

HALIFAX, N.S.—TIDAL LEVELS AND DATUM PLANES.—Continued.		Above or below Admiralty Datum.
		Feet.
Admiralty Datum, or low water at ordinary spring tides; at 16.08 feet below the Bench Mark. Used as the plane of reference throughout the tidal observations since their commencement in 1895.....		0.00
(The tide tables for 1903 and onwards, are referred to this plane of reference.)		
Level of the plane of reference used for the early tidal observations of 1851-1852 and 1860-1861. Average for the four years = 4.377 feet below Mean Sea Level; or 1.421 below the Harmonic Tide Plane. Mean elevation resulting, below Admiralty datum.....		0.96
(The tide tables for the years 1897 to 1902 are referred to this plane of reference.)		
Sill of the Halifax Dry Dock. Level of the granite sill of the dock, below Admiralty datum .....		23.49
(The depth of water on the sill of the dock at any tide, may therefore be found by adding 23.4 feet to the height of high water as given in the tide tables.)		

\* Extreme low water at Halifax; occurred Jan. 13, 1903. Elevation below datum = 1.38.

*Digby.*—A Bench-mark was cut on a flight of granite steps to fix the levels of the tidal observations of 1898; but unfortunately these steps have since been pulled down. Accordingly, this season, a new Bench-mark was set upon the post office building, built since; there being no masonry buildings in the town in 1898. The levels were obtained from known points on the timberwork of the long Digby pier, which were compared with each other and carried to the new Bench-mark. This is on the north side of the tower of the post office building, at the joint between the granite foundation and the brickwork. It is marked by a broad arrow cut at the upper edge of the granite, at two feet west of the basement window in that side of the tower.

	Feet.
New Bench-mark as above described. Elevation.....	108.98
Top of cap on north side of pier, where the tide gauge column was placed. Elevation originally taken as 100.00 for convenience in the tide measurements.....	100.00
Highest high water observed in 1898; July 3, p.m. ....	93.90
Lowest low water observed; July 5, a.m. ....	64.20
Inlet at foot of tide column.....	63.00

*Yarmouth.*—As noted in the Report of December 1898, the best point for a permanent Bench-mark which could be found in the vicinity of the tide-gauge, was the brick chimney of the Kemptville Lumber Company, as it stands on a stone base built in cement; and as the foundation is carried down to the rock, it is not liable to settlement. The point used as a Bench-mark is the joint between the stone foundation and the brickwork, at the northwest corner.

Levels have been taken since, on two occasions, to obtain the relation between the Tidal Survey levels and the town datum in Yarmouth; and in this endeavour the Town Engineer, Mr. E. S. Matheson, has given his co-operation. In the best comparisons that can be obtained, there is still an uncertainty of over two inches in the result however; as will be seen from the elevations referred to the Yarmouth town datum, given below. The elevations of some additional points are now given; and the slight variation in the elevation of the tide scale is also indicated. The rail level at the railway crossing at the foot of Forrest street was originally taken as 100.00, but this was found to have changed more than an inch between 1898 and 1901, and was therefore thrown out as unreliable. The levels on hydrants are taken on top of the spindle.

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