Cape Breton and Newfoundland, spreads out in the interior of the gulf so as to become almost inappreciable, till at the opposite side, between Gaspé and Anticosti, it regains its original range and proceeds up he St. Lawrence to Quebec, with ever increasing height. In these circumstances the persevering efforts which have been made to maintain a tide gauge on St. Paul Island, in Cabot Strait itself, are fully justified; as this gauge gives the desired results to better advantage than it is possible to obtain them at the Magdalen Islands, where the only compensating advantage is the hope of better shelter.

At Anticosti the only improvement required in the tide gauge was the new form of inlet by which the water is admitted to the tide pipes. The present inlet has worked satisfactorily during the summer months, but the change was necessary

before the winter heating was commenced.

In the erection of the new tide gauge at Halifax, and the repairs at St. Paul Island and Anticosti, the superintendence of the work was intrusted to Captain Douglas, R.N.R., who gave his personal attention to it.

The seven tide gauges now in operation are as follows:-

I. St. John, N.B.—Gauge situated at Reed's Wharf in St. John Harbour. To furnish a basis for tide tables for this harbour, and also to serve as a reference station for the Bay of Fundy. Range of tide: springs, 26 feet, neaps, 20 feet. Observer, D. L. Hutchinson, director of the St. John Observatory.

II. Halifax, N.S.—Gauge situated at the wharf of the Department of Marint and Fisheries. To furnish a basis for tide tables, and also to serve as a reference station for the Atlantic Coast. Range of tide: springs, 7 feet, neaps, 4 feet Observer, C. Bryant, foreman shipwright, H. M. Dock Yard.

III. St. Paul Island, C.B.—Gauge situated at Atlantic Cove, on the east side of the island. To command Cabot Strait, the main passage by which the tides enter the Gulf of St. Lawrence from the Atlantic. Range of tide: springs, 4 feet, neaps, 2 feet. Observer, J. McLeod, superintendent St. Paul Island.

IV. Strait of Belle Isle.—Gauge situated at Forteau Bay, at the inner end of the strait. To command this entrance to the Gulf of St. Lawrence, and also to bring the currents in the Strait into relation with the tides. Range of tide: springs, 5 feet, neaps, 3 feet. Observer, A. Hart, Forteau Bay.

V. Anticosti.—Gauge situated at South-west Point. To command the entrance to the St. Lawrence. Range of tide: springs, 7 feet, neaps, 4 feet. Observer, H. Pope, light-keeper and meteorological observer.

VI. Father Point.—This gauge is at the pilot station, and at the head of the deep channel of 150 fathoms which extends up the Lower St. Lawrence from the gulf. It serves also as an intermediate station between Anticosti and Quebea Range of tide: springs, 13 feet, neaps, 7 feet. Observer, J. McWilliams, meteorological obse ver and signal officer.

VII. Quebec.—Gauge situated at the dry dock, Lévis. To furnish a basis fat the tables for Quebec Harbour, and with reference to depth of water in the St. Lawrence Ship Channel, Range of tide: springs, 17 feet, neaps, 12 feet. Observer, U. Valiquet, resident engineer, Lévis Dry Dock.

These tidal stations also serve to furnish the tidal data required in making the survey of the currents. The tide gauges at Father Point and Anticosti have also proved of service to the Department of Public Works in connection with the determination of mean sea level, which Mr. R. Steckel of that department is now making for the purposes of the general goodetic survey.

This season, tidal observations were also taken for three months at Pictou, N.S., Neguac, N.B., and Bonne Bay, Nfld., as a tentative measure, to ascertain in whis way tidal differences throughout the Gulf of St. Lawrence can best be obtained in

relation to the above principal stations.

The record obtained to be sufficiently exten harbour. The record fr year, was carefully tabu low tides due to storm record was transmitted possible advantages exis for both Quebec and Ha by the aid of the tide-pi the tides in India.

TIDI

The Halifax tables Dock Yard during the yobtained at the same strate with those from which they not been possible to do

therefore pass before thi Since 1891 tide tab form of a small booklet for them in this form, direct to the leading al widely available to mas both Halifax and Queb Almanac, published in also to Greenwood's Niformation for all parts obe issued by the Har service; and the Haliin which the informat with these tables, tide the Atlantic coast of N

It is to be noted the been based upon a fixed of the Atlantic; and concertain parts of the lustables are published for tion; the only exception; the only exceptions also give water. This is very is Lawrence Ship Channetide for vessels, entering

In reducing the difficulty has been expected. In St. John, M. of determining correct the Admiralty chart of the more recent surv. A satisfactory low wat the tidal observations which was cut on the b time that the Admiralt tide tables is therefor chart. This is of directions of the dept soundings given on the