



SYNOPSIS OF THE RESULTS OF THE OPERATIONS OF  
**THE GREAT TRIGONOMETRICAL SURVEY OF INDIA**

VOLUME XXII.

PRELIMINARY ISSUE.

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DESCRIPTIONS AND CO-ORDINATES  
OF THE  
SECONDARY STATIONS AND OTHER FIXED POINTS OF  
**THE ASSAM VALLEY TRIANGULATION, E. OF MERIDIAN 92°**  
EMANATING FROM  
**THE ASSAM LONGITUDINAL SERIES**  
(OR SERIES X OF THE N. E. QUADRILATERAL).

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PREPARED IN THE OFFICE OF THE TRIGONOMETRICAL BRANCH, SURVEY OF INDIA,  
COLONEL G. STRAHAN, R.E., DEPUTY SURVEYOR GENERAL, IN CHARGE.

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## ERRATA ET ADDENDA.

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PAGE		
17— <del>x</del> .	in triangles 70 and 71	<i>for</i> Kakiájan h.s. <i>read</i> Kakiájan Hill Mark
20— <del>x</del> .	„ triangle 162	„ Pasuadánga „ Pasuadánga s.
53— <del>x</del> .	„ column 1, line 18 from top	„ Raidong Hill Peak „ Raidang Hill Peak
82— <del>x</del> .	„ „ 2, line 28 from top	<i>after</i> (Johing) <i>add</i> 1873-74

*August, 1891.*

J. ECCLES,  
*In charge of Computing Office.*

## REFERENCES.

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The abbreviations employed in the text are as follows:—

H.S.	denotes	Hill Station	(principal),
T.S.	„	Tower Station	„
S.	„	Station	„
h.s.	„	hill station	(secondary),
s.	„	station	„

These abbreviations are only placed after stations where a theodolite has been set up and observations taken to surrounding points.

The latitudes and longitudes of all points shown on the Degree Sheets at the end of the volume will be found in the text. The latter exhibits numerical values of triangles only to points of a superior class, to which alone, if exhibited on the Sheets, lines are drawn: the lines are either continuous throughout, or dotted for half the length and continuous for the other half: the dots indicate that the bearing was not observed. For other points difficult to identify or of comparatively less accuracy, numerical values of triangles and azimuths are not given; but in the case of peaks, distances in log. feet and azimuths from the stations fixing them are given and also the reverse azimuths when the heights above sea level do not exceed 19,000 feet.

*August, 1891.*

**J. ECCLES,**  
*In charge of Computing Office.*



## P R E F A C E .

The Assam Valley Triangulation, the details of which E. of Meridian 92° are given in this volume, is a branch series of first-class secondary triangles executed in continuation of the Assam Longitudinal Principal Series of the North-East Quadrilateral, or that section of the triangulation of India which embraces the area within the Meridians of 78° and 92°, and the Parallels of 23° and 30°. The series extends through the entire length of the Assam Valley from Gauháti to beyond Sadiya. The results given are in final terms of the values of the side of origin, based on the corrected angles to satisfy the geometrical conditions of each of the several figures composing the Series, and are intended to meet any immediate demand for data. But the finally reduced results will be published hereafter when the other chains of triangulation, now in progress in Burma, have been completed and the whole scheme—in which the Assam Valley Series will be included—treated simultaneously like other large sections of this Survey. It may here be mentioned that only a limited number of copies have now been printed as a preliminary issue to meet the demand above stated.

For the several Series forming the North-West Quadrilateral,

- I. Great Indus Series.
- II. Great Arc, Section 24° to 30°.
- III. Karáchi Longitudinal Series.
- IV. Gurbágarh Meridional Series.
- V. Rahún Meridional Series.
- VI. Jogí-Tíla and Suttlej Series.
- VII. North-West Himalaya Series.
- VII A. Jodhpore and Eastern Sind Meridional Series.

For those forming the South-East Quadrilateral,

- VIII. Great Arc, Section 18° to 24°.
- IX. Jabalpur Meridional Series.
- X. Bider Longitudinal Series.
- XI. Biláspur Meridional Series.
- XII. Calcutta Longitudinal Series.
- XIII. East Coast Series.
- XIII A. South Párasnáth and South Malúncha Series.

} Already published.



And for the following Series of the North-East Quadrilateral,

- |                                                                                  |                      |
|----------------------------------------------------------------------------------|----------------------|
| XIV. Budhon Meridional Series.                                                   | } Already published. |
| XV. Rangir Meridional Series.                                                    |                      |
| XVI. Amua and Karára Meridional Series.                                          |                      |
| XVII. Gurwáni and Gora Meridional Series.                                        |                      |
| XVIII. Huriláong and Chendwár Meridional Series.                                 |                      |
| XIX. North Párasnáth and North Malúncha Meridional Series.                       |                      |
| XX. Calcutta and Brahmaputra Meridional Series.                                  | }                    |
| XXI. East Calcutta Longitudinal and Eastern Frontier Series, Section 23° to 26°. |                      |

The present is the 24th Synoptical Volume in order of publication, and it gives the results of the Assam Valley triangulation lying East of the Meridian 92°.

It was originally intended to include in this volume the principal triangulation of the Assam Longitudinal Series lying between the meridians of 88° and 92°, and (as a branch series of the above) the triangulation along the Assam Valley extending from Gauháti to Sadiya, as well as all the secondary work, and the snowy peaks lying between the meridians of 88° and 97°, arranged in 28 square degree sheets. In keeping with this plan the Introduction and pages 1 to 42 of this Volume were printed off. But in reducing the observations to snowy peaks, it was found that the field work, particularly to the west of meridian 92°, was not only incomplete but in some parts of a very weak character, and it has been decided to revise and supplement it before the results can finally be reduced and printed. Some attempts have already been made to complete the observations, but as it is likely that this work will take some time, the printing of the volume was resumed in continuation of page 42, giving all the available data of points lying east of meridian 92°, and which are contained in the co-ordinate lists of Degree Sheets Nos. 13 to 28.

The Introduction gives a historical and descriptive sketch of the progress of the whole operations in the field—both principal and secondary—from year to year, mentions the Officers by whom they were conducted, the theodolites with which the angles were measured, and indicates the work done by each of the Assistants.

The data given in this volume are the following:—

*First* (page 1—*x*), an alphabetical list of the names of the principal stations, showing the numbers assigned to them.

*Second* (page 2—*x*), numerical list giving the names corresponding to the numbers.

*Third* (page 3—*x*), descriptions of the structure and positions of the principal stations as taken from the original records of the observations and supplemented by an addendum, page 11\*—*x*, giving more recent information of their condition.

*Fourth* (page 11—*x*), the angles and sides of the principal triangles, numbered and arranged in order from west to east.

*Fifth* (page 16—*x*), the angles and sides of certain secondary triangles. The numbering is here made consecutive to that of the principal triangles, in order to facilitate references which are made in other sections to the place where the length of a side is to be found.

*Sixth* (page 32—*x*), the azimuths of surrounding stations and points at principal, principal-auxiliary and secondary stations, the latter arranged in alphabetical order.

*Seventh* (page 43—*x*), the distances of peaks from the principal, principal-auxiliary, and secondary stations at which they were observed, and the corresponding azimuths.

*Eighth* (page 72—*x*), a series of alphabetically arranged lists for each square degree east of meridian 92°, in which are given the descriptions and co-ordinates of all stations and fixed points, their heights, when they

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NOTE.—The data under the first four heads relate entirely to the principal stations of the Assam Longitudinal Series.

have been determined, the number of rays fixing each unvisited point, with the discrepancy in feet per mile of common side, and the number of deductions from which the height has been derived. In naming the stations and points it has been the rule to accept the names originally obtained by the surveyors, unless subsequent information has furnished names which are better known locally. Where, in default of names, the surveyors employed symbols, the points have been separated into groups and called after the range to which they belonged, with a distinguishing number for each point. When the group falls within more than one square degree the numbering is independent for each degree.

It has not been considered necessary to publish the whole of the details of the secondary triangulation; the sides and angles of 265 triangles, which were selected as most likely to be of future use, and the azimuths of all these sides as well as to certain peaks, have been given; but for a number of other points the co-ordinates only have been given.

The heights above mean sea level of the stations and points depend on the final trigonometrically determined values of the stations of Háthimura and Maiang of the Assam Longitudinal Series. It may be here stated that trigonometrically determined heights invariably refer to the upper surface of the masonry pillar or structure marking the station.

The longitudes depend on an astronomically determined value of the longitude of the Madras Observatory, deduced about the year 1815. The longitude of the Madras Observatory has however been re-determined, by the Electro-Telegraphic method, from observations made at Greenwich, Mokattam (in Egypt), Suez, Aden, Bombay and at certain stations of the triangulation in India.

This value of the longitude of the Madras Observatory is equivalent to  $80^{\circ} 14' 51''$  E.; and as the originally adopted value, on which the longitudes of the whole of the stations of this Survey are based, is  $80^{\circ} 17' 21''$  E.—see page 135 of Volume II of the *Account of the Operations, &c.*—the following precept may be accepted with considerable confidence:—

**All the values of longitude in this volume require a constant correction,  
probably of  $-2' 30''$ .**

The orthography of Indian names in the present volume is in accordance with the provincial lists of spellings constructed under the immediate orders of the Government of India. The newly authorised spellings were adopted for all names and other words contained in these lists; but for words for which there was no specific authority, the spellings have been framed in accordance with the methods followed in the preparation of the published lists, reference being made in the present instance more particularly to the Gazetted List for Bengal and Assam. As a general rule the pronunciations of the vowels are as follows:—*a* has a variable sound as in woman, rural, paltry; *á* as in tartan; *í* as in bit; *é* as in ravine; *u* as in bull; *ú* as in rural; *o* as in note; *e* as *a* in say; *au* as *ou* in cloud; *ai* as *i* in ride. Final vowels and those in well-known terminals are unaccented. When the popular spelling of a name has been accepted by Government, its correct orthography is generally given in parenthesis where the name occurs for the first time.

The charts accompanying this volume, *viz.*, Degree Sheets Nos. 13 to 28, preceded by an Index, show the whole of the triangulation E. of Meridian  $92^{\circ}$ , the positions of all the secondary points, and those portions of the secondary triangulations of which full details of the angles, sides and azimuths are given. With the aid of these charts it is hoped that little difficulty will be met with in finding out any of the data which may be required. The descriptions of the secondary stations are in some cases not as full and clear as is to be desired: this arises from the inadequacy of the information entered on the spot by the surveyors in their field books; every effort has been made to supplement these, whenever it was found practicable to do so, in order to facilitate the future identification of the stations, and all the information which is forthcoming has now been given.

## PREFACE.

The general arrangement of the volume is in accordance with that adopted in previous Synoptical Volumes. The data which it contains have been prepared chiefly under the superintendence of Mr. W. H. Cole, M.A., Deputy Superintendent, the Officer in charge of the Computing Office. The Introduction to this Series was written by Mr. C. Wood, by whom also the reduction of the secondary work was chiefly done. The volume like its predecessors has been printed at the Trigonometrical Branch Office at Dehra; Mr. Peychers has rendered valuable service in the examination of the press proofs generally, and more particularly in regard to the numerical details which require the utmost care in supervision through the press, and in this respect from his natural aptitude and experience his assistance has been most valuable.

MUSSOOREE, }  
August, 1891. }

G. STRAHAN, COLONEL, R.E.,  
*Dy. Surveyor General,*  
*In charge Trigonometrical Surveys.*

**ASSAM LONGITUDINAL SERIES.**



## ASSAM LONGITUDINAL SERIES.

## INTRODUCTION.

This Series may be looked upon as a continuation of the North-East Longitudinal Series, emanating, as it does, from the easternmost side of that triangulation and proceeding eastwards for a distance of over 200 miles till it attains the meridian of  $91^{\circ} 40'$  near the well known town of Gauháti in the Kámrúp district.

As this triangulation was the first that was to be carried east of the Calcutta meridian, the then Surveyor General, Colonel—afterwards Sir Andrew—Waugh, looked upon it as an undertaking of first-class importance; for he resolved that on the operations of the Assam Longitudinal Series should depend all the meridional series east of the triangulation then executed, and consequently all the geography of Eastern Bengal as well as of Burmah. He therefore determined that no pains should be spared to render the operation as reliable and complete as could be desired. The Series, as far as practicable, was therefore so long as it lay in the plains country to consist of a series of hexagons with sides of not more than 11 miles in length; and when it entered the hills, he ruled that quadrilaterals would be admissible only when circumstances rendered these figures preferable to polygons.

The Series was executed throughout with 24-inch theodolites—about one-fifth of the angles having been measured with Colonel Waugh's 24-inch No. 2\*, and the remainder with Barrow's 24-inch No. 1\*. It was begun in season 1852-53; but, owing chiefly to the then extremely unhealthy character of the country through which the work lay, it was not brought to a close till 1860-61.

The triangulation emanates from the side CXXIV—CXXVI of the North-East Longitudinal Series: for the first 100 miles it stretches across the low lands of the Cooch Behar State and of the Jalpáiguri, Rungpore, and Goálpára districts, and strikes the right bank of the Brahmaputra just where that river, after following a south-westerly course for about

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\* For a description of these instruments, see pages 59 to 61 and 46 to 49 of the Appendices to Volume II of the *Account of the Operations of the Survey of India*.

400 miles, turns (near the 90th meridian) to proceed almost due southwards. In this portion the entire absence of natural elevations necessitated the erection of twenty-three towers averaging 25 feet in height. The Series then follows the Brahmaputra for a distance of nearly 110 miles through the Goálpára and Kámráp districts: in this part of the triangulation the stations are—with only one exception—situated on hills, and the length of the sides is therefore somewhat greater than before. The entire Series stands composed of one double and three single hexagons in the western or plains portion; and of a double pentagon, three single pentagons, and three quadrilaterals in the portion lying in the hills.

In 1868 the Superintendent of the Great Trigonometrical Survey determined to extend the triangulation through the Province of Assam; not, however, as principal triangulation, but as a series of first-class secondary triangles with the best vernier theodolites. This portion of the work is in parts double and in others single, just as the nature of the country admitted of. The triangulation follows the course of the Brahmaputra for a distance of over 300 miles, right through the Assam valley to a little beyond Sadiya—distant about 15 miles east of the confluence of the three main heads of the Brahmaputra which here takes an abrupt bend to the S.W. This triangulation is known as the Assam Valley Series: it was begun in 1868-69, and completed in 1877-78.

Besides fixing the important towns of Jalpáiguri, Maynaguri, Cooch Behar, Goálpára, Gauháti, Nowgong, Tezpur, Jorhát, Lakhimpur, Sibságar, Dibrugarh, and Sadiya, the triangulation (principal and secondary) has determined the position of a considerable number of peaks on the great snowy ranges of the Eastern Himalayas and on the mountains to the east of our extreme N.E. Frontier; it has also fixed several peaks on the Gáro, Khási, Jaintia, Nága, and Singpho Abar Hills which form the southern watershed of the Brahmaputra.

On the completion of the North Párasnáth Series in the summer of 1852, Mr. Nicolson

*Season 1852-53.*

PERSONNEL.

Major J. S. Du'Vernet, 1st Assistant.

Mr. J. O. Nicolson, Senior 1st Class Sub-Assistant.

" T. A. Berrill, 2nd " "

" C. Shelverton, 3rd " "

" H. J. Berrill, 3rd " "

was directed to hold the party in readiness for taking up next field season the triangulation on the Assam Longitudinal Series. And as Major Du'Vernet to whom the conduct of the operations was to be entrusted was not likely to be free for some time from the work of the North-West Himalaya Series which he was then bringing

to a close, the charge of the party was committed at the outset to Mr. Nicolson.

The party under Mr. Nicolson left Monghyr about the 20th of October 1852, and directed its march to Tentulia (Titalya) in the vicinity of which the operations were to start. The towers at Kanchábári and Newáni (cxxiv and cxxvi of the North-East Longitudinal Series), from which the triangulation was to emanate, having been built about five years before and being solid, it was feared may have become deflected; Mr. Nicolson was therefore enjoined to examine them personally, and to spare no pains in establishing the identity both in position and height of these towers before commencing observations thereat. The Surveyor General also directed that a set of circumpolar-star observations for Azimuth should be taken at Rámganj—the N.E. extremity of the Sonakhoda base-line—for comparison with the computed value of this element derived from the Calcutta Meridional Series,

over the last 160 miles of which latter operation it had up to that time been found impracticable to apply such a check.

Mr. Nicolson reached his first station, Kanchábári, on the 2nd December; but he had scarcely commenced work when a violent fever broke out in camp which at once prostrated thirty men of the Native establishment, besides twenty private servants and camp followers. In addition to this, the weather proved unfavorable. Mr. Nicolson was thus unable to begin observations till towards the end of the month. Without waiting for Colonel Waugh's 24-inch theodolite No. 2 which was then on its way to him and reached him very shortly after, he completed his azimuth observations at Rámganj by the 2nd of January, employing for the purpose Barrow's 24-inch No. 2\* which he had with him.

Major Du'Vernet assumed charge of the party on the 1st January 1853. He found the men still suffering from fever, and the assistants laboring under considerable difficulty in finding suitable carriage for traversing the country in advance. The ground was even then a good deal flooded; and, being intersected by numerous small rivers containing much water, and swamps and morasses abounding, it did not admit of the usual means of carriage, *viz*: carts, camels, bullocks, and ponies. Altogether, Major Du'Vernet found himself quite unable to take up the approximate work before the 15th of the month. On the 27th the party was visited by the Surveyor General, and thus had the benefit of his personal inspection on the spot. He found that "a general gloom prevailed through the camp". Having done all in his power to re-establish the spirits of the party, and having discussed all necessary details regarding the work with Major Du'Vernet, he forwarded an emergent indent on the Commissariat Department for a sufficient number of elephants, that with their help the disadvantages attendant upon the wild and swampy character of the country might be overcome.

During February and March the entire strength of the party was devoted to selecting stations, clearing rays, and building towers. Leaving this part of the work, Major Du'Vernet returned so as to begin final observations early in April; but his progress with these was much hampered by fogs, clouds, and thick haze, which left but a very small fraction of the day in which observations could possibly be taken. By the 4th of May he was only able to take observations at Kanchábári, Newáni, and Boalmári (II). Meantime, the approximate work had been laid out in 22 triangles—carrying the Series eastwards to the meridian of Cooch Behar ( $89\frac{1}{2}^{\circ}$ ); twelve towers from 20 to 25 feet high were reported as built; and thirty-one rays cleared. The monsoons now set in; and fever having again made its appearance in camp, the party was warned to move off immediately and march for recess quarters at Dacca where it arrived about the 20th of May.

The operations of the season were not looked upon with satisfaction by the Surveyor General, who on examining the observations found them "so full of discordancies as not only "to be inadmissible according to the present standard of Trigonometrical Surveys, but such "as to justify the conclusion that Major Du'Vernet's physical qualifications as an observer had "become impaired". The observations were therefore rejected, and Major Du'Vernet was allowed to resign his appointment in the Survey Department.

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\* For a description of this instrument, see pages 51 to 53 of Appendices to Volume II of the *Account of the Operations, &c.*



Owing to a late rainy season and the unadvisability of entering the low lands too early, the party did not move out from recess quarters till the 5th of December. By the end of the month they reached their ground; and Messrs. T. A. Berrill and C. Shelverton were at once sent to Cooch Behar to clear all the rays between the stations fixed last year, after which they were to continue the selection of stations towards Goálpára.

Season 1853-54.

PERSONNEL.

Mr. J. O. Nicolson, Senior 1st Class Sub-Assistant.		
" T. A. Berrill,	2nd "	"
" C. Shelverton,	2nd "	"
" H. J. Berrill,	3rd "	"

Mr. Nicolson himself advanced to the centre of his final work for the purpose of re-clearing all the old rays (which had become partially blocked), superintending the re-building of the towers, and taking immediate steps to settle with the inhabitants the compensation due for the removal of obstructions during the operations of the previous season. The last proved a heavy and difficult task owing to the pertinacity of the zemindars, who set up the ryots not to accept compensation but to sell their claims to them that so they might institute vexatious proceedings against the Survey. However, with the help of a *peshkár* (subordinate revenue official), who was deputed by the Collector to help Mr. Nicolson in assessing the damages, the matter was satisfactorily disposed of.

Mr. Nicolson found that "of the towers which were constructed during the previous season, those which were made entirely of bricks had fallen down; and that others built partly of bricks and partly of earth supported by wooden piles, although standing, were neither trustworthy nor of sufficient height to enable the vertical observations to be taken at the proper hour of the day." Under these circumstances, he had them pulled down and built on quite a different plan; this will be found detailed in the Description of Principal stations, pages 3—*K. et seq.* The bricks used in the building of the pillars were excavated from old ruins; as, partly owing to the unsuitableness of the soil, partly to the moist character of the atmosphere, but chiefly to the uncertainty of procuring a regular supply of coolies from the naturally indolent people of the country, it was found impracticable to follow the usual course of making them on the spot.

As soon as the first three towers were completed, the large theodolite was mounted at Kanchábári, but owing to the unfavorableness of the weather no observations could be taken till the middle of March. By the 30th of April, Mr. Nicolson had only completed the horizontal and vertical observations at the two initial stations and at I, II, and III. All this time the weather had continued unfavorable,—very severe dust and hail storms combined with an unusual amount of haze obscured the signals so that lamps were not only very seldom visible but difficult to intersect unless a stiff breeze happened to be blowing at the time of observation. The early rains set in in the beginning of May, and enabled the observing to progress more rapidly; so that by the 17th of June, final angles were taken at stations IV to XI, and one of the four angles at XII was also measured. In the meanwhile, towers had been erected at the first thirteen stations; the laying out of the Series had been advanced by the selection of five tower stations—which brought the work up to the Brahmaputra—and of seven hill stations on both banks of the river, extending this part of the operations up to the meridian of  $90\frac{1}{2}^{\circ}$ ; and a good number of the rays between the tower stations had also been cleared.

As was to be expected, the party suffered a good deal from sickness. Owing to Mr. Nicolson's judicious arrangements, in having a hospital built on a healthy spot on the Teesta

where all the sick of his establishment were removed, there was not a single death in his own camp : but the advance party under Mr. Shelverton, which was employed among the low hills near the Brahmaputra, was not so fortunate ; for, when attacked by jungle fever about the 5th May and compelled to retire to Rungpore for medical aid, four of the men died before they reached that place, and Mr. Shelverton himself had to be sent on to Darjeeling as soon as he could bear the journey.

Owing to the early setting in of the rains, by the middle of June the rivers and numerous minor streams had overflowed their banks, flooding the whole country. Mr. Nicolson was therefore obliged to leave the observations at XII unfinished and to make a precipitate retreat with the party to the high road to Tentulia (Titalya), whence he proceeded to Darjeeling where he arrived on the 13th of July.

On receiving the abstracts of angles, the Surveyor General examined them critically, by comparison firstly with the values obtained by Major Du'Vernet during the previous season, and secondly with the values of two angles (one at Kanchábári and the other at Newáni) which besides being measured by Major Du'Vernet had also been observed with the great theodolite (Troughton and Simms' 36-inch) in 1848 by Mr. Lane. Combining the evidence of the angular variations in the several measurements of the two last named angles, together with all the probabilities affecting them, Colonel Waugh was disposed to consider that the towers at both Kanchábári and Newáni had undergone deflection since 1848 to an extent which would have the effect of increasing the length of the side by nearly  $\frac{1}{2}$  an inch per mile. Now as all the towers of the Rámganj polygon, excepting the ends of the base-line, were *solid*, it was clear that unless this polygon was entirely re-measured in one and the same season and the observations likewise finished at three perforated towers at least in advance of the side Kanchábári-Newáni (so as to get rid of any further reference to the latter towers) the work on the Assam Series would not be independent of deflections. Mr. Nicolson was accordingly directed to remove all uncertainty on the point by beginning operations next season with these re-measurements.

It not being considered safe to resume field operations too early, the party did not leave Darjeeling till the 1st of December. On reaching their

Season 1854-55.

PERSONNEL.

Mr. J. O. Nicolson, Civil 2nd Assistant.  
 „ T. A. Berrill, 2nd Class Sub-Assistant.  
 „ C. Shelverton, 2nd „ „  
 „ H. J. Berrill, 3rd „ „

ground, Mr. T. A. Berrill was detached on secondary triangulation, and Mr. Shelverton to reclear the rays. Mr. Nicolson himself set about repairing the towers of the Rámganj polygon and clearing the rays of the same figure. This being finished, he began the re-observations at Rám-

ganj (CXXII) on the 15th of January 1855, and completed them on the 7th of February. While at this station, Barrow's 24-inch No. 1 was received from Calcutta : this instrument had recently been fitted with two additional microscopes, and had otherwise been materially improved (see pages 46 to 48 of Appendices to Volume II) by the Mathematical Instrument Maker. Mr. Nicolson was allowed the choice of working either with this instrument or with the one he then had ; and, after testing the instrument by a series of experimental observations, he elected to work in future with Barrow's 24-inch No. 1. Owing to the usual unfa-

vorableness of the weather, it took him till the 21st of April to complete the re-measurements of the angles—horizontal and vertical—at the stations of the Rámganj polygon. There then remained eight angles, at stations I, II, III, and IV, to connect this work satisfactorily with the operations of the previous season: all these were disposed of by the 3rd of May. Mr. Nicolson then moved eastwards without loss of time to where his work had ended during the year before; and as the early rains had set in and cleared the atmosphere, he was able by the end of the month to complete the angles at stations IX, XI, and XII to XVIII, thus finishing the Series up to the eastern confines of the Cooch Behar territory. The setting in of the regular rains forced the party to return westwards; but fever had already broken out, and no less than forty men were on the sick list when they recrossed the Teesta. The party reached recess quarters at Darjeeling in the end of June.

The approximate series, which it was at first expected would that season have reached Gauháti, had unfortunately received a complete check. Mr. Shelverton's party was crippled at the very outset by sickness which never left his camp. He succeeded, however, in building seven towers and collecting the materials for the remaining three; and, in addition, he did a little towards the clearing of the rays two of which lay through the Parbatjwar forest and took a whole month each to open up.

The party left recess quarters early in December, and began work at Ataro Bánki

Season 1855-56.

PERSONNEL.

Mr. J. O. Nicolson, Civil 2nd Assistant.  
 „ T. A. Berrill, 2nd Class Sub-Assistant.  
 „ C. Shelverton, 2nd „ „  
 „ Jules Deveria, 3rd „ „

(XVII) on the 24th by taking a set of circumpolar-star observations. These having been completed on the 2nd of January 1856, Mr. Nicolson left two of his assistants to clear the rays that still remained unopened, to continue the tower-building, and to go on with secondary triangulation,

while he himself with the third assistant proceeded to advance the approximate work in the hilly tract bordering the Brahmaputra. Mr. Nicolson determined to march to the Brahmaputra *via* the Parbatjwar forest so as to improve if possible the triangles that had been already laid out. An examination of the station of Alangjáni rendered it advisable to reject the site previously selected and to adopt another 4 miles to the south: by this arrangement not only was the symmetry of two triangles improved, but much cutting in the Parbatjwar forest was avoided. By the end of March he selected seven hill stations—thus extending the Series to the side XXXIV–XXXV about 12 miles beyond Goálpára—built the platforms, cleared the hill tops of forest, and cut roads up to most of the stations. The tower-building had progressed but slowly owing to the difficulty of procuring labour in the Rungpore district, and these difficulties were added to by having to rebuild the tower at XVIII which was found to have fallen down during the last rains. The ray-clearing too had been very heavy work, but it now stood satisfactorily disposed of, and Mr. Berrill was sent ahead to continue the selection of stations eastwards from Goálpára. On the 31st March 1856, Mr. Nicolson began final observations at Chandar Dinga (XXVIII), with the intention of disposing of the angles in the hilly tract first and then working westwards till a junction should be effected with the operations of the previous season. He was led to this decision from the circumstance that the Goálpára district was liable to earlier inundation than other portions

of the country, and he had been apprized by the local authorities that he could not stay out in the hilly tracts beyond the end of April without running unusual risks. The observations at xxviii were disposed of by the 7th of April, and the party then advanced to xxix the angles at which were all measured by the 12th. But immediately on arrival at the next station, Bhairaber Chura (xxxI), Mr. Nicolson and a portion of his establishment were prostrated with fever, and forced to beat a precipitate retreat to Goálpára for medical advice. Mr. Nicolson himself happily recovered in a few days and was ready to resume work; but violent fever having broken out in his camp, in the course of ten days every person attached to his establishment was laid up. The Medical Officer advised a change of district as soon as practicable; and there appearing no prospect of the men regaining their strength in time to resume field work, and Mr. Nicolson himself being too enervated by the oft-repeated attacks of fever from which he had suffered more or less throughout this season, there was no alternative left him but to return to recess quarters. He left Goálpára on the 14th May, and advanced by slow marches, *viâ* Rungpore and Titalya, to Darjeeling.

After reconnoitering the country to the east of Goálpára, Mr. Berrill was recalled to superintend the tower building. Under him the work was advanced so that all the towers were completed just in time before his party had to leave the field. Mr. Shelverton suffered considerably from rheumatism and fever since the beginning of March, so that his services were lost to the party for a good portion of this season. And, altogether, it may be said that there was not a man in the whole establishment—European or Native—who did not feel himself completely broken down in health.

In consequence of the disasters sustained during this season, Mr. Shelverton had to take six months leave on medical certificate, at the expiry of which he was transferred to another part of India; and Messrs. Berrill and Deveria resigned their appointments in the Department. Mr. Nicolson's health too had suffered so much that he felt unequal to the duties of another field season, and made application to proceed to Europe on medical furlough as soon after the termination of the recess as his successor could meet him and take over charge of the party.

The Surveyor General early saw the necessity of arranging for relieving Mr.

Season 1856-57.

PERSONNEL.

Mr. C. Lane, Chief Civil Assistant.

" W. A. Dyer, 3rd Class Sub-Assistant.

" H. Beverley, 3rd " "

Nicolson of the charge of the party, and appointed Mr. C. Lane to succeed him. This officer was then at Dehra Dún, and as he could not be relieved of the charge he then held till the end of September, he, together with the two newly appointed sub-assistants, did not com-

mence his long journey before the 4th of October. Mr. Lane marched to Cawnpore, where he was delayed a week by sickness. He proceeded thence by boat to Caragola where he arrived on the 2nd December, having stopped at all the large towns *en route* to enlist men for the native establishment. From this place the party proceeded by ordinary marches, *viâ* Purneah and Rungpore, to Goálpára where it arrived on the 12th of January.

In the meanwhile, Mr. Nicolson having left Darjeeling on the 6th of November arrived at Dhubri (xxiv) on the 30th, and proceeded at once to re-clear the rays in the immediate neighbourhood of that station,—the humidity and warmth of the climate having favored a considerable growth of vegetation during the last six months. He disposed of these by the 10th December; and after issuing the necessary orders for the re-building of the towers at xviii, xix, and xxi which had been levelled to the ground by the inundation that had occurred in July last, he commenced observations at Sámding (xxv) on the 12th. Having only been able to measure one of the two angles at this station, he advanced to Dandpál (xxvi) where he completed the measurement of all the angles—horizontal as well as vertical—by the 27th of December. His health now completely broke down, and he was carried into Goálpára for medical treatment: he remained there until relieved on the 13th January by Mr. Lane, after which he took the first steamer to Calcutta and thence proceeded to Europe.

Mr. Lane having detached Mr. W. Dyer to continue the selection of stations, and having given directions for the re-construction of the fallen towers as well as for the raising and repairing of such other towers as had suffered, began final observations at Ajaghar (xxx) on the 20th of January. He completed these as well as all the observations at xxxi by the 10th February, and then proceeded to xxviii and xxix where he re-observed the vertical angles which had been taken there the year previous by Mr. Nicolson. He then advanced westwards taking up the stations in succession; but owing to the unfavorableness of the weather, and the delay and difficulty in communicating with the signallers, several of whom were new men, the progress was slow. From the 24th of February to the 28th of June Mr. Lane was engaged in observing at stations xix, xx, xxi, xxii, xxiii, xxiv, xxvii, and in completing the observations at xxv. There yet remained four stations to visit before a junction could be effected with the previous work. Happily the necessary angles at stations xiv, xvi, xvii, and xviii were all disposed of by the 29th of July, although by the 15th the country had become so inundated as to defy marching and to force the party in consequence to take to boats.

Meanwhile, Mr. Dyer after vainly attempting to improve the figure around Raikusni (xxxii) with a view to diminish the length of some of the sides had to abandon the idea as he had already lost much valuable time. He suffered too from repeated attacks of fever, so that all that he was able to do by the 12th of May, on which date he proceeded on sick leave, was to extend the laying out of the Series by the quadrilateral terminating at the side xxxvi—xxxvii, and to furnish a reconnaissance of the country further east.

Notwithstanding the lateness of the field season, the health of the party was very good to the last, but it should be mentioned here that the members had the benefit (from the early part of May) of the services of Surgeon A. C. Lee, who had been specially appointed as Medical Officer to this Series through the representations of the Surveyor General. Conveyance too was during this season rendered easier by the Surveyor General's having sanctioned a considerable increase to the number of elephants to be employed while the work lay in such difficult ground. The party spent the recess season at Dhubri on the right bank of the Brahmaputra.

It had been Mr. Lane's intention to take the field early in November, but owing to

Season 1857-58.

## PERSONNEL.

Mr. C. Lane, Chief Civil Assistant.  
 " W. Dyer, 2nd Class Sub-Assistant.  
 " H. Beverley, 3rd " "  
 " J. Low, 3rd " "

the interruption of business caused by the Indian Mutiny, the usual funds for contingent expenses did not reach him till early in December. Immediately on receipt of the money, men were sent off to Rungpore to enlist recruits for the party, while Mr. Lane, with his assistants, baggage, and elephants, having gone across the Brahmaputra by the 7th, marched for Goálpára. Here the party was delayed in repairing the camp equipage and awaiting the recruits from Rungpore. It did not prove an easy matter to obtain men at Rungpore; for only a week before, the remnant of the Dacca mutineers had passed between Rungpore and Dhubri on their way to Cooch Behar, spreading disaffection which reached even into the camp of the party. On the night of the 5th December, the party being still at Dhubri, one of the *barkandázes* (native guards) endeavoured to incite the men and particularly the sepoy guard to attack and plunder the party and then to go off and join the body of mutineers who were at that time only a stage or two from the camp. Happily information of this got abroad before any mischief could be done; and the man's guilt having been proved on his trial by the Deputy Commissioner, who happened to be on the spot, the offender was hanged, and such of the men of the establishment as evinced a strong sympathy with the culprit were dismissed and ordered out of the district. The recruits, however, arrived on the 24th December, and two days later the party marched for its first station, Bhairaber Chura (xxxI). The observations at this station were completed on the 4th January, and the party moved southwards to Ajaghar (xxx). Here, owing to the prevalence of dense mist and fog, it was impossible to obtain any observations whatever until the 21st: the atmosphere having then cleared, Mr. Lane was able by the 1st of February not only to complete the two angles required at xxx but also all the angles at Raikusni (xxxII). During February and March the weather proved extremely unfavorable, so that for a fortnight at a time no signals whatever were visible. By the 2nd of April, Mr. Lane was only able to complete observations at xxxIII, xxxIV and xxxv; and during the next three weeks he visited xxxVI and xxxVII, at each of which he observed the two western horizontal angles besides taking the usual vertical observations. The rains had already set in a week before, rendering the hilly tract very unhealthy and impracticable from the extensive swamps that now kept forming: and much sickness having appeared in camp, Mr. Lane was compelled to suspend operations and proceed to Goálpára, where he arrived on 30th April with twenty-four of his men on the sick list.

Meanwhile the approximate series had been advanced but slowly by Mr. Dyer. This officer had suffered a good deal from repeated attacks of fever throughout the season, but had nevertheless succeeded in selecting stations so as to form a double polygon (composed of a hexagon and a pentagon) to the east of the side xxxVI-xxxVII. At most of these stations the usual platforms had also been built, and a tower 15 feet in height had been constructed at Duramári (xL). As, however, one of these stations was situated in the territory of the Independent Gáros, to reach which involved staging over a tract of wild hilly country impracticable for elephants—the only means of transport—, and as the length of the sides emanating from another of the stations selected appeared to be too long for

ordinary observation, it was decided that the selection should be suitably modified early next field season.

The Surveyor General determined to strengthen the personnel of the party by trans-

Season 1858-59.

PERSONNEL.

Mr. C. Lane, Chief Civil Assistant.  
 " W. C. Rossenrode, Civil 2nd Assistant.  
 " H. Beverley, 2nd Class Sub-Assistant.  
 " J. Low, 3rd " "

ferring a Senior Assistant in place of Mr. W. A. Dyer whose health did not admit of his rendering any efficient service in this part of the country. Accordingly, Mr. W. C. Rossenrode, Civil 2nd Assistant, was posted to the Assam Series which party he joined at Goálpára in

September. Mr. Lane, having been directed to initiate Mr. Rossenrode into the peculiarities of the large theodolite and the best mode of using it, came to the conclusion that the most satisfactory way for carrying out this would be for Mr. Rossenrode to take a share in the observations for the first part of the season. He accordingly detached Mr. Beverley on the 22nd of October to prepare the stations immediately east of the side xxxvi-xxxvii, and then to endeavour to improve the triangulation that had been laid out during the last season.

The main party left Goálpára on the 19th November, but Mr. Rossenrode remained behind for medical treatment of an obstinate fever from which he was suffering. Mr. Lane proceeded to Raikusni (xxxii), where between the 21st and 26th of November he took a set of circumpolar-star observations for azimuth. He next moved towards Nagarberha (xxxvii), but he was much hampered on the march from want of sufficient carriage and unusual difficulties in procuring supplies and coolies. He was then joined by Mr. Rossenrode; but that officer being a second time prostrated with fever, and Mr. Lane himself falling suddenly ill, the party was halted for a few days on the left bank of the Brahmaputra. Thus no observations were taken at Nagarberha until the 21st December; these were taken conjointly by Messrs. Lane and Rossenrode, after which the former officer retired to Goálpára for medical advice. Mr. Rossenrode pushed on to xxxvi and xxxviii, the observations at which were concluded by the 8th of January. Mr. Lane now resumed the observations, but on arrival at the next station Duramári (xl) he found the scaffolding too weak and flimsy, and its isolation from the pillar by no means perfect: he had therefore to dismantle the structure and set about constructing a new scaffolding with bamboos which he had to send for from a considerable distance. Several days were thus lost, and being still further hindered by unfavorable weather and bad signals, he was unable to complete the observations at this station before the 11th of February. Meanwhile, Mr. Beverley after repairing four platforms had succeeded by the end of December in selecting the station of Langturi (xxxix), but all his efforts to select the last station of the Sonora-Akchalia double polygon had proved unavailing. Accordingly, as soon as Mr. Lane resumed the conduct of the observations at xl, Mr. Rossenrode was sent to assist Mr. Beverley out of his difficulty. That officer, having had considerable experience in approximate operations in other parts of India, soon succeeded in the selection of Harogaon (xlii); and, leaving Mr. Beverley to construct the platform and cut the road up to the station, he rejoined Mr. Lane who was still at xl. By the end of February the observations at xxxix and xliii were disposed of by Messrs. Lane and Rossenrode who then advanced to xlii. Owing to the persistent continuance of bad weather but

little progress could be made: by the 21st of March Mr. Lane was able to complete the observations at XLII, after which he marched to Háthimura (XLIII). Here, after taking a few observations on the 31st March and 1st April, Mr. Lane was suddenly attacked with fever which compelled him to move on to Gauháti. Mr. Rossenrode was accordingly left to complete the measurement of the angles, which he did by the 8th April.

The season was now pretty well advanced for Assam, in consequence of which a good deal of sickness showed itself in camp. This, combined with the difficulty of getting back to recess quarters if overtaken by the regular rains, as well as with the impracticability of obtaining either coolies or supplies for the stations further east, induced Mr. Lane to reluctantly close work and proceed to recess quarters at Cherra Poonjee.

Meanwhile Mr. Beverley—who had suffered from sickness throughout the month of February—had succeeded during the early part of March in selecting the stations of XLIV and XLV: he had also built the required platforms and cut the roads up the hill sides for the transport of the large theodolite, and was engaged in reconnoitering the country further east when he was compelled by the badness of the weather to desist and return to Cherra Poonjee.

Mr. Lane's health not having permitted of his taking the field, he was granted four

Season 1859-60.

PERSONNEL.

Mr. C. Lane, Chief Civil Assistant.  
 „ W. C. Rossenrode, Civil 2nd Assistant.  
 „ H. Beverley, 1st Class Sub-Assistant.  
 „ A. D'Souza, 2nd „ „  
 „ R. F. Shuter, 3rd „ „

months leave on medical certificate, and the conduct of the operations was entrusted to Mr. Rossenrode. This officer was unable to leave Cherra Poonjee before the 25th November, as the tract of country through which he would have to march to reach his ground was, owing to the lateness of the rains, not considered safe before that date.

On arrival at Gauháti on the 2nd December, after completing his arrangements for the field season, Mr. Rossenrode was about to begin observations when he received instructions from the Surveyor General to turn the Series southwards with the object of fixing the position of Cherra Poonjee, Sylhet, and Cachar. This completely altered his plans: he immediately recalled the party under Mr. Beverley, and determined to devote himself to laying out the first polygon of the Series (now known as the Eastern Frontier or the Shillong Meridional Series) before taking up the observations. Having accomplished the object in view, Mr. Rossenrode returned to complete the observations at Tepkilabama (XLIV) and Maiang (XLV): these he finished by the 13th January, and thus concluded the Assam Longitudinal Series.

On the completion of the Simultaneous Reduction of the North-East Quadrilateral it was found that the errors which had actually been dispersed over the two sections of the Assam Longitudinal Series (see page 267 of Part I of Volume VII of the *Account of the Operations, &c.*), *i.e.* (1) between the origin Newáni-Kanchábári and the side Alangjáni-Dhubri, and (2) between the latter side and Harogaon-Tepkilabama, were as follow:—

- (1). In Logarithm of the side Alangjáni-Dhubri  $+ 0.000,0099,1 = 1.5$  inches per mile.  
 „ Azimuth „ „  $+ 0''527.$   
 „ Latitude of Dhubri  $+ 0.029$   
 „ Longitude „ „  $+ 0.141$



(2). In Log. of the side Harogaon-Tepkilabama	—	0'000,0008,9 = 0'1 inches per mile.
„ Azimuth	„	— 0''·642
„ Latitude of Tepkilabama	„	+ 0'006
„ Longitude	„	— 0'100

As regards the heights above sea level of the stations of the Assam Longitudinal Series, there being no Spirit-Levelling Operations carried on by this Department east of the Calcutta Meridional Series, circuits of trigonometrical differences of height were formed with the chains of triangles, and the dispersion of the errors was effected as described on page 42 of the volume above quoted. It was then found that the total error generated in the section of this Series west of the side Alangjáni-Sámding (xxii-xxv) was under a foot, while that generated in the section to the east of this side was  $2\frac{2}{3}$  feet.

#### *Secondary Triangulation.*

The Secondary Triangulation which was executed in connection with the operations of this Series may be divided into the following classes:—

- (1). Points fixed from Principal Stations with the large theodolite.
- (2). Minor chains of triangles with branches to fix points of importance, chiefly external to the Principal Series.
- (3). The Assam Valley Triangulation east of longitude  $91\frac{1}{2}^{\circ}$ .

*Class (1).* There are only eight points of this class: these were fixed during the seasons 1856 to 1859, chiefly by Messrs. Lane and Rossenrode, *pari passu* with the Principal triangulation, and include amongst others a point near the town of Goálpára whose position and height have both been determined.

*Class (2).* Of this class the following secondary chains of triangles, which have all been adjusted to fit between the finally determined values of the Principal Stations with which they are connected, were executed:—In 1854-56 Mr. T. A. Berrill carried a series of triangles from cxxvi to ii for fixing the position of Pachágarh and Boda Chakla Háts; a second series from iii to v for fixing several points in and around Jalpáiguri; and a third from xvi to xviii to fix Maynaguri Temple and several points in and around Cooch Behar. In 1855-56 Mr. Shelverton carried a series from vi *viá* x to xii for fixing several points in Dimla, Debiganj and Ghoramára. These series were all executed with 12-inch theodolites: they were carried under great difficulties, as the country was studded with numerous small villages and extensive bamboo topes.

*Class (3).* *The Assam Valley Triangulation east of longitude  $91\frac{1}{2}^{\circ}$ .*—This is a series of first-class secondary triangles carried on in continuation of the Assam Longitudinal (Principal)

Series through the entire length of the Assam Valley from Gauháti to beyond Sadiya. The operations were begun in 1867-68 and concluded in 1877-78. The triangulation has been laid out in parts as a double series, while in others, where the nature of the ground did not allow of this, it consists of a single chain of triangles. The angles of the main series were observed chiefly with either a 14-inch or a 12-inch theodolite, and the signals used were luminous; the system of observation at first was two repetitions on each of four zeros for the portion of the series that is double, and as many repetitions on eight zeros in the single triangles. Several points of importance have been fixed by these operations, either directly by observations from the stations of the main series, or by minor chains of triangles emanating from a side of this series. Observations too have been taken to fix numerous peaks on the Himalayan Mountains to the east of Bhutan (which are inhabited by the Akhas, Daphlas, Miris and other independent tribes), as well as on the ranges still further to the east of the great bend in the Brahmaputra and which are owned by the Midhis or Chalkatta Mishmis. Several peaks have also been fixed to the south of the Brahmaputra on the hills which are inhabited by the various independent Nága tribes, the Singfo Abars, &c.

These operations may be sub-divided into the following sections for convenience of notice:—

- (a). The operations from 1867-68 to 1869-70, under Lieut. E. M. Larminie, R.E., Assistant Superintendent 2nd Grade.
- (b). Those in 1870-71, under Mr. W. C. Rossenrode, Deputy Superintendent 3rd Grade.
- (c). Those from 1871-72 to 1873-74, under Mr. W. G. Beverley, Assistant Superintendent 2nd Grade.
- (d). Those from 1874-75 to 1877-78, under Lieutenant H. J. Harman, R.E., Assistant Superintendent 2nd Grade.

(a). The operations under Lieutenant E. M. Larminie, R.E., *Season* 1867-68. This officer, assisted by Mr. W. J. O'Sullivan, Assistant Surveyor 3rd Grade, and accompanied by a native establishment consisting of 25 khaláshis and 6 barkandázes, was detached from the party of the East Calcutta Longitudinal Series, in December 1867, with instructions to execute the triangulation through the Assam Valley by a series of first-class secondary triangles. He accordingly started and arrived at Gauháti on the 11th January 1868. As elephants were not procurable, he was totally dependent upon such local carriage as could be obtained: he was thereby much delayed, and so did not commence work till the 25th. The smallness of his native establishment did not admit of his party being broken up into two detached portions, and Lieutenant Larminie was therefore obliged to confine his operations to laying out the approximate series, reserving the observations for the next season. He kept his ground till the 2nd of April, when bad weather and a malarious fever from which nearly the whole camp was prostrated forced him to retire to Gauháti which he reached on the 12th; and embarking there on the river steamer, he left for Calcutta on the 23rd April. During this season, 11 stations were selected, 7 platforms

built, and 10 hill-tops cleared of jungle. A double series emanating from the stations XLIII and XLV was thus laid out finally for a distance of 56 miles and partially for another 24 miles.

*Season 1868-69.* Lieutenant Larminie's native establishment having been increased this year, and three elephants having been attached to his party, it was expected that the work would be pushed ahead; but even these additions proved inadequate, and other circumstances also stepped in to prevent a satisfactory out-turn of work. Reaching his ground about the middle of December, Lieutenant Larminie immediately set about the observations. Between the 14th of December and the 31st January the weather continued very favorable, and, despite all the delays that necessarily ensued in moving from place to place in a country like Assam, the angles at the first seven stations were satisfactorily measured. But owing to the entire absence of rain which usually falls about the end of December, the weather was now fast becoming very hazy, so that between the 1st of February and the 20th of March only the angles at the next three stations could be observed. During this period he had been no less than nine days at Kholá n.s. without obtaining a single observation, owing to the dense haze which showed no signs of clearing off; and latterly Lieutenant Larminie was somewhat anxious lest by remaining any longer in the field he might be exposing his establishment to a repetition of the fever experienced the year before; he accordingly determined to retire from the field. The Series thus stood completed for a distance of about 35 miles, with five angles of two triangles further east also measured. Owing to the difficulties encountered by Mr. O'Sullivan, who had been detached on the 15th January to continue the approximate work, and had reconnoitred the country for nearly 100 miles further east, it does not appear that the final selection of stations had been much advanced. In the course of this season, Lieutenant Larminie was able to fix the position of the church at Gauháti and of a few temples by intersection from Principal Stations.

*Season 1869-70.* Desiring to take full advantage of the clear weather that usually prevails in the valley in the latter months of the year, Lieutenant Larminie left Head Quarters on the 11th of October for Dinagepore where the men of his establishment had been ordered to rejoin from leave. At Dinagepore he was delayed a week in waiting for some of the men that were late in joining, and in making the necessary arrangements for the season, so that the party did not leave before the 25th October. Thence they marched to Káliganj; and, having taken steamer there, arrived at Gauháti on the 10th November. But as it turned out, the party took the field too soon after the cessation of the rains: shortly after leaving Dinagepore numbers of the men took ill, and on the 20th November (10 days after reaching Gauháti) there were still 20 men on the sick list and several others too feeble for hard work. From that date the average of sick decreased and Lieutenant Larminie had hopes of getting into the field before the end of the month. But on the 28th half the number of the heliotropers were reported as still unfit to proceed to their stations, some of which were over 100 miles distant by road. By the 9th December Mr. O'Sullivan was sent off by boat to examine the stations ahead and continue the selection, but from the scarcity of local labor available—it being the time of the rice harvest—Lieutenant Larminie himself was unable to reach his first station (Desh Maiang) before the 15th. His heliotropers had not then reached the forward

stations, so that it was not till the 22nd that he actually commenced observations. By the 7th of January he took the three remaining angles at Desh Maiang and Tatalia and one angle at Khola. From this time the atmosphere became thick and hazy, rendering observations impossible except to stations at short distances; as, however, the nature of the country had here unfortunately rendered long sides—of over 30 miles—necessary, the work came to a stand still. Mr. O'Sullivan meanwhile reported that one of the stations had been destroyed, and that he was hampered by the dense haze and smoke, so that he also had hardly made any progress. On 22nd January Lieutenant Larminie received orders to suspend operations: he thereupon immediately moved on to meet Mr. O'Sullivan, and after taking a few incomplete observations at Tezpur he closed the season's work, leaving three angles still unmeasured west of the side Khola-Singari, distant 56 miles from the origin of this triangulation. While at Tatalia H.S. a view was obtained of the snowy peaks; to these Lieutenant Larminie took a set of observations, but as they were not seen from any of his other stations, the angles observed could not be utilized.

(b). The conduct of the Assam Valley triangulation was this year placed in the hands

Season 1870-71.

PERSONNEL.

Mr. W. C. Rossenrode, Dy. Supt., 3rd Grade.  
 „ W. J. O'Sullivan, Asst. Surveyor, 2nd Grade.  
 „ C. Bryson, „ 3rd „

of Mr. W. C. Rossenrode, an officer who had had considerable experience in trigonometrical operations on the Eastern Frontier or the Shillong Meridional Series and in other parts of India. This officer had, while yet at Moulmein, received such instructions from the Superintendent as were

best calculated to advance the triangulation so as in a short time to furnish points to the Revenue Survey which had commenced operations some years before in Upper Assam and had hitherto not been checked by comparison with the Great Trigonometrical Survey. Among the chief points to be noticed in the instructions are the following:—(1), the necessity for taking observations before the end of December at the stations of Khola, Singari, Kámáksha and Kandali, as up to that time there was every prospect of fine weather permitting of the stations being mutually visible—one of the rays being no less than 50 miles long; (2), to endeavour to introduce triangles with smaller sides so as to reduce the delays that are so frequent on long sides; (3), to take observations to lamps as well as to heliotropes which latter had, from motives of economy, been hitherto exclusively used on these operations; and (4), to depart from the rigorous system of procedure hitherto enjoined, and to proceed by single triangles (instead of polygons and compound figures) if thought desirable, at the same time restricting the measurements of the angles to two repetitions on *two* pairs of zeros.

The party left Calcutta by steamer on the 25th October, and reached Gauháti on the 8th of the following month. Here the local authorities informed Mr. Rossenrode that the earliest safe date for him to enter the malarious jungles of Assam was the 1st of January. Not caring to heed the caution in its entirety and determined to profit by the instructions of the Superintendent, Mr. Rossenrode, having started Mr. O'Sullivan on the 21st November, himself took the field on the 30th and arrived at his first station, Khola, on the 5th of December. The observations were disposed of very readily; but owing to the want of roads in Assam, the very circuitous route he had to adopt took him seven days to reach his next

station, Singari, which was distant in a direct line only 35 miles: all the angles at this station were measured before the end of that month. The favorable time for observing was now fast passing away, as the jungles had already begun to be fired—filling the air with dense smoke and haze; and on the 6th January when he reached the next station, Kámáksha, he found that the signals at Khola—distant nearly 50 miles—were not visible, nor indeed during the six weeks of enforced inactivity did he even once see this signal. Fortunately a good shower of rain then fell which extinguished the fires and cleared the atmosphere so as to render the surrounding stations visible, and the measurement of three angles was thus completed by the 20th of February. The observations now advanced somewhat more favorably as the rays were shorter. Despite the difficulties attendant on moving in the dense forests, the dangers from wild animals and poisonous insects\* with which the country abounded, and the utter impracticability of collecting even a moderate number of coolies—a circumstance which necessitated the abandonment of tents and the adoption of temporary grass huts in their stead—the observations were advanced by the middle of May up to the side Kan-kochan-Khelbinshon within 20 miles of the Dhansiri river, the angles at the latter named station being all that remained to complete this section of the work. The observations on the main series were this season advanced a direct distance of 70 miles, and the approximate work was carried some 10 miles further. No secondary triangulation could be attempted this year. The experience gained was useful in pointing to the precautions which were necessary in future to ensure the health of the party, as well as to the necessity for providing the men with a sufficient number of muskets with which to keep off the wild animals: it also served to shew that further arrangements were necessary to secure a larger number of secondary points in the new work, and to add to the number in the old work where there was a scarcity of them.

(c). Mr. Rossenrode's services being required in another part of India, the Superintendent of the Survey placed the conduct of the work in the hands of Mr. W. G. Beverley, an officer who had had many years' experience in triangulating (more especially in hilly tracts) and who was this season required not only to extend the Assam Valley Series but also to direct the Brahmaputra Series on which, however, his personal supervision was not necessary, as the operations were to

be confined to extending the approximate series, building towers, and carrying on some minor secondary triangulation.

Season 1871-72.

PERSONNEL.

Mr. W. G. Beverley, Asst. Supt., 2nd Grade.  
 „ G. A. Harris, Assistant Surveyor, 1st Grade.  
 (joined the Assam party on the 17th of March).  
 Mr. W. J. O'Sullivan, Asst. Surveyor, 1st Grade.  
 „ C. Bryson, „ 3rd „

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\* Added to fleas, ticks and leeches, was the Nága poka or Nága fly, which proved especially trying. These diminutive insects can scarcely be seen; and being so numerous, every nude part of the body is attacked by them. Its sting is followed by excessive inflammation accompanied with considerable irritation; a crop of foul ulcers then succeeds which become very painful, increase in size, and spread all over. That these formed no inconsiderable obstacle to the progress of the work may be gathered from the fact that *three* successive parties of signalmen were disabled at the station of Chengheishon, and one of the men actually died from the effects of the poison after great and protracted suffering. Mr. Rossenrode reported that on his arriving at the station the men were so enfeebled from their sufferings and from the ulcerated state of their bodies that they had the appearance of living skeletons, and one of their number had actually to crawl on all fours. Fortunately this poisonous fly is almost exclusively confined to the Nága-hills in which there are but few stations, or the party would have suffered much more than it did.

The party left Calcutta on the 18th November; and on the 17th of the following month marched from Gauháti, *via* Nowgong, towards Kankochan H.S. It had been intended that, to avoid the valley 30 or 40 miles in breadth dividing the Rengma Nága from the Lotha Nága hills, the triangulation this year should be carried into the latter hills. Owing, however, to the disturbed state of the country—the Lushai expedition being then in progress—it was considered quite unsafe to carry the triangulation over even the outermost portion of the hills without a very much stronger guard than the Civil authorities could supply at such a time. This circumstance necessitated a complete alteration in the programme, so that not only had some of the stations selected last year to be abandoned but the Series had necessarily to be carried through the plains. This in itself was the source of great delay, much enhanced, moreover, by the very difficult nature of the country which, where not covered with forest, is clothed with gigantic tropical grass and reeds—the latter so thick that in clearing a ray they had to be cut one by one as if they were small trees. After a careful reconnaissance of the country, Mr. Beverley came to the conclusion that his only chance of progress lay in carrying the Series along the great river, whereby not only would much heavy jungle-cutting be avoided but also the excessive demands for compensation which tea planters and other private owners would have exacted, had the triangulation not been confined to the river.

By judiciously dividing his attention between advancing the approximate work and taking up the observations according as circumstances required, Mr. Beverley was enabled, in spite of many obstacles, to complete observations in three single triangles and a quadrilateral, and thus to extend the Series a direct distance of about 35 miles. He was able to fix four of the Revenue Survey stations by means of careful observations to heliotropes, and thus to supply a long-felt want. The approximate series was advanced across the Brahmaputra, but the tower-building had stopped only a little beyond the side at which the observations closed. Owing to the smoke and haze the distant peaks were rarely visible, so that but little secondary work was done. The main party returned to recess quarters at Gauháti in the end of April; but Mr. Harris, who was employed since he joined the party in building towers—in doing which he was so hampered by the continued heavy rain that he could only complete two and lay the foundation of a third—did not reach Gauháti till the end of May.

Mr. Beverley had fully intended leaving recess quarters early in November, but owing

*Season 1872-73.*

PERSONNEL.

Mr. W. G. Beverley, Asst. Supt., 2nd Grade.	
" G. A. Harris, Assistant Surveyor, 1st Grade.	
" W. J. O'Sullivan, " " 1st "	
" J. O. Hughes, " " 4th "	

to the lateness in the breaking up of the rains, and the delay in the men returning from leave, he was unable to start before the 25th of that month. Having started Mr. O'Sullivan on ray-clearing, and Mr. Harris on the building of pillars, Mr. Beverley determined to employ himself at first in secondary work for fixing the positions of the

Civil stations of Nowgong and Tezpur, such of the Revenue Survey platforms as could be seen, and all the prominent peaks to the north and south of the Brahmaputra. He had made some progress with this part of the work; but, after spending some days at two of his stations without obtaining any results owing to the smoke and fogs which—not often rising up from the valley till 2 or 3 P.M.—obscured the ranges to the north, he was compelled to revert to the main series. Final observations were taken up towards the end of

January and proceeded with till the 12th of February, when the falling of one of the towers necessitated a suspension of these observations and a return to secondary work. From the unavoidable delay in building up the pillars, the angles at each station could not be measured all at once, and it thus became necessary to visit some of them a second and even a third time. The out-turn of work for the season may be summed up as follows:—The principal observations\* were completed only for the Bar Chápri polygon which carried the work up to the left bank of the Brahmaputra river; the approximate series was laid out in a series of quadrilaterals and single triangles along the left bank of the river up to the immediate vicinity of Sibságar, requiring only the selection of three stations on the right bank to render the Series complete; the pillar-building was completed at three stations beyond the side where the observations had stopped; the secondary operations completely defined the Daphla Hills which form the lower range on the northern side of the valley between the meridians of  $93^{\circ}$  and  $94^{\circ}$ , but there still remained a considerable blank in the determination of hill peaks to the west of  $93^{\circ}$ ; and on the distant snowy ranges, although some peaks were observed on two occasions, they could not be looked upon as finally determined; a few peaks were fixed in the Lotha Nága Hills (to the south); and the positions of four points in Tezpur, of the Assistant Commissioner's house in Golághát, and of three Revenue Survey points were determined. There is no doubt but that Mr. O'Sullivan would have succeeded in completing the selection of the three stations required on the right bank of the Brahmaputra, had he not been regularly starved out of that tract from the intentional absence of the mauzadárs (headmen of the villages) whenever their assistance was called for. The party returned to recess quarters at the end of May, having kept out longer than usual in hopes of obtaining more work if possible, but the weather was quite opposed to any progress after the middle of April.

The rains having ceased earlier than usual, the party was able to resume field operations

*Season 1873-74.*

PERSONNEL.

Mr. W. G. Beverley, Offg. Asst. Supt., 1st Grade.  
 „ G. A. Harris, Surveyor, 4th Grade.  
 „ W. J. O'Sullivan, „ „  
 „ J. O. Hughes, Asst. Surveyor, 4th Grade.

by the middle of November. In order to give his assistants time for advancing the approximate work and constructing pillars, Mr. Beverley himself visited a couple of main series stations immediately north of Gauháti to fix peaks in the Bhutan Himalayas and eastwards to the meridian of  $93^{\circ}$ . The weather, however, proved very un-

favorable, and the atmosphere being unusually thick for the time of the year, no distant peaks were observed: but the opportunity was utilized to fix the position and height of the great obelisk on an island in the river, as well as the heights of the church and of a remarkable temple in Gauháti. While marching to take up final observations, Mr. Beverley visited three stations, and so was able not only to fix the position and height of a permanent point in Nowgong, but also to obtain a better value of the side on which the triangulation fixing the Tezpur church had previously been based; in addition, he fixed several new peaks on the nearer ranges and supplemented the heights of some whose positions only had been previously determined.

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\* Owing to an accident to the 14-inch theodolite, the observations at two of the stations were taken with a 12-inch by Troughton and Simms, the angles being measured sometimes on four but oftener on five pairs of zeros, with two repetitions on each zero.

An examination of the ground on the right bank of the river, showed that five instead of three new stations would be required to complete the chain that had been partially laid out last season; Mr. Beverley accordingly arranged that Mr. O'Sullivan should not only select and build these stations and clear the rays, but that he should also observe the main series angles at as many of them as he had time for,—the latter precaution was necessary not only to save time, but also to prevent the frequent crossing and recrossing of the river. Thus during the season the observations were carried up to the side Bar Ali-Gauriságar (within a few miles of Sibságar) advancing the Series a direct distance of 47 miles. The progress is partly due to the comparative healthiness of the tract in which the operations lay, but chiefly to the following modification in the construction of the stations, which the Superintendent had directed Mr. Beverley to introduce:—Instead of the usual central masonry pillar for the theodolite, surrounded by a platform (generally of solid earth-work) for the observer, both raised to sufficient height to overlook all irremovable obstacles in the lines, a small pillar was to be built, merely sufficient to indicate the site of the station permanently, and over it a tripod stand was to be erected for the theodolite; the stand was to be formed of three stout logs firmly braced together, with the ends buried in the ground, and it was to be made sufficiently high to give the required command; around and isolated from it, a platform of bamboos or timber was to be constructed for the observer. These, which have been styled post stations, were found to answer very well indeed, and Mr. Beverley reported that "from the rapidity with which they can be constructed, they helped materially to advance the survey". A good number of additional points in the Daphla Hills were fixed; these subsequently proved most valuable aids to the officers attached to the expedition in order to make a survey of the country: a number of points were also fixed in the Nága Hills to the south-east, which proved very useful to the officers making a reconnaissance of those hill tracts. And, while there was a temporary delay in the building of some of the stations, Mr. Beverley ascended the Brahmaputra as far as Dibrugarh in order to examine the nature of the country on either bank: he found that this tract was very unhealthy from the heavy jungle and swamps on both sides of the river, that scarcely any villages were to be found except at a very long way from the river, and that there were no ferries between Salmárra Ghát and Dibrugarh.

The observations this season were chiefly taken with a 12-inch theodolite; in a few instances a 14-inch and a 10-inch were used. The party kept the field till near the end of April when, the low ground being all under water from continuous heavy rain and sickness gaining ground in camp, Mr. Beverley marched to Dikhu Mukh and there took steamer. Mr. Harris, despite his impaired health, kept the field till the beginning of April when he was forced to retire: he reached recess quarters at Shillong on the 24th April; but he was too weak to rally, and died from fever and dysentery on the 12th of May.

(d). *The Operations under Lieutenant H. J. Harman, R.E.*—This officer was appointed to relieve Mr. Beverley whose services were required for the secondary triangulation in Burma. He took charge of the party on the 6th October 1874, with instructions from the Superintendent that he would be required to join the Survey Detachment accompanying the Daphla

Season 1874-75.

PERSONNEL.

Lieut. H. J. Harman, R.E., Asst. Supt., 2nd Grade.

Mr. W. J. O'Sullivan, Surveyor, 4th Grade.

" J. O. Hughes, Assistant Surveyor, 3rd Grade.



Field Force. Starting from recess quarters at Shillong on the 3rd November, Lieutenant Harman devoted five weeks to making arrangements for fixing the positions of a few points in Jorhát, and to advancing the preliminary operations of the triangulation north of Sibságar—only two stations beyond the closing side having been selected during the previous season. On the 12th December he joined the Daphla Field Force with which he expected to be absent only about six weeks: he could not, however, rejoin his party till the 3rd of March, when he found that, in consequence of the many difficulties encountered in clearing the lines, the progress of the work was far less than he had anticipated—several lines having still to be cleared before the observations of the angles could be commenced. In many places not only was the forest very heavy and dense, but there were occasional patches of canes terribly armed with crooked thorns on every surface, through which the native line-cutters could scarcely creep without suffering severely, so that it was found impossible to clear the lines more rapidly than at the rate of a little more than 100 yards a day. Lieutenant Harman labored very vigorously to push the work forward, so that by the 20th of April he had the first four triangles ready for observing, as well as stations selected all the way up to Dibrugarh. Final observations were begun at the first station (Gauríságar, near Sibságar) on the 24th April; but the rains had already set in, and very soon the country was flooded: Lieutenant Harman was therefore forced to retire from the field, having by the 10th May completed the observations of the angles of only the first two triangles. Thus, though not much final work was done this season, the triangulation stood laid out as far as Dibrugarh, with nearly the whole of the difficult portion of the line-cutting on seven rays disposed of, and four post stations built.

