The NASA Budget: Planetary Panic

For the past several years, space scientists have been gloomily aware that the future for U. S. missions to other planets is a grim one. Plans to visit comet Halley, Venus and other targets have been abandoned or deferred, and Voyager 2's August flyby of Saturn was accompanied by a bittersweet blend of elation at the new findings and depression at the realization that no more U. S. planetary encounters would take place for nearly half a decade, if then.

Two weeks ago, however, the mood changed abruptly from gloom to panic, at reports that the Reagan administration's budget, still locked away in the Office of Management and Budget, would call for not mere cutbacks in planetary exploration, but the end. The End. Not just delaying various projects by a year or two, but a formal shutdown to the whole era of solar system studies that has been carried on by the National Aeronautics and Space Administration for two decades. There would be no future missions. The only one now in the works — the Galileo orbiter and probe of Jupiter, scheduled for a mid-1980s launching and on which nearly $300 million has already been spent — would be nipped in the bud. Even Voyager 2, triumphantly successful already at Jupiter and Saturn and with Uranus and Neptune yet to come, would simply be turned off, to drift mutely on its path. "Locking the door on the solar system," said one scientist, with the act of throwing away the key symbolized by the deactivation of NASA's Deep Space Network, the three huge tracking antennas that are the lifeline to all the U. S. probes now operating beyond earth orbit: Voyagers 1 and 2, the Viking 1 landing craft on Mars, the Pioneer Venus orbiter and six other Pioneers, plus the German Helios 1 probe studying the sun.

At the heart of the furor has been the report that OMB director David A. Stockman plans not only to cut some $357 million from NASA's already thrice-trimmed budget for fiscal 1982, but to slash another $1 billion in FY 1983 and yet another billion the following year. More than half of the agency's budget is tied up in the space shuttle, considered untouchable because of its role in national defense, so any percentage cuts would presumably be made from the minor fraction that remains. Besides general salaries, this consists largely of three elements: "applications," which means earth-resources studies and the like; aeronautics, whose results contribute to the aircraft that are one of the main bolsterers of the U. S. balance of payments; and science, of which the lion's share is in planetary exploration.

In NASA's view, dividing such substantial cuts among these three lesser shareholders would cripple all of them; the painful alternative, the logic goes, is to eliminate one of them completely.

Seemingly pointing toward the choice has been the widely circulated rumor that, several months ago, Stockman told his staff that "we'll have NASA out of planetary exploration by 1984." Other OMB officials have denied that the remark was ever made, but OMB's deliberations are notoriously secretive, and, confronted also with the Reagan administration's tight-lipped approach, rumors are all that frustrated planetologists have had to go on.

This was glowingly illustrated last week in Pittsburgh at the annual meeting of the American Astronomical Society's Division for Planetary Sciences (DPS), where hundreds of researchers gathered for a week to discuss their work, swap data — and sweat. In the matter of the Big Question, it was clearly a case of information underload. Even a specially arranged session with officials from the DPS, NASA and the National Academy of Sciences and a Senate space subcommittee produced virtually no hard information. "It's amazing," said one attendee, "how high up you can be these days and still be an outsider."

This is one of a series of stories SCIENCE NEWS will run periodically on the impact of actual or proposed budget cuts on various areas of science.

"At this moment," said Eugene Levy, chairman of the Academy's Committee on Planetary and Lunar Exploration, "not one of us knows whether, a year from now, the U. S. will have a program of solar system exploration." Nor was the mood eased by the knowledge that invitations to appear on the panel had been rejected by, among others, presidential science adviser George Keyworth and NASA deputy administrator Hans Mark.

"We are *not* faced with an invigorating, open-minded appraisal of where we are in our scientific investigations of the solar system," said Levy. "We are *not* seeing an administration eager to assess national scientific programs, and committed to moving forward vigorously with those that have particular intellectual, cultural and national importance. Instead, highly placed government officials *assert* that most of the important things in planetary investigations have already been done! They *announce* that 'the era of planetary investigations is over!' ... Decisions are being made without serious study of the issues, without significant consultation with individuals and institutions that grasp the scientific questions, and with reliance instead on personal preconceptions. We may see important policy-level decisions, affecting major scientific activities of the United States, formulated at the whim of a few randomly placed people in the administration — people who are neither informed on these issues, nor sensitive to the importance of science and technology for our society in the large."

"One hears that scientific and technical ignorance is rampant among those in high political places," noted new DPS president Michael Belton of Kitt Peak National Observatory. "It is."

The clearest indicator of the tension within the planetary science community, however, was the matter of how active a role the DPS and its members should take in trying to influence their future. There have long been some scientists willing to take up the cudgel on behalf of imperiled programs, but others have traditionally felt it professionally inappropriate to take visible positions of advocacy. At the Pittsburgh meeting, the discussion ranged from disagreement to shouting match.

"The reluctance in the past has been 'Don't bite the hand that feeds you,'" said Noel Hinners, director of the National Air and Space Museum and former NASA associate administrator for space science. "But when the hand that feeds you has no food in it, a little nip on the hand wouldn't hurt any." A stronger line was taken by others such as Jet Propulsion Laboratory's Robert Nelson, who suggested that perhaps the DPS ought to consider some "hardball" tactics such as forming a formal political action committee. "I certainly don't want this group to become a pressure group," said the University of Colorado's Larry Esposito, but Carl Pilcher of the University of Hawaii maintained that "we can no longer afford the intellectual luxury of regarding 'lobbyists' as a dirty word." A motion was finally passed authorizing Belton to develop some sort of action program for the DPS, though Belton later said that he felt such extremes as political action committees to be unlikely.

Meanwhile, the rumor mill grinds on. In recent days, for example, says a NASA source, some OMB officials (not Stockman) are said to have been "genuinely surprised" when they were shown the effects the proposed cuts would have. But less-than-terminal cuts in the planetary program could still have drastic effects. "The key is Galileo," says an official of JPL, from which most of NASA's planetary missions are controlled. "If we keep it," he says, "we're a viable space science center. If not, there's nothing left." □