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THE INDIA WEATHER REVIEW

FOR THE YEAR

1913

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UNDER THE DIRECTION OF

GILBERT T. WALKER, C.S.I., M.A., Sc.D., F.R.S.
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METEOROLOGICAL DEPARTMENT.

MONTHLY WEATHER REVIEW

PUBLISHED BY ORDER OF

THE GOVERNMENT OF INDIA.

CALCUTTA, JANUARY, 1913.

INTRODUCTION.

THIS review of the weather in India during the month of January, 1913, is based on observations taken daily at 8 hrs. at 215 stations, and on additional observations taken at 10 hrs. and 16 hrs. at 16 stations. In the rainfall summary have been utilized the data furnished by the meteorological observatories, and such rainfall statements of the month as had been published by the Provincial Governments up to the date of the preparation of the review.

The brief notes on solar, seismic and magnetic diturbances are supplied by the chief observatories in the Indian area.

In the remaining monthly reviews of the present year the brief statements of the methods of recording and tabulating the data for each of the elements of observation, given in the present number at the commencement of each section, will not be repeated.

Summary of the chief features of the weather in India during the month.

2. The month was characterised by an entire absence of cold weather storms in northern India and little or no precipitation fell anywhere in the land area of India excepting Baluchistan, Kashmir, the North-West Frontier Province, Assam, Chota-Nagpur and Madras South-east. The normal fall for the month amounts to an inch in the Punjab, three quarters of an inch in the United Provinces, half an inch in Bengal, Bihar and Orissa, Central India, the Central Provinces and Madras and a third of an inch in Sind and Rajputana. On the other hand, weather was unusually disturbed in the Bay Islands and Lower Burma.

In agreement with the scantiness of precipitation the air was drier and the sky less cloudy than usual over the greater part of the country. Temperature differed to no important extent from the normal.

Barometric pressure on the mean of all the observing stations in the plains was ·035″ in excess of the normal. The vertical gradient was weak in north-west India.

Solar, seismic and magnetic disturbances.

KODAIKANAL OBSERVATORY.

3. *Solar observations.*—The sun was observed for spots and faculæ on all the days of the month except on the 17th and 18th, and prominences could not be observed on two other days.

Spots.—Three small spots were recorded as against four in December. The daily average number was 0·3 and the average life of a spot was 1·7 days. The first was observed on the 14th and 15th in latitude —14°, the second on the 16th in latitude +15° and the third on the 26th and 27th in latitude —11°.

Prominences.—Fifty-five large, eight eruptive, and two metallic prominences were observed during the month. The highest was recorded on the 26th at latitude +25° west and consisted of a detached cloudlet, probably eruptive, at a height 330″ at 8 hours 20 minutes. It had completely disappeared at 9 hours 50 minutes.

Magnetic disturbances.—Moderate disturbances were noted on the following dates:— 2nd to 4th, 18th to 19th and on 30th. There are now two series of moderate disturbances occurring at approximate intervals of a synodic rotation of the sun. The first and the last belong to the series that began on December 7th and 8th. The disturbance of 18th to 19th is a repetition of that of December 22nd to 24th.

Seismological records.

TABLE 1.

