KGB Agents Disrupt Research Projects

In what U.S. observers regard as an aberration, agents working for local authorities shut down a U.S. seismology project and confiscated data from a U.S. oceanographer

For Gary Pavlis, an Indiana University professor of geophysics, the trip to Kazakhstan last month was to be the culmination of years of research and months of preparation. He and his team were about to pull off an experiment that could never have been done during the cold war: Russian authorities had given permission for them to run a high-frequency seismic test using the granite near Kokchetav in Kazakhstan as a window on the earth's mantle. Because the rock there is relatively fracture-free and distant from the pounding of ocean surf, it transmits earthquakes and manmade explosions with remarkable clarity. It's a "sweet spot," scientists say, great for basic science or for listening to explosions as far off as Korea, Iraq, Iran, and Pakistan. But a few days after Pavlis and his crew arrived at the site, their well-laid plans were derailed by the KGB.

DIANA DEFRANCESCO

Disarray. Seismic sensors at Borovoye, part of a joint project in the former USSR, were impounded and U.S. researchers asked to leave.

On 4 August, two men who identified themselves as regional KGB agents and one who said he was an immigration official appeared at the Kazakh seismic station—a center called Borovoye, formerly a Soviet listening post for nuclear tests. Armed with threatening-looking documents, they accused the scientists of failing to register properly as visitors and failing to obtain permits for doing geophysical research. Then the agents confiscated the Americans' visas, asked them to sign a confession, impounded their equipment, and, a few days later, issued an order for the entire research crew to leave within 48 hours. The scientists made frantic appeals to have the orders reversed, without success. Although the U.S. team had set out an array of 480 sensors, they never had a chance to record a byte of data. It was "incredibly frustrating," says Pavlis.

Though the incident at Borovoye took nearly everyone by surprise, it is not the only one of its kind. Since August, the U.S. State Department has been trying to unscramble another snafu involving a run-in between a leading U.S. oceanographer and KGB agents in Murmansk, in northern Russia. The twin cases suggest that scientists considering collaborative ventures in the former Soviet Union should look carefully at the local politics these days before they leap.

While the U.S. scientists cannot pinpoint what went wrong in these two cases, they do offer some theories, ranging from the obvious to the Machiavellian. At Borovoye, the problem wasn't quite as stated by the police agents, since the scientists did have permits, which had been provided by a Russian host, Vitaly Adushkin, director of the Moscow Institute of Dynamics of the Geosphere. One explanation is that Adushkin and high officials in Moscow had failed to inform local officials what was going on, producing a suspicious response. A more elaborate possibility is that local scientific institutions were fighting for survival—since an alliance with a U.S. research project can provide a lifeline of hard currency—and that the visitors were forced to step aside until a winner emerged. A third, more sinister, theory is that old-line military officials are quietly using their influence to keep foreigners away from data they regard as not suitable for sharing. Yet Pavlis concedes that "we may never know" exactly what triggered the KGB's intervention.

The U.S. sponsor of the project, a group of 80 universities known as the Incorporated Research Institutions for Seismology (IRIS), regards the Borovoye incident as an anomaly in an otherwise good record. Since 1988, IRIS has established a network of seismic stations throughout the former Soviet Union, including a collection center in Obninsk and a computer analysis center in Moscow (see map). Even if IRIS loses the site in Kazakhstan, which its leaders hope will not happen, the association has an impressive agenda for building additional stations covering other areas of the former Soviet Union. In the meantime, the U.S. scientists from Borovoye are waiting to have $800,000 worth of equipment shipped back from Kazakhstan, and they're wondering whether they will be allowed to go back this fall. Gregory van der Vink, IRIS's manager in Arlington, Virginia, has sent out appeals in all directions. Representatives Martin Sabo(D–MN) and Edward Markey (D–MA), supporters of the IRIS project, mailed a personal letter to Kazakhstan's president, Nurseltan Nazarbaev, on 8 September. The State Department, according to an official, is "working on" the case. But so far, the Kazakh authorities have not responded.

Although problems like this one—with its anachronistic overtones of cold war hostility—seem to be rare, the Borovoye case was foreshadowed by a similar episode in northern Russia. Shortly before the seismologists ran into trouble, Sydney Levitus, director of the U.S. World Data Center for Oceanography, a division of the National Oceanic and Atmospheric Administration (NOAA), had a close encounter with the KGB at the Murmansk airport. Levitus had come to supervise an exchange program in which Russian and U.S. researchers were to share information about sea temperature, salinity, and other data from coastal waters to build up a global database on ocean currents. On 21 July, security agents stopped Levitus as he was about to get onto a plane for St. Petersburg. They searched his briefcase and confiscated his laptop computer and diskettes containing data from Russian scientists.

Although Levitus was not detained, he was later horrified to discover that he was

SPECIAL NEWS SECTION

A special news report on careers in science begins on page 1707 of this issue. The news section beginning on this page is a combination of our regular News & Comment and Research News sections.

being denounced as a spy. No charge has been filed, but, since August, someone has been leaking accusations about him to the Russian press. Levitus keeps a sheaf of these derogatory news articles in his office, clipped from sources like *Komsomolskaya Pravda* and *Kommersant*, with headlines such as: "Fool Levitus Is Caught While Spying" and "Is Syd Going to Do His Time?" The *Kommersant* article, for example, reports that "U.S. citizens were caught in Murmansk while trying to smuggle out a computer together with diskettes containing secret data [on] the Northern Russian Seas." Levitus, who insists he is no spy, regards the flap as absurd—except that it threatens to undermine a carefully nurtured data exchange program. The research sponsored by NOAA has been closed pending a technical inquiry by the Russians.

