Soviet–U.S. Exchanges Under Scrutiny

Decision on two science and technology programs goes into overtime; National Academy considers negotiating new terms for its exchanges

Scientific cooperation between the United States and the Soviet Union is again edging into the political spotlight. The Reagan Administration has been pondering whether to further reduce such cooperation by terminating two more of the bilateral programs initiated in the heyday of détente. And U.S. National Academy of Sciences (NAS) members have been engaged in a behind-the-scenes debate over Academy policy on its own scientific exchanges.

Immediately in question have been programs in atomic energy and transportation research that were among 11 intergovernmental exchange programs in science and technology initiated in 1972. The expiration dates of both programs passed in late June, but the two governments by mutual assent have kept open the option to extend them.

As *Science* went to press, no public announcement had been made, but an Administration source said that the atomic energy agreement had been extended. The atomic energy program has been regarded as a reciprocally productive one, but the U.S. decision was understood to depend ultimately on diplomatic and political considerations. U.S. officials have been unusually close-mouthed on the subject, acknowledging only that discussions have continued between the two governments and within the U.S. government.

Scientific cooperation between the two countries has declined markedly since the middle 1970's. The trend has reflected the deterioration in political relations, particularly since the Soviet occupation of Afghanistan in 1979 and repressive actions by the Polish government which the United States perceived to be Soviet inspired.

Administration policy on intergovernmental science exchange programs has been described as based on a "graduated response" to political events. In December 1981, President Reagan announced that 3 of 11 existing government-to-government programs would be allowed to lapse as part of a package of political and economic sanctions imposed in response to the Soviet role in the declaration of martial law in Poland (*Science*, 5 February 1982, p. 638).

At the same time, Reagan ordered a review of remaining exchange agreements. Subsequently, one agreement, that covering research in agriculture, came up for renewal and was extended. That occurred in December when neither side gave the 6-month notice required in the agreement for termination.

While the bilateral intergovernmental agreements on science and technology were a product of the early 1970's, an older program of "private" scientific exchanges has been operating under agreements between NAS and the Soviet Academy of Sciences. The current one was signed in 1969. That agreement provided for meetings and symposia as well as for visits and collaboration on research projects by scientists from the two countries.

In recent years, U.S. scientists and scientific organizations have become increasingly critical of Soviet handling of human rights and scientific freedom issues. The focus of concern has been the harsh treatment of dissidents and refuseniks—Jewish scientists and engineers refused permission to emigrate by the Soviet government.

In 1980, the NAS council, citing the occupation of Afghanistan and the banishment of physicist Andrei Sakharov to the city of Gorky, voted to suspend the meetings and symposia conducted under the interacademy agreement. The council left decisions on whether to continue individual exchanges up to individual U.S. scientists. The exchanges have continued at a sharply reduced level. This is attributed not only to reduced enthusiasm about participation among U.S. scientists, but also to cuts in federal support funds provided through the National Science Foundation and to a tightening of the U.S. screening process for Soviet scientists and engineers nominated for the program.

Within the U.S. scientific community at large, opinion on how to react to prevailing circumstances is far from unanimous. NAS policy on the subject has increasingly been the topic of debate within the membership and by the Academy's governing council. NAS president Frank Press has aired the matter at regional meetings with the aim of finding a consensus on which to base a possible change in policy.

During the Cold War era, the dominant view among U.S. scientists was that scientific relations with the Soviet Union should be sustained in order to keep open a significant channel of communication between the two countries and thereby diminish the danger of nuclear war. The advent of détente and later signing of the Helsinki accords encouraged the belief among many U.S. scientists that the Soviets might pursue more liberal policies in respect to human rights and scientific freedom.

Disappointment of these hopes produced a division of opinion along two general lines. One group believed that scientific cooperation with the Soviets should be sharply restricted so long as the Soviets adhere to repressive policies on human rights and scientific freedom. Another group took the view that U.S. scientists should cooperate with the Soviets in science either to maintain leverage with them on these issues, or simply to gain the scientific benefits for this country that a more carefully monitored program would offer.

On one issue there has never been a significant difference of opinion—that U.S. and Soviet scientists should continue a dialogue in international security and arms control issues.

The Academy's dilemma was described by Press in his report at the annual NAS meeting in late April. Describing the reasons why scientific contacts with the Soviets were "withering," he gave the following summary of discussions at the NAS regional meetings:

> There seems to be a significant degree of sentiment on the part of our members that the current moratorium represents an unsatisfactory state of affairs. It seems to have been ineffective in pressuring the Soviet government on the human rights issue and it has deprived many American scientists and deserving Soviet scientists of the benefits of mutual contacts. Our members want the officers to continue discussions with the Soviet Academy, with the hope of arriving at a different arrangement in which scientific cooperation can take place on the basis of participants selected by invitation or by prior negotiation. But our members feel strongly about the human rights issue and insist that any agreement must be modulated by Soviet progress in the human rights area.

