POLITICAL SCIENCE

NSF Candidate Study Irks Congress

Members of the House of Representatives, who face reelection every 2 years, have an intense interest in what motivates potential candidates to run for office. But some are not eager to have social scientists looking into the question. At least 70 members have complained that the research, a $175,000 study funded by the National Science Foundation (NSF) to learn why many qualified people don't enter the fray, is a waste of money, and there have been calls for two separate investigations.

"I think members are concerned about their electability, not about the science that NSF is funding."
—L. Sandy Maisel

Welcome to the latest flap involving NSF's social and behavioral sciences directorate. Two years ago, the directorate survived an attempt by retired Representative Robert Walker (R–PA), then chair of the House Science Committee, to kill it. Now, NSF officials find themselves in the uncomfortable position of defending a social science project—and by extension the peer-review process that funded it—to skeptical members of Congress at the same time NSF's annual budget is under consideration.

In the hot seat are political scientists L. Sandy Maisel of Colby College in Waterville, Maine, and Walter Stone of the University of Colorado, Boulder. The duo began their study last year by soliciting the names of persons well qualified to run for Congress from leading political figures in 200 randomly selected districts. This fall, the researchers will send out a questionnaire asking those would-be candidates about all the factors affecting their decision to run or to stay on the sidelines. Maisel says he believes the study "could tell us a lot about how a democracy works," in particular the factors that discourage such persons from becoming candidates.

But that's not how Representative William Clay (D–MO) sees it. Clay, a 15-term House veteran and the most outspoken critic of the study, has tried unsuccessfully to obtain the names of the districts being sampled (almost half the total of 435) to see if they are, indeed, random. But his main concern, he says, is that there are many more deserving problems facing the nation. "There is never any shortage of good and qualified people [in my district] who feel they could serve in Congress," he declared in a recent press release. "One thing we, as Americans, have never been short of is politicians running for office." Some 70 House colleagues have expressed their opposition to the NSF study by signing a letter to the editor from Clay to two newspapers that have written about the controversy.

In its own letter to every House member, NSF defends the study and explains the rationale behind it, the methodology, and the rigorous selection process by which the grant was awarded. "I expect you may have a natural interest in [this study]—it's your field, it's what you do," writes Bennett Bertenthal, head of the directorate. "[But] the general objective of this study is straightforward. The researchers are interested in understanding the reasons individuals do *not* run for office."

Maisel says he's glad that NSF "has stood up" to Clay's attack, which he characterizes as an attempt to demonstrate that "he's more qualified to judge the quality of a research proposal than a peer-review panel." At the same time, Maisel doesn't think the fight is really about the quality of the research. "We've tried to explain that it's not an attempt to find candidates, nor does it pose a threat to any incumbent," says Maisel. "We've also tried to explain why confidentiality is so important. But [Clay] doesn't seem to want to hear any of that." Adds Maisel: "I think this episode shows that members are concerned about their electability, not about the science that NSF is funding."

Clay has asked the General Accounting Office, the congressional watchdog agency, to investigate the award. And last week, the House spending panel that oversees NSF (see p. 28) approved language asking NSF's inspector general to look into whether the researchers are following their protocol in carrying out the study. Those investigations may give the combatants a cooling-off period. But any truce could be short-lived. A floor vote on the NSF bill later this month will give House critics another forum to air any remaining concerns.

–Jeffrey Mervis

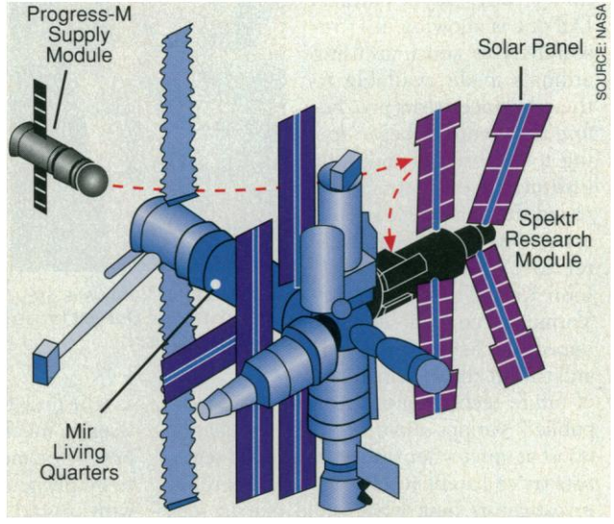
SPACE STATION

Accident Clouds U.S. Future on Mir

Supporters of the international space station are waiting to see if the gash ripped in the Mir space station last week will wreck more than just the science module that served as living quarters and laboratory for U.S. astronauts. Lawmakers on Capitol Hill are pressuring NASA Administrator Dan Goldin to cancel plans for further long-term stays by astronauts on Mir until the agency certifies that the Russian station meets or exceeds U.S. safety standards. Such a step could jeopardize U.S.–Russian collaboration, including the scientific and technical experience that NASA officials say is an important element in assembling and working on the space station.

The accident, in which a Russian cargo module rammed into the Spektr science module while being guided remotely by a Mir cosmonaut, has put NASA in an awkward situation. While the agency is responsible for the safety of its astronauts, the shuttle-Mir program is the cornerstone of U.S. and Russian space cooperation. It serves both as a barometer of goodwill between the two nations and as a mechanism for scientific exchange. The impact of a U.S. withdrawal, says Marcia Smith, an analyst with the Congressional Research Service, "would depend on how gracefully it's done."

