

New Institute of Peace was championed by Senators Jennings Randolph (left), retiring after representing West Virgina since 1933, and Spark Matsunaga of Hawaii.

already underway in our educational system, and reflective more of wishful thinking than of sound planning and analysis." Political commentator George Will wrote that the academy concept "is based on the mistaken premise that peace can be taught as a discrete subject, like dentistry."

One NSF model. Notwithstanding the criticism, support for the academy continued to increase in Congress. One of its most ardent advocates was Senator Jennings Randolph of West Virginiawho had announced he would retire at the end of the session (at the age of 82), ending a Congressional career that began at the start of the New Deal in 1933. Randolph had proposed a US peace department back in 1945. In 1980, he and Matsunaga cosponsored legislation to create the Commission on Proposals for the National Academy of Peace and Conflict Resolution. The commission recommended to President Reagan the following year that the government should fund a nonprofit, independent corporation, modeled after the National Science Foundation, to support research, education and training programs in conflict resolution, diplomacy and international affairs. Like NSF, it would provide research grants and fund graduate scholarships and university programs.

As originally proposed, the academy would get \$23.5 million for its first two years. In the Senate-House conference on the defense bill, the scope of activities was cut way back and its title changed to the US Institute of Peace. Moreover, a grants program for graduate and postdoctorate students was established bearing the name of Senator Randolph.

New science. Kansas Congressman Dan Glickman, the key manager of the legislation in the House, says the purpose is not to teach peace. "The purpose of the institute is to create a science of conflict resolution, something beyond mediation and arbitration, and teach people the skills of the science," says Glickman. "This will not make us weaker, as some skeptics argue, but will add to our power, because it makes it more likely that we will prevail in a world at peace."

Academics have been split on the need for such an institute. Roger Fisher, who teaches negotiating skills at Harvard Law School, observes that it would fill an existing gap. "We currently have a number of professional schools-the War College, Fletcher School of Diplomacy, Foreign Service Institute. These places have almost no training in conflict resolution," he says. "We need new teaching materials, teachers' conferences, more skills." Richard Pipes of Harvard's Russian Research Center, a consultant to the State Department, compares the way the British solved the problem in Rhodesia-Zimbabwe with the US handling of Middle East troubles. "Britain gave us a brilliant example of diplomatic skills," says Pipes. "Here was a situation that to all appearances looked hopeless, and I must say I expected general carnage to ensue. British diplomats managed to defuse the conflict and achieve peaceful resolution. I doubt if we could have done it, not because we lack the good will, but because we lack the skill."

But Alan Cameron, formerly associate dean of the Fletcher School in Boston, disagrees, saying the notion that US officials don't know how to negotiate and don't have training readily available at universities and the State Department isn't true.

Neither Randolph nor Glickman is so naive to think the institute will bring peace itself. "Over the long term," says Glickman, "it's certainly going to help." Next year, when it is housed in a building—still to be designated—in Washington, D.C., the institute will:

▶ examine the nature and processes of conflict and civil strife through such disciplines as the social, behavioral and physical sciences

develop techniques to resolve economic, political and cultural hostilities between countries and peoples

▶ provide support and coordination for various organizations currently engaged in peace studies, such as the Institute on Global Conflict and Cooperation at the University of California, San Diego; the Center for Conflict Resolution at the University of Michigan; the Carnegie Endowment for International Peace; and the Center for International Security and Arms Control at Stanford.

"One of the institute's principal functions," explains Randolph, "is as a clearinghouse for research that goes on in fragmented ways. The institute should strengthen and symbolize the relation between the worlds of learning and public affairs in matters of peace research." The legislation establishing the institute gives President Reagan 90 days after his second inauguration on 20 January to nominate 11 members for Senate confirmation to the institute's board of directors. In addition, the board will have four ex officio members-the secretaries of State and Defense, the head of the Arms Control and Disarmament Agency and commandant of the National Defense University.

Peer-review evasions rebuffed, but recur

University administrators are learning to do business a really old-fashioned way when it comes to science facilities. Increasingly in the past few years they have decided that traditional peerreview procedures are creaky, cumbersome and capricious. They have found more effective an even older style of operation—political influence, which enables them to "bring home the bacon" by dipping into the Congressional pork-barrel.

Some university leaders have called on their Congressmen to rejigger agency budgets to finance new construction, with results that are mixed blessings for the government, universities and science. True, several institutions—among them, Catholic University of America, Columbia, Florida State, Boston University and University of Oregon—have succeeded in wheedling new facilities for their campuses without benefit of traditional peer review.

(PHYSICS TODAY, August, page 65). While Congress's support for science and education facilities is not a "zerosum" game, funds to Federal agencies for such purposes are often accompanied by stipulations in legislation that cuts have to be made in other programs. Thus, when Congress upped the fiscal 1985 budget for computer and education research at the National Science Foundation, it directed that reductions be made in the agency's general program and Very Long Baseline Array radiotelescope, which had been championed by peer groups (PHYS-ICS TODAY, October, page 56).

