Briefings

edited by MARK H. CRAWFORD

Legislators Ease SSC Litmus Test

Getting congressional funding for constructing the Superconducting Super Collider (SSC) won't be quite as hard as it might have been. Under legislation (H.R. 4380) passed by the House Science, Space and Technology Committee on 29 March, only ten of the collider's giant 15-meter-long magnets must be tested successfully before the bulk of construction funds can be released. The committee's chairman, Representative Robert Roe (D–NJ), had sought to require that no less than 50 of the dipole magnets be tested.

In the meantime the House and Senate appropriations committees would be free to provide $1.2 billion in funds to erect SSC laboratory buildings and to build up to 8 miles of tunnel. Additional funding could be allocated to the project after prototype magnets are working and once sufficient nonfederal funding is secured.

The proposed $7.5-billion cap on the project's total cost (*Science*, 30 March, p. 1538), which Roe proposed, was stripped away in response to concerns that the stricture could limit foreign participation in the project. Total federal contributions to the SSC, however, would still be limited to $5 billion. The bill goes to the full House for action in the next several weeks.

NASA Hears Final Sakharov Plea

One of the last letters signed by the late physicist Andrei Sakharov, who died on 14 December, was reportedly crucial in persuading NASA to participate in the Soviet Union's orbiting radio telescope project, RADIOASTRON.

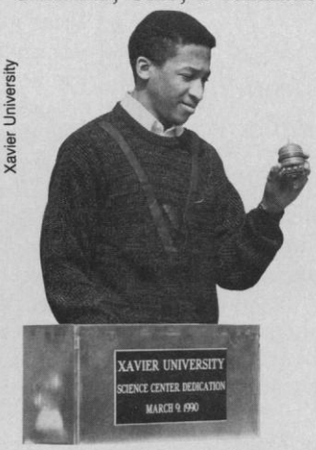
Set for launch in 1993, the telescope is described as a 10-meter-diameter radio dish that could combine its signals with those of ground-based telescopes through a technique known as Very Long Baseline Interferometry. The result should be radio maps depicting quasars and other such objects in unprecedented clarity and detail.

Sakharov's 2 December letter, which was cosigned by the eminent Soviet physicist Vitaly Ginzburg, said NASA could help by tracking RADIOASTRON as it passes over the Western and Southern hemispheres, where the Soviets have no tracking stations, and by providing data recorders like those used for NSF's Very Long Baseline Array project to keep the ground and space systems compatible.

On 8 March, White House National Space Council gave NASA the go-ahead to do both of those things. Although Soviet and U.S. scientists have been discussing such collaboration for years, the letter was "absolutely crucial," says MIT radio astronomer Bernard Burke. "NASA didn't believe that the project had significant scientific support, either within the Soviet Union or in the international scientific community. The letter proved that there was such support."

Xavier's High-Tech Time Capsule

There may be nothing new about college students planting time capsules in building foundations, but Xavier University's undergrads will be giving the tradition a high-tech twist. The Jesuit university in Cincinnati, Ohio, is commemorating the construction of its new $7.5-million science center with a time capsule crammed with journal articles, biological samples, instruments, and other materials, all connected with the fields of biology, chemistry, and physics.



Xavier University

Future shock. *A student readies a dynamo for Xavier's capsule.*

Imagine the student, archeologist, or simply curiosity seeker of the year 2040 sliding away the building's cornerstone and opening the Xavier time capsule. There will be a freeze-dried sheep's brain, the Surgeon General's report on AIDS, Lange's *Handbook of Chemistry*, a T-shirt bearing Maxwell's equations on the behavior of light, four of International Business Machines' most advanced 4-megabyte integrated circuits . . . and of course an article from *Science* on the current controversy over taxonomic groupings of organisms.

Science Education Reform Gets Money

The National Science Foundation is once again trying to reform precollege science education. This time the agency is offering grants to states to do anything they want to promote systemic, statewide improvements in science and math education.

But, there's a catch: "All elements of each state's educational system and the political institutions that support state education will have to be involved." That means that applicants will have to achieve a consensus among political leaders, school officials, unions, parent groups, and presidents of colleges and universities on what to do with the new funding.

At a 27 March press conference, NSF director Erich Bloch said that in the first year, the agency expects to select four to eight states from competitive applications. Each will receive $1 million to $2 million a year for up to 5 years. NSF science education director Bassam Shakhashiri said a hallmark of the program is flexibility.

Proposals may vary widely—for example, a plan might focus on the preparation of middle school science teachers, on mathematics curricula, or on incorporating quality materials into high school biology. Plans might also be geared to improving student motivation, teacher retention, and educational facilities. The deadline for preliminary proposals is 9 July.

Utah Scientist: No Cold Fusion

A report in the 29 March issue of *Nature* would seem to send the notion of cold fusion into deep freeze. Michael H. Salamon, a physicist at the University of Utah, reports that he could find no trace of a nuclear reaction when he and colleague Ed Wrenn examined chemist Stanley Pons' "cold fusion experiment" last May and June.

But Pons, a University of Utah chemist, is attacking Salamon's results, which were outlined last fall to local reporters in Utah after being submitted to *Nature* in September. The findings took a while to get published, says Salamon, because he had to condense his lengthy paper to meet the journal's space requirements.

Pons reportedly told the Associated Press that Salamon ignored cells that were producing significant amounts of heat. Salamon's reply: "If there had been any cells producing any amounts of excess heat by means of a normal fusion reaction, our instruments would have detected it." In a column in Salt Lake City's *Deseret News*, Pons and collaborator Martin Fleischman of the University of Southampton in England also question *Nature*'s motives for publishing the results, claiming that the publication is biased.