# News of Science

## IAEA First-Year Program

The Preparatory Commission of the International Atomic Energy Agency recently released a report proposing a program for the first year of IAEA's operation. The report will be considered at the first general conference of the agency, which will open in Vienna on 1 Oct. In addition to the report of the Preparatory Commission, the conference will consider a variety of other recommendations made by the commission concerning the relationship of the agency to the United Nations and to other international organizations, the headquarters of the agency, and a number of recommendations concerning structure and administration.

The basic objective of the agency as defined in its statute is to "seek to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world." The Preparatory Commission's report recognizes that one of the first ways in which the agency can attempt to meet this objective is by assisting its members "to acquire the knowledge and skills to make full use of the applications of radiation and radioisotopes for scientific research, and to . . . agriculture, industry, and medicine."

The commission recommends that the agency take early action to stimulate the flow of scientific and technical information among its members. While welcoming the removal of classification restrictions during the last year or two, the commission considers that the agency can offer a unique service by providing a central pool of information and by keeping its members informed of the latest developments in the nuclear field.

The commission emphasizes that from its inception the agency "will be faced with problems created by the world-wide shortage of trained scientific and technical personnel." It recommends, therefore, that the agency take immediate steps to assist the training of nuclear specialists, particularly in the underdeveloped countries, and expresses the hope that member states will from the outset place at the disposal of the agency training and research facilities, particularly where reactors already exist. The commission suggests the establishment of a special program for promoting the construction of a limited number of research or power reactors, so located as to give "the maximum benefit to the largest possible number of member states."

The report recommends that the budget for the first year of the agency be $4,089,000 and that a working capital fund of $2 million be established. In addition, it is proposed that states that are members of the agency make voluntary contributions totaling $250,000 for the establishment of training programs for nuclear specialists, particularly in the less-developed countries.

## SEATO Fellowships

Research fellowships for nationals of member countries are now being offered by the Southeast Asia Treaty Organization under its cultural relations program. The grants, for research primarily in SEATO countries, seek to encourage study of "such social, economic, political, cultural, scientific and educational problems as give insight into the present needs and future development of Southeast Asia and the Southwest Pacific."

The grants are for from 4 to 10 months and provide a $400 monthly allowance and air transportation. Announcement of the final awards, which are to be made by an international SEATO committee, is expected in December. U.S. citizens should apply *not later than 15 Oct. 1957* to the Committee on International Exchange of Persons, Conference Board of Associated Research Councils, 2101 Constitution Ave., NW, Washington, D.C.

## Submarine Mountain Range

A new undersea mountain range has been discovered north of Point Barrow, Alaska, by a team of geophysicists from Columbia University's Lamont Geological Observatory. The group, which is engaged in research for the International Geophysical Year, is stationed on an Arctic ice pack that is drifting toward the North Pole. The work is sponsored by the IGY Committee of the National Academy of Sciences and the Air Force Cambridge Research Center.

Maurice J. Davidson, leader of the expedition, has radioed that there is every indication that this major submarine range parallels the great Lamonosov ridge in the central Arctic. This latter ridge extends from Greenland across the Arctic Ocean toward the New Siberian Islands and has been explored by Soviet scientists and by American scientists on T-3, the floating ice island.

The geophysicists have reported that since first soundings were taken at 82°15′N and 165°10′W all results had indicated water depths of about 3000 meters, or nearly 10,000 feet. Recently, however, the station, which has been moving steadily, floated over a "topographic feature" with depths as shallow as 1515 meters, or 4971 feet, at 83°51.5′N and 168°43′W. This indicates a submarine mountain range that rises at least 5000 feet above the ocean floor. It was not possible for the investigators to obtain further details on the length or width of the range.

The geophysicists also reported that several cores of ocean-bottom sediments have been obtained by the expedition. One of these cores is perhaps the longest ever obtained in the Arctic Ocean. They will be brought back to the Lamont Geological Observatory for analysis.

## High-School Science Enrollments Rise for First Time since 1910

The U.S. Office of Education reports that a recent study of high-school enrollments in science and mathematics, to be published in full in a few months, shows that last fall there was a small increase in the percentage of students enrolled in mathematics and science courses. This is the first such increase since 1910. Until last fall, the percentages had been generally on the decline. However, despite the previous percentage declines, the total number of students enrolled in these courses has increased steadily and is now the highest in the nation's history.

The Office of Education also reports that more and more schools have been offering courses in science and mathematics. The percentage of public high schools providing courses in chemistry or physics to 12th-grade students rose from 77 percent in 1954 to 82 percent last year. Schools offering plane geometry courses to 10th-grade students rose from 78 percent to 81 percent.

The study showed that the percentage of high-school students taking algebra

decreased from nearly 56.9 percent in 1910 to a low of 24.6 percent in 1952, then increased to 28.7 percent in 1956. However, the total number of students enrolled in this subject increased from about 500,000 in 1910 to more than 2 million in 1956.

Wide regional variations in enrollments in science and mathematics were found in 1956, the base year for the recent study. For example, 90 percent of the 10th-grade students in the South Atlantic region study biology, as compared with only 65 percent in the Pacific Coast states. In one region 27.9 percent of the students studied intermediate algebra, as compared with 3.8 percent in another.

