

of the total traffic through the Section in 1964, the principal commodities through the St. Lawrence canals being iron ore, wheat, corn, fuel oil, bituminous coal and barley. Traffic patterns show that 30.9 p.c. of the total movement was between two Canadian ports, 42.9 p.c. moved between Canadian and United States ports and 25.9 p.c. consisted of foreign trade to and from Canada and the United States. The small remainder was traffic between two ports in the United States.

There were 8,304 transits through the Welland Canal in 1964, with a cargo volume of 18,541,000 tons upbound and 32,847,000 tons downbound; bulk cargo accounted for 94.0 p.c. of the traffic. Although many vessels pass through both the St. Lawrence and the Welland Canals on 'through' trips, there is a substantial amount of local traffic between Great Lakes ports which involves only the Welland Canal. These movements are largely iron ore, grain and coal. The Welland Canal traffic was nearly 12,080,000 cargo tons greater than that reported for the Montreal-Lake Ontario Section.

Income of the St. Lawrence Seaway Authority for 1964 amounted to \$15,050,107, comprising toll revenue of \$13,544,436 assessed for transits through the Seaway locks between Montreal and Lake Ontario together with sundry revenues (rentals, wharfage, bridge revenue, etc.) amounting to \$2,505,671. Operating and maintenance expenses amounted to \$7,895,172 and administrative expenses were \$2,847,868, making a total of \$10,743,040 excluding an amount of \$452,063 for non-toll canals. Comparable figures for 1963 are shown in Section 2, p. 807.

Pleasure craft locked through the Montreal-Lake Ontario Section canals numbered 343 upbound and 354 downbound in 1964, and those locked through the Welland Canal numbered 104 upbound and 128 downbound.

### Subsection 5.—Marine Services of the Federal Government

The services covered in this Subsection deal with the Canadian Coast Guard and aids to navigation, including the maintenance of the St. Lawrence River Ship Channel, steamship inspection and pilotage service.

**Canadian Coast Guard.**—The Canadian Coast Guard, known by that name only since January 1962, has played a vital part in Canada's maritime economic and industrial development since Confederation. At that time several previously established government marine organizations were brought together as a single marine service, founding the fleet that became the responsibility of the Department of Transport when it was established in 1936.

From a small beginning, the fleet has expanded into an organization consisting of more than 200 vessels of all types, of which nearly 50 are of a larger size. Of these, 31 measure more than 1,000 tons gross. They include 10 fully strengthened icebreakers and eight lighthouse supply-and-buoy ships with icebreaking capabilities. These vessels comprise in numbers the world's second largest icebreaking force. The greater part of the fleet's expansion has occurred within the past few years to meet a new and fast-growing requirement for icebreaker support of shipping activities in the Canadian Arctic during the summer and for commercial shipping in the Gulf of St. Lawrence in the winter.

The Department's concern with marine search-and-rescue activities has also increased, not only in the field of commercial shipping but also in connection with the mushrooming public interest in pleasure boating with its attendant safety problems.

The duties of the Canadian Coast Guard are civilian in nature and no armaments are carried on the ships. It maintains and supplies shore-based and floating aids to navigation in Canadian waters, including the Atlantic and Pacific coastal areas, the St. Lawrence River and Great Lakes, the channels of both the eastern and western Arctic, Hudson Bay, the Mackenzie River system and other inland waters. The territory covered is vast and the duties involved are extensive.