	F MIRANDA	GRC	G SUBRAMANYAM	NCC 3 771	424
45	UNIV OF DAYTON	H NGUYEN	GRC	M ATIQUZZAMAN	NCC 3 824	424
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45	UNIV OF FLORIDA	S K KAHNG	LARC	M SHEPLAK	NAG 1 01098	172
45	UNIV OF HAWAII AT MANOA - HONOLULU	W H MILLER	GSFC	G UEHARA	NAG 5 7383	193
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45	UNIV OF MICHIGAN - ANN ARBOR	S NASH-STEVENSON	MSFC	B GILCHRIST	NGT 8 52889	319
45	UNIV OF NEBRASKA - LINCOLN	M L BLOXXER	LARC	K D COLE	NAG 1 01087	340
45	UNIV OF NEW MEXICO-ALBUQUERQUE	K KRISHEN	JSC	M SHAHINPOOR	NAG 9 995	366
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45	UNIV OF OKLAHOMA - NORMAN	S K KAHNG	LARC	J R CRUZ	NAG 1 2178	429
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45	UNIV OF SOUTH FLORIDA	A HEPP	GRC	D MOREL	NAG 3 2614	178
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45	UNIV OF TOLEDO	R L PATTERSON	GRC	V J KAPOOR	NAG 3 2565	425
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45	UNIV OF VIRGINIA	G MUCKLOW	GSFC	T CROWE	NAG 5 8663	524
45	UNIV OF WEST FLORIDA	A R GROSS	HQ	D STILL	NAG 2 1332	180
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46	ALABAMA A&M UNIV	G MYERS	MSFC	A SHARMA	NAG 8 1614	1
46	AUBURN UNIV	J F DOWDY	MSFC	G T FLOWERS	NGT 8 52851	4
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46	AUBURN UNIV	J TRUDELL	GRC	D GOWAYED	NAG 3 2597	3
46	AUBURN UNIV	K R SACKSTEDER	GRC	D W MACKOWSKI	NCC 3 864	3
46	BRIGHAM YOUNG UNIV	J DOWDY	MSFC	R DAINES	NGT 8 52877	502
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46	CARNEGIE - MELLON UNIV	C FARMER	JSC	R SIMMONS	NAG 9 1327	438
46	CARNEGIE - MELLON UNIV	D LAVERY	HQ	T KANADE	NAG 9 1090	438
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46	CASE WESTERN RESERVE UNIV	K BLANDING	GSFC	R QUINN	NGT 5 50274	409
46	CASE WESTERN RESERVE UNIV	K SACKSTEDER	GRC	J S T	NCC 3 633	407
46	CASE WESTERN RESERVE UNIV	N N NEMETH	GRC	D A GASPARINI	NCC 3 653	408
46	CASE WESTERN RESERVE UNIV	P DUNLAP	GRC	J D CAWLEY	NCC 3 898	409
46	CASE WESTERN RESERVE UNIV	S J SCHNEIDER	GRC	I ADAMOVICH	NAG 3 2239	406
46	CITY UNIV OF NY CITY COLLEGE	F D CHIARAMONTE	GRC	A ACRIVOS	NCC 3 607	368
46	CLARKSON UNIV	J DOWDY	MSFC	G AHMADI	NGT 8 52849	369
46	CLARKSON UNIV	J F DOWDY	MSFC	G AHMADI	NGT 8 52853	369
46	CLEVELAND STATE UNIV	J MANDERSCHEID	GRC	S F DUFFY	NCC 3 761	411
46	CLEVELAND STATE UNIV	L THIEMENE	GRC	D IBRAHIM	NAG 3 2482	410
46	COLORADO SCH OF MINES	B SINGH	GRC	M NAKAGAWA	NAG 3 1970	119
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46	CORNELL UNIV	F P CHARIAMONTE	GRC	J JENKINS	NCC 3 797	381
46	CORNELL UNIV	J C NEWMAN, JR.	LARC	A R INGRAFFEA	NAG 1 2069	375
46	CORNELL UNIV	M NIX	MSFC	P JACKSON	NAG 8 1716	380
46	CORNELL UNIV	R HAKIMZADEH	GRC	M LOUGE	NAG 3 2112	375
46	CORNELL UNIV	R HAKIMZADEH	GRC	J T JENKINS	NCC 3 468	381
46	DREXEL UNIV	D D ROSS	GRC	D A RUFF	NAG 3 1884	440
46	DUKE UNIV	A P KURKOV	GRC	K C HALL	NAG 3 2627	394
46	DUKE UNIV	J DOWDY	MSFC	L N VIRGIN	NGT 8 52842	396
46	FLORIDA ATLANTIC UNIV	W J STROUD	LARC	I ELISHAKOFF	NAG 1 01079	165
46	FLORIDA INST OF TECH	L E JONES	LARC	D C FLEMING	NAG 1 2260	165
46	FLORIDA STATE UNIV	K Q ZAMAN	GRC	C K TAM	NAG 3 2102	166
46	GEORGIA INST OF TECH	B J JENSEN	LARC	W S JOHNSON	NAG 1 2312	182
46	GEORGIA INST OF TECH	B SINGH	GRC	M K SMITH	NAG 3 1949	183
46	GEORGIA INST OF TECH	F J MONTEGANI	GRC	J H GINSBERG	NGT 3 52371	187
46	GEORGIA INST OF TECH	R D JOSLIN	LARC	A GLEZER	NGT 1 52132	186
46	GEORGIA INST OF TECH	R DABNEY	MSFC	A CALISE	NAG 8 1638	185
46	GEORGIA INST OF TECH	R S KARDA	GRC	G P NEITZEL	NAG 3 1894	183
46	GEORGIA INST OF TECH	T A ZANG	LARC	F MISTREE	NGT 1 52170	187
46	ILLINOIS INST OF TECH	B M STEINETZ	GRC	D RAMAN	NCC 3 798	200
46	INDIANA UNIV	D E PAXON	GRC	R NALIM	NAG 3 2207	214
46	IAWA STATE UNIV	F J MONTEGANI	GRC	A ROTHMAYER	NGT 3 52332	224
46	IAWA STATE UNIV	G DUKEMAN	MSFC	P LU	NAG 8 1637	223
46	IAWA STATE UNIV	K R SACKSTEDER	GRC	G M COLVER	NCC 3 846	224
46	JOHNS HOPKINS UNIV	B S SINGH	GRC	A PROSPERETTI	NAG 3 1924	241
46	JOHNS HOPKINS UNIV	D DOUGLAS	GSFC	R OSIANDER	NAG 5 10241	248
46	JOHNS HOPKINS UNIV	H K NAHRA	GRC	D HERMAN	NAG 3 1815	241
46	KETTERING UNIV	D REDDY	GRC	S ROY	NAG 3 2638	306
46	MASSACHUSETTS INST OF TECH	H THOMAS	ARC	J K SALISBURY	NCC 2 1121	298
46	MASSACHUSETTS INST OF TECH	J DOWDY	MSFC	A WITT	NGT 8 52880	300
46	MICHIGAN STATE UNIV	J B RANSOM	LARC	R C AVERILL	NAG 1 2213	306
46	MISSISSIPPI STATE UNIV	E R MCFARLAND	GRC	W R BRILEY	NAG 3 2176	327
46	NORFOLK STATE UNIV	S H CHOI	LARC	K D SONG	NCC 1 280	515
46	NORTH CAROLINA A&T STATE UNIV	G ZILLIAC	ARC	M HUMAN	NAG 2 1430	397
46	NORTH CAROLINA STATE UNIV	P DOTY	MSFC	N MA	NAG 8 1817	401
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46	NORTHWESTERN UNIV	N PACKMAN	JSC	R M LUEPTOW	NAG 9 1053	202
46	OHIO STATE UNIV	F J MONTEGANI	GRC	V V SUBRAMANIAM	NGT 3 52373	418
46	OHIO STATE UNIV	K C CIVIKAS	GRC	M G DUNN	NAG 3 2157	414
46	OHIO STATE UNIV	S J SCHNEIDER	GRC	I ADAMOVICH	NAG 3 2339	414
46	OHIO STATE UNIV	T T MOCKLER	GRC	R N CHRISTENSEN	NCC 3 434	418
46	OLD DOMINION UNIV	C M BELCASTRO	LARC	W S GRAY	NCC 1 392	519
46	OLD DOMINION UNIV	N J JOHNSTON	LARC	S TIWARI	NCC 1 227	518
46	OLD DOMINION UNIV	P FERGEN	LARC	J HUANG	NGT 1 01027	520
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46	PENN STATE UNIV	B A LERCH	GRC	C J LISSENOEN	NCC 3 597	450
46	PENN STATE UNIV	F J MONTEGANI	GRC	D A SANTAVICCA	NGT 3 52368	451
46	PENN STATE UNIV	J DOWDY	MSFC	G A SMITH	NGT 8 52876	452
46	PENN STATE UNIV	M HAGOPIAN	GSFC	J E FREDLEY	NCC 5 508	450
46	PENN STATE UNIV	W ANDERSON	MSFC	R J SANTORO	NAG 8 1732	449
46	POLYTECH UNIV - BROOKLYN	D B ZAMAN	GRC	M OTUGEN	NAG 3 2533	383
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46	RENSSELAER POLYTECH INST	J W LEHNER	MSFC	L N MYRABO	NAG 8 1795	385
46	RENSSELAER POLYTECH INST	M H CARPENTER	LARC	K E JARSEN	NGT 1 52160	385
46	RICE UNIV	J CREWS	JSC	E V BARRERA	NAG 9 1285	478
46	STANFORD UNIV	F CHARIAMONTE	GRC	J K EATON	NCC 3 640	66
46	STANFORD UNIV	N N MANSOUR	ARC	P MOIN	NCC 2 1151	64
46	STANFORD UNIV	N N MANSOUR	ARC	R K HANSON	NAG 2 1478	59
46	STATE UNIV OF NY - BUFFALO	J P DRUMMOND	LARC	P GIVI	NAG 1 2238	387
46	TENNESSEE STATE UNIV	D S SINGH	GRC	P X TAO	NAG 3 1797	468
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46	TEXAS A&M UNIV	E K UNGAR	JSC	J SEYED-YAGOABI	NAG 9 1145	482
46	TEXAS A&M UNIV	F P CHIARAMONTE	GRC	J SEYED-YAGOABI	NCC 3 602	483
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46	UNIV OF ARIZONA	J E FINN	ARC	K R SRIDHAR	NCC 2 5357	38
46	UNIV OF ARIZONA	P M DOTY	MSFC	J R SRIDHAR	NAG 8 1469	36
46	UNIV OF ARIZONA	S P WALKER	LARC	E MADENCI	NAG 1 2052	25
46	UNIV OF CALIFORNIA - BERKELEY	B ADELSTEIN	ARC	H KAZEROONI	NCC 2 1255	76
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46	UNIV OF CALIFORNIA - BERKELEY	S R ELLIS	ARC	H KAZERAONI	NCC 2 909	76
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46	UNIV OF COLORADO - BOULDER	M S BURRELL	GSFC	P AXELRAD	NGT 5 47	140
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46	UNIV OF DELAWARE	M W WEISLOGEL	GRC	L W SCHWARTZ	NAG 3 1920	149
46	UNIV OF FLORIDA	E L GOLLIHER	GRC	D E LEAR	NAG 3 2461	172
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46	UNIV OF KENTUCKY	M S BURRELL	GSFC	J A MAIN	NGT 5 71	232
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46	UNIV OF TOLEDO	K MCLALLIN	GRC	T G KEITH	NCC 3 907	427
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46	UNIV OF TOLEDO	R F BEACH	GRC	T G KEITH	NAG 3 2646	425
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46	VA POLYTECH INST & ST UNIV	K J PRIESTLEY	LARC	A M SMITH	NGT 1 52248	532
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47	AUBURN UNIV	R D NOEDE	GRC	W F GALE	NAG 3 2120	2
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47	CARNEGIE - MELLON UNIV	D L BRITTON	GRC	P N KUMTA	NAG 3 2640	436
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47	GEORGIA INST OF TECH	J R ELLIS	GRC	D TALREJA	NCC 3 711	186
47	GEORGIA INST OF TECH	P DOTY	MSFC	A M GOKHALE	NAG 8 1245	184
47	GEORGIA INST OF TECH	W D BREWER	LARC	J K COCHRAN	NAG 1 2245	182
47	GEORGIA INST OF TECH	W DUVAL	GRC	M F SCHATZ	NAG 3 2006	183
47	HARVARD UNIV	P DOTY	MSFC	F A SPAEPEN	NAG 8 1680	285
47	HOPE COLLEGE	T S GATES	LARC	J PAWLOSKA	NAG 1 01060	306
47	IAWA STATE UNIV	A JACKSON	MSFC	R K TRIVETI	NAG 8 1681	223
47	KENT STATE UNIV	M A MEADOR	GRC	R J TWIEG	NCC 3 721	413
47	LE TOURNEAU UNIV	C SCOTT	JSC	G DE BOER	NAG 9 1274	475
47	MASSACHUSETTS INST OF TECH	J F DOWDY	MSFC	A F WITT	NGT 8 52860	300
47	MASSACHUSETTS INST OF TECH	M PURVEY	MSFC	A WITT	NAG 8 1487	296
47	MASSACHUSETTS INST OF TECH	P DOTY	MSFC	R SADOWAY	NAG 8 1689	296
47	MICHIGAN STATE UNIV	J M BEAVIDES	GSFC	V AYRES	NAG 5 8893	307
47	MICHIGAN STATE UNIV	M V NATHAL	GRC	D S GRUMMON	NCC 3 868	308
47	MICHIGAN STATE UNIV	P DOTY	MSFC	A BERNARD	NAG 8 1690	308
47	MONTANA STATE UNIV	W F BROOKS	ARC	A E CRAIG	NAG 2 1323	337
47	MORGAN STATE UNIV	E ORDONEZ	MSFC	A KENNEDY	NAG 8 1847	254
47	NEW JERSEY INST OF TECH	E S WEISER	LARC	M JAFFE	NAG 1 01110	350
47	NORFOLK STATE UNIV	E T PRIOR	LARC	J JACOBS	NAG 1 2125	514
47	NORFOLK STATE UNIV	J C BARNES	LARC	L MATTIX	NCC 1 01049	515
47	NORTH CAROLINA A&T STATE UNIV	D R AMBUR	LARC	K N SHIVAKUMAR	NAG 1 1956	397
47	NORTH CAROLINA A&T STATE UNIV	M R FREEDMAN	GRC	D N SHIVAKUMAR	NAG 3 2650	397
47	NORTH CAROLINA A&T STATE UNIV	R BHATT	GRC	J SANKAR	NAS 3 96055	398
47	NORTH CAROLINA A&T STATE UNIV	T HAAG	GRC	K SHIVAKUMAR	NAS 3 01197	398
47	NORTH CAROLINA STATE UNIV	C H LIN	JSC	M H MOHAMAD	NAG 9 1087	401
47	NORTH CAROLINA STATE UNIV	D L RANEY	LARC	F G YUAN	NAG 1 01103	399
47	NORTH CAROLINA STATE UNIV	D R AMBER	LARC	F G YUAN	NAG 1 01128	400
47	NORTH CAROLINA STATE UNIV	J S HARRISON	LARC	R C SMITH	NAG 1 2287	399
47	NORTHWESTERN UNIV	A CHART	GRC	S H DAVIS	NAG 3 1737	201
47	NORTHWESTERN UNIV	B S SINGH	GRC	A Z PATASHINSKI	NAG 3 1932	201
47	NORTHWESTERN UNIV	M V NATHAL	GRC	D C DUNAND	NCC 3 870	203
47	NORTHWESTERN UNIV	R D NOEBE	GRC	D N SEIDMAN	NAG 3 2485	201
47	NORTHWESTERN UNIV	T K GLASGOW	GRC	P W VOORHEES	NAG 3 1823	201
47	NORTHWESTERN UNIV	T S GATES	LARC	L C BRINSON	NCC 1 01002	203
47	NORTHWESTERN UNIV	T S GATES	LARC	R S RUOFF	NAG 1 2313	201
47	OHIO STATE UNIV	D J ROTH	GRC	S ROKHLIN	NAS 3 97030	418
47	OHIO STATE UNIV	G D ROBERTS	GRC	A GILAT	NAG 3 2233	414

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47	OHIO STATE UNIV	P DOTY	MSFC	P K DUTTA	NAG 8 1670	417
47	OHIO STATE UNIV	R K GOLDBERG	GRC	GILAT	NAG 3 2522	414
47	OLD DOMINION UNIV	A T NETTLES	MSFC	R PRABHAKARAN	NAG 8 1813	518
47	OLD DOMINION UNIV	K M TAMINGER	LARC	K NAGARATHNAM	NCC 1 403	519
47	OLD DOMINION UNIV	T HOU	LARC	R B PIPES	NCC 1 363	518
47	OLD DOMINION UNIV	T S GATES	LARC	R B PIPES	NAG 1 01043	517
47	PENN STATE UNIV	D T ELLERBY	ARC	J R HELLMANN	NAG 2 1524	443
47	PENN STATE UNIV	G E SCHWARZE	GRC	D T LANAGAN	NAG 3 2561	443
47	PENN STATE UNIV	R DRAPER	GRC		NAS 3 01082	449
47	PENN STATE UNIV	S M ARNOLD	GRC	D J LISSENDEN	NCC 3 848	450
47	PURDUE UNIV	J REAGAN	GRC	C GIBSON	NAG 3 2453	217
47	PURDUE UNIV	T S GATES	LARC	C T SUN	NAG 1 01073	216
47	RENSSELAER POLYTECH INST	E A WINSA	GRC	M E GLICKSMAN	NAS 3 25368	385
47	RENSSELAER POLYTECH INST	P M DOTY	MSFC	M E GLICKSMAN	NAG 8 1696	385
47	SAINT LOUIS UNIV	C DELLACORTE	GRC	P A BENOY	NAG 3 2469	329
47	SAINT LOUIS UNIV	C DELLACORTE	GRC	P A BENOY	NAG 3 2642	329
47	TEXAS A&M UNIV	M R EFFINGER	MSFC	O O OCHOA	NAG 8 1802	482
47	TUFTS UNIV	T K GLASGOW	GRC	C ROGERS	NCC 3 479	301
47	TUSKEGEE UNIV	M J VERILLE	GRC	A HAQUE	NCC 3 591	5
47	TUSKEGEE UNIV	R ROGOSKI	LARC	J N BHUYAN	NAG 1 1865	4
47	UNIV HOUSTON-HOUSTON	J C BRASUNAS	GSFC	C	NAG 5 8126	486
47	UNIV HOUSTON-HOUSTON	S J LAMBING	MSFC	A IGNATIEV	NCC 8 127	487
47	UNIV OF MINN	P M DOTY	MSFC	J J DERBY	NAG 8 1676	324
47	UNIV OF AKRON	A CHAIT	GRC	G W YOUNG	NCC 3 716	421
47	UNIV OF AKRON	C CHUANG	GRC	F W HARRIS	NAG 3 2390	420
47	UNIV OF AKRON	G D ROBERTS	GRC	E SANCAKtar	NCC 3 744	421
47	UNIV OF AKRON	M A MEADOR	GRC	F N KELLEY	NAG 3 2566	421
47	UNIV OF AKRON	M A MEADOR	GRC	R K EBY	NCC 3 682	421
47	UNIV OF AKRON	M A MEADOR	GRC	R K EBY	NCC 3 877	422
47	UNIV OF ARIZONA	J CONNOLLY	JSC	K R SRIDHAR	NAG 9 1229	37
47	UNIV OF ARKANSAS - LITTLE ROCK	R TRAVIS	SSC	K MAXWELL	NGT13 52724	41
47	UNIV OF CALIFORNIA - DAVIS	D R AMBUR	LARC	L W REHFIELD	NAG 1 01116	79
47	UNIV OF CALIFORNIA - DAVIS	M NATHAL	GRC	J GIBELING	NCC 3 859	83
47	UNIV OF CALIFORNIA - LOS ANGELES	R G BRYANT	LARC	G P CARMEN	NGT 1 52240	95
47	UNIV OF CALIFORNIA - LOS ANGELES	R ROGERS	GRC	S PUTTERMAN	NAG 3 1889	88
47	UNIV OF COLORADO - BOULDER	B V GUYNES	MSFC	S STURE	NAS 8 38779	139
47	UNIV OF FLORIDA	D E LUECK	KSC	E D WACHSMAN	NAG10 303	174
47	UNIV OF FLORIDA	D R AMBUR	LARC	B V SANKAR	NAG 1 01088	172
47	UNIV OF FLORIDA	M BASSIGNANI	KSC	E D WACHSMAN	NAG10 274	174
47	UNIV OF FLORIDA	P R DOTY	MSFC	T J ANDERSON	NAG 8 1243	173
47	UNIV OF FLORIDA	W J EMRICH, JR.	MSFC	S ANGHZIE	NAG 8 1251	173
47	UNIV OF ILLINOIS - CHICAGO CIRCLE	W DUVAL	GRC	D POULIKAKOS	NAG 3 1905	207
47	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	S J HALES	LARC	R S AVERBACK	NAG 1 01035	209
47	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	T L PANONTIN	ARC	G H PAULINO	NGT 2 52271	213
47	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	T L PANONTIN	ARC	R H DODDS	NAG 2 1424	209
47	UNIV OF IOWA	P DOTY	GSFC	C BECKERMAN	NCC 8 199	227
47	UNIV OF MICHIGAN - ANN ARBOR	M P NEMETH	LARC	A P WAAS	NCC 1 01050	317
47	UNIV OF MISSOURI - ROLLA	T S GATES	LARC	S ROY	NAG 1 01050	331
47	UNIV OF NEW MEXICO-ALBUQUERQUE	D ELLERBY	ARC	R E LOEHMAN	NAG 2 1516	364
47	UNIV OF NEW MEXICO-ALBUQUERQUE	D T ELLERBY	ARC	R E LOEHMAN	NAG 2 1437	364
47	UNIV OF NORTH CAROLINA - CHAPEL HILL	R L JAFFE	ARC	O ZHOU	NGT 2 52247	403
47	UNIV OF PENNSYLVANIA	H SHAW	GSFC	D LUZZI	NAG 5 9241	453
47	UNIV OF SOUTH CAROLINA-COLUMBIA	R A HAFLEY	LARC	A P REYNOLDS	NAG 1 2108	465
47	UNIV OF SOUTH CAROLINA-COLUMBIA	R S PLASCICK	LARC	A P REYNOLDS	NAG 1 2237	465
47	UNIV OF TEXAS - AUSTIN	K MCLALLIN	GRC	R THOMPSON	NAG 3 2602	492
47	UNIV OF TEXAS - EL PASO	A BEAM	MSFC	J C MCCLURE	NAG 8 1645	500
47	UNIV OF TEXAS - EL PASO	E B CLARK	GRC	V P SINGH	NAG 3 1820	499
47	UNIV OF TEXAS - EL PASO	J DING	MSFC	J MCCLURE	NCC 8 137	500
47	UNIV OF TEXAS - EL PASO	L ARMENDARIZ	JSC	L E MURR	NAG 9 1171	500
47	UNIV OF UTAH	B MCKISSOCK	GRC	G D SMITH	NAG 3 2624	502
47	UNIV OF UTAH	J R REEDERS	LARC	D O ADAMS	NCC 1 256	503
47	UNIV OF VIRGINIA	D L DICUS	LARC	R P GANGLOFF	NAG 1 2176	522
47	UNIV OF VIRGINIA	M P NEMETH	LARC	C O HORGAN	NAG 1 01022	522
47	UNIV OF VIRGINIA	M S DOMACK	LARC	D A LITTLE	NAG 1 2282	522
47	UNIV OF VIRGINIA	R PIASCICK	LARC	G SHIFLET	NAG 1 2321	522

