

STATEMENTS AND SPEECHES



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RESOURCES DEVELOPMENT IN CANADA

An address by Mr. George Hees, Minister of Transport, at the luncheon of the Prospectors and Developers Convention, Macdonald Hotel, Edmonton, Alta., February 24, 1958.

Prospecting and the development of natural resources in Canada have gone hand in hand throughout the period of Canada's growth as an industrial nation but full realization of our inheritance is largely dependent on transportation. Whereas the early prospector was compelled to proceed afoot to carry out his search for mineral deposits and was only able to bring back small samples of his find, the modern prospector uses aircraft and the latest scientific instruments in his work. Likewise, modern surveys are mostly carried out with the help of both fixed wing aircraft or helicopters. However, it avails us little to know that an area is abundantly rich in mineral wealth or other natural resources unless it becomes feasible to provide the necessary transportation to move the ores to processing plants, logs to saw mills or paper mills or produce to the consumer.

Not only must we constantly expand our railway facilities, improve water navigation and extend the range of our commercial airlines, but we must embark on a network of northern roads as a preliminary step to the overall development of our north country and indirectly the whole of Canada. In fact the whole national development program as the Federal Government sees it can only reach fruition as communication and transportation lines are built to enable the raw material to be collected, processed and distributed. As has been already stated, the national interest may possibly require the construction, with federal participation, of a second trans-Canada Highway in the West further north than the one now being built.

Opening up our northern areas by roads would appear to be a natural objective in the development of districts which are rich in resources but are practically inaccessible except by air. In considering our northern requirements, it is obvious that the easiest and quickest approach to the Arctic is through the Yukon, where roads are already available for part of the way; where oil and mineral resources are known to exist, and are the object of determined exploratory work; and where it becomes more and more necessary for Canada to extend its national sovereignty.

A second route would proceed from Great Slave Lake to the east end of Great Bear Lake and northwards to Coppermine. A five to ten-year plan which has been worked out envisions a grid of roads aimed at opening up the most favourable of the areas from a geological point of view. The Federal Government is planning an extensive road building program in the Yukon and the Northwest Territories, and is offering assistance to Provincial Governments to provide necessary links between these northern roads to resources, and the more settled areas to the south.

One of the later but by no means unimportant stages in building the economy of Canada should be to arrange for the processing of much of our natural products. This is tied in with the location and supply of energy and strategic metals, as is transportation and markets. A survey of resources in Canada would, at first glance, indicate that the southern part of the Yukon and the southern part of the Mackenzie Valley in the Fort Smith area have the necessary ingredients for expanded industrial production. The interior of British Columbia, both north and south, is also favourable. Other areas could be a northern Manitoba-Saskatchewan area, and the Maritimes.

The most promising of the prospects in the Northwest Territories today are the lead-mine deposits on the south shore of Great Slave Lake, which are considered to be among Canada's largest. Exploitation awaits the provision of transportation facilities. There are also the iron ore deposits on the Belcher Islands in Hudson Bay, and the lithium-bearing dykes east of Yellowknife.

Much has been done toward the topographical and geological mapping of the Northwest Territories, but because of its vast size, the inaccessibility of much of it, and the shortness of field seasons, a great deal remains to be done. Interest in the northland, mineralwise and otherwise, has been increasing, and the Government has been stepping up its mapping activities to meet the demand.

So great is the area to be mapped in Canada that the Geological Survey has had to turn to helicopter-supported parties to provide more rapid reconnaissance so as to be able to evaluate the possibilities of these great unmapped areas within the foreseeable future. By this method, 30 times greater coverage has been achieved during any one season.

In three operations in the field season of 1952, 1954 and 1955, the Survey mapped a total of 185,000 square miles of the Precambrian in the mainland portion of the Territories on a scale of one inch to eight miles.

Moreover, the experience gained in these operations has enabled the Survey to cut costs and to actually map large areas by helicopter at less cost than by conventional ground methods.

Last year in Operation Mackenzie, the Survey mapped 100,000 square miles of the Upper Mackenzie River drainage basin, much of which is being explored for oil and gas. The region is underlain by rocks similar to those in which producing wells have been found in Alberta and to the northwest at Norman Wells, and there is little doubt that this whole area contains a great reserve of oil to which Canada will turn in future years.

This year the Survey will use helicopters to map the geology of the Wholdaia area in southeastern Mackenzie District, large sections of which are inaccessible to canoes. This year, too, it will also establish fuel caches for two ambitious projects it has scheduled for 1959, Operation Coppermine, and the aerial reconnaissance of Banks and Victoria Islands.

In Operation Coppermine, the Geological Survey will map some 60,000 square miles of territory in northern Mackenzie District starting at the western boundary of the Shield and proceeding eastward towards Bathurst Inlet.

In the Banks-Victoria Islands project, the Survey expects to explore the main stratigraphical and structural features of some 125,000 square miles of the Islands which are still unexplored geologically.

Together, these projects are providing the data for an assessment of the mineral potential of the Canadian Northland. They are also providing a veritable storehouse of valuable information to which industry and those interested in resources development may turn in years to come.

The increasing importance of the Canadian Northland, economically and politically, in the modern scheme of things, has underlined the need for good base maps of the whole region. The first step to this end is to carry out high altitude vertical photography of the area to be mapped. This has been completed over the mainland Northwest Territories, and the Topographical Survey is now mapping this part of the Territories on a scale of four miles to the inch.

Moving into the Arctic Islands, the Department of Mines and Technical Surveys is setting under way this coming field season a \$6,000,000 project to photograph the Islands for later detailed topographical mapping.

The project is the largest of its kind ever undertaken in the Free World, and it will take a dozen planes six years to photograph the 500,000-square-mile area.

In anticipation of such photography and mapping, the Department of Mines and Technical Surveys, through its Geodetic Survey, started in 1955 to set up the initial framework of survey control necessary for mapping over the Islands and completing the job in 1957. The thousands of photos to be taken will be tied into this framework, as will the control for later topographical mapping of the Islands by the Topographical Survey.

The Geodetic Survey was able to complete this vast project in such a short time by using shoran, an electronic method of distance measurement. Since 1949, it has completed a shoran network of survey control over all of the mainland Northwest Territories and Yukon, as well as over the Arctic Islands.

Mention should also be made of the hydrographic surveys undertaken to make our northern waters safe for shipping. For this reason the Department of Mines and Technical Surveys has added a new vessel, the BAFFIN, to its hydrographic fleet for the special purpose of Arctic work. During the past few years, the Canadian Hydrographic Service has been charting shipping routes in the Hudson Bay and Hudson Strait for the shipment of ores and concentrates to European and other ports. In addition, that service also assigns hydrographers each year to the northern supply vessels of the Department of Transport to carry out charting along the vessels' tracks and in the ports visited.

I have attempted to briefly outline for you the work of the Federal Government along lines very close to your interests. This shows that the Government has long range plans for the development of natural resources throughout Canada, and particularly in the northland. Associated in this venture are the governmental Departments of Northern Affairs and National Resources, and of Mines and Technical Surveys, and also my own Department of Transport. In carrying out this work, large sums of money are invested every year in the future of Canada. As governmental planning progresses along the lines I have mentioned, this outlay will undoubtedly greatly increase. But as I have said before, and as I will continue to say: the future of Canada is in our hands, we must invest wisely and freely in this future, and the returns will be a hundredfold.

Thus prospecting, development and transportation work together in the creation of a great future for our northland - a future in which you Edmontonians are playing a most important role.

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