

Squabbling Over the Space Policy

Intense lobbying preceded Reagan's recent address on outer space; Keyworth says NASA applied "improper" pressure for its space station

When President Reagan began his 4 July speech at Edwards Air Force Base in California, the audience was filled with anticipation. For several months, the National Aeronautics and Space Administration (NASA) had been fanning rumors that Reagan would use the occasion of the space shuttle's landing at Edwards to announce a decision to build a station in outer space, a perennial agency dream. Consequently, the audience of aerospace workers, NASA employees, and space buffs applauded wildly when Reagan said "we must look aggressively to the future by . . . establishing a more permanent presence in space." In typical aerospace parlance, that means a space station.

The use of this term created much confusion, because the policy that Reagan went on to describe actually contains no mention of a space station. But it was still a victory for NASA. The agency's officials had earlier been told that a station was not in the cards. So they deliberately tried to attain through the speech what the President's advisers had already ruled out, by pressing for the insertion of language that would amount to a space station endorsement. Early drafts of the speech referred specifically to "a permanent manned presence in space," according to several credible sources. Only through the direct, last-minute intervention of George Keyworth, the President's science adviser, and David Stockman, the top White House budget officer, was the offending phrase toned down. But the remaining language still appeared to bring NASA a step closer to its goal.

This was only one of several intergovernmental squabbles that preceded the announcement of a new federal policy on outer space. At first glance, the policy appears to be a bland recitation of existing ideas for the exploitation of space by NASA, the Department of Defense (DOD), the Department of Commerce, and others. To those who participated in its creation, however, the policy represents the outcome of an enormous struggle among nine agencies with frequently conflicting interests; it also represents a small but important shift in the direction

of the U.S. space program, toward increased military control of activities in space and increased involvement of the private sector in space ventures.

Drafting such a policy is a bit like preparing an international treaty: every word counts and the language is supposedly crafted so that no party can contrive a new interpretation several years later.

Europeans leadership in some aspects of space technology. "It is not in the best interests of the free world to have parallel and redundant explorations in science," he says. OMB's opposition was equally practical. Leadership costs money, OMB said, and together with OSTP succeeded in getting the policy to endorse U.S. preeminence only in "critical



George Keyworth

The target of a "carefully organized campaign" on behalf of a space station.

The significance of the wording is largely financial. As a statement bearing the President's signature, the space policy might carry a good deal of weight during the budget cycle, and the inclusion of a word here or a phrase there is thought by federal agencies to influence the allocation of millions of dollars. This is probably an exaggeration, as budgets are frequently influenced by short-term political needs; but all of the players behave as if it were a life-and-death matter.

NASA wanted, for example, to include as a key objective of the civil space program the preservation of "United States preeminence in space activities." But that wording ran into trouble at the Office of Science and Technology Policy (OSTP) and OMB. OSTP director Keyworth is willing to concede to the

space activities." No one could estimate the savings likely to result from such an ambiguous distinction.

On other topics, OMB succeeded in modifying language that might result in an increase in NASA's budget. Instead of saying that the U.S. government "will promote and encourage expanded private sector investment in space activities," the policy was altered to state that the government "will provide a climate conducive" to that investment. "Anything that implied a budget implication was fought by OMB almost to the point of lunacy," says one participant with hurt feelings.

But the budget-tenders hardly won every battle. They wanted, for example, to persuade agencies other than NASA to commit more of their satellites to shuttle

launches. They called for an end to the use of expendable rockets when the capabilities of the shuttle are sufficient to meet everyone's needs. DOD and the Commerce Department both objected, wanting to preserve their existing right to launch national security and meteorological satellites by methods of their own

choosing. Representatives of these departments succeeded in watering down OMB's language and defining the shuttle as merely the primary space launch system. "It is silly what grown people will sit around and do," says one of the participants in this debate.

Nowhere was bureaucratic self-inter-

est as evident as during the debate over a space station. A commitment to begin work on it would have sharply increased NASA's budget over the next few years. The agency's lobbying reportedly included direct appeals to the President and the office of Edwin Meese, the President's top counselor. Hundreds of letters and telegrams were sent directly to OSTP, in what Keyworth calls "a carefully organized campaign." The OSTP staff counted 17 newspaper and magazine articles that predicted an announcement of the space station during the President's 4th of July speech. NASA administrator James Beggs stated openly that he believes "our next logical step is to establish a permanent manned presence in low-earth orbit" and that, with proper financial support, it could be achieved within the decade.

