Anxiety about Reagan's sanctions

Two views on the wisdom of suspension

Washington

President Reagan's announcement last week that the United States is suspending its scientific exchanges with the Soviet Union, as part of a package of reprisals aimed at chastising the Soviet Union for its support of the military clampdown in Poland, has provoked concern in the scientific community that the move indicates an increasing willingness to use science for explicit political purposes.

The immediate effect of the President's decision will be to suspend the scientific exchange agreement signed by President Richard Nixon and Soviet President Leonid Brezhnev in 1972. Furthermore, Mr Reagan announced that unless the situation in Poland changes the agreement will not be renewed when it runs out in July.

Similarly, agreements for cooperation in energy and space research will not, at present, be renegotiated when they run out in May. And a number of other agreements which include scientific components are also being suspended and reassessed.

To a large extent, however, Mr Reagan's decision to suspend scientific exchanges is viewed as more symbolic than substantive. In the case of high-technology trade, an area announced for suspension, even the US Department of Commerce accepts that the Soviet Union is little more than a "marginal market" for sophisticated equipment, accounting for less than one per cent of the US electronics industry's annual sales of $200,000 million, and that the Soviets may well be able to meet their needs from other sources.

Officials at the National Science Foundation, which is responsible for nine of the twelve working groups still operating under the terms of the 1972 agreement, argue that as a result of deliberate efforts over the past few years to eliminate exchanges involving a marked imbalance of benefits, those still in effect provide scientific benefit to both sides.

Many — although not all — US scientists fear that if even these exchanges are now halted, the effect could be counter-productive. Not only would it close off an important channel of communication between two intellectual communities, but it would provide a useful propaganda weapon for use against those attempting to separate politics from science.

"I feel that it is very important that these communication channels are kept open because they provide a crucial link between different societies and different peoples during periods of difficulty, and because they can be kept separate from immediate political concerns", Dr Alan Bromley, professor of physics at Yale University and president of the American Association for the Advancement of Science, said on the eve of the association's annual meeting.

At the National Academy of Sciences, which two years ago suspended all bilateral symposia, seminars and workshops with the Soviet Academy of Sciences in protest at the treatment of physicist Dr Andrei Sakharov, but has made no move to interrupt the exchange of individual scientists between the two academies, president Dr Frank Press said he was concerned that if there was no formal scientific agreement at all between the United States and the Soviet Union, it would be difficult to keep channels of communication open.

Even some of the groups which have been most vocal in their protests over the treatment of Dr Sakharov and other dissident scientists have expressed fears that their effectiveness could be severely reduced if scientific exchanges were terminated. Dr Max Gottesman, a member of the Committee of Concerned Scientists, said last week that since Soviet diplomats did not seem to consider the termination of such exchanges to be a major blow to their domestic scientific effort, the United States stood to lose more than it might gain in terms of influence over opinion in the Soviet scientific community.

In contrast, there is less consensus on how far the federal government should go in restricting access by foreign scientists, in particular those from the Soviet Union, to US research laboratories on the grounds that the knowledge they pick up might later be used for military purposes.

Following protests from the scientific community that such restrictions could unnecessarily restrict the flow of scientific information, Mr Frank Carlucci, deputy secretary of the US Defense Department, has provided a detailed list of instances where, he claims, the Soviet Union has achieved significant military or technical benefits through visits to US laboratories made by Soviet scientists on exchange programmes. According to Mr Carlucci, "it is quite apparent the Soviets exploit scientific exchanges as well as a variety of other means in a highly orchestrated, centrally-directed effort aimed at gathering the technical information required to enhance their military posture".

A significant number of scientists are known to be in general agreement with the Defense Department's position. Dr Bromley, for example, said that although he felt restrictions should not be applied to basic science, he was concerned that information of potential military value might have been "given away" through exchange programmes.

The National Academy of Sciences is considering setting up a committee to look at the implications for the scientific community of existing and proposed federal restrictions on the flow of technical data. Dr Richard D. DeLauer, Under-Secretary of Defense for Research and Engineering, is said to be in favour of such a committee, although academy officials fear the government might act before a proper study can be carried out. **David Dickson**

Polish academia only partly normal

Polish academic life formally resumed this week but was, however, only partial. There are reliable reports that only graduate and fifth-year (finals) students have been readmitted to the universities and that all other undergraduate courses have been suspended until next year.

