

Kjeller, near Oslo, on November 29. *Nora*, intended for the establishment of various physics data of importance for the development of power reactors, has been so constructed as to be very flexible and to permit a wide range of experiments to be carried out with it. One of its important features is the supporting device for the fuel elements which permits the fuel lattices to be changed readily. The reactor will operate at a power-level of only a few watts. The financing of *Nora* was made possible by a grant of 350,000 dollars from the U.S. Atomic Energy Commission under the Atoms for Peace programme in addition to the funds contributed by the Government of Norway.

The programme aims at obtaining precise and widely applicable reactor physics data on cores with mixed and variable lattices moderated by light water, by heavy water and by mixed heavy and light water. In addition to the critical assembly *Nora* itself, Norway is making available two reactor cores, one consisting of natural uranium and the other of slightly enriched uranium. A third core, provided under the supply agreement between IAEA and the United States, consists of fuel enriched to 3 per cent in the radio-isotope uranium-235. This core was originally used in development work for the nuclear merchant ship *Savannah* and contains approximately 42 kgm. of uranium-235. This is the first lease of special nuclear material through the Agency to one of its Member States. The Joint Scientific Programme Committee which is to conduct the *Nora* research project is headed by Dr. Raja Ramanna (India). The other committee members are Mr. Olav R. Kåsa and Dr. Henrik Ager-Hanssen, both from IFA, and Dr. Pierre Bailligand, deputy director-general, and Dr. Carlo Salvetti, director of the Division of Research and Laboratories, both of IAEA.

Diamond Jubilee of Trans-Atlantic Radio

On December 12, 1901, Guglielmo Marconi became the first to send a wireless signal across the Atlantic. This remarkable achievement with such primitive equipment marked the birth of world-wide communication. During the spring of 1900, Marconi had succeeded in sending reliable signals from St. Catherine's in the Isle of Wight to the Lizard in Cornwall, a distance of 186 miles. This encouraged his belief that by using larger aeriels and far more powerful transmitters he would be able to achieve trans-Atlantic distances. Scientists were highly sceptical; many said it was impossible because of the curvature of the Earth. Marconi was determined to make the attempt and a transmitting station nearly one hundred times more powerful than any previously constructed was built at Poldhu, near Mullion, in Cornwall. Enormous aeriels were erected at Poldhu and at Cape Cod in Massachusetts, but both were wrecked in severe gales. Another, less ambitious in design, was put up at Poldhu, while Marconi and his two assistants sailed to Newfoundland where, from the top of Signal Hill, a receiving aerial was hoisted, at the third attempt, by means of a kite. At 12.30 p.m. (Newfoundland time) on December 12, 1901, Marconi and his assistant, G. S. Kemp, using one of the primitive receivers of the period with a telephone earpiece, heard a faint succession of S's in Morse code. Signals from Poldhu, 2,200 miles away, had crossed the Atlantic.

To commemorate this historic achievement, a Special Exhibition will be displayed at the Science Museum, South Kensington, during December 13-January 25.

Research in Shipbuilding

In a written answer in the House of Commons on November 21, the Parliamentary Secretary for Science, Mr. Denzil Freeth, stated that the shipbuilding and marine engineering industries in Britain have set up an executive committee, with the encouragement of the Department of Scientific and Industrial Research, to form a new association for ship research, and the proposals agreed within the industries were to be announced. Discussions with the Department on constitutional matters were well advanced, and those on details on the final financial arrangements are to follow.

U.S. Research Activities in the Antarctic

THE U.S. National Science Foundation has announced a further allocation of approximately 1,500,000 dollars for research work in the Antarctic. The largest single grant among the twenty-seven grants which this sum comprises is for the Antarctic Meteorological Research Program of the U.S. Weather Bureau. The total grant for this programme is now nearly 400,000 dollars. A further sum, exceeding 100,000 dollars, has been allocated to a series of meteorological rocket firings. These firings will reach heights up to 200,000 ft. to investigate winds and temperatures. There has previously been no systematic measurements of these elements in high southern latitudes. The firings will be co-ordinated with similar soundings in other parts of the world, through the Meteorological Rocket Network, and the results will be correlated with world-wide stratospheric wind measurements. The U.S. Weather Bureau will also conduct an ice survey of antarctic waters with the assistance of U.S. Navy aircraft. This is intended to assist in the analysis of data to be received from projected polar satellites. A biologist from Ohio State University will carry out research while being based for sixteen months at the main U.S.S.R. base at Mirny. The main objective is to study invertebrate land animals and correlate the results with ecological studies which have been made at United States stations. This arrangement will continue the practice whereby the United States and U.S.S.R. exchange scientists at antarctic bases through agreements reached between the U.S. National Academy of Sciences and the Academy of Sciences of the U.S.S.R.

The Institute of Reprographic Technology

THE Institute of Reprographic Technology was inaugurated at a reception held at St. Ermin's Hotel, Westminster, on November 23. The Institute will function as a professional body with entrance by examination, and its aims will be to increase the efficiency and technical ability of those practising the art of reprographic technology. This will be achieved by providing a forum for the exchange of ideas and a continuing programme for the dissemination of the scientific knowledge related to the profession. It is hoped that as the Institute grows regional organizations will be developed based on the industrial centres. Mr. Charles Hanrott has been elected chairman of the Institute. Further information can be obtained from the Honorary Press Officer, Institute of Reprographic Technology, 157 Victoria Street, London, S.W.1.

Impact of Science on Society

Impact of Science on Society, No. 3, 1961 (Vol. 11), includes several particularly interesting articles. An