

ACTIVE IN FAR NORTH

"Go north, young man, go north" has real meaning this 1957 field season to federal map-makers in the Department of Mines and Technical Surveys, the men who map and chart Canada's land and water areas.

Over a third of the surveyors, topographical engineers and hydrographers whom the Department's Surveys and Mapping Branch is placing in the field this year, are heading into the Far North to obtain the information required for the production of vitally needed new maps and charts.

First nickel shipments are coming this year for instance, from nickel-mining operations in the Rankin Inlet area on the west coast of Hudson Bay in Northwest Territories, and Branch hydrographers are busy working out safe navigable routes for the shipments through Hudson Bay and Hudson Strait to the Atlantic Ocean.

Largest mapping projects will be carried out by two topographical helicopter parties which will map large blocks of territory, one in northwestern Canada and the other in the northwestern corner of Ungava, and by a shoran party which will complete, with the RCAF, the main framework of control (latitude and longitude) for mapping over the Arctic Islands.

In Ungava, Branch topographers this year will use the tellurometer, the latest instrument out for the measurement of distance. It was developed in South Africa and has all the earmarks of revolutionizing surveying techniques. By its distances of from 1,000 feet to 35 miles can be measured with greater accuracy than any hitherto available practical method.

In other northern projects, a radar altimeter party will fly large expanses of Arctic

waste lands recording land heights electronically for air navigation charts and for other mapping purposes. Topographical engineers will pave the way for future mapping in Northwest Territories by running a line of precise levels to establish basic vertical control (heights of points above sea level) from the Saskatchewan-Northwest Territories boundary through to Coronation Gulf on the Arctic coast. Branch hydrographers will penetrate deep into Arctic waters on supply mission ships to chart safe routes for navigation, and the Department's new ship "BAFFIN", especially designed for Arctic work, will chart Frobisher Bay on the southeastern coast of Baffin Island on her maiden Arctic tour.

In all, the Surveys and Mapping Branch will place 76 parties in the field, of which 14 are geodetic, 27 topographical, 15 legal and 20 hydrographic.

The sum total of their season's work will be the completion of a shoran network of geodetic control over Canada's vast northern regions and the filling in of several gaps in the existing framework of control in more southerly areas; the field work for topographical mapping of more than 150,000 square miles of territory in various areas about the country; and the charting of hundreds of miles of coastal and inland waters for safety of shipping.

In terms of maps and charts, the season's work will mean over 200 new topographical maps improved air navigation charts, and 12 new charts of coastal and inland waters for map-hungry Canadians who last year requested over a million copies of the different types of maps and charts put out by the Department.

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TRANS-CANADA HIGHWAY. The Canadian Government Travel Bureau reports that the Trans-Canada Highway from the Manitoba-Ontario border to the Rockies is now virtually completed, and that motorists may now travel, with a few minor exceptions, a superb paved highway across three of Canada's western provinces - Manitoba, Saskatchewan and Alberta.

The Trans-Canada Highway now provides United States motorists travelling from Winnipeg to the scenic national parks of Alberta and British Columbia with an excellent all-Canadian touring route.

Although a few small sections are still to be completed, provincial governments have made arrangements to pass touring traffic through with a minimum of inconvenience. In most sections paved alternate highways are available to by-pass construction. Most of the 997 miles across these three western provinces are now up to Trans-Canada Highway standards.

With the exception of a 50-mile section in Newfoundland motorists can now cross Canada

from coast to coast using provincial highway systems, which for the most part follow the Trans-Canada route.

Along the whole 5,000-mile length of the Highway only three physical breaks remain. These are in Ontario, British Columbia and Newfoundland. In Ontario and British Columbia alternate routes are available, and in Newfoundland autos are transported by railway to bridge the gap.

Not all of the route is up to Trans-Canada Highway standards but about a third of the whole highway is completely finished.

The specifications call for a 22 to 24 foot pavement, and 10 foot shoulders (where economically feasible), gentle curves, low gradient, and well designed sight distances, generally providing for a clear view at all times from the driver's eye to a small object on the pavement at least 600 feet ahead.

The routing of the Trans-Canada Highway has brought the best of the Rockies within easy reach of touring motorists. With the whole