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ANNUAL SUMMARY, 1913.

INTRODUCTION.

THE present account of the meteorology of 1913 is based on revised data and is intended primarily for scientific reference; for those needing prompt information the Annual Supplement to the India Daily Weather Report was issued on January 7, 1914.

Several systems of territorial division of India have come into use from time to time for meteorological purposes, each having been adopted to meet the needs of some particular set of data. A certain amount of confusion had been found to result from the consequent want of uniformity of boundaries, and, with a view of obviating the inconvenience caused, the Government of India in 1907 authorised the adoption of the following system of division :—

Chief political divisions.	Sub-divisions.
	Bay Islands.
Burma	Lower Burma.
	Upper Burma.
Eastern Bengal and Assam	Assam.
	Eastern Bengal.
Bengal	Bengal.
	Orissa.
	Chota Nagpur.
	Bihar.
United Provinces	United Provinces, East.
	United Provinces, West.
Punjab	Punjab, East and North.
	Punjab, South-west.
North-West Frontier Province.	North-West Frontier Province.
	Baluchistan.
Sind	Sind.
Rajputana	Rajputana, West.
	Rajputana, East.
Bombay	Gujarat.
	Konkan.
	Bombay Deccan.
Central India	Central India West.
	Central India, East.
Central Provinces	Berar.
	Central Provinces, West.
	Central Provinces, East.
Hyderabad	Hyderabad, North.
	Hyderabad, South.
Mysore	Mysore.
Madras	Malabar.
	Madras, South-east.
	Madras, Deccan.
	Madras Coast, North.

From the 1st April 1912 a fresh territorial division of Eastern Bengal and Assam and Bengal was sanctioned by which Eastern Bengal was restored to Bengal, while Orissa, Chota Nagpur and Bihar were constituted into a separate province under the name of Bihar and Orissa. The present arrangement is shown below :—

Chief political divisions.	Sub-divisions.
Assam	Assam.
Bengal	Bengal.
Bihar and Orissa	Orissa.
	Chota Nagpur.
	Bihar.

In the present review the new division has been adopted throughout.

The system of division is illustrated in Plate I at the end of this Annual Summary, and its relationship to the old system of divisions which was adopted for the tables of the 'Geographical Summary' given in former issues can be obtained by reference to pages 9 to 14 of Volume III of the Indian Meteorological Memoirs.

The data of Table B in the monthly reviews and in the present annual part are obtained, with a few exceptions, from the observations telegraphed daily to Simla for publication in the Daily Weather Report. In the case of thermometric observations, they are telegraphed to the nearest half degree. Hence the maximum and minimum temperature data of the second class observatories derived from these telegraphic

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reports and given in Table B, occasionally differ to some slight extent from the means of the more exact data (recorded to the tenth of a degree) tabulated in the observation forms sent to the Calcutta Office, and used in the calculation of the mean temperature data in Table A. There is also another reason why the data of mean maxima and minima in Tables A and B differ to a slight extent. In Table B the daily or 24-hour period is assumed to end at 8 hrs. and in Table A at midnight [except for rainfall the period of which ends at 8 hrs.], and hence the maximum temperature in Table B for any month of 31 days at any station gives the mean for 31 periods of 24 hours ending at 8 hrs. of the 31st and in Table A for the same number of 24-hour period ending at midnight on the 31st, and virtually, therefore, of a monthly period one day in advance of the former. Similarly for months of 28, 29 or 30 days. These remarks will explain some of the slight discrepancies which may be found between the mean data of maximum and minimum temperature in Tables A and B, and in the monthly mean departure data given in these tables in the monthly reviews and annual summary.

SOLAR AND MAGNETIC ACTIVITY.

Report from Kodaikanal Observatory.

The following table shows for each month the solar observations that were made :—

TABLE 1.

SOLAR OBSERVATIONS in 1913.

—	1913.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
A	29	28	31	29	29	28	29	29	30	29	22	26	339
B	...	...	...	...	...	...	...	...	...	...	...	...	...
C	24	26	31	29	28	23	20	26	25	20	18	22	292
D	28	27	31	29	29	28	27	29	29	27	19	25	328
E	27	28	31	29	31	26	26	29	30	25	19	24	325

A=Disc examined. B=Spot spectrum observed. C=Prominences observed. D=Photoheliograms taken. E=Spectroheliograms taken.

The partial failure of the monsoon in this locality in 1913 shows itself as an increase in the number of days of observation in the above table. During the months June to October the sun was examined for spots and faculæ on 145 days against 135 in 1911 and 120 in 1912; but the number of days for the whole year is not very high.

Summary of Sunspot and Prominence Observations.

Sunspots.—The following table shows the monthly numbers of new groups observed, the mean daily numbers of spots visible, and the distribution between the northern and southern hemispheres :—

TABLE 2.

—	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
New groups	3	1	2	1	...	...	1	...	1	2	1	4	16
Daily number	0·3	0·4	0·1	0·1	...	...	0·2	...	0·1	0·3	0·1	0·5	0·2
North	1	1	...	...	...	...	1	...	1	2	...	1	7
South	2	...	2	1	...	...	...	...	...	...	1	3	9
Equator	...	...	...	...	...	...	...	...	...	...	...	...	...

It was stated in the last report that the new cycle of spot activity could probably be considered to have begun about the end of 1912. There seemed to be some confirmation of this in the early months of 1913, especially as the spot of February which was a high latitude one, 32° north, lived long enough to pass across the whole disc of the sun; but the activity was not kept up as the year advanced. In fact there were three months—May, June and August—without a single spot recorded as against two months in 1912; also only 16 spot groups were recorded in the whole year, which is six less than in 1912. On the other hand the average latitude was high (19°·9 north and 16°·9 south) in 1913 as compared with previous years, which is an indication of the commencement of a new cycle. Further, on December 13, 1913, three separate spot groups were seen on the disc, for the first time since May 1911. The distribution of spots between the two hemispheres was more even than in former years, there having been seven northern spots and nine southern.

Only two spots, one in February and the other in December, reached a fair size, but neither of them could be called large.

Prominences.—The mean prominence areas in the years 1912 and 1913 are given below:—

Mean daily Profile areas of Prominences in square minutes of arc.

TABLE 3.

—	1912.	1913.
North	0·95	1·68
South	1·51	1·11
Total	2·46	2·19

The mean area for 1913 was 93·1 per cent. of that of the previous year, the figures for 1912 and 1911 being 84·5 and 71·0 per cent., respectively, showing that the decrease in prominence activity is now becoming slower.

The distribution in latitude in 1913 was very much the same as in 1912, the only noticeable differences being that the secondary maximum in the southern hemisphere between 15° to 20° found in the latter half of 1912 has disappeared, and the region of greatest activity—between latitude 40° and 50°—shows a tendency to broaden towards the equator.

Metallic Prominences.

TABLE 4.

—	Number observed.	Mean latitude.	Extreme latitudes.
North	2	26°	25°·5 26°·0
South	3	44°	41°·5 46°·5

The prominence activity in each month may be estimated from the following table:—

Number of Prominences.

TABLE 5.

Months.	Prominences one minute or more in height.	Metallic.	Eruptive.
January	55	2	5
February	68	...	4
March	80	3	2
April	62	...	4
May	45	...	1
June	23	...	1
July	23	...	1
August	22	...	...
September	18	...	...
October	17	...	...
November	25	...	...
December	21	...	1

The reduction in the number of "large" prominences since 1912 is about the same as that in the mean profile areas.

Only five metallic prominences were recorded: two of these were observed on the same day within 3° of each other and probably originated in a common disturbance.

T. ROYDS,
for *Director,*
Kodaikanal and Madras Observatories.

Report from the Bombay Observatory.

During the year there were 137 calm days, 225 days of small and 3 days of moderate disturbance, as against the respective figures 150, 207 and 9 for last year. Thus the year though indicating a decrease in the number of days of moderate disturbances, exhibits greater activity in the smaller disturbances, the number of quiet days being less than in the previous year.

The following table prepared in accordance with the suggestions made by the International Commission, Terrestrial Magnetism, represents the magnetic character of each day during the year:—

Table representing the magnetic character of each day during the year 1913.

TABLE 6.

1913.	MONTH.											
Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1 .	0	0	1	1	1	1	0	0	1	0	1	0
2 .	1	0	0	1	1	1	1	0	0	0	1	1
3 .	1	0	0	1	1	1	0	1	1	0	1	0
4 .	1	0	1	1	1	1	0	1	0	1	0	1
5 .	1	0	0	0	1	1	1	1	1	1	0	1
6 .	1	0	0	0	1	0	1	1	1	1	0	0
7 .	0	1	1	1	1	0	1	1	1	1	1	1
8 .	1	1	1	0	1	0	1	0	1	1	1	1
9 .	1	1	1	2	1	0	0	1	1	1	1	1
10 .	1	0	0	1	0	0	1	1	1	1	0	0
11 .	1	1	1	1	0	0	0	1	1	1	1	0
12 .	0	1	1	1	0	0	1	1	1	0	0	0
13 .	1	1	1	1	0	0	1	1	1	1	1	0
14 .	1	2	2	1	0	1	1	0	0	1	0	0
15 .	1	1	1	1	1	1	1	1	0	1	0	0
16 .	0	1	1	1	0	1	1	1	0	1	0	0
17 .	0	1	1	1	0	1	1	1	1	0	0	0
18 .	1	1	1	1	1	0	0	1	1	1	1	0
19 .	1	1	0	0	1	1	0	0	1	1	0	1
20 .	1	1	0	0	1	1	1	0	1	1	0	0
21 .	1	1	1	0	0	1	1	1	1	0	0	0
22 .	1	0	1	0	0	1	0	0	1	0	1	0
23 .	1	1	1	1	0	1	0	1	1	0	0	0
24 .	0	0	1	0	0	1	1	1	1	0	0	1
25 .	1	1	1	1	0	1	1	1	1	0	0	1
26 .	1	1	0	0	0	1	1	1	1	1	1	1
27 .	1	1	0	1	1	0	0	1	0	1	1	1
28 .	1	0	0	1	1	1	0	1	0	0	1	0
29 .	1		1	0	1	1	0	1	0	1	1	0
30 .	1		1	0	1	1	1	0	1	0	0	0
31 .	1		1		0		0	1		1		0
Σ .	25	19	22	20	17	20	18	23	22	19	14	11

In the above table 0 represents Calm day.
" 1 " small disturbance.
" 2 " larger disturbance.

From the above list it will be seen that the only three moderate disturbances denominated by (2) during the year, occur on the 14th February, 14th March and 9th April. These disturbances have also been the only ones reported as (2) by the majority of stations reporting to the International Commission and may hence be regarded as general disturbances affecting the whole Earth. It will be seen that they occur after an interval of some 27 days, but as shown in the Colaba Magnetic Data 1846-1905 (page 713, tables 551-552), 40 per cent. only of such disturbances indicate this interval in their incidence.

The following is a list of days during the year 1913 selected as "quiet" from the Alibag records for the purposes of the Magnetic Survey, as suitable for the determination locally of the magnetic diurnal inequalities :—

TABLE 7.

MONTHS.	Selected quiet days.				
1913.					
January	7	12	16	17	24
February	3	5	10	24	28
March	2	6	10	27	28
April	6	8	19	21	26
May	10	11	14	22	23
June	7	8	12	18	27
July	3	9	18	19	27
August	2	8	14	22	30
September	2	4	14	27	29
October	2	3	22	24	30
November	5	10	16	20	23
December	1	6	17	23	31

The mean values of the magnetic elements obtained from all days in year are as follows :—

Mean easterly declination	0° 47′ 33″
„ Horizontal Force	0·36880 C. G. S.
„ Vertical Force	0·16472 „
„ Inclination by the Inductor	24° 4′·1

The following table gives the corrected monthly mean values of the several magnetic elements as also the summed ranges of the Horizontal Force :—

TABLE 8.

MONTHS.	ABSOLUTE VALUES OF				HORIZONTAL FORCE.	
	Horizontal Force.	Vertical Force.	Inclination.	Easterly Declination.	Summed ranges.	Summed ranges (smoothed)
1913.	C. G. S.	C. G. S.	° ′	° ′ ″	C. G. S.	C. G. S.
January	0·36878	0·16428	24 0·7	0 49 7	0·00189	0·00223
February	0·36875	0·16434	24 1·3	0 48 50	0·00231	0·00224
March	0·36878	0·16449	24 2·3	0 48 27	0·00255	0·00226
April	0·36872	0·16456	24 3·1	0 48 29	0·00262	0·00225
May	0·36879	0·16468	24 3·8	0 48 6	0·00240	0·00222
June	0·36886	0·16466	24 3·3	0 47 57	0·00243	0·00221
July	0·36880	0·16483	24 4·9	0 47 13	0·00259	0·00221
August	0·36884	0·16485	24 5·0	0 47 0	0·00206	0·00220
September	0·36876	0·16489	24 5·5	0 46 30	0·00183	0·00219
October	0·36882	0·16492	24 5·5	0 46 36	0·00193	0·00220
November	0·36887	0·16494	24 5·5	0 46 22	0·00218	0·00222
December	0·36886	0·16523	24 7·8	0 46 2	0·00187	0·00224

NOTE.—Summed range means sum without regard to sign of the 24 ordinates of the diurnal inequality. Smoothed ranges are derived from running means of twelve consecutive monthly values reduced to the proper epoch so as to eliminate the annual variation.

The following remarks appeared in last year's summary: "In the secular march of the range curve as roughly indicating the activity of the 11-year period, it appears from the progress of the figures in the last column that the lowest figure 202 showing a record minimum of magnetic activity in the Colaba data of 65 years, was reached in November-December 1911. Since then the curve has risen steadily. Unless therefore a marked fall ensues by the interference of some other smaller period, which is not unlikely, the turning point of the 11-year magnetic activity may be regarded as having been definitely passed about the end of 1911 or the beginning of 1912. Comparing the actual figures of the corresponding months for the years 1911, 1912, 1913, the decay of magnetic energy appears however to continue to run into May 1912, the corresponding monthly figures thereafter only indicating a growth by steadily increasing numbers." During the year however this rise has not been maintained owing possibly, as suggested above, to the activity of some small period oscillation, which has apparently exercised up to the end of 1913 a check on the growth. The record low value of range at the minimum epoch and the retardation in the growth above noted, strongly indicate the probability of the next maximum being as low and diffused as the previous one of 1906-1907.

N. A. F. MOOS,

Director, Bombay and Alibag Observatories.

Solar Radiation.

The following table shows, in absolute measure, the value of solar radiation as measured at Simla by means of Angstrom's electric compensation pyrheliometer :—

TABLE 9.

1913.	Intensity in gramme-calories per sq. cm. per min.			Number of days of observation.
	Maximum.	Minimum.	Mean.	
January	1·38	1·21	1·30	11
February	1·36	1·21	1·29	4
March	1·40	1·29	1·34	8
April	1·40	1·17	1·32	9
May	1·47	1·17	1·33	10
June		No observations.		
July		No observations.		
August	1·34	1·34	1·34	1
September	1·41	1·35	1·38	10
October	1·41	1·29	1·37	14
November	1·47	1·33	1·40	13
December	1·46	1·26	1·40	8

Nocturnal Radiation.

Observations of the terrestrial radiation thermometers, which are as a rule not very reliable, were recorded during the year 1913 at the following stations :—

Srinagar. Jodhpur. Calcutta (Alipore).
Lahore. Allahabad. Bombay. Simla.

The following Table 10 gives the average data of past years for the above stations ; and Table 11 the departure from the normal :—

TABLE 10.—*Average depression of mean monthly and annual nocturnal radiation temperatures below mean monthly and annual minimum shade temperatures.*

Station.	Number of years observations used.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
		°	°	°	°	°	°	°	°	°	°	°	°	°
Srinagar	15—20	8·4	8·8	9·9	10·2	11·2	11·1	11·1	10·8	12·3	12·0	11·3	11·1	10·7
Simla	21—22	4·0	3·5	3·7	5·4	4·3	3·6	3·0	2·3	3·7	5·0	5·0	4·8	4·0
Lahore	36—37	9·6	9·4	8·9	9·2	9·1	6·4	4·1	4·2	6·7	9·8	10·7	10·2	8·2
Jodhpur	16—18	8·5	8·6	8·5	7·9	5·7	2·8	2·2	2·3	4·9	9·5	10·8	10·0	6·8
Allahabad	36—37	11·2	11·6	12·6	12·3	9·1	5·0	3·0	2·6	4·2	9·3	12·4	12·4	8·8
Calcutta (Alipore)	36—37	7·3	6·8	5·8	4·3	3·0	2·1	1·8	1·9	2·5	4·3	6·4	7·7	4·5
Bombay	38	9·4	8·8	7·8	6·3	4·4	2·8	2·2	2·4	3·1	6·1	9·1	10·0	6·0

TABLE 11.—*Departures from the averages of Table 10 of mean monthly and annual depression of nocturnal radiation temperatures in 1913.*

Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
	°	°	°	°	°	°	°	°	°	°	°	°	°
Srinagar	+1·9	+1·3	+0·6	+1·1	+0·6	+1·3	+2·0	+2·7	−0·1	+0·3	−0·2	+1·2	+1·1
Simla	+3·1	+2·2	+2·8	+2·1	+0·8	+1·4	+1·6	+2·2	+4·5	+3·8	+4·8	+4·8	+2·8
Lahore	+2·3	−0·9	+1·4	+1·3	+0·4	0	+1·5	+0·9	+2·6	+2·1	+1·2	+0·7	+1·1
Jodhpur	−0·2	+2·5	+3·8	−0·5	+3·1	+0·3	+1·0	+0·2	+0·3	+1·5	−0·4	−0·8	+0·9
Allahabad	+2·8	−2·0	+0·3	+1·4	−2·5	−2·8	−0·6	−0·1	+1·2	+1·0	+1·4	−0·5	0
Calcutta (Alipore) . . .	−1·9	−2·5	−1·2	1·1	−0·2	−0·6	+0·1	−0·2	−0·2	+1·0	−1·8	−2·6	−0·9
Bombay	−1·5	−2·9	−1·3	−0·8	−1·4	0	+0·8	+1·7	+0·5	−0·4	−1·3	−1·1	−0·6

Temperature of the ground.

Observations of the temperature of the surface of the ground were recorded during the year 1913 at five stations, Lahore, Jaipur, Allahabad, Calcutta (Alipore) and Bombay; and of the temperature under ground at Bombay only.

The thermometers used for the purpose are verified standard mercurial thermometers with attached scales of porcelain, the scale being engraved also on the tube.

At Lahore the surface thermometer is read four times daily; at Jaipur at 10 and 16 hrs., at Allahabad at 6, 14, and 22 hrs., and at Calcutta at 13 hrs. 45 mins. At Bombay the two nearest to the surface are read five times a day, the deeper instruments being read once only.

The thermometers below the surface have their bulbs protected with pointed copper shoes which rest on ground at the bottom of a wooden tube, inserted to the specified depth and projecting six inches above the surface, the upper ends being closed by a cap of metal or wood. Those at depths of five feet or more are attached to the lower ends of stout wooden bars of about half the diameter of the tube. Those at one foot have a brass ring attached to the top of the wooden frame by which they are lifted; and in all these the lower part of the frame around the bulb has been cut away, and the lower end fitted with the copper shoe above mentioned.

The average monthly data are here given at length, but a paper published by Mr. R. L. Jones (Meteorological Memoirs, Vol. XV, Pt. III, 1904) makes it clear that the results of the measurement of underground temperatures lead to inconsistent results when analysed on the lines developed by Lord Kelvin. It may be that this is due to irregularities from percolation of rainfall as well as to imperfections in the mode of measurement.

Under these circumstances a table of departures from the average of past years is more likely to give indications of value than a statement of absolute temperatures recorded; such a table is therefore given below. The number of years included in the averages in the different cases lies between 21 and 27.

TABLE 12.—*Departures from normal of the mean monthly and annual temperatures of the air and of the ground in 1913.*

Station.		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
		°	°		°	°	°	°	°	°	°		°	°
LAHORE	Air	+ 2·9	+ 1·2	— 4·7	+ 0·9	— 1·0	— 3·3	— 2·0	+ 0·2	— 0·2	+ 0·9	+ 0·3	— 0·3	—0·4
	Surface	+ 1·2	+ 0·1	— 3·5	+ 2·2	— 2·2	— 2·4	— 6·0	— 2·2	— 1·8	+ 0·1	— 0·2	+ 0·3	—1·2
JAIPUR	Air	+ 1·0	+ 0·8	— 3·6	+ 0·8	— 2·1	— 2·3	— 1·6	+ 1·4	+ 1·8	+ 3·3	+ 0·4	— 0·8	—0·1
	Surface	+ 1·5	— 0·8	— 1·7	—1·8	— 9·1	— 9·2	—7·9	+ 10·5	+0·4	—1·4	—2·7	—5·7	—2·3
ALLAHABAD	Air	— 0·5	+ 1·2	— 4·2	+ 1·2	— 3·4	— 4·8	+ 1·3	+ 1·3	+ 1·0	+ 3·1	+ 0·2	+ 0·8	—0·2
	Surface	0	— 3·9	— 3·7	+ 5·3	— 2·9	— 6·4	+ 5·3	+ 4·2	+ 6·2	+ 8·1	+ 3·0	— 2.6	+1·1
CALCUTTA (ALIPORE).	Air	+ 0·7	+ 0·7	— 1·4	+ 1·9	— 0·6	— 2·2	+ 0·5	+ 0·7	+ 1·4	— 0·3	— 0·9	+ 0·1	+0·1
	Surface	+ 4·8	— 2·2	— 6·1	+ 5·2	— 2·8	— 6·2	— 1·5	+ 0·4	— 1·0	— 5·3	— 2·8	+ 3·0	—1·2
BOMBAY	Air	+ 0·6	+ 1·2	— 1·4	— 0·2	+ 1·0	+ 0·1	+ 0·1	+ 0·8	+ 0·7	+ 0·7	—0·1	— 0·6	+0·2
	1 inch deep	+ 0·1	+ 0·5	— 1·8	— 0·5	+ 0·7	+ 0·3	— 0·2	+ 0·3	+ 0·2	+ 0·2	— 0·7	— 0·8	—0·2
	1 foot 8 inches deep	+ 0·5	+ 0·7	— 0·7	— 0·5	+ 0·2	+ 0·6	+ 0·2	— 0·1	+ 0·2	+ 0·3	+ 0·3	+ 0·2	+0·2
	5 feet deep	+ 0·6	+ 0·6	+ 0·1	— 0·3	— 0·1	+ 0·5	+ 0·3	0	+ 0·1	+ 0·2	0	+ 0·1	+0·1
	11 feet deep	+ 1·4	+ 1·7	+ 0·9	+ 0·6	+ 0·4	+ 0·1	— 0·4	— 0·5	— 0·2	+ 0·2	+ 0·3	+ 0·4	+0·4

Temperature.

The methods of exposing the thermometers at observatories in India were described in pages 18-19 of the Annual Report for 1890.

The method of deducing the daily and monthly means from the observed readings of the instruments was described in pages 6 and 7 of the Monthly Weather Review for January 1913.

The departures from normal of the mean temperature of each month given in Table A of the Monthly Weather Reviews are deduced by a comparison of the actual monthly means with the normal monthly means given in the "Indian Meteorological Memoirs," Volume XVII, pages 16 to 24.

The departures obtained by a comparison of these normal means with the actual monthly means in Table A of the Monthly Weather Reviews for the year are given in Table 13.

In Table B, published in each Monthly Review, the mean temperature of the day is calculated, as in the Daily Weather Report, by the formula:—daily mean $= \frac{\text{maximum} + \text{minimum}}{2}$. It differs from the true daily mean by amounts varying slightly with the season. In Table B of the Monthly Weather Reviews of the year 1913 are given the departures from normal of the monthly means of daily maximum and minimum temperatures, as well as the departures of the monthly means of daily mean temperature given by the formula $\frac{1}{2}$ (maximum + minimum).

Tables 14 to 19 give summaries of the temperature departure data for each month of the year 1913 and for the whole year. In the first set of tables (Tables 14, 15 and 16) the departure data are given for the 15 chief political divisions, and in the last three tables (Tables 17 to 19) the data are given for the 33 sub-divisions:—

TABLE 13.—*Departure from normal of monthly and annual mean air temperatures at first and second class observatories in 1913.*

Division.	Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
		°	°	°	°	°	°	°	°	°	°	°	°	°
BENGAL	Calcutta	+0·7	+0·7	−1·4	+1·9	−0·6	−2·2	+0·5	+0·7	+1·4	−0·3	−0·9	+0·1	+0·1
UNITED PROVINCES OF AGRA AND OUDH.	Allahabad	−0·5	+1·2	−4·2	+1·2	−3·4	−4·8	+1·3	+1·3	+1·0	+3·1	+0·2	+0·8	−0·2
PUNJAB	Lahore	+2·9	+1·2	−4·7	+0·9	−1·0	−3·3	−2·0	+0·2	−0·2	+0·9	+0·3	−0·3	−0·4
RAJPUTANA	Jaipur	+1·0	+0·8	−3·6	+0·8	−2·1	−2·3	−1·6	+1·4	+1·8	+3·3	+0·4	−0·8	−0·1
BOMBAY	Bombay	+0·6	+1·2	−1·4	−0·2	+1·0	+0·1	+0·1	+0·8	+0·7	+0·7	−0·1	−0·6	+0·2
MYSORE	Bangalore	−0·3	+1·4	+1·3	+1·6	+1·4	+0·2	−0·8	+0·4	+2·2	0	+0·7	+2·3	+0·9
MADRAS	Madras	−0·1	+1·6	+1·5	+1·5	−0·4	+1·8	+0·3	+3·1	+1·7	−0·6	0	+0·6	+0·9
HILL STATIONS, EXCLUDING KASHMIR AND BALUCHISTAN.	Katmandu	+0·7	+0·3	−1·5	+4·1	−0·9	−0·4	+0·8	+0·7	+0·5	+0·7	−1·8	−2·7	0
EXTRA INDIA	Seychelles	+0·4	+1·4	+1·7	+1·4	+1·5	+1·7	+1·2	+0·3	−0·1	+0·4	+1·1	+1·1	+1·0
	Mauritius	−1·8	−0·5	−0·3	−1·0	−0·2	+0·1	−1·9	−0·3	−0·4	−0·1	−0·5	0	−0·6

TABLE 14.—*Departure of the mean monthly and annual maximum temperature from the normal in the fifteen chief political divisions of India in 1913, as given by all observatories.*

Division.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
	°	°	°	°	°	°	°	°	°	°	°	°	°
Burma	−1·0	−0·3	−1·5	+0·7	+1·4	+0·2	+0·5	−0·5	0	−0·9	−3·5	−1·1	−0·5
Assam	−0·2	−1·0	−3·9	−3·1	−2·2	−1·1	+0·1	−0·3	−0·4	−1·5	−1·8	−3·1	−1·5
Bengal	+0·2	−1·4	−3·4	+1·1	−0·3	−3·1	+0·5	0	+0·7	−0·5	−1·2	−1·8	−0·8
Bihar and Orissa	−1·1	−3·2	−4·3	+1·8	−1·9	−6·0	+0·7	−0·3	+0·3	−0·3	−1·4	−2·0	−1·5
United Provinces	+1·5	−1·1	−5·7	+1·2	−4·3	−4·9	+1·9	+3·6	+4·3	+2·9	+0·8	−1·2	−0·1
Punjab	+4·2	−0·5	−6·1	0	−2·9	−4·9	−2·7	−0·2	+0·4	+0·5	−0·9	−2·7	−1·3
North-West Frontier Province	+2·9	−1·3	−4·7	+0·5	+1·5	−1·5	−1·7	−1·9	−1·4	−0·5	−2·1	−2·7	−1·1
Sind	+3·1	−1·5	−3·7	+0·9	+0·8	+1·0	−0·6	−0·9	−1·4	−0·2	+0·4	−3·0	−0·4
Rajputana	+3·5	−0·2	−4·1	+2·0	−1·9	−1·7	−1·1	+0·8	+1·0	+2·1	+0·1	−3·0	−0·2
Bombay	+0·7	−0·5	−2·0	+0·4	−0·2	−1·3	−0·2	−0·2	+0·5	+1·4	+1·3	−0·4	0
Central India	+0·7	−1·5	−4·7	+0·8	−2·2	−3·4	+0·5	+0·5	+2·9	+5·3	+2·5	−0·1	+0·1
Central Provinces	−0·4	−1·4	−3·3	+1·6	−1·6	−2·6	+0·6	0	+2·1	+4·5	+2·7	+0·6	+0·2
Hyderabad	−0·8	+0·3	+0·8	+2·4	−0·4	−1·1	−1·1	+1·4	+2·9	+2·0	+2·4	+2·6	+0·9
Mysore	−0·6	+0·4	+1·1	+2·1	+1·6	+0·5	−0·9	+0·3	+2·3	−0·1	+2·1	+3·2	+1·0
Madras	−0·8	−0·1	+0·6	+0·9	+0·3	+0·9	−0·3	+1·7	+2·0	−0·6	−0·1	+0·1	+0·4

TABLE 15.—*Departure of the mean monthly and annual minimum temperature from the normal in the fifteen chief political divisions of India in 1913.*

Division.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
	°	°	°	°	°	°	°	°	°	°	°	°	°
Burma	+0·6	+0·9	—0·5	+0·4	+0·2	+0·1	+0·1	+0·2	+0·1	+0·5	0	+0·7	+0·3
Assam	+0·1	+1·6	—1·4	0	—0·6	—0·3	0	—0·6	—0·1	—0·2	—2·3	+0·3	—0·3
Bengal	+0·2	+2·0	—2·2	+1·6	—1·7	—1·3	—0·2	—0·2	+0·3	—0·4	—1·7	—0·1	—0·3
Bihar and Orissa	—1·5	+1·8	—2·7	+1·2	—2·0	—2·1	0	—0·5	—0·1	—0·6	—2·0	+0·4	—0·7
United Provinces	—2·2	+2·1	—3·6	—0·1	—3·1	—2·9	—0·4	+0·4	—1·1	+0·7	—2·1	+0·3	—1·0
Punjab	+0·2	+1·4	—3·8	+0·6	—0·6	—1·9	—2·1	—0·2	—2·1	+1·1	+0·5	+0·9	—0·5
North-West Frontier Province	+0·6	+1·3	—3·7	—0·1	+1·6	0	—1·1	—0·9	—1·9	+2·2	+1·9	+2·0	+0·2
Sind	+1·9	+0·8	—3·5	+1·9	+1·6	+1·5	+0·6	+0·2	—0·3	+2·8	+1·9	+1·3	+0·9
Rajputana	—0·9	+2·1	—4·3	+0·6	—1·6	—0·6	—1·1	—0·8	—0·1	+3·0	+1·0	+0·6	—0·2
Bombay	—1·7	+1·1	—3·6	—0·5	—0·1	—0·7	—0·4	—0·6	—0·3	0	—0·7	+1·2	—0·5
Central India	—2·3	+3·4	—3·1	+1·0	—1·2	—1·9	—0·3	—1·0	—0·8	+0·6	—0·4	+1·5	—0·4
Central Provinces	—2·2	+3·2	—3·1	+1·8	—1·1	—1·2	—0·1	—1·0	—0·6	—0·2	0	+2·1	—0·2
Hyderabad	—2·9	+3·5	—0·9	+1·3	—0·4	+0·2	—0·3	+0·3	+1·1	—0·5	—0·1	+2·7	+0·3
Mysore	—1·1	+2·2	+0·9	+0·9	+0·5	0	+0·1	—0·4	+0·3	—0·4	—0·6	+2·9	+0·4
Madras	—0·8	+1·9	+0·5	+1·2	0	+0·9	+0·2	+0·9	+0·9	—0·1	—0·2	+1·4	+0·6

TABLE 16.—*Departure of mean monthly and annual temperature from the normal in the fifteen chief political divisions of India in 1913.*

Division.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
	°	°	°	°	°	°	°	°	°	°	°	°	°
Burma	—0·2	+0·3	—1·0	+0·5	+0·8	+0·2	+0·3	—0·1	+0·1	—0·3	—1·7	—0·2	—0·1
Assam	—0·1	+0·3	—2·7	—1·5	—1·4	—0·7	0	—0·5	—0·2	—0·8	—2·1	—1·4	—0·9
Bengal	+0·2	+0·3	—2·8	+1·3	—1·0	—2·2	+0·2	—0·1	+0·5	—0·5	—1·4	—0·9	—0·5
Bihar and Orissa	—1·3	—0·7	—3·5	+1·5	—2·0	—4·0	+0·4	—0·4	+0·1	—0·5	—1·7	—0·8	—1·1
United Provinces	—0·4	+0·5	—4·7	+0·6	—3·7	—3·9	+0·8	+2·0	+1·6	+1·8	—0·7	—0·5	—0·5
Punjab	+2·2	+0·4	—4·9	+0·3	—1·8	—3·4	—2·4	—0·2	—0·9	+0·8	—0·2	—0·9	—0·9
North-West Frontier Province	+1·7	+0·1	—4·3	+0·2	+1·5	—0·7	—1·4	—1·5	—1·7	+0·9	—0·1	—0·3	—0·5
Sind	+2·4	—0·4	—3·6	+1·4	+1·2	+1·2	0	—0·3	—0·9	+1·3	+1·1	—0·9	+0·2
Rajputana	+1·3	+1·0	—4·2	+1·3	—1·7	—1·1	—1·1	0	+0·4	+2·5	+0·5	—1·2	—0·2
Bombay	—0·5	+0·3	—2·8	—0·1	—0·1	—1·0	—0·3	—0·4	+0·1	+0·7	+0·3	+0·4	—0·3
Central India	—0·7	+0·9	—3·9	+0·9	—1·7	—2·7	0	—0·3	+1·1	+2·9	+1·0	+0·7	—0·1
Central Provinces	—1·3	+0·9	—3·2	+1·7	—1·3	—1·9	+0·3	—0·5	+0·8	+2·1	+1·3	+1·3	0
Hyderabad	—1·9	+1·9	—0·1	+1·8	—0·4	—0·5	—0·7	+0·9	+2·0	+0·8	+1·1	+2·7	+0·6
Mysore	—0·8	+1·3	+0·9	+1·5	+1·1	+0·3	—0·3	—0·1	+1·3	—0·3	+0·8	+3·0	+0·7
Madras	—0·8	+0·9	+0·5	+1·1	+0·2	+0·9	0	+1·3	+1·4	—0·3	—0·2	+0·8	+0·5
Mean of India	—0·1	+0·5	—2·7	+0·9	—0·9	—1·5	—0·2	+0·1	+0·5	+0·8	—0·2	0	—0·2

TABLE 17.—*Departure of the monthly and annual maximum temperature from the normal in 33 sub-divisions of India in 1913.*

SUB-DIVISION.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
	°	°	°	°	°	°	°	°	°	°	°	°	°
1. Bay Islands . . .	—0·7	—0·7	—1·5	—0·6	+1·6	—0·9	—1·0	+0·1	—1·3	—1·5	—1·2	+0·1	—0·6
2. Lower Burma . . .	—0·3	+0·2	—1·2	+0·5	+0·7	+0·7	—0·1	+0·1	+0·3	—0·4	—2·4	—0·7	—0·2
3. Upper Burma . . .	—2·2	—0·9	—1·8	+1·0	+2·3	—0·5	+1·3	—1·2	—0·5	—1·7	—4·7	—1·7	—0·9
4. Assam	—0·2	—1·0	—3·9	—3·1	—2·2	—1·1	+0·1	—0·3	—0·4	—1·5	—1·8	—3·1	—1·5
5. Bengal	+0·2	—1·4	—3·3	+1·1	—0·3	—3·1	+0·5	0	+0·7	—0·5	—1·2	—1·8	—0·8
6. Orissa	—2·1	—3·8	—3·1	+1·2	—1·3	—5·1	+0·8	—0·2	+0·5	—0·3	—1·7	—1·6	—1·4
7. Chota Nagpur . . .	—1·1	—3·6	—4·6	+1·6	—2·7	—6·5	+0·2	—0·3	+0·6	+0·1	—2·1	—1·8	—1·7
8. Bihar	—0·2	—2·5	—4·7	+2·3	—1·9	—6·1	+0·9	—0·4	+0·1	—0·6	—0·9	—2·4	—1·4
9. United Provinces, East .	+1·3	—1·1	—5·4	+1·9	—4·4	—5·5	+1·6	+3·0	+2·9	+2·5	+0·8	—1·2	—0·3
10. Do. do., West .	+1·6	—1·1	—6·1	+0·3	—4·2	—4·0	+2·3	+4·3	+6·1	+3·6	+0·7	—1·2	+0·2
11. Punjab, East and North .	+3·8	—0·5	—6·6	0	—3·8	—5·6	—2·4	+0·6	+1·2	+0·7	—0·9	—3·0	—1·4
12. Punjab, Southwest . .	+5·3	—0·5	—4·9	0	—0·8	—3·3	—3·4	—2·1	—1·7	—0·3	—1·1	—2·0	—1·2
13. Kashmir	—0·7	+0·7	—2·7	—3·5	+0·1	+0·1	—0·3	—1·3	—2·7	—0·1	—4·0	—2·2	—1·4
14. North-West Frontier Province	+2·9	—1·3	—4·7	+0·5	+1·5	—1·5	—1·7	—1·9	—1·4	—0·5	—2·1	—2·7	—1·1
15. Baluchistan . . .	+4·3	—0·9	—6·9	—0·5	+1·9	+0·3	—0·1	—1·1	—1·7	+1·9	—0·1	—2·3	—0·4
16. Sind	+3·1	—1·5	—3·7	+0·9	+0·8	+1·0	—0·6	—0·9	—1·4	—0·2	+0·4	—3·0	—0·4
17. Rajputana, West . .	+4·3	+0·6	—3·7	+2·0	—0·7	—0·3	—1·4	—0·3	—0·2	+1·1	—1·0	—2·9	—0·2
18. Do., East . .	+2·5	—0·6	—4·4	+1·9	—2·6	—2·9	—0·8	+1·5	+1·8	+2·7	+0·4	—3·1	—0·3
19. Gujarat	+1·8	—1·2	—3·3	0	—0·7	—1·7	—0·3	—1·4	—1·2	+1·0	+1·1	—1·5	—0·6
20. Central India, West . .	+0·5	—0·7	—3·4	+1·1	—1·5	—1·7	—0·3	—1·3	+1·1	+4·3	+2·4	—0·1	0
21. Do. do., East . .	+1·1	—2·5	—5·9	+0·5	—2·9	—5·2	+1·1	+2·3	+4·8	+6·3	+2·5	0	+0·2
22. Berar	+2·1	+0·4	—1·5	+2·3	—0·9	—1·5	+0·1	—0·3	+1·5	+4·5	+3·3	+1·1	+0·9
23. Central Provinces, West .	—0·6	—1·6	—3·8	+1·4	—1·9	—2·9	+0·9	+0·1	+2·4	+5·0	+2·7	+0·5	+0·2
24. Do. do., East .	—1·0	—2·5	—3·3	+1·1	—1·3	—2·9	+0·5	0	+1·9	+3·0	+1·9	+0·4	—0·2
25. Konkan	—0·5	—0·9	—1·6	—0·8	+0·8	—0·4	0	+0·8	+0·4	—0·1	0	—1·9	—0·3
26. Bombay, Deccan . . .	+0·1	+0·5	+0·6	+1·9	—0·2	—1·3	—0·2	+0·8	+2·9	+2·8	+2·7	+2·2	+1·1
27. Hyderabad, North . .	—0·2	+1·1	+1·1	+2·8	—0·5	—2·2	—1·3	+0·3	+1·6	+2·1	+1·7	+3·3	+0·8
28. Do., South . .	—1·1	—0·1	+0·6	+2·2	—0·3	—0·6	—1·0	+1·9	+3·5	+2·0	+2·7	+2·5	+1·0
29. Mysore	—0·6	+0·4	+1·1	+2·1	+1·6	+0·5	—0·9	+0·3	+2·3	—0·1	+2·1	+3·2	+1·0
30. Malabar	—0·5	+0·1	—0·7	+0·2	+0·6	+0·5	—0·1	+0·5	+0·8	—0·8	+0·3	+0·3	+0·1
31. Madras, Southeast . .	—0·7	+0·3	+1·1	+1·4	+0·7	+1·5	0	+1·5	+1·8	—0·4	—1·4	—0·3	+0·5
32. Do., Deccan . .	—1·0	—0·3	+0·5	+1·5	—0·3	+0·6	—0·3	+3·0	+3·8	—0·3	+1·8	+1·2	+0·9
33. Do., Coast North .	—1·1	—0·8	+1·0	+0·1	—0·7	+0·1	—0·9	+2·1	+2·1	—0·8	+0·4	—0·1	+0·1

TABLE 18.—*Departure of the monthly and annual minimum temperature from the normal in 33 sub-divisions of India in 1913.*

SUB-DIVISION.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
	°	°	°	°	°	°	°	°	°	°	°	°	°
1. Bay Islands	+1·4	+1·6	—0·3	—0·1	+0·8	—0·5	—0·3	+0·6	—0·4	—0·6	+0·1	—0·4	+0·2
2. Lower Burma	+0·7	+1·5	+0·2	+0·2	0	+0·3	—0·1	+0·3	+0·3	+0·4	+0·1	+0·5	+0·4
3. Upper Burma	+0·3	+0·2	—1·5	+0·6	+0·4	—0·1	+0·5	+0·1	—0·1	+0·5	—0·2	+1·0	+0·1
4. Assam	+0·1	+1·6	—1·4	0	—0·6	—0·3	0	—0·6	—0·1	—0·2	—2·3	+0·3	—0·3
5. Bengal	+0·2	+2·0	—2·1	+1·6	—1·7	—1·3	—0·2	—0·2	+0·3	—0·4	—1·7	—0·1	—0·3
6. Orissa	—2·0	+1·6	—0·9	+0·9	—2·1	—1·5	—0·3	—0·7	0	—1·2	—2·1	+0·7	—0·6
7. Chota Nagpur	—1·2	+1·3	—2·8	+1·4	—2·7	—2·1	—0·2	—0·6	0	—0·1	—1·9	+0·9	—0·7
8. Bihar	—1·3	+2·2	—3·3	+1·2	—1·7	—2·3	+0·2	—0·4	—0·1	—0·5	—2·1	0	—0·7
9. United Provinces, East	—2·0	+2·5	—3·1	+0·2	—2·9	—3·1	—0·4	0	—1·5	+0·6	—2·7	+0·1	—1·0
10. Do. do., West	—2·4	+1·7	—4·4	—0·4	—3·2	—2·6	—0·4	+0·9	—0·6	+0·7	—1·4	+0·5	—1·0
11. Punjab, East and North	—0·6	+1·2	—4·2	+0·5	—1·6	—2·3	—2·0	+0·1	—1·8	+0·7	+0·1	+0·9	—0·7
12. Do., Southwest	+2·1	+1·7	—3·0	+1·0	+1·6	—0·8	—2·3	—0·8	—2·8	+2·4	+1·6	+1·0	+0·1
13. Kashmir	—1·6	+0·5	—2·7	—1·1	0	+0·6	—1·7	—1·5	—3·3	—0·6	—2·9	—1·7	—1·3
14. North-West Frontier Province	+0·6	+1·3	—3·7	—0·1	+1·6	0	—1·1	—0·9	—1·9	+2·2	+1·9	+2·0	+0·2
15. Baluchistan	+0·2	—2·3	—6·5	—3·1	+0·3	+0·3	—0·1	—1·9	—2·5	+3·6	0	—1·4	—1·1
16. Sind	+1·9	+0·8	—3·5	+1·9	+1·6	+1·5	+0·6	+0·2	—0·3	+2·8	+1·9	+1·3	+0·9
17. Rajputana, West*	—1·5	+1·5	—5·9	0	—2·3	—0·9	—1·5	—1·5	—1·5	+0·2	+0·2	—1·1	—1·2
18. Do., East	—0·3	+2·4	—3·3	+1·3	—1·1	—0·3	—0·9	—0·4	+0·9	+4·9	+1·3	+1·7	+0·5
19. Gujarat	—1·5	—0·1	—4·2	—0·7	+0·1	—1·1	—0·7	—0·9	—0·7	—0·1	—1·1	+0·3	—0·9
20. Central India, West	—1·7	+2·6	—3·0	+2·0	—0·3	—0·7	—0·6	—1·9	—0·7	+0·7	+0·1	+1·3	—0·2
21. Do. do., East	—2·9	+4·2	—3·1	+0·1	—2·1	—3·1	—0·1	—0·1	—0·9	+0·4	—0·9	+1·8	—0·6
22. Berar	—3·3	+4·1	—2·3	+2·9	—0·1	—0·4	+0·5	—0·5	—0·5	—0·1	+0·9	+3·1	+0·4
23. Central Provinces, West	—2·1	+2·7	—3·3	+1·3	—1·5	—1·5	—0·4	—1·3	—0·8	—0·1	0	+1·8	—0·4
24. Do. do., East	—2·2	+3·6	—3·3	+1·9	—0·7	—1·0	+0·2	—0·4	+0·1	—0·9	—1·9	+1·8	—0·2
25. Konkan	—1·8	+0·4	—3·0	—0·8	+0·2	—0·5	0	+0·5	+0·2	—0·3	—1·2	+0·6	—0·5
26. Bombay, Deccan	—1·9	+2·9	—2·3	0	—0·5	—0·4	—0·1	—1·1	0	+0·3	+0·2	+2·9	0
27. Hyderabad, North	—2·0	+4·9	—1·3	+1·2	+0·	—0·4	—0·7	—0·5	+0·1	—0·6	+0·1	+2·8	+0·3
28. Do., South	—3·3	+2·7	—0·7	+1·3	—0·7	+0·5	—0·1	+0·6	+1·6	—0·4	—0·2	+2·7	+0·3
29. Mysore	—1·1	+2·2	+0·9	+0·9	+0·5	0	+0·1	—0·4	+0·3	—0·4	—0·6	+2·9	+0·4
30. Malabar	+0·3	+1·3	+0·7	+2·1	+1·3	+1·4	+0·9	+1·3	+0·9	+1·1	+0·6	+2·1	+1·2
31. Madras, Southeast	—0·3	+2·2	+0·4	+1·3	+0·5	+1·2	+0·5	+0·8	+0·8	+0·1	—0·3	+0·5	+0·6
32. Do., Deccan	—2·2	+2·8	+0·5	+1·2	—1·1	+0·6	—0·5	+1·1	+1·7	—0·9	—0·1	+2·9	+0·5
33. Do., Coast, North	—2·0	+1·5	+0·4	+0·2	—1·3	+0·1	—0·6	+0·4	+0·4	—0·9	—0·8	+1·5	—0·1

TABLE 19.—*Departure of the mean monthly and annual temperature from the normal in 33 sub-divisions of India in 1913.*

Sub-division.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
	°	°	°	°	°	°	°	°	°	°	°	°	°
1. Bay Islands	+0·3	+0·5	—0·9	—0·3	+1·2	—0·7	—0·7	+0·3	—0·9	—1·1	—0·5	—0·1	—0·2
2. Lower Burma	+0·2	+0·9	—0·5	+0·3	+0·3	+0·5	—0·1	+0·2	+0·3	0	—1·1	—0·1	+0·1
3. Upper Burma	—0·9	—0·3	—1·7	+0·8	+1·3	—0·3	+0·9	—0·5	—0·3	—0·6	—2·5	—0·3	—0·4
4. Assam	—0·1	+0·3	—2·7	—1·5	—1·4	—0·7	+0·1	—0·5	—0·3	—0·9	—2·1	—1·4	—0·9
5. Bengal	+0·2	+0·3	—2·7	+1·3	—1·0	—2·2	+0·1	—0·1	+0·5	—0·5	—1·5	—0·9	—0·5
6. Orissa	—2·1	—1·1	—2·0	+1·1	—1·7	—3·3	+0·3	—0·5	+0·3	—0·7	—1·9	—0·5	—1·0
7. Chota Nagpur	—1·1	—1·1	—3·7	+1·5	—2·7	—4·3	0	—0·5	+0·3	0	—2·0	—0·5	—1·2
8. Bihar	—0·7	—0·1	—4·0	+1·7	—1·8	—4·2	+0·5	—0·4	0	—0·5	—1·5	—1·2	—1·0
9. United Provinces, East	—0·3	+0·7	—4·3	+1·1	—3·7	—4·3	+0·6	+1·5	+0·7	+1·5	—0·9	—0·5	—0·7
10. Do. do., West	—0·4	+0·3	—5·3	—0·1	—3·7	—3·3	+0·9	+2·6	+2·7	+2·1	—0·3	—0·3	—0·4
11. Punjab, East and North	+1·6	+0·3	—5·4	+0·3	—2·7	—3·9	—2·2	+0·3	—0·3	+0·7	—0·4	—1·1	—1·1
12. Do., Southwest	+3·7	+0·6	—3·9	+0·5	+0·4	—2·1	—2·9	—1·5	—2·3	+1·1	+0·3	—0·5	—0·5
13. Kashmir	—1·	+0·6	—2·7	—2·3	+0·1	+0·3	—1·0	—1·4	—3·0	—0·3	—3·5	—1·9	—1·3
14. North-West Frontier Province	+1·7	0	—4·2	+0·2	+1·5	—0·7	—1·4	—1·4	—1·7	+0·9	—0·1	—0·3	—0·5
15. Baluchistan	+2·3	—1·6	—6·7	—1·8	+1·1	+0·3	—0·1	—1·5	—2·1	+2·7	—0·1	—1·9	—0·8
16. Sind	+2·5	—0·3	—3·6	+1·4	+1·2	+1·3	0	—0·3	—0·9	+1·3	+1·1	—0·9	+0·2
17. Rajputana, West	+1·4	+1·1	—4·8	+1·0	—1·5	—0·6	—1·5	—0·9	—0·9	+0·7	—0·4	—2·0	—0·7
18. Do., East	+1·1	+0·9	—3·9	+1·6	—1·9	—1·6	—0·9	+0·5	+1·3	+3·8	+0·9	—0·7	+0·1
19. Gujarat	+0·1	—0·7	—3·7	—0·3	—0·3	—1·4	—0·5	—1·1	—0·9	+0·5	0	—0·6	—0·7
20. Central India, West	—0·6	+0·9	—3·2	+1·5	—0·9	—1·2	—0·5	—1·6	+0·2	+2·5	+1·3	+0·6	—0·1
21. Do. do., East	—0·9	+0·9	—4·5	+0·3	—2·5	—4·1	+0·5	+1·1	+1·9	+3·3	+0·8	+0·9	—0·2
22. Berar	—0·6	+2·3	—1·9	+2·6	—0·5	—0·9	+0·3	—0·4	+0·5	+2·2	+2·1	+2·1	+0·7
23. Central Provinces, West	—1·3	+0·5	—3·5	+1·3	—1·7	—2·2	+0·3	—0·6	+0·8	+2·5	+1·3	+1·1	—0·1
24. Do. do., East	—1·6	+0·5	—3·3	+1·5	—1·0	—1·9	+0·3	—0·2	+1·0	+1·1	0	+1·1	—0·2
25. Konkan	—1·1	—0·3	—2·3	—0·8	+0·5	—0·5	0	+0·7	+0·3	—0·2	—0·6	—0·7	—0·4
26. Bombay, Deccan	—0·9	+1·7	—0·9	+0·9	—0·3	—0·9	—0·1	—0·1	+1·5	+1·5	+1·5	+2·5	+0·5
27. Hyderabad, North	—1·1	+3·0	—0·1	+2·0	—0·2	—1·3	—1·0	—0·1	+0·9	+0·7	+0·9	+3·1	+0·6
28. Do., South	—2·2	+1·3	—0·1	+1·7	—0·5	—0·1	—0·5	+1·3	+2·5	+0·8	+1·3	+2·6	+0·7
29. Mysore	—0·9	+1·3	+1·0	+1·5	+1·1	+0·3	—0·4	—0·1	+1·3	—0·3	+0·7	+3·1	+0·7
30. Malabar	—0·1	+0·7	0	+1·1	+0·9	+0·9	+0·4	+0·9	+0·9	+0·1	+0·5	+1·2	+0·6
31. Madras, Southeast	—0·5	+1·3	+0·7	+1·3	+0·6	+1·3	+0·3	+1·1	+1·3	—0·1	—0·9	+0·1	+0·5
32. Do., Deccan	—1·6	+1·3	+0·5	+1·3	—0·7	+0·6	—0·4	+2·1	+2·7	—0·6	+0·9	+2·1	+0·7
33. Do., Coast, North	—1·5	+0·3	+0·7	+0·1	—1·0	+0·1	—0·7	+1·3	+1·3	—0·9	—0·2	+0·7	0

In the following discussion the year is divided into four seasons according to the following arrangement :—

1st.—The cold weather period, including the months of January and February.

