state & society

White House science advice rerouted through new channels

On 26 January the White House announced that the Office of Science and Technology will be abolished. At the same time the job of Presidential Science Adviser has been eliminated, but some of his duties will be transferred to the director of the National Science Foundation, H. Guyford Stever. The President's Science Advisory Committee will be disbanded. Stever will also head a federal Science Policy Council, which may take over some of the role of the Federal Council on Science and Technology. The reorganization is effective on 1 July unless vetoed by Congress.

William O. Baker, recently named president of Bell Telephone Laboratories, who serves as chairman of the voluntary Science and Engineering Council in Support of the President, formed just before the election, was present at a press conference on 29 January and responded to questions about the change in policy. The NSF and the National Science Board will now have a much augmented role, Baker said. Instead of reporting to the President, though, as the Presidential Science Adviser did, the NSF director will report through Secretary of the Treasury George Shultz to the President. Shultz is one of three key presidential assistants and counselors—he is chairman of the Economic Policy Council in the White House and counselor to the President. Kenneth Dam, Shultz's deputy, will work closely with Stever, Baker went on.

A former member of PSAC told us that the new mechanism may well be more effective than the one in the past. Because Shultz's responsibility is the economic health of the nation, civilian research and development is under his aegis. If a good working relationship develops between him and the NSF director, science and technology may be better off than when the Presidential Science Adviser had to deal with OMB,

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BAKER

NASA holds up work on High Energy Astronomy Observatory

Despite widespread endorsement from the physics and astronomy communities, the High Energy Astronomy Observatory project has been suspended by NASA for at least a year. The suspension was part of a group of cuts made in its fiscal year 1973 budget so that NASA could respond to the Administration's attempts to hold total government spending down to $250 billion.

Besides the HEAO suspension, the manpower buildup on the Space Shuttle will be slowed down, which will delay the Shuttle's first orbital flight; NASA will phase out its work on communications satellites, expecting that industry will continue such efforts; work on nuclear propulsion will be discontinued and work on nuclear power will be greatly curtailed; the experimental Quiet Propulsive Lift Short Takeoff and Landing research aircraft will be cancelled.

NASA said it will retain the Skylab experimental space station, the Space Shuttle, the Apollo–Soyuz Test Project, the Viking program for an unmanned landing on Mars and the Mariner Jupiter–Saturn flyby.

The rationale offered by NASA in a prepared statement was that because HEAO is just now getting under way, work can be suspended without a great deal of wasted costs. During the period of suspension, which NASA said would last at least a year, methods will be studied by which major HEAO objectives can be obtained at lower costs. In the meantime, some work in high-energy astrophysics will continue with spacecraft such as the Small Astronomy Satellites.

The HEAO program had received Congressional authorization and appropriations for two missions out of a total program of four missions. Cost estimates for the first two missions, HEAO-A and HEAO-B, ranged between $220 and $280 million. The first launch was scheduled for late 1976 or 1977 and the second for the following year. A third mission was tentatively scheduled for 1978 or 1979. A fourth mission was in the definition stage. HEAO-A and HEAO-B had firmly established payloads, and the experiments were already contracted for, in the hardware development stage or in the final stages of design definition. HEAO-A was to have four x-ray experiments, one gamma-ray experiment and two experiments on high-energy cosmic-ray particles. HEAO-B was to have two x-ray experiments and two experiments on high-energy particles.

The satellites, which each had a total weight of 21 600 pounds, a length of 39 feet and diameter of 9 feet, were to be launched by a Titan rocket into a low-altitude, low-inclination orbit. Because of the survey character of the experiments, both of the first two satellites were designed for relatively more scanning than pointing. They were designed to spin at about 0.1 rpm.

is profoundly disturbed by the implications of a decision that overturns a carefully evaluated set of scientific priorities.

"The council urges that NASA, the Congress and the Executive Branch recognize that the maintenance of an outstanding national science program requires that the commitment to important experiments such as HEAO, once approved and begun, should be honored." —GBL

Science advice

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the PSAC alumnus said. Now the adviser will have the ear of the man more directly responsible for civilian R&D.

