

cal electronics. In addition, the study also examined technology-acquisition methods used by 11 "vocational-technical" schools.

Though considerable variations existed among the 73 organizations surveyed, the dominant conclusion to emerge was that few, if any, of them are vigorously seeking to dip directly into the vast outpouring of science and technology that the federal government is underwriting at the rate of some \$16 billion a year. To complement the picture, it turned out that, while technology dissemination receives some money—\$4.8 million a year in the case of NASA—and a good deal of verbal support in federal agencies that support research, relatively little has actually been done to simplify the problem of increasing the technical awareness of the manufacturer who is outside the space and military fields.

In line with what many observers have noted, the DRI study concluded that, while a scientific revolution may be raging in the laboratory, the technologist faced with an immediate problem is inclined to fall back on the tried and true information that is contained in standard manuals. "Textbooks and handbooks," the study observed, "tend to be from two to five years or more behind the state-of-the-art. Nevertheless, they were one of the most important sources of information for problem solving. Written primarily by academicians, they provide broad in-depth coverage [that] a periodical cannot. The tables, charts, and indexes were considered particularly useful. Another apparent reason for their importance was the familiarity individuals had with texts used in their formal training. Having learned to use a particular text or handbook, they continued to rely on it."

As for technical publications that pour from government agencies, the conclusion was that they are not doing the organizations in the survey much good. "Government publications were not perceived as major channels for acquiring technological information," the report noted. "The variety and mass of government publications tended to overwhelm people and many were simply not familiar with potentially useful sources, and did not know how to screen and select relevant material." Specialized publications, such as the *Official Gazette* of the U.S. Patent Office, were found to be valued by at least one person in most of the

## NEWS IN BRIEF

● **NIH BUDGET:** The Senate has approved a budget for the National Institutes of Health (NIH) nearly \$78 million higher than the NIH budget measure the House passed. The Senate bill would appropriate \$1.25 billion for health research during the next fiscal year compared with the \$1.17 billion that the House approved. The Senate measure increased funding to each of the eight NIH institutes. The increases include an addition of \$15 million over the House-approved \$50 million for construction of health and research facilities, \$10 million more than the House's \$167.9 million for the National Heart Institute, restoration of \$10 million that the House cut from the Administration's \$64.3 million request for regional medical programs, and \$9 million more than the \$183.3 million approved by the House for the National Cancer Institute. A conference committee met 16, 17, and 22 August to work toward a compromise agreement.

● **FOREIGN STUDENTS:** More U.S. and foreign university students and teachers studied or worked outside their own countries during the 1966-67 academic year than ever before, the Institute of International Education's annual survey, *Open Doors 1967*, reports. The study indicates that 140,573 individuals were involved in 1966-67, compared with 125,000 the previous year. Foreign students studying in the United States during the year numbered 100,262, the highest total on record. In addition, 10,737 foreign faculty members were in the United States, 4,674 American faculty and administrative personnel were abroad, and about 25,000 U.S. students were regularly enrolled abroad. Twelve countries sent more than 2,000 students each to the United States, with Canada leading the list with 12,000. One-third of the foreign students in the United States were from the Far East, 18 percent from Latin America, 14 percent from Europe, 13 percent from the Near and Far East, and 7 percent from Africa. Of the foreign students, 48 percent were graduate students; 45 percent were undergraduates, and 7 percent were special students. The largest number of foreign graduate students were enrolled in the physical and life sciences, engineering,

and the social sciences, respectively. Undergraduates favored engineering. Copies of *Open Doors 1967* are available for \$2 each from the Institute of International Education, 809 United Nations Plaza, New York 10017.

● **UNDERSEA WILDERNESS PROPOSAL:** Public protest against oil industry plans to explore and develop portions of the Santa Barbara Channel off southern California and the Georges Bank adjacent to lower Cape Cod has led to the introduction of 20 bills in the House that call for the study of possible marine sanctuary areas. The measures, which have been introduced within the last few months, call for a study of the most feasible and desirable means of establishing certain portions of the tidelands, bays and estuaries, outer continental shelf, seaward areas, and Great Lakes of the United States as marine sanctuaries. The Sierra Club, a conservation group, has endorsed the proposals which would give the Secretary of the Interior authority to spend up to \$1 million for a 2-year study of undersea areas valuable for sport and commercial fishing, wildlife conservation, outdoor recreation, and scenic beauty. During the evaluation period, there would be a moratorium on mineral development in certain continental shelf areas. Fred Eissler, Sierra Club director, said in a written statement, "No one is against the development of oil and other minerals in ocean areas . . . [but] some of the best parts of the sea must be saved as wilderness ecological reserves against which to measure the impact of man on modified areas." The study bills are being referred to the House Committee on Merchant Marine and Fisheries.

● **PROGRESS REPORTS:** The U.S. Bureau of the Budget has authorized college and university instructors who are engaged in federally financed research projects to submit their research progress reports on the basis of academic terms. The new ruling will permit academic researchers to submit reports at the end of each semester rather than quarterly as in the past. The regulation, which becomes effective with the beginning of this autumn's academic term, permits institutions that do not want to change to remain on the quarterly report basis.