International Science Gains Higher Profile

Both Administration and Congress look for ways to deal with new set of problems that have emerged in the 1980's

INTERNATIONAL scientific affairs have been a back-burner issue in Washington, but the subject recently has been getting more than minimal attention in both the Executive and Congress. The most notable indicators are plans for revival of an interagency committee on international science and the scheduling of joint hearings by two House committees that deal with international science and technology.

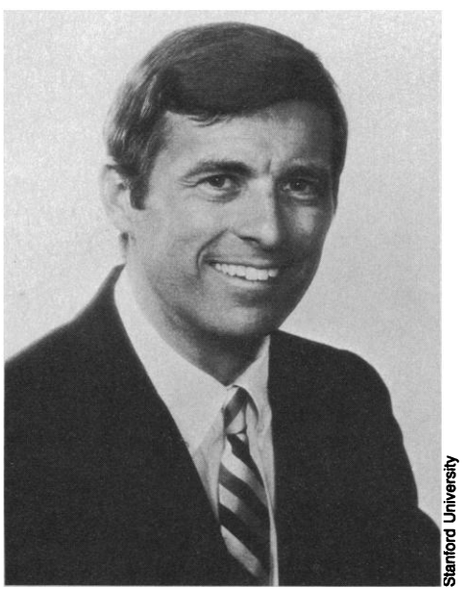
A dormant international committee of the Federal Coordinating Council for Science, Engineering, and Technology (FCCSET) is being reconstituted with an upgraded membership. The committee is expected to deal with such matters as the implications of international science and technology policy for national security and for the competitiveness of U.S. industry in world markets, two issues that are high on the Administration's list of priorities. Another concern will be the role science and technology should play in relations with Third World countries. A major aim is to ensure that U.S. policies for international science do not conflict with domestic policies.

A staff member of the Office of Science and Technology Policy (OSTP), where FCCSET is based, says that the idea of resurrecting the international committee jelled last summer while George A. Keyworth, II was the incumbent President's science adviser. The momentum Keyworth imparted to the project has been sustained by John P. McTague, now acting science adviser. McTague, Keyworth's former deputy, took over when the latter stepped down on 31 December.

FCCSET has had a reputation of being peopled with second- and third-tier departmental officials and of dealing with routine matters, a not unusual fate for federal interagency coordinating committees. The active participation of high-ranking officials from such agencies as the National Institutes of Health, National Science Foundation, and the State Department is being counted on to give new weight to the FCCSET international committee.

McTague will chair the panel. Joining him on an executive committee will be NSF deputy director John H. Moore and John D. Negroponte, assistant secretary of state for Oceans and International Environmental and Scientific Affairs (OES).

The projection of an active role on the panel for Moore and Negroponte is seen as reinforcing the impression that international science has a higher place in Administration priorities these days. Moore last summer was asked by NSF director Erich Bloch to assume the newly created title and functions of chief international affairs officer for the foundation.



Stanford University

John H. Moore

Adds new task to job description at NSF.

For several years NSF has been pondering its role in international scientific and engineering matters. A recurring theme in the discussion has been that the foundation should find a way to focus attention at a high level in the agency on international science and to achieve better liaison on international science policy and programs with other federal agencies.

The foundation's policy-making body, the National Science Board, has had a committee working on the subject. The committee, chaired by William A. Nierenberg of the University of California, at San Diego, in 1984 submitted a report on roles and responsibilities of NSF in international science that recommended creating such a post in the director's office. And an internal task force headed by former NSF director H. Guyford Stever subsequently also favored creation of a post such as the one Moore is now filling.

Moore's major assignment in the new role is to head a steering group on international science which is working on specific proposals to implement the recommendations that have been made on NSF activities in international science and technology. The steering group, a rejuvenated version of an earlier entity which Moore said, had faded away, is scheduled to report in May.

The other member of the FCCSET executive committee, OES assistant secretary of state John Negroponte moved into the OES job last summer, replacing James L. Malone. Negroponte, 46, a foreign service officer, came to the OES job after a series of assignments that suggest he is on the career fast track at State. He was ambassador to Honduras from 1980 until he moved to OES. As chief fisheries negotiator with the rank of ambassador from 1977 to 1979, he gained experience with one aspect of OES activities. Negroponte's predecessor at OES, Malone, is an attorney who had some experience with international nuclear energy matters, but was regarded as an outsider in the State Department. Initial reports of improvements in OES morale and in the bureau's standing at State tend to confirm the theory that OES fares best with a capable insider at the helm.

The reborn FCCSET panel will be up for discussion during hearings on 13, 14, and 15 May, which are currently scheduled to be held jointly by the House Foreign Affairs and Science and Technology committees. The committees intend to take a broad look at the subject indicated by the hearings title—Science in American Foreign Policy.

One aim of the sessions is to provide information for the Science and Technology Committee's science policy task force. The task force is completing a series of topical hearings in preparing to write a report on the role of the federal government in supporting basic and applied research.

The federal reassessment of international science appears to reflect an attempt by policy-makers to come to grips with a shift in the dominant influences on international science. In the early 1970's the advent of détente with the Soviet Union and the renewal of diplomatic relations with the People's Republic of China were prime factors. The energy crisis focused attention more strongly on energy R&D. And Third World countries made science and technology an issue in their dealings with industrial countries.