2nd.—The hot weather period, including the months of March, April and May.

3rd.—The period of the south-west monsoon rains proper, including the months of June, July, August and September.

4th.—The period of the retreating south-west monsoon, including the months of October, November and December.

I.—The cold weather period.—Weather was abnormally dry in January and the first twelve days of February. Between February 13th and 24th three depressions of the cold weather type entered India from the west and gave rise to very opportune rainfall over the greater part of northern and central India.

The combined precipitation of January and February was greatly above the normal in Assam, Bengal, Orissa, Chota Nagpur, Central India East and the Central Provinces excluding Berar, in considerable defect in Kashmir, Malabar and Madras South-east, and only slightly above or below the average elsewhere. Over the greater part of the plains of India the deviations from normal of temperature were small in amount and of opposite characters in January and February.

TABLE 20.

Division.	Departure from normal of period, January and February.		
	Maximum temperature.	Minimum temperature.	Mean temperature.
	°	°	°
Burma	—0·7	+0·7	0
Assam	—0·6	+0·9	+0·1
Bengal	—0·6	+1·1	+0·3
Bihar and Orissa	—2·1	+0·1	—1·0
United Provinces	+0·2	—0·1	+0·1
Punjab	+1·5	+0·8	+1·3
North-West Frontier Province	+0·8	+0·9	+0·9
Sind	+0·8	+1·3	+1·1
Rajputana	+1·7	+0·6	+1·1
Bombay	+0·1	—0·3	—0·1
Central India	—0·4	+0·5	+0·1
Central Provinces	—0·9	+0·5	—0·2
Hyderabad	—0·3	+0·3	0
Mysore	—0·1	+0·5	+0·2
Madras	—0·5	+0·5	0

In the Himalayas, Baluchistan and Persia the departures from the normal were irregular, and were determined by local rather than general actions.

TABLE 21.

Station.	Departure from normal of period, January and February.		
	Maximum temperature.	Minimum temperature.	Mean temperature.
	°	°	°
Aden	—1·3	+0·7	—0·3
Baghdad	—4·1	—1·2	—2·7
Bushire	—2·5	—1·9	—2·2
Tehran	—3·3	—3·2	—3·3
Ispahan	+0·7	—0·3	+0·2
Jask	+0·9	+0·5	+0·7
Muscat	+4·2	—1·3	+1·5
Chaman	+1·9	—0·5	+0·7
Quetta	+1·5	—1·6	—0·1
Cherat	+0·9	+2·6	+1·7
Murree	—0·9	+2·1	+0·6
Gilgit	+2·0	+1·1	+1·5
Srinagar	+4·1	+3·7	+3·9
Skardu	—3·9	—4·2	—4·1
Simla	+2·8	+1·7	+2·3
Leh	—2·2	—2·7	—2·5
Chakrata	+2·1	—2·5	—0·2
Mukteswar	+1·3	—0·6	+0·3
Darjiling	+0·2	+0·9	+0·5

No severe warm and cool waves were felt during the period, and the greatest cold of the year in northern India generally occurred in the last week of December, instead of in the earlier part of the year as is normally the case.

II.—The hot weather period.—During March weather was very disturbed in northern India owing to the advance from Persia of four depressions of the cold weather type. April on the other hand was remarkably dry, precipitation being either altogether wanting or lighter than usual almost everywhere. May unlike April was very wet over a large part of the country, but particularly in northern India where an early advance of monsoon winds gave widespread and in places heavy rain in the third week.

In March, temperature was lower than usual, both by day and night, in most parts of northern and central India and on the Konkan coast, owing largely to the influence of a well marked cold wave which advanced from Baluchistan

on the 17th to Upper Burma on the 25th. In April the only noteworthy feature of the temperature conditions was the prevalence of very high day temperatures over the greater part of Bengal and Bihar during the last fourteen days, unprecedentedly high maxima being recorded at Monghyr, Darbhanga and Pusa. In May both day and night temperatures were appreciably below the average from west Bihar to the east Punjab, and nearly normal almost everywhere else.

Taking the geographical averages for the whole period, March to May, the only noteworthy feature was a slight defect of temperature in Assam, the United Provinces and the Punjab, more marked by day than by night.

TABLE 22.

Division.	Departure from normal of period, March to May.		
	Maximum temperature.	Minimum temperature.	Mean temperature.
	°	°	°
Burma	+0·2	0	+0·1
Assam	—3·1	—0·7	—1 9
Bengal	—0·9	—0·8	—0·9
Bihar and Orissa	—1·5	—1·2	—1·3
United Provinces	—2·9	—2·3	—2·6
Punjab	—3·0	—1·3	—2·1
North-West Frontier Province	—0·9	—0·7	—0·8
Sind	—0·7	0	—0·3
Rajputana	—1·3	—1·8	—1·5
Bombay	—0·6	—1·4	—1·0
Central India	—2·0	—1·1	—1·5
Central Provinces	—1·1	—0·8	—0·9
Hyderabad	+0·9	0	+0·5
Mysore	+1·6	+0·8	+1·2
Madras	+0·6	+0·6	+0·6

The low temperature conditions in the plains of upper India extended northwards into Kashmir and westwards into Baluchistan and Persia: the lowness was however shown mainly in March.

TABLE 23.

Station.	Departure from normal of period, March to May.		
	Maximum temperature.	Minimum temperature.	Mean temperature.
	°	°	°
Aden	—1·8	+0·5	—0·7
Baghdad	+2·8	+0·4	+1·6
Bushire	—0·5	+0·1	—0·2
Tehran	—1·6	—1·5	—1·5
Ispahan	—2·3	—0·1	—1·2
Jask	0	—0·8	—0·4
Muscat	+6·6	—0·9	+2·9
Meshed	...	—5·5	...
Chaman	—3·2	—4·4	—3·8
Quetta	—0·4	—1·8	—1·1
Cherat	—2·1	—2·3	—2·2
Murree	—4·6	—1· 5	—3·1
Gilgit	—1·0	—2·1	—1·5
Srinagar	—2·2	—0·6	—1·4
Skardu	—2·6	—1·3	—1·9
Simla	—2·5	—3·0	—2·7
Leh	—2·4	—1·1	—1·7
Chakrata	—2·6	—3·1	—2·9
Mukteswar	—3·1	—3·4	—3·3
Darjiling	+0·2	—0·6	—0·2

The highest temperatures of the season and of the year in north-west and central India generally were observed between the 27th May and 5th June, but were by no means remarkable. At Jacobabad, usually the hottest place in India, the thermometer rose on two occasions in May to 124° which is 2° lower than the highest reading on record.

III.—The south-west monsoon period.—The monsoon rains set in on about the usual date in the coast districts, but about a fortnight before the normal time in the Punjab. The currents were on the whole more vigorous than usual in June, of average strength in July and very weak in August and September. They withdrew unusually early, in the second week of September, from the central and northern parts of the country.

The total rainfall of the period exceeded the normal only in Bengal, Bihar and Orissa, the Punjab South-west, Sind, Gujarat and Berar; while in the United Provinces West, Rajputana East and Central India East the fall was upwards of 35 per cent. in defect.

Deviations from normal of mean temperature for the period were small, in no province exceeding two degrees.

TABLE 24.

Division.	Departure from normal of period, June to September.		
	Maximum temperature.	Minimum temperature.	Mean temperature.
	°	°	°
Burma	+0·1	+0·1	+0·1
Assam	—0·4	—0·3	—0·3
Bengal	—0·5	—0·3	—0·4
Bihar and Orissa	—1·3	—0·7	—1·0
United Provinces	+1·2	—1·0	+0·1
Punjab	—1·9	—1·6	—1·7
North-West Frontier Province	—1·6	—1·0	—1·3
Sind	—0·5	+0·5	0
Rajputana	—0·3	—0·7	—0·5
Bombay	—0·3	—0·5	—0·4
Central India	+0·1	—1·0	—0·5
Central Provinces	0	—0·7	—0·3
Hyderabad	+0·5	+0·3	+0·4
Mysore	+0·5	0	+0·3
Madras	+1·1	+0·7	+0·9

In the hills surrounding upper India the departures of tempe ature were, as a rule, as small as in the neighbouring plains and did not indicate the presence of any markedly abnormal snowfall action.

TABLE 25.

Station.	Departure from normal of period, June to September.		
	Maximum temperature.	Minimum temperature.	Mean temperature
	°	°	°
Baghdad	+2·3	—0·1	+1·1
Bushire	—2·1	—1·1	—1·6
Tehran	+0·3	+0·4	+0·3
Ispahan	—1·5	+1·1	—0·2
Jask	+1·4	+1·1	+1·3
Muscat	+7·2?	+0·6	+3·9
Meshed	...	—5·8	...
Chaman	—2·0	—2·1	—2·1
Quetta	+0·7	0	+0·3
Cherat	—3·5	—2·0	—2·7
Murree	—3·4	—1·5	—2·5
Gilgit	—1·4	—3·7	—2·5
Srinagar	—0·2	—0·5	—0·3
Skardu	+0·5	—0·6	—0·1
Simla	—2·0	—0·9	—1·5
Leh	—2·9	—1·5	—2·2
Chakrata	—1·7	—1·5	—1·6
Mukteswar	—1·5	—3·6	—2·5
Darjiling	+1·2	+0·1	+0·7

IV.—The retreating south-west monsoon period.—The more noteworthy features of the weather in this period were (*a*) an abnormally early withdrawal of the monsoon current from the central parts of the country and the north of the Peninsula, and (*b*) the occurrence in northern India in the first half of December of an unusual but much needed burst of rain owing to the passage of a succession of cold weather disturbances.

The precipitation of the period as a whole was in excess of the normal in Burma, north-east India, Baluchistan, Sind, the Konkan and the south of the Peninsula, and normal or in defect elsewhere.

(*a*) On the average of the whole season the temperature conditions departed to no great extent from the normal in the plains of India.

TABLE 26.

Division.	Departure from normal of period, October to December.		
	Maximum temperature.	Minimum temperature.	Mean temperature.
	°	°	°
Burma	—1·8	+0·4	—0·7
Assam	—2·1	—0·7	—1·4
Bengal	—1·2	—0·7	—0·9
Bihar and Orissa	—1·2	—0·7	—0·9
United Provinces	+0·8	—0·4	+0·2
Punjab	—1·0	+0·8	—0·1
North-West Frontier Province	—1·8	+2·0	+0·1
Sind	—0·9	+2·0	+0·5
Rajputana	—0·3	+1·5	+0·6
Bombay	+0·8	+0·2	+0·5
Central India	+2·6	+0·6	+1·6
Central Provinces	+2·6	+0·6	+1·6
Hyderabad	+2·3	+0·7	+1·5
Mysore	+1·7	+0·6	+1·1
Madras	—0·2	+0·4	+0·1

(*b*) Temperature was rather low in the western Himalayas, but in Baluchistan and Persia the temperature conditions afforded only slight indication of the earliness of the winter actions.

TABLE 27.

Station.	Departure from normal of period, October to December.		
	Maximum temperature.	Minimum temperature.	Mean temperature.
	°	°	°
Aden	—2·3	—0·5	—1·4
Baghdad	—1·2	+1·1	—0·1
Bushire	—0·7	0	—0·3
Tehran	—3·0	+0·2	—1·4
Ispahan	—0·8	+2·0	+0·6
Jask	+0·8	+0·4	+0·6
Muscat	+6·8?	—1·3	+2·7?
Meshed	...	+1·8	...
Chaman	—0·5	—0·3	—0·4
Quetta	+0·2	+1·7	+0·9
Cherat	—3·7	—1·3	—2·5

TABLE 27—*concld.*

Station.	Departure from normal of period, October to December.		
	Maximum temperature.	Minimum temperature.	Mean temperature.
	°	°	°
Murree	—4·4	—0·4	—2·4
Gilgit	—0·5	—2·2	—1·3
Srinagar	—1·6	+0·2	—0·7
Skardu	—3·4	—2·7	—3·1
Simla	—1·1	—1·2	—1·1
Leh	—2·8	—2·1	—2·5
Chakrata	+0·1	—1·3	—0·6
Mukteswar	—3·7	—4·2	—3·9
Darjiling	+0·2	—0·7	—0·3

(*c*) A spell of cold was experienced in northern India between the 24th and 30th December, and it was during this period that most of the observing stations in north-west India registered the lowest temperatures of the year.

The year.—On the mean of all the plains stations temperature differed most from the average in March (3°), in which month unusually pronounced winter conditions prevailed in northern India. The mean temperature for the whole year departed from the normal by only —0·2°.

TABLE 28.

Month.	Departure from normal of mean temperature.
	°
January	—0·1
February	+0·5
March	—2·7
April	+0·9
May	—0·9
June	—1·5
July	—0·2
August	+0·1
September	+0·5
October	+0·8
November	—0·2
December	0
Year	—0·2

Atmospheric pressure.

Full information regarding the types of barometers in use at Indian observatories and of the methods of reducing the observations and obtaining the mean daily and monthly pressures will be found in pages 5 and 6 of the Monthly Review for January 1913.

In Table A, called Table II prior to 1907, of each Monthly Review the monthly mean daily pressure (corrected for temperature) is given in the seventh column, and the departure from the normal in the eighth column. The normal monthly mean pressure values were recalculated in 1904 for all first and second class stations, and will be found in pages 66-69 of the "Indian Meteorological Memoirs," Volume XVII. The departure data in the Monthly Reviews for the year 1913, were obtained by a comparison of the actual monthly means with these normals; the departures of the monthly pressure of all first and second class stations in 1913 are given in Table 29. The figures in the seventh and eighth columns of Table A, appended to the present Annual Summary, giving data of the mean pressure of the air and its departure from the normal for all first and second class stations, are comparable with the corresponding data of previous years published in the Annual Reports and Annual Summaries.

In the ninth column of Table A in each Monthly Review are given the mean pressures reduced to sea-level and corrected to constant gravity (Lat. 45°). These are not directly comparable with the sea-level pressure values of the years 1875-90 as given in the Annual Reports for those years, for previous to 1891 no correction was made to reduce the monthly pressure means to standard gravity.

In Table B of each Monthly Review, and also in that appended to the Annual Summary, are given the pressure data for 8 hours local time. The fourth column in that table gives the mean 8 hours pressures for the month corrected for temperature. In the fifth column are given the departures of these mean 8 hours pressures from the normal pressures.

TABLE 29.—*Departure from normal of monthly and annual mean pressure of first and second class stations in 1913.*

Division.	Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
		"	"	"	"	"	"	"	"	"	"	"	"	"
Bengal	Calcutta	+·021	+·018	—·025	—·056	—·006	+·040	—·020	—·023	+·008	+·019	+·033	+·028	+·003
United Provinces of Agra and Oudh.	Allahabad	+·037	+·011	—·010	—·039	+·007	+·045	+·029	+·009	+·019	—·003	+·043	+·021	+·014
Punjab	Lahore	+·029	+·007	—·027	—·034	—·017	+·041	+·049	+·002	+·020	+·007	+·038	+·016	+·011
Rajputana	Jaipur	+·038	—·006	—·033	—·040	—·027	+·002	+·027	+·020	+·019	+·008	+·029	+·008	+·004
Bombay	Bombay	+·027	—·010	+·003	—·014	—·030	—·029	—·003	+·025	+·030	+·014	+·022	+·023	+·005
Mysore	Bangalore	+·025	+·001	—·007	—·001	+·007	—·015	+·007	+·022	+·016	+·021	+·036	+·038	+·013
Madras	Madras	+·020	—·008	—·033	—·023	—·006	—·029	—·007	—·010	+·002	+·021	+·026	+·026	—·002
Hill stations, excluding Kashmir and Baluchistan.	Katmandu	+·025	+·026	—·038	—·006	+·042	+·076	+·063	+·020	+·042	+·036	+·058	+·030	+·031
Extra India	Seychelles	+·033	—·011	0	+·001	—·039	—·014	—·018	+·023	+·022	+·050	+·025	+·038	+·009
	Mauritius	+·021	—·032	—·066	+·052	—·001	—·039	+·026	+·025	+·013	+·005	—·002	+·013	+·001

TABLE 30.—*Departure of the mean monthly pressure from the normal in the fifteen chief political divisions of India in 1913.*

DIVISION.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
	"	"	"	"	"	"	"	"	"	"	"	"	"
Burma	+·036	+·017	—·027	—·017	+·001	+·021	—·009	—·025	+·004	+·024	+·042	+·024	+·008
Assam	+·034	+·027	—·028	—·049	+·001	+·026	+·005	—·035	+·009	+·020	+·058	+·026	+·008
Bengal	+·029	+·022	—·024	—·049	+·005	+·030	—·001	—·029	+·008	+·020	+·046	+·025	+·007
Bihar and Orissa	+·038	+·025	—·022	—·044	+·007	+·030	+·004	—·020	+·014	+·016	+·048	+·028	+·010
United Provinces	+·037	+·021	—·022	—·040	+·001	+·038	+·026	—·004	+·009	+·016	+·049	+·021	+·013
Punjab	+·040	+·019	—·030	—·031	—·007	+·048	+·049	0	+·027	+·020	+·043	+·023	+·017
North-West Frontier Province	+·021	—·013	—·054	—·047	—·032	+·025	+·034	—·019	+·013	—·003	+·022	+·005	—·004
Sind	+·030	—·002	—·011	—·039	—·028	—·007	+·010	+·003	+·038	+·021	+·032	+·014	+·005
Rajputana	+·037	+·001	—·034	—·037	—·023	—·004	+·023	+·021	+·029	+·022	+·028	+·006	+·006
Bombay	+·034	—·006	—·006	—·015	—·003	—·024	+·003	+·018	+·027	+·021	+·030	+·017	+·008
Central India	+·042	—·001	—·022	—·024	—·001	+·003	+·021	+·022	+·029	+·020	+·036	+·013	+·011
Central Provinces	+·042	+·003	—·016	—·024	—·001	—·003	+·016	+·024	+·036	+·018	+·035	+·016	+·012
Hyderabad	+·040	+·011	—·009	—·016	—·008	—·014	+·003	+·012	+·021	+·018	+·022	+·009	+·007
Mysore	+·029	+·006	—·006	—·006	+·002	—·005	—·001	+·019	+·019	+·022	+·034	+·029	+·012
Madras	+·023	—·001	—·020	—·013	0	—·012	+·002	+·011	+·017	+·023	+·033	+·025	+·007
Mean of India	+·035	+·009	—·021	—·028	—·004	+·010	+·012	+·002	+·020	+·020	+·038	+·019	+·009

I.—The cold weather period.—(*a*) Atmospheric pressure in the plains of India as a whole was above the normal by ·035″ in January and ·009″ in February.

TABLE 31.

MONTH.	Departure from normal of mean 8 hrs. pressure.
	"
January	+·035
February	+·009

In January the excess was not confined to India, but extended southwards to Mauritius and westwards to Baghdad and Aden.

TABLE 32.

STATION.	DEPARTURE OF PRESSURE FROM NORMAL.		
	January.	February.	Period, January and February.
	"	"	"
Mauritius	+·021	—·032	—·005
Seychelles	+·033	—·011	+·011
Zanzibar	+·031	—·003	+·014
Aden	+·050	—·010	+·020
Baghdad	+·068	+·007	+·037
Bushire	+·001	—·026	—·013
Jask	+·002	—·017	—·007
Muscat	+·026	—·009	+·009

The local features of the pressure distribution in the Indian plains were very feebly marked and of no significance.

TABLE 33.

Division.	Excess of pressure departure over geographical mean for India.		
	January.	February.	Period, January and February.
	"	"	"
Burma	+·001	+·008	+·005
Assam	—·001	+·018	+·009
Bengal	—·006	+·013	+·003
Bihar and Orissa	+·003	+·016	+·009
United Provinces	+·002	+·012	+·007
Punjab	+·005	+·010	+·007
North-West Frontier Province	—·014	—·012	—·018
Sind	—·005	—·011	—·008
Rajputana	+·002	—·008	—·003
Bombay	—·001	—·015	—·008
Central India	+·007	—·010	—·001
Central Provinces	+·007	—·006	+·001
Hyderabad	+·005	+·002	+·003
Mysore	—·006	—·003	—·005
Madras	—·012	—·010	—·011

The vertical gradient in north-west India was very weak in January, a month of scanty precipitation, and rather weak in February in which month the weather was more disturbed than usual.

TABLE 34.

Pair of stations.	Departure from normal of vertical pressure differences.		
	January.	February.	Period, January and February.
	"	"	"
Jacobabad and Quetta	—·025	+·004	—·011
Lahore and Leh	—·028	—·020	—·024
Peshawar and Murree	—·038	—·035	—·037
Ludhiana and Simla	—·018	—·005	—·011
Roorkee and Chakrata	—·016	—·008	—·012
Dhubri and Darjiling	+·015	+·004	+·009
Deesa and Mount Abu	—·016	—·005	—·011
Khandwa and Pachmarhi	+·011	—·011	0
Madura and Kodaikanal	+·022	+·022	+·022

II.—The hot weather period.—Pressure over the Indian plains was lower than usual, particularly in March and April.

TABLE 35.

Month.	Departure from normal of mean 8 hrs. pressure.
	"
March	—·021
April	—·028
May	—·004

The deficit of pressure in March was chiefly a result of the low density of the middle or upper atmospheric strata, while that of April in northern India occurred largely in the stratum below the level of the observing hill stations. In May the vertical distribution was characterized by much irregularity.

TABLE 36

Pair of stations.	Departure from normal of vertical pressure differences.			
	March.	April.	May.	Period, March to May.
	"	"	"	"
Jacobabad and Quetta	+·014	—·050	—·039	—·025
Lahore and Leh	+·080	+·008	—·004	+·028
Peshawar and Murree	+·022	—·029	—·019	—·009
Ludhiana and Simla	+·044	—·029	+·009	+·008
Roorkee and Chakrata	+·046	—·015	+·028	+·020
Dhubri and Darjiling	+·055	—·005	+·031	+·027
Deesa and Mount Abu	+·024	—·007	0	+·006
Khandwa and Pachmarhi	+·017	—·009	—·010	—·001
Madura and Kodaikanal	+·006	+·019	+·030	+·018

The peculiarities of the geographical distribution of pressure in the Indian plains were not marked.

TABLE 37.

Division.	Excess of pressure departure over geographical mean for India.			
	March.	April.	May.	Period, March to May.
	"	"	"	"
Burma	—·006	+·011	+·005	+·003
Assam	—·007	—·021	+·005	—·008
Bengal	—·003	—·021	+·009	—·005
Bihar and Orissa	—·001	—·016	+·011	—·002
United Provinces	—·001	—·012	+·005	—·003

Division.	Excess of pressure departure over geographical mean for India.			
	March.	April.	May.	March to May.
	"	"	"	"
Punjab	—·009	—·003	—·003	—·005
North-West Frontier Province.	—·033	—·019	—·028	—·027
Sind	+·010	—·011	—·024	—·008
Rajputana	—·013	—·009	—·019	—·014
Bombay	+·015	+·013	+·001	+·010
Central India	—·001	+·004	+·003	+·002
Central Provinces	+·005	+·004	+·003	+·004
Hyderabad	+·012	+·012	—·004	+·007
Mysore	+·015	+·022	+·006	+·014
Madras	+·001	+·015	+·004	+·007

The pressure conditions were very unsteady during the period in the Indian Ocean. During May pressure was in defect at the two equatorial stations, but was normal at Mauritius and the pressure factor was thus normal in its probable effect on the Indian monsoon. In Persia the excess which had characterized March was replaced by a decided defect in the two succeeding months.

TABLE 38.

Station.	Departure of pressure from normal.			
	March.	April.	May.	Period, March to May.
	"	"	"	"
Mauritius	—·066	+·052	—·001	—·005
Seychelles	0	+·001	—·039	—·013
Zanzibar	+·001	+·001	—·039	—·012
Aden	+·021	—·008	—·016	—·001
Baghdad	+·015	—·079	—·034	—·033
Bushire	+·038	—·020	—·015	+·001
Jask	+·006	—·066	—·057	—·039
Muscat	+·040	—·035	—·020	—·005

III.—The south-west monsoon period.—Pressure was higher than usual all through the season.

TABLE 39.

Month.	Departure from normal of mean 8 hours pressure.
	"
June	+·010
July	+·012
August	+·002
September	+·020

The excess was restricted to the Indian region in June, but embraced practically the whole monsoon area during the rest of the period.

TABLE 40.

Station.	Departure of pressure from normal.				
	June.	July.	August.	September.	Period, June to September.
	"	"	"	"	"
Mauritius	—·039	+·026	+·025	+·013	+·006
Seychelles	—·014	—·018	+·023	+·022	+·003
Zanzibar	—·007	+·016	+·027	+·005	+·010
Aden	—·007	+·029	+·028	+·046	+·024
Baghdad	—·015	+·021	+·005	—·002	+·002
Bushire	—·024	+·020	+·034	+·028	+·015
Jask	—·034	—·011	—·024	+·025	—·011
Muscat	—·011	+·004	—·007	+·018	+·001

From July to September there was a tendency for the barometer to be lower in respect to the normal in the region usually dominated by the Bay current than in the field of the Arabian Sea current. The reverse was the case in June.

TABLE 41.

Division.	Excess of pressure departure over geographical mean for India.				
	June.	July.	August.	September.	Period, June to September.
	"	"	"	"	"
Burma	+·011	—·021	—·027	—·016	—·013
Assam	+·016	—·007	—·037	—·011	—·010
Bengal	+·020	—·013	—·031	—·012	—·009
Bihar and Orissa	+·020	—·008	—·022	—·006	—·004
United Provinces	+·028	+·014	—·006	—·011	+·006
Punjab	+·038	+·037	—·002	+·007	+·020
North-West Frontier Province.	+·015	+·022	—·021	—·007	+·002
Sind	—·017	—·002	+·001	+·018	0
Rajputana	—·014	+·011	+·019	+·009	+·006
Bombay	—·034	—·009	+·016	+·007	—·005
Central India	—·007	+·009	+·020	+·009	+·008
Central Provinces	—·013	+·004	+·022	+·016	+·007
Hyderabad	—·024	—·009	+·010	+·001	—·005
Mysore	—·015	—·013	+·017	—·001	—·003
Madras	—·022	—·010	+·009	—·003	—·007

The table below shows the character of the vertical distribution.

TABLE 42.

Pair of stations.	Departure from normal of vertical pressure differences.				
	June.	July.	August.	September.	Period, June to September.
	"	"	"	"	"
Jacobabad and Quetta	—·010	+·002	+·002	+·015	+·002
Lahore and Leh	+·049	+·018	—·012	+·007	+·015
Peshawar and Murree	—·005	+·007	—·009	—·011	—·005
Ludhiana and Simla	+·028	+·008	—·011	—·004	+·005
Roorkee and Chakrata	+·037	+·003	—·009	+·005	+·009
Dhubri and Darjiling	+·044	+·037	+·023	+·034	+·035
Deesa and Mount Abu	—·017	+·001	+·011	?	?
Khandwa and Pachmarhi	—·017	—·009	+·019	+·005	—·001
Madura and Kodaikanal	+·023	+·011	+·026	+·026	+·021

IV.—The retreating south-west monsoon period.—The general excess of pressure which had characterized the period June to September persisted through the next three months.

TABLE 43.

Month.	Departure from normal of mean 8 hours pressure.
	"
October	+·020
November	+·038
December	+·019

The excess was not a local feature, but was common to practically the whole monsoon region.

TABLE 44.

Station.	Departure of pressure from normal.			
	October.	November.	December.	Period, October to December.
	"	"	"	"
Mauritius	+·005	—·002	+·013	+·005
Seychelles	+·050	+·025	+·038	+·038
Zanzibar	+·032	+·015	+·021	+·023
Aden	+·052	+·032	+·037	+·040
Baghdad	+·016	+·006	+·069	+·030
Bushire	—·009	—·014	+·017	—·002
Muscat	—·018	+·018	+·033	+·011

The local modifications of the pressure distribution were not of any significance.

The vertical distribution in north-west India in November and December was favourable for an early winter.

TABLE 45.

Pair of stations.	Departure from normal of vertical pressure differences.			
	October.	November.	December.	Period, October to December.
	"	"	"	"
Jacobabad and Quetta	+·007	+·026	+·021	+·018
Lahore and Leh	—·006	+·015	+·012	+·007
Peshawar and Murree	—·015	+·006	+·005	—·001
Ludhiana and Simla	—·004	+·024	+·036	+·019
Roorkee and Chakrata	—·001	+·023	+·034	+·019
Jalpaiguri and Darjiling	+·034	+·051	+·036	+·040
Deesa and Mount Abu	+·007	+·002	+·009	+·006
Khandwa and Pachmarhi	—·004	—·015	0	—·006
Madura and Kodaikanal	+·025	+·039	+·012	+·025

The year.—The pressure conditions were remarkably steady: thus the monthly value was in defect of the normal from March to May and in excess in the remaining nine months. For the year as a whole there was an excess of ·009″. As temperature was only a fifth of degree lower than usual it is evident that the high density of the atmosphere was not produced entirely by this circumstance.

TABLE 46.

Month.	Departure from normal of	
	Pressure.	Mean temperature.
	"	°
January	+·035	—0·1
February	+·009	+0·5
March	—·021	—2·7
April	—·028	+0·9
May	—·004	—0·9
June	+·010	—1·5
July	+·012	—0·2
August	+·002	+0·1
September	+·020	+0·5
October	+·020	+0·8
November	+·038	—0·2
December	+·019	0
Year	+·009	—0·2

The statement below shows that the high pressure conditions were not peculiar to India.

TABLE 47.

STATION.	Departure from normal of pressure.
	"
Mauritius	+·001
Seychelles	+·009
Zanzibar	+·008
Aden	+·021
Baghdad	+·006
Bushire	+·003
Muscat	+·003

On the mean of the year the vertical distribution in northern and central India did not differ appreciably from the normal.

TABLE 48.

PAIR OF STATIONS.	Departure from normal of vertical pressure differences.
	"
Jacobabad and Quetta	—·003
Lahore and Leh	+·010
Peshawar and Murree	—·010
Ludhiana and Simla	+·007
Roorkee and Chakrata	+·010
Dhubri and Darjiling	+·031?
Deesa and Mount Abu	+·003
Khandwa and Pachmarhi	—·002
Madura and Kodaikanal	+·022

Storms of the year.

BAY OF BENGAL.

No.	Month.	Date.	Greatest observed barometric depression.	Intensity of storm.	Details of storm.
1	July	16th to 21st	·35″	Moderate	This was generated slowly off the coast of Orissa, crossed inland to the south of False Point on the early morning of the 17th, and passing through the Central Provinces, the west of Central India and south Rajputana, disappeared near Jacobabad during the 21st. It was of moderate intensity and gave rise to some heavy rain in Cutch and lower Sind. The greatest force of the winds caused by it over the Bay was 9.
2	"	23rd to 28th	·4″	Considerable.	This storm was developed over the Sandheads on the 22nd and 23rd, crossed the coast near Saugor Island on the 24th, and travelling along a line joining Chaibasa, Jubbulpore, Neemuch and Mount Abu, broke up over Sind during the 28th. It was of considerable severity with an inner area of violent winds (force 10 to 12) and gave heavy rain to the south of its path.
3	July-Aug.	30th to 2nd	·45′	Severe	This appeared over the Sandheads on the 29th, and developing rapidly, travelled along a west-by-north track to the neighbourhood of Jubbulpore where it disappeared during the 2nd. It occasioned winds of hurricane violence, and there is also some evidence that it had a calm central area which passed near to the F. L. V. *Luna* at the Mutlah station on the evening of the 29th. It was noteworthy for the very heavy downpours of rain which it gave in the central parts of the Central Provinces on the 1st.
4	Aug.-Sept.	30th to 4th	·23″	Slight	This storm formed off the Orissa coast on the 29th, passed inland on the evening of the 30th, and advancing through the Central Provinces, the west of Central India and the north of Gujarat, dissipated over the high ground to the west of Sind, on the 5th. Barometrically it was shallow, but it produced some heavy rain on the southern side of its track. The strongest winds given by it over the Bay did not exceed 8 in force.

No.	Month.	Date.	Greatest observed barometric depression.	Intensity of storm.	Details of storm.
5	Octr.	13th to 16th.	·31″	Moderate	This storm originated off the north Madras coast on the 12th. At first it moved north-westwards and struck the coast south of Gopalpur on the evening of the 13th; it then recurved to north and finally to north-east and broke up almost completely during the 16th in the neighbourhood of Bogra. It was fairly well marked barometrically and occasioned widespread and locally heavy rain in north-east India and on the north Madras coast. The strongest winds recorded over the Bay were of force 8.
6	Oct.-Nov.	31st and 1st.	·15″	Moderate.	This storm apparently formed to the north of the Andaman Islands on the 30th. It travelled northwards from the vicinity of Slipper Island on the 31st to a position about 60 miles west of Diamond Island on the morning of the 1st and disappeared during the next 24 hours, presumably while crossing the coast between Akyab and Diamond Island. The strongest winds actually recorded on board vessels were of force 8.
7	Nov.	7th to 9th.	·15″	Moderate	This storm was generated on the 6th over the south of the Bay and thence travelled north-westwards towards the south Coromandel coast. On the morning of the 9th the centre lay about 100 miles east of Negapatam. According to the available information it was dissipated during the next 36 hours without changing materially in position. It was the cause of some heavy downpours of rain in the Tanjore, Trichinopoly and South Arcot districts, which breached the railway line between Coleroon and Cuddalore. The greatest force of the winds actually experienced was 7.
8	Dec.	15th and 16th.	At least ·2″	Moderate	This was formed in the extreme south of the Bay on the 14th. The centre lay in about Latitude 6½ N and Longitude 84¾ on the morning of the 15th; from here it travelled in a west-northwest direction, crossed the east coast of Ceylon to the south of Trincomalee some time during the 16th and apparently soon after broke up against the high ground of the interior. Heavy rain occurred in Ceylon previous to, and during, its passage inland causing numerous landslides and telegraphic breakdowns. Several vessels within the storm area recorded winds of force 9.

No storms were recorded over the Arabian Sea.

Winds.

The mean direction of the wind and the mean diurnal movement of the air as measured by Robinson anemometers are given for all second class stations in Table A in each Monthly Weather Review. The normal values are also stated for the sake of ready comparison. The normal data of these elements, utilized in Table A of the Monthly Review of the year 1913, will be found in a collected form in Tables XXII, XXVI and XXVII of Volume XVII of Indian Meteorological Memoirs. The mean 8 hours wind directions for each month are laid down in the first chart in each Monthly Review. They are calculated in the usual manner by finding the resultant of equal winds in the directions actually observed at 8 hours and given in Table B, in each Monthly Review. As a general rule, the mean 8 hours wind directions vary little from the mean wind directions (calculated from the 10 and 16 hours wind data) in Table A of the Monthly Reviews, but in some cases and at certain seasons of the year they differ very considerably. The normal values used in Table B have been published in Volume XVII of the Departmental Memoirs.

Hitherto the factor representing the ratio of air movement to travel of Beckley cups had in India, as in other countries, been taken as 3·0; but as in 1911 it had been generally accepted that the factor should be 2·2; the change to 2·2 was made in the Monthly Weather Review of January 1912 (see note on page 8 there).

The following is a summary of the more important features of the air movement over India for each period of the year 1913 :—

I.—The cold weather period.

(*a*) As is usually the case when the winter disturbances are comparatively feeble and rare, the rate of air movement was

low over northern India generally and above the average in Mysore and Madras.

(*b*) Throughout the season winds blew with unusual steadiness in Hyderabad, Mysore and Madras, but were very unsteady in Bengal and the United Provinces.

II.—The hot weather period.

The only noteworthy features were :—

(*a*) The rate of air motion was on the whole low in Burma, Bengal, the Indus valley and Bombay, particularly in April and May, an indication that the indraught into the interior was not so strong as usual. Similar conditions, held also in Hyderabad.

(*b*) During May there was an undue prevalence of easterly elements at the expense of the usual westerly components over the region between Gaya and Sirsa ; the deflection was associated with unusually heavy rain in the United Provinces, Central India, Rajputana and the Punjab.

(*c*) In March when the cold weather conditions were more pronounced than usual in northern India the mean direction of wind at Zanzibar was S 31° W as compared with S 27° E, the normal for the month.

(*d*) At Seychelles southeast winds prevailed in April to the almost entire exclusion of the winds from northerly directions. In this connection it may be noted that according to ship logs the southern trades appeared before their normal date over the west of the equatorial belt and were stronger than usual. Over the central portion of the belt on the other hand the northward extension of the south-east winds was much retarded. There is also some evidence that over the greater part of the western half of the belt there was more rain and the weather was more squally than is generally the case in May.

III.—The south-west monsoon period.

(*a*) The air currents were neither so strong nor so steady as usual in Burma, Bengal, Sind, Bombay, Central India and Hyderabad. The air motion was on the other hand somewhat in excess of the normal in Bihar and Orissa, Rajputana, the Central Provinces, Mysore and Madras.

(*b*) The abnormally northerly position of the axis of the trough of low pressure over the Gangetic plain in August accompanied an undue extension northwards of the Arabian Sea current :—

TABLE 49.

Station.	Wind Direction.	
	Actual.	Normal.
	°	°
Gaya	N 61 W	S 52 E
Benares	S 61 W	S 54 E
Lucknow	S 72 W	S 88 E
Bahraich	S	S 70 E
Bareilly	S 41 W	S 71 E
Roorkee	W	S 36 E
Ambala	N 63 W	S 51 E
Lahore	S 15 W	S 41 E

(*c*) Throughout the season in north-east Baluchistan the usual westerly element in the mean wind directions was either very weak or was replaced by an easterly component.

(*d*) In September the direction of movement was very unusual in several places : thus in the Konkan it was from between east and north instead of from between west-south-west and north-west which is normally the case, and in the central districts of the United Provinces, the east Punjab and at Mount Abu and Cherat it contained an undue northerly element.

The marine information available for the western half of the equatorial belt is very scanty, but shows that variable winds were much more frequent there than is ordinarily the case.

TABLE 50.

Date.	Hour.	Name of vessel.	Position.		Wind.	
			Lat.	Long.	Direction.	Force.
15th June	Noon	*S. S. City of Athens*	1·46 S.	53·32	S. S. E.	3
Ditto	4 P.M.	*Ditto*	...	...	W.	2
Ditto	8 P.M.	*Ditto*	...	...	W. S. W.	...
Ditto	Midnight	*Ditto*	...	...	N. W.	3
16th June	Noon	*Ditto*	1·45 N.	57·24	W.	3
Ditto	4 P.M.	*Ditto*	...	...	N. E.	2
Ditto	8 P.M.	*Ditto*	...	...	W. N. W.	2

TABLE 50—*contd.*

Date.	Hour.	Name of vessel.	Position.		Wind.	
			Lat.	Long.	Direction.	Force.
19th June	Noon	*S. S. Konig*	0·47 S.	58·05	S. E.	1 to 2
Ditto	4 P.M.	*Ditto*	...	...	Var.	1
Ditto	Midnight	*Ditto*	...	...	Var.	1 to 2
20th June	4 A.M.	*Ditto*	...	...	N. E.	2
Ditto	8 A.M.	*Ditto*	1·59 N.	60·33	N.	1
25th June	4 A.M.	*S. S. Ville Doran*	...	...	E.	1
Ditto	8 A.M.	*Ditto*	1·50 S.	60·06	S. W.	1
7th July	Noon	*S. S. Inveric*	1·09 S.	61·40	S. S. E.	4
Ditto	8 P.M.	*Ditto*	...	...	Var.	2
8th July	Noon	*Ditto*	0·28 S.	65·08	S. S. W.	4
Ditto	Midnight	*Ditto*	...	...	Var.	1
9th July	4 A.M.	*Ditto*	...	...	Var.	2
Ditto	8 A.M.	*Ditto*	0·04 S.	67·18	W.	2
Ditto	Noon	*Ditto*	0·01 N.	67·42	Var.	2
Ditto	Midnight	*Ditto*	...	...	Var.	1
12th July	Noon	*S. S Benin*	1·57 S.	58·38	Var.	2
Ditto	Midnight	*Ditto*	...	...	Var.	4
Ditto	Noon	*S. S. Imani*	10·26 S.	43·36	S. E.	4
Ditto	8 P.M.	*Ditto*	...	...	Var.	4 to 2
22nd July	Noon	*S. S. Umzumbi*	12·02 S.	44·49	E.	2
Ditto	4 P.M.	*Ditto*	...	...	N.	1 to 0
Ditto	8 P.M.	*Ditto*	...	...	S. E.	1
25th July	Noon	*Ditto*	1·59 S.	52·53	Var.	1 to 0
Ditto	4 P.M.	*Ditto*	...	...	N.	1
Ditto	8 P.M.	*Ditto*	...	...	S. W.	2
3rd August	Noon	*S. S. Umlazi*	3·43 S.	65·00	E.	3
Ditto	Midnight	*Ditto*	...	...	Var.	4
25th August	Noon	*S. S. Umvolosi*	1·42 N.	55·23	S.	2
Ditto	8 P.M.	*Ditto*	...	...	Var.	2
25th August	Midnight	*S. S. Umvolosi*	...	...	Var.	2
26th August	4 A.M.	*Ditto*	...	...	S. W.	2
Ditto	8 A.M.	*Ditto*	4·22 N.	58·06	N.	2
Ditto	Noon	*Ditto*	4·54 N.	58·38	N.	2
Ditto	4 P.M.	*Ditto*	...	...	S.	2
Ditto	8 P.M.	*Ditto*	...	...	N.	2
Ditto	Midnight	*Ditto*	...	...	S. W.	2

TABLE 50—*concld.*

Date.	Hour.	Name of vessel.	Position.		Wind.	
			Lat.	Long.	Direction.	Force.
5th September	Noon	*S. S. Istrar*	0·44 S.	53·46	S. E.	4
Ditto	8 P.M.	*Ditto*	...	...	Var.	2
6th September	Noon	*Ditto*	2·11 N.	56·43	S. E.	2
Ditto	4 P.M.	*Ditto*	...	...	Var.	2
Ditto	8 P.M.	*Ditto*	...	...	Var.	2
Ditto	Midnight	*Ditto*	...	...	Var.	2
15th September	Noon	*S. S. Clan Mackinnon*	2·17 S.	55·9	S. E.	1
Ditto	4 P.M.	*Ditto*	...	...	Var.	1
18th September	Noon	*S. S. Umhloti*	1·16 S.	59·55	S.	4
Ditto	8 P.M.	*Ditto*	...	...	Var.	1
Ditto	Noon	*S. S. City of Madrid*	4·18 S.	62·42	S. E.	4
Ditto	4 P.M.	*Ditto*	...	...	Var.	3
Ditto	8 P.M.	*Ditto*	...	...	E.	2
Ditto	Midnight	*Ditto*	...	...	Var.	2
19th September	4 A.M.	*Ditto*	...	...	N.	3
Ditto	8 A.M.	*Ditto*	3·18 S.	65·48	Var.	1
Ditto	Noon	*Ditto*	3·6 S.	66·24	Calm.	0
Ditto	4 P.M.	*Ditto*	...	...	Var.	1
Ditto	8 P.M.	*Ditto*	...	...	Var.	1
Ditto	Midnight	*Ditto*	...	...	Var.	1
20th September	Noon	*S. S. Umholti*	0·16 N.	67·19	N. E.	1
Ditto	8 P.M.	*Ditto*	...	...	Var.	1
Ditto	Midnight	*Ditto*	...	...	Var.	1
23rd September	4 A.M.	*S. S. Tayabi*	...	...	Var.	2
Ditto	8 A.M.	*Ditto*	1·48 S.	64·28	Var.	2
Ditto	Noon	*Ditto*	1·15 S.	64·39	Var.	2
Ditto	4 P.M.	*Ditto*	...	...	Var.	2
Ditto	8 P.M.	*Ditto*	...	...	Var.	2
Ditto	Minight	*Ditto*	...	...	Var.	2
24th September	Noon	*S. S. Clan Murray*	4·57 S.	51·49	Var.	2
Ditto	Midnight	*Ditto*	...	...	Var.	2
25th September	4 A.M.	*Ditto*	...	...	Var.	2
Ditto	8 A.M.	*Ditto*	3·23 S.	54·41	S.	2
Ditto	Noon	*Ditto*	3·4 S.	55·16	E.	2

IV.—The retreating south-west monsoon period.—The velocity of wind was greater than usual in Rajputana, Mysore and Madras, and was below the average in Bengal, Sind, Central India and Hyderabad. The degree of steadiness was distinctly low in Bengal and Central India, and high in Sind and the Central Provinces.

(*b*) There were no persistent deflections of air movement from the normal course.

Humidity.

The departure from normal of the mean monthly and annual aqueous vapour pressure and relative humidity for first and second class stations for the year 1913 are given in Tables 51 and 52. The normal values employed in the determination of the departures are given in Tables XXX and XXXIII of the Indian Meteorological Memoirs, Volume XVII. The two tables (Tables 53 and 54) give departure data of 8 hrs. aqueous vapour pressure and relative humidity for each month of the year and for the year for the fifteen chief political divisions.

