straightforward to get a yes or no answer.

But Jacobs says that, faced with the prospect of having to oversee such research, he informed Kirschstein that he would be leaving OAM the next year, in 1994. In the meantime, he says, OAM tried to foster some exploratory studies. The office solicited proposals for small pilot studies in alternative medicine. More than 450 came in. NIH's Division of Research Grants assembled ad hoc review panels, selected the best, and in October 1993, OAM awarded 30 grants at $30,000 apiece. In addition, with "tacit support" from NIH Director Harold Varmus and the direct help of Kirschstein, Jacobs says, OAM in April 1994 solicited proposals for $1.8 million to be spent on three or four centers in the Eisenberg model.

A final showdown

If the June 1993 hearing marked Jacobs' first major disappointment, he says the second came in January 1994, when NIH was considering candidates for an 18-member committee to advise the OAM. It became clear, says Jacobs, that the top NIH staff would go along with demands from Harkin's office and include on the list of candidate advisers four activists picked by Harkin. The four were Bedell; Moss; Gar Hildenbrand, president of the diet-oriented Gerson Research Organization of San Diego; and Frank Wiewel, former owner of a small recording studio who now runs an advisory and travel service for unconventional therapies, Patients Against Cancer of Otho, Iowa.

Jacobs had clashed often with these "Harkinites," as he calls them, when they served on an ad hoc advisory panel in 1993. He didn't want them on his permanent board. But he says the names he suggested "weren't looked on very favorably by Harkin's staffers." So he says NIH revised his list and sent it along to the Department of Health and Human Services (HHS). Varmus declined through a spokesperson to discuss the subject. Kirschstein said the list had been drawn up before she took over the office, but that "Senator Harkin was very interested in particular members being on the council." HHS revised the list further, for example, by removing the name of former surgeon general C. Everett Koop, whom both Jacobs and Harkin staffers had proposed. The letters of invitation went out in May 1994, and the board became official in August.

Meanwhile, Jacobs' fears that the office would be forced to conduct field studies have been borne out. "There's no paper trail," says Jacobs, but he claims that Harkin's staff "made a lot of threats." Long and Harkin's press secretary said that the senator had never spoken to Jacobs except in public meetings. Responding to a rumor among OAM staffers that the senator threatened NIH's budget, Long says, "We did not threaten to hold up the NIH appropriation." Kirschstein, who says she is unaware of the alleged senatorial threat, confirms that OAM has begun four field studies.

The final confrontation between Jacobs and the advisory group came on 31 August and 1 September, during the board's first official meeting. At that point, Jacobs was a lame duck. Four vocal board members—Bedell, Hildenbrand, Moss, and Wiewel—were outraged that they had not been allowed to vote on the proposal to establish alternative medicine centers before NIH published the proposal and set up a review committee. They were especially enraged when they discovered that some of the panelists with conventional medical credentials—including Eisenberg—had seen the centers proposal in draft form and were candidates for a center award. Hildenbrand, Moss, and Wiewel proposed returning the $1.8 million to the Treasury, but, realizing this would not help their cause, they abstained as the majority voted to allow two of the four centers to go forward. The unspent money will be used to increase support for the two centers and to fund a second round of small exploratory grants.

After the meeting, Hildenbrand fired off a letter to Harkin on 6 September. He charged that Kirschstein, by approving the decision to go ahead with the centers, had "stiff-armed her way through with a scheme to divert the lion's share of OAM's discretionary budget to the universities." He also said NIH was plotting to "excommunicate" and ignore advisers like himself. He pleaded for "field investigations" and for Harkin's help.

No one knows how the contretemps will end, although Long insists the senator would be happy to support both field studies and centers, adding that he only wants projects of high scientific quality. Most important, says Long, is to "get a good administrator who can work with the council ... and get the office up and running."

Looking back on the experience, Jacobs says if there's any message he would like to convey, it is that political movements are right to set broad goals but shouldn't "screw around with how NIH or other large organizations do research.... It doesn't work, and it wastes money." Moreover, Jacobs is convinced that NIH, with its intense focus on fundamental science, is the wrong home for OAM. He thinks that alternative medical therapies would get a more sympathetic review in an agency whose heart is in the clinic, not the research lab.

–Eliot Marshall

ESPIONAGE

Was U.S. Researcher a Double Agent?

