whether the radiation emitted by solar flares would fatigue or sicken astronauts in space.

The fundamental questions Gore asked were: Did the Institute's desire to collect experimental data affect choices of therapy, and did the therapy harm the patients? The hearing demonstrated that some of the research was closely coordinated with the effort to collect data for NASA. It did not show that patients were harmed or deprived of good medical care because they participated in experiments. In fact, many were given conventional therapy and benefited from it. Those who volunteered for experimentation had failed to respond to standard treatment. That, at least, was how the system was supposed to work. Whether or not it did in every case is not as clear.

Mary Sue Sexton, mother of Dwayne, told the subcommittee that she felt she had been "betrayed . . . lied to, and misled" by the physicians at the INS clinic. She had not felt that way at first, she explained, but only after she learned recently from a journalist that her son might have lived if he had been given a course of standard maintenance chemotherapy. Instead, he was given a partial course of chemotherapy and then an untried form of immunologic therapy. The treatment failed. The child was then given "maintenance chemotherapy," and, when all else had failed, a single large dose of gamma radiation.

Although Mrs. Sexton said that she was not fully informed of the risks that she and her son were taking, she did sign a consent form that described the proposed experiment in simple terms and noted that conventional treatment had been freely offered as an alternative. The Sextons clearly volunteered.

The subcommittee called on two scientists as independent commentators: Robert Wiernik, director of the Baltimore Cancer Research Center, and Eli Glatstein, chief of the radiation oncology branch of the National Cancer Institute. Neither found any evidence in the material produced for the hearing that patient care at the INS clinic had been altered to suit NASA's needs. At the same time, they said, the research protocols and consent forms used did not meet the highest standards.

The Sexton case did not cast light on the controversy involving low-level radiation studies of interest to NASA. Sexton, after all, was exposed to a high level of radiation. Officials who were at INS argue that the Sexton case would not have been included in NASA's data bank under any circumstances, because NASA was interested only in adults.

Nevertheless, Gore did produce evidence showing that INS researchers felt pressure to find data for NASA. In the example that Gore cited, the INS' medical director Andrews—to his credit—refused to participate in what he considered unethical experiments involving prisoners in California, as had been proposed with "enthusiasm" by a NASA official.

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Gore also quoted from an INS budget report to NASA on low-dose radiation experiments planned for 1970 which said: "An active canvassing program for increasing our utilization of these facilities has been developed. . . . We anticipate that this program will produce a greater influx of patients than we have experienced in the last 2 years." The same memo informed NASA that "We now believe we are ready to use regularly spaced, carefully selected, repeated small exposures over a small period of many months in an effort to maintain more uniform control of disease. . . . We will use therapeutic irradiation scenarios derived in part from 'space radiation profiles.' . . . These may be based either on intelligent conjectures or actual experience measured in space . . ." However, Gore did not cite evidence showing that this desire to please NASA had any detrimental impact on care at the INS clinic.

Gore said that he had called the hearing to find out "whether the people involved in this program were treated in the best possible way for their welfare or whether they were in any way dehumanized in the search for some other social good." Neither he nor the committee staff has passed judgment on that question yet, but they promise to do just that in a written report now being prepared.—ELIOT MARSHALL

Arms Control Teach-ins Planned by Scientists

The subject is Armageddon, but the people meeting to learn about it on 90 college campuses this fall will not be gathering to hear revivalist preachers. On the contrary, they will hear talks given by some profound materialists: nuclear physicists, computer scientists, and electrical engineers from America's best universities.

The occasion, scheduled for Veterans Day, 11 November, is being called the "Convocation on the Threat of Nuclear War." The prime sponsor is the Union of Concerned Scientists (UCS), an independent group with strong ties to the Massachusetts Institute of Technology (MIT).

The purpose of the campaign, according to a draft statement circulated by UCS, is to educate Americans about the "threat of nuclear weapons, the growing possibility of nuclear war, and the urgent need to reduce the risks. . . . If properly organized, these events will identify a group of individuals who might participate in and help" organize future arms control efforts.

To insure that the message gets beyond the confines of academe, the UCS has budgeted for expenses of about $50,000 and secured the help of some skilled political advisers. Two of these are Carl Wagner, a former field campaign manager for Senator Edward Kennedy (D–Mass.), and David Brunell, a longtime activist in congressional reform movements.

The person who conceived this campaign is Henry Kendall, chairman of the board of UCS and a professor of physics at MIT. In January he commissioned an in-house study of the technological and political factors inhibiting arms control. By June he had become so concerned about the chaotic state of U.S. weapons policy that he felt some emergency action was called for. Until recently, the UCS has focused chiefly on the commercial nuclear sector. Suddenly, arms control has been made the first priority. Kendall insists, however, that older projects will not be neglected as a result.

