

all students are directly polled to ensure greater precision in the results. With this method the surveyors can construct a clear picture of the flow of dropouts into the labor market and the reasons for changes in the original plans of the students.

The other study will attempt to answer the question of whether our academic institutions supply the need for technically trained personnel at various levels for research laboratories all over the country. A member of the Education and Manpower staff will visit laboratories (the survey will include approximately 40 laboratories from industry, government and education) and will work with the personnel departments to compile data on their physicists and supporting staff. The survey will compare the occupational specializations of individuals with the types of training they received and compare the existing balance between these with the needs of the laboratories. For example, one of the questions is how much time a physicist actually spends on physics in relation to other work. The data are compiled from company records established at intervals of three years and six years. These records show what the laboratories could or could not do in the past and how these demands might reflect on future training and specialization.

AIP Information Program Receives Four NSF Grants

The National Science Foundation in recent months has provided four new grants to the American Institute of Physics for its information activities. The grants are currently supporting preliminary investigations of problems concerning indexing, vocabulary, standardized data elements, existing information programs and computerized composition.

The first grant provides for a series of committee meetings and seminars that will stimulate discussion of current developments in the information field. The grant is for \$14 175. A group of 14 prominent physicists, representing the institute's member societies and with professional interests in the information project, will meet to gather background information and to

FELLOWSHIPS

The National Science Foundation has announced six fellowship programs for predoctoral and postdoctoral scientists and science teachers.

Graduate fellowships: Approximately 2500 awards for study or work leading to MS or PhD degrees in physics and other sciences at US or foreign institutions. Stipend: \$2400 for first-year level, \$2600 for intermediate and \$2800 for terminal-level students. For fellows on 12-month tenure, \$500 allowance each dependent. New applicants may request one or two-year tenures. Current NSF graduate fellows may apply for only one year. Applicants must be US citizens or nationals and already admitted to graduate status by school they select. Deadline for applications: 8 Dec. Apply to: Fellowship Office, National Academy of Sciences, 2101 Constitution Ave., N. W., Washington, D. C. 20418.

Postdoctoral fellowships: Approximately 150 awards for full-time study or research at the postdoctoral level at US or foreign institutions. Stipend: \$6500 for 12 months, \$500 for each dependent. Tenure: Usually nine or 12 months, but tenures ranging from six to 24 months may be awarded. Applicants must be US citizens or nationals with a PhD or equivalent in research experience. Deadline: 11 Dec. Apply to: same as above.

Senior postdoctoral fellowships: Approximately 65 awards for full-time study or research at the senior postdoctoral level at US or foreign institutions. Stipend: Based on the fellow's salaried income for 1967-68 academic year, up to \$15 000 per year. Tenure: Usually nine or 12 months, but tenures ranging from three to 24 months may be awarded. Applicants must be US citizens who have held the PhD for at least five years or who have equivalent research experience. Deadline: 9 Oct.

Apply to: Senior Fellowships Program, Division of Graduate Education in Science, NSF, Washington, D. C.

Science faculty fellowships: Approximately 275 awards for full-time study or research at US or foreign institutions for college science teachers. Stipend: Based on fellow's salaried income for 1967-68 academic year, not to exceed \$15 000 per annum. Tenure: Usually nine to 12 months; three to 15 months tenures also possible. Applicants must be US citizens or nationals with a BS or equivalent, who have three or more years teaching experience at the college level and who intend to continue teaching. Deadline: 9 Oct. Apply to: Division of Graduate Education in Science at NSF.

NATO postdoctoral fellowships: About 40 awards for full-time research or study at the postdoctoral level in a NATO-member country or one cooperating with NATO. Stipend: \$6500 for full year, \$500 for each dependent. Tenure: Normally nine or 12 months. Applicants must be US citizens or nationals with a PhD and competence in the language of country chosen for study. Deadline: 2 Oct. Apply to: Fellowship Office, National Research Council, 2101 Constitution Ave., N.W., Washington, D. C. 20418.

NATO senior fellowships: About 20 awards for full-time research or study at the senior postdoctoral level in a NATO-member or NATO-cooperating country. Stipend: Per diem allowance of \$16 and jet coach travel to and from country. Tenure: Normally one to three months, maximum up to six months. Applicants must be US citizens with full professional standing and competence in language of country chosen for study. Deadline: applications considered periodically. Apply to: Division of Graduate Education in Science at NSF.

represent the views of their respective societies. So far, the committee has held two meetings, the most recent in April at The Hotel Roosevelt in New York City. Because of the fundamental nature of the talks, the eminence of the speakers and the overall picture of the information area to be presented and discussed, the AIP governing board was invited to attend. Commit-

tee members, board members and AIP staff numbered approximately 48, and, in addition, eight speakers participated in part of the session. Committee members are as follows: Lucien Biberian, Walker Bleakney, Sanborn C. Brown, Robinson Burbank, Paul Cross, Edward E. David Jr, Conyers Herring, Elliot A. Kearsley, Thomas Lauritsen, David W. McCall, Philip M. Morse,



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Thomas H. Stix, Sam B. Trieman, Marshal H. Wrubel.

