

DEPARTMENT OF THE INTERIOR,

OTTAWA, CANADA,

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Assistant Superintendent,
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Ottawa.

19th February, 1913.

Sir,

I have the honour to make the following report giving the results of precise levelling done by the Geodetic Survey as far as they are ready for publication at the present time.

The work done previous to March 31st, 1910, has already been published in Appendix No. 5 to the Chief Astronomer's Report for that year; the present publication is a continuation of that report and is arranged in the same general form with the results of the levelling set forth in three tables.

Table I indicates the routes followed between terminal points and gives complete descriptions of all bench-marks established along these routes.

Table II shows in the first two columns the numbers of the bench-marks; in the third and fourth columns the approximate distance (in miles) between bench-marks, and from the initial bench-mark of the line; the fifth and sixth columns (headed "Discrepancy") give the difference (in feet) between the forward levelling and the backward levelling for each section between bench-marks and the accumulated difference from the initial bench-mark. The seventh column gives the elevations of the bench-marks shown in the second column; for convenience, these bench-mark numbers are repeated (in the eighth column) in order that the number of any bench-mark and its elevation may be in adjoining columns. In this table are shown also the elevations determined by the Geodetic Survey for certain bench-marks established by other surveys and connected with our levelling.

Table III shows the elevations at railway stations along the different lines of levels, the elevation was in every case taken on top of the rail; at telegraph stations it was taken in front of the telegraph office; at flag stations it was taken in front of the station-house or platform.