

discrepancy, then amounting to 0.35 foot; and the average value thus obtained was used in establishing a new Bench-mark, which was cut on the engine-house at Fort Lawrence dock. This was further connected in 1913 with the recent Bench-marks on the main line of the Geodetic survey, running through this region; and the valuable datum for the tide levels of the Baie Verte canal and the Chignecto Marine Transport railway will now be preserved without peradventure for the future.

It was desirable to continue observations of the extreme levels which the tide might reach in different years; and as Fort Lawrence dock is an uninhabited locality, there was better opportunity at Sackville harbour, near the mouth of the Tantram river, in the vicinity of the railway station. Accordingly, in 1901 the Marine Railway datum was carried around the head of Cumberland basin to Sackville, a distance of nine miles, by means of instrumental levels run by the Tidal Survey. Several intermediate Bench-marks were established on this line, as described in the Report of Progress of December 6, 1901. The terminal Bench-mark at Sackville was placed on the masonry foundation of a dwelling-house, and was afterwards transferred to the new masonry railway station, when this was built. When the precise levels of the Dominion Observatory were available in 1914, the difference between the Bench-marks at Sackville and Fort Lawrence dock was corrected by 0.05 foot, to accord with them. This correction is made in the tide levels at Sackville relatively to the Marine Railway datum as defined by the Bench-mark at the dock.

When wharves were built in the mouth of the Laplanche river, which is known as Amherst harbour although some miles from the town of Amherst, a Bench-mark was established there also; and the elevations of some extreme tides have thus been obtained from observations by the Harbour master.

In the information for this region, we may limit the tide levels to a series of the same character as for the other localities around the Bay of Fundy. Amongst the Bench-marks described, two of the Geodetic series are included. The tops of the dykes in the region are also given, as found in the extended levels of 1901, to show their elevations relatively to the extreme level of High Water.

Tidal Survey Bench-mark at Fort Lawrence dock; established in 1901 to preserve the original datum of the Marine Railway. On the north end of the engine-house beside the dock; a step-notch cut in the string course of sandstone at the foot of the westerly of the two middle brick pillars. It is 5 inches long, and level with the edge of the chamfer of the string course. Elevation according to precise levels of the Dominion Observatory, 29.095 feet above Mean Sea level, in their series of elevations.

Bench-mark at Amherst harbour, at the head of the outer wharf. A small square cut on the south end of the coping of a masonry culvert, about ten feet from the shore end of the wharf. The figures 95.57 are cut on the stone beside the mark, which is its elevation above the Marine Railway datum.

Geodetic Bench-mark c.m. At the intersection of the Chignecto Marine Railway with the Intercolonial. On a culvert under the Marine Railway and parallel with the track of the Intercolonial Railway on its west side, at 525 feet south of Fort Lawrence station; a copper bolt in the north face of the culvert,