

News and views

National Science Foundation

Next Year's Budget

As this issue goes to press, National Science Foundation prospects for the next fiscal year remain as uncertain as they have since August 20th when the House of Representatives acted to slash the \$14,000,000 NSF budget requested by the President to \$300,000, a cut of 98 percent. Settlement of the issue, at this writing, depends upon the results of a hearing before the Appropriations Committee of the Senate, followed by Senate and finally joint Senate and House action. Scientific, educational, and industrial groups, according to NSF director Alan T. Waterman, have rallied to the cause. There has been organized action on the part of a number of such groups, and both individuals and organizations have reaffirmed their confidence in the importance of the Foundation's mission and have called upon Congress to supply adequate funds for its work in 1952.

Early in September, for example, during the American Chemical Society's diamond jubilee in New York City, the ACS council adopted a resolution strongly urging that Congress appropriate the full amount of the originally recommended budget for Foundation operations in 1952. A similar resolution was adopted by the Society's board of directors on September 7th. Charles A. Thomas, chairman of the ACS board and president of the Monsanto Chemical Company, issued a statement accompanying the resolution in which he emphasized the board's firm belief in the importance of fundamental research to the national welfare. "If the National Science Foundation should be denied the money necessary to carry out an adequate program of fundamental research, and is to receive only enough funds to support an administrative staff," he said, "this effectively removes any reason for the existence of the Foundation."

Dr. Waterman summed up the reaction of the Foundation's administrative staff while addressing a meeting of biologists sponsored by the American Institute of Biological Sciences in Minneapolis on September 10th. "It is unfortunate," he remarked, "that scientists, who understand so well the relation between basic research and the training and development of creative young minds, have been able to convey to the laymen only imperfectly the importance and urgency of this matter. After having marshaled, for the benefit of the legislative hearings which preceded the establishment of the Foundation, a massive array of evidence from scholars,

educators, scientists, industrial experts, military leaders, and others, we find ourselves in the position of arguing the case all over again."

The National Science Board, meanwhile, issued on September 9th the following statement defining its view of the matter:

"The National Science Board, at its regular meeting on September 7, gave serious attention to the urgent need for the appropriation by the Congress of funds to put into operation the program of the National Science Foundation. In the considered judgment of the Board, failure to provide such funds at this time will have disastrous consequences for the sound future development of our nation which depends so heavily upon science and technology.

"Under the mandate of Congress, as expressed in the National Science Foundation Act of 1950, the National Science Board has for the past nine months been formulating plans for developing the nation's critically deficient scientific resources. The time has now arrived when these programs should be activated.

"It has been repeatedly emphasized that the nation now faces a critical shortage of men and women adequately trained in science, engineering, public health, medicine and other technical fields. Industry, education, and the government, including the military services, are finding it impossible to fill positions of critical importance to the national defense and the national welfare. To meet this urgent need the National Science Foundation has proposed the establishment of a program of fellowships in pure and applied science. This program would help increase the supply of these critically needed scientists and engineers. Unless funds are provided, this program must be abandoned and the manpower deficit will become increasingly greater.

"The wholesome development of our nation depends upon the furtherance of research on a broad geographical basis. Accordingly, a second objective of the Foundation is to strengthen basic research and to develop new scientific centers in all parts of the country.

"While vast funds have been allocated for the creation of specific weapons and products, fundamental research—which increases our pool of new scientific information—has been sadly neglected. The National Science Foundation proposes a modest program for the support of important areas of fundamental research which are now inadequately financed. Failure to support such research will handicap development of our industrial and military strength and greatly threaten our future national security and welfare.

"Unless we do so, our country will be unable to maintain its leadership in the struggle to preserve freedom and democracy."

AEC-Sponsored Research

Fellowship Program to be Reduced

A total of \$10,500,000 allotted to two hundred AEC research and development projects was reached at the end of the 1950 fiscal year (June 30, 1951), according

to the Chicago Operations Office of the U. S. Atomic Energy Commission, which administers the program. A preponderance of the contracts, which are negotiated with universities, colleges, research institutions, and laboratories throughout the country, are unclassified and are aimed to support fundamental research in nuclear science.

