



"New Realities" in Space

The space program needs new leaders at headquarters, less bureaucracy in the field offices, more exciting goals, and clearer priorities, according to a white paper written by a committee chaired by Guyford Stever, the former head of the National Science Foundation. Speaking for the National Academy of Engineering, Stever gave this advice to the White House in December and released it to the press last week.

Before launching any big new space ventures, Stever says, the Administration should put its policy shop in order and think carefully about its goals. The President and Congress should reach a consensus on which programs are first-rank and which are secondary. With a set of priorities in hand, they should create a funding plan that will endure for many years.

At present, the Stever committee says, the space program is confused and overcommitted. The space station is cited as an example. The white paper finds that the emphasis on microgravity research, particularly materials research, "has not provided a strong political or scientific foundation for the program." Many observers now think that the materials industry will develop quite slowly in space. If so, the station has been put on a shaky footing. According to Stever, it would be more compelling intellectually and emotionally to justify the space station as a first step toward human exploration of the solar system. Life sciences would get more attention in this case. The committee thus calls for "a reorientation of the primary rationale for the space station and a rethinking of plans for outfitting and utilizing it."

If it agrees with this advice, the Administration will have to work quickly. By present law, a big down payment on this \$16-billion to \$30-billion project will be made in May unless the President intervenes. The report suggests that the project's focus can be changed without seriously disrupting the schedule, however.

Among others, the Stever committee makes the following recommendations:

- A "base program" costing about \$10 billion a year should be NASA's top priori-

ty. In in this category, the report says, NASA should be most concerned with providing access to space on a variety of vehicles, pushing back the frontiers of space technology, and developing a well-balanced portfolio of space science and Earth observation activities.

- **Special initiatives** costing \$3 billion to \$4 billion a year in the early 1990s should focus on showcase projects that will make a significant demand on the budget. These should be funded only after a rigorous public review, and only if there is a broad consensus that the rewards will be worth the cost. Included in this category are the space station, a base on the moon, human travel to Mars, a multisatellite observational network known as the "Mission to Planet Earth," and a major solar exploration project.

- **Management changes** are needed at headquarters and field offices. The committee suggests that NASA separate R&D from "operational" functions. To attract talented staff, the committee says, NASA should free its field offices from the civil service mold and convert them to quasi-autonomous outfits like the Jet Propulsion Laboratory in Pasadena, run on contract by the California Institute of Technology.

■ ELIOT MARSHALL

Leadership and AIDS

The AIDS epidemic is taking on the features of a mature crisis, which means that things are going to get a lot worse before they get better. It is a telling detail, then, that almost a decade into the epidemic, the scientific community is still pleading for "presidential leadership" and the creation of "a forceful, coherent national policy" on AIDS.

There are ways to mitigate the suffering to come, by using education and drug treatment to slow the spread of the AIDS virus among the poor and the uninformed and by providing health care financing and civil rights protection for those already infected, according to the authors of a white paper on AIDS and HIV infection. But to do this requires a president who sets "a tone that encourages aggressive action yet resists hys-

teria and insensitivity to the civil rights of infected persons."

If the recommendations to George Bush have a familiar ring, it is because the advice has been offered before. The white paper is mostly a review of the longer study by the Institute of Medicine and the Academy of Sciences, *Confronting AIDS: Update 1988*, which appeared last summer concurrent with the release of the final report from the President's AIDS commission.

Both reports apparently went into the circular file, receiving little more than a tepid response from Reagan, who called for more studies (*Science*, 12 August 1988 p. 778). Eager to be heard, the IOM is giving it another try with the kinder, gentler President-elect Bush. Among their suggestions:

- **Social engineering.** The white paper calls for government funding for education that is frank and unambiguous. "This may mean supporting AIDS education efforts that contain explicit, practical, and perhaps graphic advice targeted at specific audiences about safer sexual practices and how to avoid the dangers of shared needles and syringes."

- **AIDS drugs.** This is a touchy one, since Bush, as head of Reagan's Task Force on Regulatory Relief, pushed hard for increased access to experimental drugs for terminal patients. The white paper, though, frets that recent moves by the Food and Drug Administration to allow AIDS patients to import unapproved drugs from overseas and to allow companies to release drugs to patients after early hints of efficacy could interfere with clinical trials. They suggest a closer look at FDA's policies.

- **Better advice.** Congress passed its first AIDS bill in 1988, which establishes a new national commission on AIDS. The President gets to appoint five members. The white paper suggests that Bush pick people who are "senior experts of stature in areas of particular relevance to AIDS. They should not be chosen because they hold any particular political ideology." This is an obvious dig at some of the conservative laymen chosen for Reagan's AIDS commission.

- **Intravenous drug abusers.** "The gross inadequacy of efforts to reduce HIV transmission among IV drug abusers . . . is the most serious deficiency in current efforts to control HIV infection," the report states. It recommends a rapid, large-scale expansion to offer treatment on demand to all addicts.

- **Testing.** The report again makes its case against mandatory testing, except when screening blood, tissue, or organs. The authors ask that voluntary testing, with counseling, be available for anyone who may be at risk of exposure for HIV.

■ WILLIAM BOOTH