cal controversy that has resulted now jeopardizes what is certainly a worthy project," observes Bromley. "It would be a great pity if the machine were not built." Says Harry Holmgren, who heads SURA from his office at the University of Maryland: "The contest for the accelerator was extremely fair. If nobody got it because of the political squabbling, it would be a disaster." - 1G

## **Knapp confirmed as NSF director**

Edward A. Knapp, President Reagan's choice to direct the National Science Foundation, was confirmed by the Senate on 15 April after assuring members of the Senate Committee on Labor and Human Resources two days earlier that he would resist any attempt to apply "political litmus tests" for appointees to NSF or its advisory committees. He stated his position after Senator Edward Kennedy (D-Mass.) asked Knapp to respond to "allegations and charges of politicization of the NSF under your leadership-a move that is unprecedented in the history of this nonpolitical agency."

The exchange was prompted by Knapp's announcement on 9 December that he had asked for the resignations of NSF's deputy director and one of four assistant directors who are Presidential appointees (PHYSICS TODAY, February, page 51.) A second assistant director announced that he was leaving the agency before Knapp's nomination. When Knapp was nominated to head NSF, his job as assistant director of the agency's mathematical and physical sciences directorate became vacant. (Knapp came to NSF last September from Los Alamos, where he was director of the accelerator technology division.) Kennedy, joined by Claiborne Pell (D-R.I.), wanted to know if the White House Office of Presidential Personnel was behind Knapp's directive. "It was my decision to ask for the resignations," Knapp replied. "I wanted ... my own team in managing the foundation." He reminded the committee that President Truman had vetoed the first bill to establish the agency because it lacked any requirement for Presidential appointments.

As for filling the vacancies at the top of NSF, Knapp said "an excellent set of nominees" had been assembled after a wide search and sent to the White House for final selection.

Asked by Kennedy whether the agency planned to support research on supercomputers and to advance science and mathematics teaching in secondary schools, Knapp replied that both were already in NSF programs. Actually, Knapp declared, computers present two problems-access by university scientists to the latest generation of computers and joint university-industry cooperation. "I believe some form of computer networking is the proper way to solve the access problem," he



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observed, but "a large governmentfunded program to stay ahead of Japan [which has initiated a "fifth generation" project to develop superintelligent computers] might be counterproductive ... The secret weapon of the American economy is the entrepreneurial spirit. Usually large organized programs don't give much impetus to that spirit." NSF, said Knapp, intends to revive university-industry relations in computers that he claims have "deteriorated in the past few years."

On science education, he noted, NSF's new programs recently transmitted to the Congress call for developing materials for teacher training, sponsoring workshops for improving teacher skills, and providing Presidential awards for teaching excellence. "We expect to concentrate on the junior high schools where studies have shown that student alienation from science takes place, as well as the senior high schools," said Knapp. "It is at that time in their schooling when students should become enthusiastic about science."

## NASA seeks input from university-based scientists

In response to the concern of the academic community about restrictive budgets for astronomy and space physics, the Association of American Universities formed a Space Science Working Group, now coordinated by Gerry Shannon in the AAU office in Washington, D.C. According to Shannon, the purpose of the group is to bring university-based scientists together to outline common problems and articulate them to Congress. Now functioning on a nonprofit basis, they have formal representation from the space-science departments of 22 universities. University governmental relations officers also participate. A steering committee, headed by John A. Simpson (University of Chicago), and including Edward C. Stone Jr (Caltech), Paul Hayes (University of Michigan) and George Field (Harvard) among its members, outlines priorities for the group. Shannon said that the group wants as broad a base of contacts with the academic community as is possible, in an attempt to represent the interests of the physics, astronomy, upper atmosphere and planetary exploration research communities.

NASA has also recently set up a joint university-NASA panel to make recommendations to James Beggs, administrator of NASA, about both the present state of NASA-university relations and how these relations can be strengthened in the future. Thomas Donahue (University of Michigan and head of the Space Science Board) told us that NASA initiated the idea. The panel was formed in March, and includes on the university side: Donahue, Ronald Prinn (MIT), Richard Zdanis (Johns Hopkins University), Simpson, Verner Suomi (University of Wisconsin), and Stone. For NASA the members are: Frank McDonald (chief scientist), John Naugle (former chief scientist), Albert Opp, Robert Watson, George Pieper and Jeff Rosendahl. -JC

## OTA finds export controls only slow Soviet access

Before the Export Administration Act of 1979 expires on 30 September, Congress needs to decide if it needs to tighten current rules on how the Soviet Union and Warsaw Pact nations obtain militarily sensitive US technologybought, borrowed or burgled. To help in that decision, the Congressional Office of Technology Assessment in May issued a 106-page report, Technology and East-West Trade, which underscores the ambivalence of export control policy: Commerce seeks to expand trade to strengthen the domestic economy, and Defense wants to prevent exports that might strengthen the Soviet military. OTA claims "it is rare to find examples of technologies obtained from the West which the USSR could not have produced itself, albeit with delays."