Explaining the decision, Baker said that OST and its director, Edward E. David Jr., who resigned a few weeks prior to the abolition of his office (to become vice president of Gould, Inc. in Chicago), had been so successful that President Nixon felt that government agencies that depend on science and technology had acquired sufficient skills themselves to assume their own R&D coordination responsibilities. In the old system the budgets of mission-oriented agencies with heavy involvements in science were reviewed by the science adviser, OST and PSAC. The Administration has decided that these agencies can now communicate their needs directly to the OMB. David had had a close liaison with OMB, Baker remarked, and the new reorganization will emphasize the central role that OMB had already played for several years.

OST had a staff of about two dozen professionals. Its budget responsibilities will be shifted to an augmented OMB, Baker said, and the national security functions will be associated with the National Security Council as appropriate. Experienced personnel from OST will move to NSF. Some of PSAC's responsibilities for initiating activities might be done by the National Science Board, he said. Although NSB is not exactly PSAC, "there will be a progressive pursuit of these functions."

The President feels that independent groups such as the scientific societies should interact with NSF and its adjuncts, Baker said. Baker said that private groups like the American Physical Society will have to take seriously their role of setting science goals.

When the reorganization was announced the Federation of American Scientists deplored the move. "We view with dismay and alarm this further decline in the role of scientists in Government. We believe it reflects the fact that the PSAC scientists have been calling the shots as they see them . . . . The policies being followed by the Administration, in downgrading science, are leaving the scientific community with an ever greater feeling of frustration." —GBL

in brief

The Fulbright-Hays Program for Senior American and Foreign Scholars in Physics will accept applications this spring for more than 550 lecturing and advanced research awards in over 75 countries during 1974–75. US citizens who have a PhD or college teaching experience in physics are invited to write for a registration form from the Senior Fulbright-Hays Program, 2101 Constitution Ave, Washington, D. C. 20418. The deadline for research award applications and the suggested date for filing for lectureships is 1 July.

Innovation and the Structure of Canadian Industry, Special Study No. 23 of the Science Council of Canada, is available from Information Canada, 171 Slater St, Ottawa, Canada, for $2.50 a copy.

A new journal, *Energy Sources: An Interdisciplinary International Journal of Science and Technology*, will begin publication early in 1973. Information may be obtained from the publisher: Crane, Russak & Company, Inc, 52 Vanderbilt Ave, New York, N. Y. 10017. The subscription price is $26.00.

The International Union of Crystallography's Commission on Neutron Diffraction has established an information service to disseminate magnetic-structure data. The service, directed by David Cox and operated on a nonprofit basis, will take the form of magnetic-structure data sheets distributed quarterly. Subscriptions are available from MSDS, Neutron Diffraction Commission, Brookhaven National Laboratory, Upton, N. Y. 11973 for $15.00 (for individuals) and $25.00 (for libraries).

Cryogenics Technology Inc in Waltham, Massachusetts has purchased the operating assets of the cryogenics division of US Philips Corp.

the physics community

AIP trims some programs during budget squeeze

The American Institute of Physics is this year facing an even tighter budget squeeze than it has in recent years as it is being forced to find ways to deal with higher publication costs and decreasing journal subscriptions. The Institute has raised nonmember subscription rates and in addition has had to cut back on some of its activities.

The difficulties can be traced to inflation and the generally depressed state of science funding. Printing and paper costs are rising by about 6% per year, and tight library budgets produced a 5% drop in nonmember subscriptions to AIP journals last year. Member subscriptions dropped by 4% and similar drops are expected during the coming year. A number of grants to AIP from the National Science Foundation were terminated in 1972 as planned, but others that were expected to be newly granted were not. Among these latter was the proposal for industrial internships, which is still under review (see PHYSICS TODAY, June, 1972, page 66).

To save money the institute has had to close the Washington, D. C. office, which had been operating at a reduced level for a number of years, and it has cut back the AIP Education Division to what was termed "essentially a holding operation." The Education Division will continue to maintain the information pool, the consultants program and the Tech Physics program; these are funded by NSF.

To help deal with increased pressures on income in the publication division, the Institute has had to increase nonmember subscription rates for AIP journals by about 5%, and it is considering an increase in rates for ten of the Soviet translation journals effective in July.

Page budgets for the journals have been readjusted, in some cases increasing the total numbers of pages scheduled for publication in the coming year, but generally keeping the number of pages for which page charges are not being honored at the same level as in 1972. The total backlog of manuscripts for which page charges are not being honored but which have been accepted by the editors now amounts to about 3000 pages. Delays in publishing these papers vary from journal to journal, and range from four to fourteen months.

AIP is making efforts to hold the line against rising printing and paper costs