INSIDE AAAS

Bromley Speaks

D. Allan Bromley, entering his fourth month as head of the White House Office of Science and Technology Policy, casually mentions that he was talking earlier that day to Dick Cheney, that he spent the afternoon reviewing budgets with Dick Darman, that tomorrow he's lunching with Dr. Sullivan. He is referring, respectively, to the Secretary of Defense, the head of the Office of Management and Budget, and the Secretary of Health and Human Services.

In Washington, that's first-order name-dropping. It illustrates Bromley's high-visibility, meeting-intensive style. It also implies, no doubt intentionally, that the President's science adviser once again wields power and influence.

Bromley speaks often about how he has more than doubled the OSTP professional staff, from 15 to 33, and of his gentlemen's agreement with Darman to add another dozen next year. "But there is no question whatever about our trying to do everything within our own office. That wouldn't make sense. What is critically important," he said, is that "by coordinating our activities closely with OMB we get to leverage the much greater staff that OMB has and can influence the decisions that are being made on a daily basis in OMB. One of the things I've learned very early is that if you have all the money, you have a lot to do with the policy."

Bromely made those remarks while meeting with more than 100 science writers at AAAS headquarters in mid-November. It was the second time in a month that Bromley had come to AAAS to establish friendly relations with outposts in the science community; late in October, he talked to some three dozen science attaches.

He wants the Defense Department to increase its spending on basic research, now about eight percent of its R&D budget—and he wants the additional money to go to university and private sector labs. The apparent end of the Cold War furnishes a marvelous argument for reorienting some of the funds allocated to the Strategic Defense Initiative, he declared to the science writers. Typical of his savvy approach however, Bromley's argument for increased basic research was presented partly in terms of Defense Department self-interest: "This time of lessened tension is a time where the Defense Department has to protect itself against technological surprise, against being blind-sided."

He is realistic about budget constraints and their implications for megaprojects like the Superconducting Super Collider and the human genome project. "It is quite clear that all of them cannot be continued in parallel," he told the journalists. "We're going to have to have some phasing—if, in fact, we continue with them all." He vowed to seek scientists' opinions, noting, "They're the people who really are behind the drive to do these things." But he remained vague about specifics of the priority-setting process.

Bromley has already taken some heat—undeserved, he insists—over environmental issues. "We are *not* dragging our feet," he told the journalists. His skepticism about whether global warming has begun is oft-stated and well-known; he maintains that the evidence is not yet convincing. But he said the United States will spend a billion dollars studying it in the coming fiscal year, and he expects concrete agreements to stablize or reduce greenhouse gas emissions by 1991.

Like other science politicians, he shies away from the idea of industrial policy, which he characterized in both AAAS talks as a government attempt to pick winners and losers in private-sector technology. But he favors technology policy, which he defined for the attaches as strategic policy for the use of technology—involving, for example, technology transfer from federal labs to the civilian economy and encouraging government-industry-university partnerships. He promises a draft technology policy early next year.

Bromley pledged to try for stronger U.S. participation in international science. "I fully recognize that some of the actions of our Congress in the recent past have led to us being considered in many countries abroad as unreliable partners," he told the attaches. The problem, he said, is the one-year federal funding cycle that makes mincemeat of long-range commitments. A solution, he suggested, might be treaties establishing cooperative structures that wouldn't change when administrations did.

■ TABITHA M. POWLEDGE

Liberal Education and the Sciences

Undergraduate courses in the natural sciences should be multidisciplinary and make explicit the relationship of the natural sciences to other academic disciplines and the practical and fine arts. That is one of the recommendations of the report of the AAAS Project on Liberal Education and the Natural Sciences, to be released next year.

The report addresses the place of the natural sciences in liberal education. Its recommendations regarding content and teaching strategies for the natural sciences are directed primarily to natural science faculties. The report also urges that teaching strategies should reflect the values and methods of practicing scientists, and calls upon professional societies, government, and the private sector to provide resources that will enable faculty members to follow the report's recommendations.

The report results from an invitation to AAAS from the Carnegie Corporation of New York to organize a study of the education of prospective teachers in the natural sciences. AAAS expanded the study to include the place of the natural sciences in the liberal arts curriculum for all students, in the belief that such understanding is equally important for all who will be America's future leaders.

Planning was undertaken with the help of the AAAS Coalition for Education in the Sciences, a consortium of scientific and educational associations. Six representatives of the scientific, engineering, educational communities, and the private sector comprise the project's