

Table II-12. NASA R&D

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

	FY 2006 Actual	FY 2007 Estimate ^	FY 2008 Budget	Change FY 07-08 Amount	Change FY 07-08 Percent
Detail of NASA Budget:					
1. Exploration Capabilities (EC)					
Space Operations					
International Space Station	1,753	1,735	2,239	503	29.0%
Space Shuttle *	4,813	3,956	4,008	51	1.3%
Space and Flight Support	339	323	546	223	69.2%
Total Exploration Capabilities	6,905	6,014	6,792	778	12.9%
2. Science, Aeronautics, and Exploration (SAE)					
Science					
Earth Science:					
Earth Science Research	461	447	429	-18	-4.1%
Applied Sciences	95	46	40	-6	-12.6%
Earth Sci. Multi-Mission Ops.	190	190	204	14	7.5%
Earth Systematic Missions	356	516	608	92	17.8%
Earth System Sci. Pathfinder	133	163	136	-27	-16.7%
Education and Outreach	20	26	24	-2	-7.9%
Earth Science Technology	70	56	57	1	2.2%
Total Earth Science	1,326	1,443	1,497	54	3.7%
Heliophysics:					
Heliophysics Research	197	218	206	-12	-5.5%
Deep Space Mission Sys.	255	251	263	12	5.0%
Living with a Star	259	229	253	24	10.4%
Solar Terrestrial Probes	103	87	127	39	45.0%
Heliophysics Explorer Prog.	125	77	76	-1	-1.4%
Near Earth Networks	71	63	66	3	5.1%
New Millennium	58	88	66	-22	-25.0%
Total Heliophysics	1,067	1,013	1,057	44	4.3%
Planetary Science:					
Mars Exploration	662	711	626	-85	-12.0%
Discovery	132	177	185	8	4.3%
New Frontiers	118	156	147	-9	-5.5%
Technology	57	72	68	-5	-6.6%
Planetary Science Research	330	275	371	96	34.8%
Total Planetary Science	1,299	1,391	1,396	5	0.4%

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				Amount	Percent
Astrophysics:					
Astrophysics Research	309	315	315	0	0.0%
Gamma-Ray Large Space Teles.	120	89	42	-47	-52.8%
Discovery	148	103	93	-10	-10.1%
James Webb Space Telescope	364	462	545	84	18.1%
Hubble Space Telescope	277	338	278	-60	-17.9%
Navigator	146	123	57	-66	-53.5%
SOFIA 1/	91	0	77	77	--
Astrophysics Explorer	71	68	99	31	44.9%
Int'l Space Sci. Collaboration	13	20	27	7	35.8%
Beyond Einstein	15	22	32	11	48.3%
	<u>1,553</u>	<u>1,540</u>	<u>1,566</u>	25	1.6%
Total Astrophysics					
Total SCIENCE	5,245	5,388	5,516	128	2.4%
Exploration Systems					
Constellation Systems:					
Crew Exploration Vehicle	839	862	951	89	10.3%
Crew Launch Vehicle	384	789	1,175	386	49.0%
Ground Operations	0	0	357	357	--
Mission Operations	0	0	47	47	--
Commercial Cargo Crew Cap.	0	0	236	236	--
Other	510	1,133	302	-831	-73.3%
	<u>1,734</u>	<u>2,784</u>	<u>3,068</u>	285	10.2%
Total Constellation Systems					
Advanced Capabilities:					
Lunar Precursor Robotic Prog.	150	245	278	33	13.5%
Exploration Tech. Development	696	378	394	16	4.2%
Human Research Program	415	154	183	30	19.3%
Centennial Challenges	0	10	0	-10	-100.0%
Prometheus Propulsion	57	5	0	-5	-100.0%
	<u>1317</u>	<u>792</u>	<u>856</u>	63	8.0%
Total Advanced Capabilities					
Total EXPLORATION SYSTEMS	3,050	3,576	3,924	348	9.7%
Aeronautics Research					
Aviation Safety	148	101	74	-27	-26.6%
Airspace Systems	174	122	98	-24	-19.4%
Fundamental Aeronautics	571	402	293	-108	-26.9%
Aeronautics Test Prog.	0	71	88	17	24.4%
	<u>893</u>	<u>695</u>	<u>554</u>	-141	-20.3%
Total AERONAUTICS RES.					

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Cross-Agency Support Programs					
Education	162	181	154	-27	-15.0%
Advanced business systems	156	105	103	-2	-2.0%
Innovative Partnerships	215	232	198	-34	-14.7%
Shared Capabilities	0	24	34	10	--
Total CROSS-AGCY. SUPPORT	534	542	489	-53	-9.8%
Total SAE	9,721	10,201	10,483	282	2.8%
3. Inspector General (non-R&D)	32	32	35	3	8.1%
TOTAL NASA Budget	16,658	16,247	17,310	1,063	6.5%
<i>minus non-R&D activities:</i>					
Space Shuttle	-4,813	-3,956	-4,008	51	1.3%
Other non-R&D	-495	-428	-649	221	51.7%
Inspector General	-32	-32	-35	3	8.1%
Education & Training	-24	-25	-25	0	0.0%
TOTAL NASA R&D	11,294	11,806	12,594	788	6.7%

Source: OMB R&D data for FY 2008, agency budget justification, and agency documents.
All figures are rounded to the nearest million. Changes calculated from unrounded figures.

NASA has proposed to restructure its programs in FY 2008.

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

FY 2007 and 2008 figures are in a new full-cost simplification method.

FY 2006 figures reflect the previous accounting method.

* FY 2006 Shuttle figures include emergency supplementals for hurricane damages.

1/ Stratospheric Observatory for Infrared Astronomy

Please see Chapter 9 for a discussion of NASA R&D.

March 19, 2007 - revised

^ - FY 2007 figures are latest estimates of final 2007 appropriations (P.L. 110-5).