No.	Date.	Phase.	Time G. M. T.	Period.	Amplitude	REMARKS.
	1913					
1	January 1	eP . .	13 18·0	...	W. L.	
		F . .	15 36·2	...	...	
2	" 5	iP . .	17 42·4	...	...	
		eL . .	17 54·4	...	...	
		M . .	18 01·7	...	600	
		F . .	18 27·0	...	...	
	" 7	eP . .	23 12·4	...	...	
		iL . .	23 20·0	...	...	
		M . .	23 21·8	...	800	
		F . .	23 41·3	...	...	
4	" 9	iP . .	3 09·9	...	...	
		eL . .	3 23·3	...	...	
		M . .	3 26·1	...	400	
		F . .	4 01·5	...	...	
5	" 11	iP . .	13 25·6	...	...	
		iL . .	13 32·0	...	...	
		M . .	13 54·1	...	4,300	
		F . .	15 51·5	...	...	
6	" 13	eP . .	19 46·7	...	...	
		eL . .	19 47·9	...	...	
		M . .	19 52·0	...	600	
		F . .	20 07·0	...	...	
7	" 15	P . .	20 30·0?	...	W. L.	
		F . .	20 54·0	...	...	Widening of line. Hour signal at 20h. 30m.
8	" 19	eP . .	17 09·5	...	...	
		iL . .	17 11·8	...	...	
		M . .	19 14·6	...	>17,500	
		F . .	18 54·0	...	...	
9	" 19—20	eP . .	23 59·7	...	...	Widening of line.
		F . .	0 52·6	...	...	

W. L. = Widening of line.

J. EVERSHED,
Director,
Kodaikanal and Madras Observatories.

BOMBAY OBSERVATORY.

Alibag magnetic record.

4. During the month of January 1913 the traces showed 6 calm days, and 25 days of small disturbance.

The days of the month selected as "quiet" for the purposes of the Magnetic Survey of India are the 7th, 12th, 16th, 17th and 24th.

The following table represents the magnetic character of each day during the month :—

TABLE 2.

Day.	Character.	Day.	Character.	Day.	Character.
1	C	12	C	23	S
2	S	13	S	24	C
3	S	14	S	25	S
4	S	15	S	26	S
5	S	16	C	27	S
6	S	17	C	28	S
7	C	18	S	29	S
8	S	19	S	30	S
9	S	20	S	31	S
10	S	21	S	...	...
11	S	22	S	...	...

C = calm; S = small; M = moderate; G = great; V. G. = very great.

The mean observed absolute values of the several magnetic elements reduced to the mean monthly tabulations of the magnetograms, as also the ranges and the summed ranges of the horizontal force and the declination for the month are as follows:—

Easterly declination . . .	0°49′ 7″
Horizontal force	0·36878 C.G.S. unit.
Vertical force	0·16428 " "
Inclination	24° 0′·7
Inclination (observed) . . .	23° 59′·9
Horizontal force range . .	0·00030 " "
Horizontal force summed range .	0·00189 " "
Declination range . . .	1′·4
Declination summed range . .	6′·6

(NOTE.—Summed range means sum without regard to sign of the 24 ordinates of the diurnal inequality.)

Seismic Disturbances.

Instrument :—Milne's Horizontal pendulum seismograph (L.—W.).

	V	T₀	E	$\frac{1}{T_0}$
AE.	9 times.	19 seconds.	...	...

TABLE 3.

Date 1913.	Phase.	Time, G. M. T.			Period (secs.)	Amplitude.	Distance.	REMARKS.
		h.	m.	s.		Unity = ·001 mm.		
Jan. 2	...	9	21	0	...	...	...	Thickening.
4	...	7	29	0	...	...	...	"
5	...	17 18	52 0	to	...	...	...	"
7	...	6	0	0	...	...	...	"
7	P	23	5	36				
	S		...					
	L		...					
	F	mixed in tremors						
	M1	23	19	37	...	600		
	M2	23	23	8	...	500		
8	...	19	45 47	to	...	...	...	Thickening.
	...	21	19	0	...	...	...	"
11	P	13	26	41				
	S	13	34	9				
	L	13	48	11				
	F	Lost in shifting time.						
	M1	13	52	13	...	3500		
	M2	14	3	55	...	2400		
12	...	5	42	0	...	...	...	Thickening.
14	...	7	10	0	...	...	...	"
19	P	17	9	41				
	S	17	13	43				
	L	17	15	44				
	F	18	56	37				
	M1	17	17	9	...	15400		
	M2	17	18	22	...	15400		
24	...	10	52	0	...	...	...	Thickening
27	...	11	10	0	...	...	...	"
	...	12	54	0	...	...	...	"
	...	20	1	to	...	...	...	"
		20	6					

All times given above denote G. M. T. sensibility to tilt 1 mm. = 0″·35.
Only those thickenings of the line which can be clearly distinguished are given; thickenings mixed up in tremors are omitted from the above list.

