

After the Corson report: Information-control concerns

At an American Vacuum Society conference, Federal Bureau of Investigation agents arrest an East German physicist for espionage, although his illegal activities have nothing to do with the meeting. The University of California at Los Angeles offers an on-campus short course on "Metal Matrix Composites" and finds that it must restrict attendance to U.S. citizens and a few other authorized participants because the course includes subject matter that is "militarily critical."

The U.S. Customs Service ponders whether businessmen and other travelers need export licenses when they take their portable personal computers overseas. The Reagan administration proposes a directive that requires government officials, including scientists, with access to highly classified information to sign a secrecy pledge and to submit to government censors anything they wish to publish related to national security for the rest of their lives. Last week, following strong congressional criticism, the White House withdraws the controversial part of the proposal.

These and other incidents and actions have all occurred since the release more than 16 months ago of a National Academy of Sciences study on "Scientific Communication and National Security." The report, also known as the "Corson report," concluded that scientific communication contributes very little to the flow of technology to the Soviet Union. It said that restrictions on the dissemination of scientific and technical information were already too broad and confusing and suggested that most university research could be freed from controls. The Corson panel recommended that in the few narrowly defined areas where controls were deemed necessary, the government should use contract restrictions in preference to export control regulations (SN: 10/9/82, p. 229).

Now, an informal report by Mitchel B. Wallerstein and Lawrence E. McCray of the National Academy of Sciences staff concludes that the government is not adhering to the main recommendations in the Corson report, despite favorable comments from administration officials when the report was released. The new report notes that government-wide coordination of its patchwork control policies is still absent, objective data about the actual effectiveness or adverse effects of controls are still lacking, and incidents continue to occur at international scientific conferences (SN: 4/2/83, p. 218).

Many of these issues have been raised during the recent congressional debate surrounding renewal of the Export Administration Act, which expired last Sep-

tember. This act is one of the principal means by which the government, through the Department of Commerce's use of export licenses, tries to control the flow of high-technology equipment and technical information to Eastern-bloc nations.

Lobbyists representing scientific interests managed to persuade both the House and the Senate to amend their versions of the bill to include two sentences that affirm the need to protect further "the ability of scientists and other scholars ... to communicate their research findings." However, they failed to win a general exemption from the licensing procedure for domestically available unclassified information and information not directly related to national security. The House passed its version of the new export control act last fall, but the Senate has not yet completed its work.

While debate about the act continues, the Department of Commerce is revising the Export Administration Regulations (EAR) that implement the act. Some people who have seen early drafts of the new regulations are worried because the rules would require a validated license for the export of virtually all "critical technical data." Because "export" has come to include such things as the presentation of papers at symposia where foreigners are present and the hiring of foreign researchers, the Wallerstein-McCray report contends, "The proposed rules seem to have the potential to have a significant effect on the U.S. scientific enterprise."

Wallerstein says that while the Department of Defense (DOD) is using contracts to impose restrictions, "the scope and the reach of the mechanisms that they have put in place go way beyond what the Corson panel recommended." A new DOD directive defines review procedures for scientific papers so that researchers are aware of them before they sign a DOD contract. A DOD committee has also recommended permanent implementation of a series of six different "dissemination control" stamps, already in use, to define how widely unclassified documents can be circulated. The designations range from "release within DOD only" to "release to the general public." DOD has also created a new, unclassified "Militarily Significant Emerging Technologies List," which identifies "frontier technologies" for monitoring, because these technologies may in the future become militarily important and thus the targets of foreign intelligence efforts.

These DOD actions are occurring while a National Security Council inter-agency task force tries to come up with policies to coordinate the activities of all the government departments and agen-

cies involved in evaluating and policing export controls (SN: 6/4/83, p. 357). Although a draft of the task force report exists, disagreements among the departments involved have delayed its release. A spokesman for the Office of Science and Technology Policy says no one is sure when a final report will emerge and whether an unclassified version of the report will be issued.

That leaves a confusing situation for researchers working in sensitive areas. Computer scientist Stephen Unger of Columbia University in New York says, "There's a chilling effect in that people are not even proposing to do things because they anticipate trouble. The unfortunate thing about something like this is that it's not going to be easy to pinpoint the damage that's done. You can't point to information that wasn't published and to results that weren't attained because people didn't have access to what somebody else did."

On the other hand, DOD officials see a tremendous improvement during the last year in the relationship between the academic and defense communities, partly because of institutions like the DOD/University Forum (SN: 3/27/82, p. 218) where both parties can discuss mutual concerns. "It's a lot easier to formulate policy if you bring those who are to be governed into the decision process early on," one official says. "You've got to have people in universities sensitive to their products, both potential and real, [because] some of the products that come out of labs are very detrimental if they are provided, say, to potential adversaries."

One research area in which a cooperative, voluntary restraint program appears to be working is cryptography. About two years ago, the Public Cryptography Study Group of the American Council on Education and the National Security Agency (NSA) agreed on a program that invited cryptology researchers to submit papers to NSA at the same time as they are submitted for publication (SN: 10/17/81, p. 252). So far, NSA has reviewed 175 papers, of which the agency challenged nine. Six papers were modified and three withdrawn.

Cryptologist Martin Hellman of Stanford University in Stanford, Calif., says, "It's worked quite well. I personally have welcomed the opportunity to get to know people within the intelligence community." However, the combination of a small community of researchers and a technically oriented agency with considerable expertise in the research area of concern is a rare situation. "There are virtually no other circumstances where that exists," says Wallerstein.

—I. Peterson