

combed the crash site and subsequently decided the satellite had completely burned up during reentry and that the plutonium had dispersed as a fine dust in the atmosphere (*Science*, 10 November 1967, p. 769). Over the years, the plutonium slowly worked its way down to the surface of the earth, mostly in the Southern Hemisphere. By 1970 about 95 percent of the SNAP plutonium had settled out of the atmosphere. The contamination was not unprecedented but it was quite large. During the days of atmospheric nuclear testing, some plutonium had spread throughout the atmosphere. In contrast, the U.S. satellite fiasco was estimated to have resulted in a three-fold increase of plutonium-238 contamination (*Nature*, 16 February 1973, p. 444).

The possible health effects of the accident have not been studied in depth. But a 1974 report (WASH-1359) by the now-defunct Atomic Energy Commission (AEC), which managed the space reactor program, said they appeared to be minor.

After the SNAP-9A accident, two other misfortunes befell the U.S. space nuclear power program. In neither case was plutonium released into the atmosphere. The first occurred in May 1968 when a Nimbus weather satellite failed to achieve orbit and plunged into the Santa Barbara Channel off California. Its plutonium power pack, known as SNAP-19, was recovered intact. The final accident occurred in April 1970 when the Apollo 13 moon-landing mission was aborted because of an onboard fire. The command module and the three astronauts were successfully picked up. The lunar lander, however, plunged to the floor of the Pacific Ocean and could not be found. It is estimated that its plutonium fuel pack, known as SNAP-27, will remain intact for about 860 years.—**WILLIAM J. BROAD**

Einstein Papers Project Gets NSF Interim Grant

The National Science Foundation (NSF) has awarded an interim grant of \$120,749 to the Princeton University Press project to publish the Einstein papers. The grant will underwrite editorial work while NSF considers long-

term support of the project. Publication of the first volume of the papers is expected in 1984. The new NSF funds will also be used to finance an experiment in translation of German to English to determine how much translated material should be included in the full edition.

In accordance with the Einstein will, the original material in the Einstein archive has recently been transferred to the ultimate heir, Hebrew University in Jerusalem. The archive is now stored in the rare books section of the Jewish National and University Library in Jerusalem. Professor Reuven Yaron, who is in charge of the archive, says the material will be photocopied for use there by researchers and that original material will be available if necessary to bona fide scholars.

—**JOHN WALSH**

Lame Ducks Spurn Arthritis Institute, Energy R & D

In the final hectic days of the lame duck session, Congress reprieved the Clinch River Breeder Reactor by a single vote. It was not so kind to basic energy research, however, and failed to pass several measures related to biomedical research.

One prominent casualty was the creation of a new arthritis institute in the National Institutes of Health (NIH). Creation of the institute was originally included in the NIH authorization bill, but Congress did not vote on that measure. A separate bill to establish the institute was passed by the Senate, but died in the House.

Several other proposals related to biomedical research were floating around in the lame duck session, but none of them won approval. In particular, Representative Henry Waxman (D-Calif.) and Senator Robert Dole (R-Kans.), touted animal welfare bills, and Senator Jesse Helms (R-N.C.) and Representative William Dannemeyer (R-Calif.) sought restrictions on fetal research.

The NIH authorization bill was regarded as the vehicle for these proposals, but Senator Orrin Hatch (R-Utah) kept the bill from the Senate floor to prevent Dole attaching an amendment restricting the use of animals in research.

With the NIH bill dead, antiabortion groups and others tried to hook onto another piece of legislation—a bill that would extend the life of the President's Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioral Research. At one point, it seemed that the bill would be loaded down with controversial amendments, but in the end, it, too, was not brought up for a vote.

The commission, which was due to expire on 31 December, was, however, given a 3-month extension under the continuing resolution—the legislation that provides stop-gap funding for all government agencies whose appropriations bills have not yet been passed. The commission requires the extra time to edit and publish its final reports.

The continuing resolution also contains funds for the Clinch River reactor. The reactor, the largest energy project funded by the Department of Energy (DOE), escaped by the skin of its teeth, however. The House voted to knock funds for the project out of the continuing resolution, but the Senate, by a vote of 49 to 48, agreed in the wee morning hours of 17 December to keep them in. By all accounts, the breeder was saved by the direct personal intervention of Senate Majority Leader Howard Baker (R-Tenn.), in whose state the plant will be built. The Senate and House resolved their differences by agreeing to fund the plant, but banning major construction or major equipment purchases unless approved by the next Congress.

Energy research did not fare so well, however. The continuing resolution specifies that DOE's research will be funded during fiscal year (FY) 1983 at FY 1982 levels. This means that increases planned for high energy physics and to operate new machines such as the National Synchrotron Light Source at Brookhaven will not be available. If Congress passes an appropriations bill for DOE next session, these increases could still be approved. But bringing an appropriations bill to the floor could again threaten the funding for Clinch River, and the appropriations committee may thus elect to fund DOE for the whole year under the continuing resolution. High energy physics would then be held hostage to the breeder.

—**MARJORIE SUN and COLIN NORMAN**