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

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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