

2. Construction and major improvement of water, sewage, and drainage facilities.
3. Construction and development of municipal parks and playgrounds, not including school playgrounds.
4. Construction, major reconstruction, major alteration or renovation of municipal buildings, not including schools and hospitals, provided that the federal incentive payment on new structures does not exceed \$50,000 on each such structure.

CONDITIONS OF PROGRAMME

1. Under the terms of the programme, the Federal Government offers to pay one-half of the direct payroll costs of a municipality or its contractors or sub-contractors on accepted winter-works projects.
2. Winter-works projects will include work that would not normally be undertaken during the winter months and are designed to create additional employment.
3. The bulk of those employed under this plan must be unemployed when they are hired or must be persons who would be unemployed in the absence of special winter-works projects under this programme. In this way the employment created will benefit those most in need.
4. Preference is to be given to those projects providing the greatest amount of employment and priority is to be given to projects in areas where winter employment is particularly high.
5. Reliance will be placed on provincial governments to ensure that going wage-rates apply on winter-work projects and that reasonable hours of work prevail.

A number of provinces have, during the past two winters, offered additional winter employment incentives for projects undertaken by their municipalities.

EXPLORE EARTH SECRETS

Field parties from the Dominion Observatories have been posted across Canada this year to probe the earth's magnetic, gravitational and seismic characteristics--studies that are of great value to navigators, prospectors and defence planners.

Summarizing the programme, Mines and Technical Surveys Minister Paul Comtois stated that about 35 geophysicists from the Department were involved and that it included a 42,000-mile airborne magnetic survey across the North Atlantic from Thule in northern Greenland south to Bermuda and from Frobisher Bay and Newfoundland east to the Netherlands and Finland. This is Canada's latest contribution to an up-to-date magnetic survey of the world, internationally planned for completion by 1965, to meet the contemporary needs of navigation and science. Already Canadian instruments and aircraft have mapped the magnetic values of most of Canada up to the High

Arctic, as well as a large area of the Pacific Ocean.

Other geophysicists from the Observatory are making studies of the magnitude, direction and annual change of the earth's magnetic field along the Labrador Coast. The results of these studies will be used for navigational purposes to assist transportation along the rugged and often fog-bound coast that forms part of Canada's major supply-route to its Arctic regions.

RADIO INTERFERENCE STUDIES

In the Churchill and Baker Lake areas west of Hudson Bay and at the Arctic stations of Isachsen and Alert, Observatory geophysicists are at work increasing their knowledge of the upper-atmosphere current systems that cause radio blackouts and interference in regions where telecommunications are often the sole link with the outside world.

Another far northern party is attached to the Polar Continental Shelf Project, a departmental research project investigating many physical aspects of the shelf that extends out from the Arctic Archipelago. The magnetic party is at work on Ellef Ringnes and Axel Heiberg islands to study the relations of magnetism and geology to permafrost depth.

Geophysicists are also studying magnetism on Canada's continental shelf on the Atlantic coast. In Nova Scotia and Newfoundland a party is investigating magnetic gradients or fluctuations at points that are to be used as checking stations during a geological seaborn magnetometer survey over the shelf areas of the east coast. A geophysicist from the Observatory, assisted by a geologist, is carrying out preliminary studies on a crater-like depression near the Mecatina River on the north shore of the Gulf of St. Lawrence in Quebec. This study is aimed at discovering the crater's origin.

A party in Alberta is making magnetic investigations of suspected meteorite craters in the Edmonton and Athabasca areas. These are aimed at discovering pieces of meteorites--solid proof, if found, of the crater's origin.

SEISMOLOGICAL STUDIES

In the field of seismology--tracing the paths of shock waves through the earth's matter--a party, earlier this year, made recordings of a series of planned depth-charge explosions in the Strait of Georgia in British Columbia to discover any major faults or cracks in the earth's crust and its thickness in that area. A similar programme of observations is being carried out at various points in eastern Ontario where seismologists are tracing wave patterns received from explosions in mines at Thetford Mines in Quebec and Star Lake in New York State. The project is being carried out with the co-operation of mining companies, which are giving advance notice of impending mine blasts to the seismologists.