

**NATIONAL AERONAUTICS AND SPACE ADMINISTRATION**

**SCIENCE, AERONAUTICS AND TECHNOLOGY**

**FISCAL YEAR 2002 ESTIMATES**

**GENERAL STATEMENT**

**GOAL STATEMENT**

The Science, Aeronautics and Technology appropriation provides funding for the research and development activities of NASA. This includes funds to extend our knowledge of the Earth, its space environment, and the universe; and to invest in new aerospace transportation technologies that support the development and application of technologies critical to the economic, scientific and technical competitiveness of the United States.

In FY 2000 and FY 2001, the SAT account provided only for the *direct* funding of science, aeronautics and technology activities, and funding for space operations services. Beginning in FY2002, the SAT account includes the direct funding of science and aeronautics research and technology *plus* other related costs (Research and Program Management and non-programmatic Construction of Facilities) that are allocated based on the number of full time equivalent personnel. There will no longer be a Mission Support account. In addition, beginning in FY 2002, funding for Space Operations Services is included in the Human Space Flight account.

In FY 2002, the Science, Aeronautics and Technology (SAT) appropriation provides for the science, aeronautics and technology activities supporting the Agency. These activities include space science, biological and physical research, Earth science, aerospace technology, and academic programs. This appropriation also provides for salaries and related expenses (including travel); design, repair, rehabilitation, and modification of facilities and construction of new facilities; maintenance, and operation of facilities; and other operations activities supporting science, aeronautics, and technology programs.

**STRATEGY FOR ACHIEVING GOALS**

Funding included in the Science, Aeronautics and Technology appropriation supports the program elements of four out of NASA's five Enterprises:

Space Science - seeks to answer fundamental questions concerning the galaxy and the universe; the connection between the Sun, Earth and heliosphere; the origin and evolution of planetary systems; and, the origin and distribution of life in the universe.

Biological and Physical Research - seeks answers to questions that are basic to the future of humanity, regarding how the fundamental laws of nature shape the evolution of life, and how human existence might expand beyond the home planet to achieve maximum benefits from space. This line item replaces the Life and Microgravity line item in previous budgets.

Earth Science - seeks to understand the total Earth system and the effects of natural and human-induced changes on the global environment.

Aerospace Technology - pioneers high-payoff, critical technologies with effective transfer of design tools and technology products to industry and government.

Funding is also included to provide highly reliable, cost effective telecommunications services in support of NASA's science and aeronautics programs, and to conduct NASA's agency-wide university, minority university, and elementary and secondary school programs.

**NATIONAL AERONAUTICS AND SPACE ADMINISTRATION**

**SCIENCE, AERONAUTICS AND TECHNOLOGY**

**FISCAL YEAR 2002 ESTIMATES  
(IN MILLIONS OF REAL YEAR DOLLARS)**

	FY 2000 OPLAN <u>Revised</u>	<u>BUDGET PLAN</u>	
		FY 2001 OPLAN <u>Revised</u>	FY 2002 PRES <u>BUDGET</u>
<b>SCIENCE, AERONAUTICS AND TECHNOLOGY</b>	<b><u>5,672.1</u></b>	<b><u>6,177.1</u></b>	<b><u>7,191.7</u></b>
SPACE SCIENCE	2,193.8	2,321.0	2,786.4
BIOLOGICAL & PHYSICAL RESEARCH	274.7	312.9	360.9
EARTH SCIENCE	1,443.4	1,484.6	1515.0
AERO-SPACE TECHNOLOGY	985.4	1,241.7	2,228.8
COMMERCIAL TECHNOLOGY	140.0	162.4	146.9
MISSION COMMUNICATION SERVICES	406.3	--	--
SPACE OPERATIONS	--	521.8	--
ACADEMIC PROGRAMS	138.8	132.7	153.7

**NATIONAL AERONAUTICS AND SPACE ADMINISTRATION**

**PROPOSED APPROPRIATION LANGUAGE**

SCIENCE, AERONAUTICS AND TECHNOLOGY  
(INCLUDING TRANSFER OF FUNDS)

For necessary expenses, not otherwise provided for, in the conduct and support of science, aeronautics and technology research and development activities, including research, development, operations, *support* and services; maintenance; construction of facilities including *repair, rehabilitation*, revitalization and modification of facilities, construction of new facilities and additions to existing facilities, facility planning and design, *environmental compliance and restoration*, and acquisition or condemnation of real property, as authorized by law; space flight, spacecraft control and communications activities including operations, production, and services; *program management; personnel and related costs, including uniforms or allowances therefor, as authorized by 5 U.S.C. §§ 5901- 5902; travel expenses; purchase and hire of passenger motor vehicles; not to exceed \$20,000 for official reception and representation expenses; and purchase, lease, charter, maintenance and operation of mission and administrative aircraft,* [\$6,190,700,000] \$7,191,700,000, to remain available until September 30, [2002] 2003, *of which amounts as determined by the Administrator for salaries and benefits; training, travel and awards; facility and related costs; information technology services; science, engineering, fabricating and testing services; and other administrative services may be transferred to the Human Space Flight account in accordance with section 312(b) of the National Aeronautics and Space Act of 1958, as amended by Public Law 106-377. (Departments of Veterans Affairs and Housing and Urban Development, and Independent Agencies Appropriations Act, 2001, as enacted by section 1(a)(1) of P.L-106-377.)*

