

# FEEDING A FANTASY NASA Out of Orbit

BY AMITAI ETZIONI

**N**O GOVERNMENT agency is more adept at public relations than the National Aeronautics and Space Administration (NASA). To begin with, of course, there are the usual Madison Avenue-style techniques—distributing glossy brochures, inviting influential people to launchings and the like. But NASA learned long ago that it could best enhance its image, and fatten its budget, by building PR into the space missions themselves—a practice that runs up costs, distorts priorities and inadvertently endangers lives.

Consider the preference for manned missions over unmanned ones. It all

started back in 1961 when President John F. Kennedy announced Project Apollo. In committing the United States to achieving a manned lunar landing by the end of the decade, Kennedy clearly hoped to divert attention from the recent Bay of Pigs fiasco, and to overshadow the Soviet space program initiated four years earlier with the dramatic launching of Sputnik. Yet even at the time critics pointed out that sending a man to the moon instead of a robot would needlessly put astronauts' lives at risk and multiply the cost of the project many times, given the difficulties of negotiating a return trip to the earth.

The eventual lunar visit of Apollo 11, as predicted, yielded hardly any new scientific information and had no direct economic or security payoff. It did, however, treat the world to the televised spectacle of American astronauts cavorting on the moon's surface. And it helped to establish a philosophy at NASA that is reflected in its reported in-house slogan: "No Buck Rogers, no bucks."

This philosophy has given us the Challenger space shuttle tragedy, even though humans can do little in space that robots cannot do, and robots can do much that humans cannot do. The great advances in communications, surveillance and the study of weather patterns have nearly all been achieved by unmanned missions. "There are practically no instrumental reasons for manned flight, leaving only inspirational ones," says John Logsdon, director of the Space Policy Institute at George Washington University.

Nevertheless, last July on the 20th anniversary of the Apollo lunar landing, President George Bush—who has never been averse to a bit of inspiration—called for a "manned mission to Mars" as well as a return human visit to the

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moon. While the \$15.2 billion slated for NASA in the Bush Administration's proposed 1991 budget falls considerably short of the more than \$30 billion requested, it still represents a 23 per cent increase over current spending—the largest granted to any government agency. Manned missions have been estimated to account for more than \$10.5 billion of this sum; unmanned missions are budgeted at only \$636 million. These figures, it should be noted, are somewhat arbitrary. If a satellite is launched into orbit by a manned space shuttle and subsequently retrieved and repaired by another shuttle mission, for instance, it is not entirely clear how much of the cost should be attributed to manned expenses. But none of the officials I have spoken to at the Congressional Budget Office, the General Accounting Office, or NASA itself ever questioned the fact that manned missions absorb the lion's share of the space budget.

The result is that operations in near space continue to be scanted in favor of more dramatic forays into deep space. Investigations of the stratosphere, studies of weather and pollution, and the mapping of geological resources are relatively neglected. As Representative Bill Green (R-N.Y.), who serves on the House Appropriations subcommittee that funds the space agency, recently noted, "When NASA pushes manned space operations, more valuable scientific work tends to take a back seat."

To add to the irony of the situation, although NASA's hype seems to have persuaded Presidents that space exploration is "a source of wonder to the entire world," to quote one of its publications, opinion surveys consistently show Americans expressing displeasure with the amount of money consumed by the agency. In 1980, 36 per cent said they supported cutting space expenditures, whereas only 18 per cent wanted to spend more. In 1987, the gap widened to 46 per cent versus 12 per cent. In 1989, fewer than one in five Americans thought it was "very important" that the U.S. make the first manned landing on Mars. A remarkable 48 per cent did not even deem it "somewhat important"—and the poll was taken the same month President

Bush declared a manned visit to Mars a national goal.

The NASA PR machine works hard to combat these attitudes. Using public funds, it does everything from hiring advertising firms to tout the commercial spin-offs of its projects, to distributing millions of "NASA tomato seeds" to American schoolchildren. Such activities run counter to the logic of democratic government. In a democracy, the people are supposed to convey their wishes to their elected representatives, who in turn try to shape public policy in accordance with those wishes.

But it is not simply inappropriate for a government agency to use part of the tax money it has been allocated for the purpose of swaying the American people toward its vision of what public policy should be. The practice is, in effect, a violation of the United States Code (Title 18, section 1913), which prohibits "lobbying with appropriated moneys."

**M**UCH OF the lobbying effort is conducted through sheer hyperbole. Moreover, in this NASA is abetted by members of the scientific community and a surprisingly uncritical, even adoring press.

When the Voyager 2 space probe passed beyond the orbit of Neptune last year a NASA spokesman exclaimed, "All we can say is, Wow! ... What a way to leave the solar system." Upon the reception of images of the planet transmitted by satellite, another NASA official declared, "This is a gee-whiz day."

Astronomer Paul Uhler of the National Academy of Sciences suggested that the longevity of Voyager 2 was "like having a car last you for 10 million miles." Carl Sagan, alluding to the number of planets that the space probe surveyed during its travels, commented that "Voyager has cost a nickel a world for everybody on earth." (What he didn't say is that 4.5 billion nickels is a considerable sum of money, and the "worlds" explored are barren, remote pieces of real estate). Newspaper reports on the Voyager 2 abounded with adjectives like "spectacular," "astonishing," "dazzling," and "tantalizing."

The reality was less impressive. Voy-

ager 2's revelation about Neptune was merely that several formations around it previously thought to be "arches" actually are closed rings. It also provided evidence suggesting that Neptune's moon, Nereid, is the third largest of a total of eight moons and not, as had been believed, the second largest of two. Findings of that sort may be easy for the press and public to grasp, but they have no fundamental scientific importance, nor do they point to any technological innovation.

Whenever projects like Voyager 2 are criticized for their lack of theoretical and practical significance, NASA and its allies in the aerospace industry and on campuses tend to retreat to the clichéd image of a sailor sitting on the bowsprit of Columbus' ship, seeing the New World come into view for the first time. But Voyager 2 discovered no new worlds that can be inhabited or cultivated. If this space probe must be thought of in nautical terms, its mission should be compared to circumnavigating the globe and discovering a formerly unknown rock formation among the Greek islands.

In his 1989 speech on the anniversary of the Apollo lunar landing, Bush stated that "no quantitative measure of any kind can capture the benefit of expanding human horizons, human dreams, and the human domain." That may be true, but the issue here is public funds that do not flow freely; they are allocated by Congressmen subject to continuous lobbying pressure. It is therefore quite legitimate to ask whether money marked out for NASA might not more usefully be applied to probing the depths of the oceans, the core of the earth, or even the inner structure of human cells. All of these areas of investigation seem richer than space, both in scientific challenges and in potential applications.

If space is nonetheless awarded the highest budgetary priority, might not the next generation of astronauts at least be robots, and the regions explored be nearer the earth? Not only would this be safer and more economical, it would be a victory for scientific rationality over fantasy and nationalistic one-upmanship.