Having directed his assistants with the main camp to march up from Gauháti, Lieutenant Harman left by steamer and reached the vicinity

*Season 1875-76.*

PERSONNEL.

Lieut. H. J. Harman, R.E., Asst. Supt., 2nd Grade.  
 Mr. W. J. O'Sullivan, Surveyor, 4th Grade.  
 " E. P. Wrixon, Assistant Surveyor, 2nd Grade.  
 " J. F. McCarthy, " " 4th "

of Jorhát on the 3rd November. Nearly the whole of that month was devoted to fixing the positions of a few points in Jorhát (including a Revenue Survey trijunction pillar); to re-opening no less than 37 miles of last season's rays on which the shoots from tree-stumps, bamboos, &c.,

had sprung up to an astonishing height; and to collecting stores of rice—a step rendered imperative partly from the absence of villages in the vicinity of the Series, and partly from the high prices prevailing in Dibrugarh. Leaving his assistants to go on with the ray-clearing and station-building, Lieutenant Harman began observations on the 26th of November; and by a judicious bestowal of his time between observing and helping his assistants in their work, the progress of the Series was very satisfactory—despite the many vexatious delays that occurred in getting parties of signallers, &c., passed across the main and side channels of the river. Up to the 21st of April the weather was all that could be desired, and the health of the party was excellent. Working entirely with a 12-inch theodolite, and restricting the observations chiefly to two repetitions on two or three pairs of zeros, the angles of thirteen triangles—stretching over a direct distance of 41 miles—were finally measured this season: the Series was thus completed to a little beyond Dibrugarh, the church tower at which was adopted as a station of the triangulation.

Beyond Dibrugarh the approximate triangulation was continued in two branches. Of these, one, consisting of a chain of eight triangles, was carried in a south-easterly direction to connect with the sub-divisional station of Jaipur and terminate on two Revenue Survey stations on the outer range of the Nága Hills: the other was carried in a north-easterly direction, spanning the river for a distance of nearly 60 miles and terminating on the side Sadiya Quarter-Guard station to Dikrang Fort station. Connected with the latter series, a station was selected on the Nári hill—in the Abar country—with the view firstly of carrying the Series with its help more expeditiously and economically over the difficult waste lands of Paropora, and secondly of connecting it with the Dipa or Pogorosoi hill in the same country, so as conjointly to present an excellent base for survey purposes if required, as well as to afford suitable eminences from whence a considerable area of unknown territory could be sketched. In addition to the foregoing, five post stations were built and about ten rays cleared in advance, five Revenue Survey pillars were incorporated with the triangulation, and about twenty hill peaks in the Abar territory were fixed.

The party left Gauháti for the field on the 16th of October. During the recess,

Season 1876-77.

PERSONNEL.

Lieut. H. J. Harman, R.E., Asst. Supt., 2nd Grade.  
Mr. W. J. O'Sullivan, Surveyor, 4th Grade.  
„ J. F. McCarthy, Asst. Surveyor, 4th Grade.

arrangements were sanctioned by the Government to permit of Lieutenant Harman's visiting the Nári and Dipa hills with an escort of 100 men of the 44th Sikh Light Infantry. By this measure not only was a large amount of line-cutting—which would have been necessary if the triangulation had been restricted to the plains—avoided, but a topographical sketch obtained of about 100 square miles of plain country and 300 square miles of hills which had hitherto been unsurveyed.

Messrs. O'Sullivan and McCarthy had been directed to proceed respectively with the clearing of the rays on the Jaipur branch and the main series. Much heavy work was necessary in this part of the operations, as in many cases the lines led through tea estates, and the greatest care was accordingly required to spare valuable trees and avoid liability for compensation. On some of the rays magnificent specimens of the india-rubber tree were met with, and an idea of their size can be formed from the following:—It took a party of 20 men nearly two days to fell a tree, to settle the *débris* of which kept 10 men employed for a whole day: another of these was found to measure no less than 43 feet in girth at four feet above the ground: while a third which stood on the summit of a forest-clad hill proved of much use as it afforded the means of obtaining a station at a height of 112 feet above ground, which established a connection with the topographical operations then in progress in that part of the country. The weather was frequently very unfavorable for field work; as, owing to many days of incessant rain, not only were the ravines flooded and the forest paths turned into streams of mud and water but myriads of leeches appeared to the great annoyance of the party. On one occasion a cargo-boat belonging to the party was swamped in a storm on the Dihang, and although recovered once, it was swept away again and finally sank; with it went down a case of records which, however, were fortunately recovered by a Miri three weeks afterwards with a spear. In spite of the obstacles encountered, final observations

were completed in nineteen triangles of the main series along the banks of the Brahmaputra—reaching to within a few miles of Sadiya—and in three triangles of the minor series from Dibrugarh to Jaipur: the positions and heights of about 100 peaks on the surrounding hill-ranges were also determined. Towards the end of April Lieutenant Harman got a touch of sun-stroke in the neighbourhood of Sadiya: he was, however, safely tended through his illness by Lieutenant Woodthorpe, R.E., who happened to be then on his way down to Dibrugarh, and so was enabled to complete work in that locality, after which he visited the party under Mr. O'Sullivan on the Jaipur Series. On the 16th May Lieutenant Harman again became seriously ill and rapidly grew extremely weak: unfortunately on that evening a very heavy downpour of rain set in which lasted till the 20th May when the ground on which his camp stood was swamped and he had to be carried to a station near by where Mr. McCarthy was known to be. Here, having made one more effort to observe without success, Lieutenant Harman left the observing to Mr. McCarthy and made arrangements for closing the season's work. The whole party left by steamers on the 26th May for Gauhati, whence Lieutenant Harman proceeded to Mussooree, while Messrs. O'Sullivan and McCarthy went into recess quarters at Shillong.

Besides completing the triangulation as already laid out, the principal object of this

*Season 1877-78.*

PERSONNEL.

Lieut. H. J. Harman, R.E., Asst. Supt., 2nd Grade.  
Mr. W. J. O'Sullivan, Surveyor, 4th Grade.  
" J. F. McCarthy, Asst. Surveyor, 4th Grade.

season's operations was to extend it between the Subansiri and Dihang rivers as far as practicable, in conjunction with the operations for ascertaining which of these two affluents of the Brahmaputra is most probably the continuation of the Sângpo—the celebrated river of Tibet, which for many years was supposed to be the principal source of the Irrawaddy, but which has of late years been conjectured to be that of the Brahmaputra. As it was feared that political difficulties would prevent Survey Officers from proceeding sufficiently far north beyond the frontier to settle this much mooted point, Lieutenant Harman was instructed to measure the discharges of the Subansiri, Dihang, Dibang and Brahmakund rivers, so that from a knowledge of the volume of the water in each river, additional evidence might be brought to bear on this interesting point.

After considerable discussion of various plans to avoid collision with the barbarous tribes inhabiting the regions in which it was desired to penetrate, sanction was given by the Chief Commissioner to the surveyors to go as far as the first high range in the Miri Hills between the Subansiri and the Dihang rivers, and also to visit the Mishmi Hills between the Dibang and the Brahmakund rivers. The Surveyor General directed Captain Woodthorpe, R.E., to accompany Lieutenant Harman; and Lieutenant Maxwell, Assistant Commissioner of North Lakhimpur, who had previously been in the Miri Hills and knew several of the headmen, was sent by the Chief Commissioner along with the party.

With the above as his programme, Lieutenant Harman employed his assistants in November to fix peaks in the gap that still existed west of longitude 92°, while he himself started by steamer from Gauhati on the 1st of that month to rebuild lofty post stations at Soáthol and Bar Ali (fixed by Mr. Beverley in 1873-74) and to reclear the ray between them,

as from this side it was determined that the triangulation northwards into the Miri Hills was to be carried. Mr. O'Sullivan visited five stations in the neighbourhood of Gauháti; and, using a 10-inch theodolite, he was able by the 3rd of December, in spite of fogs and unfavorable weather, to fix about forty-five peaks between the meridians of  $91^{\circ}$  and  $92^{\circ}$ : he then started by steamer to take up the Dibrugarh-Jaipur Series. Mr. McCarthy, using a 6-inch theodolite, visited four stations in the neighbourhood of Goálpára, and by the 25th of November succeeded in fixing about forty-five peaks between the meridians of  $90^{\circ}$  and  $91^{\circ}$ : he then proceeded by steamer to take up the observations at Bar Ali and Soáthol, arriving at his ground on the 5th December. Lieutenant Harman himself, after leaving the stations last named, proceeded to North Lakhimpur where, pending the arrival of Captain Woodthorpe, he established a station on the Treasury building and took some observations to hill peaks. By the 25th of February, Lieutenant Harman's party, aided by Mr. McCarthy, had completed the triangulation in the Miri Hills, partly with a 10-inch and partly with a 6-inch theodolite; this consisted of seven stations (connected with the base by eleven triangles) from which a large number of hill peaks were fixed: in addition, about 1,500 square miles of country were sketched on the  $\frac{1}{2}$  inch scale, and a fair knowledge obtained of about 400 square miles beyond; this included a portion of the Dihang river higher than any part hitherto surveyed, but still not sufficiently high to show whether the river is the continuation of the Sámgo or not. On the completion of this work Captain Woodthorpe left Lieutenant Harman and proceeded to the scene of his own survey in the Mishmi Hills.

Up to the beginning of April Lieutenant Harman was employed in the following river-discharge measurements:—*First*, the Subansiri, at Pathalipam village, 3 miles west of the Gogah-mukh ferry and about 10 miles below the entrance of the river into the plains; *secondly*, the Brahmaputra river, at 3 miles N. of Dibrugarh and below the junction of the Dihang and Dibang rivers; *thirdly*, the united stream of the Dihang and Dibang rivers, at 1 mile below their junction and the same distance above the junction with the Brahmaputra; *fourthly*, the Dibang river, at 1 mile above its junction with the Dihang and half a mile below the junction of the Sesiri river with it; *fifthly*, the Brahmaputra river, at about 9 miles above Sadiya and half a mile below the junction of the united stream of the Tengapani and Noa Dihang rivers with it; and *sixthly*, the united stream of the Tengapani and Noa Dihang rivers, at about 200 yards below their junction. Full details of these interesting operations—including the sectional measurements and the calculations of discharges—will be found in *Vol. XLVIII, Part II of the Journal of the Asiatic Society of Bengal*. It is sufficient to state here that Lieutenant Harman's measurements showed that as the volume of water of the Dihang river was from twice to three times as great as that of the Subansiri, it stood proved that the former is much more likely to be the continuation of the Sámgo—a conclusion which gained additional strength a year after from the observations of an explorer who was sent in by Lieutenant Harman and who followed the course of the Sámgo for nearly 300 miles between longitudes  $91^{\circ} 40'$  and  $94^{\circ} 10'$ .

While the river-discharge measurements were being made by Lieutenant Harman, Mr. McCarthy was employed in advancing the triangulation beyond Sadiya; and Mr. O'Sullivan, having completed the Dibrugarh-Jaipur Series (with a 10-inch theodolite) by

the middle of March, had returned to the triangulation immediately west of Sadiya. Lieutenant Harman himself being free to resume the triangulation early in April, the efforts of the entire party were concentrated on the completion of this work. By the 20th of April the triangulation was concluded: the party then returned to Sadiya whence they proceeded to recess quarters at Darjeeling. By the operations of this season about 200 peaks were fixed (in addition to about 90 peaks fixed by Messrs. O'Sullivan and McCarthy in November) on the ranges on and beyond our extreme North-East Frontier.

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J. ECCLES,

*In charge of Computing Office.*

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## ASSAM LONGITUDINAL SERIES.

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## ASSAM LONGITUDINAL SERIES.

### PRINCIPAL TRIANGULATION. DESCRIPTION OF STATIONS.



Of the 45 Principal Stations of this Series, those numbered I to XXIII and XL, consist of perforated masonry pillars, varying from 15 to 40 feet in height, surrounded generally by earthwork to a height of 10 or 15 feet, on which a temporary scaffolding was erected to carry the observatory tent. Some of the pillars, *viz.*, those numbered III, XIV, XV and XVIII, were surrounded by solid towers raised to the same height, built of burnt brick cemented with mud, 20 feet square at base and 14 feet square at top. The pillars themselves, with one exception, were from 12 to 14 feet square at base, and 6 to 8 feet near the summit, after which they were circular and of a diameter of from 3 to 3½ feet. The exception referred to is XXII, the base of which is only 7½ feet square. The remainder of the stations are situated on hills, and consist of solid masonry pillars 3 to 3½ feet in diameter and 1 to 5 feet in height, carrying a mark engraved either on the rock *in situ* or on a stone imbedded at about the ground level; in the normal of this mark one or more others engraved on stones are inserted in the pillars. In a few instances where the rock rises sufficiently above the ground to admit of a pillar being built round it, there is no other mark than that on the rock. Around these pillars, and level with their surfaces, platforms of stone and earthwork, from 12 to 19 feet square, have been constructed for the observatory tent to rest on. For the protection of the upper mark at the station of Sámding, a rectangular pillar of masonry bearing a sufficiently accurate mark for Topographical and Revenue Survey purposes was constructed, as shewn at page 74 of Volume II of the "*Account of the Operations &c.*" In all the perforated pillars access to the ground level mark was obtained by an archway (now bricked up) specially made for the purpose. For more detailed descriptions of all such structures, see pages 43 to 46 of the Volume above quoted.

The following descriptions have been compiled from those given by the officers who executed the Series, supplemented as regards adjacent villages from information obtained from other original records of the Series, and corrected in respect to the local sub-divisions in which the several stations are situated from the latest Annual Reports furnished by the District officers to whose charge the stations are committed.

CXXIV.—(*Of the North-East Longitudinal Series*). Kanchábári (Kochábári) Tower Station, lat. 26° 28', long. 88° 28'—observed at in 1848, 1853, 1854 and 1855—stands near the S.E. extremity of some high ground 70 yards N. of the village of Kanchábári and a mile W. of the Donk river; thána and pargana Fatehpur Singhia, district Purneah.



The station, as originally constructed in 1848, consisted of a mound of earth (*i.e.* tower) 60 feet square at base, 14 feet square at top and 20 feet in height, thrown up against an annular wall of masonry, 1 foot thick, enclosing an isolated solid masonry pillar with mark-stones at top, bottom and intermediately. When subsequently visited the upper mark-stone was found undisturbed; no change appears to have been made in the station. The azimuths and perambulated distances of the circumjacent villages are:—Khotágách  $181^{\circ} 5'$ , mile 0.19; Rátígách  $112^{\circ} 37'$ , mile 0.88; and Kauchábári  $349^{\circ} 27'$ , mile 0.28.

CXXVI.—(*Of the North-East Longitudinal Series*). Newáni Tower Station, lat.  $26^{\circ} 16'$ , long.  $88^{\circ} 32'$ —observed at in 1848, 1853, 1854 and 1855—stands at the N.W. corner of a tank distant about  $\frac{1}{2}$  of a mile N.W. of the principal straggling village of Jholai, Newáni being the name of the locality in which the station is situated; thána and pargana Boda, tahsíl Rájnagar, district Jalpáiguri.

The pillar is 29.2 feet in height. As originally constructed, the height of the pillar was 24.0 feet; no change was made when it was visited in 1853 and in 1854, but in 1855, when visited again, the height was increased by 5.2 feet and a mark-stone placed on the top in the prolongation of the normal through the original upper mark-stone, which was found undisturbed: the pillar is isolated and of the solid kind; in the original construction it carried mark-stones at top, bottom and intermediately. The azimuths and perambulated distances of the circumjacent villages are; Dúngúpíra  $98^{\circ} 12'$ , mile 0.65; Ghogochodi  $215^{\circ} 30'$ , miles 1.03; and Kaluganj  $341^{\circ} 47'$ , miles 1.72.

I. Gobrapára Tower Station, lat.  $26^{\circ} 24'$ , long.  $88^{\circ} 41'$ —observed at in 1854 and 1855—is in the midst of a straggling village called Gobrapára; thána Boda, tahsíl Berubári, pargana Boda, district Jalpáiguri.

The pillar is perforated and 30.1 feet in height. It has a mark in the ground floor. The old village and hát of Nallaganj is about 2 miles N.E. of the station and is surrounded by heavy jungle.

II. Boalmári Tower Station, lat.  $26^{\circ} 15'$ , long.  $88^{\circ} 41'$ —observed at in 1853, 1854 and 1855—is on the right bank of the Korto river, and close to the high road from Titalya to Rungpore; thána Boda, tahsíl Shikárpur, pargana Boda, district Jalpáiguri.

The pillar is perforated and 24.73 feet in height. It has a mark in the ground floor and another at its top. There are several small villages in the vicinity of the station, all bearing the name of Boalmári, and there is a hát called Kaliaganj about 2 miles to N.E. of it. The pillar as constructed in 1853 was only 20.4 feet in height.

III. Belakuba Tower Station, lat.  $26^{\circ} 32'$ , long.  $88^{\circ} 39'$ —observed at in 1854 and 1855—is in táluk Belakuba, thána Siliguri, tahsíl Bahádúr, pargana Baikuntpur, district Jalpáiguri.

The pillar is perforated and 20.03 feet in height. It has a mark in the ground floor and another at its top. As constructed in 1854 this pillar was 30 feet in height: when revisited in 1855, it was found that this original pillar had fallen down and that its markstone had been tampered with; a new markstone was therefore established and a new pillar built above it of the smaller height above mentioned. The angles were reobserved in 1855 on the new structure. The high road between Sukai and Jalpáiguri passes by the station, and a nadi is about a mile to W. of it.

IV. Chilaháti Tower Station, lat.  $26^{\circ} 18'$ , long.  $88^{\circ} 48'$ —observed at in 1854—is on the right bank of the old bed of the Teesta river, called Buri-Teesta; thána Boda, tahsíl Chilaháti, pargana Boda, district Jalpáiguri.

The pillar is perforated and 25.25 feet in height. It has a mark in the ground floor. The station is surrounded by villages of the same name; and the large village of Bhaulaganj, where there is a zamíndári kachahri, is about 2 miles due S. of it.

V. Dharampur Tower Station, lat.  $26^{\circ} 27'$ , long.  $88^{\circ} 50'$ —observed at in 1854 and 1855—is on the left bank of the Teesta river; thána Jalpáiguri, tahsíl Jorpakri, pargana Baikuntpur, district Jalpáiguri.

The pillar is perforated and 29.50 feet in height. It has a mark in the ground floor. The well known village and bazar of Bhakali, where a Military Guard is stationed, is 1.20 miles N. of the station.

VI. Khakrábári Tower Station, lat.  $26^{\circ} 9'$ , long.  $88^{\circ} 48'$ —observed at in 1854—is in a paddy field in the midst of a few small villages of that name belonging to the Rája of Cooch Behar; thána Boda, tahsíl Debiganj, pargana Boda, district Jalpáiguri.

The pillar is perforated and 30.00 feet in height. It has a mark in the ground floor. The large bazar of Debiganj on the Korto river is about 3 miles S. of the station, and the straggling village of Bhagni about 1 mile N.E.

VII. Bálápára Tower Station, lat.  $26^{\circ} 13'$ , long.  $88^{\circ} 57'$ —observed at in 1854—is on the high road between Thákurganj and Ghoramára, and about 3 miles from the former; thána Dimla, pargana Kájirhát, district Rungpore.

The pillar is perforated and 30.08 feet in height. It has a mark in the ground floor. There are several villages near the station, bearing the same name with it.

VIII. Mekhaliganj Tower Station, lat.  $26^{\circ} 21'$ , long.  $88^{\circ} 57'$ —observed at in 1854—is on the left bank of the Teesta river, and about  $\frac{1}{2}$  a mile W. of the thána and kachahri of Mekhaliganj, district Cooch Behar.

The pillar is perforated and 30.00 feet in height. It has a mark in the ground floor.

IX. Kuchlibári Tower Station, lat.  $26^{\circ} 15'$ , long.  $89^{\circ} 6'$ —observed at in 1854 and 1855—is in an open plain; táluk Kuchlibári, thána Mekhaliganj, district Cooch Behar.

The pillar is perforated and 28.03 feet in height. It has a mark in the ground floor. The large village and hát of Boarah is 1.34 miles E. of the station, and the Teesta river 1 mile S. of it.

X. Chapani Tower Station, lat.  $26^{\circ} 7'$ , long.  $89^{\circ} 5'$ —observed at in 1854—is in low paddy lands; táluk Jhuna Gáchha Chapani, thána Jaldháka, pargana Kájirhát, district Rungpore.

The pillar is perforated and 29.75 feet in height. It has a mark in the ground floor. Chapani hát is 2 miles W. of the station, and the Ghoramára bazar, on the right bank of the Teesta river, about 5 miles S.E.

XI. Jagatber Tower Station, lat.  $26^{\circ} 23'$ , long.  $89^{\circ} 7'$ —observed at in 1854 and 1855—is on elevated ground; thána, tahsíl and pargana Patgrám, district Jalpáiguri.

The pillar is perforated and 20.03 feet in height. It has a mark in the ground floor and another at its top. There are several villages in the immediate vicinity of the station constituting the táluk of Jagatber. The large village of Patgaon is about 4 miles W. of the station, and Bairági hát 1.19 miles E. of it. The tower built in 1854 having fallen another was raised, but of less height by 5.05 feet.

XII. Golia Nauháti Tower Station, lat.  $26^{\circ} 8'$ , long.  $89^{\circ} 13'$ —observed at in 1854 and 1855—is in very low paddy land, about 5 miles from the left bank of the Teesta river; thána Mátabhánga, district Cooch Behar.

The pillar is perforated and 30.11 feet in height. It has a mark in the ground floor. The village of Hatí Bandar, where there is a bazar, is about 3 miles S.W. of the station.

XIII. Nendarpár Tower Station, lat.  $26^{\circ} 18'$ , long.  $89^{\circ} 15'$ —observed at in 1855—stands on a small piece of high land about 1 mile N. of the small river called Nendar; thána Mátabhánga, district Cooch Behar.

The pillar is perforated and 29.73 feet in height. It has a mark in the ground floor and another at its top. The station is surrounded by small villages of the same name.

XIV. Jigabári Tower Station, lat.  $26^{\circ} 11'$ , long.  $89^{\circ} 22'$ —observed at in 1855 and 1857—stands on the embankment of Kantesargarh, which encircles about 8 miles of the country; táluk Jigabári, thána Dinháta, district Cooch Behar.

The pillar is perforated and 14.50 feet in height. It has a mark in the ground floor and another at its top. There is a small hát just below the station, and the Mánsái river, which is navigable in the rains, flows about  $\frac{1}{2}$  a mile W. of it, cutting through the embankment in two places.

XV. Chandrapur Tower Station, lat.  $26^{\circ} 2'$ , long.  $89^{\circ} 21'$ —observed at in 1855—is on a mound in some very low paddy lands; táluk Chandrapur, thána Phoranbári, pargana Chakli Kaukina, district Rungpore.

The pillar is perforated and 20.17 feet in height. It has a mark in the ground floor and another at its top. The station is surrounded by small villages belonging to Chandrapur táluk; and a small river called Maldho, flows E. of the station.

XVI. Bara Bhita Tower Station, lat.  $26^{\circ} 20'$ , long.  $89^{\circ} 24'$ —observed at in 1855 and 1857—is in a low marshy tract of country, intersected by small rivers and covered with high grass jungle, abounding in wild beasts; thána and district Cooch Behar.

The pillar is perforated and 18·63 feet in height. It has a mark in the ground floor and another at its top. There are a few huts in the vicinity of the station, bearing the same name with it. The Mánásái river winds by W. of the station, and the Torsa, a branch of the Mánásái, flows about 2 miles E. of it.

XVII. Ataro Bánki Tower Station, lat.  $26^{\circ} 5'$ , long.  $89^{\circ} 31'$ —observed at in 1855, 1856 and 1857—is on the left bank of the Dharlah river, in the midst of paddy fields; thána Dinháta, district Cooch Behar.

The pillar is perforated and 19·83 feet in height. It has a mark in the ground floor and another at its top. The station is surrounded by scattered huts or petty hamlets of the same name; and a small mango tope close to the high road between Cooch Behar and Rungpore, under which a hát is held twice a week, is about 500 yards W. of it. The directions and estimated distances of the circumjacent places are:—the thána of Dinháta N., 4 miles; Gobrachara E., 2 miles; Munshí hát E.,  $2\frac{1}{2}$  miles. In the visit of 1857, the top of the tower was found dilapidated and had to be renewed; in so doing the height was reduced from 20·00 to 19·83 feet.

XVIII. Bhitagori Tower Station, lat.  $26^{\circ} 13'$ , long.  $89^{\circ} 31'$ —observed at in 1855 and 1857—stands on a mound in the midst of the ruins of the old city of Cooch Behar, by the side of the high road from the new town of Cooch Behar to Rungpore; thána Dinháta, district Cooch Behar.

The pillar is perforated and 15·25 feet in height. It has a mark in the ground floor and another at its top. The river Dharlah flows about 2 miles W. of the station, and the Torsa, a branch of the Mánásái, about 1 mile to E. The thána of Dinháta is about 5 miles to S., and Dewan hát about 2 miles to N.E. The tower was revisited in 1857 because the lower mark had been removed by the villagers; the tower itself had fallen down and was rebuilt to a height of 15·25 feet, its former height having been 15·50 feet.

XIX. Goibári, more properly Bhágbandar, Tower Station, lat.  $26^{\circ} 7'$ , long.  $89^{\circ} 41'$ —observed at in 1857—is on low ground level with the surrounding paddy fields, about 80 yards from Bhágbandar village in the zamíndári of the Ráni of Berhampore, táluk Hazuri Bhágbandar, thána Phulkumár, pargana Goibári, district Rungpore.

The pillar is perforated and 25·32 feet in height. It has a mark in the ground floor. The azimuths and perambulated distances of the surrounding places are:—Isarbarwa (western)  $197^{\circ} 25'$ , mile 0·68; Isarbarwa (eastern)  $233^{\circ} 46'$ , mile 0·77; Bhágbandar (Harish Chandra Rái's)  $23^{\circ} 59'$ , mile 0·74; Anguria  $324^{\circ} 37'$ , miles 1·06; and Nimkursa  $91^{\circ} 29'$ , mile 0·59.

XX. Purubbág, more properly Chandrakhana, Tower Station, lat.  $25^{\circ} 58'$ , long.  $89^{\circ} 38'$ —observed at in 1857—is in the line of a defined roadway in the midst of paddy fields, only a few yards N. of the outskirts of the village of Chandrakhana; zamíndári of Cooch Behar, thána Barabári, pargana Chakli Purub Bág, district Rungpore.

The pillar is perforated and 24·92 feet in height. It has a mark in the ground floor. The azimuths and perambulated distances of the surrounding places are:—Seonthi  $119^{\circ} 7'$ , mile 0·97; Attiabári  $166^{\circ} 3'$ , mile 0·67; Gangarhát  $235^{\circ} 44'$ , mile 0·57; and Dassiachara  $355^{\circ} 15'$ , mile 0·74.

XXI. Dhodial, also known as Jhaljhali, Tower Station, lat.  $26^{\circ} 16'$ , long.  $89^{\circ} 42'$ —observed at in 1857—is on a slight swell of ground about  $\frac{1}{4}$  of a mile S. of the táluk of the village from which it takes its name; thána Tuphánganj, district Cooch Behar.

The pillar is perforated and 24·83 feet in height. It has a mark in the ground floor. The directions and distances of the circumjacent villages are:—Naktigáchh S.E., 0·2 mile; Balrámpur S.E., 5 miles. The pillar as originally built in 1857 was 24·75 feet above the only mark at the ground level. On the 16th of June of the same year a great portion of the pillar fell, and had to be built up again from about 4 feet above the base.

XXII. Alangjáni Tower Station, lat.  $25^{\circ} 59'$ , long.  $89^{\circ} 48'$ —observed at in 1857 and 1874—is on the lands of the village of that name and on the right bank of the Dudh Komári nadi (river), being about  $\frac{1}{4}$  of a mile from the latter; in the zamíndári of Digambari Debya and Kishtendra Rái, thána Nágeshwari, pargana Bhitarbanda, sub-division and district Rungpore.

The station as originally built in 1857 consisted of a perforated pillar 24·92 feet in height, of which the uppermost foot was contracted to  $3\frac{1}{4}$  feet in diameter; it was surrounded by a scaffolding platform for the observatory tent and it contained one central mark at the ground level. When again visited in 1874 for the purpose of closing the Brahmaputra Series, the structure was found so much dilapidated that it was entirely removed and a perforated pillar 42·76 feet in height constructed over the original mark, which was left undisturbed. The azimuths and perambulated distances of the circumjacent places are:—Dángi bíl (centre of N. side)  $3^{\circ} 32'$ , mile 0·62; Loseni village (N.E. end)  $110^{\circ} 59'$ , mile 0·44; Topamári bíl (pipal tree at S.W. corner)  $51^{\circ} 32'$ , mile 0·89; and Muria hát (pipal tree marked + )  $124^{\circ} 28'$ , miles 1·85.

**XXIII.** Partábganj, more properly Dukhi-Sukhi, Tower Station, lat.  $26^{\circ} 9'$ , long.  $89^{\circ} 55'$ —observed at in 1857—is on the S.W. extremity of the elevated table-land called Parbatjwar Forest; zamíndári of Bogribári, thána Dhubri, district Goálpára.

The pillar is perforated and 30·42 feet in height. It has a mark in the ground floor. The pillar as originally built was 10 feet in height. At the beginning of season 1856-57 it was raised to 20·42 feet and all observations up to the afternoon of the 21st May 1857 were taken to this height. Between the 22nd May and 2nd June a further addition of 10 feet was made, raising it to its present height. The azimuths and distances of the surrounding villages are:—Burandánga  $50^{\circ} 5'$ , mile 0·69; and Pratápganj  $131^{\circ} 30'$ , miles 1·02.

**XXIV.** Dhubri Hill Station, lat.  $26^{\circ} 1'$ , long.  $90^{\circ} 2'$ —observed at in 1857—is on the eastern and higher of two hillocks composed entirely of rock, on the right bank of the Brahmaputra river; zamíndári of Pratáp Chandra Barua of Gauripur, thána Dhubri, district Goálpára.

The pillar is solid and isolated, and has two marks, one in its upper surface and another 4·66 feet below. The village of Dhubri is N.W. of the station, and the thána about 50 yards to N.

**XXV.** Sámding Hill Station, lat.  $25^{\circ} 53'$ , long.  $90^{\circ} 5'$ —observed at in 1856, 1857 and 1874—is about the centre of a small detached range of the Kálu Málupára hills, some 400 feet above the level of the surrounding country, and about  $\frac{1}{4}$  of a mile E. of the village of Sámding in the zamíndári of Pratáp Chandra Barua; thána South Sálmara, pargana Kálu Málupára, sub-division Dhubri, district Goálpára.

The station of 1856 and 1857 consisted of a solid pillar 3 feet in height containing two marks, one at its upper surface and another at the ground level. When again visited in 1874, for the purpose of closing the Brahmaputra Series, the old pillar was removed and another 5·00 feet in height built over the original lower mark; two other mark-stones were placed in the new pillar, viz., one at its upper surface and the other 2·50 feet below, both being in the normal of the original lower mark. The azimuths and estimated distances of the surrounding place are:—Sálmara hát and zamíndár's kuchahri (office)  $137^{\circ}$ , miles 2; and Shámgnagar village  $304^{\circ}$ , miles  $1\frac{1}{4}$ .

**XXVI.** Dandpál Hill Station, lat.  $26^{\circ} 1'$ , long.  $90^{\circ} 16'$ —observed at in 1856—is on a small isolated hill in the midst of the Mechpára jungle in the zamíndári of the Mechpára Rája, and about 8 miles directly W. of Lakhipur; thána and district Goálpára.

The pillar is solid and isolated, and contains two marks, one in its upper surface and another 3 feet below. There is a small Rabha village below the eastern face of the hill called Rung-Dewa.

**XXVII.** Kathalbári, or more properly Mahamai Thán, Hill Station, lat.  $26^{\circ} 13'$ , long.  $90^{\circ} 10'$ —observed at in 1857—is on a small hill at the eastern border of the Parbatjwar Forest, rising 100 feet above the table-land of the forest; zamíndári of Bagribári, thána Dhubri, pargana Parbatjwar, district Goálpára.

The pillar is solid and contains two marks, the upper 3·00 feet above the lower which is engraved on the rock *in situ*. The azimuths and distances of the surrounding villages are:—Bagribári (centre)  $335^{\circ} 8'$ , mile 1·00; and Kathalbári (S. hamlet)  $340^{\circ} 59'$ , mile 0·55.

**XXVIII.** Chándar Dinga Hill Station, lat.  $26^{\circ} 12'$ , long.  $90^{\circ} 24'$ —observed at in 1856 and 1857—is on an isolated hill on the right bank of the Brahmaputra river; zamíndári of the Ráni of Bijni, thána Dhubri, pargana Khutaghát, district Goálpára.

The pillar is solid and isolated, and contains two marks, one at its upper surface and another 2·00 feet below. The only village of note in the vicinity is Sálkocha about 2 miles N.W. of the hill. The road to the summit is made from the N. side of the hill, commencing from near the small hamlet of the Mech tribe, called Sildenga.

**XXIX.** Baukumori Chura Hill Station, lat.  $26^{\circ} 21'$ , long.  $90^{\circ} 22'$ —observed at in 1856 and 1857—is on the highest and the most remarkable peak of a detached range running in a N. and S. direction; zamíndári of Bijni, thána North Sálmara, pargana Khutaghát, district Goálpára.

The pillar is solid and isolated, and 2 feet in height and contains two marks, the upper 1.50 feet above the lower which is on a large rock. The village of Dabargaon lies  $2\frac{1}{4}$  miles on the E. side of the hill, whence the road ascends to the station.

**XXX.** Ajaghar Hill Station, lat.  $26^{\circ} 1'$ , long.  $90^{\circ} 34'$ —observed at in 1857 and 1858—is on the highest point of a large hill of that name, and about 13 miles S. W. of the Civil Station of Goálpára; thána and district Goálpára.

The pillar is solid and isolated, and contains two marks, the upper 2.00 feet above the lower which is engraved on the rock *in situ*; the rock projects a foot above the surface of the hill and the pillar is built around it. The road from the foot of the hill on the N. side commences from the village of Ajaghar or Ajar.

**XXXI.** Bhairaber Chura Hill Station, lat.  $26^{\circ} 17'$ , long.  $90^{\circ} 33'$ —observed at in 1856, 1857 and 1858—is on the most conspicuous peak at the southwestern extremity of a small range of high hills stretching in a N.E. and S.W. direction. On the summit of the peak, in two heaps contiguous to each other, are the ruins of two temples dedicated to the Assamese gods, Bhairab and Kámáksha and their son Pagla, and on the southern of these the station has been constructed; zamíndári of Bijni, thána North Sálmara, pargana Khutaghát, district Goálpára.

The pillar is solid and isolated, and about 1 foot in height. It contains one mark engraved on a stone which is imbedded flush with the surface of the pillar, the circle around the dot being very rudely cut.

**XXXII.** Raikusni Hill Station, lat.  $26^{\circ} 8'$ , long.  $90^{\circ} 42'$ —observed at in 1858—is on the summit of the first detached hill close to the left bank of the Brahmaputra river, about  $3\frac{1}{4}$  miles S.E. of Goálpára; zamíndári of Mechpára, thána and district Goálpára.

The pillar is solid and isolated, and contains two marks, the upper 2.00 feet above the lower which is engraved on the rock *in situ*. The high road to Gauháti passes close by the foot of the hill.

**XXXIII.** Narikola Hill Station, lat.  $26^{\circ} 22'$ , long.  $90^{\circ} 43'$ —observed at in 1858—is on the most lofty of a cluster of hills, about  $1\frac{1}{2}$  miles S.W. of the village of that name; thána North Sálmara, pargana Khutaghát, district Goálpára.

The pillar is solid and isolated, and 2 feet in height. It has a mark level with the hill top and another flush with its surface. Bamangaon village is about  $\frac{1}{2}$  a mile S.E. of the station.

**XXXIV.** Dabli Hill Station, lat.  $26^{\circ} 1'$ , long.  $90^{\circ} 47'$ —observed at in 1858—is on the summit of a detached hill; thána Goálpára, pargana Hábraghát, district Goálpára.

The pillar is solid and isolated, and 2 feet in height. It has a mark level with the hill top and another flush with its surface.

**XXXV.** Bagbo Hill Station, lat.  $26^{\circ} 13'$ , long.  $90^{\circ} 54'$ —observed at in 1858—is on the eastern of two high and commanding rocks on the summit of a detached hill and about 6 miles inland on the right bank of the Brahmaputra river; thána Barpetá, district Kámráp.

The pillar is solid and isolated, and contains two marks, the upper about 2 feet above the lower which is engraved on the rock *in situ*. The small village of Bagbo lies at the foot of the hill on the N.E. side, and the ascent was made from the S.E. side.

**XXXVI.** Ghorakar or Attiappar Hill Station, lat.  $25^{\circ} 56'$ , long.  $91^{\circ} 0'$ —observed at in 1858—is on the eastern extremity of a mass of hills of horse-shoe form, lying to S.E., S. and S. W. of the village of Attiabári which is occupied by the Nazaráni or tribute paying Gáros. The most lofty point of this hill mass, crowned by a temple, is called Gorakhnáth, and is about 2 miles in direct distance S.W. by W. of the station; zamíndári of Bijni, thána Goálpára, pargana Hábraghát, district Goálpára.

The pillar is solid and isolated, and contains two marks, the upper 2·00 feet above the lower which is engraved on the rock *in situ*.

**XXXVII.** Nagarberha Hill Station, lat.  $26^{\circ} 7'$ , long.  $91^{\circ} 3'$ —observed at in 1858—is on the summit of a detached hill immediately upon the left bank of the Brahmaputra, and is named after the village of Nagarberha; thána Singra, pargana Nagarberha, district Kámrúp.

The pillar is solid and isolated, and is enclosed in an irregularly shaped platform of  $5\frac{1}{2}$  feet average height: a single mark-stone, bearing a very rude inscription on its surface, is inserted in the centre. This is also a station of the Brahmaputra River Survey.

**XXXVIII.** Sonora Hill Station, lat.  $26^{\circ} 1'$ , long.  $91^{\circ} 10'$ —observed at in 1859—is on a long low isolated hill locally so called; thána Kholiha, pargana Bekeli, district Kámrúp.

The pillar is solid and isolated, and is built around the crest of a large block of stone *in situ*, on which the usual mark of a circle and dot is engraved, and which afforded sufficient foundation for the surrounding platform that rises to a mean height of nearly 8 feet. Khatla N.E.,  $\frac{1}{2}$  mile; Maisara W. by N.,  $\frac{1}{2}$  mile; Kolaha S.E.,  $\frac{1}{2}$  mile.

**XXXIX.** Langturi Hill Station, lat.  $25^{\circ} 51'$ , long.  $91^{\circ} 15'$ —observed at in 1859—is on a high and commanding hill on the northern border of the extensive plateau formed by the Gáro Hills, at about 7 or 8 miles in direct distance and nearly S.E. of the large village of Saktipára; thána Chhaygaon, district Kámrúp.

The pillar is solid and isolated, and is enclosed in a square platform of 2 feet average height: there is only one mark-stone. The ascent to the hill was made from the small village called Lepgaon at the foot of the hill on the N.W. side, which is about 2 miles in direct distance.

**XL.** Duramári Tower Station, lat.  $26^{\circ} 11'$ , long.  $91^{\circ} 16'$ —observed at in 1859—is on the western precinct of the present village of that name and about  $\frac{3}{4}$  of a mile S.W. by W. of a branch of the Brahmaputra river; thána Chhaygaon, district Kámrúp.

The pillar is perforated and 15·25 feet in height. It has a mark flush with the pavement and another 1·2 feet below it. A large semal tree stands as a prop to the platform near its E.N.E. angle.

**XLI.** Akchalia Hill Station, lat.  $26^{\circ} 1'$ , long.  $91^{\circ} 22'$ —observed at in 1859—is on the higher and northern of two peaks on the long, low and detached hill called Akchalia; thána Chhaygaon, district Kámrúp.

The pillar is solid and isolated, and is built on a cluster of rocks. It contains two marks, one at its surface and another 1·08 feet below, the latter mark being imbedded in the hollow of the rock: the platform surrounding the pillar rises to a mean height of 3 feet. The hill is surrounded by villages and hamlets; the most populous of these is Bahmangaon, N. of the station, from whence the hill was ascended.

**XLII.** Harogaon Hill Station, lat.  $25^{\circ} 56'$ , long.  $91^{\circ} 28'$ —observed at in 1859 and 1860—so called after a village of that name near the foot of the hill in a S. E. direction, is also sometimes called Sagalsari or Chagalsari; thána Chhaygaon, district Kámrúp.

The pillar is solid and isolated, and 0·96 foot in height. It has a mark on the rock *in situ* and another at its surface. The hill which is not very high and is connected with extensive low chains, may not inaptly be called rather a prominent spur of the low hills emanating from the main range of the Gáro Plateau on the south. Chhaygaon bears from the station  $162^{\circ} 11'$  at a direct distance of 7·80 miles and Gullia lies to N. W. about 2 miles in a direct distance.

**XLIII.** Háthimura Hill Station, lat.  $26^{\circ} 10'$ , long.  $91^{\circ} 31'$ —observed at in 1859 and 1868—is on an isolated hill of that name, on the right bank of the Brahmaputra river and opposite the large village of Hírápára; thána Kamálpur, pargana Uttar-Surubanghsar, district Kámrúp.

The pillar is solid and isolated, and 3 feet in height. It has a mark at the surface of the hill and another at its top. The directions and estimated distances of the circumjacent villages are:—Bamundi W, 2 miles; Hardia N., 3 miles; Halo E.,  $1\frac{1}{4}$  miles. When visited in December 1868 for originating the Assam Valley Triangulation, no alteration in the construction of the station appears to have been made.

**XLIV.** Tepkilabama Hill Station, lat.  $25^{\circ} 56'$ , long.  $91^{\circ} 37'$ —observed at in 1860—is on a high peak, and about 4 miles N. of the Pathaidai Staging Bungalow on the high road between Cherra Poonjee and Assam; thána Shillong, district Khási and Jaintiá Hills.

The pillar is solid and isolated, and 2 feet in height. It has a mark on the surface and another at the foundation. The village of Jerang is about 2 miles to E.

**XLV.** Maiang, known also as Budamoin, Hill Station, lat.  $26^{\circ} 6'$ , long.  $91^{\circ} 42'$ —observed at in 1860 and 1869—is on a rather flat-topped hill on the N.W. extremity of the low range of hills extending northward from the Khási Plateau, about 6 miles S.E. of the famed temple on Kámáksha hill, between which and this hill is a very extensive jhíl; mauza Ráni, thána Gauháti, district Kámrúp.

The pillar is solid and isolated; it is built around a rock *in situ*, on which the usual mark of a circle and dot is engraved: the platform surrounding the pillar is 1.77 feet in height. The directions and estimated distances of the circumjacent villages are:—Dhasdal, where a hát is held, E., 2 miles; Sakradal N., 2 miles. The road from Gauháti to Cherra Poonjee passes 4 miles W. of the station. When visited in January 1869 for the purpose of originating the Assam Valley Triangulation, no alteration in the construction of the station was made.

September 1877.

J. B. N. HENNESSEY,

*In charge of Computing Office.*

## ASSAM LONGITUDINAL SERIES.

## PRINCIPAL TRIANGULATION. ADDENDUM TO DESCRIPTION OF STATIONS.

NOTE.—Consequent on modern alterations of district and other boundaries, the sites occupied by the stations are in some instances now included in civil divisions of territory which differ from the district, pargana, or village, recorded in the preceding descriptions of stations: a complete list of all the stations of the Series including a suitably modified statement of the altered subdivisions in question is accordingly given in the following table, and is derived chiefly from the annual reports, up to 1882, made by the Civil Officials to whose care the stations have been committed. The statement also gives present condition of certain of the stations; where no entry regarding present condition is made against a station it is to be assumed that the station when last reported on by the district Official was in good order.

The spelling of names is in accordance with that given in the lists of more important places published under the orders of Government whenever such names occur in the lists.

No. of Station	Local name	District	Pargana, &c.	Village in which the Station lies	Remarks on the Condition of the Station
CXXIV	Kanchábári	Purneah	P. Fatehpur Singhia, Thá. Káliaganj	Kanchábári	... ..
CXXVI	Cherakute	Jalpáiguri	P. and Thá. Boda, Tah. Rajnagar	Cherakute	... ..
I	Bhaulaganj	"	Thá. Boda	Gobrapára	Fallen down, height of pillar 12 feet as reported in 1880.
II	Boalmári	"	P. and Thá. Boda, Tah. Shikárpur	Boalmári	Fallen down, height of pillar above mound of earth only 3½ feet as reported in 1880.
III	Belakuba, Jot Khorgodhar	"	P. Baikuntpur, Thá. Jalpáiguri, Tah. Bahádur	Bahádur	Entirely fallen down as reported in 1882.
IV	Chilaháti	"	P. and Thá. Boda, Tah. Chilaháti	Khálpára	Fallen down, only 7½ feet high, and broken as reported in 1881.
V	Dharampur	"	P. Baikuntpur, Thá. Jalpáiguri, Tah. Jorpakri	Dharampur	Pillar fallen down, only 4½ feet standing as reported in 1880.
VI	Kagrábári	"	P. and Thá. Boda, Tah. Debiganj	Kagrábári	Fallen down as reported in 1881.
VII	Burj	Rungpore	P. Kájirhát, Thá. Dimla	Bálpára	Pillar partially fallen down as reported in 1873.
VIII	Mekhaliganj	Cooch Behar	Thá. Mekhaliganj	Mekhaliganj	... ..

NOTE.—Stations CXXIV and CXXVI appertain to the North-East Longitudinal Series. P. stands for pargana, Thá. for tháns, and Tah. for tahál.



No. of Station	Local name	District	Pargana, &c.	Village in which the Station lies	Remarks on the Condition of the Station
IX	Kuchlibári	Cooch Behar	Thá. Mekháliganj	Brahmottar Kuchlibári	... ..
X	Burj	Rungpore	P. Kájirhát, Thá. Jal-dháka	Jhunagáchha Chapani	Pillar completely fallen down as reported in 1873.
XI	Jagatber	Jalpáiguri	P., Thá. and Tah. Pathgrám	Jagatber	Fallen down, only 11½ feet high as reported in 1881.
XII	Golia Nauháti	Cooch Behar	Thá. Mátabhánga	Golia Nauháti	... ..
XIII	Nendarpár	"	Ditto.	Nendarpár	... ..
XIV	Jigabári	"	Thá. Dinháta	Latabári	... ..
XV	Burj	Rungpore	Chakla Kákina, Thá. Káliganj	Chandrapur	Completely fallen down as reported in 1875.
XVI	Bara Bhita	Cooch Behar	Thá. Cooch Behar	Bara Bhita	... ..
XVII	Ataro Bánki	"	Thá. Dinháta	Ataro Bánki	... ..
XVIII	Bhitagori	"	Ditto.	Bhitagori	... ..
XIX	Burj	Rungpore	P. Goibári, Thá. Phulkumar	Bágbandar	"Pillar completely fallen down", reported in 1873, and "tolerably good" as reported in 1882.
XX	"	"	Chakla Purubbág, Thá. Barabári	Chandrakona	Fallen down, only about 6 feet standing as reported in 1877.
XXI	Dhadiál	Cooch Behar	Thá. Tuphánganj	Naktigáchh	... ..
XXII	Burj	Rungpore	P. Bhatarbanda, Thá. Nágeshwari	Alangjáni	... ..
XXIII	Dukhi-Sukhi	Goálpára	Thá. Dhubri, Tah. Parbatjwar	Dukhi-Sukhi	"Broken down" as reported in 1871.
XXIV	Shaikhpára Tíla	"	Thá. Dhubri	Dhubri	... ..
XXV	Sámding	"	Thá. Dhubri, Tah. Ghurla	Sámding	"Totally broken" as reported in 1872.
XXVI	Dandpál	"	Thá. Goálpára, Tah. Mechpára	Dandpál	Ditto.
XXVII	Katalbári	"	Thá. Dhubri, Tah. Ghurla	Mahámaya	"Broken at top" as reported in 1871.
XXVIII	Chándar Dinga	"	Thá. Dhubri	Dharsila	"Pillar broken on all sides" as reported in 1871.
XXIX	Baukumori Chura	"	P. Ghutaghát, Thá. Sál-mara	Dabargaon	... ..
XXX	Ajaghar Pahar	"	Thá. Goálpára, Tah. Mechpára	Tesimpur	"Partly broken" as reported in 1871.

NOTE.—P. stands for pargana, Thá. for thána, and Tah. for tahál.

No. of Station	Local name	District	Pargana, &c.	Village in which the Station lies	Remarks on the Condition of the Station
XXXI	Bhairaber Chura	Goálpára	P. Ghutaghát, Thá. Sál-mara	Dhaknabári	... ..
XXXII	Rakhishini	"	Thá. Goálpára, Tah. Mechpára	Rakhishini	" Partly broken " as reported in 1871.
XXXIII	Narikola	"	P. Ghutaghát, Thá. Sál-mara	Narikola	... ..
XXXIV	Bándarmári	"	P. Hábrághát, Thá. Goálpára	Barigrám	" Sides broken " as reported in 1871.
XXXV	Bagbo	Kám-rúp	Thá. Barpeta	...	Pillar slightly broken on northern and southern sides, and no platform in existence as reported in 1874.
XXXVI	Gorakh	Goálpára	P. Hábrághát, Thá. Goálpára	Attiabári	... ..
XXXVII	Nagarberha	Kám-rúp	Mauza Chámuria	Nagarberha	Platform fallen down as reported in 1870.
XXXVIII	Sonora	"	Thá. Chhaygaon	Sonora	Platform slightly injured on three sides as reported in 1873.
XXXIX	Langturi	"	Ditto.	Saktipára	... ..
XL	Duramári	"	Mauza Pub Chámuria	Duramári	Carried away by a branch of the river Brahmaputra as reported in 1878.
XLI	Akchalia	"	Thá. Chhaygaon, Mauza Bogai	...	... ..
XLII	Chagalchari	"	Thá Chhaygaon	Harogaon	... ..
XLIII	Háthimura	"	Mauza Hírápára	Háthimura	Pillar slightly injured on top near mark-stone as reported in 1873.
XLIV	Tepkilabama	Khási and Jaintia Hills	Thá. Shillong, Táluka Nongopang	Tepkilabama	... ..
XLV	Maiang	Kám-rúp	...	...	... ..

NOTE.—P. stands for pargana, Thá. for thána, and Tah. for tahsil.

December, 1882.

J. B. N. HENNESSEY,  
In charge of Computing Office.



## ASSAM LONGITUDINAL SERIES.

## PRINCIPAL TRIANGULATION. TRIANGLES.

No. of Triangle	Station	Spherical Excess	Corrected Plane Angle			Distance		
						Log. feet	Feet	Miles
1	Kanchábári, CXXIV	35	56	55	31'26	4'8443323	69876'7	13'234
	Newáni, CXXVI	35	60	11	17'93	4'8594605	72353'7	13'703
	Gobrapára, I	36	62	53	10'81	4'8705497	74224'9	14'058
2	Newáni, CXXVI	21	51	51	11'20	4'7425408	55276'5	10'469
	Gobrapára, I	21	44	20	52'64	4'6913667	49132'3	9'305
	Boalmári, II	22	83	47	56'16	4'8443323	69876'7	13'234
3	Gobrapára, I	17	47	8	54'20	4'6425225	43905'9	8'316
	Boalmári, II	17	65	29	9'67	4'7363235	54490'8	10'320
	Chilaháti, IV	18	67	21	56'13	4'7425408	55276'5	10'469
4	Boalmári, II	18	67	38	11'63	4'7479676	55971'6	10'601
	Chilaháti, IV	18	65	51	30'67	4'7421760	55230'1	10'460
	Khakrábári, VI	17	46	30	17'70	4'6425225	43905'9	8'316
5	Chilaháti, IV	21	56	10	7'78	4'7279228	53446'9	10'123
	Khakrábári, VI	21	63	22	54'59	4'7598317	57521'7	10'894
	Bálápára, VII	21	60	26	57'63	4'7479676	55971'6	10'601

NOTES.—1. The values of the side are given in the same line with the opposite angle.

2. Stations Kanchábári, CXXIV, and Newáni, CXXVI appertain to the North-East Longitudinal Series.

## ASSAM LONGITUDINAL SERIES.

No. of Triangle	Station	Spherical Excess	Corrected Plane Angle	Distance		
				Log. feet	Feet	Miles
6	Chilaháti, IV	18	53 48 31'82	4'6953173	49581'2	9'390
	Bálápára, VII	19	56 45 6'26	4'7107796	51378'3	9'731
	Mekhaliganj, VIII	19	69 26 21'92	4'7598317	57521'7	10'894
7	Kanchábári, CXXIV	26	41 35 28'13	4'7009268	50225'8	9'512
	Gobrapára, I	26	65 25 0'43	4'8376175	68804'6	13'031
	Belakuba, III	26	72 59 31'44	4'8594605	72353'7	13'703
8	Gobrapára, I	22	77 2 21'03	4'8172982	65659'6	12'436
	Belakuba, III	21	54 45 45'71	4'7406052	55030'7	10'422
	Dharampur, V	21	48 11 53'26	4'7009268	50225'8	9'512
9	Gobrapára, I	21	63 9 39'46	4'7585926	57357'8	10'863
	Dharampur, V	21	57 57 36'28	4'7363235	54490'8	10'320
	Chilaháti, IV	21	58 52 44'26	4'7406052	55030'7	10'422
10	Chilaháti, IV	20	57 55 8'18	4'7235240	52908'3	10'021
	Dharampur, V	19	55 21 55'94	4'7107796	51378'3	9'731
	Mekhaliganj, VIII	20	66 42 55'88	4'7585926	57357'8	10'863
11	Bálápára, VII	20	72 31 2'68	4'7761623	59725'8	11'312
	Mekhaliganj, VIII	19	55 7 42'38	4'7107458	51374'3	9'730
	Kuchlibári, IX	19	52 21 14'94	4'6953173	49581'2	9'390
12	Bálápára, VII	20	57 50 19'07	4'7244706	53023'8	10'042
	Kuchlibári, IX	20	67 3 17'31	4'7610190	57679'2	10'924
	Chapani, X	19	55 6 23'62	4'7107458	51374'3	9'730
13	Kuchlibári, IX	19	50 41 18'77	4'6869542	48635'6	9'211
	Chapani, X	20	71 47 50'96	4'7760786	59714'3	11'310
	Golia Nauháti, XII	19	57 30 50'27	4'7244706	53023'8	10'042
14	Kuchlibári, IX	21	59 19 30'98	4'7443149	55502'8	10'512
	Golia Nauháti, XII	21	52 57 18'32	4'7118693	51507'4	9'755
	Nendarpár, XIII	21	67 43 10'70	4'7760786	59714'3	11'310
15	Mekhaliganj, VIII	20	48 21 12'97	4'6805837	47927'4	9'077
	Kuchlibári, IX	20	63 1 16'49	4'7570748	57157'7	10'825
	Jagatber, XI	20	68 37 30'54	4'7761623	59725'8	11'312
16	Kuchlibári, IX	18	67 33 20'34	4'7432208	55363'2	10'485
	Jagatber, XI	18	59 18 11'57	4'7118693	51507'4	9'755
	Nendarpár, XIII	18	53 8 28'09	4'6805837	47927'4	9'077
17	Golia Nauháti, XII	20	65 46 7'00	4'7574916	57212'6	10'836
	Nendarpár, XIII	19	52 1 25'39	4'6942192	49456'0	9'367
	Jigabári, XIV	20	62 12 27'61	4'7443149	55502'8	10'512
18	Golia Nauháti, XII	19	58 43 28'89	4'7271708	53354'5	10'105
	Jigabári, XIV	20	68 52 50'09	4'7651691	58233'0	11'029
	Chandrapur, XV	19	52 23 41'02	4'6942192	49456'0	9'367
19	Jigabári, XIV	20	57 29 21'49	4'7306866	53788'2	10'187
	Chandrapur, XV	21	65 44 21'12	4'7645537	58150'5	11'013
	Ataro Bánki, XVII	21	56 46 17'39	4'7271708	53354'5	10'105
20	Jigabári, XIV	19	52 14 1'80	4'6902011	49000'6	9'280
	Ataro Bánki, XVII	19	58 1 33'85	4'7208339	52581'6	9'959
	Bhitagori, XVIII	19	69 44 24'35	4'7645537	58150'5	11'013

NOTE.—Station Kanchábári, CXXIV appertains to the North-East Longitudinal Series.

No. of Triangle	Station	Spherical Excess	Corrected Plane Angle	Distance		
				Log. feet	Feet	Miles
21	Nendarpár, XIII	20	60 1 28'32	4'7356487	54406'2	10'304
	Jigabári, XIV	20	54 20 32'87	4'7078425	51032'0	9'665
	Bara Bhita, XVI	20	65 37 58'81	4'7574916	57212'6	10'836
22	Jigabári, XIV	21	64 50 44'94	4'7587889	57383'8	10'868
	Bara Bhita, XVI	20	56 2 20'70	4'7208339	52581'6	9'959
	Bhitagori, XVIII	20	59 6 54'36	4'7356487	54406'2	10'304
23	Ataro Bánki, XVII	22	71 1 11'32	4'8029730	63529'1	12'032
	Bhitagori, XVIII	22	62 8 46'71	4'7737741	59398'3	11'250
	Goibári, XIX	21	46 50 1'97	4'6902011	49000'6	9'280
24	Ataro Bánki, XVII	23	58 25 48'96	4'7542806	56791'1	10'756
	Goibári, XIX	22	58 33 20'67	4'7548636	56867'4	10'770
	Purubbág, XX	23	63 0 50'37	4'7737741	59398'3	11'250
25	Goibári, XIX	23	56 53 0'75	4'7536112	56703'7	10'739
	Purubbág, XX	24	66 5 49'82	4'7916516	61894'4	11'722
	Alangjáni, XXII	23	57 1 9'43	4'7542806	56791'1	10'756
26	Goibári, XIX	34	60 12 18'93	4'8607544	72569'6	13'744
	Alangjáni, XXII	34	72 3 0'58	4'9006589	79553'4	15'067
	Partábganj, XXIII	33	47 44 40'49	4'7916516	61894'4	11'722
27	Bhitagori, XVIII	23	48 52 19'80	4'7172357	52147'8	9'876
	Goibári, XIX	24	64 32 39'06	4'7959479	62509'8	11'839
	Dhadial, XXI	24	66 35 1'14	4'8029730	63529'1	12'032
28	Goibári, XIX	32	72 58 37'06	4'9104001	81358'0	15'409
	Dhadial, XXI	31	69 13 28'87	4'9006589	79553'4	15'067
	Partábganj, XXIII	31	37 47 54'07	4'7172357	52147'8	9'876
29	Alangjáni, XXII	33	47 51 13'99	4'7887495	61482'2	11'644
	Partábganj, XXIII	34	71 5 3'48	4'8945653	78445'0	14'857
	Dhubri, XXIV	33	61 3 42'53	4'8607544	72569'6	13'744
30	Alangjáni, XXII	32	31 43 43'48	4'7198604	52463'9	9'936
	Dhubri, XXIV	33	96 25 37'47	4'9962204	99133'5	18'775
	Sámding, XXV	32	51 50 39'05	4'8945653	78445'0	14'857
31	Dhubri, XXIV	30	73 5 18'92	4'8952364	78566'3	14'880
	Sámding, XXV	30	67 12 8'74	4'8790095	75702'4	14'338
	Dandpál, XXVI	30	39 42 32'34	4'7198604	52463'9	9'936
32	Dhubri, XXIV	44	62 21 44'07	4'9144156	82113'7	15'552
	Dandpál, XXVI	44	62 52 44'91	4'9164447	82498'3	15'625
	Kathalbári, XXVII	43	54 45 31'02	4'8791095	75702'4	14'338
33	Partábganj, XXIII	37	68 53 33'88	4'9164447	82498'3	15'625
	Dhubri, XXIV	37	67 3 35'24	4'9108241	81437'4	15'424
	Kathalbári, XXVII	37	44 2 50'88	4'7887495	61482'2	11'644
34	Dandpál, XXVI	44	57 22 6'44	4'8923844	78052'3	14'783
	Kathalbári, XXVII	44	60 15 34'32	4'9056536	80473'6	15'241
	Chándar Dinga, XXVIII	44	62 22 19'24	4'9144156	82113'7	15'552
35	Dandpál, XXVI	53	55 47 20'37	4'9354811	86194'8	16'325
	Chándar Dinga, XXVIII	52	73 40 11'13	5'0001060	100024'4	18'944
	Ajaghar, XXX	53	50 32 28'50	4'9056536	80473'6	15'241

## ASSAM LONGITUDINAL SERIES.

No. of Triangle	Station	Spherical Excess	Corrected Plane Angle			Distance		
						Log. feet	Feet	Miles
36	Chándar Dinga, XXVIII	"	°	'	"			
	Ajaghar, XXX	'39	80	55	21'26	4'9827229	96099'9	18'201
	Bhairaber Chura, XXXI	'39	36	44	24'37	4'7650326	58214'7	11'026
37	Kathalbári, XXVII	'32	62	20	14'37	4'9354811	86194'8	16'325
	Chándar Dinga, XXVIII	'32	39	11	43'76	4'7382384	54731'6	10'366
	Baukumori Chura, XXIX	'33	76	28	56'81	4'9253426	84205'9	15'948
38	Chándar Dinga, XXVIII	'33	64	19	19'43	4'8923854	78052'3	14'783
	Baukumori Chura, XXIX	'23	66	33	9'65	4'7926683	62039'5	11'750
	Bhairaber Chura, XXXI	'23	59	24	50'22	4'7650326	58214'7	11'026
39	Ajaghar, XXX	'23	54	2	0'13	4'7382384	54731'6	10'366
	Bhairaber Chura, XXXI	'35	49	54	45'77	4'8665229	73539'9	13'928
	Raikusni, XXXII	'35	38	50	42'96	4'7802443	60289'9	11'419
40	Ajaghar, XXX	'35	91	14	31'27	4'9827229	96099'9	18'201
	Raikusni, XXXII	'24	46	45	57'48	4'7272593	53365'3	10'107
	Dabli, XXXIV	'25	77	50	16'57	4'8549343	71603'5	13'561
41	Raikusni, XXXII	'25	55	23	45'95	4'7802443	60289'9	11'419
	Dabli, XXXIV	'30	82	16	20'62	4'9173907	82678'1	15'659
	Bagbo, XXXV	'30	57	57	56'94	4'8496112	70731'2	13'396
42	Bhairaber Chura, XXXI	'29	39	45	42'44	4'7272593	53365'3	10'107
	Raikusni, XXXII	'36	74	2	52'76	4'9181636	82825'4	15'687
	Narikola, XXXIII	'35	47	20	8'36	4'8017039	63343'8	11'997
43	Raikusni, XXXII	'35	58	36	58'88	4'8665229	73539'9	13'928
	Narikola, XXXIII	'40	61	18	41'53	4'8975365	78983'5	14'959
	Bagbo, XXXV	'41	51	46	30'12	4'8496112	70731'2	13'396
44	Dabli, XXXIV	'41	66	54	48'35	4'9181636	82825'4	15'687
	Bagbo, XXXV	'40	39	37	33'25	4'7907826	61770'7	11'699
	Nagarberha, XXXVII	'40	81	45	52'16	4'9816151	95855'1	18'154
45	Dabli, XXXIV	'40	58	36	34'59	4'9173907	82678'1	15'659
	Nagarberha, XXXVII	'42	49	51	26'15	4'8698604	74107'2	14'035
	Ghorkar, XXXVI	'42	48	44	4'65	4'8625396	72868'5	13'801
46	Dabli, XXXIV	'42	81	24	29'20	4'9816151	95855'1	18'154
	Bagbo, XXXV	'48	89	28	59'74	5'0402559	109712'4	20'779
	Ghorkar, XXXVI	'47	41	37	1'69	4'8625396	72868'5	13'801
47	Ghorkar, XXXVI	'48	48	53	58'57	4'9173907	82678'1	15'659
	Nagarberha, XXXVII	'27	45	36	9'08	4'7362805	54485'4	10'319
	Sonora, XXXVIII	'27	58	1	57'62	4'8108512	64692'1	12'252
48	Nagarberha, XXXVII	'27	76	21	53'30	4'8698604	74107'2	14'035
	Sonora, XXXVIII	'29	64	44	34'89	4'8511870	70988'3	13'445
	Duramári, XL	'29	71	17	49'81	4'8712641	74347'1	14'081
49	Sonora, XXXVIII	'29	43	57	35'30	4'7362805	54485'4	10'319
	Duramári, XL	'31	56	42	30'51	4'8187568	65880'5	12'477
	Akchalia, XLI	'32	59	2	30'19	4'8298639	67587'1	12'801
50	Duramári, XL	'32	64	14	59'30	4'8511870	70988'3	13'445
	Akchalia, XLI	'37	59	41	47'23	4'8750562	74999'1	14'204
	Háthimura, XLIII	'37	70	58	50'71	4'9144819	82126'2	15'554
		'37	49	19	22'06	4'8187568	65880'5	12'477

PRINCIPAL TRIANGULATION. TRIANGLES.