**NATIONAL AERONAUTICS AND SPACE ADMINISTRATION**

**SCIENCE, AERONAUTICS AND TECHNOLOGY**

**REIMBURSABLE SUMMARY  
(IN MILLIONS OF REAL YEAR DOLLARS)**

	<b><u>BUDGET PLAN</u></b>		
	FY 2000	FY 2001	FY 2002
	OPLAN <u>Revised</u>	OPLAN <u>Revised</u>	PRES <u>BUDGET</u>
<b>SCIENCE, AERONAUTICS AND TECHNOLOGY</b>	<b>432.1</b>	<b>600.3</b>	<b>615.6</b>
SPACE SCIENCE	45.2	54.1	84.2
LIFE AND MICROGRAVITY SCIENCES AND APPLICATIONS	0.4	--	--
BIOLOGICAL AND PHYSICAL RESEARCH	--	0.5	0.8
EARTH SCIENCE	318.4	383.9	415.9
AEROSPACE TECHNOLOGY	48.2	69.3	64.9
COMMERICAL TECHNOLOGY	16.5	26.7	18.9
MISSION COMMUNICATION SERVICES	3.1	--	--
SPACE OPERATIONS	--	65.4	--
ACADEMIC PROGRAMS	0.3	0.4	0.4
RESEARCH AND PROGRAM MANAGEMENT	--	--	30.2
CONSTRUCTION OF FACILITIES	--	--	0.3

**NATIONAL AERONAUTICS AND SPACE ADMINISTRATION**

**FISCAL YEAR 2002 ESTIMATES**

**DISTRIBUTION OF SCIENCE, AERONAUTICS, AND TECHNOLOGY BY INSTALLATION  
(Thousands of Dollars)**

Program	Total	Johnson Space Center	Kennedy Space Center	Marshall Space Flight Center	Stennis Space Center	Ames Research Center	Dryden Flight Research Center	Langley Research Center	Glenn Research Center	Goddard Space Flight Center	Jet Propulsion Lab	Headquarters	
Space Science	2000	2,193,800	24,738	135,929	149,594	35	103,015	75	13,882	28,633	803,618	826,855	107,426
	2001	2,320,989	14,081	127,566	148,898	35	71,427	75	8,694	2,670	857,896	957,761	131,886
	2002	2,786,363	21,505	165,263	191,620	2,054	101,743	188	21,483	7,639	1,164,043	978,719	132,106
Biological and Physical Research	2000	274,700	106,822	6,752	48,498	0	32,767	0	52	39,397	11,757	10,793	17,862
	2001	312,910	124,215	5,349	58,713	0	49,875	0	35	36,917	4,317	14,706	18,783
	2002	360,920	120,888	7,678	87,775	0	48,344	0	269	49,883	2,087	13,586	30,410
Earth Science	2000	1,443,400	36,218	60,985	17,642	49,127	26,342	21,883	93,179	1,917	871,371	230,961	33,775
	2001	1,484,627	33,066	80,798	18,478	67,290	19,004	20,142	118,283	2,707	879,136	204,394	41,329
	2002	1,514,978	18,552	68,708	27,567	43,159	30,273	25,317	143,912	1,375	895,357	180,667	80,091
Aero-Space Technology	2000	985,395	2,698	6,716	202,934	36,738	203,249	100,618	193,131	186,105	6,194	6,284	40,728
	2001	1,241,658	7,839	7,894	231,220	27,563	272,572	99,857	246,687	238,361	27,581	28,745	53,339
	2002	2,228,839	9,968	31,910	444,926	36,074	448,454	141,983	482,026	391,287	43,440	36,175	162,596
Commercial Technology Programs	2000	140,005	14,242	6,392	17,121	5,000	15,428	4,200	17,741	25,513	29,668	2,916	1,784
	2001	162,442	15,094	6,255	16,017	4,714	14,569	3,921	17,075	28,403	32,398	4,790	19,205
	2002	146,900	14,196	6,609	16,504	4,977	14,256	4,200	18,018	23,395	39,931	2,867	1,947
Total Aero-Space Technology	2000	1,125,400	16,940	13,108	220,055	41,738	218,677	104,818	210,872	211,618	35,862	9,200	42,512
	2001	1,404,100	22,933	14,149	247,237	32,277	287,141	103,778	263,762	266,764	59,979	33,535	72,544
	2002	2,375,739	24,164	38,519	461,430	41,051	462,710	146,183	500,044	414,682	83,371	39,042	164,543
Mission Communication Services	2000	406,300	172,500	1,100	800	0	0	12,800	0	10,100	71,500	131,700	5,800
	2001	0	0	0	0	0	0	0	0	0	0	0	0
	2002	0	0	0	0	0	0	0	0	0	0	0	0
Space Operations	2000	0	0	0	0	0	0	0	0	0	0	0	0
	2001	521,743	225,593	37,111	8,800	0	0	12,743	0	8,990	92,071	113,016	23,419
	2002	0	0	0	0	0	0	0	0	0	0	0	0
Academic Programs	2000	138,800	6,918	3,785	7,619	2,965	5,193	1,582	2,221	9,647	82,671	2,032	14,167
	2001	132,707	3,070	3,066	6,821	1,781	4,363	1,369	3,504	6,322	87,543	798	14,070
	2002	153,700	2,198	2,593	7,130	1,500	4,450	1,750	4,333	4,942	109,877	800	14,127
TOTAL SCIENCE, AERONAUTICS AND TECHNOLOGY	2000	5,582,400	364,136	221,659	444,208	93,865	385,994	141,158	320,206	301,312	1,876,779	1,211,541	221,542
	2001	6,177,076	422,958	268,039	488,947	101,383	431,810	138,107	394,278	324,370	1,980,942	1,324,210	302,031
	2002	7,191,700	187,307	282,761	775,522	87,764	647,520	173,438	670,041	478,521	2,254,735	1,212,814	421,277