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47	UNIV OF WASHINGTON	B J JENSEN	LARC	J C SEFERIS	NAG 1 01078	534
47	UNIV OF WASHINGTON	J F DOWDY	MSFC	L N BRUSH	NGT 8 52862	543
47	UNIV OF WISCONSIN - MADISON	P M DOTY	MSFC	S KOU	NAG 8 1459	552
47	VA POLYTECH INST & ST UNIV	D R AMBUR	LARC	L LIBRESCU	NAG 1 01101	529
47	VA POLYTECH INST & ST UNIV	D R AMBUR	LARC	Z GURDAL	NAG 1 01105	529
47	VA POLYTECH INST & ST UNIV	H B DEXTTER	LARC	A C LOOS	NAG 1 1881	528
47	VA POLYTECH INST & ST UNIV	M E PRINCE	MSFC	D A DILLIARD	NAG 8 1846	531
47	VA POLYTECH INST & ST UNIV	M H JASKOWIAK	GRC	W A CURTIN	NAG 3 2100	530
47	VA POLYTECH INST & ST UNIV	M P NEMETH	LARC	M W HYER	NAG 1 01072	529
47	VA POLYTECH INST & ST UNIV	R J CANO	LARC	A C LOOS	NCC 1 01037	531
47	WASHINGTON UNIV - ST	P DOTY	MSFC	K F KELTON	NAG 8 1682	336
47	WICHITA STATE UNIV	A C NUNES	MSFC	G E TALIA	NCC 8 202	230
47	WINONA STATE UNIV	T S GATES	LARC	B ABDEL-MAGID	NAG 1 01054	326
49	ALABAMA A&M UNIV	W LOVE	MSFC	D ILA	NAG 8 1655	2
49	ALCORN STATE UNIV	B ST. CYR	JSC	S ACEIL	NAG13 98005	326
49	ARIZONA STATE UNIV	N R PELLIS	JSC	B TOWE	NAG 9 815	23
49	AUBURN UNIV	J HOWELL	MSFC	S A MERRYMAN	NAG 8 1728	3
49	BOSTON UNIV	A NURRIDIN	HQ	S CHAKRABARTI	NGT 5 50171	280
49	BOSTON UNIV	N R HALL	GRC	D HOLT	NAG 3 2392	276
49	BRANDEIS UNIV	F P CHIARAMONTE	GRC	D FRADEN	NAG 3 2386	281
49	BROWN UNIV	G A SOFFEN	GSFC	G CRAWFORD	NGT 5 91	460
49	CALIFORNIA INST OF TECH	B A MERRITT	GSFC	R A MEWALDT	NAG 5 5203	43
49	CALIFORNIA INST OF TECH	J H AGUI	GRC	M L HUNT	NAG 3 2358	42
49	CALIFORNIA ST	T J LLOYD	NMO	V H GARNER	NCC 7 10	50
49	CALIFORNIA STATE UNIV-BAKERSFIELD	K S SHY	DFRC	K L NYBERG	NAG 4 200	53
49	CARNEGIE - MELLON UNIV	C J CULBERT	JSC	D APOSTOLOPOULOS	NAG 9 1248	438
49	CARNEGIE - MELLON UNIV	C J CULBERT	JSC	R W WHITTAKER	NAG 9 1240	438
49	CARNEGIE - MELLON UNIV	C J CULBERT	JSC	W R WHITAKER	NAG 9 1256	438
49	CARNEGIE - MELLON UNIV	C J CULBERT	JSC	W WHITTAKER	NAG 9 1214	438
49	CARNEGIE - MELLON UNIV	F J MONTEGANI	GRC	M E MCHENRY	NGT 3 52379	439
49	CARNEGIE - MELLON UNIV	F J MONTEGANI	GRC	P N KUMTA	NGT 3 52370	439
49	CARNEGIE - MELLON UNIV	R D JUDAY	JSC	O AMIDI	NAG 9 1232	438
49	CARNEGIE - MELLON UNIV	T PENDLETON	JSC	R SIMMONS	NAG 9 1226	438
49	CASE WESTERN RESERVE UNIV	A CHAIT	GRC	P L TAYLOR	NAG 3 2541	406
49	CASE WESTERN RESERVE UNIV	A D PLINE	GRC	S OSTRACH	NAG 3 1868	406
49	CASE WESTERN RESERVE UNIV	B S SINGH	GRC	A SAYIR	NAG 3 2238	406
49	CASE WESTERN RESERVE UNIV	D GREEN	GRC	Y KAMOTANI	NCC 3 823	408
49	CASE WESTERN RESERVE UNIV	F J MONTEGANI	GRC	J R KADAMBI	NGT 3 52352	409
49	CASE WESTERN RESERVE UNIV	F J MONTEGANI	GRC	K LOPARO	NGT 3 52328	409
49	CASE WESTERN RESERVE UNIV	F P CHIARAMONTE	GRC	B OVRYN	NAG 3 2504	406
49	CASE WESTERN RESERVE UNIV	G MEYER	ARC	M S BRANICKY	NAG 2 1333	405
49	CASE WESTERN RESERVE UNIV	K R SACKSTEDER	GRC	C SUNG	NCC 3 838	408
49	CASE WESTERN RESERVE UNIV	K R SACKSTEDER	GRC	J S TIEN	NCC 3 669	408
49	CASE WESTERN RESERVE UNIV	S L OLSON	GRC	J S TIEN	NCC 3 658	408
49	CITY UNIV OF NY CITY COLLEGE	F P CHIARAMONTE	GRC	D KOPLIK	NAG 3 2335	368
49	CLARK ATLANTA UNIV	H D ROSS	GRC	Y D YEBOAH	NCC 3 707	181
49	CLEMSON UNIV - CLEMSON	B G KANKI	ARC	A K GRAMOPADHYE	NCC 2 1114	463
49	CLEMSON UNIV - CLEMSON	F P CHIARAMONTE	GRC	D M OCHTERBECK	NAG 3 2214	461
49	CLEMSON UNIV - CLEMSON	J BARTH	GSFC	P MCNULTY	NAG 5 9824	463
49	CLEMSON UNIV - CLEMSON	W CAMPBELL	GSFC	D LIGON	NAG 5 6210	462
49	CLEVELAND STATE UNIV	F TORRES	GRC	Y LIU	NAG 3 2490	410
49	CLEVELAND STATE UNIV	H C DE GROH	GRC	S N TEWARI	NCC 3 829	411
49	CLEVELAND STATE UNIV	H DEGROH	GRC	D TEWARI	NCC 3 818	411
49	CLEVELAND STATE UNIV	H E KAUTZ	GRC	J HEMANN	NCC 3 582	410
49	CLEVELAND STATE UNIV	H KAUTZ	GRC	J HEMANN	NAG 3 2306	409
49	CLEVELAND STATE UNIV	H KAUTZ	GRC	J T SAWICKI	NAG 3 2573	410
49	CLEVELAND STATE UNIV	J M MULLINS	GRC	G L KRAMERICH	NCC 3 647	411
49	CLEVELAND STATE UNIV	J MULLINS	GRC	G L KRAMERICH	NCC 3 908	412
49	CLEVELAND STATE UNIV	K JULES	GRC	P P LIN	NAG 3 2326	409
49	CLEVELAND STATE UNIV	P S GREENSBERG	GRC	J A LOCK	NAG 3 2423	409
49	COLORADO SCH OF MINES	J R WEST	MSFC	F SCHOWENGERDT	NCCW 96	119
49	COLORADO SCH OF MINES	S A GOKOGLU	GRC	D J MOORE	NCC 3 659	119
49	CORNELL UNIV	D L DIETRICH	GRC	T AVEDISIAN	NAG 3 2224	375
49	CORNELL UNIV	F P CHIARAMONTE	GRC	D T JENKINS	NAG 3 2353	375
49	CORNELL UNIV	H K NAHRA	GRC	D L KOCH	NAG 3 2349	375

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49	DREXEL UNIV	B S SINGH	GRC	M A DELLAVERCCHIA	NAG 3 2291	440
49	DREXEL UNIV	D L URBAN	GRC	D A RUFF	NCC 3 847	441
49	DREXEL UNIV	D L URBAN	GRC	D CHOI	NCC 3 822	441
49	DREXEL UNIV	D L URBAN	GRC	D Y CHOI	NCC 3 913	441
49	DUKE UNIV	R A WILKINSON	GRC	R P BEHRINGER	NAG 3 2372	394
49	FLA INTERNATIONAL UNIV	A MITSKEVICH	KSC	M A CENTENO	NAG10 212	162
49	FLORIDA A&M UNIV	E SMITH	KSC	F S HUMPHRIES	NAG10 238	164
49	FLORIDA A&M UNIV	F P CHIARAMONTE	GRC	D CHELLA	NAG 3 2387	163
49	FLORIDA A&M UNIV	W C JONES	KSC	R G ROBERTS	NAG10 272	164
49	FLORIDA INST OF TECH	M M AVERNER	ARC	C E HELMSTETTER	NAG 2 1508	165
49	FLORIDA STATE UNIV	F P CHIARAMONTE	GRC	D CHELLA	NAG 3 2445	166
49	GEORGE WASHINGTON UNIV	R L YANG	LARC	J L WHITESIDES	NAG 1 1353	152
49	GEORGIA INST OF TECH	C M BELCASTRO	LARC	A R PRITCHETT	NCC 1 401	186
49	GEORGIA INST OF TECH	F J MONTEGANI	GRC	G T ZHOU	NGT 3 52334	187
49	GEORGIA INST OF TECH	F J MONTEGANI	GRC	M LIU	NGT 3 52338	187
49	GEORGIA INST OF TECH	F P CHIARAMONTE	GRC	D YODA	NAG 3 2373	183
49	GEORGIA INST OF TECH	R E YACKOVETSKY	GRC	D MAVRIS	NAG 1 2235	182
49	GEORGIA INST OF TECH	R HOLLAND	SSC	R RIVERA	NGT13 52750	188
49	GEORGIA INST OF TECH	R SKARDA	GRC	D P NEITZEL	NAG 3 2431	183
49	GEORGIA INST OF TECH	S NASH-STEVENSON	MSFC	J SEITZMAN	NGT 8 52887	188
49	HAMPTON UNIV	D GRIFFIN	GRC	D R LYONS	NAG 3 2189	511
49	HAMPTON UNIV	D W GRIFFIN	GRC	C M OKPODU	NAG 3 2618	512
49	HAMPTON UNIV	I BLANKSON	GRC	M H MORGAN	NAG 3 2249	512
49	HARVARD UNIV	B MOTIL	GRC	D A WEITZ	NAG 3 2376	282
49	HARVARD UNIV	D GRIFFIN	GRC	D A WEITZ	NAG 3 2492	283
49	HARVARD UNIV	F P CHIARAMONTE	GRC	D A WHITE	NAG 3 2381	283
49	HENDRIX COLLEGE	B ST. CYR	SSC	M W TEAGUE	NAG13 99016	40
49	INDIANA UNIV - BLOOMINGTON	W CULPEPPER	JSC	J CAMERON	NAS 9 01103	216
49	IOWA STATE UNIV	F J MONTGOMERY	GRC	D ROTHMAYER	NGT 3 52380	224
49	IOWA STATE UNIV	S NASH-STEVENSON	MSFC	R NAPOLITANO	NGT 8 52903	224
49	JACKSON STATE UNIV	D F NOGA	GRC	D MITRA	NAG 3 2277	326
49	JAMES MADISON UNIV	A D LITTLE	LARC	J J MILES	NAG 1 2186	513
49	JOHNS HOPKINS UNIV	F P CHIARAMONTE	GRC	K J STEBE	NCC 3 812	252
49	JOHNS HOPKINS UNIV	G CHOMOS	GRC	L BACHMAN	NAS 3 01146	252
49	JOHNS HOPKINS UNIV	J F SUTTON	GSFC	D STROHBEHN	NAG 5 10402	248
49	JOHNS HOPKINS UNIV	M M HASAN	GRC	A PROSPERETTI	NAG 3 2362	241
49	JOHNS HOPKINS UNIV	P YEP	GSFC	R EDWARDS	NAG 5 10397	248
49	LOUISIANA STATE UNIV - BATON ROUGE	E SHAW	MSFC	B SARKER	NAG 8 1845	234
49	LOUISIANA STATE UNIV - BATON ROUGE	H C NEEDLEMAN	GSFC	J P WEFEL	NAG 5 5064	233
49	LOUISIANA STATE UNIV - BATON ROUGE	J SKARDA	GRC	H WONG	NAG 3 2361	233
49	MARSHALL UNIV	M M AVERNER	ARC	M R JULIAN	NCC 5 542	544
49	MASSACHUSETTS INST OF TECH	F J MONTEGANI	GRC	G H MCKINLEY	NGT 3 52360	299
49	MASSACHUSETTS INST OF TECH	H A ALDRIDGE	JSC	J P CLARKE	NAG 9 1078	296
49	MASSACHUSETTS INST OF TECH	J E BROOKER	GRC	J B HOWARD	NAG 3 1879	288
49	MASSACHUSETTS INST OF TECH	M E ROSENTHAL	MSFC	C R CANIZARES	NAS 8 38249	297
49	MISSISSIPPI STATE UNIV	R TRAVIS	SSC	R FOLLET	NGT13 52741	328
49	MISSISSIPPI STATE UNIV	Y K CHOO	GRC	B K SONI	NAG 3 2235	327
49	MOREHOUSE COLLEGE	W LOVE	MSFC	J KING	NAG 8 1711	189
49	MOREHOUSE SCH MED	D W GRIFFIN	GRC	D J KLEMENT	NAG 3 2611	189
49	MORGAN STATE UNIV	G SOFFEN	GSFC	E DELOATCH	NAG 5 9215	253
49	MORGAN STATE UNIV	J OBERRIGHT	GSFC	G CHEN	NAG 5 10104	253
49	NEW JERSEY INST OF TECH	A WILKENSEN	GRC	L KONDIC	NAG 3 2367	350
49	NEW JERSEY INST OF TECH	R F FRIEDMAN	GRC	E L DREIZEN	NCC 3 746	351
49	NEW MEXICO HIGHLANDS UNIV	W LOVE	MSFC	R CLARK	NAG 8 1708	361
49	NEW MEXICO STATE UNIV - LAS CRUCES	W H MILLER	GSFC	S HORAN	NAG 5 9323	363
49	NEW MEXICO STATE UNIV - LAS CRUCES	W MILLER	GSFC	S HORAN	NAG 5 7520	362
49	NORTH CAROLINA A&T STATE UNIV	J RUF	MSFC	K JONES	NAG 8 1142	398
49	NORTH CAROLINA A&T STATE UNIV	W LOVE	MSFC	E CHEEK	NAG 8 1707	398
49	NORTHEASTERN UNIV	M NALL	MSFC	A SACCO	NCC 8 139	300
49	NORTHERN ARIZONA UNIV	A R GROSS	ARC	G M BOYNE	NAG 2 6003	24
49	NORTHWESTERN UNIV	A NURRIDIN	HQ	M MATALON	NGT 5 50211	203
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49	UNIV OF NOTRE DAME	J B MCGUILLEN	GRC	M J MCCREADY	NCC 3 466	222
49	UNIV OF NOTRE DAME	J H AGUI	GRC	D BARBASI	NAG 3 2384	221
49	UNIV OF NOTRE DAME	J L ROSEY	LARC	J E RENAUD	NAG 1 2240	220
49	UNIV OF NOTRE DAME	P YEH	GSFC	D J COSTELLO	NAG 5 10503	221
49	UNIV OF NOTRE DAME	R FRIEDMAN	GRC	A VARMA	NAG 3 2213	221
49	UNIV OF NOTRE DAME	W H MILLER	GSFC	D J COSTELLO	NAG 5 8355	221
49	UNIV OF OKLAHOMA - NORMAN	F P CHIARAMONTE	GRC	A K AGRAWAI	NAG 3 2388	429
49	UNIV OF OKLAHOMA - NORMAN	H C DEGROH	GRC	D C LAI	NCC 3 791	430
49	UNIV OF OKLAHOMA - NORMAN	J B MCQUILLEN	GRC	D N PARTHASAEATHY	NCC 3 787	430
49	UNIV OF PENNSYLVANIA	D W GRIFFIN	GRC	D A HAMMER	NAG 3 2417	452
49	UNIV OF PITTSBURGH	F P CHIARAMONTE	GRC	D WI	NAG 3 2396	454
49	UNIV OF RHODE ISLAND	D A JACQUMIN	GRC	A BOSE	NAG 3 2229	460
49	UNIV OF RHODE ISLAND	H C DEGROH	GRC	D FAGHRI	NAG 3 2434	460
49	UNIV OF ROCHESTER	D GRIFFIN	GRC	K MARSHALL	NAG 3 2348	393
49	UNIV OF SOUTHERN CALIFORNIA	D L URBAN	GRC	H PEARLMAN	NCC 3 871	119
49	UNIV OF SOUTHERN CALIFORNIA	F P CHIARAMONTE	GRC	D MAXWORTHY	NAG 3 2478	115
49	UNIV OF SOUTHERN CALIFORNIA	J E BROOKER	GRC	H PEARLMAN	NCC 3 854	119
49	UNIV OF SOUTHERN CALIFORNIA	K R SACKSTEDER	GRC	F N EGOLFOPOLUOS	NCC 3 678	118
49	UNIV OF SOUTHERN CALIFORNIA	K R SACKSTEDER	GRC	K OHSAKA	NCC 3 841	119
49	UNIV OF SOUTHERN CALIFORNIA	K R SACKSTEDER	GRC	P N EGOLFOPoulos	NCC 3 834	118
49	UNIV OF SOUTHERN CALIFORNIA	M DUTTA	GSFC	G SHIFFLETT	NAG 5 10399	117
49	UNIV OF SOUTHERN CALIFORNIA	M M HASAN	GRC	K OHSAKA	NCC 3 827	118
49	UNIV OF SOUTHERN CALIFORNIA	S A GOKOGLU	GRC	P D RONNEY	NCC 3 671	118
49	UNIV OF SOUTHERN MISSISSIPPI	P DOTY	MSFC	J WHITEHEAD	NAG 8 1684	329
49	UNIV OF TENN SPACE INST-TULLAHOMA	M E OLSEN	ARC	S VENKATESWARAN	NCC 2 5413	472
49	UNIV OF TEXAS - AUSTIN	K MCALLIN	GRC	J BENO	NAS 3 00119	497
49	UNIV OF TEXAS - AUSTIN	K SACKSTEDER	GRC	N T CLEMENS	NCC 3 677	497
49	UNIV OF TEXAS - AUSTIN	P GEORGE	GRC	W A WALLS	NAS 3 00135	497
49	UNIV OF TEXAS - AUSTIN	P S GREENBERG	GRC	P L VARGHESE	NAG 3 2240	492
49	UNIV OF TEXAS - DALLAS	P H YEH	GSFC	J P FONSEKA	NAG 5 9476	498
49	UNIV OF TEXAS AT BROWNSVILLE	L ARMENDARIZ	JSC	W WELLS	NAG 9 1064	501
49	UNIV OF TEXAS AT SAN ANTONIO	F SAFIE	MSFC	R MANTUEFEL	NAG 8 1720	501
49	UNIV OF TOLEDO	D C JANETZKE	GRC	T G KEITH	NCC 3 719	427
49	UNIV OF TOLEDO	D JANETZKE	GRC	T KEITH	NCC 3 774	427
49	UNIV OF TOLEDO	D MONTEGANI	GRC	D J KAPOOR	NGT 3 52342	428
49	UNIV OF TOLEDO	F J MONTEGANI	GRC	V J KAPOOR	NGT 3 52375	428
49	UNIV OF TOLEDO	P MURTHY	GRC	T G KEITH	NCC 3 524	427
49	UNIV OF TURABO	M MATEU	GSFC	A COURTIER	NAG 5 10240	558
49	UNIV OF TURABO	M MATEU	GSFC	B A MARRERO	NGT 5 90064	558
49	UNIV OF UTAH	H D ROSS	GRC	D E MELL	NAG 3 2403	502
49	UNIV OF UTAH	H D ROSS	GRC	W MELL	NAG 3 2548	502
49	UNIV OF VIRGINIA	H A ROELANT	LARC	J BECHTA-DUGAN	NAS 1 99098	526
49	UNIV OF VIRGINIA	L E JONES	LARC	R W KENT	NGT 1 52244	527
49	UNIV OF VIRGINIA	S M ARNOLD	GRC	M J PINDER	NAG 3 2359	522
49	UNIV OF VIRGINIA	S M ARNOLD	GRC	M J PINDER	NAG 3 2411	523
49	UNIV OF WASHINGTON	G MEYER	ARC	S DEVASIA	NAG 2 1450	534
49	UNIV OF WASHINGTON	J E BROOKER	GRC	D RILEY	NAG 3 2517	534
49	UNIV OF WASHINGTON	N R HALL	GRC	T J MATULA	NAG 3 2379	534
49	UNIV OF WASHINGTON	W J STOUD	LARC	K Y LIN	NAG 1 2296	534

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49	VA POLYTECH INST & ST UNIV	D L PALOMBO	LARC	M AHMODEON	NGT 1 52246	532
49	VA POLYTECH INST & ST UNIV	J E MAY	GRC	U VANDSBURGER	NAG 3 2093	530
49	VA POLYTECH INST & ST UNIV	J M SEATON	LARC	C E NUNNALLY	NAG 1 01021	529
49	VA POLYTECH INST & ST UNIV	R S PIASCLK	LARC	J A NEWMAN	NGT 1 52174	532
49	VANDERBILT UNIV	C J CULBERT	JSC	R A PETERS II	NGT 9 52	474
49	VANDERBILT UNIV	J BARTH	GSFC	L MASSENGILL	NAG 5 9828	472
49	VANDERBILT UNIV	J F DOWDY	MSFC	S MAHADEVAN	NGT 8 52852	473
49	VANDERBILT UNIV	R D GREEN	GRC	D LEVAN	NAG 3 2401	472
49	WASHINGTON STATE UNIV	C NIEDERHAUS	GRC	D MARSTON	NAG 3 2378	543
49	WASHINGTON UNIV - ST	D L URBAN	GRC	R L AXELBAUM	NCC 3 697	336
49	WASHINGTON UNIV - ST	L KALUZIENSKI	GSFC	P L HINK	NAG 5 8568	334
49	WASHINGTON UNIV - ST	P S GREENBERG	GRC	D CHEN	NAG 3 2625	332
49	WASHINGTON UNIV - ST	S A GOKOGLE	GRC	R L AXELBAUM	NAG 3 1910	332
49	WAYNE STATE UNIV	G MEYER	ARC	F LIN	NAG 2 1279	319
49	WICHITA STATE UNIV	C BIDWELL	GRC	D PAPADAKIS	NAG 3 2324	230
49	WILBERFORCE UNIV	A F HEPP	GRC	D R BUFFINGER	NAG 3 2301	428
49	WOFFORD COLLEGE	J F DOWDY	MSFC	D M SCOTT	NAG 8 1310	466
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49	WORCESTER POLYTECH INST	D F CHAO	GRC	D TRYGGVASON	NAG 3 2583	306
49	WORCESTER POLYTECH INST	D P STOCKER	GRC	D C HERMANSON	NCC 3 673	306
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49	XAVIER UNIV - LOUISIANA	L RANDOLPH	GSFC	G BAKER	NGT 5 90084	238
49	YALE UNIV	B MOTIL	GRC	D L GRANT	NAG 3 2425	146
49	YALE UNIV	D L URBAN	GRC	M D SMOOKE	NAG 3 2262	146
49	YALE UNIV	F P CHIARAMONTE	GRC	D LOEWENBERG	NAG 3 2477	147
49	YALE UNIV	K SACKSTEDER	GRC	D E ROSNER	NCC 3 691	148
49	YALE UNIV	R ROGERS	GRC	R E APFEL	NAG 3 2377	146
51	ALABAMA A&M UNIV	R C RICHMOND	MSFC	D KALE	NAG 8 1541	1
51	ARIZONA STATE UNIV	B GUYNES	MSFC	J ALLEN	NAG 8 1353	23
51	ARIZONA STATE UNIV	D J DESMARAIIS	ARC	F G PICHEL	NCC 2 5411	23
51	ARIZONA STATE UNIV	L ROTHSCHILD	ARC	R E BLAKENSHIP	NGT 2 52284	23
51	ARIZONA STATE UNIV	M A MEYER	GSFC	P KNAUTH	NAG 5 4860	20
51	ARIZONA STATE UNIV	M MEYER	GSFC	D CRONIN	NAG 5 4131	20
51	ARIZONA STATE UNIV	M MEYER	GSFC	J FARMER	NAG 5 9507	22
51	BAYLOR COLLEGE OF MED	C F SAWIN	JSC	B R ALFORD	NCC 9 58	475
51	BAYLOR COLLEGE OF MED	D RISIN	JSC	B YOFEE	NAG 9 1361	475
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51	BAYLOR COLLEGE OF MED	M M AVERNER	ARC	H J BELLEN	NAG 2 1355	474
51	BAYLOR COLLEGE OF MED	M M AVERNER	ARC	H J BELLEN	NAG 2 1496	474
51	BAYLOR COLLEGE OF MED	N R PELLIS	JSC	A S RAJAN	NAG 8 1583	474
51	BENEDICT COLLEGE	R E GRINDELAND	ARC	L LOWE	NAG 2 1164	461
51	CALIFORNIA INST OF TECH	M A MEYER	GSFC	D YUNG	NAG 5 4022	42
51	CALIFORNIA INST OF TECH	M M AVERNER	ARC	E M DAVIDSON	NAG 2 1368	42
51	CALIFORNIA INST OF TECH	M M AVERNER	ARC	E V ROTENBERG	NAG 2 1370	42
51	CALIFORNIA INST OF TECH	M M AVERNER	ARC	M BRONNER-FRASER	NAG 2 1346	42
51	CALIFORNIA INST OF TECH	M MEYER	GSFC	G BLAKE	NAG 5 8822	45
51	CASE WESTERN RESERVE UNIV	D REISS-BUBENHEIM	ARC	S J MOORMAN	NCC 2 1204	407
51	CASE WESTERN RESERVE UNIV	M M AVERNER	ARC	S J MOORMAN	NAG 2 1356	405
51	COLORADO STATE UNIV	D F BLAKE	ARC	M CRISWELL	NCC 2 1268	122
51	COLUMBIA UNIV	M M AVRENER	ARC	D J WOLGEMUTH	NAG 2 1345	369
51	CORNELL UNIV	B GUYNES	MSFC	R THORNE	NAG 8 1574	380
51	CORNELL UNIV	R K GLOBUS	ARC	M C VAN DER MEULEN	NCC 2 1201	380
51	CREIGHTON UNIV	M M AVERNER	ARC	B FRITSZCH	NAG 2 1353	340
51	DARTMOUTH COLLEGE	H K HIGGINBOTTAM	MSFC	U J GIBSON	NAG 8 1590	344
51	DARTMOUTH COLLEGE	M M AVERNER	ARC	K PETERSON	NAG 2 1420	343
51	DELAWARE STATE UNIV	D MENCHAN	GSFC	G OFOSU	NAG 5 8240	149
51	DREXEL UNIV	D RISIN	JSC	P LELKE	NCC 9 130	441
51	DREXEL UNIV	H SHAW	GSFC	M A WHEATLEY	NAG 5 11340	440
51	DREXEL UNIV	M M AVERNER	ARC	P I LELKES	NAG 2 1436	440
51	DUKE UNIV	B GUYNES	MSFC	W E KRAUS	NAG 8 1581	395
51	DUKE UNIV	C M WINGET	ARC	P ANDERSON	NAG 2 1002	394
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51	EAST CAROLINA UNIV	A E RONCA	ARC	H W BURDEN	NCC 2 1165	396