Levitus says his Arctic project is in limbo, awaiting the decision of a technical commission in Moscow that will soon decide whether the diskettes he was about to take home contained classified data. He is certain they held only temperature and salinity data from international waters, though he hadn't had a chance to review them. Meanwhile, the dozen or so 386-class IBM-type computers he provided to the Russians as part of the exchange have been sealed off by security police.

Whether these two episodes make up a pattern or not isn't clear. But what is clear is that there has been no public outcry over either one. So far, neither the scientists nor the U.S. government has made a public fuss about these incidents, because they would like to resolve the issues quietly and get these research projects back on track. As a result, few people—even among managers of U.S.-Russian research ventures—are aware that the KGB has shut down the Borovoye seismic program and the Murmansk ocean project. And when they do hear about the incidents, they regard them as accidents, or "outliers," as one official at the National Academy of Sciences put it.

Indeed, most scientific exchanges with the former Soviet Union have gone smoothly since the collapse of communism, but there are signs that the breakdown of the Soviet system may bring unpleasant surprises as well as opportunities. This risk is particularly high in projects that involve cross-boundary jurisdictions—as in Borovoye, where Soviet academicians used to run the research center as an elite Russian outfit on Kazakh turf with minimal recognition of Kazakh scientists. Both the seismologists and Levitus say they think Western researchers need to take extra precautions these days to be sure that they have touched all the bases before risking time and money on joint projects. Although the new republics may lack money, food, and other essentials, one thing they don't appear to lack is a passion for protocol.

—Eliot Marshall

MANNED SPACEFLIGHT

Europeans Look East for Cooperation

The European manned space program is dead....Long live the Euro-Russian manned space program! That's the message that emerged from the Paris headquarters of the European Space Agency (ESA) on 8 September, when delegates from the agency's 13 member nations met to ponder Europe's future in manned spaceflight. After months of trying unsuccessfully to shrink the troubled Hermes space plane project and shoehorn it into the agency's stretched budget, ESA director-general Jean-Marie Luton last week floated a plan that he believes just might allow Europe to build a reusable space vehicle early in the next century. If so, it will be because Russia has been pulled on board.

Luton is now calling for 3 years of "intensive studies" with the Russians into the feasibility of building a vehicle on the lines of Hermes. And that's not all. Under a plan agreed on with the Russian space agency, Luton is also proposing that ESA provide a payload of scientific experiments for Mir-2, slated for launch sometime after 1996, as the first step in a collaboration that could eventually lead to the launch of a Euro-Russian space station after 2005. Luton will take his plan to a meeting of Europe's space ministers that is scheduled to take place in Granada, Spain, in November.

If the ministers go along with ESA's grand vision of Euro-Russian collaboration, they would send mixed signals to NASA, which is now stressing international involvement in Space Station Freedom as one of its main selling points to Congress. Although Luton's plan would still permit ESA's main contribution to Freedom—a bolt-on laboratory called the Attached Pressurized Module—to be put into orbit on schedule in 1999, ESA is unlikely to be able to afford two major space station collaborations in the long term. It's far too early to say whether ESA would be prepared to throw its lot in with Moscow at the expense of its long-running collaboration with NASA, but collaboration with the Russians would have its attractions. As Luton's special adviser Jean-Jacques Dordain told *Science*: "We shall operate the vehicles. We shall be fully integrated."

First, however, Luton has to sell his proposal to his European colleagues. At least one aspect of the plan is likely to get a sympathetic hearing in Granada: the proposal to study the feasibility of building a Euro-Russian space plane. Doing so would effectively put Hermes on ice until 1995—a step that would please ESA's member states. Germany's science minister, Heinz Riesenhüber, for example, was adamant last fall that the brake had to be put on Hermes, which was then running 40% over budget and likely to cost more than $7.6 billion to complete. German officials have since made it clear that the twin burdens of recession and reunification mean they can't afford to go ahead even with a scaled-down unmanned version of Hermes (*Science*, 10 July, p. 151). And even the French, formerly Hermes' strongest supporters, are now counting their centimes and would be happy to sit through a 3-year hiatus. "We can accept such a strategy," one senior official at CNES, the French space agency, told *Science* last week.

The prospects for Luton's long-term vision are less clear, however. Many Western space agencies are currently trying to build links with the former Soviet space program, but given the economic chaos in the former Soviet Union, large-scale undertakings would be risky. Even ESA's Dordain acknowledges that, for the first few years of any Euro-Russian collaboration, ESA would have to pay directly for some of the work to be carried out in Russia. And the problems are not all on Russia's side: Some space policy experts doubt whether Western space agencies will be able to meet their side of any agreements with Moscow. John Logsdon of George Washington University, for instance, takes the cynical view that Luton's grand vision of a future Euro-Russian space station is merely "window dressing" to divert attention from the depressing fact that Europe's ambition to develop its own manned space program is dead.

A different interpretation of ESA's overtures to Moscow comes from Joan Johnson-Freese, a space policy researcher at the University of Central Florida, who thinks they reflect strains in the relationship with the United States. During Freedom's roller coaster ride through the U.S. Congress over the past 2 years, she says, "all of the space station partners have learned a very negative political lesson." But while the Europeans and Japanese are less than happy with the United States as the "dominant partner," Johnson-Freese says that they don't yet want to roll out of bed with NASA; they just want to broaden their options.

In any case, say many analysts, by the time that the ESA members have to make a decision on the next generation of manned space projects, they may not have to choose between the United States and Russia. By then, the costs are likely to be so great that the choice may be between a truly global collaboration, or nothing.

—Peter Aldhous