

US research restrictions

Policy on high-tech data threatens freedom

Washington

THE United States is stepping up its efforts to prevent American high technology from falling into the hands of the Soviet Union or other potential adversaries. At the instigation of the US Department of Commerce, West German authorities last week seized a VAX 11/782 computer minutes before it was to leave Bonn for the Soviet Union. Another was seized in Sweden at the week-end. Earlier in the month, Federal Bureau of Investigation (FBI) agents infiltrated a meeting in Boston of the American Vacuum Society and arrested Alfred Zehe, an East German physicist suspected of espionage. And in revised regulations for Soviet diplomats and journalists, the State Department has declared "Silicon Valley", near San Francisco, out of bounds.

The administration's mounting offensive against the leakage of high technology continues to worry many scientists. A special report published last year by the National Academy of Sciences under the chairmanship of Dale Corson, former president of Cornell University, conceded that Soviet military power had benefited from the acquisition of Western high technology. But it said that scientific communication accounted for only "a very small part of this transfer" and warned that measures to control technology transfer could — if pushed to extremes — have a chilling effect on American science.

Since the Corson report was published, there have been few signs that the administration has succeeded in bringing order to the patchwork of laws and regulations that govern technology transfer. At recent congressional hearings, Dr Frank Press, president of the National Academy of Sciences, expressed alarm at new government proposals to require scientists to secure government permission before they make unclassified research results available in foreign countries — a measure that would affect virtually all scientific publications since almost all have an international readership.

What was most disquieting, Dr Press said, was the impact on individual scientists. Government action to control scientific communication had been largely disjointed, unpredictable and vague. "The result is that any particular scientist is quite unclear about what obligations and sanctions, if any, might apply to his or her work."

The present system of controls involves about 44 agencies in 10 government departments — a recipe for confusion and inconsistency. But there have been some signs of improvement. Two recom-

mendations of the Corson report have been implemented: the intelligence community has created a scientific advisory panel to comment on prospective scientific exchange visitors from adversary nations and the National Academy of Sciences has established a government-university round table to resolve conflicts between the government and the research community.

In Congress, too, pressure from the scientific community has influenced debate on the future of the Export Administration Act which expired in September. Both the House and the Senate version of the successor act contain a two-sentence paragraph stating that it is the policy of the United States to sustain a vigorous scientific enterprise and that to do so requires that scientists and scholars be allowed to communicate freely.

But none of these initiatives, Dr Press complained, tackles the major provisions of the Corson report. After reviewing much classified information about technology leakage, the Corson panel suggested that most university research could be freed from controls. Controls could be applied to the remaining "grey areas" only if specific criteria were met. For example, the technology would have to

be capable of giving the Soviet Union a significant near-term military benefit, and the United States would have to be the only source of information about the technology.

The administration's apparent inaction in the aftermath of the report appears to be a result of a change in the structure and terms of reference of the groups set up to respond to it. After publication of the report in November last year, the White House Office of Science and Technology Policy was asked to produce a response by March. In February, however, the study panel became part of a wider study of technology transfer under the direction of the National Security Council. The new group is expected to report next month, but there is a strong possibility that its conclusions will be classified.

In his evidence to Congress, Dr Press said he was disappointed by the delays and by the failure of the National Security Council to seek the advice and help of the outside scientific community. He warned that excessively harsh restrictions on scientific communication were likely to be counter-productive. Restrictions on foreign scientists at scientific meetings could force international scientific organizations to hold their meetings outside the United States. And, more important, there was the additional danger that burdensome government restrictions would tend to drive talented scientists out of restricted research areas, depriving American military technology of their contributions.

Peter David

National Institutes of Health

One set-back for Waxman bill

Washington

THE bill that would have written into law specific research directives for the National Institutes of Health (NIH), created a new arthritis institute and set up a commission to monitor human genetic engineering faltered last week despite a last minute compromise between its supporters and opponents in the House of Representatives.

The compromise, which ended a year-long impasse between Representative Henry Waxman (Democrat, California) and Representative Edward Madigan (Republican, Illinois), removed the provisions that NIH had found most offensive. Waxman had wanted to change NIH's research authority from the broad discretionary one it now enjoys to a line-by-line authorization for specific research areas. Madigan — and NIH — were pressing hard to retain NIH's freedom to set its own research priorities on the basis of scientific advice rather than legislative fiat. The compromise deleted the line item authorizations, while retaining general instructions to NIH to conduct certain specific research programmes. It also removed a controversial proposal which would have transferred the National

Institute of Occupational Safety and Health to NIH.

The bill passed the House the day before Congress adjourned until January. In the Senate, however, a deadlock over fetal research prevented even consideration of the bill. Senator Bob Packwood, a liberal Republican from Oregon, refused to allow either the House version or a version provisionally accepted by a Senate committee from reaching the floor so long as conservative Senator Jeremiah Denton (Republican, Alabama) threatened to introduce an amendment banning the use of NIH funds for research involving fetuses. (The House performed a *volte face* on the issue, first adopting a similar ban offered as a floor amendment, then negating it by passing another amendment.)

NIH have standing authority under the Public Health Service Act for most of their activities, so the net effect of Congress's inaction on the bill is small. Funds for assistance to medical libraries and for training grants were however shunted into the continuing resolution as a result, and were thus held to fiscal 1983 levels.

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