Battle Lines Drawn for 1997 R&D Budget

President Clinton unveiled his budget plan this week. It would provide selected growth for R&D at a time of severe fiscal austerity, but battles over many programs can be expected as it works its way through Congress

The White House sent Congress a 1997 budget plan on 19 March that would boost U.S. science and technology funding by 1.6%, while most areas of federal spending would decline. Science Adviser Jack Gibbons touted the $73 billion proposed for civilian and defense R&D—a $1 billion increase over the likely 1996 level—as proof that President Bill Clinton intends to protect science spending despite a push to balance the budget by 2002. But these figures are far from being money in the bank. Congress and the White House have yet to agree on a 1996 budget for many agencies, and, with proposed increases for areas like applied research and global-change research efforts that Republicans have targeted for cuts, Clinton's 1997 proposals will get a chilly reception on Capitol Hill. Highlights of the request follow:

■ *National Institutes of Health (NIH).* The 3.9% increase would allow the agency to achieve two priorities for 1997: start building a new clinical research center, and fund 207 more grants to individual investigators. "This is a generous budget that would allow us to do what we need to do," NIH Director Harold Varmus told *Science*.

Two-thirds of the $467 million proposed increase would be spent to replace NIH's deteriorating clinical center. "We're able to propose it because we did very well last year [a 5.7% increase], the planning is done, and we need to be finished before the old building becomes a hazard," says Varmus. The increase in new and competing project grants would come in part from reducing the number of centers and R&D contracts, trimming administrative overhead, and capping annual raises for continuing grants at 2% rather than the current 4%. Varmus calls it "a small price to pay" to make room for new investigators.

■ *National Science Foundation (NSF).* The request would dismantle the bricks and mortar portion of NSF's $100 million academic facilities program and shift the remaining $50 million into the research account, to be spent on large instruments. That would boost the account by 8.7%; each of the six research directorates would get raises of similar size. The biggest new project would be $25 million to address safety and health issues at NSF's South Pole station, which NSF officials hope to replace over the next decade.

The education directorate hopes to beef up its systemic reform efforts and cut back on its informal science education program. NSF also plans to reward 10 institutions with model programs for integrating research and teaching with $500,000 grants.

■ *National Aeronautics and Space Administration.* The agency's controversial Earth Observing System would reap a $50 million increase in 1997 over its current $535 million budget. Microgravity sciences would jump from $133 million to $144 million, while life sciences would see a $20 million decline from the current $136 million. For space science, the news is bad (see p. 1660). The proposed $175 million cut to the $2.03 billion budget is spread among almost every area, including the Discovery and New Millennium programs devised to launch smaller and cheaper satellites. There are two bright spots, however: a $28 million boost to the $564 million account for operations and data analysis, and $60 million for Gravity Probe-B—an $8 million boost for the effort to test Einstein's relativity theory.

■ *Department of Energy.* Fusion wins the biggest proposed boost in the science area, increasing from $244 million to $265 million in 1997 (see p. 1660). Overall, the Office of Energy Research reaps a $60 million increase over 1996 in the $2.55 billion request.

■ *National Institute of Standards and Technology.* The request would restore the controversial Advanced Technology Program—which Republican lawmakers are trying to eliminate—to its 1995 level of $345 million, and add 15 centers to the 60-site Manufacturing Extension Partnership for small companies. It would provide funds for a $44 million lab to help set standards in nanometer technologies—"we cannot wait any longer on this technology," says Commerce Department Undersecretary for Technology Mary Good.

■ *National Oceanic and Atmospheric Administration.* Climate and air-quality research would jump from $107 million to $122 million, partly to expand work on the effects of El Niño. A big loser in the request is the undersea research program. Congress appropriated $12 million for 1996, but the White House included no funding for 1997.

■ *Environmental Protection Agency.* The request boosts EPA's Science to Achieve Results extramural grants program by 35%, to $115 million. Funds for Superfund and environmental technology would be restored after 1996 cuts.

–Andrew Lawler and Jeffrey Mervis

The budget proposals were announced just as this issue of *Science* went to press. We provide the highlights on this page; the three following stories examine different facets of the tightening budget squeeze. More analysis of the 1997 budget will appear next week.

HIGHLIGHTS OF THE PRESIDENT'S R&D BUDGET

Agency/Program	FY '96 (in millions of dollars)	FY '97 request	% change
Total R&D	**71,450**	**72,679**	**+1.6**
Civilian R&D	33,347	34,404	+3.0
Military R&D	38,103	38,275	+0.1
National Institutes of Health	**11,939**	**12,406**	**+3.9**
Clinical center	++	310	NA
AIDS office	1408	1432	+1.6
Genome center	170	179	+5.8
# of new project grants	*6620*	*6827*	*+3.1*
National Science Foundation	**3180***	**3325**	**+4.6**
Research	2274	2472	+8.7
Education	599	619	+3.3
Major equipment	70	95	+35.7
Facilities	100	0	–100.0
NASA	**13,820***	**13,804**	**0.0**
Mission to Planet Earth	1289	1402	+8.8
Space science	2033	1857	–8.7
Life, microgravity science	489	499	+2.0
Commerce Department	**3648***	**4266**	**+16.9**
NIST	257	270	+4.2
Advanced Technology Program	256	345	+34.8
NOAA	1937	2108	+5.7
Energy Department	**16,330**	**16,329**	**0.0**
Fusion	244	265	+8.6
Basic energy science	655	654	0.0
High-energy, nuclear physics	972	998	+2.7
Biol. and envir. research	406	379	–6.6
Environmental Protection Agency	**5700***	**7000**	**+22.8**
Office of R&D	460	538	+16.9
Interior Department	**5999***	**7330**	**+22.2**
U.S. Geological Survey	723	746	+3.2
Agriculture Department			
Agr. Research Service	756	816	+7.9
National Research Initiative	97	130	+34.0

* Congress has not completed action ++ Construction would begin in FY '97

SOURCE: OMB, INDIVIDUAL AGENCIES, AAAS