in sequence on a common frequency, the sequence being repeated continually regardless of weather conditions. Continuously operating marine radiobeacons transmit a continuous carrier modulated by a tone which is keyed at fixed intervals to provide the identifying Morse characteristic. Continuously operating dual-purpose marine/air radiobeacons are provided for the use of both ships and aircraft. They transmit a continuous carrier modulated by a tone which is interrupted eight times a minute for the transmission of a one- or two-letter identifier. Marker radiobeacons, with a range of 10 nautical miles (18.5 km), do not have a characteristic Morse identifier, but can be identified only by the operating frequency. They operate continuously, transmitting half-second dashes for 13½ seconds then remaining silent for one and a half seconds. Ship-calibrating radiobeacons are available at certain locations to enable ships fitted with direction finders to calibrate their equipment. These radiobeacons operate for a six-hour period on the advertised frequency. Periodically operating radiobeacons are located in areas where there is a limited marine requirement. They normally transmit their characteristic signal continuously for one minute in every 10, using continuous carrier and tone-keyed modulation. This type of automatic radiobeacon is designed to operate unattended for long periods in areas that are isolated or inaccessible for part of the year.

Loran is a long-range radio aid to marine and air navigation providing accurate fixes at distances up to 750 miles (1 207 km) by day and 1,500 miles (2 414 km) by night. Two Loran A stations operate in Nova Scotia, three in Newfoundland and two on the west coast. These stations, in conjunction with Loran stations of the United States Coast Guard, give service to ships and aircraft plying the North Atlantic and Pacific routes. Decca is a short-range radio aid to navigation providing accurate fixes at distances up to 250 miles (401 km). Four chains of Decca stations are in operation — the Newfoundland, the Nova Scotia, the Anticosti and the Cabot Strait — giving service to ships off Newfoundland and Nova Scotia and in the St. Lawrence River and Gulf.

It has become general practice to equip merchant ships with radar and important buoys are fitted with radar reflectors to increase their radar visibility. Eleven radar responder beacons are in year-round operation on the east coast, 10 on the west coast, and six in the St. Lawrence River; 10 in the western Arctic and 10 in the Great Lakes are in operation during the navigation season. Low-power transceivers are provided for use in emergencies at lighthouses, particularly at locations that would otherwise be cut off from aid in case of illness.

Radio aids to air navigation are provided by the Department of Transport from coast to coast and from the United States border to the Arctic regions for use by Canadian aircraft and foreign air-carriers flying over Canadian territory.

Low-frequency radio aids operating on the frequency band 200-415 kHz are generally located within a distance of 50 to 100 nautical miles (92.6–185 km) of each other to form the low-frequency airways system. A few are located "off airways" in remote regions and a number of low-power radiobeacons serve major airports as terminal and landing aids. The Department of Transport operates 267 en route, low-frequency aids (four of which are the older type radio range class) and 95 low-power terminal radiobeacons. These facilities are used primarily in association with airborne direction-finding equipment. Voice channels on a number of low-frequency aids are also used for aircraft communications and weather broadcast purposes.

Operating on the higher frequency bands VHF (very high frequency) and UHF (ultra high frequency), the Department of Transport operates 27 VHF omnidirectional ranges (VOR), 77 instrument landing systems (ILS) and 30 tactical air navigation systems (TACAN). At these locations the VOR and TACAN station are co-located and the complete station is called a VORTAC, with 31 VOR plus distance measuring equipment (DME).

The VOR and VORTAC stations form the VHF airways system which closely parallels the older low-frequency airways system. Additional stations are being