KARLSRUHE, GERMANY—John Le Carré would be proud of American systems analyst Jeffrey Schevitz' account of his life in the shadowy world of Cold War intelligence. Schevitz was arrested 5 months ago by German police for allegedly passing sensitive information on technology and nuclear policy to the Stasi, the former East German intelligence agency, in the late 1970s and 1980s. Although he has not yet been formally charged, Schevitz admitted last week in an interview with *Science* and in a subsequent press conference that he did deliver information to the Stasi. But he claims he had good reason: He says he was working as a double agent for American intelligence services. "It was like living in a novel," Schevitz says.

Arrested. Jeffrey Schevitz says he gave disinformation to the East German Stasi.

German officials, however, dismiss Schevitz' claim to be a double agent, and U.S. sources have told *Science* that some aspects of his story seem implausible. "I am confident that the accused's claim can be disproved," says Rolf Hannich of the German federal prosecutor's office. Hannich says he expects the investigation will be wrapped up within a few weeks.

Schevitz, who worked for 14 years as a systems analyst at the German government's Nuclear Research Center at Karlsruhe, is believed to be the only American arrested so far on suspicion of spying for the Stasi. He was arrested in May and released on 6 September after friends paid $65,000 in bail. Under German law, he could have been held for up to 6 months without charges. If prosecutors choose to take the case to court, the charge would be espionage, Hannich says, which carries a 5-year prison term or a fine.

Schevitz came to Germany in 1976 following an academic career that included stints at Princeton and the University of California, Berkeley, and teaching positions in sociology at other universities. He also had a long track record of activism, primarily in the free speech movement at Berkeley and in groups that opposed the Vietnam War.

Schevitz told *Science* that in 1975, while he was considering a teaching post at the John F. Kennedy Institute for North American Studies of the Free University in (then West) Berlin, he was contacted by Shepard Stone, a prominent U.S. diplomat and scholar who in 1974 founded the Aspen Institute Berlin, a public-

policy think tank. Schevitz claims that Stone was working for U.S. intelligence and became his "spymaster," directing him to contact the Stasi and feed it disinformation while reporting the Stasi's activities back to American intelligence.

Schevitz says that his position as an academic known in nuclear and technology policy circles and his history as an anti-war activist made him both valuable and credible to the Stasi. His post at the Free University and then later as a staff member at the Nuclear Research Center allowed him to gather information on West Germany's policies on nonproliferation and technology export. Schevitz says he also had access to information from the office of Chancellor Helmut Kohl and several ministries in Bonn.

He claims that he worked with Stone to alter information if it revealed any disparity between West German and U.S. positions. The aim, Shevitz claims, was to play down conflicts among the allies and reduce opportunities for Soviet-bloc agents to exploit them. Schevitz says his spying activities ended when the Berlin Wall came down in 1989. Stone died in 1990.

People familiar with the Aspen Institute confirm that Schevitz and Stone did organize and attend together a number of conferences on energy policy in the 1970s and 1980s. But Aspen Institute Berlin spokesperson Dana Allin says Schevitz' claim that Stone was an intelligence agent "sounds preposterous."

This view is supported by Terry Douglas, who worked as a CIA agent in Berlin from 1976 until 1979, and is now the vice president of a Washington-area consulting firm. Schevitz is "hiding behind the tombstone of Shepard Stone," maintains Douglas, who calls Schevitz' claim to have been Stone's agent "nonsense." The CIA would never have selected someone in such a public position as Stone to be a spymaster, Douglas says, adding that the CIA office in Berlin had nothing to do with the Aspen Institute during his tenure there, which coincides with the first part of the period during which Schevitz claims to have worked for Stone.

Douglas adds that agents would not be given the latitude to create their own disinformation, as Schevitz says he did. An agent would be given information from above to be sure that it was coordinated with "larger campaigns." Finally, says Douglas, German authorities would not be prosecuting the case at all if they suspected it could turn into an international incident. By going public with his account even before charges are filed, however, Schevitz has signaled that he intends to make the case an international cause célèbre if it goes to trial.

–Steven Dickman

Steven Dickman is a free-lance writer based in Cambridge, Massachusetts.

