

68.—Comparative Statement of Marine Danger Signals, fiscal years ended Mar. 31, 1923-34.

NOTE.—In addition to the aids to navigation listed in the following table, approximately 9,150 unlighted buoys, balises, dolphins and beacons are maintained.

Description.	1923.	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.	1934.
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Lights.....	1,596	1,627	1,654	1,675	1,725	1,771	1,815	1,855	1,912	1,923	1,922	1,924
Lightships.....	9	10	10	10	11	11	11	11	11	11	11	11
Lightkeepers.....	1,105	1,119	1,134	1,143	1,156	1,179	1,192	1,207	1,227	1,230	1,230	1,226
Fog whistles.....	8	9	8	8	8	6	8	8	8	8	8	8
Sirens.....	1	1	1	1	2	2	2	2	2	2	2	2
Diaphones.....	138	140	146	146	147	153	158	162	165	170	171	171
Fog bells.....	36	35	35	36	35	36	38	38	38	38	38	38
Hand fog horns.....	148	147	149	148	148	151	147	151	152	153	154	154
Hand fog bells.....	4	4	4	4	5	4	4	4	4	4	4	4
Gas, whistling and bell buoys.....	349	359	374	374	380	401	411	425	429	436	444	440
Whistling buoys.....	30	30	32	34	36	38	40	40	40	42	42	41
Bell buoys.....	92	95	98	99	101	104	111	119	119	119	122	122
Submarine bells.....	7	7	7	6	6	6	4	4	4	3	2	2
Fog guns and bombs....	7	7	6	6	6	6	5	5	5	5	5	5
Fog alarm stations only.	12	12	13	13	13	13	13	13	13	13	13	13

Section 7.—Merchant Marine Services Operated by the Canadian Government.*

The War had far-reaching effects upon the merchant shipping of the world. The losses from submarines, the demands for naval auxiliary and transport services, and the abnormally large quantities of material to be carried overseas for both war purposes and the support of the civilian populations of Europe, all combined to create pressing demands for merchant shipping. In the latter part of the War, when submarine operations were intensified, the supply of merchant tonnage became a source of serious anxiety to the Allies and every effort was made not only to economise the shipping then afloat but to increase the supply by new building. It was under these circumstances that the Dominion Government placed orders with Canadian shipbuilding firms for the construction of 63 steel cargo vessels of six different types. These vessels were intended primarily to co-operate with British shipping in supplying the necessities of war, but, though the War ended before the ships were all built, the construction program was continued to provide employment and, in view of the losses of the War, to assure sufficient shipping as a complement to the National Railways and as a means of carrying abroad the products of Canada's farms, forests, mines and factories.

Shipping construction at that time was very costly and this abnormally high first cost has been a serious handicap to the economical operation of the ships ever since. Prior to Dec. 31, 1919, 19 vessels had been delivered by the builders. Additions were subsequently made to the fleet until the total fleet, as at Dec. 31, 1924, numbered 57 vessels of a total deadweight tonnage of 353,450. Through sale and the loss of three vessels the fleet was reduced to 29 vessels with a deadweight tonnage of 96,987 at Dec. 31, 1933. Early operations proved profitable: a surplus of \$1,056,767 was shown for the year ended Dec. 31, 1919 and a surplus of \$1,263,307 for the year ended Dec. 31, 1920 (without provision for interest

*Revised under the direction of Geo. W. Yates, Assistant Deputy Minister, Department of Railways and Canals, by A. H. Allan, General Manager, Canadian National Steamships, Montreal.