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51	FLORIDA INST OF TECH	B GUYNES	MSFC	C HELMSTALTER	NAG 8 1582	165
51	FLORIDA STATE UNIV	M A MEYER	GSFC	D FRIEDMANN	NAG 5 4921	167
51	GEORGIA INST OF TECH	M M AVERNER	ARC	H JO	NAG 2 1431	182
51	HARVARD UNIV	G A SOFFEN	GSFC	C CAVANAUGH	NGT 5 101	285
51	HARVARD UNIV	M A MEYER	GSFC	D D HOLLAND	NAG 5 4174	283
51	HARVARD UNIV	M M AVERNER	ARC	N M HOLBROOK	NAG 2 1417	282
51	HARVARD UNIV	M M AVERNER	ARC	N WANG	NAG 2 1509	282
51	HARVARD UNIV	M MEYER	GSFC	C M CAVANAUCH	NAG 5 10906	285
51	HOWARD UNIV	L PUTCHA	JSC	M W COOMES	NAG 9 977	155
51	INDIANA UNIV	A NURRIDIN	HQ	R L DUCN	NGT 5 50203	215
51	INDIANA UNIV	B GUYNES	MSFC	C M TRAYCOFF	NAG 8 1586	215
51	INDIANA UNIV - BLOOMINGTON	A E RONCA	ARC	J R ALBERTS	NAG 2 1449	215
51	JUDSON COLLEGE-ELGIN ILLINOIS	M M AVERNER	ARC	E A JUERGENSMAYER	NAG 2 1512	200
51	KANSAS STATE UNIV	W E HINDS	ARC	S K CHAPES	NAG 2 1274	228
51	KENT STATE UNIV	M M AVERNER	ARC	L G LEFF	NAG 2 1497	412
51	LOUISIANA STATE UNIV - BATON ROUGE	C M WINGET	ARC	M E MUSGRAVE	NAG 2 1020	233
51	LOUISIANA STATE UNIV - BATON ROUGE	L E BEBOUT	ARC	J R BATTISTA	NAG 2 1460	233
51	LOUISIANA STATE UNIV - BATON ROUGE	M M AVERNER	ARC	V J LICATA	NAG 2 1511	233
51	LOUISIANA STATE UNIV - BATON ROUGE	M MEYYAPPAN	ARC	P VASHISTA	NCC 2 5440	235
51	MARSHALL UNIV	M M AVERNER	ARC	W B RHOTEN	NAG 2 1194	544
51	MASSACHUSETTS INST OF TECH	M M AVERNER	ARC	A L DEMAIN	NAG 2 1350	288
51	MASSACHUSETTS INST OF TECH	N R PELLIS	JSC	L E FREED	NAG 9 836	296
51	MASSACHUSETTS INST OF TECH	N R PELLIS	JSC	L FREED	NCC 8 174	299
51	MEDICAL COLLEGE OF GEORGIA	M M AVERNER	ARC	P L MCNEIL	NAG 2 1416	188
51	MEDICAL COLLEGE OF WISCONSIN	R D MACELROY	ARC	D A RILEY	NAG 2 1422	546
51	MEDICAL COLLEGE OF WISCONSIN	W E HINDS	ARC	D A RILEY	NAG 2 956	546
51	MEDICAL UNIV OF SOUTH CAROLINA	M M AVERNER	ARC	S HOFFMAN	NAG 2 1415	465
51	MIAMI UNIV	C M WINGET	ARC	J Z KISS	NAG 2 1017	413
51	MIAMI UNIV	D REISS-BUBENHEIM	ARC	J Z KISS	NCC 2 1200	413
51	MICHIGAN STATE UNIV	B GUYNES	GSFC	L R MCCABE	NAG 8 1575	307
51	MISSISSIPPI STATE UNIV	B GUYNES	MSFC	W W WILSON	NAG 8 1837	327
51	MISSISSIPPI STATE UNIV	B V GUYNES	MSFC	W W WILSON	NAG 8 1566	327
51	MONTANA STATE UNIV	M F VASQUES	ARC	B H PYLE	NCC 2 1143	337
51	MONTANA STATE UNIV	M T FLYNN	ARC	B H PYLE	NCC 2 5277	338
51	MOREHOUSE SCH MED	M M AVERNER	ARC	B J KLEMENT	NAG 2 1215	189
51	MOREHOUSE SCH MED	S M HING	ARC	G SONNENFELD	NCC 2 1262	189
51	MT SINAI SCH OF MED OF THE CUNY	C LLOYD	JSC	M SCHAFFLER	NAG 9 1097	383
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51	MT SINAI SCH OF MED OF THE CUNY	W E HINDS	ARC	G R HOLSTEIN	NAG 2 946	382
51	NEW MEXICO HIGHLANDS UNIV	D S MCKAY	JSC	J C DEBACA	NAG 9 1168	361
51	NY UNIV	MM AVERNER	ARC	K D WALTON	NAG 2 1426	383
51	NY UNIV	W E HINDS	ARC	K D WALTON	NAG 2 951	383
51	NORTH CAROLINA STATE UNIV	J LETCHWORTH	KSC	D S BROWN	NAG10 308	401
51	NORTH CAROLINA STATE UNIV	M M AVERNER	ARC	I Y PERERA	NAG 2 1502	400
51	NORTHERN ARIZONA UNIV	M L FONDA	ARC	J H WITTKE	NCC 2 5356	25
51	OHIO STATE UNIV	M M AVERNER	ARC	M L EVANS	NAG 2 1411	413
51	OREGON HEALTH SCIENCES UNIV	M M AVERNER	ARC	M V DANILCHIK	NAG 2 1199	431
51	OREGON STATE UNIV	M M AVERNER	ARC	T L LOMAX	NAG 2 1341	431
51	PENN STATE UNIV	M M AVERNER	ARC	D J COSGROVE	NAG 2 1342	442
51	PENN STATE UNIV	M M AVERNER	ARC	S G GILROY	NAG 2 1366	442
51	PURDUE UNIV	C A CONLEY	ARC	C A MITCHELL	NGT 2 52285	220
51	PURDUE UNIV	L KARR	MSFC	J MORRE	NAG 8 1147	219
51	PURDUE UNIV	M M AVERNER	ARC	D J MORRE	NAG 2 1344	216
51	PURDUE UNIV	R MACELROY	ARC	C MITCHELL	NAG 2 1389	217
51	RENSSELAER POLYTECH INST	M MEYER	GSFC	D P FERRIS	NAG 5 4557	384
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51	RUTGERS STATE UNIV OF NJ NEW BRUNS	K DAUES	JSC	L KERKHOF	NAG 9 1283	359
51	SAN FRANCISCO STATE UNIV	N D SEARBY	ARC	S WEINSTEIN	NCC 2 1277	55
51	SAN JOSE STATE UNIV	K W CULLINGS	ARC	C A BRINEGAR	NCC 2 5311	57
51	SAN JOSE STATE UNIV	N G DAUNTON	ARC	R A FOX	NCC 2 1096	56
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51	STANFORD UNIV	R M WHEELER	KSC	C S CRIDDLE	NGT10 52619	67
51	STATE UNIV OF NY - STONY BROOK	C HUA SU	MSFC	M DUDLEY	NCC 8 208	391
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51	STATE UNIV OF NY - STONY BROOK	M M AVERNER	ARC	M HADJARYROU	NAG 2 1517	388
51	STATE UNIV OF NY COL - PURCHASE	M A MEYER	GSFC	D J FLYNN	NAG 5 4691	391
51	STATE UNIV OF NY COL	D A QUINN	GSFC	G R WILSKY	NGT 8 52861	392
51	TEXAS A&M UNIV	M ANDERSON	JSC	G COTE	NCC 8 169	484
51	TEXAS A&M UNIV	M F VASQUES	ARC	M D DELP	NCC 2 1166	483
51	TEXAS A&M UNIV	M M AVERNER	ARC	M D DELP	NAG 2 1340	480
51	TEXAS CHRISTIAN UNIV	B L GUYNES	MSFC	J G ALBRIGHT	NAG 8 1356	485
51	THE UNIV OF CENTRAL FLORIDA	C QUINCY	KSC	J F WEISHAMPTEL	NAG10 278	170
51	THOMAS JEFFERSON UNIV	D RISEN	JSC	A FERTALA	NAG 9 1342	452
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51	TULANE UNIV	M M AVERNER	ARC	C A NICKERSON	NAG 2 1378	237
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51	UNIV HOUSTON-HOUSTON	R E GRINDELAND	ARC	A C VAILAS	NAG 2 1284	486
51	UNIV OF MARYLAND	B L WOOD	ARC	R R COLWELL	NAG 2 1195	255
51	UNIV OF MASSACHUSETTS	M M AVERNER	ARC	P J MACCAFFERY	NAG 2 1438	301
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51	UNIV OF MED AND DENTISTRY	M M AVERNER	ARC	R S NOWAKOWSKI	NAG 2 1367	360
51	UNIV OF MINN	B GUYNES	MSFC	W S HU	NAG 8 1349	323
51	UNIV OF TEXAS MED BRAN - GALVESTON	B PALOSKI	JSC	G KAUFMAN	NCC 9 123	488
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51	UNIV OF TEXAS MED BRAN - GALVESTON	C M WINGET	ARC	D NIessel	NCC 2 1160	488
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51	UNIV	B V GUYNES	MSFC	E A GRIMM	NAG 8 1570	489
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51	UNIV	C W LLOYD	JSC	J WEINDER	NGT 9 46	490
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51	UNIV	M M AVERNER	ARC	M E MARSH	NAG 2 1498	489
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51	UNIV OF ALABAMA - BIRMINGHAM	M M AVERNER	ARC	V D DARLEY-USMAR	NAG 2 1348	5
51	UNIV OF ALABAMA - BIRMINGHAM	T OWEN	MSFC	L J DELUCAS	NCC 8 172	6
51	UNIV OF ALABAMA - HUNTSVILLE	A E RONCA	ARC	R F EATON	NGT 2 52283	14
51	UNIV OF ALABAMA - HUNTSVILLE	B GUYNES	MSFC	R J NAVMANN	NAG 8 1577	12
51	UNIV OF ALABAMA - HUNTSVILLE	C R TALLEY	MSFC	F ROSENBERGER	NAG 8 1354	11
51	UNIV OF ALABAMA - HUNTSVILLE	H K HIGGINBOTHAM	MSFC	P G VEKILOV	NAG 8 1790	12
51	UNIV OF ALABAMA - HUNTSVILLE	M L PUSEY	MSFC	J D NG	NCC 8 203	13
51	UNIV OF ALABAMA - UNIV	M M AVERNER	ARC	J M O	NAG 2 1499	15
51	UNIV OF ARIZONA	M M AVERNER	ARC	D DELUCA	NAG 2 1369	25
51	UNIV OF ARIZONA	M M AVERNER	ARC	M E TISCHER	NAG 2 1187	25
51	UNIV OF ARIZONA	R S BAIRD	JSC	K R SRIDHAR	NAG 9 923	37
51	UNIV OF CALIFORNIA - BERKELEY	C MCKAY	ARC	R ADMUNDSON	NCC 2 5455	76
51	UNIV OF CALIFORNIA - BERKELEY	M M AVERNER	ARC	D A WEISBLAT	NAG 2 1359	68
51	UNIV OF CALIFORNIA - BERKELEY	M M AVERNER	ARC	J C GERHART	NAG 2 1361	68
51	UNIV OF CALIFORNIA - BERKELEY	M M AVERNER	ARC	L J FELDMAN	NAG 2 1351	68
51	UNIV OF CALIFORNIA - DAVIS	E M HOLTON	ARC	C A FULLER	NCC 2 1271	82
51	UNIV OF CALIFORNIA - DAVIS	M M AVERNER	ARC	B A HORWITZ	NAG 2 1494	80
51	UNIV OF CALIFORNIA - DAVIS	M M AVERNER	ARC	C A FULLER	NAG 2 1451	80
51	UNIV OF CALIFORNIA - DAVIS	R D MACELROY	ARC	T M HOBAN-HIGGINS	NAG 2 1404	80
51	UNIV OF CALIFORNIA - DAVIS	W E HINDS	ARC	B CHAPMAN	NAG 2 1019	79
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51	UNIV OF CALIFORNIA - IRVINE	C W LLOYD	JSC	R E PURDY	NAG 9 1149	86
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51	UNIV OF CALIFORNIA - SANTA CRUZ	B N BEBOUT	ARC	J P ZEHR	NCC 2 5370	114
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51	UNIV OF CALIFORNIA - SANTA CRUZ	M KLASS	ARC	G MILLHAUSER	NCC 2 5358	114
51	UNIV OF CALIFORNIA - SANTA CRUZ	M L FONDA	ARC	A KANAVARIOTI	NCC 2 5367	114
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51	UNIV OF CHICAGO	R D MAC-ELROY	ARC	N H PATEL	NAG 2 6050	204
51	UNIV OF COLORADO - BOULDER	D REISS-BEBENHEIM	ARC	L STODIECK	NCC 2 5391	139
51	UNIV OF COLORADO - BOULDER	M KLASS	ARC	G HEYENGA	NCC 2 1145	139
51	UNIV OF CONNECTICUT	B M BEBOUT	ARC	P T VISSCHER	NCC 2 1067	145
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51	UNIV OF HAWAII AT MANOA - HONOLULU	M M AVERNER	ARC	M Q MARTINDALE	NAG 2 1374	191
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51	UNIV OF MARYLAND - COLLEGE PARK	D E WALTER	GSFC	L W ADAMS	NAG 5 8678	262
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51	UNIV OF WISCONSIN - MADISON	M M AVERNER	ARC	P H MASSON	NAG 2 1189	547
51	UNIV OF WISCONSIN - MADISON	M M AVERNER	ARC	P H MASSON	NAG 2 1492	547
51	UNIV OF WISCONSIN - MADISON	M M AVERNER	ARC	P MASSON	NAG 2 1336	547
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51	UNIV OF WISCONSIN - MILWAUKEE	D R MORRISON	JSC	P I LELKES	NCC 8 173	555
51	UTAH STATE UNIV	C P MCKAY	ARC	L S POWERS	NCC 2 5466	505
51	WAKE FOREST UNIV	M M AVERNER	ARC	G K MUDAAY	NAG 2 1203	404
51	WAKE FOREST UNIV	M M AVERNER	ARC	G K MUDAY	NAG 2 1507	404
51	WASHINGTON STATE UNIV	M M AVERNER	ARC	N G LEWIS	NAG 2 1513	543
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51	WAYNE STATE UNIV	M M AVERNER	ARC	D A RAPPOLEE	NAG 2 1503	319
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51	WOODS HOLE OCEANOGRAPHIC INST	M MEYER	GSFC	D M HAYES	NAG 5 9422	305
51	YALE UNIV	B GUYNES	MSFC	R E APFEL	NAG 8 1351	148
51	YALE UNIV	D R BUBENHEIM	ARC	H S KESHISHIAN	NAG 2 1433	146
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51	YALE UNIV	M M AVERNER	ARC	R G KALB	NAG 2 1504	146
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54	ARIZONA STATE UNIV	D RISEN	JSC	B C TOWE	NAG 9 1359	23
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54	PENN STATE UNIV	D RUSSO	JSC	M V PISHKO	NAG 9 1372	449
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54	STEVENS INST OF TECH	J GRAF	JSC	G P KORFIATIS	NAG 9 1063	360
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54	UNIV OF ARIZONA	C A DARBY	MSFC	P H SMITH	NAG 8 1654	37
54	UNIV OF ARIZONA	D L PETERSON	ARC	B D GANAPOL	NCC 2 5239	38
54	UNIV OF ARK MAIN CAMP - FAYETTEVILLE	C P MCKAY	ARC	T A KRAL	NGT 2 52243	41
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54	UNIV OF CALIFORNIA - SAN DIEGO	K ARRIGO	GSFC	D LUBIN	NAG 5 6414	98
54	UNIV OF CONNECTICUT	M S BURRELL	GSFC	R COLWELL	NGT 5 82	146
54	UNIV OF FLORIDA	A T LEE	JSC	J J WARWICK	NCC 9 110	175
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55	LOUISIANA STATE UNIV - BATON ROUGE	W M KNOTT	KSC	M E MUSGRAVE	NAG10 139	234
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55	TEXAS A&M UNIV	D G SICKOREZ	JSC	R W WEAVER	NGT 9 34	484
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55	UTAH STATE UNIV	D BARTA	JSC	B BUGBEE	NAG 9 1237	505
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56	COLORADO SCH OF MINES	D RISIN	JSC	D W	NAG 9 1364	119
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56	UNIV OF OKLAHOMA - NORMAN	B WOOLFORD	JSC	R SCHEGEL	NAG 9 1280	430
56	UNIV OF PENNSYLVANIA	B WOOLFORD	JSC	N BADLER	NAG 9 1279	453
56	UNIV OF PENNSYLVANIA	C SAMS	JSC	J R HOYER	NAG 9 1047	453
56	UNIV OF PITTSBURGH	C W LLOYD	JSC	T H MONK	NAG 9 1234	456
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56	UNIV OF SOUTH FLORIDA	D RISEN	JSC	S SAPORTA	NAG 9 1365	179
56	UNIV OF SOUTHERN COLORADO	T T SCHEGEL	JSC	J DEPALMA	NAG 9 1257	144
56	UNIV OF TENNESSEE - KNOXVILLE	G D BADHER	JSC	J NEAL	NAG 9 1269	471
56	UNIV OF TEXAS - AUSTIN	C LLOYD	JSC	R L HELMREICH	NAG 9 1275	496
56	UTAH STATE UNIV	K DAUES	JSC	G BINGHAM	NAG 9 1284	505
56	VIRGINIA COMMONWEALTH UNIV	A LEE	JSC	D ECKBURG	NAS 9 19539	533
59	ALABAMA A&M UNIV	B J COLLINS	ARC	P G KALE	NAG 2 1130	1
59	ARIZONA STATE UNIV	D G SICKCOREZ	JSC	R D SEIDLER	NGT 9 21	24
59	ARIZONA STATE UNIV	R A GRYMES	ARC	J D FARMER	NCC 2 1051	23
59	ARIZONA STATE UNIV	R V MORRIS	JSC	P R CHRISTENSON	NAG 9 1331	23
59	BAYLOR COLLEGE OF MED	C LLOYD	JSC	C SMITH	NAG 9 1253	474
59	BAYLOR COLLEGE OF MED	F A CUCINOTTA	JSC	L E PETERSON	NAG 9 1052	474
59	BAYLOR COLLEGE OF MED	L SHACKE	JSC	A LEBLANC	NAG 9 1133	474
59	BRANDEIS UNIV	C W LLOYD	JSC	J LACKNER	NAG 9 1037	281
59	BRANDEIS UNIV	C W LLOYD	JSC	J LACKNER	NAG 9 1038	281
59	BRANDEIS UNIV	V SCHNEIDER	GSFC	D LACKNER	NAG 5 6100	281
59	CALIFORNIA INST OF TECH	P DOTY	MSFC	W K RHIM	NAG 8 1743	48
59	CALIFORNIA INST OF TECH	P DOTY	MSFC	W L JOHNSON	NAG 8 1744	48
59	COLORADO STATE UNIV	S POTTER	ARC	G R COULTER	NCC 2 1099	122
59	COLORADO STATE UNIV	W M KNOTT	KSC	A N REDDY	NAG10 234	122
59	COLUMBIA UNIV	F A CUCINOTTA	JSC	E J HALL	NAG 9 1148	373
59	CORNELL UNIV	H W JONES	ARC	J B HUNTER	NCC 2 5459	380
59	CORNELL UNIV	M P AVERNER	GSFC	R WAYNE	NAG 5 6437	377
59	EAST TENNESSEE STATE UNIV	B GUYNES	MSFC	L WILSON	NAG 8 1375	467
59	FINCH UNIV HEALTH SCIENCES	B GUYNES	MSFC	R S KAPLAN	NAG 8 1827	200
59	HARVARD UNIV	R A GRYMES	ARC	A H KNOLL	NCC 2 1053	285
59	HARVARD UNIV	W J WAGNER	GSFC	D H PARKINSON	NAG 5 6554	283
59	INDIANA UNIV	L SMITH	GSFC	F PAVALKO	NGT 5 50291	215
59	IOWA STATE UNIV	D JAN	JPL	M D PORTER	NAG 9 1191	223
59	JOHNS HOPKINS UNIV	J A KAYE	GSFC	J YEE	NAG 5 7552	243
59	LOUISIANA STATE UNIV - BATON ROUGE	D L DEVINCENZI	ARC	J R BATTISTA	NAG 2 1320	233
59	MARQUETTE UNIV	D BAUMANN	JSC	D L COSTILL	NCC 9 116	546
59	MARQUETTE UNIV	V ELLERBEE	JSC	R H FITTS	NAS 9 18768	546
59	MASSACHUSETTS INST OF TECH	D K BAUMAN	JSC	C M OMAN	NAS 9 00097	297
59	MASSACHUSETTS INST OF TECH	J DETROVE	JSC	C M OMAN	NAG 9 1004	296
59	MASSACHUSETTS INST OF TECH	V SCHNEIDER	GSFC	R COHEN	NAG 5 4989	290
59	MOREHOUSE SCH MED	B LUNA	ARC	G L SANFORD	NGT 2 52239	189
59	MOREHOUSE SCH MED	B LUNA	ARC	G SONNENFELD	NAG 2 6029	189
59	MOREHOUSE SCH MED	C SAMS	JSC	K DUTT	NAG 9 1164	189
59	MT SINAI SCH OF MED OF THE CUNY	M E ANDERSON	JSC	S MOORE	NCC 9 128	383
59	MT SINAI SCH OF MED OF THE CUNY	V SCHNEIDER	GSFC	H KAUFMANN	NAG 5 6276	382
59	NORTH CAROLINA STATE UNIV	D P LISKOWSKY	GSFC	E DAVIES	NAG 5 3743	400
59	NORTHEASTERN OHIO UNIV COL OF MED	M M AVERNER	GSFC	W J LANDIS	NAG 5 7789	413
59	NORTHEASTERN UNIV	P DOTY	MSFC	A KARMA	NAG 8 1668	300
59	OHIO STATE UNIV	B J WOOLFORD	JSC	D D WOODS	NAG 9 1005	417
59	OHIO STATE UNIV	R MORRIS	JSC	J BIGHAM	NGT 9 51	419
59	OHIO UNIV	J M ORASANU	ARC	C E MCCOY	NCC 2 827	420

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59	PENN STATE UNIV	C LLOYD	JSC	J A PAWELCZYK	NAG 9 1173	449
59	PENN STATE UNIV	M AVERNER	GSFC	N V FEDOROFF	NAG 5 3970	444
59	PENN STATE UNIV	M AVERNER	GSFC	R CYR	NAG 5 4840	444
59	PENN STATE UNIV	R A GRYMES	ARC	H OHMOTO	NCC 2 1057	450
59	RICE UNIV	D LASKOWSKY	GSFC	L MCINTIRE	NAG 5 4072	477
59	RUTGERS ST UNIV N	G FOGLEMAN	GSFC	H JANES	NAG 5 6011	357
59	SAN FRANCISCO STATE UNIV	A PLAZA	JSC	D PALMER	NAS 9 19410	55
59	SAN JOSE STATE UNIV	H L D'ANTONI	ARC	E P METZGER	NCC 2 5344	57
59	SAN JOSE STATE UNIV	R D MACELROY	ARC	M M AVERNER	NCC 2 6042	58
59	SOUTHERN UNIV & A&M COLLEGE	G J FISHMAN	MSFC	J G STACY	NAG 8 1625	236
59	SPELMAN COLLEGE	D O FRAIZER	MSFC	O SCRIVEN	NCC 8 194	190
59	STANFORD UNIV	A JANETOS	GSFC	P MATSON	NAG 5 6615	61
59	STANFORD UNIV	R T WHALEN	ARC	B LUSIGNAN	NGT 2 52246	66
59	STATE UNIV OF NY - ALBANY	K HIGGINBOTHAN	MSFC	W M GIBSON	NCC 8 125	387
59	STATE UNIV OF NY - STONY BROOK	V SCHNEIDER	GSFC	C T RUBIN	NAG 5 3950	389
59	TENNESSEE TECHNOLOGICAL UNIV	D HATHAWAY	MSFC	S HAN	NAG 8 1631	469
59	TEXAS A&M UNIV	M A SHEPANEK	GSFC	M D DELP	NAG 5 3754	481
59	TEXAS TECH UNIV	D L HENNINGER	JSC	J L SMITH	NCC 9 108	486
59	THE SCRIPPS REASERCH INST	L J CAROFF	ARC	R GHADIRI	NCC 2 1055	67
59	THE UNIV OF CENTRAL FLORIDA	C D QUINCY	KSC	D W JOHNSON	NAG10 276	170
59	TUFTS UNIV	D JAN	JPL	S P KOUNAVES	NAG 9 1182	301
59	TUSKEGEE UNIV	P X CALLAHAN	ARC	W A HILL	NAG 2 6049	4
59	TUSKEGEE UNIV	R WHEELER	KSC	D MARTLEY	NAG10 209	5
59	TUSKEGEE UNIV	S POTTER	KSC	D HILL	NAG10 281	5
59	UNIV HOUSTON-HOUSTON	C W LLOYD	JSC	D A MARTINEZ	NAG 9 1152	487
59	UNIV OF TEXAS MED BRAN - GALVESTON	R BILLICA	JSC	J R DAVIS	NCC 9 81	488
59	UNIV OF TEXAS	A M LEE	JSC	C G BLOMQVIST	NAS 9 19429	489
59	UNIV OF TEXAS	V SCHNEIDER	GSFC	B LEVINE	NAG 5 4846	489
59	UNIV OF TX-HLTH SCI CTR-SAN ANTONIO	W M KNOTT	KSC	M L WIEDERHOLD	NAG10 180	488
59	UNIV	J MECK	JSC	R F LODATO	NCC 9 103	490
59	UNIV	M AVERNER	GSFC	D ROWE	NAG 5 6316	144
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59	UNIV OF ALABAMA - BIRMINGHAM	D K COLLINS	MSFC	L J DELUCAS	NAS 8 40189	6
59	UNIV OF ALABAMA - HUNTSVILLE	P M DOTY	MSFC	M T ZUGRAV	NAG 8 1456	11
59	UNIV OF ALABAMA - HUNTSVILLE	P M DOTY	MSFC	R J NAUMANN	NAG 8 1464	11
59	UNIV OF ALABAMA - HUNTSVILLE	S SPEARMAN	MSFC	F ROSENBERGER	NCC 8 99	13
59	UNIV OF ARIZONA	R WHEELER	KSC	J L CUENLO	NAG10 255	37
59	UNIV OF CALIFORNIA - BERKELEY	A C JANETOS	GSFC	T L BENNING	NAG 5 6593	70
59	UNIV OF CALIFORNIA - DAVIS	R E GRINDELAND	ARC	C A FULLER	NAG 2 1265	80
59	UNIV OF CALIFORNIA - DAVIS	V SCHNEIDER	GSFC	D MURAKAMI	NAG 5 6440	80
59	UNIV OF CALIFORNIA - IRVINE	A POHORILLE	ARC	J K LANYI	NCC 2 5333	86
59	UNIV OF CALIFORNIA - IRVINE	S ROBBINS	MSFC	A MCPHERSON	NAS 8 00017	86
59	UNIV OF CALIFORNIA - IRVINE	S ROBBINS	MSFC	A MCPHERSON	NAS 8 00019	86
59	UNIV OF CALIFORNIA - IRVINE	S ROBBINS	MSFC	A MCPHERSON	NAS 8 39763	86
59	UNIV OF CALIFORNIA - LOS ANGELES	R A GRYMES	ARC	B RUNNEGAR	NCC 2 1050	94
59	UNIV OF CALIFORNIA - SAN DIEGO	G ASRAR	GSFC	R GOERICKE	NGT 5 30122	104
59	UNIV OF CALIFORNIA - SAN DIEGO	J MECK	JSC	M G ZEIGLER	NCC 9 106	104
59	UNIV OF CALIFORNIA - SAN DIEGO	M AVERNER	GSFC	J A FRANGOS	NAG 5 4648	97
59	UNIV OF CALIFORNIA - SAN DIEGO	P MOUNTJOY	GSFC	P J MILLS	NCC 9 105	104
59	UNIV OF CALIFORNIA - SAN DIEGO	S M MCCULLUM	JSC	J B WEST	NAS 9 98124	103
59	UNIV OF CALIFORNIA - SAN FRANCISCO	M H NEW	ARC	M A WILSON	NCC 2 5295	105
59	UNIV OF CALIFORNIA - SANTA BARBARA	C LLOYD	JSC	M ECKSTIEN	NAG 9 1329	109
59	UNIV OF CALIFORNIA - SANTA CRUZ	M FONDA	ARC	J PEARSE	NCC 2 5351	114
59	UNIV OF COLORADO - BOULDER	M AVERNER	GSFC	A STAHELIN	NAG 5 3967	125
59	UNIV OF COLORADO - BOULDER	R A GRYMES	ARC	B JAKOSKI	NCC 2 1052	139
59	UNIV OF COLORADO - BOULDER	S J LAMBING	MSFC	G MORGENTHALER	NCC 8 131	140
59	UNIV OF FLORIDA	A L FROST	MSFC	B CARROLL	NAG 8 1821	174
59	UNIV OF GEORGIA	C KUNDROT	MSFC	B WANG	NCC 8 233	191
59	UNIV OF HOUSTON - CLEAR LAKE	M POWELL	JSC	R S CHHIKARA	NAG 9 1083	490
59	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	J R ROGERS	MSFC	C F ZOKOSKI	NAG 8 1376	212
59	UNIV OF IOWA	L SMITH	GSFC	C V GISOLFI	NGT 5 50156	227
59	UNIV OF KENTUCKY	D JAN	GSFC	C A GRIMES	NAG 5 4594	231
59	UNIV OF MARYLAND - COLLEGE PARK	L P CHAMBERS	GSFC	S I SUKHAVREV	NAG 5 6526	259
59	UNIV OF MISSOURI - COLUMBIA	M AVERNER	GSFC	T A JONES	NAG 5 4607	330

