House Boosts NASA Request, Adds Earmarks and Outer Planets Missions

(This analysis is part of a series of AAAS R&D Funding Updates on the FY 2003 congressional appropriations process. This analysis includes information on R&D in House-approved FY 2003 appropriations for the National Aeronautics and Space Administration (NASA). The complete series of AAAS R&D Funding Updates, including continually updated analyses of R&D by agency in FY 2003 appropriations, is available on the AAAS R&D Web Site (http://www.aaas.org/spp/rd) in the "FY 2003 R&D" or the "What's New" sections.)

On October 9, already nine days into fiscal year (FY) 2003, the House Appropriations Committee finally drafted an FY 2003 VA-HUD appropriations bill that would provide a substantial increase for R&D in the National Aeronautics and Space Administration (NASA). The Senate drafted its version of the bill in July, but the full Senate has not approved it yet. The House would provide NASA with a total budget of $15.3 billion in FY 2003, $398 million or 2.7 percent more than FY 2002. This would exceed the Administration's request of $15.0 billion and the Senate's appropriation of $15.2 billion. **In the House plan, NASA's R&D funding would rise 6.9 percent for a total of $10.9 billion, including a 13.6 percent boost in the key Science, Aeronautics and Technology (SAT) account to $9.1 billion** (see Table). Both the House and the Senate would go along with NASA's request to shift money from the International Space Station project to NASA's other R&D programs, and the House would add $117 million in congressionally designated projects, $105 million for a Pluto mission, and $40 million for a Europa mission. Until the NASA budget becomes final, the agency is operating at FY 2002 funding levels under a series of continuing resolutions (temporary appropriations bills).

The House FY 2003 VA-HUD bill would provide $91 billion for discretionary programs, nearly the same as the Senate version of the bill. The bill funds science agencies including NASA, the National Science Foundation (NSF), the Environmental Protection Agency (EPA), and non-R&D programs for veterans and housing. The President requested $93 billion for the bill's programs, but both the House and the Senate would rearrange priorities to give NASA more money than requested. The House is able to provide more for NASA than the Senate, in part because of offsets in other parts of the bill, including a controversial proposed elimination of the Corporation for National and Community Service and proposed savings in several housing programs.

Two-thirds of the NASA budget, which excludes the Space Shuttle program and its associated costs, is classified as R&D. **NASA's R&D would total $10.9 billion in the House plan, slightly above the Senate allocation, a substantial $697 million or 6.9 percent above FY 2002, and $258 million above the request**. Because the Space Shuttle program and other non-R&D programs would decline, the total NASA budget of $15.3 billion would show a smaller increase (up 2.7 percent). (For details of the Senate appropriation for NASA R&D, see the August 6 AAAS R&D Funding Update. For details of the request for NSF, see Chapter 10 of *AAAS Report XXVII: R&D FY 2003*).

The troubled **International Space Station** is now projected to run $4.8 billion over budget, and both the House and Senate language accompanying the respective versions of the VA-HUD bill express dismay over NASA's management of Station costs. Just to fit into the expanded cost, the Station itself has been downsized to a new 'core complete' configuration that will allow for only three astronauts at a time. Both the House and the Senate would go along with NASA's proposal to cut the Space Station budget by $230 million or 13.3 percent from FY 2002, for a total of $1.5 billion instead of current-year funding of $1.7 billion. The budget savings would be funneled to NASA's other R&D programs.

The **Science, Aeronautics, and Technology (SAT)** account, which funds nearly all of NASA's R&D not related to the Space Station, would receive $9.1 billion, 13.6 percent or $1.1 billion above the FY 2002 funding level. This substantial increase would go primarily to the Space Science and the Aero-Space Technology Programs, as in the Senate proposal.

Within SAT, **Space Science** would receive $3.6 billion, a 24.0 percent or $688 million increase. NASA had requested most of the increase, but both the House and the Senate would provide most of the request and then add some more funds. The largest addition to the request in both the House and the Senate would be **$105 million for the Pluto-Kuiper Belt (PKB)** mission, to be used to develop a spacecraft for a scheduled launch date of 2006 to Pluto. The FY 2003 request had proposed to eliminate this mission and reorganize outer-planet exploration into a New Frontiers program of competitively selected, cost-limited missions. The House, unlike the Senate, would also provide $40 million for another outer planets mission proposed for elimination, the Europa Orbiter mission to Jupiter's moon. Among the other House adjustments to the request are a $17 million reduction in proposed new funding for nuclear technology programs, but that would still leave $109 million in FY 2003 for initiatives to explore nuclear propulsion technologies for future missions.