The pattern of unclassified basic research programs carried out under contract has been modified, according to the Commission, in order to bring these long-term studies in the physical sciences into closer association with program problems of the entire atomic energy project. Working through scientists who have been investigated and cleared, the Commission has kept them informed of research work in AEC laboratories and has encouraged them to use this information as guidance in selecting areas for their own research and in giving direction to other unclassified work in their institutions. Scientists having security clearance have been asked to submit proposals for research when they felt their contribution to the program needed financial support.

The Commission has also announced that it plans to decrease its general fellowship program, and eventually to liquidate it, except in some specialized fields. The AEC recognizes the great need for this type of training, according to a statement in its tenth semiannual report to the Congress (U. S. Government Printing Office, July, 1951. \$0.35), but feels that the type of training it previously sponsored might best be administered by an organization such as the National Science Foundation.

Astrophysics and Astronomy

ONR Basic Research Contracts Available

The Office of Naval Research has announced that it again intends to make available limited funds for the support of pure research in astronomy and astrophysics for the year June 1952-June 1953. At the request of ONR, the National Research Council has appointed an advisory committee of astronomers to recommend specific projects for support by ONR. The Committee has suggested that the average cost per project should be about \$3,000, with a maximum not appreciably in excess of \$5,000. It is understood that if a proposal is selected for support by ONR, negotiations will be entered into for a contract between the U. S. Navy and the institution at which the research will be conducted. The committee has recommended that for these relatively small contracts the maximum overhead charges should not be in excess of 10 percent, but all legitimate expenses in connection with the project will be chargeable to the contract. Applications for the support of projects to be considered this winter should be received at the Office of Naval Research *on or before December 10, 1951*. These should be addressed to Chief of Naval Research, Washington 25, D. C., Attention: Dr. Mina Rees, Director, Mathematical Sciences Division. Each applicant is requested to submit *ten* copies of all application material (legible carbon copies on thin paper

acceptable). Each application should contain a full description of the project, accompanied by a cost breakdown and, if possible, a letter of approval from the institution(s) at which the work will be performed. Letters of recommendation will be helpful to the members of the Advisory Committee in making their appraisal and should be sent by the writer directly to the above address, also by December 10th.

Under the suggested arrangements, the ONR announcement stated, it will not be possible to pay for the cost of publication of the results of the research. It is, however, understood that research results may be published freely through the usual channels.

Scientific Equipment

SAMA Reports Increase in Sales

Sale of industrial and laboratory instruments and apparatus for the first half of 1951 was 44.5 percent over the corresponding period a year ago, according to figures released by the Scientific Apparatus Makers Association, the industry's national organization. Sales reported for the first two quarters totaled \$90,113,292, according to Kenneth Andersen, executive vice president of the Association. Figures are for the Laboratory Apparatus, Laboratory Equipment, Optical, and Industrial Instrument Sections of SAMA, he said, and do not include the Recorder-Controller Section whose companies do not report sales figures, nor the Nautical, Aeronautical, and Military Section whose members cannot report them. Increase in sales is general throughout the industry, according to Andersen, and while part of it is accounted for by the spurt in production brought about by the Korean War and rearmament program, he pointed out that a large percentage of the increase comes from growing emphasis on research and development and on growing use of instrumentation in industry.

Diet of Scientists

The Science Council of Japan

The president of the Science Council of Japan, Naoto Kameyama, formerly dean of engineering at Tokyo University and director of the University Institute of Science and Technology, has been a recent visitor in the United States, according to information from the National Science Foundation. Dr. Kameyama, who came to this country to attend the International Congress on Pure and Applied Chemistry in New York last month, also compared notes on problems of national science agency operation with NSF director Alan T. Waterman and with the Foundation's assistant director, Harry C. Kelley, who was formerly in charge of scientific matters for the occupying powers in Japan.

Only slightly older than the U. S. National Science Foundation, the Science Council of Japan was established by Japanese scientists early in 1949 as part of the nation's reconstruction program. At the close of the war, Japanese scientists, seriously depressed by the war's economic aftermath, conceived the idea of or-