both many orders of magnitude below the quantities used by chemical firms or by commercial industry. Anson Keller, the OSHA attorney directing the carcinogen policy review, noted also that the frequency and variety of use are different: "We're sympathetic to the fact that it would be infeasible to monitor for exposure to several different substances that commonly exist in a lab, and to the fact that many of these sit on the shelf most of the time, to be opened only once a year," Edward G. Rall, the director of intramural research at the National Institute of Arthritis, Metabolism, and Infectious Diseases, suggested a further distinction at the HEW hearing: "OSHA has proposed considering a substance carcinogenic if it is shown to be so in two animal species or one animal species and a short-term test. Among the substances that would fit this category, there are great differences in danger to a lab worker, largely due to differing volatility, the availibility of solvents, and the likelihood of absorption by the skin. Benzene, for example, is clearly a more worrisome chemical than ferric oxide." OSHA's proposal, he added, would not make such distinctions. Finally, several others, including ACS president Anna Harrison, have made the point that laboratory workers possess a special awareness of the chemical hazards with which they must cope and thus require less regulatory direction.

Toxicologist Grover Wrenn, OSHA's director of health standards, says he is sympathetic to most of these points, although "just because an employee is highly trained does not make him immune to the effects of exposure to carcinogens." As of now, the agency officials are willing to commit themselves only to the declaration that "OSHA has

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Glaser Seeks $200 Million for Orbiting Power Plants

"Some people call us an aerospace lobby," Peter Glaser said the other day, "but that's about the farthest thing from what we are." The Sunsat Energy Council, of which Glaser is the president, is a nonprofit educational organization that seeks to promote the cause of solar-powered, electricity-generating satellites. These satellites would collect sunlight while in synchronous orbit above the Earth and beam down microwaves to receiving antennas, which would convert the energy to electricity for commercial use.

It is a rather specialized cause, but not without influence. Glaser is a vice-president of the Arthur D. Little Company and a 25-year veteran in the campaign to have his solar satellite concept given serious attention by the government. It may be gaining ground. The founding of the Sunsat Council in Washington, D.C., last March suggests that the government has now invested enough capital in the idea to need the kind of ready and expert guidance in spending its funds that Sunsat is eager to provide.

Sunsat, based in the Watergate building, has retained as legal counsel former Senator Frank Moss, who was chairman of the Senate Committee on Aeronautical and Space Sciences. Moss is experienced not so much in the bookish as the pragmatic side of law. Other members of Sunsat's executive group are such solar power enthusiasts as I. Grant Hendrick of Grumman Aerospace, Max Johnson of Westinghouse Electric, David Keller of General Electric, Arthur Kantrowitz of Avco Everett Research Labs, Ralph Nansen of Boeing (who does public relations for Sunsat), and others from aerospace firms and universities.

A bill that Sunsat members endorsed, giving $25 million in fiscal 1979 to the Department of Energy and NASA for solar satellite research, nearly passed Congress this fall. It failed at the last moment, on 5 October, largely because environmental lobbyists raised strong objections to it and persuaded a handful of senators to bring their doubts before the Senate Energy Committee, which was considering the bill. Garry DeLoss of the Environmental Policy Center, leader of the opposition, called the proposal "pork barrel in the sky."

DeLoss pointed out that, in order to meet the test of economic value, the satellite's promoters have achieved economies of scale by stipulating that 100 of these power stations will be launched in the next 30 to 40 years. This requires $40 to $80 billion in front-end research and development money, the design and production of two new types of space vehicle to carry material, a factory in space manned by several hundred workers, a new launch site other than Cape Canaveral that could manage four or five landings and launchings each day, and 100 receiving antennas on Earth covering 30 square miles each. DeLoss objected most strongly to the loss of local control over utility construction and pricing decisions that a massive 30-year plan like this one implies.

Glaser, for his part, feels harried by something akin to religious fanaticism. The opposition to his proposal, he said, is "a tyranny" because it seeks to prevent research on ideas that it dislikes. Asked why the $15 million already approved for solar satellite research was not adequate, Glaser said that this amount was "too low for visibility." He would like to see at least $200 million spent over the next 5 years—putting satellites "on a par with windmills." He expects the next Congress will be more generous than the 95th.

China Shops for American Satellite

While joint space efforts with the Soviets are in decline since the Apollo-Soyuz mission, the United States is preparing to share space technology with the government of Communist China. According to a recent report in the Associated Press, the Carter Administration has now told the Chinese that they will be allowed to buy an American communications satellite system. A spokesman for the National Security Council refused to give any details on the sale, other than to say that discussions with the Chinese proceed apace. He did not deny the accuracy of the AP story. A second official took issue with the suggestion that the Soviet Union would react negatively to the sale. "There might be some negative propaganda," he said, but he doubted that the Russians would be seriously aggrieved.