TABLE 51.—*Departure of the monthly and annual mean vapour pressure data of 1913 from average of past years.*

Division.	Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
		"	"	"	"	"	"	"	"	"	"	"	"	"
Bengal	Calcutta	—·018	+·079	—·042	+·058	—·022	—·040	—·018	—·040	—·007	—·015	—·028	0	—·008
United Provinces of Agra and Oudh.	Allahabad	—·059	+·089	—·072	—·086	+·005	+·055	—·076	—·092	—·141	—·136	—·114	—·020	—·054
Punjab	Lahore	—·022	+·047	—·048	—·015	+·050	+·112	+·012	—·005	—·076	—·023	—·001	+·012	+·004
Rajputana	Jaipur	—·050	+·036	—·084	—·045	+·010	+·047	+·003	—·084	—·091	—·091	—·067	+·001	—·035
Bombay	Bombay	—·028	—·014	—·085	—·002	+·002	—·012	—·011	—·031	—·015	—·001	—·025	—·012	—·019
Mysore	Bangalore	—·020	+·041	—·051	—·019	—·028	—·015	+·008	—·029	—·012	—·019	—·052	+·007	—·016
Madras	Madras	—·027	+·075	—·024	+·006	—·022	—·031	—·002	—·088	+·011	—·009	+·003	+·039	—·006
Hill Stations, excluding Kashmir and Baluchistan.	Katmandu	—·003	+·018	—·043	—·049	—·062	—·027	—·022	—·018	—·017	—·012	—·046	—·018	—·025
Extra India	Seychelles	—·045	—·001	—·018	+·007	—·004	+·010	—·001	—·023	—·032	—·032	—·028	0	—·0
	Mauritius	+·002	+·024	—·004	—·040	+·012	+·020	—·038	+·009	+·004	+·017	—·015	+·001	—·00

TABLE 52.—*Departure of the monthly and annual mean relative humidity data of 1913 from the average of past years.*

Division.	Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
Bengal	Calcutta	— 6	+ 8	— 3	+ 1	0	+ 4	— 1	— 3	— 3	— 3	— 2	— 2	— 1
United Provinces of Agra and Oudh.	Allahabad	— 9	+11	0	— 8	+ 4	+12	— 7	—10	—14	—17	—14	— 6	— 5
Punjab	Lahore	—11	+ 9	+ 1	— 2	+ 6	+11	+ 4	— 2	— 4	— 1	+ 1	+ 5	+ 1
Rajputana	Jaipur	—13	+ 4	— 6	— 6	+ 3	+ 4	— 1	—14	—13	—13	—11	0	— 5
Bombay	Bombay	— 3	— 1	— 3	+ 1	— 2	0	0	— 5	— 3	— 2	— 1	— 1	— 2
Mysore	Bangalore	0	+ 5	— 6	— 3	— 3	— 1	+ 3	— 4	— 5	— 2	— 7	— 3	— 2
Madras	Madras	— 4	+ 3	— 4	— 3	— 2	— 6	— 2	—12	— 3	— 1	0	+ 1	— 3
Hill Stations, excluding Kashmir and Baluchistan.	Katmandu	— 1	+ 5	— 2	—10	— 5	0	— 5	— 3	— 3	— 3	— 1	+ 1	— 2
Extra India	Seychelles	— 6	— 4	— 3	— 1	— 7	— 2	+ 1	— 4	— 5	— 5	— 4	— 2	— 3
	Mauritius	+ 5	+ 3	0	— 2	+ 2	+ 3	— 1	+ 1	+ 2	+ 3	— 1	0	+ 1

TABLE 53.—*Departure of the mean monthly aqueous vapour pressure from the normal in the fifteen chief political divisions of India in 1913.*

DIVISION.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
	"	"	"	"	"	"	"	"	"	"	"	"	"
Burma	+·004	+·002	—·017	—·039	—·044	—·019	—·013	—·001	—·016	—·008	+·005	+·013	—·011
Assam	—·001	+·019	—·036	—·005	—·050	—·024	—·019	—·007	—·013	—·003	—·052	+·001	—·016
Bengal	—·008	+·039	—·052	+·023	—·055	—·039	—·017	—·021	—·006	—·009	—·047	—·005	—·016
Bihar and Orissa	—·031	+·057	—·018	—·016	—·051	—·004	—·011	—·030	+·003	+·003	—·032	+·016	—·009
United Provinces	—·036	+·059	—·032	—·067	+·004	+·025	—·038	—·070	—·098	—·057	—·077	—·004	—·033
Punjab	—·036	+·021	—·056	—·066	—·008	+·055	—·001	—·040	—·082	—·022	—·012	+·021	—·019
North-West Frontier Province	—·021	+·007	—·076	—·065	—·047	—·011	—·011	—·043	—·049	+·039	+·034	+·028	—·018
Sind	+·025	+·010	—·079	+·077	+·070	+·062	+·037	—·025	+·021	+·127	+·065	+·054	+·037
Rajputana	—·061	+·015	—·083	—·064	—·052	—·001	—·027	—·079	—·073	—·058	—·082	+·010	—·046
Bombay	—·037	—·001	—·066	+·012	+·014	+·008	+·011	—·019	—·006	—·024	—·054	+·047	—·010
Central India	—·033	+·082	—·040	—·003	+·029	+·036	0	—·051	—·067	—·109	—·083	+·005	—·019
Central Provinces	—·065	+·065	—·081	—·102	—·018	+·010	—·015	—·062	—·063	—·107	—·089	—·008	—·045
Hyderabad	—·072	+·022	—·141	—·030	+·035	—·024	0	—·049	—·057	—·082	—·072	+·038	—·036
Mysore	—·027	+·023	—·049	+·013	+·009	—·011	+·001	—·021	—·011	—·040	—·050	+·023	—·012
Madras	—·032	+·034	—·013	+·011	+·005	—·008	+·003	—·024	—·001	—·016	—·032	+·030	—·004
Mean of India	—·032	+·031	—·052	—·028	—·013	+·005	—·008	—·037	—·037	—·033	—·044	+·017	—·019

TABLE 54.—*Departure of the mean monthly and annual relative humidity from the normal in the fifteen chief political divisions of India in 1913.*

DIVISION.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
Burma	0	+ 1	+ 1	— 4	— 4	— 1	— 1	0	— 1	+ 1	+ 4	+ 1	0
Assam	— 2	+ 1	— 1	+ 2	— 2	— 1	— 1	— 1	— 1	— 1	— 4	0	— 1
Bengal	0	+ 6	— 1	+ 1	— 1	+ 2	— 2	— 2	— 1	+ 1	— 1	+ 2	0
Bihar and Orissa	0	+10	+ 3	— 4	+ 1	+ 6	— 2	— 1	+ 1	+ 3	+ 2	+ 4	+ 2
United Provinces	— 6	+ 8	+ 3	— 6	+ 7	+ 5	— 6	—10	—11	—11	—12	— 3	— 3
Punjab	—11	+ 3	— 1	— 7	+ 4	+ 9	+ 3	— 3	— 7	— 3	— 1	+ 6	— 1
North-West Frontier Province	— 9	+ 1	— 7	— 5	— 3	+ 3	+ 2	0	0	+ 5	+ 9	+ 8	0
Sind	— 1	0	— 9	+ 6	+ 3	+ 3	+ 2	0	+ 4	+12	+ 7	+ 9	+ 3
Rajputana	—10	+ 3	— 6	— 3	+ 3	+ 3	0	— 4	— 6	— 9	—12	+ 1	— 3
Bombay	0	0	— 6	+ 3	0	+ 3	+ 2	— 2	— 1	— 2	— 7	+ 7	0
Central India	— 2	+13	+ 3	— 1	+ 7	+ 7	+ 1	— 3	— 6	—15	—11	— 1	— 1
Central Provinces	— 6	+ 8	— 6	—10	+ 1	+ 4	— 1	— 6	— 8	—14	—14	— 2	— 5
Hyderabad	— 6	+ 2	—15	— 8	+ 2	0	+ 3	— 5	— 7	— 9	— 9	0	— 4
Mysore	+ 1	+ 3	— 5	+ 2	+ 1	— 1	+ 3	— 1	— 2	— 3	— 8	0	— 1
Madras	0	+ 2	— 1	0	+ 1	— 1	+ 1	— 4	— 2	0	— 3	+ 2	0
Mean of India	— 4	+ 4	— 3	— 3	+ 1	+ 3	0	— 3	— 4	— 4	— 5	+ 2	— 1

I.—The cold weather period.—(*a*) In the plains the humidity, both absolute and relative, was in general above the normal in February and in defect in January. The abnormalities were thus related directly to the character of the precipitation. The hygrometric conditions for the period as a whole did not depart to any important extent from the normal.

TABLE 55.

Division.	Departure of mean 8 hrs. vapour pressure from normal.			Departure of mean 8 hrs. relative humidity from normal.		
	January.	February.	Period, January and February.	January.	February.	Period, January and February.
	"	"	"			
Burma . .	+·004	+·002	+·003	0	+ 1	+ 1
Assam . .	−·001	+·019	+·009	− 2	+ 1	− 1
Bengal . .	−·008	+·039	+·015	0	+ 6	+ 3
Bihar and Orissa	−·031	+·057	+·013	0	+10	+ 5
United Provinces	−·036	+·059	+·011	− 6	+ 8	+ 1
Punjab . .	−·036	+·021	−·007	−11	+ 3	− 4
North-West Frontier Province.	−·021	+·007	−·007	− 9	+ 1	− 4
Sind . .	+·025	+·010	+·017	− 1	+ 0	− 1
Rajputana .	−·061	+·015	−·023	−10	+ 3	− 3
Bombay . .	−·037	−·001	−·019	0	0	0
Central India .	−·033	+·082	+·025	− 2	+13	+ 5
Central Provinces	−·065	+·065	0	− 6	+ 8	+ 1
Hyderabad .	−·072	+·022	−·025	− 6	+ 2	− 2
Mysore . .	−·027	+·023	−·002	+ 1	+ 3	+ 2
Madras . .	−·032	+·034	+·001	0	+ 2	+ 1

(*b*) In Persia and Baluchistan the quantity of vapour in the air was in slight defect in both months, while the relative humidity was either normal or in excess. In the hill districts of northern India the conditions were variable.

TABLE 56.

Station.	Departure of mean 8 hrs. vapour pressure from normal.			Departure of mean 8 hrs. relative humidity from normal.		
	January.	February.	Period, January and February.	January.	February.	Period, January and February.
	"	"	"			
Aden . .	−·028	+·035	+·003	− 2	+ 3	+ 1
Baghdad . .	−·005	−·036	−·021	+ 4	+ 5	+ 5
Bushire . .	+·013	−·010	+·001	+10	+ 9	+ 9
Ispahan . .	−·011	−·027	−·019	+ 1	−11	− 5
Jask . .	−·020	−·068	−·044	− 3	− 2	− 3
Muscat . .	−·020	−·028	−·024	− 2	− 1	− 1
Chaman . .	−·011	−·002	−·007	− 8	+ 7	− 1
Quetta . .	−·005	−·020	−·013	− 2	+ 3	+ 1
Cherat . .	−·037	−·005	−·021	−22	− 3	−13
Murree . .	−·013	+·017	+·002	−13	+ 2	− 5
Gilgit . .	−·026	−·009	−·017	− 8	− 8	− 8
Srinagar . .	−·003	+·010	+·003	− 8	− 7	− 7
Skardu . .	...	...	...	− 6	− 7	− 7
Dras . .	...	...	...	...	− 5	...
Simla . .	−·017	+·012	−·003	−12	+ 6	− 3
Leh . . .	+·009	+·023	+·016	+14	+20	+17
Chakrata . .	+·014	+·007	+·011	− 3	+ 2	− 1
Mukteswar .	...	...	...	− 9	+ 6	− 1
Darjiling . .	+·022	+·003	+·013	+ 3	− 1	+ 1
Maymyo . .	...	...	...	+ 8	+ 8	+ 8
Pachmarhi .	−·026	+·065	+·019	+12	+19	+15
Mount Abu .	−·021	+·018	+·013	− 6	+ 9	+ 1
Kodaikanal .	...	...	...	− 2	+ 3	+ 1

II.—The hot weather period.—(*a*) Over northern and central India generally the absolute humidity of the air was in defect throughout the season, while the relative humidity varied irregularly from the normal from month to month. In the Peninsula the air was drier than usual in both respects during March, but in April and May the conditions were very nearly normal.

TABLE 57.

Division.	Departure of mean 8 hrs. vapour pressure from normal.				Departure of mean 8 hrs. relative humidity from normal.			
	March.	April.	May.	Period, March to May.	March.	April.	May.	Period, March to May.
	"	"	"	"				
Burma	—·017	—·039	—·044	—·033	+ 1	— 4	— 4	— 2
Assam	—·036	—·005	—·050	—·030	— 1	+ 2	— 2	0
Bengal	—·052	+·023	—·055	—·028	— 1	+ 1	— 1	0
Bihar and Orissa	—·018	—·016	—·051	—·028	+ 3	— 4	+ 1	0
United Provinces	—·032	—·067	+·004	—·032	+ 3	— 6	+ 7	+ 1
Punjab	—·056	—·066	—·008	—·043	— 1	— 7	+ 4	— 1
North-West Frontier Province	—·076	—·065	—·047	—·063	— 7	— 5	— 3	— 5
Sind	—·079	+·077	+·070	+·023	— 9	+ 6	+ 3	0
Rajputana	—·083	—·064	—·052	—·066	— 6	— 3	+ 3	— 2
Bombay	—·066	+·012	+·014	—·013	—	+ 3	0	— 1
Central India	—·040	—·003	+·029	—·005	+ 3	— 1	+ 7	+ 3
Central Provinces	—·081	—·102	—·018	—·067	— 6	—10	+ 1	— 5
Hyderabad	—·141	—·030	+·035	—·045	—15	— 8	+ 2	— 7
Mysore	—·049	+·013	+·009	—·009	— 5	+ 2	+ 1	— 1
Madras	—·013	+·011	+·005	+·001	— 1	0	+ 1	0

(*b*) In the Himalayan region as well as in Baluchistan and Persia the distribution of humidity was characterized by much irregularity—an indication that no general action was in operation.

TABLE 58.

Station.	Departure of mean 8 hrs. vapour pressure from normal.				Departure of mean 8 hrs. relative humidity from normal.			
	March.	April.	May.	Period, March to May.	March.	April.	May.	Period, March to May.
Aden	—·037″	+·009″	+·032″	+·001″	— 2	+ 3	+ 2	+ 1
Baghdad	—·093	—·025	—·095	—·071	—13	— 4	—14	—10
Bushire	—·024	+·112	+·238	+·109	+ 9	+12	+17	+13
Tehran	—·053	+·010	+·036	—·002	— 1	—15	+ 8	— 3
Ispahan	—·096	—·068	—·052	—·072	—14	+ 2	— 4	— 5
Jask	—·151	—·153	—·044	—·116	— 9	+ 3	+ 5	0
Muscat	—·101	—·067	—·034	—·067	— 7	— 8	— 8	— 8
Chaman	—·088	+·013	+·018	—·019	+ 1	— 2	+ 2	0
Quetta	—·053	—·042	—·013	—·036	+ 7	+ 3	+ 5	+ 5
Cherat	—·073	—·050	—·003	—·042	—12	— 6	+ 2	— 5
Murree	—·040	—·027	+·008	—·020	0	— 2	+ 7	+ 2
Gilgit	—·042	+·031	+·043	+·011	— 8	+10	+ 1	+ 1
Srinagar	—·044	—·026	—·017	—·029	— 8	— 3	— 3	— 5
Skardu	...	...	...	...	— 7	+ 8	—13	— 4
Dras	...	...	...	...	— 5	—12	— 6	— 8
Simla	—·023	—·014	+·009	—·009	+ 1	— 1	+ 8	+ 3
Leh	+·001	+·021	0	+·007	+ 8	+10	— 2	+ 5
Chakrata	0	—·003	+·033	+·010	+ 8	0	+14	+ 7
Mukteswar	...	...	...	...	0	— 6	+14	+ 3
Darjiling	—·039	—·004	—·037	—·027	— 4	— 5	— 5	— 5
Maymyo	...	...	...	...	+10	— 2	— 4	+ 1
Pachmarhi	+·004	—·010	+·024	+·006	+ 9	0	+ 5	+ 5
Mount Abu	—·037	+·018	—·003	—·007	0	+ 2	+ 2	+ 1
Kodaikanal	...	...	...	...	+ 1	+ 7	+ 4	+ 4

III.—The south-west monsoon period.—(*a*) On the whole the amount of vapour held in the air was up to the normal during June and July, and was deficient in the second-half of the period. Over the greater part of the country the distribution of the relative humidity conformed to that of the absolute humidity.

These abnormal features were parallel with those of rainfall over a large part of the country.

TABLE 59.

Division.	Departure of mean 8 hrs. vapour pressure from normal.					Departure of mean 8 hrs. relative humidity from normal.				
	June.	July.	August.	September.	Period, June to September.	June.	July.	August.	September.	Period, June to September.
	"	"	"	"	"					
Burma	—·019	—·013	—·001	—·016	—·012	— 1	— 1	0	— 1	— 1
Assam	—·024	—·019	—·007	—·013	—·016	— 1	— 1	— 1	— 1	— 1
Bengal	—·039	—·017	—·021	—·006	—·021	+ 2	— 2	— 2	— 1	— 1
Bihar and Orissa	—·004	—·011	—·030	+·003	—·011	+ 6	— 2	— 1	+ 1	+ 1
United Provinces	+·025	—·038	—·070	—·098	—·045	+ 5	— 6	—10	—11	— 5
Punjab	+·055	—·001	—·040	—·082	—·017	+ 9	+ 3	— 3	— 7	+ 1
North-West Frontier Province	—·011	—·011	—·043	—·049	—·029	+ 3	+ 2	0	0	+ 1
Sind	+·062	+·037	—·025	+·021	+·024	+ 3	+ 2	0	+ 4	+ 2
Rajputana	—·001	—·027	—·079	—·073	—·045	+ 3	0	— 4	— 6	— 2
Bombay	+·008	+·011	—·019	—·006	—·001	+ 3	+ 2	— 2	— 1	+ 1
Central India	+·036	0	—·051	—·067	—·021	+ 7	+ 1	— 3	— 6	0
Central Provinces	+·010	—·015	—·062	—·063	—·033	+ 4	— 1	— 6	— 8	— 3
Hyderabad	—·024	0	—·049	—·057	—·033	0	+ 3	— 5	— 7	— 2
Mysore	—·011	+·001	—·021	—·011	—·011	— 1	+ 3	— 1	— 2	0
Madras	—·008	+·003	—·024	—·001	—·007	— 1	+ 1	— 4	— 2	— 1

(*b*) Similar conditions prevailed at the level of the hill stations in northern India as well as in the greater part of the plateau area to the west of upper India.

TABLE 60.

Station.	Departure of mean 8 hrs. vapour pressure from normal.					Departure of mean 8 hrs. relative humidity from normal.				
	June.	July.	August.	September.	Period, June to September.	June.	July.	August.	September.	Period, June to September.
	"	"	"	"	"					
Aden	+·005	+·062	+·028	+·024	+·030	0	+ 2	0	+ 6	+ 2
Baghdad	—·162	—·196	—·203	—·129	—·173	—14	—11	—11	—10	—11
Bushire	+·136?	+·142?	—·020	+·145?	+·101?	+16?	+16?	+10?	+16?	+15?
Tehran	+·015	+·050	+·077	+·008	+·037	0	+ 4	+11	+10	+ 6
Ispahan	—·104	—·060	—·129	—·042	—·084	—10	— 7	—11	— 1	— 7
Jask	+·007	—·048	—·120	—·084	—·061	+ 3	+ 3	— 3	+ 2	+ 1
Muscat	+·065	—·114	+·037	—·064	—·019	+ 4	— 4	— 8	—11	— 5
Chaman	+·059	+·036	+·038	—·021	+·028	+12	+ 8	+13	+13	+11
Quetta	—·017	0	—·069	—·049	—·034	+ 6	+ 8	0	+ 5	+ 5
Cherat	—·032	+·051	—·010	—·102	—·023	+ 2	+ 9	— 1	—11	0
Murree	+·023	—·006	—·024	—·056	—·016	+14	+ 6	— 2	— 7	+ 3
Gilgit	+·094	+·067	+·032	+·018	+·053	+11	+ 6	+ 7	+ 7	+ 8
Gulmarg	...	...	...	...	...	— 6	— 8	— 5	— 4	— 6
Srinagar	—·050	—·054	—·079	—·079	—·065	— 5	—10	—11	—10	— 9
Skardu	...	...	...	...	...	—13	—13	— 5	— 8	—10
Dras	...	...	...	...	...	— 4	— 1	— 1	+ 2	— 1
Simla	+·031	—·015	—·029	—·058	—·018	+13	+ 1	— 3	— 9	+ 1
Leh	+·005	—·016	—·021	—·022	—·013	+ 3	— 1	— 6	— 4	— 2
Chakrata	+·029	—·023	—·005	—·031	—·007	+15	0	— 1	— 7	+ 2
Mukteswar	...	...	...	...	...	+18	— 1	— 6	—13	— 1
Darjiling	—·017	—·006	+·016	—·010	—·004	— 1	— 4	0	— 2	— 2
Maymyo	...	...	...	...	...	+ 3	+ 7	+ 4	+ 2	+ 4
Pachmarhi	+·041	+·001	—·034	—·018	—·003	+10	+ 3	— 1	— 2	+ 3
Mount Abu	+·037	—·002	—·008	—·076	—·012	+ 2	— 1	+ 3	—26	— 5
Kodaikanal	...	...	...	...	...	— 1	0	— 6	— 2	— 2

IV.—The retreating south-west monsoon period.—On the average of the period the air was appreciably drier than usual, both absolutely and relatively, in the United Provinces, Rajputana, Central India, the Central Provinces and Hyderabad, and was unusually damp in the North-West Frontier Province and Sind.

TABLE 61.

Division.	Departure of mean 8 hrs. vapour pressure from normal.				Departure of mean 8 hrs. relative humidity from normal.			
	October.	November.	December.	Period, October to December.	October.	November.	December.	Period, October to December.
	"	"	"	"				
Burma	—·008	+·005	+·013	+·003	+ 1	+ 4	+ 1	+ 2
Assam	—·003	—·052	+·001	—·018	— 1	— 4	0	— 2
Bengal	—·009	—·047	—·005	—·020	+ 1	— 1	+ 2	+ 1
Bihar and Orissa	+·003	—·032	+·016	—·004	+ 3	+ 2	+ 4	+ 3
United Provinces	—·057	—·077	—·004	—·046	—11	—12	— 3	— 9
Punjab	—·022	—·012	+·021	—·004	— 3	— 1	+ 6	+ 1
North-West Frontier Province	+·039	+·034	+·028	+·034	+ 5	+ 9	+ 8	+ 7
Sind	+·127	+·065	+·054	+·082	+12	+ 7	+ 9	+ 9
Rajputana	—·058	—·082	+·010	—·043	— 9	—12	+ 1	— 7
Bombay	—·024	—·054	+·047	—·010	— 2	— 7	+ 7	— 1
Central India	—·109	—·083	+·005	—·062	—15	—11	— 1	— 9
Central Provinces	—·107	—·089	—·008	—·068	—14	—14	— 2	—10
Hyderabad	—·082	—·072	+·038	—·039	— 9	— 9	0	— 6
Mysore	—·040	—·050	+·023	—·022	— 3	— 8	0	— 4
Madras	—·016	—·032	+·030	—·006	0	— 3	+ 2	0

There was nothing strikingly abnormal in the hygrometric conditions of the Himalayan region, but in Baluchistan the relative humidity was decidedly high, although the vapour pressure was nearly normal. Further west in Persia the departures from normal of humidity were irregular.

TABLE 62.

Station.	Departure of mean 8 hrs. vapour pressure from normal.				Departure of mean 8 hrs. relative humidity from normal.			
	October.	November.	December.	Period, October to December.	October.	November.	December.	Period, October to December.
	"	"	"	"				
Aden	+·014	—·016	+·023	+·007	+ 4	+ 1	+ 2	+ 2
Baghdad	—·048	+·050	—·024	—·007	— 4	+13	+ 3	+ 4
Bushire	+·053?	+·014?	+·022?	+·030?	+10?	+10?	+ 8?	+ 9?
Tehran	+·066?	+·031?	+·007?	+·035?	+19?	+14?	+11?	+15?
Ispahan	+·012	—·019	—·012	—·006	+ 2	+ 2	+ 2	+ 2
Jask	—·040	—·052	—·043	—·045	+ 5	+ 1	— 1	+ 2
Muscat	—·045	—·104	—·057	—·069	— 8	— 8	— 3	— 6
Chaman	+·051	—·011	+·013	+·018	+18	+21	+16	+18
Quetta	+·036	+·007	+·001	+·015	+20	+24	+10	+18
Cherat	+·018	+·013	+·012	+·014	+ 5	+ 8	+ 7	+ 7
Murree	+·003	+·023	+·014	+·013	+ 2	+12	+10	+ 8
Gilgit	+·059	—·019	+·010	+·017	+11	— 5	+ 4	+ 3
Srinagar	—·036	—·014	—·009	—·020	—14	— 6	— 7	— 9
Skardu	...	...	...	...	—15	—13	?	?
Simla	—·016	—·013	+·005	—·008	— 5	— 1	+ 5	0
Leh	—·027	—·041	0	—·023	—14	—22	— 1	—12
Chakrata	—·026	—·033	0	—·020	— 1	— 1	+ 5	+ 1
Mukteswar	...	...	...	...	+ 4	+ 4	+13	+ 7
Darjiling	+·012	—·039	—·007	—·011	+ 1	— 9	— 5	— 4
Maymyo	...	...	...	...	+ 6	+10	+ 7	+ 8
Pachmarhi	—·023	—·037	—·010	—·023	— 4	— 7	— 1	— 4
Mount Abu	+·001	—·014	+·023	+·003	— 3	— 4	+ 6	0
Kodaikanal	...	...	...	...	+ 3	+ 5	+13	+ 7

The Year.—On the average of the whole year the 8 hrs. relative humidity in the plains of India was in slight defect, a result mainly of the deficiency in the amount of aqueous vapour the pressure of which was ·019″ below the normal. The dryness was remarkably persistent, for the vapour pressure was more or less deficient in all the months with the exception of February, June and December: it was most pronounced in March in the last three weeks of which month unusually dry weather prevailed over the greater part of the country.

A comparison of the monthly departures with the corresponding rainfall data shows that the abnormalities of the two elements were fairly similar during the greater part of the year.

TABLE 63.

—	Departure from normal of the Indian area.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
Vapour pressure at 8 hrs.	—·032	+·031	—·052	—·028	—·013	+·005	—·008	—·037	—·037	—·033	—·044	+·017	—·019
Relative humidity at 8 hrs.	—4	+4	—3	—3	+1	+3	0	—3	—4	—4	—5	+2	—1
Rainfall (percentage departure)	—89	+135	+20	—30	+20	+23	—2	—16	—26	+6	+11	+67	—2
Mean temperature	—0·1	+0·5	—2·7	+0·9	—0·9	—1·5	—0·2	+0·1	+0·5	+0·8	—0·2	0	—0·2

The largest defect of humidity, occurred in the United Provinces, Rajputana, Hyderabad and the Central Provinces, all of which, excepting the Central Provinces, were characterized by a marked deficiency of rainfall.

Cloud.

Normal values of the mean monthly and annual amount of cloud at first and second class stations have been obtained from the whole of the available data up to the end of the year 1899, given in Tables XXXV and XXXVI of the Indian Meteorological Memoirs, Volume XVII. These means are the arithmetical averages of the cloud amounts as registered at 10 and 16 hrs., and hence represent the mean amount during the day period rather than of the whole 24 hours.

Departure data of this element of meteorological observation for first and second class stations for the year 1913 are given in Table 64. Table 65 gives the departures of the 8 hrs. cloud for the fifteen chief political provinces of India.

TABLE 64.—*Departure of the monthly and annual mean cloud amount of 1913 from the average of past years.*

Division.	Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
Bengal	Calcutta	—1·0	+0·9	—0·6	—1·1	—0·6	+1·2	+0·2	—0·4	+0·1	—0·3	+0·3	+0·3	—0·1
United Provinces of Agra and Oudh.	Allahabad	—1·8	+1·5	—0·2	—0·4	+0·4	+1·0	—1·0	0	—1·4	—0·7	—1·2	+1·0	—0·2
Punjab	Lahore	—1·7	+1·1	—0·8	—0·2	—0·5	—1·6	—0·8	—1·0	—1·0	+0·1	+0·2	+1·0	—0·4
Rajputana	Jaipur	—2·2	+1·6	—1·2	—0·4	+0·6	+0·2	—0·6	—1·3	0	+0·5	—0·6	—0·1	—0·3
Bombay	Bombay	—0·4	—0·1	—0·6	+0·7	+0·6	+0·4	—0·6	—0·7	—0·4	0	—0·3	—0·7	—0·2
Madras	Madras	—0·4	—0·1	—0·9	—1·3	—1·2	—0·9	—0·4	—0·8	—1·2	+0·1	+0·8	0	—0·5
Hill Stations, excluding Kashmir and Baluchistan.	Katmandu	—1·4	+0·8	+0·4	—2·1	+0·9	+0·8	—0·1	+0·8	—0·6	—0·9	—1·6	+0·3	—0·2
Extra India	Seychelles	—0·7	—0·6	0	+0·2	—0·4	—1·0	+0·8	—0·9	—1·5	—0·3	—0·9	—0·2	—0·5
	Mauritius	+2·0	+0·8	—0·3	+1·1	+0·3	+0·7	—0·1	0	+0·6	—0·5	—0·4	+0·8	+0·4

TABLE 65.—*Departure of the mean monthly and annual cloud amount from normal in the fifteen chief political divisions of India in 1913.*

DIVISION.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
Burma	+1·2	+0·6	+0·9	—0·6	—0·5	0	+0·1	+0·2	+0·3	+1·0	+1·4	+0·8	+0·5
Assam	—0·3	+0·2	—0·7	+0·1	—1·2	—1·1	—1·5	—1·2	—1·3	—1·1	—1·4	+1·1	—0·7
Bengal	+0·4	+0·9	—0·3	—0·3	—0·5	+0·7	—0·8	—0·7	—0·5	—0·5	0	+1·0	—0·1
Bihar and Orissa	—0·9	+1·3	—0·4	—0·9	—0·1	+0·5	—1·1	—0·7	—0·9	—0·4	+0·1	+0·7	—0·2
United Provinces	—1·3	+1·0	—0·3	—0·5	+0·8	—0·4	—2·1	—1·9	—1·8	—0·2	—0·3	+0·7	—0·5
Punjab	—2·0	+0·7	—0·5	+0·4	+0·3	+0·2	0	—0·7	—1·2	+0·1	+0·1	+0·2	—0·2
North-West Frontier Province	—0·7	+1·3	—0·9	+0·7	—0·5	+0·2	—0·1	—0·1	—0·3	+0·9	—0·2	+0·3	+0·1
Sind	—1·3	+1·2	—0·6	+0·3	—0·6	—0·3	—1·3	—0·5	—0·5	—0·4	—0·8	—0·8	—0·5
Rajputana	—2·1	+0·6	—1·3	—0·8	+0·2	—0·8	—1·0	—1·7	—0·2	+0·3	—0·4	—0·3	—0·6
Bombay	—0·2	+0·6	—0·8	+0·3	+0·2	+0·2	—0·6	—0·4	—0·8	+0·4	+0·2	+0·5	0
Central India	—0·7	+2·5	—0·5	+0·1	+0·7	+0·5	—0·6	—0·9	—0·7	+0·1	—0·7	+0·6	0
Central Provinces	+0·2	+1·9	—0·6	—0·3	+0·6	+0·2	—0·6	—1·2	—1·6	0	+0·2	+0·4	—0·1
Hyderabad	—0·7	+0·5	—0·7	—1·4	+0·3	—0·1	0	—1·9	—1·4	—0·5	+0·4	+1·2	—0·4
Mysore	—0·1	+0·4	—0·3	—0·8	—0·5	—0·5	+0·3	—0·8	—1·0	0	—1·3	+1·1	—0·3
Madras	+0·6	+0·6	—0·3	—0·5	—0·4	—0·4	—0·5	—0·9	—0·9	+0·1	+0·4	+0·9	—0·1
Mean of India	—0·5	+0·9	—0·4	—0·3	0	—0·1	—0·7	—0·9	—0·8	+0·1	+0·1	+0·6	—0·2

I.—The cold weather period.—The cloud proportion for the period was high in Burma, Bengal, Central India, the Central Provinces and Madras, and low in the Punjab and Rajputana.

TABLE 66.

DIVISION.	DEPARTURE OF MEAN 8 HOURS CLOUD AMOUNT FROM NORMAL.		
	January.	February.	Period, January and February.
Burma	+1·2	+0·6	+0·9
Assam	—0·3	+0·2	—0·1
Bengal	+0·4	+0·9	+0·7
Bihar and Orissa	—0·9	+1·3	+0·2
United Provinces	—1·3	+1·0	—0·1
Punjab	—2·0	+0·7	—0·7
North-West Frontier Province	—0·7	+1·3	+0·3
Sind	—1·3	+1·2	—0·1
Rajputana	—2·1	+0·6	—0·7
Bombay	—0·2	+0·6	+0·2
Central India	—0·7	+2·5	+0·9
Centra Provinces	+0·2	+1·9	+1·1
Hyderabad	—0·7	+0·5	—0·1
Mysore	—0·1	+0·4	+0·1
Madras	+0·6	+0·6	+0·6

In Persia there was more cloud than usual, both in January and February, while in Baluchistan and the hill districts

of northern India, the sky was unusually free from cloud in January and covered to more than the customary extent in February.

TABLE 67.

Station.	Departure of mean 8 hours cloud amount from normal.		
	January.	February.	Period, January and February.
Aden	−0·7	+0·9	+0·1
Baghdad	+3·6	+1·7	+2·7
Bushire	+0·2	...	...
Tehran	+1·2	0	+0·6
Ispahan	−0·2	−0·6	−0·4
Jask	+1·5	+2·5	+2·0
Muscat	+1·4	+4·0	+2·7
Meshed	...	+1·4	...
Chaman	−1·8	0	−0·9
Quetta	−0·4	+0·3	−0·1
Cherat	−0·9	+2·2	+0·7
Murree	−0·3	+1·9	+0·8
Gilgit	−1·7	−1·8	−1·7
Srinagar	−0·3	+1·1	+0·4
Simla	−0·8	+0·8	0
Leh	+0·5	+1·7	+1·1
Chakrata	−1·9	+0·8	−0·5
Darjiling	−1·1	−0·3	−0·7
Pachmarhi	−1·7	+0·6	−0·5
Mount Abu	+0·3	+1·5	+0·9

II.—The hot weather period.—(*a*) The state of the skies over the plains of India was on the average of the whole season very nearly normal.

TABLE 68.

Division.	Departure of mean 8 hrs. cloud amount from normal.			
	March.	April.	May.	Period, March to May.
Burma	+0·9	−0·6	−0·5	−0·1
Assam	−0·7	+0·1	−1·2	−0·6
Bengal	−0·3	−0·3	−0·5	−0·4
Bihar and Orissa	−0·4	−0·9	−0·1	−0·5
United Provinces	−0·3	−0·5	+0·8	0
Punjab	−0·5	+0·4	+0·3	+0·1
North-West Frontier Province	−0·9	+0·7	−0·5	−0·2
Sind	−0·6	+0·3	−0·6	−0·3
Rajputana	−1·3	−0·8	+0·2	−0·6
Bombay	−0·8	+0·3	+0·2	−0·1
Central India	−0·5	+0·1	+0·7	+0·1
Central Provinces	−0·6	−0·3	+0·6	−0·1
Hyderabad	−0·7	−1·4	+0·3	−0·6
Mysore	−0·3	−0·8	−0·5	−0·5
Madras	−0·3	−0·5	−0·4	−0·4

(*b*) In Persia the sky was clouded to an unusual extent throughout the season, an indication that the winter there was more protracted than is the case in a normal year. These conditions did not apparently extend to Baluchistan, where the quantity of cloud in May was below the average. In the Himalayas the distribution was characterised by much irregularity.

TABLE 69.

Station.	Departure of mean 8 hrs. cloud amount from normal.			
	March.	April.	May.	Period, March to May.
Aden	0	+1·4	+1·1	+0·8
Baghdad	−0·1	+2·3	+3·1	+1·8
Bushire	−0·4	0	+0·8	+0·1
Tehran	+5·8	+6·7	−0·2	+4·1
Ispahan	−0·5	+0·7	+0·8	+0·3
Jask	+1·0	+2·5	+0·6	+1·4
Muscat	+1·3	+4·3	+0·6	+2·1
Meshed	−1·8	+0·7	−0·4	−0·5
Chaman	−0·1	+1·0	−0·2	+0·2
Quetta	+1·2	−0·4	−0·5	+0·1
Cherat	−1·2	+0·9	0	−0·1

TABLE 69—*concld.*

STATION.	DEPARTURE OF MEAN 8 HRS. CLOUD AMOUNT FROM NORMAL.			
	March.	April.	May.	Period, March to May.
Murree	−0·6	+0·6	0	0
Gilgit	−1·5	+1·0	−2·5	−1·0
Srinagar	−0·3	+1·1	−0·1	+0·2
Simla	−0·2	+1·5	+0·7	+0·7
Leh	+0·7	+0·8	−0·7	+0·3
Chakrata	+0·1	+0·5	+2·3	+1·0
Darjiling	+0·4	−0·6	0	−0·1
Pachmarhi	−1·4	−1·6	−0·8	−1·3
Mount Abu	−1·1	+0·8	+0·4	0

III.—The south-west monsoon period.—(*a*) During June there was about the customary amount of cloud over the Indian plains as a whole, but in the rest of the season the skies were comparatively clear.

On the average of the whole season the quantity of cloud appreciably fell short of the normal in all the divisions with the exception of Burma, Bengal and the North-West Frontier Province. The greatest defect, amounting to about 1·0, occurred in Assam, the United Provinces, Rajputana, the Central Provinces and Hyderabad.

TABLE 70.

DIVISION.	DEPARTURE OF MEAN 8 HRS. CLOUD AMOUNT FROM NORMAL.				
	June.	July.	August.	September.	Period, June to September.
Burma	0	+0·1	+0·2	+0·3	+0·1
Assam	−1·1	−1·5	−1·2	−1·3	−1·3
Bengal	+0·7	−0·8	−0·7	−0·5	−0·3
Bihar and Orissa	+0·5	−1·1	−0·7	−0·9	−0·5
United Provinces	−0·4	−2·1	−1·9	−1·8	−1·5
Punjab	+0·2	0	−0·7	−1·2	−0·4
North-West Frontier Province.	+0·2	−0·1	−0·1	−0·3	−0·1
Sind	−0·3	−1·3	−0·5	−0·5	−0·7
Rajputana	−0·8	−1·0	−1·7	−0·2	−0·9
Bombay	+0·2	−0·6	−0·4	−0·8	−0·4
Central India	+0·5	−0·6	−0·9	−0·7	−0·4
Central Provinces	+0·2	−0·6	−1·2	−1·6	−0·8
Hyderabad	−0·1	0	−1·9	−1·4	−0·9
Mysore	−0·5	+0·3	−0·8	−1·0	−0·5
Madras	−0·4	−0·5	−0·9	−0·9	−0·7

(*b*) In Baluchistan and Persia there was as a rule more cloud than usual. In the Himalayas the distribution of cloud accorded well with that in the neighbouring plains.

TABLE 71.

STATION.	DEPARTURE OF MEAN 8 HRS. CLOUD AMOUNT FROM NORMAL.				
	June.	July.	August.	September.	Period, June to September
Aden	+1·3	+2·1	+0·3	−0·1	+0·9
Baghdad	+0·6	+0·3	+0·7	+0·8	+0·6
Bushire	+0·2	−0·7	...	...	...
Tehran	−0·6	−1·0	−0·8	−0·6	−0·7
Ispahan	+0·4	+0·4	−0·3	+0·7	+0·3
Jask	+0·2	+2·8	+0·3	+0·1	+0·9
Muscat	+1·2	+2·6	+4·0	+0·1	+2·0
Meshed	−0·4	+0·3	?	+0·2	?
Chaman	−0·3	+0·5	+1·3	0	+0·4
Quetta	−0·3	+1·2	+0·6	0	+0·4
Kabul	+0·4	+0·7	+1·3	+0·6	+0·7
Cherat	0	+0·1	+0·2	−1·2	−0·2
Murree	+1·3	+1·5	−0·4	−0·7	+0·
Gilgit	−0·4	−2·2	+0·4	−1·2	−0·9
Srinagar	+1·0	−1·5	−1·0	−1·2	−0·7
Simla	+1·1	−1·4	−1·4	−1·9	−0·9
Leh	+0·9	+0·3	−1·0	+0·2	+0·1
Chakrata	+3·3	+2·3	+1·6	−1·1	+1·5
Darjiling	+0·1	−1·2	−0·3	+0·1	−0·3
Pachmarhi	−0·8	−0·4	−1·9	−2·8	−1·5
Mount Abu	+0·4	−0·7	+0·9	−2·9	−0·6

IV.—The retreating south-west monsoon period.—(*a*) The cloud was heavy for the season in Burma and the Peninsula excluding Mysore, and was unusually light in Assam and Sind.

TABLE 72.

Division.	Departure of mean 8 hrs. cloud amount from normal.			
	October.	November.	December.	Period, October to December.
Burma	+1·0	+1·4	+0·8	+1·1
Assam	−1·1	−1·4	+1·1	−0·5
Bengal	−0·5	0	+1·0	+0·2
Bihar and Orissa	−0·4	+0·1	+0·7	+0·1
United Provinces	−0·2	−0·3	+0·7	+0·1
Punjab	+0·1	+0·1	+0·2	+0·1
North-West Frontier Province	+0·9	−0·2	+0·3	+0·3
Sind	−0·4	−0·8	−0·8	−0·7
Rajputana	+0·3	−0·4	−0·3	−0·1
Bombay	+0·4	+0·2	+0·5	+0·4
Central India	+0·1	−0·7	+0·6	0
Central Provinces	0	+0·2	+0·4	+0·2
Hyderabad	−0·5	+0·4	+1·2	+0·4
Mysore	0	−1·3	+1·1	−0·1
Madras	+0·1	+0·4	+0·9	+0·5

(*b*) Skies were more cloudy than usual in Baluchistan and the western parts of the Persian area, but in east Persia and the Himalayas the recorded quantity of cloud for the season did not differ appreciably from the normal.

TABLE 73.

Station.	Departure of mean 8 hrs. cloud amount from normal.			
	October.	November.	December.	Period, October to December.
Aden	0	−0·1	−0·7	−0·3
Baghdad	+1·2	+2·1	+0·9	+1·4
Bushire	+0·2	+0·9	+2·7	+1·3
Tehran	+1·2	+0·1	+0·2	+0·5
Ispahan	−0·2	−0·1	−0·4	−0·2
Jask	0	−0·7	+0·4	−0·1
Muscat	+1·1	−0·5	+0·6	+0·4
Meshed	+2·2	−0·8	−1·6	−0·1
Chaman	+0·3	−0·5	0	−0·1
Quetta	+0·9	−0·2	+0·1	+0·3
Cherat	+1·6	+0·1	+0·6	+0·8
Murree	+0·6	+0·3	+0·3	+0·4
Gilgit	+0·4	−0·2	−0·1	0
Srinagar	−0·9	+1·2	−0·4	0
Simla	−0·4	+0·7	−0·8	−0·2
Leh	−0·6	−0·3	0	−0·3
Chakrata	0	+0·5	−0·9	−0·1
Darjiling	−0·7	−1·9	+1·1	−0·5
Pachmarhi	−1·8	−1·1	−0·7	−1·2
Mount Abu	−0·1	−1·0	−0·2	−0·4

The year.—In 1913, as in 1912, the mean cloud amount of the whole year in the plains of India was 0·2 short of the normal value. The defect was not persistent throughout the year, for the recorded proportion of cloud was greater than usual in February and October to December, and was equal to the normal in May. The abnormalities coincided with those of the rainfall in nine of the twelve months, and with those of the absolute humidity in eight months.

TABLE 74.

—	Departure from normal of Indian area.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
Cloud amount at 8 hours	−0·5	+0·9	−0·4	−0·3	0	−0·1	−0·7	−0·9	−0·8	+0·1	+0·1	+0·6	−0·2
Vapour pressure at 8 hours	−·032	+·031	−·052	−·028	−·013	+·005	−·008	−·037	−·037	−·033	−·044	+·017	−·019
Rainfall (percentage departure)	−89	+135	+20	−30	+20	+23	−2	−16	−26	+6	+11	+67	−2

Snowfall.

(A).—The cold weather of 1912-13 and the succeeding hot weather :—

(*a*) The snowfall of the winter season is said to have been abundant in Transcaspia, Turkistan, north-east Persia and north-west Afghanistan.

(*b*) Over west and north Persia, the winter was on the whole milder than usual.

(*c*) In Baluchistan the precipitation was well above the average in December, February and March, and lighter than usual in November, January, April and May.

(*d*) The winter began earlier than usual in Kabul and the surrounding hills, where the first snowfall occurred in the first half of October. There was considerably more than the normal amount of snowfall in November, December and January. In February some snow fell towards the end. In Kabul the last fall occurred during the first three days of March. Conditions were only slightly disturbed in April. During the greater part of May the weather was settled and a high northerly wind prevailed.

(*e*) The snowfall in the mountains of the North-West Frontier Province was, according to the available information, considerably heavier than usual in February and below the normal during the rest of the winter, but particularly in April and May.

(*f*) In Kashmir the precipitation was either normal or in defect throughout the winter except in April, when it was in marked excess. Unusually heavy snow is reported to have fallen in April in and around Leh.

(*g*) The snowfall in the western Himalayas was much in excess of the normal, generally in February and locally in March and April. There was no general heavy fall in May, although in the Chamba hills snow is said to have fallen as low as 11,000 feet on the 20th and thus caused a delay of at least fifteen days in the opening of the passes.

(*h*) Judging by the few reports received the snowfall in the eastern Himalayas was in excess locally. There were frequent falls in May in parts of the Sikkim Himalayas.

Summary.—On the whole it appears that in the mountain zone bordering upper India the winter was by no means severe, the snowfall during the greater part of the period having been below the normal. There was no marked prolongation of the winter conditions, although excessive snow appears to have fallen in April, in parts of Kashmir. In Transcaspia, Turkistan, north-east Persia and parts of Afghanistan there was probably more than the average amount of snowfall. On the snowy ranges to the north of Simla the accumulations appeared to be as great as in May 1912, while in Chamba, Almora and parts of Kashmir the snow covering existing in the last week of the month was almost certainly somewhat thicker than usual.

(B).—The south-west monsoon period, June to September :—

During June there was no heavy widespread snowfall, and the winter accumulations were on the whole by no means excessive.

In July, except locally in the Punjab Himalayas, where snow fell to much lower levels than is ordinarily the case, the snowfall conditions of the month in the western Himalayas were by no means unusual. In Ladak the accumulations existing at the end of the month were appreciably above the normal.

In August, according to the available information, the snowfall was confined to Kashmir and the Almora hills, and in the latter locality the residue of the unmelted snow at the end of the month was locally in excess of the normal.

During September there was about the usual amount of snowfall in the western Himalayas, for which alone information is available.

(C).—The period, October to December :—

Snow began to fall earlier than usual in October in the North-West Frontier Province and the western Himalayas, but none of the falls were heavy or widespread. In the Almora hills the accumulations existing at the end of the month were greater than usual.

In Kabul and the surrounding hills the first snowfall of the winter season of 1913-14 took place on the 16th November. There were occasional snowstorms in the western Himalayas. The fall was heavy in the Kangra and Simla hills and occurred down to very low levels.

Except perhaps in the hills near Quetta and a few localities in the western Himalayas, the snowfall of December was either about normal or in defect.

Rainfall.

The rainfall data of India are now issued annually in a separate volume entitled "Rainfall of India." The twenty-third volume, that of 1913, contains the whole rainfall data of 2,827 stations which are there classified under their

respective administrative divisions according to the following scheme :—

Province.	Number of stations.
Burma	200
Assam	125
Bengal	224
Bihar and Orissa	279
United Provinces of Agra and Oudh	276
Punjab	188
Kashmir	38
North-West Frontier Province	34
Baluchistan	95
Rajputana	185
Bombay	289
Central India	117
Central Provinces	174
Hyderabad	22
Mysore	77
Coorg	10
Madras (including Puddukkottai, Travancore and Cochin)	494
Total	2,827

The information includes monthly statements of—

(*a*) the actual rainfall, day by day, of all the rainfall stations ;

(*b*) the total rainfall of the month ;

(*c*) the number of rainy days during the month ;

(*d*) the average or normal rainfall of the month of all stations for which rainfall data of at least five years are available ;

(*e*) the average or normal number of rainy days of the month for all stations for which rainfall data of five years or upwards are available.

Symons' rain-gauges are now used at all rain-gauge stations with the exception of those in Mysore. The time of measuring rainfall is 8 hrs. by local time throughout India, and the amounts registered give the rainfall of the previous 24 hours, and hence generally of the previous civil day.

The three tables (Tables 75 to 77) give summaries of the rainfall data of the year. The first and second tables give average rainfall data based on the returns of over 2,000 rain-gauge stations for the 15 chief political divisions and the 33 sub-divisions respectively, while the third table (Table 77) contains data of the number of rainy days for the 33 sub-divisions for the four seasons into which the year has been divided.