Short-circuiting the review processes and calling directly on Congress to obtain appropriations for university research facilities became so flagrant in 1983 that the American Association of Universities, American Association of State Colleges and Universities, National Academy of Sciences and The American Physical Society adopted resolutions calling upon Congress to reaffirm its support of peer evaluations and to refrain from injecting politics into the process. Some Congressmen, notably Representative F. James Sensenbrenner Jr of Wisconsin and Representative Larry Winn Jr of Kansas, both Republican members of the House Committee on Science and Technology, noted with irony that a few university presidents who are represented by the AAU and AASCU were circumventing peer review by going directly to Congress. Still, Sensenbrenner and Winn submitted a resolution to their colleagues last February in support of peer review. The resolution died with the adjournment of the 98th Congress on 12 October.

Conscious decision.' Despite the resolutions and protests, lobbying Congress for campus research centers increased this year. "It's a mess," said Robert M. Rosenzweig, AAU president. "Even as we express our outrage, the problem grows more serious." Rosenzwieg diagnosed the source of the problem as the shortage of money from state and Federal sources, as well as from foundations and donors, to replace deteriorating research and teaching facilities. That has forced institutions to "dig into their own pockets" and cajole Congress, often with the paid help of lawyers and lobbyists. "There's been a conscious decision: 'If the system doesn't allow me to survive, then I'll go outside it," he said.

The "end-runs" around peer-review procedures led APS President Mildred S. Dresselhaus of MIT to write to Representative Don Fuqua of Florida, chairman of the House Committee on Science and Technology. "The consequences of these ill-considered actions go far beyond the diversion of scarce resources from projects of higher prior-

ity," wrote Dresselhaus on 3 August. "Institutions are increasingly persuaded that political maneuvering is more important than scientific justification in securing Federal funds. There is, moreover, a growing cynicism among the many prominent scientists who devote much of their time to proposal review for the Federal government, without compensation, only to hear of large awards to projects that have circumvented the peer-review process."

Fuqua's response acknowledged the importance of informed advice by science experts, but noted "the necessity of taking an eclectic view of national needs and interests as we work together to keep this nation at the cutting edge of science."

Official disapproval. On 10 August, the same day Fuqua replied to Dresselhaus, letters on the same issue were sent on White House stationery to some 30 leading members of Congress from both parties, including Fuqua, House Speaker Thomas J. (Tip) O'Neill Jr of Massachusetts, and Senators J. Bennett Johnston of Louisiana, John C. Stennis of Mississippi, and Mark Hatfield of Oregon. The letter was signed by President Reagan's science adviser, George A. Keyworth II, and research chiefs of three Federal agencies-Erich Bloch, director of NSF; Richard De-Lauer, Undersecretary of Defense for Research and Engineering; and Alvin W. Trivelpiece, director of research at DOE. The letter is the first public statement by Administration science officials disapproving the actions of lawmakers who have doled out funds for research facilities on political grounds. It read:

Orderly execution of a science, engineering and technology program requires that each component be carefully reviewed by experts, both for scientific excellence and for programmatic appropriateness. During the last year, many members of the Congress, as well as eminent scientists, engineers, educators and industrialists, have reaffirmed the importance of such systematic expert review and have eschewed disruption of this important but delicate national undertaking by narrowly based political considerations.

We heartily endorse these efforts to maintain the integrity of the nation's science, engineering, and technology program and renew our personal commitment to expert review as an essential component.

The only reply so far came from Fuqua. In a letter on committee stationery, dated 17 September, he wrote that he "subscribes" to the concept of expert review of Federal research programs "in all applicable cases" and

goes on to state:

I wish to make my view clear with regard to your comment about "narrowly based political considerations". Whether it is the improvement of science and mathematics education, the training of new generations of scientists and engineers, the fostering of regional and national economic development, or construction of a major scientific facility, such socially complex matters must, in my view, be considered in a broader decision-making context. It is the genius of our political system to provide for the integration of the many and diverse objectives of our people. The members of Congress, as the most direct representatives of the people, have not only the desire but the constitutional duty to take into consideration all of those objectives.

At the level of decisions regarding an individual scientist's disciplinary research, it is clear that expert opinion must be the dominant factor. Conversely, when major expenditures for new programs and facilities or new policy directions with direct impact beyond science are before us, there can be no doubt that additional and broader factors must be taken into consideration.

Fugua's remarks were underscored virtually immediately. In a colloquy on the Senate floor between Richard G. Lugar of Indiana and Jake Garn of Utah, chairman of the Appropriations Committee that oversees NSF's budget, they agreed that the Foundation would be able to put up \$10.3 million over the next six years to help Indiana University establish a Center for Excellence in Science and Mathematics Education, which would cost about \$44 million in all. When NSF argued that neither its 1985 budget nor Organic Act allowed for such an expenditure, the senators hung an amendment on the Human Services Reauthorization Act, requiring the Department of Education to provide \$6 million for the Indiana center. Another provision in the same act gives \$4 million to the University of Utah for construction of a research center for health effects of nuclear energy and other energy technologies. "How many universities and how many states across the country do you know that would like to have such research centers?" Representative Trent Lott of Mississippi asked on the House floor on 9 October.

In its rush to political judgment, Congress did not seek the advice of experts in either of the academic centers. The message here is clear: Political decisions and peer review do not always coexist.

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