## GEOLOGICAL SURVEY PROGRAMME

Seventy-seven parties from the Geological Survey of Canada, representing a working force of nearly 360 persons, are heading into the field this summer to obtain data from which will be prepared additional maps and reports required to assess the country's mineral resources and to aid in the search for and development of mineral deposits.

The 1958 programme consists of a series of projects ranging from submarine geology of the continental shelf, exploration in the western Arctic islands, and reconnaissance in the mountains of Yukon, to stratigraphic studies in Western Canada and a study of the surficial geology around the proposed site of the South Saskatchewan Dam. Every province and the two territories are included in the programme.

The first systematic survey to be undertaken over Canada's continental shelf will aid in outlining the geology of the Gulf of St. Lawrence. Decca navigational equipment will be used to control this extensive submarine survey. Only recently, Canada received international recognition of its right to exploit

any mineral deposits which might be present in the continental shelf surrounding its shores. Continental shelves, such as that off the southern coast of the United States, are important sources of petroleum and other minerals.

Preparations will be made this field season for three large aircraft-supported operations slated to commence in 1959 and to survey perhaps 205,000 square miles of Canada's north. Two of the 1959 projects, Operation Pelly in Yukon and Operation Coppermine in Northwest Territories, will have helicopter support. The third will take geologists to Banks and Victoria Islands in the Arctic Archipelago.

Geologists will use a light aircraft this season to explore Melville, Brock, Borden and Mackenzie King Islands in the western Arctic

Operation Fort George, started in Quebec in 1957, will be continued. Using a helicopter, a party will map about 35,000 square miles in an area between James and Hudson Bays, and the Labrador Trough.

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## SEAWAY TOLLS

The proposed tolls to be charged to users of the St. Lawrence Seaway were announced June 18 in the House of Commons by Transport Minister George Hees

The Minister stated, in part, that:

"For each passage through the entire Seaway, Montreal to or from Lake Erie, a vessel will be assessed 6 cents per gross registered ton of vessel and in addition 42 cents per ton of bulk cargo and 95 cents per ton of general cargo carried. For each passage, Montreal to or from Lake Ontario only, a vessel will be assessed 4 cents per gross registered ton of vessel and in addition 40 cents per ton of bulk cargo and 90 cents per ton of general cargo carried.

"For partial transit of the new Seaway facilities between Montreal and Lake Ontario, where there are seven locks, the user will be charged 15 per cent of the applicable toll for

"For each passage through the Welland Canal only a vessel will be assessed 2 cents per gross registered ton of the vessel, and in addition 2 cents per ton of bulk cargo and 5 cents per ton of general cargo carried. In the Welland Canal a partial transit will be assessed 50 per cent of the toll irrespective of the number of locks used.

"The unit of weight for the collection of tolls on cargo will be a ton of 2,000 pounds.

"Commercial vessels carrying passengers will be charged 50 cents per passenger for each lock transited between Montreal and Lake Erie in addition to the vessel charge.

"The charging of tolls on the Welland Canal as part of the Seaway in order to defray the capital cost of deepening as well as operating and maintenance expenses is a requirement of the St. Lawrence Seaway Authority Act passed without dissent by the Parliament of Canada in 1951. The Act pertains to a deep waterway between the port of Montreal and Lake Erie."

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## INCREASED LIBRARY USE

Public libraries in Canada served 61 per cent of the Canadian population in 1956, according to preliminary figures from the Survey of Libraries, 1954-56, to be published by the Dominion Bureau of Statistics in September or October next. This is an increase of 6 per cent over the 55 per cent coverage in 1953, showing that the increase in population served is more than keeping pace with population growth. In addition, limited forms of library service are available to the public through 11 travelling and open-shelf libraries in seven provinces.

The total circulation figure for public libraries in Canada indicates a per capita circulation of 3.6 for the population served, and a per volume circulation of 3.4. The total number of public libraries increased from 765 in 1953 to 833 in 1956, the latter including seven libraries in the Yukon and Northwest Territories not reported in 1953. Full-time public library staffs increased from 1,595 in 1953 to 1,933 in 1956. The increase in professional staff was from 620 in 1953 to 636 in

1956.