TABLE. 75—*Average, over the 15 chief political divisions, of the actual and normal rainfall for the four seasons of the year 1913, and for the whole year.*

Division.	January and February.				March to May.				June to September.				October to December.				Whole year.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.	Actual.	Normal.	Departure from normal.	Percentage departure from normal.	Actual.	Normal.	Departure from normal.	Percentage departure from normal.	Actual.	Normal.	Departure from normal.	Percentage departure from normal.	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"		"	"	"		"	"	"		"	"	"		"	"	"	
Burma	0·25	0·27	−0·02	− 7	7·11	10·81	−3·70	−34	61·91	61·65	+0·26	0	11·43	7·32	+4·11	+56	80·70	80·05	+0·65	+ 1
Assam	3·91	2·02	+1·89	+ 94	32·40	25·06	+7·34	+29	59·13	64·70	−5·57	− 9	10·45	6·33	+4·12	+65	105·89	98·11	+7·78	+ 8
Bengal	2·87	1·26	+1·61	+128	12·90	12·35	+0·55	+ 4	65·48	56·30	+9·18	+16	7·71	5·37	+2·34	+44	88·96	75·28	+13·68	+18
Bihar and Orissa	2·42	1·19	+1·23	+103	4·92	3·95	+0·97	+25	48·94	43·32	+5·62	+13	4·70	3·95	+0·75	+19	60·98	52·41	+8·57	+16
United Provinces	1·63	1·52	+0·11	+ 7	3·63	1·21	+2·42	+200	21·02	34·99	−13·97	−40	0·76	1·81	−1·05	−58	27·04	39·53	−12·49	−32
Punjab	2·01	2·11	−0·10	− 5	3·23	1·70	+1·53	+90	14·68	15·94	−1·26	− 8	0·66	0·81	−0·15	−19	20·58	20·56	+0·02	0
North-West Frontier Province	2·45	2·66	−0·21	− 8	2·53	3·89	−1·36	−35	8·57	8·46	+0·11	+ 1	1·11	1·23	−0·12	−10	14·66	16·24	−1·58	−10
Sind	0·65	0·53	+0·12	+ 23	0·17	0·39	−0·22	−56	17·20	5·29	+11·91	+225	0·77	0·16	+0·61	+381	18·79	6·37	+12·42	+195
Rajputana	0·50	0·55	−0·05	− 9	1·55	0·64	+0·91	+142	11·28	19·19	−7·91	−41	0·69	0·68	+0·01	+ 1	14·02	21·06	−7·04	−33
Bombay	0·01	0·18	−0·17	− 94	1·48	1·60	−0·12	− 7	42·13	40·65	+1·48	+ 4	2·28	3·20	−0·92	−29	45·90	45·63	+0·27	+ 1
Central India	0·84	0·87	−0·03	− 3	1·65	0·53	+1·12	+211	26·75	35·28	−8·53	−24	0·47	1·56	−1·09	−70	29·71	38·24	−8·53	−22
Central Provinces	1·46	0·75	+0·71	+ 95	1·38	1·17	+0·21	+18	35·23	37·08	−1·85	− 5	1·41	2·53	−1·12	−44	39·48	41·53	−2·05	− 5
Hyderabad	0·25	0·25	0	0	1·89	1·84	+0·05	+ 3	18·86	26·25	−7·39	−28	2·17	4·12	−1·95	−47	23·17	32·46	−9·29	−29
Mysore	0	0·14	−0·14	−100	4·47	5·34	−0·87	−16	22·89	22·98	−0·09	0	5·04	7·77	−2·73	−35	32·40	36·23	−3·83	−11
Madras	0·28	1·03	−0·75	− 73	3·40	4·61	−1·21	−26	20·73	24·10	−3·37	−14	16·78	13·77	+3·01	+22	41·19	43·51	−2·32	− 5
Mean of India	1·13	0·92	+0·21	+ 23	4·72	4·40	+0·32	+7	33·39	35·27	−1·88	− 5	4·87	4·28	+0·59	+14	44·11	44·87	−0·76	− 2

TABLE 76.—*Average over the 33 sub-divisions of the actual and normal rainfall for the four seasons of the year 1913, and for the whole year.*

Sub-division.	January and February.				March to May.				June to September.				October to December.				Whole year.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.	Actual.	Normal.	Departure from normal.	Percentage departure from normal.	Actual.	Normal.	Departure from normal.	Percentage departure from normal.	Actual.	Normal.	Departure from normal.	Percentage departure from normal.	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"		"	"	"		"	"	"		"	"	"		"	"	"	
1. Bay Islands	1·72	1·24	+0·48	+39	5·67	17·82	−12·15	−68	53·19	61·44	−8·25	−13	25·42	20·73	+4·69	+23	86·00	101·23	−15·23	−15
2. Lower Burma	0·22	0·26	−0·04	−15	9·47	14·81	−5·34	−36	98·41	98·91	−0·50	−1	14·38	8·83	+5·55	+63	122·48	122·81	−0·33	0
3. Upper Burma	0·28	0·29	−0·01	− 3	4·83	7·20	−2·37	−33	29·54	28·60	+0·94	+3	8·82	5·98	+2·84	+47	43·47	42·07	+1·40	+3
4. Assam	3·91	2·02	+1·89	+94	32·40	25·06	+7·34	+29	59·13	64·70	−5·57	−9	10·45	6·33	+4·12	+65	105·89	98·11	+7·78	+8
5. Bengal	2·87	1·26	+1·61	+128	12·90	12·35	+0·55	+ 4	65·48	56.30	+9·18	+16	7·71	5·37	+2·34	+44	88·96	75·28	+13·68	+18
6. Orissa	2·56	1·00	+1·56	+156	5·20	5·77	−0·57	−10	47·73	43·81	+3·92	+9	5·74	6·94	−1·20	−17	61·23	57·52	+3·71	+6
7. Chota Nagpur	5·38	1·27	+4·11	+324	4·77	3·89	+0·88	+23	48·62	44·90	+3·72	+8	4·47	3·32	+1·15	+35	63·24	53·38	+9·86	+18
8. Bihar	1·48	1·24	+0·24	+19	4·90	3·28	+1·62	+49	49·76	42·62	+7·14	+17	4·29	2·99	+1·30	+43	60·43	50·13	+10·30	+21
9. United Provinces, East	1·39	1·23	+0·16	+13	3·66	1·12	+2·54	+227	24·41	35·46	−11·05	−31	0·93	2·31	−1·38	−60	30·39	40·12	−9·73	−24
10. Do. do., West	1·90	1·85	+0·05	+ 3	3·60	1·31	+2·29	+175	17·24	34·49	−17·25	−50	0·56	1·25	−0·69	−55	23·30	38·90	−15·60	−40
11. Punjab, East and North	2·21	2·37	−0·16	− 7	3·75	1·82	+1·93	+106	16·01	18·56	−2·55	−14	0·74	0·90	−0·16	−18	22·71	23·65	−0·94	−4
12. Punjab, South-west	1·24	1·15	+0·09	+ 8	1·22	1·28	−0·06	− 5	9·75	6·02	+3·73	+62	0·38	0·39	−0·01	− 3	12·59	8·84	+3·75	+42
13. Kashmir	5·52	6·08	−0·56	− 9	7·08	6·48	+0·60	+ 9	10·52	10·66	−0·14	−1	2·49	2·36	+0·13	+6	25·61	25·58	+0·03	0
14. North-West Frontier Province.	2·45	2·66	−0·21	− 8	2·53	3·89	−1·36	−35	8·57	8·46	+0·11	+1	1·11	1·23	−0·12	−10	14·66	16·24	−1·58	−10
15. Baluchistan	2·80	2·85	−0·05	− 2	1·88	1·78	+0·10	+ 6	3·00	2·14	+0·86	+40	2·03	1·52	+0·51	+34	9·71	8·29	+1·42	+17
16. Sind	0·65	0·53	+0·12	+23	0·17	0·39	−0·22	−56	17·20	5·29	+11·91	+225	0·77	0·16	+0·61	+381	18·79	6·37	+12·42	+195
17. Rajputana, West	0·24	0·29	−0·05	−17	0·68	0·44	+0·24	+55	8·84	10·67	−1·83	−17	0·34	0·41	−0·07	−17	10·10	11·81	−1·71	−14
18. Do., East	0·62	0·65	−0·03	−.5	2·04	0·73	+1·31	+179	12·16	22·35	−10·19	−46	0·83	0·78	+0·05	+6	15·65	24·51	−8·86	−36
19. Gujarat	0	0·15	−0·15	−100	0·32	0·27	+0·05	+19	40·93	31·48	+9·45	+30	0·05	0·83	−0·78	−94	41·30	32·73	+8·57	+26
20. Central India, West	0·35	0·54	−0·19	−35	1·29	0·39	+0·90	+231	28·08	32·32	−4·24	−13	0·50	1·18	−0·68	−58	30·22	34·43	−4·21	−12
21. Do., East	3·14	1·50	+1·64	+109	2·43	0·80	+1·63	+204	25·18	40·86	−15·68	−38	0·41	2·29	−1·88	−82	31·16	45·45	−14·29	−31
22. Berar	0·49	0·53	−0·04	− 8	0·95	0·98	−0·03	− 3	30·77	27·29	+3·48	+13	1·72	2·55	−0·83	−33	33·93	31·35	+2·58	+8
23. Central Provinces, West	1·59	0·93	+0·66	+71	1·50	0·97	+0·53	+55	35·86	41·31	−5·45	−13	1·03	2·42	−1·39	−57	39·98	45·63	−5·65	−12
24. Do., East	2·52	0·85	+1·67	+196	1·59	1·84	−0·25	−14	42·09	47·49	−5·40	−11	1·52	2·72	−1·20	−44	47·72	52·90	−5·18	−10
25. Konkan	0·01	0·18	−0·17	−94	0·76	1·98	−1·22	−62	97·49	102·35	−4·86	−5	5·73	4·90	+0·83	+17	103·99	109·41	−5·42	−5
26. Bombay Deccan	0·01	0·19	−0·18	−95	2·51	2·31	+0·20	+ 9	22·98	24·42	−1·44	−6	2·52	4·14	−1·62	−39	28·02	31·06	−3·04	−10
27. Hyderabad, North	0·38	0·24	+0·14	+58	1·70	1·50	+0·20	+13	23·04	30·15	−7·11	−24	1·98	3·90	−1·92	−49	27·10	35·79	−8·69	−24
28. Do., South	0·12	0·26	−0·14	−54	2·11	2·14	−0·03	− 1	15·12	23·01	−7·89	−34	2·41	4·30	−1·89	−44	19·76	29·71	−9·95	−33
29. Mysore	0	0·14	−0·14	−100	4·47	5·34	−0·87	−16	22·89	22·98	−0·09	0	5·04	7·77	−2·73	−35	32·40	36·23	−3·83	−11
30. Malabar	0·09	0·59	−0·50	−85	7·45	10·65	−3·20	−30	84·72	101·75	−17·03	−17	19·35	13·96	+5·39	+39	111·61	126·95	−15·34	−12
31. Madras, South-east	0·27	1·47	−1·20	−82	3·12	4·69	−1·57	−33	10·08	11·75	−1·67	−14	22·42	17·29	+5·13	+30	35·89	35·20	+0·69	+2
32. Do., Deccan	0	0·25	−0·25	−100	2·79	2·45	+0·34	+14	11·63	15·00	−3·37	−22	6·10	6·59	−0·49	−7	20·52	24·29	−3·77	−16
33. Do., Coast, North	0·47	0·75	−0·28	−37	2·86	3·51	−0·65	−19	22·71	24·70	−1·99	−8	10·87	10·69	+0·18	+2	36·91	39·65	−2·74	−7

TABLE 77.—*Average, over the 33 sub-divisions of the actual and normal number of rainy days for the four seasons of the year 1913, and for the whole year.*

Sub-division.	January and February.			March to May.			June to September.			October to December.			Whole year.		
	Actual.	Normal.	Departure from normal.	Actual.	Normal.	Departure from normal.	Actual.	Normal.	Departure from normal.	Actual.	Normal.	Departure from normal.	Actual.	Normal.	Departure from normal.
1. Bay Islands	2·5	2·0	+0·5	16·5	19·1	−8·6	69·5	74·6	−5·1	29·5	26·7	+2·8	112·0	122·4	−10·4
2. Lower Burma	0·4	0·4	0	12·1	16·6	−4·5	85·0	90·1	−5·1	16·3	12·4	+3·9	113·8	119·5	−5·7
3. Upper Burma	1·1	0·7	+0·4	9·4	11·1	−1·7	42·7	40·9	+1·8	12·4	9·0	+3·4	65·6	61·7	+3·9
4. Assam	7·2	5·0	+2·2	37·9	32·7	+5·2	62·3	68·2	−5·9	13·1	8·7	+4·4	120·5	114·6	+5·9
5. Bengal	4·4	2·3	+2·1	16·1	14·6	+1·5	63·3	59·8	+3·5	7·4	6·0	+1·4	91·2	82·7	+8·5
6. Orissa	3·4	1·8	+1·6	9·0	8·8	+0·2	50·1	52·2	−2·1	7·8	7·7	+0·1	70·3	70·5	−0·2
7. Chota Nagpur	7·2	2·7	+4·5	7·3	7·1	+0·2	53·2	53·9	−0·7	5·1	4·6	+0·5	72·8	68·3	+4·5
8. Bihar	3·5	2·6	+0·9	7·6	5·2	+2·4	45·1	46·7	−1·6	5·7	3·5	+2·2	61·9	58·0	+3·9
9. United Provinces, East	3·4	2·7	+0·7	6·9	2·4	+4·5	29·0	38·4	−9·4	2·3	2·4	−0·1	41·6	45·9	−4·3
10. Do. do., West	3·0	3·6	−0·6	6·8	3·1	+3·7	22·1	34·9	−12·8	1·4	1·9	−0·5	33·3	43·5	−10·2
11. Punjab, East and North	5·1	4·6	+0·5	6·8	3·9	+2·9	19·5	19·9	−0·4	1·9	1·6	+0·3	33·3	30·0	+3·3
12. Punjab, South-west	2·3	2·7	−0·4	2·6	3·1	−0·5	12·2	8·1	+4·1	1·5	0·9	+0·6	18·6	14·8	+3·8
13. Kashmir	10·1	9·8	+0·3	15·4	12·9	+2·5	16·6	15·5	+1·1	5·6	5·2	+0·4	47·7	43·4	+4·3
14. North-West Frontier Province	5·7	5·1	+0·6	6·2	7·7	−1·5	14·0	11·6	+2·4	3·1	2·1	+1·0	29·0	26·5	+2·5
15. Baluchistan	5·7	6·6	−0·9	2·8	4·8	−2·0	5·4	3·7	+1·7	4·7	3·5	+1·2	18·6	18·6	0
16. Sind	1·4	1·5	−0·1	0·6	1·0	−0·4	10·2	6·2	+4·0	1·4	0·5	+0·9	13·6	9·2	+4·
17. Rajputana, West	0·5	0·8	−0·3	1·7	1·1	+0·6	14·4	13·4	+1·0	0·6	0·8	−0·2	17·2	16·1	+1·1
18. Do., East	1·7	1·6	+0·1	4·1	1·9	+2·2	19·0	27·6	−8·6	1·7	1·6	+0·1	26·5	32·7	−·2
19. Gujarat	0	0·3	−0·3	0·4	0·6	−0·2	41·5	36·4	+5·1	0·1	1·6	−1·5	42·0	38·9	+3·1
20. Central India, West	0·8	1·2	−0·4	2·8	0·9	+1·9	34·8	39·1	−4·3	1·1	2·3	−1·2	39·5	43·5	−4·0
21. Do., East	5·8	3·1	+2·7	1·6	1·9	−0·3	35·5	44·1	−8·6	1·6	3·1	−1·5	44·5	52·2	−7·7
22. Berar	1·3	1·1	+0·2	2·2	2·1	+0·1	37·9	38·3	−0·4	2·5	3·6	−1·1	43·9	45·1	−1·2
23. Central Provinces, West	3·1	1·8	+1·3	4·1	2·3	+1·8	39·1	47·1	−8·0	2·3	3·5	−1·2	48·6	54·7	−6·1
24. Do., East	4·1	1·6	+2·5	3·5	3·9	−0·4	46·6	51·7	−5·1	3·5	3·9	−0·4	57·7	61·1	−3·4
25. Konkan	0	0·3	−0·3	2·0	2·7	−0·7	77·7	85·9	−8·2	5·8	7·7	−1·9	85·5	96·6	−11·1
26. Bombay, Deccan	0	0·4	−0·4	4·3	4·4	−0·1	34·6	38·3	−3·7	3·9	7·0	−3·1	42·8	50·1	−7·3
27. Hyderabad, North	1·1	0·5	+0·6	3·2	3·6	−0·4	32·3	42·3	−10·0	2·7	5·9	−3·2	39·3	52·3	−13·0
28. Do., South	0·4	0·6	−0·2	4·4	4·3	+0·1	26·3	37·7	−11·4	3·6	7·0	−3·4	34·7	49·6	−14·9
29. Mysore	0	0·3	−0·3	7·6	8·9	−1·3	31·4	33·1	−1·7	7·4	11·8	−4·4	46·4	54·1	−7·7
30. Malabar	0·1	0·8	−0·7	10·6	13·0	−2·4	78·1	84·7	−6·6	17·1	18·0	−0·9	105·9	116·5	−10·6
31. Madras, South-east	0·7	2·0	−1·3	5·4	6·9	−1·5	14·5	18·2	−3·7	24·2	20·7	+3·5	44·8	47·8	−3·0
32. Do., Deccan	0	0·2	−0·2	4·9	4·4	+0·5	18·0	25·2	−7·2	8·7	9·5	−0·8	31·6	39·3	−7·7
33. Do., Coast, North	0·8	0·8	0	5·0	5·5	−0·5	34·3	35·3	−1·0	9·6	10·9	−1·3	49·7	52·5	−2·8

The cold weather period.—The abnormally dry weather which had characterized the end of 1912 held until the 12th of February 1913. During the next twelve days three depressions of the winter class crossed into India from the west producing well distributed rainfall over a large part of northern and central India. Indeed the rainfall received from these disturbances in some localities more than compensated for the previous deficit.

The distribution of rainfall of the period was somewhat unusual. Thus the total fall of the season in the plains of India was unusually heavy generally in north-east India, Central India East and the Central Provinces proper, and greatly in defect in Madras South-east, while in north-west India, the chief region of winter precipitation, the recorded quantities did not depart materially from the normal.

TABLE 78.

Sub-division.	January and February.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"	
Bay Islands	1·72	1·24	+ 0·48	+ 39
Lower Burma	0·22	0·26	− 0·04	− 15
Upper Burma	0·28	0·29	− 0·01	− 3
Assam	3·91	2·02	+ 1·89	+ 94
Bengal	2·87	1·26	+ 1·61	+128
Orissa	2·56	1·00	+ 1·56	+156
Chota Nagpur	5·38	1·27	+ 4·11	+324
Bihar	1·48	1·24	+ 0·24	+ 19
United Provinces, East	1·39	1·23	+ 0·16	+ 13
Do. do., West	1·90	1·85	+ 0·05	+ 3
Punjab, East and North	2·21	2·37	− 0·16	− 7
Punjab, South-west	1·24	1·15	+ 0·09	+ 8
North-West Frontier Province	2·45	2·66	− 0·21	− 8
Sind	0·65	0·53	+ 0·12	+ 23
Rajputana, West	0·24	0·29	− 0·05	− 17
Do., East	0·62	0·65	− 0·03	− 5
Gujarat	0	0·15	− 0·15	−100
Central India, West	0·35	0·54	− 0·19	− 35
Do. do., East	3·14	1·50	+ 1·64	+109
Berar	0·49	0·53	− 0·04	− 8
Central Provinces, West	1·59	0·93	+ 0·66	+ 71
Do. do., East	2·52	0·85	+ 1·67	+196
Konkan	0·01	0·18	− 0·17	− 94
Bombay, Deccan	0·01	0·19	− 0·18	− 95

TABLE 78—*concld.*

Sub-division.	January and February.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"	
Hyderabad, North	0·38	0·24	+ 0·14	+ 58
Do., South	0·12	0·26	− 0·14	− 54
Mysore	0	0·14	− 0·14	−100
Malabar	0·09	0·59	− 0·50	− 85
Madras, South-east	0·27	1·47	− 1·20	− 82
Do., Deccan	0	0·25	− 0·25	−100
Do., Coast, North	0·47	0·75	− 0·28	− 37

It is noteworthy that the dry weather in northern India during January was associated with the occurrence of remarkably heavy rainfall for the time of year in the Bay Islands.

In Persia and north Arabia the total precipitation of the period was on the whole in decided excess, but in Baluchistan and Kashmir the fall was within 10 per cent. of the average.

TABLE 79.

Station or sub-division.	Rainfall of period, January and February.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"	
Aden	0·17	0·72	−0·55	− 76
Baghdad	2·77	2·41	+0·36	+ 15
Busrah	3·81	2·22	+1·59	+ 72
Bushire	4·73	4·74	−0·01	0
Bahrein	2·80	0·96	+1·84	+192
Tehran	2·73	2·73	0	0
Ispahan	0·48	1·07	−0·59	− 55
Jask	1·50	1·65	−0·15	− 9
Muscat	3·88	1·86	+2·02	+109
Meshed	2·15	1·71	+0·44	+ 26
Kashmir	5·52	6·08	−0·56	− 9
Baluchistan	2·80	2·85	−0·05	− 2

In the west of the equatorial belt as represented by Zanzibar and Seychelles there was a defect in both months.

TABLE 80.

STATION.	DEPARTURE FROM NORMAL OF RAINFALL IN		
	January.	February.	Period, January and February.
	"	"	"
Zanzibar	— 2·98	—0·86	— 3·84
Seychelles	—10·46	—5·59	—16·05
Mauritius	+ 8·34	—1·42	+ 6·92

II.—The hot weather period.—In point of weather the hot weather season of 1913 differed greatly from the corresponding period of 1912. During March four depressions of the cold weather type entered India from Persia; three of these were fruitful in precipitation, but particularly the first of the series which occasioned rain over the greater part of the region stretching from Baluchistan to north Burma. In April several disturbances of the cold weather class were recorded, but the accompanying precipitation was light and confined chiefly to Kashmir and the North-West Frontier Province. In Burma and the Peninsula the usual thunderstorms were comparatively rare. In May conditions were more unsettled than usual and the total rainfall of the month was distinctly above the average over by far the greater part of the plains. In northern India the heavy fall was caused chiefly by an early advance of monsoon winds in the third week.

The combined fall of the three months was in defect by over 20 per cent. in the Bay Islands, Burma, the North-West Frontier Province, Sind, the Konkan, Malabar and Madras South-east, and in large excess in Assam, Chota Nagpur, Bihar, the United Provinces, the Punjab East and North, Rajputana, Central India and the Central Provinces West.

TABLE 81.

SUB-DIVISION	MARCH TO MAY.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal
	"	"	"	
Bay Islands	5·67	17·82	—12·15	— 68
Lower Burma	9·47	14·81	—5·34	— 36
Upper Burma	4·83	7·20	—2·37	— 33
Assam	32·40	25·06	+7·34	+ 29
Bengal	12·90	12·35	+0·55	+ 4
Orissa	5·20	5·77	—0·57	— 10
Chota Nagpur	4·77	3·89	+0·88	+ 23
Bihar	4·90	3·28	+1·62	+ 49
United Provinces, East	3·66	1·12	+2·54	+227
Do. do., West	3·60	1·31	+2·29	+175
Punjab, East and North	3·75	1·82	+1·93	+106
Do., South-west	1·22	1·28	—0·06	— 5
North-West Frontier Province.	2·53	3·89	—1·36	— 35
Sind	0·17	0·39	—0·22	— 56

TABLE 81—*concld.*

SUB-DIVISION.	MARCH TO MAY.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"	
Rajputana, West	0·68	0·44	+0·24	+ 55
Do., East	2·04	0·73	+1·31	+179
Gujarat	0·32	0·27	+0·05	+ 19
Central India, West	1·29	0·39	+0·90	+231
Do. do., East	2·43	0·80	+1·63	+204
Berar	0·95	0·98	—0·03	— 3
Central Provinces, West	1·50	0·97	+0·53	+ 55
Do. do., East	1·59	1·84	—0·25	— 14
Konkan	0·76	1·98	—1·22	— 62
Bombay Deccan	2·51	2·31	+0·20	+ 9
Hyderabad, North	1·70	1·50	+0·20	+ 13
Do., South	2·11	2·14	—0·03	— 1
Mysore	4·47	5·34	—0·87	— 16
Malabar	7·45	10·65	—3·20	— 30
Madras, South-east	3·12	4·69	—1·57	— 33
Do., Deccan	2·79	2·45	+0·34	+ 14
Do., Coast, North	2·86	3·51	—0·65	— 19

In Kashmir and Baluchistan the aggregate fall agreed closely with the normal, but in Arabia and the greater part of Persia the season was appreciably drier than usual.

TABLE 82.

STATION OR SUB-DIVISION.	RAINFALL OF PERIOD, MARCH TO MAY.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"	
Aden	0·11	1·05	—0·94	— 90
Baghdad	0·72	2·45	—1·73	— 71
Busrah	1·34	2·03	—0·69	— 34
Bushire	0·16	1·41	—1·25	— 89
Bahrein	0·01	0·65	—0·64	— 98
Tehran	5·32	3·51	+1·81	+ 52
Ispahan	1·04	1·91	—0·87	— 46
Jask	1·84	0·83	+1·01	+122
Muscat	0·85	0·87	—0·02	— 2
Meshed	3·17	5·46	—2·29	— 42
Kashmir	7·08	6·48	+0·60	+ 9
Baluchistan	1·88	1·78	+ 0·10	+ 6

In the equatorial belt as represented by Zanzibar and Seychelles there was an excess in March and April and a defect in May.

TABLE 83.

STATION.	DEPARTURE FROM NORMAL OF RAINFALL IN			
	March.	April.	May.	Period March to May.
	"	"	"	"
Zanzibar	+ 3·98	+ 3·74	—0·24	+7·48
Seychelles . . .	+ 1·25	—2·39	—3·36	—4·50
Mauritius . . .	—6·32	—0·37	—1·28	—7·97

III.—The monsoon period, June to September.—The monsoon arrived at about the usual time on both sides of India, but it extended with unusual rapidity into the interior so that in the Punjab the first burst of monsoon raintall occurred in the second week of June, about a fortnight in advance of the average.

A vigorous monsoon prevailed, with but slight interruptions, until the middle of July and gave on the whole a fairly well distributed rainfall. During the succeeding three weeks a series of four disturbances appeared over the Bay; and of these two travelled westwards along the head of the Peninsula causing a marked concentration of rainfall in the belt of country stretching from Orissa to Sind to the detriment of the United Provinces, Central India East, and Rajputana. A break in the rains set in over the interior of the country at the end of the first week in August, lasting for a fortnight, and after this, monsoon conditions were re-introduced by a depression from the Bay which crossed inland on the 22nd and travelled along the head of the Peninsula into Sind. Its disappearance was succeeded by the formation over the Bay on the 28th and 29th of another disturbance which also advanced to Sind. The effect of these two disturbances was to accentuate the abnormal features of the rainfall distribution which had characterized July. The monsoon weakened materially on the 4th of September, and ceased to give rain of any importance in the United Provinces and north-west and central India after the 9th, which may therefore be regarded as the date of cessation of the regular monsoon rainfall of 1913 in those areas. As a rule monsoon conditions hold in September in Central India and the west of the United Provinces, while in the Central Provinces, and the east of the United Provinces the rainy season does not close until about the middle of October.

On the mean of the whole of the Indian plains the monsoon rainfall was only 2″ or 5 per cent. in defect, but its geographical distribution was not satisfactory. Thus the aggregate of the whole season was greater than usual only in Bengal, Bihar and Orissa, the Punjab South-west, Sind, Gujarat and Berar, and normal or below it in the remaining twenty-three sub-divisions. The defect was over 20 per cent. in no less than seven of the latter, and was serious, upwards of 35 per cent., in the United Provinces West, Rajputana East and Central India East.

The most noteworthy features of the monsoon currents of this year thus were: (*a*) their early arrival in upper India, (*b*) their weakness during the greater part of the season in the United Provinces, Rajputana and Central India, (*c*) their abnormal diversion to the comparatively dry zone of Gujarat and Sind, and (*d*) their extremely early withdrawal from the central and northern parts of the country.

TABLE 84.

SUB-DIVISION.	JUNE TO SEPTEMBER.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"	
Bay Islands	53·19	61·44	—8·25	—13
Lower Burma	98·41	98·91	—0·50	— 1
Upper Burma	29·54	28·60	+0·94	+ 3
Assam	59·13	64·70	—5·57	— 9
Bengal	65·48	56·30	+9·18	+16
Orissa	47·73	43·81	+3·92	+ 9
Chota Nagpur	48·62	44·90	+3·72	+ 8
Bihar	49·76	42·62	+7·14	+17
United Provincs, East . . .	24·41	35·46	—11·05	—31
Do. do., West . . .	17·24	34·49	—17·25	—50
Punjab, East and North . . .	16·01	18·56	—2·55	—14
Do., South-west . . .	9·75	6·02	+3·73	+62
North-West Frontier Province . .	8·57	8·46	+0·11	+ 1
Sind	17·20	5·29	+11·91	+225
Rajputana, West	8·84	10·67	—1·83	—17
Do., East	12·16	22·35	—10·19	—46
Gujarat	40·93	31·48	+9·45	+30
Central India, West . . .	28·08	32·32	—4·24	—13
Do. do., East . . .	25·18	40·86	—15·68	—38
Berar	30·77	27·29	+3·48	+13
Central Provinces, West . . .	35·86	41·31	—5·45	—13
Do. do., East . . .	42·09	47·49	—5·40	—11
Konkan	97·49	102·35	—4·86	— 5
Bombay Deccan	22·98	24·42	—1·44	— 6
Hyderabad, North	23·04	30·15	—7·11	—24
Do., South	15·12	23·01	—7·89	—34
Mysore	22·89	22·98	—0·09	0
Malabar	84·72	101·75	—17·03	—17
Madras, South-east	10·08	11·75	—1·67	—14
Do. Deccan	11·63	15·00	—3·37	—22
Do. Coast, North . . .	22·71	24·70	—1·99	— 8

In the west of the equatorial belt the rainfall on the whole was deficient in the terminal months, and normal in July and August.

TABLE 85.

STATION.	DEPARTURE FROM NORMAL OF RAINFALL IN				
	June.	July.	August.	September.	Period, June to September.
	"	"	"	"	"
Zanzibar . . .	—1·72	—2·47	—0·84	+0·48	—4·55
Seychelles . . .	—1·60	+2·40	—0·21	—4·52	—3·93
Mauritius . . .	+8·53	—1·59	—0·05	+0·05	+6·94

Kashmir had its ordinary share of rainfall, but in Baluchistan there was an excess of 40 per cent. and in Kabul of 53 per cent. In Persia the season was drier even than usual.

TABLE 86.

STATION OR SUB-DIVISION.	RAINFALL OF PERIOD, JUNE TO SEPTEMBER.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"	
Aden	0·25	0·37	—0·12	— 32
Baghdad	0	0·05	—0·05	—100
Busrah	0	0·19	—0·19	—100
Bushire	0	0·01	—0·01	—100
Bahrein	0	0	0	0
Tehran	0	0·43	—0·43	—100
Ispahan	0·26	0·08	+0·18	+225
Jask	0	0·06	—0·06	—100
Muscat	0	0·17	—0·17	—100
Meshed	0	0·45	—0·45	—100
Kabul	0·84	0·55	+0·29	+ 53
Kashmir	10·52	10·66	—0·14	— 1
Baluchistan . . .	3·00	2·14	+0·86	+ 40

IV.—The retreating southwest monsoon period:— In October the aggregate rainfall provided by the monsoon was in excess of the normal, but owing in part to the early withdrawal of the current from the central parts of the country and partly to the paths followed by the sea-formed disturbances of the month, its geographical distribution was unsatisfactory. In the Central Provinces, Central India and the United Provinces, where under ordinary conditions over an inch of rain is received, the month was almost rainless, and accentuated the drought prevailing already. The first burst of heavy rainfall in Madras occurred on the 5th and 6th; in normal years this event takes place in the second week of October. During November also the monsoon was more active than usual, but its activity was displayed chiefly in Burma and the south-east of Madras to the detriment of the rest of the Peninsula. An important feature of the weather of these two months was the occurrence in the north of India of a series of feeble depressions of the cold weather type which gave occasional light precipitation in the hills, particularly in November. In December the weather was drier even than usual in the Peninsula, except in the Madras South-east, Madras Deccan and Hyderabad North, where more than the normal quantity of rain fell, owing chiefly to the prevalence of a strong winter monsoon over the neighbouring sea area.

In northern and central India on the other hand the weather was unusually disturbed owing to the advance into that area from the highlands to the west of the Indus of a succession of cold weather depressions; two of these travelled right across northern India and were attended with very useful precipitation.

The period was thus noteworthy for (*a*) the early termination of the autumnal rains in the central parts of the country and the north of the Peninsula, and (*b*) the commencement much before the normal date of winter conditions in northern India and the consequent occurrence there of an unusual and much needed burst of rain in the first half of December.

The total precipitation of the season was in excess of the normal in Burma, north-east India excluding Orissa, Sind, the Konkan, Malabar and Madras South-east, was about the average in the Punjab, Rajputana, the North-West Frontier Province, the Madras Deccan and the Madras Coast North and was in defect in the remaining divisions. The excess was greatest in actual amount in Lower Burma, Malabar and Madras South-east (over 5″), and by percentage comparison with the normal in Sind (381 per cent.) In the region of deficient rainfall the defect amounted to over 55 per cent. in the United Provinces and Central India, 47 per cent. in Hyderabad and 44 per cent. in the Central Provinces.

TABLE 87.

SUB-DIVISION.	OCTOBER TO DECEMBER.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"	
Bay Islands	25·42	20·73	+4·69	+23
Lower Burma	14·38	8·83	+5·55	+63

Sub-division.	October to December.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"	
Upper Burma	8·82	5·98	+2·84	+47
Assam	10·45	6·33	+4·12	+65
Bengal	7·71	5·37	+2·34	+44
Orissa	5·74	6·94	—1·20	—17
Chota Nagpur	4·47	3·32	+1·15	+35
Bihar	4·29	2·99	+1·30	+43
United Provinces, East	0·93	2·31	—1·38	—60
Do. do., West	0·56	1·25	—0·69	—55
Punjab, East and North	0·74	0·90	—0·16	—18
Do., South-west	0·38	0·39	—0·01	— 3
North-West Frontier Province	1·11	1·23	—0·12	—10
Sind	0·77	0·16	+0·61	+381
Rajputana, West	0·34	0·41	—0·07	—17
Do., East	0·83	0·78	+0·05	+ 6
Gujarat	0·05	0·83	—0·78	—94
Central India, West	0·50	1·18	—0·68	—58
Do. do., East	0·41	2·29	—1·88	—82
Berar	1·72	2·55	—0·83	—33
Central Provinces, West	1·03	2·42	—1·39	—57
Do. do., East	1·52	2·72	—1·20	—44
Konkan	5·73	4·90	+0·83	+17
Bombay Deccan	2·52	4·14	—1·62	—39
Hyderabad, North	1·98	3·90	—1·92	—49
Do., South	2·41	4·30	—1·89	—44
Mysore	5·04	7·77	—2·73	—35
Malabar	19·35	13·96	+5·39	+39
Madras, South-east	22·42	17·29	+5·13	+30
Madras Deccan	6·10	6·59	—0·49	— 7
Do. Coast, North	10·87	10·69	+0·18	+ 2

In Baluchistan the weather was more unsettled than usual throughout the period, but in Persia the excess in the rainfall occurred almost entirely in December. In Kashmir the conditions were nearly normal, the aggregate fall being only 6 per cent. above the average.

TABLE 88.

Station or sub-division.	Rainfall of period, October to December.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"	
Aden	0	0·51	—0·51	—100
Baghdad	1·73	2·04	—0·31	— 15
Busrah	5·70	1·79	+3·91	+218
Bushire	6·49	4·91	+1·58	+ 32
Bahrein	0·54	0·86	—0·32	— 37
Tehran	3·10	2·63	+0·47	+ 18
Ispahan	2·46	1·68	+0·78	+ 46
Jask	1·68	1·63	+0·05	+ 3
Muscat	0·54	1·04	—0·50	— 48
Meshed	2·03	1·75	+0·28	+ 16
Kashmir	2·49	2·36	+0·13	+ 6
Baluchistan	2·03	1·52	+0·51	+ 34

All through the season there was less than the normal amount of rainfall in equatorial regions, and there were thus no indications in that region of an early commencement of the actions characteristic of an early winter.

TABLE 89.

Station.	Departure from normal of rainfall in			
	October.	November.	December.	Period, October to December.
	"	"	"	"
Zanzibar	+0·55	—5·44	— 4·23	—9·12
Seychelles	—2·18	—2·07	— 0·73	—4·98
Mauritius	—0·53	—0·94	+ 0·40	—1·07

The year.—On the whole the year 1913 was slightly drier than usual, the total rainfall in the plains of India being short of the normal by 0·76″ or 2 per cent. The defect

occurred entirely in the southwest monsoon season, the quantity of rainfall received in the other three periods being appreciably above the normal.

TABLE 90.

PERIOD.	RAINFALL OF INDIA (WHEN THE SIZE OF AREAS IS TAKEN INTO ACCOUNT) IN 1913.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"	
Cold weather	1·13	0·92	+0·21	+23
Hot "	4·72	4·40	+0·32	+ 7
South-west monsoon	33·39	35·27	—1·88	− 5
Retreating south-west monsoon	4·87	4·28	+0·59	+14
Whole year	44·11	44·87	−0·76	− 2

The only areas where the defect was more than 20 per cent. in amount were the United Provinces, Rajputana East, Central India East and Hyderabad. On the other hand there was an excess of 12·42″ in Sind, the normal annual fall of which amounts to only 6·37″.

TABLE 91.

SUB-DIVISION.	WHOLE YEAR.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"	
Bay Islands	86·00	101·23	—15·23	—15
Lower Burma	122·48	122·81	—0·33	0
Upper Burma	43·47	42·07	+1·40	+ 3
Assam	105·89	98·11	+7·78	+ 8
Bengal	88·96	75·28	+13·68	+18
Orissa	61·23	57·52	+3·71	+ 6
Chota Nagpur	63·24	53·38	+9·86	+18
Bihar	60·43	50·13	+10·30	+21
United Provinces, East	30·39	40·12	—9·73	—24
Do. do. West	23·30	38·90	—15·60	—40
Punjab, East and North	22·71	23·65	—0·94	— 4
Punjab, South-west	12·59	8·84	+3·75	+42
North-West Frontier Province	14·66	16·24	—1·58	—10
Sind	18·79	6·37	+12·42	+195
Rajputana, West	10·10	11·81	—1·71	—14
Do., East	15·65	24·51	—8·86	—36
Gujarat	41·30	32·73	+8·57	+26
Central India, West	30·22	34·43	—4·21	—12
Do., East	31·16	45·45	—14·29	—31
Berar	33·93	31·35	+2·58	+ 8
Central Provinces, West	39·98	45·63	—5·65	—12
Do. do., East	47·72	52·90	—5·18	—10
Konkan	103·99	109·41	—5·42	— 5
Bombay Deccan	28·02	31·06	—3·04	—10
Hyderabad, North	27·10	35·79	—8·69	—24
Do., South	19·76	29·71	—9·95	—33
Mysore	32·40	36·23	—3·83	—11
Malabar	111·61	126·95	—15·34	—12
Madras, South-east	35·89	35·20	+0·69	+ 2
Do. Deccan	20·52	24·29	—3·77	—16
Do. Coast, North	36·91	39·65	—2·74	— 7

At the two equatorial stations the yearly aggregate was well below the average, but in the south of the Indian Ocean there was an excess due mainly to the heavy rainfall of January and June.

TABLE 92.

STATION.	ANNUAL RAINFALL.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"	
Zanzibar	53·27	63·30	—10·03	—16
Seychelles	67·82	97·28	—29·46	—30
Mauritius	53·85	49·03	+ 4·82	+10

In Persia the total fall of the year was greater than usual, though not to any marked extent.

TABLE 93.

Station or sub-division.	Annual rainfall.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"	
Aden	0·53	2·65	—2·12	—80
Baghdad	5·22	6·95	—1·73	—25
Busrah	10·85	6·23	+4·62	+74
Bushire	11·38	11·07	+0·31	+ 3
Bahrein	3·35	2·47	+0·88	+36
Tehran	11·15	9·30	+1·85	+20

TABLE 93—*concld.*

Station or sub-division.	Annual rainfall.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"	
Ispahan	4·24	4·74	—0·50	— 11
Jask	5·02	4·17	+0·85	+20
Muscat	5·27	3·94	+1·33	+34
Meshed	7·35	9·37	—2·02	—22
Kashmir . . .	25·61	25·58	+0·03	0
Baluchistan . . .	9·71	8·29	+1·42	+17

HEM RAJ.

Table A.—Abstract of observations taken at 10 hrs. and 16 hrs. at 17 stations in India, etc., in the year 1913.

TABLE

Abstract of observations taken at 10 hrs. and 16 hrs.

Number of sub-division.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure. Mean of 10 hrs.	Mean of 16 hrs.	Mean daily range.	Mean of daily mean pressures.	Departure from normal	Mean reduced to sea-level and gravity, 45° Lat.	Temperature of air. Mean maximum.	Mean minimum.	Mean daily range.	Highest maximum.	Lowest minimum.	Absolute range.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
	III.—Bengal.																	
5	Calcutta	21	29·850	29·735	·115	29·790	+·002	29·758	86·5	70·7	15·8	106·6	48·3	58·3	80·6	84·0	78·0	0
	V.—United Provinces of Agra and Oudh.																	
9	Allahabad	309	29·554	29·436	·118	29·490	+·014	29·752	90·6	65·9	24·7	112·1	36·5	75·6	82·0	88·8	77·1	−0·2
	VI.—Punjab.																	
11	Lahore	702	29·134	29·045	·089	29·082	+·011	29·754	88·4	62·3	26·1	113·2	32·8	79·4	77·9	86·2	74·3	−0·4
	IX.—Rajputana.																	
18	Jaipur	1,431	28·439	28·335	·104	28·384	+·007	29·745	90·7	65·7	25·0	110·8	38·1	72·7	82·1	86·3	77·0	−0·1
	X.—Bombay.																	
25	Bombay	37	29·884	29·786	·098	29·832	+·005	29·809	86·3	75·0	11·3	95·0	63·3	31·7	80·8	83·1	79·5	+0·2
	XIV.—Mysore.																	
29	Bangalore	3,021	26·966	26·854	·112	26·914	+·013	29·743	85·7	64·3	21·4	100·3	50·8	49·5	77·3	82·5	73·6	+0·8
	XV.—Madras.																	
31	Pudukkottai (a)	318	29·617	29·476	·141	29·547	...	29·793	93·3	74·7	18·6	107·1	63·9	43·2	84·4	89·7	84·0	...
	Madras	22	29·894	29·779	·115	29·841	−·002	29·794	91·7	75·9	15·8	107·7	63·1	44·6	86·5	86·8	82·7	+0·9
	Hill stations, excluding Kashmir and Baluchistan.																	
	Sarain (e)	...	23·186	23·129	·057	23·147	...	23·109	55·1	34·4	20·7	77·6	16·5	61·1	48·0	49·4	44·6	...
	Kalabagh (g)	...	20·138	20·103	·035	20·114	...	20·077	53·5	43·4	10·1	63·0	27·7	35·3	50·1	51·8	...	...
	Mukteswar	7,592	22·844	22·783	·061	22·806	...	22·764	62·2	45·3	16·9	77·7	25·4	52·3	55·5	58·6	53·4	...
	Katmandu	4,388	25·648	25·551	·097	25·597	+·032*	25·551	76·4	53·4	23·0	96·4	32·2	64·2	66·3	72·5	64·6	0*
	Ootacamund (f)	7,327	23·076	23·005	·071	23·036	...	22·972	69·3	48·3	21·0	78·2	34·1	44·1	64·7	63·5	58·7	...
	Kodaikanal	7,688	22·850	22·788	·062	22·818	...	22·754	66·0	51·0	15·0	77·4	39·9	37·5	62·0	60·1	58·2	...
	Dodabetta	8,539?	22·085	22·020	·065	22·049	...	21·986	59·6	47·8	11·8	70·7	37·1	33·6	56·6	55·3	53·4	...
	Extra India.																	
	Seychelles	15	29·992	29·902	·090	29·953	+·009*	29·892	83·3	77·4	5·9	88·2	71·1	17·1	81·2	82·1	79·1	+0·9*
	Mauritius	181	...	...	...	29·885	+·001	30·030	...	...	...	...	...	...	...	...	72·7	−0·6

N. B.—Elevations in italics indicate barometric determinations.
NOTE.—The barometric readings are not reduced to sea-level, in the case of hill or plateau stations, the elevations of which exceed 3,200 feet.

(a) Mean of 11 months.
(e) ,, ,, 7 ,,
(g) ,, ,, 5 ,,
(f) ,, ,, 6 ,,

* Departure from old normals.

A.

at 17 stations in India, etc., in the year 1913.

Temperature, Wet-bulb.				Vapour tension in inches of mercury.					Humidity.					Cloud.				Rainfall.		Station.	Number of sub-division.
Mean minimum.	Mean 10 hrs.	Mean 16 hrs.	Mean of three previous columns.	From minimum.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	From minimum.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	Mean 10 hrs.	Mean 16 hrs.	Mean of two previous columns.	Departure from normal.	Total rainfall for the year.	Heaviest rainfall during the year.		
20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
																				III.—Bengal.	
68·5	73·4	73·9	71·9	·693	·747	·723	·737	—·007	89	70	61	76	— 1	4·4	4·5	4·5	—0·1	86·34	5·69	Calcutta	5
																				V.—United Provinces of Agra and Oudh.	
61·5	67·7	68·7	65·9	·530	·516	·461	·513	—·054	78	47	35	57	— 4	3·3	3·2	3·3	—0·2	26·81	4·21	Allahabad	9
																				VI.—Punjab.	
58·1	65·4	68·2	63·9	·477	·496	·480	·494	—·004	78	51	38	58	+ 2	2·4	2·5	2·5	—0·4	24·94	3·37	Lahore	11
																				IX.—Rajputana.	
57·9	65·2	66·5	63·2	·422	·442	·404	·430	—·035	61	39	30	47	— 6	2·8	3·9	3·3	—0·4	15·06	2·78	Jaipur	18
																				X.—Bombay.	
70·6	74·4	75·6	73·5	·699	·773	·790	·772	—·020	79	73	70	77	— 1	3·7	3·5	3·6	—0·2	70·96	7·95	Bombay	25
																				XIV.—Mysore.	
61·7	66·9	66·9	64·6	·531	·542	·482	·526	—·016	87	59	46	66	— 2	4·5	5·2	4·9	...	21·43	2·97	Bangalore	29
																				XV.—Madras.	
...	74·3	75·5	...	...	·713	·675	...	...	...	59	49	...	...	4·4	5·6	5·0	...	36·30	3·30	Pudukkottai	31
72·9	76·5	77·2	75·5	·772	·781	·807	·803	—·006	86	63	64	74	— 2	4·5	4·6	4·5	—0·5	65·07	6·86	Madras.	
																				Hill stations, excluding Kashmir and Baluchistan.	
...	40·0	41·1	...	...	·174	·185	...	...	...	54	55	...	...	4·2	4·7	4·5	...	25·80	2·77	Sarain.	
...	45·7	47·6	...	...	·277	·301	...	...	...	74	76	...	...	5·8	6·8	6·3	...	33·83	3·98	Kalabagh.	
39·4	48·2	50·9	46·2	·199	·281	·313	·265	...	61	60	61	62	...	4·6	5·5	5·1	...	44·62	4·71	Mukteswar.	
51·2	59·2	61·6	57·3	·384	·445	·442	·424	—·025	86	67	54	71	— 2	4·0	4·7	4·3	—0·2	46·05	2·70	Katmandu.	
45·5	53·5	54·8	51·3	·283	·295	·341	·309	...	51	49	59	68	...	4·3	6·5	5·4	...	12·73	1·86	Ootacamund.	
46·7	54·6	55·5	52·2	·280	·355	·394	·343	...	74	65	77	72	...	5·2	7·2	6·2	...	56·28	2·94	Kodaikanal.	
42·3	50·5	51·1	48·0	·218	·304	·334	·285	...	65	69	77	70	...	6·7	7·9	7·3	...	41·97	2·58	Dodabetta.	
																				Extra India.	
71·3	76·1	76·1	74·5	·690	·832	·821	·799	—·013	73	78	75	77	— 4	5·8	5·8	5·8	—0·4*	67·82	4·29	Seychelles.	
...	...	...	68·2	...	...	...	·620	0	...	...	...	77	+ 2	...	...	...	...	53·85	...	Mauritius.	

* Departure from old normals.

Table B.—Abstract of observations taken at 8 hrs. at 222 stations in India, etc., in the year 1913.

(1) Provincial means.

(2) Data of stations.

(1) Provincial means based on the material in Table B (2) except that the statement of rainfall depends on the complete data of about 2,000 stations.

