

SURVEY OF TIDES AND CURRENTS IN CANADIAN
WATERS.

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Good progress has been made by the technical branch of the Department of Marine and Fisheries in the survey of the tides and currents of the Gulf of St. Lawrence and Atlantic coasts of the Dominion.

Self registering tide gauges, giving continuous records day and night throughout the year, are now in operation at Quebec, Father Point, Anticosti, the Strait of Belle Isle, St. Paul Island, Halifax, and St. John, N. B.

Tide tables for Halifax and Quebec, based for the first time upon direct observations of the tides, have been published this year, which are infinitely more accurate than anything heretofore available. These tables have been inserted in the leading Canadian and nautical almanacs, and are thus far more widely circulated than they could be through any official medium.

The currents in the Strait of Belle Isle, off the Gaspé coast and in Cabot Strait, at the entrance to the Gulf of St. Lawrence have, during the past two seasons, been examined by Mr. W. Bell Dawson, Engineer in charge of the survey.

It is found that the current in the Strait of Belle Isle is not a constant inward current, as has been frequently claimed, but is fundamentally tidal in its nature. Off the Gaspé coast and in Cabot Strait there is a permanently outward set which, however, nowhere extends below forty fathoms in depth. An interesting development of the investigation of this current is the relation between the density of the water and the track of the current. It is found, as might reasonably be expected from the volume of discharge of the St. Lawrence, that the water off the Gaspé