

### Marine Radio Stations\*

**Marine.**—Four distinct networks of stations provide a complete radio aids-to-navigation service for ships. These networks serve the following areas: Great Lakes; Gulf of St. Lawrence and Atlantic coast; Hudson Bay and Strait, and Sub-Arctic; and Pacific coast. The first three networks are interlocking. The Department of Transport maintains communication between Ottawa and the east and west coasts, and Hudson Bay and Strait by means of high-frequency stations.

During the fiscal year 1948-49, Federal Government radiotelegraph stations on the east coast, west coast, the Great Lakes, and Hudson Bay and Strait handled 731,986 messages or 23,610,759 words.

**Radio Coast Stations.**—The primary purpose of the coast-station organization is to provide radiocommunication facilities whereby any ship within 500 miles of the Canadian coast may establish communication with shore.

On the east coast and the Hudson Bay and Strait there are 16 stations. There are seven on the Great Lakes and seven more on the west coast. All these broadcast information to navigators twice daily at advertised hours. Urgent information, such as hurricane warnings, is broadcast immediately upon receipt.

The Vancouver Coast Station (VAI) maintains long range radiocommunication with ships of any nationality at sea. Halifax (CFH) and Vancouver (CKN) Coast Stations participate in the Commonwealth scheme for providing similar radiocommunication services with ships, and are operated jointly by the Department of Transport and the Royal Canadian Navy.

**Radio Direction Finding Service.**—There are 13 marine radio direction finding stations in operation—seven on the east coast, five on the Hudson Bay and Strait, and one on the Pacific coast. These direction finding stations have an enviable reputation for efficiency and accuracy. During 1948-49, 16,972 bearings were given without charge to ships and aircraft.

**Radiobeacon Service.**—Radiobeacons are established for the purpose of enabling any ship or aircraft equipped with a direction finder to determine its bearing or direction in relation to the radiobeacon station. There are 46 radiobeacons in operation—23 on the east coast, 16 on the Great Lakes and 7 on the Pacific coast.

In clear weather each station, at advertised hours, transmits its characteristic for three periods of one minute separated by silent intervals of two minutes. In foggy weather all stations operate continuously, maintaining a uniform time cycle of three minutes, each station transmitting in its proper sequence for one minute separated by silent intervals of two minutes.

At Flat Point, N.S., Partridge Island, N.B., Red Islet, Que., Caribou Island, Gros Cap Lightship, Hope Island, Main Duck, Southeast Shoal, Cove Island, Michipicoten Harbour, Long Point, Ont., and Point Atkinson, B.C., the radiobeacon signals are synchronized with the emissions of the fog alarms at those points for distance finding during foggy weather.

Ships equipped with direction finding apparatus may, upon request, obtain signals for the purpose of taking bearings from any of the coast stations. During 1948-49, 282 such requests for signals were handled.

\* Detailed information covering all marine radio aids to navigation is contained in the annual publication "Radio Aids to Marine Navigation". Copies of this publication may be obtained, upon request, from the Department of Transport without charge, also any supplementary "Notices to Mariners" issued in connection therewith during the year.