

Table II-12. NASA R&amp;D

**Table II-12.** R&D in the National Aeronautics and Space Administration  
(budget authority in millions of dollars)

	FY 2004 Actual	FY 2005 Estimate	FY 2006 Budget	Change FY 05-06	
				Amount	Percent
<b>Detail of NASA Budget:</b>					
<b>1. Exploration Capabilities (EC)</b>					
<b>Space Operations</b>					
International Space Station	1,364	1,676	<b>1,857</b>	180	10.8%
Space Shuttle	4,061	4,669	<b>4,531</b>	-138	-3.0%
Space and Flight Support	466	485	<b>376</b>	-110	-22.6%
<b>Total Exploration Capabilities</b>	<b>5,890</b>	<b>6,830</b>	<b>6,763</b>	<b>-68</b>	<b>-1.0%</b>
<b>2. Science, Aeronautics, and Exploration (SAE)</b>					
<b>Science</b>					
Solar System Exploration:					
Discovery	272	181	<b>169</b>	-12	-6.6%
New Frontiers	148	211	<b>159</b>	-52	-24.8%
Technology	193	131	<b>96</b>	-35	-26.8%
Deep Space Mission Sys.	265	258	<b>257</b>	0	-0.1%
Solar System Research	418	345	<b>363</b>	17	5.0%
Mars Exploration	596	681	<b>723</b>	42	6.2%
Robotic Lunar Exploration	17	52	<b>135</b>	83	158.8%
<b>Total Solar System Exploration</b>	<b>1,909</b>	<b>1,858</b>	<b>1,901</b>	<b>43</b>	<b>2.3%</b>
The Universe:					
Navigator	165	234	<b>199</b>	-34	-14.7%
James Webb Space Telescope	243	312	<b>372</b>	60	19.2%
Hubble Space Telescope	243	216	<b>191</b>	-25	-11.6%
SOFIA 1/	67	51	<b>48</b>	-3	-5.1%
Gamma-Ray Large Area Tel.	103	107	<b>99</b>	-8	-7.1%
Discovery	51	126	<b>118</b>	-8	-6.1%
Explorer	58	82	<b>101</b>	19	22.9%
Universe Research	363	332	<b>316</b>	-16	-4.8%
Int'l Space Science Collab.	32	13	<b>13</b>	0	-2.3%
Beyond Einstein	27	42	<b>56</b>	14	32.8%
<b>Total Universe</b>	<b>1,352</b>	<b>1,513</b>	<b>1,512</b>	<b>-1</b>	<b>-0.1%</b>
Earth-Sun System:					
Earth Systematic Missions	208	301	<b>182</b>	-119	-39.5%
Living with a Star	126	203	<b>234</b>	32	15.6%
Solar Terrestrial Probes	158	100	<b>79</b>	-22	-21.4%
Explorer Program	129	104	<b>117</b>	14	13.0%
(continued)					

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Earth System Sci. Pathfinder	114	108	<b>136</b>	28	25.6%
Multi-Mission Operations	415	334	<b>268</b>	-66	-19.7%
Earth-Sun Research	927	819	<b>845</b>	27	3.2%
Applied Sciences	30	44	<b>52</b>	9	20.0%
Education and Outreach	24	23	<b>23</b>	0	1.7%
Earth-Sun Technology	207	122	<b>127</b>	6	4.6%
Total Earth-Sun System	2,339	2,156	<b>2,064</b>	-92	-4.3%
<b>Total SCIENCE</b>	5,600	5,527	<b>5,477</b>	-51	-0.9%
<b>Exploration Systems</b>					
Constellation Systems	912	526	<b>1,120</b>	594	112.9%
Exploration Systems R&T	677	723	<b>919</b>	196	27.2%
Prometheus Nuclear Sys & Tech	0	432	<b>320</b>	-112	-26.0%
Human Systems R&T 2/	986	1,004	<b>807</b>	-197	-19.7%
Total Exploration Systems	2,574	2,684	<b>3,165</b>	481	17.9%
<b>Aeronautics Research</b>	1,057	906	<b>852</b>	-54	-5.9%
<b>Education Programs</b>	230	217	<b>167</b>	-50	-23.0%
<b>Total SAE</b>	9,461	9,335	<b>9,661</b>	327	3.5%
3. Inspector General (non-R&D)	27	31	<b>32</b>	1	3.5%
<b>TOTAL NASA Budget</b>	15,378	16,196	<b>16,456</b>	260	1.6%
<i>minus non-R&amp;D activities:</i>					
Space Shuttle	-4,061	-4,669	<b>-4,531</b>	-138	-3.0%
Other non-R&D	-466	-485	<b>-376</b>	-110	-22.6%
Inspector General	-27	-31	<b>-32</b>	1	3.5%
Education & Training	-21	-22	<b>-21</b>	-1	-4.1%
<b>TOTAL NASA R&amp;D</b>	10,803	10,989	<b>11,497</b>	508	4.6%

Source: OMB R&D data for FY 2006, agency budget justification, and agency documents.

All figures are rounded to the nearest million. Changes calculated from unrounded figures.

**NASA proposes an extensive restructuring of its budget in FY 2006.**

**Figures for all years have been adjusted to reflect the proposed budget structure.**

FY 2005 figures include emergency supplemental for hurricane damages.

1/ Stratospheric Observatory for Infrared Astronomy

2/ Formerly Biological and Physical Research.

**Please see Chapter 10 for a discussion of NASA R&D.**

**REVISED March 15, 2005**