
West Germany Increases Space Research Funds

London. The government of West Germany last week approved a 4 year space program costing 3.9 billion DM (\$1.6 billion). Of this total, 11 percent, or just under \$150 million, will be spent on basic research, including funding for a new x-ray satellite—ROSAT (for Roentgen satellite)—to be developed jointly with the British Science and Engineering Research Council and the U.S. National Aeronautics and Space Administration (NASA). Overall, the approved budget allows for an annual increase in Germany's space budget of about 5 percent a year. This is roughly equivalent to the current West German inflation rate, so that in real terms spending is likely to remain constant. However, in commenting on the new budget, West German technology minister Andreas von Bülow, said the program still compared favorably to the space research and development efforts of both France and Japan.

The budget contains an increase in domestic spending on space science which, officials in Bonn said last week, is partly a reaction to reluctance on the part of the European Space Agency (ESA) to raise its own efforts in this direction. West Germany has for some time been trying to persuade the other members of ESA to make a substantial increase in its space science budget, which has remained virtually constant in real terms for the past 10 years.

Earlier this year, however, ESA agreed on a budget for the 5 years up to 1986 which included a rise of only 3 percent for space science. This was not enough to satisfy the Germans, who have now said that no more than 50 percent of their space research should be conducted through the international agency. Bonn officials point out that although their contribution to ESA will rise by about 5 percent next year, this is only about half the current European inflation rate, so that in real terms their contribution will be reduced.

Major projects within the German 4-year space program include the development of a retropropulsion system for NASA's Galileo mission to Jupiter, and research to be carried on

board the shuttle-launched Spacelab, including a mission dedicated to materials research in 1985.

—David Dickson

Still One Monkey to Go

Maryland psychologist Edward Taub, who was convicted last fall of animal cruelty for failing to provide adequate veterinary care to six of the monkeys in his care, was cleared of all but one charge in an appeal in early July. The jury sustained the conviction for one animal whose arm had to be amputated because of infection. At the end of the 3-week trial Taub, who has cast himself as a martyr in the cause of scientific freedom, said he would appeal the case further. Taub's 16 monkeys remain in the custody of the National Institutes of Health (NIH); he still has to make improvements in his lab before he can reapply for his NIH grant which is in suspension.—Constance Holden

PR for Nuclear Energy

The Committee for Energy Awareness, formed to give the nuclear industry's side of the energy story following the Three Mile Island episode, is gearing up to launch a \$40-million media campaign next year.

So far the committee has conducted a test run in Grand Rapids, Michigan, of four radio and television spots, on the subject of radioactivity and nuclear waste disposal. The ads were highly successful judging from the results of polls the committee took before and after the 10-week test. For example, says William Harris of the committee, the number of people who believe that less than 10 percent of radiation to which humans are exposed comes from nuclear power plants increased from 48 to 59 percent. Perhaps more significant, 41 percent of the respondents affirmed that "a procedure has been developed for the safe, permanent disposal of nuclear waste"—up from 21 percent before the announcements were aired. (The committee did not ask respondents whether they thought a permanent repository had been developed.)

The prospect of a nationwide nuclear energy information blitz has proponents of renewable energy sources scrambling for their lawbooks. The fairness doctrine requires stations to give time to the other side in controversial public matters. However various factors, such as total time allotted to a certain message, the frequency of airing, and the size of the audience have to be taken into account, which means getting alternative messages on the air will require a lot of tiresome negotiating with radio and TV stations.—Constance Holden

EPA Issues

Hazardous Waste Rules

After years of debate, the Environmental Protection Agency (EPA) announced on 13 July the final standards for the disposal of hazardous waste in land sites. The new rules constitute one of the most comprehensive regulatory actions taken by the Reagan Administration and were met with general acceptance by industry and environmental groups involved in the 6-year-old controversy.

The standards cover new and existing landfills, impoundments, and other facilities that treat, store, or dispose of hazardous waste. EPA administrator Anne M. Gorsuch stated that the rules "ensure that the health of the American people will not be compromised and that their drinking water will be fully protected."

David Lennett, a staff attorney for the Environmental Defense Fund, calls the rules covering new facilities a "sound approach." But he says the ones concerning existing sites are "fairly weak."

Lennett says, for instance, that the rules require only new facilities to install a liner to prevent leaching, but exempt existing sites. He argues that the existing facilities, which total more than 2000 sites, should put in liners unless doing so either would be technically unfeasible or would increase health or environmental hazards. He says that the burden of proof should be on the company and that each facility should be examined case by case. An EPA official said that the agency does not have the resources or personnel for such monitoring.

Lennett also objects because the rules do not require companies to have on hand the financial resources necessary to clean up a site in case of contamination or leaching. He contends that without this assurance, the federal government may be held liable for cleanup expenses should contamination occur.