Many small high schools do not offer advanced science or advanced mathematics courses. Although they enroll a relatively small proportion of the total high-school students, approximately 100,000 high-school seniors attend schools that do not offer advanced mathematics.

## Visiting Scientists Program

The American Association of Physics Teachers and the American Institute of Physics are jointly sponsoring a program of visiting scientists for 1957–58. Supported by a grant from the National Science Foundation, the program will provide opportunities for the faculty and students in colleges and universities lacking extensive research facilities to meet well-known physicists informally and to hear them discuss their research interests. A few high schools will also be included in the program.

This activity is under the direction of the AAPT Committee on the Program of Visiting Scientists, whose chairman is J. W. Buchta of the University of Minnesota. Inquiries should be directed to W. C. Kelly, American Institute of Physics, 335 E. 45 St., New York 17, N.Y.

## Nova Scotia Centre for Geological Sciences

An unusual international educational program celebrated its tenth anniversary on 30 Aug. with the closing exercises of the Massachusetts Institute of Technology Summer School of Geology at Antigonish, Nova Scotia. Sponsored jointly by the M.I.T. department of geology and geophysics and the Province of Nova Scotia, this school has helped educate some 350 young Canadian and U.S. geologists.

This outstanding example of international cooperation in education functions as follows. Several professors from M.I.T. and from Nova Scotia universities instruct a group of 25 to 30 students each summer in field training in geology and associated sciences at the Nova Scotia Centre for Geological Sciences at Crystal Cliffs. The project, which is administered by M.I.T., also carries on a program of student thesis work and staff research throughout the Province of Nova Scotia.

The province, largely through the Department of Mines and to some extent through the Nova Scotia Research Foundation, provides lodging, food, and transportation for the students and staff of the school. In several cases, the province has also provided grants and transportation assistance to students working on theses.

Students from four Nova Scotia schools—Acadia University, Dalhousie University, Nova Scotia Technical College, and St. Francis Xavier University—have an equal opportunity with M.I.T. students to participate in the instructional program and in the thesis work of the school. Students from other maritime colleges and from other schools in the United States are admitted as far as facilities permit.

Sixteen American schools besides M.I.T. have sent students to the program, with Yale University having sent the most. These U.S. students have come from 36 of the 48 states. In addition, foreign students from every continent of the globe have also participated in the program.

The curriculum of the school covers a period of 10 weeks, part of which is devoted to practical field mapping and detailed studies related to the natural resources of Nova Scotia. In the past 10 years, students have set up and occupied more than 50 camp sites for their field work.

These field studies have been chiefly devoted to unsolved problems, and many of the reports on stratigraphic and structural geology have had a bearing on natural resources. Such reports on problems of an economic or practical nature have included studies dealing with gold, copper, iron, cobalt, uranium, and coal. A number of these studies have been published by the Nova Scotia Department of Mines.

This international cooperative venture in geologic instruction and research was initiated by Walter L. Whitehead of M.I.T., Donald J. MacNeil of St. Francis Xavier University in Antigonish, and Harold D. Smith of the Nova Scotia Research Foundation. It has been sponsored and supported from the beginning by the Nova Scotia Department of Mines. Additional assistance has been given by the Nova Scotia Research Foundation, the Dominion Coal Company, and the Geological Survey of Canada.

## Marshall Island Fallout Report

The Atomic Energy Commission has announced publication of *Radioactive Contamination of Certain Areas of the Pacific from Nuclear Tests—a Summary of the Data from the Radiological Surveys and Medical Examinations.* This report brings together the principal data on environmental contamination from the radioactive fallout following the 1 Mar. 1954 thermonuclear detonation at the Eniwetok Proving Ground. It collates ten radiological surveys made in the Pacific by the Applied Fisheries Laboratory of the University of Washington, U.S. Naval Radiological Defense Laboratory, Health and Safety Laboratory at the New York Operations Office of the AEC, and the Office of Naval Research. The report also contains pertinent excerpts of the findings of American medical teams who examined the exposed Marshallese. The report may be obtained for 50 cents from the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C.

## Cleveland Engineering Center

The Cleveland Engineering and Scientific Center, Cleveland, Ohio, is now under construction. A cornerstone ceremony was recently held for the $1,525,000 building, which is scheduled to open next spring as headquarters for 13,000 engineers, scientists, and technical experts in the Cleveland area. The structure will have a main section of two stories and a five-story tower. In addition to the Cleveland Engineering Society, 52 member organizations of the Cleveland Technical Societies Council will use the building.

## International Abstracts of Biological Sciences

Last October it was announced in *Nature* (**128**, 726) that it was the intention of the Council of Biological and Medical Abstracts Limited to change the name of *British Abstracts of Medical Sciences* to *International Abstracts of Biological Sciences.* This change has now occurred, and it emphasizes two important developments in the character of the journal: the abstracts now cover a wider range of subjects and they also cover the Russian literature. The inclusion of subjects not previously covered has been promoted by the appointment to the council of representatives from the Society of Experimental Biology.

A variety of other improvements have also been incorporated, and *International Abstracts of Biological Sciences*