Kendall and UCS' executive director, Eric Van Loon, say they have been surprised by the strength of the response they have received. They

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made the first tentative plans for holding teach-ins on 12 campuses in August. By Labor Day they had easily recruited sponsors for meetings at 30 campuses. A month later, 90 had signed up to hold meetings. Van Loon is also surprised to find that among the sponsors are many universities, as he says, that usually show more interest in their athletic teams than in strategic weapons policy.

The list of those speaking at or sponsoring convocation meetings includes many familiar names. Among them are Nobel winners Hans Bethe and Owen Chamberlain, former Secretary of State Cyrus Vance, President of the California Institute of Technology Marvin Goldberger, Jerome Wiesner of MIT, Robert Goheen of Princeton, and Paul Warnke, the former director of the Arms Control and Disarmament Agency. "We have essentially drained the pool of people who are knowledgeable and able to speak about arms control," says Kendall.—***Eliot Marshall***

NIOSH Move Is Postponed

The Administration's plans to transfer the National Institute for Occupational Safety and Health (NIOSH) from the Washington, D.C., area to Atlanta have been "postponed indefinitely," NIOSH director J. Donald Millar said on 8 October.

The institute headquarters, now located in Rockville, Maryland, was scheduled to move on 1 November to the Centers for Disease Control, the agency which oversees NIOSH. But recent congressional action has "stymied" the transfer, Millar said.

On 6 October, the House by voice vote vetoed funds to be used for the move. But even before the full House voted on the issue, the Administration said plans for the relocation were up in the air because the House Appropriations Committee and a Senate appropriations subcommittee had earlier disapproved transfer funds.

Millar said, "We have not abandoned the idea of transferring NIOSH. We still think it's the right thing to do, but we will go along with congressional intent." He said that the Administration might wait until January to make its case before Congress when the next round of agency appropriation hearings begins.

The Administration believes that relocating NIOSH in Atlanta will help the troubled institute operate more efficiently. But others, such as former NIOSH director John Finklea, argue that the transfer does not guarantee an improvement of what many consider a lackluster performance by NIOSH (*Science*, 9 October, p. 166). Some NIOSH researchers caution that prolonged indecision about the move may hurt staff morale.—***Marjorie Sun***

French Discuss Reviving 1968 University Reforms

The French government has initiated a new round of university reforms. Among other things, the reforms are intended to restore to students and junior staff the larger role in university governance that was originally granted to them in the wake of student turmoil in 1968. Government spokesmen say that the aim is to reverse an "antidemocratic evolution" that has occurred in recent years in university internal relations.

The Mitterrand cabinet decided specifically to repeal measures taken by the previous government that, for example, gave heavier representation on university councils to senior professors. At issue also is the method by which university students have voted in university elections.

The government's "project" for change has received preliminary discussion in the Chamber of Deputies and the Senate. Under the timetable put forward, the Mitterrand government will offer parliament a comprehensive revision of the law governing France's national system of universities by 1 October of next year. The proposals are expected to cover a broad range of issues, from requirements for degrees to election of university rectors. The debate is also expected to include the question of access to higher education.

Reform of higher education is one of several social and economic issues currently on the national agenda, including discussion of a government decision to trim France's ambitious nuclear power program by ordering six reactors in the next two years, a third fewer than planned by the previous government.—***John Walsh***

Senate Gives Blessing to Baby Bell

After a 5-year struggle to overhaul the nation's communication laws, the Senate passed a bill on 7 October that would deregulate vast portions of the U.S. telephone industry and allow a subsidiary of the Bell System, nicknamed Baby Bell, to sell computers and enhanced telephone services. The House is expected to pass a companion bill early next year.

The bill requires the Bell System to retain one federally regulated arm to provide long-distance and local service. However, the products and services of Baby Bell—including equipment (such as telephones), enhanced services (such as call forwarding), and new electronic ventures (such as computer terminals)—would be free of federal regulation. AT&T, whose assets of $135 billion are five times larger than those of IBM, is currently prohibited from marketing computers under the provisions of a 1956 consent decree, which ended a federal antitrust suit.

The Senate bill also frees from regulation the flock of new telephone companies which, during the past 5 years, have successfully competed with Bell for an increasingly large share of the long-distance market.

Critics of the Senate bill, led by Ernest Hollings (D–S.C.), say the requirements for financial separation between the old and new Bell companies are not stiff enough and that revenues from the parent company could be used to give Baby Bell an unfair competitive advantage.

If the Senate bill eventually becomes law, it will be the first comprehensive revision of the Communications Act since it was adopted in 1934. Passage also might force the Justice Department to drop its 7-year-old suit that seeks to break up the Bell System. An agreement to drop the suit with the passage of appropriate legislation was reached earlier this year during cabinet-level deliberations within the Reagan Administration.

—***William J. Broad***