No. of Triangle	Station	Spherical Excess	Corrected Plane Angle			Distance		
						Log. feet	Feet	Miles
51	Akchalia, XLI	.26	90	40	2° 12'	4° 9416974	87437' 4	16° 560
	Háthimura, XLIII	.26	30	16	20° 11'	4° 6442841	44084' 3	8° 349
	Harogaon, XLII	.26	59	3	28° 77'	4° 8750562	74999' 1	14° 204
52	Ghorkar, XXXVI	.33	45	17	3° 21'	4° 8128732	64994' 0	12° 309
	Sonora, XXXVIII	.33	89	41	58° 94'	4° 9612385	91461' 5	17° 322
	Langturi, XXXIX	.33	45	0	57° 85'	4° 8108512	64692' 1	12° 252
53	Sonora, XXXVIII	.32	65	55	45° 92'	4° 8583757	72173' 2	13° 669
	Langturi, XXXIX	.32	58	45	45° 77'	4° 8298639	67587' 1	12° 801
	Akchalia, XLI	.31	55	18	28° 31'	4° 8128732	64994' 0	12° 309
54	Langturi, XXXIX	.24	34	12	38° 44'	4° 6442841	44084' 3	8° 349
	Akchalia, XLI	.25	78	47	38° 05'	4° 8860043	76913' 8	14° 567
	Harogaon, XLII	.25	66	59	43° 51'	4° 8583757	72173' 2	13° 669
55	Harogaon, XLII	.32	78	14	5° 21'	4° 9569483	90562' 5	17° 152
	Háthimura, XLIII	.32	30	49	10° 45'	4° 6757245	47394' 1	8° 976
	Tepkilabama, XLIV	.32	70	56	44° 34'	4° 9416974	87437' 4	16° 560
56	Harogaon, XLII	.41	40	26	39° 11'	4° 7970001	62661' 4	11° 868
	Háthimura, XLIII	.42	74	42	18° 62'	4° 9692902	93173' 0	17° 646
	Maiang, XLV	.42	64	51	2° 27'	4° 9416974	87437' 4	16° 560
57	Háthimura, XLIII	.31	43	53	7° 96'	4° 7981942	62833' 9	11° 900
	Tepkilabama, XLIV	.31	43	44	3° 90'	4° 7970001	62661' 4	11° 868
	Maiang, XLV	.31	92	22	48° 14'	4° 9569483	90562' 5	17° 152

June 1890.

J. B. N. HENNESSEY,  
In charge of Computing Office.



No. of Triangle	Station	Corrected Plane Angle ° ' "	Distance			No. of Triangle	Station	Corrected Plane Angle ° ' "	Distance			Theodolite used	
			Log. feet	Feet	Miles				Log. feet	Feet	Miles		
92	Kazira Dábarbhánga	S. 59 43 21	4°108803	15805	2.993	108	Kharikatar A No. 2	S. 35 27 51	3°752222	5652	1.071	Inch 12	
	Katanhári	" 53 22 38	4°166983	14689	2.782		" 58 49 31	3°920916	8335	1.579	" "		
	Boalmári, II	" 66 54 1	4°226199	16834	3.188		" 85 42 38	3°987431	9715	1.840	" "		
98	Sámsiri	S. 6 20 0	4°022905	10543	1.997	104	A No. 2	S. 153 9 16	3°949084	8894	1.684	"	
	Bhelái	" 5 12 43	3°938618	8682	1.644		" 10 10 2	3°541141	3476	0.658	" "		
	A No. 1	" 168 27 17	4°281679	19128	3.623		Jalpáiguri Masjid	3°752222	5652	1.071	" "		
94	Amarhána	S. 43 28 21	4°001693	10039	1.901	105	A No. 2	S. 54 47 59	3°668326	4659	0.882	"	
	Benghári No. 2	" 53 17 32	4°068110	11698	2.216		" 42 46 31	3°587978	3872	0.733	" "		
	Pachágarh Hát Flag	" 81 47 45	4°095850	12470	2.362		Jalpáiguri Palace	3°752222	5652	1.071	" "		
95	Bhelái	" 41 23 43	3°920684	8331	1.578	106	Bhásárbári	S. 30 36 11	3°978349	9514	1.802	"	
	A No. 1	" 81 47 45	4°095850	12470	2.362		Barhántal	" 104 30 28	4°257484	18092	3.426		" "
	Boda Chakla Hát Flag	" 41 23 43	3°920684	8331	1.578		Halapakori	" 44 53 21	4°120201	13189	2.498		" "
96	Belakuba, III	S. 56 31 42	4°199070	15815	2.995	107	Dharampur, V	S. 17 24 34	3°978349	9514	1.802	"	
	Rániganj	" 80 33 25	4°271896	18702	3.542		Barhántal	" 30 42 20	4°210494	16237	3.075		" "
	Bahádura	" 42 54 53	4°110910	12910	2.445		Halapakori	" 131 53 6	4°374247	23673	4.483		" "
97	Rániganj	S. 41 44 30	4°024792	10587	2.005	108	Barhántal	S. 14 10 15	3°655749	4526	0.857	"	
	Bahádura	" 54 16 17	4°110910	12910	2.445		Halapakori	" 16 47 50	3°727789	5343	1.012		" "
	Kharikatar	" 83 59 13	4°199070	15815	2.995		Mandal Ghát Flag	" 131 53 6	4°374247	23673	4.483		" "
98	Bahádura	S. 74 49 12	4°156845	14350	2.718	109	Dharampur, V	S. 42 19 47	4°240911	17414	3.208	"	
	Kharikatar	" 59 46 35	4°108817	12847	2.433		Barhántal	" 23 55 54	4°020788	10490	1.987		" "
	Bhásárbári	" 45 24 13	4°024792	10587	2.005		Madárganj Village Flag	" 42 19 47	4°240911	17414	3.208		" "
99	Kharikatar	S. 36 34 9	4°120201	13189	2.498	110	Dharampur, V	S. 24 55 13	3°905572	8046	1.524	"	
	Bhásárbári	" 103 1 17	4°333792	21567	4.085		Halapakori	" 33 19 26	4°020788	10490	1.987		" "
	Barhántal	" 40 24 34	4°156845	14350	2.718		Madárganj Village Flag	" 24 55 13	3°905572	8046	1.524		" "
100	Bhásárbári	S. 46 20 13	4°167946	14721	2.788	111	Barhántal	S. 36 0 19	4°053351	11307	2.141	"	
	Barhántal	" 93 15 53	4°307855	20317	3.848		Halapakori	" 114 21 0	4°243617	17523	3.319		" "
	Manthapára	" 40 23 54	4°120201	13189	2.498		Bákái Hát Flag	" 36 0 19	4°053351	11307	2.141		" "
101	Barhántal	S. 41 56 55	4°206426	16085	3.046	112	Khakarábári, VI	S. 56 27 32	4°161198	14494	2.745	"	
	Manthapára	" 100 19 58	4°374247	23673	4.483		Bághdogra	" 57 30 31	4°166309	14668	2.778		" "
	Dharampur, V	" 37 43 7	4°167946	14721	2.788		Debiduba	" 66 1 57	4°201138	15891	3.010		" "
102	Kharikatar	S. 26 50 40	4°134331	13625	2.680	113	Bághdogra	S. 72 56 2	4°255123	17994	3.408	"	
	Barhántal	" 18 46 57	3°987431	9715	1.840		Debiduba	" 56 42 28	4°196825	15733	2.980		" "
	A No. 2	" 134 22 23	4°333792	21567	4.085		Kisimat Reotha	" 50 21 30	4°161198	14494	2.745		" "

JALPÁIGURI  
SECONDARY SERIES.

KHAKRÁBÁRI TO GOLIA NAUHÁTI  
SECONDARY SERIES.

\* Base computed by Ray-trace.

SECONDARY TRIANGULATION. TRIANGLES.

No. of Triangle	Station	Corrected Plane Angle	Distance			No. of Triangle	Station	Corrected Plane Angle	Distance			Theodolite used
			Log. feet	Feet	Miles				Log. feet	Feet	Miles	
114	Bághdogra Kismat Reotha Bámania	55 38 32 73 46 46 50 34 42	4 225663 4 201289 4 196825	16814 19556 15733	3 184 3 704 2 980	127	Debiduba A No. 8 Debiganj Hát Flag	26 44 35 55 18 41	3 634082 3 895886 3 976689	4306 7868 9477	0 816 1 490 1 795	Inch 12 "
115	Kismat Reotha Bámania Dharampál	55 32 1 63 7 44 61 20 15	4 198604 4 232812 4 225663	15798 17093 16814	2 992 3 237 3 184	128	Khakrábári, VI Debiduba Debiganj Hát Flag	27 13 17 31 17 15	3 895886 3 951008 4 166369	7868 8933 14668	1 490 1 692 2 778	"
116	Bámania Dharampál Dimla	66 17 28 64 6 49 49 35 43	4 278648 4 271022 4 198604	18995 18665 15798	3 598 3 535 2 992	129	Debiduba A No. 3 Debiganj Temple	18 59 7 27 4 9	3 631675 3 777431 3 976689	4282 5990 9477	0 811 1 134 1 795	"
117	Dharampál Dimla Golna	60 58 31 60 10 50 58 50 39	4 288010 4 284613 4 278648	19409 19258 18995	3 676 3 647 3 598	130	Debiduba A No. 8 Nagar Diwanganj Gola	42 22 56 33 3 16	3 819579 3 727616 3 976689	6601 5341 9477	1 250 1 012 1 795	"
118	Dimla Golna Tepa	56 31 30 54 0 42 69 27 48	4 237758 4 224548 4 288010	17289 16771 19409	3 274 3 176 3 676	131	Bághdogra Debiduba B No. 2	37 54 53 22 36 41 119 28 26	4 009903 3 806262 4 161198	10231 6401 14494	1 938 1 212 2 745	"
119	Golna Tepa Bálgæon	65 40 24 73 4 33 41 15 3	4 378257 4 399409 4 237758	23892 25085 17289	4 525 4 751 3 274	132	Debiduba B No. 2 Bara Reotha Temple	14 1 45 15 50 57	3 697095 3 748865 4 009903	4978 5609 10231	0 943 1 062 1 938	"
120	Tepa Bálgæon Chapani, X	46 24 27 60 51 38 72 43 55	4 258183 4 339519 4 378257	18121 21853 23892	3 432 4 139 4 525	133	Bághdogra B No. 2 Bághdogra Hát Flag	27 46 51 54 33 26	3 478627 3 721152 3 806262	3010 5262 6401	0 570 0 997 1 212	"
121	Chapani, X Bálgæon Bhában Char	69 4 15 57 6 28 53 49 17	4 321570 4 275333 4 258183	20969 18851 18121	3 971 3 570 3 432	134	Debiduba B No. 2 Domer Hát Flag	34 20 26 105 24 29	3 950939 4 183678 4 009903	8932 15264 10231	1 692 2 891 1 938	"
122	Chapani, X Bhában Char Báishpukur	59 5 32 74 10 5 46 44 23	4 346539 4 396259 4 275333	22209 24903 18851	4 206 4 717 3 570	135	Kismat Reotha Bámania Borágári Hát Flag	40 17 21 30 28 27	4 061281 3 955751 4 225663	11515 9031 16814	2 181 1 710 3 184	"
123	Bhában Char Báishpukur Kethkibári	44 50 49 72 39 36 62 29 35	4 246959 4 378437 4 346539	17659 23902 22209	3 344 4 527 4 206	136	Bámania Dharampál Matukpur Mosque	9 25 6 132 37 5	3 623509 4 276424 4 198604	4203 18808 15798	0 796 3 579 2 992	"
124	Báishpukur Kethkibári Golna Nauháti, XII	60 35 56 73 47 47 45 36 17	4 333058 4 375334 4 246959	21531 23732 17659	4 078 4 495 3 344	137	Bámania Dimla Pánga	24 21 5 29 23 20 126 15 35	3 979748 4 055348 4 271022	9544 11359 18665	1 808 2 151 3 535	"
125	Khakrábári, VI Debiduba A No. 3	39 47 59 58 1 50 82 10 11	3 976689 4 099002 4 166369	9477 12560 14668	1 795 2 379 2 778	138	Dimla Pánga Sundar Khatha	46 48 24 38 53 34 94 18 2	3 843729 3 778838 3 979748	6978 6010 9544	1 322 1 138 1 808	"
126	Khakrábári, VI A No. 3 Debiduba Factory	10 49 18 12 1 45	3 783384 3 828715 4 099002	6073 6741 12560	1 150 1 277 2 379	139	Pánga Sundar Khatha Pánga Kachhari Flag	39 30 9 101 14 52	3 846063 4 034107 3 843729	7016 10817 6978	1 329 2 049 1 322	"

No. of Triangle	Station	Corrected Plane Angle ° ' "	Distance			No. of Triangle	Station	Corrected Plane Angle ° ' "	Distance			Theodolite used	
			Log. feet	Feet	Miles				Log. feet	Feet	Miles		
140	Pánga	25 16 22	3.584283	3840	0.727	153	Kethkibári	71 0 3	4.236336	17232	3.264	Inch 12	
	Sundar Khatha	103 50 29	3.941130	8732	1.654		Haldibári	56 36 23	4.182303	15216	2.882		"
	Pánga Hát Flag	3.843729	6978	1.322	Bisandai		52 23 34	4.159505	14438	2.734	"		
141	Pánga	20 15 57	3.546644	3521	0.667	154	Bhában Char	34 37 42	3.995637	9900	1.875	"	
	Sundar Khatha	23 5 13	3.600523	3986	0.755		Haldibári	21 21 53	3.802560	6347	1.202		"
	Sundar Khatha Kachahri	3.843729	6978	1.322	Ghoramára Hát Flag			4.159636	14442	2.735	"		
142	Dimla	21 18 22	3.492607	3109	0.589	155	Golia Nauháti, XII	29 12 2	4.032802	10785	2.043	"	
	Sundar Khatha	23 18 37	3.529658	3386	0.641		Kethkibári	47 42 20	4.213553	16351	3.097		"
	Dimla Thána Flag	3.778838	6010	1.138	Háthi Bandar Hát Flag			4.333058	21531	4.078	"		
143	Pánga	26 13 53	3.492607	3109	0.589	156	Golia Nauháti, XII	27 32 42	4.031272	10747	2.035	"	
	Sundar Khatha	70 59 25	3.822832	6650	1.260		Kethkibári	40 21 3	4.177429	15046	2.850		"
	Dimla Thána Flag	3.843729	6978	1.322	Háthi Bandar Factory			4.333058	21531	4.078	"		
144	Pánga	64 37 28	3.843550	6975	1.321	157	Haldibári	40 11 32	4.151047	14159	2.682	"	
	Sundar Khatha	50 42 5	3.776273	5974	1.131		Bisandai	88 3 3	4.340998	21928	4.153		"
	Dimla Factory No. 1	3.843729	6978	1.322	Bhotmári Tree Flag			4.236336	17232	3.264	"		
145	Dimla	78 43 59	3.843550	6975	1.321	COOCH BEHAR							
	Sundar Khatha	43 35 57	3.690605	4905	0.920								
	Dimla Factory No. 1	3.778838	6010	1.138									
146	Pánga	75 0 39	3.910299	8134	1.541	SECONDARY SERIES.							
	Sundar Khatha	49 1 27	3.803272	6357	1.204								
	Dimla Factory No. 2	3.843729	6978	1.322									
147	Dimla	87 10 9	3.910299	8134	1.541	158	Bara Bhita, XVI	47 19 49	4.155975	14321	2.712	"	
	Sundar Khatha	45 16 35	3.762400	5786	1.096		Dámodarpur	68 4 8	4.256903	18068	3.422		"
	Dimla Factory No. 2	3.778838	6010	1.138	Dudhir Kothi		64 36 3	4.245378	17595	3.332	"		
148	Dimla	49 2 26	3.857876	7209	1.365	159	Dámodarpur	57 19 24	4.150828	14152	2.680	"	
	Pánga	39 51 12	3.780568	6117	1.159		Dudhir Kothi	64 16 21	4.180316	15147	2.869		"
	Dimla House	3.979748	9544	1.808	Ghughumári		58 24 15	4.155975	14321	2.712	"		
149	Pánga	78 44 46	3.954316	9002	1.705	160	Dudhir Kothi	48 17 15	4.124805	13329	2.524	"	
	Sundar Khatha	51 45 50	3.857876	7209	1.365		Ghughumári	79 17 3	4.244138	17544	3.323		"
	Dimla House	3.843729	6978	1.322	Simluguri		52 25 42	4.150828	14152	2.680	"		
150	Chapani, X	9 10 57	3.698679	4997	0.946	161	Ghughumári	53 46 19	4.178995	15101	2.860	"	
	Tepa	35 4 46	4.255151	17995	3.408		Simluguri	80 49 36	4.266708	18480	3.500		"
	Tepa Hát Flag	4.339519	21853	4.139	Ghegir Ghát		45 24 5	4.124805	13329	2.524	"		
151	Chapani, X	25 53 9	4.058852	11451	2.169	162	Simluguri	50 22 47	4.066546	11656	2.208	"	
	Tepa	30 32 21	4.124762	13328	2.524		Ghegir Ghát	35 56 7	3.948436	8880	1.682		"
	Burr Hát Flag	4.339519	21853	4.139	Pasudánga		93 41 6	4.178995	15101	2.860	"		
152	Bhában Char	34 8 17	4.159505	14438	2.734	168	Ghegir Ghát	50 58 6	4.110837	12907	2.445	"	
	Kethkibári	34 8 59	4.159036	14442	2.735		Pasudánga	84 29 8	4.218515	16539	3.132		"
	Haldibári	111 42 44	4.378437	23902	4.537		Bhitagori, XVIII	44 32 46	4.066546	11656	2.208		"

\* Base computed by Ray-trace.

SECONDARY TRIANGULATION. TRIANGLES.

No. of Triangle	Station	Corrected Plane Angle ° ' "	Distance			No. of Triangle	Station	Corrected Plane Angle ° ' "	Distance			Theodolite used	
			Log. feet	Feet	Miles				Log. feet	Feet	Miles		
164	Bara Bhita, XVI	79 9 1	4.294486	19701	3.731	168	B No. 8	48 59 24	3.776690	5980	1.133	Inch 12	
	Dámodarpur	39 33 11	4.100318	12774	2.419		A No. 4	32 44 25	3.632039	4286	0.812		"
	Maynaguri Temple		4.245378	17595	3.332		Cooch Behar, Khagrábári Temple		3.894437	7842	1.485		"
165	Dámodarpur	64 25 44	4.223336	16724	3.167	169	Bhitagori, XVIII	13 38 16	3.975915	9461	1.792	" "	
	Ghughumári	" "	4.209027	16182	3.065		Ghegir Ghát	10 42 20	3.872360	7453	1.412		
	B No. 3	54 47 1	4.180316	15147	2.869		Diwán Hát Flag		4.218515	16539	3.132		
166	Ghughumári	23 1 4	3.894437	7842	1.485	170	Bhitagori, XVIII	53 46 47	4.142194	13874	2.628	" "	
	B No. 3	33 28 47	4.043899	11064	2.095		Ghegir Ghát	52 7 10	4.132693	13574	2.571		
	A No. 4	123 30 9	4.223336	16724	3.167		Gosainganj Hát Flag		4.218515	16539	3.132		
167	B No. 3	69 49 54	3.931222	8535	1.617								
	A No. 4	50 34 32	3.846581	7024	1.330								
	Cooch Behar Palace		3.894437	7842	1.485								

## ASSAM VALLEY SERIES.

## TRIANGLES.

Names of Stations followed by Roman Numerals are those of the Principal Stations of the Assam Longitudinal Series.

The values of the side are given in the same line with the opposite angle.

No. of Triangle	Station	Spherical Excess	Figural Corrections	Corrected Plane Angle	Distance			Theodolite used	
					Log. feet	Feet	Miles		
171	Háthimura, XLIII	"	"	0 1 "				Inch	
	Maiang, XLV	'2	— 1'7	40 3 22'6	4'6663926	46387	8'785	14	
	Sila	'3	— 0'6	79 33 47'7	4'8505719	70888	13'426	"	
		H.S.	'2	+ 1'0	60 22 49'7	4'7970001	62661	11'868	"
172	Háthimura, XLIII	'3	— 5'0	75 25 45'7	4'8528895	71267	13'498	"	
	Maiang, XLV	'2	— 2'8	46 15 12'5	4'7258680	53195	10'075	"	
	Barambai	'3	— 2'3	58 19 1'8	4'7970001	62661	11'868	"	
		H.S.							
173	Háthimura, XLIII	'1	— 3'3	35 22 23'1	4'6158942	41295	7'821	"	
	Sila	'2	+ 1'6	48 13 15'6	4'7258679	53195	10'075	"	
	Barambai	'2	— 1'9	96 24 21'3	4'8505719	70888	13'426	"	
		"							
174	Maiang, XLV	'2	— 1'6	68 35 23'9	4'8307849	67731	12'828	"	
	Sila	'3	— 0'1	71 47 46'9	4'8395407	69110	13'089	"	
	Mairangka	'2	— 1'7	39 36 49'2	4'6663926	46387	8'785	"	
		"							
175	Maiang, XLV	'1	— 1'0	30 54 25'2	4'6633985	46068	8'725	"	
	Sila	'2	+ 0'3	117 56 54'3	4'8988771	79228	15'005	"	
	Kurua	'1	+ 1'5	31 8 40'5	4'6663926	46387	8'785	"	
		"							

No. of Triangle	Station	H.S.	Spherical Excess	Figural Corrections	Corrected Plane Angle	Distance			Theodolite used
						Log. feet	Feet	Miles	
176	Sila	H.S.	"	"	° ' "				Inch
	Mairangka	"	.2	+ 0.4	46 9 7.1	4.6888945	48853	9.253	14
	Kurua	"	.1	+ 0.3	42 50 54.2	4.6633987	46068	8.725	"
177	Mairangka	H.S.	.2	+ 1.1	90 59 58.7	4.8307849	67731	12.828	"
	Kurua	"	.1	- 1.8	53 54 45.9	4.6090916	40653	7.699	"
	Párahopa	"	.1	0.0	49 53 14.1	4.5851506	38473	7.286	"
178	Párahopa	"	.2	- 0.3	76 12 0.0	4.6888945	48853	9.253	"
	Dúmria	H.S.	.2	- 0.2	57 45 32.0	4.8534093	71353	13.514	"
	Desh Maiang	"	.2	- 0.1	95 6 30.5	4.9244077	84025	15.914	"
179	Desh Maiang	"	.2	- 2.7	27 7 57.5	4.5851506	38473	7.286	"
	Dúmria	H.S.	.2	+ 1.3	89 24 3.4	4.8976456	79003	14.963	"
	Párahopa	"	.2	+ 2.6	26 1 45.5	4.5399664	34671	6.566	"
180	Desh Maiang	"	.2	+ 0.2	64 34 11.1	4.8534093	71353	13.514	"
	Kurua	H.S.	.1	- 2.6	36 29 39.6	4.5399664	34671	6.566	"
	Párahopa	"	.1	- 0.7	99 17 25.4	4.7599025	57531	10.896	"
181	Desh Maiang	"	.1	- 0.3	44 12 55.0	4.6090916	40653	7.699	"
	Dúmria	H.S.	.4	- 1.6	75 57 19.1	4.9574065	90658	17.170	"
	Tatalia	"	.4	- 0.7	46 19 50.2	4.8299271	67597	12.802	"
182	Tatalia	"	.4	- 1.8	57 42 50.7	4.8976456	79003	14.963	"
	Khola	H.S.	.2	- 1.7	32 24 35.5	4.6681690	46577	8.821	"
	Desh Maiang	"	.3	- 3.1	96 31 31.0	4.9362042	86338	16.352	"
183	Singari	"	.2	- 3.2	51 3 53.5	4.8299271	67597	12.802	"
	Khola	H.S.	.6	+ 1.2	105 30 24.4	5.2716569	186920	35.402	"
	Tatalia	"	.6	+ 2.0	60 36 0.9	5.2278864	169000	32.008	"
184	Singari	"	.6	- 0.8	13 53 34.7	4.6681690	46577	8.821	"
	Tatalia	H.S.	1.2	+ 0.5	54 1 9.1	5.2278864	169000	32.008	"
	Desh Maiang	"	1.2	+ 0.7	100 15 11.4	5.3128317	205509	38.922	"
185	Kandali	"	1.2	+ 2.3	25 43 39.5	4.9574065	90658	17.170	"
	Singari	H.S.	2.1	0.0	62 48 59.1	5.2586527	181406	34.357	"
	Khola	"	2.0	- 1.6	50 45 5.8	5.1984549	157926	29.910	"
186	Kandali	"	2.1	+ 1.4	66 25 55.1	5.2716569	186920	35.402	"
	Singari	H.S.	2.1	+ 1.9	32 54 52.7	5.1676561	147115	27.863	"
	Kámákshá	"	2.1	- 0.7	103 25 20.0	5.4205179	263341	49.875	"
187	Kámákshá	"	2.1	- 1.9	43 39 47.3	5.2716569	186920	35.402	"
	Kandali	H.S.	1.7	+ 0.9	52 40 12.6	5.1730223	148944	28.209	"
	Singari	"	1.6	- 0.1	51 45 25.5	5.1676562	147115	27.863	"
188	Mehekongthu	"	1.7	+ 1.5	75 34 21.9	5.2586527	181406	34.357	"
	Kámákshá	H.S.	.5	+ 0.6	31 15 30.4	4.9312754	85364	16.167	"
	Kandali	"	.6	+ 2.8	33 36 56.9	4.9594051	91076	17.249	"
189	Chenghehishon	"	.6	+ 0.2	115 7 32.7	5.1730223	148944	28.209	"
	Mehekongthu	H.S.	.8	+ 1.3	39 39 46.3	5.0776225	119570	22.646	"
	Kandali	"	.8	- 1.2	111 14 53.2	5.2420438	174600	33.068	"
190	Longboái	"	.8	- 0.7	29 5 20.5	4.9594051	91076	17.249	"
	Chenghehishon	H.S.	.9	- 1.5	56 36 3.7	5.0564150	113871	21.567	"
	Mehekongthu	"	1.0	+ 0.5	62 9 34.6	5.0813786	120609	22.843	"
		"	.9	- 0.2	61 14 21.7	5.0776225	119570	22.646	"

No. of Triangle	Station	Spherical Excess	Figural Corrections	Corrected Plane Angle	Distance			Theodolite used	
					Log. feet	Feet	Miles		
191	Kámákshá	H.S.	.8	— 1°0	63 37 23.2	5°0813786	120609	22.843	14
	Mehekongthu	"	.8	— 2.4	77 1 27.3	5°1178898	131187	24.846	"
	Longboái	"	.8	+ 0.2	39 21 9.5	4°9312754	85364	16.167	"
192	Chenghehishon	H.S.	.5	+ 5.1	43 35 12.9	4.8952065	78561	14.879	"
	Longboái	"	.5	+ 1.6	48 29 32.8	4.9311065	85331	16.161	"
	Khelibinshon	"	.6	+ 1.3	87 55 14.3	5°0564150	113871	21.567	"
193	Longboái	H.S.	.3	+ 0.1	36 51 50.2	4.7381719	54723	10.364	"
	Khelibinshon	"	.4	+ 0.3	83 40 46.6	4.9574330	90664	17.171	"
	Kankochan	"	.3	+ 0.1	59 27 23.2	4.8952065	78561	14.879	"
194	Khelibinshon	H.S.	.3	+ 0.5	74 34 9.3	4.8534758	71363	13.516	"
	Kankochan	"	.3	+ 0.4	57 46 8.0	4.7967409	62624	11.861	"
	Cheniábinshon	"	.2	+ 0.4	47 39 42.7	4.7381719	54723	10.364	"
195	Kankochan	H.S.	.4	— 0.9	64 46 53.4	4.8650793	73296	13.882	"
	Cheniábinshon	"	.3	— 0.6	53 28 29.5	4.8136174	65105	12.331	"
	Bar Chápri	T.S.	.3	— 0.9	61 44 37.1	4.8534758	71363	13.516	"
196	Cheniábinshon	H.S.	.2	— 0.3	31 42 56.5	4.6677502	46532	8.813	"
	Bar Chápri	T.S.	.3	0.0	92 22 57.2	4.9466327	88437	16.749	"
	Golághát	"	.3	+ 0.2	55 54 6.3	4.8650793	73296	13.882	"
197	Bar Chápri	T.S.	.2	+ 0.4	70 10 47.4	4.7396997	54916	10.401	12
	Golághát	"	.2	+ 0.3	56 57 47.2	4.6896299	48936	9.268	14
	Madaigaon	"	.1	+ 0.7	52 51 25.4	4.6677502	46532	8.813	12
198	Bar Chápri	T.S.	.2	— 0.3	66 49 50.3	4.7275699	53404	10.114	"
	Madaigaon	"	.1	— 0.4	55 46 14.4	4.6814876	48027	9.096	"
	Nikori Chápri	"	.2	— 0.2	57 23 55.3	4.6896299	48936	9.268	"
199	Kankochan	H.S.	.2	+ 0.6	43 8 59.0	4.6814876	48027	9.096	14
	Bar Chápri	T.S.	.3	+ 0.4	68 51 46.7	4.8162420	65500	12.405	12
	Nikori Chápri	"	.2	+ 0.4	67 59 14.3	4.8136174	65105	12.331	"
200	Nikori Chápri	T.S.	.2	+ 2.6	54 8 13.5	4.7064667	50871	9.635	"
	Madaigaon	"	.2	+ 1.8	67 34 1.3	4.7635815	58021	10.989	"
	Rodonga	"	.2	+ 0.5	58 17 45.2	4.7275699	53404	10.114	"
201	Madaigaon	T.S.	.1	+ 0.4	54 7 10.3	4.6187737	41569	7.873	12
	Rodonga	"	.1	+ 0.4	43 20 28.8	4.5467005	35213	6.669	"
	Negheri Ting	"	.1	+ 0.3	82 32 20.9	4.7064667	50871	9.635	14
202	Rodonga	T.S.	.1	— 0.2	61 4 23.3	4.5710544	37244	7.054	12
	Negheri Ting	"	.0	— 0.8	41 16 7.7	4.4482041	28068	5.316	14
	Beláguri	POST S.	.1	— 0.2	77 39 29.0	4.6187737	41569	7.873	12
203	Beláguri	POST S.	.1	— 1.3	58 43 21.6	4.5313016	33986	6.437	"
	Negheri Ting	T.S.	.0	— 1.1	51 47 28.2	4.4947967	31246	5.918	"
	Bar Chápri	POST S.	.1	— 1.9	69 29 10.2	4.5710544	37244	7.054	"
204	Negheri Ting	T.S.	.0	— 1.1	35 50 32.9	4.3430387	22031	4.173	"
	Bar Chápri	POST S.	.1	— 4.4	79 33 42.7	4.5682210	37002	7.008	"
	Bar Bhití	T.S.	.1	— 1.3	64 35 44.4	4.5313016	33986	6.437	"
205	Bar Chápri	POST S.	.1	+ 0.1	90 59 54.6	4.5794588	37972	7.192	"
	Bar Bhití	T.S.	.1	+ 0.5	53 32 34.4	4.4849439	30545	5.785	"
	Májuli	POST S.	.0	+ 0.2	35 27 31.0	4.3430387	22031	4.173	"

No. of Triangle	Station		Spherical Excess	Figural Corrections	Corrected Plane Angle	Distance			Theodolite used
						Log. feet	Feet	Miles	
206	Bar Bhati	T.S.	"	"	° ' "				Inch
	Májuli	POST S.	° 0	+ 3.8	34 17 38.9	4.3820766	24103	4.565	12
	Phakwádal	T.S.	° 1	+ 0.9	83 7 44.9	4.6280975	42471	8.044	"
207	Májuli	POST S.	° 1	+ 0.7	62 34 36.2	4.5794588	37972	7.192	"
	Phakwádal	T.S.	° 1	0.0	76 2 28.1	4.4854111	30578	5.791	"
	Turámára	POST S.	° 0	0.0	54 3 14.7	4.4066845	25508	4.831	"
208	Turámára	POST S.	° 0	0.0	49 54 17.2	4.3820766	24103	4.565	10
	Phakwádal	T.S.	° 1	0.0	84 45 54.5	4.5682617	37005	7.009	"
	Ráonapukri	POST S.	° 0	0.0	39 51 40.2	4.3768872	23817	4.511	14
209	Phakwádal	T.S.	° 1	0.0	55 22 25.3	4.4854111	30578	5.791	12
	Ráonapukri	POST S.	° 0	0.0	51 14 1.8	4.5020199	31770	6.017	14
	Noe Ali	T.S.	° 1	+ 0.1	63 30 38.2	4.5619193	36469	6.907	12
210	Ráonapukri	POST S.	° 1	— 0.1	65 15 20.0	4.5682617	37005	7.009	10
	Noe Ali	T.S.	° 1	— 0.7	87 45 51.0	4.5857435	38525	7.296	12
	Soáthol	POST S.	° 0	— 0.2	36 44 42.2	4.3629609	23065	4.368	14
211	Soáthol	POST S.	° 1	— 0.1	55 29 26.8	4.5020199	31770	6.017	12
	Noe Ali	T.S.	° 1	+ 0.1	80 48 11.1	4.6724630	47040	8.909	12
	Bar Ali	POST S.	° 1	+ 0.2	45 15 2.4	4.5294588	33842	6.410	14
212	Noe Ali	T.S.	° 1	+ 0.1	53 56 46.5	4.5857435	38525	7.296	12
	Bar Ali	POST S.	° 1	0.0	51 0 43.8	4.5951563	39369	7.456	14
	Chhintámanigarh	T.S.	° 1	— 0.1	60 45 7.0	4.6453507	44193	8.370	12
213	Chhintámanigarh	T.S.	° 2	— 0.1	68 14 9.2	4.6724630	47040	8.909	14
	Bar Ali	POST S.	° 1	+ 0.1	62 40 50.3	4.6232765	42003	7.955	"
	Sibságar, Gauriságar	S.	° 1	0.0	60 56 10.6	4.6161888	41323	7.826	12
214	Bar Ali	POST S.	° 1	+ 0.4	56 22 59.1	4.5951563	39369	7.456	10
	Sibságar, Gauriságar	S.	° 0	— 0.4	43 42 3.7	4.4630121	29041	5.500	12
	Bar Ghop	POST S.	° 1	— 0.4	48 30 35.6	4.4981223	31486	5.963	"
215	Sibságar, Gauriságar	S.	° 1	— 0.2	87 47 20.7	4.6232765	42003	7.955	"
	Bar Ghop	POST S.	° 1	+ 0.5	69 50 55.6	4.5724962	37368	7.077	"
	Goháigaon	POST S.	° 1	+ 0.7	63 17 55.1	4.5509561	35560	6.735	"
216	Bar Ghop	POST S.	° 0	+ 0.7	46 51 9.3	4.4630121	29041	5.500	"
	Goháigaon	POST S.	° 1	+ 0.8	67 49 13.8	4.6252020	42189	7.990	"
	Melankur	POST S.	° 1	+ 0.1	57 4 37.0	4.5825580	38244	7.243	"
217	Goháigaon	POST S.	° 1	+ 0.5	55 6 9.2	4.5724962	37368	7.077	"
	Melankur	POST S.	° 1	— 0.7	48 47 32.8	4.5036158	31887	6.039	"
	Dimau	POST S.	° 0	— 0.2	46 42 39.8	4.4892833	30852	5.843	"
218	Melankur	POST S.	° 1	— 0.3	84 29 47.4	4.6252020	42189	7.990	"
	Dimau	POST S.	° 1	— 0.6	67 34 43.9	4.5249541	33493	6.343	"
	Khari Katia	POST S.	° 0	— 0.3	50 46 7.0	4.4481680	28065	5.315	"
219	Dimau	POST S.	° 1	— 0.1	61 39 9.1	4.5036158	31887	6.039	"
	Khari Katia	POST S.	° 0	— 0.7	51 3 46.7	4.4574232	28670	5.430	"
	Tengápáni	POST S.	° 1	— 0.3	63 36 39.5	4.5187441	33017	6.253	"
220	Khari Katia	POST S.	° 1	— 0.8	65 19 33.8	4.5249541	33493	6.343	"
	Tengápáni	POST S.	° 1	+ 1.0	63 17 4.0	4.4854192	30579	5.791	"
	Sisa	POST S.	° 1	+ 1.8	59 50 24.5	4.4712753	29599	5.606	"



No. of Triangle	Station	Spherical Excess	Figural Corrections	Corrected Plane Angle	Distance			Theodolite used	
					Log. feet	Feet	Miles		
221	Tengápáni	POST S.	"	"	0 1 "				Inch
	Sisa	"	·I	— 0·2	61 1 4·4	4·4926105	31089	5·888	12
	Dihing Mukh	"	·I	— 0·1	59 37 11·9	4·4865709	30660	5·807	"
222	Dihing Mukh	POST S.	·O	— 0·3	59 21 43·7	4·4854192	30579	5·791	"
	Sisa	"	·I	0·0	70 49 14·9	4·5744731	37538	7·110	"
	Hiálmára	"	·I	— 0·1	57 42 48·6	4·5263290	33599	6·363	"
223	Hiálmára	"	·O	— 0·1	51 27 56·5	4·4926105	31089	5·888	"
	Sisa	POST S.	·O	+ 0·7	28 8 8·8	4·4542314	28460	5·390	"
	Hiálmára	"	·I	+ 0·2	113 24 10·3	4·7434092	55387	10·490	"
224	Larua	"	·I	+ 0·3	38 27 40·9	4·5744731	37538	7·110	"
	Hiálmára	POST S.	·I	+ 0·4	53 55 51·7	4·4784937	30095	5·700	"
	Larua	"	·I	+ 1·1	76 12 58·3	4·5582258	36160	6·848	"
225	Buri Mukh	"	·O	+ 0·4	49 51 10·0	4·4542314	28460	5·390	"
	Larua	POST S.	·O	— 0·4	32 32 56·8	4·4630635	29044	5·501	"
	Buri Mukh	"	·I	— 0·1	113 34 8·7	4·6944329	49480	9·371	"
226	Paunríputra	"	·I	— 0·3	33 52 54·5	4·4784937	30095	5·700	"
	Buri Mukh	POST S.	·O	+ 0·2	44 48 55·7	4·3945887	24808	4·698	"
	Paunríputra	"	·I	+ 0·5	79 34 34·5	4·5392798	34616	6·556	"
227	Rájábeta	"	·I	+ 0·5	55 36 29·8	4·4630635	29044	5·501	"
	Rájábeta	POST S.	·I	+ 0·4	72 18 55·0	4·5839703	38368	7·267	"
	Paunríputra	"	·I	0·0	69 39 31·5	4·5770304	37760	7·151	"
228	Dibrugarh Church	S.	·O	+ 0·3	38 1 33·5	4·3945887	24808	4·698	"
	Rájábeta	POST S.	·O	+ 0·7	29 24 30·5	4·2934661	19655	3·722	"
	Paunríputra	"	·I	+ 0·1	112 17 31·0	4·5686210	37036	7·014	"
229	Khálkáta	"	·O	— 0·6	38 17 58·5	4·3945887	24808	4·698	"
	Paunríputra	POST S.	·O	+ 0·1	42 37 59·5	4·4371855	27364	5·183	"
	Dibrugarh Church	S.	·O	— 0·8	29 6 33·6	4·2934659	19655	3·722	"
230	Khálkáta	POST S.	·I	— 0·8	108 15 26·9	4·5839703	38368	7·267	"
	Dibrugarh Church	S.	·I	+ 0·8	69 38 40·9	4·5698877	37144	7·035	"
	Saenga Ján	POST S.	·I	+ 0·2	66 40 9·1	4·5608448	36379	6·890	"
231	Mekhla Mukh	POST S.	·O	+ 0·2	43 41 10·0	4·4371855	27364	5·183	"
	Dibrugarh Church	S.	·O	+ 0·8	39 4 59·6	4·3754449	23738	4·496	"
	Saenga Ján	POST S.	·I	+ 1·2	60 20 44·4	4·5148281	32721	6·197	"
232	Mekhla Mukh	"	·I	+ 0·6	80 34 16·0	4·5698877	37144	7·035	"
	Saenga Ján	POST S.	·O	0·0	58 40 58·8	4·3510184	22440	4·250	"
	Mekhla Mukh	"	·O	0·0	56 39 50·7	4·3413330	21945	4·156	"
233	Lí bong	"	·I	+ 0·1	64 39 10·5	4·3754449	23738	4·496	"
	Mekhla Mukh	POST S.	·O	— 1·0	57 50 7·2	4·3754836	23740	4·496	"
	Lí bong	"	·I	— 1·1	69 1 11·9	4·4180553	26185	4·959	"
234	Jora Suti	"	·O	— 2·3	53 8 40·9	4·3510184	22440	4·250	"
	Lí bong	POST S.	·O	+ 0·2	50 31 22·7	4·3809800	24043	4·554	"
	Jora Suti	"	·I	+ 0·7	79 49 15·4	4·4865404	30658	5·806	"
235	Purán	"	·O	+ 2·0	49 39 21·9	4·3754836	23740	4·496	"
	Jora Suti	POST S.	·O	+ 0·7	51 7 53·8	4·3463309	22199	4·204	"
	Purán	"	·I	+ 1·2	71 22 59·5	4·4316817	27020	5·117	"
235	Mumári	"	·O	+ 1·4	57 29 6·7	4·3809800	24043	4·554	"

No. of Triangle	Station	Spherical Excess	Figural Corrections	Corrected Plane Angle	Distance			Theodolite used
					Log. feet	Feet	Miles	
236	Purán	POST S.	"	0 1 "	4'3628000	23057	4'367	Inch
	Mumári	"	+ 1'3	51 6 19'7	4'4654765	29206	5'531	12
	Mesáki Mukh	"	+ 0'4	80 21 40'2	4'3463309	22199	4'204	"
237	Mumári	POST S.	"	0 1 "	4'3277757	21270	4'028	"
	Mesáki Mukh	"	+ 0'1	55 40 27'2	4'3518144	22481	4'258	"
	Momára	"	+ 0'1	60 47 27'4	4'3628000	23057	4'367	"
238	Mesáki Mukh	POST S.	"	0 1 "	4'3116845	20497	3'882	"
	Momára	"	- 0'7	52 26 16'7	4'3913105	24621	4'663	"
	Siláni Mukh	"	- 0'2	72 12 52'5	4'3277757	21270	4'028	"
239	Momára	POST S.	"	0 1 "	4'2855381	19299	3'655	"
	Siláni Mukh	"	- 1'5	39 22 57'3	4'4785905	30102	5'701	"
	Kerwa	"	- 1'3	98 15 3'9	4'3116845	20497	3'882	"
240	Siláni Mukh	POST S.	"	0 1 "	4'5058812	32054	6'071	"
	Kerwa	"	+ 1'7	36 42 46'6	4'6568322	45377	8'594	"
	Paba	"	+ 0'7	122 11 28'3	4'2855381	19299	3'655	"
241	Kerwa	POST S.	"	0 1 "	4'9937354	98568	18'668	"
	Paba	"	+ 1'2	102 8 29'8	4'9380792	86712	16'423	"
	Nári	H.S.	+ 1'0	59 19 15'9	4'5058812	32054	6'071	"
242	Nári	H.S.	"	0 1 "	4'5376687	34488	6'532	"
	Paba	POST S.	"	0 1 "	5'0901984	123083	23'311	"
	Paropora	"	+ 0'3	128 37 47'3	4'9937354	98568	18'668	"
243	Paba	POST S.	"	0 1 "	4'3975900	24980	4'731	"
	Paropora	"	- 0'7	10 3 5'0	4'7649418	58203	11'023	"
	Dibang Mukh	"	- 1'3	156 0 18'6	4'5376687	34488	6'532	"
244	Paropora	POST S.	"	0 1 "	4'2156616	16431	3'112	"
	Dibang Mukh	"	+ 0'5	41 6 40'0	4'2641678	18372	3'480	"
	Napsur	"	+ 0'1	47 19 32'3	4'3975900	24980	4'731	"
245	Napsur	POST S.	"	0 1 "	4'4959927	31332	5'934	"
	Dibang Mukh	"	- 0'4	100 13 17'6	4'3787898	23922	4'531	"
	Saikua	"	- 2'3	48 42 30'5	4'2156616	16431	3'112	"
246	Dibang Mukh	POST S.	"	0 1 "	4'2784090	18985	3'596	"
	Saikua	"	+ 2'0	36 57 47'2	4'4373596	27375	5'185	"
	Bhāti Sadiya	"	+ 1'1	60 7 2'0	4'4959927	31332	5'934	"
247	Saikua	POST S.	"	0 1 "	4'4916489	31021	5'875	"
	Bhāti Sadiya	"	+ 0'2	66 34 8'8	4'5213604	33217	6'291	"
	Sadiya Quarter Guard	"	+ 0'1	79 16 5'2	4'2784090	18985	3'596	"

ASSAM LONGITUDINAL SERIES—ASSAM VALLEY SERIES.

SECONDARY TRIANGULATION. TRIANGLES.

PRINCIPAL-AUXILIARY STATIONS AND INTERSECTED POINTS.

Differences between the common sides of two triangles to stations and intersected points, are shown by the small figures in the column for "Distance in Feet" between the data of the two triangles, the earlier of which in order has supplied the greater value: where the difference is small it has usually been apportioned between the triangles, but where it is large no adjustment has been made, as one or other of the two values must be erroneous.

Triangle No.	Station	Corrected Plane Angle		Distance			Triangle No.	Station	Corrected Plane Angle		Distance			Theodolite used	
		o	' "	Log. feet	Feet	Miles			Log. feet	Feet	Miles				
248	Maiong, XLV	17	53 47	4.347180	22242	4.213	253	Háthimura, XLIII	0	' "	0	20037	3.795	14	
	Barambai	62	2 27	4.805722	63932	12.108		Síla	15	16 27	4.301833	75646	14.327		"
	Hájo Hill Temple			4.852890	71267	13.498		Kámáshá Temple	95	58 35	4.878787	70888	13.426		"
249	Háthimura, XLIII	78	5 50	4.805722	63932	12.108	254	Síla	36	16 59	4.510795	32419	6.140	"	
	Maiong, XLV	28	21 26	4.491825	31033	5.877		Kurua	20	57 20	4.292089	19592	3.711		"
	Hájo Hill Temple			4.797000	62661	11.868		Gauháti, Umánand Temple	20	57 20	4.663399	46068	8.725		"
250	Háthimura, XLIII	40	0 21	4.665376	46278	8.765	255	Síla	38	51 53	4.518499	32999	6.250	12	
	Maiong, XLV	79	28 59	4.849898	70778	13.405		Kurua	22	17 54	4.300027	19954	3.779		"
	Síla			4.797000	62661	11.868		Gauháti Obelisk	38	51 53	4.663399	46068	8.725		"
251	Maiong, XLV	21	3 41	4.298930	19904	3.770	256	Síla	42	43 39	4.526626	33622	6.368	14	
	Síla	35	36 52	4.508558	32252	6.108		Kurua	25	39 23	4.331529	21455	4.063		"
	Kámáshá	123	19 27	4.665376	46278	8.765		Gauháti Church	42	43 39	4.663399	46068	8.725		"
252	Síla	82	21 9	4.678782	47729	9.040	257	Kurua	65	20 36	4.665878	46332	8.775	"	
	Kurua	24	35 13	4.501833	20037	3.795		Mairangka	41	15 48	4.526626	33622	6.368		"
	Kámáshá Temple			4.663399	46068	8.725		Gauháti Church	41	15 48	4.688895	48853	9.253		"

NOTES.—1. Names followed by Roman numerals are those of Principal Stations. 2. The values of the side are given in the same line with the opposite angle.

Triangle No.	Station	Corrected Plane Angle	Distance			Theodolite used	Triangle No.	Station	Corrected Plane Angle	Distance			Theodolite used
			Log. feet	Feet	Miles					Log. feet	Feet	Miles	
258	Sila Kámáshá Gauháti	40 41 15 77 33 38 61 45 7	4 168203 4 343683 4 298930	14730 22064 19904	2 790 4 179 3 770	Inch	271	Longboái Kankochan Khari Mukh	78 34 35 62 44 0	4 804545 4 999898 4 957433	63759 99977 90664	12 076 18 935 17 171	Inch
259	Sila Kámáshá Digisairi	100 52 56 44 27 15	4 536122 4 380311 4 298930	34365 24508 19904	6 509 4 642 3 770	14	272	Longboái Kankochan Pichhia Mukh	36 57 25 93 55 49 49 6 46	4 857941 5 077889 4 957433	72101 119643 90664	13 655 22 660 17 171	"
260	Kandali Khola Nowgong	55 37 11 25 40 21 98 42 28	5 120106 4 840205 5 198455	131858 69216 157926	24 973 13 109 29 910	12	273	Kankochan Nikori Chápri Deocharát Tree	25 14 6 27 33 55	4 544786 4 580393 4 816242	35058 38053 65500	6 640 7 207 12 405	14
261	Kandali Kámáshá Sildubi	21 41 15 76 59 22	4 745688 5 106727 5 173022	55679 146800 148944	10 545 27 803 28 209	14	274	Kankochan Cheniábinshon Deocharát Tree	82 41 47 29 34 9	4 883591 4 580393 4 853476	76488 38053 71303	14 486 7 207 13 516	14
262	Kámáshá Kandali Porá Parbat	76 47 35 18 53 46	5 163526 4 685515 5 173022	145722 48475 148944	27 599 9 181 28 209	"	275	Cheniábinshon Deocharát Tree Kámárgaon	8 38 23	4 196512 4 930268 4 883591	15722 80351 76488	2 978 16 354 14 486	"
263	Porá Parbat Sildubi Tezpur Church	13 32 31 5 57 6	3 703847 3 350074 3 857698	5056 2239 7206	0 958 0 424 1 365	12	276	Kankochan Cheniábinshon Golághát	53 3 7 86 17 7 40 39 46	4 942136 5 038578 4 853476	87526 109289 71363	16 577 20 699 13 516	"
264	Porá Parbat Sildubi Tezpur, Lunatic Asylum	117 37 58 22 31 22	3 998443 3 634296 3 857698	9964 4308 7206	1 887 0 816 1 395	"	277	Kankochan Cheniábinshon Golághát Bungalow	54 5 19 85 39 49	4 951625 5 041935 4 853476	89459 110137 71363	16 943 20 859 13 516	14
265	Kámáshá Longboái Biswanáth	19 23 11 21 24 59 139 11 50	4 823728 4 805136 5 117890	66639 73305 131187	12 621 13 884 24 846	14	278	Rodonga Beláguni Negheri Ting Temple	60 55 56 78 4 4	4 572795 4 621775 4 448204	37393 41858 28068	7 082 7 928 5 316	12
266	Kámáshá Mehokongthu Chekso Hill Mark (heliotrope)	53 22 35 57 55 29	4 866491 4 800070 4 931275	73534 77637 85364	13 927 14 704 16 167	"	279	Madaigaon Rodonga Negheri Ting Temple	54 33 39 43 28 56	4 621775 4 548430 4 706467	41858 35353 50871	7 928 6 696 9 635	"
267	Longboái Kankochan Burai Mukh	61 58 59 50 46 43 67 14 18	4 938511 4 881783 4 957433	86798 76170 90664	16 439 14 426 17 171	12	280	Bar Bhati Phakwádal Jorbát	48 51 42 47 55 3 83 13 15	4 508011 4 501054 4 628098	32211 31743 42471	6 101 6 012 8 044	"
268	Longboái Kankochan Burai Mukh	62 17 5 51 44 14 65 58 41	4 943853 4 891746 4 957433	87872 77937 90664	16 643 14 761 17 171	"	281	Bar Ali Bar Ghop Dikhu Mukh	5 28 58 8 57 32 165 33 30	4 081451 4 293596 4 498122	12063 19661 31486	2 285 3 724 5 963	"
269	Khelábinshon Cheniábinshon Khumbaman Hill Mark	83 36 58 66 22 47	5 095015 5 059717 4 790741	124456 114741 62624	23 571 21 731 11 801	14	282	Sibságar, Gauriságar Goháigaon Sibságar, Great Temple	25 35 4 72 44 17	4 190878 4 535538 4 550956	15520 34319 35560	2 939 6 500 6 735	" 10
270	Chenghelishon Khelábinshon Khumbaman Hill Mark	103 27 45 30 12 50	5 059717 4 773583 4 931107	114741 59372 85331	21 731 11 245 16 101	"	288	Goháigaon Sibságar, Great Temple Sibságar	5 47 15 137 19 36	3 363395 4 138077 4 190878	2309 13743 15520	0 437 2 603 2 939	"

\* Base deduced by two sides and included angle.

No. of Triangle	Station	Corrected Plane Angle	Distance			No. of Triangle	Station	Corrected Plane Angle	Distance			Theodolite used	
			Log. feet	Feet	Miles				Log. feet	Feet	Miles		
284	Goháigson	9 36 21	3'416330	2608	0'494	297	Kerwa	34 22 24	4'956107	90387	17'119	Theodolite used	
	Sibságar, Great Temple	96 48 40	4'175877	14993	2'840		Nári	112 49 56	5'168943	147551	27'945		12
	Sibságar		4'190878	15520	2'939		Dipa		4'938079	86712	16'423		
285	Sibságar	135 7 41	3'461160	2892	0'548	298	Nári	73 18 33	4'943741	87850	16'638	12	
	Sibságar	22 17 36	3'191686	1555	0'294		Dipa		4'611172	40848	7'736		
	Sibságar, Circuit House		3'196923	1574	0'298		Dipi Mukh	80 14 34	4'956107	90387	17'119		"
286	Sibságar, Great Temple	60 9 47	3'414158	2595	0'492	299	Paba	11 51 6	4'184064	15278	2'894	"	
	Sibságar	60 9 57	3'416318	2608	0'494		Paropora	15 46 9	4'305698	20216	3'829		
	Sibságar		3'416330	2608	0'494		Dutia	152 22 45	4'537669	34488	6'532		
287	Sibságar	102 45 28	3'486259	3064	0'580	300	Paropora	42 37 23	4'095600	12462	2'360	"	
	Sibságar	47 10 42	3'362500	2304	0'436		Dutia	81 15 42	4'259831	18190	3'445		
	Sibságar Treasury		3'196923	1574	0'298		Láli Mukh Mark (heliotrope)		4'184064	15278	2'894		
288	Sibságar	49 54 30	3'365354	2319	0'439	301	Paba	36 4 44	4'095600	12462	2'360	"	
	Sibságar	71 13 17	3'457928	2870	0'544		Dutia	71 7 3	4'301535	20023	3'792		
	Sibságar Kachahri		3'414158	2595	0'492		Láli Mukh Mark (heliotrope)		4'305698	20216	3'829		
289	Sibságar	95 57 25	3'457928	2870	0'544	302	Bháti Sadiya	37 27 20	4'328452	21304	4'035	10	
	Sibságar	50 59 50	3'350765	2243	0'425		Sadiya Quarter Guard	80 13 38	4'538096	34522	6'538		
	Sibságar Kachahri		3'196923	1574	0'298		Dikrang Fort	62 19 2	4'491649	31021	5'875		
290	Sibságar	55 39 53	3'396690	2493	0'472	303	Saikua	32 47 57	5'027252	106476	20'166	12	
	Sibságar	65 3 33	3'437326	2737	0'518		Sadiya Quarter Guard	137 28 18	5'123414	132866	25'164		
	Sibságar, W. Temple		3'414158	2595	0'492		Mánábum	9 43 45	4'521360	33217	6'291		
291	Goháigson	8 38 41	3'388931	2449	0'404	304	Sadiya Quarter Guard	152 54 52	5'135566	136951	25'938	6	
	Sibságar	104 23 12	4'198114	15780	2'989		Mánábum	11 48 56	5'374320	236767	44'842		
	Sibságar, E. Temple		4'175877	14993	2'840		Miábubum		5'027252	106476	20'166		
292	Goháigson	73 41 57	4'539318	34619	6'557	MIRI HILL SECONDARY SERIES.						6	
	Sibságar, Gauriágar	25 56 40	4'198114	15780	2'989								
	Sibságar, E. Temple		4'550956	35560	6'735								
293	Melankur	25 37 43	4'119596	13170	2'494	305	Bar Ali	64 46 47	5'380402	240105	45'474	12	
	Khari Katia	87 11 38	4'483052	30413	5'760		Soáthol	107 53 40	5'402374	252565	47'834		
	Lasua	67 10 39	4'448168	28065	5'315		Yelu	7 19 33	4'529459	33842	6'410		
294	Khari Katia	101 21 15	4'540141	34685	6'569	306	Bar Ali	68 28 13	5'403513	253229	47'960	6	
	Sisa	21 51 23	4'119596	13170	2'494		Soáthol	104 23 18	5'421084	263684	49'940		
	Lasua		4'471275	29599	5'606		Pidi		4'529459	33842	6'410		
295	Kerwa	72 15 51	5'136645	136976	25'942	307	Bar Ali	3 41 26	4'300941	19996	3'787	12	
	Nári	70 39 14	5'132551	135691	25'699		Yelu	121 55 2	5'421084	263684	49'940		
	Dibrugarh Church	37 4 55	4'938079	86712	16'423		Pidi		5'402374	252565	47'834		
296	Dibrugarh Church	78 0 34	5'168943	147551	27'945	307	Bar Ali	3 41 26	4'300941	19996	3'787	12	
	Kerwa	37 53 27	4'966804	92641	17'546		Yelu	121 55 2	5'421084	263684	49'940		
	Dipa	64 5 59	5'132551	135691	25'699		Pidi		5'402374	252565	47'834		

\* Base deduced by two sides and included angle.

No. of Triangle	Station	Corrected Plane Angle	Distance			No. of Triangle	Station	Corrected Plane Angle	Distance			Theodolite used	
			Log. feet	Feet	Miles				Log. feet	Feet	Miles		
308	Pidi	28 36 4	5'144287	139408	26'403	815	Khanikar	47 48 50	4'408057	25589	4'846	Inch 12	
	Yelu	147 27 42	5'194887	156634	29'666		Bokolgaon	90 33 15	4'538238	34533	6'540		" 10
	North Lakhimpur	3 56 14	4'300941	19996	3'787		Chhagali Pathar	41 37 55	4'300650	22943	4'345		" 10
309	Pidi	60 46 9	4'859854	72419	13'716	816	Bokolgaon	47 0 29	4'353446	22566	4'274	12	
	Yelu	105 17 17	4'903362	80050	15'161		Chhagali Pathar	76 56 55	4'477895	30054	5'692		10
	Pathalipam	13 56 34	4'300941	19996	3'787		Madarkhat	56 2 36	4'408057	25589	4'846		12
310	Pidi	114 58 27	4'579218	37951	7'188	817	Chhagali Pathar	80 9 31	4'538256	34535	6'541	10	
	Yelu	36 29 43	4'396191	24899	4'716		Madarkhat	59 45 56	4'481194	30283	5'735		12
	Diehu	28 31 50	4'300941	19996	3'787		Bamani Kora	40 4 33	4'353446	22566	4'274		10
311	Pidi	h.s.	5'024710	105855	20'048	818	Madarkhat	48 38 52	4'420456	26330	4'987	12	
	Yelu	"	4'937149	86527	16'388		Bamani Kora	51 25 55	4'438145	27425	5'194		10
	Potu South	"	3 4 5	4'300941	19996		3'786	Tengakhhat	79 55 13	4'538256	34535		6'541
312	Yelu	h.s.	3'224516	1677	0'318	819	Bamani Kora	82 59 37	5'066300	116493	22'063	12	
	Potu South	"	5'027114	106442	20'160		Tengakhhat	84 2 33	5'067203	116736	22'109		"
	Potu North	"	69 3 50	5'024710	105855		20'048	Hilika	12 57 50	4'420456	26330		4'987
313	Rajabeta	36 10 42	4'348989	22335	4'230	820	Tengakhhat	18 57 19	4'590034	38908	7'369	10	
	Dibrugarh Church	57 28 42	4'503840	31904	6'042		Hilika	57 35 40	5'004863	101126	19'153		12
	Khanikar	86 20 36	4'577030	37760	7'151		Deohal	103 27 1	5'066300	116493	22'063		10
314	Dibrugarh Church	54 7 35	4'360650	22943	4'345	822	Manthapara	42 31 22	4'195644	15691	2'972	12	
	Khanikar	73 47 46	4'434394	27189	5'149		Bhasarbari	76 24 52	4'353447	22566	4'274		"
	Bokolgaon	52 4 39	4'348989	22335	4'230		Jalpaiguri	61 3 46	4'307855	20317	3'848		"

ASSAM LONGITUDINAL SERIES.  
ADDENDUM TO THE JALPAIGURI SECONDARY SERIES—TRIANGLES.

No. of Triangle	Station	Corrected Plane Angle	Distance			No. of Triangle	Station	Corrected Plane Angle	Distance			Theodolite used	
			Log. feet	Feet	Miles				Log. feet	Feet	Miles		
321	Dharampur, V	49 9 30	4'353447	22566	4'274	822	Manthapara	42 31 22	4'195644	15691	2'972	Inch 12	
	Manthapara	98 12 30	4'470155	29523	5'591		Bhasarbari	76 24 52	4'353447	22566	4'274		"
	Jalpaiguri	32 38 0	4'206426	10085	3'046		Jalpaiguri	61 3 46	4'307855	20317	3'848		"

December 1884.

W. H. COLE,  
In charge of Computing Office.

**ASSAM LONGITUDINAL SERIES—ASSAM VALLEY SERIES.**  
**AZIMUTHS OF SURROUNDING STATIONS AND POINTS, AT PRINCIPAL,**  
**PRINCIPAL-AUXILIARY, AND SECONDARY STATIONS.**

The following table contains, in the first column, the name of each Principal, Principal-Auxiliary, or Secondary Station, at which azimuths of surrounding Points have been measured; immediately followed by those azimuths. The second column contains the number of the triangle which gives the distance between the Station and the Point.

Names of Stations followed by Roman Numerals are those of the Principal Stations of the Assam Longitudinal Series. The Stations of the Assam Valley Principal Series are distinguished by the letters H.S., T.S., S. and Post S.

Name of station with azimuths of surrounding points	No. of triangle giving distance	Name of station with azimuths of surrounding points	No. of triangle giving distance	Name of station with azimuths of surrounding points	No. of triangle giving distance
A No. 1 s. Sámsiri	98	AJAGHAR, XXX Dandpál, XXVI	88 8 46.15	AMARKHANA, S. Newáni, CXXVI*	87
Bhelái	93	Lakhipur Mark (heliotrope)	94 40 23	Pachágarh Hát Flag	94
Boda Chakla Hát Flag	95	Chándar Dinga, XXVIII	138 41 15.18	Benghari No. 2	88
A No. 2 s.	104	Bhairaber Chura, XXXI	175 25 39.94	Benghari No. 1	87
Jalpáiguri Mæjid	102	Goálpára	209 52 46		
Khárikatar	103	Raikusni, XXXII	225 20 26.06	ATARO BANKI, XVII Chandrapur, XV	19
B No. 1	105	Dabli, XXXIV	272 6 23.78	Jigabári, XIV	19
Barhántal	102			Bhitagori, XVIII	20
A No. 3 s.	125	AKCHALIA, XLI		Goibári, XIX	28
Khakrábári, VI	126	Langturi, XXXIX	31 22 32.02	Purubbág, XX	24
Debidúba Factory	127	Sonora, XXXVIII	86 41 0.64		
Debiganj Hát Flag	129	Duramári, XL	150 56 0.26	B No. 1 s.	103
Debiganj Temple	125	Háthimura, XLIII	221 54 51.35	Khárikatar	105
Debidúba	180	Harogaon, XLII	312 34 53.73	Jalpáiguri Palace	108
Nagar Díwanganj Gola	166			A No. 2	104
A No. 4 s.	167	ALANGJANI, XXII		Jalpáiguri Mæjid	104
Ghughumári	168	Purubbág, XX	84 21 48.01		
Cooch Behar Palace	166	Goibári, XIX	141 22 57.67	B No. 2 s.	191
Cooch Behar, Khagrábári Temple	168	Partárganj, XXIII	213 25 58.59	Debidúba	132
B No. 3	166	Dhubri, XXIV	261 17 12.92	Bara Reotha Temple	131
		Sámding, XXV	293 0 56.72	Bághdogra Hát Flag	133
				Domer Hát Flag	134

\* Of the North-East Longitudinal Series.

AZIMUTHS OF STATIONS AND INTERSECTED POINTS.