By the end of the decade, détente with the Soviet Union was defunct and Soviet actions in Afghanistan and Poland had chilled U.S.–U.S.S.R. relations. The low point was reached after Soviet downing of a Korean airliner in 1983. In President Reagan's first term, U.S. withdrawal from the International Institute for Applied Systems Analysis near Vienna and a pullout from Unesco and a resulting sharp cut in funding of international science activities were interpreted as indicating a reduced American commitment to international science.

The Administration in recent years has grown concerned about signs of lagging U.S. competitiveness in high-technology trade and about the transfer of strategic technology to the Soviet Union and other socialist countries. Recently, the Administration, in a more relaxed postsummit mood, appears to be looking ahead to some resumption of cooperation with the U.S.S.R. in science and technology. The Administration is evidently determined, however, to find a formula that will permit such cooperation without a sacrifice of strategic advantage. Some observers suggest that the new initiatives in international science indicate recognition by the Administration that to succeed in achieving such goals it will have to build the government's capacity for making and managing international science policy. ■ JOHN WALSH

Utilities Press Congress to Salvage Nuclear R&D

A proposal to reduce DOE's advanced civilian reactor research and expand military work worries nuclear industry

ENERGY Secretary John Herrington's plan for reordering the mission of his department's civilian nuclear research program has stirred up the nuclear power industry. Until now, Reagan Administration appointees to the Department of Energy's top post have enjoyed broad support from industry suppliers and power companies. But Herrington's decision to intensify research on space and terrestrial power needs of the military at the expense of commercial reactor R&D is angering longtime allies in industry and in the Congress.

Funding for nuclear power research has been declining in recent years, as it has for other energy technologies. The Reagan Administration has emphasized high-risk, long-term research over applied research and demonstrations, on the grounds that industry should be responsible for technology development. But the Administration's latest policy proposals, says Thomas J. Price, vice president of the American Nuclear Energy Council, go too far. He contends, "They will lay the foundation for eliminating DOE's civilian nuclear programs."

Overall, the proposed fiscal year 1987 budget for civilian reactor research is $222.5 million, a deep cut below this year's budget of $319.7 million. Funding for advanced reactor R&D alone shows a 61.5 percent reduction to $49.5 million. These and other reductions imposed by the Office of Management and Budget, DOE officials acknowledge, were accepted without protest by Herrington. OMB restored $50 million in funding to the nuclear R&D budget only after Senator James McClure (R–ID) and Senator Slade Gorton (R–WA) intervened prior to the unveiling of the President's budget on 5 February. The additional funds were needed to ensure continued operation of key facilities at Argonne National Laboratory in Idaho, such as the Experimental Breeder Reactor II and the Fast Flux Test Facility at the Hanford Engineering Development Laboratory in Washington State. Both facilities are slated to conduct more military power reactor research.

"It's a disgrace," says Loring E. Mills, vice president for nuclear programs at the Edison Electric Institute, who is disturbed by the deterioration of the civilian research base. He describes DOE's new emphasis on military reactor work as "gamesmanship" and as "a Defense Department effort to find ways to get their programs subsidized."

Much of the $97.2 million in savings derived from these reductions have been used to boost research on small nuclear power systems for the military, primarily President Reagan's Strategic Defense Initiative (SDI). Spending on these terrestrial and space-power systems is up $51.4 million to $71.6 million. The budget for advanced isotopic power systems to support military and National Aeronautics and Space Administration programs would increase by $3.7 million.

In contrast, funding for liquid metal breeder reactors would be cut by $13 million. Component testing is slated for elimination and fuel-cycle work would decline sharply. Hardest hit by cuts is high-temperature, gas-cooled reactor (HTGR) research, which had received steady support from DOE in recent years. A fission reactor that has been under development since the late 1950's, it is slated to be chopped from $30.6 million to $5.3 million. The technology promises to offer higher operating efficiencies, less downtime, and significantly greater safety than light-water reactors. The Energy Research Advisory Board, in its December 1985 recommendations to Herrington, suggested that HTGR research be continued at modest levels to ensure the availability of the technology in the 1990's.

Ranking program officials declined to discuss the nuclear research program in detail with *Science* until after congressional hearings are completed in March. But one DOE official said privately that despite competing research efforts in Japan, West Germany, and the Soviet Union, the HTGR was a logical choice to phase out. Gas-cooled reactor technology, he noted, already has been demonstrated in power plants in Pennsylvania and Colorado. A modular HTGR concept, which is the focus of current research, congressional staffers note, also is near the point where significant budget increases would be needed to test components.

To date industry has financed 60 percent of R&D costs, according to GA Technologies, Inc., part of Gas-Cooled Reactor Associates, a consortium of utilities and equipment vendors involved in the technology.

But with the grim budget outlook, funding restorations, industry and congressional aides say, may have to be gotten by cannibalizing other nuclear research programs. The water-cooled breeder program, industry analysts say, could be tapped for funds. Likewise, the light-water reactor program, funding for which is dropping $7.1 million to $41 million, is seen by some lobbyists as another potential target. It includes research related to the cleanup of Three Mile Island II; safety and licensing reform and simplification; and research for a standardized, second generation of light-water reactors, which vendors hope to sell in the 1990's.

John Landis, head of the Energy Research