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59	UNIV OF NORTH TEXAS HLTH SCI	V SCHNEIDER	GSFC	M SMITH	NAG 5 3744	491
59	UNIV OF NORTH TEXAS HLTH SCI	V SCHNEIDER	GSFC	P B RAVEN	NAG 5 4668	491
59	UNIV OF PENNSYLVANIA	C W LLOYD	JSC	H VAN D	NAG 9 1161	453
59	UNIV OF PENNSYLVANIA	D RISEN	JSC	L M SHAPIRO	NAG 9 1357	453
59	UNIV OF PITTSBURGH	C W LLOYD	JSC	T H MONK	NAG 9 1036	455
59	UNIV OF PUERTO RICO - MAYAGUEZ	J SAYER	KSC	G COLON	NAG10 257	557
59	UNIV OF ROCHESTER	C TALLEY	MSFC	D WU	NAG 8 1382	394
59	UNIV OF SOUTHERN CALIFORNIA	B J WOOLFORD	JSC	U NEUMANN	NAG 9 1165	118
59	UNIV OF TENNESSEE - KNOXVILLE	F A CUCINOTTA	JSC	L W TOWNSEND	NAG 9 1123	471
59	UNIV OF TENNESSEE - KNOXVILLE	G BADHWAR	JSC	J S NEAL	NAG 9 1121	471
59	UNIV OF TEXAS - EL PASO	A R ROCHA	JSC	L E MURR	NAG 9 1100	500
59	UNIV OF UTAH	W SHIMMERLING	GSFC	R WARTERS	NAG 5 4452	502
59	UNIV OF VIRGINIA	B Q GUYNES	MSFC	M C WIENER	NAG 8 1832	526
59	UNIV OF WASHINGTON	M AVERNER	GSFC	D CLELAND	NAG 5 6328	536
59	UNIV OF WISCONSIN - LA CROSSE	J D SMITH	ARC	S O SINGER	NCC 2 1163	547
59	UNIV OF WISCONSIN - MADISON	B WOOLFORD	JSC	B S CALDWELL	NAG 9 1008	553
59	UNIV OF WISCONSIN - MADISON	C LLOYD	KSC	D SCHOELLER	NAG 9 1039	553
59	UNIV OF WYOMING	C LUNDQUIST	GSFC	R E GANTENBEIN	NAG 9 1176	556
59	UTAH STATE UNIV	R WHEELER	KSC	P GROSSEL	NGT10 52617	506
59	VANDERBILT UNIV	R GRUGEL	MSFC	A V ANIKUMER	NAG 8 1745	472
59	WASHINGTON STATE UNIV	M AVERNER	GSFC	B POOVAIAH	NAG 5 4841	543
59	WASHINGTON UNIV - ST	C SAWIN	GSFC	D E ANGELAKI	NAG 5 8194	334
59	WRIGHT STATE UNIV	R J WILLIAMS	GSFC	S R MOHLER	NGT 5 30091	428
61	CLEVELAND STATE UNIV	B GUYNES	MSFC	J M BELOVICH	NAG 8 1584	410
61	DREXEL UNIV	H SHAW	GSFC	P LELKES	NAG 9 1380	440
61	MOREHOUSE COLLEGE	R RICHMOND	MSFC	G L SANFORD	NAG 8 1636	188
61	OLD DOMINION UNIV	A T POPE	LARC	F G FREEMAN	NGT 1 52219	521
61	OLD DOMINION UNIV	A T POPE	LARC	G D COATES	NGT 1 52220	521
61	RUTGERS STATE UNIV OF NJ NEW BRUNS	J B HARTLEY	GSFC	Z KOLBER	NAS 5 99138	359
61	STANFORD UNIV	R W REMINGTON	ARC	J E GABRIELI	NCC 2 5261	64
61	TEXAS WOMAN	R SAULSBERRY	JSC	N E MEAGHER	NAG 9 1192	486
61	UNIV HOUSTON-HOUSTON	D HARM	JSC	R B LOFTIN	NCC 9 57	487
61	UNIV OF MICHIGAN - ANN ARBOR	C LLOYD	JSC	G L AMIDON	NAG 9 1154	316
61	UNIV OF PITTSBURGH	B GUYNES	MSFC	X L WU	NAG 8 1587	455
61	UNIV OF TENNESSEE - KNOXVILLE	A NURRIDIN	HQ	G SAYLER	NGT 5 50206	471
62	FLORIDA A&M UNIV	R MCKINNEY	KSC	B MCCUNE	NAG10 248	164
62	HERITAGE COLLEGE	R TRAVIS	SSC	J W FALCO	NAG13 99027	533
62	OLD DOMINION UNIV	P C SCHUTTE	LARC	A A FINK	NGT 1 52221	521
62	OLD DOMINION UNIV	P C SCHUTTE	LARC	D DAVIS	NAG 1 2101	515
62	OLD DOMINION UNIV	P C SHUTTE	LARC	A FITZGIBBONS	NGT 1 52193	520
62	OLD DOMINION UNIV	P C SHUTTE	LARC	D D DAVIS	NAG 1 2303	516
62	SANTA CLARA UNIV	B G KANKI	ARC	J C TAYLOR	NCC 2 1025	58
62	SANTA CLARA UNIV	B KANKI	ARC	J TAYLOR	NCC 2 1156	58
62	TUSKEgee UNIV	D BARTA	JSC	W A HILL	NCC 9 51	5
69	BRADLEY UNIV	L J PRINZEL	LARC	D A MONTGOMERY	NAG 1 2263	200
69	ESTRN VA MED SCH-ESTRN VA MED AUTH	A T POPE	LARC	O S PALSSON	NCC 1 310	509
69	GEORGE MASON UNIV	S M CASNER	ARC	D B DAVIS	NAG 2 1289	509
69	GEORGIA INST OF TECH	J M ORASANU	ARC	U M FISCHER	NCC 2 1124	186
69	GEORGIA INST OF TECH	N AVAILABLE	LARC	N AVAILABLE	NCA 1 163	185
69	MASSACHUSETTS INST OF TECH	S C LOZITO	ARC	R J HANSMAN	NAG 2 1299	287
69	MASSACHUSETTS INST OF TECH	S C LOZITO	ARC	T B SHERIDAN	NAG 2 729	287
69	MISSISSIPPI STATE UNIV	M R ENDSLEY	LARC	D B KABER	NAG 1 2295	327
69	NY UNIV	A J AHUMADA	ARC	M LANDY	NCC 2 5417	383
69	NORTH CAROLINA STATE UNIV	I BARSHI	ARC	D H MERSHON	NAG 2 1281	400
69	NORTH CAROLINA STATE UNIV	L J PRINZEL, III	LARC	D KABER	NGT 1 01004	401
69	NORTH CAROLINA STATE UNIV	L J PRINZEL	LARC	D KABER	NAG 1 01039	399
69	NORTHWESTERN UNIV	B G KANKI	ARC	E J CZEPIEL	NCC 2 1098	203
69	OHIO STATE UNIV	J M ORASANU	ARC	C E MCCOY	NCC 2 1130	418
69	OHIO UNIV	J M ORASANU	ARC	C E MCCOY	NCC 2 1030	420
69	OHIO UNIV	J ORASANU	ARC	C E MCCOY	NCC 2 1258	420
69	OLD DOMINION UNIV	A T POPE	LARC	F G FREEMAN	NCC 1 364	518
69	OLD DOMINION UNIV	A T POPE	LARC	M W SCERBO	NAG 1 2254	516
69	OLD DOMINION UNIV	A T POPE	LARC	T L DICKINSON	NAG 1 2252	516
69	OLD DOMINION UNIV	I BARSHI	ARC	D S MCNAMARA	NAG 2 1319	517

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69	OLD DOMINION UNIV	L J PRINZEL	LARC	F G FREEMAN	NCC 1 01012	519
69	OLD DOMINION UNIV	L J PRINZEL	LARC	F G FREEMAN	NGT 1 52231	521
69	OLD DOMINION UNIV	P C SCHUTTE	LARC	D D DOVES	NGT 1 01021	520
69	OLD DOMINION UNIV	P C SCHUTTE	LARC	M MIHALECZ	NGT 1 52230	521
69	OREGON GRADUATE INST OF SCI & TECH	A J AHUMADA	ARC	M PAVEL	NCC 2 1190	430
69	OREGON GRADUATE INST OF SCI & TECH	B L BEARD	ARC	M PAVEL	NCC 2 1215	430
69	PENN STATE UNIV	L J PRINZEL	LARC	W J RAY	NAG 1 2273	442
69	RICE UNIV	B L BEARD	ARC	M BYRNE	NCC 2 1219	478
69	SAN FRANCISCO STATE UNIV	J M ORASANU	ARC	K L MOSIER	NAG 2 1285	55
69	SAN JOSE STATE UNIV	R K DISMUKES	ARC	K P JORDAN	NCC 2 798	56
69	TEXAS TECH UNIV	J BREDEKAMP	GSFC	P R DELUCIA	NCC 2 5257	485
69	THE CATHOLIC UNIV OF AMERICA	L J PRINZEL	LARC	R PARASURAMAN	NAG 1 01066	156
69	THE CATHOLIC UNIV OF AMERICA	P C SHUTTE	LARC	S M GALSTER	NGT 1 52190	161
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69	UNIV OF ARKANSAS - LITTLE ROCK	C SAWIN	JSC	P A TESCH	NAG 9 1061	40
69	UNIV OF CALIFORNIA - IRVINE	J MULLIGAN	ARC	T M DZMURA	NCC 2 5378	86
69	UNIV OF COLORADO - BOULDER	I BARSHI	ARC	A F HEALY	NCC 2 1112	139
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69	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	B BEARD	ARC	C D WICKENS	NCC 2 1214	213
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69	UNIV OF OREGON - EUGENE	I BARSHI	ARC	R MAURO	NCC 2 1089	435
69	UNIV OF VIRGINIA	M K KAISER	ARC	D R PROFFITT	NCC 2 1093	527
69	UNIV OF WASHINGTON	R A HOFFMAN	GSFC	G K PARKS	NAG 5 3170	535
69	UNIV OF WEST FLORIDA	D C FOYLE	ARC	D L STILL	NAG 2 1225	179
69	UNIV OF WEST FLORIDA	J DEMAO	ARC	A K RAJ	NAG 2 1490	180
69	UNIV OF WISCONSIN - MADISON	E M WENZEL	ARC	F L WIGHTMAN	NCC 2 542	554
69	WRIGHT STATE UNIV	A NURRIDIN	HQ	R H GILKEY	NGT 5 50213	428
73	SOUTHWEST TEXAS STATE UNIV	W A LARSEN	JSC	K MARGERISON	NCC 9 54	480
75	UNIV OF MARYLAND - COLLEGE PARK	J BOYCE	HQ	L MUKHIN	NASW 00028	269
79	ALBANY STATE UNIV	R J MCKINNEY	KSC	D HODGES-TILLER	NAG10 265	180
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79	GEORGE MASON UNIV	R H THOMAS	GSFC	B HAACK	NAG 5 4140	509
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79	MIAMI-DADE COMM COLLEGE	D CULBERTSON	KSC	E J PADRON	NAG10 282	169
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79	UNIV OF MICHIGAN - ANN ARBOR	J F DOWDY	MSFC	H T WRIGHT	NGT 8 52864	319
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99	ALABAMA A&M UNIV	C PERSON	GSFC	A MANU	NAG 5 9885	1
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99	ALCORN STATE UNIV	N SULLIVAN	JSC	D ADDIE	NAG13 98010	326
99	ARIZONA STATE UNIV	A NURRIDIN	HQ	R GREELEY	NGT 5 50077	24
99	ARIZONA STATE UNIV	A TUYAHOV	GSFC	D BOYER	NAG 5 10899	22
99	ARIZONA STATE UNIV	D SENSKY	GSFC	M A PRESLEY	NAG 5 10214	22
99	ARIZONA STATE UNIV	J BOYCE	GSFC	A S MCEWEN	NAG 5 10268	22
99	ARIZONA STATE UNIV	K BLANDING	GSFC	T SHARP	NGT 5 50276	24
99	ARIZONA STATE UNIV	M MEYER	GSFC	P KNAUTH	NAG 5 9430	21
99	ARIZONA STATE UNIV	M MEYER	GSFC	R BLANKENSHIP	NAG 5 10689	22
99	ARKANSAS TECH UNIV	J F DOWDY	MSFC	M CONNOR	NAG 8 1284	40
99	AUBURN UNIV	J E DUDENHOEFER	GRC	D W BRANDHORST	NCC 3 511	3
99	AUBURN UNIV	J HOWELL	MSFC	H BRANDHORST	NAG 8 1617	3
99	BALL STATE UNIV	D WICKLAND	GSFC	A F RAHMAN	NAG 5 11261	214
99	BAY MILLS COMM COLLEGE	M COMBERIETE	GSFC	R DICKINSON	NAG 5 8799	306
99	BAYLOR COLLEGE OF MED	C LLOYD	JSC	B A BRODY	NAG 9 1153	474
99	BETHUNE - COOKMAN COLLEGE	S DUTCZAK	KSC	A LONG	NCC10 55	162
99	BLUEFIELD STATE COLLEGE	M MATHEWS	GSFC	F WOOTEN BLANKS	NAG 5 11072	544
99	BOSTON COLLEGE	W J WAGNER	GSFC	D F WEBB	NAG 5 10833	276
99	BOSTON UNIV	D WICKLAND	GSFC	R B MYNNENI	NAG 5 10156	279
99	BOSTON UNIV	J SHARBER	GSFC	G ERICKSON	NAG 5 9110	278
99	BOSTON UNIV	J SHARBER	GSFC	M MENDILLO	NAG 5 10286	279

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99	BOSTON UNIV	L SMITH	GSFC	L ODDSSON	NGT 5 50309	280
99	BOSTON UNIV	L SMITH	GSFC	M OPPENHEIM	NGT 5 50288	280
99	BOSTON UNIV	L SMITH	GSFC	S KANDARIAN	NGT 5 50307	280
99	BOSTON UNIV	M MELLOTT	GSFC	M OPPENHEIM	NAG 5 9444	279
99	BOSTON UNIV	M WEI	GSFC	C WOODSTOCK	NGT 5 30401	280
99	BOSTON UNIV	M WEI	GSFC	M FRIEDL	NGT 5 30405	280
99	BOWIE STATE UNIV	C HOLLINGSWORTH	GSFC	A L GASKINS-NEDD	NAG 5 9843	240
99	BOWIE STATE UNIV	D MENCHAN	GSFC	D LANGDON	NAG 5 9458	239
99	BOWIE STATE UNIV	D MENCHAN	GSFC	D LANGDON	NAG 5 10697	240
99	BOWIE STATE UNIV	D MENCHAN	GSFC	D W CRIM	NAG 5 8370	239
99	BOWIE STATE UNIV	D MENCHAN	GSFC	N T WAKIM	NCC 5 516	240
99	BOWIE STATE UNIV	L RANDOLPH	GSFC	N WAKIM	NCC 5 232	240
99	BOWIE STATE UNIV	P CROUSE	GSFC	N WAKIM	NAG 5 8787	239
99	BOWLING GREEN STATE UNIV	V L KLOERIS	JSC	D L HENTGES	NAG 9 1186	405
99	BROWN UNIV	D D DETROYE	GSFC	P H SCHULTZ	NGT 5 40106	460
99	BROWN UNIV	D DETROYE	GSFC	P H SCHULTZ	NGT 5 90014	460
99	BROWN UNIV	D E SMITH	GSFC	J W HEAD	NAG 5 6144	458
99	BROWN UNIV	H CARR	SSC	J F MUSTARD	NCC13 98005	460
99	BROWN UNIV	K BLANDING	HQ	R BRANDENBERGER	NGT 5 50355	460
99	CALIFORNIA INST OF TECH	B BETTS	GSFC	J L KIRSCHVINK	NAG 5 9687	46
99	CALIFORNIA INST OF TECH	D E SMITH	GSFC	D O MUHLEMAN	NAG 5 4437	43
99	CALIFORNIA INST OF TECH	D SENSKE	GSFC	T AHRENS	NAG 5 10198	47
99	CALIFORNIA INST OF TECH	G ASRAR	GSFC	Y L YUNG	NGT 5 30096	49
99	CALIFORNIA INST OF TECH	G STRINGFELLOW	GSFC	J ZMUIDZINAS	NAG 5 9493	46
99	CALIFORNIA INST OF TECH	J BOYCE	GSFC	A P INGERSOLL	NAG 5 11214	48
99	CALIFORNIA INST OF TECH	J BOYCE	HQ	A ALBEE	NAG 5 11257	48
99	CALIFORNIA INST OF TECH	J BREDEKAMP	GSFC	S DJORGOVSKI	NAG 5 9482	46
99	CALIFORNIA INST OF TECH	J BREDEKAMP	GSFC	S DJORGOVSKI	NAG 5 9603	46
99	CALIFORNIA INST OF TECH	J F SPANN	GSFC	Y L YUNG	NAG 5 10901	48
99	CALIFORNIA INST OF TECH	K BLANDING	GSFC	A ALBEE	NGT 5 60003	50
99	CALIFORNIA INST OF TECH	K BLANDING	GSFC	F CULICK	NGT 5 50280	50
99	CALIFORNIA INST OF TECH	K BLANDING	GSFC	G BLAKE	NGT 5 50231	49
99	CALIFORNIA INST OF TECH	K BLANDING	GSFC	M KAMIONKOWSKI	NGT 5 50339	50
99	CALIFORNIA INST OF TECH	L K SMITH	GSFC	A LANGE	NGT 5 50278	49
99	CALIFORNIA INST OF TECH	L SMITH	GSFC	A LANGE	NGT 5 50249	49
99	CALIFORNIA INST OF TECH	L SMITH	GSFC	N YEH	NGT 5 50308	50
99	CALIFORNIA INST OF TECH	M WEI	GSFC	J STOCK	NGT 5 30393	49
99	CALIFORNIA INST OF TECH	M WEI	GSFC	M SIMONS	NGT 5 30407	49
99	CALIFORNIA INST OF TECH	P DOTY	MSFC	D F BRADY	NAG 8 1237	48
99	CALIFORNIA INST OF TECH	T MORGAN	GSFC	M BROWN	NAG 5 11273	48
99	CALIFORNIA STATE UNIV - LOS ANGELES	B WHITE	GSFC	T ADENIKA-MORROW	NCC 5 439	52
99	CALIFORNIA STATE UNIV - LOS ANGELES	J MALONE	GSFC	H R BOUSSALIS	NAG 5 6757	52
99	CALIFORNIA STATE UNIV - LOS ANGELES	J MALONE	GSFC	H R BOUSSALIS	NAG 5 8889	52
99	CALIFORNIA STATE UNIV - LOS ANGELES	M MCCARTY	DFRC	T ADENIKA-MORROW	NAG 4 173	51
99	CALIFORNIA STATE UNIV - LOS ANGELES	M STOUTSENBERGER	GSFC	M EPSTEIN	NAG 5 9160	52
99	CALIFORNIA STATE UNIV - NORTHRIDGE	C PERSON	GSFC	B BAVARIAN	NCC 5 513	53
99	CALIFORNIA STATE UNIV - NORTHRIDGE	C PERSON	GSFC	S RENGARAJAN	NAG 5 9726	52
99	CALIFORNIA STATE UNIV - NORTHRIDGE	M MATTHEWS	GSFC	C SHUBIN	NCC 5 489	53
99	CALIFORNIA STATE UNIV - NORTHRIDGE	M MCCARTHY	DFRC	W FURUMOTO	NAG 4 162	52
99	CALIFORNIA STATE UNIV - NORTHRIDGE	R K DISMUKES	ARC	B TABACHIVIDE	NCC 2 1021	53
99	CALIFORNIA STATE UNIV - SACRAMENTO	DSIX	MSFC	B HAUSBACK	NAG 8 1220	53
99	CALIFORNIA STATE UNIV	C HILL	JSC	C LEE	NAG13 99010	53
99	CALIFORNIA STATE UNIV	M MC CARTHY	DFRC	E KRINSKY	NAG 4 161	53
99	CAPITOL COLLEGE	D JARRELL	GSFC	D MENCHAN	NAG 5 10560	240
99	CAPITOL COLLEGE	D MENCHAN	GSFC	D JARRELL	NAG 5 9375	240
99	CARNEGIE - MELLON UNIV	A KEYS	MSFC	L R CARLEY	NAG 8 1799	438
99	CARNEGIE - MELLON UNIV	J BREDEKAMP	GSFC	C GLYMOUR	NAG 5 9309	437
99	CARNEGIE - MELLON UNIV	K BLANDING	GSFC	A W MOORE	NGT 5 50279	439
99	CARNEGIE - MELLON UNIV	L SMITH	GSFC	J L ANDERSON	NGT 5 50054	439
99	CARNEGIE - MELLON UNIV	P E HUNTER	GSFC	R NICHOL	NAG 5 10740	437
99	CARNEGIE - MELLON UNIV	R E GABRYS	GSFC	P COPPIN	NCC 5 431	439
99	CASE WESTERN RESERVE UNIV	G STRINGFELLOW	GSFC	G STARKMAN	NAG 5 11059	407
99	CASE WESTERN RESERVE UNIV	K BLANDING	GSFC	J T	NGT 5 50369	409
99	CASE WESTERN RESERVE UNIV	M P WERNET	GRC	J R KADAMBI	NAG 3 2110	406
99	CAYUGA COUNTY COMM COLLEGE	D POWE	SSC	R FRESTOPKIK	NAG13 00043	367
99	CAYUGA COUNTY COMM COLLEGE	M MICK	SSC	R BROWER	NAG13 00044	367