OCEAN RESEARCH

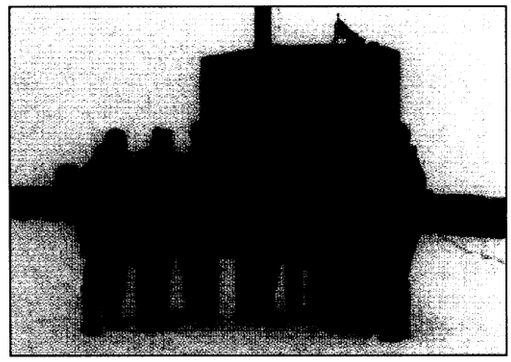
Nuclear Sub Is Researchers' Dream Boat

James Morison knows how difficult it is to study the Arctic Ocean from above the ice pack. The University of Washington oceanographer has spent many long, cold months boring holes in the ice to drop instruments into the water, then traveling to the next site by plane or icebreaker. A year ago, he found a better way. With four other researchers, he slipped under the Arctic ice pack in the *USS Pargo*, a Navy nuclear submarine. In just 3 weeks, he collected salinity and temperature data that led to a new picture of how water from other ocean basins is distributed in the Arctic. "About one third of the [Arctic] ocean changed sides in our minds from being under the Pacific's influence to being under the Atlantic's," Morison says.

To some ocean scientists, that's just a foretaste of the discoveries to come if they could round up support for a scheme to turn a Navy submarine into a dedicated research vessel—and find some way to fund it. As discussed last week at a scientific workshop at the American Geophysical Union in Washington, D.C., the idea is to replace weapons with research equipment on a Sturgeon-class sub. The Navy plans to decommission these 1960s-vintage vessels within 6 years or so, but to oceanographers, especially those studying the Arctic, even an aging submarine would be a boon. The Arctic ocean, notes Woods Hole Oceanographic Institution oceanographer Lloyd Keigwin, a workshop organizer, is "key in climate, and it's amazing how little we know about it."

U.S. scientists have wanted such a vessel for decades but entertained few hopes until the Cold War ended. Then, in 1992, the University-National Oceanographic Laboratory System (UNOLS), which runs the nation's academic research ships, issued a report roughly outlining what a decommissioned Navy sub could offer science. Last week's 2-day workshop, organized by UNOLS and sponsored by the National Oceanic and Atmospheric Administration (NOAA), the U.S. Geological Survey (USGS), and the National Science Foundation (NSF), was convened to flesh out those ideas in a "white paper," or planning document, and to muster scientific support for the concept.

That support was clearly evident among the 50 scientists and government officials who attended. In summaries that working groups presented on the second day, ice dynamicists noted the urgent need to monitor changes in Arctic ice thickness, which could provide an early indication of global warming. Geophysicists said that the use of a submarine would enable them to map the Arctic sea floor in 3 years, thus filling a crucial gap in their picture of global tectonics. Marine chemists saw it as a means of tracking nuclear waste and other pollutants dumped into the Arctic by the former East Bloc countries. And in warmer waters a research submarine could gather data on tropical storms and hurricanes by following them from below.



UNIV. OF WASHINGTON

Scientists on ice. Participants in the 1993 *Pargo* mission come up for air at the North Pole.

But amidst all the enthusiasm, one thing seemed missing: The only participants in uniform were white-clad officers from NOAA, not the Navy. George Newton, a retired Navy submarine commander who is now on the Arctic Research Commission, said the absence was "probably not of significance," as it is the white paper, not the event itself, that will have to win over the Navy. And Keigwin thinks that the Navy may be receptive when the white paper appears a few months from now. He points to the success of last year's trial *Pargo* mission, which has led the Navy to agree to host annual, 45- to 60-day research cruises aboard the *Pargo*.

But Newton predicts that the Navy won't be eager to shoulder the full cost of the program. It would take $50 million to $200 million to overhaul the sub and about $10 million per year to run it, Keigwin says. Garry Brass, executive director of the Arctic Research Commission, who plans to take the scientists' proposal to Congress, says the operating costs could come from the budgets of several agencies; he isn't yet certain who might pay for the overhaul. Keigwin hopes the Navy will take the first step next year by funding a study to pin down the cost of the plan. But so far, the Navy is not commenting.

Keigwin and his colleagues hope that will change soon. In 1992, 10 Sturgeon submarines suitable for ocean research were still in service; by the turn of the century, the number will dwindle to zero. Says Keigwin, "If we don't decide real soon—within 1 or 2 years—it'll probably be too late."

–Jocelyn Kaiser