

channels, however, have been dredged and traditionally this work has been done by the United States Government, which has progressively deepened the channels to give a depth of water of 25 feet for downbound vessels and 21 feet for those upbound.

The final step, between Lake Huron and Lake Superior, is the St. Mary's Falls section, where there is a rise of some 22 feet. The channels in the St. Mary's River itself are of the same depth as those in the Detroit-Lake St. Clair passage, and like it, have also been dredged and maintained by the United States Government. To permit ships to by-pass the falls, locks have been built at Sault Ste. Marie - four on the United States side of the river and the fifth on the Canadian side. The MacArthur Lock, the largest and deepest of all of them, is on the American side and has a depth of 35 feet over the sills. This is the busiest part of the waterway and in 1955 nearly 115,000,000 tons of traffic was moved through these locks, nearly 90 per cent of it being down bound.

From this summary description, you will note that though deep-draught navigation may be carried on over the extremities of the waterway - that is, between the Atlantic Ocean and the Port of Montreal on the one hand, and between Lake Superior and the head of the St. Lawrence River on the other - in the intervening section the limiting depth of 14 feet of the St. Lawrence canal system prevents the movement of deep-draught vessels from one end of the waterway to the other. The deepening of this intervening section and the provision of facilities for deep-draught vessels are the purpose of the navigation works now in course of construction.

In this same stretch of the river, there is, as I indicated a moment ago, a difference in level of 223 feet, and it is possible to develop at three separate sites about 5,400,000 H.P. of electric energy. The first of these sites, as we move down the river from Prescott, is near Cornwall in the International Rapids section, as it is being developed concurrently with the building of new facilities for navigation, the present undertaking is sometimes referred to as the St. Lawrence Seaway and Power Project.

This development is being undertaken by the Power Authority of the State of New York and the Hydro-Electric Commission of Ontario, and these two bodies are to divide equally the 2,200,000 H.P. which are to be developed. Their plans provide for the building, below the Long Sault Rapids, which many