

"important and extensive." He recognized the "significant contributions" made by ONR scientists and expressed confidence that the Office would continue "to play a major role in scientific research, development and applications. . . ."

Van Allen received the Navy's Distinguished Public Service Award from H. Tyler Marcy, Assistant Secretary of the Navy for Research and Development. The award cited Van Allen's "outstanding achievement and unparalleled contributions" to the Navy in the field of space science. Van Allen, now head of the physics and astronomy department at the University of Iowa, has served as an ONR contractor since 1952. He reported his discovery of the Earth's radiation belts in 1958.

The Office's anniversary "Symposium on Science and the Future Navy," introduced by National Academy of Sciences president Philip Handler, included addresses by Edward Teller (Lawrence Livermore Laboratory), Lewis Branscomb (IBM Corp) and Kip S. Thorne (Cal Tech), as well as statements from a number of naval and defense-department spokesmen. David Packard (board chairman, Hewlett-Packard Corp) delivered the keynote speech at the awards ceremony. —FCB

NSF announces changes in its physics staff

New and continuing staff members in the Physics Division of the National Science Foundation have been announced. Nuclear-physics program director William S. Rodney shares responsibility for NSF's nuclear-physics support with new program officer Robert M. McGrath, on leave this year from the State University of New York at Stony Brook; McGrath replaces Gerard M. Crawley, who has returned to Michigan State University after spending a year at the Foundation. Another newcomer is Bruce Steiner, who takes the place of Stephen J. Smith (now returned to the University of Colorado) to share with Rolf M. Sinclair the direction of the program in atomic, molecular and plasma physics. Steiner has joined NSF for one year as a Commerce Science and Technology Fellow from the National Bureau of Standards.

Members of the division who will continue in their present roles include Howel G. Pugh, on leave from the University of Maryland (program director for intermediate-energy physics); Boris Kayser and Richard Isaacson (program director and associate program director, respectively, for theoretical physics), and Alex-

ander Abashian and David Berley, who share responsibility for the Foundation's program in elementary-particle physics. In addition, Laura P. Bautz—formerly senior staff associate in NSF's Directorate of Mathematical and Physical Sciences and Engineering—has joined the Physics Division as senior staff associate.

William E. Wright and Marcel Bardon continue as Director and Deputy Director, respectively, of the division.

in brief

N. Bruce Hannay has been appointed foreign secretary of the National Academy of Engineering. Hannay, vice-president, research and patents, at Bell Laboratories, will serve as foreign secretary through the spring of 1978.

The book series *Vistas in Astronomy*, edited by Arthur and Peter Beer, is now available as a review journal. Beginning with volume 19, the journal is published quarterly. Subscription price for 1977 is \$56; inquiries may be addressed to Pergamon Press Ltd, Headington Hill Hall, Oxford OX3 0BW, England.

the physics community

AIP publishes survey on graduate students

Unemployment among new doctoral-level physicists was greater in 1975 than it was in 1974; a 4% increase, from 9% to 13%, for those who are unemployed or seeking employment is reported in the 1974-75 *Graduate Student Survey* (AIP Pub no. R-207.8). The survey, which has been compiled by the American Institute of Physics Manpower Statistics Division, also indicates fewer job offers to physics graduates at the master's level and an increase in the number of foreign graduates who return to their native countries.

This annual survey supplies information on various characteristics of the graduate-student group: number and distribution, employment offers, sources of support, duration of study and specialties. Data on women, minorities and foreign students are also included. For the first time, information on graduate students in astronomy is reported.

According to the survey, the number of graduate physics students and degree recipients continues an eight-year decline from a peak of 15 500 in 1966-67. At the beginning of academic year 1974-75, the total graduate physics enrollment was 10 410—by comparison, the 1973-74 total

was 11 119. Overall, this group showed little change from the year before in terms of general characteristics, such as the percentage of foreign students as compared to US students and the median duration of study (beyond the BA level) for a doctorate degree.

However, the first-year graduate-student group does differ from the previous year in that 10% were women and 15% were foreign students. These figures were 8% and 13%, respectively, in 1973-74, although the total number of students comprising this group hardly declined, from 2680 to 2668.

Free copies of this survey may be obtained from Susanne Ellis, AIP Manpower Statistics Division, 335 East 45th Street, New York, N.Y. 10017.

Materials group issues educational aids

Two instructional modules on materials for fiber-optics communication, in addition to a publication entitled *Media Index*, have been produced by the Educational Modules for Materials Science and Engineering (EMMSE) Project. Funded by the National Science Foundation, the project is intended to involve members of the materials-science com-

munity in the development of instructional materials.

The two modules, written by William G. French (Bell Laboratories) are "Optical Properties of Transmission Media" and "Fiber Fabrication." The *Media Index* consists of 243 pages of data on teaching aids in a variety of media and is intended to assist in the location of aids for materials-sciences and engineering instruction. Free copies of these publications may be obtained from Clifford A. Hewitt, EMMSE Coordinator, Materials Research Laboratory, The Pennsylvania State University, University Park, Penna. 16802.

Four topic-area teams have been formed by the project for the purpose of developing future modules. Each of these teams will subdivide their respective fields, establish topical priority, select authors and organize a review system. Team chairpersons and their areas are: Metals—William M. Mueller (Colorado School of Mines); Ceramics—Hayne Palmour III (North Carolina State University); Polymers—S. H. Carr (Northwestern University) and Characterization—James F. Clum (University of Wisconsin). Suggestions for new modules and contributions of existing material may be sent to the project coordinator's office. □