

There is also a network of nine permanent geomagnetic observatories, and temporary observatories are placed at many widely distributed sites each summer. The Branch also operates 23 first-order seismic stations and many temporary stations. Gravity research, yet another means of studying the composition of the earth's crust, is also being intensively pursued by field parties in all parts of Canada, including the Arctic and the bottoms of the Gulf of St. Lawrence and Hudson Bay.

No mineral development is possible without accurate, large-scale topographical maps, and progress in this field by the *Surveys and Mapping Branch* continues to be gratifying.

The Mineral Development Group.—This Group conducts broad economic and mineral-commodity studies and gathers comprehensive domestic and world data on all minerals, including energy minerals, for the use of government and private industry. It also licenses and leases mineral exploration in offshore areas south of the 60th parallel and in Hudson Bay, administers the Emergency Gold Mining Assistance Act (see p. 613), and the Explosives Act, and co-ordinates the Department's foreign-aid work.

Current activities in these fields include regional studies of the mineral economy of the Atlantic Provinces, including the Cape Breton coal situation; assessment of mineral projects in various parts of Canada for which federal support has been requested; and the safeguarding of Canadian mineral interests through participation in international agencies such as the United Nations Lead-Zinc Study Group, the United National Steel Committee, the Organization for Economic Co-operation and Development, the General Agreement on Tariffs and Trade, and the International Tin Council. In collaboration with the External Aid Office, the Group is setting up training courses for mineral scientists, technologists and economists brought to Canada under the various aid programs, chiefly the Colombo Plan, and is advising on mineral projects undertaken by Canada as an aid to developing countries. The Group publishes an extensive series of reports and other material, and maintains the Mineral Occurrence Index, which is a listing of about 10,000 mineral showings and deposits in Canada that may be consulted by anyone interested. Also of considerable value to the mining industry are the federal-provincial roads programs described in Chapter XIX, Part III, Sect. 2.

The Water Group.—The Water Group advises on federal water policies, undertakes joint programs with provinces for water conservation and development, co-ordinates the work of federal agencies in water-resource management and water pollution, carries out broad hydrometric and hydrographic surveys, and conducts oceanographic and limnological research. Of interest to the mining industry is the study of pollution problems in mining areas, such as current projects in northeastern New Brunswick and on the headwaters of the Saskatchewan River system.

The Energy Development Group.—This Group examines Canada's total energy situation and requirements, and recommends policies and projects concerning Canada's energy resources. Among the administrative agencies that report to the Minister of Energy, Mines and Resources, four are concerned with some aspect of energy development. These are the National Energy Board, the Dominion Coal Board, Atomic Energy of Canada Ltd., and Eldorado Mining and Refining Ltd. The Assistant Deputy Minister for Energy Development serves as adviser on over-all plans and policies relating to energy.

The Dominion Coal Board.*—The Board was established by the Dominion Coal Board Act (RSC 1952, c. 86) which was proclaimed on Oct. 21, 1947. By this Act the Board was constituted a department of government to advise on all matters relating to the production, importation, distribution and use of coal in Canada. The Board is also charged with the responsibility of administering, in accordance with regulations of the Governor in Council, any coal subventions or subsidies voted by Parliament.

* Revised under the direction of Hon. J. Watson MacNaught, Chairman of the Dominion Coal Board, Ottawa.