		Temperature of air.								Wind	Hygrometry.				Cloud.		Rainfall.		
	Pressure departure from normal of year.	Mean maximum of year.	Departure from normal of year.	Mean minimum of year.	Departure from normal of year.	Yearly mean of mean between maximum and minimum.	Departure from normal of year.	Mean daily range of temperature.	Absolute range during year.	Departure of velocity from normal.	Mean humidity of year.	Departure from normal of year.	Mean vapour tension of year.	Departure from normal of year.	Mean cloud amount of year.	Departure from normal of year.	Rainfall of year.	Normal rainfall of year.	Departure from normal of year.
Burma	+·007	88·0	−0·6	70·3	+0·3	79·1	−0·1	17·7	28·2	−0·5	83	0	·738	−·011	5·2	+0·4	81·00	80·05	+0·95
Assam	+·008	82·1	−1·5	66·0	−0·3	73·9	−0·9	15·8	27·7	0	89	−1	·683	−·016	5·3	−0·7	105·89	98·11	+7·78
Bengal	+·007	85·4	−0·7	69·3	−0·3	77·3	−0·5	16·1	28·0	−0·9	85	+1	·740	−·017	4·5	0	88·96	75·28	+13·68
Bihar and Orissa	+·008	87·4	−1·2	68·1	−0·7	77·8	−1·0	19·3	33·0	+0·4	76	+2	·659	−·010	3·6	−0·2	60·98	52·41	+8·57
United Provinces of Agra and Oudh	+·014	89·2	+0·1	65·3	−0·8	77·3	−0·3	24·0	38·9	−0·3	65	−4	·550	−·024	2·3	−0·8	27·04	39·53	−12·49
Punjab	+·017	87·8	−1·3	62·8	−0·5	75·3	−0·9	24·9	41·1	0	62	−1	·479	−·018	2·5	−0·2	20·58	20·56	+0·02
North-West Frontier Province	−·004	86·9	−1·1	61·0	+0·1	74.0	−0·5	25·9	43·1	−0·5	64	+1	·467	−·018	2·6	+0·1	14·66	16·24	−1·58
Sind	+·005	90·6	−0·5	69·0	+0·9	79·8	+0·2	21·6	36·8	−0·9	67	+4	·615	+·043	2·3	−0·5	18·79	6·37	+12·42
Rajputana	+·005	91·1	−0·4	67·5	−0·5		−0·5	23·7	39·1	+0·6	51	−3	·449	−·045	2·5	−0·6	14·02	21·06	−7·04
Bombay	+·008	89·5	0	68·5	−0·5	79·0	−0·3	20·9	32·6	−0·7	68	−1	·614	−·015	3·5	0	45·90	45·63	+0·27
Central India	+·009	88·8	+0·1	64·5	−0·4	76·6	−0·2	24·3	39·6	−0·6	60	−3	·495	−·028	3·1	+0·1	29·71	38·24	−8·53
Central Provinces	+·011	90·1	+0·2	66·8	−0·2	78·5	0	23·3	37·1	+0·4	59	−5	·500	−·045	3·3	−0·1	39·48	41·53	−2·05
Hyderabad	+·001	92·1	+0·9	69·3	+0·3	80·7	+0·6	22·8	34·2	−1·0	60	−4	·545	−·042	3·7	−0·3	23·17	32·46	−9·29
Mysore	+·012	85·9	+1·0	65·2	+0·5	75·6	+0·7	20·7	30·2	+0·5	74	−1	·571	−·011	4·9	−0·3	32·40	36·23	−3·83
Madras	+·007	90·8	+0·4	74·3	+0·6	82·5	+0·5	16·5	25·9	+0·5	76	−1	·763	−·002	4·5	−0·1	41·19	43·51	−2·32

TABLE

(2) *Abstract of observations taken at 8 hrs. at 222*

Number of sub-division.	Station.	Elevation of bar-cistern above sea level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal of year.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during year.	Lowest pressure recorded during year.	Absolute range during year.	Mean monthly range of pressure.	Temperature of air. Mean of 8 hrs. temperature of year.	Mean maximum of year.	Departure from normal of year.	Mean minimum of year.	Departure from normal of year.	Yearly mean of mean between maximum and minimum.	Departure from normal of year.	Mean daily range of temperature.	Highest temperature observed during year.	Lowest temperature observed during year.	Absolute range during year.	Mean monthly absolute range.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	I.—Burma.																				
2	Victoria Point	147	29·789	...	29·867	30·007	29·662	·345	·155	78·9	86·3	...	74·4	...	80·3	...	11·8	104·6	68·2	36·4	19·9
	Mergui	65	29·874	+·010	29·869	30·190	29·708	·482	·181	77·7	87·1	—0·5	71·3	+0·1	79·2	—0·2	15·8	95·5	57·8	37·7	23·8
	Tavoy	19	29·921	—·003	29·873	30·245	29·746	·499	·188	76·6	88·0	+0·1	72·8	+1·7	80·4	+0·9	15·2	98·0	60·3	37·7	24·3
	Moulmein	94	29·845	+·021	29·877	30·199	29·606	·593	·218	76·1	88·3	+0·1	73·0	+0·6	80·6	+0·4	15·3	99·5	60·8	38·7	24·5
	Rangoon	18	29·906	+·008	29·862	30·294	29·646	·648	·222	76·3	89·2	—0·3	72·6	—0·2	80·9	—0·3	16·6	103·5	58·0	45·5	25·1
	Bassein	27	29·880	+·005	29·844	30·277	29·610	·667	·228	76·9	87·9	—0·2	73·1	+1·0	80·5	+0·4	14·8	101·2	57·9	43·3	22·9
	Diamond Island	41	29·866	—·002	29·842	30·230	29·587	·643	·221	80·1	85·7	+0·2	76·2†	+1·0†	81·0†	+0·7†	9·6†	91·9	66·0	25·9	16·6†
	Toungoo	164	29·753	+·016	29·861	30·165	29·441	·724	·230	75·5	89·9	—0·3	70·8	+0·1	80·3	—0·1	19·1	107·0	50·4	56·6	29·7
	Kyaukpyu	18	29·873	...	29·831	30·294	29·547	·747	·243	77·6	85·4	...	72·0	...	78·7	...	13·3	97·0	54·4	42·6	24·2
	Akyab	20	29·877	+·005	29·838	30·296	29·404	·892	·261	75·5	85·5	—0·6	71·3	—1·0	78·4	—0·8	14·2	95·4	52·0	43·4	23·9
3	Thayetmyo	121	29·772	+·002	29·836	30·213	29·420	·793	·239	76·4	91·2	—0·6	69·9	+0·2	80·5	—0·2	21·3	109·7	43·9	65·8	32·9
	Minbu	*165*	29·720	—·004	29·830	30·186	29·376	·810	·247	75·8	91·4	—0·9	71·2	+0·1	81·3	—0·4	20·1	116·3	48·0	62·3	32·1
	Yamethin	657	29·235	+·004	29·819	29·660	28·919	·741	·231	74·8	91·4	—0·8	69·9	+0·5	80·6	—0·1	21·4	109·7	48·5	61·2	32·2
	Mandalay	250	29·651	+·021	29·852	30·126	29·301	·825	·242	76·1	93·6	+1·1?	70·3	—0·8	82·0	+0·2?	23·2	113·0	47·3	65·7	36·0
	Monywa	*280*	29·618	...	29·851	30·080	29·272	·808	·254	75·9	91·8	...	71·2	...	81·5	...	20·6	112·8	50·1	62·7	32·1
	Lashio	*2,820*	27·112	—·005	27·058	27·523	26·800	·723	·245	65·5	80·4	—2·2	60·9	+0·9	70·6	—0·6	19·4	99·1	39·5	59·6	31·8
	Bhamo	*361*	29·524	+·025	29·863	30·038	29·135	·903	·274	69·2	85·6	—1·0	64·8	—0·3	75·2	—0·7	20·7	102·9	42·0	60·9	32·9
	Myitkyina	458	29·417	...	29·845	29·930	29·030	·900	·285	68·3	83·6	...	65·0	...	74·3	...	18·6	100·6	43·4	57·2	30·8
	II.—Assam.																				
4	Dibrugarh	353	29·523	...	29·848	30·034	29·115	·919	·303	67·4	79·8	...	64·6	...	72·2	...	15·2	93·9	45·6	48·3	27·4
	Sibsagar	333	29·578*f*	—·001*f*	29·881*f*	29·936*f*	29·257	·679	·311*f*	68·8	79·8	—2·0	64·1*a*	—0·6*a*	71·5*a*	—1·4*a*	14·8*a*	98·1	44·0	54·1	26·8*a*
	Tezpur	252	29·655	...	29·872	30·175	29·233	·942	·309	69·6	82·6	...	66·5	...	74·5	...	16·1	95·6	42·8	52·8	27·3
	Gauhati	196	29·693	...	29·849	30·213	29·266	·947	·313	71·1	83·7	...	66·1	...	74·9	...	17·7	96·8	44·1	52·7	29·7
	Dhubri	115	29·755*a*	+·007*a*	29·827*a*	30·260	29·348	·912	·304*a*	71·6	81·8	—1·1	67·3*a*	—0·2*a*	74·4*a*	—0·6*a*	13·7*a*	98·5	48·3	50·2	24·8*a*
	Silchar	104	29·797	+·009	29·855	30·285	29·349	·936	·286	71·8	84·7	—1·5	67·5	—0·1	76·0	—0·8	17·2	98·3	43·3	55·0	30·3
	III.—Bengal.																				
5	Cox's Bazar	36	29·859*a*	...	29·841*a*	30·263	29·363	·900	·256*a*	75·2	84·7	...	69·5	...	77·1	...	15·2	93·2	48·7	44·5	24·9
	Chittagong	87	29·798	+·006	29·832	30·246	29·317	·929	·276	73·5	84·2	—0·6	68·8	—0·7	76·5	—0·6	15·3	93·0	48·0	45·0	26·4
	Noakhali	43	29·839	...	29·827	30·295	29·320	·975	·291	74·3	83·3	...	69·3*a*	...	76·3*a*	...	13·8*a*	91·8	46·8	45·0	25·2*a*
	Barisal	12	29·855	+·008	29·814	30·314	29·262	1·052	·303	75·7	85·1	—0·9	69·7	—0·7	77·4	—0·8	15·3	95·3	44·6	50·7	26·8
	Narayanganj	26	29·847	+·014	29·822	30·323	29·323	1·000	·309	74·9	85·4	—1·1	70·0	—0·5	77·7	—0·8	15·4	97·0	48·8	48·2	26·2
	Mymensingh	63	29·814	+·009	29·830	30·294	29·362	·932	·311	72·7	85·1	+0·8	69·2	+0·8	77·1	+0·8	15·9	102·1	48·1	54·0	28·1
	Bogra	75	29·784	+·005	29·812	30·261	29·323	·938	·322	72·7	85·0	—0·3	68·3	+0·2	76·6	0	16·7	108·1	46·2	61·9	29·7
	Dinajpur	123	29·729	+·003	29·809	30·226	29·258	·968	·328	72·3	85·6	—0·4	67·1	0	76·3	—0·2	18·5	107·3	44·5	62·8	32·1
	Jalpaiguri	283	29·587	+·006	29·834	30·090	29·181	·909	·313	70·4	84·2	+0·5	66·1	+0·1	75·1	+0·3	18·1	96·4	46·9	49·5	29·3
	Saugor Island	10	29·846	+·007	29·802	30·340	29·146	1·194	·321	75·9*b*	83·4*b*	—1·3*b*	71·5*b*	—1·3*b*	77·5*b*	—1·3*b*	11·5*b*	92·2	48·7	43·5	20·3*b*

N.B.—Elevations in italics indicate barometrical determinations.
† Mean of 9 months.
a „ „ 11 „
b „ „ 10 „
f „ „ 6 „

B.

stations in India, etc., in the year 1913.

Wind direction. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind velocity: Mean velocity in miles per hour of year.	Normal velocity of year.	Departure from normal of year.	Hygrometry, 8 hrs.: Mean humidity at 8 hrs. of year.	Departure from normal of year.	Mean vapour tension at 8 hrs in inches of mercury of year.	Departure from normal in inches of mercury of year.	Cloud: Mean cloud amount at 8 hrs. of year.	Departure from normal of year.	Rainfall: Number of rainy days during year.	Normal number of rainy days during year.	Departure from normal of year.	Rainfall of year.	Normal rainfall of year.	Departure from normal of year.	Heaviest rainfall during year.	Station.
23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
																									I.—Burma.
32	56	93	46	35	28	35	29	11	5·0*	...	...	83	...	·821	...	5·8	...	173	...	...	175·59	...	...	6·71	Victoria Point.
335	0	6	7	10	1	4	0	2	2·3	1·4	+0·9	87	+ 2	·823	+·007	5·0	− 0·3	142	155·7	−13·7	156·93	163·22	− 6·29	5·04	Mergui.
293	2	3	5	11	19	23	5	4	1·0*	1·1	−0·1	87	0	·807	+·006	4·3	− 0·8	139	147·0	−8·0	223·30	215·84	+ 7·46	8·05	Tavoy.
52	9	50	144	33	50	13	12	2	3·5	2·3	+1·2	88	+ 1	·798	−·002	5·4	+ 0·5	135	130·9	− 4·9	210·16	187·86	+22·30	10·65	Moulmein.
86	38	58	21	21	57	37	26	20	2·0	3·1	−1·1	86	− 2	·790	−·015	8·0	+ 3·0	122	121·4	+ 0·6	117·18	97·63	+19·55	5·94	Rangoon. (a)
259	3	19	5	6	15	14	14	30	3·8	3·2	+0·6	88	0	·826	+·009	4·6	− 3	118	125·8	− 7·8	104·15	109·77	− 5·62	6·21	Bassein.
26	34	77	27	15	21	79	41	45	6·8	6·4	+0·4	80	+ 1	·828	+·011	5·5	+ 0·1	109	112·9	− 3·9	129·88	116·61	+13·27	7·11	Diamond Island.
54	42	28	19	82	87	26	5	22	1·8	2·4	−0·6	84	− 2	·752	−·026	5·9	+ 0·7	101	114·3	−13·3	86·23	82·26	+ 3·97	2·89	Toungoo.
38	16	73	47	87	34	42	9	18	4·1	...	...	84	...	·795	...	4·8	...	122	...	...	163·47	...	...	8·65	Kyaukpyu. (a)
61	54	62	79	41	21	20	7	20	2·3	2·4	−0·1	88	0	·781	−·024	4·5	− 0·6	132	123·8	+ 8·2	213·83	191·44	+22·39	9·43	Akyab.
152	3	27	3	14	167	3	3	2	2·3*	3·7	−1·4	78	+ 2	·725	+·017	5·1	+ 0·9	78	72·7	+ 5·3	34·50	37·34	− 2·84	2·37	Thayetmyo. (a)
3	6	2	5	216	11	4	0	118	2·8	6·3	−3·5	73	− 2	·667	−·035	4·5	+ 1·1	64	56·3	+ 7·7	30·69	34·33	− 3·64	3·48	Minbu.
99	38	1	0	101	99	3	0	24	2·9	4·2	−1·3	76	− 2	·662	−·040	3·3	+ 0·6	58	62·4	− 4·4	38·47	38·65	− 0·18	2·61	Yamethin.
191	11	8	7	61	64	11	1	11	2·0c	3·7	−1·7	73	− 2	·661	−·049	3·9	− 0·4	54	50·3	+ 3·7	31·56	32·97	− 1·41	3·16	Mandalay.
54	115	11	10	114	23	2	6	30	2·3	...	...	77	...	·695	...	5·2	...	49	44·1	+ 4·9	33·55	32·18	+ 1·37	2·50	Monywa.
329	0	0	0	0	9	19	5	2	1·3*	...	...	86	0	·549	−·012	6·4	− 0·3	117	99·8	+17·2	73·19	62·25	+10·94	2·87	Lashio. (a)
206	28	61	10	4	4	21	9	22	1·2	1·8	−0·6	91	+ 4	·668	−·006	6·6	+ 1·5	110	99·6	+10·4	84·29	71·69	+12·60	3·95	Bhamo.
271	15	32	15	19	6	3	1	3	1·8	...	...	88	...	·631	...	5·3	...	106	105·0	+ 1·0	77·28	76·14	+ 1·14	5·41	Myitkyina.
																									II.—Assam.
317	0	19	18	4	2	3	2	0	0·9	...	...	95	...	·659	...	5·2	...	145	134·8	+10·2	123·79	106·50	+17·29	7·76	Dibrugarh.
212	45	49	3	8	27	11	2	8	1·9	1·8	+0·1	92	− 3	·675	−·036	6·8	− 0·3	141	129·1	+11·9	114·25	96·27	+17·98	5·85	Sibsagar.
90	15	136	85	2	6	14	15	2	2·3	...	...	87	...	·664	...	5·0	...	113	106·5	+ 6·5	75·36	69·46	+ 5·90	3·83	Tezpur.
257	3	25	31	25	13	7	2	2	1·3	...	...	87	...	·688	...	5·0	...	92	92·8	− 0·8	66·39	62·88	+ 3·51	3·30	Gauhati.
25	5	128	132	19	26	23	6	1	4·4	3·8	+0·6	87	0	·698	0	5·2	+ 0·3	85	93·9	− 8·9	91·44	94·62	− 3·18	6·26	Dhubri.
307	1	27	18	6	2	3	1	0	1·0	1·7	−0·7	88	0	·715	−·012	4·3	− 2·1	136	136·6	− 0·6	144·32	124·56	+19·76	8·95	Silchar.
																									III.—Bengal.
10	36	68	60	132	44	8	3	4	3·8*	...	...	88	...	·781	...	4·4	...	116	...	...	147·44	...	...	8·11	Cox's Bazar.
166	2	54	57	62	14	8	1	1	1·5	3·6	−2·1	87	0	·737	−·026	4·7	− 0·3	110	93·6	+16·4	143·21	98·23	+44·98	16·57	Chittagong.
58	54	42	24	100	49	24	6	8	2·9	...	...	87	...	·764	...	4·1	...	115	112·5	+ 2·5	123·94	120·30	+ 3·64	5·18	Noakhali.
260	4	4	5	14	53	23	1	1	0·5	2·3	−1·8	85	− 1	·773	−·029	4·5	− 0·3	103	101·3	+ 1·7	108·85	79·72	+29·13	4·67	Barisal.
165	10	10	37	31	60	26	13	13	2·4	3·6	−1·2	85	− 1	·757	−·021	5·3	0	103	91·0	+12·0	74·66	70·45	+ 4·21	3·02	Narayanganj.
242	3	1	47	49	15	3	0	5	1·1	2·0	−0·9	88	0	·743	+·004	5·9	+ 1·1	96	106·4	−10·4	89·66	93·04	− 3·38	10·87	Mymensingh.
211	20	25	36	12	35	14	1	11	0·8	2·2	−1·4	86	+ 2	·723	−·007	4·7	+ 0·7	83	84·2	− 1·2	99·44	67·90	+31·54	10·16	Bogra.
114	14	48	92	26	20	20	20	11	1·7	2·6	−0·9	84	+ 1	·698	+·004	3·9	− 0·3	78	79·1	− 1·1	74·72	68·92	+ 5·80	5·75	Dinajpur.
317	0	3	13	29	2	0	1	0	1·3	...	...	86	0	·675	−·011	3·8	0	101	102·2	− 1·2	119·39	122·42	− 3·03	6·19	Jalpaiguri.
14	69	71	19	20	68	69	20	15	8·1	8·6	−0·5	875	+ 1	·7915	−·042	4·9	− 0·8	77	80·3	− 3·3	101·23	76·21	+31·02	13·94	Saugor Island.

* Uncorrected for scale error.
(a) Wind observations for 364 days.
(b) Mean of 10 months.
(c) " " 8 "

TABLE

(2) *Abstract of observations taken at 8 hrs. at 222*

Number of sub-division.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal of year.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during year.	Lowest pressure recorded during year.	Absolute range during year.	Mean monthly range of pressure.	Temperature of air. Mean of 8 hrs. temperature of year.	Mean maximum of year.	Departure from normal of year.	Mean minimum of year.	Departure from normal of year.	Yearly mean of mean between maximum and minimum.	Departure from normal of year.	Mean daily range of temperature.	Highest temperature observed during year.	Lowest temperature observed during year.	Absolute range during year.	Mean monthly absolute range.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	III.—Bengal— *concld.*																				
	Midnapore	149	29·693	...	29·793	30·177	29·015	1·162	·319	75·2	88·8	...	70·1	...	79·4	...	18·7	113·3	45·7	67·6	32·9
	Calcutta	21	29·835	+·005	29·803	30·329	29·213	1·116	·322	74·4	86·5	—0·1	70·6	0	78·5	0	15·9	106·5	48·3	58·2	28·3
	Jessore	30	29·838	+·013	29·815	30·308	29·252	1·056	·321	74·2	85·9	—1·9	69·2	—0·7	77·5	—1·3	16·7	105·5	45·7	59·8	29·0
	Burdwan	99	29·777†	+·008†	29·825†	30·263	29·203	1·060	·310†	73·7	87·1	—1·9	69·9	—0·7	78·5	—1·3	17·2	111·2	48·0	63·2	30·5
	Berhampore	67	29·791	+·006	29·808	30·291	29·232	1·059	·332	73·3	86·2	—1·6	69·5	—0·1	77·8	—0·8	16·7	111·6	48·2	63·4	29·9
	IV.—Bihar and Orissa.																				
6	Balasore	50	29·807	+·009	29·803	30·315	29·089	1·226	·327	74·6	88·0	—0·6	70·0	—0·5	79·0	—0·6	18·0	107·4	47·1	60·3	31·6
	Hukitala (False Point).	29	29·839	0	29·809	30·337	29·304	1·033	·298	...	...	...	...	...	...	...	...	...	...	...	...
	Cuttack	80	29·793	+·022	29·815?	30·296	29·167	1·129	·303	76·2	89·1	—2·3?	72·0	—0·6	80·5	—1·5?	17·1	109·5	50·2	59·3	28·7
	Puri	24	29·837	...	29·801	30·330	29·186	1·144	·298	77·2	86·5	...	73·5	...	80·0	...	13·1	95·1	53·6	41·5	22·9
	Angul	455	29·399	...	29·812	29·897	28·839	1·058	·303	74·9	89·7	...	69·0	...	79·3	...	20·7	112·1	45·5	66·6	32·9
	Sambalpur	486	29·380	+·012	29·823	29·886	28·844	1·042	·311	74·4†	89·6†	—0·9†	69·5†	—0·7†	79·6†	—1·0†	21·1†	112·6	43·2	69·4	33·8†
7	Chaibasa	733	29·102	+·005	29·801	29·599	28·432	1·167	·320	71·9	88·5	—1·9	67·1	—1·2	77·8	—1·6	21·3	112·1	40·8	71·3	35·4
	Ranchi	2,128	27·724	+·018	29·799	28·149	27·231	·918	·278	70·1	83·1	—1·4	65·1	—0·1	74·1	—0·8	18·0	104·7	43·4	61·3	31·0
	Purulia	816	29·030	...	29·812	29·515	28·436	1·079	·314	72·7	88·5	...	67·7	...	78·2	...	20·8	112·0	44·1	67·9	36·5
	Daltonganj	730	29·123	...	29·831	29·651	28·678	·973	·283	72·8†	89·4†	...	66·1†	...	77·7†	...	23·2†	111·1	34·5	76·6	39·3†
8	Purnea	124	29·725	+·005	29·813	30·263	29·267	·996	·323	71·1	85·7	—1·0	68·0†	0†	77·4†	—0·5†	18·8†	107·6	40·8	66·8	33·2†
	Monghyr	155	29·697	...	29·807	30·258	29·250	1·008	·314	74·6	86·3	...	67·7	...	77·0	...	18·6	108·7	44·9	63·8	32·0
	Darbhanga	165	29·687	+·009	29·811	30·226	29·261	·965	·317	72·2	85·7	—0·1	66·0	—2·6	75·9	—1·4	19·7	108·1	40·7	67·4	33·0
	Pusa	188	29·656	...	29·803	30·198	29·231	·967	·321	72·3	87·0	...	65·2	...	76·1	...	21·8	111·1	40·9	70·2	35·8
	Patna	183	29·662	+·001	29·803	30·212	29·250	·962	·305	73·8	85·4	—2·4	68·5	—0·1	76·9	—1·2	16·9	108·0	44·2	63·8	30·4
	Buxar	239	29·604	...	29·805	30·166	29·209	·957	·293	72·2	88·2	...	67·5	...	77·9	...	20·7	111·0	41·6	69·4	35·3
	Gaya	372	29·469	+·004	29·800	29·999	29·061	·938	·291	74·6	88·1	—1·9	68·1	—0·8	78·1	—1·3	20·0	111·0	40·2	71·7	35·9
	Naya Dumka	489	29·358	+·018	29·809	29·847	28·861	·986	·315	73·3	86·3	—1·0	67·4	—0·4	76·9	—0·7	18·9	111·4	42·5	68·9	32·7
	V.—United Provinces of Agra and Oudh.																				
9	Gorakhpur	257	29·575	+·007	29·796	30·120	29·170	·950	·305	72·3	86·7	—1·3	64·2	—3·2?	75·4	—2·2?	22·5	111·1	36·6	74·5	37·1
	Benares	267	29·579	+·015	29·805	30·128	29·183	·945	·292	74·2	88·9	—0·6	65·9	—1·1	77·5	—0·9	23·1	111·0	36·3	74·7	38·0
	Allahabad	309	29·537	+·014	29·807	30·083	29·135	·948	·294	73·9	90·5	+0·3	65·9	—0·9	78·2	—0·3	24·6	112·1	36·5	75·6	39·8
	Cawnpore	416	29·426	+·022	29·807	29·965	29·006	·959	·297	72·8	90·2	+0·2	66·1	—0·3	78·1	—0·1	24·1	111·2	36·5	74·7	39·3
	Lucknow	368	29·474	+·018	29·807	30·020	29·072	·948	·302	74·2	89·7	0	65·6	0	77·7	0	24·1	111·5	36·1	75·4	39·7
	Bahraich	407	29·411	—·001	29·787?	29·975	29·007	·968	·308	71·8	87·7	—0·5	65·0	—0·7	76·4	—0·6	22·7	109·6	35·5	74·1	37·1
10	Jhansi	824	29·028	+·007	29·819	29·530	28·591	·939	·291	75·5	92·5	+1·4	67·6	—1·6	80·3	—0·1	24·9	114·6	39·5	75·1	40·2
	Agra	556	29·287	+·011	29·811	29·810	28·884	·926	·296	75·8	91·7	+0·9	67·7	0	79·7	+0·5	24·0	113·0	40·0	73·0	38·3
	Mainpuri	516	29·311	+·011	29·798	29·850	28·925	·925	·302	71·9	90·8	+0·9	65·1	—0·5	77·9	+0·2	25·6	111·8	36·1	75·7	40·9
	Bareilly	568	29·255	+·011	29·793	29·806	28·869	·937	·304	71·3	88·1	+0·5	64·1	—0·6	76·1	0	24·0	106·8	35·0	71·8	38·7
	Roorkee	899	28·934	+·024	29·824	29·469	28·554	·915	·304	68·3	84·8	—2·4	60·7	—1·9	72·7	—2·1	24·1	104·5	33·2	71·3	38·6

N. B.—Elevations in italics indicate barometrical determinations.

† Mean of 11 months.

B.—contd.

stations in India, etc., in the year 1913.

Wind direction. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind velocity. Mean velocity in miles per hour of year.	Normal velocity of year.	Departure from normal of year.	Hygrometry, 8 hrs. Mean humidity at 8 hrs. of year.	Departure from normal of year.	Mean vapour tension at 8 hrs. in inches of mercury of year.	Departure from normal in inches of mercury of year.	Cloud. Mean cloud amount at 8 hrs. of year.	Departure from normal of year.	Rainfall. Number of rainy days during year.	Normal number of rainy days during year.	Departure from normal of year.	Rainfall of year.	Normal rainfall of year.	Departure from normal of year.	Heaviest rainfall during year.	Station.
23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
																									III.—Bengal *—concld.*
87	46	37	13	52	56	23	4	44	2·1	...	...	80	...	·727	...	3·4	...	91	80·2	+10·8	72·10	58·12	+13·98	5·84	Midnapore. (c)
48	32	26	32	38	28	93	11	57	3·5	3·2	+0·3	56	+ 3	·757	—·011	4·4	+0·2	96	85·1	+10·9	86·34	61·81	+24·53	5·60	Calcutta.
212	8	13	17	50	36	14	8	7	2·4	2·2	+0·2	84	— 2	·744	—·047	4·3	—0·4	94	88·8	+ 5·2	86·50	65·79	+20·71	4·50	Jessore.
121	33	27	19	16	22	51	38	38	1·8	2·3	—0·5	81	+ 5	·717	+·011	4·4	—0·1	94	76·8	+17·2	74·99	58·00	+16·99	3·06	Burdwan.
109	27	20	59	22	65	44	8	11	1·8	2·4	—0·6	83	— 2	·711	—·032	4·5	—0·2	85	76·0	+ 9·0	73·24	55·27	+17·97	3·11	Berhampore.
																									IV.—Bihar and Orissa.
77	50	13	10	5	39	104	7	60	2·7	3·5	—0·8	82	— 1	·735	—·041	4·0	—0·9	86	77·4	+ 8·6	89·40	61·72	+27·68	7·73	Balasore.
14	32	21	6	12	32	122	27	99	9·1	6·8	+2·3	...	...	...	...	3·8	—1·4	68	72·0	— 4·0	78·43	62·98	+15·45	5·98	Hukitala (False Point.)
150	2	26	17	5	23	76	60	6	2·0*	2·1	—0·1	79	+ 1	·740	+·001	4·3	0	76	74·1	+ 1·9	57·62	59·30	—1·68	5·46	Cuttack.
21	102	37	4	0	21	108	34	38	6·9	...	...	84	...	·801	...	4·6	...	63	60·3	+ 2·7	55·67	53·57	+ 2·10	7·15	Puri.
113	20	25	15	27	9	11	38	107	3·9	...	...	76	...	·686	...	4·7	...	64	72·0	— 8·0	46·17	47·93	—1·76	6·15	Angul.
6	58	120	25	14	12	63	45	22	3·4	2·6	+0·8	76	+ 5	·650	—·009	4·2	+0·3	66	74·9	— 8·9	53·25	66·54	—13·29	4·76	Sambalpur.
138	3	17	6	6	39	108	40	8	2·0	1·3	+0·7	79	+ 4	·638	—·020	3·9	+0·3	82	74·9	+ 7·1	67·50	52·62	+14·88	3·58	Chaibasa.
69	15	7	28	14	24	49	93	66	5·2	4·6	+0·6	68	+ 1	·517	—·021	3·7	+0·2	79	80·4	— 1·4	70·16	56·67	+13·49	4·07	Ranchi.
128	8	18	19	13	8	19	101	51	1·8	...	...	73	...	·605	...	1·9	...	82	76·1	+ 5·9	63·65	52·15	+11·50	5·25	Purulia.
183	10	17	54	31	5	34	19	10	2·5	...	...	78†	...	·610†	...	2·9	...	62	62·5	— 0·5	53·77	42·07	+11·70	3·51	Daltonganj. ‡
50	19	57	110	33	11	39	34	12	2·0	2·3	—0·3	87	+ 3	·691	+·002	3·2	—0·4	67	70·1	— 3·1	63·37	61·86	+ 1·51	5·12	Purnea.
69	3	24	92	41	1	42	74	18	2·9	...	...	75	...	·662	...	3·7	...	68	...	...	52·72	...	...	7·86	Monghyr. §
175	3	12	113	8	1	12	31	10	3·3†	2·9	+0·4	81	+ 2	·672	—·009	3·4	+0·5	62	59·3	+ 2·7	62·42	50·37	+12·06	10·41	Darbhanga.
115	13	41	71	44	9	23	33	11	3·0	...	...	81	...	·668	...	3·0	...	66	...	...	65·74	...	...	8·66	Pusa. ‖
89	10	3	119	14	18	43	62	7	3·7	2·7	+1·0	74	+ 2	·650	—·003	3·3	—0·3	63	56·1	+ 6·9	71·61	47·03	+24·58	5·37	Patna.
57	9	15	77	31	36	77	52	10	3·4	...	...	73	...	·596	...	3·9	...	57	53·3	+ 3·7	41·99	41·22	+ 0·77	3·70	Buxar. §
74	20	59	15	14	42	20	97	17	2·0	2·7	—0·7	43	—28?	·651	+·014	3·0	—0·7	57	57·9	— 0·9	74·52	46·57	+27·95	7·94	Gaya. ¶
276	5	9	30	18	5	5	6	11	1·4†	...	...	75	0	·639	...	2·5	...	71	77·8	— 6·8	64·08	55·73	+ 8·35	5·62	Naya Dumka.
																									V.—United Provinces of Agra and Oudh.
114	0	56	87	11	1	10	77	9	1·7	1·7	0	76	+ 1	·632	—·010	1·1	—1·6	50	57·3	— 0·3	46·13	50·77	— 4·64	7·30	Gorakhpur.
97	8	8	46	59	11	58	50	28	2·4	2·7	—0·3	72	— 2	·630	+·005	3·0	—0·4	51	52·0	— 1·0	44·78	39·87	+ 4·91	5·18	Benares.
90	3	31	42	20	15	23	109	32	2·7	3·8	—1·1	62	— 5	·538	—·056	3·4	—0·1	45	48·8	— 3·8	26·81	39·16	—12·35	4·21	Allahabad.
144	12	14	41	21	8	30	79	16	1·9	2·7	—0·8	66	— 1	·558	—·032	1·2	—1·7	34	44·4	—10·4	24·24	36·06	—11·82	2·65	Cawnpore.
230	3	4	48	12	8	9	42	9	1·5	2·2	—0·7	63	— 7	·565	—·027	2·2	—1·1	45	47·7	— 2·7	31·73	38·05	— 6·32	4·03	Lucknow.
54	14	26	70	63	16	26	55	41	2·1	2·3	—0·2	68	— 7	·553	—·088?	2·6	—0·2	38	50·6	—12·6	31·43	44·82	—13·39	4·86	Bahraich.
57	10	33	24	9	7	110	87	28	3·7	2·4	+1·3	49	— 6	·447	— 066	?	?	31	47·7	—16·7	12·39	37·57	—25·18	1·36	Jhansi.
136	12	19	24	31	19	49	51	24	3·2	3·3	—0·1	51	—10	·472	—·061	2·3	—0·5	26	37·9	—11·9	10·89	27·32	—16·43	1·50	Agra.
63	23	14	41	34	18	25	87	60	1·8	1·4	+0·4	63	— 3	·525	—·029	1·5	—1·8	29	38·1	— 9·1	17·09	27·42	—10·33	1·50	Mainpuri.
301	0	0	22	15	2	2	16	7	0·6	2·0	—1·4	73	+ 1	·616	+·043	2·9	—0·1	37	47·8	—10·8	21·73	44·96	—23·23	2·30	Bareilly.
270	0	2	3	50	0	2	1	37	1·5	1·8	—0·3	71	0	·513	—·010	2·7	—0·4	41	47·6	— 6·6	28·21	42·30	—14·09	2·11	Roorkee.

* Uncorrected for scale error.

† Mean of 11 months.
‡ Wind observations for 363 days.
§ ,, ,, ,, 364 ,,
‖ ,, ,, ,, 360 ,,
¶ ,, ,, ,, 358 ,,

(c) Wind observations for 362 days.

TABLE

(2) *Abstract of observations taken at 8 hrs. at 222*

Number of sub-division.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal of year.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during year.	Lowest pressure recorded during year.	Absolute range during year.	Mean monthly range of pressure.	Temperature of air. Mean of 8 hrs. temperature of year.	Mean maximum of year.	Departure from normal of year.	Mean minimum of year.	Departure from normal of year.	Yearly mean of mean between maximum and minimum.	Departure from normal of year.	Mean daily range of temperature.	Highest temperature observed during year.	Lowest temperature observed during year.	Absolute range during year.	Mean monthly absolute range.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	VI.—Punjab.																				
11	Delhi . . .	718	29·116	+·018	29·814	29·634	28·732	·902	·292	71·8	88·3	—0·7	66·6	—0·8	77·5	—0·7	21·7	107·5	36·8	70·7	36·6
	Sirsa . . .	662	29·164	+·016	29·809	29·650	28·750	·900	·317	70·7	89·8	—2·1	63·2	—0·9	76·5	—1·5	26·7	114·8	33·0	82·8	42·7
	Patiala . .	*818*	29·000		29·807	29·560	28·600	·960	·327	68·7	85·9		63·1		74·5		22·8	106·9	34·9	72·0	38·4
	Ambala . .	892	28·933	+·025	29·817	29·494	28·547	·947	·301	68·4	87·3	—0·6	61·3	—1·8	74·3	—1·2	26·0	109·5	30·9	78·6	41·9
	Ludhiana . .	812	29·015	+·023	29·818	29·581	28·612	·969	·323	68·9	86·9	—1·4	63·3	—0·4	75·1	—0·9	23·6	110·3	35·6	74·7	39·3
	Lahore . .	702	29·115	+·013	29·8[illegible]9	29·654	28·670	·984	·347	68·3	88·5	—2·1	62·1	+1·2	75·3	—0·5	26·4	112·4	32·7	79·7	42·0
	Sialkot . .	830	28·988	+·018	29·816	29·535	28·561	1·024	·348	67·4	85·7	—2·1	60·3	—2·3	73·0	—2·1	25·3	108·0	31·7	76·3	41·5
	Rawalpindi . .	1,674	28·155	+·011	29·835	28·673	27·723	·950	·351	65·7	83·7	—0·6	57·3	—0·2	70·5	—0·4	26·3	110·4	32·4	78·0	42·7
12	Khushab . .	612	29·220	+·027	29·820?	29·853	28·735	1·118	·368	70·6	88·2†	—1·0†	63·9	+0·2	76·2†	—0·4†	24·2†	116·4	30·3	86·1	42·3†
	Lyallpur § . .		29·164		29·252‡	29·784	28·747	1·037	·351	73·9	92·4		66·9		79·6		25·5	113·1	30·0	83·1	42·3
	Montgomery .	558	29·259	+·015	29·800	29·786	28·804	·982	·349	71·9	89·9	—2·4	63·9	—0·5	76·9	—1·4	26·0	115·2	33·7	81·5	43·0
	Multan . .	420	29·405	+·010	29·799	29·983	28·904	1·084	·372	73·2	91·5	—0·3	66·3	+0·9	78·9	+0·3	25·3	117·8	38·5	79·3	41·3
	VII.—North-West Frontier Province.																				
14	Peshawar . .	1,113	28·725	—·005	29·846	29·287	28·247	1·040	·376	66·0	86·2	+0·6	58·9	—0·3	72·6	+0·1	27·3	115·3	30·2	85·1	44·6
	Dera Ismail Khan	590	29·238	—·003	29·817	29·854	28·728	1·126	·389	68·9	87·7	—2·7	63·1	+0·6	75·4	—1·0	24·6	118·1	32·8	85·3	41·5
	VIII.—Sind.																				
16	Jacobabad . .	186	29·632	+·001	29·781	30·140	29·118	1·022	·350	75·1	95·4	—0·2	67·0	+1·7	81·2	+0·8	28·4	124·1	35·6	88·3	46·5
	Hyderabad . .	96	29·747	+·005	29·797	30·193	29·185	1·008	·304	73·6	92·2	—1·3	68·2	0	80·2	—0·7	24·0	118·0	42·5	75·5	39·0
	Karachi . .	13	29·865	+·010	29·828	30·269	29·425	·844	·287	75·1	84·2	+0·1	71·7	+0·9	78·0	+0·5	12·5	112·5	52·0	60·5	24·9
	IX.—Rajputana.																				
17	Bikaner . .	*771*	29·052	+·007	29·793	29·555	28·598	·957	·319	72·7	92·6	+0·7	67·4	—2·2?	80·0	—0·8?	25·2	117·0	38·0	79·0	42·0
	Jodhpur . .	780	29·067	+·004	29·819	29·450	28·613	·837	·279	73·6	92·2	—0·9	67·5	—0·7	79·9	—0·8	24·7	115·2	41·3	73·9	39·8
18	Jaipur . . .	1,431	28·420	+·004	29·821	28·869	28·021	·848	·278	73·5	90·8	—0·1	65·6	—0·1	78·2	+0·1	25·2	110·7	38·1	72·6	40·7
	Ajmer . . .	1,611	28·255	+·009	29·841	28·682	27·844	·838	·275	70·1	87·7	—1·2	67·0	+2·6?	77·4	+0·7?	20·8	108·6	40·7	67·9	35·7
	Kotah . . .	832	29·015	+·001	29·808	29·483	28·520	·963	·285	77·3	92·3	—0·3	69·8	—0·7	81·1	—0·5	22·6	112·6	44·6	68·0	37·5
	X.—Bombay.																				
19	Deesa . .	466	29·412	+·011	29·840	29·782	28·914	·868	·255	73·9	93·0	—0·8	64·5	—2·5	78·7	—1·7	28·4	115·3	41·4	73·9	43·2
	Bhuj . .	334	29·535	+·007	29·825	29·892	29·013	·879	·260	74·6	90·2	—1·2	66·8	—1·9	78·5	—1·5	23·4	110·5	42·0	68·5	39·0
	Jamnagar .	61	29·835		29·842	30·217	29·392	·825	·235	77·2	89·5		67·5		78·5		22·0	105·6	44·2	61·4	34·5
	Dwarka . .	37	29·866	+·004	29·849	30·230	29·414	·816	·244	76·3	84·4	+0·3	73·2	+0·7	78·8	+0·5	11·2	93·8	54·7	39·1	21·9
	Rajkot . .	429	29·455	+·008	29·841	29·808	29·019	·789	·239	74·5	92·0	—1·1	64·5	—1·6	78·2	—1·4	27·5	110·1	39·8	70·3	41·2
	Veraval . .	*18*	29·882	+·012	29·843	30·240	29·407	·833	·238	74·9†	84·2	—0·8†	70·2†	—0·1†	77·2†	—0·5†	14·0†	101·6	50·8	50·8	26·9†
	Bhavnagar Para .	55	29·847	—·013	29·849?	30·181	29·378	·803	·242	75·3	92·7	—0·2	68·1	—2·1?	80·4	—1·2?	24·6	110·0	44·3	65·7	38·6
	Surat . .	39	29·866	+·009	29·848	30·233	29·394	·839	·238	76·1	91·2	—0·4	69·9	+0·6	80·6	+0·1	21·3	108·9	51·1	57·8	34·2
	Ahmedabad .	163	29·729	+·010	29·843	30·056	29·215	·841	·251	75·3	93·5	—0·5	69·8	—1·0	81·7	—0·8	23·7	112·6	49·7	62·9	36·3
	Bombay . .	37	29·875	+·001	29·852	30·222	29·491	·731	·215	77·8	86·3	+0·5	74·9	0	80·6	+0·8	11·4	95·0	53·5	31·5	18·5
	Ratnagiri . .	110	29·802	+·007	29·850	30·137	29·467	·670	·201	78·6	87·1	—0·4	72·7	—0·4	79·9	—0·4	14·4	95·3	58·9	37·4	24·1

N.B.—Elevations in italics indicate barometrical determinations.

† Mean of 11 months.

§ Mean of 8 months.

‡ Mean of 3 months and not reduced to sea-level.

B—contd.

stations in India, etc., in the year 1913.

Wind direction. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind velocity. Mean velocity in miles per hour of year.	Normal velocity of year.	Departure from normal of year.	Hygrometry, 8 hrs. Mean humidity at 8 hours of year.	Departure from normal of year.	Mean vapour tension at 8 hrs. in inches of mercury of year.	Departure from normal in inches of mercury of year.	Cloud. Mean cloud amount at 8 hrs. of year.	Departure from normal of year.	Rainfall. Number of rainy days during year.	Normal number of rainy days during year.	Departure from normal of year.	Rainfall of year.	Normal rainfall of year.	Departure from normal of year.	Heaviest rainfall during year.	Station.
	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
																									VI.—Punjab.
59	15	10	35	41	9	15	36	44	2·9	2·5	+0·4	61	+3	·503	+·013	2·6	−0·8	29	37·1	−8·1	17·41	27·52	−10·11	2·97	Delhi. (a)
56	47	44	39	20	49	65	23	22				60	+1	·477	−·010	2·1	−1·2	30	23·2	+6·8	20·45	13·88	+ 6·57	3·12	Sirsa.
64	28	15	37	80	19	16	37	69	4·3*			65		·486		2·2		40	36·5	+3·5	23·16	25·46	− 2·30	2·15	Patiala.
101	50	4	80	46	6	2	16	60	2·9	1·5	+1·4	66	−8	·485	−·072	·9	+0·2	45	42·3	+2·7	39·91	30·19	+ 9·72	3·85	Ambala.
300	6	13	4	29	2	0	2	9	0·5	1·4	−0·9	64	−2	·476	−·040	2·1	−1·5	36	36·7	−0·7	24·43	29·05	− 4·62	2·89	Ludhiana.
183	23	15	30	46	17	4	23	24	1·6	1·8	−0·2	67	+2	·498	−·005	2·6	−0·1	39	27·7	+11·3	24·94	19·69	+ 5·25	3·37	Lahore.
143	49	47	57	22	7	11	5	24	1·3	1·5	−0·2	71	+5	·501	−·009	2·6	+0·1	35	40·4	−5·4	22·68	31·66	− 8·98	2·84	Sialkot.
216	35	17	15	14	23	9	25	11	1·8	1·6	+0·2	68	0	·468	+·008	3·2	0	45	48·0	−3·0	31·76	34·29	− 2·53	5·05	Rawalpindi.
127	17	55	81	22	23	21	16	3	3·6	3·6	0	52	−3	·427	−·021	3·4	+1·2	27	23·2	+3·8	18·52	14·44	+ 4·08	2·77	Khushab.
46	9	21	18	58	23	43	9	18	2·4*			64		·563		3·2		21	19·5	+1·5	15·28k	12·66	+ 2·62	2·69	Lyallpur.
56	19	41	46	52	55	49	16	30	4·4	4·3	+0·1	51	−4	·416	−·059	2·2	0	22	18·2	+3·8	10·33	10·46	− 0·13	2·25	Montgomery. (a)
227	53	20	2	16	23	19	0	5	1·1	1·5	−0·4	61	+1	·527	+·012	1·8	+0·1	17	12·2	+4·8	11·99	6·73	+5·26	2·50	Multan.
																									VII.—North-West Frontier Province.
215	27	9	4	10	51	9	3	37	1·7	2·4	−0·7	63	0	·435	−·020	3·0	0	22	25·1	−3·1	8·05	13·29	− 5·24	1·05	Peshawar.
189	46	51	11	27	7	4	7	29	1·1	1·3	−0·2	65	+1	·500	−·016	2·2	+0·2	13	16·5	−3·5	6·34	9·37	− 3·03	0·92	Dera Ismail Khan.
																									VIII.—Sind.
214	13	23	26	41	19	3	0	26	2·3	2·5	−0·2	62	+7	·579	+·071	1·2	−0·8	12	7·6	+4·4	4·86	3·65	+ 1·21	0·75	Jacobabad.
23	73	2	4	5	97	108	10	41	5·3	8·1	−2·8	65	+7	·581	+·052	2·1	−0·6	12	9·6	+2·4	21·13	7·11	+14·02	6·93	Hyderabad. (b)
30	31	69	16	6	1	30	155	27	9·5	9·2	+0·3	73	−3	·684	+·006	3·5	−0·1	14	9·2	+4·8	13·45	7·78	+ 5·67	4·25	Karachi.
																									IX.—Rajputana.
62	6	16	35	47	46	74	61	18	4·9	4·3	+0·6	46	−7	·425	−·074	1·7	−0·9	21	19·4	+1·6	7·10	11·49	− 4·39	1·36	Bikaner.
62	22	79	15	6	24	118	33	1	3·4			47	−1	·424		2·7		21	18·5	+2·5	7·29	13·34	− 6·05	1·45	Jodhpur.
76	31	45	46	13	3	22	62	67	3·8*	3·2	+0·6	52	−6	·448	−·046	2·8	−0·4	23	35·5	−12·5	15·06	24·07	− 9·01	2·78	Jaipur.
154	3	24	5	9	5	87	48	30	4·2	3·6	+0·6	62	−1	·487	−·015	2·2	−0·5	28	30·1	−2·1	15·50	21·09	− 5·59	2·23	Ajmer.
137	14	13	7	9	4	37	85	59	2·5			48	−1	·462		2·9		29	35·0	−6·0	19·80	28·12	− 8·32	3·93	Kotah.
																									X.—Bombay.
24	21	79	49	12	31	81	40	28	7·0	7·5	−0·5	61	+ 5	·547	+·023	3·5	+0·1	41	28·3	+12·7	35·65	24·10	+11·55	7·02	Deesa.
75	20	16	4	2	6	69	113	60	5·4	8·1	−2·7	65	+ 1	·588	−·023	4·2	+1·3	18	16·9	+1·1	38·41	14·15	+24·26	12·14	Bhuj.
25	8	48	35	4	11	115	77	42	9·5	...	...	66	...	·649	...	1·7	...	18	20·8	−2·8	25·32	19·28	+6·04	4·84	Jamnagar.
4	61	47	18	6	6	79	95	49	8·7	...	...	77	0	·719	...	3·6	...	13	16·9	−3·9	17·35	14·38	+2·97	7·30	Dwarka.
65	24	33	10	5	19	110	69	30	7·2	6·6	+0·6	66	− 1	·599	−·025	4·3	+1·3	34	30·9	+3·1	28·61	26·54	+2·07	3·09	Rajkot
46	83	36	3	2	8	63	75	49	6·9	6·1	+0·8	70†	0	·634†	−·032	3·3	−0·6	24	24·2	−0·2	24·57	17·95	+6·62	7·82	Veraval.
78	17	12	9	4	3	84	75	83	3·0	7·3	−4·3	66	− 3	·620	−·039	3·3	0	40	29·8	+10·2	35·95	30·66	+15·29	8·05	Bhavnagar Para.
64	46	36	39	28	36	59	28	28	4·1†	5·5	−1·4	75	+ 4	·707	+·027?	3·7	+0·3	47	46·1	+0·9	37·65	41·12	−3·47	3.65	Surat. (a)
30	15	71	20	18	19	91	24	77	3·8	3·6	+0·2	62	+ 2	·589	+·007	3·0	−0·6	49	34·1	+14·9	35·86	29·62	+6·24	3·93	Ahmedabad.
5	35	87	74	24	22	41	55	22	6·4	8·6	−2·2	79	+ 1	·763	−·008	4·4	+0·2	65	73·3	−8·3	71·03	71·88	−0·85	7·95	Bombay.
37	25	69	37	95	12	36	28	26	6·7	6·2	+0·5	72	0	·698	−·029	4·3	+0·4	85	92·7	−7·7	72·80	101·22	−28·42	5·14	Ratnagiri

* Uncorrected for scale error. (a) Wind observations for 364 days.

† Mean of 11 months. (b) „ „ „ 363 „

(k) Rainfall from 18th April to 31st December 1913.

