

Physics teaching survey

UNESCO and the International Union of Pure and Applied Physics have prepared *A Survey of the Teaching of Physics at Universities* covering Europe, the Soviet Union and the United States. The report stems from an IUPAP-UNESCO project, begun in 1962, to promote international exchange of information about physics teaching. Representatives from Czechoslovakia, Germany, France, Great Britain, US and USSR provided comprehensive reports about university physics teaching in their respective countries. Later, the project coordinator, William C. Kelly, and others, revised the material and brought it up to date as of 1963.

Each of the chapters is devoted to a particular aspect of physics teaching in the several countries. Sections describe preuniversity, undergraduate and graduate study, education of school teachers and engineers, academic research, continuing education and evening schools, university teachers and their materials, and a final chapter on improving physics teaching. Most of the detailed information on syllabuses, experiments and books appears as appendixes, which are grouped by the chapter in which they were first cited.

For copies of the survey at \$6.50 write to National Agency for International Publications, 317 E. 34 St., New York, N. Y. 10016.

Computers at Irvine

At the Irvine campus of the University of California, all physics majors are taking a one-quarter computer course at the start of their freshman-sophomore physics sequence. Known as "information and communication science," the course enables Irvine professors to assign problems requiring computer solution and to use the computer for data analysis throughout a student's undergraduate career. The program is partly subsidized by the IBM Corp., which is sponsoring a com-

puters-in-education research group at Irvine, working in parallel with the school's own faculty as well as computer center staff.

Next year the 18 time-shared remote consoles now operating at Irvine will be increased to about 40, and several cathode-ray tubes will supplement the typewriter terminals. In addition computer-assisted learning will be tried out by using a modified version of the IBM Coursewriter, which will combine linguistic (programed instruction) and computational modes. For example a student will be asked questions that require calculations or writing and running a small computational program. "We do not yet know," says department chairman Kenneth W. Ford, "whether we will be able to match these resources with the manpower in physics so as to move ahead very rapidly. Our attitude is one of eagerness to explore the possibilities of the computer in teaching physics but not a preconceived commitment to computerizing the education process."

Final COPFIC report

The Committee on Physics Faculties in Colleges has brought its work to a close with a 24-page report *Physics in the Four Year Colleges—the Problems and Prospects*. The publication is a succinct summary of committee findings and recommendations covering the four years of COPFIC operations. Copies of this report as well as of an earlier study, *Report of the Committee on Physics Faculties in Colleges*, Sept. 1965, can be obtained from the Education and Manpower Department, American Institute of Physics, 335 E. 45 St., New York, N.Y. 10017.

Foreign scholars list

The Committee on International Exchange of Persons has prepared a list of foreign scholars available for remunerative appointments in American colleges and universities during 1966–67. Compiled annually, the list includes information about scholars

recommended by the binational US educational commissions or foundations abroad. Each scholar has been nominated for a Fulbright-Hays travel grant covering costs of round-trip transportation if he completes arrangements for an American lecturing or research appointment. The list and additional information is obtainable from Miss Grace E. L. Haskins, Program Officer, Committee on International Exchange of Persons, 2102 Constitution Ave., NW, Washington, D.C. 20418.

Physics for the blind

"Physics for the blind student," says T. A. Benham of Haverford College, "is often limited only by our own lack of ingenuity." Benham spoke on encouragement of blind scientists at the January meeting of the American Physical Society and the American Association of Physics Teachers. He demonstrated techniques and devices that enable a blind student to gather data solely through hearing and touch. For example, Benham showed how an ordinary meter for measuring current, potential and resistance is easily adapted with a Braille scale and sound indicator. In similar fashion, thermometers, capacitance and impedance bridges, and calculators are adapted to Braille or auditory use. Computer programing, he noted, is particularly well suited to blind people. A computer can be provided with a Braille readout, and blind programmers can read computer panel lights with a small light sensor. Recently, one physics PhD who is both blind and deaf was trained as a scientific programmer for a major company.

"How do you convey the idea of a graph to a blind student?", someone in the audience asked. Benham took an ordinary stylus out of his vest pocket and drew a set of coordinates that one could feel on a sheet of paper.

Benham is editor of *Science for the Blind*, published by a nonprofit organization on the Haverford campus.