Name of station with azimuths of surrounding points	No. of Triangle	Name of station with azimuths of surrounding points	No. of Triangle	Name of station with azimuths of surrounding points	No. of Triangle	Name of station with azimuths of surrounding points	No. of Triangle		
B No. 8 s. Ghughumári Cooch Behar, Khagrábári Temple Cooch Behar Palace Dámodarpur A No. 4	165 168 167 165 166	BAMANI KORA post s. Chhagali Pathar Madárkhát Tengákhát Hilika	817 817 818 819	BAR GHOPOST S. Dikhu Mukh Bar Ali Melankur Gobáigson Sibságar, Gauriságar	281 214 216 215 214	BAGBO, XXXV Bauti Mark (lamp) Dabli, XXXIV Raikuni, XXXII Narikola, XXXIII Barpeta Mark (heliotrope) Nagarberha, XXXVII Ghorakar, XXXVI	79 41 41 43 80 44 46	BARA BHITA, XVI Jigabári, XIV Nendarpár, XIII Dámodarpur Bhitagori, XVIII Dudhur Kothi Maynaguri Temple	21 21 158 22 158 164
BAGDOGRA s. B No. 2 Debiduba Khagrábári, VI Bámania Kiamat Reotha Bághdogra Hát Flag	181 112 112 114 113 188	BAR ALI Post S. Noe Ali Soáthol Yelu Pidi Bar Ghop Dikhu Mukh Sibságar, Gauriságar Chhintámanigarh	211 211 305 306 214 281 213 212	BARAMBAL H.S. Háthimura, XLIII Hájo Hill Temple Sila Maing, XLV	172 248 173 172	BAHADURA s. Belakuba, III Rániganj Kharikatar Bhásárbári	96 96 97 98	BAHAMTAL s. Bhásárbári Kharikatar A No. 2 Bákáli Hát Flag Dharampur, V Madárganj Village Flag Halapakori Manthapára Mandal Ghát Flag	99 99 102 111 101 109 106 100 108
BAISHPUKUR s. Bhában Char Chapani, X Golia Nauháti, XII Kethkibári	122 122 124 123	BAR BHITI T.S. Negheri Ting Bar Chápri Májuli Phakwádal Jorbát	204 204 205 206 280	BAUKUMORI CHURA, XXIX Tokrábánda Hill Mark (lamp) Kathalbári, XXVII Bhairaber Chura, XXXI Chándar Dinga, XXVIII	58 87 88 87	BALAGORA s. Golna Tepa Chapani, X Bhában Char	119 119 120 121	BAKUMORI CHURA, XXIX Tokrábánda Hill Mark (lamp) Kathalbári, XXVII Bhairaber Chura, XXXI Chándar Dinga, XXVIII	58 87 88 87
BALAPARA, VII Khagrábári, VI Chilabáti, IV Mekhaliganj, VIII Kuchlibári, IX Chapani, X	5 5 6 11 12	BAR CHAPRI T.S. Cheniábinshon Kankochan Nikorí Chápri Madaigaon Golághát	195 195 198 197 196	BELAGURI Post S. Rodonga Bar Chápri Negheri Ting Temple Negheri Ting	202 203 278 202	BALAPARA, VII Khagrábári, VI Chilabáti, IV Mekhaliganj, VIII Kuchlibári, IX Chapani, X	63 123 180 252 310	BELAGURI Post S. Rodonga Bar Chápri Negheri Ting Temple Negheri Ting	202 203 278 202



Name of station with azimuths of surrounding points	Name of station with azimuths of surrounding points	Name of station with azimuths of surrounding points	Name of station with azimuths of surrounding points	Name of station with azimuths of surrounding points	Name of station with azimuths of surrounding points	No. of triangulation points	No. of triangulation points	No. of triangulation points	No. of triangulation points
<b>BELAKUBA, III</b> Kanchabári, CXXIV* Rānganj Dharampur, V Bahādura Gobrapára, I	65 34 33.04 s. 248 19 18 297 49 15.42 304 51 0 352 35 1.34	<b>BHARI SADIYA</b> Post S. Saikua Dibang Mukh Dikrang Fort Sadiya Gr. Gd.	Post S. s. s. Post S.	0 58 23.8 83 53 34.7 244 14 59 281 42 18.5	246 246 802 247	Burai Mukh No. 2 s. Longboái Kankochan	268 268		
<b>BENGHABI No. 1 s.</b> Sámsiri Newáni, CXXVI* Amarkhána Benghári No. 2 Kazira Dábarbhānga Bhelái	39 36 53 96 6 5 167 11 57 216 45 53 276 6 57 330 46 33	<b>BHELAI s.</b> Boda Chakla Hát Flag A No. 1 Sámsiri Benghári No. 1 Kazira Dábarbhānga	s. s. s. s.	9 56 41 91 44 26 96 57 9 150 47 14 214 9 10	95 98 86 86 89	CHANDAR DINGA, XXVIII Dandpái, XXVI Kathalbári, XXVII Tokrábānda Hill Mark (lamp) Baukumori Chura, XXIX Bhairaber Chura, XXXI Ajaghar, XXX	84 84 58 37 86 85		
<b>BENGHABI No. 2 s.</b> Benghári No. 1 Amarkhána Pachágarh Hát Flag Katanhári Kazira Dábarbhānga	36 46 46 93 22 44 146 40 16 280 12 29 338 42 15	<b>BHITAGORI, XVIII</b> Ataro Bánki, XVII Jigabári, XIV Pasuađanga Bara Bhita, XVI Ghegir Ghát Diwán Hát Flag Gosáinganj Hát Flag Dhadial, XXI Goibári, XIX	s. s. s. s.	5 40 46.29 75 25 10.83 134 28 42 179 1 28 192 39 44 232 48 15 254 39 39.33 303 31 59.37	20 20 163 22 168 169 170 27 28	CHANDRAPUR, XV Golia Nauháti, XII Jigabári, XIV Ataro Bánki, XVII	18 18 19		
<b>BHABAN CHAZ s.</b> Bálagāon Chapani, X Báshpukur Kethkibári Haldibári Ghoramára Hát Flag	82 52 37 136 41 54 210 51 59 255 42 48 289 51 5 324 28 47	<b>BISANDAI s.</b> Bhotmári Tree Flag Haldibári Kethkibári BISWANATH s. Kámákabá Longboái	s. s. s.	10 9 37 98 12 40 150 36 14 77 36 32 298 24 42	157 153 153 265 265	CHAPANI, X Bálagāon Tepa Tepa Hát Flag Buri Hát Flag Bálapára, VII Kuchlibári, IX Báshpukur Golia Nauháti, XII Bhában Char	120 120 160 161 12 12 122 13 121		
<b>BHATRABER CHURA, XXXI</b> Chándar Dinga, XXVIII Baukumori Chura, XXIX Seban Sela Narikola, XXXIII Goálpára Raikutsni, XXXII Ajaghar, XXX	57 45 17.60 111 47 17.96 220 46 9 242 31 26.41 311 58 29 316 34 19.53 355 25 2.84	<b>BOALMARI, II</b> Kazira Dábarbhānga Newáni, CXXVI* Katanhári Gobrapára, I Chilaháti, IV Khakrábári, VI BOKSAGAON post s. Khanikar Dibrugarh Church Madárkhát Chhagali Pathar Burai Mukh No. 1 s. Longboái Kankochan	s. s. s. s.	96 7 13 96 8 32.31 163 1 14 179 56 28.69 245 25 38.54 313 3 50.34 63 42 52 115 47 31 286 9 8 333 9 37 29 11 40 321 57 22	92 2 92 2 3 4	CHENGHEHSHON H.S. Kandali Mehekongthu Longboái Khefbinshon Khumbaman Hill Mark CHENLABINSHON H.S. Khumbaman Hill Mark Khefbinshon Kankochan Deogharát Tree Kámargaon Bar Chápri Golághát Golághát Bungalow Golághát	189 189 190 192 270 269 194 194 274 275 195 196 277 276		
<b>BHARBABI s.</b> Bahádura Kharikatar Jalpáiguri Barhámtal Halapakori Manthapára	116 53 33 162 17 46 235 14 24 265 19 3 295 55 14 311 39 16				814 814 816 815 267 267		269 194 194 274 275 195 196 277 276		

\* Of the North-East Longitudinal Series.

Name of station with azimuths of surrounding points	° ' "	Distance N. of S. or E. of	Name of station with azimuths of surrounding points	° ' "	Distance N. of S. or E. of	Name of station with azimuths of surrounding points	° ' "	Distance N. of S. or E. of
<b>CHHALI PATHAR</b> post s.	111 32 41	815	<b>DEBDUBA s.</b>	55 44 46	180	<b>DHUBBI, XXIV</b>	81 23 25 58	29
Khanikar post s.	153 10 36	815	Nagar Diwanganj Gola s.	98 7 42	125	Alangjani, XXII	142 27 8 45	29
Bokolgaon "	230 7 31	816	Debiganj Temple	117 6 49	129	Partabganj, XXIII	209 30 44 05	82
Madarkhat "	310 17 2	817	Debiganj Hat Flag	124 52 17	127	Kathalbari, XXVII	271 52 28 56	81
Bamani Kora "			Khakrabari, VI	156 9 32	112	Dandpal, XXVI	344 57 47 78	80
			Baghdogra	222 11 29	112	Sámding, XXV		
<b>CHHINTAMANGARH</b> T.S.	92 37 44 5	212	Bara Reotha Temple	230 46 25	182	<b>DIBANG MUKH</b> Post S.	36 51 3 1	243
Noe Ali Post S.	160 51 53 9	212	B No. 2	244 48 10	131	Paropora "	50 47 39 5	243
Bar Ali Post S.	223 32 44 3	213	Kismat Reotha	278 53 57	118	Paba "	263 51 13 1	246
Sibsagar, Gaurisagar			Domer Hat Flag	279 8 36	184	Bhati Sadiya "	300 49 0 3	245
						Saikua "	349 31 30 8	244
<b>CHILAHATI, IV</b>	65 28 52 81	8	<b>DEOHAL h.s.</b>		320	<b>DIBRUGARH CHURCH S.</b>		227
Boalmari, II	132 50 49 11	8	Hilika h.s.	15 31 35	320	Rajabeta Post S.	47 21 43 1	227
Gobrapara, I	191 43 33 58	9	Tengakhát post s.	118 58 36		Pannriputra "	85 23 16 6	227
Dharampur, V	249 38 41 95	6				Khalkáta "	114 29 50 2	229
Mekhaliganj, VIII	303 27 13 97	5	<b>DESH MAIANG H.S.</b>		179	Dipa h.s.	160 12 46	296
Balápára, VII	359 37 21 96	4	Paráhopa H.S.	37 15 0 3		Saenga Jan Post S.	181 9 59 4	230
Khakrabari, VI			Kurua "	81 27 55 4	180	Nári Post S.	201 8 25	295
			Singari "	232 19 48 1	184	Mekhla Mukh Post S.	220 14 59 0	231
<b>DABLI, XXXIV</b>	92 12 7 85	40	Tatalia "	286 20 58 4	181	Kerwa "	238 13 20	295
Ajaghar, XXX	147 35 54 05	40	Dúmría "	332 40 49 0	179	Bokolgaon post s.	295 45 26	314
Raikusni, XXXII						Khamikar "	349 53 1	313
Satali h.s.	156 26 55	78						
Matia "	201 9 42	72	<b>DHADIAL, XXI</b>		27	<b>DICHU h.s.</b>		810
Bagbo, XXXV	205 33 51 28	41	Goibari, XIX,	8 9 30 73		Yelu h.s.	1 47 39	810
Mabádeo "	218 48 19	75	Bhitagori, XVIII	74 44 32 11	27	Pidi "	333 15 49	
Nagarberha, XXXVII	245 11 24 93	44	Partabganj, XXIII	298 56 1 55	28	Digisiri h.s.		
Ghorkar, XXXVI	295 2 51 50	45				Kámáksbá h.s.	25 26 44	259
						Sila "	60 6 33	259
<b>DALGOMA s.</b>			<b>DHARAMPAL s.</b>		186	<b>DIBING MUKH</b> Post S.		221
Matia h.s.	23 45 2	74	Matukpur Mosque	27 20 11	115	Tengapáni Post S.	23 37 53 6	221
Satali "	89 30 11	74	Kismat Reotha s.	98 37 1	115	Sisa "	82 59 37 3	222
			Bámania "	159 57 16	116	Hialmára "	153 48 52 3	
<b>DAMODARPUR s.</b>			Dimla "	224 4 5	117	<b>DIKHU MUKH s.</b>		281
Dudhir Kothi s.	20 4 53	158	Golma "	285 2 36		Bar Ali Post S.	61 42 59	281
Maynaguri Temple	48 35 50	164				Bar Ghop "	227 16 29	
Bara Bhita, XVI	88 9 1	158	<b>DHARAMPUR, V</b>		9	<b>DIBANG FORT s.</b>		802
B No. 8 "	258 19 45	165	Chilahati, IV	11 44 30 58	8	Sadiya Gr. Gd. Post S.	1 58 39	802
Ghughumari "	322 45 29	159	Gobrapara, I	69 42 7 07	8	Bhati Sadiya "	64 17 41	
			Medárganj Village Flag	87 49 2	109			
<b>DAMPAL, XXVI</b>			Manthapára s.	92 25 42	101	<b>DIMAUP</b> Post S.		217
Sámding, XXV	52 15 59 71	81	Halapakori "	112 44 15	107	Goháigaon Post S.	11 5 17 2	217
Dhubri, XXIV	91 58 32 35	81	Belakuba, III	117 54 0 55	8	Melankur "	95 35 4 7	218
Kathalbari, XXVII	154 51 17 69	82	Barhámtal "	130 8 49	101	Khari Katia "	146 21 11 7	218
Chándar Dinga, XXVIII	212 13 24 57	84	Jalpáiguri "	141 35 12	321	Tengapáni "	197 24 58 4	219
Lakhipur Mark (heliotrope)	251 27 16	59	Mekhaliganj, VIII	316 22 34 44	10			
Ajaghar, XXX	268 0 45 46	85						

Name of station with azimuths of surrounding points	No. of triangle givings	Name of station with azimuths of surrounding points	No. of triangle givings	Name of station with azimuths of surrounding points	No. of triangle givings
DIMLA s. Dharampál Sundar Khatha Bánania Dimla Thána Flag Pánga Dimla Factory No. 1 Dimla Factory No. 2 Dimla House Tépa Golna	116 138 116 142 187 145 148 118 117	GHEGIE GHAT s. Pasuadángá Simluguri Ghughumári Gosunganj Hát Flag Díwán Hát Flag Bhitagori, XVIII	162 161 161 170 169 163	GOIBARI, XIX Purubbág, XX Ataro Bánti, XVII Bhitagori, XVIII Dhadial, XXI Partáganj, XXIII Alangjáni, XXII	24 23 23 27 26 25
DIPA h.s. Nári Dipi Mukh Kerwa Dibrugarh Church	297 298 296 296	GHORAKAR, XXXVI Dabli, XXXIV Bagbo, XXXV Nagarberha, XXXVII Sonora, XXXVIII Langturi, XXXIX	45 46 45 47 52	GOLAGHAT s. Cheniábinshon Kankochan	276 276
DUPI MUKH post s. Dipa Nári	298 298	GHUGHUMARI s. Simluguri Dudhir Kothi Dámodarpur B No. 3 A No. 4 Ghegrí Ghát	160 159 159 165 166 161	GOLAGHAT T.S. Cheniábinshon Bar Chápri Madaigaon	196 196 197
DUDHIR KOTHI s. Bara Bhitá, XVI Dámodarpur Ghughumári Simluguri	158 158 159 160	GOALPARA h.s. Ajaghar, XXX Jogghopa Hill Mark (heliotrope) Bhairaber Chura, XXXI Langtia Malaighari Hill Mark (heliotrope) Phulora Raikusni, XXXII	60 64 60 63 65 62 61	GOLIA NAUHAATI, XII Kethkibári Háthi Bandar Factory Háthi Bandar Hát Flag Chapani, X Báishpukur Kuchibári, IX Nendarpár, XIII Jigabári, XIV Chandrapur, XV	124 156 155 18 124 13 14 17 18
DUMELA H.S. Mairangka Párahopa Desh Maiong Tatalia Khola	178 178 179 181 182	GOBRAPARA, I Newáni, CXXVI* Kanchábári, CXXIV* Belakuba, III Dharampur, V Chilabáti, IV Boalmári, II	1 1 7 8 3 2	GOJNA s. Dharampál Dimla Tépa Bálágaon	117 117 118 119
DURAMARI, XL Bura Hill Mark (heliotrope) Sonora, XXXVIII Nagarberha, XXXVII Háthimura, XLIII Akehalia, XLI	81 48 48 50 49	GOHAIGAON Post S. Sibságar, Gauriságar Bar Ghop Melankur Dimau Sibságar Sibságar Sibságar E. Temple Sibságar, Great Temple	215 215 216 217 284 288 291 282	HALAPAKORI s. Bhásárbári Mandal Ghát Flag Barhámál Bákáli Hát Flag Dharampur, V Madárganj Village Flag	108 108 106 111 107 110
DUTIA post s. Paba Láli Mukh Mark (heliotrope) Paropora	299 300 299	HAIDBARI s. Ghoramára Hát Flag Bhában Char Kethkibári Bisandai Bhotmári Tree Flag	154 152 152 153 157		

\* Of the North-East Longitudinal Series.

AZIMUTHS OF STATIONS AND INTERSECTED POINTS.

Name of station with azimuths of surrounding points	No. of triangling distance	Name of station with azimuths of surrounding points	No. of triangling distance	Name of station with azimuths of surrounding points	No. of triangling distance
HABOAGON, XLII Langturi, XXXIX Akchalia, XLI Chhaygson Mark (heliotrope) Háthimura, XLIII Gosain Hát Hill Mark (heliotrope) Maiang, XLV Tepkilabama, XLIV	54 51 83 51 84 56 55	JORA SUTI Post S. Mekhla Mukh Líborg Purán Mumári  JORHAT s. Bar Bhati Phakwádal	283 288 284 285  280 280	KAKKOCHAN H.S. Kheľbinshon Longboái Burai Mukh No. 1 Burai Mukh No. 2 Khari Mukh Pichhla Mukh Nikori Chápri Deogharát Tree Bar Chápri Golághát Bungalow Golághát Cheniábinshon	198 198 267 268 272 199 273 195 277 276 194
HATHIMURA, XLIII Harogson, XLII Chhaygson Mark (heliotrope) Akchalia, XLI Duramári, XL Héjo Hill Temple Barambai Sila Sila Kámákshá Temple Maiang, XLV Gosain Hát Hill Mark (heliotrope) Tepkilabama, XLIV	51 88 50 50 172 171 250 253 56 84 55	KAMAKSHA H.S. Kandali Kholá Singari Porá Parbat Sildubi Biswanáth Longboái Chekso Hill Mark (heliotrope) Mehekongthu	187 186 186 262 261 265 191 266 188	KATANHARI s. Kazira Dábarbhánga Benghári No. 2 Boalmári, II  KATHALBARI, XXVII Dhubri, XXIV Partáganj, XXIII Baukumori Chura, XXIX Chándar Dinga, XXVIII Dandpál, XXVI  KAZIRA DABARBHANGA s. Bhelái Benghári No. 1 Benghári No. 2 Katanhári Boalmári, II  KERWA Post S. Dibrugarh Church Momára Dipe Siláni Mukh Nári Paba	91 91 92  82 88 87 84 82  89 89 90 91 92
HIALMARA Post S. Sisa Buri Mukh Larus Dihing Mukh  HIJKA h.s. Bámáni Kora Tengákhát Deohal  JAGATBER, XI Kuchibári, IX Mekhaliganj, VIII Nendarpár, XIII	222 224 223 222  319 319 320	KAMAKSHA h.s. Maiang, XLV Sila Digisiri Gauháti  KAMARGAON s. Cheniábinshon Deogharát Tree	251 251 259 258  275 275	KAZIRA DABARBHANGA s. Bhelái Benghári No. 1 Benghári No. 2 Katanhári Boalmári, II  KERWA Post S. Dibrugarh Church Momára Dipe Siláni Mukh Nári Paba	89 89 90 91 92
JALPAIGURI s. Bhásárbári Dharampur, V Manthapára  JIGABARI, XIV Chandrapur, XV Golia Nauháti, XII Nendarpár, XIII Bara Bhitá, XVI Bhitagori, XVIII Ataro Bánki, XVII	322 321 321  18 17 17 21 20 19	KANDALI H.S. Kholá Nowgong Singari Sildubi Porá Parbat Kámákshá Mehekongthu Chengtheishon	185 260 185 261 262 187 188 189	KETHKIBARI s. Haldibári Bhában Char Báishpukur Háthi Bandar Hát Flag Háthi Bandar Factory Golia Nauháti, XII Bisandai	152 123 123 155 156 124 153

\* Of the North-East Longitudinal Series.

Name of station with azimuths of surrounding points	° ' "	Distance giving	Name of station with azimuths of surrounding points	° ' "	Distance giving	Name of station with azimuths of surrounding points	° ' "	Distance giving		
<b>KHAKHABARI, VI</b> Debiganj Hát Flag Debiduba Factory A No. 8 Boalmári, II Chilaháti, IV Bálapára, VII Bághdogra Debiduba	3 22 20 5 7 44 s. 15 57 2 133 7 5·87 179 37 23·74 243 0 18·54 279 41 31 " 336 9 3	128 126 125 4 5 112 112	<b>KHOLA H.S.</b> Dámria Tatalia Singari Kámákshá Nowgong Kandali	H.S. " " " " " " s. 230 1 7 H.S. 255 41 27·8	81 12 31·4 132 16 25·1 192 52 26·6 225 47 21·4 " " " "	182 182 188 186 260 185	<b>LARVA Post S.</b> Sisa Hiálmára Buri Mukh Paunriputra	Post S. " " " " " "	53 26 6·9 91 53 47·9 168 6 46·3 200 39 43·1	223 223 224 225
<b>KHAKHABARI, VI</b> Debiganj Hát Flag Debiduba Factory A No. 8 Boalmári, II Chilaháti, IV Bálapára, VII Bághdogra Debiduba	4 25 11·1 42 43 9·6 " 224 49 1·6 " S. 294 27 42·6	228 228 230 229	<b>KISMAT RAOTHA s.</b> Debiduba Bághdogra Bámánia Borágári Hát Flag Dharampál	s. 98 55 23 " 149 16 53 " 223 3 39 " 263 21 0 " 278 35 40	81 12 31·4 132 16 25·1 192 52 26·6 225 47 21·4 " " " "	118 118 114 185 115	<b>LITBORG Post S.</b> Saunga Ján Purán Jora Suti Mekhla Mukh	Post S. " " " " " "	62 10 0·0 237 58 14·7 288 29 37·4 357 30 49·4	298 298 294
<b>KHAKHABARI, VI</b> Debiganj Hát Flag Debiduba Factory A No. 8 Boalmári, II Chilaháti, IV Bálapára, VII Bághdogra Debiduba	83 32 45 169 53 21 243 41 7 291 29 57	813 813 814 815	<b>KUCHLIBARI, IX</b> Chapani, X Bálapára, VII Mekhaliganj, VIII Jagatber, XI Nendarpár, XIII Golía Naubáti, XII	5 47 57·26 72 51 14·77 125 12 29·90 188 13 46·59 255 47 7·11 315 6 38·30	81 12 31·4 132 16 25·1 192 52 26·6 225 47 21·4 " " " "	12 11 11 15 14 13	<b>LONGBOAI H.S.</b> Mehkongthu Kámákshá Biswanáth Burai Mukh Burai Mukh Khari Mukh Pichhla Mukh Kankochan Khelbinshon Chengbehishon	H.S. " " " " No. 2 " No. 1 " " " " " H.S. " " " "	57 43 21·3 97 4 31·6 s. 118 29 31 208 50 30 209 8 36 232 26 10 234 10 10 271 7 34·9 307 59 25·4 356 28 58·7	190 191 265 268 267 271 198 192 190
<b>KHARI KATIA Post S.</b> Melankur Sisa Tengpáni Lasua Dimau	27 58 47·1 199 25 54·2 262 42 58·3 300 47 9 326 19 37·9	218 220 219 298 218	<b>KURVA H.S.</b> Maing, XLV Gauháti Church Kámákshá Temple Gauháti Obelisk Gauháti, Umánand Temple Sila Desh Maing Párahopa Mairangka	47 37 31·2 53 6 49 54 10 59 56 28 18 57 48 52 78 46 11·8 261 23 19·0 297 52 58·7 347 46 12·9	81 12 31·4 132 16 25·1 192 52 26·6 225 47 21·4 " " " "	175 256 252 255 254 175 180 177 176	<b>MADAIGAOX T.S.</b> Bar Chápri Nikori Chápri Rodonga Negheri Ting Temple Negheri Ting Temple Golághát	T.S. " " " " " " " " " "	45 4 25·1 100 50 39·6 168 24 41·1 222 31 51·5 222 58 20 352 12 59·6	197 198 200 201 279 197
<b>KHARI KATIA Post S.</b> Melankur Sisa Tengpáni Lasua Dimau	52 32 41 349 48 41	271 271	<b>LANGTIA h.s.</b> Jogíghopa Hill Mark (heliotrope) Chatalá Hill Mark (heliotrope) Phulora Goálpára	78 9 28 250 14 38 298 55 42 354 43 3	81 12 31·4 132 16 25·1 192 52 26·6 225 47 21·4 " " " "	64 66 68 63	<b>MADAREKHAR post s.</b> Chhagali Pathar Bokolgaon Tengághát Bámáni Kora	post s. " " " " " "	50 9 0 106 11 36 261 38 10 310 17 2	316 816 818 817
<b>KHARI KATIA Post S.</b> Melankur Sisa Tengpáni Lasua Dimau	9 56 25 40 9 14·5 128 4 29·4 211 45 16·4 286 19 26·0	269 192 192 198 194	<b>LANGTURI, XXXIX</b> Ghorakar, XXXVI Sonora, XXXVIII Bura Hill Mark (heliotrope) Akeháti, XLI Harogaon, XLII	107 32 47·83 152 33 46·01 170 11 59 211 19 32·09 245 32 10·78	81 12 31·4 132 16 25·1 192 52 26·6 225 47 21·4 " " " "	52 52 82 58 54	<b>MAHADRO h.s.</b> Dabli, XXXIV Dahola Village Mark Satali Matia Kholáipára Mark	h.s. " " " " " "	38 49 20 66 44 1 123 21 56 162 57 3 245 54 39	75 77 76 75 78

Name of station with azimuths of surrounding points	° ' "	No. of triangle or distance	Name of station with azimuths of surrounding points	° ' "	No. of triangle or distance	Name of station with azimuths of surrounding points	° ' "	No. of triangle or distance
<b>MAIANG, XLV</b>			<b>MEKHALIGANJ, VIII</b>			<b>NAPSUR Post S.</b>		
Tepkiabama, XLIV	24 41 46.23	57	Bálapáras, VII	0 16 14.72	6	Paropora	77 57 58.5	244
Harogson, XLVI	52 13 31.99	56	Chilaháti, IV	69 42 36.83	6	"	169 31 46.3	244
Háthimura, XLIII	117 4 34.68	56	Dharampur, V	136 25 32.91	10	Saikua	269 45 4.0	245
Hájo Hill Temple	145 26 1	248	Jagatber, XI	256 47 18.98	15			
Parambai	H.S. 163 19 47.4	172	Kuchlibári, IX	305 8 32.15	11			
Síla	h.s. 196 33 34	250						
Síla	H.S. 196 38 22.7	171	<b>MEKHLA MUKH Post S.</b>			<b>NARI H.S.</b>		
Kámáshá	h.s. 217 37 15	251	Dibrugarh Church	S. 40 16 47.7	231	Dibrugarh Church	S. 21 12 37	295
Kurua	H.S. 227 32 48.0	175	Saenga Jan	Post S. 120 51 3.8	231	Dipa	h.s. 63 23 19	297
Mairangka	" 265 13 46.8	174	Lílong	" 177 30 54.5	232	Paropora	Post S. 279 22 30.5	242
			Jora Suti	" 235 21 1.7	233	Paba	" 292 1 8.9	241
<b>MAIRANGKA H.S.</b>						Kerwa	" 310 33 23.4	241
<b>Maiang, XLV</b>						Dipi Mukh	post s. 350 4 46	298
Síla	85 19 19.3	174	<b>MELANKUR Post S.</b>					
Gauháti Church	H.S. 124 56 8.7	174	Bar Ghop	Post S. 17 21 13.7	216			
Kurua	" 126 31 15	257	Kharikatia	" 207 57 40.6	218			
Párahopa	" 167 47 3.0	176	Lasua	s. 233 35 24	293			
Dúmría	" 221 41 49.0	177	Dinau	Post S. 275 32 24.6	217			
	" 279 27 21.2	178	Goháigaon	" 322 15 4.4	216			
<b>MAJULI Post S.</b>								
Bar Bhati	T.S. 12 12 14.9	205	<b>MESAKI MUKH Post S.</b>					
Bar Chápri	Post S. 47 39 45.9	205	Mumári	Post S. 17 22 5.2	236			
Turámára	" 213 2 1.7	207	Purán	" 65 54 5.3	236			
Phakwádal	" T.S. 289 4 29.9	206	Siláni Mukh	" 264 8 21.1	238			
			Momára	" 316 34 37.8	237			
<b>MANABUM h.s.</b>								
Saikua	Post S. 100 31 47	303	<b>MIAOBUM h.s.</b>					
Sadiya Qr. Gd.	" h.s. 110 15 32	303	Sadiya Qr. Gd.	Post S. 125 39 41	304			
Miáobum	" 317 20 40	304	Mánábum	h.s. 137 28 37	304			
<b>MANTHAPARA s.</b>			<b>MOMARA Post S.</b>					
Bhásárbári	s. 131 40 31	100	Mumári	Post S. 73 3 47.8	237			
Barhántal	" 172 4 25	100	Mesáki Mukh	" 136 35 53.3	237			
Jalpáguri	" 174 11 53	321	Siláni Mukh	" 208 48 45.9	238			
Dharampur, V	" 272 24 23	101	Kerwa	" 248 11 43.2	239			
<b>MATIA h.s.</b>			<b>MUMARI Post S.</b>					
Dahola Village Mark	14 24 16	77	Jora Suti	Post S. 59 30 42.7	235			
Dabli, XXXIV	21 10 29	72	Purán	" 116 59 49.4	235			
Satali	h.s. 109 17 1	73	Mesáki Mukh	" 197 21 29.7	236			
Baikusni, XXXII	117 40 33	72	Momára	" 253 1 56.9	237			
Dalgoma	s. 203 44 43	74						
Kholípáras Mark	316 29 59	78						
Mahádeo	h.s. 342 56 49	75	<b>NAGABERHA, XXXVII</b>					
			Ghorkar, XXXVI	16 34 19.39	45			
			Dabli, XXXIV	65 18 24.47	44			
			Bauti Mark (lamp)	86 21 38	79			
			Bagbo, XXXV	123 54 59.46	44			
			Barpetá Mark (heliotrope)	177 12 39	80			
			Duramári, XL	253 47 46.33	48			
			Sonora, XXXVIII	318 32 21.50	47			
<b>MEHEKONGTHU H.S.</b>								
Kandali	H.S. 45 25 59.8	188						
Kámáshá	" 160 33 33.1	188						
Cheko Hill Mark (heliotrope)	218 29 2	250						
Lóngboái	H.S. 237 35 1.2	190						
Chenghehishon	" 294 11 5.8	189						

\* Of the North-East Longitudinal Series.

Name of station with azimuths of surrounding points	No. of triangulation distance	Name of station with azimuths of surrounding points	No. of triangulation distance	Name of station with azimuths of surrounding points	No. of triangulation distance
NOE ALI T.S. Phakwádal Ráonapukri Soáthol Bar Ali Chhintámánigarh	209 209 210 211 212	33 29 11' 44" 81 13 52' 27" 119 1 46' 65" 253 30 33' 38" 322 24 7' 63"	26 26 28 88 29	PORA PABBAT h.s. Tepur Church Tepur, Lunatic Asylum Kámákshá Kandali	263 264 262 262
NORTH LAKHIMPUR s. Yelu Pidi	808 808	s. 136 17 43 " 229 58 49 " 314 27 57	162 162 163	POTU NORTH h.s. Yelu Potu South	812 812
NOWGONG s. Khola Kandali	260 260	h.s. 143 38 14 " 157 34 48	809 809	POTU SOUTH h.s. Yelu Pidi Potu North	811 811 812
PABA Post S. Kerwa Siláni Mukh Nári Láli Mukh Mark (heliotrope) Dibang Mukh Paropora Dutia	240 241 241 301 243 242 299	Post S. 20 41 12' 3" " 54 34 6' 9" " 222 42 1' 2" Post S. 265 20 0' 7" Post S. 334 59 32' 3"	225 225 228 227 226	PURAN Post S. Jora Suti Lihong Messáki Mukh Mumári	234 234 236 235
PANGA s. Pánga Hát Flag Pánga Kachahri Flag Bámania Dimla House Dimla Factory No. 2 Dimla Factory No. 1 Dimla Dimla Thána Flag Sundar Khatha Kachahri Sundar Khatha	140 139 137 148 146 144 143 141 188	T.S. 46 31 47' 2" Post S. 109 6 23' 5" " 163 9 38' 2" " 203 1 18' 4" T.S. 254 15 20' 2" s. 358 30 44"	206 206 207 208 209 280	RAIKUSNI, XXXII Ajaghar, XXX Bhairaber Chura, XXXI Goálpára Narikola, XXXIII Phulora Bagbo, XXXV Matia Dabli, XXXIV	89 89 61 42 62 41 72 40
PARAHOPIA H.S. Mairangta Kurus Desh Maiang Dúmría	177 177 179 178	h.s. 35 8 7 " 80 3 22 " 118 57 43 " 142 32 26 " 155 10 3"	62 62 63 65 66	RAJABETA Post S. Buri Mukh Pauriputra Khálkáta Dibrugarh Church Khanikar	226 226 228 227 313
PAROFORA Post S. Dutia Paba Láli Mukh Mark (heliotrope) Nári Dibang Mukh Napsur	299 242 800 242 243 244	Post s. 45 3 18 Post S. 60 49 26' 6" H.S. 87 40 41 H.S. 99 33 1' 3" Post S. 216 49 45' 3" " 257 56 25' 3"	808 307 310 311 809 806 806	RAJABETA Post S. Buri Mukh Pauriputra Khálkáta Dibrugarh Church Khanikar RANIGANJ s. Belakuba, III Kharikatar Bahádura RANAPUKRI Post S. Phakwádal Turámára Soáthol Noe Ali	96 97 96 208 208 210 209

AZIMUTHS OF STATIONS AND INTERSECTED POINTS.

Name of station with azimuths of surrounding points	No. or Triangle giving distance	Name of station with azimuths of surrounding points	No. or Triangle giving distance	Name of station with azimuths of surrounding points	No. or Triangle giving distance
<b>RODONGA</b> T.S. Nikori Chápri Belguri Negheri Ting Temple Negheri Ting Madaisgaon	200 202 278 201 200	T.S. Post S. T.S. " "	46 41 35.8 243 58 58.1 304 54 54 305 3 21.5 348 23 50.4	SIBKECHURA h.s. Seban Sela Sálmara Mark Kakiájan Hill Mark Narikola, XXXIII	68 69 70 68
<b>SADRYA Qr. Gd.</b> Post S. Saikua Bhátí Sadiya Dikrang Fort Mánábum Míábubum	247 247 302 303 304	Post S. " " h.s. " "	67 35 10.5 101 44 56.5 181 58 35 290 6 53 305 23 5	SIBSAGAR, GAURISAGAR S. Chhintámangarh Bar Ali Bar Ghop Goháigaon Sibságar, Great Temple Sibságar, East Temple	213 214 215 282 292
<b>SAENGA JAN</b> Post S. Dibrugarh Church Khalkáta Libong Mekhla Mukh	230 230 232 231	S. Post S. " " " "	1 10 3.4 44 51 13.4 242 8 20.1 300 49 18.9	SIBSAGAR No. 1 s. Sibságar, Great Temple Sibságar, Kachahri Sibságar Treasury Sibságar, Circuit House Goháigaon	283 288 289 287 285 283
<b>SAIKUA</b> Post S. Napsur Dibang Mukh Bhátí Sadiya Sadiya Qr. Gd. Mánábum	245 245 246 247 303	Post S. " " " " " " h.s.	89 47 8.2 120 51 20.1 180 58 22.1 247 32 30.9 280 20 28	SIBSAGAR No. 2 s. Sibságar, East Temple Sibságar, Great Temple Sibságar, West Temple Sibságar Kachahri Sibságar Treasury Sibságar, Circuit House Goháigaon	291 284 290 288 287 286 284
<b>SAMDING, XXV</b> Alangjáni, XXII Dhubri, XXIV Dandpál, XXVI	80 80 81	" " " " " "	113 8 13.63 164 58 53.00 232 11 2.04	SIBSAGAR No. 3 s. Sibságar, Circuit House Goháigaon	284
<b>SAMSIBI</b> s. Newáni, CXXVI* Benghari No. 1 Bhelái A No. 1	85 85 86 93	s. " " " "	156 34 11 219 36 2 276 55 37 283 15 37	SIBSAGAR No. 8 s. Sibságar No. 2 Sibságar, Great Temple Sibságar, West Temple Sibságar Kachahri	286 286 290 288
<b>SATALI</b> h.s. Dalgoma Matra Mahádeo Dabli, XXXIV	74 73 76 73	s. h.s. " "	269 27 55 289 15 4 303 19 45 336 25 45	SILA H.S. Maiang, XLV Háthimura, XLIII Barambai Kurua	171 171 173 175
<b>SEBAN SELA</b> h.s. Sibkechura Bhairaba Chura, XXXI Kakiájan Hill Mark Narikola, XXXIII	68 67 70 67	h.s. " " " " " "	15 46 54 40 49 48 331 27 26 334 10 44	SIBSAGAR, GAURISAGAR S. Chhintámangarh Bar Ali Bar Ghop Goháigaon Sibságar, Great Temple Sibságar, East Temple	254 255 256 174 252
<b>SILANI MUKH</b> Post S. Momára Mesáki Mukh Paba Kerwa	238 238 240 239	Post S. " " " " " "	28 49 37.0 84 10 27.8 253 51 46.4 290 34 33.0	SILA h.s. Maiang, XLV Háthimura, XLIII Digisri Gauháti Kámákhá	250 250 259 258 251
<b>SILDUBI</b> h.s. Tezpur, Lunatic Asylum Tezpur Church Kámákhá Kandali	264 263 261 261	h.s. Post S. " " " " " "	249 50 54 266 25 10 271 2 58 352 22 21	SILANI MUKH Post S. Momára Mesáki Mukh Paba Kerwa	264 263 261 261
<b>SIMLVGURI</b> s. Dudhir Kothi Ghughumári Ghegir Ghát Pasuadanga	160 160 161 162	s. " " " " " "	132 39 8 185 4 50 265 54 26 316 17 13	SILDUBI h.s. Tezpur, Lunatic Asylum Tezpur Church Kámákhá Kandali	160 160 161 162
<b>SINGARI</b> H.S. Khola Tatalia Desh Maiang Kámákhá Kandali	183 183 184 186 185	H.S. " " " " " " " "	12 55 50.4 26 49 25.7 52 33 6.4 269 30 28.3 322 10 42.6	SINGARI H.S. Khola Tatalia Desh Maiang Kámákhá Kandali	183 183 184 186 185
<b>SISA</b> Post S. Khari Katia Hálmára Larua Dihing Mukh Tengápáni Lasua	290 288 288 288	Post S. " " " " " " " " " "	19 26 44.1 205 14 11.9 233 22 20.7 262 57 0.6 322 34 12.6 357 35 21	SISA Post S. Khari Katia Hálmára Larua Dihing Mukh Tengápáni Lasua	290 222 293 221 220 294
<b>SOATHOL</b> Post S. Réonapukri Yelu Pidi Bar Ali Noe Ali	210 305 306 211 210	Post S. h.s. " " Post S. T.S.	51 47 32.2 167 36 14 171 6 36 275 29 54.1 356 18 5.3	SOATHOL Post S. Réonapukri Yelu Pidi Bar Ali Noe Ali	210 305 306 211 210

\* Of the North-East Longitudinal Series.





## ASSAM VALLEY SERIES.

### DISTANCES OF PEAKS FROM THE PRINCIPAL, PRINCIPAL-AUXILIARY, AND SECONDARY STATIONS AT WHICH THEY WERE OBSERVED, AND THE CORRESPONDING AZIMUTHS.

The following table contains, in the first column, the name of each Principal, Principal-Auxiliary, or Secondary Station arranged in Alphabetical order, at which observations to Peaks have been made, immediately followed by the name of the peak; the second column gives the Number of the Degree Sheet in which the peak is given; the third column gives the logarithm of the distance in feet between the station and each peak fixed therefrom; the fourth column gives the azimuth at the station of the peak; and the fifth the azimuth at the peak of the station, no azimuths being given at peaks over 19,000 feet in height.

Names of Stations followed by Roman Numerals are those of the Principal Stations of the Assam Longitudinal Series and Eastern Frontier Series, Section 23° to 26°. The Stations of the Assam Valley Principal Series are distinguished by the letters H.S., T.S., S., and Post S.; and all other Principal-Auxiliary and Secondary Stations are denoted by either s., Post s. or h.s.

Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance	Azimuth		Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance	Azimuth	
			At Station	At Peak				At Station	At Peak
BAR ALI Post S.		<i>Feet</i>	0	'			<i>Feet</i>	0	'
Nága Hills, No. 25 Peak	21	5'248155	307	34 47	Nága Hills, No. 12 Peak	21	5'248905	289	52 34
" 11 "	21	5'120071	337	40 9	" 22 "	21	5'449164	298	43 56
BAR BHITI T.S.					" 21 "	21	5'474418	301	33 1
Nága Hills, No. 8 Peak	21	4'990223	325	44 54	" 9 "	21	5'244219	301	43 38
BAR CHAPEI Post S.					" 7 "	21	5'238748	309	51 13
Daphla Hills, No. 82 Peak	18	5'256556	161	44 12	" 6 "	21	5'234517	315	11 8
Miri Hills, No. 75 Peak	22	5'471232	197	35 52	" 5 "	21	5'240478	319	39 7
					" 8 "	21	5'359065	330	42 32
					Deoparbat Hill Peak	21	5'283807	341	55 53

## ASSAM VALLEY SERIES.

Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance <i>Feet</i>	Azimuth		Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance <i>Feet</i>	Azimuth	
			At Station	At Peak				At Station	At Peak
<b>BAB GHOP POST S.</b>			0	1	<b>BISWANATH S.</b>			0	1
Miri Hills, No. 5 Peak	22	5 394881	149 44 11	329 33 33	Sikuni Hill Peak	17	4 719606	26 53 54	206 51 57
" " 78 "	22	5 334662	161 56 32	341 50 51	Kukurkháta Hill Peak	17	4 633661	55 28 50	235 25 55
" " 74 "	22	5 338026	162 3 8	341 57 26	<b>BURAI MUKH No. 1 s.</b>				
" " 79 "	22	5 336404	183 53 3	3 54 18	Mikir Hills, No. 6 Peak	17	4 880932	11 37 52	191 36 37
" " 80 "	22	5 333038	185 56 23	5 58 22	" " 1 "	17	4 944387	27 11 18	207 7 59
" " 82 "	22	5 382049	189 10 9	9 13 26	Akha Hills, No. 3 Peak	18	5 169453	134 0 45	313 51 53
Nága Hills, No. 6 Peak	24	5 268580	294 22 48	114 36 52	Daphla Hills, No. 1 Peak	18	5 138983	139 33 34	319 26 7
" " 5 "	24	5 268906	294 36 1	114 50 4	" " 2 "	18	5 132844	141 14 9	321 7 4
" " 22 "	21	5 375164	332 50 50	152 59 45	" " 8 "	18	5 132600	142 14 15	322 7 19
<b>BELAGURI POST S.</b>					" " 4 "	18	5 194624	144 27 26	324 19 50
Daphla Hills, No. 28 Peak	18	5 356301	141 19 30	321 7 33	" " 1 "	17	4 998148	144 45 49	324 41 2
" " 26 "	18	5 310611	143 23 35	323 13 20	" " 5 "	18	5 193535	148 18 15	328 11 23
" " 24 "	18	5 275028	143 27 15	323 17 50	" " 2 "	17	4 964399	152 33 46	332 30 14
" " 22 "	18	5 197373	144 34 42	324 27 3	" " 8 "	17	4 987127	154 29 59	334 26 30
" " 80 "	18	5 337878	148 15 4	328 5 25	" " 4 "	17	4 937611	161 36 59	341 34 42
" " 29 "	18	5 324645	149 59 45	329 50 52	" " 5 "	17	4 924223	164 51 36	344 49 47
" " 88 "	18	5 333933	166 23 40	346 19 29	" " 7 "	17	4 911994	179 29 9	359 29 6
" " 84 "	18	5 340819	168 26 23	348 22 41	" " 8 "	17	4 941188	185 33 3	5 33 45
" " 86 "	18	5 356786	173 57 47	353 55 46	" " 9 "	17	4 951506	193 53 29	13 55 17
" " 85 "	18	5 332890	174 14 44	354 12 55	" " 14 "	18	5 019695	210 5 46	30 10 9
<b>BHATRABER CHURA, XXXI*</b>					" " 16 "	18	5 080429	215 53 56	35 59 49
Monhnil Hills, No. 1 Peak	14	5 760778	241 31 15	62 13 9	Mikir Hills, No. 8 Peak	17	4 788421	348 19 20	168 20 22
Bhutan Hills, No. 1 Peak	18	5 740828	243 43 6	64 23 50	<b>BURAI MUKH No. 2 s.</b>				
					Mikir Hills, No. 6 Peak	17	4 870460	11 31 31	191 30 18

\* Of the Assam Longitudinal Series.

DISTANCES OF PEAKS AND AZIMUTHS.

Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance	Azimuth		Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance	Azimuth	
			At Station	At Peak				At Station	At Peak
BURAI MUKH No. 2 s.—(Continued).					BURAI MUKH No. 2 s.—(Continued).				
Mikir Hills, No. 1 Peak	17	4'935507	27 25 24	207 22 8	Mikir Hills, No. 7 Peak	17	4'833597	359 6 26	179 6 31
Longboái Hills, No. 1 Peak	17	4'907825	32 22 2	212 18 28	CHANDAB DINGA, XXVIII*				
" " 2 "	17	4'937538	38 10 7	218 5 43	Monhuil Hills, No. 1 Peak	14	5'802485	241 6 29	61 52 22
Bura Parbat, No. 3 Peak	17	5'149093	51 26 1	231 16 57	CHENGHEHISHON H.S.				
" " 4 "	17	5'149420	54 42 23	234 32 55	Monhuil Hills, No. 12 Peak	14	5'809370	155 7 1	
" " 2 "	17	5'173808	59 8 8	238 57 35	" " 16 "	14	5'813937	159 33 55	
" " 1 "	17	5'236383	62 21 25	242 8 51	Mikir Hills, No. 4 Peak	17	5'027775	205 23 46	25 27 30
Akha Hills, No. 3 Peak	18	5'171985	134 37 47	314 28 58	" " 3 "	17	5'042564	209 24 7	29 28 32
Daphla Hills, No. 1 Peak	18	5'142170	140 11 1	320 3 36	Nága Hills, No. 5 Peak	17	4'626276	227 55 29	47 58 2
" " 2 "	18	5'136214	141 51 21	321 44 18	" " 6 "	17	4'918446	244 2 22	64 8 26
" " 3 "	18	5'136054	142 51 0	322 44 6	" " 7 "	17	4'996215	244 45 23	64 52 40
" " 1 "	17	5'003131	145 34 4	325 29 20	" " 4 "	17	4'814307	247 52 41	67 57 35
" " 3 "	17	4'993209	155 11 55	335 8 29	" " 8 "	17	4'762678	269 52 16	89 56 57
" " 4 "	17	4'945098	162 16 53	342 14 39	Sapansjung Hill Mark	17	4'890688	276 41 22	96 47 37
" " 5 "	17	4'932221	165 29 14	345 27 27	Nága Hills, No. 2 Peak	17	4'780907	312 12 12	132 15 49
" " 6 "	17	4'919837	175 28 34	355 28 1	" " 1 "	17	4'883941	328 31 59	148 35 12
" " 7 "	17	4'921171	179 50 18	359 50 17	CHENTABINSHON H.S.				
" " 8 "	17	4'949986	185 45 37	5 46 22	Sapansjung Hill Peak	17	4'814063	33 46 44	213 43 48
" " 9 "	17	4'960234	193 55 53	13 57 42	Nága Hills, No. 2 Peak	17	5'052735	38 40 57	218 35 14
" " 14 "	18	5'026947	209 51 22	29 55 47	CHINTAMANTIGARH T.S.				
" " 16 "	18	5'086552	215 36 25	35 42 21	Nága Hills, No. 4 Peak	21	5'268537	12 4 23	192 1 12
Mikir Hills, No. 9 Peak	17	4'970096	308 46 51	128 52 51	" " 4 "	24	5'234669	283 44 45	103 58 35
Nága Hills, No. 8 Peak	17	5'205603	324 51 51	144 59 26	" " 26 "	21	5'109547	288 4 7	108 14 16
Mikir Hills, No. 2 Peak	17	4'941215	344 23 18	164 25 14					
" " 8 "	17	4'776933	347 30 56	167 32 0					

\* Of the Assam Longitudinal Series.

Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance	Azimuth		Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance	Azimuth	
			At Station	At Peak				At Station	At Peak
CHINTAMANIGARH T. S.—(Continued).					DIBRUGARH CHURCH S.—(Continued).				
Nága Hills, No. 25 Peak	21	5'163647	299 4 49	119 15 21	Miri Hills, No. 82 Peak	22	5'066507	124 44 28	304 36 15
" " 18 "	21	5'017892	299 13 57	119 21 29	" " 83 "	22	5'072782	126 17 36	306 9 25
" " 2 "	24	5'410030	306 4 31	126 21 36	" " 84 "	22	5'031226	128 16 11	308 8 56
" " 1 "	24	5'435070	308 57 48	129 15 12	" " 85 "	22	5'016774	130 34 22	310 27 36
" " 17 "	21	4'936052	310 13 16	130 18 44	" " 86 "	22	5'016512	131 31 27	311 24 46
" " 16 "	21	5'064452	311 5 1	131 12 15	" " 61 "	22	5'152346	131 48 54	311 39 47
" " 24 "	21	5'151824	312 14 37	132 23 18	" " 87 "	22	5'001307	134 52 59	314 46 53
" " 23 "	21	5'192735	315 26 22	135 35 23	" " 88 "	22	5'003439	135 36 14	315 30 11
" " 22 "	21	5'296815	322 7 39	142 17 39	" " 89 "	22	4'998304	137 20 39	317 14 51
" " 21 "	21	5'340652	323 57 1	144 7 37	" " 97 "	22	5'131212	138 1 31	317 53 44
" " 20 "	21	5'349332	325 15 6	145 25 34	" " 98 "	22	5'130420	138 3 51	317 56 6
" " 12 "	21	4'960961	332 39 55	152 43 24	" " 99 "	22	5'155803	138 42 40	318 34 32
" " 11 "	21	4'966455	336 20 25	156 23 29	" " 100 "	22	5'136735	141 2 56	320 55 31
" " 14 "	21	4'906038	344 58 21	165 0 4	" " 57 "	22	5'232075	141 5 31	320 56 16
DIBRUGARH CHURCH S.					" " 90 "	22	4'987580	141 39 41	321 34 30
Miri Hills, No. 76 Peak	22	5'211710	104 32 58	284 19 28	" " 91 "	22	4'980400	143 45 42	323 40 51
" " 17 "	22	5'341870	110 30 54	290 13 13	" " 102 "	22	5'108152	143 59 57	323 53 27
" " 19 "	22	5'349073	111 49 56	291 32 7	" " 58 "	22	5'233839	146 14 36	326 6 23
" " 20 "	22	5'350477	113 47 16	293 29 38	" " 103 "	22	5'105513	146 56 50	326 50 51
" " 80 "	22	5'089226	115 26 42	295 17 11	" " 92 "	22	4'968686	146 56 59	326 52 37
" " 26 "	22	5'477890	116 21 50	295 58 37	Unexplored, No. 6 Peak	28	5'567520	150 20 39	330 4 41
" " 27 "	22	5'450293	119 34 31	299 13 22	Miri Hills, No. 106 Peak	22	5'080642	151 18 51	331 13 53
" " 53 "	22	5'264036	121 13 51	301 0 20	" " 107 "	22	5'090364	152 59 38	332 54 49
" " 55 "	22	5'308953	123 37 32	303 22 56	" " 98 "	22	4'961773	154 21 1	334 17 37
" " 81 "	22	5'039251	124 28 59	304 21 15	" " 108 "	22	5'093343	154 32 41	334 28 5

DISTANCES OF PEAKS AND AZIMUTHS.

Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance	Azimuth		Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance	Azimuth	
			At Station	At Peak				At Station	At Peak
<b>DIBBUGARRH CHURCH S.—(Continued).</b>									
Miri Hills, No. 118 Peak	22	5'151871	154 37 42	334 32 28	Pasi Maiong Abar Hills, No. 4 Peak	25	5'082489	191 14 23	11 16 24
" " 109 "	22	5'105788	154 46 36	334 41 55	" " 1 "	25	5'026614	191 14 53	11 16 40
" " 94 "	22	4'968848	155 35 38	335 32 20	" " 5 "	26	5'296449	191 53 34	11 57 6
" " 110 "	22	5'067664	156 34 28	336 30 28	" " 2 "	25	5'073021	192 36 11	12 38 25
" " 95 "	22	4'973553	157 8 2	337 4 53	" " 8 "	25	5'076866	193 12 6	13 14 27
" " 111 "	22	5'051622	157 37 34	337 33 53	" " 7 "	26	5'304159	193 34 15	13 38 21
" " 112 "	22	5'052717	158 58 51	338 55 22	" " 9 "	26	5'307958	194 11 20	14 15 39
" " 118 "	22	5'056105	159 21 20	339 17 53	" " 8 "	26	5'307181	194 12 7	14 16 26
" " 96 "	22	4'966814	160 12 11	340 9 29	" " 11 "	26	5'308463	195 6 50	15 11 26
" " 114 "	22	5'053559	161 51 14	341 48 12	" " 12 "	26	5'321751	195 56 6	16 1 5
" " 115 "	22	5'054819	162 7 6	342 4 6	" " 6 "	25	5'076347	195 56 19	15 59 8
" " 116 "	22	5'047934	164 15 54	344 13 17	" " 8 "	25	5'094717	196 22 41	16 25 42
" " 117 "	22	5'053118	164 50 39	344 48 7	" " 7 "	25	5'084394	196 23 13	16 26 10
Pasi Maiong Abar Hills, No. 8 Peak	22	5'226100	169 30 13	349 27 34	" " 14 "	26	5'315648	198 7 29	18 13 3
" " 1 "	22	5'068976	169 53 48	349 52 2	" " 9 "	25	5'145536	198 14 29	18 18 15
" " 2 "	22	5'067838	171 1 32	350 59 58	" " 15 "	26	5'335668	199 54 6	20 0 29
" " 8 "	22	5'072161	172 42 16	352 40 58	Mishmi Hills, No. 1 Peak	26	5'635320	200 50 17	21 3 47
" " 9 "	22	5'229606	174 18 36	354 17 9	" " 2 "	26	5'625466	202 23 58	22 38 5
" " 8 "	28	5'361517	182 59 21	3 0 24	" " 4 "	26	5'629175	204 14 18	24 29 39
" " 4 "	22	5'065366	185 36 59	5 37 58	Bor Abar Hills, No. 1 Peak	26	5'373334	205 15 49	25 24 33
" " 5 "	22	5'100625	187 14 40	7 16 2	" " 19 "	26	5'516813	205 49 46	26 2 15
" " 1 "	26	5'311860	188 18 56	8 21 30	" " 20 "	26	5'524072	206 15 47	26 28 42
" " 2 "	26	5'318826	189 47 17	9 50 21	Pasi Maiong Abar Hills, No. 10 Peak	25	5'197790	209 46 36	29 53 21
" " 3 "	26	5'325111	190 27 33	10 30 53	Unexplored, No. 1 Peak	28	5'780364	217 46 41	38 20 2
" " 5 "	25	5'090785	190 48 40	10 50 39	" " 2 "	28	5'789243	217 51 34	38 24 58

Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance <i>Feet</i>	Azimuth		Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance <i>Feet</i>	Azimuth	
			At Station	At Peak				At Station	At Peak
DIBRUGARH CHURCH S.—(Continued).									
Unexplored, No. 3 Peak	28	5'791051	218 25 43	38 59 41	DICHU h.s.	22	4'813426	37 45 29	217 42 4
" " 4 "	28	5'792022	218 35 27	39 9 37	" " 4 "	22	4'804607	44 3 56	224 0 7
Mishmi Hills, No. 1 Peak	28	5'713434	222 7 3	42 37 29	" " 18 "	22	4'343213	57 50 46	237 49 9
" " 2 "	28	5'713767	222 7 3	42 37 30	" " 1 "	18	4'986028	67 6 7	246 58 27
" " 8 "	28	5'708991	223 18 5	43 48 51	" " 2 "	18	4'986655	67 54 46	247 47 2
" " 4 "	28	5'737593	225 29 16	46 3 28	" " 3 "	18	4'980461	68 34 7	248 26 28
" " 5 "	28	5'737084	225 30 3	46 4 13	" " 1 "	19	5'255288	131 20 22	311 8 36
" " 6 "	28	5'733049	226 24 29	46 58 51	" " 2 "	19	5'252861	131 38 31	311 26 53
" " 7 "	28	5'723301	227 44 7	48 18 24	" " 3 "	19	5'248538	132 7 58	311 56 31
" " 8 "	28	5'718284	228 11 9	48 45 16	" " 4 "	18	5'007479	140 9 56	320 4 17
" " 11 "	28	5'636468	231 42 5	52 11 40	" " 5 "	18	5'022140	142 41 54	322 36 21
" " 9 "	28	5'747003	234 7 40	54 47 14	" " 88 "	22	5'025259	146 8 15	326 3 8
" " 12 "	28	5'696080	236 3 39	56 39 33	" " 89 "	22	5'031320	148 16 34	328 11 40
" " 13 "	28	5'699171	236 40 15	57 16 39	" " 26 "	22	4'721774	150 50 15	330 48 1
" " 14 "	28	5'700042	237 12 19	57 49 1	" " 86 "	22	4'922415	160 13 18	340 10 51
" " 19 "	28	5'705513	241 39 17	62 18 5	" " 87 "	22	4'931895	160 46 8	340 43 41
" " 20 "	28	5'730178	242 53 5	63 34 39	" " 28 "	22	4'717880	177 50 1	357 49 51
" " 25 "	28	5'715247	244 37 59	65 18 41	" " 82 "	22	4'836718	194 8 28	14 9 55
" " 27 "	28	5'736948	245 39 55	66 23 4	" " 85 "	22	4'873727	196 34 29	16 36 20
" " 26 "	28	5'718930	246 15 1	66 56 34	" " 29 "	22	4'638162	197 11 17	17 12 24
" " 88 "	28	5'815103	248 36 42	69 29 32	" " 1 "	23	5'292613	201 26 28	21 32 44
Singfo and Kampti Hills, No. 12 Peak	27	5'737591	257 58 17	78 44 18	" " 88 "	22	4'838203	204 34 5	24 36 34
" " 10 "	27	5'771519	261 38 59	82 29 13	" " 8 "	23	5'320700	206 38 14	26 46 26
" " 9 "	27	5'766999	263 23 35	84 13 26	" " 84 "	22	4'847056	210 48 29	30 51 36
Naga Hills, No. 10 Peak	24	5'585878	320 27 52	140 44 47	" " 5 "	23	5'305320	211 19 12	31 28 22

DISTANCES OF PEAKS AND AZIMUTHS.

Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance	Azimuth		Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance	Azimuth	
			At Station	At Peak				At Station	At Peak
DICHU h.s.—(Continued).		<i>Feet</i>	° ' "	° ' "			<i>Feet</i>	° ' "	° ' "
Miri Hills, No. 22 Peak	22	4' 454130	212 5 6	32 6 24	Miri Hills, No. 122 Peak	22	5' 238815	254 40 42	74 55 11
" 6 "	28	5' 292405	212 48 17	32 57 33	" 119 "	22	5' 271081	256 59 39	77 15 23
" 40 "	22	5' 076645	213 41 2	33 46 47	" 105 "	22	5' 244358	261 12 10	81 27 10
" 9 "	28	5' 175019	213 48 5	33 55 20	" 59 "	22	5' 086692	264 21 51	84 32 21
" 7 "	28	5' 308888	215 40 53	35 51 16	" 20 "	22	4' 590206	265 3 39	85 6 59
" 10 "	28	5' 113646	216 10 7	36 16 47	" 60 "	22	5' 140670	266 28 16	86 40 11
" 11 "	28	5' 117600	216 21 39	36 28 25	" 62 "	22	5' 114447	269 22 39	89 33 52
" 8 "	28	5' 322721	221 0 24	41 12 26	" 66 "	22	5' 024395	273 34 49	93 43 56
" 28 "	22	4' 627125	223 25 9	43 27 40	" 63 "	22	5' 134839	274 48 11	94 59 54
" 42 "	22	4' 943667	228 13 9	48 18 49	" 18 "	22	4' 564458	275 56 48	95 59 57
" 41 "	22	5' 006463	228 39 57	48 46 34	" 64 "	22	5' 119473	275 59 9	96 10 27
" 43 "	22	4' 954974	230 3 16	50 9 15	" 67 "	22	4' 998212	276 24 11	96 32 43
" 24 "	22	4' 695516	231 43 23	51 46 45	" 68 "	22	4' 880423	277 59 46	98 6 15
" 25 "	22	4' 732468	232 24 49	52 28 32	" 69 "	22	4' 837781	282 51 47	102 57 34
" 44 "	22	5' 128933	233 53 52	54 3 18	" 15 "	22	4' 373921	294 17 7	114 18 58
" 46 "	22	5' 087643	237 51 51	58 0 50	" 72 "	22	4' 812553	319 17 1	139 20 40
" 47 "	22	5' 085738	239 12 32	59 21 36	DINGHEI, VI (of the Eastern Frontier Series).				
" 51 "	22	4' 933827	240 22 40	60 29 8	Monhuil Hills, No. 11 Peak	14	5' 930493	196 5 31	
" 45 "	22	5' 163159	240 26 23	60 37 22	DIPA h.s.				
" 48 "	22	5' 055700	242 57 18	63 6 5	Naga Hills, No. 1 Peak	25	5' 608714	307 10 26	127 37 53
" 49 "	22	5' 092002	246 10 49	66 20 37	" 10 "	24	5' 607341	324 51 16	145 10 55
" 50 "	22	5' 005892	248 11 55	68 20 3	DUTIA post s.				
" 21 "	22	4' 382564	248 22 31	68 24 27	Miri Hills, No. 57 Peak	22	5' 430808	97 51 7	277 27 59
" 124 "	22	5' 285898	249 10 56	69 26 35	" 118 "	22	5' 348448	98 15 38	277 56 31
" 52 "	22	4' 895518	250 33 43	70 40 8					



Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance Feet	Azimuth		Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance Feet	Azimuth	
			At Station	At Peak				At Station	At Peak
DUTIA post s.—(Continued).			0	1				0	1
Miri Hills, No. 120 Peak	22	5'347173	98 59 38	278 40 36	Bor Abar Hills, No. 17 Peak	26	5'302714	169 3 7	348 59 46
" " 58 "	22	5'413825	100 19 12	279 57 5	" " 9 "	26	5'207885	170 16 7	350 13 44
" " 128 "	22	5'380260	101 47 45	281 27 23	" " 11 "	26	5'252111	171 3 26	351 1 0
Pasi Maiong Abar Hills, No. 6 Peak	22	5'320100	106 17 50	286 0 26	" " 18 "	26	5'300219	174 11 51	354 10 5
" " 7 "	22	5'309979	107 58 30	287 41 38	" " 19 "	26	5'300082	175 22 43	355 21 18
" " 8 "	22	5'306803	109 58 32	289 42 0	" " 20 "	26	5'307689	176 47 19	356 46 29
" " 9 "	22	5'280900	112 19 25	292 4 5	" " 21 "	26	5'314236	177 43 29	357 42 46
" " 10 "	22	5'256451	116 14 57	296 0 53	" " 22 "	26	5'304221	178 53 3	358 52 42
" " 1 "	23	5'294006	118 39 0	298 23 59	" " 12 "	26	5'256845	179 23 35	359 23 25
Miri Hills, No. 4 Peak	23	5'551868	119 37 24	299 10 18	" " 23 "	26	5'309660	179 43 53	359 43 48
" " 2 "	23	5'558701	119 58 40	299 31 14	Mishmi Hills, No. 3 Peak	26	5'466344	180 19 42	0 19 50
Pasi Maiong Abar Hills, No. 11 Peak	25	5'143334	120 5 7	299 54 40	Bor Abar Hills, No. 24 Peak	26	5'309844	183 2 59	3 3 56
" " 2 "	23	5'274433	121 42 43	301 28 47	" " 13 "	26	5'281712	185 49 14	5 50 56
" " 12 "	25	5'105663	127 52 39	307 43 54	Mishmi Hills, No. 6 Peak	26	5'472644	188 46 35	8 50 35
" " 4 "	26	5'185682	129 8 30	308 58 10	Bor Abar Hills, No. 14 Peak	26	5'262063	189 26 19	9 28 57
" " 6 "	26	5'176541	131 28 31	311 18 44	Mishmi Hills, No. 7 Peak	26	5'437987	189 33 52	9 37 53
" " 8 "	26	5'172194	132 18 50	312 9 16	" " 8 "	26	5'435510	192 48 5	12 53 24
" " 10 "	26	5'163858	133 1 24	312 52 8	" " 9 "	26	5'425137	194 32 16	14 38 8
" " 18 "	26	5'139677	136 13 22	316 5 4	" " 27 "	26	5'548052	198 34 4	18 44 1
Bor Abar Hills, No. 1 Peak	26	5'116665	153 17 4	333 11 56	" " 11 "	26	5'373095	198 49 14	18 55 55
" " 2 "	26	5'141578	158 2 53	337 58 22	" " 12 "	26	5'375927	199 53 5	20 0 11
" " 8 "	26	5'170518	163 5 26	343 1 40	" " 18 "	26	5'379967	202 56 17	23 4 30
" " 4 "	26	5'214617	163 24 31	343 20 25	" " 10 "	26	5'414590	203 47 37	23 56 49
" " 10 "	26	5'245502	167 47 30	347 44 15	" " 14 "	26	5'377063	205 24 42	25 33 40
" " 16 "	26	5'315681	167 56 33	347 52 46	" " 28 "	26	5'593774	206 25 2	26 40 30

DISTANCES OF PEAKS AND AZIMUTHS.

Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance	Azimuth		Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance	Azimuth	
			At Station	At Peak				At Station	At Peak
DUTIÄ post s.—(Continued).					GOLAGHAT T.S.				
Mishmi Hills, No. 15 Peak	26	5'378489	206 38 45	26 48 9	Sapnaujng Hill Peak	17	5'175845	48 34 53	228 25 44
" " 16 "	26	5'383480	207 28 6	27 37 53	Monhuil Hills, No. 15 Peak	14	5'823494	139 55 18	
Unexplored, No. 1 Peak	28	5'649333	209 21 27	29 40 52	" " 16 "	14	5'823066	141 18 4	
" " 2 "	28	5'649040	209 27 54	29 47 22	Nága Hills, No. 4 Peak	21	5'130240	293 25 54	113 36 0
Mishmi Hills, No. 21 Peak	26	5'410768	211 48 4	31 59 58	" " 3 "	21	5'244381	301 40 44	121 52 53
" " 2 "	28	5'534309	213 19 24	33 35 58	Deoparbat Hill Peak	21	5'090287	307 53 32	128 1 27
" " 22 "	26	5'409984	213 23 49	33 36 13	Nága Hills, No. 1 Peak	21	5'269770	324 29 24	144 38 9
" " 8 "	28	5'525050	214 57 15	35 14 10	" " 2 "	21	5'044762	328 15 41	148 20 26
" " 24 "	26	5'385439	216 19 2	36 31 38	" " 5 "	20	5'375006	340 16 9	160 22 36
" " 5 "	28	5'563714	218 59 15	39 19 33	" " 4 "	20	5'380414	347 58 31	168 2 33
" " 25 "	26	5'398513	219 43 45	39 57 46	JORA SUTI Post S.				
" " 6 "	28	5'556541	220 14 41	40 35 11	Unexplored, No. 7 Peak	28	5'548357	141 3 37	320 44 11
" " 26 "	26	5'382846	222 14 56	42 29 8	Mishmi Hills, No. 1 Peak	26	5'580084	197 1 26	17 11 14
" " 11 "	28	5'394937	226 35 53	46 51 39	KAMAKSHA H.S.				
" " 12 "	28	5'491103	234 38 48	55 0 54	Akha Hills, No. 8 Peak	14	5'376116	139 56 15	319 43 29
" " 14 "	28	5'497126	236 29 44	56 52 38	" " 1 "	14	5'425895	139 56 24	319 42 4
GOLAGHAT POST S.					" " 4 "	14	5'365454	153 52 38	333 44 7
Miri Hills, No. 5 Peak	22	5'425599	142 30 43	322 16 56	Monhuil Hills, No. 9 Peak	14	5'668579	157 1 41	
" " 78 "	22	5'357135	152 47 48	332 38 57	" " 7 "	14	5'532162	163 19 54	343 11 40
" " 74 "	22	5'360164	152 58 1	332 49 10	Akha Hills, No. 7 Peak	14	5'379372	166 35 25	346 30 47
Nága Hills, No. 29 Peak	21	5'000729	291 28 46	111 36 33					
" " 7 "	24	5'118070	291 54 19	112 4 28					
" " 6 "	24	5'187709	301 13 47	121 24 45					
" " 5 "	24	5'188337	301 29 13	121 40 11					
" " 28 "	21	5'014650	305 37 0	125 44 1					

Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance Feet	Azimuth		Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance Feet	Azimuth	
			At Station	At Peak				At Station	At Peak
<b>KAMAKSHA H.S.—(Continued).</b>									
Monhui Hills, No. 15 Peak	14	5'683146	167 27 53	0 1 "	Daphla Hills, No. 21 Peak	18	5'3322751	160 43 51	0 1 "
" " 16 "	14	5'689394	169 10 6	0 1 "	" " 15 "	18	5'164017	161 52 58	0 1 "
" " 19 "	14	5'700777	171 54 49	0 1 "	" " 16 "	18	5'178149	167 54 11	0 1 "
Akha Hills, No. 5 Peak	14	5'234004	173 14 50	353 13 9	" " 27 "	18	5'395936	176 43 1	356 41 49
Tibet Hills, No. 8 Peak	15	5'754181	176 9 39	0 1 "	" " 87 "	18	5'489319	187 33 37	7 37 2
" " 5 "	15	5'761013	177 51 37	0 1 "	Daphla Miri Hills No. 1 Peak	22	5'509126	190 31 0	10 35 58
" " 2 "	15	5'736241	179 32 15	359 31 53	<b>KANDALI H.S.</b>				
Akha Hills, No. 1 Peak	18	5'304130	183 31 17	3 32 19	Mikir Hills, No. 2 Peak	18	4'282361	4 25 5	184 24 58
Daphla Hills, No. 5 Peak	18	5'309118	204 40 5	24 47 11	" " 1 "	18	5'165776	68 7 48	247 56 51
" " 81 "	18	5'521475	207 7 4	27 19 48	Monhui Hills, No. 2 Peak	14	5'609694	139 57 45	319 36 6
" " 11 "	18	5'390986	215 0 0	35 11 47	" " 5 "	14	5'555395	150 25 56	330 11 17
" " 12 "	18	5'413250	218 54 23	39 7 58	" " 6 "	14	5'580947	153 13 20	332 59 7
" " 19 "	18	5'427802	222 1 47	42 16 45	Akha Hills, No. 2 Peak	14	5'552965	158 44 18	338 33 34
" " 18 "	18	5'420343	226 55 17	47 11 18	" " 1 "	14	5'572651	158 44 32	338 33 18
" " 9 "	17	5'370561	233 31 22	53 47 3	Monhui Hills, No. 8 Peak	14	5'781655	162 9 3	341 53 25
Sikuni Hill Peak	17	4'756301	302 50 56	122 54 52	" " 9 "	14	5'772211	165 42 35	
<b>KAMARGAON S.</b>									
Daphla Hills, No. 6 Peak	18	5'447686	137 22 52	317 7 1	Akha Hills, No. 4 Peak	14	5'554848	169 23 15	349 17 46
" " 7 "	18	5'446945	139 37 51	319 22 43	Monhui Hills, No. 10 Peak	14	5'781343	169 32 15	
" " 9 "	18	5'377468	145 23 9	325 11 51	" " 12 "	14	5'783311	170 32 27	
" " 10 "	18	5'373395	147 14 9	327 3 29	" " 7 "	14	5'676358	172 31 42	352 26 32
" " 12 "	18	5'353390	151 51 55	331 43 2	" " 18 "	14	5'783918	173 23 34	
" " 19 "	18	5'334063	155 25 15	335 17 46	" " 15 "	14	5'791568	173 36 57	
" " 18 "	18	5'196628	155 45 59	335 40 37	" " 16 "	14	5'797459	174 52 10	
" " 20 "	18	5'341141	158 14 10	338 7 22	" " 17 "	14	5'804359	176 19 47	
	18				" " 19 "	14	5'807831	176 53 34	

DISTANCES OF PEAKS AND AZIMUTHS.

Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance	Azimuth		Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance	Azimuth	
			At Station	At Peak				At Station	At Peak
KANDALI H.S.—(Continued).									
Akha Hills, No. 7 Peak	14	5'577405	177 2 27	357 0 50	Daphla Hills, No. 2 Peak	17	5'353742	147 55 27	327 47 33
Monhuil Hills, No. 18 Peak	14	5'805011	177 9 13		" " 5 "	17	5'227173	153 42 26	333 36 14
Tibet Hills, No. 4 Peak	15	5'859977	179 22 3		" " 10 "	18	5'366292	160 14 51	340 8 18
" " 8 "	15	5'851833	179 49 1		" " 11 "	18	5'367112	160 16 12	340 9 38
Akha Hills, No. 6 Peak	14	5'533629	180 50 4	0 50 29	" " 8 "	18	5'516976	163 32 3	343 24 14
Tibet Hills, No. 5 Peak	15	5'857915	181 7 43		" " 12 "	18	5'354852	165 23 42	345 18 56
" " 1 "	15	5'837615	181 52 12	1 54 6	" " 81 "	18	5'505943	167 47 43	347 42 1
" " 2 "	15	5'838824	182 36 21	2 39 1	" " 9 "	17	5'204259	168 42 53	348 40 17
Akha Hills, No. 1 Peak	18	5'542708	187 58 51	8 2 52	" " 19 "	18	5'342670	169 24 38	349 21 16
" " 2 "	18	5'551174	191 3 58	11 9 38	" " 20 "	18	5'354360	171 51 26	351 48 46
" " 4 "	18	5'630661	196 7 42	16 17 35	" " 21 "	18	5'350831	174 26 54	354 25 6
Daphla Hills, No. 11 Peak	18	5'589769	207 6 34	27 21 15	" " 13 "	18	5'215541	174 41 58	354 40 43
" " 12 "	18	5'601099	209 51 41	30 8 9	" " 14 "	18	5'205828	179 53 14	359 53 12
" " 19 "	18	5'607950	212 5 5	32 22 56	" " 16 "	18	5'226605	186 3 33	6 5 1
KANKOCHAN H.S.									
Nága Hills, No. 6 Peak	17	4'881624	7 1 33	187 0 47	" " 27 "	18	5'432851	187 25 20	7 28 15
Raidong Hill Peak	17	4'527194	39 59 50	219 58 4	" " 17 "	18	5'246064	189 21 35	9 23 58
Mikir Hills, No. 3 Peak	17	4'524815	61 59 54	241 57 28	Daphla Miri Hills, No. 1 Peak	22	5'549860	197 44 45	17 53 51
" " 4 "	17	4'613076	67 49 0	247 45 53	" " 2 "	22	5'548232	198 23 59	18 33 21
" " 5 "	17	4'857991	83 57 24	263 51 31	Nága Hills, No. 8 Peak	17	4'869214	328 21 12	148 24 22
" " 8 "	17	4'620727	103 50 5	283 46 45	" " 7 "	17	4'844161	355 11 53	175 12 21
Akha Hills, No. 1 Peak	18	5'479844	136 36 59	316 19 42	KEEWA Post S.				
Daphla Hills, No. 4 Peak	18	5'388091	143 58 28	323 46 29	Unexplored, No. 7 Peak	23	5'582480	129 38 46	309 12 58
Monhuil Hills, No. 13 Peak	14	5'761955	145 53 34		Mishmi Hills, No. 1 Peak	26	5'524170	186 44 18	6 47 45
Daphla Hills, No. 5 Peak	18	5'386986	146 26 8	326 14 54	Unexplored, No. 1 Peak	28	5'690932	212 24 14	32 47 34
					" " 2 "	28	5'690707	212 30 12	32 53 35

ASSAM VALLEY SERIES.

Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance	Azimuth		Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance	Azimuth	
			At Station	At Peak				At Station	At Peak
<b>KERWA POST S.—(Continued).</b>									
Unexplored, No. 3 Peak	28	5'692452	213 14 34	33 38 31	Nága Hills, No. 1 Peak	17	5'118744	6 36 56	186 35 42
" " 4 "	28	5'693522	213 27 37	33 51 46	" " 5 "	17	4'641638	32 34 14	212 32 19
Mishmi Hills, No. 2 Peak	28	5'589706	216 43 41	37 4 9	Mouhuil Hills, No. 12 Peak	14	5'787807	147 57 16	
" " 3 "	28	5'582231	218 13 19	38 34 7	" " 13 "	14	5'779922	150 36 33	
" " 6 "	28	5'611654	222 40 45	43 5 8	" " 15 "	14	5'786378	151 12 50	
" " 7 "	28	5'597858	224 19 37	44 43 57	" " 16 "	14	5'788193	152 41 40	
" " 8 "	28	5'590878	224 52 28	45 16 37	Daphla Hills, No. 4 Peak	18	5'431126	154 45 34	334 36 1
<b>KHARI MUKH S.</b>									
Raidang Hill Peak	17	4'950112	6 39 55	186 39 4	" " 5 "	18	5'433272	156 57 57	336 49 8
Mikir Hills, No. 2 Peak	17	4'906808	13 24 51	193 23 18	" " 2 "	17	5'320800	161 27 42	341 22 11
" " 8 "	17	4'780642	29 0 28	208 58 4	" " 8 "	18	5'565307	169 52 27	349 47 2
" " 7 "	17	4'874101	33 21 16	213 17 52	" " 81 "	18	5'558652	173 47 6	353 43 49
" " 6 "	17	4'944600	40 23 26	220 18 44	" " 19 "	18	5'420198	177 25 51	357 24 53
" " 1 "	17	5'034564	49 9 21	229 2 37	Mikir Hills, No. 3 Peak	17	4'488592	178 36 53	358 36 49
Longboai Hills, No. 1 Peak	17	5'025215	53 47 8	233 40 6	Raidang Hill Peak	17	4'341209	199 7 10	19 7 45
" " 2 "	17	5'057882	56 54 38	236 46 45	Nága Hills, No. 8 Peak	17	4'842868	283 38 55	103 44 26
Bura Parbat, No. 3 Peak	17	5'238419	61 41 29	241 28 57	" " 1 "	21	5'437768	296 46 29	117 6 17
" " 4 "	17	5'242127	64 18 0	244 5 4	" " 7 "	17	4'619808	303 36 40	123 39 30
" " 2 "	17	5'265796	67 26 9	247 12 8	" " 6 "	17	4'544154	326 3 35	146 5 10
" " 1 "	17	5'319138	69 10 10	248 54 8	Sapanajung Hill Mark	17	4'889983	343 23 24	163 25 12
Mikir Hills, No. 9 Peak	17	4'785934	329 58 12	150 0 43	Nága Hills, No. 4 Peak	17	4'613918	352 25 13	172 25 40
Nága Hills, No. 8 Peak	17	5'131477	338 15 50	158 19 56	" " 3 "	17	4'814478	357 27 53	177 28 7
<b>KHOLA H.S.</b>									
					Monhuil Hills, No. 5 Peak	14	5'546257	175 51 45	355 49 39
					" " 8 "	14	5'788920	176 47 9	356 44 15
					" " 6 "	14	5'578739	176 59 43	356 58 4

DISTANCES OF PEAKS AND AZIMUTHS.

Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance Feet	Azimuth		Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance Feet	Azimuth	
			At Station	At Peak				At Station	At Peak
<b>KHOLA H.S.—(Continued).</b>					<b>LIBONG Post S.</b>				
Monhuil Hills, No. 9 Peak	14	5·786788	180 27 8		Mishmi Hills, No. 12 Peak	28	5·657407	239 37 51	60 12 4
Akha Hills, No. 2 Peak	14	5·570725	183 25 50	3 27 40	" " 13 "	28	5·661090	240 16 5	60 50 49
Monhuil Hills, No. 10 Peak	14	5·802321	183 42 49		" " 20 "	28	5·697927	246 42 23	67 22 17
" " 12 "	14	5·805923	184 34 38		" " 26 "	28	5·687756	250 25 44	71 5 37
Akha Hills, No. 3 Peak	14	5·564145	185 27 51	5 30 44	" " 33 "	28	5·791217	252 3 0	72 54 12
Monhuil Hills, No. 15 Peak	14	5·818811	187 8 43		Singfo and Kampti Hills, No. 9 Peak	27	5·749039	267 59 48	88 48 1
" " 16 "	14	5·826274	188 6 59		Naga Hill, No. 10 Peak	24	5·535627	328 8 45	148 24 0
" " 17 "	14	5·834922	189 14 52		<b>LONGBOAI H.S.</b>				
" " 19 "	14	5·838971	189 39 45		Bura Parbat, No. 4 Peak	17	4·899884	79 3 6	258 56 42
" " 7 "	14	5·713684	189 58 27	10 5 56	Kukurhata Hill Peak	17	4·974696	94 31 59	274 24 15
" " 18 "	14	5·836829	189 58 36		Monhuil Hills, No. 16 Peak	14	5·735278	156 3 37	
Tibet Hills, No. 4 Peak	15	5·889881	190 34 16		Akha Hills, No. 3 Peak	18	5·265118	158 4 44	337 59 2
" " 3 "	15	5·883353	191 10 23		Daphia Hills, No. 1 Peak	18	5·256714	163 19 20	343 15 1
" " 5 "	15	5·890719	192 13 9		" " 4 "	18	5·306964	164 41 41	344 37 14
" " 1 "	15	5·873373	193 23 5	13 37 45	" " 2 "	18	5·256322	164 43 53	344 39 56
" " 2 "	15	5·875502	194 1 5	14 16 31	" " 3 "	18	5·258417	165 25 52	345 22 4
Akha Hills, No. 8 Peak	14	5·642439	199 16 58	19 28 59	" " 5 "	18	5·313727	167 30 5	347 26 22
" " 6 "	14	5·614598	202 22 48	22 35 46	" " 1 "	17	5·178604	172 24 35	352 22 56
" " 5 "	14	5·592776	205 22 51	25 36 42	" " 2 "	17	5·176321	178 7 3	358 6 39
Mikir Hills, No. 2 "	13	5·184476	262 30 47	82 43 0	" " 3 "	17	5·192883	178 25 40	358 25 18
<b>KURUA H.S.</b>					" " 4 "	17	5·178370	183 52 48	3 53 39
Monhuil Hills, No. 3 Peak	14	5·570212	194 19 0	14 26 39	" " 5 "	17	5·176484	185 57 32	5 58 49
" " 4 "	14	5·593765	197 31 55	17 41 45	" " 6 "	17	5·183207	191 31 33	11 34 4
<b>LAIDERA, VIII (of the Eastern Frontier Series).</b>					" " 7 "	17	5·188566	193 47 14	13 50 17
Monhuil Hills, No. 14 Peak	14	5·967572	199 25 24		" " 8 "	17	5·209157	196 29 49	16 33 38

Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance	Azimuth		Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance	Azimuth	
			At Station	At Peak				At Station	At Peak
<b>LONGBOAI H.S.—(Continued).</b>									
Daphla Hills, No. 9 Peak	17	5'219969	200 49 20	20 54 14	Mishmi Hills, (?) No. 1 Peak	27	4'971044	196 1 37	16 3 52
" " 14 "	18	5'261422	209 31 51	29 39 19	" " 21 "	28	5'142110	200 20 2	20 24 14
" " 16 "	18	5'296510	213 5 39	33 14 38	" " 18 "	28	5'241538	206 20 27	26 27 12
<b>MADAIGAOX T.S.</b>									
Naga Hills, No. 1 Peak	16	5'590415	3 4 11	183 2 31	" " 22 "	28	5'138474	207 48 35	27 54 10
Daphla Hills, No. 9 Peak	18	5'413805	134 21 37	314 6 8	" " 23 "	28	5'161987	219 32 7	39 40 10
" " 16 "	18	5'191410	148 20 20	328 13 33	" " 24 "	28	5'159060	225 0 27	45 9 19
" " 17 "	18	5'191823	152 58 28	332 52 35	" (?) 8 "	27	5'161393	232 33 56	52 43 56
Naga Hills, No. 5 Peak	21	5'247014	296 51 30	117 4 25	" " 4 "	27	5'172910	235 30 36	55 41 15
" " 2 "	21	5'211047	336 8 22	156 13 44	" " 5 "	27	5'164903	236 56 11	57 6 49
" " 5 "	20	5'464020	342 30 1	162 37 6	" " 28 "	28	5'320623	238 4 6	58 19 32
" " 1 "	20	5'590380	353 27 35	173 31 8	" " 29 "	28	5'321859	240 4 31	60 20 20
" " 2 "	20	5'578321	355 11 53	175 14 26	" (?) 10 "	27	5'304784	241 24 19	61 39 43
" " 3 "	20	5'569659	358 29 30	178 30 17	" " 11 "	27	5'307609	242 28 40	62 44 18
<b>MAJULI Post S.</b>									
Daphla Hills, No. 32 Peak	18	5'231342	152 20 41	332 14 2	" " 6 "	27	5'165602	243 4 53	63 16 12
Miri Hills, No. 16 Peak	22	5'478402	184 57 10	4 59 23	" " 7 "	27	5'182460	245 30 44	65 42 44
" " 75 "	22	5'431263	194 22 55	14 28 36	" " 8 "	27	5'339242	247 48 14	68 5 47
Naga Hills, No. 9 Peak	21	5'229604	311 43 57	131 54 24	" " 9 "	27	5'205666	248 25 5	68 38 1
" " 6 "	21	5'238078	325 22 47	145 30 53	Singfo and Kampti Hills, No. 11 Peak	27	5'181465	254 11 20	74 23 59
" " 5 "	21	5'249674	329 34 43	149 42 7	" " 8 "	27	5'179670	264 13 56	84 26 56
" " 8 "	21	5'375450	337 56 34	158 3 52	" " 7 "	27	5'428908	298 18 4	118 38 17
" " 8 "	21	5'103657	338 16 46	158 20 38	" " 6 "	27	5'259579	309 44 31	129 56 29
					" " 5 "	27	5'210838	314 13 40	134 23 38
					" " 4 "	27	5'210603	315 28 23	135 38 8
					" " 2 "	27	5'296663	354 2 51	174 4 36

DISTANCES OF PEAKS AND AZIMUTHS.

Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance	Azimuth		Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance	Azimuth	
			At Station	At Peak				At Station	At Peak
MANABUM h.s.—(Continued).									
Singfo and Kampti Hills, No. 1 Peak	27	5'300846	354 57 54	174 59 24	Mekhla Mukh Post S.—(Continued).				
Mekhla Mukh Post S.					Miri Hills, No. 106 Peak	22	5'053522	135 38 34	315 31 46
Miri Hills, No. 80 Peak	22	5'130127	101 54 49	281 43 29	" " 95 "	22	4'926847	136 57 11	316 52 13
" " 81 "	22	5'069513	108 24 17	288 14 43	" " 107 "	22	5'058915	137 44 35	317 37 57
" " 82 "	22	5'093587	109 32 46	289 22 43	" " 108 "	22	5'058692	139 28 9	319 21 44
" " 26 "	22	5'491390	110 30 45	290 5 41	" " 96 "	22	4'910646	139 50 45	319 46 14
" " 83 "	22	5'096391	111 9 49	290 59 49	" " 109 "	22	5'071228	140 10 6	320 3 36
" " 84 "	22	5'054643	111 32 12	291 23 8	" " 111 "	22	5'007797	141 4 10	320 58 39
" " 85 "	23	5'036611	113 5 47	292 57 11	" " 112 "	22	5'005719	142 33 25	322 28 7
" " 27 "	22	5'462223	113 14 10	292 51 9	" " 113 "	22	5'008452	143 5 55	323 0 38
" " 86 "	22	5'034290	113 57 18	293 48 48	" " 114 "	22	4'999751	145 41 18	325 36 27
" " 87 "	22	5'012688	116 26 33	296 18 38	" " 115 "	22	5'000490	146 1 43	325 56 53
" " 88 "	22	5'012975	117 11 49	297 3 56	" " 116 "	22	4'987778	148 5 32	328 1 6
" " 89 "	22	5'004059	118 36 18	298 28 41	" " 117 "	22	4'992108	148 56 59	328 52 37
" " 61 "	22	5'160979	118 47 37	298 36 41	Pasi Matong Abar Hills, No. 2 Peak	22	4'994302	156 30 41	336 27 17
" " 90 "	22	4'983240	122 12 50	302 5 50	" " 8 "	22	5'175395	159 47 26	339 42 57
" " 91 "	22	4'970922	123 53 56	303 47 15	" " 9 "	22	5'172555	165 14 40	345 11 23
" " 97 "	22	5'129712	124 8 12	303 58 35	" " 4 "	22	4'960147	173 52 53	353 52 2
" " 92 "	22	4'950965	126 26 3	306 19 52	" " 5 "	22	5'000987	177 1 39	357 1 12
" " 102 "	22	5'095606	129 15 1	309 6 42	" " 3 "	28	5'311336	177 28 1	357 27 14
" " 108 "	22	5'087036	132 6 42	311 58 53	" " 5 "	25	4'982744	181 12 16	1 12 26
" " 104 "	22	5'084724	132 45 18	312 37 37	" " 4 "	25	4'971517	181 30 39	1 30 51
" " 93 "	22	4'922853	133 28 27	313 23 14	" " 1 "	26	5'250712	182 46 4	2 46 49
" " 94 "	22	4'926460	135 6 50	315 1 43	" " 2 "	25	4'957137	182 58 57	2 59 21
" " 68 "	22	5'218374	135 18 14	315 8 12	" " 3 "	25	4'961109	183 51 46	3 52 18
					" " 2 "	20	5'257484	184 33 20	4 34 35



Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance	Azimuth		Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance	Azimuth	
			At Station	At Peak				At Station	At Peak
<b>MEKHLA MUKH Post S.—(Continued).</b>		<i>Feet</i>	° ' "	° ' "			<i>Feet</i>	° ' "	° ' "
Pasi Maiong Abar Hills, No. 3 Peak	26	5' 264162	185 24 40	5 26 10	MAUPANI, V (of the Eastern Frontier Series). Monhul Hills, No. 11 Peak	14	5' 926921	201 30 52	0 1 "
" " 5 "	26	5' 229976	186 40 12	6 41 54	" " 14 "	14	5' 941125	202 55 40	0 1 "
" " 6 "	25	4' 956190	187 23 45	7 24 45	MAUTHERICHAN, VII (of the Eastern Frontier Series). Monhul Hills, No. 11 Peak	14	5' 960608	202 24 6	0 1 "
" " 7 "	25	4' 966014	188 11 1	8 12 9	" " 14 "	14	5' 973916	203 41 3	0 1 "
" " 8 "	25	4' 979401	188 25 24	8 26 36	NARI H.S.				
" " 7 "	26	5' 237618	188 43 22	8 45 39	Unexplored No. 6 Peak	23	5' 480153	129 50 45	309 30 22
" " 9 "	26	5' 241573	189 29 22	9 31 52	" " 3 "	28	5' 689298	223 16 28	43 46 16
" " 11 "	26	5' 241496	190 34 15	10 37 1	" " 4 "	28	5' 690651	223 27 54	43 57 54
" " 12 "	26	5' 256366	191 40 54	11 44 4	Mishmi Hills, " 18 "	26	5' 530830	225 7 25	45 28 38
" " 9 "	25	5' 041993	191 52 39	11 54 36	" " 1 "	28	5' 593402	229 22 20	49 48 36
" " 14 "	26	5' 247873	194 9 36	14 13 21	" " 3 "	28	5' 589121	231 1 9	51 27 46
" " 13 "	26	5' 246983	194 9 46	14 13 31	" " 4 "	28	5' 628864	233 11 7	53 41 11
" " 15 "	26	5' 270138	196 25 42	16 30 16	" " 6 "	28	5' 624298	234 27 40	54 57 53
Mishmi Hills, No. 2 Peak	26	5' 592316	200 57 35	21 9 53	" " 7 "	28	5' 613757	236 23 16	56 53 25
Bor Abar Hills, No. 1 Peak	26	5' 311309	202 55 29	23 2 24	" " 8 "	28	5' 608037	237 5 26	57 35 25
" " 22 "	26	5' 483764	206 10 18	26 22 3	" " 11 "	28	5' 508705	244 14 18	64 39 44
Mishmi Hills, No. 5 Peak	26	5' 624790	206 58 11	27 15 0	" " 25 "	28	5' 633643	257 21 45	77 58 23
Pasi Maiong Abar Hills, No. 10 Peak	25	5' 099139	207 5 30	27 10 26	" " 27 "	28	5' 661061	257 50 7	78 29 12
Bor Abar Hills, No. 24 Peak	26	5' 496314	208 23 58	28 37 0	" " 83 "	28	5' 755646	258 53 13	79 42 4
Mishmi Hills, No. 5 Peak	28	5' 710354	225 51 55	46 24 17	" " 32 "	28	5' 728415	260 45 18	81 31 22
" " 9 "	28	5' 721611	235 0 42	55 38 28	" " 31 "	28	5' 726019	263 7 40	83 53 40
" " 10 "	28	5' 702237	235 53 24	56 29 51	" (P) " 14 "	27	5' 697611	264 49 52	85 33 2
MESAKI MUKH Post S.					" (P) " 15 "	27	5' 765335	265 25 30	86 16 0
Singfo and Kampti Hills, No. 3 Peak	27	5' 538824	302 6 44	122 31 39					

DISTANCES OF PEAKS AND AZIMUTHS.

Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance	Azimuth		Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance	Azimuth	
			At Station	At Peak				At Station	At Peak
<b>NARI H.S.—(Continued).</b>		<i>Feet</i>	0 1 "	0 1 "	<b>NIKORI CHAPRI T.S.—(Continued).</b>		<i>Feet</i>	0 1 "	0 1 "
Singfo and Kampti Hills, No. 12 Peak	27	5'686002	271 42 25	92 24 26	Daphla Hills, No. 21 Peak	18	5'280359	158 53 26	338 47 42
" " 10 "	27	5'729848	274 33 1	95 19 16	" " 15 "	18	5'084041	159 13 33	339 9 58
" " 9 "	27	5'728291	276 33 37	97 19 29	" " 28 "	18	5'382337	161 55 23	341 49 6
" " 4 "	27	5'640460	290 40 6	111 15 9	" " 16 "	18	5'099086	166 31 53	346 29 26
" " 8 "	27	5'596086	306 42 9	127 9 7	" " 25 "	18	5'342319	166 35 15	346 30 58
Nága Hills, No. 1 Peak	25	5'574364	319 46 46	140 7 22	" " 30 "	18	5'383496	168 40 50	348 36 51
" " 10 "	24	5'603933	337 49 44	158 2 33	" " 29 "	18	5'376599	170 41 25	350 38 11
<b>NEGHERI TING T.S.</b>					" " 17 "	18	5'113226	171 51 31	351 49 59
Daphla Hills, No. 26 Peak	18	5'378748	146 53 24	326 42 27	" " 22 "	18	5'260084	172 23 7	352 21 6
" " 25 "	18	5'371674	147 22 19	327 11 41	" " 27 "	18	5'349408	176 56 25	356 55 25
" " 36 "	18	5'422198	172 54 32	352 51 47	" " 84 "	18	5'427883	184 57 7	4 59 4
Miri Hills, No. 14 Peak	22	5'547592	191 12 14	11 18 3	" " 87 "	18	5'453220	188 41 32	8 45 9
" " 77 "	22	5'532725	203 5 23	23 16 42	Daphla-Miri Hills, No. 1 Peak	22	5'475207	191 50 7	11 55 17
" " 78 "	22	5'531850	206 42 15	26 55 10	" " 2 "	22	5'472672	192 34 55	12 40 22
<b>NIKORI CHAPRI T.S.</b>					Miri Hills, No. 75 Peak	22	5'573478	209 46 35	30 2 18
Mikir Hills, No. 4 Peak	17	5'020010	54 29 43	234 22 43	Nága Hills, No. 4 Peak	21	5'339296	302 39 42	122 54 45
" " 5 "	17	5'114536	66 2 1	245 52 14	" " 3 "	21	5'417310	306 44 14	127 1 20
Akha Hills, " 7 "	14	5'582823	122 41 20	302 14 21	Deoparbat Hill Peak	21	5'323102	311 39 12	131 52 3
Daphla Hills, " 6 "	18	5'416102	134 0 14	313 44 33	Nága Hills, No. 1 Peak	21	5'437115	322 2 34	142 16 15
" " 7 "	18	5'414251	136 25 0	316 10 1	" " 5 "	20	5'505034	333 58 47	154 10 8
" " 13 "	18	5'125769	152 14 17	332 9 6	" " 4 "	20	5'503586	339 45 25	159 54 20
" " 18 "	18	5'228339	153 50 19	333 44 6	" " 1 "	20	5'611230	346 13 18	166 21 6
" " 20 "	18	5'299533	156 7 35	336 0 59	" " 2 "	20	5'598218	347 40 26	167 47 13
					" " 8 "	20	5'586823	350 39 24	170 44 26
					" " 1 "	16	5'602229	355 23 58	175 26 33

Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance	Azimuth		Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance	Azimuth	
			At Station	At Peak				At Station	At Peak
		<i>Feet</i>	° ' "	° ' "			<i>Feet</i>	° ' "	° ' "
<b>NOE ALI T.S.</b>					<b>NORTH LAKHIMPUR S.</b>				
Daphla Hills, No. 35 Peak	18	5' 380678	146 53 29	326 42 25	Daphla Hills, No. 23 Peak	18	5' 276674	91 13 10	270 57 11
Miri Hills, No. 16 Peak	22	5' 476304	173 58 2	353 55 22	Miri Hills, No. 6 Peak	22	4' 878613	155 5 49	335 3 6
" " 75 "	22	5' 414321	182 6 26	2 7 15	" " 7 "	22	4' 904745	171 20 10	351 19 9
" " 78 "	22	5' 414524	191 34 33	11 38 58	" " 8 "	22	4' 916652	176 12 7	356 11 40
" " 79 "	22	5' 445026	194 55 24	15 1 29	" " 9 "	22	4' 975157	181 5 33	1 5 43
Naga Hills, No. 9 Peak	24	5' 452205	264 53 41	85 17 11	" " 10 "	22	5' 012333	186 52 48	6 53 51
" " 7 "	24	5' 335643	268 4 53	88 22 54	" " 11 "	22	5' 023638	190 1 49	10 3 23
" " 5 "	24	5' 357278	276 8 25	96 27 13	" " 12 "	22	5' 096549	191 19 48	11 21 54
" " 4 "	24	5' 332834	281 24 51	101 42 20	" " 18 "	22	5' 256204	196 36 47	16 41 12
" " 18 "	21	5' 161603	291 19 44	111 30 56	" " 52 "	22	5' 345544	203 44 30	23 52 9
" " 25 "	21	5' 270683	292 57 16	113 11 28					
" " 17 "	21	5' 094424	297 37 46	117 46 53	<b>NOWGONG S.</b>				
" " 8 "	24	5' 403144	298 32 51	118 51 10	Mikir Hills, No. 1 Peak	18	5' 117289	39 52 19	219 45 32
" " 16 "	21	5' 184960	300 40 43	120 51 36	" " 2 "	18	4' 914907	322 9 25	142 13 29
" " 24 "	21	5' 250753	303 4 45	123 17 5	<b>PABA POST S.</b>				
" " 28 "	21	5' 280263	306 18 50	126 31 30	Miri Hills, No. 57 Peak	22	5' 400549	99 47 5	279 25 37
" " 15 "	21	5' 076663	308 42 14	128 49 57	" " 118 "	22	5' 311810	100 40 27	280 23 1
" " 12 "	21	5' 078313	313 57 26	134 4 34	" " 120 "	22	5' 310686	101 28 45	281 11 24
" " 11 "	21	5' 075304	316 48 59	136 55 43	" " 58 "	22	5' 383075	102 31 5	282 10 39
" " 20 "	21	5' 402789	317 12 17	137 26 23	" " 123 "	22	5' 347494	104 18 8	283 59 26
" " 13 "	21	5' 010871	320 36 22	140 41 45	Pasi Maiong Abar Hills, No. 6 Peak	22	5' 284364	109 36 17	289 20 33
" " 14 "	21	5' 012646	320 45 52	140 51 15	" " 7 "	22	5' 274226	111 30 36	291 15 26
" " 10 "	21	5' 046836	331 40 11	151 44 33	" " 8 "	22	5' 271837	113 42 18	293 27 27
" " 4 "	21	5' 263820	358 16 26	178 16 53	" " 9 "	22	5' 245144	116 30 13	296 16 33

DISTANCES OF PEAKS AND AZIMUTHS.

Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance Feet	Azimuth		Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance Feet	Azimuth		
			At Station	At Peak				At Station	At Peak	
PABA Post S.—(Continued).			0	'	"			0	'	"
Pasi Maiong Abar Hills, No. 10 Peak	22	5' 221229	121	1	31	300	49	7		
Miri Hills, No. 4 Peak	23	5' 535120	122	3	55	301	38	30		
" " 2 "	23	5' 542331	122	23	35	301	57	50		
Pasi Maiong Abar Hills, No. 1 Peak	23	5' 263212	123	10	16	302	56	55		
" " 2 "	23	5' 244360	126	40	27	306	28	13		
" " 11 "	25	5' 101414	126	49	35	306	40	48		
" " 4 "	26	5' 155880	135	52	27	315	43	47		
" " 12 "	25	5' 068900	135	59	41	315	52	37		
" " 6 "	26	5' 148455	138	30	20	318	22	13		
" " 8 "	26	5' 144695	139	28	6	319	20	13		
" " 10 "	26	5' 136614	140	21	59	320	14	23		
" " 13 "	26	5' 114604	144	11	13	324	4	35		
Bor Abar Hills, No. 1 Peak	26	5' 110833	162	8	48	342	5	21		
" " 2 "	26	5' 141100	166	23	35	346	20	45		
" " 4 "	26	5' 218579	170	24	1	350	21	36		
" " 16 "	26	5' 321579	173	25	26	353	23	20		
" " 10 "	26	5' 252705	174	13	31	354	11	56		
" " 17 "	26	5' 309668	174	40	32	354	38	53		
" " 9 "	26	5' 218240	177	12	16	357	11	34		
" " 11 "	26	5' 261840	177	18	46	357	18	1		
" " 18 "	26	5' 310969	179	43	29	359	43	24		
" " 19 "	26	5' 311678	180	52	19	0	52	36		
" " 20 "	26	5' 320033	182	8	42	2	9	23		
" " 21 "	26	5' 327006	182	58	20	2	59	18		
" " 22 "	26	5' 318125	184	12	38	4	13	59		
PABA Post S.—(Continued).			0	'	"			0	'	"
Bor Abar Hills, No. 23 Peak	26	5' 323943	184	57	47					
" " 12 "	26	5' 272943	185	17	35					
" " 24 "	26	5' 326318	188	9	2					
" " 13 "	26	5' 301277	191	7	21					
Mishmi Hills, No. 7 Peak	26	5' 453118	193	10	36					
Bor Abar Hills, No. 14 Peak	26	5' 285086	194	46	58					
Mishmi Hills, No. 8 Peak	26	5' 452217	196	18	43					
" " 9 "	26	5' 443050	198	3	31					
" " 27 "	26	5' 562826	201	6	29					
" " 11 "	26	5' 395438	202	33	29					
" " 12 "	26	5' 398619	203	32	36					
" " 13 "	26	5' 403814	206	24	0					
" " 10 "	26	5' 436946	206	57	27					
" " 28 "	26	5' 609257	208	26	49					
" " 14 "	26	5' 402135	208	45	20					
" " 15 "	26	5' 403990	209	54	28					
" " 16 "	26	5' 409022	210	38	49					
" " 21 "	26	5' 436329	214	32	57					
" " 22 "	26	5' 436135	216	3	21					
" " 3 "	28	5' 545575	216	56	38					
" " 24 "	26	5' 414082	218	56	10					
" " 23 "	26	5' 426764	219	10	58					
" " 5 "	28	5' 583408	220	38	9					
" " 25 "	26	5' 427363	222	3	22					
" " 26 "	26	5' 413464	224	29	6					

Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance	Azimuth		Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance	Azimuth	
			At Station	At Peak				At Station	At Peak
PABA Post S.—(Continued).			° ' "	° ' "	PAROPORA Post S.—(Continued).		<i>Feet</i>	° ' "	° ' "
Mishmi Hills, No. 19 Peak	28	5'332414	244 4 12	64 30 56	Bor Abar Hills, No. 18 Peak	26	5'254599	182 45 15	2 46 1
" " 20 "	28	5'569186	245 40 28	66 9 58	Mishmi Hills, No. 24 Peak	26	5'357581	215 44 59	35 56 39
" " 14 "	27	5'616186	258 42 24	79 17 35	" " 23 "	26	5'371859	216 8 5	36 20 15
PAROPORA Post S.					" " 11 "	28	5'367362	226 42 56	46 57 46
Miri Hills, No. 118 Peak	22	5'366508	95 15 34	274 55 31	" " 10 "	28	5'523347	233 27 25	53 50 56
" " 120 "	22	5'365004	95 57 13	275 37 15	" " 12 "	28	5'469469	235 9 28	55 30 39
" " 58 "	22	5'428639	97 39 10	277 16 7	" " 14 "	28	5'475934	237 5 32	57 27 30
Pasi Maiong Abar Hills, No. 6 Peak	22	5'335941	102 46 9	282 27 49	" " 15 "	28	5'497959	238 34 8	58 57 38
" " 7 "	22	5'325425	104 18 11	284 0 23	" " 16 "	28	5'487845	242 9 7	62 32 52
" " 8 "	22	5'321408	106 12 18	285 54 49	" " 17 "	28	5'489276	242 24 36	62 48 30
" " 9 "	22	5'295230	108 14 38	287 58 21	PATHALIPAM s.				
" " 4 "	26	5'192189	123 33 15	303 21 57	Daphla Hills, No. 23 Peak	18	5'410921	72 49 11	252 28 18
" " 10 "	26	5'167810	127 4 59	306 54 46	Miri Hills, No. 6 Peak	22	4'952140	82 27 49	262 20 15
Bor Abar Hills, No. 2 Peak	26	5'124874	152 0 27	331 54 59	" " 7 "	22	4'839099	89 11 39	269 5 46
" " 8 "	26	5'150900	157 38 21	337 33 39	" " 8 "	22	4'795396	91 49 26	271 44 7
" " 4 "	26	5'196538	158 31 7	338 26 5	" " 9 "	22	4'754921	104 17 43	284 13 0
" " 10 "	26	5'225882	163 25 34	343 21 22	" " 1 "	22	4'910348	113 21 25	293 15 2
" " 16 "	26	5'298802	164 15 41	344 10 57	" " 10 "	22	4'695484	116 0 8	295 56 20
" " 11 "	26	5'330856	166 54 27	346 51 5	" " 11 "	22	4'654697	121 28 33	301 25 15
" " 18 "	26	5'279548	170 38 39	350 35 56	" " 5 "	22	4'888516	132 33 50	312 28 57
" " 19 "	26	5'278825	171 52 48	351 50 27	" " 12 "	22	4'724660	142 26 19	322 23 33
" " 20 "	26	5'286126	173 25 20	353 23 24	" " 15 "	22	4'948473	166 52 48	346 51 4
" " 21 "	26	5'292562	174 27 25	354 25 46	PAURIPUTRA Post S.				
" " 23 "	26	5'286846	176 31 48	356 30 46	Miri Hills, No. 76 Peak	22	5'104512	110 10 28	290 0 14
" " 24 "	26	5'285591	180 1 45	0 1 46					

DISTANCES OF PEAKS AND AZIMUTHS.

Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance	Azimuth		Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance	Azimuth	
			At Station	At Peak				At Station	At Peak
<b>PAUNRIPUTRA POST S.—(Continued).</b>									
Miri Hills, No. 17 Peak	22	5'268817	115 29 31	295 15 7					
" " 19 "	22	5'278330	116 56 26	296 41 54	Pasi Maiong Abar Hills, No. 3 Peak	22	5'087882	190 53 23	10 55 23
" " 20 "	22	5'281587	119 12 26	298 58 5	" " 2 "	26	5'344488	199 24 38	19 31 0
" " 79 "	22	4'975352	120 33 33	300 26 34	" " 3 "	26	5'351126	199 54 14	20 0 51
" " 80 "	22	4'962081	127 29 31	307 23 17	" " 4 "	22	5'109623	202 37 5	22 41 21
" " 53 "	22	5'188125	129 33 3	309 22 50	" " 7 "	26	5'335467	203 12 28	23 19 51
" " 55 "	22	5'243446	131 21 38	311 10 19	" " 9 "	26	5'339679	203 41 47	23 49 24
" " 81 "	22	4'920513	141 18 54	321 14 26	" " 11 "	26	5'341218	204 31 59	24 39 53
" " 61 "	22	5'075068	145 16 52	325 11 3	" " 14 "	26	5'351172	207 8 19	27 17 12
" " 56 "	22	5'169094	149 53 30	329 47 8	" " 2 "	25	5'129496	208 19 47	28 25 18
" " 99 "	22	5'093811	153 0 32	332 55 41	" " 1 "	25	5'088108	208 43 38	28 48 42
" " 97 "	22	5'064707	153 12 0	333 7 30	<b>PHAKWADAL T.S.</b>				
" " 98 "	22	5'063907	153 16 33	333 12 4	Miri Hills, No. 77 Peak	22	5'450781	193 53 50	13 59 35
" " 100 "	22	5'077847	156 20 51	336 16 43	" " 79 "	22	5'475452	200 54 7	21 3 9
" " 88 "	22	4'912461	156 41 13	336 38 26	Naga Hills, No. 9 Peak	24	5'504044	263 38 38	84 5 3
" " 89 "	22	4'912504	158 58 33	338 56 2	" " 5 "	24	5'418061	273 7 26	93 29 8
" " 102 "	22	5'053606	160 46 8	340 42 55	" " 25 "	21	5'334569	286 51 23	107 8 29
" " 108 "	22	5'058114	164 3 14	344 0 32	" " 3 "	24	5'447615	293 17 32	113 38 46
" " 121 "	22	5'145744	164 18 43	344 15 27	" " 2 "	24	5'506416	296 27 52	116 51 29
" " 90 "	22	4'915467	164 24 42	344 22 48	" " 15 "	21	5'157241	296 44 38	116 55 15
" " 104 "	22	5'058787	164 48 27	344 45 52	" " 1 "	24	5'523433	299 12 41	119 36 36
" " 110 "	22	5'043815	175 41 1	355 40 18	" " 12 "	21	5'151442	301 4 53	121 14 55
" " 112 "	22	5'035424	178 45 9	358 44 57	" " 18 "	21	5'085850	304 39 23	124 47 40
" " 117 "	22	5'051144	184 22 37	4 23 21	" " 14 "	21	5'087010	304 50 19	124 58 37
Pasi Maiong Abar Hills, No. 1 Peak	22	5'078416	188 25 51	8 27 22	" " 22 "	21	5'397637	306 22 35	126 39 8

Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance Feet	Azimuth		Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance Feet	Azimuth	
			At Station	At Peak				At Station	At Peak
<b>PHAKWADAL T.S.—(Continued).</b>									
Nága Hills, No. 21 Peak	21	5'428753	309 0 53	129 18 1	Miri Hills, No. 2 Peak	19	5'306119	134 15 22	314 2 46
" " 20 "	21	5'433561	310 17 13	130 34 12	" " 8 "	19	5'302450	134 42 43	314 30 20
" " 19 "	21	5'429074	313 49 35	134 5 28	" " 4 "	18	5'100759	142 44 42	322 38 5
" " 10 "	21	5'095368	315 1 26	135 8 42	" " 5 "	18	5'113227	144 43 46	324 37 16
" " 9 "	21	5'169434	315 22 0	135 30 33	" " 87 "	22	5'042251	159 5 36	339 2 11
" " 7 "	21	5'180905	324 45 8	144 52 20	" " 28 "	22	4'878405	169 58 33	349 57 25
" " 6 "	21	5'188221	330 43 7	150 49 20	Unexplored, No. 1 Peak	23	5'641597	173 33 19	353 28 57
" " 5 "	21	5'204480	335 13 10	155 18 41	" " 8 "	23	5'343566	174 28 50	354 26 58
" " 3 "	21	5'346879	342 39 30	162 44 56	Miri Hills, No. 80 Peak	22	4'821892	176 30 9	356 29 48
" " 4 "	21	5'251214	346 46 49	166 50 10	" " 81 "	22	4'912777	177 1 57	357 1 35
" " 8 "	21	5'051901	347 37 40	167 39 40	Unexplored, No. 2 Peak	23	5'444780	178 18 9	358 17 26
Deoparbat Hill Peak	21	5'292235	355 53 21	175 54 30	" " 3 "	23	5'446985	178 58 3	358 57 36
<b>PICHILLA MUKH s.</b>					" " 4 "	23	5'443966	179 38 22	359 38 12
Raidang Hill Peak	17	5'006791	16 5 46	196 3 27	Miri Hills, No. 29 Peak	22	4'804695	181 29 31	1 29 40
Mikir Hills, No. 2 Peak	17	4'977028	22 39 6	202 36 6	Unexplored, No. 5 Peak	23	5'440132	183 11 36	3 12 57
Nága Hills, No. 8 Peak	17	5'141829	346 31 38	166 34 17	Miri Hills, No. 82 Peak	22	4'949344	183 36 23	3 36 52
Mikir Hills, No. 9 Peak	17	4'801086	348 21 7	168 22 10	" " 22 "	22	4'667513	184 50 26	4 50 46
<b>PINDI h.s.</b>					" " 85 "	22	4'975166	186 10 18	6 11 11
Miri Hills, No. 12 Peak	22	4'505145	3 11 30	183 11 20	" " 83 "	22	4'937859	191 37 38	11 39 9
" " 1 "	22	4'783635	46 33 30	226 29 42	" " 23 "	22	4'747897	198 41 48	18 43 21
" " 5 "	22	4'533910	50 37 19	230 35 3	" " 21 "	22	4'519708	199 51 14	19 52 13
" " 2 "	22	4'811405	54 7 10	234 2 39	" " 5 "	23	5'334839	205 43 41	25 51 52
" " 3 "	22	4'769521	60 14 4	240 9 40	" " 9 "	23	5'213038	206 11 24	26 17 40
" " 1 "	19	5'308172	133 58 32	313 45 49	" " 6 "	23	5'321779	206 56 57	27 5 14

DISTANCES OF PEAKS AND AZIMUTHS.

Name of Station with Peaks observed therefrom.	Degree Sheet	Log. Distance	Azimuth		Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance	Azimuth	
			At Station	At Peak				At Station	At Peak
<b>PIDI h.s.—(Continued).</b>		<i>Feet</i>	° ' "	° ' "			<i>Feet</i>	° ' "	° ' "
Miri Hills, No. 11 Peak	23	5'158616	207 30 45	27 36 32	PORA PARBAT h.s.—(Continued).	14	5'331081	165 25 51	345 21 21
" " 24 "	22	4'776601	207 39 32	27 41 55	Akha Hills, No. 4 Peak	14	5'662415	167 43 56	
" " 25 "	22	4'803347	209 48 47	29 51 31	Monhuil Hills, No. 10 Peak	14	5'691647	176 39 4	
" " 7 "	23	5'335070	209 50 32	29 59 55	" " 17 "	14	5'692556	177 43 5	
" " 15 "	22	4'210563	219 39 13	39 40 7	Tibet Hills, No. 8 Peak	15	5'752677	180 59 26	
" " 59 "	22	5'062538	252 46 40	72 56 11	Akha Hills, No. 8 Peak	14	5'362098	181 21 33	1 22 0
" " 105 "	22	5'229235	253 11 14	73 25 15	Tibet Hills, No. 5 Peak	15	5'760593	182 36 40	
" " 62 "	22	5'083750	258 46 15	78 56 30	" " 1 "	15	5'735260	183 38 24	3 41 22
" " 68 "	22	4'813226	259 40 44	79 46 15	" " 2 "	15	5'737021	184 33 50	4 37 33
" " 66 "	22	4'980705	260 36 45	80 44 53	Akha Hills, No. 6 Peak	14	5'294899	184 59 13	5 0 39
" " 67 "	22	4'946788	262 47 24	82 54 57	" " 5 "	14	5'234953	189 25 15	9 27 35
" " 69 "	22	4'750713	262 58 5	83 2 54	" " 2 "	18	5'340976	201 31 29	21 38 12
" " 65 "	22	5'024408	264 28 26	84 37 31	" " 4 "	18	5'470931	206 15 11	26 26 9
" " 63 "	22	5'097584	265 3 41	85 14 26					
" " 64 "	22	5'079352	265 57 15	86 7 33	POTU NORTH h.s.				
" " 70 "	22	4'813691	271 28 54	91 34 31	Miri Hills, No. 4 Peak	22	5'165621	59 15 10	239 4 20
" " 72 "	22	4'615181	310 54 47	130 57 27	" " 25 "	22	4'587865	95 31 16	275 27 56
" " 71 "	22	4'593669	314 38 22	134 40 46	" " 26 "	22	5'034695	98 59 47	278 50 31
					" " 38 "	22	5'182357	112 48 43	292 36 31
<b>PORA PARBAT h.s.</b>					" " 36 "	22	5'080126	114 22 32	294 13 1
Monhuil Hills, No. 2 Peak	14	5'477218	123 40 50	303 20 2	" " 39 "	22	5'179570	114 22 33	294 10 34
" " 5 "	14	5'371031	135 21 55	315 8 10	" " 37 "	22	5'082676	115 16 17	295 6 47
" " 6 "	14	5'401134	140 42 25	320 29 7	" " 82 "	22	4'872492	120 7 20	300 1 44
Akha Hills, No. 2 Peak	14	5'345114	147 58 45	327 48 57	" " 31 "	22	4'740115	124 34 9	304 30 14
" " 8 "	14	5'320511	149 56 40	329 47 56	" " 51 "	22	4'168857	153 7 22	333 6 47
Monhuil Hills, No. 8 Peak	14	5'666576	158 4 22	337 49 40	" " 43 "	22	4'492620	156 57 44	336 56 40



Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance	Azimuth		Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance	Azimuth	
			At Station	At Peak				At Station	At Peak
POTU NORTH h.s.—(Continued).		Feet	o ' "	o ' "	POTU SOUTH h.s.—(Continued).		Feet	o ' "	o ' "
Miri Hills, No. 40 Peak	22	4'854916	167 52 54	347 51 36	Miri Hills, No. 122 Peak	22	4'940417	258 8 29	78 15 53
" " 41 "	22	4'580746	172 22 47	352 22 20	" " 119 "	22	5'004482	261 58 37	82 7 17
" " 101 "	22	4'966321	281 40 39	101 48 29	" " 105 "	22	4'961928	270 39 14	90 47 10
POTU SOUTH h.s.					" " 54 "	22	4'443334	273 47 52	93 50 16
Miri Hills, No. 70 Peak	22	4'715185	6 16 32	186 16 2	" " 101 "	22	4'962448	280 46 5	100 53 52
" " 69 "	22	4'657892	19 3 15	199 1 58	" " 60 "	22	4'773172	288 59 50	109 4 41
" " 72 "	22	4'936898	27 17 47	207 14 22	" " 59 "	22	4'629805	291 44 29	111 47 54
" " 71 "	22	4'946945	28 59 36	208 55 54	" " 62 "	22	4'740139	298 41 13	118 45 23
" " 6 "	22	5'272185	43 37 17	223 26 13	" " 63 "	22	4'824355	306 0 35	126 5 15
" " 18 "	22	4'742276	55 20 57	235 17 1	" " 64 "	22	4'807756	310 17 13	130 21 27
" " 20 "	22	4'694531	60 38 37	240 34 53	" " 65 "	22	4'721754	319 2 23	139 5 22
" " 13 "	22	5'033350	68 41 58	248 33 17	" " 66 "	22	4'620159	325 28 26	145 30 28
" " 52 "	22	3'896543	78 50 55	258 50 14	" " 67 "	22	4'627475	336 20 4	156 21 32
" " 26 "	22	5'037787	99 46 56	279 37 37	RAIKUSNI, XXXII (of the Assam Longitudinal Series)				
" " 30 "	22	4'883577	102 25 11	282 18 43	Monhul Hills, No. 1 Peak	14	5'749742	234 19 39	54 57 19
" " 28 "	22	4'941219	106 23 54	286 16 38	Bhutan Hills, No. 1 Peak	18	5'727178	236 13 11	56 49 41
" " 31 "	22	4'910478	113 5 19	292 58 50					
" " 34 "	22	4'750600	125 36 22	305 32 24	RAJABETA Post S.				
Unexplored, No. 9 Peak	23	5'471118	202 47 18	22 57 25	Miri Hills, No. 61 Peak	22	5'156508	146 58 8	326 51 25
Miri Hills, No. 8 Peak	23	5'153685	203 18 12	23 23 7	" " 56 "	22	5'236362	150 38 25	330 31 9
" " 46 "	22	4'635993	210 18 28	30 20 21	" " 99 "	22	5'172927	153 21 16	333 15 32
" " 48 "	22	4'489163	219 3 54	39 5 35	" " 102 "	22	5'139395	159 44 46	339 40 39
" " 50 "	22	4'198073	231 3 13	51 4 17	" " 90 "	22	5'028846	162 14 58	342 12 10
" " 49 "	22	4'583215	234 40 21	54 43 4	" " 103 "	22	5'142626	162 27 24	342 23 48
" " 124 "	22	5'028708	247 35 3	67 43 37	" " 121 "	22	5'215928	162 55 36	342 51 27

DISTANCES OF PEAKS AND AZIMUTHS.

Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance	Azimuth		Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance	Azimuth	
			At Station	At Peak				At Station	At Peak
<b>RAJABETA POST S.—(Continued).</b>									
Miri Hills, No. 104 Peak	22	5°143042	163 4 44	343 1 15	Deoparbat Hill Peak	21	5°329128	327 25 49	147 35 14
" " 91 "	22	5°027841	164 19 31	344 17 3					
" " 92 "	22	5°025649	167 27 14	347 25 15	SADIYA, CIRCUIT HOUSE (?)				
" " 110 "	22	5°127474	171 57 3	351 55 26	Singfo and Kampti Hills, No. 8 Peak	27	5°428680	286 53 7	107 15 14
" " 98 "	22	5°036541	173 41 48	353 40 46	" " 6 "	27	5°452289	301 49 3	122 9 41
" " 112 "	22	5°119217	174 24 38	354 23 32	" " 5 "	27	5°418598	303 59 3	124 17 42
" " 96 "	22	5°052323	178 7 42	358 7 23					
" " 117 "	22	5°129269	179 12 19	359 12 9	SADIYA, QUARTER GUARD POST S.				
Pasi Maiong Abar Hills, No. 3 Peak	22	5°156151	185 4 37	5 5 42	Bor Abar Hills, No. 7 Peak	26	5°334132	130 48 12	310 33 54
<b>RODONGA T.S.</b>									
Daphla Hills, No. 6 Peak	18	5°430792	121 38 57	301 19 43	" " 6 "	26	5°334657	130 48 40	310 34 21
" " 9 "	18	5°340463	126 52 22	306 37 41	" " 8 "	26	5°328845	131 26 8	311 12 9
" " 18 "	18	5°208991	133 51 49	313 42 4	" " 4 "	26	5°264109	134 59 36	314 48 14
" " 26 "	18	5°303585	151 14 19	331 6 11	" " 5 "	26	5°264690	135 1 9	314 49 47
" " 24 "	18	5°267854	151 58 56	331 51 38	" " 9 "	26	5°235356	140 3 31	319 53 51
" " 22 "	18	5°191480	154 48 18	334 42 45	" " 10 "	26	5°274703	140 16 47	320 6 15
" " 30 "	18	5°335839	155 37 12	335 29 40	" " 11 "	26	5°269338	143 24 16	323 14 33
" " 29 "	18	5°324419	157°34 59	337 28 13	" " 19 "	26	5°297089	150 0 1	329 51 19
" " 33 "	18	5°339583	173 33 54	353 31 50	" " 20 "	26	5°299419	151 43 35	331 35 18
" " 34 "	18	5°357555	175 15 29	355 13 54	" " 21 "	26	5°302417	152 58 6	332 50 6
" " 37 "	18	5°381715	180 13 53	0 13 58	" " 23 "	26	5°291454	154 35 7	334 27 44
Daphla-Miri Hills, No. 2 Peak	22	5°399637	185 12 8	5 14 3	" " 24 "	26	5°280255	157 45 52	337 39 32
Nága Hills, No. 15 Peak	21	5°369000	282 0 51	102 19 45	" " 14 "	26	5°209337	160 52 5	340 47 26
" " 7 "	21	5°336399	299 51 24	120 6 53	Mishmi Hills, No. 3 Peak	26	5°443200	162 59 45	342 52 35
" " 8 "	21	5°194322	307 6 31	127 16 47	" " 2 "	26	5°444009	163 5 18	342 58 10
					" " 4 "	26	5°434842	165 45 37	345 39 43
					Bor Abar Hills, No. 15 Peak	26	5°209700	165 52 58	345 49 30

Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance <i>Feet</i>	Azimuth		Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance <i>Feet</i>	Azimuth	
			At Station	At Peak				At Station	At Peak
SADIYA, Q.R. GUARD POST S.—(Contd).					SADIYA, Q.R. GUARD POST S.—(Contd).				
Mishmi Hills, No. 6 Peak	26	5'429224	171 58 28	351 55 9	Mishmi Hills, No. 15 Peak	28	5'389645	233 8 51	53 26 2
" " 5 "	26	5'443500	173 53 19	353 50 43	" " 18 "	28	5'329897	235 53 13	56 8 41
" " 8 "	26	5'379188	174 36 49	354 34 50	" " 16 "	28	5'373509	237 36 23	57 53 50
" " 13 "	26	5'287078	183 6 43	3 7 39	" " 21 "	28	5'242983	237 40 12	57 53 6
" " 27 "	26	5'489576	185 31 47	5 34 25	" " 17 "	28	5'375161	237 57 39	58 15 14
" " 14 "	26	5'275713	185 51 35	5 53 17	" " 22 "	28	5'266429	242 31 15	62 45 32
" " 10 "	26	5'324889	185 56 25	5 58 21	" " 25 "	28	5'390675	246 58 30	67 18 14
" " 15 "	26	5'273454	187 24 53	7 27 0	" (?) " 1 "	27	5'134978	246 58 35	67 9 30
" " 19 "	26	5'377748	188 29 44	8 32 51	" " 23 "	28	5'314862	248 31 6	68 47 51
" " 16 "	26	5'276864	188 40 54	8 43 24	" " 24 "	28	5'326598	251 58 50	72 16 23
" " 18 "	26	5'392925	191 9 19	11 13 32	" " 33 "	28	5'582214	253 5 15	73 37 11
" " 20 "	26	5'333342	192 0 20	12 4 17	" " 28 "	28	5'458040	254 57 36	75 21 46
" " 17 "	26	5'220593	192 2 7	12 5 9	" " 30 "	28	5'463623	256 19 17	76 43 53
" " 21 "	26	5'297491	195 24 40	15 29 17	" " 29 "	28	5'462079	256 19 21	76 43 52
" " 22 "	26	5'292071	197 22 18	17 27 26	" (?) " 2 "	27	5'340810	256 26 25	76 44 57
" " 24 "	26	5'252315	199 53 42	19 59 2	" " 8 "	27	5'344515	256 26 31	76 45 13
" " 23 "	26	5'268799	201 0 35	21 6 26	" " 10 "	27	5'452364	257 41 44	78 5 49
" " 25 "	26	5'259967	205 1 30	25 8 15	" " 4 "	27	5'357214	257 49 18	78 8 39
" " 26 "	26	5'232042	207 41 23	27 48 20	" " 12 "	27	5'457247	258 20 59	78 45 24
" " 6 "	28	5'460921	211 13 51	31 27 4	" " 11 "	27	5'455908	258 21 13	78 45 34
" " 11 "	28	5'237768	214 15 8	34 23 39	" " 5 "	27	5'355066	258 56 23	79 15 42
" " 10 "	28	5'426727	227 9 12	47 26 24	" " 18 "	27	5'485051	261 15 50	81 42 6
" " 12 "	28	5'356751	228 14 43	48 29 34	" " 6 "	27	5'366078	262 34 44	82 54 44
" " 13 "	28	5'362065	229 40 55	49 56 17	" " 15 "	27	5'590958	262 58 6	83 31 45
" " 14 "	28	5'362869	230 51 56	51 7 36	" " 7 "	27	5'379941	263 34 37	83 55 19

DISTANCES OF PEAKS AND AZIMUTHS.

Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance	Azimuth		Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance	Azimuth	
			At Station	At Peak				At Station	At Peak
<b>SADIYA, Qr. GUARD POST S.—(Contd).</b>					<b>SAENGA JAN POST S.—(Continued).</b>				
Mishmi Hills, (?) No. 8 Peak	27	5'398269	264 45 53	85 7 31	Nága Hills, No. 1 Peak	25	5'545219	303 53 2	124 17 41
" " 9 "	27	5'391026	268 48 15	89 9 34	" " 10 "	24	5'538444	324 29 10	144 46 2
Singfo and Kampti Hills, No. 12 Peak	27	5'464390	272 30 7	92 55 19	SAIKVA POST S.				
" " 11 "	27	5'400192	274 48 4	95 9 44	Bor Abar Hills, No. 6 Peak	26	5'308162	139 9 7	318 57 29
" " 9 "	27	5'534533	280 1 26	100 30 31	" " 7 "	26	5'307601	139 9 16	318 57 39
" " 8 "	27	5'429102	287 33 50	107 55 54	" " 8 "	26	5'302795	139 55 41	319 44 22
" " 7 "	27	5'573105	295 52 32	116 21 22	" " 3 "	26	5'201419	143 2 20	322 53 59
" " 6 "	27	5'453923	302 25 28	122 46 2	" " 4 "	26	5'239718	145 7 4	324 58 23
" " 5 "	27	5'420552	304 37 49	124 56 24	" " 5 "	26	5'240360	145 7 49	324 59 8
" " 4 "	27	5'419427	305 23 7	125 41 28	" " 9 "	26	5'217472	151 4 47	330 57 48
" " 3 "	27	5'419701	332 32 3	152 42 23	" " 15 "	26	5'230615	176 58 49	356 58 2
" " 2 "	27	5'419931	332 36 18	152 46 37	Mishmi Hills, No. 11 Peak	26	5'322286	186 29 27	6 31 32
" " 1 "	27	5'420961	333 24 9	153 34 13	" " 12 "	26	5'323465	187 45 5	7 47 35
<b>SAENGA JAN POST S.</b>					" " 19 "	26	5'410413	194 48 35	14 54 23
Miri Hills, No. 117 Peak	22	4'892433	157 9 36	337 6 59	" " 15 "	26	5'314364	195 24 3	15 28 51
Unexplored, No. 3 Peak	28	5'770081	220 37 4	41 11 1	" " 20 "	26	5'372573	198 37 58	18 44 36
Mishmi Hills, No. 1 Peak	28	5'689737	224 58 10	45 28 35	" " 28 "	26	5'553988	199 58 42	20 9 33
" " 4 "	28	5'716483	228 20 46	48 54 58	" " 17 "	26	5'271811	200 24 47	20 30 30
" " 6 "	28	5'712089	229 20 34	49 54 55	" " 20 "	28	5'472545	243 42 57	64 6 12
" " 9 "	28	5'729907	237 17 40	57 57 13	" (?) " 2 "	27	5'401490	255 14 3	75 35 15
" " 12 "	28	5'677872	239 43 11	60 19 5	" " 30 "	28	5'510122	255 23 4	75 50 19
" " 14 "	28	5'682570	240 52 30	61 29 11	SIBSAGAR, GAURISAGAR S.				
" " 19 "	28	5'690513	245 26 7	66 4 56	Nága Hills, No. 13 Peak	21	5'031424	4 6 31	184 5 52
Singfo and Kampti Hills, No. 9 Peak	27	5'764124	267 1 34	87 51 26	" " 10 "	21	5'105791	8 59 45	188 58 6

Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance	Azimuth		Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance	Azimuth	
			At Station	At Peak				At Station	At Peak
<b>SIBSAGAR, GAURISAGAR S.—(Continued).</b>									
Nága Hills, No. 9 Peak	24	5·321349	270 51 53	91 9 22	SILA H.S.	14	5·595256	200 18 49	20 30 10
" " 29 "	21	5·063017	274 19 57	94 29 34	" " 4 "	14	5·619679	203 2 0	23 15 33
" " 7 "	24	5·162481	278 18 26	98 30 25	SILANI MUKH Post S.				
" " 28 "	21	5·045213	286 55 8	107 3 59	Mishmi Hills, No. 32 Peak	28	5·698179	254 18 23	75 0 11
" " 5 "	24	5·210665	288 54 12	109 6 58	" (?) " 12 "	27	5·642908	256 9 2	76 46 5
" " 4 "	24	5·191225	297 7 54	117 19 23	" " 31 "	28	5·693445	256 48 9	77 29 55
" " 27 "	21	5·043111	297 35 43	117 43 51	" (?) " 14 "	27	5·661298	258 10 14	78 49 10
" " 8 "	24	5·443662	303 14 3	123 33 14	Singfo and Kampti Hills, No. 10 Peak	27	5·687910	269 14 34	89 56 35
" " 26 "	21	5·068259	306 41 42	126 49 30	SINGARI H.S.				
" " 25 "	21	5·149913	315 34 34	135 42 46	Monhuil Hills, No. 16 Peak	14	5·685091	186 20 22	
" " 18 "	21	5·009283	322 20 37	142 25 48	SOATHOL Post S.				
" " 24 "	21	5·166836	328 37 18	148 43 38	Miri Hills, No. 14 Peak	22	5·415033	173 26 52	353 24 20
" " 23 "	21	5·211004	330 11 43	150 18 24	YELU h.s.				
" " 16 "	21	5·084405	330 59 35	151 4 27	Miri Hills, No. 1 Peak	22	4·613577	50 32 50	230 30 7
" " 22 "	21	5·318645	333 28 45	153 36 25	" " 2 "	22	4·661446	60 55 31	240 52 5
" " 17 "	21	4·970815	336 26 18	156 29 24	" " 5 "	22	4·183672	66 49 48	246 48 36
" " 19 "	21	5·380066	339 6 58	159 14 0	" " 8 "	22	4·612334	70 43 17	250 39 58
" " 11 "	21	5·060929	355 42 45	175 43 28	" " 4 "	22	4·642249	79 38 11	259 34 28
<b>SIBSAGAR No. 2 s.</b>									
Nága Hills, No. 7 Peak	24	5·070846	288 56 23	109 5 40	" " 1 "	18	4·944523	90 9 42	270 2 8
" " 28 "	21	4·948068	303 53 9	123 59 17	" " 2 "	18	4·947836	90 56 40	270 49 2
" " 8 "	24	5·418222	310 19 15	130 35 45	" " 8 "	18	4·943763	91 57 12	271 49 39
" " 27 "	21	4·975638	316 16 32	136 21 59					

DISTANCES OF PEAKS AND AZIMUTHS.

Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance	Azimuth		Name of Station with Peaks observed therefrom	Degree Sheet	Log. Distance	Azimuth	
			At Station	At Peak				At Station	At Peak
YELU h.s.—(Continued).									
Unexplored, No. 1 Peak	28	5'655660	175 19 11	355 15 55	Miri Hills, No. 6 Peak	28	5'360640	207 54 52	28 4 14
" " 8 "	28	5'371830	177 50 4	357 49 17	" " 10 "	28	5'211249	208 35 51	28 42 36
" " 2 "	28	5'468449	180 47 23	0 47 44	" " 11 "	28	5'214230	208 48 17	28 55 8
" " 3 "	28	5'470741	181 24 24	1 25 3	Unexplored, No. 9 Peak	28	5'593100	210 11 48	30 29 8
" " 4 "	28	5'468092	182 3 29	2 4 25	Miri Hills, No. 24 Peak	22	4'900492	210 18 13	30 21 40
Miri Hills, No. 31 Peak	22	4'990012	184 46 17	4 46 59	" " 7 "	28	5'373101	210 32 18	30 42 46
Unexplored, No. 5 Peak	28	5'465516	185 25 55	5 28 21	" " 25 "	22	4'921228	211 49 26	31 53 14
Miri Hills, No. 30 Peak	22	4'915656	185 47 56	5 48 40	" " 42 "	22	5'069149	214 39 29	34 45 15
" " 29 "	22	4'906787	190 0 50	10 2 3	" " 8 "	28	5'381732	215 17 18	35 29 25
" " 35 "	22	5'048755	191 36 31	11 38 28	" " 43 "	22	5'074952	216 16 5	36 22 10
" " 22 "	22	4'807139	194 43 15	14 44 39	" " 41 "	22	5'115327	216 24 13	36 30 55
" " 33 "	22	5'020855	196 31 4	16 33 39	" " 44 "	22	5'205983	223 9 21	43 18 52
" " 1 "	28	5'365955	198 17 24	18 23 46	" " 46 "	22	5'167182	225 29 26	45 38 30
" " 31 "	22	5'021704	200 43 22	20 46 35	" " 47 "	22	5'163788	226 32 25	46 41 34
" " 8 "	28	5'387786	202 53 33	23 1 51	" " 45 "	22	5'226571	229 20 58	49 3 2
" " 23 "	22	4'875630	203 48 19	23 50 56	" " 52 "	22	4'995199	229 36 17	49 42 47
" " 21 "	22	4'719672	206 46 2	26 48 5	" " 54 "	22	5'106655	240 2 2	60 11 35
" " 5 "	28	5'372446	206 46 6	26 55 22	" " 60 "	22	5'166489	251 32 48	71 44 48
" " 9 "	28	5'262255	207 29 12	27 36 32					

W. H. COLE,  
In charge of Computing Office.

June, 1890.

## ASSAM VALLEY SERIES.

## CO-ORDINATES AND DESCRIPTIONS OF ALL STATIONS, POINTS AND PEAKS.

The following table gives the co-ordinates of all stations and other fixed points and of peaks appertaining to this Series, also the descriptions of the secondary stations, points, and peaks, the district or tract in which they are situated, and the season in which their positions were determined. In the first column, immediately below the name or designation, is entered a reference to the triangles fixing the station or point when these are to be found in the preceding pages, or, in the case of peaks, the stations from which they have been observed. The heights above mean sea level, and information regarding the number of rays determining the position and height of points and peaks, as well as the discrepancy per mile in the common side, are given in the last four columns. In the case of visited stations the heights refer to the upper surface of the pillar on which the theodolite stood.

DEGREE SHEET No. 13, between Lats. 26°—27° and Longs. 92°—93°.

Name or Designation of Station or Point.	Description, State or District, and Season of Observation	Latitude N.	Longitude E. of Greenwich	Height in feet above mean sea level	No. of Rays determining		Discrepancies per mile in common side of triangles
					Position	Height	
Bhutan Hills, No. 1 Peak ... [Bhairaber Chura XXXI, Raikusni XXXII]	About 6½ miles W. of Amarlal and 6 miles N.W. of Boundary Pillar No. 114. 1877-78.	26 56 46	92 3 55	...	2	...	Feet ...
Desh Maiang H.S. ... [Triangles 179, 180]	On a rock 20 feet high on N.E. spur of the Desh Maiang hills, on the left bank of the Brahmaputra river, about 1 mile S. of Hillilonda, and ¼ of a mile E.N.E. of Sankápára village. The station is denoted by a circle and dot inscribed on the rock <i>in situ</i> and surrounded by a masonry platform. (Nowgong). 1869-70.	16 1 97	92 47 61	1142	...	3	...
Dúmria H.S. ... [Triangle 178]	On a hill in the Khási range, about 4 miles S. of Dúmria village from which a path leads to the station; the old road from Gaubáti to Nowgong passes through the village of Dúmria. The station is denoted by a circle and dot inscribed on the rock <i>in situ</i> and surrounded by a masonry platform. (Kámráp). 1868-69.	4 26 57	9 25 31	2411	...	3	...
Kámákshá H.S. ... [Triangles 186, 187]	On the highest of a few low hills grouped together on left bank of the Brahmaputra river, about 1 mile distant from Kaliábar Tea Estate, the same distance E. of Silghát village and N. of Sonárigaon. The station is denoted by a masonry pillar having two mark-stones 2 feet apart, one at surface flush with ground level and the other below. (Nowgong). 1872-73.	36 52 72	59 41 13	789	...	3	...

NOTE.—Stations XXXI and XXXII appertain to the Assam Longitudinal Series.

## DEGREE SHEET No. 13, between Lats. 26°—27° and Longs. 92°—93°, (Continued).

Name or Designation of Station or Point	Description, State or District, and Season of Observation	Latitude N.	Longitude E. of Greenwich	Height in feet above mean sea level	No. of Rays determining		Discrepancies per mile in common side of triangles
					Position	Height	
Kandali H.S. ... [Triangle 185]	On the highest part of the range named after the weekly hát held in the plains about 4 miles distant; mauza Bara-Kandali, thána Dabka: the road has been cut from the kachahri village of Habbi. The station is marked by a masonry pillar having two mark-stones, the upper flush with ground level and the other 2½ feet below it. ( <i>Nowgong</i> ). 1873-74.	26 13 2'01"	92 53 1'66"	2796	...	3	Feet ...
Khola H.S. ... [Triangle 182]	On the highest of a group projecting from the main range of the Khási hills, about ¼ of a mile S.W. of Dakkhim Khola village which is at the foot of the hill. A masonry pillar having two mark-stones, one at surface flush with ground level and the other 2½ feet below it, denotes the station. ( <i>Nowgong</i> ). 1873-74.	6 38'12"	25 1'17"	1801	...	3	...
Mikir Hills, No. 1 Peak ... [Kandali H.S., Nowgong s.]	Top of the highest tree on ridge W. of Sanani Nadi, about 2½ miles N. of Rohai village. ( <i>Nowgong</i> ). 1873-74.	3 59	28 11	2210	2	1	...
Mikir Hills, No. 2 Peak ... [Kandali H.S., Khola H.S., Nowgong s.]	Highest tree, apparently single, on ridge at junction of several spurs, about 2 miles E. of Sarmo, and 2 miles N. by W. of Bhagirana. ( <i>Nowgong</i> ). 1873-74.	9 52'8"	52 45'5"	2750	3	2	1'0"
Nowgong s. ... [Triangle 260]	On the sentry box mound at the S.W. corner of jail in the civil station of Nowgong, and is marked by a picket. The permanent mark, to which observations have been reduced, is the S.W. corner of the jail wall, distant 27½ feet from the picket. ( <i>Nowgong</i> ). 1873-74.	20 36'12"	43 31'91"	208	...	2	...
Porá Parbat h.s. ... [Triangle 262]	On a hill in the civil station of Tezpur. It is marked by a paka pillar, and is identical with the Revenue Survey Station. ( <i>Darrang</i> ). 1873-74.	37 0'23"	50 47'03"	374	...	2	...
Sildubi h.s. ... [Triangle 261]	On a hill about 1½ miles S.W. of the Tezpur Post Office. ( <i>Darrang</i> ). 1872-73.	37 3'19"	49 27'69"	433	...	1	...
Singari H.S. ... [Triangles 183, 184]	On the easternmost swell of a group of low hills about 1 mile distant from village of the same name from which the road has been cut passing close to Gopásur temple; mauza Barsála. A masonry pillar having two mark-stones, one at surface flush with ground level and the other 2 feet below it, denotes the station. ( <i>Darrang</i> ). 1870-71.	36 42'77"	32 40'08"	568	...	3	...
Tatalia H.S. ... [Triangle 181]	On a conical-shaped rock 25 feet high on the S.E. of a group of low hills of the same name; mauza Tatalia, thána Jogi both of which are about 2 miles to the S.W. The station is denoted by a circle and dot inscribed on the rock <i>in situ</i> and surrounded by a masonry platform. ( <i>Nowgong</i> ). 1869-70.	11 48'31"	18 42'76"	905	...	2	...
Tezpur Church ... [Triangle 263]	Top of belfry. ( <i>Darrang</i> ). 1872-73. ...	37 6'3"	50 23'3"	292	...	2	...
Tezpur, Lunatic Asylum ... [Triangle 264]	S.W. corner of the square paka building. ( <i>Darrang</i> ). 1872-73.	37 37'2"	51 10'8"	...	...	...	...



## DEGREE SHEET No. 14, between Lats. 27°—28° and Longs. 92°—93°.

Name or Designation of Station or Point.	Description, State or District, and Season of Observation	Latitude N.	Longitude E. of Greenwich	Height in feet above mean sea level	No. of Rays determining		Discrepancies per mile in common side of triangles
					Position	Height	
Akha Hills, No. 1 Peak ... [Kámákshá H.S., Kandali H.S.]	Also called Yola Peak No. 1, highest and very wooded point about 12 miles E. of Phutung Pass. 1872-73.	27 10 30	92 28 1	11580	2	2	Feet ...
Akha Hills, No. 2 Peak ... [Kandali H.S., Khola H.S., Porá Parbat h.s.]	Also called Yola Peak No. 2, highest point on mass. 1873-74.	7 57	29 8	10540	3	1	2' 2
Akha Hills, No. 3 Peak ... [Kámákshá H.S., Khola H.S., Porá Parbat h.s.]	Also called Yola Peak No. 3, about 9 miles N. of Boundary pillar No. 132. 1873-74.	6 52' 0	31 27' 5	10350	3	2	0' 8
Akha Hills, No. 4 Peak ... [Kámákshá H.S., Kandali H.S., Porá Parbat h.s.]	About 10 miles N. of Boundary pillar No. 136. 1873-74.	11 14	40 50	7060	3	2	1' 3
Akha Hills, No. 5 Peak ... [Kámákshá H.S., Khola H.S., Porá Parbat h.s.]	Western and higher of two knobs, about 7 miles N. of Boundary pillar No. 142. 1873-74.	4 58	55 58	4990	3	2	0' 8
Akha Hills, No. 6 Peak ... [Kandali H.S., Khola H.S., Porá Parbat h.s.]	Eastern end of western and higher of two knobs, on ridge about 6 miles N. by W. of No. 5 Peak. 1873-74.	9 25' 8	53 56' 8	5780	3	2	0' 5
Akha Hills, No. 7 Peak ... [Kámákshá H.S., Kandali H.S., Nikori Chápri T.S.]	1872-73. ... ..	15 20' 0	49 25' 5	7540	3	2	0' 3
Akha Hills, No. 8 Peak ... [Khola H.S., Porá Parbat h.s.]	1873-74. ... ..	14 59	51 48	...	2	...	...
Monhuil Hills, No. 1 Peak ... [Chándar Dinga XXVIII, Bhairaber Chura XXXI, Raikusni XXXII]	On spur N. of Sangti Chu, about 4½ miles S.S.W. of Chingmi. 1877-78.	1 53	6 24	...	3	...	4' 9
Monhuil Hills, No. 2 Peak ... [Kandali H.S., Porá Parbat h.s.]	Western and highest of three or four peaks about 5 miles W. by S. of Chingmi. 1873-74.	4 21	4 44	10020	2	1	...
Monhuil Hills, No. 3 Peak ... [Síla H.S., Kurua H.S.]	About 9 miles W. by N. of Phutung Pass. 1877-78.	14 3	9 21	...	2	...	...
Monhuil Hills, No. 4 Peak ... [Síla H.S., Kurua H.S.]	About 4 miles W. of Menda Pass, and 5 miles S.E. of Dhirang Jong. 1877-78.	16 22	14 13	...	2	...	...
Monhuil Hills, No. 5 Peak ... [Kandali H.S., Khola H.S., Porá Parbat h.s.]	Wooded peak on spur, about 9 miles E.S.E. of Taklung Jong. 1873-74.	4 33	20 20	9870	3	2	3' 2
Monhuil Hills, No. 6 Peak ... [Kandali H.S., Khola H.S., Porá Parbat h.s.]	Wooded peak on spur, about 9 miles E. of Taklung Jong, and 5 miles E.S.E. of Phutung Pass. 1873-74.	9 7	21 21	10520	3	1	2' 9
Monhuil Hills, No. 7 Peak ... [Kámákshá H.S., Kandali H.S., Khola H.S.]	Sharp, high and eastern of two knobs N. of Dhirang Chu. 1873-74.	30 42' 4	41 36' 2	12060	3	2	0' 3
Monhuil Hills, No. 8 Peak ... [Khola H.S., Kandali H.S., Porá Parbat h.s.]	Snowy peak, low end of peak, highest of group. 1873-74.	48 0	18 37	18940	3	2	1' 2
Monhuil Hills, No. 9 Peak ... [Khola H.S., Kámákshá H.S., Kandali H.S.]	Snowy peak, highest of group. 1870-71 ... ..	47 39' 6	25 55' 0	21450	3	2	0' 3
Monhuil Hills, No. 10 Peak ... [Khola H.S., Kandali H.S., Porá Parbat h.s.]	Snowy peak. 1873-74. ... ..	51 7	32 39	20860	3	2	1' 4
Monhuil Hills, No. 11 Peak ... [Maupáni V, Dinghei VI, Mautherrichan VII]	Snowy peak. 1860-61. ... ..	51 31' 2	34 29' 6	...	3	...	0' 3
Monhuil Hills, No. 12 Peak ... [Khola H.S., Kandali H.S., Khelbinshon H.S., Chenghehishon H.S.]	Snowy peak. 1872-73. ... ..	51 52	34 30	23260	4	2	1' 3

NOTE.—Stations XXVIII, XXXI, and XXXII appertain to the Assam Longitudinal Series. Stations V, VI, and VII appertain to the Eastern Frontier Series, Section 23° to 26°, or the Shillong Meridional Series.

*DEGREE SHEET No. 14, between Lats. 27°—28° and Longs. 92°—93°, (Continued).*

Name or Designation of Station or Point	Description, State or District, and Seasons of Observation	Latitude N.	Longitude E. of Greenwich	Height in feet above mean sea level	No. of Rays determining		Discrepancies per mile in common sides of triangles
					Position	Height	
Monhuil Hills, No. 13 Peak ... [Kandali H.S., Khelbinshon H.S., Kankochan H.S.]	Eastern of two snowy peaks. 1872-73.	27 52 43' I.	92 40 2' I.	21210	3	1	Feet 0·2
Monhuil Hills, No. 14 Peak ... [Maupani V*, Laidera VIII*, Mautherrichan VII*.]	Snowy peak. 1860-61.	54 27' 0	40 8' 2	22410	3	1	0·2
Monhuil Hills, No. 15 Peak ... [Kandali H.S., Khelbinshon H.S., Golághát T.S., Khola H.S., Kámákhá H.S.]	Snowy peak. 1872-73.	54 32	40 15	22760	5	2	1·2
Monhuil Hills, No. 16 Peak ... [Kandali H.S., Khelbinshon H.S., Golághát T.S., Khola H.S., Chenghehishon H.S., Singari H.S., Kámákhá H.S., Longboái H.S.]	Snowy peak, slightly flat at top. 1872-73.	56 9	42 36	23120	8	2	0·7
Monhuil Hills, No. 17 Peak ... [Kandali H.S., Porá Parbat h.s., Khola H.S.]	Snowy peak, sharp. 1873-74.	58 1	45 27	20650	3	2	1·0
Monhuil Hills, No. 18 Peak ... [Khola H.S., Kandali H.S., Porá Parbat h.s.]	Snowy peak. 1873-74.	58 15	47 8	20640	3	2	1·5
Monhuil Hills, No. 19 Peak ... [Khola H.S., Kandali H.S., Kámákhá H.S.]	Snowy peak, central and highest of three peaks. 1873-74.	58 55	46 33	20950	3	3	1·4

*DEGREE SHEET No. 15, between Lats. 28°—29° and Longs. 92°—93°.*

Tibet Hills, No. 1 Peak ... [Khola H.S., Kandali H.S., Porá Parbat h.s.]	Snowy peak. 1873-74.	28 6 32	92 57 12	18220	3	2	Feet 4·0
Tibet Hills, No. 2 Peak ... [Khola H.S., Kandali H.S., Kámákhá H.S., Porá Parbat h.s.]	Snowy peak, E. end. 1873-74.	6 48	58 52	17990	4	2	1·5
Tibet Hills, No. 3 Peak ... [Khola H.S., Kandali H.S., Kámákhá H.S., Porá Parbat h.s.]	Snowy peak, sharp. 1873-74.	10 23	52 36	21540	4	2	1·4
Tibet Hills, No. 4 Peak ... [Khola H.S., Kandali H.S.]	Snowy peak, eastern of two knobs. 1873-74.	12 31	51 32	22360	2	2	...
Tibet Hills, No. 5 Peak ... [Khola H.S., Kandali H.S., Kámákhá H.S., Porá Parbat h.s.]	Snowy peak, sharp and remarkable. 1873-74.	12 1	55 40	20920	4	2	1·0

*DEGREE SHEET No. 16, between Lats. 25°—26° and Longs. 93°—94°.*

Nágá Hills, No. 1 Peak ... [Madaigaon T.S., Nikori Chápri T.S.]	Highest point at the E. end, on the ridge west of the Zulla river, about 1½ miles N. by E. of Nakama village. Probably identical with Pauna station of the Topographical Survey. 1873-74.	25 35 35	93 54 45	...	2	...	Feet ...
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\* NOTE.—Stations V, VII and VIII appertain to the Eastern Frontier Series, Section 23° to 26°, or the Shillong Meridional Series.

## DEGREE SHEET No. 17, between Lats. 26°—27° and Longs. 93°—94°.

Name or Designation of Station or Point	Description, State or District, and Season of Observation	Latitude N.	Longitude E. of Greenwich	Height in feet above mean sea level	No. of Rays determining		Discrepancies per mile in common side of triangles
					Position	Height	
Bar Chápri T.S. ... [Triangle 195]	In a small open spot in the forest, north of the road from Nimligurh Tea Plantation to Golághát, about $\frac{1}{4}$ of a mile W. of the Digrung river, 2 miles S.E. of Látkuján Tea Factory and the same distance N.W. of Halwágaon; sub-division Golághát. The pillar is perforated and 24 feet high, and has three mark-stones, the first 1 foot above the surface of the ground, the second at ground level, and the third 1 foot below it. ( <i>Sibságar</i> ). 1872-73.	26 34 4'08	93 52 11'22	325	...	2	Feet ...
Biswanáth s. ... [Triangle 265]	On a rock on the right bank of the Brahmaputra river. Marked by a paka pillar about 4 feet high. It is identical with the Revenue Survey station of that name. ( <i>Darrang</i> ). 1872-73.	39 29'13	12 50'08	279	...	2	...
Bura Parbat, No. 1 Peak ... [Burai Mukh No. 2 s., Khari Mukh s.]	In the Mikir hills on the lower range bordering the plains, about $1\frac{1}{2}$ miles N.E. of Kachahrigaon village. ( <i>Nowgong</i> ). 1871-72.	31 59	2 24	1860	2	2	...
Bura Parbat, No. 2 Peak ... [Burai Mukh No. 2 s., Khari Mukh s.]	Middle one of three knobs on the outer range of the Mikir hills, about 6 miles N.E. by E. of Kachahrigaon, and nearly the same distance S.E. by E. of Jokhlábánda village. ( <i>Nowgong</i> ). 1871-72.	32 33	6 55	...	2	...	...
Bura Parbat, No. 3 Peak ... [Burai Mukh No. 2 s., Khari Mukh s.]	Easternmost of the outer range of the Mikir hills, about $3\frac{1}{2}$ miles W. of Arháik village. ( <i>Nowgong</i> ). 1871-72.	30 42	10 12	...	2	...	...
Bura Parbat, No. 4 Peak ... [Burai Mukh No. 2 s., Khari Mukh s., Longboái H.S.]	North-western of the two highest knobs in the Mikir hills, on the lower range bordering the plains, about 5 miles W. of Sari village. ( <i>Nowgong</i> ). 1871-72.	31 44'6	9 17'2	2500	3	2	0'9
Burai Mukh, No. 1 s. ... [Triangle 267]	On a large sand bank just opposite the Burai Mukh, about 500 yards from the Revenue Survey point on the left bank of the Burai nadi. ( <i>Darrang</i> ). 1871-72.	45 13'43	30 24'96	250	...	2	...
Burai Mukh, No. 2 s. ... [Triangle 268]	On the left bank of the Burai nadi. It is marked by a paka pillar, and is identical with the Revenue Survey station of that name. ( <i>Darrang</i> ). 1871-72.	45 30'69	30 30'51	246	...	2	...
Chekso Hill Mark (heliotrope) ... [Triangle 266]	On one of the Mikir hills, about $\frac{1}{4}$ a mile N.W. of Asata village, and 3 miles W. of Mauzadár's village. ( <i>Nowgong</i> ). 1872-73.	33 5'41	13 18'18	...	...	...	...
Chenghehishon H.S. ... [Triangle 189]	On the southernmost peak of the hill of that name, by far the highest of the Nága hills, which project to the north, about 20 feet S.W. of the Topographical Survey station, $3\frac{1}{2}$ miles S.W. of Hep-he-hishon, the Mauzadár's village, from which the road has been cut to the station. The station mark is cut on the rock <i>in situ</i> about 3 feet above the surface of the hill and surrounded by a masonry pillar 3 inches high and 3 feet in diameter. ( <i>Nága Hills</i> ). 1871-72.	15 28'94	24 52'45	4459	...	3	...
Cheniábinshon H.S. ... [Triangle 194]	On the summit of a hill amongst a group of apparently confused and densely wooded spurs and ridges facing the plains, about 6 miles S. of Itoná bázár from which the ascent to the station begins. Marked by a masonry pillar 3 feet in diameter and 6 inches high, having two mark-stones, one at the surface, and the other 3 feet below it at the foundation. ( <i>Nága Hills</i> ). 1872-73.	23 20'52	45 57'90	3004	...	2	...
Daphla Hills, No. 1 Peak ... [Longboái H.S., Burai Mukh No. 2 s., Burai Mukh No. 1 s.]	Western of double knob on outer range, about $3\frac{1}{2}$ miles S.W. of Námgarh peak. 1871-72.	58 55'8	19 55'4	...	3	...	0'7

DEGREE SHEET No. 17, between Lats. 26°—27° and Longs. 93°—94°, (Continued).

Name or Designation of Station or Point	Description, State or District, and Season of Observation	Latitude N.	Longitude E. of Greenwich	Height in feet above mean sea level	No. of Rays determining		Discrepancies per mile in common side of triangles
					Position	Height	
Daphla Hills, No. 2 Peak ... .. [Longboái H.S., Burai Mukh No. 1 s., Kankochan H.S., Khelbinshon H.S.]	White precipice, on outer range, about a mile S. of Nángarh peak. 1871-72.	26 59 0	93 22 41	2930	4	1	Feet *
Daphla Hills, No. 3 Peak ... .. [Longboái H.S., Burai Mukh No. 1 s., Burai Mukh No. 2 s.]	Called Nángarh peak. Highest tree on the outer range, about 4 miles S. of Chengogám encampment. 1871-72.	59 58	22 48	3720	3	2	3.5
Daphla Hills, No. 4 Peak ... .. [Longboái H.S., Burai Mukh No. 1 s., Burai Mukh No. 2 s.]	Highest tree to W. of centre, on the outer and lowest range bordering the Darrang district to the north, at the head of Pempua Jan nadi, about 4½ miles S. of Taplenggám encampment. 1871-72.	59 4.7	25 28.5	...	3	...	1.6
Daphla Hills, No. 5 Peak ... .. [Longboái H.S., Burai Mukh No. 1 s., Burai Mukh No. 2 s., Kankochan H.S.]	Western and higher of double peak on the outer and lowest range bordering the Darrang district to the north. 1871-72.	58 53.6	26 28.0	...	4	...	1.4
Daphla Hills, No. 6 Peak ... .. [Longboái H.S., Burai Mukh No. 2 s.]	To W. of a precipice on the outer and lowest range bordering the Darrang district to the north. 1871-72.	58 54	29 12	...	2	...	...
Daphla Hills, No. 7 Peak ... .. [Burai Mukh No. 1 s., Burai Mukh No. 2 s., Longboái H.S.]	Large round tree towards W. on the outer and lowest range bordering the Darrang district to the north. 1871-72.	58 59.4	30 22.4	2500	3	2	0.2
Daphla Hills, No. 8 Peak ... .. [Burai Mukh No. 2 s., Longboái H.S., Burai Mukh No. 1 s.]	Middle of three highest trees on the outer and lowest range bordering the Darrang district to the north. 1871-72.	59 51.6	32 3.9	...	3	...	0.4
Daphla Hills, No. 9 Peak ... .. [Burai Mukh No. 2 s., Kámákhá H.S., Kankochan H.S., Longboái H.S., Burai Mukh No. 1 s.]	Higher of double peak on the outer range, about ¼ a mile S. by W. of Gorusatia station of the Topographical Survey. 1871-72.	59 50.5	34 27.9	3300	5	3	1.2
Deogharát Tree ... .. [Triangles 273, 274]	Single tree in Nimligarh Tea Plantation. ( <i>Sibságar</i> ). 1871-72.	35 57	46 51	...	...	...	...
Golághát s. ... .. [Triangle 276]	On the right bank of the Dhansiri river at the S.W. corner of the Golághát bázár. It is identical with the Revenue Survey station of the same name. Marked by a paka pillar. ( <i>Sibságar</i> ). 1871-72.	30 28.67	59 55.34	305	...	2	...
Golághát t.s. ... .. [Triangle 196]	On slightly rising ground outside the bázár, on the right bank of the Dhansiri river, in the lands of the village of Kumárgaon, about ¼ of a mile S.E. of the Sub-Divisional Kachahri at Golághát. The pillar is perforated and 23 feet in height, and has three mark-stones, the first 1 foot above ground level, the second at the surface of the ground, and the third 1 foot below the second. ( <i>Sibságar</i> ). 1872-73.	30 47.60	59 54.74	338	...	2	...
Kámárgaon s. ... .. [Triangle 275]	On the right bank of the Dhansiri river, close to the Dhodar Ali road, about 1¼ miles from the Kámárgaon post office. Marked by a paka platform. It is identical with the Revenue Survey station. ( <i>Sibságar</i> ). 1872-73.	37 16.20	49 20.23	268	...	1	...
Kankochan H.S. ... .. [Triangle 198]	On the outermost of a series of low ranges of the Mikir hills running from E. to W. It is to S.E. of the village of Káziranga on the high road to Dibrugarh; the ascent to the station is from the Diflu Tea Plantation which is about 4 miles to N.W. A masonry pillar having two mark-stones, one at the surface and the other 2½ feet below at the foundation, denotes the station. ( <i>Nowgong</i> ). 1872-73.	33 56.06	40 14.15	1358	...	2	...
Khari Mukh s. ... .. [Triangle 271]	At the junction of the Khari nadi with the Brahmaputra river, on the right bank of both, about 400 yards S.E. of Sanoli village. ( <i>Darrang</i> ). 1871-72.	44 17.62	38 9.92	250	...	2	...

\* Fixed by single triangles from two independent bases.

## DEGREE SHEET No. 17, between Lats. 26°—27° and Longs. 93°—94°, (Continued).

Name or Designation of Station or Point	Description, State or District, and Season of Observation	Latitude N.	Longitude E. of Greenwich	Height in feet above mean sea level	No. of Rays determining		Discrepancies per mile in common side of triangles
					Position	Height	
Khelbinshon H.S. ... [Triangle 192]	On the highest point of a series of high ranges of the Ringma Naga hills, running E. to W. about $\frac{1}{4}$ of a mile N. of the large village of the late Naga Mauzadár "Inthuga"; the ascent to the station is from Itonia bazar on the Kaliani river, three marches to the east. Marked by a masonry pillar having two mark-stones, one at top at the ground level and the other $2\frac{1}{2}$ feet below at the foundation. (Naga Hills). 1871-72.	26 26 15.28	93 34 56.93	2908	...	2	Feet ...
Khumbaman Hill Mark ... [Triangles 269, 270]	A Topographical Survey station in the Ringma Naga Hills. (Naga Hills). 1871-72.	7 35.81	31 19.59	...	...	...	...
Kukurkhata Hill Peak ... [Biswanath S., Longboái H.S.]	Highest tree on the northern end of one of the Mikir hills. (Nowgong). 1872-73.	35 28	6 20	970	2	2	...
Longboái H.S. ... [Triangles 190, 191]	On the N. and N.E. extremity of two ranges running parallel to each other and bearing the same name; the trunk road from Gaulhati to Dibrugarh passes $2\frac{1}{2}$ miles to N. and under the range; the road has been cut from Kaisa Gola at Hatikhola about $2\frac{1}{2}$ miles from the station. Denoted by a masonry pillar 6 inches high having two mark-stones 15 inches apart, one at the surface and the other at the foundation. (Nowgong). 1872-73.	34 14.68	23 35.71	1676	...	3	...
Longboái, No. 1 Hill Peak ... [Burai Mukh No. 2 s., Khari Mukh s.]	Small tree on the highest part of the outer range of the Mikir hills. (Nowgong). 1871-72.	33 57	22 28	...	2	...	...
Longboái, No. 2 Hill Peak ... [Burai Mukh No. 2 s., Khari Mukh s.]	Centre of top forest, in the Mikir hills, on the lower range bordering the plains. (Nowgong). 1871-72.	33 59	20 36	910	2	2	...
Madaigaon T.S. ... [Triangle 197]	On the lands of the village of Madaigaon, about $1\frac{1}{2}$ miles to the S. of the high road from Nowgong to Dibrugarh, 3 miles N.N.W. of Duria Tea Factory, $\frac{1}{2}$ of a mile S.W. of Barichua, and the same distance S.E. of Madaigaon village; sub-division Golághát. The pillar is perforated and 35 feet high, it has two mark-stones, one at the ground level and the other $2\frac{1}{2}$ feet below it. (Sibsagar). 1873-74.	39 46.50	58 32.86	331	...	2	...
Mehekongthu H.S. ... [Triangle 188]	On the highest swell of an extensive range, about $3\frac{1}{2}$ miles S.S.E. of Thoubé village on the Dirju river and 6 miles W. of Dauka village, mauza Rangbang. The road to the station has been cut from the deserted village of Lakpo to N. A masonry pillar flush with the surface of the hill having two mark-stones, one at the surface and the other 3 feet below, denotes the station. (Nowgong). 1870-71.	23 35.53	4 54.21	2094	...	2	...
Mikir Hills, No. 1 Peak ... [Burai Mukh No. 1 s., Burai Mukh No. 2 s., Khari Mukh s.]	On the lower range bordering the plains, about $\frac{1}{4}$ a mile N. of Ramoti, and 2 miles W. of Danglang. (Nowgong). 1871-72.	32 35.42	23 7.78	1980	3	2	0.2
Mikir Hills, No. 2 Peak ... [Burai Mukh No. 2 s., Khari Mukh s., Pichhla Mukh s.]	Highest tree close to Gambru s. (Nowgong). 1871-72.	31 20.20	34 43.80	2530	3	2	0.1
Mikir Hills, No. 3 Peak ... [Chenghehishon H.S., Kankochan H.S., Khelbinshon H.S.]	About 500 feet E. of the preceding peak. (Nowgong). 1871-72.	31 20.28	34 48.65	2530	3	2	1.0
Mikir Hills, No. 4 Peak ... [Chenghehishon H.S., Kankochan H.S., Nikori Chapri T.S.]	Centre of highest tree, about 2 miles S. by W. of Ombe village. (Nowgong). 1872-73.	31 22.53	33 15.92	...	3	...	0.6
Mikir Hills, No. 5 Peak ... [Kankochan H.S., Nikori Chapri T.S.]	Highest tree to the south, on the middle and highest of three knobs, close to Karjo village. (Nowgong). 1872-73.	32 40	27 5	...	2	...	...

## DEGREE SHEET No. 17, between Lats. 26°—27° and Longs. 93°—94°, (Continued).

Name or Designation of Station or Point	Description, State or District, and Season of Observation	Latitude N.	Longitude E. of Greenwich	Height in feet above mean sea level	No. of Rays determining		Discrepancies per mile in common side of triangles
					Position	Height	
Mikir Hills, No. 6 Peak ... [Burai Mukh No. 1 s., Burai Mukh No. 2 s., Khari Mukh s.]	On the lower range bordering the plains, about a mile N.E. of Karjo village. ( <i>Nowgong</i> ). 1871-72.	26 33 13.2	93 27 41.7	...	3	...	Feet 0.9
Mikir Hills, No. 7 Peak ... [Burai Mukh No. 2 s., Khari Mukh s.]	On the lower range bordering the plains, about 2 miles N.E. of Burabasa, and the same distance S.W. of Rongbong village. ( <i>Nowgong</i> ). 1871-72.	33 58	30 37	...	2	...	...
Mikir Hills, No. 8 Peak ... [Burai Mukh No. 1 s., Burai Mukh No. 2 s., Kankechan H.S., Khari Mukh s.]	Higher and western of two trees on the outer range, W of Diflu gardens, $\frac{1}{2}$ of a mile N. by E. of Rongbong, and a mile S. by W. of Panburi village. ( <i>Nowgong</i> ). 1871-72.	35 34.8	32 47.5	1430	4	1	0.5
Mikir Hills, No. 9 Peak ... [Burai Mukh No. 2 s., Khari Mukh s., Pichhla Mukh s.]	Bottom of the highest tree towards the southern end of the ridge, on the low range S. of Nimáligarh grant, and $1\frac{1}{2}$ miles N. of Deothar s. ( <i>Nowgong</i> ). 1871-72.	35 33.7	43 46.7	1010	3	2	0.9
Nága Hills, No. 1 Peak ... [Chenghehishon H.S., Khelfbinshon H.S.]	Highest tree on a main spur of the Ringma Nága hills, above the right bank of the Jamuna river, and about 3 miles S. by E. of Khon Baman. 1871-72.	4 42	32 11	...	2	...	...
Nága Hills, No. 2 Peak ... [Cheniábinshon H.S., Chenghehishon H.S., Khelfbinshon H.S.]	Highest tree on a spur of the Ringma Nága hills, south of the Langhit river, and 2 miles N. by E. of Khon Baman. 1871-72.	8 46.9	33 3.4	4540	3	3	0.6
Nága Hills, No. 3 Peak ... [Chenghehishon H.S., Khelfbinshon H.S.]	Highest tree on the Ringma Nága hills, about 4 miles N.W. of Sapanajung Hill Mark. 1871-72.	15 30	35 29	3770	2	2	...
Nága Hills, No. 4 Peak ... [Chenghehishon H.S., Khelfbinshon H.S.]	Highest tree on the Ringma Nága hills, about $2\frac{1}{2}$ miles S.E. of Chogotong, and 2 miles S.W. of Bogrisang. 1871-72.	19 32	35 57	3730	2	2	...
Nága Hills, No. 5 Peak ... [Chenghehishon H.S., Khelfbinshon H.S.]	Highest tree on the high wooded range in the Ringma Nága hills, S. of the Koliáni river, and 2 miles S. by W. of Kadinshon village. 1871-72.	20 9	30 38	3520	2	2	...
Nága Hills, No. 6 Peak ... [Chenghehishon H.S., Kankochan H.S., Khelf- binshon H.S.]	Centre of the highest tree on the high, wooded range in the Ringma Nága hills, about $1\frac{1}{2}$ miles N. by E. of southern Bogrisang, and 2 miles E. by S. of northern Bogrisang. 1871-72.	21 27.58	38 31.84	3540	3	2	0.6
Nága Hills, No. 7 Peak ... [Chenghehishon H.S., Kankochan H.S., Khelf- binshon H.S.]	Highest tree on the Ringma Nága hills, about a mile N. by W. of Chotugusen. 1872-73.	22 27	41 19	3420	3	2	24.9
Nága Hills, No. 8 Peak ... [Burai Mukh No. 2 s., Kankochan H.S., Khari Mukh s., Khelfbinshon H.S., Pichhla Mukh s.]	Top of the highest tree on a spur, about $1\frac{1}{2}$ miles E. by N. of Cheniábinshon H.S., and $1\frac{1}{2}$ miles S. by W. of Kaki village. 1871-72.	23 32.00	47 21.16	3010	5	2	0.1
Nikori Chápri T.S. [Triangles 198, 199]	On the E. bank of the Goráimári bil on an island formed by the Brahmaputra river and the Gela bil, about $5\frac{1}{2}$ miles N. of Kámárgaon Post Office on the high road to upper Assam, $1\frac{1}{2}$ miles N.E. of Támárgaon a Miri village, and $1\frac{1}{2}$ miles S.W. of Mismiati an Assamese village. The pillar is perforated and 25 feet high, and has a mark-stone 1 foot above the surface of the ground, another at the ground level, and a third 1 foot below. ( <i>Sibságar</i> ). 1873-74.	41 25.69	48 54.51	283	...	2	...
Pichhla Mukh s. [Triangle 272]	On Luhit Mukh, a short distance from the Brahmaputra river, and near the village of Banganáhati. Marked by a perforated square pillar $2\frac{1}{2}$ feet high. It is identical with the Revenue Survey Station of the same name. ( <i>Darrang</i> ). 1871-72.	45 47.26	41 25.99	253	...	2	...

## DEGREE SHEET No. 17, between Lats. 26°—27° and Longs. 93°—94°, (Continued).

Name or Designation of Station or Point	Description, State or District, and Season of Observation	Latitude N.	Longitude E. of Greenwich	Height in feet above mean sea level	No. of Rays determining		Discrepancies per mile in common side of triangles
					Position	Height	
Raidang Hill Peak ... .. [Kankochan H.S., Khari Mukh s., Khelbinshon H.S. Pichhla Mukh s.]	Single tree on a high range of the Mikir hills, between Kankochan and Khelbinshon stations. ( <i>Nowgong</i> ). 1871-72.	26 29 41	93 36 16	2520	4	4	Feet *
Rodonga T.S. ... .. [Triangle 200]	On the lands of the village of Puránimátigaon on the island of Májuli, on the right bank of the Brahmaputra river, about 1½ miles E. of that village, and 1½ miles N.E. of Suklaghát ferry; sub-division Golaghát. The station is marked by a perforated masonry pillar 28 feet high having three mark-stones; the first 1 foot above the surface of the ground, the second at the ground level, and the third 1 foot below. ( <i>Sibságar</i> ). 1873-74.	48 0 05	56 40 07	294	...	2	...
Sapanajung Hill Mark ... .. [Chenghehishon H.S., Khelbinshon H.S.]	Abandoned principal station in the Ringma Nága hills, marked by a masonry pillar. ( <i>Nága Hills</i> ). 1871-72.	13 58 45	39 0 55	3715	2	1	...
Sapanajung Hill Peak ... .. [Cheniábinshon H.S., Golághát T.S.]	Centre of the highest part on the Ringma Nága hills. ( <i>Nága Hills</i> ). 1872-73.	14 24	39 20	3840	2	2	...
Sikuni Hill Peak ... .. [Biswanáth s., Kámákhá H.S.]	Highest tree on the highest point of one of the Mikir hills. ( <i>Nowgong</i> ). 1872-73.	31 46	8 29	2500	2	2	...

## DEGREE SHEET No. 18, between Lats. 27°—28° and Longs. 93°—94°.

Akha Hills, No. 1 Peak ... .. [Kámákhá H.S., Kandali H.S., Kankochan H.S.]	About 14 miles N.E. of Boundary pillar No. 142. 1872-73.	27 10 3 9	93 1 58 1	6350	3	2	Feet 0 2
Akha Hills, No. 2 Peak ... .. [Kandali H.S., Porá Parbat h.s.]	About 16 miles N.E. of Boundary pillar No. 142. 1873-74.	10 40	5 38	...	2	...	...
Akha Hills, No. 3 Peak ... .. [Burai Mukh No. 1 s., Burai Mukh No. 2 s., Longboái H.S.]	About 8 miles N. by W. of Boundary pillar No. 154. 1871-72.	2 25 87	10 55 42	4940	3	2	0 1
Akha Hills, No. 4 Peak ... .. [Kandali H.S., Porá Parbat h.s.]	1873-74. ... ..	20 45	14 58	...	2	...	...
Daphla Hills, No. 1 Peak ... .. [Burai Mukh No. 1 s., Burai Mukh No. 2 s., Longboái H.S.]	About 7 miles W. of the Chengogam encamping ground, and the same distance N. of Boundary pillar No. 155. 1871-72.	2 47 78	14 2 40	5100	3	2	0 1
Daphla Hills, No. 2 Peak ... .. [Burai Mukh No. 1 s., Burai Mukh No. 2 s., Longboái H.S.]	1871-72. ... ..	2 58 4	14 50 1	...	3	...	0 7
Daphla Hills, No. 3 Peak ... .. [Burai Mukh No. 1 s., Burai Mukh No. 2 s., Longboái H.S.]	About 8 miles N. of Boundary pillar No. 154. 1871-72.	3 12 4	15 11 2	5490	3	2	1 2
Daphla Hills, No. 4 Peak ... .. [Burai Mukh No. 1 s., Kankochan H.S., Khelbinshon H.S., Longboái H.S.]	Lower and western end of a high double-peaked hill on the mid range, about 10 miles W. of Gambu-gam village. 1871-72.	6 31 2	13 43 4	6810	4	2	0 9
Daphla Hills, No. 5 Peak ... .. [Burai Mukh No. 1 s., Kámákhá H.S., Kankochan H.S., Khelbinshon H.S., Longboái H.S.]	Eastern end of a high peak, about 9 miles W. by N. of Gambu-gam village. 1872-73.	7 26	15 22	6980	5	4	5 2

\* Fixed by single triangles from two independent bases.

## DEGREE SHEET No. 18, between Lats. 27°—28° and Longs. 93°—94°, (Continued).

Name or Designation of Station or Point	Description, State or District, and Season of Observation	Latitude N.	Longitude E. of Greenwich	Height in feet above mean sea level	No. of Rays determining		Discrepancies per mile in common side of triangles
					Position	Height	
Daphla Hills, No. 6 Peak ... [Kámárgaon s., Nikori Chápri T.S., Rodonga T.S.]	About 10 miles N.W. of Tariatgam. 1873-74.	27 11 15	93 14 18	...	3	...	Feet 2·8
Daphla Hills, No. 7 Peak ... [Kámárgaon s., Nikori Chápri T.S.]	1872-73. ... ..	12 24	15 52	7510	2	1	...
Daphla Hills, No. 8 Peak ... [Kankochan H.S., Khelbinschon H.S.]	On the highest range, about 16 miles N.W. of Yaleng. 1871-72.	25 58	23 0	11710	2	1	...
Daphla Hills, No. 9 Peak ... [Kámárgaon s., Madaigaon T.S., Rodonga T.S.]	On the spur at the head of the Papum stream a tributary to the Buroe river, about 3 miles N. of Tarun-gam. 1873-74.	9 37·9	24 20·2	7290	3	1	0·5
Daphla Hills, No. 10 Peak ... [Kámárgaon s., Kankochan H.S.]	On the ridge at the junction of the several spurs between the heads of the Papum and Poma streams, about 4 miles N. by E. of Tarun-gam. 1872-73.	10 2	25 44	7580	2	1	...
Daphla Hills, No. 11 Peak ... [Kámákshá H.S., Kandali H.S., Kankochan H.S.]	1872-73. ... ..	10 6·3	25 43·7	7590	3	1	0·6
Daphla Hills, No. 12 Peak ... [Kámákshá H.S., Kámárgaon s., Kandali H.S., Kankochan H.S.]	At the eastern end of the ridge with two knobs at the head of the Poma stream, about 6 miles N. by W. of Tageng village. 1872-73.	10 5·4	29 42·1	7340	4	2	0·7
Daphla Hills, No. 13 Peak ... [Kámárgaon s., Kankochan H.S., Nikori Chápri T.S.]	At the western end of the highest group of trees near the centre, at the heads of several streams, about 5 miles N. of Kukurjan Tea Garden. 1872-73.	0 56	37 26	2330	3	1	4·7
Daphla Hills, No. 14 Peak ... [Burai Mukh No. 1 s., Kankochan H.S., Longboái H.S., Burai Mukh No. 2 s.]	On the outer and lowest range of hills bordering the Darrang district to the north, about 8 miles N.N.W. of Khutowingaon. 1871-72.	0 27	40 11	1650	4	2	2·9
Daphla Hills, No. 15 Peak ... [Kámárgaon s., Nikori Chápri T.S.]	Highest tree about centre of a broad top hill, about 7 miles N.N.W. of Khutowingaon. 1872-73.	0 9	40 59	1730	2	2	...
Daphla Hills, No. 16 Peak ... [Burai Mukh No. 1 s., Burai Mukh No. 2 s., Kankochan H.S., Longboái H.S., Madaigaon T.S., Nikori Chápri T.S., Kámárgaon s.]	About 6 miles N. of Khutowingaon. 1872-73.	1 36	43 31	2090	7	4	3·4
Daphla Hills, No. 17 Peak ... [Kankochan H.S., Madaigaon T.S., Nikori Chápri T.S.]	Eastern and broad top, near the head of the Mura Sesa stream, about 9 miles W. of Khamtigaon. 1872-73.	2 38·1	45 31·2	2120	3	2	0·8
Daphla Hills, No. 18 Peak ... [Kámákshá H.S., Nikori Chápri T.S., Rodonga T.S.]	Western and highest knob on the range, about 2 miles N.E. of Tageng. 1873-74.	6 29	35 9	4810	3	1	5·7
Daphla Hills, No. 19 Peak ... [Kámákshá H.S., Kámárgaon s., Kandali H.S., Kankochan H.S., Khelbinschon H.S.]	High peak on the mid range, about 5 miles N. of Tageng. 1872-73.	9 38·9	32 46·3	8020	5	3	0·7
Daphla Hills, No. 20 Peak ... [Kámárgaon s., Kankochan H.S., Nikori Chápri T.S.]	Eastern end of the peak on the mid range, near a head of the Poma stream, about 7 miles N. by E. of Tageng, and 2½ miles S. of Morkor. 1872-73.	10 53·0	34 19·5	7410	3	2	0·4
Daphla Hills, No. 21 Peak ... [Kámárgaon s., Kankochan H.S., Nikori Chápri T.S.]	Western knob at the head of the Borpáni stream a tributary to the Dikrang river, about 3½ miles S.W. of Pechpekh. 1872-73.	10 47·1	36 13·9	6970	3	2	0·3
Daphla Hills, No. 22 Peak ... [Beláguri Post S., Nikori Chápri T.S., Rodonga T.S.]	Also called Tanir Peak, near a head of the Neorehi stream, about 4½ miles N.W. of Doimukh. 1873-74.	11 12·3	44 27·4	4480	3	2	1·7
Daphla Hills, No. 23 Peak ... [N. Lakhimpur s., Pathalipam s.]	Eastern, on the ridge, about 2 miles W. of Noju, and 1 mile S. by E. of Yaleng. 1877-78.	14 56	34 6	7660	2	1	...



## DEGREE SHEET No. 18, between Lats. 27°—28° and Longs. 93°—94°, (Continued).

Name or Designation of Station or Point	Description, State or District and Season of Observation	Latitude N.	Longitude E. of Greenwich	Height in feet above mean sea level	No. of Rays determining		Discrepancies per mile in common side of triangles
					Position	Height	
Daphla Hills, No. 24 Peak ... [Beláguri Post S., Rodonga T.S.]	On the ridge between the Dikrang river and one of its tributaries the Shujuli stream, about 2 miles W. of Upung village, and the same distance to N. by E. of Doripo. 1873-74.	27 14 59	93 40 36	6200	2	1	Feet ...
Daphla Hills, No. 25 Peak ... [Negheri Ting T.S., Nikori Chápri T.S.]	Highest part of mass near head of the Shujuli stream, about 5 miles W.N.W. of Upung village. 1873-74.	16 44	39 29	6750	2	2	...
Daphla Hills, No. 26 Peak ... [Beláguri Post S., Rodonga T.S., Negheri Ting T.S.]	Western, on the same ridge as No. 25 Peak, and about a mile N.W. of it. 1873-74.	17 5 6	38 47 1	6780	3	1	1 1
Daphla Hills, No. 27 Peak ... [Kámárgaon s., Kankochan H.S., Nikori Chápri T.S.]	On the watershed of the Dikrang and Ranga rivers, about 6 miles S.S.W. of Tabli, and 5 miles N. by E. of Shikhi. 1872-73.	18 17	46 42	7190	3	3	1 8
Daphla Hills, No. 28 Peak ... [Beláguri Post S., Nikori Chápri T.S.]	E. end, on the spur north of the Paueh stream, and about 5 miles N.N.E. of Yaleng village. 1873-74.	19 16	35 5	7640	2	1	...
Daphla Hills, No. 29 Peak ... [Beláguri Post S., Nikori Chápri T.S., Rodonga T.S.]	On the ridge north of the Pite stream, and a little S. of camp No. 14. 1873-74.	20 11 7	41 47 5	7680	3	2	0 4
Daphla Hills, No. 30 Peak ... [Beláguri Post S., Nikori Chápri T.S., Rodonga T.S.]	Highest point and W. end of the peak, on the ridge, about 2 miles W. of camp No. 14. 1873-74.	20 33 8	40 8 1	7870	3	2	1 0
Daphla Hills, No. 31 Peak ... [Kámáráhá H.S., Kankochan H.S., Khelfbinshon H.S.]	1872-73. ... ..	25 38 8	27 42 0	10900	3	1	0 2
Daphla Hills, No. 32 Peak ... [Bar Chápri Post S., Májuli Post S.]	On the spur north of the Pans stream, and about 4 miles N.W. of the place where this stream crosses the Rajgarh Alli. 1873-74.	16 45	56 20	4660	2	1	...
Daphla Hills, No. 33 Peak ... [Beláguri Post S., Rodonga T.S.]	Western, on the ridge north of the Ranga river, and about 2 miles S.E. of Piji village. 1873-74.	23 51	52 8	7440	2	2	...
Daphla Hills, No. 34 Peak ... [Beláguri Post S., Nikori Chápri T.S., Rodonga T.S.]	Eastern, on the same ridge as No. 33 Peak, and about 2 miles N. by E. of it. 1873-74.	25 28	53 11	7950	3	2	3 1
Daphla Hills, No. 35 Peak ... [Beláguri Post S., Noe Ali T.S.]	On the spur, about 3 miles N. by W. of Nari. 1873-74.	25 23	57 19	6310	2	1	...
Daphla Hills, No. 36 Peak ... [Beláguri Post S., Negheri Ting T.S.]	On the spur, about 7 miles W. by N. of Grant No. 65. (Johing).	27 21	56 53	9110	2	2	...
Daphla Hills, No. 37 Peak ... [Kámárgaon s., Nikori Chápri T.S., Rodonga T.S.]	1873-74. ... ..	27 45	56 51	9220	3	2	1 3
Miri Hills, No. 1 Peak ... [Dichu h.s., Yelu h.s.]	On the ridge on the right bank of the Pein river. 1877-78.	37 16	55 16	8600	2	1	...
Miri Hills, No. 2 Peak ... [Dichu h.s., Yelu h.s.]	1877-78. ... ..	37 28	55 9	8320	2	2	...
Miri Hills, No. 3 Peak ... [Dichu h.s., Yelu h.s.]	1877-78. ... ..	37 43	55 19	8300	2	1	...
Miri Hills, No. 4 Peak ... [Dichu h.s., Pidi h.s.]	About $4\frac{1}{2}$ miles N.N.E. of Samu village. 1877-78.	56 23	59 42	8250	2	1	...
Miri Hills, No. 5 Peak ... [Dichu h.s., Pidi h.s.]	1877-78. ... ..	57 19	59 57	8620	2	1	...

*DEGREE SHEET No. 19, between Lats. 28°—29° and Longs. 93°—94°.*

Name or Designation of Station or Point	Description, State or District, and Season of Observation	Latitude N.	Longitude E. of Greenwich	Height in feet above mean sea level	No. of Rays determining		Discrepancies per mile in common side of triangles
					Position	Height	
Miri Hills, No. 1 Peak [Dichu h.s., Pidi h.s.]	1877-78. ... ..	28 3 5	93 46 40	7280	2	1	Feet ...
Miri Hills, No. 2 Peak [Dichu h.s., Pidi h.s.]	1877-78. ... ..	3 6	46 55	7410	2	1	... ..
Miri Hills, No. 3 Peak [Dichu h.s., Pidi h.s.]	1877-78. ... ..	3 5	47 21	7840	2	1	... ..

*DEGREE SHEET No. 20, between Lats. 25°—26° and Longs. 94°—95°.*

Nága Hills, No. 1 Peak ... [Madaigaon T.S., Nikori Chápri T.S.]	Single tree about 4½ miles S. by E. of Basama hill fort and 7 miles S. by W. of Kohima large village. (Nága Hills). 1873-74.	25 35 55	94 6 37	...	2	...	Feet ...
Nága Hills, No. 2 Peak ... [Madaigaon T.S., Nikori Chápri T.S.]	Highest point, single tree, about 3 miles S. by W. of Basama hill fort. (Nága Hills). 1873-74.	37 28	4 19	...	2	...	... ..
Nága Hills, No. 3 Peak ... [Madaigaon T.S., Nikori Chápri T.S.]	Highest point to W., single tree, about 5 miles N.E. of Kenoma. (Nága Hills). 1873-74.	38 31	0 20	...	2	...	... ..
Nága Hills, No. 4 Peak ... [Golághát T.S., Nikori Chápri T.S.]	On the spur E. of the Unro stream close to Sehamai village, about 2 miles S. W. of Chimaikuma village. (Nága Hills). 1872-73.	52 1	9 2	4950	2	1	... ..
Nága Hills, No. 5 Peak ... [Golághát T.S., Madaigaon T.S., Nikori Chápri T.S.]	Same as Thevokeji Peak. Western of two knobs, at the end of a spur at its junction with the main range, about 3 miles S.E. of Khilibazama large village. (Nága Hills). 1873-74.	53 56	14 32	5760	3	2	5'7

*DEGREE SHEET No. 21, between Lats. 26°—27° and Longs. 94°—95°.*

Bar Ali Post S. ... [Triangle 211]	On the continuation of the Bar Ali road from Sibságar to Sálmara ghát, now in disuse and covered with dense tree jungle on the left bank of the Brahmaputra river, about 1 mile from the junction of the road to Dikhu-Mukh steamer ghát which is about ¼ of a mile N. The station is marked by a masonry pillar 1 foot high having two mark-stones, one at the surface and the other 1'83 feet below it. (Sibságar). 1877-78.	26 58 0 13	94 27 20 53	308	...	2	Feet ...
Bar Bhati T.S. ... [Triangle 204]	On an artificial mound about 20 feet above the plain known as the Malo Pathár or grazing ground, on the right bank of the Bauri nadi, about 1 mile W. of Sámdingona Tea Grant, 3 miles N. of the high road to Dibrugarh and 2 miles S.W. of Manái Máji village; sub-division Jorhát. The station consists of a perforated masonry pillar 6 feet high having two mark-stones, one at the ground level and the other 1½ feet below. (Sibságar). 1875-76.	45 44 26	9 27 89	290	...	2	... ..

## DEGREE SHEET No. 21, between Lats. 26°--27° and Longs. 94°--95°, (Continued).

Name or Designation of Station or Point	Description, State or District, and Season of Observation	Latitude N.	Longitude E. of Greenwich	Height in feet above mean sea level	No. of Rays determining		Discrepancies per mile in common side of triangles
					Position	Height	
Bar Chápri Post S. ... .. [Triangle 203]	On the left bank of a branch of the Brahmaputra river, on Bar Chápri Char formed by the above branch and the old Desoi nadi, about 2½ miles N.W. of Goálgaon, 1 mile W. of Daurigaon on the left bank of the old Desoi nadi and midway between Auni Áti and Negheri Tingor Shikári ghat ferries; mauza Házári, sub-division Jorhát. The station consists of a masonry pillar 6 inches high and 2 feet deep having two mark-stones, one at the surface and the other 1·9 feet below it. ( <i>Sibságar</i> ). 1873-74.	26 48 28·04	94 6 47·23	269	...	2	Feet ...
Beláguri Post S. ... .. [Triangle 202]	On the right bank of the Brahmaputra river, on an open ground in the island of Májuli, about 500 yards S.W. of Beláguri Shástro and 400 yards S. of Kalákáta nadi. The station consists of a masonry pillar 3½ feet high having two mark-stones, one at the surface of pillar 1½ feet above ground level and the other 2½ feet below the first. ( <i>Sibságar</i> ). 1873-74.	50 1·91	1 18·55	268	...	2	...
Chhintámanigarh T.S. ... .. [Triangle 212]	On an old embankment about 12 feet above the plain, in the lands of and about 200 yards from the village of Kukrupátia on the left bank of the Brahmaputra river, about 3½ miles N.W. of Jánji dák bungalow on the high road to Dibrugarh; mauza Tulsijan, sub-division Jorhát. The station consists of a perforated masonry pillar 15 feet high having two mark-stones, one at the ground level and the other 2 feet below. ( <i>Sibságar</i> ). 1873-74.	51 51·78	29 43·18	317	...	2	...
Deoparbat Hill Peak ... .. [Bar Chápri Post S., Golághát T.S., Nikori Chápri T.S., Phakwádal T.S., Rodonga T.S.]	Highest tree on a point of the outer range of Lotha Nága Hills, it is identical with the Topographical Survey station of Lakhuti. ( <i>Nága Hills</i> ). 1873-74.	18 18	17 42	4080	5	2	1·3
Diboni Ali s. ... ..	On the old road of that name on the left bank of the Dikhu river. The station is denoted by a peg driven into the ground. ( <i>Sibságar</i> ). 1873-74.	58 21	38 45	302	2	1	...
Dikhu Mukh s. ... .. [Triangle 281]	In the centre of a large Miri village in mauza Ukhada, 70 feet S. of the left bank of the Dikhu river: the junction of the left bank of the Dikhu river with the left bank of the Brahmaputra bears from the station 315° and is 600 feet distant. The station is denoted by a square pillar surmounted by a circular one 9 inches high and having a mark-stone at its top. It is identical with the Revenue Survey station of the same name. ( <i>Sibságar</i> ). 1875-76.	59 32·42	30 31·91	296	...	2	...
Jorhát s. ... .. [Triangle 280]	On the treasury building near the S.E. corner of the rectangular tank around which is the civil station of Jorhát. The station is denoted by a circular brick platform flush with the ridge of the paka roof and having a mark-stone at its surface. The mark is 2 feet 2 inches from the inside of the east dwarf parapet of the building, the measurement being taken along the ridge of the roof and 15 feet above the ground. ( <i>Sibságar</i> ). 1875-76.	45 14·83	15 16·58	309	...	2	...
Májuli Post S. ... .. [Triangle 205]	On the left bank of the Brahmaputra river on a Char formed by the river itself and a branch of it, about 2 miles N.E. of Auni Áti ferry ghat, 4 miles below Kamlabári ferry ghat on the post route from Jorhát to Lakhimpur and 2 miles N. of Bar Chápri village on the left bank of that branch; mauza Házári, sub-division Jorhát. The station consists of a masonry pillar having two mark-stones, one at the surface and the other 2 feet below it, the upper mark being 6 inches above ground level. ( <i>Sibságar</i> ). 1873-74.	51 51·85	10 56·46	277	...	2	...

