

a whole. The lowest low waters recorded are thus unaffected by them, and may be taken as normal in the sense of being due to astronomical conditions only, while on the other hand some of the high waters are exceptionally raised.

Quebec.—The low water datum at Quebec is thus defined by a note on the chart of Quebec harbour :—'The soundings are reduced to the mean level of low water ordinary spring tides, or 28 feet below a Bench-mark cut in the stonework on the east side of the principal gateway to the Marine and Fisheries Department.'

The tide-levels of the recording gauge at the dry dock at Lévis, have been referred from the beginning to the Admiralty datum, as explained in previous reports. At the dry dock there are two scales of feet cut on the masonry, one outside and the other inside of the dock gate, which are intended to show the height of the water above the masonry sill of the dock. The level of the zero of the outside scale was re-determined with care in May last, and was found to be 7.78 feet below the Admiralty datum. The actual level of the sill of the dock is a fraction of an inch higher than this, as explained in Tidal Survey Report of November, 1897.

The levels of the tides at Quebec, from May to October 15, 1900, are given below for comparison with the other tidal stations of that season.

Description.	Elevation. (Feet.)
Bench-mark at the Marine and Fisheries building in Quebec, as above described	100.00
Coping of the dry dock at Lévis; average level near the dock gate	96.78
Bench mark No. LXXIV, on the masonry of the dry dock, west side	94.58
Exceptional High Water, or storm tide, during a gale on September 12	92.30
Highest level of High Water which was undisturbed by storms, during the season from May 1 to October 15, 1900; on July 13	91.10
Admiralty datum, or low water at ordinary spring tides; 28 feet below the Admiralty bench-mark	72.00
Lowest level of Low Water recorded during the season of 1900, on September 9	71.85
Zero of the scale of feet cut on the masonry outside of the dock gate, 7.78 feet below Admiralty datum. Corresponding elevation	64.22

On the Admiralty chart of 'The Traverse,' the soundings are reduced to the level of low water at ordinary spring tides, the level being referred to two Bench-marks, one at Grosse Isle and the other at L'Islet. These Bench-marks are described below. Also the soundings in the West Narrows, Beaujeu Channel, are reduced to the level of low water ordinary springs, at 25 feet 4 inches below the base of the Crane Island light house. (See note on Admiralty Chart No. 318.)

Grosse Isle.—At Grosse Isle there are two wharfs on the side of the island facing the channel of the river. The Admiralty Bench-mark is a ring bolt, let into the rock at high water mark, situated 200 feet west of the West Wharf. The level of low water at ordinary spring tides, to which the soundings on the chart of the Traverse are reduced, is at 21 feet 10 inches below this Bench-mark.

In using this ring bolt as a Bench-mark, the point taken for reference was the top of the eye through which the ring passes.

As the maximum range of the tide on the whole length of the St. Lawrence river occurs at Grosse Isle, the levels for extreme high and low water are given below. The longest tidal record was also obtained here, extending from May 4 to October 15.

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