The **Aero-Space Technology** program would rise 15.0 percent or $375 million in the House plan to $2.9 billion. Much of the increase would be due to a boost from $467 million in FY 2002 to $728 million in FY 2003 for the Space Launch Initiative, which funds research and development efforts for reusable launch vehicle technology, toward the long-term goal of developing a replacement for the Space Shuttle. Most other programs in this account would receive the requested amounts, which would result in mostly declines in NASA investments in aviation and commercial technology programs. The Senate would provide a similar increase for the Space Launch Initiative.

The **Academic Programs** appropriation of $179 million would be $48 million less than the FY 2002 funding level, but $35 million above the request because of 18 congressionally designated projects totaling $25 million, many of them funded in FY 2002 but deleted in the FY 2003 request. The Senate would provide even more funds, to 33 designated projects. In addition to these earmarks, there are earmarks in the other SAT accounts, for a total of $126 million in congressionally designated projects in the Senate bill and $117 million in the House version, some of them overlapping.

The House VA-HUD bill is now ready for floor debate, but consideration will be delayed until after the November elections. If the House does not approve the VA-HUD bill by the end of the year, a new bill will have to be drafted in the 108th Congress in 2003. The same is true for the Senate version of the bill; although it was drafted in July, it will not make it to the Senate floor before the November elections. Until a final FY 2003 appropriations bill is signed into law, which may not be until next year, all programs (including NASA programs) will operate at FY 2002 funding levels on a series of continuing resolutions (temporary funding bills). NASA will have to wait to receive its proposed increases for Space Science and Aero-Space Technology, and the fate of the Outer Planets programs will not be known for some time.

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Table. National Aeronautics and Space Administration
House Appropriations Committee Action on R&D in the FY 2003 Budget
(budget authority in millions of dollars)

				Action by House				
	FY 2002	FY 2003	FY 2003	**FY 2003**	Chg. from Request		Chg. from FY 2002	
	Estimate	Request	Senate	**House**	Amount	Percent	Amount	Percent
Summary of R&D by Appropriation:								
1. Human Space Flight (HSF)								
Space Station *	1,722	1,492	1,492	**1,492**	0	0.0%	-230	-13.3%
Other	526	386	386	**386**	0	0.0%	-140	-26.6%
Total R&D HSF	2,248	1,878	1,878	**1,878**	0	0.0%	-370	-16.4%
2. Science, Aeronautics and Technology (SAT)								
Space Science	2,867	3,414	3,492	**3,555**	140	4.1%	688	24.0%
Biological & Physical Research *	820	842	853	**854**	12	1.4%	34	4.1%
Earth Science	1,626	1,628	1,682	**1,674**	46	2.8%	49	3.0%
Aero-Space Technology	2,508	2,816	2,815	**2,883**	67	2.4%	375	15.0%
Academic Programs	227	144	203	**179**	35	24.5%	-48	-21.3%
Total SAT	8,048	8,845	9,045	**9,145**	300	3.4%	1097	13.6%
Less Non-R&D in SAT	*-136*	*-125*	*-125*	***-167***	*-42*	*33.7%*	*-30*	*22.2%*
Total NASA R&D	10,159	10,598	10,798	**10,856**	258	2.4%	697	6.9%
NASA Non-R&D Activities:								
Space Shuttle (in HSF)	3,273	3,208	3,208	**3,208**	0	0.0%	-65	-2.0%
Other Non-R&D in HSF	1,309	1,045	1,045	**1,045**	0	0.0%	-265	-20.2%
Non-R&D in SAT	136	125	125	**167**	42	33.7%	30	22.2%
Inspector General	24	25	25	**25**	0	0.0%	1	3.8%
Total NASA Non-R&D Activities	4,742	4,402	4,402	**4,444**	42	1.0%	-298	-6.3%
TOTAL NASA Budget	14,902	15,000	15,200	**15,300**	300	2.0%	398	2.7%

AAAS estimates based on FY 2003 appropriations bills. Includes conduct of R&D and R&D facilities.
FY 2002 and FY 2003 request figures based on OMB R&D data and supplemental agency budget data.
Figures are rounded to the nearest million. Changes calculated from unrounded figures.
All figures adjusted to exclude President's proposal to fully fund federal retiree costs, and
therefore differ slightly from figures presented in *AAAS Report XXVII* .
* Formerly Life and Microgravity Sciences and Applications. Includes Space Station research formerly funded in HSF.
October 16, 2002 - House Appropriations Committee-approved funding levels.
These funding levels may be amended or rejected on the House floor.