TABLE

(2) *Abstract of observations taken at 8 hrs. at 222*

Number of sub-division.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal of year.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during year.	Lowest pressure recorded during year.	Absolute range during year.	Mean monthly range of pressure.	Temperature of air. Mean of 8 hrs. temperature of year.	Mean maximum of year.	Departure from normal of year.	Mean minimum of year.	Departure from normal of year.	Yearly mean of mean between maximum and minimum.	Departure from normal of year.	Mean daily range of temperature.	Highest temperature observed during year.	Lowest temperature observed during year.	Absolute range during year.	Mean monthly absolute range.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	X.—Bombay— *concld.*																				
	Marmagao	60	29·862	+·001	29·857	30·182	29·537	·645	·202	77·9	85·5	—0·8	74·1	—0·9	79·8	—0·8	11·3	94·0	65·2	28·8	18·4
	Karwar	44	29·893	+·014	29·872	30·202	29·602	·600	·194	75·3	85·9	—0·4	72·1	—0·6	79·0	—0·5	13·8	92·7	59·5	33·2	22·6
26	Malegaon	1,430	28·469	+·011	29·856	28·828	28·039	·789	·225	74·2	93·4	+1·8	64·8	—0·3	79·1	+0·7	28·5	110·4	43·1	67·3	41·9
	Ahmednagar	2,154	27·764	+·013	29·844	28·100	27·425	·675	·210	73·2	90·5	+1·7	63·7	+0·2	77·1	+0·9	26·8	107·6	44.5	63·1	40·1
	Poona	1,846	28·069	+·007	29·871	28·355	27·710	·645	·202	70·4	89·7	+0·3	64·2	—0·6	76·9	—0·2	25·5	108·5	46·8	61·7	37·0
	Sholapur	1,590	28·313	+·004	29·843	28·665	27·992	·673	·213	75·8	93·7	+0·7	68·8	+0·9	81·3	+0·8	24·8	109·3	51·1	58·2	36·0
	Bijapur	1,948	27·963	+·008	29·840	28·250	27·648	·602	·199	74·8	91·9	+2·0?	68·5	+1·0	80·2	+1·5?	23·5	108·2	50·3	57·9	34·6
	Belgaum	2,562	27·388	+·015	29·861	27·671	27·085	·586	·195	71·9	84·9	+0·5	63·3	—0·7	74·1	—0·1	21·6	100·3	52·5	47·8	31·7
	XI.—Central India.																				
20	Neemuch	1,626	28·244	+·007	29·831	28·657	27·760	·897	·253	72·3	88·7	—0·2	63·8	—0·7	76·2	—0·5	24·9	111·9	38·5	73·4	40·7
	Indore	1,823	28·057	+·015	29·835	28·442	27·602	·840	·241	72·9	88·3	+0·3	64·1	+0·4	76·2	+0·3	24·3	109·1	42·1	67·0	38·9
21	Nowgong	754	29·091	+·006	29·816	29·592	28·677	·915	·283	72·4	89·8	+0·1	65·0	—0·6	77·4	—0·3	24·8	112·7	38·5	74·2	40·2
	Sutna	1,041	28·796	+·006	29·810	29·281	28·345	·936	·287	71·3	88·3	+0·2	65·0	—0·6	76·7	—0·2	23·3	109·3	36·7	72·6	38·7
	XII.—Central Provinces.																				
22	Buldana	2,132	27·767		29·823	28·129	27·349	·780	·225	75·2	88·6		68·3		78·4		20·3	108·2	52·0	56·2	31·9
	Akola	925	28·962	+·016	29·844	29·371	28·501	·870	·245	76·2	94·2	+1·3	67·5	+0·3	80·8	+0·8	26·7	114·2	43·5	70·7	41·5
	Amraoti	1,215	28·664	+·018	29·835	29·060	28·185	·875	·251	76·1	92·4	+0·4	69·7	+0·8	81·0	+0·6	22·7	112·3	52·3	60·0	36·3
23	Khandwa	1,044	28·834	+·011	29·843	29·222	28·386	·836	·241	73·6	92·2	+0·5	66·8	—0·1	79·5	+0·2	25·4	112·7	40·6	72·1	41·0
	Hoshangabad	1,006	28·872	+·011	29·844	29·313	28·369	·944	·266	72·6	90·6	+0·2	65·7	—1·4	78·1	—0·5	25·0	112·1	42·9	69·2	39·2
	Saugor	1,807	28·045	+·002	29·804	28·469	27·599	·870	·263	73·2	88·1	+0·1	66·3	+0·2	77·2	+0·1	21·7	107·8	46·1	61·7	36·1
	Jubbulpore	1,327	28·525	+·008	29·821	28·977	27·986	·991	·281	71·0	88·6	+0·1	64·1	—0·3	76·4	—0·1	24·4	109·3	39·3	70·0	38·8
	Seoni	2,033	27·846	+·017	29·822	28·252	27·334	·918	·266	73·3	87·6	—0·1	64·3	—0·6	76·0	—0·4	23·3	108·6	40·4	68·2	37·1
	Nagpur	1,017	28·851	+·016	29·824	29·292	28·307	·985	·270	75·9	92·4	+0·3	68·2	—0·4	80·4	0	24·2	112·1	46·3	65·8	37·5
24	Pendra	2,123?	27·855†		29·858†	28·254	27·277	·977	·280*	72·8	85·9		65·0		75·5		20·9	106·2	42·2	64·0	33·1
	Raipur	970	28·889	+·016	29·821	29·359	28·307	1·052	·288	74·9	90·4	—0·2	69·7	+0·5	80·1	+0·1	20·6	111·7	46·6	65·1	34·1
	Chanda	634	29·226	—·003	29·814	29·656	28·710	·946	·262	75·7	92·5	—0·3	67·9	—0·7	80·2	—0·5	24·6	117·0	42·5	74·5	38·5
	Jagdalpur	1,813	28·069		29·824	28·454	27·618	·836	·254	73·2	83·2		65·1		76·7		23·1	107·2	40·1	67·1	36·8
	XIII.—Hyderabad.																				
27	Aurangabad	1,905	28·008	—·012	29·848	28·365	27·637	·728	·221	75·1	90·8	—0·2	66·3	+0·7	78·6	+0·2	24·5	107·9	45·0	62·9	37·3
	Nizamabad	1,248	28·638		29·836	29·028	28·242	·786	·230	75·5	93·0	+1·6	68·4	—0·1	80·7	+0·8	24·6	112·4	43·7	68·7	37·2
	Bidar	2,165								77·9	90·1		68·2		79·1		21·8	107·4	56·4	51·0	31·7
28	Gulbarga	1,503	28·394	—·002	29·838	28·754	28·063	·691	·218	75·7	93·6	+1·2	69·3	+0·5	81·4	+0·8	24·3	111·0	51·3	59·7	36·1
	Raichur	1,317	28·601	+·021?	29·852?	28·961	28·299	·662	·211	77·8	93·6	+1·6	71·8	+0·2	82·7	+0·9	21·8	108·5	56·6	51·9	32·4
	Hyderabad (Deccan)	1,738	28·158	+·009	29·833	28·523	27·815	·708	·217	75·1	91·3	+0·7	69·6	+1·2	80·5	+1·0	21·8	108·3	50·7	57·6	32·6
	Hanamkonda	877	29·011	+·007	29·835	29·399	28·612	·787	·234	78·3	92·5	+0·6	71·4	—0·5	81·9	+0·1	21·1	110·5	53·2	57·3	32·1

N. B.—Elevations in italics indicate barometrical determinations.

* Mean of 11 months.
† „ „ 10 „

B.—contd.

stations in India, etc., in the year 1913.

Wind direction. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind velocity. Mean velocity in miles per hour of year.	Normal velocity of year.	Departure from normal of year.	Hygrometry, 8 hrs. Mean humidity at 8 hours of year.	Departure from normal of year.	Mean vapour tension at 8 hours in inches of mercury of year.	Departure from normal in inches of mercury of year.	Cloud. Mean cloud amount at 8 hours of year.	Departure from normal of year.	Rainfall. Number of rainy days during year.	Normal number of rainy days during year.	Departure from normal of year.	Rainfall of year.	Normal rainfall of year.	Departure from normal of year.	Heaviest rainfall during year.	Station.
23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
																									X.—Bombay— *concld.*
26	61	55	81	27	19	26	47	23	6·2*	6·7	—0·5	84	+ 1	·804	—·011	5·3	+1·5	94	94·3	— 0·3	96·07	93·85	+ 2·22	6·59	Marmagao.
186	37	67	2	3	24	30	5	11	2·2	3·0	—0·8	86	+ 3	·758	+ ·014	3·8	0	98	103·7	— 5·7	104·94	122·45	—17·51	4·73	Karwar.
92	11	3	3	3	17	91	109	36	6·5	6·5	0	54	— 9	·472	—·093	1·8	—1·7	33	35·0	— 2·0	15·45	22·71	— 7·26	1·17	Malegaon.
41	31	4	4	9	31	50	46	149	4·8	8·3	—3·5	53	—14	·440	—·124?	2·5	—0·8	31	35·8	— 4·8	23·15	22·29	+ 0·86	3·80	Ahmednagar.
119	3	4	7	4	5	29	165	29	6·6	7·6	—1·0	71	+ 8	·537	+ ·030	2·6	—1·3	49	46·8	+ 2·2	27·80	27·23	+ 0·57	2·69	Poona.
27	21	38	25	64	3	35	43	109	9·1	7·1	+2·0	54	— 1	·486	—·017	3·6	—0·4	34	42·1	— 8·1	15·19	29·50	—14·31	1·30	Sholapur.
14	26	20	19	43	36	71	74	62	6·3	4·7	+1·6	61	— 9	·527	—·077 ?	3·6	—0·3	27	36·5	— 9·5	20·22	20·93	— 0·71	2·74	Bijapur.
159	3	9	50	25	4	40	69	6	7·5†	11·0	—3·5	68	— 2	·530	—·007	4·1	—0·2	78	81·0	— 3·0	40·90	49·67	— 8·77	2·66	Belgaum.
																									XI.—Central India.
69	13	19	71	2	2	34	124	11	6·1	6·4	—0·3	59	+ 1	·491	—·011	2·9	+0·3	32	35·4	— 3·4	27·23	28·57	— 1·34	2·83	Neemuch.
171	6	31	4	12	2	9	47	83	3·1	3·0	+0·1	59	— 4	·488	—·035	3·6	+0·2	35	44·9	— 9·9	38·37	32·79	+ 5·58	11·55	Indore.
71	18	17	40	8	35	51	114	11	2·0	1·9	+0·1	61	— 5	·506	—·039	3·2	0	30	48·3	—18·3	20·93	43·35	—22·42	2·16	Nowgong.
171	14	1	37	1	16	24	98	3	2·2	4·4	—2·2	?	?	?	?	2·7	—0·2	49	54·9	— 5·9	29·87	44·44	—14·57	3·72	Sutna.
																									XII.—Central Provinces.
0	21	13	26	28	38	24	111	104	5·8	5·7	+0·1	60§		·505§		2·5		39	52·3	—13·3	28·28	35·05	— 6·77	4·15	Buldana.
33	4	13	37	33	24	38	119	64	4·5	4·4	+0·1	49	— 9	·454	—·059	4·1	+0·7	38	46·2	— 8·2	27·46	32·79	— 5·33	3·06	Akola.
17	12	56	70	13	10	26	93	68	5·3	4·2	+1·1	54	— 5	·487	—·050	3·2	—0·3	48	47·8	+ 0·2	37·30	33·84	+ 3·46	3·18	Amraoti.
169	4	10	6	2	2	34	87	51	4·4	4·4	0	57	— 2	·485	—·016	3·7	+0·7	43	41·0	+ 2·0	40·71	29·91	+10·80	6·22	Khandwa.
0	4	99	16	31	4	127	16	68	2·8	2·3	+0·5	63	— 3	·513	—·038	4·0	+0·5	41	55·6	—14·6	37·95	49·10	—11·15	4·96	Hoshangabad.
30	7	24	47	38	25	41	113	40	5·7	3·2	+2·5	51	— 8	·420	—·075	3·4	+0·4	44	56·3	—12·3	23·42	46·25	—22·83	2·00	Saugor.
89	10	13	20	63	39	43	62	26	1·5	2·3	—0·8	63	— 4	·486	—·049	3·0	—0·4	56	64·1	— 8·1	37·10	55·51	—18·41	3·80	Jubbulpore.
64	73	37	12	12	33	31	51	52	3·5	2·7	+0·8	54	—10	·441	—·089	2·8	—0·7	55	70·4	—15·4	48·54	52·63	— 4·09	11·10	Seoni.
35	70	35	41	18	4	22	49	91	4·1	4·1	0	54	— 7	·488	—·065	3·4	—0·5	58	62·9	— 4·9	47·56	49·16	— 1·60	7·25	Nagpur.
125	50	13	6	16	37	37	16	65	3·5			58		·466		3·0		63	74·4	—11·4	43·68	51·50	— 7·82	3·20	Pendra.
40	17	31	37	18	30	105	60	27	3·5	4·3	—0·8	64	+ 1	·569	+ ·004	3·1	—1·0	59	63·5	— 4·5	42·14	49·99	— 7·85	3·86	Raipur.
118	3	12	19	31	23	44	75	40	3·1	2·7	+0·4	65	0	·579	—·010	3·5	—0·1	55	63·7	— 8·7	57·94	53·43	+ 4·51	7·07	Chanda.
35	55	16	19	33	44	60	53	50	2·8‡			74		·608		3·0		72			49·96			3·65	Jagdalpur.
																									XIII.—Hyderabad.
23	19	41	58	44	7	39	85	49	8·8			55	0	·480		3·6		36	44·3	— 8·3	23·32	28·37	— 5·05	1·96	Aurangabad.
154	8	5	2	21	20	73	57	25	3·3			60	— 7	·529		3·0		52	54·9	— 2·9	40·54	40·87	— 0·33	5·25	Nizamabad.
86	11	29	21	42	4	81	28	62	4·7			55		·518		5·2		46	53·7	— 7·7	30·19	37·55	— 7·36	3·33	Bidar.‖
21	19	71	57	26	22	42	51	56	6·5	7·4	—0·9	58	— 6	·511	—·060	2·5	—1·3	39	48·4	— 9·4	21·31	33·14	—11·83	2·70	Gulbarga.
0	21	44	25	62	31	79	51	52	6·6§	7·1	—0·5	60	— 5	·577	—·028	3·7	0	31	44·7	—13·7	19·88	28·62	— 8·74	3·32	Raichur.
263	0	1	2	1	0	0	97	0	2·5	4·0	—1·5	67	— 3	·585	—·037	3·9	+0·3	39	49·4	—10·4	19·22	31·32	—12·10	1·34	Hyderaba (Deccan).
77	14	13	1	103	56	29	35	37	4·7			63	— 4	·612		4·1		36	50·5	—14·5	27·47	34·75	— 7·28	3·81	Hanamkonda.

* Uncorrected for scale error.
† Mean of 8 months.
‡ " " 9 "
§ " " 11 "
‖ Wind observations for 364 days.

TABLE

(2) *Abstract of observations taken at 8 hrs. at 222*

Number of sub-division.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches.							Temperature of air.											
			Mean 8 hrs. pressure reduced to 32°.	Departure from normal of year.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during year.	Lowest pressure recorded during year.	Absolute range during year.	Mean monthly range of pressure.	Mean of 8 hrs. temperature of year.	Mean maximum of year.	Departure from normal of year.	Mean minimum of year.	Departure from normal of year.	Yearly mean of mean between maximum and minimum.	Departure from normal of year.	Mean daily range of temperature.	Highest temperature observed during year.	Lowest temperature observed during year.	Absolute range during year.	Mean monthly absolute range.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	XIV.—Mysore.																				
29	Chitaldrug	2,405	27·533	+·009	29·845	27·820	27·260	·560	·184	73·3	87·7	+1·2	67·5	+0·3	77·6	+0·7	20·2	101·6	55·8	45·8	29·3
	Hassan	3,149	26·840	+·020	29·863	27·107	26·591	·516	·173	69·8	84·0	+1·3	63·1	+0·9	73·5	+1·1	20·9	97·6	48·6	49·0	30·7
	Bangalore	3,021	26·959	+·012	29·863	27·233	26·723	·510	·173	70·3	85·7	+1·5	64·3	+0·3	75·0	+0·9	21·4	100·3	50·8	49·5	30·9
	Mysore	2,518	27·445	+·007	29·866	27·720	27·196	·524	·170	72·4	86·4	0	66·0	+0·3	76·2	+0·2	20·4	99·5	52·0	47·5	29·8
	XV.—Madras.																				
30	Mangalore	65	29·873	+·001	29·869	30·168	29·612	·556	·182	79·5	87·8	—0·3	74·4	+1·3	81·1	+0·5	13·4	94·3	63·1	31·2	22·0
	Calicut	27	29·909	—0·2	29·865	30·167	29·656	·511	·173	78·4	86·4	—0·6	75·2	+1·1	80·8	+0·2	11·2	93·8	63·1	30·7	17·9
	Cochin	9	29·932	+·001	29·869	30·180	29·694	·486	·158	79·8	88·1	+0·6	75·3	+0·5	81·7	+0·6	12·8	94·2	66·7	27·5	19·5
	Trivandrum	198	29·739	+·011	29·868	29·973	29·522	·451	·164	78·4	84·7	+0·7	75·3	+1·7	80·0	+1·2	9·4	90·0	69·0	21·0	15·1
31	Pamban	37	29·871	—·007	29·836	30·139	29·648	·491	·179	80·8	88·8	+1·5	76·7	—0·9	82·7	+0·3	12·1	98·7	70·8	27·9	16·1
	Madura	447	29·483	+·019	29·862	29·788	29·241	·547	·185	81·4	94·3	+0·4	75·5	+1·7	84·9	+1·0	18·8	105·5	65·1	40·4	27·8
	Pudukkottai	318	29·606		29·857	29·917	29·363	·554	·188	80·4	93·7	...	74·9		84·3	...	18·8	107·1	63·9	43·2	27·8
	Negapatam	31	29·877	—·004	29·837	30·177	29·627	·550	·192	81·4	90·9	+1·1	76·2	+0·3	83·5	+0·7	14·7	105·7	61·2	44·5	24·5
	Trichinopoly	255	29·673	+·011	29·862	29·998	29·415	·583	·188	81·0	94·2	—0·1	74·6	+0·5	84·4	+0·2	19·6	107·6	62·3	45·3	29·6
	Coimbatore	1,341	28·592	+·010	29·871	28·887	28·337	·550	·187	75·8	89·7	—0·5	69·5	—0·1	79·6	—0·3	20·2	101·0	54·8	46·2	30·7
	Salem	913	29·019	+·013	29·889	29·327	28·755	·572	·183	78·1	93·7	+0·8	72·0	+1·3	82·8	+1·0	21·7	107·0	55·8	51·2	33·5
	Cuddalore	37	29·880	+·010	29·847	30·209	29·609	·600	·204	80·1	90·5	0	75·4	+1·2	82·9	+0·6	15·1	105·3	64·2	41·1	25·0
	Vellore	707	29·203		29·851	29·541	28·922	·619	·197	78·0	92·9	...	72·6	...	82·7	...	20·3	106·7	58·0	48·7	31·2
	Madras	22	29·886	—·002	29·840	30·239	29·605	·634	·206	81·4	91·7	+0·7	75·9	+1·2	83·8	+0·9	15·8	107·5	63·3	44·2	26·5
32	Cuddapah	433	29·475	+·004	29·846	29·844	29·171	·673	·214	80·7	95·7	+0·2	73·8	—0·6	84·8	—0·2	21·9	110·0	56·8	53·2	33·0
	Bellary	1,475	28·427	0	29·840	28·765	28·134	·631	·205	76·8	94·8	+1·8	71·3	+0·7	83·0	+1·2	23·6	109·0	55·3	53·7	33·9
	Kurnool	923	28·982	+·009	29·852?	29·360	28·672	·688	·219	76·7	94·3	+0·5	71·9	+1·4	83·1	+0·9	22·4	108·0	52·1	55·9	34·0
33	Nellore	66	29·829	+·007	29·830	30·218	29·520	·698	·222	80·8	94·0	—0·3	74·9	—0·1	84·5	—0·2	19·1	112·0	62·1	49·9	29·1
	Masulipatam	15	29·885	+·013	29·834	30·311	29·524	·787	·237	80·3	91·1	+0·6	74·5	+0·1	82·8	+0·4	16·7	110·3	60·7	49·6	27·0
	Cocanada	26	29·877	+·020	29·839	30·320	29·449	·871	·257	79·6	89·4	0	74·6	—0·2	82·0	—0·1	14·8	105·7	59·6	46·1	25·5
	Waltair (Vizagapatam.)	226	29·661	+·016	29·829	30·122	29·184	·938	·271	79·7	86·9	...	75·2	...	81·0	...	11·7	100·1	61·9	38·2	21·1
	Calingapatam	19	29·861	...	29·818	30·342	29·332	1·010	·279	77·9	87·8*	...	75·4*	...	81·7*	...	12·4*	105·8	57·3	48·5	22·6*
	Gopalpur	52	29·824	+·017	29·807	30·319	29·236	1·083	·296	77·5	86·0	+0·1	73·1	—0·1	79·6	0	12·9	95·7	53·9	41·8	22·6
	Bay Islands.																				
1	P. V. Fraser	8	29·851	...	29·806	30·303	29·161	1·142	·321	80·0	...	...	...	...	...	...	...	...	...	...	...
	Port Blair	58	29·857	+·003	29·845	30·127	29·641	·486	·183	80·6	86·7	—0·6	77·2	+0·2	81·9	—0·2	9·5	95·2	69·0	26·2	16·2
	Table Island	90	29·795	...	29·819	30·121	29·529	·592	·211	81·0	85·2	...	77·6	...	81·4	...	7·6	93·6	72·1	21·5	14·5
	Kashmir.																				
13	Muzaffarabad	2,475	27·501	...	30·021‡	27·853	27·038	·815	·333	60·1	78·8	...	50·8	...	64·8	...	28·1	110·1	30·1	80·0	44·3
	Srinagar	5,204	24·889	+·002	24·860	25·327	24·432	·895	·387	50·2	65·6	—0·3	44·3	+0·3	54·9	0	21·3	95·2	20·1	75·1	37·6
	Gulmarg †	*8,569*	21·809	0	21·777	21·963	21·608	·355	·273	57·7	65·3	—1·4	45·9	—0·9	55·6	—1·2	19·4	77·0	32·7	44·3	36·3
	Dras	*10,059*	20·813	+·013	20·781	21·207	20·275	·932	·403	28·3	45·3	...	17·5	...	31·4	...	27·8	86·0	—37·5	123·5	52·8

N. B.—Elevations in italics indicate barometrical determinations.
NOTE.—The barometric readings are not reduced to sea-level, in the case of hill or plateau stations, the elevations of which exceed 3,200 feet.

* Mean of 11 months.
† ,, ,, 4 ,,
‡ ,, ,, 6 ,,

B.—contd.

stations in India, etc., in the year 1913.

Wind direction. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind velocity: Mean velocity in miles per hour of year.	Normal velocity of year.	Departure from normal of year.	Hygrometry, 8 hrs.: Mean humidity at 8 hrs. of year.	Departure from normal of year.	Mean vapour tension at 8 hrs. in inches of mercury of year.	Departure from normal in inches of mercury of year.	Cloud: Mean cloud amount at 8 hrs. of year.	Departure from normal of year.	Rainfall: Number of rainy days during year.	Normal number of rainy days during year.	Departure from normal of year.	Rainfall of year.	Normal rainfall of year.	Departure from normal of year.	Heaviest rainfall during year.	Station.
23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
																									XIV.—Mysore.
40	2	9	51	42	7	88	94	32	4·8	5·9	—1·1	68	—2	·552	—·024	4·2	—0·9	39	48·3	—9·3	16·17	25·34	—9·17	1·27	Chitaldrug.
38	12	29	62	28	7	67	87	35	5·1	2·6	+2·5	77	+1	·562	—·012	5·1	—0·5	53	66·7	—13·7	25·76	35·91	—10·15	2·80	Hassan.
0	4	29	78	34	13	65	115	27	5·8	4·6	+1·2	77	—1	·570	—·010	5·0	0	44	59·2	—15·2	21·43	35·51	—14·08	2·07	Bangalore.
26	7	52	40	13	9	100	106	12	6·6	7·3	—0·7	75	—1	·602	+·001	5·5	+0·2	49	55·6	—6·6	26·84	31·30	—4·46	1·86	Mysore.
																									XV.—Madras.
26	29	51	153	28	8	14	36	20	4·4	2·1	+2·3	76	—5	·772	—·017	4·6	—0·5	109	116·4	—7·4	110·25	127·08	—16·83	7·15	Mangalore.
129	12	32	59	43	11	11	24	44	3·7	6·3	—2·6	85	+2	·826	+·024	4·7	—0·1	105	114·0	—9·0	112·52	117·00	—4·48	5·39	Calicut.
50	10	114	123	20	4	11	17	16	4·7*	4·0	+0·7	79	—2	·805	—·007	4·5	—0·2	115	128·5	—13·5	98·20	113·83	—15·63	6·05	Cochin.
89	109	31	33	4	1	0	8	90	4·0*	4·4	—0·4	81	—1	·787	—·007	6·3	+0·8	83	94·0	—11·0	66·14	63·33	+2·81	5·88	Trivandrum.
83	50	56	15	11	39	74	25	12	7·5	7·5	0	82	+2	·856	...	3·7	...	36	46·2	—10·2	41·08	37·19	+3·89	5·03	Pamban.
17	63	80	35	4	2	7	72	85	6·0	3·1	+2·9	69	—1	·729	—·007	6·4	+2·2	35	49·0	—14·0	16·16	34·30	—18·14	1·50	Madura.
109	80	35	2	5	18	34	20	62	5·4	...	...	72	...	·745	...	4·8	...	59	54·6	+4·4	38·22	33·70	+4·52	3·30	Pudukkottai.
0	16	62	4	15	23	84	94	67	6·5†	5·0	+1·5	79	+3	·846	+·038	5·2	—0·2	61	55·8	+5·2	85·79	53·56	+32·23	10·74	Negapatam.
44	50	33	11	10	15	55	108	39	4·4*	4·2	+0·2	69	—3	·719	—·012	4·0	—0·9	54	46·1	+7·9	33·11	32·86	+0·25	3·30	Trichinopoly.
144	23	47	18	5	47	74	5	2	5·1	3·1	+2·0	83	0	·741	+·011	3·9	—0·8	32	45·0	—13·0	15·26	22·10	—6·84	2·36	Coimbatore.
104	5	11	63	2	35	38	99	8	3·3	3·1	+0·2	74	—2	·718	—·011	5·4	+1·0	52	64·4	—12·4	31·35	40·20	—8·85	2·93	Salem.
50	44	5	3	14	30	98	45	76	5·7	1·8	+3·9	82	—1	·845	—·013	4·7	—0·5	64	56·2	+7·8	96·20	50·89	+45·31	12·20	Cuddalore.
204	1	2	7	3	2	20	84	42	2·6	...	...	78	...	·746	...	3·1	...	39	56·7	—17·7	23·72	45·33	—21·61	2·32	Vellore.
14	47	16	5	5	57	109	66	46	5·1	5·0	+0·1	76	0	·804	—·001	4·3	—0·8	46	57·9	—11·9	65·07	49·47	+15·60	6·86	Madras.
15	21	26	29	60	33	31	101	49	...	...	...	67	—1	·710	+·004	3·4	—0·9	34	46·0	—12·0	23·75	31·63	—7·38	2·80	Cuddapah.
67	13	10	14	40	28	33	97	63	4·2	4·8	—0·6	63	+1	·578	—·002	3·7	—1·0	24	35·5	—11·5	15·06	19·98	—4·92	1·85	Bellary.
119	9	16	20	19	24	61	38	59	5·1*	...	...	66	0	·612	—·013	3·4	—0·4	30	47·5	—17·5	17·84	26·92	—9·08	2·22	Kurnool.
37	33	9	7	12	76	31	61	99	4·5*	4·9	—0·4	73	—3	·759	—·050	5·2	+0·2	37	42·0	—5·0	30·40	34·97	—4·57	5·59	Nellore.
32	71	34	16	30	45	33	51	53	5·2	4·8	+0·4	78	—4	·812	—·034?	4·1	—0·7	46	53·1	—7·1	31·50	40·00	—8·50	4·70	Masulipatam.
80	46	52	9	10	4	39	91	34	4·7	5·8	—1·1	76	+1	·791	+·031	5·4	+0·7	45	52·9	—7·9	36·47	38·96	—2·49	3·42	Cocanada.
9	28	67	4	5	2	173	67	10	5·8	...	...	74	+1	·756	—·011	5·5	+0·7	46	50·0	—4·0	36·84	37·26	—0·42	6·24	Waltair (Vizagapatam).
31	41	16	5	2	13	72	93	91	7·2	...	...	84	...	·803	...	3·8	...	41	48·2	—7·2	29·71	36·49	—6·78	3·47	Calingapatam.‖
26	91	6	3	2	67	76	7	86	7·3	8·6	—1·3	82	+1	·785	+·001	3·7	—0·9	45	57·0	—12·0	47·32	44·87	+2·45	9·62	Gopalpur.‖
																									Bay Islands.
12	53	53	19	16	39	128	28	17	...	...	...	81	...	·843	...	4·9	...	46	...	...	46·49	...	...	10·56	P. V. Fraser.
112	31	37	46	11	29	19	51	39	6·0	5·5	+0·5	82	—4	·857	—·038	5·5	—0·5	132	140·0	—8·0	93·15	118·49	—25·34	5·71	Port Blair.
13	52	50	48	6	28	77	55	36	8·4	...	...	81	...	·850	...	5·9	...	92	100·4	—8·4	78·87	79·07	—0·20	6·50	Table Island.
																									Kashmir.
16	49	27	11	15	94	83	39	31	0·8	...	...	71	...	·307	...	2·5	...	89	...	...	46·32	...	...	2·47	Muzaffarabad.
89	25	24	14	76	41	16	18	62	2·4	2·6	—0·2	79	—7	·321	—·034	4·6	0	57	59·7	—2·7	18·46	27·24	—8·78	1·50	Srinagar.
43	4	21	7	9	8	19	4	1	3·0	...	...	76	...	·355	...	3·3	...	33	35·1	—2·1	14·52	16·35	—1·83	1·79	Gulmarg.**
936	1	1	1	0	0	2	13	11	2·3	...	...	67‡	—9	·198‡	...	3·5	...	55	57·1	—2·1	21·63	21·78	—0·15	2·07	Dras.

* Uncorrected for scale error.
† Mean of 11 months.
‖ Wind observations for 364 days.
** " " " 116 "
‡ Mean of 8 months.

TABLE

(2) *Abstract of observations taken at 8 hrs. at 222*

Number of sub-division.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches.							Temperature of air.											
			Mean 8 hrs. pressure reduced to 32°.	Departure from normal of year.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during year.	Lowest pressure recorded during year.	Absolute range during year.	Mean monthly range of pressure.	Mean of 8 hrs. temperature of year.	Mean maximum of year.	Departure from normal of year.	Mean minimum of year.	Departure from normal of year.	Yearly mean of mean between maximum and minimum.	Departure from normal of year.	Mean daily range of temperature.	Highest temperature observed during year.	Lowest temperature observed during year.	Absolute range during year.	Mean monthly absolute range.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	Kashmir—*concld.*																				
	Leh	*11,503*	19·706	+·003	19·674	20·049	19·214	·835	·389	36·3	52·8	—2·6	28·0	—1·7	40·4	—2·2	24·8	82·2	—6·0	88·7	41·0
	Skardu	*7,005*	22·895	+·016	22·865	23·456	22·394	1·062	·447	45·1	60·2	—2·0	38·5	—1·9	49·4	—2·0	21·7	100·2	—2·9	103·1	40·8
	Gilgit	4,890	25·171	...	25·144	25·790	24·608	1·092	·493	58·1	72·3	—0·5	51·2	—2·1	61·7	—1·3	21·1	108·2	22·7	85·5	38·1
	Baluchistan.																				
15	Fort Sandeman	...	25·380	...	25·349	25·744	25·002	·742	·305	57·6	79·2	...	52·4	...	65·8	...	26·8	106·5	23·1	83·4	43·2
	Quetta	5,502	24·625	+·004	24·585	24·895	24·323	·572	·249	51·2	73·9	+0·4	44·2	—0·3	59·1	+0·1	29·7	99·9	19·3	80·6	47·1
	Chaman	4,311	25·663	—·008	25·625	26·002	25·307	·695	·280	61·1	77·6	—1·3	54·2	—2·0	55·9	—1·7	23·4	106·6	23·8	82·8	42·8
	Kalat	6,630	23·725	...	23·687	23·946	23·476	·470	·234	46·6	71·4	...	40·4	...	55·9	...	31·0	97·5	14·2	83·3	49·4
	Dalbandin	2,779	27·058†	...	27·021†	27·483	26·671	·812	·299†	63·9	88·2	...	55·2	...	71·8	...	33·1	115·3	23·7	91·6	53·9
	Pasni	...	29·836	...	29·826	30·262	29·441	·821	·289	74·3	86·2	...	70·3	...	78·2	...	15·9	108·0	49·0	59·0	29·8
	Panjgur §	...	26·682	...	26·640	27·035	26·357	·678	·245	64·5	88·9	...	60·0	...	74·4	...	28·8	111·8	28·4	83·4	45·7
	Robat	...	26·840	...	26·798	27·241	26·430	·811	·337	64·1	86·3	...	59·8	...	73·0	...	26·5	116·2	28·8	87·4	44·7
	Hill stations excluding Kashmir and Baluchistan.																				
	Para Chinar	6,000	24·425	...	24·401	24·781	24·019	·762	·315	56·6	69·3	...	47·1	...	58·2	...	22·3	97·7	22·6	75·1	38·7
	Cherat	*4,256*	25·693 ‖	+·024	25·661	26·109	25·302	·807	·333	61·2	71·3	—2·5	55·6	—1·1	63·5	—1·8	15·7	102·4	29·4	73·0	34·0
	Drosh	...	25·091 §	...	...	25·590	24·650	·940	·381§	55·6	72·1	...	50·7	...	61·4	...	21·3	104·4	27·5	76·9	38·0
	Murree	6,333	23·835	+·005	23·802	24·184	23·398	·786	·312	53·8	62·2	—3·5	50·1	—0·6	56·2	—2·1	12·1	86·5	29·2	57·3	30·3
	Simla	7,232	23·100	+·016	23·062	23·442	22·865	·577	·260	52·6	59·7	—1·1	48·9	—1·1	54·3	—1·1	10·9	77·4	28·1	49·3	24·5
	Saraiu **	...	23·162	...	23·124	23·488	22·920	·568	·260	39·3	55·0	...	34·3	...	44·7	...	20·6	77·6	16·5	61·1	36·4
	Kalabagh ††	...	20·119	...	20·081	20·260	19·972	·288	·209	47·9	53·6	...	43·3	...	48·5	...	10·3	63·0	27·7	35·3	20·3
	Chakrata	7,022	23·273†	+·015†	23·233†	23·546	23·059	·487	·257	53·7	63·4	—0·8	47·7	—2·0	55·7	—1·4	15·7	79·7	28·7	51·0	27·9
	Mukteswar	7,592	22·822	—·015	22·781	23·060	22·604	·456	·236	52·1	62·2	—2·0	46·5	—1·9	54·3	—1·9	15·7	77·5	26·0	51·5	30·0
	Darjiling	7,376	22·983	—·024	22·938	23·284	22·768	·516	·241	52·1	59·0	+0·5	47·3	—0·1	53·2	+0·2	11·6	74·3	30·2	44·1	24·6
	Shillong	4,920	25·119	...	25·070	25·463	24·833	·630	·254	60·5	69·3	...	53·2	...	61·2	...	16·1	81·9	32·7	49·2	28·6
	Cherrapunji	4,309	25·756	...	25·707	26·038	25·501	·537	·237	61·8	70·0	...	56·3	...	63·3	...	13·7	87·2	32·1	55·1	29·0
	Maymyo	3,546	26·428	+·001	26·373	26·784	26·144	·640	·217	62·9	76·1	—1·0	56·9	+1·4	66·5	+0·2	19·2	93·5	30·6	62·9	32·3
	Pachmarhi	3,528	26·440	+·013	26·387	26·797	25·987	·810	·242	68·2	80·3	+0·8	60·7	—0·5	70·5	+0·2	19·6	101·0	36·1	64·9	34·2
	Mount Abu †	3,945	26·041	+·008	25·991	26·339	25·635	·704	·227	67·1	75·6	—0·6	61·5	—0·3	68·5	—0·5	14·1	98·0	42·9	55·1	27·8
	Mercara	3,781	26·231	—·001	26·163	26·462	26·002	·460	·161	65·6	77·3	+0·8	61·0	—0·3	69·2	+0·2	16·3	90·0	52·5	37·5	25·1
	Ootacamund	7,327	23·069	...	23·005	23·216	22·884	·332	·139	57·6	66·6	...	48·7	...	57·7	...	18·0	77·5	34·2	43·3	29·1
	Kodaikanal	7,688	22·837	—·003	22·771	22·934	22·657	·327	·133	56·9	66·0	+1·3	51·0	—0·2	58·5	+0·5	15·1	77·5	39·5	38·0	25·0
	Extra India.																				
	Singapore (*a*)	10	29·943	...	29·874	30·072	29·822	·250	·146	83·0	88·2	...	74·4	...	81·3	...	13·8	93·8	71·0	22·8	20·0
	Penang (*a*)	17	29·882	...	29·825	30·052	29·705	·347	·161	81·7	88·9	...	73·5	...	81·2	...	15·3	97·0	70·0	27·0	21·4
	Trincomalee	99	29·800†	...	29·828†	30·071	29·587	·484	·184†	78·5	90·3	+1·8	76·1	—0·3	83·2	+0·7	14·2	99·5	53·5	46·0	24·8

N. B.—Elevations in italics indicate barometrical determinations.
NOTE.—The barometric readings are not reduced to sea-level, in the case of hill or plateau-stations, the elevations of which exceed 3,200 feet.
(*a*) 9 hrs. observations.

‖ Aneroid corrected.
† Mean of 11 months.
** ,, 7 ,,
†† ,, 5 ,,
§ ,, 10 ,,

B—contd.

stations in India, etc., in the year 1913.

Wind direction. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind velocity. Mean velocity in miles per hour of year.	Normal velocity of year.	Departure from normal of year.	Hygrometry, 8 hrs. Mean humidity at 8 hrs. of year.	Departure from normal of year.	Mean vapour tension at 8 hrs. in inches of mercury of year.	Departure from normal in inches of mercury of year.	Cloud. Mean cloud amount at 8 hrs. of year.	Departure from normal of year.	Rainfall. Number of rainy days during year.	Normal number of rainy days during year.	Departure from normal of year.	Rainfall of year.	Normal rainfall of year.	Departure from normal of year.	Heaviest rainfall during year.	Station.
23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
																									Kashmir—*concld.*
299	8	12	3	6	25	9	2	1	2·2	1·5	+0·7	52	0	·125	—·006	5·0	+0·2	12	9·6	+2·4	3·71	3·26	+ 0·45	0·82	Leh.
216	3	21	26	6	6	25	56	6	3·3	...	...	†† 60	—11	†† ·198	...	4·8	...	21	19·0	+2·0	10·27	7·48	+ 2·79	1·44	Skardu.
315	1	2	5	0	0	20	14	8	0·5	...	...	53	+2	·290	+·021	4·0	—0·8	12	15·9	—3·9	4·46	5·11	— 0·65	0·57	Gilgit.
																									Baluchistan.
196	10	29	54	13	10	27	22	4	3·0	...	...	61	...	·323	...	2·1	...	32	...	...	13·84	...	...	2·15	Fort Sandeman
300	4	2	2	25	10	7	3	12	1·6	2·1	—0·5	65	+ 7	·269	—·018	2·1	+0·2	22	24·3	—2·3	9·56	10·02	—0·46	1·50	Quetta.
352	3	7	84	78	24	12	2	3	†† 3·4	5·9	—2·5	51	+ 9	·275	+·008	2·0	0	19	18·6	+0·4	7·11	6·68	+0·43	0·98	Chaman.
164	1	8	2	32	99	46	4	9	4·3	...	...	64	...	·213	...	2·5	...	26	17·8	+8·2	6·35	6·74	—0·39	0·82	Kalat.
110	18	40	35	15	18	29	44	50	4·7	...	...	45	...	·268	...	0·9	...	9	...	...	2·73	...	...	0·66	Dalbandin.§
196	14	8	18	6	2	11	77	33	4·1	...	...	87	...	·773	...	4·3	...	9	...	...	6·93	...	...	1·65	Pasni.
64	21	124	45	6	7	18	10	11	4·8	...	...	63	...	·412	...	1·7	...	7	...	...	¶ 2·09	...	...	0·75	Panjgur.
51	10	21	21	6	13	38	191	12	3·5	...	...	53	...	·351	...	1·9	...	8	...	...	2·60	...	...	0·67	Robat.‡
																									Hill stations excluding Kashmir and Baluchistan.
263	14	17	6	17	14	8	15	11	0·9	...	...	57	...	·277	...	2·0	...	60	63·8	— 3·8	28·69	27·85	+ 0·84	2·50	Para Chinar.
45	136	35	1	30	47	17	5	49	8·0	8·3	—0·3	51	— 2	·301	—·018	3·5	+0·4	32	41·7	— 9·7	19·43	27·48	— 8·05	1·86	Cherat.
217	3	22	58	22	16	16	10	0	4·1	...	...	55	...	·257	...	2·7	...	49	40·2	+ 8·8	18·30	16·94	+ 1·36	1·00	Drosh.**
338	37	35	18	65	40	17	1	14	3·9	5·3	—1·4	58	+ 3	·259	—·004	4·2	+0·4	78	76·3	+ 1·7	55·11	57·97	— 2·86	4·37	Murree.
...	...	...	...	...	...	...	...	...	...	...	...	58	0	·251	—·009	4·1	—0·1	84	85·1	— 1·1	53·92	63·11	— 9·19	4·84	Simla.
...	...	...	...	...	...	...	...	...	...	...	...	74	...	·179	...	4·0	...	38	36·9	+ 1·1	25·76	26·25	— 0·49	2·77	Sarain.
29	38	2	2	19	25	1	3	33	5·0	...	...	75	...	·259	...	4·9	...	55	63·5	— 8·5	33·55	55·00	—21·45	3·93	Kalabagh.
180	80	23	3	26	39	2	0	12	2·6	4·6	—2·0	66	+2	·289	—·002	3·9	+0·5	95	87·5	+ 7·5	66·75	72·44	— 5·69	2·76	Chakrata.
120	10	20	42	22	11	5	120	15	5·8	...	...	63	+2	·263	...	4·3	...	64	79·6	—15·6	44·62	50·90	— 6·28	4·71	Mukteswar.
301	3	19	7	7	4	2	19	3	1·2	3·5	—2·3	84	—3	·348	—·009	5·6	—0·4	121	121·3	— 0·3	127·03	121·00	+ 6·03	9·22	Darjiling.
267	0	6	8	7	23	44	10	0	2·4	...	...	75	...	·413	...	4·3	...	126	125·7	+ 0·3	89·50	84·65	+ 4·85	5·07	Shillong.
86	24	53	63	11	40	47	39	2	4·4	...	...	85	...	·485	...	5·0	...	169	161·8	+ 7·2	418·96	409·90	+ 9·06	21·75	Cherrapun.
226	0	5	4	4	4	113	5	4	1·9	...	...	88	+5	·520	...	4·6	...	115	90·6	+24·4	65·52	56·57	+ 8·95	4·18	Maymyo.
102	12	9	10	21	20	36	71	84	3·1	4·3	—1·2	63	+3	·432	—·002	2·7	—1·2	65	76·9	—11·9	80·13	75·33	+ 4·80	18·06	Pachmarhi.
84	28	30	10	7	23	73	52	28	5·2	5·7	—0·5	54	—1	·360	—·013	3·3	0	64	53·9	+10·1	77·74	60·80	+16·94	6·17	Mount Abu.
55	17	59	58	4	10	25	87	50	4·4	4·3	+0·1	86	+3	·533	—·003	5·9	0	114	133·3	—19·3	108·99	126·88	—17·89	7·65	Mercara.
60	2	15	40	94	48	20	55	31	3·2	...	...	69	...	·330	...	5·4	...	93	104·7	—11·7	45·28	56·20	—10·92	3·28	Ootacamund.
9	48	43	60	42	9	2	73	79	9·1*	...	...	72	+2	·331	...	4·7	...	104	107·7	— 3·7	55·28	61·65	— 6·37	2·94	Kodaikanal.
																									Extra India.
173	17	54	6	50	14	31	3	17	4·1*	...	...	...	...	...	...	6·3	...	151	133·4	+17·6	135·52	93·99	+41·53	6·38	Singapore.
0	25	232	4	53	3	5	0	43	8·7*	...	...	...	...	...	...	...	...	136	132·6	+ 3·4	114·22	106·41	+ 7·81	4·19	Penang.
21	4	60	14	6	4	239	6	10	6·6*	7·3	—0·7	83	+2	·810	—·054	6·0	+2·7	102	71·8	+30·2	81·22	62·16	+19·06	7·12	Trincomalee.†

* Uncorrected for scale error.
† Wind observations for 364 days.
‡ ,, ,, ,, 363 ,,
§ ,, ,, ,, 359 ,,
‖ ,, ,, ,, 152 ,,

¶ Rainfall from 9th January to 24th February 1913 wanting.
** Wind observations for 364 days.
†† Mean of 11 months.

TABLE

(2) Abstract of observations taken at 8 hrs. at 222

Number of sub-division.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches.							Temperature of air.											
			Mean 8 hrs. pressure reduced to 32°.	Departure from normal of year.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during year.	Lowest pressure recorded during year.	Absolute range during year.	Mean monthly range of pressure.	Mean of 8 hrs. temperature of year.	Mean maximum of year.	Departure from normal of year.	Mean minimum of year.	Departure from normal of year.	Yearly mean of mean between maximum and minimum.	Departure from normal of year.	Mean daily range of temperature.	Highest temperature observed during year.	Lowest temperature observed during year.	Absolute range during year.	Mean monthly absolute range.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	Extra India —*concld.*																				
	Colombo	24	29·908	—·013	29·858	30·134	29·727	·407	·168	76·3	86·2	—0·8	74·5	—1·0	80·3	—0·9	11·7	91·8	65·5	26·3	18·7
	Hambantota	64	29·884	...	29·874	30·084	29·716	·368	·201	75·4	86·1	...	74·4	...	80·3	...	11·7	93·5	65·5	28·0	19·9
	Minicoy	7	29·960	...	...	30·180	29·725	·455	·166	...	...	...	...	...	...	...	...	...	...	...	...
	Amini Divi	*13*	29·931	+·004	29·872	30·193	29·680	·513	·172	82·1	88·4	+2·3	77·3	+0·3	82·9	+1·3	11·1	97·3	66·1	31·2	19·9
	Gyantse	13,120	...	...	...	...	...	...	...	37·3	57·6	...	27·8‖	...	43·5‖	...	31·1‖	82·0	—20·0	102·0	49·7‖
	Phariiong	14,400	...	...	...	...	...	...	...	30·1	44·9	...	12·3	...	28·6	...	32·5	67·6	—23·8	91·4	53·0
	Gangtok	5,660P	24·433‖	...	24·388‖	24·746	24·205	·541	·215‖	57·3	67·3	...	52·3	...	59·8	...	15·0	81·7	35·4	46·3	27·5
	Gartok	15,100	17·713 †† (c)	...	...	17·800	17·400	·400	·192 ††	22·9	43·8	...	14·0	...	28·8	...	29·6	75·3	—27·1	102·4	53·6
	Kashgar ††	4,255	25·748 (c) ¶¶	...	...	26·060	25·490	·570	·429 ¶¶	31·1	53·4	+2·1	27·1	—0·8	40·2	+0·6	26·3	75·9	10·3	65·6	41·9
	Kabul‖‖	...	24·116	...	...	24·310	23·830	·480	·233	70·7	91·1	+2·3	68·6	+12·5	79·8	+7·4	22·5	106·2	46·6	59·6	39·4
	Meshed‖	3,104	26·794	...	29·927	27·358	26·446	·912	·457	54·8	72·5	...	44·1	—3·8	58·3	...	28·4	104·4	—1·9	106·3	51·6
	Jask	13	29·850	—·015	29·816	30·259	29·378	·881	·302	76·2	87·3	+0·8	73·7	+0·4	80·5	+0·6	13·6	103·8	54·3	49·5	24·2
	Muscat	20	29·862	+·003	29·830	30·344	29·385	·959	·285	81·2	89·5	+6·4	78·1	—0·6	83·9	+2·9	11·7	109·8	60·1	49·7	25·3
	Bahrein	18	§ 29·915	...	§ 29·886	30·373	29·378	·995	§ ·355	77·3	82·4	...	72·1	...	77·3	...	10·3	102·9	47·9	55·0	25·3
	Bushire	14	29·864	+·003	29·840	30·414	29·396	1·018	·291	72·5	80·8	—1·4	67·8	—0·7	74·3	—1·0	13·0	105·8	39·0	66·8	29·8
	Busrah	25	29·880	...	29·874	30·461	29·368	1·093	·325	71·1	84·7	...	65·5	...	75·1	...	19·2	116·9	36·7	80·2	38·1
	Kerman	...	24·487	...	...	24·870	24·100	·770	·400	56·4	79·7	...	44·5	...	62·1	...	35·1	109·0	16·5	92·5	55·6
	Ispahan	*5,817*	24·253 (b)	...	...	24·560	23·950	·610	·329	54·0	72·9	—1·2	46·0	+0·8	59·5	—0·2	26·9	104·9	18·2	86·7	45·1
	Tehran	*4,002*	25·729 (b)	...	...	26·000	25·400	·600	·332	57·0	71·2	—1·6	50·1	—0·7	60·6	—1·2	21·1	109·1	4·2	104·9	40·8
	Baghdad	127	29·708	+·006	29·904	30·414	29·290	1·124	·370	66·1	85·5	+0·5	59·6	+0·1	72·5	+0·3	25·9	115·7	28·8	86·9	43·1
	Beirut (a)‖	...	...	...	29·965	...	...	...	...	67·4	72·5	...	61·5	...	67·0	...	11·0	98·1	40·8	57·3	25·9
	Aden	94	29·847	+·021	29·873	30·159	29·486	·673	·207	81·2	87·2	—1·1	78·2	+0·4	82·7	—0·2	9·0	98·6	68·4	30·2	17·8
	Zanzibar	72	30·001	+·008	29·999	30·183	29·822	·361	·136	78·6	84·0	+0·4	76·3	—0·2	80·1	+0·1	7·7	90·5	70·8	19·7	13·8

N.B.—Elevations in italics indicate barometrical determinations.
Note.—The barometric readings are not reduced to sea-level, in the case of hill or plateau stations, the elevations of which exceed 3,200 feet.
(*a*) 8½ hrs. observations.
(*b*) Aneroid uncorrected.
(*c*) Aneroid corrected.

