Science Exchanges Chilled by Soviet Invasion of Afghanistan

The arrest of Soviet academician Andrei Sakharov is a second blow to U.S.–U.S.S.R. scientific relations

Because Russian troops entered Kabul in Afghanistan, a $10-million piece of equipment, known as an MHD channel, stands idle at a Westinghouse plant in Waltz Mill, Pennsylvania.

The 20-ton device, which took 5 years to design and manufacture, was to have been flown to Moscow on 20 January aboard a C5A military transport plane. The shipment was canceled and the transfer postponed indefinitely, as part of the Administration's deliberate chilling of cultural relations with the Soviet Union.

Scientific exchanges with the Soviet Union are likely to be affected by the present political situation in several ways, some of which depend on the reaction of the scientific community. Official scientific exchanges are one of the 11 cooperative agreements with the Soviet Union which came into being as part of the Nixon-Kissinger strategy of détente. State Department policy is to maintain the agreements at a level somewhere between a business-as-usual posture and complete cessation. In practice, this means the cancellation or postponement of any "high visibility" component of exchange, with judgment being made on a case by case basis.

Thus the annual meetings to review the agreements in housing, agriculture, and health have been put off. Transfer of the MHD channel, part of the energy R & D agreement, was postponed, presumably because the device is a large and visible piece of hardware.

The State Department is calling these decisions on a case by case basis partly, it seems, to keep the Soviets guessing but partly also with an eye to gauging domestic reaction. Should scientists favor either more or fewer reductions in exchanges, that attitude might be reflected in State Department actions.

So far the most definite expression of feeling from the scientific and technical community is a decision by the 78,000-member American Society of Civil Engineers to halt all exchanges until the Soviet Union ends its occupation of Afghanistan. "I don't believe the citizenry of the Soviet Union is fully aware of what is happening in Afghanistan and we think that this action may have some positive effect in making our counterparts in the Soviet Union more aware of the seriousness with which the rest of the world views the Soviet invasion," says Eugene Zwoyer, executive officer of the society.

Scientific associations, such as the American Chemical Society, American Physical Society, and American Society for Microbiology, have no immediate plans to take a stand on the issue. Some participate in the official exchange agreements under National Science Foundation auspices and plan to follow whatever is Administration policy.

The National Academy of Sciences will continue to observe the agreement signed with its Soviet counterpart. There are no plans to reduce the level of exchange called for in the agreement, although a reluctance on the part of American institutions to act as hosts for Russian visitors would have such an effect.

The Federation of American Scientists is polling its members on their preference for options that range from doing nothing to cutting off relations for a substantial period. The AAAS is convening a meeting of its 85-member Consortium of Affiliates for International Programs for an exchange of views on scientific relations with the Soviet Union.

The recent news of Soviet official action against Nobel Peace Prize winner Andrei Sakharov—Sakharov was apparently arrested on 21 January and told he would be stripped of all his state medals and prizes—is likely to prompt a vigorous reaction from scientists here and abroad. Sakharov, a nuclear physicist, has for years been a leading figure in the Russian civil rights movement; hitherto, his membership in the Soviet Academy of Sciences has protected him from arrest.

Like other sectors of American society that have relations with the Soviet Union, the scientific community seems likely to have mixed feelings on the use of those relations as a means to punish the Russians. Some feel that the bridges that have taken so long to build should be kept in place, even if for the moment they are used less often. Others consider the Soviet action in Afghanistan to be so serious that each relevant sector of society, scientists included, has an obligation to help raise a national outcry that will deter the Russians from invading other countries.

The exchange agreements with the Soviet Union are intended to be of mutual benefit; hence a certain price is inevitable in the event of cancellation. In the case of the MHD channel, the elaborate piece of equipment was built specifically to be tested at the operating magnetohydrodynamics (MHD) facility near Moscow. The channel, designed by MEPPSCO of Boston, consists of some 450 copper "window frames," computer-designed so as to form an aerodynamic duct about 20 feet in length. Fitting inside a large magnet, the channel's purpose is to contain the ionized gases from what is essentially a rocket engine. The channel will now stand idle until United States–Soviet relations thaw or some other test facility is developed for it.

Even if in general terms the United States may have more to teach than learn in the scientific exchange agreements, the mechanism of the exchanges gives it access to the closed Soviet society which it would not otherwise have; the Russians, on the other hand, have access to the United States with or without the agreements.—NICHOLAS WADE

Some want to knock down the bridges built to Soviet science, others want just to cross them less often.

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