Highlighting the 1955 field program were two helicopter projects carried out by the Topographical Survey over areas totalling 60,000 sq. miles in New Quebec-Labrador and along the lower Mackenzie River in the Northwest Territories. In New Quebec-Labrador six topographical engineers mapped four areas totalling 24,000 sq. miles on a scale of approximately 1 inch to 1 mile. The areas comprised the western coastal region of Ungava Bay, the central portion of the peninsula east of Ungava Bay, an inland area in central northern Labrador, and a small area in the Lake Manuan district about 130 miles south of Ungava Bay. In the Northwest Territories six other topographical engineers mapped, on the same scale, a 35,000 sq. mile area straddling the lower Mackenzie River from Fort Good Hope to the Mackenzie delta. The party used two helicopters and one conventional aircraft for transportation.

In the charting of Canada's coastal and inland waters, the Canadian Hydrographic Service is replacing older techniques with newer sonic methods. In 1955 for instance it determined the positions of soundings in offshore areas south of Anticosti Island electronically rather than by direct shore observation. The Service has three vessels on the Pacific Coast and four on the Eastern Coast. During the past several years it has chartered an additional two boats for northern work. It also has several smaller boats on inland waters including the Great Lakes and Great Slave Lake. In all it uses about 16 craft in the task of making soundings for charts.

The increasing interest being shown in Canada's Far North has pointed up the need for the establishment of safe routes of travel through Canadian Arctic waters, and the seeking out and charting of possible harbours for use in connection with the development of newly discovered resources and for the safe sea supply of various stations recently established in the Arctic Islands. The keel for *The Baffin*, a $4,000,000 ship specially designed for this type of Arctic work, was laid in the spring of 1955 and the ship is expected to be in commission in 1956.

THE GEOLOGICAL SURVEY OF CANADA

The Geological Survey of Canada sends 70 to 90 parties in to the field each year. Since the Survey started operations in 1842 it has provided a general picture of the country's geology and has mapped over 1,000,000 sq. miles of Canada's 3,800,000 sq. mile area on scales adequate to meet the requirements of mineral development.

It maps areas on different scales depending largely upon the interest and the extent of activity in the areas. It does reconnaissance mapping for instance to sort out the more favourable areas for prospecting in a region, which are then mapped on a detailed scale. Areas under development are mapped on detailed scales ranging as a rule from 1 inch to 1 mile, to 1 inch to 1,000 feet. This provides industry with the key to the geology of a particular area and thus guides it in the development of other mineral deposits. Areas being studied in this manner include the rich silver-lead Mayo area in central Yukon, the Beaverlodge uranium area in northern Saskatchewan and the extensive iron ore fields of New Quebec-Labrador.

Aerial reconnaissance mapping of Canada's northern regions now under way will soon place in the hands of the mineral industry geological information on the more favourable prospecting areas. The Survey began this reconnaissance mapping in 1952 with *Operation Keewatin* in the Northwest Territories when five geologists mapped a 57,000 sq. mile area by helicopter in the southern part of the District of Keewatin west of Hudson Bay. Use of the helicopter allowed the Survey to crowd into one field season mapping that would have taken it 20 to 25 years by the more conventional methods—and the work