‖ Mean of 11 months.
†† " " 3 "
‖‖ " " 6 "
¶¶ " " 4 "
§ " " 7 "

B—concld.

stations in India, etc., in the year 1913.

Wind direction. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind velocity. Mean velocity in miles per hour of year.	Normal velocity of year.	Departure from normal of year.	Hygrometry, 8 hrs. Mean humidity at 8 hrs. of year.	Departure from normal of year.	Mean vapour tension at 8 hrs. in inches of mercury of year.	Departure from normal in inches of mercury of year.	Cloud. Mean cloud amount at 8 hrs. of year.	Departure from normal of year.	Rainfall. Number of rainy days during year.	Normal number of rainy days during year.	Departure from normal of year.	Rainfall of year.	Normal rainfall of year.	Departure from normal of year.	Heaviest rainfall during year.	Station.
23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
																									Extra India —*concld.*
194	14	33	4	0	0	40	46	23	3·5*	5·8	—2·3	90	+13	·819	—·026	8·4	+3·3	120	108·7	+11·3	82·94	84·53	—1·59	3·33	Colombo.†
3	14	37	0	1	0	3	30	34	9·2*	8·5	+0·7	91	...	·805	...	5·3	...	29	...	...	21·30	...	...	3·85	Hambantota.
32	81	36	3	4	3	30	89	87	5·0	6·9	—1·9	?	...	?	...	4·2	—0·4	91	92·5	—1·5	59·77	61·84	—2·07	3·45	Minicoy.
12	94	59	11	3	0	27	70	89	7·3	...	...	76 ††	—3	·831 ††	—·018	5·2	—0·1	74	74·6	—0·6	62·41	52·36	+10·05	3·50	Amini Divi.
195	7	5	78	48	11	5	5	10	3·0	...	...	89	...	·257	...	1·9	...	14	...	...	4·57	...	...	1·00	Gyantse. †
241	19	11	1	25	5	5	1	1	7·4	...	...	71¶	...	·146¶	...	2·7	...	49	...	...	25·68	...	...	1·26	Pharijong.**
322	4	12	1	1	0	1	4	20	14·1	...	...	88	...	·435	...	2·1	...	162	165·4	—3·4	126·72	135·11	—8·39	3·18	Gangtok.
161	4	1	7	72	98	7	1	4	6·1	...	...	...	...	...	...	2·0	...	7	...	...	2·87	...	...	0·68	Gartok.‡‡
75	3	0	0	0	1	0	0	0	0·3‡	0·9	—0·6	72	?	·128	?	3·3	—0·9	0	0·3	—0·3	0	0·12	—0·12	0	Kashgar.§§
0	2	8	25	29	57	24	25	3	...	...	...	81	...	·631	...	1·3	—0·3	7	4·9	+2·1	2·07	1·86	+0·21	1·00	Kabul.***
279	28	0	2	6	13	1	0	5	1·5	...	...	62	...	·263	...	2·9	?	17	22·5	—5·5	7·35	9·37	—2·02	0·60	Meshed.
12	65	56	117	21	3	1	27	63	6·8	8·7	—1·9	71	0	·659	—·068	2·6	+1·0	9	8·9	+ 0·1	5·02	4·17	+0·85	1·58	Jask.
128	10	7	69	9	0	0	34	105	4·1	3·1	+1·3	64	—5	·697	—·045	3·3	+1·7	7	8·2	—1·2	5·27	3·94	+1·33	1·92	Muscat. (c)
0	84	17	16	15	13	22	49	149	5·4	...	...	66	...	·628	...	2·3	...	5	6·9	—1·9	3·35	2·47	+0·88	1·50	Bahrein.
67	48	43	35	21	16	8	25	102	7·1	5·8	+1·3	79	+12	·676	+·068	2·3	...	21	18·0	+3·0	11·38	11·07	+0·31	1·89	Bushire.
39	20	12	10	32	3	32	131	51	2·8	...	...	66	...	·499	...	2·8	...	20	14·7	+5·3	10·85	6·23	+4·62	1·78	Busrah. (d)
244	17	12	6	17	20	33	8	7	4·6	...	...	46	...	·216	...	1·9	...	20	...	...	6·06	...	...	0·78	Kerman.†
292	11	1	3	4	1	5	40	8	2·1	2·9	—0·8	60	—4	·269	—·050	2·2	+0·1	14	13·7	+0·3	4·24	4·74	—0·50	0·58	Ispahan.
179	23	79	8	5	9	12	5	1	2·2 ‖‖	2·2	0	53‖	+5	·298‖	+·047	3·5	+1·0	29	26·9	+2·1	11·15	9·30	+1·85	0·95	Tehran. (e)
66	58	34	14	19	16	10	25	120	5·8	2·7	+3·1	55	—4	·328	—·081	2·6	+1·4	15	16·0	—1·0	5·22	6·95	—1·73	0·75	Baghdad. (e)
131	9	17	21	17	56	29	45	5	...	...	...	67	...	·467	...	4·2	...	46	...	...	30·36	...	...	2·66	Beirut. (z)
120	34	164	11	14	15	7	0	0	7·2	9·1	—1·9	75	+2	·798	+·017	4·6	+0·4	2	4·5	—2·5	0·53	2·65	—2·12	0·20	Aden.
50	45	48	4	29	93	85	10	0	4·4	4·9	—0·5	83	0	·812	—·005	6·5	+0·6	86	88·8	—2·8	53·27	63·30	—10·03	2·97	Zanzibar.†

* Uncorrected for scale error.
¶ Mean of 5 months.
§ " 7 "
‡ " 2 "
‖‖ " 11 "
‖ " 10 "
†† " 8 "

** Wind observations for 369 days.
‡‡ " " " 355 "
§§ " " " 79 "
*** " " " 173 "
† " " " 364 "
(c) " " " 362 "
(d) " " " 363 "
(e) " " " 321 "
(z) " " " 333 "

Table C.—Abstract of observations taken at 8 hrs. at 67 fourth and fifth class stations in India, etc., in the year 1913.

TABLE

Abstract of observations taken at 8 hrs. at 67 fourth and

Number of sub-division.	Station.	Temperature of air.												Wind direction.								
		Mean of 8 hrs. temperature of year.	Mean maximum of year.	Departure from normal of year.	Mean minimum of year.	Departure from normal of year.	Yearly mean of mean between maximum and minimum.	Departure from normal of year.	Mean daily range of temperature.	Highest temperature observed during year.	Lowest temperature observed during year.	Absolute range during year.	Mean monthly absolute range.	Number of winds from								
														Calm.	N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	II.—Assam.																					
4	Bishnath	68·8	82·8	...	65·0	...	73·9	...	17·8	96·7	41·5	55·2	31·0	...	...	...	...	...	...	...	...	...
	Borjuli	70·8	83·3	...	63·5	...	73·4	...	19·8	97·3	41·4	55·9	31·2	...	...	...	...	...	...	...	...	...
	Chandkhira	71·6	87·2	...	64·3	...	75·7	...	22·8	99·6	40·0	59·6	36·4	...	...	...	...	...	...	...	...	...
	Doom Dooma	65·6	82·0	...	63·0	...	72·5	...	19·0	98·8	40·2	58·6	32·0	...	...	...	...	...	...	...	...	...
	Dikom	67·7	82·0	...	63·1	...	72·6	...	18·9	98·6	38·6	60·0	33·1	...	...	...	...	...	...	...	...	...
	Golaghat	70·2	81·4	...	64·5	...	73·0	...	16·9	95·9	42·4	53·5	28·8	...	...	...	...	...	...	...	...	...
	Hailakandi	71·2	85·5	...	66·6	...	76·1	...	18·9	97·0	44·8	52·2	30·5	...	...	...	...	...	...	...	...	...
	Jorehat	69·1	82·3	...	65·3	...	73·8	...	17·0	96·5	42·0	54·5	28·6	...	...	...	...	...	...	...	...	...
	Lumding	69·2	84·1	...	64·4	...	74·2	...	19·7	97·2	41·8	55·4	32·1	...	...	...	...	...	...	...	...	...
	Messa	75·7	87·1	...	63·9	...	75·5	...	23·3	100·0	40·6	59·4	34·9	...	...	...	...	...	...	...	...	...
	Panerihat	64·7	78·5	...	62·9	...	70·7	...	15·6	90·0	38·3	51·7	26·9	...	...	...	...	...	...	...	...	...
	Srimangal	71·9	87·3	...	65·3	...	76·3	...	21·9	95·7	40·2	55·5	33·8	...	...	...	...	...	...	...	...	...
	III.—Bengal.																					
5	Comilla	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Brahmanbaria	77·1	86·9	...	67·9	...	77·4	...	18·9	98·6	45·9	52·7	30·1	...	...	...	...	...	...	...	...	...
	Faridpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Goalundo	74·9	87·9	...	66·7	...	77·3	...	21·2	109·2	42·1	67·1	36·1	...	...	...	...	...	...	...	...	...
	Pabna	75·1	87·5	...	69·4	...	78·5	...	18·1	109·6	48·0	61·6	31·4	...	...	...	...	...	...	...	...	...
	Sirajganj	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Rampur Boalia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Malda	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Rangpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Dam Dim	69·4	90·6	...	61·2	...	75·9	...	29·4	98·9	37·5	61·4	41·0	...	...	...	...	...	...	...	...	...
	Kalchini	74·8	84·3	...	59·1	...	71·7	...	25·1	95·1	37·9	57·2	36·9	...	...	...	...	...	...	...	...	...
	Nagrakata	73·9	84·6	...	63·8	...	74·2	...	20·8	95·1	42·0	53·1	31·9	...	...	...	...	...	...	...	...	...
	Cooch Behar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Krishnagar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Bankura	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Asansol	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	IV.—Bihar and Orissa.																					
7	Hazaribagh	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
8	Bhagalpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Muzaffarpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Motihari	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Chapra	...	...		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Arrah	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Dehri	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

C.

fifth class stations in India, etc., in the year 1913.

Wind velocity.			Hygrometry, 8 hrs.				Cloud.		Rainfall.							
Mean velocity in miles per hour.	Normal.	Departure from normal.	Mean humidity at 8 hrs. of year.	Departure from normal of year.	Mean vapour tension at 8 hrs. in inches of mercury of year.	Departure from normal in inches of mercury of year.	Mean cloud amount at 8 hrs. of year.	Departure from normal of year.	Number of rainy days during year.	Normal number of rainy days during year.	Departure from normal of year.	Total rainfall for the year.	Normal rainfall for the year.	Departure from normal of year.	Heaviest rainfall during the year.	Station.
24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
																II.—Assam.
...	...	...	94	..	·696	...	..	...	134	117·6	+16·4	94·60	88·58	+ 6·02	6·09	Bishnath.
...	...	...	84	...	·637	...	...	...	117	110·8	+ 6·2	89·96	77·73	+12·23	4·25	Borjuli.
...	...	...	90	...	·719	...	...	...	143	130·3	+12·7	131·49	106·52	+24·97	10·56	Chandkhira.
...	...	...	93	...	·616	...	...	...	160	129·5	+30·5	122·77	96·74	+26·03	6·24	Doom Dooma.
...	...	...	90	...	·645	...	...	...	151	135·1	+15·9	117·33	102·47	+14·86	5·11	Dikom.
...	...	...	89	...	·685	...	...	...	125	110·6	+14·4	81·67	65·66	+16·01	3·86	Golaghat.
...	...	...	89	...	·701	...	...	...	139	136·9	+ 2·1	140·06	121·31	+18·75	13·33	Hailakandi.
...	...	...	91	...	·682	...	...	...	133	115·8	+17·2	90·93	76·37	+14·56	3·75	Jorehat.
...	...	...	88c	...	·709c	...	...	...	87	...	...	51·11	...	...	2·70	Lumding.
...	...	...	76	...	·694	...	...	...	119	112·7	+ 6·3	76·63	83·62	— 6·99	6·40	Messa.
...	...	...	92	...	·599	...	...	...	108	100·7	+ 7·3	85·97	74·30	+11·67	5·00	Panerihat.
...	...	...	88	...	·717	...	...	...	122	123·7	— 1·7	106·92	95·88	+11·04	7·74	Srimangal.
																III.—Bengal.
...	...	...	...	...	...	...	...	...	110	100·1	+ 9·9	120·47	88·38	+32·09	5·90	Comilla.
...	...	...	80	...	·765	...	...	...	100	103·8	— 3·8	101·85	79·33	+22·52	5·03	Brahmanbaria.
...	...	...	...	...	...	...	...	...	103	90·8	+12·2	76·36	69·30	+ 7·06	3·70	Faridpur.
...	...	...	83	...	·743	...	...	...	98	90·1	+ 7·9	61·72	66·28	— 4·56	2·41	Goalundo.
...	...	...	84	...	·760	...	...	...	92	81·3	+10·7	58·64	60·11	— 1·47	3·27	Pabna.
...	...	...	...	...	...	...	...	...	87	81·8	+ 5·2	67·29	64·30	+ 2·99	5·26	Sirajganj.
...	...	...	...	...	...	...	...	...	90	73·7	+16·3	67·93	53·98	+13·95	4·48	Rampur Boalia.
...	...	...	...	...	...	...	...	...	71	67·8	+ 3·2	63·90	52·82	+11·08	4·67	Malda.
...	...	...	...	...	...	...	...	...	86	82·7	+ 3·3	101·29	80·53	+20·76	6·38	Rangpur.
...	...	...	69	...	·678	...	...	...	132	121·5	+10·5	146·82	154·04	— 7·22	5·80	Dam Dim.
...	...	...	76	...	·692	...	...	...	128	115·7	+12·3	150·94	150·71	+ 0·23	12·73	Kalchini.
...	...	...	73	...	·629	...	...	...	137	132·1	+ 4·9	151·30	161·05	— 9·75	6·40	Nagrakata.
...	...	...	...	...	...	...	...	...	102	103·6	— 1·6	146·02	145·70	+ 0·32	10·23	Cooch Behar.
...	...	...	...	...	...	...	...	...	99	76·0	+23·0	79·80	57·05	+22·75	4·50	Krishnagar.
...	...	...	...	...	...	...	...	...	89	73·3	+15·7	63·54	54·39	+ 9·15	3·72	Bankura.
...	...	...	...	...	...	...	...	...	97	73·2	+23·8	80·08	52·72	+27·36	5·13	Asansol.
																IV.—Bihar and Orissa.
...	...	...	...	...	...	...	...	...	77	75·4	+ 1·6	64·48	52·25	+12·23	5·51	Hazaribagh.
...	...	...	...	...	...	...	...	...	59	60·0	— 1·0	45·98	49·00	— 3·02	5·06	Bhagalpur.
...	...	...	...	...	...	...	...	...	65	56·1	+ 8·9	75·73	49·11	+26·62	7·05	Muzaffarpur.
...	...	...	...	...	...	...	...	...	61	58·7	+ 2·3	64·15	56·17	+ 7·98	5·18	Motihari.
...	...	...	...	...	...	...	...	...	58	52·2	+ 5·8	62·87	41·81	+21·06	6·17	Chapra.
...	...	...	...	...	...	...	...	...	54	55·1	— 1·1	65·84	44·25	+21·59	6·03	Arrah.
...	...	...	...	...	...	...	...	...	61	54·0	+ 7·0	62·44	42·16	+20·28	7·75	Dehri.

c Mean of 10 months.

TABLE

Abstract of observations taken at 8 hrs. at 67 fourth and

Number of sub-division.	Station.	Temperature of air.												Wind direction.								
		Mean of 8 hrs. temperature of year.	Mean maximum of year.	Departure from normal of year.	Mean minimum of year.	Departure from normal of year	Yearly mean of mean between maximum and minimum.	Departure from normal of year.	Mean daily range of temperature.	Highest temperature observed during year.	Lowest temperature observed during year.	Absolute range during year.	Mean monthly absolute range.	Number of winds from								
														Calm.	N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	V.—United Provinces of Agra and Oudh.																					
10	Meerut	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Dehra Dun	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Mussooree	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	IX.—Rajputana.																					
18	Udaipur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	XII.—Central Provinces.																					
23	Chhindwara	71·4	87·3	...	63·4	...	75·4	...	23·9	107·6	39·8	67·8	38·2	132	18	17	6	2	9	22	62	66
	XIII.—Hyderabad.																					
27	Parbhani	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	XV.—Madras.																					
31	Tinnevelly	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
32	Anantapur	77·8	93·9	...	70·8	...	82·3	...	23·0	108·6	54·1	54·5	33·9	...	...	...	...	...	...	...	...	...
33	Guntur	79·5	94·4	...	73·7	...	84·1	...	20·7	114·2	58·8	55·4	32·2	...	...	...	...	...	...	...	...	...
	Bay Islands.																					
1	Car Nicobar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Kashmir.																					
13	Jammu	71·8	83·8	...	64·6	...	74·2	...	19·2	107·1	39·9	67·3	34·3	0	146	153	13	0	47	0	3	3
	Sonamarg	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Kargil	40·3	58·8	...	31·9	...	45·4	...	26·9	100·9	—17·6	118·5	48·1	0	161	5	76	82	6	15	1	19
	Astor	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Hill stations, exclusive of Kashmir.																					
	Panighatta	70·9	82·1	...	64·7	...	73·4	...	17·4	95·7	49·0	46·7	28·4	...	...	...	...	...	...	...	...	...
	Kurseong	60·5	66·7	...	56·0	...	61·3	...	10·7	78·3	38·9	39·4	22·5	...	...	...	...	...	...	...	...	...
	Gnatong	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Lachung	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Ringim	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Poo	...	61·4	...	41·5	...	51·4	...	19·9	92·1	17·0	75·1	34·6	155	9	5	52	21	26	6	69	19
	Kailang	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Bakloh	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Pishin	...	75·3	...	45·9	...	60·6	...	29·4	102·4	18·0	84·4	48·3	...	...	...	...	...	...	...	...	...

C—contd.

fifth class stations in India, etc., in the year 1913—contd.

Wind velocity.			Hygrometry, 8 hrs.				Cloud.		Rainfall.							
Mean velocity in miles per hour.	Normal.	Departure from normal.	Mean humidity at 8 hrs. of year.	Departure from normal of year.	Mean vapour tension at 8 hrs. in inches of mercury of year.	Departure from normal in inches of mercury of year.	Mean cloud amount at 8 hrs. of year.	Departure from normal of year.	Number of rainy days during year.	Normal number of rainy days during year.	Departure from normal of year.	Total rainfall for the year.	Normal rainfall for the year.	Departure from normal of year.	Heaviest rainfall during the year.	Station.
24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
																V.—United Provinces of Agra and Oudh.
...	...	...	...	...	...	...	...	...	32	38·9	— 6·9	24·30	32·27	— 7·97	2·48	Meerut.
...	...	...	...	...	...	...	...	...	71	80·4	— 9·4	61·67	85·22	—23·55	4·18	Dehra Dun.
...	...	...	...	...	...	...	...	...	8	3·7	+ 4·3	5·72	2·17	+ 3·55	2·79	Mussooree.§
																IX.—Rajputana.
...	...	...	...	...	...	...	...	...	33	31·5	+ 1·5	25·05	23·40	+1·65	2·83	Udaipur.
																XII.—Central Provinces.
2·2	...	...	65	...	·515	...	2·2	...	53	...	...	47·58	...	...	9·50	Chhindwara.†
																XIII.—Hyderabad.
...	...	...	...	...	...	...	...	...	43	44·7	—1·7	33·99	31·09	+2·90	3·45	Parbhani.‡
																XV.—Madras.
...	...	...	...	...	...	...	...	...	49	40·4	+8·6	37·24	27·29	+9·95	4·40	Tinnevelly.
...	...	...	75	...	·713	...	6·3	...	31	...	...	22·83	...	...	5·02	Anantapur.
...	...	...	80	...	·809	...	3·8	...	45	...	...	26·91	...	...	2·15	Guntur.
																Bay Islands.
...	...	...	...	...	...	...	...	...	65	131·2	—66·2	77·03	98·51	—21·48	6·00	Car Nicobar.
																Kashmir.
...	...	...	55	...	·448	...	2·9	...	55	...	...	41·82	...	...	3·80	Jammu.
...	...	...	...	...	...	...	...	...	100	109·7	—9·7	67·41	77·84	—10·43	3·40	Sonamarg.
...	...	...	66‖	...	·192‖	...	3·9	...	21	...	...	10·21	...	...	1·50	Kargil.
...	...	...	...	...	...	...	...	...	15	13·5	+1·5	6·59	5·20	+1·39	1·35	Astor.§
																Hill stations, exclusive of Kashmir.
...	...	...	74	...	·580	...	...	...	133	114·5	+18·5	130·66	137·53	— 6·87	6·67	Panighatta.
...	...	...	82	...	·452	...	...	...	142	131·0	+11·0	171·40	153·72	+17·68	11·97	Kurseong.
...	...	...	...	...	...	...	...	...	185	...	...	196·86	...	...	3·21	Gnatong.
...	...	...	...	...	...	...	...	...	91	...	...	37·52	...	...	2·80	Lachung.¶
...	...	...	...	...	...	...	...	...	146	...	...	103·28	...	...	4·71	Ringim.‖
...	...	...	...	...	...	...	4·3	...	35	34·1	+ 0·9	11·82	14·50	— 2·68	1·09	Poo.**
...	...	...	...	...	...	...	...	...	54	48·7	+ 5·3	19·14	23·08	— 3·94	0·98	Kailang.
...	...	...	...	...	...	...	...	...	88	...	...	87·63	...	...	5·40	Bakloh.
...	...	...	...	...	...	...	1·3	...	21	18·9	+ 2·1	10·38	8·11	+ 2·27	1·44	Pishin.

† Wind observations for 334 days.
** " " " 362 "

¶ Observations of 7 months.
‡ Rainfall since 10th May 1913, *i. e.*, for 8 months.

‖ Mean of 11 months.
§ Total for 3 months.

TABLE

Abstract of observations taken at 8 hrs. at 67 fourth and

Number of sub-division.	Station.	Temperature of air.												Wind direction.								
														Number of winds from								
		Mean of 8 hrs. temperature of year.	Mean maximum of year.	Departure from normal of year.	Mean minimum of year.	Departure from normal of year.	Yearly mean of mean between maximum and minimum.	Departure from normal of year.	Mean daily range of temperature.	Highest temperature observed during year.	Lowest temperature observed during year.	Absolute range during year.	Mean monthly absolute range.	Calm.	N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	Extra India.																					
	Ahwaz	...	86·1	...	68·3	...	77·2	...	17·8	116·0	39·2	76·8	33·2	91	21	0	16	0	0	0	0	0
	Chumbi	·6	56·7	...	34·8	...	45·8	...	21·9	72·8	12·7	60·1	37·1	...	...	...	...	...	...	...	...	...
	Kirmanshah		68·7	...	41·7	...	55·2	...	26·9	104·2	2·4	101·8	47·3	...	...	...	...	...	...	...	...	...
	Koweit	...	84·2	...	67·7	...	75·9	...	16·5	113·9	38·6	75·3	36·1	20	35	4	42	0	28	10	189	37
	Maidan†	...	90·1	...	66·1	...	78·1	...	24·0	120·7	34·4	86·3	41·5	...	...	...	...	...	...	...	...	...
	Muhammerah*	...	86·9	...	67·6	...	77·3	...	19·3	107·2	37·4	69·8	33·0	0	0	7	2	23	0	64	3	162
	Abadan‡	...	94·5	...	68·8	...	81·6	...	25·7	119·6	39·8	79·8	43·2	3	21	7	0	3	15	21	5	12
	Pemba	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Seistan	...	80·0	...	54·0	...	67·1	...	26·0	110·0	25·0	85·0	50·8	32	166	12	8	1	13	6	18	107

* Mean of 11 months. † Mean of 10 months. ‡ Mean of 8 months.

C—concld.

fifth class stations in India, etc., in the year 1913—concld.

Wind velocity.			Hygrometry, 8 hrs.				Cloud.		Rainfall.							
Mean velocity in miles per hour.	Normal.	Departure from normal.	Mean humidity at 8 hrs. of year.	Departure from normal of year.	Mean vapour tension at 8 hrs. in inches of mercury of year.	Departure from normal in inches of mercury of year.	Mean cloud amount at 8 hrs. of year.	Departure from normal of year.	Number of rainy days during year.	Normal number of rainy days during year.	Departure from normal of year.	Total rainfall for the year.	Normal rainfall for the year.	Departure from normal of year.	Heaviest rainfall during the year.	Station.
24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
																Extra India.
...	...	...	...	...	...	...	2·4	...	25	...	...	12·62	...	...	1·41	Ahwaz.¶
...	...	...	·84§	...	·261§	...	0·9‖	...	96	...	...	35·79	...	...	1·06	Chumbi.
...	...	...	·55*	...	·241*	...	...	...	44	...	...	21·61	...	...	1·80	Kirmanshah.
...	...	...	...	...	...	...	2·0*	...	12	...	...	4·21	...	...	0·95	Koweit.
...	...	...	...	...	...	...	0·3**	...	19	...	...	12·59	...	...	1·49	Maidan.
...	...	...	...	...	...	...	...	...	13	...	...	8·36	...	...	1·60	Muhammerah.††
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Abadan.‡‡
...	...	...	...	...	...	...	...	...	112	104·2	+7·8	86·89	83·58	+3·31	5·24	Pemba.
7·0	...	...	...	...	...	...	...	...	5	...	...	0·98	...	...	0·20	Seistan.§§

§ Mean of 9 months.
‖ " " 4 "
** " " 2 "

¶ Wind observations for 128 days.
†† " " " 261 "

§§ Wind observations for 363 days.
‡‡ " " " 87 "

Addenda sheet of 8 hrs. observations in Table B of 1913, Monthly Weather Review.

Addenda sheet of 8 hrs. observations

Number of sub-division.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches.								Temperature of air.												
			Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	January 1913.																						
	Minicoy . .	7	30·021	...	...	30·072	31st	29·953	7th	·119	...	...	...	...	...	...	...	...	...	...	...	...	...
	April 1913.																						
	Gyantse . .	13,120	...	...	...	...	...	...	...	...	41·6	58·9	...	29·0	...	44·0	...	29·9	68·0	30th	19·3	8th	48·7
	May 1913.																						
	Amini Divi . .	*13*	29·862	—·019	29·803	29·942	17th	29·720	31st	·222	85·2	93·3	+3·2	80·4	—0·2	86·9	+1·5	12·9	97·3	4th & 5th.	74·4	26th	22·9
	Tehran (*f*) .	*4,002*	(*a*) 25·677	...	...	25·850	18th	25·550	30th	·300	70·1	82·2	—0·9	60·4	+0·8	71·3	—0·1	21·8	95·4	30th	48·9	7th	46·5
	June 1913.																						
	Amini Divi . .	*13*	29·824	—·011	29·765	29·923	20th	29·680	6th	·243	82·2	87·2	+1·1	77·8	—0·2	82·5	+0·5	9·4	90·6	15th	73·0	5th	17·6
	Tehran (*g*) . .	*4,002*	(*a*) 25·642	...	...	25·800	10th	25·450	6th	·350	81·0	94·3	+0·1	68·5	+1·5	81·4	+0·8	25·8	101·7	30th	54·4	8th	47·3
	July 1913.																						
	Amini Divi . .	*13*	29·860	—·008	29·801	29·928	3rd	29·773	16th	·155	81·1	86·2	+1·2	77·2	—0·3	81·7	+0·5	9·0	89·6	14th	73·6	4th	16·0
	Tehran (*g*) . .	*4,002*	(*a*) 25·550	...	...	25·700	13th	25·400	29th	·300	84·3	101·9	+3·5	75·1	+3·0	88·5	+3·3	26·8	107·1	29th	70·0	7th	37·1
	September 1913.																						
	Tehran (*p*) . .	*4,002*	(*a*) 25·793	...	...	25·900	19th	25·725	16th & 17th.	·175	70·0	85·3	—3·3	62·0	—1·5	73·7	—2·4	23·3	91·3	28th	58·3	14th	33·0
	October 1913.																						
	Singapore* . .	10	29·967	...	29·898	30·015	21st	29·892	25th	·123	83·4	89·6	...	74·3	...	81·9	...	15·3	92·0	3rd	71·0	13th	21·0
	Gyantse . .	13,120	18·536	...	18·497	18·640	23rd	18·435	16th	·205	42·1	63·6	...	(*x*) 37·7	...	(*x*) 51·9	...	25·9	71·0	20th	32·0	10th	39·0
	November 1913.																						
	Gyantse . .	13,120	18·559	...	18·520	18·827	16th	18·435	6th	·392	27·4	43·4	...	...	...	...	...	...	52·0	4th	...	...	...
	Beirut (*b*) . .	...	...	...	30·024	...	...	...	...	...	65·5	71·5	...	61·9	...	66·7	...	9·6	77·7	16th	56·8	24th	20·9
	December 1913.																						
	Beirut (*b*) . .	...	...	...	30·083	...	...	...	...	...	56·4	61·8	...	53·0	...	57·4	...	8·8	66·7	2nd	46·0	17th &18th	20·7

N. B.—Elevations in italics indicate barometrical determinations.

NOTE.—The barometric readings are not reduced to sea-level, in the case of hill or plateau stations, the elevations of which exceed 3,200 feet.

(*a*) Aneroid uncorrected.
(*b*) 8½ hrs. observations.
* 9 " "

(*f*) Mean of 28 days.
(*g*) " " 27 "
(*p*) " " 18 "

(*x*) Mean of 11 days.

in Table B of 1913, Monthly Weather Review.

Wind direction. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.	Wind velocity. Mean velocity, miles per hour.	Normal.	Departure from normal.	Wind steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Cloud. Mean cloud amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall for period.	Normal rainfall for period.	Departure from normal of period.	Heaviest rainfall during month.	Station.
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																																January 1913.
0	18	13	0	0	0	0	0	0	N 18° E	N 42° E	2·7	4·7	−2·0	94	+29	...	...	...	...	2·1	−1·1	3	2·8	+0·2	3·03	1·90	+1·13	6·67	4·96	+1·71	1·40	Minicoy.
																																April 1913.
19	0	0	8	0	1	1	1	0	S 72° E	...	3·2	...	...	23	...	?	...	?	...	0·7	...	0	...	...	0·01*	...	...	0·01*	...	...	0·01*	Gyantse.
																																May 1913.
3	6	0	0	0	0	1	7	14	N 50° W	...	5·3	...	...	74	...	72	−5	·870	−·068	5·7	0	5	4·3	+0·7	4·70	3·14	+1·56	4·70	3·14	+1·56	1·96	Amini Divi.
18	0	1	2	2	1	2	0	1	S 45° E	S 46° W	(g) 3·4	2·6	+0·8	11	−5	48	+8	·342	+·036	2·5	−0·2	3	1·9	+1·1	0·86	0·45	+0·41	0·86	0·45	+0·41	0·40	Tehran.
																																June 1913.
0	0	0	1	0	0	8	13	8	W	...	12·3	...	...	7	...	82	−3	·901	−·043	8·3	+0·5	21	15·7	+5·3	18·35	13·67	+4·68	23·05	16·81	+6·24	2·70	Amini Divi.
10	0	1	0	1	7	6	2	0	S 24° W	S 7° W	(j) 2·2	2·2	0	44	+27	32	0	·342	+·015	0·3	−0·6	0	0·3	−0·3	0	0·08	−0·08	0.86	0·53	+0·33	0	Tehran.
																																July 1913.
0	2	0	0	0	0	10	18	1	S 81° W	...	14·0	...	...	84	...	83	−1	·876	−·030	8·1	+0·6	19	15·3	+3·7	16·21	11·83	+4·38	39·26	28·64	+10·62	3·50	Amini Divi.
24	0	1	0	0	1	1	0	0	S	S 44° W	(k) 1·7	1·7	0	4	−17	39	+4	·446	+·050	0	−1·0	0	0·6	−0·6	0	0·22	−0·22	0·86	0·75	+0·11	0	Tehran.
																																September 1913.
14	0	3	1	0	0	0	0	0	N 56° E	N 62° E	(r) 1·5	2·0	−0·5	17	+5	44	+10	·319	+·008	1·3	+0·7	0	0·3	−0·3	0	0·08	−0·08	0·86	0·88	−0·02	0	Tehran.
																																October 1913.
16	0	1	1	4	0	9	0	0	S 12° W	...	3·7†	...	...	27	...	...	...	...	...	6·6	...	15	11·8	+3·2	10·50	7·32	+3·18	44·62	40·12	+4·50	3·06	Singapore.
15	0	0	4	5	3	3	0	1	S 32° E	...	1·9	...	...	32	...	(p) 67	...	(p) ·206	...	1·1	...	0	...	...	0	...	...	4·56	...	...	0	Gyantse.
																																November 1913.
12	0	1	6	8	3	0	0	0	S 56° E	...	4·7	...	...	47	...	...	...	...	...	0·8	...	0	...	...	0	...	...	4·56	...	...	0	Gyantse.
22	1	1	4	0	0	0	2	0	N 56° E	...	...	...	...	10	...	62	...	·390	...	5·4	...	6	...	...	5·62	...	...	(c) 7·04	...	...	1·90	Beirut.
																																December 1913.
17	1	1	7	2	0	1	1	1	N 87° E	...	...	...	...	22	...	67	...	·302	...	6·3	...	14	...	...	12·18	...	...	12·18	...	...	2·66	Beirut.

† Uncorrected for scale error.
(j) Mean of 24 days.
* Snow water.
(k) Mean of 23 days.
(g) " " 27 "
(p) " " 18 "
(c) Rainfall for July wanting.
(r) Mean of 16 days.

Addenda sheet of 8 hrs. observations in Table C of 1913, Monthly Weather Review.

Addenda sheet of 8 hrs. observations in

Number of sub-division.	Station.	Temperature of air.												
		Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	July 1913.													
	Extra India.													
	Koweit	...	100·5	...	84·2	...	92·4	...	16·3	110·0	13th	80·1	9th	29·9
	Maidan	...	114·1	...	85·8	...	99·9	...	28·3	120·7	14th	81·0	6th	39·7
	November 1913.													
	Hill stations, exclusive of Kashmir.													
	Kailang	...	...	...	...	...	...	...	...	...	...	...	...	...
	Extra India.													
	Abadan	...	75·5	...	58·4	...	67·0	...	17·1	86·6	1st, 3rd & 4th.	47·8	28th	38·8
	December 1913.													
	Hill stations, exclusive of Kashmir.													
	Kailang	...	...	...	...	...	...	...	...	...	...	...	...	...
	Extra India.													
	Abadan	...	64·7	...	46·4	...	55·6	...	18·3	80·6	15th	39·8	24th & 25th	40·8

Table C of 1913, Monthly Weather Review.

Wind direction. Number of winds from: Calm.	N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.	Resultant direction.	Normal direction.	Wind velocity. Mean velocity, miles per hour.	Normal.	Departure from normal.	Wind steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity, 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Cloud. Mean cloud amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall for period.	Normal rainfall for period.	Departure from normal of period.	Heaviest rainfall during month.	Station.
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
																																July 1913.
																																Extra India.
0	0	0	0	0	3	0	25	3	S88°W	...	...	...	...	87	...	...	...	...	...	0·2	...	0	...	...	0	...	...	0·11	...	...	0	Koweit.
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0	...	...	0	...	...	0	...	...	0	Maidan.
																																November 1913.
																																Hill stations, exclusive of Kashmir.
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	0·9	+1·1	0·90	0·37	+0·53	6·54	9·40	−2·86	0·56	Kailang.
																																Extra India.
3	1	6	0	1	3	8	4	2	S63°W*	...	...	...	...	23	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	Abadan.
																																December 1913.
																																Hill stations, exclusive of Kashmir.
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	2·3	+0·7	0·99	1·00	−0·01	0·99	1·00	−0·01	0·35	Kailang.
																																Extra India.
0	13	1	0	0	8	4	1	4	N45°W	...	...	...	...	26	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Abadan.

* Two winds variable

Corrigenda in the India Monthly Weather Reviews for the year 1913.

TEXT.

Page.	Column.	Part.	Correction.
Title page	Contents page.	April 1913 . .	*For* " 36, 36, 36, 39, 39, 40, 40, 42, 42, 43 and 44" *read* " 35, 35, 35, 38, 38, 39, 39, 41, 41, 42 and 43," respectively, against Introduction, Summary of the chief features of the weather in India during the month, Solar, seismic and magnetic disturbances, weather in the Indian monsoon region, Depressions and cyclonic storms, Pressure, Temperature, Winds, Humidity and Cloud, Rainfall and Snowfall.
53	...	May 1913 . .	*For* "9·52, 3·14, and—25" *read* " 8·98, —3·68, and —29", respectively, against Lower Burma, in the figure columns 3, 5 and 6 of table 14.
54	1	Ditto . .	*For* "6·78, —2·28 and—25" *read* " 6·51, —2·55 and —28", respectively, against Burma, in the figure columns 1, 3 and 4 of table 15.
66	...	June 1913 . .	*For* " 22·70, —2·64 and —10" *read* " 21·61, —3·73 and —15", respectively, against Lower Burma, in the figure columns 3, 5 and 6 of table 14.
67	1	Ditto . .	*For* " 14·81, —0·70 and —5" *read* "14·29, —1·22 and —8", respectively, against Burma, in the figure columns 1, 3 and 4 of table 15.
76	...	July 1913 . .	*For* " 32·71, +3·04 and +10" *read* " 32·06, +2·39 and +8", respectively, against Lower Burma, in the figure columns 3, 5 and 6 of table 14.
77	1	Ditto . .	*For* " 19·14, +1·52 and +9" *read* " 18·84, +1·22 and +7," respectively, against Burma, in the figure columns 1, 3 and 4 of table 15.
94	1	September 1913 .	*For* " +·028" *read* " +·027" against Punjab, in the figure column 1 of table 8.
94	1	Ditto . .	*For* " +·034" *read* " +·036" against Central Provinces, in the figure column 1 of table 8.
94	1	Ditto . .	*For* " +·019" *read* " +·021" against Hyderabad, in the figure column 1 of table 8.
96	2	Ditto . .	*For* " —2·0" *read* " +2·0" against Madras, in the figure column 1 of table 11.
97	1	Ditto . .	*For* " —·088" *read* " —·098" against United Provinces, in the figure column 4 of table 13.
97	2	Ditto . .	*For* " —·009" *read* " —·006" against Bombay, in the figure column 4 of table 13.
105	2	October 1913 . .	*For* " October" *read* " November," in the 2nd paragraph, 4th line of Depressions and cyclonic storms.
114	2	November 1913 .	*For* " C. W. Norman" *read* " C. W. Normand," signature in the foot of table 6.
131	...	December 1913 .	*For* " — " *read* " —20" against Malabar, in the figure column 6 of table 14.

Corrigenda in the India Monthly Weather Reviews for the year 1913.

TABLES A, B & C.

Page.	Part.	Table.	Meteorological Province or Station.	Heading.	Column No.	Correction.
vi	January 1913	B	Narayanganj	Pressure	4 to 7 and 9	*For* "30·068, +·026, 30·044, 30·169 and 29·986" *read* "30·078, +·036, 30·054, 30·179 and 29·996", respectively.
„	Ditto	„	Bogra	Ditto	4 to 7 and 9	*For* "30·027, +·034, 30·058, 30·144 and 29·927" *read* "30·020, +·027, 30·051, 30·137 and 29·920", respectively.
„	Ditto	„	Ditto	Temperature	13, 14, 17 to 20 and 24.	*For* "75·3, —0·8, 64·2, +0·2, 22·2, 78·2 and 30·0" *read* "74·7, —1·4, 63·9, —0·1, 21·6, 77·6 and 29·4", respectively.
viii	Ditto	„	Burdwan	Ditto	12 to 14, 17 to 20 and 24.	*For* "57·7, 79·3, +0·5, 66·5, —0·3, 25·6, 85·9 and 37·1" *read* "57·2, 78·6, —0·2, 66·1, —0·7, 24·9, 85·2 and 36·4" respectively.
„	Ditto	„	Hukitala (False Point).	Pressure	5	*For* "+·058" *read* "+·045."
xii	Ditto	„	Indore	Temperature	15	*For* "42·2" *read* "48·2."
xvi	Ditto	„	Chaman	Ditto	16	*For* "—0·8" *read* "+0·8."
xvii	Ditto	„	Quetta	Wind direction	35	*For* "N 13° W" *read* "S 13° W."
xviii	Ditto	„	Kabul	Station	2	*For* "Kabu" *read* "Kabul."
xxxiii	February 1913	„	Assam	Rainfall	19	*For* "3·28" *read* "3·38."
xxxiv	Ditto	„	Narayanganj	Pressure	4 to 7 and 9	*For* "30·010*, +·022*, 29·986*, 30·185 and 29·865" *read* "30·020*, +·032*, 29·996*, 30·195, and 29·875," respectively.
xxxvi	Ditto	„	Bogra	Ditto	4 to 7 and 9	*For* "29·959, +·028, 22·989, 30·145, and 29·798" *read* "29·952, +·021, 29·982, 30·138 and 29·791," respectively.
„	Ditto	„	Ditto	Temperature	13, 14, 17 to 20 and 24.	*For* "78·8, —1·4, 68·5, +1·1, 20·8, 87·2 and 35·0" *read* "78·2, —2·0, 68·2, +0·8, 20·2, 86·6 and 34·4," respectively.
„	Ditto	„	Burdwan	Ditto	12 to 14, 17 to 20 and 24.	*For* "64·8, 80·9, —2·9, 70·9, —0·3, 20·0, 88·4 and 33·6" *read* "64·3, 80·2, —3·6, 70·5, —0·7, 19·3, 87·7 and 32·9" respectively.
„	Ditto	„	Hukitala (False Point).	Pressure	5	*For* "+·027" *read* "+·008."
xliv	Ditto	„	P. V. "Fraser"	Ditto	4	*For* "29·046" *read* "30·046."
xlv	Ditto	„	Cherat	Hygrometry	44	*Insert* "—·005."
„	Ditto	„	...	...	Footnote	*Insert* Symbol "*" with "uncorrected for scale error."
xlvi	Ditto	„	Sarain	Pressure	4, 6 to 8 and 11	*For* "23·155, 23·117, 23·335, 6th and ·415" *read* "23·154, 23·116, 23·308, 2nd and ·388", respectively.
„	Ditto	„	Penang	Ditto	4, 6, 7 and 9	*For* "29·881, 29·826, 29·982 and 29·816" *read* "29·951, 29·896, 30·052, and 29·886", respectively.
„	Ditto	„	Gangtok	Ditto	4 and 6	*For* "24·499 and 24·454" *read* "24·494† and 24·449†," respectively.
„	Ditto	„	Tehran	Temperature	14	*For* "+7·4" *read* "—7·4."
xlvii	Ditto	„	Sarain	Rainfall	49	*Insert* "+2·0."
„	Ditto	„	Bahrein	Ditto	49	*Insert* "+1·3."
„	Ditto	„	Baghdad	Ditto	53	*For* "13·98" *read* "3·98."
l	Ditto	C	Goalundo	Temperature	8	*For* "63·3†" *read* "68·3†".
lxii	March 1913	B	Chittagong	Ditto	15	*For* "56·6" *read* "65·6".
„	Ditto	„	Narayanganj	Pressure	4—7 and 9	*For* "29·873, —·028, 29·848, 30·030 and 29·761" *read* "29·883, —·018, 29·858, 30·040 and 29·771", respectively.

Corrigenda in the India Monthly Weather Reviews for the year 1913.

TABLES A, B & C—*contd.*

Page.	Part.	Table.	Meteorological Province or Station.	Heading.	Column No.	Correction.
lxii	March 1913	B	Bogra	Pressure	4—7 and 9	*For* " 29·816, —·013, 29·845, 29·996 and 29·699 " *read* " 29·809, —·024, 29·838, 29·989, and 29·692," respectively.
"	Ditto	"	Ditto	Temperature	13, 14, 17—20, and 24.	*For* " 87·2, —3·0, 74·0, —3·0, 26·3, 99·7 and 47·5 " *read* " 86·6, —3·6, 73·7, —3·3, 25·7, 99·1 and 46·9 ", respectively.
lxiv	Ditto	"	Burdwan	Ditto	12—14, 17—20 and 24.	*For* " 71·3, 88·7, —5·0, 77·3, —3·7, 22·8, 101·9 and 45·1 " *read* " 70·8, 88·0, —5·7, 76·9, —4·1, 22·1, 101·2 and 44·7 ", respectively.
"	Ditto	"	Hukitala (False Point).	Pressure	5	*For* " —·020 " *read* " —·041 ".
lxv	Ditto	"	Gaya	Rainfall	47	*Insert* " 1 ".
lxvi	Ditto	"	Lahore	Temperature	21	*Insert* " 31st ".
lxvii	Ditto	"	Karachi	Wind direction	35	*For* " N 32° E " *read* " N 32° W ".
lxviii	Ditto	"	Bangalore	Temperature	23	*Insert* " 3rd ".
lxxii	Ditto	"	Sarain	Pressure	4 and 6	*For* " 23·070 and 23·032 " *read* " 23·068 and 23·030 ", respectively.
"	Ditto	"	Penang	Ditto	4, 6, 7 and 9	*For* " 29·851, 29·796, 29·925 and 29·794 " *read* " 29·991, 29·846, 29·975 and 29·844", respectively.
"	Ditto	"	Gangtok	Ditto	4 and 6—11	*Reject* the figures.
lxxiii	Ditto	"	Shillong	Rainfall	50, 52, 53 and 55	*For* " 2·09, — 0·04, 4·25 and + 0·32 " *read* " 2·08, — ·005, 4·24 and + 0·31 ", respectively.
lxxv	Ditto	"	Meshed	Wind velocity	36 and 37	*Insert* " 2·3 " in column 36, and *omit* from column 37.
"	Ditto	"	Baghdad	Hygrometry	44	*For* " —·098 " *read* " — ·093 ".
"	Ditto	"	Zanzibar	Ditto	42	*For* " + " *read* " + 1 ".
lxxix	Ditto	C	Messa	Rainfall	40	*For* " + 6·2 " *read* " + 4·2."
lxxxi	Ditto	"	Guntur	Hygrometry	32	*For* " 85 " *read* " 85†."
"	Ditto	"	Ditto	Cloud	36	*For* " 2·1† " *read* " 2·1."
lxxxvii	April 1913	A	Seychelles	Wind direction	47	*For* " S 48° W " *read* " S 48° E."
lxxxix	Ditto	B	Madras	Temperature	3	*For* " + 0· " *read* " + 0·9."
xc	Ditto	"	Narayanganj	Pressure	4 to 7 and 9	*For* " 29·764, — ·047, 29·739, 29·881 and 29·644 " *read* " 29·774, —·037, 29·749, 29·891 and 29·654 ", respectively.
"	Ditto	"	Bogra	Ditto	4 to 7 and 9	*For* " 29·695, — ·055, 29·721, 29·852 and 29·549 " *read* " 29·688, — ·062, 29·714, 29·845 and 29·542," respectively.
	Ditto	"	Ditto	Temperature	13, 14, 17 to 20 and 24.	*For* " 97·9, + 1·7, 86·1, + 2·1, 23·4, 108·2 and 41·0 " *read* " 97·3 + 1·1, 85·8, + 1·8, 22·8, 107·6 and 40·4 ", respectively.
xcii	Ditto	"	Burdwan	Ditto	12 to 14, 17 to 20 and 24.	*For* " 81·7, 103·3, + 2·7, 90·0, + 1·9, 26·5, 111·4 and 43·1 " *read* "81·2, 102·6, + 2·0, 89·7, + 1·5, 25·8, 110·7 and 42·4 ", respectively.
	Ditto	"	Hukitala (False Point).	Pressure	5	*For* " — ·024 " *read* " — ·045."
xcv	Ditto	"	Veraval	Rainfall	54	*For* " 0·18 " *read* " 0·19."
xcvi	Ditto	"	Akola	Temperature	21	*For* " 2th " *read* " 29th."
xcvii	Ditto	"	Khandwa	Station	57	*For* " Khand " *read* " Khandwa."

Corrigenda in the India Monthly Weather Reviews for the year 1913.

