

waterway traffic immediately before construction began on the project and the *1960 Canada Year Book* (pp 851-860) relates the story of the Seaway during the second year of its operation. The first decade of Seaway development and operations is discussed in the 1969 edition (pp 841-845).

The St. Lawrence Seaway Authority, constituted as a corporation by Act of Parliament in 1951, undertook the construction (and subsequent maintenance and operation) of Canadian facilities between Montreal and Lake Erie to allow navigation by vessels of 27-ft draft. At the same time, construction of similar facilities in the International Rapids Section of the St. Lawrence River was undertaken by the Saint Lawrence Seaway Development Corporation of the United States. The Seaway was opened to commercial traffic on April 1, 1959 and officially inaugurated on June 26, 1959. With its opening, certain ancillary canals were transferred to the Seaway Authority's jurisdiction for operation and maintenance purposes. These include Lachine (closed in 1971), a section of the Cornwall Canal (closed in 1968), a portion of the third Welland Canal and the Canadian lock at Sault Ste Marie. Tolls are not assessed against vessel movements on these waterways and traffic data for them are not included in this Section. Major construction undertaken in 1967 on the channel to bypass the city of Welland was completed for the 1973 navigation season.

Seaway traffic. Tables 15.21 and 15.22 give combined traffic statistics for the St. Lawrence and Welland canals in 1973 and 1974. Duplicate transits are eliminated so that the figures show the actual movement of goods through the St. Lawrence Seaway.

In 1974, 3,182 ships carrying about 25.9 million tons of cargo moved upbound through the Seaway and 3,167 vessels carrying 34.2 million tons moved downbound. Ocean-going ships carried 19.6% of the total cargoes and lakers 80.4%. Of the total tonnage carried upbound in 1974, 20.6 million tons were domestic cargo and 5.3 million tons were foreign traffic; downbound, 27.8 million tons were domestic freight and 6.4 million tons were carried to and from foreign ports.

On the Montreal-Lake Ontario section, upbound traffic amounted to 23.0 million tons in 1974 and downbound traffic to 21.1 million tons, a decrease of 23.4% over 1973. Almost 62.1% of the former was accounted for by iron ore shipped from St. Lawrence ports to Hamilton and Lake Erie and the downbound traffic consisted largely of overseas shipments of grain. There were 924 fewer upbound transits and 941 fewer downbound transits in 1974 than in 1973, indicating a drastic decrease in the number of vessels using this portion of the Seaway. Bulk commodities made up 89.8% of the total traffic through the section in 1974, the principal commodities through the St. Lawrence canals being iron ore, wheat, corn, fuel oil, manufactured iron and steel, and barley. Traffic patterns show that 33.4% of the total movement was between Canadian ports, 40.0% between Canadian and United States ports, and 26.3% consisted of foreign trade to and from Canada and the United States. The small remainder was traffic between ports in the United States.

There were 5,171 transits through the Welland Canal in 1974, with a cargo volume of 20.2 million tons upbound and 32.2 million tons downbound; bulk cargo accounted for 92.5% of the traffic. Although many vessels pass through both the St. Lawrence and 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 of iron ore, grain and coal. The Welland Canal traffic was 8.2 million tons greater than that reported for the Montreal-Lake Ontario section.

Income of the St. Lawrence Seaway Authority for 1974 amounted to \$23.0 million, made up of toll revenue of \$18.8 million assessed for transits through the Seaway locks between Montreal and Lake Erie and sundry revenues (rentals, wharfage, bridge revenue, etc.) of \$4.2 million. Total expenses (excluding replacement provision) for 1974 amounted to \$31.3 million of which operation and maintenance expenses amounted to \$22.6 million and regional headquarters and headquarters administration expenses to \$8.7 million (Table 15.23).

15.4.4 Federal government marine services

Headquarters organization. The Marine Services of the Ministry of Transport has seven branches — Aids and Waterways, Marine Safety, Canadian Coast Guard, Marine Pilotage, Marine Telecommunications and Electronics, Marine Finance and Marine Personnel — each headed by a director responsible to the Deputy Administrator (Marine Services), Canadian