

the channel and improve it at some points, in anticipation of the greater traffic which the Seaway promises.

The second step, accounting for another 225 feet, is the St. Lawrence River above Montreal which comprises the Lachine, Soulanges, Lake St. Francis, International Rapids and Thousand Islands sections. As you know, this part of the waterway is navigable by means of the fourteen foot canals to which I referred a moment ago.

The third step, the highest of all - 327 feet - is the Niagara Falls section between Lake Ontario and Lake Erie, which I mentioned earlier, and which can be surmounted by means of the Welland Ship Canal which, you will remember, has a minimum depth of twenty-five feet.

The fourth step is the Detroit-Lake St. Clair passage - some eighty-nine miles in length but only eight feet in height - joining Lake Erie and Lake Huron. Because of the gradual rise in level, there are no canals or locks in this part of the waterway but it has been necessary to dredge the channels. Traditionally this work is undertaken by the United States government which, at considerable expense, has progressively deepened the channels so that they now have a depth of twenty-five feet in the downbound and twenty-one feet in the upbound.

The final step is the St. Mary's Falls section where there is a rise in level of some twenty-one feet. Here, in order to permit ships to travel between Lake Huron and Lake Superior and to by-pass the St. Mary's Falls, locks have been built at Sault Ste. Marie, four on the U.S. side of the river and a fifth on the Canadian side. I am sure that you will be surprised by the fact that these locks handle a far greater volume of shipping than any other canal system in the world, and probably three times the volume handled in the Panama Canal. The volume of traffic carried in 1954 was approximately 85,500,000 tons and the principal items, ranked in order of volume, are iron ore, coal and wheat.

The movement of wheat and other grains is, of course, of prime importance to Canada because in a normal year about half of Canada's grain crop moves in ships from the Lakehead down the waterway. Some of the crop is discharged at ports in the Georgian Bay or elsewhere on Lake Huron, but a good deal goes on down the waterway. Some is discharged by the larger vessels at Port Colborne for trans-shipment into smaller vessels, and some goes on down through the Welland Canal, across Lake Ontario and down the river to Prescott, where similar operations of trans-shipment are carried out.

This movement of wheat and other grains is carried out either in lakers or canallers, with this difference that the lakers which are deep draft vessels can go no further than Prescott while the canallers, built specially for the purpose,