TABLES A, B & C—*contd.*

Page.	Part.	Table.	Meteorological Province or Station.	Heading.	Column No.	Correction.
xcvii	April 1913	B	Hoshangabad	Station	57	*For* " Hoshang " *read* " Hoshangabad."
c	Ditto	"	Penang	Pressure	4, 6, 7 and 9	*For* " 29·867, 29·812, 29·923 and 29·781 " *read* " 29·897, 29·842, 29·953 and 29·811," respectively.
"	Ditto	"	Gangtok	Ditto	4 and 6	*For* " 24·393 and 24·348 " *read* " 24·386 and 24·341," respectively.
ci	Ditto	"	Shillong	Rainfall	53 and 55	*For* " 5·70 and – 2·44 " *read* " 5·69 and – 2·45 ", respectively.
cii	Ditto	"	Bahrein	Pressure	4 and 6 to 11	*Insert* " 29·825 (*a*), 29·796 (*a*), 29·875, 7th, 29·786, 24th and ·089 ", respectively.
"	Ditto	"	.....	.....	Footnote	*Insert* " (*a*) mean of 10 days."
cvi	Ditto	C	Bishnath	Temperature	3	*For* " 69·0 " *read* " 69·3."
"	Ditto	"	Goalundo	Ditto	3	*For* " 79·1 " *read* " 79·2."
cvii	Ditto	"	Ditto	Hygrometry	34	*For* " ·863 " *read* " ·866."
"	Ditto	"	Raniganj	Rainfall	40	*For* " 8·1 – " *read* " – 1·8."
cx	Ditto	"	Seistan	Temperature	4, 6, 8 and 10	*For* " 82·2, 55·2, 68·7 and 27·0 " *read* " 81·5, 55·3, 68·4, and 26·2," respectively.
"	Ditto	"	Ditto	Wind direction	17, 24 and 25	*For* " 14, 7 and N 5° W " *read* " 16, 9 and N 7° W ", respectively.
"	Ditto	"	.....	.....	Footnote	*Omit* " ‖ 11 winds variable."
"	Ditto	"	.....	.....	Footnote	*For* " ¶ Mean of 26 days " *read* " ¶ Mean of 25 days."
cxi	Ditto	"	Seistan	Wind velocity	27	*For* " 7·0 " *read* " 7·3."
"	Ditto	"	Ditto	Wind steadiness	30	*For* " 81 " *read* " 80."
"	Ditto	"	.....	.....	Footnote	*Omit* " ‖ = Mean of 21 days."
cxvii	May 1913	B	Burma	Rainfall	19 and 21	*For* " 6·78 and –2·28 " *read* " 6·51 and –2·55 ", respectively.
cxviii	Ditto	"	Narayanganj	Pressure	4 to 7 and 9	*For* " 29·728, –·003, 29·703, 28·836 and 29·628 " *read* " 29·738, + ·007, 29·713, 29·846 and 29·638," respectively.
cxx	Ditto	"	Bogra	Ditto	4 to 7 and 9	*For* " 29·687, + ·024 ?, 29·713, 29·797 and 29·568," *read* " 29·680, + ·017 ?, 29·706, 29·790 and 29·561," respectively.
"	Ditto	"	Ditto	Temperature	13, 14, 17 to 20 and 24.	*For* " 92·2, –0·3, 82·8, –0·7, 18·8, 108·7 and 42·5 " *read* " 91·6, –0·9, 82·5, –1·0, 18·2, 108·1 and 41·9," respectively.
"	Ditto	"	Burdwan	Ditto	12 to 14, 17 to 20 and 24.	*For* " 81·2, 96·9, –1·5, 86·2, – 1·9, 21·3, 111·9 and 45·1 " *read* " 80·7, 96·2, –2·2, 85·9, —2·2, 20·6, 111·2 and 44·4 ", respectively.
"	Ditto	"	Hukitala (False Point).	Pressure	5	*For* " + ·009 " *read* " –·012."
cxxx	Ditto	"	Simla	Ditto	4 to 6	*For* " 23·054, –0·11 and 23·016," *read* " 23·055, —·010 and 23·017," respectively.
cxxxiv	Ditto	C	Pabna	Temperature	4	*For* " 93·4 " *read* " 93·5 ".
"	Ditto	"	Kalchini	Station	2	*For* " Nalchini " *read* " Kalchini ".
cxxxv	Ditto	"	Rangpur	Rainfall	39 and 40	*For* " 12·8 and —1·8 " *read* " 12·0 and —1·0 ", respectively.
cxlii	June 1913	A	Kalabagh	Station	2	*For* " Kalahagh " *read* " Kalabagh ".

Corrigenda in the India Monthly Weather Reviews for the year 1913.

TABLES A, B & C—*contd.*

Page.	Part.	Table.	Meteorological Province or Station.	Heading.	Column No.	Correction.
cxlv	June 1913	B	Burma	Rainfall	19 to 21	*Insert* "14·29, 15·51 and —1·22," respectively.
"	Ditto	"	Hyderabad	Ditto	19 to 21	*Insert* "3·62, 4·76 and —1·14," respectively.
"	Ditto	"	Madras	Ditto	19 to 21	*Insert* "4·59, 5·39 and —0·80," respectively.
cxlvi	Ditto	"	Narayanganj	Pressure	4 to 7 and 9	*For* "29·645, +·031, 29·620, 29·825 and 29·404" *read* "29·655, +·041, 29·630, 29·835 and 29·414," respectively.
"	Ditto	"	Bogra	Ditto	4 to 7 and 9	*For* "29·597, +·036, 29·623, 29·762, and 29·376" *read* "29·590, +·029, 29·616, 29·755, and 29·369," respectively.
"	Ditto	"	Ditto	Temperature	13, 14, 17 to 20 and 24.	*For* "86·8, —3·0, 81·8, —1·7, 10·0, 91·2 and 22·0" *read* "86·2, —3·6, 81·5, —2·0, 9·4, 90·6 and 21·4," respectively.
cxlviii	Ditto	"	Burdwan	Ditto	12 to 14, 17 to 20 and 24.	*For* "80·9, 88·1, —5·7, 82·5, —4·0, 11·1, 95·9 and 24·1" *read* "80·4, 87·4, —6·4, 82·2, —4·3, 10·4, 95·2 and 23·4," respectively.
"	Ditto	"	Hukitala (False Point).	Pressure	5	*For* "+·022," *read* "+·001".
cliii	Ditto	"	Hyderabad (Deccan)	Rainfall	48	*For* "6·0" *read* "6·6".
clvi	Ditto	"	Simla	Pressure	4 to 6	*For* "23·030, +·032 and 22·992" *read* "23·027, +·029 and 22·989", respectively.
"	Ditto	"	Gartok	Ditto	7 to 11	*Reject* the figures and *insert* ?'s.
clxxiv	July 1913	"	Narayanganj	Ditto	4 to 7 and 9	*For* "29·592, —·006, 29·567, 29·802 and 29·313" *read* "29·602, +·004, 29·577, 29·812 and 29·323," respectively.
"	Ditto	"	Bogra	Ditto	4 to 7 and 9	*For* "22·546, +·012, 29·572, 29·800 and 29·330" *read* "29·539, +·005, 29·565, 29·793 and 29·322," respectively.
"	Ditto	"	Ditto	Temperature	13, 14, 17 to 20 and 24.	*For* "89·7, +0·6, 84·3, +0·5, 10·9, 92·7 and 19·0" *read* "89·1, 0, 84·0, +0·2, 10·3, 92·1 and 18·4," respectively.
clxxvi	Ditto	"	Burdwan	Ditto	12 to 14, 17 to 20 and 24.	*For* "82·3, 90·0, —0·2, 84·4, —0·4, 11·2, 95·4, and 20·6" *read* "81·8, 89·3, —0·9, 84·1, —0·7, 10·5, 94·7 and 19·9", respectively.
"	Ditto	"	Hukitala (False Point).	Pressure	5	*For* "—·009" *read* "—·030".
clxxxi	Ditto	"	Bidar	Rainfall	54	*For* "18·79" *read* "13·79".
clxxxii	Ditto	"	Muzaffarabad	Pressure	4	*For* "27·252" *read* "27·254".
clxxxiii	Ditto	"	Dras	Hygrometry	42	*For* "—" *read* "—1".
clxxxiv	Ditto	"	Gyantse	Pressure	7	*For* "18·550" *read* "18·550 ?".
"	Ditto	"	Gangtok	Ditto	4, 6 to 8 and 11	*For* "24·336, 24·291, 24·488, 8th and ·271" *read* "24·330, 24·285, 24·481, 9th and ·264", respectively.
clxxxv	Ditto	"	Penang	Wind velocity	36	*For* "9·6" *read* "9·6*".
cxcv	Ditto	C	Pemba	Rainfall	47	*For* "66" *read* "0·66".
cclf	August 1913	B	Mergui	Temperature	13 to 19 and 23	*For* "84·6, +0·4, 72·0, —0·6, 78·3, —0·1, 12·6, and 9 days" *read* "84·7, +0·5, 72·2, —0·4, 78·4, +0·1, 12·5 and 8 days," respectively.
"	Ditto	"	Dibrugarh	Pressure	4, 6, 7 and 9	*For* "29·309, 29·622, 29·471 and 29·174" *read* "29·303, 29·616, 29·465 and 29·168," respectively.
"	Ditto	"	Narayanganj	Ditto	4 to 7 and 9	*For* "29·614, —·033, 29·589, 29·795 and 29·390" *read* "29·624, —·023, 29·599, 29·805 and 29·400," respectively.
cclii	Ditto	"	Mergui	Cloud	45 and 46	*For* "6·5 and —1·1" *read* "6·6 and —1·0," respectively.

Corrigenda in the India Monthly Weather Reviews for the year 1913.

TABLES A, B & C—*contd.*

Page.	Part.	Table.	Meteorological Province or Station.	Heading.	Column No.	Correction.
cciv	August 1913	B	Bogra	Pressure	4 to 7 and 9	*For* "29·559, —·032, 29·585, 29·748, and 29·368" *read* "29·552, —·039, 29·578, 29·741 and 29·361," respectively.
"	Ditto	"	Ditto	Temperature	13, 14, 17 to 20 and 24.	*For* "88·3, 0, 83·3, 0, 9·9, 95·7 and 22·5" *read* "87·7, —0·6, 83·0, —0·3, 9·3, 95·1 and 21·9," respectively.
"	Ditto	"	Burdwan	Ditto	12 to 14, 17 to 20 and 24.	*For* "81·5, 88·4, —0·8, 83·6, —0·5, 9·6, 93·4 and 17·6" *read* "81·0, 87·7, —1·5, 83·3, —0·9, 8·9, 92·7 and 16·9," respectively.
"	Ditto	"	Hukitala (False Point).	Pressure	5	*For* "—·022" *read* "—·043".
ccv	Ditto	"	Daltonganj	Wind direction	33	*Insert* "—1".
ccxii	Ditto	"	Muzaffarabad	Pressure	9 and 11	*For* "27·090 and ·355" *read* "27·090?, and ·355?", respectively.
ccxiv	Ditto	"	Kalabagh	Ditto	4, 6 and 9 to 11	*For* "20·085, 20·047, 19·994, 8th and ·221" *read* "20·084, 20·046, 19·972, 7th and ·243", respectively.
"	Ditto	"	Gyantse	Ditto	4, 6, 7, 9 and 11	*For* "18·442, 18·403, 18·548, 18·349 and ·199" *read* "18·442?, 18·403?, 18·548?, 18·349?, and ·199?," respectively.
"	Ditto	"	Gangtok	Ditto	4, 6 and 9 to 11	*For* "24·345, 24·299, 24·242, 8th and ·232" *read* "24·335, 24·290, 24·205, 7th and ·269", respectively.
"	Ditto	"	Bahrein	Ditto	4 and 6 to 11	*Reject* the figures.
ccxxx	September 1913	"	Dibrugarh	Ditto	4, 6, 7 and 9	*For* "29·434, 29·751, 29·570 and 29·343" *read* "29·428, 29·745, 29·564 and 29·337", respectively.
"	Ditto	"	Narayanganj	Ditto	4 to 7 and 9	*For* "29·757, + ·006, 29·731, 29·884 and 29·610" *read* "29·767, + ·016, 29·741, 29·894 and 29·620," respectively.
"	Ditto	"	Bogra	Ditto	4 to 7 and 9	*For* "29·707, + ·007, 29·733, 29·847 and 29·573" *read* "29·700, 0, 29·726, 29·840 and 29·566," respectively.
"	Ditto	"	Ditto	Temperature	13, 14, 17 to 20 and 24.	*For* "89·6†, + 1·2†, 83·8†, + 0·9, 11·6, 94·2 and 20·5" *read* "89·0†, + 0·6†, 83·5†, + 0·6, 11·0, 93·6 and 19·9," respectively.
ccxxxii	Ditto	"	Burdwan	Ditto	12 to 14, 17 to 20 and 24.	*For* "82·1, 90·4, + 0·7, 84·6, + 0·3, 11·7, 94·9 and 20·1" *read* "81·6, 89·7, 0, 84·2, —0·1, 11·0, 94·2 and 19·4," respectively.
ccxxxviii	Ditto	"	Muzaffarabad	Pressure	4	*For* "27·454" *read* "27·455."
ccxl	Ditto	"	Gyantse	Ditto	4, 6, 7, 9 and 11	*For* "18·470, 18·431, 18·565, 18·406 and ·159" *read* "18·470?, 18·431?, 18·565?, 18·406? and ·159?," respectively.
"	Ditto	"	Ditto	Temperature	15, 17 and 19	*For* "40·8, 56·8 and 32·1" *read* "40·5, 56·7 and 32·4," respectively.
"	Ditto	"	Gangtok	Pressure	4 and 6	*For* "24·437 and 24·392" *read* "24·436 and 24·391," respectively.
ccxlii	Ditto	"	Kabul	Ditto	4, 7, 8 and 11	*For* "24·164, 24·260, 27th and ·190" *read* "24·167, 24·270, 28th and ·200," respectively.
"	Ditto	"	Bahrein	Ditto	4, 6 to 11	*Reject* the figures.
ccxliii	Ditto	"	Ispahan	Wind velocity	36 and 38	*For* "2·0 and —0·5" *read* "1·4 and —1·1," respectively.
ccxlvii	Ditto	C	Asansol	Rainfall	43	*For* "—2·9" *read* "—2·91."
ccxlix	Ditto	"	Sonamarg	Ditto	45 and 46	*For* "25·71 and —7·33" *read* "21·04 and —2·66", respectively.
ccl	Ditto	"	Kirmanshah	Temperature	11	*For* "54·8" *read* "94·8."
"	Ditto	"	Muhammerah	Wind direction	25	*For* "N 68° W" *read* "N 77° W."

Corrigenda in the India Monthly Weather Reviews for the year 1913.

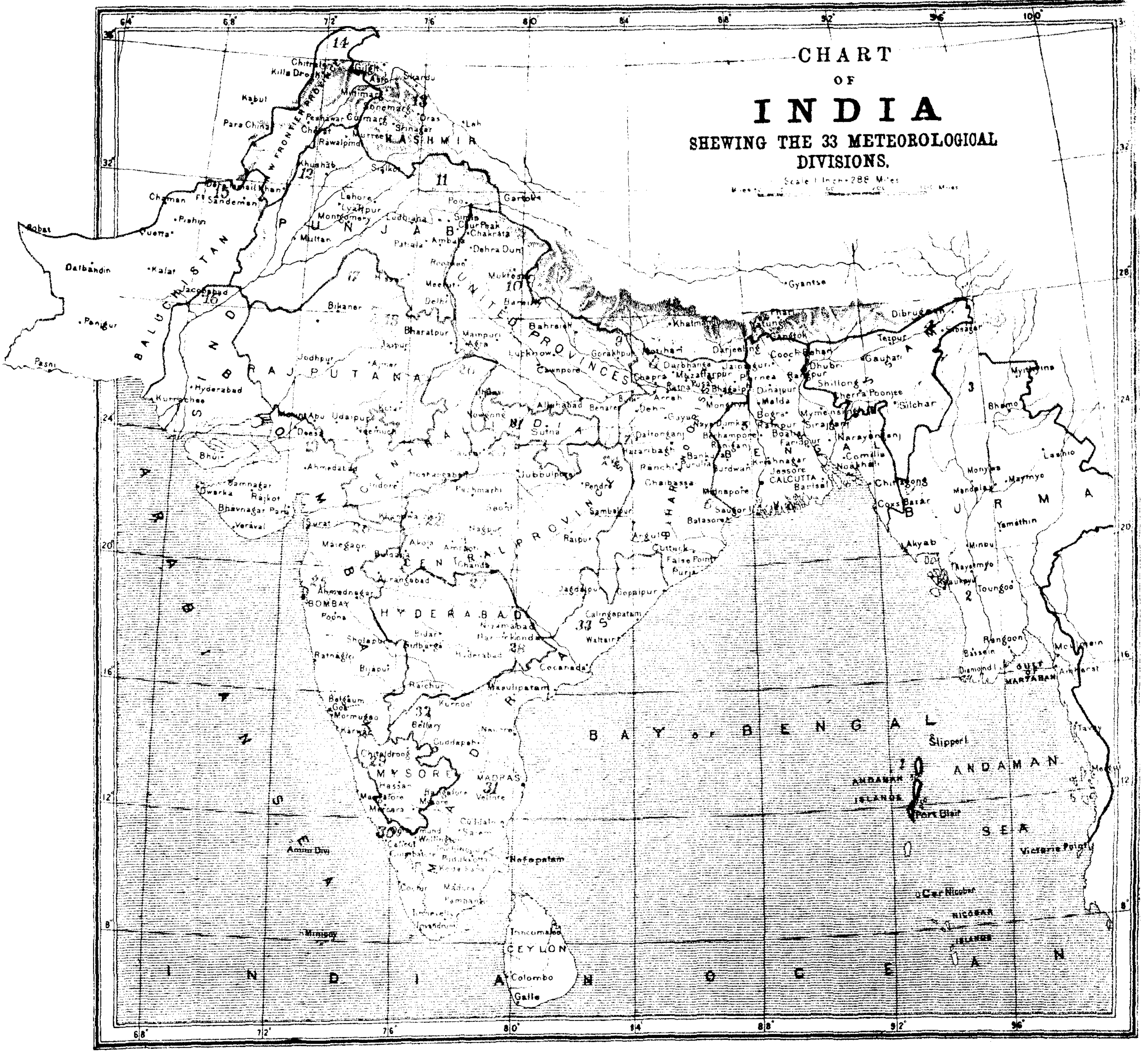
TABLES A, B & C—*contd.*

Page.	Part.	Table.	Meteorological Province or Station.	Heading.	Column No.	Correction.
ccli	September 1913.	C	Chumbi . .	Cloud . . .	36	*Insert* " ? ".
"	Ditto .	"	Muhammerah .	Wind steadiness .	30	*For* " 53 " *read* " 43."
ccliv	October 1913 .	A	Mukteswar . .	Temperature, wet bulb.	22 and 23	*For* " 52·4 and 47·4 " *read* " 52·1 and 47·3," respectively.
"	Ditto .	"	Ditto . .	Vapour tension .	26 and 27	*For* " ·313 and ·250 " *read* " ·306 and ·247," respectively.
"	Ditto .	"	Ditto . .	Humidity . .	31	*For* " 59 " *read* " 58."
cclvii	Ditto .	B	Assam . .	Rainfall . .	19, 20 and 21	*For* " 10·19, 12·00 and —1·81 " *read* " 8·22, 5·08 and + 3·14," respectively.
cclviii	Ditto .	"	Narayanganj .	Pressure . .	4 to 7 and 9	*For* " 29·899, + ·016, 29·874, 30·008 and 29·693 " *read* " 29·909, + ·026, 29·884, 30·018 and 29·703," respectively.
"	Ditto .	"	Bogra . . .	Ditto . .	4 to 7 and 9	*For* " 29·870, + ·029, 29·897, 29·994 and 29·635 " *read* " 29·863, + ·022, 29·890, 29·987 and 29·628," respectively.
"	Ditto .	"	Ditto . .	Temperature .	13, 14, 17 to 20 and 24.	*For* " 86·3, —0·9, 79·5, —0·5, 13·7, 90·7 and 24·0 " *read* " 85·7, —1·5, 79·2, —0·8, 13·1, 90·1 and 23·4," respectively.
cclx	Ditto .	"	Burdwan . .	Ditto . .	12 to 14, 17 to 20 and 24.	*For* " 78·5, 88·1, —0·6, 81·3, —0·4, 13·7, 91·4 and 22·6 " *read* " 78·0, 87·4, —1·3, 80·9, —0·7, 13·0, 90·7 and 21·9," respectively.
cclxi	Ditto .	"	Daltonganj . .	Wind direction .	28	*For* " 9 " *read* " 7."
cclxii	Ditto .	"	Patiala . .	Pressure . .	4 and 6	*For* " 29·078 and 29·832 " *read* " 29·080 and 29·884," respectively.
"	Ditto .	"	Ditto .	Temperature .	12	*For* " 71·8 " *read* " 71·7."
cclxiii	Ditto .	"	Ditto . .	Wind direction .	25, 29 and 34	*For* " 8, 6 and S 63°E " *read* " 9, 5 and S 72° E", respectively.
"	Ditto .	"	Ditto . .	Wind velocity .	36	*For* " 4·0* " *read* " 3·5* ".
"	Ditto .	"	Ditto . .	Wind steadiness .	39	*For* " 13 " *read* " 10."
"	Ditto .	"	Ditto . .	Hygrometry .	41 and 43	*For* " 50 and ·396 " *read* " 51 and ·395," respectively.
cclxv	Ditto .	"	Belgaum . .	Rainfall . .	50 and 52	*For* " 7·50 and + 2·47 " *read* " 1·50 and —3·53," respectively.
cclxxviii	Ditto .	C	Muhammerah .	Wind direction .	17 and 20 to 25	*For* " ..., 3, ..., 12, ..., 13 and W " *read* " 1, 1, 5, 8, 2, 11 and S 85° W," respectively.
"	Ditto .	"	Abadan . .	Ditto . .	17, 20 to 22, 24 and 25.	*Insert* " 7, 2, 4, 9, 6 and S 87° W c ", respectively.
"	Ditto .	"	...	...	Footnote	*Insert* " c = 3 winds variable."
cclxxix	Ditto .	"	Muhammerah .	Wind steadiness .	30	*For* " 4 " *read* " 39 ".
"	Ditto .	"	Abadan . .	Ditto . .	30	*Insert* " 33 ".
cclxxxvi	November 1913.	B	Narayanganj .	Pressure . .	4 to 7 and 9	*For* " 30·022, + ·040, 29·998, 30·116 and 29·913 " *read* " 30·032, + ·050, 30·008, 30·126 and 29·923," respectively.
cclxxxviii	Ditto .	"	Bogra . . .	Ditto . .	4 to 7 and 9	*For* " 29·998, + ·052, 30·027, 30·095, 29·893 " *read* " 29·991, + ·045, 30·020, 30·088 and 29·886 ", respectively.
"	Ditto .	"	Ditto . .	Temperature . .	13, 14, 17 to 20 and 24.	*For* " 80·5, —1·5, 71·0, —1·2, 19·0, 83·7 and 27·5 " *read* " 79·9, —2·1, 70·7, —1·5, 18·4, 83·1 and 26·9 ", respectively.
"	Ditto .	"	Jessore . .	Pressure . .	6	*For* " 30·025 " *read* " 30·024 ".
ccxcv	Ditto .	"	Pudukkottai .	Rainfall . .	52	*For* " —0·83 " *read* " + 0·83 ".

Corrigenda in the India Monthly Weather Reviews for the year 1913.

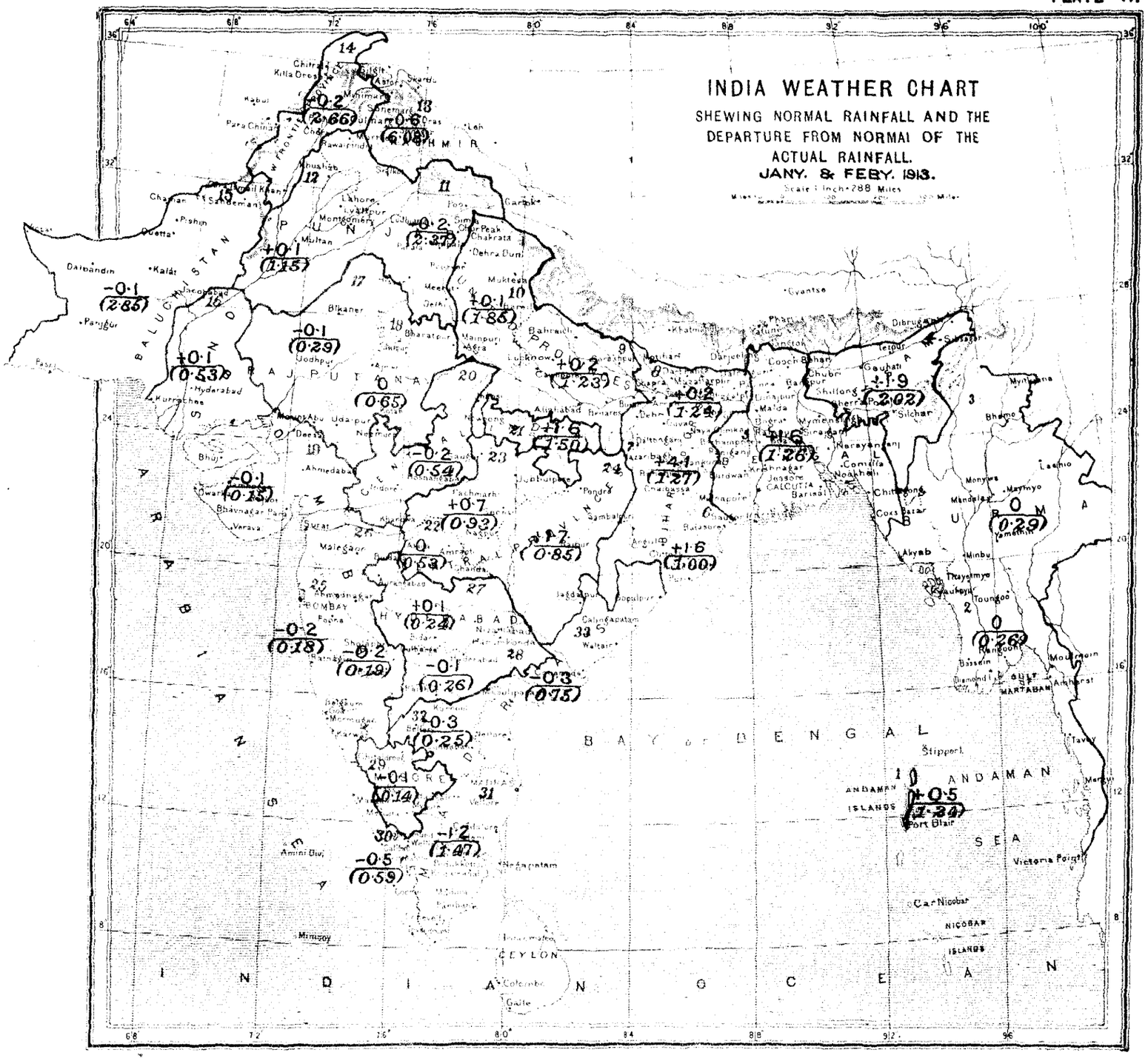
TABLES A, B & C—*concld.*

Page.	Part.	Table.	Meteorological Province or Station.	Heading.	Column No.	Correction.
ccxcvi	November 1913 .	B	Muzaffarabad .	Temperature	20	*For* "79·8" *read* "79·3".
ccxcviii	Ditto .	„	Ootacamund . .	Pressure . .	9	*For* "26·062" *read* "23·062".
„	Ditto .	„	Colombo . .	Station . .	2	*Omit* the symbol "†".
„	Ditto .	„	Ditto . .	Temperature .	12	*For* "74·9" *read* "74·8".
„	Ditto .	„	Pharijong . .	Ditto .	19	*For* "36·0" *read* "35·9".
„	Ditto .	„	Tehran . .	Ditto .	18 and 19	*For* "+0·1 and 15·2" *read* "−0·1 and 15·7," respectively.
ccxcix	Ditto .	„	Colombo . .	Wind direction .	25	*For* "19" *read* "20".
„	Ditto .	„	Ditto . .	Hygrometry .	43	*For* "·783" *read* "·783†".
„	Ditto .	„	Ditto . .	Cloud . . .	45 and 46	*For* "8·7 and +3·9" *read* "8·8 and +4·0", respectively.
„	Ditto .	„	Ditto . .	Rainfall . .	47, 49, 50, 52, 53 and 55.	*For* "13, +0·2, 12·66, +0·34, 40·56 and −18·28" *read* "14, +1·2, 12·85, +0·53, 40·75 and −18·09", respectively.
„	Ditto .	„	Meshed . .	Wind velocity .	36 and 37	*Transfer* the figures "0·9" from column 37 to column 36.
cccx	December 1913 .	A	Pudukkottai . .	Temperature .	19	*Omit* the figures.
„	Ditto .	„	Madras . .	Ditto .	19	*Insert* "+0·6".
cccxiv	Ditto .	B	Narayanganj .	Pressure . .	4 to 7 and 9	*For* "30·072, +·026, 30·048?, 30·313 and 29·934" *read* "30·082, +·036, 30·053?, 30·323 and 29·944", respectively.
„	Ditto .	„	Bogra . .	Ditto . .	4 to 7 and 9	*For* "30·037, +·024, 30·070, 30·268 and 29·864" *read* "30·030, +·017, 30·063, 30·261 and 29·857", respectively.
„	Ditto .	„	Ditto . .	Temperature .	13, 14, 17 to 20 and 24.	*For* "74·1, −2·8, 63·9, −1·5, 20·4, 78·7 and 32·5" *read* "73·5, −3·4, 63·6, −1·8, 19·8, 78·1 and 31·9", respectively.
cccxxv	Ditto .	„	Minicoy . .	Wind direction .	25	*For* "25" *read* "22".
cccxxiii	Ditto .	C	Anantapur . .	Rainfall . .	38	*For* "9" *read* "0".



The country is divided into 33 areas as shewn in the list below. The numbers in that list correspond with the red numbers on the chart, and serve to identify the areas.

1. Bay Islands
2. Lower Burma
3. Upper Burma
4. Assam
5. Bengal
6. Orissa
7. Chota Nagpur
8. Bihar
9. United Provinces, East
10. United Provinces, West
11. Punjab, East and North
12. Do., Southwest
13. Kashmir
14. Northwest Frontier Province
15. Baluchistan
16. Sind
17. Rajputana, West
18. Rajputana, East
19. Gujarat
20. Central India, West
21. Do., East
22. Berar
23. Central Provinces, West
24. Do., East
25. Konkan
26. Bombay, Deccan
27. Hyderabad, North
28. Hyderabad, South
29. Mysore
30. Malabar
31. Madras, Southeast
32. Madras, Deccan
33. Madras Coast, North



LITHO. BY S. B. MUNDLE

The country is divided into 33 areas as shewn in the list below. The numbers in that list correspond with the red numbers on the chart, and serve to identify the areas. The numbers in brackets on the chart give the average over the divisions of the normal monthly rainfall; the numbers above these give the departures from normal of the average actual rainfall over the divisions.

1. Bay Islands
2. Lower Burma
3. Upper Burma
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5. Bengal
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7. Chota Nagpur
8. Bihar
9. United Provinces, East
10. United Provinces, West
11. Punjab, East and North
12. Do., Southwest
13. Kashmir
14. Northwest Frontier Province
15. Baluchistan
16. Sind
17. Rajputana, West
18. Rajputana, East
19. Gujarat
20. Central India, West
21. Do., East
22. Berar
23. Central Provinces, West
24. Do., East
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28. Hyderabad, South
29. Mysore
30. Malabar
31. Madras, Southeast
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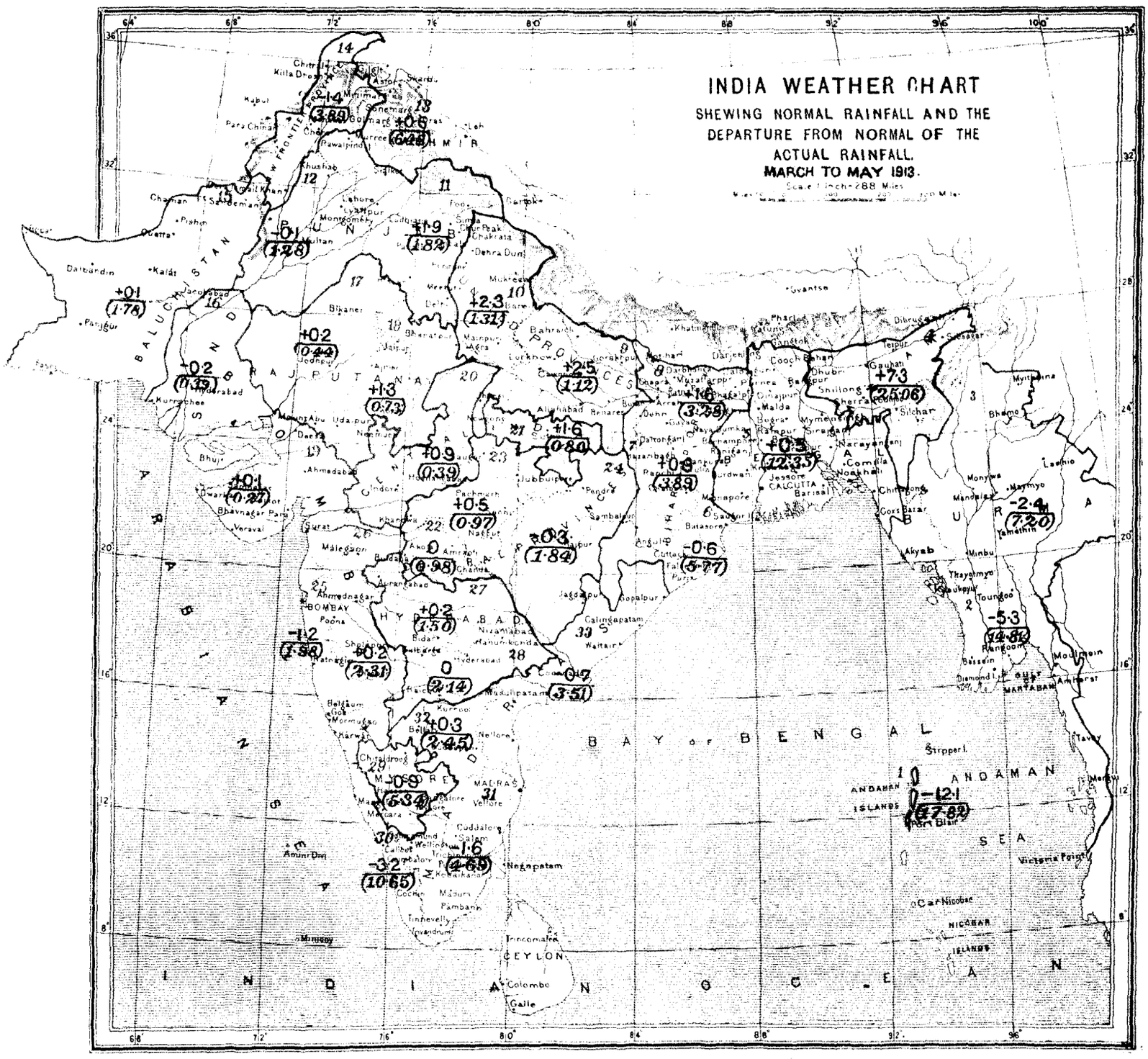
33. Madras Coast, North



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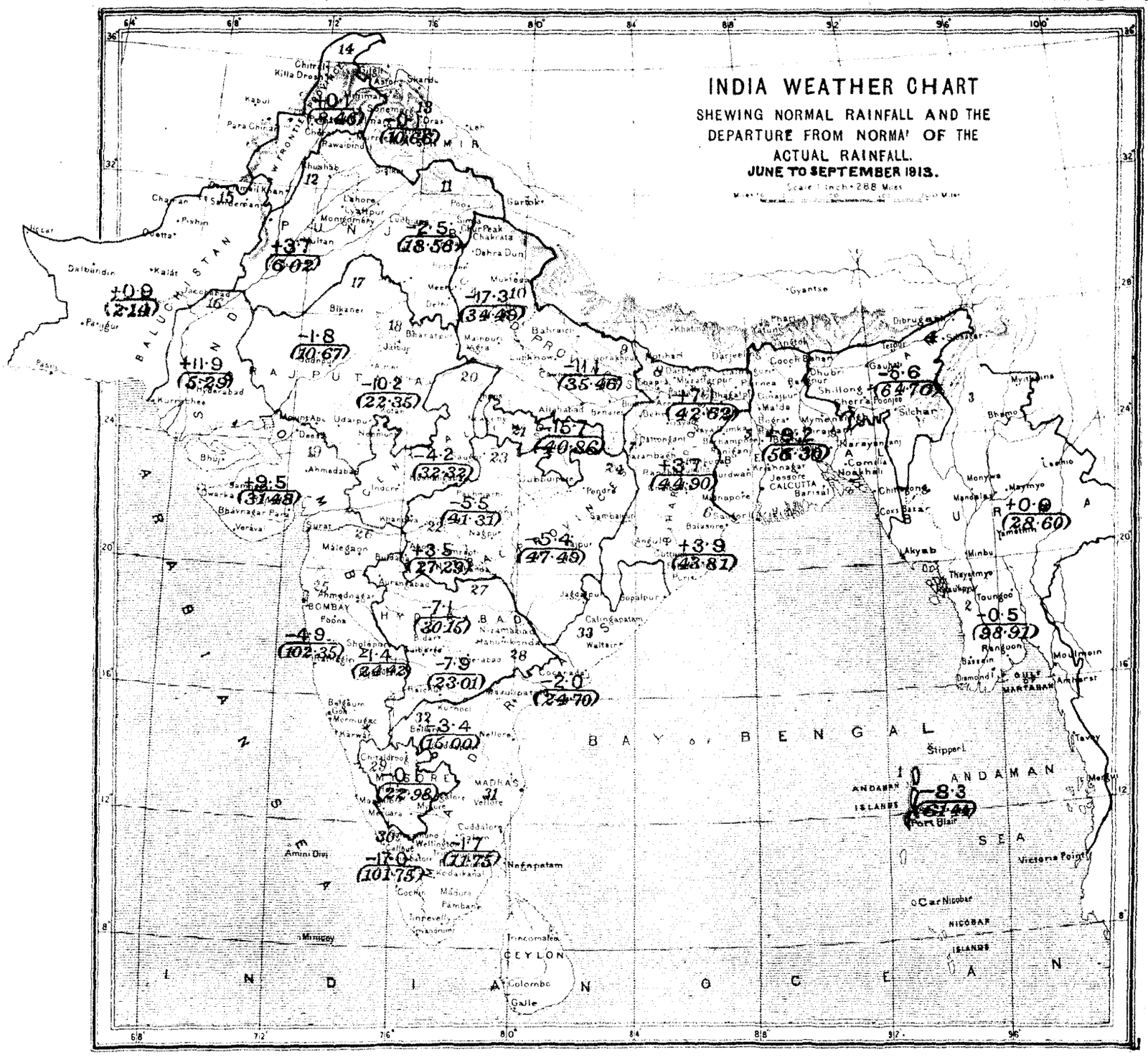
10. United Provinces, West
11. Punjab, East and North
12. Do., Southwest
13. Kashmir
14. Northwest Frontier Province
15. Baluchistan
16. Sind
17. Rajputana, West
18. Rajputana, East
19. Gujarat
20. Central India, West
21. Do., East
22. Berar
23. Central Provinces, West
24. Do., East
25. Konkan
26. Bombay, Deccan
27. Hyderabad, North
28. Hyderabad, South
29. Mysore
30. Malabar
31. Madras, Southeast
32. Madras, Deccan
33. Madras Coast, North



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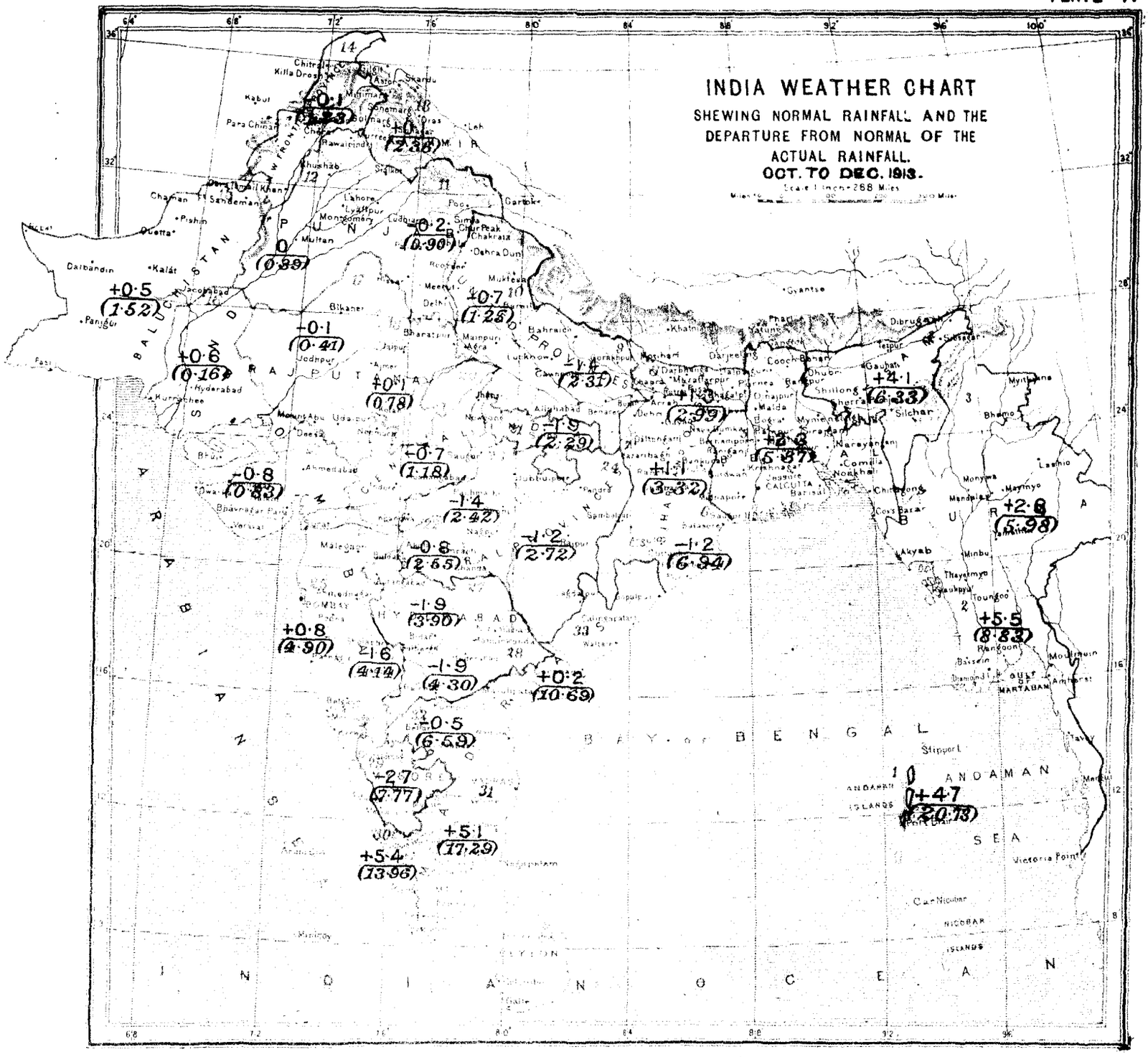
12. Do., Southwest
13. Kashmir
14. Northwest Frontier Province
15. Baluchistan
16. Sind
17. Rajputana, West
18. Rajputana, East
19. Gujarat
20. Central India, West
21. Do., East
22. Berar
23. Central Provinces, West
24. Do., East
25. Konkan
26. Bombay, Deccan
27. Hyderabad, North
28. Hyderabad, South
29. Mysore
30. Malabar
31. Madras, Southeast
32. Madras, Deccan
33. Madras Coast, North



LITHO BY S.G.O.

The country is divided into 33 areas as shewn in the list below. The numbers in that list correspond with the red numbers on the chart, and serve to identify the areas. The numbers in brackets on the chart give the average over the divisions of the normal monthly rainfall; the numbers above these give the departures from normal of the average actual rainfall over the divisions.

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13. Kashmir
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18. Rajputana, East
19. Gujarat
20. Central India, West
21. Do., East
22. Berar
23. Central Provinces, West
24. Do., East
25. Konkan
26. Bombay, Deccan
27. Hyderabad, North
28. Hyderabad, South
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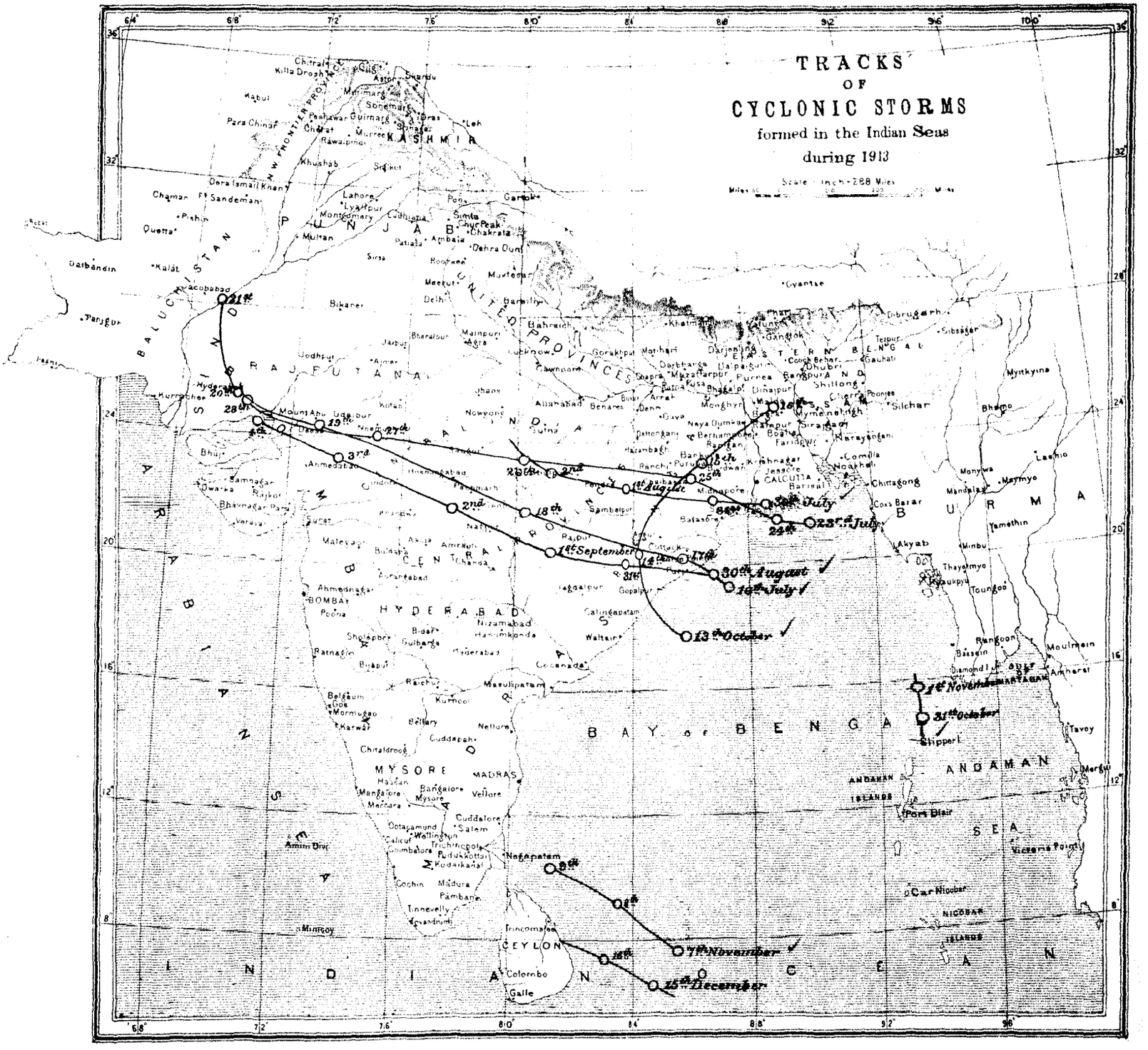
31. Madras, Southeast
32. Madras, Deccan
33. Madras Coast, North


TRACKS
OF
CYCLONIC STORMS
formed in the Indian Seas
during 1913
Scale 1 inch = 288 Miles
BALUCHISTAN
SIND
RAJPUTANA
PUNJAB
KASHMIR
UNITED PROVINCES
CENTRAL INDIA
CENTRAL PROVINCES
BOMBAY
HYDERABAD
MADRAS
MYSORE
CEYLON
EASTERN BENGAL AND ASSAM
CALCUTTA
BURMA
ANDAMAN ISLANDS
NICOBAR ISLANDS
ARABIAN SEA
BAY OF BENGAL
INDIAN OCEAN
21st
20th
28th
4th
19th
27th
3rd
2nd
18th
1st September
31st
14th
17th
30th August
16th July
13th October
1st August
25th
15th
2nd
30th July
24th
23rd July
16th
1st November
31st October
9th
8th
7th November
16th
15th December

(*This List of Publications is intended for Permanent Reference, and should be bound up with the Annual Summary.*)

Publications of the India Meteorological Department.

(*Complete list, inclusive of those publications which are now out of print.*)

PUBLICATIONS OF THE INDIA METEOROLOGICAL DEPARTMENT.

The following is a list of the more important publications of the India Meteorological Department:—

The Indian Meteorologist's *Vade Mecum*, Part I, 2nd Edition. (1883). . . . . Price Rs. 3*	Henry F. Blanford.
The Indian Meteorologist's *Vade Mecum*, Part II. (1877) Price Rs. 5*	Ditto.
Instructions to Observers of the India Meteorological Department, 2nd Edition. (1902) . . . . . Price Rs. 3	Sir John Eliot.
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METEOROLOGICAL DEPARTMENT

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GOVERNMENT OF INDIA
METEOROLOGICAL DEPARTMENT

MONTHLY WEATHER REVIEW

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