This leaves in doubt the status of the suspended students. A decree of the Military Council, passed on 30 December, obliges all able-bodied males between 18 and 45 years of age to work for the duration of martial law. Students as such are exempt, but it is not clear whether the exemption applies to those who must wait until next autumn to resume their studies.

There are also unconfirmed reports of some first-year students being drafted for military service. University graduates who have not yet found work are obliged to report to plenipotentiaries from the Ministry of Labour, Wages and Social Affairs stationed at their former colleges. Since unemployment among young graduates is considerable — particularly in the humanities and social sciences — there seems little chance that for them the clause in the decree, enjoining the administrators to take professional qualifications into consideration "as far as possible", will be of more than a token significance.

Academic staffs are far from happy with the new situation in Poland. On 23 December, the Prime Minister, General Wojciech Jaruzelski, together with Deputy Prime Minister Mieczyslaw Rakowski and Politburo member Hieronim Kubiak, met 69 leading academics to discuss what Jaruzelski described as "the active role of Polish scientists, intellectuals, writers and artists working for the salvation of the homeland, consolidation of the state and the building of a bridge of special patriotic agreement". Both Kubiak and Rakowski have the reputation of being liberals, and the academics seem to have been selected mainly from those who played little or no active part in the campaign for academic autonomy of the past 16 months.

Even so, no agreement was reached. The official communiqués spoke merely of a "long and frank discussion", with the

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academics stressing the "urgent need to rebuild trust and calm scientific teaching in Polish universities". According to an unofficial *Solidarity Information Bulletin* now circulating in Warsaw, the seven-hour meeting was deadlocked by the persistent demand of the academics for the release of all detainees and for the participation of the university rectors recently elected under the new democratic procedures in any further negotiations.

The presence at the meeting of Dr Aleksander Gieysztor, president of the Academy of Sciences, must have sharpened the discussion of the detainees. He was himself picked up in one of the early round-ups, although released shortly afterwards.

The unofficial lists of detainees now being compiled reflect just how active a role the academic community played in the Solidarity movement. They include:

- Lecturers from the unofficial Society of Academic Courses (the "Flying University") Stefan Amsterdamski, Wiadyslaw Bartoszewski, Andrzej Celínski, Jerzy Jedlicki and Jan Walc.
- Solidarity advisers from the universities, including Dr Bronislaw Geremek, a Warsaw lecturer in economics, who was a member of the Solidarity delegation to France last October, and Dr Stefan Kurowski who drew up the project for economic renewal discussed at the Solidarity Congress.
- Doctors and medical workers including Grazyna Przybylska-Wendt from the Solidarity presidium.
- Academy or university employees who, until now, have never achieved this type of prominence — among whom Dr Stanislaw Kozlowski, the new rector of Poznan University, is the most eminent so far.

The military rulers seem willing to make some small concessions to the academics — the constitution of the Polish People's Republic (Art.5.3) enjoins them to maintain the "constant progress of science and technology". Academic detainees from the Warsaw area are housed in a government hotel near Drawsko. Earlier reports that Solidarity advisers Jacek Kuron and Adam Michnik had been savagely beaten are unfounded.

The main instigators of the academic turmoil, according to the official statements, were the activists of the Independent Students Union (NZS). These, it is said, had tried to turn NZS into a political organization, rejecting the policy of social accord and "stirring up anti-Soviet sentiments" — a line which suggests that a purge of the student body may be forthcoming.

So far, no mention has been made of the fact that, only a few days before the military take-over, the Conference of University Rectors, meeting in Poznan, had formally endorsed the recent NZS protests as a valuable contribution to the struggle for academic freedom.

