

11.05 feet above the Royal Engineers' datum on their own plans; and it is also so noted on the chart of Halifax harbour. The tidal observations made it improbable that this could be correct, however; because the Royal Engineers' datum is presumably intended for Mean Sea Level; and this level as now ascertained from four years of continuous observation, is found to differ by 1.55 feet from this value; an error which is inadmissibly large where the range of the tide is only seven feet. In confirmation of this intention it may also be noted that at Quebec their datum corresponds closely with Mean Sea Level; as will be seen by reference to the elevations already given for Quebec.

The attention of the Colonel Commanding the Royal Engineers was called to this discrepancy, as it appeared probable that the error was in the elevation of this individual Bench-mark. On investigation, this proved to be the case, and its true elevation is 12.61 feet, as found by connecting it with four other reliable Bench-marks, also established by the Royal Engineers.

This result may be considered as very satisfactory, as the elevation of the Royal Engineers' datum, as defined by their other Bench-marks, is thus brought into correspondence with Mean Sea Level; as shown in the following summaries in which the results of these determinations are given. It is also confirmatory of the accuracy of the Admiralty low-water datum, because our elevation for Mean Sea Level is referred to the Admiralty datum as defined on the chart, and the independent determination from the Royal Engineers' Bench-marks, is now found to coincide with this. The relations between the three datum planes at Halifax, are thus satisfactorily ascertained. They are given with reference to one datum plane, in the following list:—

HALIFAX, N. S.—TIDE LEVELS AND DATUM PLANES.	Above or below Admiralty Datum. Feet.
Bench-mark in the Dockyard, as above described, which records the Admiralty datum	16.08
Coping of the Halifax Dry Dock	10.97
Highest High Water during the tidal observations from 1895 to 1902. Occurred during a gale on 25th Nov., 1901. Elevation reached	9.35