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TABLES
OF
HEIGHTS
IN SIND, THE PUNJAB,
N. W. PROVINCES, AND CENTRAL INDIA,
DETERMINED BY THE
GREAT TRIGONOMETRICAL SURVEY OF INDIA,
TRIGONOMETRICALLY
AND BY
SPIRIT LEVELING OPERATIONS,
TO MAY 1862.

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PREFACE.

In the autumn of 1861, a Special Commission was appointed to investigate the circumstances connected with the recent severe visitations of cholera, in various Military Stations in the Punjab and North-Western Provinces of British India.

The Commissioners represented that it was frequently found very difficult to form a correct opinion as to the merits of existing or proposed works for drainage or water supply, on account of the absence of complete and systematic sets of levels for each Station. They recommended the construction of permanent bench-marks in every Cantonment, and further suggested that the levels of all the principal Stations should be connected together, and referred to one constant datum. Ultimately the Survey Department was called on to take steps to collect and reduce all the data of levels existing in the Public Works, Railway, and Survey Offices, all over India.

As a first step towards this desirable measure, the following Tables of heights deduced by the Trigonometrical Survey of India are published. They originate from, and are all referred to, the mean sea level of Karachi Harbor.

An undertaking of such vast extent as the connexion of levels all over India, and their reduction to a common datum, cannot be achieved without the cordial co-operation of the Officers of the Public Works and Railway Departments. The present Tables are published in order that these Officers may have the means of reducing their levels to the sea, by connecting them with the nearest Station of the Trigonometrical Survey. They will then be in a position to supply the

Survey Department with Tables of levels, referred to the sea as a common datum, to be published as supplements to this work.

It is hoped that eventually, after the different lines of levels have been connected and reduced to the sea, Charts of levels may be prepared, to show at a glance the water-shed and water-courses, and all the most important particulars connected with the contour of the country, and thus embody the information which has hitherto been acquired, or may in future be obtained, rendering it generally available to the public, in the form in which it will probably be most readily appreciated.

For reasons which will be explained in the description of the determination of heights by the Trigonometrical Survey of India, the Tables now published are restricted to the provinces west of the meridian of Dehra Doon, Agra, and Gwalior, and north of the parallel of Karachi. Additional Tables for other districts will be published from time to time, as soon as available.

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Supt., Great Trigonometrical Survey.

OFFICE OF G. T. SURVEY; }
IN THE FIELD, }
1st *January*, 1863. }

ERRATA AND ADDENDA.

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- Page 35. *Add*—The values of height are expressed in feet, of the standard unit of measure of the G. T. Survey of India.
- “ 36. “ The Latitudes of the Stations of the Great Arc (Sections X, XI, and XII) differ from the values given in Colonel Everest’s Account of the measurement of the Indian Arc (1847), in being unreduced for the discrepancy between the Terrestrial and Astronomical Arcs of Amplitude, described at page CLXX of the Introduction.
- “ 41, line 6 *from bottom*. For evidently, *read* originally.
- “ 61, “ 7 “ *top*. “ Jellalabad, “ Jacobabad.
- “ 64, “ 3 “ “ “ north-north-east, *read* south-south-west.
- “ 113, Longitude East end Dehra Dhoon Base. For $78^{\circ} 1' 1''$, *read* $78^{\circ} 0' 58''$
- “ 117, “ Begarazpur, T. S. “ $77^{\circ} 44' 32''$, “ $77^{\circ} 44' 29''$
- “ 121, “ Boolundshuhr, T. S. “ $77^{\circ} 54' 15''$, “ $77^{\circ} 54' 13''$
- “ 128, “ Dholepoor, H. S. “ $77^{\circ} 52' 2''$, “ $77^{\circ} 52' 0''$
- “ 132, “ Surental, H. S. “ $77^{\circ} 43' 14''$, “ $77^{\circ} 43' 11''$
- “ 132, “ S. W. End Sironj Base Line. “ $77^{\circ} 47' 56''$, “ $77^{\circ} 47' 53''$
- “ 134, “ “ “ “ “ $77^{\circ} 47' 43''$, “ $77^{\circ} 47' 53''$
- “ 156, line 8 *from bottom*. For Paujpir *read* Panjpir.

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