

equal rank, particular reference may be made to those of Ross, 1829-31, whereby he located the position of the North Magnetic Pole on the western coast of Boothia Peninsula at Cape Adelaide and those of Amundsen, 1903-05, which confirmed the general location of Ross's pole.

In 1880, the Topographical Survey Branch of the then Department of the Interior began to gather magnetic information chiefly pertaining to declination. The determination of the magnetic elements was an adjunct to the regular survey work of the Topographical Survey and being designed for immediate practical use did not always possess the degree of accuracy required for a mathematical discussion of the problem of the earth's magnetism. The Carnegie Institution of Washington, D.C., therefore, began sending scientific magnetic survey parties into Canada in 1905. These parties were withdrawn in 1913.

The Dominion Observatory, in 1907, recognized the importance to Canada of the science of terrestrial magnetism and instituted a systematic scientific magnetic survey of the country using instruments of the design approved by scientists of international renown. Since that time, the Observatory has established a network of base magnetic stations extending from Cape Race, Newfoundland, to Triangle Island, off the northwest tip of Vancouver Island, and from the Canada-United States boundary in the south to latitude 80° N. in Ellesmere Island. Over 1,200 magnetic stations have been established and at approximately 400 of these observations are repeated at roughly five-year intervals in order to record the secular change in the magnetic elements. In addition, several hundred declination stations have been occupied in Northern Canada during recent years by the Geodetic and Topographical Surveys.

The Dominion Observatory maintains at present, two permanent and one temporary magnetic observatories where continuous records are made of the changes in the earth's magnetic field.

The Toronto Magnetic Observatory began operations in September, 1840. The Observatory has been in continuous operation ever since and it is and has been one of the principal magnetic observatories of the world. In 1898, owing to the artificial disturbances due to electric streetcars in Toronto, Ont., the Observatory was moved 12 miles distant to Agincourt, Ont., where it still is in operation. Meanook Magnetic Observatory, about 90 miles north of Edmonton, Alta., was established in 1916. This Observatory has become invaluable in furnishing control to field observations made in Northern Canada. A temporary magnetic observatory was established at Baker Lake, N.W.T., in December, 1947, for the purpose of studying Sub-Arctic magnetic phenomena. The observatories at Agincourt and Meanook were operated by the Meteorological Service until December, 1936, when they were transferred to the Dominion Observatory. It should be noted that temporary magnetic observatories operated in 1882-83 at Fort Rae, near North Arm of Great Slave Lake, at Kingua Fiord, near Pangnirtung, Baffin Island and at Fort Conger in north Ellesmere Island. Fifty years later, in 1932-33, magnetic observatories were operated at Fort Rae and Chesterfield Inlet. In both these epochs the observatories were part of an international network established to study the earth's magnetic field in Polar regions.

The Dominion Observatory has given particular attention in recent years to the collection and subsequent analyses of magnetic data from the Canadian Arctic. Such information is essential to the construction of accurate and complete air navigation charts. A very interesting and important contribution to the science