EPA estimates that the regulations may cost industry as little as \$150 million or as much as \$1.1 billion, depending on the number of firms that need to modify their facilities and on whether companies choose the cheapest or the most expensive methods to conform with regulations covering landfill sites and ground water cleanup. A spokesman for the National Solid Waste Management Association says the rules are technically feasible but that the cost of implementation may drive some small companies out of business. Large firms will be unaffected, he says.

The new rules, which go into effect in 6 months, were developed as a result of the Resource Conservation and Recovery Act of 1976. For various reasons, the agency has been slow to issue them (*Science*, 16 April, pp. 275-276). Although the rules are a significant accomplishment, the agency has yet to address the more general question of whether hazardous waste is more appropriately disposed of in landfills or by alternative methods such as incineration.

—Marjorie Sun

NRC Puts Limit on Mental Stress Tests

When the Court of Appeals ruled last May that the Nuclear Regulatory Commission (NRC) must take mental stress around Three Mile Island (TMI) into account in deciding whether to permit restart of TMI's undamaged reactor, it caused some mental anguish in the nuclear industry and the agency. The ruling was widely held to mean that mental stress must be considered in all NRC licensing processes, (*Science*, 11 June, p. 1203).

The NRC has now relieved some of the anxiety, however. On 15 July, NRC announced that it interprets the court ruling to apply only to TMI, not to power plant licensing in general. This

narrow interpretation would significantly weaken its impact. In addition, NRC has asked the Solicitor General to appeal the ruling to the Supreme Court. The owner of TMI has already filed an appeal.

It is not even clear what NRC will do in the TMI case. The appeals court ordered NRC to determine whether significant new data are available on the mental impact of restarting TMI's No. 1 reactor and then to decide whether a new environmental impact statement should be written. But on 15 July, the commission told TMI's operator, General Public Utilities, that it does not yet have enough information to make such a decision. The company had petitioned for a rapid ruling.

The commissioners voted 4 to 1 to reject the utility's request. Victor Gilsinsky, the sole dissenter, charged that NRC "seems to be more interested in keeping alive controversy in order to justify Supreme Court review" at the cost of deferring a decision to restart the reactor at TMI.

—Marjorie Sun

Heart Institute Gets New Director

A veteran of the National Institutes of Health (NIH), Claude Lenfant, has been appointed director of the National Heart, Lung, and Blood Institute. The heart institute, with a budget of \$550 million last year, is the second largest of the 11 institutes. (The National Cancer Institute has the biggest budget, just shy of \$1 billion.)

Lenfant, 53, has been head of NIH's Fogarty International Center since 1981. The center handles much of NIH's international biomedical affairs. In 1970, he became the first associate director of lung diseases at the heart institute. Lenfant is a graduate of the University of Paris and was formerly a faculty member at the University of Washington at Seattle. He is the third director to be selected recently from within NIH ranks by top director James B. Wyngaarden.

His appointment leaves three directorships vacant at the institutes for aging, dental research, and neurological and communicative disorders.

—Marjorie Sun

Debate Stirred by New Love Canal Report

A new chapter has opened in the continuing controversy over hazards associated with a chemical waste dump in the Love Canal area of New York. A report, issued on 14 July by the Environmental Protection Agency (EPA), concludes that chemicals from the dump have migrated only as far as the homesites immediately adjacent to it, and that further contamination is unlikely. Consequently, the Department of Health and Human Services, after reviewing the EPA study, has concluded that most of the homes in the surrounding community are safe for habitation.

The report appears to repudiate the government's position in 1980, when nearly 600 families were evacuated from the neighborhood at a cost of \$20 million in public funds. It is based on extensive analysis of more than 6000 samples from the area taken late in 1980, after the evacuation. Although it is expected to clear the way for the resale of most of the homes by the state, the report has attracted some criticism from Love Canal residents and the New York congressional delegation.

Senator Daniel Moynihan (D-N.Y.), for example, issued a statement calling it "messy and inconclusive." His interpretation differed sharply with that of a panel of federal scientists that reviewed the results and said explicitly that the area in question "is as habitable as the control areas with which it was compared." But residents and some scientists who acted as consultants to the government say that the study methodology might have been flawed, and that the HHS conclusion is too liberal. These disputes may be sorted out this week or next during hearings of the House subcommittee on commerce, science, and transportation, under the chairmanship of Representative James Florio (D-N.J.).

Two days before the EPA results were released, the New York state attorney general released a more limited study that uncovered high levels of dioxin, a highly toxic chemical, in homes adjacent to the dump. EPA says the state report is consistent with its conclusions.—R. Jeffrey Smith