The immediate issue for NASA is how to react to language in its 1998 authorization bill, passed by the House of Representatives and pending in the Senate, that calls for the



Damage control. Collision between a cargo ship and the Spektr module could weaken U.S.–Russian space ties.

safety certification. The measure is the brainchild of Representative James Sensenbrenner (R–WI), who chairs the House Science Committee and has been a relentless critic of U.S. cooperation with Russia in space. Sensenbrenner's concerns have been fed by Russia's slow pace in funding its portion of the international space station—the first module of which is slated for launch in just 1 year—as well as a fire and assorted other technical problems aboard the 11-year-old Mir.

"I, for one, can no longer sit idly by as mishap after mishap occur while we continue to plan the next shuttle mission to Mir hoping for, but not really expecting, the mission will succeed without a potentially life-threatening situation," Sensenbrenner said hours after the accident. Sensenbrenner demanded that Goldin immediately launch an independent review of Mir safety and complete it before the next U.S. crew arrives at the station in September to relieve U.S. astronaut Mike Foale. Sensenbrenner told the NASA chief in a private meeting last week that he wants the agency to abide by the certification measure, even though it is not yet law.

One Administration official downplayed the need for an independent review. "NASA already has experts working on this," he says. In the meantime, "we're committed to our space partnership with Russia."

But if NASA does conclude that safety standards are not up to par on Mir and forbids U.S. astronauts to work on the station, it would end what Administration officials say is a critical effort to conduct a host of experiments—from biological to engineering to materials science—in preparation for the international station. "The experience has been difficult, but we're learning from it," says the Administration official. The current mission is the sixth planned U.S. visit out of nine scheduled.

For now, however, Foale will have little science to conduct. Much of the U.S. equipment—including a protein-crystal experiment and some biological devices—is in Spektr, which is sealed off until cosmonauts can patch the hole and repressurize the chamber. The first priority, however, is to fix the damaged power system; a space walk has been scheduled for next week to examine Spektr from the outside.

It's not clear whether the equipment is still in working order after being exposed to the vacuum and cold of space. The module, which was attached to Mir in 1995, also contains Russian geophysical and remote-sensing equipment. But the larger question is whether Mir can continue to serve as an experiment for cooperation among the former superpower rivals.

–Andrew Lawler

ITALY

New Rules Provoke Scramble for Funds

VENICE—Italian university researchers are in a state of near panic this month following the mid-June call for grant proposals under the government's new scheme for funding university research collaborations. Not only are the deadlines tight—applications are due by the end of July—but the ministry for universities and research (MURST) has instituted stringent new requirements for receiving funds. Any joint research between separate groups within a university or groups at different universities must get up to 60% of its funding from a separate source, public or private, to qualify for the new MURST grants.

Across the country, there is now a mad rush to find academic partners with the right funding connections. Already, some researchers are criticizing the new system. Physicist Giorgio Benedek of Milan University says he and his colleagues are still trying to make sense of the new rules. Earth scientist Claudio Eva of Genoa University fears that "the rich will get richer, the poor poorer." Finding partners will be impossible in some cases, particularly in the humanities, he believes, and "many [researchers] are not even going to try." Eva thinks that the new system "is a way to level down, to kill off scientific research, especially frontier, innovative, individual, new directions," because the rules tend to favor large, well-organized collaborations.

Since 1993, MURST has channeled its funding for university research into two streams. Of the $150 million annual budget, 60% has gone straight to the universities to distribute to their own researchers; the remaining 40% ($60 million) has been awarded as grants to collaborative projects. Fourteen subject committees, elected by researchers, awarded the grants without peer review—a system many believed was open to abuse, because committee members could have a personal interest in individual projects. Last month, however, Science Minister Luigi Berlinguer announced a thorough overhaul of the system.

Berlinguer upped the collaborative project budget to $90 million, to include additional funding for large items of equipment. He also replaced the subject committees with a single panel of five senior academics (see table), who will decide each application based on the reports of two referees. According to Carlo Calandra, a member of the new grants committee and president of the National Institute for Physics of Matter in Genoa, the only criterion for selection will be scientific quality. The emphasis, he adds, will be on basic research, with no particular requirement that proposals be innovative or have immediate applications.

Berlinguer also introduced the new requirement of cofunding: Intrauniversity applicants must have 60% of their funding up front, while interuniversity collaborations must secure 40%. Cofunding will allow the support of "more significant and expensive projects," rather than the many smaller projects of the past, says a MURST spokesperson. Franco Jovane, also on the new grants committee and director of the National Research Council's Institute of Industrial Technologies and Automation in Milan, told *Science* that the new mechanism will allow university scientists to pursue "free research ... driving the entire research system ahead."

In spite of the challenge researchers may face in finding partners, the grants committee is likely to receive a mountain of proposals from the nation's 60 universities, from which it will make its selection by the autumn. "Every individual research group will be considering an application," says Gianni Orlandi, dean of engineering at University "La Sapienza" in Rome. But Calandra believes that if the committee is stringent this year, there will be fewer proposals in the future. "The best improvement is ... that we will be selecting only a few, specific proposals and financing them completely. In the past, there was the tendency to finance everything," he says.

–Susan Biggin

Susan Biggin is a science writer in Venice.

THE TEAM OF FIVE

Name	Affiliation	Specialization
Carlo Calandra	President, Natl. Inst. for Physics of Matter, Genoa; University of Modena	Structure of matter
Paolo Fasella	University of Rome "Tor Vergata"; Chair, Synchrotron Elettra, Trieste	Biochemistry
Franco Jovane	Director, CNR* Inst. Industrial Technologies & Automation, Milan; Milan Polytechnic	Industrial production systems
Sabatino Moscati	University of Rome "Tor Vergata"	Semitic philology
Giorgio Pastori	Catholic University of Milan	Administrative law

*National Research Council