

Another important measure to reduce interference is to ensure that each station is maintained exactly on the frequency assigned to it: this reduces considerably the amount of heterodyning, which causes interference in the form of a whistling note. The five Frequency Measuring Stations maintained by the Radio Division make frequent measurements of the frequency of broadcasting and other stations, and ensure that all stations maintain their frequency within the narrow limits required.

The classes of radio stations listed in Table 1 are numerous and complicated by virtue of the fact that many perform closely related functions. As shown there were at the end of the fiscal year Mar. 31, 1948, 1,956,826 radio stations operating in Canada; of these, 267 were Department of Transport stations. The summary of licensed services given on pp. 765 to 766 groups together licensed radio stations performing important related services.

1.—Radio Stations in Operation by Class as at Mar. 31, 1948

Department of Transport Stations		Other Stations	
	No.		No.
Coast.....	2	Ship (Class A).....	1,446
Combined Coast and L.F. Direction Finding	1	Ship (Class B—Receiving only).....	64
Combined Coast, Radiotelephone and L.F. Direction Finding.....	11	Limited Coast.....	5
Combined Coast and Radiobeacon.....	3	Aircraft.....	762
Combined Coast and Radiotelephone.....	23	Public Commercial.....	76
Combined Coast, Radiotelephone and Radiobeacon.....	1	Private Commercial ³	4,275
Radiobeacon.....	39	Municipal Police Private Commercial....	101
Combined Radiobeacon and L.F. Direction Finding.....	1	Private Commercial Broadcasting—	
Combined Radiobeacon and Radiotelephone Radiotelephone.....	18	Operated by the Canadian Broadcasting Corporation.....	59 ⁴
Ionosphere.....	3	Operated by private owners.....	127
H.F. Direction Finding.....	2		186
Monitoring.....	5	Technical or training schools.....	12
Land.....	1	Experimental.....	124
Ship (Class A).....	20	Commercial Receiving.....	385
Aircraft.....	20	Commercial Receiving (Special).....	90
Radio Range ¹	42	Amateur Experimental.....	5,006
Combined Radio Range, Radiotelegraph and Radiotelephone ¹	48	Private Radio Receiving.....	1,933,351
Fan Marker.....	10	Free to the blind.....	7,025
Weather Reporting ²	6	Free to Hospitals and Charitable Institutions.....	49
Fan Marker Relay.....	6	Free to Schools.....	3,491
Combined Homing, Radiotelegraph and Radiotelephone.....	1	Free to Crystal Receivers.....	16
Loran (Long range aid to navigation).....	3	Free to Federal Government....	95
			1,944,027
		Totals.....	1,956,826

¹ Station location ("Z") markers are installed at 71 Radio Range Stations.

² One station, Port Harrison, also performs a restricted coast station service during the season of navigation in Hudson Bay.

but since its primary function is that of a weather reporting station, it is shown under this heading only.

³ Includes 66 fixed and 1,315 mobile taxi despatching stations.

⁴ Includes 14 repeater stations.

Subsection 2.—Control and Licensing of Marine and Aeronautical Radio

Under the Safety of Life at Sea Convention, and the Canada Shipping Act, most passenger ships and larger cargo ships must be fitted with radiotelegraph equipment, primarily for use in cases of distress. This requirement of course includes certain standards which equipment must meet to fulfil the purposes for which it is fitted, as well as standards of proficiency of operating personnel. Type approval is given for each make and model of equipment which comes up to the required standard and, in addition, the ship station as a whole is inspected before the licence is issued, and periodically thereafter. Likewise, foreign ships are subject