for inclusion in the CSOC complex. Its computers perform the same sort of space-tracking functions. During a fight in outer space, moreover, it would be in charge of identifying hostile forces. Yet this type of urgent information at SPADOC would have to go through complex communication networks in order to reach the offensive command post 27 miles away at CSOC. In the meantime, the battle may have been lost.

The Air Force recognizes the problem. In a 1979 report it said: "The capability to calculate orbits for predictive avoidance in CSOC and SPADOC would allow the flexibility to run the program in SPADOC while CSOC is saturated with another high priority job, or during a subsystem failure." Nevertheless, the commands remain separate. One problem is that they are run by different generals.

Other programs that could be consolidated into the space command post include the Global Positioning System satellites and the Defense Meteorological Satellite Program. Yet these programs remain autonomous.

Is the rush to build a $1.4-billion space operations center really necessary, especially when it appears to leave careful planning far behind? One of the critical arguments the military makes in favor of haste is that the expansion of the military shuttle program requires immediate action. The Controlled Mode at Johnson can handle only 6 to 8 missions a year, not the 12 to 14 the military expects by 1989. The GAO takes sharp issue with this analysis. First, it questions whether enough shuttles will be built to reach this goal. Second, the current turnaround time of 90 days would limit the Pentagon's flights to four or five per year by 1987. "In this event," notes the GAO report, "the controlled mode at Johnson Space Center should be able to accommodate the Department of Defense needs, on an interim basis, until CSOC is properly developed." GAO also recommends an interim backup for the satellite control facility in Sunnyvale until the central space facility gets a better blueprint.

It seems that the poor start for the command post is about to trigger yet another GAO investigation, this time into the policy implications of a centralized space command. Says a Capitol Hill aide who has been watching the developments, "There is a major policy shift concerning space that is taking place. It is all being done on the sly, with the Controlled Mode and all that. We intend to examine the process in more of a public manner."—WILLIAM J. BROAD

Environmentalists Now Targeting Reagan

A coalition of environmentalist groups has launched a "spring offensive" on the Administration's energy, environmental, and natural resource policies. On 31 March the groups issued a 35-page "indictment," claiming that the President has "broken faith with the American people on environmental protection" and has appointed officials who "have simply refused to do the job that the laws require."

The criticism reflects a shift in the environmentalists' strategy away from blaming Reagan appointees for environmental transgressions and instead calling the President himself to task.

The report primarily covers the activities and proposed activities of the Environmental Protection Agency (EPA) and the Department of the Interior. The scores of offenses, large and small, enumerated in the indictment add up to a description of a coherent and extensive program designed to ease the burdens of regulation on private industry; stimulate the development of oil and mineral resources; promote nuclear power as the nation's foremost energy priority; reduce public participation in decision-making; cut back on health research and environmental analyses; halt designation of new national parks, wildlife refuges, and wilderness areas; relax controls on pollution emissions; cut back on enforcement; eliminate subsidies for conservation and the development of renewable energy sources; delay development of regulations called for by environmental protection laws; sell public resources to private interests at artificially low prices; and pump new blood into hoary pork-barrel projects that were long ago shown to be unsound.

"The Reagan Administration's approach to the environment and natural resources is not conservative; it is radical," says the indictment.

The indictment was issued on the heels of a report by a coalition of many of the same groups damning the Reagan energy policies. Describing these as "radical, costly, dangerous, and inconsistent," it contends that the precipitous plunge in funding for conservation and renewable energy sources undermines goals of economic revitalization, national security, and increased energy self-sufficiency.

The report says the Administration's commitment to reviving the nuclear power industry "comes at a time when energy economists have all but declared the industry dead," and chastises the Administration for blurring the line between nuclear power and weapons by reviving plutonium reprocessing, pushing the breeder reactor, and eyeing plant wastes as a source for plutonium for weapons.

The Interior Department and the EPA have pooh-poohed the indictment as politically motivated, and a detailed rebuttal of the charges is being prepared at Interior.

—Constance Holden

Fewer Grants Next Year, Says Future NIH Director

The Reagan Administration is sticking to its guns on two key budget issues concerning the National Institutes of Health (NIH), according to the director-designate of the institutes.

James B. Wyngaarden, testifying at his Senate confirmation hearing on 21 April, said that the Administration's proposal to fund only 4100 competing grants appears to be a "firm figure" for fiscal 1983. He told the Labor and Human Resources Committee that 4100 is "a substantial number," but added that he still believes in the previous goal of 5000 competing grants a year. The 5000 grant figure was the recommendation of a National Academy of Sciences committee, which said the number would assure the continuity of research from year to year. Wyngaarden, who was a member of that committee, said at the hearing, "as the economy recovers, I hope it can be restored."