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99	CHICAGO STATE UNIV	C PERSON	GSFC	R SOLAKIEWICZ	NAG 5 9734	200
99	CHRISTOPHER NEWPORT UNIV	D BUSHNELL	LARC	L LAMBERT	NAG 1 2284	507
99	CHRISTOPHER NEWPORT UNIV	D GABRYS	GSFC	N B FREEMAN	NCC 5 435	507
99	CITY UNIV OF NY HERBERT H	R F LAWRENCE	GRC	A L ROTHSETIN	NAG 3 2268	367
99	CITY UNIV COLLEGE OF NY YORK COLLEGE	M STOUTSENBERGER	GSFC	J SCHEIN	NAG 5 7532	367
99	CITY UNIV OF NY CITY COLLEGE	B WHITE	HQ	R KHANBILVARDI	NCC 5 344	368
99	CITY UNIV OF NY CITY COLLEGE	C PERSON	GSFC	F MOSHARY	NAG 5 9732	368
99	CITY UNIV OF NY CITY COLLEGE	J HARRINGTON	GSFC	S AUSTIN	NCC 5 530	368
99	CITY UNIV OF NY CITY COLLEGE	J MALONE	GSFC	R R ALFANO	NAG 5 6952	368
99	CITY UNIV OF NY CITY COLLEGE	M MATEU	GSFC	J BARBA	NAG 5 4911	368
99	CITY UNIV OF NY CITY COLLEGE	M MATEU	GSFC	J BARBA	NAG 5 10845	368
99	CITY UNIV OF NY CITY COLLEGE	R F LAWRENCE	GRC	L P JOHNSON	NAG 3 2258	367
99	CLARK ATLANTA UNIV	A C BEAM	MSFC	B E ALICK	NAG 8 1535	181
99	CLARK ATLANTA UNIV	M MATHEWS	GSFC	C H WILLIAMS	NCC 5 347	181
99	CLARK UNIV	G ASRAR	GSFC	B TURNER	NGT 5 30129	281
99	CLARK UNIV	G GUTMAN	GSFC	B TURNER	NAG 5 11134	281
99	CLARK UNIV	M Y WEI	GSFC	L LEWIS	NGT 5 30061	281
99	CLEMSON UNIV - CLEMSON	J KU	GSFC	D M OCHTERBECK	NAG 5 10367	463
99	CLEMSON UNIV - CLEMSON	M MELLOTT	GSFC	M HICKEY	NAG 5 10251	463
99	CLEMSON UNIV - CLEMSON	S DAVISON	GSFC	I D WALKER	NAG 5 8759	462
99	CLEVELAND STATE UNIV	D WHITE	GRC	D M KOCHER	NAG 3 2296	409
99	CLEVELAND STATE UNIV	M L BOROWSKI	GRC	P CHARITY	NAG 3 2075	409
99	CLEVELAND STATE UNIV	R C ALEXANDER	GRC	Z AUSTRIAN	NAG 3 2273	409
99	COLLEGE OF CHARLESTON	D DETROYE	GSFC	M COLGAN	NCC 5 413	464
99	COLLEGE OF CHARLESTON	D DETROYE	GSFC	M COLGAN	NCC 5 575	464
99	COLLEGE OF CHARLESTON	D DETROYE	GSFC	M COLGAN	NGT 5 40099	464
99	COLLEGE OF CHARLESTON	L KEFFER	GSFC	M COLGAN	NGT 5 40050	464
99	COLLEGE OF SANTA FE	L ARMENDARIZ	JSC	B COLEMAN	NAG 9 1066	360
99	COLLEGE OF WILLIAM AND MARY	T E PINELLI	LARC	M HINDERS	NGT 1 52204	508
99	COLLEGE OF WILLIAM AND MARY	W P CHU	LARC	D C BENNER	NAS 1 98039	508
99	COLORADO SCH OF MINES	D MCKAY	JSC	M B DUKE	NAG 9 1207	119
99	COLORADO STATE UNIV	J BOYCE	GSFC	J NELSON	NAG 5 11280	121
99	COLORADO STATE UNIV	K BLANDING	GSFC	J NELSON	NGT 5 50164	122
99	COLORADO STATE UNIV	M MELLOTT	GSFC	C SHE	NAG 5 10076	121
99	COLORADO STATE UNIV	M WEI	GSFC	A DENNING	NGT 5 30182	122
99	COLORADO STATE UNIV	M WEI	GSFC	R PIELKE	NGT 5 30344	122
99	COLUMBIA UNIV	E LINDSTROM	GSFC	X YUAN	NAG 5 8725	372
99	COLUMBIA UNIV	G ASRAR	GSFC	D SCHOSSER	NGT 5 30106	374
99	COLUMBIA UNIV	K E BLANDING	GSFC	S KAHN	NGT 5 50353	375
99	COLUMBIA UNIV	M WEI	GSFC	D PETEET	NGT 5 30226	375
99	COLUMBIA UNIV	M WEI	GSFC	M CANE	NGT 5 30123	374
99	CORNELL UNIV	D D DETROYE	GSFC	Y TERZIAN	NGT 5 40078	381
99	CORNELL UNIV	D DETROYE	GSFC	Y TERZIAN	NGT 5 40019	381
99	CORNELL UNIV	D G SICKOREZ	JSC	R W LANGHANS	NGT 9 16	382
99	CORNELL UNIV	D SENSEK	GSFC	P THOMAS	NAG 5 10168	379
99	CORNELL UNIV	G ASRAR	GSFC	B ISACKS	NGT 5 30126	381
99	CORNELL UNIV	G STRINGFELLOW	GSFC	S EIKENBERRY	NAG 5 10356	379
99	CORNELL UNIV	J GRANT	GSFC	W BOTTKE	NAG 5 8950	378
99	CORNELL UNIV	K BLANDING	GSFC	M H VAN DER MUELEN	NGT 5 50375	382
99	CORNELL UNIV	L SMITH	GSFC	M SALTMAN	NGT 5 50270	382
99	CORNELL UNIV	R V MORRIS	JSC	R V MORRIS	NCC 9 89	381
99	CORNELL UNIV	S DAVISON	GSFC	C MONTEEMAGNO	NAG 5 8775	378
99	CUYAHOGA COMM COLLEGE	R F LAWRENCE	GRC	T L BUTLER	NAG 3 2496	412
99	CUYAHOGA COMM COLLEGE	R L BONDURANT	GRC	L L DARLING	NAS 3 98099	412
99	CUYAHOGA COMM COLLEGE	R LAWRENCE	GRC	S CHAND	NAG 3 2370	412
99	DARTMOUTH COLLEGE	M MELLOTT	GSFC	A V STRELTSOV	NAG 5 10216	344
99	DARTMOUTH COLLEGE	M MELLOTT	GSFC	M R LESSARD	NAG 5 10219	344
99	DINE COLLEGE	R TRAVIS	JSC	D ISELY	NAG13 99028	24
99	DUKE UNIV	G ASRAR	GSFC	D RICHTER	NGT 5 30117	395
99	DUKE UNIV	L SMITH	GSFC	G TRUSKEY	NGT 5 50266	396
99	DUKE UNIV	M GERNHARDT	JSC	R VANN	NCC 9 83	395
99	DUKE UNIV	M MELLOTT	GSFC	S CUMMER	NAG 5 10270	395
99	DUKE UNIV	M WEI	GSFC	D REYNOLDS	NGT 5 30105	395
99	DUKE UNIV	M WEI	GSFC	S ROJSTACZER	NGT 5 30379	396
99	DUKE UNIV	M WEI	GSFC	W H SCHESSINGER	NGT 5 30397	396
99	EASTERN NEW MEX. UNIV - MAIN CAMP.	L ARMENDARIZ	JSC	J MILLER	NAG 9 972	360

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99	EASTERN NEW MEX. UNIV - MAIN CAMP.	L ARMENDARIZ	JSC	J MILLER	NAG 9 1255	360
99	EASTERN WASHINGTON UNIV	D JAMES	ARC	R SOLTERO	NAG 2 6041	533
99	ELIZABETH CITY STATE UNIV	J HARRINGTON	GSFC	L HAYDEN	NCC 5 533	396
99	ELIZABETH CITY STATE UNIV	STOUTSENBERGER	GSFC	S SACHDEV	NAG 5 6814	396
99	EMBRY-RIDDLE AERONAUTICAL UNIV	M MELLOTT	GSFC	G G SIVJEE	NAG 5 10066	162
99	FAYETTEVILLE STATE UNIV	M STOUTSENBERGER	GSFC	L EDWARDS	NAG 5 9155	397
99	FISK UNIV	C HUA SU	MSFC	A BURGER	NCC 8 195	467
99	FLA INTERNATIONAL UNIV	B J COLLINS	ARC	X HE	NAG 2 1440	162
99	FLA INTERNATIONAL UNIV	D MENCHAN	GSFC	N RISHE	NAG 5 9478	162
99	FLA INTERNATIONAL UNIV	H T STEWART	ARC	I R FERNANDEZ	NAG 2 1384	162
99	FLA INTERNATIONAL UNIV	R MC KINNEY	KSC	C MENDEZ	NAG10 251	163
99	FLORIDA A&M UNIV	B J COLLINS	ARC	M ENCINOSA	NAG 2 1439	163
99	FLORIDA A&M UNIV	E JOHNSON	KSC	B SAMUELS	NAG10 242	164
99	FLORIDA A&M UNIV	J E BOYD	GRC	F S HUMPHRIES	NAG 3 1759	163
99	FLORIDA A&M UNIV	J L HARRINGTON, JR.	GSFC	D H AMMONS	NAG 5 7989	163
99	FLORIDA A&M UNIV	J MALONE	GSFC	J H AMMONS	NAG 5 9119	163
99	FLORIDA A&M UNIV	J MALONE	GSFC	J ZHENG	NAG 5 9420	164
99	FLORIDA A&M UNIV	J MALONE	GSFC	K H PHIFER-MCGHEE	NAG 5 10726	164
99	FLORIDA ATLANTIC UNIV	T H MAIER	ARC	G H GEONKAR	NCC 2 5264	165
99	FLORIDA INST OF TECH	J MEDINA	KSC	R LANIER	NGT10 52621	166
99	FLORIDA INST OF TECH	L SMITH	GSFC	C HELMSTETTER	NGT 5 50257	165
99	FLORIDA INST OF TECH	L SMITH	GSFC	T OSWALT	NGT 5 50290	165
99	FLORIDA INST OF TECH	R WHEELER	KSC	M BUSH	NGT10 52622	166
99	FLORIDA INST OF TECH	W WAGNER	GSFC	M ZHANG	NAG 5 11036	165
99	FLORIDA STATE UNIV	G ASRAR	GSFC	E SMITH	NGT 5 30116	169
99	FLORIDA STATE UNIV	M WEI	GSFC	J O	NGT 5 30370	169
99	FOOTHILL-DE ANZA COM COL SYS OFF	G JAMES	ARC	M P CONRAD	NGT 2 52280	53
99	FOOTHILL-DE ANZA COM COL SYS OFF	M E LOPEZ	ARC	M CONWAY	NGT 2 1001	53
99	FRANKLIN-MARSHALL COLLEGE	L CAROFF	ARC	D BACKMAN	NCC 2 5365	441
99	FULTON-MONTGOMERY COMM COLLEGE	D L POWE	SSC	M PRESTOPNIK	NAG13 00007	382
99	FURMAN UNIV	R K DISMUKES	ARC	G O EINSTEIN	NCC 2 1085	465
99	GEORGE MASON UNIV	A J MATURO	GSFC	R R STOUGH	NCC 5 360	510
99	GEORGE MASON UNIV	M MAIDEN	GSFC	M KAFATOS	NCC 5 306	510
99	GEORGE MASON UNIV	M MELLOTT	GSFC	M E SUMMERS	NAG 5 9669	509
99	GEORGE WASHINGTON UNIV	D DETROYE	GSFC	J M LOGSDON	NGT 5 40058	154
99	GEORGE WASHINGTON UNIV	D JAN	NMO	J H MILLER	NAG 9 1185	153
99	GEORGE WASHINGTON UNIV	E T SCHWARTZ	HQ	J M LOGSDON	NGT 40056	153
99	GEORGE WASHINGTON UNIV	J BOYCE	GSFC	G KEATING	NAG 5 11175	152
99	GEORGE WASHINGTON UNIV	J I TROMBKA	GSFC	D A ROWLEY	NAG 5 10417	152
99	GEORGE WASHINGTON UNIV	R A HATHAWAY	LARC	J WHITESIDES	NCC 1 01020	153
99	GEORGIA INST OF TECH	C GRIFFIN	KSC	D BRIDGES	NAS10 01025	185
99	GEORGIA INST OF TECH	D D DETROYE	GSFC	E ARMANIOS	NGT 5 40116	187
99	GEORGIA INST OF TECH	D DETROYE	GSFC	E ARMANIOS	NGT 5 40023	187
99	GEORGIA INST OF TECH	G ASRAR	GSFC	D WINE	NGT 5 30069	187
99	GEORGIA INST OF TECH	J E GARDNER	LARC	B V GIBBENS	NGT 1 52162	186
99	GEORGIA INST OF TECH	J HOWELL	MSFC	J OLDS	NAG 8 1713	185
99	GEORGIA INST OF TECH	K BLANDING	GSFC	P NEITZEL	NGT 5 50363	188
99	GEORGIA INST OF TECH	L SMITH	GSFC	R FUJIMOTO	NGT 5 50284	187
99	GEORGIA INST OF TECH	M WEI	GSFC	L HUEY	NGT 5 30384	187
99	GEORGIA INST OF TECH	R A LEPSCH	LARC	K A CUNEFARE	NGT 1 52167	186
99	GLENDALE COMM COLLEGE	H KASS	GSFC	L SEROT	NAG 5 9700	53
99	HAMPTON UNIV	B W MEESON	GSFC	J RUSSELL	NAG 5 11126	512
99	HAMPTON UNIV	B WHITE	HQ	D A TEMPLE	NCC 5 348	513
99	HAMPTON UNIV	C P HOLMES	GSFC	S M BAILEY	NAG 5 10063	512
99	HAMPTON UNIV	C S PERSON	GSFC	C L REAVES	NAG 5 10015	512
99	HAMPTON UNIV	M STOUTSENBERGER	GSFC	C RANKINS	NAG 5 9156	512
99	HAMPTON UNIV	N KHAZENIE	GSFC	D A TEMPLE	NAG 5 6296	512
99	HAMPTON UNIV	R A HATHAWAY	LARC	C LOWE	NCC 1 379	513
99	HAMPTON UNIV	R A HATHAWAY	LARC	R SCHWAN	NAG 1 01089	511
99	HAMPTON UNIV	R A HATHAWAY	LARC	R SCHWAN	NCC 1 01034	513
99	HAMPTON UNIV	R HATHAWAY	LARC	C LOWE	NAG 1 2207	511
99	HAMPTON UNIV	R HATHAWAY	LARC	D DEPRIEST	NCC 1 358	513
99	HAMPTON UNIV	S MOSSENBERG	LARC	C REEVES	NAG 1 2256	511
99	HARVARD UNIV	A NURRIDIN	GSFC	J GRINDLEY	NGT 5 50020	286
99	HARVARD UNIV	A NURRIDIN	GSFC	L HERNQUIST	NGT 5 50028	286
99	HARVARD UNIV	D E WICKLAND	GSFC	S C WOFSY	NAG 5 11154	285

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99	HARVARD UNIV	L SMITH	GSFC	R KIRSHNER	NGT 5 50244	286
99	HARVARD UNIV	L SMITH	GSFC	W H PARKINSON	NGT 5 50258	286
99	HARVARD UNIV	M WEI	GSFC	J ANDERSON	NGT 5 30410	286
99	HARVARD UNIV	M WEI	GSFC	S WOFSY	NGT 5 30366	286
99	HARVARD UNIV	P DECOLA	GSFC	D JACOB	NAG 5 11270	285
99	HARVARD UNIV	P R Houser	GSFC	A P BARROS	NAG 5 10792	285
99	HERITAGE COLLEGE	B J COLLINS	ARC	P T ALEXANDER	NAG 2 6034	533
99	HOUSTON COMM COLLEGE	M MATEU	GSFC	C GARCIA	NAG 5 8566	475
99	HOUSTON COMM COLLEGE	M MATEU	GSFC	C GARCIA	NAG 5 10239	475
99	HOWARD UNIV	C PERSON	GSFC	A N THORPE	NAG 5 10675	155
99	HOWARD UNIV	D MENCHAN	GSFC	D WOODARD	NAG 5 7384	155
99	HOWARD UNIV	D MENCHAN	GSFC	M C WOODARD	NAG 5 10838	155
99	HOWARD UNIV	D MENCHAN	GSFC	W WOODARD	NAG 5 9279	155
99	HOWARD UNIV	G A SOFFEN	GSFC	A N THORPE	NCC 5 184	155
99	HOWARD UNIV	G COOPER	ARC	P HAMBRIGHT	NAG 2 1526	154
99	HOWARD UNIV	M S BURRELL	GSFC	J B HALPERN	NGT 5 77	156
99	HOWARD UNIV	M S BURRELL	GSFC	J B HALPERN	NGT 5 113	156
99	HUNTER COLL OF THE CITY UNIV OF NY	J F DOWDY	MSFC	L COHEN	NAG 8 1259	382
99	ILLINOIS STATE UNIV	J SHARBER	GSFC	D HOLLAND	NAG 5 9584	200
99	INDIANA UNIV	K BLANDING	GSFC	R DUNCAN	NGT 5 50366	215
99	INDIANA UNIV	K BLANDING	GSFC	W WAGNER	NGT 5 50373	215
99	INTER AMER U OF PR AGUADILLA CAMP	M STOUTSENBERGER	HQ	R GONZALEZ	NAG 5 9311	382
99	IOWA STATE UNIV	D D DETROYE	GSFC	W J BYRD	NGT 5 40081	224
99	IOWA STATE UNIV	D DETROYE	GSFC	W J BYRD	NGT 5 40027	224
99	IOWA STATE UNIV	G FOGLERMAN	GSFC	M PORTER	NAG 5 8892	223
99	JACKSON STATE UNIV	A JOYCE	SSC	A K MOHAMED	NAG13 98007	326
99	JACKSON STATE UNIV	A JOYCE	SSC	H GORE	NAG13 99004	326
99	JAMES MADISON UNIV	J JOHNSON	GSFC	J BLANDINO	NAG 5 10701	513
99	JAMES MADISON UNIV	R A HATHAWAY	LARC	A A TEATE	NAG 1 2155	513
99	JARVIS CHRISTIAN COLLEGE	L ARMENDARIZ	JSC	M J MCKINNEY	NAG 9 1065	475
99	JOHNS HOPKINS UNIV	D D DETROYE	GSFC	R C HENRY	NGT 5 40079	252
99	JOHNS HOPKINS UNIV	D GOLOMBEKS	GSFC	S KRIMIGIS	NAG 5 9367	246
99	JOHNS HOPKINS UNIV	D R MENGERS	GSFC	D MOOS	NAG 5 3448	242
99	JOHNS HOPKINS UNIV	J F SPANN	GSFC	J M RUOHONIEMI	NAG 5 10902	250
99	JOHNS HOPKINS UNIV	J SHARBER	GSFC	B MAUK	NAG 5 10281	248
99	JOHNS HOPKINS UNIV	J SHARBER	GSFC	D G SIBECK	NAG 5 10285	248
99	JOHNS HOPKINS UNIV	J SHARBER	GSFC	K TAKAHASHI	NAG 5 8964	245
99	JOHNS HOPKINS UNIV	J SHARBER	GSFC	S OHTANI	NAG 5 10941	250
99	JOHNS HOPKINS UNIV	K BLANDING	GSFC	P C SEARSON	NGT 5 50372	253
99	JOHNS HOPKINS UNIV	L KEFFER	GSFC	R C HENRY	NGT 5 40029	252
99	JOHNS HOPKINS UNIV	L SMITH	GSFC	K J STEBE	NGT 5 50259	252
99	JOHNS HOPKINS UNIV	L SMITH	GSFC	K J STEBE	NGT 5 50268	253
99	JOHNS HOPKINS UNIV	M KURYLO	GSFC	S A LLOYD	NAG 5 11035	250
99	JOHNS HOPKINS UNIV	M MELLOTT	GSFC	R A GREENWALD	NAG 5 10060	247
99	JOHNS HOPKINS UNIV	P DECOLA	GSFC	D WAUCH	NAG 5 11283	251
99	JOHNS HOPKINS UNIV	P DECOLA	GSFC	W SWARTZ	NAG 5 11297	251
99	JOHNS HOPKINS UNIV	W ABDALATI	GSFC	R RANEY	NAG 5 10261	248
99	JOHNS HOPKINS UNIV	W J WAGNER	GSFC	D LARIO	NAG 5 10787	249
99	JOHNS HOPKINS UNIV	W J WAGNER	GSFC	G HO	NAG 5 10836	250
99	LINCOLN UNIV - PA	D MENCHAN	GSFC	R LANGLEY	NAG 5 10172	441
99	LOUISIANA STATE UNIV - BATON ROUGE	D DETROY	HQ	J WEFEL	NCC 5 393	235
99	LOUISIANA STATE UNIV - BATON ROUGE	D DETROYE	GSFC	J P WEFEL	NCC 5 167	235
99	LOUISIANA STATE UNIV - BATON ROUGE	D DETROYE	GSFC	J P WEFEL	NGT 5 40035	235
99	LOUISIANA STATE UNIV - BATON ROUGE	D DETROYE	HQ	J WEFEL	NGT 5 40115	235
99	MARIST COLLEGE	M MEYER	GSFC	R KEPNER	NAG 5 9889	382
99	MARQUETTE UNIV	C W LLOYD	JSC	R H FITTS	NAG 9 1156	546
99	MASSACHUSETTS INST OF TECH	D D DETROYE	GSFC	L YOUNG	NGT 5 40075	299
99	MASSACHUSETTS INST OF TECH	D E SMITH	GSFC	G H PETTENGILL	NAG 5 4434	290
99	MASSACHUSETTS INST OF TECH	D E SMITH	GSFC	M T ZUBER	NAG 5 4806	290
99	MASSACHUSETTS INST OF TECH	D E SMITH	GSFC	M T ZUBER	NAG 5 11113	296
99	MASSACHUSETTS INST OF TECH	D SENKE	GSFC	A RIVKIN	NAG 5 10328	295
99	MASSACHUSETTS INST OF TECH	K OGILVIE	GSFC	A LARARUS	NAG 5 7359	291
99	MASSACHUSETTS INST OF TECH	L KEFFER	GSFC	L R YOUNG	NGT 5 40048	299
99	MASSACHUSETTS INST OF TECH	L SMITH	GSFC	J B HOWARD	NGT 5 50302	300
99	MASSACHUSETTS INST OF TECH	L SMITH	GSFC	M FLEMINGS	NGT 5 50306	300
99	MASSACHUSETTS INST OF TECH	M KURYLO	GSFC	J I STEINFELD	NAG 5 10613	295