The Pentagon has not been asked yet to review the strategic importance of the sale, and indeed, it may never be. According to an official with firsthand knowledge of the project, the satellite will not be considered a strategic item in any formal sense. "Given our knowledge of the base sites," and knowing the limitations of the satellite, he said, there can be no

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no intention of interrupting the handling of carcinogens by research laboratories in a reasonable fashion," as voiced by David Bell, the agency's director of technical support.

In considering the possibility of an exception, Wrenn said he was vexed by the difficulty of isolating research laboratories from other small users of carcinogens in a manner that would withstand judicial challenge. According to Wrenn, however, if a special provision in the cancer policy is made for labs, an alternative to singling them out legally may be to make the language of the regulations sufficiently flexible so that organizations such as laboratories that use chemicals in small concentrations may avoid undue costs. In 1974, OSHA accomplished much the same objective by exempting from its standards any chemical mixtures containing less than 1 percent of the carcinogens.

Wrenn said that HEW "might be a convenient forum for developing rules on occupational exposure to carcinogens in laboratories because it's such a highly regarded institution," but acknowledged that, up to now, no thought had been given to using that forum. After the HEW hearing, Wrenn said he would probably write the HEW committee a letter and then go sit down and talk with them.

A sticking point that could prevent HEW's rules from filling the gap left by an OSHA exemption for labs is the intention of HEW not to monitor or enforce its rules, offering them instead for adoption or adaptation as laboratories see fit. Whether or not this will be a factor in OSHA's decision will become apparent in the next few months; Wrenn says the agency is determined to promulgate a final standard before the year is over.—R. JEFFREY SMITH

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doubt that this is a "bona fide civilian system." Some observers speculate that the satellite could be used to improve Chinese military communications, particularly with outposts along the Russian border. But the U.S. export license, according to this official, will specify that the satellite is to be used only for civilian communication and for educational purposes.

Congress Drops HEW Plan to Control Hospital Budgets

America's hospitals slipped from the yoke that the Carter Administration fashioned for them this year when the hospital cost containment bill died in the House Ways and Means Committee on 14 October. In its original form, the bill put spending limits on all major hospitals in the United States, allowing each an annual budget increase of no more than 9 percent. Hospital budgets increased by more than 15 percent in 1977.

The control plan was never very popular among physicians, hospital administrators, hospital owners, labor union leaders, or state health officials. "There were problems getting a constituency for it," was the mild explanation given by Grant Spaeth, deputy assistant secretary for health legislation at the Department of Health, Education, and Welfare (HEW).

To smooth the way in Congress, the bill's advocates made changes during the debate that let some interested parties off the hook. Representative Dan Rostenkowski, who chairs the Ways and Means subcommittee on health, suggested that the hospitals be put on trial for a couple of years and given a chance to meet the bill's anti-inflation goals without having government clamps applied. This voluntary plan was warmly embraced by the hospitals, for it offered an alternative to the dreaded reign of federal bureaucrats.

According to the Rostenkowski plan, the hospitals would automatically bring federal regulators down on their head if they failed to meet the voluntary objectives. The Administration agreed to this compromise, and it also agreed to exempt hospital workers from the controls. This pleased the unions. Small hospitals with fewer than 4000 admissions a year were exempted as well. These and other last-minute tinkerings softened the bill sufficiently to make it acceptable to a majority of the Senate. It passed in a surprise vote on 12 October. This action briefly revived HEW's hopes of winning a symbolic victory for controls. But in the final hours of the 95th Congress, the Ways and Means Committee would not consider the Senate bill. At this point, HEW's strategists gave up for the season. They concluded that it would be better to lose honorably than to skirt the committee, force a vote on the House floor, and risk the future wrath of offended committee members.

The exercise had an impact, however. The mere prospect of having HEW Secretary Joseph Califano installed as bursar was enough to set the hospitals on a feverish campaign of self-reform. The American Hospital Association, along with some fellow groups, created an official "Voluntary Effort" program to reduce costs. According to the AHA, the rate of inflation in costs has declined as a result—from 15.6 percent in 1977 to 12.8 percent this year. The American Medical Association has joined in, too, by asking physicians to slacken the rate of acceleration in fees to no more than the rate of increase in the consumer price index.

NAS to Select Scholars for China Exchange Program

The National Academy of Sciences is inviting American scholars in Chinese studies to apply for ten government-financed fellowships that will pay for living and studying in China for the next year. As part of the technological exchange program negotiated by White House Science Adviser Frank Press, the United States will send seven students to China for a year beginning next January, and three more for a shorter term beginning in the spring. Because the program is being put together as rapidly as possible, the deadline for application is early—13 November.

Pierre Perrolle, a spokesman for the Committee on Scholarly Communications with the People's Republic of China, said that two types of fellowship are being offered. The first seven will be for American graduate students or recent Ph.D.'s, preferably with 3 years of training in modern Chinese, who want to spend a year studying the language or taking courses at Chinese universities. The second three will be for senior scholars in "any of the sciences" who would like to do research in China for 3 to 12 months. There is no formal language requirement, but there is the caveat that work must be done within the present Chinese academic framework. "In other words," Perrolle said, "you can't go interview all the members of the politburo."

—Eliot Marshall