

landline 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 systems transmitting weather information, with main relay points at Vancouver, Edmonton, Winnipeg, Toronto, Montreal, Moncton, 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 55,200 miles of teletype circuits connecting 327 teletype offices.

In addition, a facsimile network connects forecast offices in all parts of the country including radio facsimile transmission to Arctic stations and ships at sea. Certain functions of the forecast offices are carried out at one central location and the processed data, in the form of weather maps, are then distributed over the facsimile network throughout the country. Chart transmissions from the Central Analysis Office in Montreal are made simultaneously to all parts of Canada. Altogether, the Meteorological Branch utilizes 11,200 miles of facsimile circuits, serving 58 forecast offices.

Subsection 6.—Federal Government Radio Communication Services

Radio in Canada traces its origin to the year 1900 when wireless telegraphy was introduced and placed under the jurisdiction of the Department of Public Works. The first commercial radio circuit was established between Chateau Bay, Que., and Belle Isle in the Strait of Belle Isle in 1901, replacing an underwater cable which was difficult to maintain. In the first days of radio there did not appear to be any necessity for special legislative control, but the growth of this new medium of communication was very rapid and the Wireless Telegraph Act of 1905 became the first legislation in Canada controlling radio communication.

Radio regulation and radio coast station services were under the jurisdiction of the Department of Public Works until 1909 at which time they were transferred to the Department of Marine and Fisheries where they remained until 1930, with the exception of the period 1914-22 when they were under the jurisdiction of the Department of Naval Services. In 1930, when a separate Marine portfolio was established, they became a Branch of that Department and then in 1936 a Division of the Air Services Branch of the newly formed Department of Transport. In 1936 an aviation radio service was organized within the Radio Division, and to it in 1948 was transferred the Government Telegraph and Telephone Service, which had been under the jurisdiction of the Department of Public Works since 1879. In 1950, the name was changed to Telecommunications Division, and later to Telecommunications and Electronics Branch.

The radio activities of the Telecommunications and Electronics Branch may be summarized as follows: (1) the administration of national and international radio laws and regulations and of regional agreements, involving the issuance of radio licences, inspection of radio stations, certification of radio equipment, examination of operators, allocation and monitoring of frequencies, study of radio wave propagation, compilation and settling of international accounts for radio messages, investigation and suppression of inductive interference to radio reception; and (2) construction, maintenance and operation of radio communication stations and radio aids to marine and air navigation.

The national and international radio laws and regulations and the regional agreements administered by the Telecommunications and Electronics Branch include: (1) the Broadcasting Act; the Radio Act and Regulations made thereunder; the radio provisions of the