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99	MASSACHUSETTS INST OF TECH	M MEYER	GSFC	J GROZINGER	NAG 5 9445	294
99	MASSACHUSETTS INST OF TECH	M SISTILLI	GSFC	S C TING	NAG 5 10711	295
99	MASSACHUSETTS INST OF TECH	P DECOLA	GSFC	R A PLUMB	NAG 5 11285	296
99	MASSACHUSETTS INST OF TECH	R CROUCH	GSFC	G MCKINLEY	NAG 5 8776	293
99	MASSACHUSETTS INST OF TECH	T MATURO	GSFC	J KLEIN	NAG 5 11268	296
99	MEDGAR EVERS COLLEGE	M STOUTSENBERGER	HQ	L JOHNSON	NAG 5 9256	382
99	MICHIGAN STATE UNIV	A NURRIDIN	HQ	P WEBBER	NGT 5 50150	308
99	MICHIGAN STATE UNIV	D S MCKAY	JSC	M A VELBEL	NAG 9 1211	308
99	MICHIGAN STATE UNIV	G GUTMAN	GSFC	J LIU	NAG 5 10200	307
99	MICHIGAN STATE UNIV	K BLANDING	GSFC	P PIERRE	NGT 5 50378	308
99	MICHIGAN STATE UNIV	M MAIDEN	GSFC	D SKOLE	NCC 5 303	308
99	MICHIGAN STATE UNIV	R GRYMES	ARC	M THOMASHOW	NCC 2 1274	308
99	MICHIGAN STATE UNIV	S OLSON	GRC	I S WICHMAN	NCC 3 662	308
99	MICHIGAN TECHNOLOGICAL UNIV	M WEI	GSFC	R SHAW	NAG 5 10568	309
99	MISSISSIPPI STATE UNIV	H CARR	SSC	D SHAW	NCC13 99001	328
99	MISSISSIPPI STATE UNIV	M MATHEWS	GSFC	B JOINER	NAG 5 11127	327
99	MISSISSIPPI VALLEY STATE UNIV	C PERSON	GSFC	C BLAND	NAG 5 9535	328
99	MISSISSIPPI VALLEY STATE UNIV	M STOUTSENBERGER	GSFC	C BLAND	NAG 5 9197	328
99	MISSISSIPPI VALLEY STATE UNIV	N S SULLIVAN	SSC	S J WHITE	NAG13 99003	328
99	MISSISSIPPI VALLEY STATE UNIV	N SULLIVAN	JSC	S J WHITE	NAG13 51	328
99	MONTANA STATE UNIV	D D DETROYE	GSFC	W HISCOCK	NGT 5 40092	338
99	MONTANA STATE UNIV	D DETROYE	GSFC	W A HISCOCK	NGT 5 40036	338
99	MONTANA STATE UNIV	D DETROYE	GSFC	W HISCOCK	NCC 5 410	338
99	MONTANA STATE UNIV	D DETROYE	GSFC	W HISCOCK	NCC 5 579	338
99	MONTANA STATE UNIV	D JAN	JPL	B H PYLE	NAG 9 1082	337
99	MONTANA STATE UNIV	E T SCHWARTZ	HQ	W A HISCOCK	NGT 40041	338
99	MONTANA STATE UNIV	L SMITH	GSFC	J C PRISCU	NGT 5 50297	338
99	MONTANA STATE UNIV	M V PHELPS	GSFC	G TUTHILL	NAG 5 4576	337
99	MONTANA STATE UNIV	R A GRYMES	ARC	D L DICKENSHEETS	NCC 2 5437	338
99	MONTANA STATE UNIV	W WALTER	GSFC	D LONGCOPE	NAG 5 10489	337
99	MOREHOUSE SCH MED	B J COLLINS	ARC	M THIERRY-PALMER	NAG 2 1381	189
99	MOREHOUSE SCH MED	C E WADE	ARC	B J KLEMENT	NAG 2 1448	189
99	MORGAN STATE UNIV	B WHITE	GSFC	D N WILLIAMS	NAG 5 10947	254
99	MORGAN STATE UNIV	C PERSON	GSFC	D N WILLIAMS	NAG 5 9710	253
99	MORGAN STATE UNIV	D MENCHAN	GSFC	H WILLIAMS	NAG 5 8860	253
99	MORGAN STATE UNIV	J HARRINGTON	GSFC	W LUPTON	NCC 5 532	254
99	MORGAN STATE UNIV	K KRISHEN	JSC	J E WHITNEY	NAG 9 998	254
99	MORGAN STATE UNIV	P HOLLOWAY	GSFC	H WILLIAMS	NAG 5 8574	253
99	MT SINAI SCH OF MED OF THE CUNY	A M LEE	JSC	D COHEN	NAS 9 19441	383
99	NEW JERSEY INST OF TECH	P DOTY	MSFC	E DREIZIN	NAG 8 1714	351
99	NEW JERSEY INST OF TECH	W WAGNER	GSFC	D E GARY	NAG 5 10212	351
99	NEW MEXICO HIGHLANDS UNIV	G HENDERSEN	JSC	J R JUAREZ	NAG 9 1260	361
99	NEW MEXICO HIGHLANDS UNIV	J MALONE	GSFC	R CLARK	NAG 5 6532	360
99	NEW MEXICO HIGHLANDS UNIV	L ARMENDARIZ	JSC	J JUAREZ	NAG 9 1195	361
99	NEW MEXICO HIGHLANDS UNIV	L ARMENDARIZ	JSC	J R JUAREZ	NAG 9 1921	361
99	NEW MEXICO HIGHLANDS UNIV	L M ARMENDARIZ	JSC	J R JUAREZ	NAG 9 1330	361
99	NEW MEXICO HIGHLANDS UNIV	P SAKIMOTO	GSFC	J C	NGT 5 90069	361
99	NEW MEXICO HIGHLANDS UNIV	PBAKER	WFF	J JUAREZ	NAG 9 1369	361
99	NEW MEXICO STATE UNIV - LAS CRUCES	A NURRIDIN	GSFC	S CASTILLO	NGT 5 50117	363
99	NEW MEXICO STATE UNIV - LAS CRUCES	B J COLLINS	ARC	G V GARCIA	NAG 2 6030	362
99	NEW MEXICO STATE UNIV - LAS CRUCES	B WHITE	GSFC	H BAPTISTE	NCC 5 466	363
99	NEW MEXICO STATE UNIV - LAS CRUCES	D BOGAN	GSFC	M MARLEY	NAG 5 8919	363
99	NEW MEXICO STATE UNIV - LAS CRUCES	D D DETROYE	GSFC	P HYNE	NGT 5 40087	363
99	NEW MEXICO STATE UNIV - LAS CRUCES	D DETROYE	GSFC	P HYNE	NGT 5 40061	363
99	NEW MEXICO STATE UNIV - LAS CRUCES	D M RUSSO	JSC	G A EICEMAN	NAG 9 1291	363
99	NORFOLK STATE UNIV	B L WHITE	GSFC	G GOLEMBIEWSKI	NAG 5 9257	514
99	NORFOLK STATE UNIV	C PERSON	GSFC	L MATTIX	NCC 5 514	515
99	NORFOLK STATE UNIV	M MATTHEWS	GSFC	L MATTIX	NCC 5 457	515
99	NORFOLK STATE UNIV	N KHAZENIE	GSFC	S CHAUDHURY	NAG 5 8541	514
99	NORFOLK STATE UNIV	R A HATHAWAY	LARC	P TUCKER-HOGAN	NCC 1 391	515
99	NORFOLK STATE UNIV	R A HATHAWAY	LARC	P TUCKER-HOGAN	NCC 1 01053	515
99	NORFOLK STATE UNIV	R A HATHAWAY	LARC	R TUCKER-HOGAN	NCC 1 338	515
99	NORFOLK STATE UNIV	R A HATHAWAY	LARC	W RODRIGUEZ	NCC 1 01055	515
99	NORFOLK STATE UNIV	S CANRIGHT	LARC	C COLEMAN	NAG 1 1948	514
99	NORTH CAROLINA A&T STATE UNIV	B WHITE	GSFC	J D MONROE	NCC 5 349	399
99	NORTH CAROLINA A&T STATE UNIV	C WILKERSON	MSFC	D J SCHULZ	NAG 8 1247	398

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99	NORTH CAROLINA A&T STATE UNIV	D F NOGA	GRC	Y ELLEN	NAG 3 2165	397
99	NORTH CAROLINA A&T STATE UNIV	J D ERICK SUN	JSC	B RAM	NAG 9 973	398
99	NORTH CAROLINA A&T STATE UNIV	J MALONE	GSFC	N DOGAN	NAG 5 9419	398
99	NORTH CAROLINA STATE UNIV	A GHASSEM	GSFC	D REICHLE	NGT 5 30054	402
99	NORTH CAROLINA STATE UNIV	C	ARC	D W BRENNER	NAG 2 1119	400
99	NORTH CAROLINA STATE UNIV	D D DETROYE	GSFC	F R DEJARNETTE	NGT 5 40109	402
99	NORTH CAROLINA STATE UNIV	D DETROYE	GSFC	F R DEJARNETTE	NGT 5 40011	402
99	NORTH CAROLINA STATE UNIV	J A WHITE	LARC	J R EDWARDS	NAG 1 2216	399
99	NORTH CAROLINA STATE UNIV	J BREDEKAMP	GSFC	K J BORKOWSKI	NAG 5 9490	400
99	NORTH CAROLINA STATE UNIV	S SPEARMAN	MSFC	K J BACHMANN	NCC 8 95	401
99	NORTHERN ARIZONA UNIV	D BOGAN	GSFC	R YELLE	NAG 5 9214	24
99	NORTHERN ARIZONA UNIV	J HILMAN	GSFC	C GRIFFITH	NAG 5 11239	25
99	NORTHWEST INDIAN COLLEGE	M JASINSKI	GSFC	G BLEDSOE	NCC 5 423	533
99	NORTHWESTERN UNIV	K BLANDING	GSFC	P VOORHEES	NGT 5 50368	203
99	NORTHWESTERN UNIV	L SMITH	GSFC	B J MATKOWSKY	NGT 5 50263	203
99	OAKWOOD COLLEGE	G HAMILTON	MSFC	K BENN-MARSHALL	NAG 8 1600	4
99	OGALA LAKOTA COLLEGE	D MENCHAN	GSFC	S PHELPS	NAG 5 10935	466
99	OGALA LAKOTA COLLEGE	T GULL	GSFC	J HAAS	NAG 5 7548	466
99	OHIO STATE UNIV	A NURRIDIN	HQ	M EVANS	NGT 5 50015	419
99	OHIO STATE UNIV	G STRINGFELLO	GSFC	E HERBST	NAG 5 10207	417
99	OHIO STATE UNIV	K PARTINGTON	GSFC	K JEZEK	NAG 5 10112	417
99	OHIO STATE UNIV	L SMITH	GSFC	E MOSLEY-THOMPSON	NGT 5 30178	418
99	OHIO STATE UNIV	M WEI	GSFC	D BRZEZINSKA	NAG 5 10619	417
99	OHIO STATE UNIV	W ABDALATI	GSFC	B CSATHO	NAG 5 10199	417
99	OHIO STATE UNIV	W ABDALATI	GSFC	D BROMWICH	NAG 5 10160	417
99	OHIO STATE UNIV	W ABDALATI	GSFC	E MOSLEY-THOMPSON	NAG 5 10266	417
99	OHIO STATE UNIV	W ABDALATI	GSFC	K JEZEK	NAG 5 10275	417
99	OHIO WESLEYAN UNINERITY	J ROSENDHAL	HQ	W LOUTHAN	NAG 5 10453	420
99	OKLAHOMA STATE UNIV	C W LLOYD	JSC	B J STOECKER	NAG 9 1159	428
99	OKLAHOMA STATE UNIV	L BILBROUGH	HQ	K WIGGINS	NASW 5043	429
99	OKLAHOMA STATE UNIV	L BILLBROUGH	GSFC	T COLLINS	NCC 5 561	429
99	OKLAHOMA STATE UNIV	P L MOUNTJOY	GSFC	K E WIGGINS	NCC 5 185	429
99	OLD DOMINION UNIV	D DETROYE	GSFC	M SANDY	NGT 5 40070	521
99	OLD DOMINION UNIV	D DETROYE	GSFC	M SANDY	NGT 5 40080	521
99	OLD DOMINION UNIV	D L HARM	JSC	R B LOFTIN	NCC 9 135	520
99	OLD DOMINION UNIV	J GORMAN	GSFC	M SANDY	NCC 5 592	520
99	OLD DOMINION UNIV	J L BURT	LARC	M SCERBO	NGT 1 01005	520
99	OLD DOMINION UNIV	J MARRA	GSFC	E HOFMANN	NAG 5 11259	518
99	OLD DOMINION UNIV	L KEFFER	GSFC	M L SANDY	NGT 5 40059	521
99	OLD DOMINION UNIV	R A HATHAWAY	LARC	B TIWARI	NCC 1 01043	519
99	OLD DOMINION UNIV	R A HATHAWAY	LARC	S N TUVOIRE	NGT 1 52208	521
99	ORAL ROBERTS UNIV	R HARMAN	GSFC	D HALSMER	NAG 5 7378	429
99	OREGON STATE UNIV	D D DETROYE	GSFC	A C KLEIN	NGT 5 40103	434
99	OREGON STATE UNIV	D DETROYE	GSFC	A C KLEIN	NGT 5 40022	434
99	OREGON STATE UNIV	D WICKLAND	GSFC	B LAW	NAG 5 11223	433
99	OREGON STATE UNIV	D WICKLAND	GSFC	D P TURNER	NAG 5 11222	433
99	OREGON STATE UNIV	D WICKLAND	GSFC	L MAHRT	NAG 5 11231	433
99	OREGON STATE UNIV	G GUTMAN	GSFC	O N KRANKINA	NAG 5 10614	433
99	OREGON STATE UNIV	J MARRA	GSFC	Y SPITZ	NAG 5 11190	433
99	OREGON STATE UNIV	M MEYER	GSFC	M FISK	NAG 5 9446	432
99	OREGON STATE UNIV	M WEI	GSFC	W PEGAU	NGT 5 30347	434
99	OREGON STATE UNIV	M Y WEI	GSFC	B BOND	NGT 5 30181	434
99	OREGON STATE UNIV	N SOVIK	SSC	KIMERLING	NCC13 98004	434
99	OREGON STATE UNIV	R K DISMUKES	ARC	K H FUNK	NAG 2 1287	431
99	OREGON STATE UNIV	W WEI	GSFC	L MAHRT	NGT 5 30387	434
99	OUR LADY OF THE LAKE UNIV	L ARMENDARIZ	JSC	K A WARD	NAG 9 1170	475
99	PAINE COLLEGE	M STOUTSENBERGER	GSFC	R KESSLER	NAG 5 9157	189
99	PASADENA CITY COLLEGE	P J SAKIMOTO	GSFC	J SEPIKAS	NAG 5 11197	54
99	PASSAIC COUNTY COMM COLLEGE	STOUTSENBERGER	HQ	R EPSTEIN	NAG 5 9103	351
99	PENN STATE UNIV -HERSHEY MED	C W LLOYD	JSC	D MACLEAN	NAG 9 1259	442
99	PENN STATE UNIV -HERSHEY MED	L SMITH	GSFC	C CHENGE	NGT 5 50264	442
99	PENN STATE UNIV	D DETROYE	GSFC	R DEVON	NGT 5 40090	451
99	PENN STATE UNIV	D GOLOMBEK	GSFC	G BABU	NAG 5 10542	448
99	PENN STATE UNIV	J DASCH	HQ	R DEVON	NGT 5 40064	451
99	PENN STATE UNIV	J F DOWDY	MSFC	G SUBRAMANIAM	NAG 8 1286	448
99	PENN STATE UNIV	K BLANDING	GSFC	M BERSHADY	NGT 5 50236	452

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99	PENN STATE UNIV	L K SMITH	GSFC	W BRANDT	NGT 5 50277	452
99	PENN STATE UNIV	L SMITH	GSFC	N BRANDT	NGT 5 50247	452
99	PENN STATE UNIV	L SMITH	GSFC	P N WALKER	NGT 5 50272	452
99	PENN STATE UNIV	L SMITH	GSFC	S COUTU	NGT 5 50296	452
99	PENN STATE UNIV	L SMITH	HQ	S BRANTLEY	NGT 5 50178	452
99	PENN STATE UNIV	M MC CARTHY	DFRC	B GRABOWSKI	NAG 4 160	444
99	PENN STATE UNIV	M WEI	GSFC	A BARROS	NGT 5 30060	451
99	PENN STATE UNIV	P CRANE	GSFC	R A WADE	NAG 5 9586	447
99	PENN STATE UNIV	R E GABRYS	GSFC	D L GRABOWSKI	NCC 5 432	450
99	POMONA COLLEGE	D SENSEK	GSFC	E GROSFILS	NAG 5 10157	54
99	PORTLAND STATE UNIV	M MEYER	GSFC	S CADY	NAG 5 9579	434
99	PORTLAND STATE UNIV	W ABDALATI	GSFC	C HULBE	NAG 5 11309	434
99	PORTLAND STATE UNIV	Y F SIAMAK	ARC	D M RAFFO	NCC 2 1152	434
99	PRAIRIE VIEW A&M UNIV	A JOYCE	SSC	S SHAKIR	NAG13 46	476
99	PRAIRIE VIEW A&M UNIV	J HARRINGTON	GSFC	J WILLIAMS	NCC 5 529	476
99	PRAIRIE VIEW A&M UNIV	J MALONE	GSFC	R WILKINS	NAG 5 11070	476
99	PRINCETON UNIV	J MARRA	GSFC	M BENDER	NAG 5 11301	354
99	PRINCETON UNIV	K BLANDING	GSFC	D SAVILLE	NGT 5 50370	356
99	PRINCETON UNIV	K BLANDING	GSFC	E CHOUEIRI	NGT 5 50356	356
99	PRINCETON UNIV	M MELLOTT	GSFC	J R JOHNSON	NAG 5 10217	354
99	PRINCETON UNIV	M WEI	GSFC	S HUBBELL	NGT 5 30113	355
99	PURDUE UNIV	B J WOOLFORD	JSC	G SALVENDY	NAG 9 1281	219
99	PURDUE UNIV	D DETROYE	GSFC	D ANDRISANI	NGT 5 40114	220
99	PURDUE UNIV	D FOLTA	GSFC	K C HOWELL	NCC 5 358	219
99	PURDUE UNIV	D SENSEK	GSFC	B PICKETT	NAG 5 10262	218
99	PURDUE UNIV	J M BOYCE	GSFC	J SHAN	NAG 5 11080	219
99	PURDUE UNIV	K BLANDING	GSFC	J M LONGUSKI	NGT 5 50275	220
99	PURDUE UNIV	K BLANDING	GSFC	T ZWEIR	NGT 5 50336	220
99	PURDUE UNIV	L KEFFER	GSFC	D ANDRISANI	NGT 5 40043	220
99	PURDUE UNIV	M MEYER	GSFC	J A CHMIELEWSKI	NAG 5 10735	218
99	PURDUE UNIV	P ULRICH	GSFC	C NOUSSAIR	NAG 5 10061	218
99	RENSSELAER POLYTECH INST	D MONTEGANI	GRC	J A TICHY	NGT 3 52341	385
99	RENSSELAER POLYTECH INST	G A ROBERSTON	MSFC	L N MYRABO	NAG 8 1290	385
99	RENSSELAER POLYTECH INST	L SMITH	GSFC	B SZMANSKI	NGT 5 50165	385
99	RENSSELAER POLYTECH INST	M MEYER	GSFC	J P FERRIS	NAG 5 9607	385
99	RICE UNIV	A TUYAHOV	GSFC	P REIFF	NCC 5 311	479
99	RICE UNIV	C L FARMER	JSC	D SUBRAMANIAN	NAG 9 1249	478
99	RICE UNIV	J SHARBER	GSFC	R WOLF	NAG 5 9077	477
99	RICE UNIV	P HUNTER	GSFC	E MERENYI	NAG 5 10432	478
99	ROANOKE COLLEGE	D SIX	MSFC	A F BARGHOUTY	NAG 8 1208	522
99	RUTGERS ST UNIV N	G ASRAR	GSFC	D ROBINSON	NGT 5 30062	359
99	RUTGERS ST UNIV N	K BLADING	GSFC	C MAVROIDIS	NGT 5 50364	359
99	RUTGERS ST UNIV N	P CRANE	GSFC	J SELLWOOD	NAG 5 10110	358
99	RUTGERS STATE UNIV OF NJ NEW BRUNS	P DECOLA	GSFC	Y WANG	NAG 5 11244	359
99	SAINT CLOUD STATE UNIV	J HILLMAN	GSFC	M WOMACK	NAG 5 11287	320
99	SALISH KOOTENAI COLLEGE	M STOUTSENBERGER	GSFC	J M GOBERT	NAG 5 9147	338
99	SAN ANTONIO COLLEGE	L ARMENDARIZ	JSC	C GONZALES	NAG 9 975	479
99	SAN DIEGO STATE UNIV	A PEEK	SSC	D STOWE	NCC13 00002	54
99	SAN DIEGO STATE UNIV	M WEI	GSFC	A HOPE	NGT 5 30367	55
99	SAN JACINTO COLLEGE	D DENTON-MISFELDT	JSC	N J ANTHA	NAS 9 00106	479
99	SAN JACINTO COLLEGE	D SICKOREZ	JSC	M DALTON	NCC 9 137	479
99	SAN JACINTO COLLEGE	N AVAILABLE	JSC	N AVAILABLE	NCC 9 141	479
99	SAN JOSE STATE UNIV	I STATLER	ARC	K CORKER	NAG 2 1454	55
99	SAN JOSE STATE UNIV	J BOYCE	GSFC	A BRIDGER	NAG 5 11185	56
99	SAN JOSE STATE UNIV	J BOYCE	GSFC	S C RAFKIN	NAG 5 9500	55
99	SAN JOSE STATE UNIV	M MOORE	ARC	B STONE	NGT 2 52262	58
99	SAN JOSE STATE UNIV	N S DORGHII	ARC	M S PATANKAR	NCC 2 1284	57
99	SAN JOSE STATE UNIV	R K DISMUKE	ARC	K P JORDAN	NCC 2 1095	56
99	SAN JOSE STATE UNIV	RJ DISMUKE	ARC	K JORDON	NCC 2 1155	57
99	SHAW UNIV	M STOUTSENBERGER	GSFC	K SATAGOPAN	NAG 5 9195	402
99	SONOMA STATE UNIV	D GABRYS	GSFC	L COMINSKY	NCC 5 429	59
99	SOUTH CAROLINA STATE UNIV	J HARRINGTON	GSFC	D WALTER	NCC 5 534	465
99	SOUTH CAROLINA STATE UNIV	M MATTHEWS	GSFC	D K WALTER	NCC 5 454	465
99	SOUTH CAROLINA STATE UNIV	N R PELLIS	MSFC	J D SALLEY	NAG 5 8246	465
99	SOUTH DAKOTA SCH OF MINES & TECH	D DETROYE	GSFC	S FARWELL	NCC 5 402	466
99	SOUTH DAKOTA SCH OF MINES & TECH	D DETROYE	GSFC	S O FARWELL	NCC 5 588	466

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99	SOUTH DAKOTA SCH OF MINES & TECH	D DETROYE	GSFC	S O FARWELL	NGT 5 40042	467
99	SOUTH DAKOTA SCH OF MINES & TECH	D DETROYE	GSFC	S O FARWELL	NGT 5 40095	467
99	SOUTHERN UNIV & A&M COLLEGE	A JOYCE	SSC	E HILDRETH	NGT13 52720	236
99	SOUTHERN UNIV & A&M COLLEGE	B WHITE	GSFC	D BAGAYOKO	NAG 5 8552	236
99	SOUTHERN UNIV & A&M COLLEGE	D FORD	MSFC	C WANG	NCC 8 138	236
99	SOUTHERN UNIV & A&M COLLEGE	G GORDON	MSFC	M A STUNNLEFIELD	NAG 8 1536	236
99	SOUTHERN UNIV & A&M COLLEGE	R TRAVIS	SSC	D BAGAYOKO	NCC13 00010	236
99	SOUTHERN UNIV & A&M COLLEGE	W J LOVE	MSFC	L L LAURENCE	NAG 8 1627	236
99	SOUTHWEST TEXAS JUNIOR COLLEGE	L ARMENDARIZ	JSC	A HERNANDEZ	NAG 9 1019	480
99	SPELMAN COLLEGE	C PERSON	GSFC	S T BOZEMAN	NAG 5 9313	190
99	SPELMAN COLLEGE	W J LOVE	MSFC	E Z FALCONER	NCC 8 179	190
99	STANFORD UNIV	A NURRIDIN	GSFC	R WAGONER	NGT 5 50044	66
99	STANFORD UNIV	A NURRIDIN	HQ	J HOW	NGT 5 50075	67
99	STANFORD UNIV	B BETTS	GSFC	L TYLER	NAG 5 9494	62
99	STANFORD UNIV	D BOGAN	GSFC	G TYLER	NAG 5 9556	62
99	STANFORD UNIV	J SHARBER	GSFC	U S INAN	NGT 5 50351	67
99	STANFORD UNIV	K BLANDING	HQ	A FOX	NGT 5 50358	67
99	STANFORD UNIV	L SMITH	GSFC	A B WALKER	NGT 5 50254	67
99	STANFORD UNIV	M WEI	GSFC	C FIELD	NGT 5 50101	67
99	STANFORD UNIV	M WEI	GSFC	K ARRIGO	NGT 5 30392	66
99	STANFORD UNIV	T J BARTH	ARC	T HUGHES	NCC 2 5363	65
99	STATE UNIV OF NY - BUFFALO	J BOYCE	GSFC	T GREGG	NAG 5 9619	388
99	STATE UNIV OF NY - BUFFALO	S DAVISON	GSFC	B GONG	NAG 5 9873	388
99	STATE UNIV OF NY - STONY BROOK	M Y WEI	GSFC	M LERDAU	NGT 5 30124	391
99	STATE UNIV OF NY - STONY BROOK	P DECOLA	GSFC	M GELLER	NAG 5 11240	391
99	STATE UNIV OF NY - STONY BROOK	R R ANTCLIFF	LARC	Y SHAMASH	NAG 1 01052	388
99	STATE UNIV OF NY COL - PURCHASE	D SENSKA	GSFC	G FLYNN	NAG 5 10221	392
99	STEVENS INST OF TECH	D D DETROYE	GSFC	S THANGAM	NGT 5 40096	360
99	STEVENS INST OF TECH	L KEFFER	GSFC	S THANGAM	NGT 5 40041	360
99	TENNESSEE STATE UNIV	B J COLLINS	ARC	W A SMITH	NAG 2 6052	468
99	TENNESSEE STATE UNIV	J HARRINGTON	GSFC	W A SMITH	NCC 5 531	469
99	TENNESSEE STATE UNIV	M BOROWSKI	GRC	D ROGERS	NAG 3 2606	468
99	TENNESSEE STATE UNIV	M CAWTHON	GRC	D B ROGERS	NAG 3 2441	468
99	TENNESSEE STATE UNIV	M MATHEWS	GSFC	M BUSBY	NAG 5 10896	468
99	TENNESSEE STATE UNIV	M MATHEWS	GSFC	M BUSBY	NCC 5 511	469
99	TENNESSEE STATE UNIV	P SAKIMOTO	GSFC	M BUSBY	NCC 5 228	468
99	TENNESSEE STATE UNIV	R F LAWRENCE	GRC	D B ROGERS	NAG 3 2272	468
99	TENNESSEE STATE UNIV	R LAWRENCE	GRC	D ROGERS	NAG 3 2577	468
99	TENNESSEE TECHNOLOGICAL UNIV	C K CARRINGTON	MSFC	S CANFIELD	NAG 8 1749	469
99	TENNESSEE TECHNOLOGICAL UNIV	J P DOWDY	MSFC	J C CHAI	NAG 8 1279	469
99	TEXAS A&M UNIV	A STRAHAN	JSC	D T WARD	NAG 9 1268	483
99	TEXAS A&M UNIV	C PERSON	GSFC	C STEIDLEY	NCC 5 517	484
99	TEXAS A&M UNIV	D BARTA	JSC	M C DREW	NAG 9 1067	482
99	TEXAS A&M UNIV	D SICKOREZ	JSC	W A HYMAN	NGT 9 39	484
99	TEXAS A&M UNIV	D SICKOREZ	JSC	W A HYMAN	NGT 9 54	484
99	TEXAS A&M UNIV	J E CALOGERAS	GRC	F R BEST	NCC 3 516	483
99	TEXAS A&M UNIV	J HOWELL	MSFC	K CHANG	NAG 8 1618	482
99	TEXAS A&M UNIV	K W LASSMAN	GRC	G SERA	NAS 9 00100	483
99	TEXAS A&M UNIV	M MEYER	GSFC	M C KENNICUT	NAG 5 9485	481
99	TEXAS A&M UNIV	M WEI	GSFC	D COLLINS	NAG 5 10549	481
99	TEXAS A&M UNIV	M WEI	GSFC	P CHANG	NGT 5 30417	484
99	TEXAS A&M UNIV	P MOUNTJPOY	HQ	S BEDNARZ	NCC 5 359	484
99	TEXAS A&M UNIV-CORPUS CHRISTI	N KHAZENIE	GSFC	G BLOUNT	NAG 5 9196	484
99	TEXAS COLLEGE	C PERSON	GSFC	M NAMBOODIRI	NAG 5 11002	485
99	TEXAS COLLEGE	C PERSON	GSFC	T NAMBOODIRI	NAG 5 8934	485
99	TEXAS TECH UNIV	J BREDEKAMP	GSFC	D COOKE	NAG 5 9505	485
99	THE AMERICAN UNIV	D DETROYE	GSFC	R BERENDZEN	NGT 5 40068	156
99	THE CATHOLIC UNIV OF AMERICA	J BOYCE	GSFC	D CRIDER	NAG 5 11225	160
99	THE CATHOLIC UNIV OF AMERICA	L PURVES	GSFC	D NGUYEN	NAG 5 8357	157
99	THE CATHOLIC UNIV OF AMERICA	P CRANE	GSFC	S KRAEMER	NAG 5 10500	159
99	THE CATHOLIC UNIV OF AMERICA	R CROUCH	GSFC	R D PARASURAMAN	NAG 5 8761	158
99	THE CATHOLIC UNIV OF AMERICA	W J WAGNER	GSFC	N GOPALSWAMY	NAG 5 10837	159
99	THE SCRIPPS REASERCH INST	M MEYER	HQ	G JOYCE	NAG 5 9386	67
99	THE UNIV OF CENTRAL FLORIDA	C BLACK	KSC	R HOSLER	NAG10 299	170
99	THE UNIV OF CENTRAL FLORIDA	D DETROYE	GSFC	S DURRANCE	NGT 5 40069	170
99	THE UNIV OF CENTRAL FLORIDA	D DETROYE	GSFC	S DURRANCE	NGT 5 40071	170

