House Cuts NASA Aero-Space Technology, Boosts Space and Life Sciences

(This analysis is part of a series of AAAS R&D Funding Updates on the FY 2001 congressional appropriations process. This analysis includes information on R&D in House appropriations for NASA. The complete series of AAAS R&D Funding Updates, including continually updated analyses of R&D by agency in FY 2001 appropriations, is available on the AAAS R&D Web Site (http://www.aaas.org/spp/R&D) in the "FY 2001 R&D" or the "What's New" sections.)

On June 7, the House Appropriations Committee drafted an FY 2001 VA-HUD appropriations bill that would provide mostly level funding for R&D programs in the National Science Foundation (NSF), the National Aeronautics and Space Administration (NASA), and the Environmental Protection Agency (EPA). Although the Clinton Administration requested a $435 million increase to the total NASA budget, the House would trim the request and provide NASA with $13.7 billion, [0.4 percent or $58 million more than FY 2000.] NASA's R&D would be cut below both the request and the FY 2000 funding level. [**NASA's R&D would fall 1.0 percent] to $9.7 billion, primarily because of steep cuts in the Aero-Space Technology program that would reduce its budget by nearly a quarter** (see Table). NASA programs in Space Science and Life and Microgravity Sciences would receive substantial increases.

[On June 21, the full House approved the bill after making several amendments, including one that reduced NASA's Human Space Flight account by $25 million and the Science, Aeronautics, and Technology (SAT) account by $30 million to pay for an increase in veterans programs. Another amendment shifted funds from Human Space Flight to SAT.]

The House FY 2001 VA-HUD bill would provide $76 billion for discretionary programs, an increase over the $72 billion FY 2000 total, but the increase would go mostly to the bill's veterans and housing programs, leaving flat funding for most R&D programs. The President requested a far higher $85 billion for the bill's programs, including substantial increases for NSF and a smaller one for NASA, but because Congress chose to allocate only $605 billion for total discretionary spending compared to the President's $622 billion, while at the same time increasing defense spending more than the President, Congress has far less money than the President to allocate for domestic programs such as the ones in the VA-HUD bill.

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 $9.7 billion in the House plan, a reduction of $97 million or 1.0 percent from FY 2000**. Because the Space Shuttle program would receive an increase, the total NASA budget of $13.7 billion would be slightly higher (up 0.4 percent) than FY 2000.]

The **Science, Aeronautics, and Technology (SAT)** account, which funds nearly all of NASA's R&D not related to the Space Station, would receive $5.6 billion, [the same as FY 2000,] but there would be large differences in the funding trends of the various SAT programs. Within SAT, **Space Science** would receive $2.4 billion, a substantial [$175 million or 8.0 percent increase that falls just $31 million short of the request.] The House would grant the entire Space Science request except for the $20 million "Living with a Star" initiative. This proposed new program seeks to understand the sun's impact on the Earth and the space environment through a variety of missions to study solar variability. The House bill notes that while the initial $20 million cost would be low, its budget is projected to rise to $177 million by FY 2005, and the House Appropriations Committee requests a full review of the proposed program before considering the funding request. The other planned Space Science missions would be able to proceed, including the Mars programs.

Life and Microgravity Sciences and Applications (LMSA) would receive even more than requested for a total of [$326 million, an increase of 18.7 percent.] This program funds ground and space-based research to ultimately advance the safety and health of astronauts in space, but covers investigations on a variety of life, medical, and microgravity sciences research topics. The House would add $25 million to the request for ground-based research, especially in the life sciences, to prepare for space flight opportunities. The House bill urges NASA to develop a more comprehensive plan for ensuring adequate life sciences research time on the Space Shuttle and the International Space Station.

Offsetting the above increases would be a substantial cut in the **Aero-Space Technology** program. Total funding would decline by nearly a quarter [(down 24.0 percent) from $1.1 billion to $854 million,] in sharp contrast to a small increase in the request. The House would reduce the request by [$339 million] but would preserve funding for most programs within Aero-Space Technology, and would achieve the savings by providing no funds for the $290 million request for the Space Launch Initiative. The initiative, which funds research and development efforts for reusable launch vehicle technology, would have to come to a halt under the House plan. The House bill indicates no opposition to the program itself, and in fact praises the program's efforts to find alternatives to the Space Shuttle for space launches. The bill, however, states that there are insufficient funds for the program, and expresses hope that more funds will become available later in the appropriations process.

