

from Europe, and a fourth from Canada. Among natural scientists, the proportion coming from both Europe and Canada was lower than among engineers. New York, California, and Illinois were the most popular choices of this group as destinations.

### Antarctic Meteorological Report

Herfried Hoinkes, an Austrian meteorologist who has been conducting research in the Antarctic as part of the U.S. International Geophysical Year program, reports that although the South Pole receives more sun than any place on earth during December, its midsummer, most of this energy is reflected by the ice cover. Approximately 89 percent of solar energy received in the Antarctic is lost through such reflection. Absorption of radiant heat is slow because of the fine grain of the top layer of snow. This layer is so hard that quite often footprints do not show on it. When prints are left, they remain sharp for weeks, indicating the small amount of evaporation.

Hoinkes made 3664 temperature observations over a 5-month period at the IGY Little America Station. These indicated that under the most common wind conditions, southeasterlies of 19 knots, temperature difference between the surface and 50 feet above was only 1 to 3 degrees. The maximum temperature inversion occurred under clear skies and calm wind conditions because of the strong long-wave radiation from earth to sky. When a cloud cover moves in to block heat loss from the earth and at the same time emit the heat it has collected, a rapid warming of the surface takes place even in winter.

Minimum possible Antarctic temperatures of  $-108^{\circ}\text{F}$  have been calculated from observed radiation loss by both Soviet and American meteorologists participating in the IGY program. Actual minimum observation at the U.S. South Pole station in 1957 was  $-102^{\circ}\text{F}$ .

Other findings by Hoinkes included an estimate that Antarctic snow dunes move at a rate of  $6\frac{1}{2}$  feet an hour, and that moraines of rock and other fill deposited by glaciers are 10,000 years old, compared with hundreds of years for some European and North American moraines, indicating that only very long climatic cycles affect movement of Antarctic glaciers.

Hoinkes is chief glacial meteorologist for the Arctic Institute of North America, which is performing research sponsored by the IGY Committee of the National Academy of Sciences. The IGY Antarctic program in which Hoinkes participated receives logistic support from U.S. Navy Task Force 43, commanded by Admiral George Dufek.

### Yale's Heavy Ion Accelerator

A new heavy ion linear accelerator has gone into operation at Yale University. It is accelerating beams of ions of oxygen (oxygen 16) to energies of 160 million electron volts. The first beam was detected on 15 March. Other ions, such as nitrogen, neon, and carbon, can be accelerated in the new facility to energies of 10 million electron volts per nucleon.

Only one other high-energy heavy ion accelerator exists in the United States. This is now in operation at the University of California Radiation Laboratory. These two accelerators were designed jointly by Yale and University of California scientists under the auspices of the Atomic Energy Commission. However, research emphases at the two institutions are different. While the Berkeley scientists are giving priority to chemical transmutation experiments, Yale's emphasis is on the study of nuclear structure.

Director of the Yale project is Edward R. Beringer, professor of physics. He headed a Yale team that began working with University of California scientists in February 1954 to design the two identical linear accelerators.

### Tariffs on Instruments

The American Council on Education has endorsed HR 9349 and S 3155, which are intended to remove the tariff barriers on scientific equipment and apparatus for educational institutions. A Council statement reads:

"As a means of assisting American institutions to improve their scientific programs, the Commission on Education and International Affairs (of the A.C.E.) on February 21 gave strong endorsement to the following pending legislation which would permit tax-exempt institutions to import scientific and laboratory apparatus duty free: HR 9349—Congressman Antoni N. Saklax (now under consideration by the Committee on Ways and Means of the House of Representatives); and S 3155—Senator Ralph E. Flanders (now under consideration by the Committee on Finance of the Senate).

"The Commission expressed the conviction that in these critical times when the United States is taking unprecedented steps to further our scientific interests in order to protect our national security and maintain our world standing, every effort should be made to supplement and diversify existing sources of supply of scientific teaching apparatus. The proposed legislation would eliminate the present tariff, on scientific instruments and apparatus imported for

educational purposes, of 40 per cent on the average and 50 per cent on optical goods. This tariff prevents many educational institutions from importing specific items which are not readily available domestically."

### Scientists in the News

MARGARET MEAD, RAYMOND A. DART, and JAMES B. GRIFFIN have received the 1957 Viking Fund medals of the Wenner-Gren Foundation for Anthropological Research. Mead was selected as the medalist in general anthropology by the American Anthropological Association; Dart was elected by the American Association of Physical Anthropologists as medalist in physical anthropology; and Griffin was the candidate of the Society for American Archaeology for the archeology medal.

Mead, associate curator of ethnology at the American Museum of Natural History and a member of the AAAS board of directors, has done more than any other single individual to introduce anthropology to the American public. Among her most popular books are *Coming of Age in Samoa*, *Growing Up in New Guinea*, *Male and Female*, and *New Lives for Old*. Dart, dean of the faculty of medicine at the University of the Witwatersrand, Johannesburg, is recognized as the discoverer of the earliest known human being. Griffin, director of the Museum of Anthropology and professor of anthropology at the University of Michigan, was cited for his great influence in promoting the aims of scientific archeology, and for his knowledge of the form, range, and distribution of artifact styles in North America.

T. E. F. CARR, member of the Medical Research Council's Radiobiological Research Unit at the Atomic Energy Research Establishment, Harwell, England, is visiting the United States till about the end of July. He has been given a leave of absence to take up a temporary appointment with the United Nations for approximately 6 months. He will be in New York first, then he will go to Geneva, Switzerland, to act as biological secretary for the International Conference on the Peaceful Uses of Atomic Energy, 1-13 September.

WILLIAM H. STEWART has been appointed assistant program operations officer of the Public Health Service. He will serve as assistant to ARNOLD KURLANDER, who was recently appointed to the newly created post of Assistant Surgeon General for program operations. Stewart has been an assistant to the Surgeon General for the past 10 months.