A significant number of scientists who formerly subscribed to boycotting appear to have shifted position on grounds that the tactics were ineffective in influencing Soviet conduct. Stanford profes-

sor Paul J. Flory, a Nobel laureate in chemistry, was formerly identified with the view that scientists should withdraw from the exchanges, but now sees a case for a revival of cooperation, although not on the old terms. Flory has been active in the organization Scientists for Sakharov, Scharansky, and Orlov which was formed to promote human rights for scientists and advocated nonparticipation in exchanges with the Soviets.

Flory says he perceives a strong sentiment against resumption of the exchanges on past terms. He cites the widely held view among U.S. scientists that the Soviets profited much more from the program than did the United States. "We were so eager to get some-

Soviets Take Tougher Line on Human Rights

The position of Soviet physicist Andrei Sakharov is a matter of growing disquiet among Western scientists concerned with issues of human rights and scientific freedom. Since Sakharov's relegation to the city of Gorky 3 years ago he reportedly has been the target of harassment, including the theft of research materials. Sakharov and his wife Yelena Bonner have suffered increasingly serious health problems—Sakharov has sought and been denied treatment in the Soviet academy clinic in the Moscow area after expressing mistrust of the care he would receive in Gorky, a closed city 250 miles east of Moscow.

The possibility of more serious punitive action by the Soviet government has been raised recently by the reaction to publication here in the summer issue of *Foreign Affairs* of a letter on nuclear arms policy written by Sakharov and smuggled from Gorky to the West. The letter is mainly an elaboration of the argument that nuclear war would lead inevitably to the destruction of the countries involved and possibly to the extinction of most life forms on earth. But Sakharov is also openly critical of the Soviet Union, for example, characterizing its policies since World War II as aggressive and suggesting that the United States might have to proceed with plans for deployment of the MX missile to induce the Soviets to enter meaningful arms control negotiations. Sakharov was condemned for the letter in a statement in the official newspaper *Izvestia* by four members of the Soviet Academy of Sciences. The attack concentrated on portions of the Sakharov letter they interpreted as anti-Soviet and the authors directly questioned his loyalty.

Andrei Sakharov

A new controversy

In May, Sakharov was the subject of contradictory reports, first that he would be permitted to leave the Soviet Union to teach in Vienna, and then a statement immediately following in the press that he would not be allowed to leave because of his knowledge of state secrets. Publicity given to the letter in *Foreign Affairs* is thought to indicate that Sakharov's position is now more precarious.

Evidence has been accumulating that Soviet authorities are also taking a generally harder line toward other dissidents and refuseniks. Government pressures appear to have prompted the disbanding last September of the Helsinki watch committee formed to monitor Soviet compliance with the human rights provisions of the Helsinki accords signed in 1975.

An imprisoned former member of the group, human rights activist Yuri Orlov, was reported to have suffered skull and brain injuries from a beating in the prison camp in the Urals where he is serving a 7-year sentence for anti-Soviet agitation. Details of how and when the injury occurred were not provided by authorities.

A new pattern is said to be emerging of the resentencing of "prisoners of conscience" as their terms near an end. A number of cases have been documented in which prisoners had their sentences extended or were sentenced as a result of new charges.

Since dissolution of the Helsinki watch committee, the only independent group that has operated fairly openly is the Committee to Establish Trust Between the USSR and the U.S.A. Although some of its members have been arrested or expelled, the peace group puts the Soviets in an awkward position, since the Soviet government has applauded peace groups in Western countries which have criticized their governments and it would be unbecoming for the Soviets to squelch their own citizens' group.

General communications with the West appear to have been deliberately attenuated by the Soviets. For example, direct dial telephone service provided for the 1980 Olympics was reduced, then cut off. Reservations for calls to the Soviet Union from this country must now be made a week in advance during a 1-hour-a-day period. And rates for calls from the Soviet Union have been raised to prohibitive levels.

Western visitors to Moscow report that official pressures have caused a withering of the so-called Sunday seminars held to enable refusenik scientists who have lost their posts to discuss scientific work and meet visiting Western scientists. Recent U.S. visitors say, however, that a mathematics-physics seminar apparently still meets, but only when foreign scientists are able to attend.

Discrimination against Jews who seek to emigrate appears to be growing more severe and systematic. Only about 2700 Jews were allowed to emigrate in 1982 compared with more than 51,000 in the peak year of 1979, and the rate is even lower so far this year. Refuseniks who are scientists and engineers now almost invariably lose their posts. Formation of an Anti-Zionist Committee of the Soviet Public and initiation of an "anti-Zionist" campaign are regarded as signs that the government is changing the relatively lenient conditions that permitted the exodus of the 1970's.—**J.W.**

thing going that we did it on their terms," says Flory. The result was a "lopsided exchange."