The **Earth Science** program, formerly known as the Mission to Planet Earth, would receive the requested amount of $1.4 billion, [3.1 percent] less than FY 2000. The **Academic Programs** appropriation of $105 million would be a [24.4 percent] cut, but slightly above the requested level because the FY 2000 appropriation contains numerous congressionally designated projects, most of which would not be renewed in the House bill.

[The House would provide $2.1 billion, nearly the same as the request, for continued development and construction of the **International Space Station**, $219 million less than FY 2000 because of a planned reduction in costs. A proposed amendment to terminate the project failed overwhelmingly on the House floor. The non-R&D **Space Shuttle** program, however, would see its funding increase by 5.7 percent to $3.2 billion, as requested, in part to fund upgrades to the shuttle.]

[The VA-HUD bill was approved by the full House on June 21 after long, contentious debates between Democrats and Republicans. Most proposed Democratic amendments to boost funding levels failed. A few amendments to shift funding between programs were approved, including one to reduce several NASA accounts to boost funding for veterans programs.] The Senate has not drafted its version yet. The House bill is likely to draw a veto threat because its funding levels fall far short of the request, and because it would eliminate the Corporation for National and Community Service, one of the Clinton Administration's high-priority programs. Because of the unusually strong leverage the President has in this election year, it is likely that final funding levels for VA-HUD bill programs will be far higher than House-proposed levels before the appropriations process is over. It is unclear whether NASA will receive any extra funds, although it seems likely that the cuts to Aero-Space Technology will be reversed.

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Table. National Aeronautics and Space Administration
House Action on R&D in the FY 2001 Budget
(budget authority in millions of dollars)

			Action by House				
	FY 2000	FY 2001	**FY 2001**	Chg. from Request		Chg. from FY 2000	
	Estimate	Request	**House**	Amount	Percent	Amount	Percent
Summary of R&D by Appropriation:							
1. Human Space Flight (HSF)							
Space Station	2,323	2,115	**2,104**	-11	-0.5%	-219	-9.4%
Other	10	20	**20**	0	0.0%	10	93.7%
Total R&D HSF	2,333	2,135	**2,124**	-11	-0.5%	-210	-9.0%
2. Science, Aeronautics and Technology (SAT)							
Space Science	2,193	2,399	**2,368**	-31	-1.3%	175	8.0%
Life & Microgravity Sciences	275	302	**326**	24	7.8%	51	18.7%
Earth Science	1,443	1,406	**1,399**	-6	-0.5%	-44	-3.1%
Aero-Space Technology	1,125	1,193	**854**	-339	-28.4%	-270	-24.0%
Aero-Space Research and Tech.	*985*	*1,058*	***720***	*-338*	*-31.9%*	*-265*	*-26.9%*
Commercial Technology Progs.	*140*	*135*	***134***	*-1*	*-0.5%*	*-6*	*-4.0%*
Mission Communications Serv.	406	529	**527**	-2	-0.5%	121	29.7%
Academic Programs	139	100	**105**	5	4.9%	-34	-24.4%
Total R&D SAT	5,581	5,929	**5,580**	-350	-5.9%	-1	0.0%
3. Mission Support R&D	1,862	1,976	**1,976**	0	0.0%	114	6.1%
Total NASA R&D	9,777	10,040	**9,680**	-361	-3.6%	-97	-1.0%
NASA Non-R&D Activities:							
Space Shuttle (in HSF)	2,980	3,166	**3,150**	-16	-0.5%	170	5.7%
Other Non-R&D in HSF	155	200	**199**	-1	-0.6%	44	28.3%
Mission Support Non-R&D	670	608	**608**	0	0.0%	-62	-9.3%
Inspector General	20	22	**23**	1	4.5%	3	15.0%
Total NASA Non-R&D Activities	3,824	3,995	**3,979**	-16	-0.4%	155	4.1%
TOTAL NASA Budget	13,601	14,035	**13,659**	-377	-2.7%	58	0.4%

AAAS estimates based on FY 2001 appropriations bills. Includes conduct of R&D and R&D facilities.
FY 2000 and FY 2001 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.

June 8, 2000 (revised June 22) - House-approved appropriations.
These appropriations reflect amendments approved on the House floor.