

### Subsection 5.—Meteorological Communications

Weather stations operated by the Meteorological Branch of the Department of Transport throughout Canada are linked coast-to-coast by means of teletype and in the remote northern areas by radio or radioteletype. The land-line teletype circuits are leased from commercial companies. The radio circuits are operated chiefly by the Telecommunications and Electronics Branch of the federal Department of Transport.

Weather stations on the teletype network transmit their reports directly; other stations report via commercial or radio facilities to the nearest station on the teletype line for subsequent transmission on the meteorological circuit. The reports are collected on a regional basis and then relayed to other parts of the country as required. There are two coast-to-coast teletype systems transmitting weather information, with main relay points at Vancouver, Edmonton, Winnipeg, Toronto, Montreal, Halifax, Gander and Goose Bay. These main meteorological communications centres not only handle the distribution of weather information within Canada including the Arctic, but also effect international exchange with the United States and Europe and, through them, with many other countries. For the latter purpose, the Canadian Meteorological Branch and the British Meteorological Office share the cost of a leased duplex circuit in the transatlantic cable. Altogether, the Meteorological Branch uses 55,300 miles of teletype circuits connecting 350 teletype offices.

In addition, a facsimile network connects forecast offices including radio facsimile transmission to Arctic stations and ships at sea. Weather charts originating at the Central Analysis Office in Montreal receive national distribution over this network. Regional transmissions of additional charts are distributed on a local basis. Altogether, the Meteorological Branch utilizes 14,600 miles of facsimile circuits, serving 71 offices.

### Subsection 6.—Federal Government Civil Telecommunications and Electronics Services

Radio regulation and radio aids to navigation services are under the jurisdiction of the Telecommunications and Electronics Branch of the Department of Transport. The functions and responsibilities of the Branch may be summarized as follows: (1) administration of the Radio Act and Regulations and the Radio Provisions of the Canada Shipping Act and Ship Station Radio Regulations; (2) research into and development of new and improved communication and electronic equipment and systems needed for aeronautical, marine, meteorological and other services; (3) construction, maintenance and operation of radio aids to marine and air navigation and of radio communication stations including procurement of the necessary equipment; (4) development and administration of government policy with respect to the Canadian Overseas Telecommunication Corporation and Canada's participation on the Commonwealth Telecommunications Board; (5) administration of the leasing of land-line facilities required for all services of the Department; (6) planning of emergency measures and administration of the Emergency National Telecommunication Organization (ENTO); (7) administration of the Telegraphs Act and the Regulations thereunder covering the licensing of overseas submarine cables; (8) participation in the work of the International Telecommunication Union and its subsidiary organs; and (9) participation in the communication and electronic activities of the International Civil Aviation Organization (ICAO), the International Air Transport Association (IATA) and the International Marine Consultative Committee (IMCO).

**Licensing and Regulation of Radio Stations.**—Under the Radio Act and the Canada Shipping Act it is provided that radio stations employing a form of Hertzian wave transmission, including television and radar, be licensed by the Department of Transport, unless otherwise exempted by regulation. Licensing, which provides basic control over the right to establish a radio station, involves the assigning of specific frequencies to each station. Frequencies are assigned to many types of services on a shared non-interference basis. Engineering briefs covering the selection or change of frequency, amount of power and