

PART XII.—RADIO.¹

Under the Radiotelegraph Act (c. 195, R.S.C., 1927), the administration of radio within the Dominion was vested in the Department of Marine, now under the jurisdiction of the Hon. Alfred Duranleau, Minister. The matter of Dominion jurisdiction has been questioned by certain of the provinces from time to time, but on Feb. 9, 1932, the Judicial Committee of the Imperial Privy Council ruled that the control and regulation of radio communication is within the jurisdiction of the Dominion Parliament. This decision was a very important one and has done much to further the nationalization of radio broadcasting in Canada. (See pp. 731-733).

Section 1.—Radiotelegraphy.

The Coast Station Radiotelegraph System.—The present coast station system of 65 stations consists of three chains—one extending from Vancouver to Prince Rupert on the Pacific, another from Port Arthur to the Atlantic ocean in the east, and the third from Port Churchill to Resolution island at the entrance to Hudson strait. The Great Lakes coast stations connect with those of the east coast, which, in turn, connect with the Hudson Bay route chain. There is no direct radio connection between the Great Lakes and the Pacific Coast chains.

Of the above stations, 17 on the east coast and Great Lakes are operated by the Canadian Marconi Co. under contract with the Department, and the remaining 48 on the east coast, west coast and Hudson bay and strait are operated directly by the Department. Twice daily, at advertised hours, a number of these stations broadcast messages to shipping containing such important information as weather forecasts, storm warnings, reports in connection with floating derelicts, ice and other dangers to navigation. In the interests of navigators, to whom accurate time is essential in computing observations on celestial bodies, three Canadian coast stations—two on the west coast and one on the east coast—transmit time signals at advertised hours daily.

Some years ago the discrimination of underwriters in the matter of insurance rates charged on ships plying to Canadian ports led the Department to feel that any reasonable expenditure which would tend to reduce these charges would be a sound investment. To this end 12 direction-finding stations have been established at specially selected sites with respect to navigational routes—7 on the east coast, 4 on the Hudson bay and strait, and 1 on the west coast. These stations are fitted with special apparatus which enables the direction of the incoming radio signal transmitted by a ship to be accurately determined. It is the expressed opinion of many master mariners that Canadian direction-finding stations set a standard for accuracy and efficiency.

A more recent extension of the shore direction finder is the development of the direction-finding instrument on board ship. To assist this development, the Department has established radio beacon transmitters at a number of lighthouses and lightships (see Table 77). These radio beacons transmit characteristic radio signals with an approximate range of 50 miles every hour at advertised times during clear weather and continuously when the atmosphere in the vicinity of the station is so obscure as to impede navigation.

To insure the safety of life at sea, all passenger steamers and freighters plying to and from Canadian ports must carry radio equipment manned by competent operators in possession of a certificate of proficiency in radio. The Department

¹ Sections 1 and 2 have been revised by Commander C. P. Edwards, O.B.E., Director, Radio Service, Department of Marine, Ottawa. A fuller treatment of the historical and descriptive background of radio communication was published at pp. 607-610 of the 1932 Year Book.