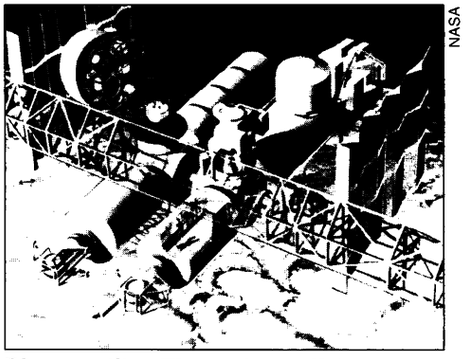
Starving Science to Feed Space Station

A pitched battle between big and little science took place on the floor of the House last week, and big science won. The House voted by a wide margin (240-173) to preserve what members repeatedly called "the dream" of building a large station in low-earth orbit this century, which they preferred over a variety of smaller but scientifically promising projects at the National Aeronautics and Space Administration (NASA). Several scientific groups, which regard the station as more of a nightmare than a dream, lobbied unsuccessfully to kill the project.

The House specifically rejected the advice of Representative Robert Traxler (D–MI), chairman of the NASA appropriations subcommittee, who warned that "if the station comes in," it will "eat our lunch this year" and "eat your dinner next year." Traxler was referring to the zero-sum rules in last year's budget agreement, requiring that major growth in the station between 1990 and 1995 be paid for by cuts elsewhere—particularly at NASA, the National Science Foundation, and agencies that support public housing and veterans' benefits.

Traxler was flooded with mail from not only veterans groups but "hundreds" of scientists, who argued that it would make more sense to support a variety of robotic projects than a single station. Among the organizations making this point were the American Physical Society, the American Geophysical Union, the Planetary Society, and the Association of Scientific Society Presidents. John Bahcall, president of the American Astronomical Society, sent a personal appeal to members urging them to contact members of Congress and remind them of the educational value of science programs. But the glory of the manned space program, commitments to foreign governments, and the prospect of new aerospace jobs evidently carried more weight than the concerns of scientists. The House decided to freeze the entire NASA budget at its 1991 level and trimmed a host of embryonic NASA projects to provide the station with a $1.9 billion lifeline.

This decision, if endorsed by the Senate, would take a big chunk out of plans for space science in the coming years, possibly killing at least one project—the Comet Rendezvous Asteroid Flyby (CRAF) mission—which is approaching a unique flight opportunity. Berrien Moore III, chairman of the independent Space Science and Applications Advisory Committee, issued a statement on 7 June summarizing the group's concerns. The House vote, it said, "threatens irreparable harm to the space science program and to essentially all other elements of NASA except the space station." If the House bill is applied rigidly, this group predicts, it could reduce funding for the Advanced X-Ray Astrophysics Facility (AXAF) by $110 million and, through delay, inflate its total cost by $200 million. The Earth Observing System would be cut by $145 million, and life sciences and microgravity programs on the shuttle would be hurt. The only "new start" for science in 1992—a biological research project known as Lifesat—would be eliminated. Les Meredith, group director of the American Geophysical Union, calculates that the share of NASA's budget devoted to space science would drop from 17% to 15% if the House plan is adopted.



NASA

Big appetite. *The project will "eat your dinner," warns Representative Traxler.*

The next stop for NASA's budget is the Senate, where an appropriations subcommittee is scheduled to begin marking up a bill immediately after the 4th of July recess.

■ ELIOT MARSHALL

Aging Research: A Growth Industry

The gerontologists are the latest discipline to list priorities while pleading for more funds in the 1990s. Like the astrophysicists and ecologists before them, they have formally ranked their research plans over the next decade, so that new money can be channeled into the most promising areas.

The gerontologists' guide to priorities, released last week by a blue ribbon panel chaired by Julius R. Krevans, chancellor of the University of California at San Francisco, presents an ambitious agenda for the 1990s. Not surprisingly, it seeks more money and a larger institutional network for aging research. The authors specifically ask for 10 new university-based gerontological research centers. And they argue that the field will need $312 million in new funds annually, to be phased in over the next 5 years, in addition to the $601 million that public and private agencies already spend.

Although $1 billion a year may seem like a lot to invest in a single field, the report says the cost of ignoring the problems of the elderly would be even higher. The number of people in the United States age 85 and older is growing six times faster than the rest of the population, and the cost of caring for the disabled is expected to double in the next decade. This is the right time to begin an expansion of gerontology, according to committee member John W. Rowe, president of the Mount Sinai School of Medicine and Hospital in New York. "There is a growing understanding in Congress and by policy makers that aging is one of the most important and most expensive medical problems in the country, and that it will only get worse in the future," Rowe says.

The Institute of Medicine launched this study in 1988 with the idea of identifying research that could lead to "not merely extending life, but enhancing it." After consulting about 150 authorities, the committee made some surprisingly hard choices. In basic research, for example, it recommends just two top priorities: The study of abnormal cell proliferation and brain aging. The first includes the study of how cells are replaced after they have been damaged by disease, an environmental toxin, or some other insult. The second recommendation is to expand basic research in the neurosciences, including the study of Alzheimer's disease. In clinical research, the committee gives top priority to projects aimed at preventing and treating disability in older persons, including efforts to prevent falls, which often land frail people in nursing homes.

None of the new projects can go forward, however, unless there are enough researchers to run them, and the report predicts a shortage of skilled personnel. By the mid-1990s there will be only 5000 certified geriatricians in the country, half the number that may be required. Medical faculties will have to expand steadily to keep up with the demand for trained geriatricians, the report concludes.

What are the chances of all of this happening? Not great. But the committee members are optimistic that the report will at least steer policy in the right direction: "Even if Congress differs with our fundamental funding requests, at least it will have a structure to work with," says study director Edmund T. Lonergan.

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