The problem was that NASA's enthusiasm is shared by no other federal agency and by few experts outside the government. An official at the Commerce Department says that "the last thing we need for meteorological satellites is a space station." The Department of State is uninterested unless it involves substantial international cooperation, but virtually all such cooperation is offensive to the Defense Department. Keyworth and Victor Reis, an assistant director of OSTP who was chairman of the space policy review, canvassed the scientific community and came up with little interest plus considerable fear that such an enormous undertaking would threaten funds for space science. Keyworth says that he has "yet to see competitive, well-thought-out plans not only for what it would look like but what it would do." Another participant in the debate says that "the military couldn't think of a use for it, and there sure as heck was no civilian requirement." Even the aerospace community expressed some concern that approval of construction might be premature.

Lacking any substantial support, NASA's ardent campaign for approval might even have backfired. Keyworth in particular says that "it was improper to put that kind of pressure on the President, completely improper. It does not exactly endear people in this Administration to the initiative." Keyworth is careful to say, however, that no one in the Administration has ruled out such a venture, only that it is not yet time for a decision.

In addition to the inclusion of a reference to the space station in the President's speech, NASA achieved several other small victories on it. An explicit ban on large engineering structures in

A Soviet Space Station?

In announcing his new space policy on 4 July, President Reagan made one prominent omission: he did not endorse the National Aeronautics and Space Administration's dream of building a permanent manned space station. Two days later, with timing that cynics would call suspiciously coincidental, a rumor surfaced in the RKO news service that the Soviet Union would soon launch a space station capable of carrying up to 100 people.

Well, maybe. The Soviets do like to honor special events, and 4 October of this year will be the 25th anniversary of the launch of Sputnik. Another possible occasion is the United Nations space conference in August. Some highly visible space effort does seem likely this year. But will it be a new space station?

The Soviets have indeed had a vigorous program of space station development for more than a decade, beginning with the launch of Salyut 1 in 1971. Since that time they have launched six more stations, four successfully. Three of the seven were probably military: they communicated over military frequencies, had low orbits to facilitate reconnaissance, and were manned exclusively by military personnel. The other four stations were primarily civilian. Likely activities included astronomical research, earth resources photography, and a wide range of biological and materials-processing experiments.

Until recently, two-man crews were ferried up to the Salyut stations aboard the venerable Soyuz capsules. In 1981, however, an improved version called the Soyuz T began to ferry three-man crews. The stations themselves have likewise advanced in capability. Salyut 6, for example, launched 29 September 1977, was the first to have two functional docking ports. This allowed the station to be resupplied by an unmanned "Progress" vehicle while the crew was still on board and also made possible visits by a second crew. Between 1977 and 1981, in fact, Salyut 6 was host to 16 separate crews. Salyut 7, launched this year, recently accommodated a French cosmonaut, the first from outside the Communist bloc nations.

For several years now, the Soviets have maintained that their goal in all this activity is to establish a permanent space facility as soon as possible. In June 1981 they docked the unmanned satellite Kosmos 1267 with the empty Salyut 6 and claimed this docking was a systems test of modular assembly in orbit, a harbinger of future permanent space stations. It would seem a logical step for them to take. However, last October *Aviation Week and Space Technology* announced that it had information that Kosmos 1267 was an antisatellite "battle station." The question remains unresolved.

In any case, a permanent Soviet space station seems likely in the near future. But a 100-man station by October seems most unlikely. For one thing, the Soviets just launched Salyut 7. Moreover, Marcia S. Smith, Soviet space specialist for the Congressional Research Service, points out that to lift the larger station they would need to use their superbooster, the "G," which has been under development for a decade. But the G has not yet been tested, and the Soviets follow a very conservative philosophy on hardware. They would probably want at least two or three successful test flights before putting an expensive space station on top. It might be possible to finish those tests before October, she says, but that is a very success-oriented strategy.

Besides, she asks, what would all those people do up there?

