Brookhaven Alternating Gradient Synchrotron and the Fermi National Accelerator Laboratory.

Evaluating the ZGS as part of the national high-energy physics program under the assumptions of a constant-value budget for that program and the probable introduction of new facilities commencing operation about FY 1980, the committee made the following recommendations:

- Mid-to-late FY 1979 is the earliest reasonable ZGS closing date; it may be desirable to intensify its operation until then.
- Shutdown should be announced two to three years in advance to allow completion of work in progress; special severance policies should be adopted to retain key personnel and ensure a smooth and efficient final running period.
- The programs at the Brookhaven AGS, the Stanford Linear Accelerator Center and the Cornell Electron Synchrotron, as well as the ZGS, should be reviewed to determine which facility or segment of a facility should be phased out if it is necessary to make funds available to operate a new one. This review should occur within two years so that if any accelerator must be closed, sufficient advance notice for a FY 1979 closing date can be given.
- The Booster accelerator, which will increase beam intensity by a factor of four, should be completed as planned by the end of FY 1976. It is needed for completion of the neutrino program and will accelerate the hadron-physics program.
- If a shutdown is necessary, the scientific and economic factors in relocating the bubble chamber and re-establishing the polarized proton capability at the AGS should be carefully studied; it is emphasized that the capability for accelerating polarized protons cannot be re-established at any other high-energy physics accelerator without further technical development, and may not be possible at all. —DG,

Senior staff shuffle announced at NSF

Several senior positions at the National Science Foundation have been filled from within the ranks. Lowell J. Paige has been named acting deputy director by director H. Guyford Stever, filling, on a temporary basis, the position vacated by Raymond L. Bisplinghoff. Bisplinghoff, an aeronautical engineer, became chancellor of the University of Missouri at Rolla on 1 October after serving as NSF deputy director for four years. Paige continues to serve as assistant director for education, a position he assumed in October 1973.

Also appointed to key NSF positions are Eldon D. Taylor, who becomes assistant director of administrative operations, and Joel Snow, who becomes director of the Office of Planning and Resources Management. The function of Taylor's and Snow's offices were previously combined in one Office for Administration, which was headed by assistant director Thomas Jenkins. Jenkins resigned this summer to become assistant vice-president for academic planning and resource management of the statewide University of California system. Taylor came to NSF in 1973 as deputy to Jenkins. Snow, a theoretical physicist, has been at NSF since 1966 in a variety of positions, most recently as deputy assistant director for science and technology in the Research Applications Directorate.

In another personnel shift, Thomas O. Jones, deputy assistant director for National and International Programs, will fill in on an acting basis for assistant director Thomas B. Owens who has headed that program since 1970. Owens left NSF to become director of graduate affairs and research at the American U. Robert E. Hughes, Cornell Materials Science Center director, was nominated as Owens's successor.

David foresees adversary process in science advice

An apparatus for science and technology within the White House inevitably will be established, although its form is not certain, according to former Presidential Science Adviser Edward E. David Jr (now executive vice-president of Gould Inc in Chicago). But regardless of its form, its role in determining the direction of science and technology, and science-based policy, will not be nearly as dominant as it once was, he told us recently. Instead we will see an adversary process between various federal elements.

David, who was science adviser to former President Richard M. Nixon until January 1973, feels that recent presidents have not wanted problems to be raised in public, although raising them internally was considered proper. Recently, former Presidential science adviser James Killian, who headed a National Academy of Sciences study of science advice (PHYSICS TODAY, August, page 61), proposed that an annual report be prepared on problems to which scientists and engineers should address themselves. A first draft of such a report actually was prepared by the Office of Science and Technology under David's direction. Contributions were received from a variety of people in the government outside the Executive Office; for example, experts on agriculture were consulted. By the time the first draft had been circulated through the Office of Management and Budget and the Domestic Council, it was shredded, David told us. "Scientists and engineers and others with an intellectual turn of mind are always looking for places where more mortar is needed in the system, where there are promising accomplishments to be had if a push could be made. But that sort of thing is not acceptable as a public utterance because it tends to focus on the inadequacies of present programs and policies. It is a form of criticism. Science thrives on that; it is poison in politics." It is true, however, "that in the days of the 'Sun King,' President Kennedy or President Eisenhower, this sort of thing would have been more acceptable. But certainly not in the Johnson days or the Nixon days." Future presidents will presumably behave similarly, David believes, because the Executive branch will be under heavy attack for the rest of the decade. The natural reaction will be defensive.

We are entering an era that will be more adversary in feeling, David maintains, with less willingness to discuss issues openly. There will be fighting among the various segments of government: the future science-advisory apparatus in the White House, the Congressional Office of Technology Assessment, possible special advisers to the judiciary branch, and the National Academy of Sciences. Actually, such an arrangement might be healthier than the previous arrangement in which "an elite group of people in the White House have tried to speak for all of us." Although David would prefer to have policy for science and technology arrived at in a "businesslike, scholarly way," he doubts if this will be possible for the next ten years. —GBL

Eight new members of National Science Board

All of the eight nominees for positions on the NSF National Science Board have been confirmed by the US Senate and have taken places on the board after swearing-in ceremonies. The 24-member board determines policies and programs for NSF. The new members include Jewel P. Cobb (dean of Connecticut College), Norman Hackerman (president of Rice University), Saunders MacLane (University of Chicago and vice-president of the National Academy of Sciences) and Grover E. Murray (president of Texas Tech University).

Also sworn-in were Donald B. Rice Jr (president of the Rand Corporation), L. Donald Shields (president of California State University, Fullerton) and James H. Zumberge (chancellor of the University of Nebraska, Lincoln) and William N. Hubbard (president of the Upjohn Co).