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99	THE UNIV OF CENTRAL FLORIDA	D DETROYE	GSFC	S DURRANCE	NGT 5 40107	171
99	THE UNIV OF CENTRAL FLORIDA	J P GORDON	KSC	D HOSIER	NAG10 280	170
99	TUFTS UNIV	P E HUNTER	GSFC	K R LANG	NAG 5 10350	301
99	TUFTS UNIV	R E GABRYS	GSFC	C ROGERS	NCC 5 434	301
99	TUFTS UNIV	W J WAGNER	GSFC	K R LANG	NAG 5 9725	300
99	TUSKEGEE UNIV	B ST. CYR	SSC	E SHEPPARD	NAG13 50	5
99	TUSKEGEE UNIV	B WHITE	HQ	N O EGIEBOR	NCC 5 346	5
99	TUSKEGEE UNIV	M MATHEWS	GSFC	R D PACE	NAG 5 10535	5
99	TUSKEGEE UNIV	R MCKINNEY	KSC	C DAVIS	NAG10 256	5
99	U OF MD CTR FOR ENVI SCI-CAMBRIDGE	E LINDSTROM	GSFC	L HARDING	NAG 5 11302	255
99	UNIV HOUSTON-HOUSTON	F J MONTEGANI	GRC	V BALAKOTAIAH	NGT 3 52356	488
99	UNIV HOUSTON-HOUSTON	H L DAVIS	JSC	A V VAILLAS	NCC 9 70	487
99	UNIV HOUSTON-HOUSTON	L ARMENDARIZ	JSC	T MINDIOLA	NAG 9 1055	487
99	UNIV HOUSTON-HOUSTON	L M ARMENDARIZ	JSC	T MINDIOLA	NAG 9 1363	487
99	UNIV OF MASSACHUSETTS	K BLANDING	GSFC	L BONASSAR	NGT 5 50374	301
99	UNIV OF MED AND DENTISTRY	L SMITH	HQ	N C PARTRIDGE	NGT 5 50335	360
99	UNIV OF MINN	A NURRIDIN	HQ	HALLEY	NGT 5 50091	325
99	UNIV OF MINN	A TUYAHOV	GSFC	T BURK	NCC 5 316	325
99	UNIV OF MINN	D DETROYE	GSFC	W L GARRARD	NGT 5 40040	325
99	UNIV OF MINN	D DETROYE	GSFC	W L GARRARD	NGT 5 40086	325
99	UNIV OF MINN	E LINDSTROM	GSFC	G NIEMI	NAG 5 11262	323
99	UNIV OF MINN	G ASRAR	GSFC	G POURFOULA	NGT 5 50104	325
99	UNIV OF MINN	G ASRAR	GSFC	M DAVIS	NGT 5 30115	325
99	UNIV OF MINN	G ASRAR	GSFC	M PERSON	NGT 5 30080	325
99	UNIV OF MINN	J SHARBER	GSFC	J WYGANT	NGT 5 50312	326
99	UNIV OF MINN	K BLANDING	GSFC	E SKILLMAN	NGT 5 50346	326
99	UNIV OF MINN	K BLANDING	GSFC	S HANAY	NGT 5 50344	326
99	UNIV OF MINN	K OGILIVIE	GSFC	P KELLOG	NAG 5 7202	322
99	UNIV OF MINN	L SMITH	GSFC	C CATTELL	NGT 5 50251	326
99	UNIV OF MINN	L SMITH	GSFC	J DICKEY	NGT 5 50250	326
99	UNIV OF MINN	L SMITH	GSFC	R LYSAK	NGT 5 50293	326
99	UNIV OF MINN	M WEI	GSFC	F PORTE-AGEL	NAG 5 10569	323
99	UNIV	L KEFFER	GSFC	J V TARANIK	NGT 5 40038	342
99	UNIV	M GERNHARDT	JSC	B BUTLER	NCC 9 82	490
99	UNIV OF AKRON	FJ MONTEGANI	GRC	R K EBY	NGT 3 52327	422
99	UNIV OF ALABAMA - BIRMINGHAM	B BETTS	GSFC	T WDOWIAK	NAG 5 9424	6
99	UNIV OF ALABAMA - BIRMINGHAM	L P CHAMBERS	GSFC	L J DELUCAS	NAG 5 11146	6
99	UNIV OF ALABAMA - HUNTSVILLE	D D DETROYE	GSFC	J C GREGORY	NGT 5 40077	14
99	UNIV OF ALABAMA - HUNTSVILLE	D DETROYE	GSFC	J C GREGORY	NCC 5 580	13
99	UNIV OF ALABAMA - HUNTSVILLE	D DETROYE	GSFC	J GREGORY	NCC 5 391	13
99	UNIV OF ALABAMA - HUNTSVILLE	D E DETROYE	GSFC	J GREGORY	NGT 5 40018	14
99	UNIV OF ALABAMA - HUNTSVILLE	G HULLETT-SMITH	MSFC	S J GRAVES	NAS 8 00180	12
99	UNIV OF ALABAMA - HUNTSVILLE	J F DOWDY	MSFC	G R KARR	NGT 8 52874	14
99	UNIV OF ALABAMA - HUNTSVILLE	J F SPANN	GSFC	D F SMART	NAG 5 10943	11
99	UNIV OF ALABAMA - HUNTSVILLE	J R PRUITT	MSFC	G KARR	NAG 8 1786	12
99	UNIV OF ALABAMA - HUNTSVILLE	J RAKOCZY	MSFC	B PETERS	NAS 8 00118	12
99	UNIV OF ALABAMA - HUNTSVILLE	J SHARBER	GSFC	N SINGH	NAG 5 9397	10
99	UNIV OF ALABAMA - HUNTSVILLE	L KEFFER	GSFC	J C GREGORY	NCC 5 165	13
99	UNIV OF ALABAMA - HUNTSVILLE	M WATSON	MSFC	Y TAKAHASHI	NAS 8 98226	13
99	UNIV OF ALABAMA - HUNTSVILLE	N PELLIS	JSC	K CHITTUR	NAG 8 1355	11
99	UNIV OF ALABAMA - HUNTSVILLE	N QQURAISHI	JSC	J RUPERT	NCC 9 109	14
99	UNIV OF ALABAMA - HUNTSVILLE	P DECOLA	GSFC	M NEWCHURCH	NAG 5 11248	11
99	UNIV OF ALABAMA - HUNTSVILLE	P E HUNTER	GSFC	G A GERMANY	NAG 5 10743	10
99	UNIV OF ALABAMA - HUNTSVILLE	S COLEMAN	MSFC	L R GREENWOOD	NCC 8 200	13
99	UNIV OF ALABAMA - HUNTSVILLE	W WAGNER	GSFC	M A SHEA	NAG 5 10785	11
99	UNIV OF ALABAMA - UNIV	D V GALLAWAY	HQ	M FREEMAN	NAG 5 4346	15
99	UNIV OF ALABAMA - UNIV	J HARRINGTON	GSFC	M FREEMAN	NAG 5 9855	15
99	UNIV OF ALABAMA - UNIV	J R PRUITT	MSFC	L M FREEMAN	NAG 8 1724	16
99	UNIV OF ALABAMA - UNIV	M PHELPS	GSFC	L FREEMAN	NAG 5 9388	15
99	UNIV OF ALASKA - FAIRBANKS	D DETROYE	GSFC	J G HAWKINS	NGT 5 40014	19
99	UNIV OF ALASKA - FAIRBANKS	D DETROYE	GSFC	J G HAWKINS	NGT 5 40100	19
99	UNIV OF ALASKA - FAIRBANKS	J BOYCE	GSFC	K YOSHIKAWA	NAG 5 11213	18
99	UNIV OF ALASKA - FAIRBANKS	J SHARBER	GSFC	A OTTO	NAG 5 9457	18
99	UNIV OF ALASKA - FAIRBANKS	M MELLOTT	GSFC	M CONDE	NAG 5 10069	18
99	UNIV OF ALASKA - FAIRBANKS	M MEYER	GSFC	G PLUMLEY	NAG 5 9513	18
99	UNIV OF ALASKA - FAIRBANKS	M WEI	GSFC	J FREYMUeller	NGT 5 30381	19

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99	UNIV OF ALASKA - FAIRBANKS	W ABDALATI	GSFC	C LINGLE	NAG 5 11226	18
99	UNIV OF ALBUQUERQUE	LM ARMENDARIZ	JSC	R A LAFARGE	NAG 9 1312	364
99	UNIV OF ARIZONA	A NURRIDIN	GSFC	M LLOYD-HART	NGT 5 50046	40
99	UNIV OF ARIZONA	B BETTS	GSFC	T SWINDLE	NAG 5 9198	32
99	UNIV OF ARIZONA	B BETTS	GSFC	W BOYNTON	NAG 5 9425	32
99	UNIV OF ARIZONA	C HILL	SSC	R DAVIS	NAG13 99005	38
99	UNIV OF ARIZONA	D BOGAN	GSFC	D HUNTEM	NAG 5 8970	31
99	UNIV OF ARIZONA	D BOGAN	GSFC	E P TURTLE	NAG 5 8937	31
99	UNIV OF ARIZONA	D BOGAN	GSFC	F HERBERT	NAG 5 8952	31
99	UNIV OF ARIZONA	D BOGAN	GSFC	R GREENBERG	NAG 5 8941	31
99	UNIV OF ARIZONA	D D DETROYE	GSFC	M J DRAKE	NGT 5 40082	40
99	UNIV OF ARIZONA	D DETROYE	GSFC	E H LEVY	NGT 5 40026	39
99	UNIV OF ARIZONA	D SENSEK	GSFC	P GEISSLER	NAG 5 10162	33
99	UNIV OF ARIZONA	G STRINGFELLOW	GSFC	L ZIURYS	NAG 5 10333	34
99	UNIV OF ARIZONA	G STRINGFELLOW	GSFC	P BERNATH	NAG 5 10205	33
99	UNIV OF ARIZONA	J BOYCE	GSFC	M J DRAKE	NAG 5 9435	32
99	UNIV OF ARIZONA	J BREDEKAMP	GSFC	E MERENYI	NAG 5 9405	32
99	UNIV OF ARIZONA	J BREDEKAMP	GSFC	J HOLBERG	NAG 5 9408	32
99	UNIV OF ARIZONA	K BLANDING	GSFC	C WALKER	NGT 5 50246	40
99	UNIV OF ARIZONA	L SMITH	GSFC	A BURROWS	NGT 5 50300	40
99	UNIV OF ARIZONA	L SMITH	GSFC	D DELUCA	NGT 5 50303	40
99	UNIV OF ARIZONA	L SMITH	GSFC	D MCCARTHY	NGT 5 50283	40
99	UNIV OF ARIZONA	L SMITH	GSFC	L ZIURYS	NGT 5 50282	40
99	UNIV OF ARIZONA	L SMITH	GSFC	R GREENBERG	NGT 5 50289	40
99	UNIV OF ARIZONA	L SMITH	GSFC	U FINK	NGT 5 50243	40
99	UNIV OF ARIZONA	M JASINSKI	GSFC	S SOROOSHIAN	NAG 5 11044	35
99	UNIV OF ARIZONA	M WEI	GSFC	R C BALES	NGT 5 30386	39
99	UNIV OF ARIZONA	P HUNTER	GSFC	J A LARSEN	NAG 5 8095	29
99	UNIV OF ARIZONA	T MORGAN	GSFC	S LARSEN	NAG 5 10853	35
99	UNIV OF ARIZONA	T MORGAN	GSFC	S LARSON	NAG 5 9465	32
99	UNIV OF ARIZONA	W ABDALATI	GSFC	R BALES	NAG 5 10264	33
99	UNIV OF ARIZONA	W ABDALATI	GSFC	V BAKER	NAG 5 10123	33
99	UNIV OF ARIZONA	W J WAGNER	GSFC	G M WEBB	NAG 5 10974	35
99	UNIV OF ARIZONA	W J WAGNER	GSFC	J KOTA	NAG 5 10884	35
99	UNIV OF ARIZONA	W J WAGNER	GSFC	J R JOKIPPI	NAG 5 10990	35
99	UNIV OF ARKANSAS - LITTLE ROCK	D DETROYE	GSFC	K HUDSON	NCC 5 404	41
99	UNIV OF ARKANSAS - LITTLE ROCK	D DETROYE	GSFC	K HUDSON	NCC 5 597	41
99	UNIV OF ARKANSAS - LITTLE ROCK	D DETROYE	GSFC	M HUDSON	NGT 5 40119	41
99	UNIV OF ARKANSAS - LITTLE ROCK	L KEFFER	GSFC	G M NORTHROP	NGT 5 40063	41
99	UNIV OF ARK MAIN CAMP - FAYETTEVILLE	M J LEON	ARC	T KRAL	NCC 2 5360	41
99	UNIV OF CALIFORNIA - BERKELEY	A NURRIDIN	GSFC	E HALLER	NGT 5 50048	78
99	UNIV OF CALIFORNIA - BERKELEY	A NURRIDIN	HQ	P PRICE	NGT 5 50157	78
99	UNIV OF CALIFORNIA - BERKELEY	D WICKLAND	GSFC	I FUNG	NAG 5 11200	75
99	UNIV OF CALIFORNIA - BERKELEY	F S HERRERO	GSFC	D SIEGMUND	NAG 5 7615	71
99	UNIV OF CALIFORNIA - BERKELEY	G ASRAR	GSFC	M FIRESTONE	NGT 5 30071	78
99	UNIV OF CALIFORNIA - BERKELEY	J SHARBER	GSFC	L MUSCHIETTI	NAG 5 10300	74
99	UNIV OF CALIFORNIA - BERKELEY	J SPANN	GSFC	T PHAN	NAG 5 10471	74
99	UNIV OF CALIFORNIA - BERKELEY	K BLANDING	GSFC	J TAYLOR	NGT 5 50342	79
99	UNIV OF CALIFORNIA - BERKELEY	K BLANDING	GSFC	R LIN	NGT 5 50338	79
99	UNIV OF CALIFORNIA - BERKELEY	K BLANDING	GSFC	S FREEDMAN	NGT 5 50365	79
99	UNIV OF CALIFORNIA - BERKELEY	L SMITH	GSFC	J GRAHAM	NGT 5 50245	79
99	UNIV OF CALIFORNIA - BERKELEY	M MEYER	GSFC	R SAYKALLY	NAG 5 7457	71
99	UNIV OF CALIFORNIA - BERKELEY	M WEI	GSFC	D DE PAOLO	NGT 5 30380	78
99	UNIV OF CALIFORNIA - BERKELEY	M WEI	GSFC	J HARTE	NGT 5 30403	78
99	UNIV OF CALIFORNIA - BERKELEY	M WEI	GSFC	R AMUNDSON	NGT 5 30383	78
99	UNIV OF CALIFORNIA - BERKELEY	P CRANE	GSFC	D BUZASI	NAG 5 9318	73
99	UNIV OF CALIFORNIA - BERKELEY	P E HUNTER	GSFC	I HAWKINS	NAG 5 10314	74
99	UNIV OF CALIFORNIA - BERKELEY	R GRYMES	ARC	J F BANFIELD	NAG 2 1523	68
99	UNIV OF CALIFORNIA - BERKELEY	R PFAFF	GSFC	C W CARLSON	NAS 5 99242	76
99	UNIV OF CALIFORNIA - BERKELEY	W WAGNER	GSFC	J G LUHMAN	NAG 5 10925	75
99	UNIV OF CALIFORNIA - DAVIS	A NURRIDIN	HQ	C A FULLER	NGT 5 50204	83
99	UNIV OF CALIFORNIA - DAVIS	B W MEESON	GSFC	C O QUALSET	NAG 5 8586	81
99	UNIV OF CALIFORNIA - DAVIS	E LINDSTROM	GSFC	S USTIN	NAG 5 11260	81
99	UNIV OF CALIFORNIA - DAVIS	K BLANDING	GSFC	L H KELLOGG	NGT 5 50230	84
99	UNIV OF CALIFORNIA - DAVIS	L SMITH	GSFC	S CARLIP	NGT 5 50281	84
99	UNIV OF CALIFORNIA - DAVIS	M WEI	GSFC	S G USTIN-KENNEDY	NGT 5 30073	83

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99	UNIV OF CALIFORNIA - DAVIS	M WEI	GSFC	S USTIN	NGT 5 30373	83
99	UNIV OF CALIFORNIA - DAVIS	M WEI	GSFC	S USTIN	NGT 5 30411	83
99	UNIV OF CALIFORNIA - IRVINE	G ASRAR	GSFC	M PRATHER	NGT 5 30127	86
99	UNIV OF CALIFORNIA - IRVINE	G GUTMAN	GSFC	C ZENDER	NAG 5 10147	85
99	UNIV OF CALIFORNIA - IRVINE	L SMITH	GSFC	R E PURDY	NGT 5 50317	87
99	UNIV OF CALIFORNIA - IRVINE	M WEI	GSFC	S TYLER	NGT 5 30409	86
99	UNIV OF CALIFORNIA - IRVINE	P DECOLA	GSFC	M PRATHER	NAG 5 11272	85
99	UNIV OF CALIFORNIA - IRVINE	R WILKINSON	GRC	P TABOREK	NAG 3 2389	84
99	UNIV OF CALIFORNIA - LOS ANGELES	A NURRIDIN	HQ	V EDGERTON	NGT 5 50202	95
99	UNIV OF CALIFORNIA - LOS ANGELES	C W LLOYD	JSC	B	NAG 9 1252	94
99	UNIV OF CALIFORNIA - LOS ANGELES	D BOGAN	GSFC	C T RUSSELL	NAG 5 8938	91
99	UNIV OF CALIFORNIA - LOS ANGELES	D BOGAN	GSFC	R THORNE	NAG 5 9074	92
99	UNIV OF CALIFORNIA - LOS ANGELES	D J BOGAN	GSFC	G SCHUBERT	NAG 5 11210	94
99	UNIV OF CALIFORNIA - LOS ANGELES	G MADDERA	LARC	R P TURCO	NAG 1 1899	87
99	UNIV OF CALIFORNIA - LOS ANGELES	J SHARBER	GSFC	C WU	NAG 5 9111	92
99	UNIV OF CALIFORNIA - LOS ANGELES	J SHARBER	GSFC	P L PRITCHETT	NGT 5 10287	93
99	UNIV OF CALIFORNIA - LOS ANGELES	J SHARBER	GSFC	R WALKER	NGT 5 10282	93
99	UNIV OF CALIFORNIA - LOS ANGELES	K BLANDING	GSFC	C RUSSELLI	NGT 5 50359	95
99	UNIV OF CALIFORNIA - LOS ANGELES	L SMITH	GSFC	D K JACOBS	NGT 5 50310	95
99	UNIV OF CALIFORNIA - LOS ANGELES	M MAIDEN	GSFC	R MUNTZ	NCC 5 301	94
99	UNIV OF CALIFORNIA - LOS ANGELES	M WEI	GSFC	A ELDERING	NGT 5 30372	95
99	UNIV OF CALIFORNIA - LOS ANGELES	M WEI	GSFC	L SMITH	NAG 5 10609	93
99	UNIV OF CALIFORNIA - LOS ANGELES	S CURTIS	GSFC	M ABDALLA	NAG 5 6689	89
99	UNIV OF CALIFORNIA - LOS ANGELES	S MCCEE	HQ	P WANG	NGT 5 50220	95
99	UNIV OF CALIFORNIA - LOS ANGELES	W J WAGNER	GSFC	C T RUSSELL	NAG 5 10834	93
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99	UNIV OF CALIFORNIA - SAN DIEGO	D D DETROYE	GSFC	J ARNOLD	NGT 5 40085	105
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99	UNIV OF CALIFORNIA - SAN DIEGO	J MARRA	GSFC	B MITCHELL	NAG 5 10276	101
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99	UNIV OF CALIFORNIA - SAN DIEGO	R CROUCH	GSFC	T JUNG	NAG 5 8768	100
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99	UNIV OF CALIFORNIA - SANTA BARBARA	G ASRAR	GSFC	R SMITH	NGT 5 30063	110
99	UNIV OF CALIFORNIA - SANTA BARBARA	J MARRA	GSFC	N NELSON	NAG 5 10146	108
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99	UNIV OF COLORADO - BOULDER	D BOGAN	GSFC	K SIMMONS	NAG 5 8940	132
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99	UNIV OF COLORADO - BOULDER	G ASRAR	GSFC	J CURRY	NGT 5 30128	141
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99	UNIV OF MISSOURI - COLUMBIA	A NURRIDIN	HQ	M LAUGHLIN	NGT 5 50205	331
99	UNIV OF MISSOURI - COLUMBIA	B DAVIS	SSC	A K SHACKLEFORD	NGT13 52747	331
99	UNIV OF MISSOURI - COLUMBIA	M MEYER	GSFC	F SCHMIDT	NAG 5 9555	330
99	UNIV OF MISSOURI - ROLLA	D D DETROYE	GSFC	F FINIASH	NGT 5 40112	332
99	UNIV OF MISSOURI - ROLLA	L KEFFER	GSFC	B P SELBERG	NGT 5 40060	332
99	UNIV OF MONTANA	D WICKLAND	GSFC	S RUNNING	NAG 5 11256	339
99	UNIV OF MONTANA	M WEI	GSFC	S RUNNING	NGT 5 30395	339
99	UNIV OF MONTANA	M Y WEI	GSFC	R J FIELD	NGT 5 50225	339
99	UNIV OF NEBRASKA - LINCOLN	A PEEK	SSC	RUNDQUIST	NCC13 98003	341
99	UNIV OF NEBRASKA - LINCOLN	D D DETROYE	GSFC	B D BOWEN	NCC 5 169	341
99	UNIV OF NEBRASKA - LINCOLN	D L KALE	GSFC	D RUNDQUIST	NAG 5 4217	340
99	UNIV OF NEBRASKA - LINCOLN	G GUTMAN	GSFC	A GITELSON	NAG 5 11147	340
99	UNIV OF NEBRASKA - LINCOLN	M Y WEI	GSFC	M BLUM	NGT 5 30358	341
99	UNIV OF NEBRASKA - LINCOLN	R E GABRYS	GSFC	D C RUNDQUIST	NCC 5 430	341
99	UNIV OF NEBRASKA-OMAHA	D D DETROYE	GSFC	B D BOWEN	NGT 5 40104	341
99	UNIV OF NEBRASKA-OMAHA	D DETROYE	GSFC	B D BOWEN	NCC 5 572	341
99	UNIV OF NEBRASKA-OMAHA	D DETROYE	HQ	B BROWN	NCC 5 401	341
99	UNIV OF NEBRASKA-OMAHA	L KEFFER	GSFC	B D BOWEN	NGT 5 40037	341
99	UNIV OF NEVADA - LAS VEGAS	J BREDEKAMP	GSFC	S LATIFI	NAG 5 9489	342
99	UNIV OF NEVADA - RENO	D DETROYE	GSFC	J V TARANIK	NGT 5 40113	343
99	UNIV OF NEVADA - RENO	K BLANDING	GSFC	W CALVIN	NGT 5 50362	343
99	UNIV OF NEVADA SYSTEM	D DETROYE	GSFC	J TARANKI	NCC 5 397	343
99	UNIV OF NEVADA SYSTEM	D DETROYE	HQ	J V TARANIK	NCC 5 583	343
99	UNIV OF NEW HAMPSHIRE - DURHAM	D DETROYE	GSFC	D BARTLETT	NGT 5 40088	350
99	UNIV OF NEW HAMPSHIRE - DURHAM	D DETROYE	GSFC	D S BARTLETT	NGT 5 40010	350