## DEGREE SHEET No. 21, between Lats. 26°—27° and Longs. 94°—95°, (Continued).

Name or Designation of Station or Point	Description, State or District, and Season of Observation	Latitude N.	Longitude E. of Greenwich	Height in feet above mean sea level	No. of Rays determining		Discrepancies per mile in common side of triangles
					Position	Height	
Golághát Bungalow ... .. [Triangle 277]	Centre of the ridge of roof of the Assistant Commissioner's bungalow. (Sibságar). 1872-73.	26 30 46.5	94 0 8.5	...	...	...	Feet ...
Nága Hills, No. 1 Peak ... .. [Golághát T.S., Khelibinshon H.S., Nikori Chápri T.S.]	Also called Thebzothu. On the western end of a wood topped hill on the highest of the Lotha Nága hills, about 1½ miles N. of Yanthamo village. 1872-73.	5 45.7	19 40.6	6590	3	2	0.4
Nága Hills, No. 2 Peak ... .. [Golághát T.S., Madaigaon T.S.]	Western end of high trees in Lotha Nága hills, close to Yembarra village. 1872-73.	15 13	10 35	2530	2	2	...
Nága Hills, No. 8 Peak ... .. [Bar Chápri Post S., Golághát T.S., Májuli Post S., Nikori Chápri T.S., Phakwádal T.S.]	High tree about centre of hill. Also called Nankam. 1873-74.	15 32	27 16	5330	5	2	3.2
Nága Hills, No. 4 Peak ... .. [Golághát T.S., Nikori Chápri T.S., Noe Ali T.S., Phakwádal T.S., Chhintámanigarh T.S.]	Centre of sharp peak in Lotha Nága hills, about 2 miles N. by E. of Mekula village. 1873-74.	21 54	22 36	3460	5	4	1.6
Nága Hills, No. 5 Peak ... .. [Madaigaon T.S., Májuli Post S., Phakwádal T.S., Bar Chápri Post S.]	Highest tree at the E. end, in Lotha Nága hills, 1 mile S.W. of Mukhigaon village. 1873-74.	26 33.3	27 26.5	3980	4	2	0.4
Nága Hills, No. 6 Peak ... .. [Bar Chápri Post S., Májuli Post S., Phakwádal T.S.]	Highest tree at the E. end, in Lotha Nága hills, about 1½ miles N. by E. of Mukhigaon and 1½ miles W. by N. of Khari village. 1873-74.	28 20.6	28 58.3	4230	3	2	0.4
Nága Hills, No. 7 Peak ... .. [Rodonga T.S., Phakwádal T.S., Bar Chápri Post S.]	W. end in Lotha Nága hills, close to Munching village. 1873-74.	30 6.07	31 11.55	4230	3	3	0
Nága Hills, No. 8 Peak ... .. [Phakwádal T.S., Bar Bhati T.S., Májuli Post S., Rodonga T.S.]	Highest tree on the outer range of Lotha Nága hills, 3¼ miles S of Daudhaigaon and about the same distance S.E. of Tengalgaon village. 1873-74.	32 23.5	19 33.9	1500	4	2	0.7
Nága Hills, No. 9 Peak ... .. [Bar Chápri Post S., Májuli Post S., Phakwádal T.S.]	Eastern tree at the E. end, close to Waromung village. 1873-74.	33 11.4	34 11.0	3620	3	2	0.4
Nága Hills, No. 10 Peak ... .. [Sibságar, Gauriságar S., Noe Ali T.S., Phakwádal T.S.]	W. end, close to Merinokho village. 1873-74.	36 0.19	31 17.99	2850	3	2	0.1
Nága Hills, No. 11 Peak ... .. [Bar Ali Post S., Sibságar, Gauriságar S., Noe Ali T.S., Chhintámanigarh T.S.]	On the range between the Chirung and Jhanzi rivers, about ¼ of a mile W. by S. of Deka Haimona village. 1873-74.	37 51.9	36 32.6	3130	4	2	0.3
Nága Hills, No. 12 Peak ... .. [Bar Chápri Post S., Noe Ali T.S., Phakwádal T.S., Chhintámanigarh T.S.]	Highest tree to W., on the main range between the Chirung and Jhanzi rivers, probably the same as Malungkimung. 1873-74.	38 27.4	37 25.8	3230	4	4	1.0
Nága Hills, No. 13 Peak ... .. [Sibságar, Gauriságar S., Noe Ali T.S., Phakwádal T.S.]	Eastern and clear knob on the range to the west of the Chirung river, close to and N. by W. of Liramong village. 1873-74.	39 6.3	33 32.9	2680	3	2	0.8
Nága Hills, No. 14 Peak ... .. [Chhintámanigarh T.S., Noe Ali T.S., Phakwádal T.S.]	Highest tree on the western knob on range to the west of the Chirung river, close to and N. by W. of Liramong village. 1873-74.	39 1.3	33 33.4	2700	3	2	0.3
Nága Hills, No. 15 Peak ... .. [Noe Ali T.S., Phakwádal T.S., Rodonga T.S.]	Centre of big clump of trees, on the range between the Chirung and Jhanzi rivers, about 2¼ miles N. by E. of Deka Haimona village. 1873-74.	39 51.7	38 42.0	2650	3	1	0.5

## DEGREE SHEET No. 21, between Lats. 26°—27° and Longs. 94°—95°, (Continued).

Name or Designation of Station or Point	Description, State or District, and Season of Observation	Latitude N.	Longitude E. of Greenwich	Height in feet above mean sea level	No of Rays determining		Discrepancies per mile in common side of triangles
					Position	Height	
Nága Hills, No. 16 Peak [Chhintámanigarh T.S.; Noe Ali T.S., Sibságar, Gauriságar S.]	On the range W. of Dikhu river, about 2 miles S.W. of large village of Tamlu. (Nangta). 1873-74.	26 39 15·9	94 45 47·0	...	3	...	1·2
Nága Hills, No. 17 Peak [Chhintámanigarh T.S., Noe Ali T.S., Sibságar, Gauriságar S.]	E. end of flattish top, on spur, towards its W. end, bordering the dense forest to its N. and W. and E. of Jhanzi river. 1873-74.	42 39·27	41 49·95	1940	3	2	0·2
Nága Hills, No. 18 Peak [Chhintámanigarh T.S., Noe Ali T.S., Sibságar, Gauriságar S.]	Highest tree at the E. end, on the ridge, about 3½ miles N. by W. of Tamlu large village. 1873-74.	43 26·78	46 26·17	3040	3	1	0
Nága Hills, No. 19 Peak [Phakwádal T.S., Sibságar, Gauriságar S.]	W. end, on the ridge, about 1½ miles E. by S. of Yandung and 2 miles W. of Nokchung village. 1873-74.	19 47	50 38	...	2	...	...
Nága Hills, No. 20 Peak [Chhintámanigarh T.S., Noe Ali T.S., Phakwádal T.S.]	W. end, on the ridge, about ¼ of a mile S. by W. of Pomung village. 1873-74.	21 31	53 4	...	3	...	9·3
Nága Hills, No. 21 Peak [Bar Chápri Post S., Chhintámanigarh T.S., Phakwádal T.S.]	E. end on the ridge, about ¼ of a mile N. by W. of Pomung village. 1873-74.	22 35	53 21	...	3	...	2·5
Nága Hills, No. 22 Peak [Bar Chápri Post S., Bar Ghop Post S., Chhintámanigarh T.S., Goháigaon Post S., Phakwádal T.S., Sibságar, Gauriságar S.]	Remarkable and prominent, on the ridge, at the junction of several spurs, about 2 miles N. of Pemphek and 1½ miles E. by S. of Chingmeng village. 1875-76.	26 2	52 1	6560	6	3	2·5
Nága Hills, No. 23 Peak [Chhintámanigarh T.S., Noe Ali T.S., Sibságar, Gauriságar S.]	On the ridge, close to and E. of Kamahu village. 1873-74.	33 30·5	49 47·7	4590	3	1	0·4
Nága Hills, No. 24 Peak [Chhintámanigarh T.S., Noe Ali T.S., Sibságar, Gauriságar S.]	High tree on the broad top of the ridge, near Tangsa village. 1873-74.	36 6·0	49 0·2	...	3	...	0·8
Nága Hills, No. 25 Peak [Bar Ali Post S., Chhintámanigarh T.S., Goháigaon Post S., Noe Ali T.S., Phakwádal T.S., Sibságar, Gauriságar S.]	Highest tree at the E. end, on the main spur, about ¼ of a mile N. by W. of Wanching, and 4 miles W. by N. of Chingtang. 1875-76.	40 8	53 8	4980	6	3	2·4
Nága Hills, No. 26 Peak [Chhintámanigarh T.S., Sibságar, Gauriságar S.]	On the ridge, about a mile N. of Kongan village. 1873-74.	45 15	52 13	...	2	...	...
Nága Hills, No. 27 Peak [Goháigaon Post S., Sibságar, Sibságar No. 2 s., Gauriságar S.]	High tree in centre of the broad top, on the ridge about 2 miles N.E. of Najumara village. 1873-74.	48 20·5	52 58·1	2050	3	1	0·5
Nága Hills, No. 28 Peak [Goháigaon Post S., Sibságar, Sibságar No. 2 s., Gauriságar S.]	On the most westerly range bordering the Sibságar district, about 2 miles S.W. of Tirugaon encamping ground. 1873-74.	51 27·1	54 30·2	1860	3	1	2·2
Nága Hills, No. 29 Peak [Goháigaon Post S., Sibságar, Gauriságar S.]	On the most westerly range bordering the Sibságar district, about 2 miles E. by N. of Cherideo village. 1873-74.	55 20	56 12	...	2	...	...

## DEGREE SHEET No. 21, between Lats. 26°—27° and Longs. 94°—95°, (Continued).

Name or Designation of Station or Point	Description, State or District, and Season of Observation	Latitude N.	Longitude E. of Greenwich	Height in feet above mean sea level	No of Rays determining		Discrepancies per mile in common side of triangles
					Position	Height	
Negheri Ting Temple ... [Triangles 278, 279]	Spire. (Sibságar). 1873-74.	26 44 2.6	94 2 58.7	418	...	3	Feet ...
Negheri Ting T.S. [Triangle 201]	On the N.W. corner of the Negheri Ting temple grounds situated on a hillock in the lands of the village of Negheri Ting, about $\frac{1}{4}$ a mile from Negheri Ting Tea Factory, and $\frac{1}{2}$ of a mile N. of the high road to Dibrugarh; it is approached by the paved road leading to the temple; mauza Misámara, sub-division Golághát. The station consists of a perforated masonry pillar 12 feet high having two mark-stones, one at the surface of the ground and the other 2 feet below it. (Sibságar). 1873-74.	44 3'44	2 55'43	353	...	2	...
Noe Ali T.S. [Triangle 209]	Also called Bura Gosáin Ali, on an old road on the left bank of the Brahmaputra river and between the Alimor and Deha Páthars (grazing grounds), about $1\frac{1}{4}$ miles due S. of the Brahmaputra river and S.E. of Dakkhinpát ferry ghát; mauza Meleng, sub-division Jorhát. The station consists of a perforated masonry pillar 12 feet high having two mark-stones, one at the ground level and the other 2 feet below it. (Sibságar). 1873-74.	52 11'62	21 35'63	298	...	2	...
Phakwádal T.S. [Triangle 206]	On an artificial mound about 15 feet above the plain (grazing ground) on the left bank of the Brahmaputra river, about $\frac{1}{4}$ of a mile W. of the road from Jorhát to Kamábári ferry ghát, and $\frac{1}{4}$ a mile S. of Gosáingao and Domgaon villages; mauza Hájari, sub-division Jorhát. The station consists of a perforated masonry pillar 11.5 feet high having two mark-stones, one at the ground level and the other 2 feet below it. (Sibságar). 1875-76.	50 33'77	15 7'98	302	...	2	...
Ráonapukri Post S. [Triangle 208]	On an artificial mound about 10 feet high in forest jungle in the island of Májuli on the right bank of the Brahmaputra river, about $\frac{1}{4}$ of a mile E. of the new clearance of the village of Kumargaon which is 70° 20' W. of N. distant 1 mile, 1 mile S. of the tank from which it takes its name, and 2 miles 33° W. of N. of Dakkhinpát Shástro; mauza Sálmara, sub-division Jorhát. The station is marked by a large granite slab having the usual mark, and imbedded lengthwise, shewing an upper surface of 8 x 14 inches. (Sibságar). 1873-74.	56 11'05	17 47'90	294	...	2	...
Sibságar, Circuit House ... [Triangle 285]	Chimney, on the W. bank of the tank. (Sibságar). 1873-74.	59 31'8	40 25'5	...	...	...	...
Sibságar, E. Temple ... [Triangles 291, 292]	On the S. bank of the tank. (Sibságar). 1873-74.	59 17'1	40 42'6	...	...	...	...
Sibságar, Gauriságar S. [Triangle 213]	On the top of an old abandoned Hindu temple 90 feet high on the N. bank of the Sagar (tank) which is at the S.E. angle of the junction of the high road to Dibrugarh with Bar Ali road to Dikhu Mukh from Sibságar; mauza Káktigaon. The station is denoted by a dot engraved on an iron plug let into the hollow iron rod which supported the trident. (Sibságar). 1874-75.	56 48'32	34 57'80	387	...	2	...
Sibságar, Great Temple ... [Triangle 282]	Spire, in the civil station, on the S. bank of the tank. (Sibságar). 1873-74.	59 17'7	40 38'6	449	...	4	...

## DEGREE SHEET No. 21, between Lats. 26°—27° and Longs. 94°—95°, (Continued).

Name or Designation of Station or Point	Description, State or District, and Season of Observation	Latitude N.	Longitude E. of Greenwich	Height in feet above mean sea level	No. of Rays determining		Discrepancies per mile in common side of triangles
					Position	Height	
Sibságar, Jaiságar Temple ... ..	Spire. ( <i>Sibságar</i> ). 1873-74.	26 57 17	94 40 6	398	2	2	Feet ...
Sibságar Kachahri ... .. [Triangles 288, 289]	N. gable end, on the S. bank of the tank. ( <i>Sibságar</i> ). 1873-74.	59 19 2	40 32 7	...	...	...	...
Sibságar No. 1 s. ... .. [Triangle 283]	On the roof of the Quarter-Guard in the Jail. Marked by a circle and dot. ( <i>Sibságar</i> ). 1873-74.	59 40 52	40 39 68	334	...	1	...
Sibságar No. 2 s. ... .. [Triangle 284]	On the N.E. corner of the Sibsaágar tank. Marked by a peg driven into the ground. ( <i>Sibságar</i> ). 1873-74.	59 37 69	40 56 79	318	...	1	...
Sibságar No. 3 s. ... .. [Triangle 286]	On the N.W. corner of the Sibsaágar tank. Marked by a peg driven into the ground. ( <i>Sibságar</i> ). 1873-74.	59 41 88	40 28 48	317	...	1	...
Sibságar No. 4 s. ... ..	Near a paka ghát on the right bank of the Dikhu river. Marked by a square masonry platform with circle and dot inscribed thereon. It is identical with the Revenue Survey Station of the same name. ( <i>Sibságar</i> ). 1873-74.	58 50	38 55	309	2	1	...
Sibságar, Rangarh Building ... ..	Centre of the three minarets on the roof. ( <i>Sibságar</i> ). 1873-74.	57 59	39 46	349	2	2	...
Sibságar, Rudraságar Temple ... ..	Spire. ( <i>Sibságar</i> ). 1873-74.	57 7	37 46	390	2	1	...
Sibságar Treasury ... .. [Triangle 287]	N.W. angle of the wall, on the S. bank of the tank. ( <i>Sibságar</i> ). 1873-74.	59 19 6	40 29 6	...	...	...	...
Sibságar, W. Temple ... .. [Triangle 290]	Small, on the S. bank of the tank. ( <i>Sibságar</i> ). 1873-74.	59 18 1	40 35 9	...	...	...	...
Soáthol Post S. ... .. [Triangle 210]	On the open ground in the lands of the village of Mehargaon in the island of Májuli on the right bank of the Brahmaputra river, about 500 yards S.E. of Mehargaon and 1 mile S.W. of the large village of Gaingaoon; mauza Sálmara, sub-division Jorhát. The station is denoted by a circle and dot cut on a granite slab imbedded lengthwise, shewing an upper surface of 4 x 14 inches. ( <i>Sibságar</i> ). 1877-78.	58 32 38	21 8 18	288	...	2	...
Turámára Post S. ... .. [Triangle 207]	On the right bank of the Brahmaputra river on the island of Májuli on the low ground in Kamlábári lákhiráj (rent-free) lands, 0.9 of a mile 24° W. of S. of Nikámulia Shástro; mauza Kamlábári, sub-division Jorhát. The station is denoted by a circle and dot cut on a large granite slab imbedded lengthwise, shewing an upper surface of 10 x 18 inches. ( <i>Sibságar</i> ). 1873-74.	55 23 62	13 30 10	282	...	2	...

## DEGREE SHEET No. 22, between Lats. 27°—28° and Longs. 94°—95°.

Name or Designation of Station or Point	Description, State or District, and Season of Observation	Latitude N.	Longitude E. of Greenwich	Height in feet above mean sea level	No of Rays determining		Discrepancies per mile in common side of triangles
					Position	Height	
Bar Ghop Post S. ... [Triangle 214]	In the midst of a plain of marsh land and dense grass jungle 80 feet from the left bank of the Darika river. By chaining up the left bank of the Darika river from its junction with the Dikhu river, a distance of 8,700 feet, it will be found that the chain has gone 400 feet up a reach of the river which has a magnetic bearing of 300° (looking up stream), and that the reach continues on the same bearing for 300 feet and then turns sharp to a bearing of 70°. From the point arrived at by the chain, the station is 80 feet on a bearing of 50°. It derives its name from a well known marsh called Bar Ghop; mauza Ganakandi. The station consists of a square masonry pillar of 2½ feet side and 1 foot high, having two mark-stones, one at the ground level and the other 2 feet below it. ( <i>Sibságar</i> ). 1875-76.	27 0 53' 47"	94 32 9' 00"	291	...	2	...
Buri Mukh Post S. ... [Triangle 224]	In light jungle within the angle formed by the junction of the Buri Suti with the Pauriputra Suti, 900 feet S. of the junction, and exactly W. of the head of a small Suti issuing from the Pauriputra Suti and running at right angles to it, 75 feet W. of the right bank of the Pauriputra Suti, 50 feet N. of the road leading to Sisi village, and 100 yards E. of an extensive sumani (Súm trees on which the "Monga" silkworm feeds); mauza Sisi. Between the mouth of the Buri Suti and the station on a bearing of 66° and at a distance of 258 feet is a tree on which a deep cross has been cut. The station consists of a square masonry pillar of 2 feet 9 inches side, surmounted by a circular one 2½ feet in diameter and 10 inches above the ground, having two mark-stones, one at the surface and the other 2 feet below it. ( <i>Lakhimpur</i> ). 1875-76.	25 55' 56"	45 35' 09"	322	...	2	...
Daphla-Miri Hills No. 1 Peak ... [Kámargaon s., Kankochan H.S., Nikori Chápri T.S.]	Western and higher of two knobs. 1872-73.	29 40	0 15	9750	3	1	1' 7
Daphla-Miri Hills No. 2 Peak ... [Kankochan H.S., Nikori Chápri T.S., Rodonga T.S.]	Eastern and lower of two knobs. 1873-74.	29 15	0 53	9470	3	2	1' 1
Dibrugarh Church S. ... [Triangle 227]	At the intersection of diagonals drawn from the opposite corners of the roof of the square memorial tower of the Dibrugarh Church. A circular platform of bricks flush with the ridge of the paka roof of the tower and having a mark-stone at its surface, 52 feet above the ground, denotes the station. ( <i>Lakhimpur</i> ). 1876-77.	29 13' 11"	57. 2' 44"	394	...	3	...
Dichu h.s. ... [Triangle 310]	On a very conspicuous knob on a narrow flattish ridge at the northern extremity of the range of hills above the left bank of the Parsim hill stream. The hill is 2½ miles S.W. of the junction of the Parsim river with the Kamlápani river; the station is on the east side of the ridge, 80 feet from the N. extremity of the knob, and 2 miles W. of Podu village on the Parsim river. The last 800 feet of the ascent to the station from Podu village is extremely difficult. The station consists of a small masonry platform of stones having a mark-stone imbedded therein and covered over with a pile of stones. ( <i>Miri Hills</i> ). 1877-78.	43 30' 12"	11 48' 33"	7202	...	2	...



## DEGREE SHEET No. 22, between Lats. 27°—28° and Longs. 94°—95°, (Continued).

Name or Designation of Station or Point	Description, State or District, and Season of Observation	Latitude N.	Longitude E. of Greenwich	Height in feet above mean sea level	No. of Rays determining		Discrepancies per mile in common side of triangles
					Position	Height	
Dihing Mukh Post S. ... [Triangle 221]	In dense jungle within the angle formed by the junction of the Dihing river with a branch of the Brahmaputra river, $\frac{1}{4}$ a mile N. of Jaungaiian Mirigaon on the left bank of the Dihingia river; it is 58 feet S. of the left bank of the Dihing river, and 128 feet E. of the Dihingia river. Dihing Mukh Revenue Survey pillar is 51 $\frac{1}{2}$ feet at a magnetic bearing of 351° from the station. A small path from Jaungaiian to Dihing Co's Saw Mills passes 7 yards S. of the station. A deep cross has been cut on the W. side of the trunk of a large and solitary Tenga (tamarind) tree 24 feet distant, at a bearing of 69° from the station; two other deep crosses have been scored on another large tree 159 feet distant, at a bearing of 124° from the station and south of the above mentioned pathway; mauza Páni Dihingia. The station consists of a square masonry pillar of 3 feet side, surmounted by a circular one 2 feet 9 inches in diameter and 11 inches above the ground, having two mark-stones, one at the surface and the other 2 feet below it. (Sibságar). 1875-76.	27 16 14.58	94 44 12.86	318	...	2	Feet ...
Dimau Post S. ... [Triangle 217]	On the margin of the great forest which borders the N. bank of the Dimau river from which it is distant due north 2,500 feet, $1\frac{1}{2}$ miles from the crossing of the Dimau by the old Assamese road (Dhai Ali) at a magnetic bearing of 260°, on a slightly elevated spot of the land W. of a marsh, N. and N.W. of forest and S. and E. of open plain of marsh and grass jungle. A deep cross has been cut on a tree 56 feet distant, at a bearing of 158°; two other trees are similarly marked 50 and 65 feet distant at bearings of 200° and 321° respectively; mauza Páni Dihingia. The station consists of a square masonry pillar of 3 feet side, surmounted by a circular one 2 feet 9 inches in diameter and 6 inches above the ground level, and having two mark-stones, one at the top and the other 2 feet below it. (Sibságar). 1875-76.	6 24.39	40 7.29	298	...	2	...
Dipa h.s. ... [Triangles 296, 297]	On a conspicuous peak on the outer range of the Dob Abar Hills, midway between the Dimau and Dirjemmu rivers, about 3 miles S.E. of Tánia village above the right bank of the Dimau river. Two deep large crosses have been cut on a tree 6 feet distant, at a magnetic bearing of 133° from the station. The station consists of a small paka circular platform having two mark-stones 10 inches apart, the upper one being at the ground level, and the intermediate space filled with charcoal. (Abar Hills). 1876-77.	43 36.26	51 13.42	2776	...	3	...
Goháigaon Post S. ... [Triangle 215]	On a small natural mound, 6 feet in height above the surrounding rice fields and 20 feet in diameter, on the southern outskirts of the village of Goháigaon, $1\frac{1}{2}$ miles S.S.E. of the crossing of the Darika river by the "Dáka Burabarnar Ali" (road) and 8 miles N.N.W. by W. of the Sibságar great temple. Through the village of Goháigaon there winds a remarkable ditch: on a magnetic bearing of 10° from the station and at a distance of 1010 feet, the moat takes a sharp bend, the E. arm of the ditch trends away on a bearing of 50°, and the W. arm on a bearing of 12°. The path between the Sibságar and the steamer ghat, at the mouth of the Disang river, passes by the station; mauza Bán-mukh. Marked by a circular pillar of bricks, 3 feet in diameter and 6 inches above the top of the mound, having two mark-stones, one at the surface and the other 2 feet below it. (Sibságar). 1875-76.	1 24.54	39 1.67	302	...	2	...

## DEGREE SHEET No. 22, between Lats. 27°—28° and Longs. 94°—95°, (Continued).

Name or Designation of Station or Point	Description, State or District, and Season of Observation	Latitude N.	Longitude E. of Greenwich	Height in feet above mean sea level	No. of Rays determining		Discrepancies per mile in common side of triangles
					Position	Height	
Hiálmára Post S. [Triangle 222]	In a grass jungle, 47 feet E. of the E. bank of the channel of the Brahmaputra which receives the Buri Suti river at a point 7 miles above the station, 1½ miles N. of the village of the same name, and 120 feet E. of a nála choked with jungle. A deep cross has been cut on a simul tree in the centre of a field, 387 feet distant at a magnetic bearing of 275° from the station, and a cross has also been cut on another large tree with white bark at the N.E. angle of the field and on the W. margin of the nála, 237 feet distant at a bearing of 291° from the station; mauza Sisi. The station consists of a square masonry pillar of 2 feet 9 inches side, surmounted by a circular one of 2½ feet in diameter and 9 inches above the ground, having two mark-stones, one at the top and the other 2 feet below it. ( <i>Lakhimpur</i> ). 1875-76.	27 21 13.15	94 41 28.41	315	...	2	Feet ...
Kháلكáta Post S. [Triangles 228, 229]	On the margin of the forest, in the angle formed by the Kháلكáta Suti with the Brahmaputra river, 436 feet distant at a magnetic bearing of 51° from the Revenue Survey platform, and 800 feet N. of the Kháلكáta Suti at a point N. of the head of a small Suti issuing from the Kháلكáta. A deep cross has been cut on a gigantic simul tree 379 feet distant and bearing 205° from the station, and another cross has been cut on the trunk of a tall and large tenga (tamarind) tree the branches of which have been lopped off, distant 26 feet and bearing 133° from the station; mauza Halka, mahál Sisi Dhomaji. The station consists of a square pillar of 2½ feet side, surmounted by a circular one 10 inches above the ground, having two mark-stones, one at the surface and the other 2 feet below it. ( <i>Lakhimpur</i> ). 1876-77.	31 5.40	52 25.83	336	...	2	...
Kháلكáta Revenue Survey s.	In the midst of the dense grass jungle in the angle formed by the Kháلكáta Suti with the Brahmaputra river, 436 feet distant at a magnetic bearing of 231° from Kháلكáta Post S. The station is marked by a square masonry platform of 3 feet side, its upper surface being flush with the ground. ( <i>Lakhimpur</i> ). 1875-76.	31 3	52 22	...	2	...	...
Khanikar post s. [Triangle 313]	On a path about 800 feet S. of the village of Khanikar. The road from Dibrugarh to Sisabári Tea Grant passes to the E. at ¼ of a mile, and the Khanikar Tea Grant is about ¼ a mile S.E.; mauza Khanikar. The station is marked by a circular masonry platform having two mark-stones, the upper 2 inches below its surface and the other at the ground level, 2½ feet below the upper. The platform is surrounded by a mound of earth 2½ feet high. ( <i>Lakhimpur</i> ). 1876-77.	25 35.36	57 45.98	336	...	2	...
Khari Katia Post S. [Triangle 218]	In the midst of a tree and grass jungle, on the lands known as the Khari Katia Májuli, on the left bank of the Khari Katia Suti and 1½ miles S. of its head, 1 mile N. and S. respectively of two small Miri villages. There are two large and solitary simul trees close to the station, one—with two deep crosses cut on its trunk and all the branches lopped off—77 feet distant at a magnetic bearing of 46¼°, and the other with one cross cut upon it, 168 feet distant at a bearing of 305°; mauza Sálmara, subdivision Jorhát. The station consists of a square brick pillar of 2½ feet side and 10 inches above the ground, having two mark-stones, one at the ground level and the other 2 feet below it. ( <i>Sibságar</i> ). 1875-76.	11 0.48	36 41.77	306	...	2	...

## DEGREE SHEET No. 22, between Lats. 27°—28° and Longs. 94°—95°, (Continued).

Name or Designation of Station or Point	Description, State or District, and Season of Observation	Latitude N.	Longitude E. of Greenwich	Height in feet above mean sea level	No. of Rays determining		Discrepancies per mile in common side of triangles
					Position	Height	
Khari Katia s. ... ..	On the W. bank, 1½ miles S. of the head of the Khari Katia Suti, 6 feet W. of the margin of the bank, 8 feet N. of the pathway from the large village of Dokuakhána, and 3 feet N. of the Revenue Survey main circuit peg. The station is marked by a large peg driven in a mound of earth. ( <i>Sibságar</i> ). 1875-76.	27 11 4	94 36 15	...	...	...	Feet ...
Larua Post S. ... .. [Triangle 223]	On an artificial mound 5 feet in height and 15 feet in diameter, in the midst of a light jungle on the land known as the Larua Chápri, on the left bank of the Brahmaputra river, 1½ miles N. of the mouth and 756 feet W. of the right bank of the Larua Ján: at a magnetic bearing of 170° and 250 yards from the station is a small Miri village. A deep cross has been cut on a large simul tree 126 feet distant at a bearing of 66° from the station; mauza Larua. The station consists of a square masonry pillar of 2 feet 9 inches side, surmounted by a circular one 2 feet 6 inches in diameter and 10 inches above the surface of the mound, having two mark-stones, one at the top and the other 2 feet below. ( <i>Lakhimpur</i> ). 1875-76.	21 3 92	46 43 90	323	...	2	...
Lasua s. ... .. [Triangles 293, 294]	On the land known as Amuk Ján, in a patch of open ground, the site of the deserted Miri village of the same name, 115 feet E. of the left bank of the Brahmaputra river, and 250 feet S. of the junction of it with the Dihingia river; mauza Páni Dihingia. A main circuit peg of the Revenue Survey is distant 112 feet bearing 297° from the station. A circular platform of bricks surrounding a peg marks the station. ( <i>Sibságar</i> ). 1875-76.	9 53 70	38 47 05	306	...	4	...
Melankur Post S. ... .. [Triangle 216]	On the Melankur Chápri, on the right bank of the Brahmaputra river, 700 yards S. of the village of the same name, and 15 feet W. of the pathway which goes southwards from the village near to and parallel with the river bank; mauza Sálmara, subdivision Jorhát. The station consists of a square brick pillar of 2½ feet side and 1 foot above the ground, having two mark-stones, one at the ground level and the other 2 feet below it. ( <i>Sibságar</i> ). 1875-76.	6 55 00	34 16 04	301	...	2	...
Miri Hills, No. 1 Peak ... .. [Yelu h.s., Pidi h.s., Pathalipam s.]	Also called Nidodi Peak, on the spur near the head of the Siplu stream, and about 10½ miles S.W. of its junction with the Subansiri. 1877-78.	32 56	5 43	8420	3	2	0.7
Miri Hills, No. 2 Peak ... .. [Pidi h.s., Yelu h.s.]	At the junction of three spurs near the head of the Persem stream, about 10 miles S.W. of Rattam village. 1877-78.	33 34	4 10	8500	2	1	...
Miri Hills, No. 3 Peak ... .. [Dichu h.s., Pidi h.s., Yelu h.s.]	On a spur running north from No. 2 Peak for about 2 miles and then turning N.E. along the right bank of the Persem stream. 1877-78.	35 0 4	4 25 4	8930	3	2	6.3
Miri Hills, No. 4 Peak ... .. [Dichu h.s., Potu North h.s., Yelu h.s.]	At the bifurcation of the spur which runs N. a little W. from No. 2 Peak, and about 9 miles S.W. of Beni village. 1877-78.	35 56 1	3 35 3	9420	3	3	1.7

DEGREE SHEET No. 22, between Lats. 27°—28° and Longs. 94°—95°, (Continued).

Name or Designation of Station or Point	Description, State or District, and Season of Observation	Latitude N.	Longitude E. of Greenwich	Height in feet above mean sea level	No. of Rays determining		Discrepancies per mile in common side of triangles
					Position	Height	
Miri Hills, No. 5 Peak ... [Bar Ghop Post S., Goháigaon Post S., Pathalipam s., Pidi h.s., Yelu h.s.]	Also called Yeppu Peak, on the same spur as No. 3 Peak, at a point where another spur joins it from the south, about 4½ miles S. by W. of Rattam village, and 7 miles W. of the Ganditula camping ground. 1877-78.	27 36 15	94 8 59	7720	5	3	Feet 2·6
Miri Hills, No. 6 Peak ... [North Lakhimpur s., Pathalipam s., Potu South h.s.]	Also called Moim Peak, on a spur at the head of the Haguri Ján which passes through Kadam Grant, and about 9 miles N. of Johing Tea Factory. 1877-78.	25 39·89	3 6·96	6100	3	2	0·3
Miri Hills, No. 7 Peak ... [North Lakhimpur s., Pathalipam s.]	On the same spur as and about 4 miles N.E. of No. 6 Peak, at the head of the Dirju stream, and 6 miles N.W. of the point where that stream crosses the Rájgarh Ali road. 1877-78.	27 27	6 46	4790	2	2	...
Miri Hills, No. 8 Peak ... [North Lakhimpur s., Pathalipam s.]	On the same spur as Nos. 6 and 7 Peaks, between the two sources of the Dirju stream, and about 2 miles N.E. of No. 7 Peak. 1877-78.	27 56	8 0	...	2	...	...
Miri Hills, No. 9 Peak ... [North Lakhimpur s., Pathalipam s.]	On a spur running along the right bank of the Galu stream, and about 8½ miles above its junction with the Subansiri. 1877-78.	29 56	9 20	3990	2	1	...
Miri Hills, No. 10 Peak ... [North Lakhimpur s., Pathalipam s.]	On the same spur as and about 3 miles N.E. of No. 9 Peak. 1877-78.	31 12	11 17	3560	2	2	...
Miri Hills, No. 11 Peak ... [North Lakhimpur s., Pathalipam s.]	On the same spur as Nos. 9 and 10 Peaks, about a mile N.E. of No. 10 Peak, and 5 miles S.W. of the point where the Galu stream enters the Subansiri. 1877-78.	31 31	12 25	3390	2	2	...
Miri Hills, No. 12 Peak ... [North Lakhimpur s., Pathalipam s., Pidi h.s.]	On a spur running between the Siplu and Galu streams, tributaries of the Subansiri, and about 2½ miles W. by S. of the Ganditula camping ground. 1877-78.	34 34	13 33	3970	3	2	8·0
Miri Hills, No. 13 Peak ... [Dichu h.s., Potu South h.s.]	Also called Jato Peak, on a spur running along the left bank of the Persem stream, about 3½ miles N. W. of Rattam village, by the side of a path, and 4 miles S.E. of Tegli village. 1877-78.	41 34	8 21	7920	2	1	...
Miri Hills, No. 14 Peak ... [Negheri Ting T.S., Soáthol Post S.]	On the same spur as and about 2 miles N. by E. of Pidi h.s. 1873-74.	41 11	15 38	6410	2	2	...
Miri Hills, No. 15 Peak ... [Pathalipam s., Pidi h.s., Dichu h.s.]	On the same spur as and about ¼ of a mile N. by E. of No. 14 Peak. 1877-78.	41 54	15 48	6520	3	3	9·7
Miri Hills, No. 16 Peak ... [Májuli Post S., Noe Ali T.S.]	On a minor spur, about 4½ miles W.N.W. of Beni village, and 4 miles S.S.W. of Nidung village. 1873-74.	41 21	15 45	...	2	...	...
Miri Hills, No. 17 Peak ... [Dibrugarh Church S., Paunrípura Post S.]	On a minor spur, about 5 miles W. by S. of the junction of the Sidan river with the Subansiri, and 7 miles S.S.W. of the junction of the Kamla river with the Subansiri. 1875-76.	41 50	18 53	5370	2	1	...

## DEGREE SHEET No. 22, between Lats. 27°—28° and Longs. 94°—95°, (Continued).

Name or Designation of Station or Point	Description, State or District, and Season of Observation	Latitude N.	Longitude E. of Greenwich	Height in feet above mean sea level	No. of Rays determining		Discrepancies per mile in common side of triangles
					Position	Height	
Miri Hills, No. 18 Peak ... [Dichu h.s., North Lakhimpur s., Potu South h.s.]	At the junction of the two spurs which run up one from the bend at the junction of the Kamla river with the Subansiri and the other from the bend at the junction of the Sidan river with the Subansiri, and about 4 miles E. by S. of Nidung village. 1877-78.	27 42 52·3	94 18 34·3	5780	3	2	Feet 0·7
Miri Hills, No. 19 Peak ... [Dibrugarh Church S., Pauriputra Post S.]	On the same spur as and a little S.E. of No. 18 Peak. 1875-76.	42 51	18 35	5740	2	2	...
Miri Hills, No. 20 Peak ... [Dibrugarh Church S., Dichu h.s., Pauriputra Post S., Potu South h.s.]	On the spur which runs up from the junction of the Kamla river with the Subansiri and about 4 miles S.W. from it, and the same distance E. of Nidung village. 1877-78.	44 3	19 0	5650	4	2	*
Miri Hills, No. 21 Peak ... [Dichu h.s., Pidi h.s., Yelu h.s.]	On a minor spur, about 2 miles N.E. of Nidung village. 1877-78.	44 58·1	15 58·0	4480	3	2	1·3
Miri Hills, No. 22 Peak ... [Dichu h.s., Pidi h.s., Yelu h.s.]	On a minor spur N. of the Kamla river, about 1½ miles E. of Vachan village, and the same distance S.W. of another village. 1877-78.	47 29	14 37	4860	3	2	3·4
Miri Hills, No. 23 Peak ... [Dichu h.s., Pidi h.s., Yelu h.s.]	On a spur, about 2 miles E.N.E. of a village, and 5 miles W.N.W. of the junction of the Kamla river with the Subansiri. 1877-78.	48 35	17 13	5610	3	3	3·3
Miri Hills, No. 24 Peak ... [Dichu h.s., Pidi h.s., Yelu h.s.]	On a minor spur, about 3½ miles N.W. of the junction of the Kamla river with the Subansiri. 1877-78.	48 34·2	19 2·0	5330	3	2	0·6
Miri Hills, No. 25 Peak ... [Dichu h.s., Pidi h.s., Potu North h.s., Yelu h.s.]	On a spur, about 3 miles N.N.W. of the junction of the Kamla river with the Subansiri, and 6 miles S.W. by W. of the Tammu village. 1877-78.	48 56	19 45	5310	4	2	5·4
Miri Hills, No. 26 Peak ... [Dibrugarh Church S., Dichu h.s., Mekhla Mukh Post S., Potu North h.s., Potu South h.s.]	Also called Dumtu Peak, E. End, about 3 miles N.W. of Gami village, and 2½ miles N. of Tago. 1877-78.	51 6	7 2	8380	5	2	2·6
Miri Hills, No. 27 Peak ... [Dibrugarh Church S., Mekhla Mukh Post S.]	On a spur. 1876-77.	52 4	11 29	8330	2	2	...
Miri Hills, No. 28 Peak ... [Dichu h.s., Potu South h.s., Pidi h.s.]	Also called Hegimudi Peak, on the same spur as No. 27 Peak and a little N.W. of it. 1877-78.	52 7	11 26	8370	3	2	4·5
Miri Hills, No. 29 Peak ... [Dichu h.s., Pidi h.s., Yelu h.s.]	On a minor spur N. of a stream, about 2½ miles E. of Gandir Kegam village. 1877-78.	50 21	14 11	5900	3	2	20·1
Miri Hills, No. 30 Peak ... [Pidi h.s., Potu South h.s., Yelu h.s.]	On the same spur as No. 29 Peak and a little N.W. of it. 1877-78.	50 45·8	13 7·8	6560	3	2	1·2
Miri Hills, No. 31 Peak ... [Pidi h.s., Potu South h.s., Yelu h.s.]	About 5½ miles W. of Muglu village. 1877-78.	53 19	13 6	7020	3	3	2·3
Miri Hills, No. 32 Peak ... [Dichu h.s., Pidi h.s., Potu North h.s.]	At the head of a spur, about 4 miles W. of Muglu village. 1877-78.	54 29	14 55	6020	3	2	24·0

\* Fixed by single triangles from two independent bases.

## DEGREE SHEET No. 22, between Lats. 27°—28° and Longs. 94°—95°, (Continued).

Name or Designation of Station or Point	Description, State or District, and Season of Observation	Latitude N.	Longitude E. of Greenwich	Height in feet above mean sea level	No of Rays determining		Discrepancies per mile in common side of triangles
					Position	Height	
Miri Hills, No. 33 Peak [Dichu h.s., Pidi h.s., Yelu h.s.]	On a minor spur, about 1½ miles W. of Muglu village. 1877-78.	27 53 50	94 17 8	4810	3	3	5.5
Miri Hills, No. 34 Peak [Dichu h.s., Potu North h.s., Potu South h.s., Yelu h.s.]	Near Muglu village. 1877-78.	53 28	18 30	3410	4	3	3.7
Miri Hills, No. 35 Peak [Dichu h.s., Pidi h.s., Yelu h.s.]	About 3½ miles N.W. of Muglu village. 1877-78.	55 20	15 46	5540	3	3	22.5
Miri Hills, No. 36 Peak [Dichu h.s., Potu North h.s.]	About 10 miles N.W. of Gandir Kegam village. 1877-78.	56 29	6 33	...	2	...	...
Miri Hills, No. 37 Peak [Dichu h.s., Pidi h.s., Potu North h.s.]	1877-78.	56 49	6 34	8130	3	2	3.3
Miri Hills, No. 38 Peak [Dichu h.s., Potu North h.s.]	About 14 miles N.E. of Samu village. 1877-78.	58 1	0 50	9880	2	1	...
Miri Hills, No. 39 Peak [Dichu h.s., Potu North h.s.]	1877-78.	58 35	1 18	9830	2	1	...
Miri Hills, No. 40 Peak [Dichu h.s., Potu North h.s.]	About 7 miles N.N.W. of Marniu village. 1877-78.	59 53	24 6	5890	2	1	...
Miri Hills, No. 41 Peak [Dichu h.s., Potu North h.s., Yelu h.s.]	About 2 miles W. of Marniu village. 1877-78.	54 33	25 58	5420	3	3	15.6
Miri Hills, No. 42 Peak [Dichu h.s., Yelu h.s.]	About 3 miles N.W. of Kamna village, and 4 miles S.W. of Marniu. 1877-78.	53 9	23 58	5020	2	1	...
Miri Hills, No. 43 Peak [Dichu h.s., Potu North h.s., Yelu h.s.]	On the same range as No. 42 Peak, and about ½ a mile E. by S. of it. 1877-78.	53 3	24 39	5180	3	2	3.8
Miri Hills, No. 44 Peak [Dichu h.s., Yelu h.s.]	About 5 miles N.E. of Marniu village. 1877-78.	56 34	32 1	4850	2	2	...
Miri Hills, No. 45 Peak [Dichu h.s., Yelu h.s.]	About 7 miles N. by W. of Hada village. 1877-78.	55 19	35 20	5350	2	2	...
Miri Hills, No. 46 Peak [Dichu h.s., Potu South h.s., Yelu h.s.]	About 4 miles E. of Marniu village. 1877-78.	54 13	31 3	5230	3	2	5.3
Miri Hills, No. 47 Peak [Dichu h.s., Yelu h.s.]	On the same ridge as No. 46 Peak, and a little S.E. of it. 1877-78.	53 46	31 15	5640	2	2	...
Miri Hills, No. 48 Peak [Dichu h.s., Potu South h.s.]	On a spur, about 4 miles E.N.E. of Kamna village, and the same distance S.E. of Marniu. 1877-78.	52 1	30 37	9810	2	1	...
Miri Hills, No. 49 Peak [Dichu h.s., Potu South h.s.]	On a ridge, about 4 miles N.W. of Manitiram village. 1877-78.	51 43	32 48	10260	2	1	...

## DEGREE SHEET No. 22, between Lats. 27°—28° and Longs. 94°—95°, (Continued).

Name or Designation of Station or Point	Description, State or District, and Season of Observation	Latitude N.	Longitude E. of Greenwich	Height in feet above mean sea level	No. of Rays determining		Discrepancies per mile in common side of triangles
					Position	Height	
Miri Hills, No. 50 Peak [Dichu h.s., Potu South h.s.]	On a ridge, about 2 miles N. of Ranigu village. 1877-78.	27 49 42	94 29 17	5750	2	1	Feet ...
Miri Hills, No. 51 Peak [Dichu h.s., Potu North h.s.]	Also called Tamu V. Peak, on a spur near Tamu village. 1877-78.	50 30	25 40	2170	2	2	...
Miri Hills, No. 52 Peak [Dichu h.s., North Lakhimpur s., Potu South h.s., Yelu h.s.]	On a range, about 3 miles N.W. of Gasegaon. 1877-78.	47 49	25 34	5840	4	4	6.2
Miri Hills, No. 53 Peak [Dibrugarh Church S., Paunrputra Post S.]	On a spur, about 2 miles S. of Gasegaon. 1875-76.	44 53	27 54	...	2	...	...
Miri Hills, No. 54 Peak [Potu South h.s., Yelu h.s.]	Also called Gase V. Peak, about 5 miles N.E. of Gasegaon. 1877-78.	47 45	32 8	2650	2	1	...
Miri Hills, No. 55 Peak [Dibrugarh Church S., Paunrputra Post S.]	On the same range as No. 52 Peak, and about 300 yards S. of it. 1875-76.	47 46	25 34	5790	2	2	...
Miri Hills, No. 56 Peak [Paunrputra Post S., Rájábeta Post S.]	On a spur, about a mile N.W. of Hada village. 1875-76.	49 46	36 13	...	2	...	...
Miri Hills, No. 57 Peak [Dibrugarh Church S., Dutia post s., Paba Post S.]	On a ridge, about 3 miles N. of Hada village, and 2½ miles N.N.W. of upper Taipudia village. 1876-77.	51 7	37 8	6190	3	3	20.5
Miri Hills, No. 58 Peak [Dibrugarh Church S., Dutia post s., Mekhla Mukh Post S., Paropora Post S., Paba Post S.]	On a ridge, about 3 miles N. by W. of Yurtu Guia village. 1876-77.	52 43	39 21	5890	5	4	4.8
Miri Hills, No. 59 Peak [Dichu h.s., Pidi h.s., Potu South h.s.]	On a spur, about ¼ a mile E. of Horu Soku village. 1877-78.	45 27	34 21	3020	3	1	8.2
Miri Hills, No. 60 Peak [Dichu h.s., Potu South h.s., Yelu h.s.]	On a spur, about 3 miles E. by S. of Horu Soku village. 1877-78.	44 52	37 24	5080	3	3	9.6
Miri Hills, No. 61 Peak [Dibrugarh Church S., Mekhla Mukh Post S., Paunrputra Post S., Rájábeta Post S.]	On a spur. 1875-76.	44 49	37 24	5050	4	3	8.2
Miri Hills, No. 62 Peak [Dichu h.s., Pidi h.s., Potu South h.s.]	About 3 miles S.E. of Horu Soku village. 1877-78.	43 42	35 57	4290	3	2	15.0
Miri Hills, No. 63 Peak [Dichu h.s., Pidi h.s., Potu South h.s.]	About 5 miles S.E. of Horu Soku village. 1877-78.	41 35	37 1	3600	3	3	14.1
Miri Hills, No. 64 Peak [Dichu h.s., Pidi h.s., Potu South h.s.]	1877-78.	43 12	36 5	3570	3	2	14.5
Miri Hills, No. 65 Peak [Pidi h.s., Potu South h.s.]	About 5 miles S. by W. of Horu Soku village. 1877-78.	42 29	33 24	3820	2	2	...

## DEGREE SHEET No. 22, between Lats. 27°—28° and Longs. 94°—95°, (Continued).

Name or Designation of Station or Point	Description, State or District, and Season of Observation	Latitude N.	Longitude E. of Greenwich	Height in feet above mean sea level	No. of Rays determining		Discrepancies per mile in common side of triangles
					Position	Height	
Miri Hills, No. 66 Peak ... [Dichu h.s., Pidi h.s., Potu South h.s.]	On a spur S. of the Sidan river, about 4½ miles S.W. of Horu Soku village. 1877-78.	27 42 23	94 31 23	3970	3	3	12.5
Miri Hills, No. 67 Peak ... [Dichu h.s., Pidi h.s., Potu South h.s.]	On a spur, about 1½ miles S. by W. of No. 66 Peak. 1877-78.	41 39	30 9	3920	3	2	9.0
Miri Hills, No. 68 Peak ... [Dichu h.s., Pidi h.s.]	On a ridge, about 3 miles S.E. of the junction of the Sidan river with the Subansiri. 1877-78.	41 45	25 45	4130	2	2	...
Miri Hills, No. 69 Peak ... [Dichu h.s., Pidi h.s., Potu South h.s.]	On the same ridge as No. 68 Peak, and about 2 miles S.W. of it. 1877-78.	40 58	24 15	4140	3	3	4.7
Miri Hills, No. 70 Peak ... [Pidi h.s., Potu South h.s.]	N. of the Dhal river. 1877-78.	39 33	25 57	3780	2	2	...
Miri Hills, No. 71 Peak ... [Pidi h.s., Potu South h.s.]	At the junction of four spurs, about 3 miles E. of Ganditula camping ground. 1877-78.	35 17	19 3	3420	2	2	...
Miri Hills, No. 72 Peak ... [Dichu h.s., Pidi h.s., Potu South h.s.]	On a spur, a little E. of No. 71 Peak. 1877-78.	35 22	19 39	3410	3	1	17.1
Miri Hills, No. 73 Peak ... [Bar Ghop Post S., Goháigaon Post S.]	On a spur, about a mile S. by E. of No. 72 Peak. 1875-76.	34 48	19 45	4850	2	1	...
Miri Hills, No. 74 Peak ... [Bar Ghop Post S., Goháigaon Post S.]	On the same spur as No. 73 Peak, and a little N. of it. 1875-76.	35 5	19 44	4920	2	1	...
Miri Hills, No. 75 Peak ... [Bar Chápri Post S., Májuli Post S., Nikori Chápri T.S., Noe Ali T.S.]	Western and higher of the two peaks, on ridge, about 5 miles N.N.W. of Bara bil. 1873-74.	35 1	23 22	...	4	...	1.5
Miri Hills, No. 76 Peak ... [Dibrugarh Church S., Paurníputra Post S.]	On the same ridge as No. 75 Peak, and about 6 miles N.W. of Madli bil. 1875-76.	35 55	27 50	3420	2	2	...
Miri Hills, No. 77 Peak ... [Negheri Ting T.S., Phakwádal T.S.]	E. end of a prominent peak, on the same ridge as No. 76 Peak, and a little S.W. of it. 1873-74.	35 48	27 42	...	2	...	...
Miri Hills, No. 78 Peak ... [Negheri Ting T.S., Noe Ali T.S.]	About 2 miles N.W. of Madli bil. 1873-74.	34 11	31 15	...	2	...	...
Miri Hills, No. 79 Peak ... [Bar Ghop Post S., Noe Ali T.S., Paurníputra Post S., Phakwádal T.S.]	On a minor spur, about 4½ miles N. by E. of Madli bil. 1875-76.	36 37	34 53	4080	4	1	*
Miri Hills, No. 80 Peak ... [Bar Ghop Post S., Dibrugarh Church S., Mekhla Mukh Post S., Paurníputra Post S.]	On a ridge, about 4½ miles N. by W. of Dolam bil. 1875-76.	37 54	36 29	4080	4	1	11.1
Miri Hills, No. 81 Peak ... [Dibrugarh Church S., Mekhla Mukh Post S., Paurníputra Post S.]	On the same ridge as No. 80 Peak, and about 4½ miles N.E. of it. 1875-76.	39 26	40 19	3000	3	2	8.2

\* Fixed by single triangles from two independent bases.



## DEGREE SHEET No. 22, between Lats. 27°—28° and Longs. 94°—95°, (Continued).

Name or Designation of Station or Point	Description, State or District, and Season of Observation	Latitude N.	Longitude E. of Greenwich	Height in feet above mean sea level	No of Rays determining		Discrepancies per mile in common side of triangles
					Position	Height	
Miri Hills, No. 82 Peak ... [Mekhla Mukh Post S., Dibrugarh Church S., Bar Ghop Post S.]	About 1 mile N.W. of No. 81 Peak. 1875-76.	27 40 10	94 39 17	3100	3	1	3' 8
Miri Hills, No. 83 Peak ... [Dibrugarh Church S., Mekhla Mukh Post S.]	About $\frac{1}{2}$ a mile N. of No. 82 Peak. 1875-76.	40 45	39 22	3230	2	1	...
Miri Hills, No. 84 Peak ... [Dibrugarh Church S., Mekhla Mukh Post S.]	On the same ridge as No. 81 Peak, and about a mile N.E. of it. 1875-76.	40 11	41 24	2490	2	1	...
Miri Hills, No. 85 Peak ... [Dibrugarh Church S., Mekhla Mukh Post S.]	On the ridge at the head of the Gai Ján stream, about 7 miles N.W. of a Miri village on the right bank of the Sisi river. 1875-76.	40 22	42 24	2350	2	1	...
Miri Hills, No. 86 Peak ... [Dibrugarh Church S., Mekhla Mukh Post S.]	On the same ridge as No. 85 Peak, and a little N.E. of it. 1875-76.	40 34	42 37	2450	2	1	...
Miri Hills, No. 87 Peak ... [Dibrugarh Church S., Mekhla Mukh Post S.]	On the same ridge as No. 85 Peak, and about $1\frac{1}{2}$ miles E.N.E. of it. 1875-76.	40 53	43 52	2050	2	1	...
Miri Hills, No. 88 Peak ... [Dibrugarh Church S., Mekhla Mukh Post S., Pauriputra Post S.]	On the same ridge as No. 87 Peak, and a little N. by E. of it. 1875-76.	41 5'67	43 57'92	2240	3	1	0' 2
Miri Hills, No. 89 Peak ... [Dibrugarh Church S., Mekhla Mukh Post S., Pauriputra Post S.]	On the same ridge as No. 88 Peak, and about $\frac{1}{2}$ a mile E. by N. of it. 1875-76.	41 18	44 31	2390	3	3	5' 0
Miri Hills, No. 90 Peak ... [Dibrugarh Church S., Mekhla Mukh Post S., Pauriputra Post S., Rájábeta Post S.]	About $1\frac{1}{2}$ miles E.N.E. of No. 89 Peak. 1875-76.	41 47' 5	45 51' 7	2310	4	1	1' 3
Miri Hills, No. 91 Peak ... [Dibrugarh Church S., Mekhla Mukh Post S., Rájábeta Post S.]	About $\frac{1}{2}$ mile E. by N. of No. 90 Peak. 1875-76.	41 56' 2	46 33' 7	2490	3	1	0' 7
Miri Hills, No. 92 Peak ... [Dibrugarh Church S., Mekhla Mukh Post S., Rájábeta Post S.]	About $1\frac{1}{2}$ miles E.N.E. of No. 91 Peak. 1875-76.	42 5	47 38	2340	3	1	3' 5
Miri Hills, No. 93 Peak ... [Dibrugarh Church S., Mekhla Mukh Post S., Rájábeta Post S.]	About $2\frac{1}{2}$ miles E.N.E. of No. 92 Peak. 1875-76.	42 50	49 41	...	3	...	8' 0
Miri Hills, No. 94 Peak ... [Dibrugarh Church S., Mekhla Mukh Post S.]	About $\frac{1}{2}$ mile N.E. of No. 93 Peak. 1875-76.	43 12	49 54	...	2	...	...
Miri Hills, No. 95 Peak ... [Dibrugarh Church S., Mekhla Mukh Post S.]	About $\frac{1}{2}$ mile N.E. of No. 94 Peak. 1875-76.	43 31	50 16	...	2	...	...
Miri Hills, No. 96 Peak ... [Dibrugarh Church S., Mekhla Mukh Post S., Rájábeta Post S.]	Also called Pogorosoi Peak, about a mile E. of No. 95 Peak, and 5 miles N. of Dimu Guard. 1875-76.	43 36	51 13	2820	3	1	5' 0

## DEGREE SHEET No. 22, between Lats. 27°—28° and Longs. 94°—95°, (Continued).

Name or Designation of Station or Point	Description, State or District, and Season of Observation	Latitude N.	Longitude E. of Greenwich	Height in feet above mean sea level	No. of Rays determining		Discrepancies per mile in common side of triangles
					Position	Height	
Miri Hills, No. 97 Peak ... [Dibrugarh Church S., Mekhla Mukh Post S., Paunrputra Post S.]	South of the Sidan river, a tributary to the Subansiri, about 3½ miles S.S.E. of lower Taipudia village, and 4 miles S.W. by S. of Deni village. 1875-76.	27 45 48	94 40 15	4570	3	3	Feet 3·8
Miri Hills, No. 98 Peak ... [Dibrugarh Church S., Paunrputra Post S.]	On the same spur as No. 97 Peak, and a little S.E. of it. 1875-76.	45 47	40 18	...	2	...	...
Miri Hills, No. 99 Peak ... [Dibrugarh Church S., Paunrputra Post S., Rájábeta Post S.]	South of the Sidan river, about 2 miles S.S.E. of Taipudia village, and 3 miles S.W. of Deni village. 1875-76.	46 57	39 31	4960	3	2	19·6
Miri Hills, No. 100 Peak ... [Dibrugarh Church S., Paunrputra Post S.]	At the bifurcation of the spur, about 2½ miles S.E. of lower Taipudia village, and the same distance S.W. of Deni village. 1875-76.	46 47	41 3	4950	2	1	...
Miri Hills, No. 101 Peak ... [Potu North h.s., Potu South h.s.]	About 4 miles S.S.E. of Deni village. 1877-78.	45 13	43 43	4390	2	1	...
Miri Hills, No. 102 Peak ... [Dibrugarh Church S., Mekhla Mukh Post S., Paunrputra Post S., Rájábeta Post S.]	About 3 miles S.S.E. of Deni village. 1875-76.	46 20·1	43 2·9	4890	4	3	1·2
Miri Hills, No. 103 Peak ... [Dibrugarh Church S., Mekhla Mukh Post S., Paunrputra Post S., Rájábeta Post S.]	About 1 mile N.E. of No. 102 Peak. 1875-76.	46 50·8	44 8·1	4130	4	1	0·9
Miri Hills, No. 104 Peak ... [Mekhla Mukh Post S., Paunrputra Post S., Rájábeta Post S.]	A little N.E. of No. 103 Peak. 1875-76.	46 57	44 24	4120	3	2	5·4
Miri Hills, No. 105 Peak ... [Dichu h.s., Pidi h.s., Potu South h.s.]	About 2 miles E.S.E. of Deni village. 1877-78.	47 52	44 0	3890	3	1	2·0
Miri Hills, No. 106 Peak ... [Dibrugarh Church S., Mekhla Mukh Post S.]	About 4½ miles E.S.E. of Kalo village. 1875-76.	46 39	46 19	4050	2	1	...
Miri Hills, No. 107 Peak ... [Dibrugarh Church S., Mekhla Mukh Post S.]	About ¼ of a mile N. by E. of No. 106 Peak. 1875-76.	47 19	46 40	4320	2	1	...
Miri Hills, No. 108 Peak ... [Dibrugarh Church S., Mekhla Mukh Post S.]	About ¼ of a mile N.E. of No. 107 Peak. 1875-76.	47 41	47 9	2830	2	1	...
Miri Hills, No. 109 Peak ... [Dibrugarh Church S., Mekhla Mukh Post S.]	About ¼ a mile N. by W. of No. 108 Peak. 1875-76.	48 16	46 57	5180	2	1	...
Miri Hills, No. 110 Peak ... [Dibrugarh Church S., Paunrputra Post S., Rájábeta Post S.]	About 2½ miles E. of No. 106 Peak. 1875-76.	46 55	48 25	4680	3	2	15·6
Miri Hills, No. 111 Peak ... [Dibrugarh Church S., Mekhla Mukh Post S.]	About 6½ miles S.E. of Kalo village. 1875-76.	46 24	49 5	4150	2	1	...

## DEGREE SHEET No. 22, between Lats. 27°—28° and Longs. 94°—95°, (Continued).

Name or Designation of Station or Point	Description, State or District, and Season of Observation	Latitude N.	Longitude E. of Greenwich	Height in feet above mean sea level	No. of Rays determining		Discrepancies per mile in common side of triangles
					Position	Height	
Miri Hills, No. 112 Peak ... [Dibrugarh Church S., Mekhla Mukh Post S., Paunriputra Post S., Rájábeta Post S.]	About $\frac{1}{2}$ a mile N.E. of No. 111 Peak. 1875-76.	27 46 36.6	94 49 31.5	4290	4	2	Feet 2.1
Miri Hills, No. 113 Peak ... [Dibrugarh Church S., Mekhla Mukh Post S.]	A little N. by E. of No. 112 Peak. 1875-76.	46 47	49 36	4170	2	1	...
Miri Hills, No. 114 Peak ... [Dibrugarh Church S., Mekhla Mukh Post S.]	About $\frac{1}{2}$ of a mile N.E. of No. 113 Peak. 1875-76.	46 57	50 13	4200	2	1	...
Miri Hills, No. 115 Peak ... [Dibrugarh Church S., Mekhla Mukh Post S.]	A little E.N.E. of No. 114 Peak. 1875-76.	47 2	50 35	4350	2	1	...
Miri Hills, No. 116 Peak ... [Dibrugarh Church S., Mekhla Mukh Post S.]	About a mile E. of No. 115 Peak. 1875-76.	46 57	51 25	4250	2	1	...
Miri Hills, No. 117 Peak ... [Dibrugarh Church S., Mekhla Mukh Post S., Paunriputra Post S., Rájábeta Post S., Sa- enga Ján Post S.]	A little N.E. of No. 116 Peak. 1875-76.	47 13.2	51 33.4	4460	5	4	0.8
Miri Hills, No. 118 Peak ... [Dibrugarh Church S., Dutia post s., Paropora Post S., Paba Post S.]	About 2 $\frac{1}{2}$ miles N.E. of Kalo village. 1876-77.	50 22	45 45	5220	4	3	5.7
Miri Hills, No. 119 Peak ... [Dichu h.s., Potu South h.s.]	A little W. of No. 118 Peak. 1877-78.	50 22	45 35	5240	2	2	...
Miri Hills, No. 120 Peak ... [Dutia post s., Paropora Post S., Paba Post S.]	About $\frac{1}{2}$ a mile N.E. of No. 118 Peak. 1876-77.	50 49	45 57	5240	3	2	11.6
Miri Hills, No. 121 Peak ... [Paunriputra Post S., Rájábeta Post S.]	About $\frac{1}{2}$ of a mile N.E. of Gamdu village. 1875-76.	50 56	42 56	...	2	...	...
Miri Hills, No. 122 Peak ... [Dichu h.s., Potu South h.s.]	A little N.W. of No. 121 Peak. 1877-78.	51 0	42 51	10620	2	1	...
Miri Hills, No. 123 Peak ... [Dutia post s., Paba Post S.]	About 2 $\frac{1}{2}$ miles N. of No. 121 Peak. 1876-77.	53 10	43 6	4830	2	2	...
Miri Hills, No. 124 Peak ... [Dichu h.s., Potu South h.s.]	About 3 miles N.E. of No. 123 Peak. 1877-78.	54 46	45 21	12070	2	1	...
North Lakhimpur s. ... [Triangle 308]	On the centre of the paka flat roof of the round flank- ing tower at the N.E. corner of the treasury building in the Civil Station of North Lakhimpur, which building is 100 yards N. of the kachahri. The station is marked by a circle and dot cut on a slab of sand-stone let into and flush with the roof which is 20 feet above the ground. (Lakhimpur). 1877-78.	14 20.82	9 0.38	348	...	2	...
Pasi Maiong Abar Hills, No. 1 Peak ... [Dibrugarh Church S., Paunriputra Post S.]	1875-76. ... ..	48 16	53 13	3140	2	1	...

## DEGREE SHEET No. 22, between Lats. 27°—28° and Longs. 94°—95°, (Continued).

Name or Designation of Station or Point	Description, State or District, and Season of Observation	Latitude N.	Longitude E. of Greenwich	Height in feet above mean sea level	No. of Rays determining		Discrepancies per mile in common side of triangles
					Position	Height	
Pasi Maiong Abar Hills, No. 2 Peak ... [Dibrugarh Church S., Mekhla Mukh Post S.]	1875-76. ... ..	27 48 17	94 53 39	3130	2	1	Feet ...
Pasi Maiong Abar Hills, No. 3 Peak ... [Dibrugarh Church S., Pauriputra Post S., Rájábeta Post S.]	1875-76. ... ..	48 32 9	54 15 4	3510	3	2	1 2
Pasi Maiong Abar Hills, No. 4 Peak ... [Dibrugarh Church S., Mekhla Mukh Post S., Pauriputra Post S.]	1875-76. ... ..	48 18 7	59 9 1	2710	3	1	2 0
Pasi Maiong Abar Hills, No. 5 Peak ... [Dibrugarh Church S., Mekhla Mukh Post S.]	On a ridge. 1875-76.	49 52	59 59	2580	2	1	...
Pasi Maiong Abar Hills, No. 6 Peak ... [Dutia post s., Paropora Post S., Paba Post S.]	About 4 miles E. of Miri Hills, No. 124 Peak. 1876-77.	54 46	49 29	5040	3	3	3 3
Pasi Maiong Abar Hills, No. 7 Peak ... [Dutia post s., Paropora Post S., Paba Post S.]	About 1½ miles N.E. of No. 6 Peak. 1876-77.	55 29 9	50 39 4	5370	3	2	0 6
Pasi Maiong Abar Hills, No. 8 Peak ... [Dibrugarh Church S., Dutia post s., Mekhla Mukh Post S., Paropora Post S., Paba Post S.]	About 1½ miles N.N.E. of No. 7 Peak. 1876-77.	56 32	51 21	5980	5	5	1 8
Pasi Maiong Abar Hills, No. 9 Peak ... [Dibrugarh Church S., Dutia post s., Mekhla Mukh Post S., Paropora Post S., Paba Post S.]	About 2½ miles E.N.E. of No. 8 Peak. 1876-77.	57 5	53 55	5590	5	3	7 1
Pasi Maiong Abar Hills, No. 10 Peak [Dutia post s., Paba Post S.]	About 3 miles E.N.E. of No. 9. Peak. 1876-77.	58 18	56 39	5090	2	2	...
Pathalipam s. [Triangle 309]	On the edge of a roadway in the Pathalipam Tea Garden, 200 yards W. of the right bank of the Subansiri river, and about 100 yards N.W. of the factory bungalow. The station consists of a circular platform of bricks with two mark-stones, one at the ground level and the other 1 foot below it. (Lakhimpur). 1877-78.	27 37 19	19 32 51	347	...	2	...
Pauriputra Post S. ... [Triangle 225]	On the ground covered with low jungle and a few simul trees, 150 feet S. of the Pauriputra channel of the Brahmaputra river, 25 feet S. of a deep nála, about 1½ miles N.W. of Bangálgaon village, 1½ miles S. of the deserted village of Jemasuk, and ¼ a mile W. of the new village built by the inhabitants of Jemasuk on the N. bank of the Pauriputra Suti; mauza Halka, mahál Sisi Dhomasji. The station is marked by a square masonry pillar of 2 feet 9 inches side, surmounted by a circular one 2½ feet in diameter and 1 foot above the ground, having two mark-stones, one at the top and the other 2 feet below it. (Lakhimpur). 1875-76.	28 42 38	49 57 77	334	...	2	...

