

# Science and Secrecy

## *Flow of unclassified but militarily sensitive data was among major topics at AAAS meeting*

The current debate about science and secrecy, which has figured prominently in policy discussions for the past couple of years, was continued at the annual meeting of the American Association for the Advancement of Science held in Detroit. Although symposia speakers acknowledged that there are circumstances in which unclassified research should nevertheless be held in confidence, the general consensus was that the benefits of open communication outweigh any advantages of imposing secrecy.

Stephen H. Unger of the computer science department of Columbia University argued, for example, that "There is no practical way to restrict the outflow of scientific and engineering knowledge across our borders without significantly reducing its availability within our borders." Unger took issue with the position of some government officials—naming in particular retired Admiral Bobby R. Inman—that American scientists should sacrifice a certain measure of academic freedom in order to restrict the flow of ideas to the Soviet Union and other nations. "I don't see Inman's point that the conflict is between a scientist's privilege to publish and national security," Unger said. "The campaign by government officials . . . to clamp down on the free flow of scientific and technical information threatens fundamental principles of openness inherent in both the scientific process and in American political traditions," he stated. "It's not just a matter of protecting scientists' egos."

Unger's defense of open communication of data rested largely on practical grounds. "A bottom line argument is that the relatively open American system has generated a lead of 5 to 10 years over the closed Soviet system in the fields of electronics and computers," he said at the meeting, noting that Japan and Western European nations that have open publication policies are also ahead of the Russians. "In fact, a more restrictive American policy would be largely nullified if a similar policy were not also adopted by these nations."

Harold T. Shapiro, president of the University of Michigan, was a member of a National Academy of Sciences panel which recently completed a study of the science and secrecy issue. "We found that the open scientific literature accounted for little if any significant flow of

information with military value," Shapiro said of the panel which was headed by Dale Corson, former president of Cornell. "There were no examples found," Shapiro said at a symposium titled "How Much Science is Secret?" "If there was a problem it was largely through the flow of goods," he noted.

Among the ways the government controls the flow of technologically valuable goods to other nations is the Export Administration Act which Congress is presently attempting to rewrite (*Science*,



**Harold Shapiro**

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3 June, p. 1021). Shapiro declared that he hopes it will be "redone with a narrower focus" so that the exchange of scientific information is not unduly restricted under the terms of the law.

Open discussion often not only advances science but has the effect of revealing what Unger called "stupid" secret ideas for what they are, he and Shapiro observed. Referring to the notion of an atomic airplane that was under discussion in the 1960's, Unger said, "Certainly a vigorous public debate on the nuclear powered airplane project might have saved taxpayers a great deal of money." Shapiro noted that fusion research began "proceeding more usefully when we declassified it." And, Unger said in his prepared remarks, "The events of recent decades make it clear that those charged with responsibility for national defense are by no means exempt from the human frailties that make us unwilling to allow those in other

branches of government to conceal their operations from the public eye. Personal ambition, interservice rivalries, fanaticism, ignorance, corruption, and stupidity have all shown a tendency to flourish behind screens labelled 'national security.' "

Speaking of current efforts to deal with the conflicting demands of openness and legitimate secrecy needs, David A. Wilson, executive assistant to the president of the University of California, described the activities of the joint Department of Defense (DOD)—University Forum which has been set up to help shape federal policy. Noting that within the DOD there are two schools of thought on the extent to which scientific information should be controlled, Wilson chided the hard-liners in DOD's policy division for their "fairly weak participation" in forum discussions. Said Wilson, cochairman of the forum's working group on export controls, "Controls [on scientific communication] will never work unless they are acceptable to the people being controlled."

The symposium, which was arranged by Rosemary Chalk of the AAAS committee on scientific freedom and responsibility, heard part of the government's view of the issues from Louis T. Montulli, an outgoing staffer from the Office of Science and Technology Policy. The OSTP is planning, with advice from the scientific community, to draft a statement of Administration policy by the end of the year (*Science*, 3 June, p. 1022). Speaking with "the conviction that comes from the personal review of much evidence," Montulli called the problem of technology flow "real" and said, "Much U.S. technology is currently available to the Soviets. They gather it with a thirst that is fed by their vital need for it, and a drive to put it to use in military systems, in some cases parallel with our deployment." Montulli focused his comments on the "very open process" OSTP plans to follow in arriving at a new policy which, he said, "may require an Executive Order or even new legislation." Although he did not predict the outcome, he did report that "right now 44 separate groups in 10 or more U.S. departments are either studying this subject or actually executing the present policy." It's no wonder new policy is needed.—**BARBARA J. CULLITON**