Any new program should operate with clear ground rules that would include firm guarantees that Soviets named to meetings and other exchanges would be permitted to attend and also "freedom of communication by letter and telephone," says Flory. In addition, he advocates agreement on a "code of performance" which would commit the Soviets to conduct on human rights and scientific freedom issues regarded as "essential for true scientific cooperation and the advance of science."

Press indicated his own views on terms that should be included in a possible broadening of scientific contacts with the Soviets in a meeting this spring with representatives of another human rights organization. The group was the Committee of Concerned Scientists which has adhered to a policy of urging scientists to continue contacts with the Soviets while at the same time seeking to intercede in behalf of individual Soviet scientists in trouble with the Soviet government. Press told the group that he favored stiffer quid-pro-quo arrangements for exchanges, including the rule that only those invited would attend meetings. He also would seek an understanding that U.S. scientists visiting the Soviet Union could make contact with dissident and refusenik scientists.

It is generally agreed that a real revival of scientific cooperation depends first on an improvement in general political relations between the two countries. An expanded program of exchanges would have to fit in with the Reagan Administration's determination to restrict the flow of strategic technology to the Soviet Union. And it is unclear to what extent the Soviets' expressed desire for wider scientific contacts will overcome their increasingly strong objections to U.S. scientists' demands on human rights matters which they condemn as an effort to impose "bourgeois democracy" on them.

Meanwhile, a long-wave pattern in Soviet–U.S. relations seems to prevail. As Jeremy Stone, director of the federation of American Scientists and a seasoned observer of superpower science relations put it, when state-to-state relations are warm, U.S. scientists feel free to complain about human rights and other issues. When relations chill, concern about peace becomes paramount. It is doubtless a sign of the times that American scientists in greater numbers than for years are turning their attention to arms control and disarmament issues.

—JOHN WALSH

Panel Upholds Dismissal of Mosher

A decision by the Stanford University anthropology department to dismiss graduate student Steven Mosher was "justified," according to a three-member grievance committee which has reviewed the case. The committee report, however, does not reveal anything new about Mosher's alleged misconduct while conducting field research in China.

The anthropology department in February ousted Mosher from the program, charging that he was engaged in "illegal and seriously unethical conduct" in China without specifying his exact misdeeds. But Mosher has argued that he was terminated for political reasons because he published an article about Chinese birth control practices in a popular Taiwan magazine (*Science*, 13 May, p. 692).

Mosher's accusation is without merit, according to a report by the committee, which was comprised of two Stanford professors, Gordon Wright, past president of the American Historical Association, and Ernest Hilgard, past president of the American Psychological Association, and University of Pennsylvania professor Ward Goodenough, former president of the Society of Applied Anthropology. "We find nothing in the record . . . to support Mr. Mosher's contention that the department's findings were politically motivated," the report said. The committee was formed at the request of Norman Wessells, dean of Stanford's School of Humanities and Science, to review the grievance filed by Mosher.

The committee concluded that Mosher displayed a pattern of behavior that "involved deliberate disregard for the law of the host country, . . . a manipulative approach toward the people with whom he was living and working," and a "serious lack of candor" in his dealings with his academic advisers, the National Academy of Sciences' China committee, the Stanford investigating committee, and his funding agency. The committee stressed repeatedly that Mosher's conduct destroyed a relationship of trust between professor and student. The report, which has been released in full, said that Mosher's pattern of behavior, "as it unfolded through the course of the investigation, progressively eroded any possibility for a relation of trust" between Mosher and the faculty. "Violation of law by a student need not in itself be regarded as grounds for termination . . . what matters is the extent to which the actions and the circumstances in which they occurred represent a violation of the trust accorded the student by his faculty supervisors and by his institutional sponsors," the report states. Goodenough said in an interview with *Science*, "His subsequent dealings with the investigating committee did nothing to restore that trust."

The committee found that the department had been "fair and thorough" in investigating allegations against Mosher. Goodenough said that there was no evidence that the department based its decision on allegations made by Chinese officials. Mosher has said that his former wife has falsely charged him with wrongdoing. The committee concluded, however, that certain allegations against Mr. Mosher "were supported by sufficient evidence to make a case against him—allegations that Mr. Mosher could have easily refuted. . . ."

The committee concurred with the department's earlier decision not to disclose the specific details of Mosher's alleged misconduct in order to protect the welfare of other parties. Goodenough said, as Stanford has, that release of the report might endanger people in China.

Mosher, who is currently living in Taiwan, may appeal his case to two more levels at Stanford: the office of vice provost and the president.

Some observers have criticized Wessells for failing to appoint at least two members of the grievance committee from outside the university. Mosher, however, rebuked Wessells for forming the committee in the first place and also for including a non-Stanford member. Mosher said in a letter to Wessells that he wanted a single investigator from within the Stanford administration to prevent "further dissemination of the libelous confidential report compiled by the anthropology department." The formation of the three-member committee "is totally regrettable."—MARJORIE SUN