scale and intensity of technological development continue to mount."

Among recommendations from the Brooks panel were new federal organizations "with components located strategically" in both the Legislative and Executive branches. The organizations would be limited initially to technological areas already strongly influenced by the government, and they would be "separated scupulously from any responsibility for promoting or regulating technological applications." The new government organizations would be able to carry out in-house studies, support major external research, and promote an informed public awareness of technology assessment issues. The panel suggested, for technological assessment, an expansion of the President's Office of Science and Technology and a new division within NSF. For Congress, either a joint committee of the Senate and House, or a Congress-wide technology assessment office was discussed.

The Brooks panel concluded on an eloquent note: "The future of technology holds great promise for mankind if greater thought and effort are devoted to its development. If society persists in its present course, the future holds great peril, whether from the uncontrolled effects of technology itself or from unreasoned political reaction against all technological innovation."

The NAE report, *A Study of Technology Assessment*, came from the NAE Committee on Public Engineering Policy whose chairman is Chauncey Starr of UCLA. The Starr committee conducted three "experiments in technology assessment." Three task forces worked on: the technology of teaching aids, subsonic aircraft noise, and multiphasic health screening. For each of these areas the report contains observations on assessment methods and possibilities for more complete studies.

Need for physicists. Many technology assessment questions need applied physical research. Not enough is known, for instance, about some practical aspects of electromagnetic spectrum crowding; the generation, propagation and effects of aircraft and other noise; and the effects of atmospheric pollution on the earth's radiation balance.

There is another kind of problem, involving "systems studies" of various types, that may appeal to physicists with the right intellectual bent, for example quantitative modeling of ecological systems, studies of the dynamics of pollution, and some aspects of global energy transformations.

DuBridge, McElroy, Daddario Comment on Budget Prospects

The amount of university research supported by the Department of Defense, the National Aeronautics and Space Administration and the Atomic Energy Commission will decline in fiscal year 1971 (PHYSICS TODAY, March, page 69). Only NSF, with a proposed $45 million increase for university research, projects a gain for 1971 among federal agencies that fund physics research. Any major effect, however, will be lost to inflationary pressures and the budget cuts in most of the other federal agencies.

Lee A. DuBridge, scientific advisor to President Nixon, says, "The total DOD budget for 1970 for university research is roughly $20 million below that of 1969 because of congressional action, and therefore the DOD has been forced to reduce university funding by that amount. In the process of making the cut the DOD has been looking closely at existing projects to see if they meet the criterion of the Mansfield amendment. It is estimated that the dollar amount of the projects affected by the Mansfield amendment will be a small part of the $20 million, possibly on the order of $5 million, although the exact figure is uncertain. According to the DOD well over 90% of existing projects are allowable under the provisions of the Mansfield amendment."

This year, however, cuts in DOD support of university research and the passage of the Mansfield amendment will create additional proposal pressure at NSF. No procedures have been established by Congress for the orderly transfer of projects from DOD to civilian agencies. NSF must wait until DOD finishes assessing the military relevance of current research before knowing exactly how many additional projects it will be asked to pick up.

William D. McElroy, director of NSF, told PHYSICS TODAY: "We will have increased proposal pressure, and we have asked for $10 million in fiscal 1971 to allow for new proposals. Besides projects directly affected by the Mansfield amendment, added proposal pressure will come from new researchers whose projects have been dropped by NASA, the AEC and DOD. Projects affected by the Mansfield amendment will not get any special treatment; they will have to come in and compete with all the other proposals."

McElroy went on to say: "It's a little too early to tell what the effect will be on physics alone. Maybe more social science projects will be affected than physics projects."

NSF has allocated $31.4 million for physics in the proposed 1971 budget, up 13.3% from the estimated 1970 level but only 3.6% higher than the 1969 allocation. Even if physics projects are not badly cut by DOD, the NSF increase for physics over 1969 will not cover the inflationary rise in cost, let alone make allowances for new researchers entering the field. But the increase over 1970 is significant.

Before physicists and other scientists begin counting on any upturn in funding, though, Congress must first authorize and then appropriate the new NSF request. Last year the President asked for approximately $500 million for NSF; the Labor and Public Welfare Committee authorized a sum in excess of $500 million, but the final congressional appropriation cut the request to $438 million. Roy Millenson, minority staff director of the Labor and Public Welfare Committee says: "If we follow the pattern of last year we will probably increase the amount asked by the President."

What are the chances that NSF's request for $511 million can escape a cut similar to the one made last year? Congressman Emilio Q. Daddario (D., Conn.) who is chairman of the House Subcommittee on Science, Research and Development and who recently announced his intention to run for governor of Connecticut, feels that the outlook for the NSF budget is better than last year, that a major cut is unlikely.

Summer Institute at Maryland Planned for Black Teachers

The University of Maryland physics department, working with a National Science Foundation grant, will conduct a summer institute this year for 26 college science teachers, most of them from predominantly black colleges. The program includes concentrated course work in classical mechanics and relativity, advanced lab-