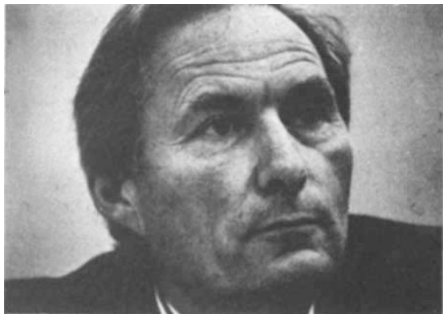
Vera Rich

High-energy physics

All change

With approval for its latest accelerator, LEP, under its belt, the European Centre for Nuclear Physics, CERN near Geneva, seems prepared to experiment — not so much with particles but with its governing body. For alongside the announcement of the CERN budget, and the final approval for LEP (see *Nature* 24/31 December, p.685), comes news of the appointment of two active new characters to the CERN Council. Sir Alec Merrison, currently chairman of the UK Advisory Board for the Research Councils and vice-chancellor of the University of Bristol, is to become president of the council; and Umberto Vattani, a high-ranking Italian civil servant who was involved in a disagreement two years ago between Italy and Germany over the appointment of a German (Professor Herwig Schopper) as director-general of CERN, becomes one of the two vice-presidents.

Sir Alec was himself a high-energy physicist, and in fact in 1959 he was co-author of the first experimental paper to



Merrison: chairman everywhere?

come out of CERN. He was also a director of the now defunct Daresbury electron accelerator, NINA, and has defended the place of "big science" in the highly-constrained UK science budget.

On his appointment — which gives him control of the CERN Council's committee and subcommittee work during the next year, as well as presidency at the council itself — Sir Alec said he was delighted at the decision over LEP. "All the delegates are amazed that CERN has been able to pull this thing off," he said, but at the same time the next few years would see CERN taking "a jolly dangerous path".

This is because LEP is to be built out of the current budget only by making massive savings in the present programme. Closing certain facilities entirely would save something, but most of the savings will have to come from running down the experimental work on the CERN 400-GeV super proton synchrotron, the laboratory's biggest machine. There will therefore be a hiatus in research.

Vattani, on the other hand, now re-assured that Schopper has proved an "excellent" director, and that Germany will not try to squeeze CERN in favour of its own national accelerators, sees looming problems in personnel and pensions

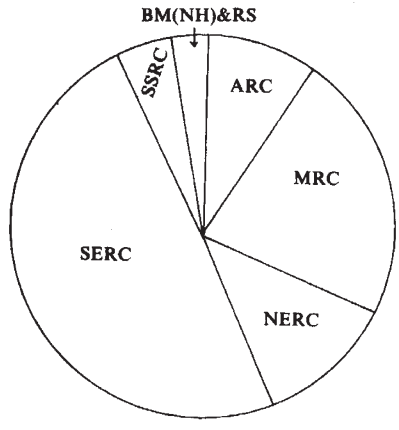
Other questions which will arise for the council in 1982 are late payment (some members have indicated that they may not be able to pay their subscriptions on time) and the management of the LEP project itself. LEP will span two countries, be 27 km in circumference, cost £275 million, and will still face some environmentalist opposition in the region. Professor Schopper will no doubt welcome all the help that the council can give him in this, the largest ever CERN project.

Robert Walgate

Hardly any change

The arguments put forward by the past and present chairmen of the British Science and Engineering Research Council (SERC) that the council should take a larger slice of the science vote have modestly borne fruit. Although the civil science budget for 1982–83, made public a few days before Christmas, has roughly kept its real value, SERC's budget has been increased by about 1 per cent. Most of the council's extra money will be spent on biotechnology, information technology and on helping universities to maintain the quality of research in spite of cuts in their own budgets.

It is equally no surprise that the council to come off worst in this year's division of the science vote is the Social Science Research Council (SSRC), with a real budget for 1982–83 about 4 per cent less than in 1981–82. SSRC has suffered substantial cuts in the real value of its grant for the past three years, reflecting uncertainties about the role of social science research in Britain.



The three other research councils, however, are to receive the same real budget in 1982–83 as in 1981–82. All, however, will be concerned that the government has allowed for only a 4 per cent increase in salaries over the year. If, as last year, the increase in the salary bill is higher, then the amount of research the councils can buy is bound to decrease.

Judy Redfearn

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