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envelope provided. The deadline for receipt of ballots is December 31, 1956.

The Mathematics Division of the American Society for Engineering Education elected the following officers at its 1956 meeting, held at Iowa State College: chairman, Walter G. Warnock (Rensselaer Polytechnic Institute); secretary, William E. Restemeyer (University of Cincinnati); directors, George B. Thomas (Massachusetts Institute of Technology), Cletus O. Oakley (Haverford College) and Richard S. Burington (Department of Navy). Mr. Burington was also elected Representative to General Council of ASEE. For information concerning the next meeting of the Division (June 1957, Cornell University), write to Professor William E. Restemeyer, University of Cincinnati, Cincinnati 21, Ohio.

Publications

McGraw-Hill Book Company has announced plans for publishing "the most complete and unified compendium of science and technology ever assembled," which will take the form of a 7000-page, multi-volume encyclopedia designed to serve as a complete reference work for the student, teacher, engineer, scientist, and others seeking information on scientific or engineering subjects. The monumental work will be issued under the title, *The McGraw-Hill Encyclopedia of Science and Technology*, and will be edited by William H. Crouse with the help of thirty consulting editors, each an authority in his field, who will select some 2000 specialists to write the articles. Completion is expected in about three years. A series publication, *The McGraw-Hill Yearbook in Science and Technology*, is also being planned as an annual supplement to keep readers abreast of advances in science and technology that have been made during each year.

Volume 1, Numbers 1 and 2 of *The International Journal of Applied Radiation and Isotopes* was issued in July by Pergamon Press, London and New York. Editors of the new journal are: P. C. Aebersold (Atomic Energy Commission), A. H. W. Aten, Jr. (Institut voor Kernfysisch Onderzoek, Amsterdam, Holland), J. C. Bugher (The Rockefeller Foundation), J. Coursaget (CEA, Paris, France), V. N. Kondratiev (The Academy of Sciences of the USSR), M. Magat (Laboratoire de Chimie Physique, Paris), H. R. Nelson (Battelle Memorial Institute), and J. L. Putman and H. Seligman (Atomic Energy Research Establishment, Harwell, England). An additional 32-member editorial advisory board includes representatives from 14 countries and Unesco. Papers will be published in either English, French, German, or Russian, and abstracts appear in all four languages. The annual subscription rate per volume is \$17, or for individual subscribers certifying that the journal is for their private use, \$9.80.

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PHYSICISTS

Electronic Development • Research

APL-An Organization Of And For Technical Men And Scientists

The Applied Physics Laboratory (APL) of The Johns Hopkins University is an organization of and for technical men and scientists. Several factors allow for more effective utilization of "mind power" at APL. They lead to tangible and intangible satisfactions for staff members that could not be gained elsewhere.

Among them are:

1. Individual staff members are given a measure of responsibility and initiative much greater than in many comparable establishments. Decision-making, on all levels, is placed in the hands of scientists and technical men.
2. Staff members do not restrict their efforts to limited technical problems. Instead they are asked to assess and solve problems of a systems nature, including analyses of *complete tactical problems*.
3. APL handles technical direction of the work of many associate and sub contractors, including 21 universities and leading industrial organizations. As a result, APL staff members enjoy a rewarding exchange of ideas and techniques with other leaders in R & D.
4. The combined facilities of APL, its associate and sub contractors, and Government test stations provide opportunities for members of its technical staff to develop and exploit their varied capabilities in a unique environment where teamwork and individual initiative are fused.
5. This *esprit* and freedom to look into new concepts has resulted in a number of "quantum jumps" in defense capability, including the proximity fuze, the first supersonic ramjet engine, and the Navy's Bumblebee family of missiles which includes TERRIER, TALOS and TARTAR. APL is presently attempting breakthroughs on several important fronts.

APL's expansion program recently witnessed the completion of new laboratories covering 350,000 sq. ft. in Howard County, Maryland, equidistant from Washington D. C. and Baltimore. Men of originality are invited to inquire about staff opportunities. Salaries compare favorably with those of other R & D organizations.

OPENINGS EXIST IN:

R & D: Missile control and guidance systems; microwave components, antennas, and radomes; counter-countermeasures systems; missile systems dynamics; ramjet engine design; operations analysis.

FUNDAMENTAL RESEARCH: Combustion reactions; solid state physics; shock-wave phenomena.

Write: Professional Staff Appointments

The Johns Hopkins University Applied Physics Laboratory

8611 Georgia Avenue, Silver Spring, Md.

of Technical Services, US Department of Commerce, Washington 25, D. C., is now available. This cumulative listing of more than 3000 AEC reports (AEC Research Reports Price List No. 26) may be obtained upon request from OTS. Price lists are issued semi-annually, and the next list will be available in February 1957.

Grants

CERN, the European Organization of Nuclear Research, has recently accepted an offer by the Ford Foundation of a grant of \$400,000 to help strengthen cooperation in nuclear physics research, primarily with the United States and with other countries not members of CERN. The grant, to be spent over five years, is expected to be used mainly to enable guest professors to come and work with CERN, and to give young scientists opportunities to work in its laboratories.

The National Science Foundation, during the final quarter of the 1956 fiscal year, ending June 30, made 289 grants totaling more than \$3.5 million for the support of basic research in the sciences, for conferences in support of science, for exchange of scientific information, for training of science teachers, and for aiding scientists to attend scientific meetings abroad. Since 1951, when the program began, 2495 such awards (totaling almost \$30 million) have been granted by the Foundation.

Established

A high-altitude observatory on the slope of the Hawaiian volcano, Mauna Loa, was dedicated on June 28th for joint use by the National Bureau of Standards and the US Weather Bureau. Located at a readily accessible and relatively warm site, 11,134 feet above sea level and some 2500 feet below Mauna Loa's summit, the laboratory is expected to offer many possibilities for studies of the upper air, long-range weather forecasting, cosmic rays, total solar radiation, snow crystals, air glows, and possibly radioactive fallout. During the summer C. C. Kiess and C. H. Corliss of NBS, working under the auspices of the National Geographic Society, conducted a spectroscopic study of the light reflected from Mars as a means of investigating the moisture content of that planet. Another study at Mauna Loa is expected to be made during the coming year by Ralph Stair of NBS on the distribution of the spectral energy from the sun.

The observatory, a concrete-block structure built at a cost of \$25,000, contains five rooms in addition to a tower and a broad open platform for observational use. Present accommodations permit the use of the buildings by a maximum of six observers at any one time. A smaller structure was built at the summit in 1951-52, but the limited observations that were taken there were discontinued in 1954 because of the extreme difficulty of traversing the trail to the summit. It is hoped that