Hearing considers impact of secrecy proposals on science

The U.S. academic community may become a greater target for Soviet efforts to gather militarily important technical information if the government succeeds in cutting off Soviet espionage efforts, said Admiral Bobby R. Inman, deputy director of the Central Intelligence Agency. Currently, universities are responsible for only a small proportion of the outflow of sensitive technical information, he said. Inman repeated his warning made earlier this year at the American Association for the Advancement of Science annual meeting (SN: 1/16/82, p.35) that scientists should pay more attention to the national security implications of their research and publications, or they could face greater restrictions in the future.

Inman was one of eight witnesses who appeared last week before a joint hearing of two subcommittees of the House Committee on Science and Technology on government proposals to restrict access to nonsecret but sensitive scientific information.

Inman described his role as a "goad to discussion" in an attempt to "energize the academic community to take national security concerns seriously." He questioned the value of international exchange programs in which U.S. scientists and society appeared to gain little, and pointed to the voluntary prepublication review of cryptology papers as a good example of how to handle the problem of balancing national security interests and the need for open scientific communication.

Robert M. Rosenzweig, public affairs vice president at Stanford University, defended exchanges with the Soviet Union. "While we have little to gain from their science and technology," he said, "we have much to lose from ignorance of Russian institutions, processes, motives and purposes." Rosenzweig said the government already has the authority, by denying visas, to limit Soviet access to training and research in sensitive areas. "If work going on at Stanford was judged to be too sensitive to be exposed to a Russian visitor, then the solution is to keep him away from the university, not to ask the university to play policeman," he said.

Rosenzweig also described the cryptology agreement as a cumbersome experimental arrangement with ambiguous results so far. He said it would be a mistake to "overlearn from the experience and extend it prematurely to other fields of science." Frank Press, National Academy of Sciences president, also pointed out that some universities have refused to participate in the experiment.

Press said it was important to have a balanced, objective assessment of the views of both government and the scientific community on the export control and technology transfer controversy. He announced that the Department of Defense had agreed to fund and cooperate in an NAS study to examine the relationship between university research and national security. Chaired by Dale R. Corson, president emeritus of Cornell University, the 18-member panel plans to issue an interim report in September and a final report in March 1983.

The review will include an examination of the advantages and disadvantages of free communication in two or three specific fields of science and technology — such as mathematics relating to cryptology, very high speed integrated circuits and artificial intelligence — to be selected by the study panel in consultation with the Defense Department.

George P. Millburn, acting deputy under secretary of defense for research and engineering, outlined the Defense Department's dilemma. "If it vigorously attempts to regulate the flow of scientific information in the scientific community, it could jeopardize the strength and vitality of the very community it is seeking to revitalize for the sake of national defense," he said. "On the other hand, if DOD abandons any attempt at regulation in the university context, it could seriously compromise and, in certain cases, totally undercut other efforts to control the outflow of militarily critical technology."

Millburn said the Defense Department is increasing its monitoring of DOD-funded research to restrict the flow of unclassified technical information that falls under the category of information subject to export control. The system depends on the contract between the Defense Department and the university or researcher involved. "If guidelines for release of information are accepted as part of the contract, then there should be little room for misunderstanding later," said Millburn. "The system is voluntary in the sense that the contract does not have to be accepted."

Because all research is subject to export control regulations, Millburn said that similar contract guidelines could be negotiated not only with the Defense Department but also with other federal funding agencies, and that voluntary controls and peer review may be appropriate for research not funded by the federal government. The Defense Department sees its role as a consultant and advisor as to what is militarily critical and subject to export controls.

However, after listening to Millburn and Inman, Rep. Albert Gore Jr. (D-Tenn.) said, "I have not been convinced that the degree of leakage from the academic community is such that it would override the concern of even taking halting steps" toward restricting scientific communication. He suggested that Inman was taking the "first steps along the road that has made Soviet science so pitiful."

Press said the best way to solve the problem was to stay ahead by funding research and development and supporting education, while the NAS study would narrow and define the issues in which genuine differences exist. —*I. Peterson*

University-industry guidelines proposed

Recognizing the growth of increasingly complex and widespread relationships between universities and industries, presidents and faculty members from five leading universities met informally with industrial representatives last week to discuss ways of ensuring that universities remain independent and devoted to education and research.

The main focus of the three-day meeting, initiated by Stanford University President Donald Kennedy, at Pajaro Dunes, Calif., was to define areas of potential conflict and develop suggestions for guiding the growth of industry-university cooperation in research. The 35 participants included business executives, mostly from leading biotechnology companies. The result of the discussions was a 10-page statement that "may provide a useful framework for the development of policy" in individual institutions.

The document focused on research agreements, patent licensing and conflicts of interest due to faculty participation in companies, especially in the biotechnology field. "The traditions of open research and prompt transmission of research results should govern all university research, including research sponsored by industry," the document stated. University-industry agreements should not promote a secrecy that impairs the education of students or interferes with the choice by faculty members of the scientific questions they pursue. Brief delays in publication or public disclosure could be justified if institutions decided to file for patent coverage of inventions and discoveries resulting from university research, the statement suggested. The participants also agreed that universities should sometimes be able to negotiate exclusive licenses for their patents.

However, the participants had greater difficulty resolving the question of conflict of interest for both professors and universities, which may have a financial stake in a company. "Although we see no single 'right' policy, we do believe that each university should address the problem vigorously and make efforts to publicize widely and effectively the rules and procedures it adopts to avoid compromising the quality of its teaching and research," the document concluded. —*I. Peterson*