

to talk up a study of ASAT arms control options being prepared by a group of scholars under the direction of William Durch, a research fellow at Harvard University. Durch says that ACDA acceded to his request for research funding last July and that a copy of his report is due on 1 February, shortly before the date of the second ASAT test, which involves a space-based target. ASAT arms control options are also under consideration by a formal interagency government working group, which is chaired by a Pentagon official. Measures under discussion reportedly include a treaty that bans only the use of ASAT's, not their testing or deployment, and a treaty that would limit both countries to systems now in advanced stages of development. Administration critics assert that the former would of course be meaningless in the event of U.S.-Soviet hostilities, and the latter would, for reasons already described, give the United States a substantial strategic advantage.

Hardly anyone who desires an ASAT treaty attaches much significance to the

working group activity. General Charles Gabriel, the Air Force chief of staff, and Robert Cooper, the director of the Defense Advanced Research Projects Agency, have both publicly expressed opposition to an ASAT ban. A former ACDA official who has been following the issue closely asserts that virtually any significant treaty would conflict with the President's desire to conduct research on space-based antiballistic missile systems, which use similar technology. "It will require, at a minimum, a change in administrations" to achieve an ASAT ban, he says.

The proponents of such a ban believe that the United States is now at a critical juncture in its weapons invention, because successful tests of the U.S. ASAT will soon shatter any realistic opportunity for space arms control. Kurt Gottfried says there is a parallel between today's competition in ASAT's and the development of multiple independently targeted warheads, or MIRV's, in the 1970's. MIRV's were developed by the United States in order to counter a primitive

Soviet antiballistic missile system, and they provided a temporary strategic advantage. But the Soviets soon developed MIRV's of their own, which made U.S. land-based missiles vulnerable to preemptive attack. "Today, at long last, there is general agreement that we would have been far better off had we abstained from introducing MIRV's," Gottfried says. "This lesson applies directly to antisatellite weapons. The Soviets have been both foolish and reckless to spend some 15 years nurturing a clumsy threat against a rather small portion of our satellites. Their major accomplishment has been to provoke us into building a far more sophisticated system. Our ASAT, if deployed, will give us a temporary advantage. But as with ballistic missiles, an ongoing competition in space weaponry will, inexorably, reduce the security of both sides. That should be clear to all by now. Or must we wait . . . a decade hence [to learn] that in 1983 the United States blundered once again by upping the ante in this deadly poker game?"—R. JEFFREY SMITH

Need a New Lab? Just Ask Your Senator

Three more universities have teamed up with their senators to short-circuit the cumbersome and uncertain review process that usually precedes the award of federal grants for research facilities. On 4 October, the Senate approved, without debate, amendments to an appropriations bill that would provide \$9 million to the University of Pennsylvania for a new dental school, \$18.2 million to the University of New Mexico for a new building to house engineering laboratories and lecture rooms, and \$20.1 million to Boston University, also for an engineering building. Proposals to build the new facilities have been reviewed neither by the relevant congressional committees nor by the federal departments that would provide the funds.

The money is not yet in the bank. The House version of the appropriations bill does not contain funds for the new facilities, and even the sponsors of the Senate amendments admit they will have a tough time persuading House members to agree to them when the bill goes to a conference committee. (The committee is scheduled to begin its work on 20 October, as *Science* went to press.) Nevertheless, the fact that the Senate approved the funds so readily is a sign of the extent to which pork barrel politics is becoming an established way of parceling out funds for academic facilities.

Pennsylvania, New Mexico, and Boston are not the only universities to short-circuit the review processes. At least five others have already followed the same route this year. Catholic University and Columbia University have been awarded \$5 million apiece for initial installments to build materials research centers. (The Department of Energy, which will provide the funds is now awaiting the proposals

before it can release the money.) Oregon Health Science University has secured a grant of \$20.4 million for a new library and information center. The University of New Hampshire has a \$15-million grant for a space and marine science center. And Boston College has been awarded \$7.5 million to complete a new library. They were all beneficiaries of amendments first proposed on the floor of the House or Senate (*Science*, 3 June, p. 1024; 1 July, p. 36).

Pennsylvania's new dental school was championed by Senator Arlen Specter (R-Pa.). He offered an amendment to the appropriations bill for the Departments of Labor, Education, and Health and Human Services. The dental school, Specter said, is cutting its enrollment and revamping its courses, and needs to move out of its current large and inefficient quarters. The university itself is planning to put up at least half the total estimated cost of \$18 million.

Soon after Specter's amendment was approved, along came Senators Pete Domenici (R-N.M.) and Edward Kennedy (D-Mass.) with a combined amendment to provide funds for the University of New Mexico and Boston University. According to an aide to Domenici, the senator was persuaded that New Mexico's engineering department needs to be strengthened to enable Albuquerque to compete more effectively with other cities in attracting high-technology industry. Domenici teamed up with Kennedy in part to help secure support for the amendment in the House—Speaker Thomas P. O'Neill, Jr. (D-Mass.) has an obvious interest in helping ease passage of the funds for Boston University. They quietly attached an amendment authorizing the funds to a bill last summer, and their amendment appropriating the money sailed through on 4 October without any opposition.—COLIN NORMAN