—M. MITCHELL WALDROP

space, imposed during the Carter Administration, was removed; and permission was granted to "continue to explore the requirements, operational concepts, and technology associated with permanent space facilities"—a directive that will permit preliminary work on the power and life-support systems needed for a station.

NASA also made other gains. Permission was given to conduct research on advanced satellite systems, such as an advanced communications system similar to one being developed by the Europeans. A first step was made toward persuading the Central Intelligence Agency (CIA) to share some of the technology it uses for its highly secret intelligence satellites. And NASA won the right to obtain periodic review of constraints on the resolution of its earth-survey satellites, so that it can stay competitive with a high-resolution French system now being developed.

Several of the civilian participants in the review complained that the policy dwells too much on military activities in space. NASA and the Commerce Department had tried at one point to insert a section of the National Aeronautics and Space Act of 1958 as a preamble to the policy, emphasizing the civilian and predominantly open character of most space ventures. Out of a desire to emphasize military and private sector activities, DOD and OMB successfully blocked this proposal. DOD maintained its right to bump civilian missions from the shuttle in favor of its own, despite a



Gilbert Rye

He overturned Keyworth's recommendations about a space policy review group.

Perhaps the most far-reaching reform of the space policy is the creation of a senior interagency group to review any future policy changes and to provide for the direct referral of "space policy issues" to the President—outside the normal budget process, if necessary. The committee is to be chaired by the President's national security adviser, and will include top officials of the Defense Department, CIA, the Joint Chiefs of Staff, the State Department, the Arms Control and Disarmament Agency, and NASA. Remarkably, OSTP and OMB are granted merely "observer" status, a circumstance that generated great protests by Keyworth and Stockman.

Keyworth, who supervised the overall

space station. Several sources say that the formation of the group played a role in Keyworth's advice to national security adviser William Clark, at one point, that the space policy not be signed on the grounds that it was too long, and too detailed. Keyworth acknowledges that he did indeed make such a recommendation, but says it was unrelated to any specific objections, and that he is happy with the composition of the group as finally approved.

"I questioned whether the President should sign a nine-page document," Keyworth explains. "Usually presidential documents are more crisp. I thought it might be better to pick out the key elements and include the rest as an appendix." With regard to the new interagency group, Keyworth adds that "we have so many other concerns relating to the health of the scientific community that it is not appropriate for us to continue a major emphasis in this area." Interviews with several officials suggested a continuing disagreement over exactly what the group will review. A top Administration official told *Science* that the first two items on its agenda will be a space station and the construction of a fifth shuttle orbiter. Officials at several agencies suggested that these are program and not policy decisions and would be outside the group's purview.

One reason that OSTP views on the space policy did not always prevail is that it was Rye, and not Keyworth, who explained the policy to the President. When there was a last-minute debate over the wording of the President's speech, Rye was on the scene in California, and representatives of OSTP were not. Influence, in this instance as in others, seemed to be determined by access.

The subtlety of the policy's wording raises a question about whether the President was apprised of all of the minor reforms it contains and the arguments that lay behind them. A top Administration official says that "the President understands the direction of the space program. I can guarantee that he read the whole document, and that if he had questions about it, he would have asked." The same official also says that debate surrounding the policy's development was no more rancorous than usual. "In every important policy, there are differences of opinion, and in every case of significant differences, these were highlighted to the President. Certainly, there are a few phrases worded differently than some people wanted. But it still represents the consensus of all the agencies."—R. JEFFREY SMITH

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challenge by NASA. A statement was made that the United States "will proceed with development of an antisatellite capability." Although this was seen by some observers as evidence of new commitment, it was actually less direct than a statement that appeared in earlier drafts. In a particularly bold move, the Defense Department tried but failed to limit international cooperative ventures in space to those that achieve "national security benefits." DOD took this position in hopes of preventing the leakage of U.S. aerospace technology to potential enemies.

policy review, had recommended that it be implemented through a smaller group formed on an ad hoc basis, which included the budget and science offices. His recommendation was overturned by Gilbert Rye, an Air Force lieutenant colonel on the National Security Council (NSC) staff, who thought that the panel should be permanent and that the NSC should chair it. DOD supported this proposal because it would mean increased military influence over the space program. NASA supported the proposal because it significantly reduced the influence of the two principal institutional skeptics of the