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99	UNIV OF NEW HAMPSHIRE - DURHAM	D E WICKLAND	GSFC	B MOORE	NAG 5 10135	348
99	UNIV OF NEW HAMPSHIRE - DURHAM	D WICKLAND	GSFC	S OLLINGER	NAG 5 11310	349
99	UNIV OF NEW HAMPSHIRE - DURHAM	J MARRA	GSFC	C VOROSMARTY	NAG 5 10260	348
99	UNIV OF NEW HAMPSHIRE - DURHAM	J MARRA	GSFC	J W CAMPBELL	NAG 5 11258	349
99	UNIV OF NEW HAMPSHIRE - DURHAM	M WEITH	GSFC	J E DIBB	NGT 5 30349	350
99	UNIV OF NEW HAMPSHIRE - DURHAM	W J WAGNER	GSFC	B J VASQUEZ	NAG 5 10988	349
99	UNIV OF NEW HAMPSHIRE - DURHAM	W J WAGNER	GSFC	P A ISENBERG	NAG 5 10835	348
99	UNIV OF NEW HAMPSHIRE - DURHAM	W J WAGNER	GSFC	T G FORBES	NAG 5 10977	348
99	UNIV OF NEW HAMPSHIRE - DURHAM	W WAGNER	GSFC	C FARRUGIA	NAG 5 10883	348
99	UNIV OF NEW HAMPSHIRE - DURHAM	W WAGNER	GSFC	M L MCCONNEL	NAG 5 10203	348
99	UNIV OF NEW MEXICO-ALBUQUERQUE	A TUYAHOV	GSFC	S MORAIN	NCC 5 309	366
99	UNIV OF NEW MEXICO-ALBUQUERQUE	B J COLLINS	ARC	P DORATO	NAG 2 1480	364
99	UNIV OF NEW MEXICO-ALBUQUERQUE	L ARMENDARIZ	JSC	H E NEWSOM	NAG 9 1017	366
99	UNIV OF NEW MEXICO-ALBUQUERQUE	M MATHEWS	GSFC	M JAMSHIDI	NCC 5 350	366
99	UNIV OF NEW MEXICO-ALBUQUERQUE	M WEI	GSFC	B MILNE	NGT 5 30227	366
99	UNIV OF NEW MEXICO-ALBUQUERQUE	R CROUCH	GSFC	J BRINKER	NAG 5 8821	365
99	UNIV OF NEW MEXICO-ALBUQUERQUE	W H MILLER	GSFC	G MAKI	NAG 5 7006	364
99	UNIV OF NEW ORLEANS	F SIX	MSFC	J J HEGSETH	NAG 8 1116	237
99	UNIV OF NEW ORLEANS	R MILLER	SSC	J CORBINO	NGT13 52749	238
99	UNIV OF NORTH CAROLINA - CHAPEL HILL	L SMITH	GSFC	R W MURRAY	NGT 5 50311	403
99	UNIV OF NORTH CAROLINA - CHAPEL HILL	L SMITH	GSFC	T M WHITMORE	NGT 5 30177	403
99	UNIV OF NORTH CAROLINA - CHAPEL HILL	M WEI	GSFC	J BANE	NGT 5 30389	403
99	UNIV OF NORTH CAROLINA - CHAPEL HILL	M WEI	GSFC	L BAND	NGT 5 30390	403
99	UNIV OF NORTH CAROLINA	J F DOWDY	MSFC	R D FORSYTHE	NAG 8 1314	403
99	UNIV OF NORTH DAKOTA	A TUYAHOV	GSFC	G SEIELSTAD	NCC 5 310	405
99	UNIV OF NORTH DAKOTA	C HILL	SSC	P R ZIMMERMAN	NAG13 99006	405
99	UNIV OF NORTH DAKOTA	D D DETROYE	GSFC	R ANDRES	NGT 5 40117	405
99	UNIV OF NORTH DAKOTA	D DETROYE	GSFC	C WOOD	NCC 5 399	405
99	UNIV OF NORTH DAKOTA	D DETROYE	GSFC	R ANDRES	NCC 5 582	405
99	UNIV OF NORTH DAKOTA	L KEFFER	GSFC	C A WOOD	NGT 5 40034	405
99	UNIV OF NORTH DAKOTA	N LAL	GSFC	C WOOD	NAG 5 8681	405
99	UNIV OF NORTH TEXAS HLTH SCI	A NURRIDIN	HQ	M SMITH	NGT 5 50179	491
99	UNIV OF NORTH TEXAS HLTH SCI	C W LLOYD	JSC	M L SMITH	NAG 9 1262	491
99	UNIV OF NOTRE DAME	R LAWRENCE	GRC	S JOHNSON	NAG 3 2418	221
99	UNIV OF OKLAHOMA - NORMAN	D D DETROYE	GSFC	V DUCA-SNOWDEN	NGT 5 40111	430
99	UNIV OF OKLAHOMA - NORMAN	D DETROYE	GSFC	V DUCA-SNOWDEN	NCC 5 398	430
99	UNIV OF OKLAHOMA - NORMAN	D DETROYE	GSFC	V DUCA-SNOWDEN	NCC 5 586	430
99	UNIV OF OKLAHOMA - NORMAN	J DASCH	GSFC	V DUCA-SNOWDEN	NCC 5 171	430
99	UNIV OF OKLAHOMA - NORMAN	L KEFFER	GSFC	V DUCA	NGT 5 40013	430
99	UNIV OF OREGON - EUGENE	P E HUNTER	GSFC	J SCHOMBERT	NAG 5 11300	435
99	UNIV OF PENNSYLVANIA	A NURRIDIN	HQ	D A HAMMER	NGT 5 50267	454
99	UNIV OF PENNSYLVANIA	J STANFORD	JSC	C J LAMBERTSEN	NAG 9 1265	453
99	UNIV OF PENNSYLVANIA	R CROUCH	GSFC	D N METAXAS	NAG 5 8767	452
99	UNIV OF PITTSBURGH	K BLANDING	GSFC	M DRUDZDEL	NGT 5 50252	456
99	UNIV OF PITTSBURGH	L SMITH	GSFC	B J YATES	NGT 5 50256	456
99	UNIV OF PITTSBURGH	L SMITH	GSFC	B J YATES	NGT 5 50292	456
99	UNIV OF PITTSBURGH	L SMITH	GSFC	C L COLBY	NGT 5 50318	456
99	UNIV OF PITTSBURGH	P VAUGHN	MSFC	C TALLEY	NAG 8 1360	455
99	UNIV OF PUERTO RICO - MAYAGUEZ	B WHITE	HQ	R VASQUEZ	NCC 5 340	557
99	UNIV OF PUERTO RICO - MAYAGUEZ	D DETROYE	GSFC	D G WEINER	NGT 5 40012	558
99	UNIV OF PUERTO RICO - MAYAGUEZ	D L WILLIAMS	GSFC	R FERNANDEZ-SEIN	NCC 5 518	557
99	UNIV OF PUERTO RICO - MAYAGUEZ	D WILLIAMS	GSFC	R FERNANDEZ-SEIN	NCC 5 252	557
99	UNIV OF PUERTO RICO - MAYAGUEZ	J DIGGS	KSC	B RAMIREZ	NAG10 243	557
99	UNIV OF PUERTO RICO - MAYAGUEZ	J MARRA	GSFC	J CORREDOR	NAG 5 11296	557
99	UNIV OF PUERTO RICO-RIO PIEDRAS	D DETROYE	GSFC	B R WEINER	NCC 5 407	558
99	UNIV OF PUERTO RICO-RIO PIEDRAS	D DETROYE	GSFC	B WEINER	NCC 5 595	558
99	UNIV OF PUERTO RICO-RIO PIEDRAS	D DETROYE	GSFC	W WEINER	NGT 5 40091	558
99	UNIV OF REDLANDS	M PHELPS	HQ	P DOOLITTLE	NAG 5 9570	115
99	UNIV OF REDLANDS	M V PHELPS	GSFC	J R APPLETON	NAG 5 11366	115
99	UNIV OF RHODE ISLAND	J MARRA	GSFC	B UZ	NAG 5 10554	461
99	UNIV OF RHODE ISLAND	R A GRYMES	ARC	S D	NCC 2 1275	461
99	UNIV OF ROCHESTER	K BLANDING	GSFC	M BOCKO	NGT 5 50360	394
99	UNIV OF SAN DIEGO	M PHELPS	GSFC	S LOWERY	NAG 5 10049	115
99	UNIV OF SOUTH ALABAMA	J F DOWDY	MSFC	P KULKARNI	NAG 8 1397	16
99	UNIV OF SOUTH CAROLINA-COLUMBIA	D DETROYE	GSFC	J D ODOM	NCC 5 174	466
99	UNIV OF SOUTH CAROLINA-COLUMBIA	J MARRA	GSFC	R THUNELL	NAG 5 11253	465

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99	UNIV OF SOUTH CAROLINA-COLUMBIA	N SOVIK	SSC	J JENSEN	NCC13 00003	466
99	UNIV OF SOUTH FLORIDA	J MARRA	GSFC	F MULLER-KARGER	NAG 5 11254	178
99	UNIV OF SOUTH FLORIDA	J MARRA	GSFC	S ANDREFOUET	NAG 5 10908	178
99	UNIV OF SOUTH FLORIDA	M WEI	GSFC	F MULLER-KARGER	NGT 5 30414	179
99	UNIV OF SOUTH FLORIDA	M WEI	GSFC	P COBLE	NGT 5 30346	179
99	UNIV OF SOUTHERN CALIFORNIA	D SPEARS	GSFC	S SADHAL	NAG 5 11304	117
99	UNIV OF SOUTHERN CALIFORNIA	P DOTY	MSFC	P RONNEY	NAG 8 1701	118
99	UNIV OF SOUTHERN CALIFORNIA	P DOTY	MSFC	S SADHAL	NAG 8 1663	118
99	UNIV OF SOUTHERN CALIFORNIA	W J WAGNER	GSFC	E J RHODES	NAG 5 11001	117
99	UNIV OF SOUTHERN CALIFORNIA	W J WAGNER	GSFC	P K GANGOPADHAY	NAG 5 10989	117
99	UNIV OF TENNESSEE - KNOXVILLE	K BLANDING	GSFC	H Y MCSWEEN	NGT 5 50286	471
99	UNIV OF TENNESSEE - KNOXVILLE	R CROUCH	GSFC	G S SAYLER	NAG 5 8760	470
99	UNIV OF TEXAS - ARLINGTON	M WEI	GSFC	D COOK	NGT 5 30382	491
99	UNIV OF TEXAS - AUSTIN	D D DETROYE	GSFC	B D TAPLEY	NGT 5 40053	498
99	UNIV OF TEXAS - AUSTIN	D D DETROYE	GSFC	B TAPLEY	NGT 5 40083	498
99	UNIV OF TEXAS - AUSTIN	D J PEARSON	JSC	R H BISHOP	NGT 9 20	498
99	UNIV OF TEXAS - AUSTIN	D L CARTER	GSFC	P J SHELUS	NAS 5 01096	497
99	UNIV OF TEXAS - AUSTIN	H C MANDELL	JSC	B D TAPLEY	NAG 9 1060	496
99	UNIV OF TEXAS - AUSTIN	J LABRECQUE	GSFC	B D TAPLEY	NAG 5 9989	495
99	UNIV OF TEXAS - AUSTIN	J LABRECQUE	GSFC	B TAPLEY	NAG 5 6309	493
99	UNIV OF TEXAS - AUSTIN	J MCGARRY	GSFC	P J SHELUS	NAS 5 32997	497
99	UNIV OF TEXAS - AUSTIN	K BLANDING	GSFC	C OCAMPO	NGT 5 50361	498
99	UNIV OF TEXAS - AUSTIN	K BLANDING	GSFC	M CRAWFORD	NGT 5 50239	498
99	UNIV OF TEXAS - AUSTIN	K BLANDING	GSFC	S ROUX	NGT 5 50371	498
99	UNIV OF TEXAS - AUSTIN	L SMITH	GSFC	G J HILL	NGT 5 50301	498
99	UNIV OF TEXAS - AUSTIN	P CRANE	GSFC	P J SHELUS	NAG 5 10195	495
99	UNIV OF TEXAS - AUSTIN	T MORGAN	GSFC	E BARKER	NAG 5 10183	495
99	UNIV OF TEXAS - DALLAS	J BREDEKAMP	GSFC	M HAIRSTON	NAG 5 9297	498
99	UNIV OF TEXAS - DALLAS	M E MELLOTT	GSFC	R A HEELIS	NGT 5 50354	499
99	UNIV OF TEXAS - DALLAS	M MELLOTT	GSFC	R HEELIS	NAG 5 10271	498
99	UNIV OF TEXAS - EL PASO	B DELIWALA	KSC	R QUINTANA	NAG10 225	500
99	UNIV OF TEXAS - EL PASO	C HOLLINGSWORTH	GSFC	S BLAKE	NCC 5 468	500
99	UNIV OF TEXAS - EL PASO	J BRADEN	DFRC	R WICKER	NAG 4 150	499
99	UNIV OF TEXAS - EL PASO	J HARRINGTON	GSFC	H L SCHULTE	NCC 5 535	500
99	UNIV OF TEXAS - EL PASO	J LAMBRECQUE	GSFC	S STARKS	NCC 5 498	500
99	UNIV OF TEXAS - EL PASO	P SAKIMOTO	GSFC	S A STARKS	NCC 5 209	500
99	UNIV OF TEXAS - EL PASO	R D EASON	GSFC	M A KOLITSKY	NCC 5 207	500
99	UNIV OF TEXAS AT BROWNSVILLE	B WHITE	GSFC	J TELESE	NCC 5 438	501
99	UNIV OF TEXAS AT BROWNSVILLE	L ARMENDARIZ	JSC	A RIVAS	NAG 9 1304	501
99	UNIV OF TEXAS AT BROWNSVILLE	L ARMENDARIZ	JSC	J GARCIA	NAG 9 1238	501
99	UNIV OF TEXAS AT BROWNSVILLE	L ARMENDARIZ	JSC	O RIVAS	NAG 9 1054	500
99	UNIV OF TEXAS AT SAN ANTONIO	B J COLLINS	ARC	A T CHRONPOULOS	NAG 2 1383	501
99	UNIV OF TEXAS AT SAN ANTONIO	M J LEON	ARC	R F SINCOVEC	NAG 2 6040	501
99	UNIV OF THE INCARNATE WORD	B WHITE	GSFC	J BEAUFORD	NCC 5 465	501
99	UNIV OF TOLEDO	R CROUCH	GSFC	B GONG	NAG 5 8785	426
99	UNIV OF UTAH	D D DETROYE	GSFC	W WESTENSKOW	NGT 5 40101	504
99	UNIV OF UTAH	D DETROYE	GSFC	D WESTENSKOW	NGT 5 40066	504
99	UNIV OF UTAH	M WEI	GSFC	E SIPZER	NGT 5 30423	504
99	UNIV OF UTAH	M WEI	GSFC	G MACE	NGT 5 30398	503
99	UNIV OF VERMONT	D DETROYE	GSFC	W D LAKIN	NCC 5 581	507
99	UNIV OF VERMONT	D DETROYE	GSFC	W LAKIN	NCC 5 394	507
99	UNIV OF VERMONT	D DETROYE	GSFC	W LAKIN	NGT 5 40110	507
99	UNIV OF VERMONT	J BOYCE	GSFC	T RUSHMER	NAG 5 9532	506
99	UNIV OF VERMONT	J DASCH	HQ	W D LAKIN	NGT 5 40045	507
99	UNIV OF VERMONT	J F DOWDY	MSFC	G MIRCHANDANI	NAG 8 1281	506
99	UNIV OF VIRGINIA	L SMITH	GSFC	M C WIENER	NGT 5 50305	528
99	UNIV OF VIRGINIA	M MEYER	GSFC	S MACKO	NAG 5 9758	525
99	UNIV OF VIRGINIA	M WEI	GSFC	H SHUGART	NGT 5 30418	527
99	UNIV OF VIRGINIA	M WEI	GSFC	J FUENTES	NGT 5 30365	527
99	UNIV OF WASHINGTON	A NURRIDIN	GSFC	G LAKE	NGT 5 50078	543
99	UNIV OF WASHINGTON	C W LLOYD	JSC	F H SHEEHAN	NAG 9 1258	540
99	UNIV OF WASHINGTON	C YUHAS	GSFC	P HOBBES	NCC 5 550	541
99	UNIV OF WASHINGTON	D D DETROYE	GSFC	J DECOSMO	NGT 5 40084	543
99	UNIV OF WASHINGTON	D HARM	JSC	D E PARKER	NCC 9 56	541
99	UNIV OF WASHINGTON	D L JAN	JSC	D STAHL	NAG 9 1271	540
99	UNIV OF WASHINGTON	G ASRAR	GSFC	D HEGG	NGT 5 30121	542

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99	UNIV OF WASHINGTON	G L MADDREA	LARC	J R HOLTON	NAG 1 2193	534
99	UNIV OF WASHINGTON	J F SPANN	GSFC	M J BRITTNACHER	NAG 5 10903	540
99	UNIV OF WASHINGTON	K BLANDING	GSFC	J BARDEEN	NGT 5 50298	543
99	UNIV OF WASHINGTON	K OGILVIE	GSFC	G PARKS	NAG 5 7114	536
99	UNIV OF WASHINGTON	K PARTINGTON	GSFC	D LETTENMAIER	NAG 5 10092	539
99	UNIV OF WASHINGTON	K PARTINGTON	GSFC	P MOURAD	NAG 5 10114	539
99	UNIV OF WASHINGTON	L KEFFER	GSFC	G K PARKS	NGT 5 40017	543
99	UNIV OF WASHINGTON	L SMITH	GSFC	J DALCANTON	NGT 5 50299	543
99	UNIV OF WASHINGTON	L SMITH	GSFC	R WINGLEE	NGT 5 50285	543
99	UNIV OF WASHINGTON	M WEI	GSFC	C NEWHALL	NGT 5 98	542
99	UNIV OF WASHINGTON	M WEI	GSFC	D LETTENMAIER	NGT 5 30120	542
99	UNIV OF WASHINGTON	M WEI	GSFC	R HOUZE	NGT 5 30378	542
99	UNIV OF WASHINGTON	M WEI	GSFC	R TYLER	NAG 5 10570	539
99	UNIV OF WASHINGTON	R A GRYMES	ARC	P D WARD	NCC 2 1273	541
99	UNIV OF WASHINGTON	S DAVISON	GSFC	V VOGEL	NAG 5 8784	538
99	UNIV OF WASHINGTON	W ABDALATI	GSFC	D WINEBRENNER	NAG 5 10225	539
99	UNIV OF WASHINGTON	W ABDALATI	GSFC	R LINDSAY	NAG 5 10621	539
99	UNIV OF WEST FLORIDA	B H WHITAKER	ARC	A J CANAS	NCC 2 1036	180
99	UNIV OF WEST FLORIDA	R CROUCH	GSFC	A K RAJ	NAG 5 8782	180
99	UNIV OF WISCONSIN - GREEN BAY	D D DETROYE	GSFC	R A YINGST	NGT 5 40097	546
99	UNIV OF WISCONSIN - MADISON	A PEEK	SSC	T LILLESAND	NCC13 00004	554
99	UNIV OF WISCONSIN - MADISON	C LLYOD	KSC	G DIAK	NAG13 99008	553
99	UNIV OF WISCONSIN - MADISON	D WICKLAND	GSFC	S T GOWER	NAG 5 11242	552
99	UNIV OF WISCONSIN - MADISON	G ASRAR	GSFC	J FOLEY	NGT 5 30119	554
99	UNIV OF WISCONSIN - MADISON	G STRINGFELLOW	GSFC	P TIMBIE	NAG 5 10204	551
99	UNIV OF WISCONSIN - MADISON	J BREDEKAMP	GSFC	W T SANDERS	NAG 5 9483	551
99	UNIV OF WISCONSIN - MADISON	J MARRA	GSFC	A WINGUTH	NAG 5 11245	552
99	UNIV OF WISCONSIN - MADISON	L SMITH	GSFC	J FOLEY	NGT 5 30176	555
99	UNIV OF WISCONSIN - MADISON	L SMITH	GSFC	J S GALLAGHER	NGT 5 50295	555
99	UNIV OF WISCONSIN - MADISON	M WEI	GSFC	J FOLEY	NGT 5 30396	555
99	UNIV OF WISCONSIN - MADISON	P DECOLA	GSFC	M HITCHMAN	NAG 5 11303	552
99	UNIV OF WISCONSIN - MADISON	W W DOLCI	ARC	C M JOHNSON	NCC 2 5449	554
99	UNIV OF WISCONSIN - MADISON	Y SUD	GSFC	G WAHBA	NAG 5 10273	552
99	UNIV OF WISCONSIN - MILWAUKEE	D E DETROYE	GSFC	J W NORBURY	NGT 5 40039	555
99	UNIV OF WYOMING	D BOGAN	GSFC	R N HOWELL	NAG 5 8917	556
99	UNIV OF WYOMING	D D DETROYE	GSFC	P E JOHNSON	NGT 5 40102	556
99	UNIV OF WYOMING	D DETROYE	GSFC	P E JOHNSON	NGT 5 40008	556
99	UNIV OF WYOMING	D DETROYE	GSFC	P JOHNSON	NCC 5 414	556
99	UNIV OF WYOMING	G L MADDREA	LARC	T DESHLER	NAG 1 2164	555
99	UNIV OF WYOMING	J GRANT	GSFC	R HOWELL	NAG 5 8904	556
99	UTAH STATE UNIV	A PEEK	SSC	R D RAMSEY	NCC13 00005	505
99	UTAH STATE UNIV	D DETROYE	GSFC	D BAKER	NGT 5 40047	506
99	UTAH STATE UNIV	D WICKLAND	GSFC	M WHITE	NAG 5 11282	505
99	UTAH STATE UNIV	M MELLOTT	GSFC	B G FEJER	NAG 5 10215	504
99	VA POLYTECH INST & ST UNIV	L SMITH	GSFC	B M KLEINER	NGT 5 50260	532
99	VA POLYTECH INST & ST UNIV	L SMITH	GSFC	W HERBERT	NGT 5 50262	532
99	VANDERBILT UNIV	D D DETROYE	GSFC	A M STRAUSS	NGT 5 40074	473
99	VANDERBILT UNIV	L KEFFER	GSFC	A M STRAUSS	NGT 5 40054	473
99	VANDERBILT UNIV	P DOTY	MSFC	K A DEBELAK	NAG 8 1662	472
99	VANDERBILT UNIV	P DOTY	MSFC	R J BAYUZICK	NAG 8 1677	472
99	VIRGINIA COMMONWEALTH UNIV	J S LOGAN	JSC	R C MERRELL	NCC 9 87	533
99	VOORHEES COLLEGE	C PERSON	GSFC	C SMITH	NAG 5 9624	466
99	WASHINGTON STATE UNIV	M AVERNER	GSFC	B W POOVAIAH	NAG 5 11364	544
99	WASHINGTON STATE UNIV	M WEI	GSFC	L JAEGLE	NAG 5 10637	544
99	WASHINGTON UNIV - ST	B CAMPBELL	GSFC	D A HASKIN	NAG 5 4642	333
99	WASHINGTON UNIV - ST	D E SMITH	GSFC	R J PHILLIPS	NAG 5 4435	333
99	WASHINGTON UNIV - ST	D SENSKY	GSFC	B JOLLIFF	NAG 5 10227	335
99	WASHINGTON UNIV - ST	D SENSKY	GSFC	R ARVIDSON	NAG 5 10158	335
99	WASHINGTON UNIV - ST	K BLANDING	GSFC	E SHOCK	NGT 5 50348	336
99	WASHINGTON UNIV - ST	L SMITH	GSFC	M ISRAEL	NGT 5 50240	336
99	WASHINGTON UNIV - ST	P CRANE	GSFC	C M WILL	NAG 5 10186	335
99	WAYNE STATE UNIV	B WOOLFORD	JSC	L ZAMORANO	NAG 9 1183	319
99	WEST VIRGINIA STATE COLLEGE	M MATHEWS	GSFC	E V GRIFFIN	NAG 5 11103	545
99	WEST VIRGINIA STATE COLLEGE	M MATHEWS	GSFC	J MAYHUGH	NAG 5 11088	545
99	WEST VIRGINIA UNIV	D DETROYE	GSFC	M JARAIEDI	NCC 5 406	545
99	WEST VIRGINIA UNIV	D DETROYE	GSFC	M JARAIEDI	NCC 5 570	545

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99	WEST VIRGINIA UNIV	D DETROYE	GSFC	M JARAIEDI	NGT 5 40120	545
99	WEST VIRGINIA UNIV	D OZBURN	ARC	K DAVIS	NCC 2 6043	545
99	WEST VIRGINIA UNIV	G ASRAR	GSFC	S KITE	NGT 5 50103	546
99	WEST VIRGINIA UNIV	L KEFFER	GSFC	M JARAIEDI	NGT 5 40055	545
99	WEST VIRGINIA UNIV	M MELLOTT	GSFC	M KOEPKE	NAG 5 10218	545
99	WESTERN KENTUCKY UNIV	D D DETROYE	GSFC	R HACKNEY	NGT 5 40105	233
99	WESTERN KENTUCKY UNIV	D DETROYE	GSFC	R HACKNEY	NCC 5 222	232
99	WESTERN KENTUCKY UNIV	D DETROYE	GSFC	R HACKNEY	NCC 5 396	232
99	WESTERN KENTUCKY UNIV	D DETROYE	GSFC	R HACKNEY	NCC 5 571	233
99	WESTERN KENTUCKY UNIV	L KEFFER	GSFC	R HACKNEY	NGT 5 40051	233
99	WESTERN MICHIGAN UNIV	D S KEENAN	KSC	W J HOMAN	NAG10 279	320
99	WHEELING JESUIT UNIV	N CHEEKS	GSFC	J P ALLEN	NCC 5 440	546
99	WHEELING JESUIT UNIV	S CANRIGHT	GSFC	N NAIK	NCC 5 451	546
99	WILLIAM JEWELL COLLEGE	M P BODIFORD	MSFC	P BUNTON	NAG 8 1851	336
99	WOODS HOLE OCEANOGRAPHIC INST	J MARRA	GSFC	D MCGILLCUDDY	NAG 5 11265	305
99	WORCESTER POLYTECH INST	M R BROWN	GSFC	F J LOOFT	NAG 5 8578	306
99	WORCESTER POLYTECH INST	M R BROWN	GSFC	F J LOOFT	NAG 5 9754	306
99	WORCESTER POLYTECH INST	S J BRODEUR	GSFC	F J LOOFT	NAG 5 10712	306
99	XAVIER UNIV - LOUISIANA	C PERSON	GSFC	A Z CHATTERS	NGT 5 90086	238
99	XAVIER UNIV - LOUISIANA	N SULLIVAN	SSC	R P HALE	NAG13 53	238
99	XAVIER UNIV - LOUISIANA	R TRAVIS	JSC	S O	NAG13 98006	238
99	YALE UNIV	A NURRIDDIN	HQ	PROBER	NGT 5 50042	148
99	YALE UNIV	G GUTMAN	GSFC	L M CURRAN	NAG 5 11335	148
99	YALE UNIV	K BLANDING	GSFC	C E BAILY	NGT 5 50287	149
99	YALE UNIV	M WEI	GSFC	D FISH	NGT 5 30371	148