Information seminars will be held monthly and will touch on all phases of the information problem. The seminars will include persons from the New York area who will exchange ideas with members of the AIP staff.

The second grant, for \$159 320, covers salaries and expenses for two years effective 1 July 1967. Two new offices have been established in connection with the information program: the associate director of the publishing and information branch (currently under the temporary administration of H. William Koch) and the director of the computer applications division (recently filled by Franz L. Alt).

The third grant is for funding five important tasks that are presently not funded and that are necessary for the successful implementation of tasks enumerated in the AIP proposal for a national physics information system. The grant is for \$99 200 and lasts until the major program is initiated in January 1968. These prerequisite tasks are as follows: (1) production of a journal index prototype, (2) determination of relative efficiency of AIP vocabularies searching, (3) development of a structure of standard data elements that can unify and order data about physics and physicists, (4) inventorying available sources of information about physics and physicists, (5) elaboration of a two-year step-by-step plan to be used as a guide in the systems analysis and development effort. Arthur Herschman, director of the information retrieval division, will be the principal investigator for the first two tasks. A prototype for a journal index will be developed by Herschman and his staff between 1 Oct. and 31 Dec. Testing of the vocabularies developed as computer retrieval tools will be undertaken during this same period. The other three tasks will be done by Miles Libbey, director of the systems development division.

The final grant is for the computerized composition program. This grant, for \$94 600, is for approximately 18 months. The chief investigator is Hugh Wolfe, director of publications; Alt will also participate in the study. At the present time, coding

schemes are being determined and computer programs are being developed by Vance Weaver Compositions, Inc. and Inforonics, Inc. One of the important features of this program is that it will attempt to develop a system in which the machine-readable record made for primary publications will contribute directly to secondary publication and to information storage and retrieval services.

Study Offers Data on Current-Awareness Aids

A recent report on current-awareness habits of American and British physicists indicates that journal scanning, colleague contact and meeting lectures are in that order the most widely used methods. The study, prepared by Stella Keenan of the American Institute of Physics and Margaret Slater of the Aslib Research Department, working for the British Institution of Electrical Engineers, analyzes current-awareness preferences employed by 682 US and 268 UK physicists before *Current Papers in Physics* commenced publication in January 1966 (PHYSICS TODAY, Nov. 1966, page 11). Recommendations by the two sample groups on attributes of a good current-awareness journal were also studied as well as information on use of published abstract journals such as *Physics Abstracts* and use of current-awareness journals from other disciplines. The project is part of an overall investigation to determine the need for CPP and its usefulness to the physics community. Two later questionnaires cover the reactions of physicists to CPP as well as actual use made of the publication and the order in which sections were scanned.

Current-awareness preferences of the US and UK groups are as follows: current-journal scanning (US 91%, UK 94%), personal contacts (US 83%, UK 78%), papers at meetings (US 84%, UK 74%), abstract journal scanning (US 55%, UK 67%), preprints (US 61%, UK 50%), in-house abstract journals (US 21%, UK 36%), current-awareness journals (US 22%, UK 22%), others (US 22%, UK 13%).

Physicists in the US sample were chosen in the same relative proportions with respect to specialty, employer and work activity as the total

population of physicists in the National Register of Scientific and Technical Personnel. Physicists in the UK sample were chosen randomly from the membership list of the Institute of Physics and the Physical Society and the *Directory of British Scientists*. Copies of the report are available from the AIP information program.

AAS Elects Albert Whitford President for Two-Year Term

Albert E. Whitford was recently elected president of the American Astronomical Society. Whitford is currently serving as acting president of the society and will continue in that capacity until the summer of 1968, when he begins a two-year term as president. Whitford received a PhD from the University of Wisconsin in 1932 and is presently director of the Lick Observatory, Mount Hamilton, Calif. His interests include photoelectric photometry of stars and nebulae, development of instruments and atomic spectra.

Bengt Strömgren, former president, has departed for Denmark, where he will reside in the House of Honors in Copenhagen, a house previously occupied by Niels Bohr. Strömgren will teach astrophysics at Copenhagen U.

Martin Schwarzschild, professor of astrophysics at Princeton, is newly elected vice president of the society. Sidney W. McCuskey will continue to serve as the other vice president. G. C. McVittie and Frank K. Edmondson will also remain as secretary and treasurer, respectively.

New councilors elected by the society are John W. Evans (Sacramento Peak Observatory, Sunspot, N.M.), Elizabeth Roemer (US Naval Observatory, Flagstaff, Ariz.) and Edwin E. Salpeter (Neuman Laboratory of Nuclear Studies, Cornell). The new councilors will replace retiring councilors Armin J. Deutsch, Arne Slettebak and Marshal H. Wrubel. Those continuing in the councilor office are Helmut A. Abt, Helen S. Hogg, Thomas A. Matthews, Herbert Friedman, Arthur A. Hoag and Maarten Schmidt. Bart J. Bok (Stewart Observatory, U. of Arizona) and Harlan J. Smith (U. of Texas) were elected to the national committee to the International Union of Astronomy. □