

radiocarbon dates and a description of the samples assayed. The committee decided that the new record cards should also include the laboratory, laboratory number, method employed, and major scientific field concerned. The committee's suggestions have been followed, and a basic coding has been provided so that initial sorting of the cards is easily accomplished. There is room for each subscriber to set up an extensive code to sort the cards for his own research.

A survey indicated considerable demand for the cards, but the cost of production, \$250 for a set of 5000 cards, resulted in a limited number of subscriptions. However, revision of the original plans and the generosity of the commercial houses involved has made it possible to proceed. The corporation is distributing sets of about 1000 cards each to subscribers, and there is the possibility that another 3000 cards can be delivered by the end of 1960. The remaining 1000 will be sent out when they are published.

Because the project is barely solvent, it is not going to be possible to print a surplus of these cards for nonsubscriber sale. Any organization that is contemplating purchase should communicate with Frederick Johnson, Radiocarbon Dates Association, Inc., R. S. Peabody Foundation, Box 71, Andover, Mass.

Center for Carbon-14 Determination

The International Agency for ^{14}C Determination (measurements of primary production in the sea), has been established at Charlottenlund Slot, Charlottenlund, Denmark. The agency is organized on a nonprofit basis. E. Steemann Nielsen, who is adviser on plankton research to the Danish Institute for Fisheries and Marine Research, is honorary supervisor, and the daily work is directed by Vagn Hansen of the same institute. The facilities of the agency are available to all scientific institutions in the world.

Manufacture of the carbon-14 ampoules that are used in experiments for measuring primary production in the sea requires a well-equipped laboratory and a scientist familiar with radioactive tracer work. The same is true concerning the measurements of the radioactivity of the filters containing the samples to be studied. Whereas large oceanographic institutions ordinarily have such an expert at their disposal, this is not true for many other marine laboratories.

This problem was discussed during the Symposium on Measurements of Primary Production in the Sea held at Bergen, Norway, in 1957 by the International Council for the Exploration of the Sea. An ad hoc working committee was appointed to consider the methods for the measurement of primary production. Among its recommendations which were adopted unanimously by some 80

symposium participants, was a paragraph that read: "It is suggested that a central agency be established, for example at Charlottenlund under the direction of E. Steemann Nielsen, which would provide standardized ampoules of ^{14}C , counting of ^{14}C samples, and calculation of carbon assimilation rates." In 1958 UNESCO provided funds for establishing the agency, which is now operating in space provided by the Danish Institute for Fisheries and Marine Research at Charlottenlund.

Radiotelescope under Construction

A team of ten students, directed by John D. Kraus of Ohio State University, is constructing an unusual radiotelescope under a National Science Foundation grant of \$166,000. Two earlier grants by the foundation for this work have totaled \$106,650.

The design, engineering, and construction of the two 360-foot-long antennas are done for the most part by the students, who work part time during the school year and on a full-time basis in the summer. Three nonstudent technical assistants are also employed on the project.

The new instrument is designed to be used in mapping radio sources in the sky at minimum cost. The installation will consist of a fixed parabolic antenna 360 feet long and 70 feet high; a flat, tiltable reflector 360 feet long and 100 feet high; and associated radio receiving equipment. The telescope is expected to go into operation in 1960.

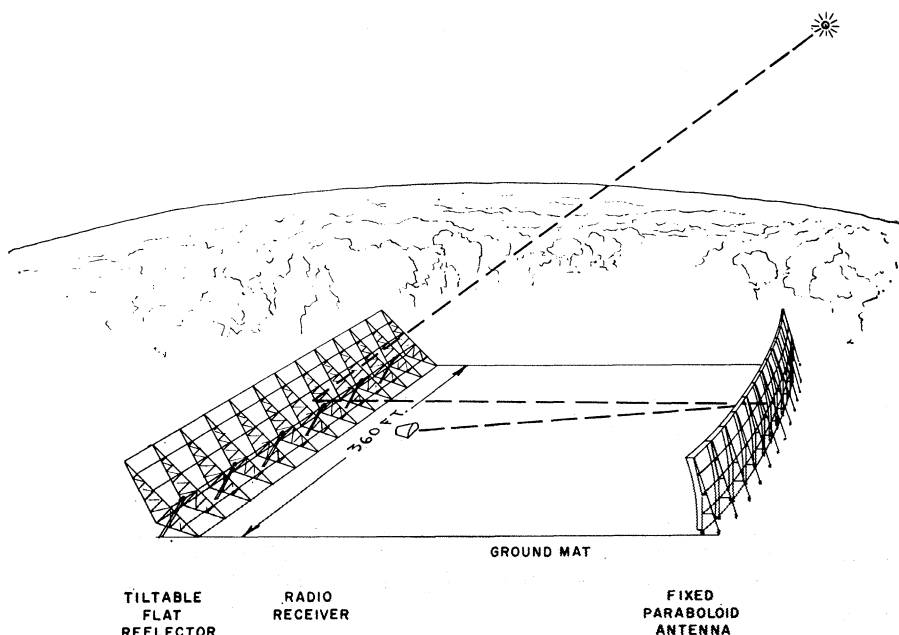
Soviet Science

Many reports, giving both accomplishments and proposals, have been published recently on Soviet scientific activities. Some of these are summarized here.

Two members of the United States Weather Bureau have reported that Soviet scientists have turned up evidence that a continental land mass lies below a great part of the ice-covered expanse of Antarctica. They said the "positive" evidence of a continent had been found by the Russians during a long, over-ice trek made in the latter part of 1958 from their main base at Mirny on the Knor Coast to the "pole of relative inaccessibility," a point about 1400 miles inland. During the trek the Soviet scientists made seismic soundings every 30 to 50 miles along the route. These indicated that the actual land mass started about 300 miles inland from the Mirny base camp.

Members of a group of astrophysicists which toured the Soviet Union last year reported that the U.S.S.R. is graduating about twice as many astronomers as the United States. They also gave their view that, although the United States now leads in astronomy, there is reason to believe that Russia may take the lead within 15 years.

Other scientific visitors to Russia report that Soviet mathematicians have made great progress in information theory and in cybernetics, two areas of mathematical study that were condemned on ideological grounds a few years ago. Work in the two fields is mostly theoretical because of the scarcity of large digital computers. Other observ-



Artist's conception of radiotelescope under construction at Ohio State University. [National Science Foundation]