Wyngaarden reiterated the Administration's position that full funding of 4100 grants was possible only with a 10 percent cutback in indirect cost reimbursement and a transfer of money from noncompeting grants. Proposed reductions in indirect cost reimbursements have caused a furor among institutions, which are now reimbursed 100 percent of their overhead expenses by NIH. Wyngaarden noted that methods of calculating re-

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imbursement rates vary widely from campus to campus and said that the Health and Human Services Department will soon begin an intensive study on ways to control overhead costs.

Senator Edward M. Kennedy (D–Mass.) asked whether NIH should be exempt from legislation that would allocate a certain percentage of federal research dollars to small businesses. Kennedy favors the "set-aside" concept, which is embodied in several bills now before Congress. Wyngaarden replied that he preferred to continue the present system, which was initiated last year and allows businesses to compete with institutions for grants through the peer review system.

The future NIH director has been the chairman of the department of medicine at Duke University for the past 15 years. Wyngaarden, 57, graduated from the University of Michigan Medical School and is a specialist in gout. In recent years, he has stressed the need to encourage young physicians to enter biomedical research and has been a leading spokesman for the biomedical community in support of research training. Wyngaarden is a longtime associate of Donald Fredrickson, who resigned last summer as NIH director. The two men were principal editors of a standard medical textbook, *The Metabolic Basis of Inherited Disease*.

—Marjorie Sun

New Biology Foundation Offers Fellowships

In an effort to attract industry support of nontargeted biological research, a group of eminent scientists has established the Life Sciences Research Foundation* (LSRF) to award postdoctoral fellowships on a competitive basis. LSRF president Donald D. Brown of the Carnegie Institution of Washington believes the new foundation is needed to counteract the current pattern of industrial support in which companies give large sums of money to support specific projects or departments at a handful of universities. Industry is "actually perturbing the system," Brown says. "The individual grant system, supporting creative young people, has built U.S. science. There is a very great need for industry to support research and training in the life sciences by mechanisms that do not target their support," he says. "This kind of enlightened assistance is very rare at present."

In addition to Brown, the founders of LSRF, many of whom have recently developed their own ties to industry, are David Baltimore, Paul Berg, Konrad E. Bloch, Philip Handler (deceased), Arthur Kornberg, Daniel Nathans, Hamilton O. Smith, Lewis Thomas, and James D. Watson.

The "founding sponsors" of LSRF (and its only contributors so far) are Hoffmann–La Roche and Monsanto. Each corporation has agreed to support a total of five fellows by 1985 and has pledged to renew support if other sponsors join the program. Monsanto vice president Howard Schneiderman calls industry support of fellowships of this sort "absolutely essential" and "very much in the company's strategic interest."

However, thus far, corporations have been reluctant to contribute to the foundation, often citing concern about the economic climate as a reason. Were it to receive all the money it is seeking, LSRF would award a total of 30 fellowships a year, with each postdoc getting a sum of approximately $30,000 annually, half as salary and half to support the research. Legal analysis of the cost of a $30,000 donation to LSRF shows that, under provisions of the Economic Recovery Tax Act of 1981, a company in the 46 percent bracket would receive a total corporate tax benefit of $18,675, which means its out-of-pocket costs to sponsor one postdoc would be only $11,325. Corporate sponsors would have their names directly associated with an individual fellow, who would be encouraged to meet at least once a year with scientists from the corporation. In addition, sponsors would be offered early reports of research in progress at an annual LSRF fellows meeting.

The feature that is meant to distinguish LSRF is its emphasis on all aspects of biological research and its commitment to peer review in the selection of applicants, something that Brown notes is missing from many industry-university collaborations now. "If you put it to a vote, the academic community would say this is the better way to give money," Brown declared in an interview with *Science*. But, he added, "This experiment is not proven by any means. We'll have to disband if we can't get more response from industry."***—Barbara J. Culliton***

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Inman Resigns from CIA

Admiral Bobby Ray Inman, deputy director of the Central Intelligence Agency (CIA), resigned his position to take a job in private industry. Inman is held in high regard by both Democratic and Republican congressmen for his credibility, intelligence, and responsiveness. News of his resignation was greeted with dismay on Capitol Hill.

The Reagan Administration's choice to succeed Inman is John N. McMahon, who is currently head of the CIA's foreign assessment division and who has been with the CIA for 31 years.

Inman's resignation comes on the heels of his dispute with Administration officials over domestic spying. According to news reports, Inman objected to a White House directive on counterintelligence procedures which authorized covert CIA activities in this country. Inman also reportedly found it difficult to serve as second-in-command to CIA director William Casey. The *New York Times* quoted Inman as saying his departure was prompted, among other considerations, by "steadily diminishing tolerance for petty bureaucratic intrigue."

Before becoming deputy director of the CIA, Inman was head of the National Security Agency (NSA), where he was highly praised for initiating a dialogue between the NSA and scientists over the national security implications of open research and publications in cryptology. As a result of his efforts, a Public Cryptography Study Group was set up which recommended a voluntary system of prepublication review of cryptology papers. Recently, he called for a tightening of controls on research publication in several areas of science to prevent a "hemorrhage" of technology to the Soviets.***—Gina Kolata***