## DEGREE SHEET No. 22, between Lats. 27°—28° and Longs. 94°—95°, (Continued).

Name or Designation of Station or Point	Description, State or District, and Season of Observation	Latitude N.	Longitude E. of Greenwich	Height in feet above mean sea level	No. of Rays determining		Discrepancies per mile in common side of triangles
					Position	Height	
Pidi h.s. ... [Triangles 306, 307]	On the summit of a conical-shaped peak, apparently 400 feet above the ridges to E. and W., in the Miri Hills N.E. of Lakhimpur district, 1½ miles E of Beni, a Miri village; there is a path from Beni village to Pidi. The station is at the S.E. corner of the top and 6 feet from the eastern edge: a clump of four trees, springing from the same root and occupying the centre of the summit of the hill, is 25 feet distant bearing 287° from the station. The station consists of a small platform of bricks and stones set in cement, with a mark-stone embedded in it and covered over by a pile of stones. ( <i>Miri Hills</i> ). 1877-78.	27 39 49.89	94 13 52.93	6321	...	2	Feet ...
Potu North h.s. ... [Triangle 312]	On the summit of a hill, the highest on the range in the neighbourhood, 300 yards N. of Potu South h.s., and 100 feet higher than it. The station is denoted by a pile of stones. ( <i>Miri Hills</i> ). 1877-78.	48 19.40	26 54.19	5460	...	1	...
Potu South h.s. ... [Triangle 311]	On the summit of a hill, about 3½ miles N. of Gase village. The station is denoted by a mark-stone surrounded by a few bricks set in cement, and covered over by a large pile of stones. ( <i>Miri Hills</i> ). 1877-78.	48 3.62	27 0.00	5362	...	2	...
Rájábeta Post S. ... [Triangle 226]	On an artificial mound in the midst of an extensive and open marsh about a well-known pond called Boga bil, 2 miles E. of the Romari Tea Grant, 1 mile E. of the Brahmaputra river, and 1 mile S. of the Rájábeta Ján. A deep cross has been cut on a large tree at the S. corner of the Boga bil, 866 feet distant at a bearing of 21° from the station, another cross has been cut on a tree standing alone in the marsh at a bearing of 290° and 266 feet distant, and a third cross has been cut on the trunk of a jám tree the branches of which have been lopped off, 44 feet distant on a bearing of 76° from the station; mauza Patrogaon. The station consists of a square pillar of 3 feet side, surmounted by a circular one 2 feet 9 inches in diameter and 9 inches above the top of the mound, having two mark-stones, one at the top and the other 2 feet below it. ( <i>Lakhimpur</i> ). 1876-77.	24 59.72	51 54.16	328	...	1	...
Saenga Ján Post S. ... [Triangle 230]	On the high ground in tall grass and tree jungle, 75 feet N. of the N. bank of the Saenga Ján at 800 yards E. of the western extremity of it, and 150 feet S. of a small nála choked with jungle. The station consists of a square pillar of 3 feet side, surmounted by a circular one 3 feet in diameter and 10 inches above the ground, having two mark-stones, one at the surface and the other 2 feet below it. ( <i>Abar Hills</i> ). 1876-76.	35 20.87	57 10.84	346	...	2	...
Sisa Post S. .... [Triangle 220]	In the midst of a tree and grass jungle on the right bank of the Brahmaputra river and 200 yards from it; 10 feet E. of the E. margin, and 1 mile N. of the mouth, of the semi-circular nála immediately N. of the Kekori Suti, and 1½ miles S. of the mouth of the Sisa river. A deep cross has been cut on a large Au Tenga tree, 80 feet distant on a magnetic bearing of 305° from the station, and a deep cross has also been scored on another large tree 170 feet distant on a bearing of 36°; mauza Dakkhin Chápri of Dhakuákhana. The station is marked by a square brick pillar of 2½ feet side and 1 foot above the ground, having two mark-stones, one at the ground level and the other 2 feet below it. ( <i>Lakhimpur</i> ) 1875-76.	15 36.90	38 30.90	311	...	2	...

## DEGREE SHEET No. 22, between Lats. 27°—28° and Longs. 94°—95°, (Continued).

Name or Designation of Station or Point	Description, State or District, and Season of Observation	Latitude N.	Longitude E. of Greenwich	Height in feet above mean sea level	No. of Rays determining		Discrepancies per mile in common side of triangles
					Position	Height	
Tengápáni Post S. ... [Triangle 219]	On the north of the Dhaibári Tea Grant, on the lands known as the Amuk Ján, 1070 feet S. (along the road) of the crossing of Dhai Ali road by the Motiarigarh embankment, $\frac{1}{2}$ a mile S.E. of a large Miri village, and $\frac{1}{2}$ of a mile E.S.E. of Diorigaon. A large cross has been deeply scored on the stump of a large tree on the E. margin of the Dhai Ali road, 122 feet distant on a magnetic bearing of 20° from the station. The station consists of a square brick pillar of 3 feet side, surmounted by a circular one 3 feet in diameter and 9 inches above the ground, having two mark-stones, one at the surface and the other 2 feet below it. ( <i>Sibságar</i> ). 1875-76.	27 11 36.38	94 41 56.74	307	...	2	Feet ...
Yelu h.s. ... [Triangle 305]	On the summit of a sharp and very conspicuous peak so called, 6 feet from the extreme east point and 20 feet from the S.E. corner; it is 3 miles S. of Beni village. The slopes of the peak are very steep towards the south and east, and gentle towards north; there is a fair path to the station from Beni village; the ascent is nearly 4,000 feet. A large tree, bifurcated at 6 feet above the ground, is at a magnetic bearing of 51° from the station and distant 25 $\frac{1}{2}$ feet. The station is marked by a small pillar of bricks and stones set in cement, containing a mark-stone at the ground level. ( <i>Miri Hills</i> ). 1877-78.	37 14.48	11 35.12	7456	...	2	...

## DEGREE SHEET No. 23, between Lats. 28°—29° and Longs. 94°—95°.

Miri Hills, No. 1 Peak ... [Dichu h.s., Yelu h.s.]	About 25 miles N. of Muglu. In Lo tract. 1877-78.	28 13 38	94 25 10	11330	2	1	Feet ...
Miri Hills, No. 2 Peak ... [Dutia post s., Paba Post S.]	About 4 miles E.N.E. of No. 1 Peak. In Lo tract. 1876-77.	14 49	28 18	10530	2	2	...
Miri Hills, No. 3 Peak ... [Dichu h.s., Yelu h.s.]	About 23 miles N. of Marniu. In Lo tract. 1877-78.	14 21	29 17	10800	2	2	...
Miri Hills, No. 4 Peak ... [Dutia post s., Paba Post S.]	About $\frac{1}{2}$ a mile S.W. of No. 3 Peak. In Lo tract. 1876-77.	14 3	29 1	10740	2	2	...
Miri Hills, No. 5 Peak ... [Dichu h.s., Pidi h.s., Yelu h.s.]	About 20 miles N. by E. of Marniu. In Lo tract. 1877-78.	11 57	31 22	8680	3	3	6.5
Miri Hills, No. 6 Peak ... [Dichu h.s., Pidi h.s., Yelu h.s.]	About 1 $\frac{1}{2}$ miles S. a little E. of No. 5 Peak. In Lo tract. 1877-78.	10 41	31 35	8170	3	3	7.2
Miri Hills, No. 7 Peak ... [Dichu h.s., Pidi h.s., Yelu h.s.]	About 19 miles N.N.E. of Marniu. In Lo tract. 1877-78.	10 46.4	33 55.8	6880	3	3	0.3
Miri Hills, No. 8 Peak ... [Dichu h.s., Potu South h.s., Yelu h.s.]	About 4 miles E.S.E. of No. 7 Peak. In Lo tract. 1877-78.	9 39	37 30	4770	3	2	23.7

## DEGREE SHEET No. 23, between Lats. 28°—29° and Longs. 94°—95°, (Continued).

Name or Designation of Station or Point	Description, State or District, and Season of Observation	Latitude N.	Longitude E. of Greenwich	Height in feet above mean sea level	No. of Rays determining		Discrepancies per mile in common side of triangles
					Position	Height	
Miri Hills, No. 9 Peak ... [Dichu h.s., Pidi h.s., Yelu h.s.]	About 11 miles N. of Marniu. In Lo tract. 1877-78.	28 4 1	94 27 18	6570	3	3	Feet 8·5
Miri Hills, No. 10 Peak ... [Dichu h.s., Pidi h.s., Yelu h.s.]	About 8 miles N. by W. of Marniu. In Lo tract. 1877-78.	0 48	26 4	6360	3	2	3·2
Miri Hills, No. 11 Peak ... [Dichu h.s., Pidi h.s., Yelu h.s.]	A little N.E. of No. 10 Peak. In Lo tract. 1877-78.	0 55	26 16	6450	3	3	2·8
Pasi Maiong Abar Hills, No. 1 Peak ... [Dutia post s., Paba Post S.]	About 25 miles N. by W. of Tadeo, and 22 miles N.W. of Ledum. 1876-77.	0 41	54 38	5140	2	2	...
Pasi Maiong Abar Hills, No. 2 Peak ... [Dutia post s., Paba Post S.]	About 2½ miles N.E. of No. 1 Peak. 1876-77.	1 27	56 59	5560	2	2	...
Pasi Maiong Abar Hills, No. 3 Peak ... [Dibrugarh Church S., Mekhla Mukh Post S.]	About 19 miles N.W. of Damsing. 1876-77.	7 7	59 16	6130	2	2	...
Unexplored, No. 1 Peak ... [Pidi h.s., Yelu h.s.]	In Pema Koichhen. 1877-78.	51 41	4 40	16550	2	2	...
Unexplored, No. 2 Peak ... [Pidi h.s., Yelu h.s.]	In Lo tract. 1877-78.	25 46	12 21	12720	2	2	...
Unexplored, No. 3 Peak ... [Pidi h.s., Yelu h.s.]	In Lo tract. 1877-78.	26 1	12 56	12910	2	2	...
Unexplored, No. 4 Peak ... [Pidi h.s., Yelu h.s.]	In Lo tract. 1877-78.	25 42	13 33	12710	2	2	...
Unexplored, No. 5 Peak ... [Pidi h.s., Yelu h.s.]	In Lo tract. 1877-78.	25 14	16 45	12980	2	2	...
Unexplored, No. 6 Peak ... [Dibrugarh Church S., Nari H.S.]	In Lo tract. 1876-77.	22 8	22 56	12930	2	1	...
Unexplored, No. 7 Peak ... [Jora Suti Post S., Kerwa Post S.]	In Lo tract. 1876-77.	21 4	23 30	...	2	...	...
Unexplored, No. 8 Peak ... [Pidi h.s., Yelu h.s.]	In Lo tract. 1877-78.	16 4	9 56	11130	2	1	...
Unexplored, No. 9 Peak ... [Potu South h.s., Yelu h.s.]	In Lo tract. 1877-78.	33 3	48 25	10090	2	1	...

## DEGREE SHEET No. 24, between Lats. 26°—27° and Longs. 95°—96°.

Name or Designation of Station or Point	Description, State or District, and Season of Observation	Latitude N.	Longitude E. of Greenwich	Height in feet above mean sea level	No. of Rays determining		Discrepancies per mile in common side of triangles
					Position	Height	
Nága Hills, No. 1 Peak ... [Phakwádal T.S., Chhintámanigarh T.S.]	On the most easterly range, about 4 miles E. by S. of Sholo. and 5½ miles E. by N. of Tankhu village. 1873-74.	26 23 31	95 8 32	...	2	...	Feet ...
Nága Hills, No. 2 Peak ... [Phakwádal T.S., Chhintámanigarh T.S.]	On the most easterly range, about 8½ miles E. by N. of Pochu village. 1873-74.	26 47	7 49	...	2	...	...
Nága Hills, No. 3 Peak ... [Noe Ali T.S., Phakwádal T.S.]	On a peaky ridge, about 1¼ miles S. by W. of Towah village. 1873-74.	32 8	2 23	...	2	...	...
Nága Hills, No. 4 Peak ... [Sibságar, Gauriságar S., Noe Ali T.S., Chhintámanigarh T.S.]	Prominent peak on the ridge whence a spur extends to N.E., about 1½ miles S.E. of Punkung, and the same distance S.W. of Longkar village. 1873-74.	45 4 5	0 22 8	4040	3	1	0 3
Nága Hills, No. 5 Peak ... [Bar Ghop Post S., Sibságar, Gauriságar S., Noe Ali T.S., Phakwádal T.S., Goháigaon Post S.]	Western of two peaks, close to and south of Lakma village. 1875-76.	48 4	3 14	3510	5	2	4 3
Nága Hills, No. 6 Peak ... [Bar Ghop Post S., Goháigaon Post S.]	On the spur close to Lakma village, about 2 miles N.W. of Poilung, and a little N.E. of No. 5 Peak. 1875-76.	48 11	3 16	...	2	...	...
Nága Hills, No. 7 Peak ... [Sibságar, Gauriságar S., Goháigaon Post S., Noe Ali T.S., Sibságar No. 2 s.]	E. end, on the ridge and at the head of a stream flowing to the north, close to and south of Muniting village. 1873-74.	53 18	1 27	2010	4	3	5 0
Nága Hills, No. 8 Peak ... [Sibságar, Gauriságar S., Sibságar No. 2 s.]	About 10 miles E. of Changka Tingiu. 1873-74.	31 34	17 36	9370	2	1	...
Nága Hills, No. 9 Peak ... [Sibságar, Gauriságar S., Noe Ali T.S., Phakwádal T.S.]	On the spur south of the Tiprai stream, close to and north of Yansa village. 1873-74.	56 11 7	13 33 5	...	3	...	0 5
Nága Hills, No. 10 Peak ... [Dibrugarh Church S., Dipa h.s., Libong Post S., Nári H.S., Saenga Ján Post S.]	On a ridge, about 3¼ miles S. of Yapkam. 1876-77.	48 51	34 6	9170	5	2	4 0

## DEGREE SHEET No. 25, between Lats. 27°—28° and Longs. 95°—96°.

Bámani Kora post s. ... [Triangle 317]	On the edge of the <i>pathar</i> (plain) ¼ of a mile N.W. of Bámani Kora village mauza Rangpur. The station consists of a circular pillar of bricks 2½ feet in diameter and 2 feet high, having two mark-stones, one 6 inches below the surface of the pillar and the other 2½ feet below it. The pillar is surrounded by a platform of earth 20 feet square and 2 feet high. ( <i>Lakhimpur</i> ). 1877-78.	27 20 15 93	95 7 58 67	353	...	2	Feet ...
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DEGREE SHEET No. 25, between Lats. 27°—28° and Longs. 95°—96°, (Continued).

Name or Designation of Station or Point	Description, State or District, and Season of Observation	Latitude N.	Longitude E. of Greenwich	Height in feet above mean sea level	No. of Rays determining		Discrepancies per mile in common side of triangles
					Position	Height	
Bhāti Sadiya Post S. [Triangle 246]	In a high grass and forest land, 2½ miles N. of the mouth of the Gurmura Ján, ¼ mile S. of the left bank of the Dibang river, and 150 yards E. of a channel of the same river; near the station is the inner line road which connects the Sensiri, Dibang and Dikrang outposts: the station is 70 yards due N. of a point on this road which is 190 yards E. of the place where the inner line road meets the left bank of the above mentioned channel of the Dibang river; mauza Bhāti Sadiya. The station consists of a square brick pillar of 3 feet side, surmounted by a circular one 2½ feet in diameter, having two mark-stones, one at the ground level and the other 1 foot below it. ( <i>Lakhimpur</i> ). 1877-78.	27 50 44.48	95 36 35.04	407	...	2	Feet ...
Bokolgaon post s. [Triangle 814]	17 feet S. of south margin of the road from Dibrugarh to Jaipur, and 5½ miles from the former; the Láhoíl Tea Garden of the Muttock Company is on the opposite side of the road; mauza Bokolgaon. The station is marked by a circular pillar of bricks 3 feet in diameter, having two mark-stones, the upper 3 inches below the surface of the platform and level with the ground and the lower 1 foot below the upper. ( <i>Lakhimpur</i> ). 1876-77.	27 16.03	1 34.29	350	...	2	...
Chhagali Pathar post s. [Triangle 815]	On the edge of the forest to N. of the Chhagali Pathar, 1½ miles W. of Romai Tea Grant, and 1 mile S.E. of the Romai Ján; there are two paths to the <i>Pathar</i> , one from Timona village and the other from Domegaon via Phuta Pathar; mauza Timona. The station is marked by a circular pillar of bricks 2½ feet in diameter, having two mark-stones, one ¼ of a foot above and the other 1 foot below the ground level. ( <i>Lakhimpur</i> ). 1877-78.	23 29.90	3 42.48	342	...	2	...
Deohal h.s. [Triangle 320]	On the Deohal Hill, 1 mile E. of the civil station of Jaipur, above the right bank of the Dihing river. It is on the site of the Revenue Survey Station of the same name. The station is denoted by a circular pillar of bricks, having two mark-stones, one at the ground level and the other 1 foot below it. ( <i>Lakhimpur</i> ). 1877-78.	15 26.00	27 35.06	647	...	2	...
Dibang Mukh . Post S. [Triangle 243]	On the high ground covered with very heavy forest near the western extremity of the delta formed by the Dibang and Brahmaputra rivers, ¼ of a mile east of the left bank of the channel carrying the united waters of the Dihang and Dibang rivers, 1½ miles N. by E. of the sharp angle formed by the Brahmaputra river and the above mentioned channel, and ¼ of a mile S. of the southern extremity of the small island at the mouth of the Dibang river; mauza Bhāti Sadiya. Large deep crosses have been cut on trunks of two large simul trees, one 108 feet distant at a magnetic bearing of 144° and the other 115 feet distant at a bearing of 1° from the station. The station consists of a square brick pillar of 3 feet side, surmounted by a circular one 2½ feet in diameter, having two mark-stones, one at the ground level and the other 1 foot below it. ( <i>Lakhimpur</i> ). 1876-77.	50 15.55	31 31.80	396	...	2	...

## DEGREE SHEET No. 25, between Lats. 27°—28° and Longs. 95°—96°, (Continued).

Name or Designation of Station or Point	Description, State or District, and Season of Observation	Latitude N.	Longitude E. of Greenwich	Height in feet above mean sea level	No. of Rays determining		Discrepancies per mile in common side of triangles
					Position	Height	
Dikrang Fort s. ... [Triangle 302]	On the roof of the paka built block-house known as Dikrang fort on the path from Sadiya to Lako Mishmigaon, north of the former place: it is 21 feet from the N.E. corner and 21.3 feet from the S.E. corner of the roof, and 28 feet above the ground. The station consists of a masonry pillar 3 feet in diameter and 3 inches high with one mark-stone; in case this mark should be disturbed, another masonry pillar 3 feet in diameter with two mark-stones imbedded in it has been built on the ground 142 feet from this station, on the exact line between it and Bháti Sadiya Post S. ( <i>Lakhimpur</i> ). 1877-78.	27 53 12.88	95 42 21.60	466	...	2	Feet ...
Dipi Mukh post s. .... [Triangle 298]	On a slightly elevated piece of ground in a large plain of grass, the site of the deserted Miri village of Mutpong, 300 yards N. of the mouth of the Dipi river which falls into the Buri Suti, 100 yards from the right bank of the latter, and 30 yards W. of the margin of a deep wet nála which forms the boundary of the forest on the southern margin of the grassy plain and the junction of which with the Buri Suti is 150 yards at a bearing of 154°. Near the station is a large ant-hill between two simul trees, the eastern of which has a deep cross cut on its trunk and is 26 yards distant at a bearing of 190° from the station. The station consists of a circular pillar of bricks, having two mark-stones, one at the ground level and the other 6 inches below it. Four mounds of earth have been heaped up around the station. ( <i>Abar Hills</i> ). 1876-77.	43 39.52	7 31.10	370	...	2	...
Dutia post s. ... [Triangle 299]	In a large plain of short grass interspersed with trees, on the left bank of the channel of the Brahma-putra river E. of the Dutia Majli Chápri, $\frac{1}{4}$ a mile from the N. junction and 1 mile from the S. junction of the margin of the plain with the river bank, and 500 yards E. of it; it is 12 feet W. of the E. margin of a depression which was formerly a channel of the river. Deep crosses have been cut on the trunks of two simul trees on the E. margin of this depression, one 44 feet distant at a bearing of 70°, and the other 154 feet distant at a bearing of 228° from the station; mauza Paropora. The station consists of a square brick pillar of 3 feet side, surmounted by a circular one 2 $\frac{1}{2}$ feet in diameter, with two mark-stones, one at the ground level and the other 1 foot below it. ( <i>Lakhimpur</i> ). 1876-77.	45 10.69	26 44.62	395	...	1	...
Hilika h.s. ... [Triangle 319]	On the summit of a conspicuous hill on the outer range of the Nága Hills, 7 miles S. of the civil station of Jaipur, and 3 $\frac{1}{4}$ miles N. of the junction of the Taurok river with the right bank of the Disang river at Taurok Tea Garden. The station is marked by a circular pillar of bricks, having two mark-stones, one at top, level with the surface of the ground, and the other 1 foot below it. There was a Revenue Survey station of which a cube of stone of 1 foot side, having a cross mark cut on one face, was found loose on the hill top. ( <i>Nága Hills</i> ). 1876-77.	9 14.72	25 39.75	1550	...	2	...

## DEGREE SHEET No. 22, between Lats. 27°—28° and Longs. 95°—96°, (Continued).

Name or Designation of Station or Point	Description, State or District, and Season of Observation	Latitude N.	Longitude E. of Greenwich	Height in feet above mean sea level	No. of Rays determining		Discrepancies per mile in common side of triangles
					Position	Height	
Jora Suti Post S. ... [Triangle 233]	On a piece of open land, 750 feet S. of the left bank of the Brahmaputra river, 1 mile E. of the mouth of the Jora Suti nála, and 50 feet S. of a steep bank forming the margin of the grass jungle and low land between the station and the river bank; the Miri village of Jaura is due N. of the station on the river bank. A deep cross has been cut on the trunk of a large simul tree, 250 feet distant at a bearing of 196° from the station. The station consists of a square brick pillar of 3 feet side, surmounted by a circular one 2½ feet in diameter, having two mark-stones, one at the ground level and the other 1 foot below it. ( <i>Lakhimpur</i> ). 1876-77.	27 35 47.74	95 4 56.81	353	...	2	<i>Feet</i> ...
Kerwa Post S. ... [Triangle 239]	On the N. margin of the belt of tree jungle bordering the N. bank of the Kerwa Ján, and on the S. margin of a large plain of short grass, 300 yards from the mouth of the Kerwa Ján, and 500 yards W. of the deserted Miri village of Dimoki; mauza Paropora. A deep cross has been cut on the trunk of a large tree, 57 feet distant at a bearing of 182° from the station. The station consists of a square brick pillar of 3 feet side, surmounted by a circular one 2½ feet in diameter, having two mark-stones, one at the ground level and the other 1 foot below it. ( <i>Lakhimpur</i> ). 1876-77.	40 59.12	18 25.68	377	...	2	...
Láli Mukh Mark (heliotrope) ... [Triangles 300, 301]	On the high bank in very heavy forest and cane brake, within 100 feet of the right bank of the Brahmaputra river, 50 yards E. of the inner line road, and 1½ miles below the mouth of the great branch channel called the Láli channel of the Dihang river, and about a mile above the Paba Guard and Stockade. The station consists of a circular brick pillar 10 inches high, having a mark-stone at the ground level. ( <i>Abar Hills</i> ). 1876-77.	46 50.24	25 22.62	396	...	2	...
Libong Post S. ... [Triangle 232]	On the N. bank of the Brahmaputra river, ¼ a mile E. of the eastern extremity of the Saenga Ján Suti. The station has been swept away by the incursions of the river. ( <i>Abar Hills</i> ). 1876-77.	37 2.38	0 46.54	349	...	2	...
Madárhát post s. ... [Triangle 316]	On the high ground to the north of Hindugaon, 150 yards from and nearly due north of the 11th mile-post on the road from Dibrugarh to Jaipur, ¼ a mile S.W. of the Sisa Tea Grant, and S. of Bámangaon; mauza Madárhát. The station consists of a pillar of bricks 2½ feet in diameter, having two mark-stones, one 1½ feet above and the other 1 foot below the surface of the ground. ( <i>Lakhimpur</i> ). 1876-77.	25 53.13	6 54.70	349	...	2	...
Mekhla Mukh Post S. ... [Triangle 231]	On a slightly raised piece of ground in dense high grass and small tree jungle about 50 yards beyond a steep bank, 150 yards E. of Mekhla mouth, and 200 yards E. of the junction of the E. bank of the Mekhla Suti with the left bank of the Brahmaputra river, which is 50 feet N. of the station. The station consists of a circular brick pillar 10 inches high and 2½ feet in diameter, standing on a square base of 3 feet side, having two mark-stones, one flush with the surface of the pillar and level with the ground and the other 2 feet below it. ( <i>Lakhimpur</i> ). 1876-77.	33 20.37	0 57.36	349	...	2	...

## DEGREE SHEET No. 25, between Lats. 27°—28° and Longs. 95°—96°, (Continued).

Name or Designation of Station or Point	Description, State or District, and Season of Observation	Latitude N.	Longitude E. of Greenwich	Height in feet above mean sea level	No. of Rays determining		Discrepancies per mile in common side of triangles
					Position	Height	
Mosáki Mukh Post S. ... [Triangle 236]	On the high ground in forest jungle, on the main land on the right bank of the Brahmaputra, 450 feet N. of the right bank of the Mesáki Suti, $\frac{1}{4}$ a mile (along the bank) N.E. of the deserted village of Mesákigaon; there is a deep nála choked with jungle between the station and the Mesáki Suti, and 100 yards from the former. Deep crosses have been cut on E. and W. sides of the trunk of a very large and conspicuous simul tree, 55 feet distant at a bearing of 88° from the station. The station consists of a circular brick pillar 2 $\frac{1}{2}$ feet in diameter standing on a square base of 3 feet side, having two mark-stones, one at the ground level and the other 1 foot below it. ( <i>Abar Hills</i> ). 1876-77.	27 41 41' 50"	95 10 32' 16"	372	...	2	Feet ...
Momára Post S. ... [Triangle 237]	On the high ground in dense tree jungle and cane brake, 20 yards from the left bank of the Brahmaputra river, 200 yards (along the bank) S.E. of the mouth of the Mumári Ján, and due W. of the western extremity of the "Mohmári Májuli"; mauza Paropora. Near the station five trees have been marked with crosses deeply cut on the trunks: one is 34 feet distant at a bearing of 197°; the 2nd, 59 feet distant, 210° bearing; the 3rd, 75 feet distant, 190° bearing; the 4th, 200 feet distant, 301° bearing; the 5th, 150 feet distant, 342° bearing from the station. The station consists of a circular brick pillar 2 $\frac{1}{2}$ feet in diameter, resting on a square base of 3 feet side, having two mark-stones, one at the ground level and the other 1 foot below it. ( <i>Lakhimpur</i> ). 1876-77.	39 8' 49"	13 14' 77"	370	...	2	...
Mumári Post S. ... [Triangle 235]	On the high ground in the midst of tree jungle, 300 feet S. of the left bank of the Brahmaputra river, and $\frac{1}{4}$ a mile (along the bank) E. of the mouth of the Mumári Ján; mauza Paropora. 60 feet N. of the station is a large deep nála choked with jungle; on the top of the S. bank of this nála is a large tree with a deep cross cut on its trunk which bears from the station 3-4° and is distant 74 feet; a simul tree, similarly marked, forms one of the corner posts of the station and bears from it 143°, distant 9 feet. The station consists of a circular brick pillar, 2 $\frac{1}{2}$ feet in diameter, resting on a square base of 3 feet side, having two mark-stones, one at the ground level and the other 1 foot below it. ( <i>Lakhimpur</i> ). 1876-77.	38 3' 57"	9 15' 63"	364	...	2	...
Nága Hills, No. 1 Peak ... [Dipa h.s., Nári H.S., Saonga Ján Post S.]	About 6 miles S. of Yogli village. 1876-77.	2 53' 0"	50 53' 3"	7390	3	1	1' 3"
Napsur Post S. ... [Triangle 244]	On the site of a deserted Miri village known as Napsur village, about $\frac{1}{4}$ of a mile within the left bank of the Brahmaputra river 2 miles above its junction with the united waters of the Dihang and Dibang rivers, in the S.E. angle of a small area of tall grass jungle, $\frac{1}{4}$ a mile N. of the junction of the channel of the Brahmaputra, which is just E. of the station, with a nála, which is about $\frac{1}{4}$ mile S. of the station opening into this channel and falling into the Kerwa Ján about 7 miles S.W. of the station; mauza Paropora. Just S. of a line drawn due E. from the station, are several islands, covered with tall grass and separated from the main land by the above mentioned channel. The station consists of a circular brick pillar 2 $\frac{1}{2}$ feet in diameter, resting on a square base of 3 feet side, having two mark-stones, one at the ground level and the other 1 foot below it. ( <i>Lakhimpur</i> ). 1876-77.	47 35' 55"	32 5' 06"	402	...	2	...

## DEGREE SHEET No. 25, between Lats. 27°—28° and Longs. 95°—96°, (Continued).

Name or Designation of Station or Point	Description, State or District, and Season of Observation	Latitude N.	Longitude E. of Greenwich	Height in feet above mean sea level	No. of Rays determining		Discrepancies per mile in common side of triangles
					Position	Height	
Nári H.S. ... [Triangle 241]	On a prominent peak, the highest point of the outer range of the Abar Hills between the Dirjemu and Dihang rivers. It is about midway between the Dipi and Dikrái rivers; the hills on the outer range to E. of it, as far as Dihang river, are considerably lower than Nári. Two deep crosses have been cut on the trunk of a single tree 12 feet distant and bearing 346° from the station. The station is denoted by two mark-stones imbedded in cement, 6 inches apart, the intervening space filled in with charcoal; the upper mark-stone is at the ground level and surrounded by a brick pillar of 2½ feet diameter and projecting 7 inches above the ground; the pillar is covered with a large pile of stones. ( <i>Abar Hills</i> ). 1876-77.	27 50 17.98	95 6 12.78	2497	...	3	Feet ...
Paba Post S. ... [Triangle 240]	On the high ground in a great plain of Ulna grass, 510 feet from the left bank of the Brahmaputra river; heavy forest bounds the plain and meets the river bank at a distance of 300 yards S.W. of the station. It is built on the site of the Revenue Survey station of the same name; mauza Paropora. The station consists of a brick pillar, circular at top and 2½ feet in diameter, standing on a square base of 3 feet side, having two mark-stones, one at the ground level and the other 1 foot below it. ( <i>Lakhimpur</i> ). 1876-77.	44 10.98	23 9.83	385	...	2	...
Paropora Post S. ... [Triangle 242]	In the S.E. angle of the plain of tall grass interspersed with clumps of trees, which borders the left bank of the Brahmaputra river, ¼ a mile distant from the junction of the northern margin of the plain with the left bank of the river, and 1 mile from the junction of the S. margin of the plain with the river bank and 2 miles S.E. of the mouth of the Láli river; mauza Paropora. The station is marked by a brick pillar, circular at the top and 2½ feet in diameter, resting on a square base of 3 feet side, having two markstones, one at the ground level and the other 1 foot below it. ( <i>Lakhimpur</i> ). 1876-77.	46 57.58	28 44.99	396	...	3	...
Pasi Maiong Abar Hills, No. 1 Peak ... [Dibrugarh Church S., Paunriputra Post S.]	About 8 miles S.W. of Ledum village, and the same distance N.N.W. of Sutia village. 1875-76.	46 26	0 53	...	2	...	...
Pasi Maiong Abar Hills, No. 2 Peak ... [Dibrugarh Church S., Mekhla Mukh Post S., Paunriputra Post S.]	About 6 miles S.W. of Ledum village, and about 9 miles N. of Sutia village. 1875-76.	48 16.4	1 49.9	2480	3	1	1.7
Pasi Maiong Abar Hills, No. 3 Peak ... [Dibrugarh Church S., Mekhla Mukh Post S.]	A little N.E. of No. 2 Peak. 1875-76.	48 24	2 6	2480	2	1	...
Pasi Maiong Abar Hills, No. 4 Peak ... [Dibrugarh Church S., Mekhla Mukh Post S.]	About 9 miles N.N.W. of Sutia village, and the same distance S.W. of Ledum village. 1875-76.	48 47	1 25	2660	2	1	...
Pasi Maiong Abar Hills, No. 5 Peak ... [Dibrugarh Church S., Mekhla Mukh Post S.]	A little N. by W. of No. 4 Peak. 1875-76.	49 12	1 20	2710	2	1	...
Pasi Maiong Abar Hills, No. 6 Peak ... [Dibrugarh Church S., Mekhla Mukh Post S.]	About a mile E. of No. 3 Peak. 1875-76.	48 8	3 7	2320	2	1	...

## DEGREE SHEET No. 25, between Lats. 27°—28° and Longs. 95°—96°, (Continued).

Name or Designation of Station or Point	Description, State or District, and Season of Observation	Latitude N.	Longitude E. of Greenwich	Height in feet above mean sea level	No. of Rays determining		Discrepancies per mile in common side of triangles
					Position	Height	
Pasi Maiong Abar Hills, No. 7 Peak ... [Dibrugarh Church S., Mekhla Mukh Post S.]	A little N.E. of No. 6 Peak. 1875-76.	27° 48' 27"	95° 3' 24"	2330	2	1	Feet ...
Pasi Maiong Abar Hills, No. 8 Peak ... [Dibrugarh Church S., Mekhla Mukh Post S.]	About ¼ mile N.E. of No. 7 Peak. 1875-76.	48 55	3 33	2220	2	1	...
Pasi Maiong Abar Hills, No. 9 Peak ... [Dibrugarh Church S., Mekhla Mukh Post S.]	About 3 miles W. of Ledum village. 1875-76.	51 8	5 10	2560	2	1	...
Pasi Maiong Abar Hills, No. 10 Peak ... [Dibrugarh Church S., Mekhla Mukh Post S.]	About 4 miles E. of Ledum village, and 3 miles S.E. of Damsing village. 1875-76.	51 48	11 35	...	2	...	...
Pasi Maiong Abar Hills, No. 11 Peak ... [Dutia post s., Paba Post S.]	About 7 miles N.W. of Damsing village. 1876-77.	56 39	4 22	2820	2	2	...
Pasi Maiong Abar Hills, No. 12 Peak ... [Dutia post s., Paba Post S.]	About 9 miles W. by N. of Okhur village, and 6 miles N.W. of Damsing village. 1876-77.	58 5	8 2	3180	2	2	...
Nága Hills, No. 1 Peak ... [Dipa h.s., Nári H.S., Saenga Ján Post S.]	About 6 miles S. of Yogli village. 1876-77.	2 53' 0"	50 53' 3"	7390	3	1	1' 3"
Purán Post S. ... [Triangle 234]	In a great forest full of dense cane thickets, 400 yards N. of the right bank of the Brahmaputra river, 2½ miles, along the bank, S.E. of the deserted village of Amukhgaon, and ¼ a mile W. of the mouth of the Mesáki channel. Crosses have been deeply cut on four large simul trees, the bearings and distances of which from the station are:— No. 1 2°, 70 feet; No. 2 55°, 56 feet; No. 3 197°, 47 feet; and No. 4 262°, 89 feet. A cross has been deeply cut on the trunk of the large tree which forms one of the corner posts of the station, bears from it 90° and is distant 9 feet. The station consists of a brick pillar, circular at top and 2½ feet in diameter, resting on a square base of 3 feet side, having two mark-stones, one at the ground level and the other 1 foot below it. ( <i>Abar Hills</i> ). 1876-77.	39 43' 31"	5 35' 63"	357	...	2	...
Sadiya Circuit House ...	About ¼ a mile S. by W. of the Quarter Guard, and 2½ feet from the centre of the post marking the topographical survey station. ( <i>Lakhimpur</i> ). 1877-78.	49 11' 2"	42 5' 7"	...	...	...	...
Sadiya Quarter Guard Post S. ... [Triangle 247]	On the flat roof of a paka building known as the Quarter Guard which is built across the road from Sadiya to Dikrang Fort, in the Sepoy's Lines, about ¼ a mile from the right bank of the Brahmaputra, and 150 yards E. of the earthen redoubt and magazine. The mark is 5 feet from the inside face of the N. parapet wall over the northern main entrance to the building, 7½ feet from the inside face of the parapet wall on W. side of the recess, 11½ feet from the inside face of the parapet wall on E. side of the recess, and 16 feet above ground. The station consists of a mark-stone let into the roof of the building and surrounded by a small circular pillar of bricks. A circular brick pillar of the usual type having two mark-stones has been built on the ground 97 feet, horizontal distance, from the station and on the line to Dikrang Fort S. ( <i>Lakhimpur</i> ). 1877-78.	49 42' 04"	42 13' 41"	442	...	2	...

## DEGREE SHEET No. 25, between Lats. 27°—28° and Longs. 95°—96°, (Continued).

Name or Designation of Station or Point	Description, State or District, and Season of Observation	Latitude N.	Longitude E. of Greenwich	Height in feet above mean sea level	No. of Rays determining		Discrepancies per mile in common side of triangles
					Position	Height	
Saikua Post S. ... [Triangle 245]	In heavy forest, 200 feet within the left bank of the Brahmaputra and due S. of the mouth of the Gurmura Ján, 3½ miles W. by N. of the mouth of the Sapor Soi river, and 2½ miles below the place where the high road from Dibrugarh to Sadiya comes out on to the left bank of the Brahmaputra; mauza Saikua Dalla. The station consists of a brick pillar, circular at top and 2½ feet in diameter, resting on a square base of 3 feet side, having two mark-stones, one at the ground level and the other 1 foot below it. (Lakhimpur). 1877-78.	27 47 36.51	95 36 31.45	408	...	2	Feet ...
Siláni Mukh Post S. ... [Triangle 238]	In a cluster of trees on the S. margin of a forest, at the N.E. angle of a large plot of grass jungle, and ¼ a mile S.W. of the head, locally called Siláni Mukh, of the great Buri Suti channel of the Brahmaputra. The head of the great Buri Suti is 2 miles due E of the deserted village of Lathorgaon. From a point 700 yards S. of the left bank of the Buri Suti at Siláni Mukh, the station bears due west and is distant 300 yards from the right or E. bank of the Buri Suti channel. Crosses have been deeply cut on the trunks of four large trees, the bearings and distances of which from the station are:—No. 1 255°, 24 feet; No. 2 353°, 43 feet; No. 3 356°, 14 feet; and No. 4 238°, 5 feet. The station consists of a brick pillar, circular at top and 2½ feet in diameter, resting on a square base of 3 feet side, having two mark-stones, one at the ground level and the other 1 foot below it. (Abar Hills.) 1876-77.	42 6 33	15 4 68	375	...	2	...
Tengákhat post s. ... [Triangle 318]	50 feet N. of the high road from Dibrugarh to Jaipur, 16 miles from the former and about 2 miles W. of Tengákhat hát; mauza Rangpur. The station consists of a circular pillar of bricks 2½ feet in diameter and 2½ feet high, having two mark-stones, the upper 6 inches below the surface of the pillar and the lower 2½ feet below the upper. The masonry is surrounded by a platform of earth 20 feet square raised to the same height as the pillar. (Lakhimpur). 1877-78.	23 30 21	11 13 49	358	...	2	...

## DEGREE SHEET No. 26, between Lats. 28°—29° and Longs. 95°—96°.

Bor Abar Hills, No. 1 Peak ... [Dibrugarh Church S., Dutia post s., Mekhla Mukh Post S., Paba Post S.]	On Riga range, about a mile N. of Ronkong village. 1876-77.	28 4 27	95 15 48	6290	4	3	Feet 3.8
Bor Abar Hills, No. 2 Peak ... [Dutia post s., Paropora Post S., Paba Post S.]	On Riga range, about 3 miles N.E. of No. 1 Peak. 1876-77.	6 22 8	17 6 2	5490	3	2	1.5
Bor Abar Hills, No. 3 Peak ... [Dutia post s., Paropora Post S., Saikua Post S.]	On Regam range, about 7 miles N.N.E. of Ronkong. 1876-77.	8 33	18 43	3880	3	1	19.0
Bor Abar Hills, No. 4 Peak ... [Dutia post s., Paropora Post S., Paba Post S., Sadiya Quarter Guard Post S., Saikua Post S.]	On Regam range, about 3 miles N.N.W. of No. 3 Peak. 1876-77.	11 6	18 2	4240	5	3	4.1

## DEGREE SHEET No. 26, between Lats. 28°—29° and Longs. 95°—96°, (Continued).

Name or Designation of Station or Point	Description, State or District, and Season of Observation	Latitude N.	Longitude E. of Greenwich	Height in feet above mean sea level	No. of Rays determining		Discrepancies per mile in common side of triangles
					Position	Height	
Bor Abar Hills, No. 5 Peak ... [Sadiya Quarter Guard Post S., Saikua Post S.]	On Regam range, a little N.W. of No. 4 Peak. 1877-78.	28 11 8	95 18 0	4250	2	1	Feet ...
Bor Abar Hills, No. 6 Peak ... [Sadiya Quarter Guard Post S., Saikua Post S.]	About 5 miles W. by N. of No. 5 Peak. 1877-78.	12 57	11 45	6940	2	1	...
Bor Abar Hills, No. 7 Peak ... [Sadiya Quarter Guard Post S., Saikua Post S.]	A little S.E. of No. 6 Peak. 1876-77.	12 55	11 47	6930	2	1	...
Bor Abar Hills, No. 8 Peak ... [Sadiya Quarter Guard Post S., Saikua Post S.]	About $\frac{1}{2}$ a mile E. of No. 7 Peak. 1877-78.	12 56	12 26	...	2	...	...
Bor Abar Hills, No. 9 Peak ... [Dutia post s., Paba Post S., Sadiya Quarter Guard Post S., Saikua Post S.]	On Regam range, about 10 miles W. of Membo village. 1876-77.	11 26	21 40	6570	4	2	4'5
Bor Abar Hills, No. 10 Peak ... [Dutia post s., Paropora Post S., Paba Post S., Sadiya Quarter Guard Post S.]	On Regam range, about 3 miles N.W. of No. 9 Peak. 1876-77.	13 33'9	19 48'5	7090	4	2	1'4
Bor Abar Hills, No. 11 Peak ... [Dutia post s., Paropora Post S., Paba Post S., Sadiya Quarter Guard Post S.]	On Regam range, about 10 $\frac{1}{2}$ miles W.N.W. of Membo, village. 1876-77.	14 19	21 34	7580	4	2	2'3
Bor Abar Hills, No. 12 Peak ... [Dutia post s., Paba Post S.]	On Regam range, about 6 $\frac{1}{2}$ miles N.N.W. of Membo village. 1876-77.	14 59	26 23	7410	2	1	...
Bor Abar Hills, No. 13 Peak ... [Dutia post s., Paba Post S., Paropora Post S.]	About 7 miles W.N.W. of Dambuk village. 1876-77.	16 35	30 22	7430	3	1	1'6
Bor Abar Hills, No. 14 Peak ... [Dutia post s., Paba Post S., Sadiya Quarter Guard Post S.]	About 6 $\frac{1}{2}$ miles W. of Dambuk, and 4 miles N. of Membo village. 1876-77.	14 57	32 20	6540	3	2	1'4
Bor Abar Hills, No. 15 Peak ... [Sadiya Quarter Guard Post S., Saikua Post S.]	About 3 miles W. of Dambuk village. 1877-78.	15 38	34 51	...	2	...	...
Bor Abar Hills, No. 16 Peak ... [Dutia post s., Paropora Post S., Paba Post S.]	On Regam range, about 15 miles N.W. of Membo village. 1876-77.	18 34	18 41	8570	3	2	3'3
Bor Abar Hills, No. 17 Peak ... [Dutia post s., Paba Post S.]	On Regam range, about 13 $\frac{1}{2}$ miles N.W. of Membo village. 1876-77.	17 42	19 38	8010	2	2	...
Bor Abar Hills, No. 18 Peak ... [Dutia post s., Paropora Post S., Paba Post S.]	On Regam range, about 11 $\frac{1}{2}$ miles N.W. of Membo village. 1876-77.	17 57	22 59	9100	3	2	2'1
Bor Abar Hills, No. 19 Peak ... [Dibrugarh Church S., Dutia post s., Paropora Post S., Paba Post S., Sadiya Quarter Guard Post S.]	On Regam range, about 10 $\frac{1}{2}$ miles N.W. by N. of Membo village. 1876-77.	18 0	23 45	10010	5	4	2'0
Bor Abar Hills, No. 20 Peak ... [Dibrugarh Church S., Dutia post s., Paropora Post S., Paba Post S., Sadiya Quarter Guard Post S.]	On Regam range, about 11 miles N.W. by N. of Membo village. 1876-77.	18 39	24 37	10560	5	3	1'8
Bor Abar Hills, No. 21 Peak ... [Dutia post s., Paropora Post S., Paba Post S., Sadiya Quarter Guard Post S.]	On Regam range, about $\frac{1}{2}$ mile N.E. of No. 20 Peak. 1876-77.	19 11	25 13	10310	4	2	1'5



## DEGREE SHEET No. 26, between Lats. 28°—29° and Longs. 95°—96°, (Continued).

Name or Designation of Station or Point	Description, State or District, and Season of Observation	Latitude N.	Longitude E. of Greenwich	Height in feet above mean sea level	No. of Rays determining		Discrepancies per mile in common side of triangles
					Position	Height	
Bor Abar Hills, No. 22 Peak ... [Dutia post s., Mekhla Mukh Post S., Paba Post S.]	On Regam range, about 9½ miles N.N.W. of Membo village. 1876-77.	28 18 25	95 26 1	9000	3	1	1'3
Bor Abar Hills, No. 23 Peak ... [Dutia post s., Paropora Post S., Paba Post S., Sadiya Quarter Guard Post S.]	On Regam range, about ¼ mile N.E. of No. 22 Peak. 1876-77.	18 51	26 34	8880	4	1	5'0
Bor Abar Hills, No. 24 Peak ... [Dutia post s., Mekhla Mukh Post S., Paropora Post S., Paba Post S., Sadiya Quarter Guard Post S.]	On Regam range, about 1¼ miles E. of No. 23 Peak. 1876-77.	18 49	28 46	10970	5	1	1'3
Mishmi Hills, No. 1 Peak ... [Dibrugarh Church S., Jora Suti Post S., Kerwa Post S.]	About 27¼ miles W. by N. of Atini village on the left bank of the Dibang river. 1876-77.	35 47	25 46	13640	3	1	3'5
Mishmi Hills, No. 2 Peak ... [Dibrugarh Church S., Mekhla Mukh Post S., Sadiya Quarter Guard Post S.]	About 2 miles S.E. of No. 1 Peak. 1876-77.	33 35	27 7	13280	3	2	0'9
Mishmi Hills, No. 3 Peak ... [Dutia post s., Sadiya Quarter Guard Post S.]	A little S.W. of No. 2 Peak. 1876-77.	33 28	27 3	13240	2	1	...
Mishmi Hills, No. 4 Peak ... [Dibrugarh Church S., Sadiya Quarter Guard Post S.]	About 3 miles E. by S. of No. 2 Peak. 1876-77.	33 14	29 43	12120	2	1	...
Mishmi Hills, No. 5 Peak ... [Mekhla Mukh Post S., Sadiya Quarter Guard Post S.]	On a spur, about 15 miles N.W. of Assoh village. 1876-77.	35 16	36 42	11640	2	1	...
Mishmi Hills, No. 6 Peak ... [Dutia post s., Sadiya Quarter Guard Post S.]	About 15 miles W. by N. of Assoh village. 1876-77.	33 36	35 13	11460	2	1	...
Mishmi Hills, No. 7 Peak ... [Dutia post s., Paba Post S.]	On a ridge, about 14 miles W. of Assoh village. 1876-77.	29 47	35 15	...	2	...	...
Mishmi Hills, No. 8 Peak ... [Dutia post s., Paba Post S., Sadiya Quarter Guard Post S.]	About 12 miles W. of Assoh village. 1876-77.	29 2	38 2	10070	3	1	5'8
Mishmi Hills, No. 9 Peak ... [Dutia post s., Paba Post S.]	About 11 miles W. of Assoh village. 1876-77.	27 41	39 13	9330	2	1	...
Mishmi Hills, No. 10 Peak ... [Dutia post s., Paba Post S., Sadiya Quarter Guard Post S.]	About 3 miles N.W. of EHINGA village, and 3¼ miles W. of Pulung village. 1876-77.	24 23	46 18	7950	3	3	1'9
Mishmi Hills, No. 11 Peak ... [Dutia post s., Saikua Post S., Paba Post S.]	About 8 miles W. by S. of EHINGA village. 1876-77.	22 3	40 57	7260	3	1	1'7
Mishmi Hills, No. 12 Peak ... [Dutia post s., Paba Post S., Saikua Post S.]	About a mile E. of No. 11 Peak. 1876-77.	22 3	41 49	7480	3	1	1'3
Mishmi Hills, No. 13 Peak ... [Dutia post s., Paba Post S., Sadiya Quarter Guard Post S.]	About 5 miles S. by W. of EHINGA village. 1876-77.	21 37	44 11	7090	3	1	2'3
Mishmi Hills, No. 14 Peak ... [Dutia post s., Paba Post S., Sadiya Quarter Guard Post S.]	About 3¼ miles N.N.W. of Ashu village, and the same distance S.W. of EHINGA village. 1876-77.	20 40	45 49	6390	3	1	9'4
Mishmi Hills, No. 15 Peak ... [Dutia post s., Paba Post S., Sadiya Quarter Guard Post S., Saikua Post S.]	About a mile E. by S. of No. 14 Peak. 1876-77.	20 25	46 45	6390	4	1	2'3

## DEGREE SHEET No. 26, between Lats. 28°—29° and Longs. 95°—96°, (Continued).

Name or Designation of Station or Point	Description, State or District, and Season of Observation	Latitude N.	Longitude E. of Greenwich	Height in feet above mean sea level	No. of Rays determining		Discrepancies per mile in common side of triangles
					Position	Height	
Mishmi Hills, No. 16 Peak ... [Dutia post s., Paba Post S., Sadiya Quarter Guard Post S.]	About 2½ miles N.N.W. of Ashu village, and 5 miles S. by W. of Chini. 1876-77.	28 20 34	95 47 33	5460	3	1	6·4
Mishmi Hills, No. 17 Peak ... [Sadiya Quarter Guard Post S., Saikua Post S.]	About 4½ miles E. of Nizam Ghát, and 2½ miles S. by E. of Ashu village. 1877-78.	16 31	48 41	4910	2	1	...
Mishmi Hills, No. 18 Peak ... [Nári H.S., Sadiya Quarter Guard Post S.]	About 2 miles N. of Atini village. 1876-77.	29 43	51 9	...	2	...	...
Mishmi Hills, No. 19 Peak ... [Sadiya Quarter Guard Post S., Saikua Post S.]	On a ridge, about 2 miles N.W. of Assoh village. 1876-77.	28 39	48 48	...	2	...	...
Mishmi Hills, No. 20 Peak ... [Sadiya Quarter Guard Post S., Saikua Post S.]	Close to Pulung village, and about 4 miles S.W. of Kalude village. 1876-77.	24 28	50 35	...	2	...	...
Mishmi Hills, No. 21 Peak ... [Paba Post S., Sadiya Quarter Guard Post S., Dutia post s.]	About 3 miles S. by E. of Chini village, and a mile E. of Akumbu village. 1876-77.	21 15·4	52 3·5	9040	3	2	0·6
Mishmi Hills, No. 22 Peak ... [Dutia post s., Paba Post S., Sadiya Quarter Guard Post S.]	About 4 miles S. of Chini village. 1876-77.	20 33	53 8	...	3	...	2·5
Mishmi Hills, No. 23 Peak ... [Paropora Post S., Paba Post S., Sadiya Quarter Guard Post S.]	About 5 miles S.E. of Akumbu village, and the same distance E. of Ashu village. 1876-77.	18 18	54 38	...	3	...	4·3
Mishmi Hills, No. 24 Peak ... [Dutia post s., Paropora Post S., Paba Post S., Sadiya Quarter Guard Post S.]	About 4½ miles S.E. of Ashu village, and 5 miles E. by N. of Nizam Ghát. 1876-77.	17 26	53 34	9380	4	1	7·7
Mishmi Hills, No. 25 Peak ... [Dutia post s., Paba Post S., Sadiya Quarter Guard Post S.]	About 7 miles S.E. of Ashu village. 1876-77.	16 54	56 34	...	3	...	1·4
Mishmi Hills, No. 26 Peak ... [Dutia post s., Paba Post S., Sadiya Quarter Guard Post S.]	About 8 miles E. of Lakho village. 1876-77.	14 37·3	57 0·0	...	3	...	0·3
Mishmi Hills, No. 27 Peak ... [Dutia post s., Paba Post S., Sadiya Quarter Guard Post S.]	About 16 miles N. of Assoh village, and 5 miles N.W. of Dirijutai village. 1876-77.	40 24·7	47 47·4	11840	3	3	0·4
Mishmi Hills, No. 28 Peak ... [Dutia post s., Paba Post S., Saikua Post S.]	About 18 miles N. of Atini village, and 12 miles N.E. of Khamtimela village. 1876-77.	43 7	59 26	12000	3	1	15·0
Pasi Maiong Abar Hills, No. 1 Peak ... [Dibrugarh Church S., Mekhla Mukh Post S.]	About 14 miles W. of Ronkong, and the same distance N.W. of Damsing village. 1876-77.	2 42	2 33	...	2	...	...
Pasi Maiong Abar Hills, No. 2 Peak ... [Dibrugarh Church S., Mekhla Mukh Post S., Paunriputra Post S.]	About a mile N.E. of No. 1 Peak. 1875-76.	3 6	3 38	6170	3	1	7·9
Pasi Maiong Abar Hills, No. 3 Peak ... [Dibrugarh Church S., Mekhla Mukh Post S., Paunriputra Post S.]	About a mile N.E. of No. 2 Peak. 1875-76.	3 32	4 11	...	3	...	8·4
Pasi Maiong Abar Hills, No. 4 Peak ... [Dutia post s., Paropora Post S., Paba Post S.]	On a spur, about 13 miles N.W. of Damsing. 1876-77.	1 7	4 37	...	3	...	11·1

DEGREE SHEET No. 26, between Lats. 28°—29° and Longs. 95°—96°, (Continued).

Name or Designation of Station or Point	Description, State or District, and Season of Observation	Latitude N.	Longitude E. of Greenwich	Height in feet above mean sea level	No. of Rays determining		Discrepancies per mile in common side of triangles
					Position	Height	
Pasi Maiong Abar Hills, No. 5 Peak ... [Dibrugarh Church S., Mekhla Mukh Post S.]	A little N. of No. 4 Peak. 1875-76.	28 1 11	95 4 37	...	2	...	Feet ...
Pasi Maiong Abar Hills, No. 6 Peak ... [Dutia post s., Paba Post S.]	About a mile N.E. of No. 5 Peak. 1876-77.	1 34	5 49	...	2	...	...
Pasi Maiong Abar Hills, No. 7 Peak ... [Dibrugarh Church S., Mekhla Mukh Post S., Faunriputra Post S.]	Close to and S.E. of No. 6 Peak. 1875-76.	1 32	5 50	...	3	...	2' 1
Pasi Maiong Abar Hills, No. 8 Peak ... [Dibrugarh Church S., Dutia post s., Paba Post S.]	A little E. of No. 7 Peak. 1876-77.	1 40' 2	6 17' 8	6980	3	1	1' 1
Pasi Maiong Abar Hills, No. 9 Peak ... [Dibrugarh Church S., Mekhla Mukh Post S., Faunriputra Post S.]	A little N. of No. 8 Peak. 1875-76.	1 44	6 18	7180	3	1	24' 7
Pasi Maiong Abar Hills, No. 10 Peak ... [Dutia post s., Paropora Post S., Paba Post S.]	About ½ a mile E.S.E. of No. 9 Peak. 1876-77.	1 34' 6	6 54' 8	6970	3	2	0' 8
Pasi Maiong Abar Hills, No. 11 Peak ... [Dibrugarh Church S., Mekhla Mukh Post S., Faunriputra Post S.]	Close to and N.W. of No. 10 Peak. 1875-76.	1 38	6 54	6980	3	1	12' 3
Pasi Maiong Abar Hills, No. 12 Peak ... [Dibrugarh Church S., Mekhla Mukh Post S.]	About 4 miles E. of No. 2 Peak. 1875-76.	2 30	7 45	...	2	...	...
Pasi Maiong Abar Hills, No. 13 Peak ... [Dutia post s., Mekhla Mukh Post S., Paba Post S.]	About 1½ miles S.E. of No. 12 Peak. 1876-77.	1 35' 8	8 59' 6	6150	3	1	1' 6
Pasi Maiong Abar Hills, No. 14 Peak ... [Dibrugarh Church S., Mekhla Mukh Post S., Faunriputra Post S.]	Close to and N.E. of No. 13 Peak. 1875-76.	1 39	9 1	...	3	...	21' 1
Pasi Maiong Abar Hills, No. 15 Peak ... [Dibrugarh Church S., Mekhla Mukh Post S.]	On a spur, about 6½ miles W. by S. of Ronkong village. 1875-76.	2 49	10 45	...	2	...	...

DEGREE SHEET No. 27, between Lats. 27°—28° and Longs. 96°—97°.

Mánábun h.s. ... [Triangle 303]	On a knoll of a flat-topped range of low hills, 3½ miles S.E. of Lutáo village on the Tengápáni river, 6½ miles on a bearing of 215° from Tengápáni Chausangaon, and 20½ miles on a bearing of 110° from Sadiya. It is identical with the Topographical Survey Station of the same name. The top of an enormous Ajar tree was cut off, and a large platform, 109 feet above the ground, and a tripod to carry the theodolite were constructed. 16 feet from the foot of the tree, and at a bearing of 37° from the tripod in the tree, a circular pillar of bricks, having two mark-stones, has been erected. A pile of stones surmounts the pillar. (Singsa Hills). 1877-78.	27 43 38' 18	96 0 46' 12	1054	...	2	Feet ...
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## DEGREE SHEET No. 27, between Lats. 27°—28° and Longs. 96°—97°, (Continued).

Name or Designation of Station or Point	Description, State or District, and Season of Observation	Latitude N.	Longitude E. of Greenwich	Height in feet above mean sea level	No. of Rays determining		Discrepancies per mile in common side of triangles
					Position	Height	
Miáobum h.s. ... .. [Triangle 304]	On a sloping spur, above the left bank of the Noa Dihing river, 4 miles N.W. of the Miáobum Hill 5700 feet high, and 45 miles S.E. of Sadiya; 20 feet from the mark, on a bearing of 345° is a solitary Nágesar tree. The road to the station is from the new village of Tuding on the left bank of the Noa Dihing river; from Tuding it goes S.E., thence along a water channel from the deserted village of Eragao on the Miápáni river; from Eragao it follows the Miápáni up for 1½ miles till a spur is reached, whence it goes up this spur to the crest of a ridge; it then follows the crest to the east over two knolls, and then a flat knoll is reached, whence a view is obtained of Sadiya and Mánábum; thereafter it has a general S.E. direction along the ridge, and after many ascents and descents the station is reached. The station consists of a large stone weighing two maunds, imbedded in the ground with the usual circle and dot cut on it, and covered over by a pile of large stones 6 feet high. ( <i>Singfo Hills</i> ). 1877-78.	27 26 59.69	96 17 56.27	3936	...	2	Feet ...
Mishmi (?) Hills, No. 1 Peak ... .. [Mánábum h.s., Sadiya Quarter Guard Post S.]	About 6 miles S.E. of Bishemnagar old city and Tea Garden. 1877-78.	58 28	5 34	...	2	...	...
Mishmi (?) Hills, No. 2 Peak ... .. [Sadiya Quarter Guard Post S., Saikua Post S.]	On the main ridge S.W. of the Tidong stream, about 6½ miles W.N.W. of Ghalums village. 1876-77.	58 5	21 50	...	2	...	...
Mishmi (?) Hills, No. 3 Peak ... .. [Mánábum h.s., Sadiya Quarter Guard Post S.]	About ¼ a mile E. of No. 2 Peak. 1877-78.	58 9	22 10	7460	2	1	...
Mishmi (?) Hills, No. 4 Peak ... .. [Mánábum h.s., Sadiya Quarter Guard Post S.]	About 5 miles W.N.W. of Ghalums village. 1877-78.	57 31	23 35	...	2	...	...
Mishmi (?) Hills, No. 5 Peak ... .. [Mánábum h.s., Sadiya Quarter Guard Post S.]	About a mile S. of No. 4 Peak. 1877-78.	56 46	23 32	6844	2	1	...
Mishmi (?) Hills, No. 6 Peak ... .. [Mánábum h.s., Sadiya Quarter Guard Post S.]	Near the end of a ridge north of the Brahmaputra, about 2½ miles N. of Brahmakund. 1877-78.	54 32	25 1	5010	2	1	...
Mishmi (?) Hills, No. 7 Peak ... .. [Mánábum h.s., Sadiya Quarter Guard Post S.]	North of the Brahmaputra, about 1½ miles N. of Diling village, and 2½ miles N.E. of Brahmakund. 1877-78.	54 1	26 30	...	2	...	...
Mishmi (?) Hills, No. 8 Peak ... .. [Mánábum h.s., Sadiya Quarter Guard Post S.]	About 2 miles E.N.E. of Diling village. 1877-78.	53 20	28 30	7260	2	1	...
Mishmi (?) Hills, No. 9 Peak ... .. [Mánábum h.s., Sadiya Quarter Guard Post S.]	About 4 miles S.E. of Brahmakund, and 3 miles S.S.E. of Diling village. 1877-78.	50 25	27 54	...	2	...	...
Mishmi (?) Hills, No. 10 Peak ... .. [Mánábum h.s., Sadiya Quarter Guard Post S.]	About 4 miles E. of Zopaling village. 1877-78.	59 30	33 42	10240	2	1	...
Mishmi (?) Hills, No. 11 Peak ... .. [Mánábum h.s., Sadiya Quarter Guard Post S.]	About a mile S.E. of No. 10 Peak. 1877-78.	59 3	34 15	10480	2	1	...

## DEGREE SHEET No. 27, between Lats. 27°—28° and Longs. 96°—97°, (Continued).

Name or Designation of Station or Point	Description, State or District, and Season of Observation	Latitude N.	Longitude E. of Greenwich	Height in feet above mean sea level	No. of Rays determining		Discrepancies per mile in common side of triangles
					Position	Height	
Mishmi (?) Hills, No. 12 Peak ... [Sadiya Quarter Guard Post S., Siláni Mukh Post S.]	A little E. of No. 11 Peak. 1876-77.	27 59 5	96 34 25	...	2	...	Feet ...
Mishmi (?) Hills, No. 13 Peak ... [Mánábum h.s., Sadiya Quarter Guard Post S.]	About 2½ miles S.W. of Rudings village. 1877-78.	57 10	38 21	10840	2	1	...
Mishmi (?) Hills, No. 14 Peak ... [Nári H.S., Paba Post S., Siláni Mukh Post S.]	A little E. of No. 13 Peak. 1876-77.	57 12	38 29	...	3	...	4·9
Mishmi (?) Hills, No. 15 Peak ... [Nári H.S., Sadiya Quarter Guard Post S.]	About 1½ miles S.W. of Kundi village. 1876-77.	57 16	54 9	...	2	...	...
Singfo and Kampti Hills, No. 1 Peak ... [Mánábum h.s., Sadiya Quarter Guard Post S.]	Also called Maium W. end, about 7 miles E. of Longphi village. 1877-78.	10 46	4 0	...	2	...	...
Singfo and Kampti Hills, No. 2 Peak ... [Mánábum h.s., Sadiya Quarter Guard Post S.]	Also called Maium E. end, about ½ a mile N.E. of No. 1 Peak. 1877-78.	11 8	4 33	6880	2	1	...
Singfo and Kampti Hills, No. 3 Peak ... [Mesáki Mukh Post S., Nári H.S., Sadiya Quarter Guard Post S.]	Also called Maium E. edge, close to No. 2 Peak. 1876-77.	11 11	4 36	6850	3	1	7·1
Singfo and Kampti Hills, No. 4 Peak ... [Mánábum h.s., Nári H.S., Sadiya Quarter Guard Post S.]	About 9 miles S.E. of Bishi village. 1877-78.	24 30	21 50	5750	3	1	2·2
Singfo and Kampti Hills, No. 5 Peak ... [Mánábum h.s., Sadiya Quarter Guard Post S., Sadiya Circuit House (?)]	About ½ a mile N.E. of No. 4 Peak. 1877-78.	24 54	22 18	...	3	...	15·6
Singfo and Kampti Hills, No. 6 Peak ... [Mánábum h.s., Sadiya Circuit House (?) Sadiya Quarter Guard Post S.]	About 5 miles E. of No. 4 Peak. 1877-78.	24 25	26 37	5410	3	1	27·3
Singfo and Kampti Hills, No. 7 Peak ... [Mánábum h.s., Sadiya Quarter Guard Post S.]	S.S. on a spur south of the Dihing river, about 4 miles E. of the junction of the Mahápáni stream with the Dihing river, and 7 miles W.N.W. of Tukhut Kha. 1877-78.	22 31	44 28	7500	2	1	...
Singfo and Kampti Hills, No. 8 Peak ... [Mánábum h.s., Sadiya Quarter Guard Post S., Sadiya Circuit House (?)]	About 6 miles S. by W. of Latora village, and about the same distance N.W. of Kumku village. 1877-78.	36 11	29 40	6730	3	1	6·9
Singfo and Kampti Hills, No. 9 Peak ... [Dibrugarh Church S., Libong Post S., Nári H.S., Sadiya Quarter Guard Post S., Saenga Ján Post S.]	On a detached hill called Maithaidong near the head of the Ingke stream, a tributary of the Dihing river. 1876-77.	39 38	44 44	15020	5	3	4·9
Singfo and Kampti Hills, No. 10 Peak ... [Dibrugarh, Church S., Nári H.S., Siláni Mukh Post S.]	On a detached hill near the head of the Lung stream, a tributary of the Brahmaputra river. 1876-77.	42 41	45 28	...	3	...	4·8
Singfo and Kampti Hills, No. 11 Peak ... [Mánábum h.s., Sadiya Quarter Guard Post S.]	On a spur north of the Karem stream, about 7½ miles S.E. of Chala village, and 6 miles N.N.W. of Latora village. 1877-78.	46 6	28 41	...	2	...	...
Singfo and Kampti Hills, No. 12 Peak ... [Dibrugarh Church S., Nári H.S., Sadiya Quarter Guard Post S.]	Or Maithaidong No. 1, on a spur between the Lung and Duwa streams, about 8 miles N.E. of Latora village. 1876-77.	47 25	36 15	11830	3	1	1·4

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