N. A. F. MOOS,

Director, Bombay and Alibag Observatories.

CALCUTTA OBSERVATORY.

5. *List of displacements recorded by the Milne seismograph.*

TABLE 4.

Date.	P. T. Commencement. G. M. T.	L. W. Commencement. G. M. T.	Maximum G. M. T.	End. G. M. T.	Duration.	Maximum displacement on trace from mean position.	REMARKS.
1913.	h. m.	h. m.	h. m.	h. m.	h. m.	mm.	
Jan. 5	17 28·5	17 44·3	17 45·3	18 19·4	0 50·9	2·00	
" 7	22 43·0	23 6·4	23 10·4	?	?	4·00	* Ends in morning air tremor.
" 8	19 33·0	...	19 36·6	19 51·3	0 18·3	1·75	
" 10	7 40·3	...	7 54·0	8 8·2	0 27·9	0·50	
" 11	13 49·2	13 24·3	13 43·6	16 48·8	4 59·6	6·50	
" 14	19 51·9	...	...	20 3·1	0 11·2	...	Thickening of line.
" 19	17 9·7	17 13·8	17 24·4	18 56·6	1 46·9	14·00†	† Measured from the base line.

Sensibility 1 mm. = 0′·38″ of tilt.

C. W. PEAKE,

Meteorologist, Calcutta.

SIMLA OBSERVATORY.

6. *List of earthquakes recorded by the Omori-Ewing seismographs.*

TABLE 5.

Date.	Beginning of first P. T.	Beginning of end P. T.	Beginning of L. W.	Time of maximum amplitude.	End approximately.	Duration.	Max. displacement of style.	REMARKS.
	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	mm.	
Jan. 1st B	1 31·6	?	?	?	?	?	Small	Very slight local shock.
" 5th A	17 29·0	?	?	17 48·0	18 15	0 46	1·0	
" 5th B	?	?	?	17 47·5	?	?	Small.	
" 7th A	22 4·6	?	?	23 26·0	23 30	0 35	1·5	
" 7th B	?	?	?	23 23·0	?	?	3·0	
" 11th A	13 26·0	13 35·0	13 45·0	13 36·5	14 40	4 23	6·0	

Date.	Beginning of 1st P. T.	Beginning of 2nd P. T.	Beginning of L. W.	Time of maximum amplitude.	End approximately.	Duration.	Max. displacement of style.*	REMARKS.
	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	mm.	
Jan. 11th B	13 26·0	13 33·2	13 40·5	13 42·5	14 56	1 30	13·0	
,, 19th A	17 12·5	17 17·0	17 24·5	17 26·0	18 44	1 32	11·0	
,, 19th B	17 11·4	17 16·7	17 20·6	17 25·4	18 35	1 24	8·0	

January 8th A. Series of tremors commencing at about 19 hrs. 29·5 mins. and continuing until 5 hrs. 29·5 mins. approximately with ill-defined maxima at 3 hrs. 20·5 mins., 3 hrs. 55·5 mins. and 4 hrs. 29·5 mins.
,, 8th B. Similar, but less marked tremors.
,, 20th B. Slight tremors from 0 hr. 9·4 mins. to 0 hr. 29·4 mins.
,, 27th A. ,, ,, ,, 19 hrs. 51·4 mins. to 20 hrs. 6·4 mins.
,, 27th B. ,, ,, ,, 19 hrs. 58·4 mins. to 20 hrs. 3·4 mins.

All times are given in G. M. T.
A=E—W component.
B=N—S component.
Magnification of both instruments was 15.
* Displacements less than 0·2 mm. are reported as "small."

The following table contains a list of earthquakes that were reported :—

TABLE 6.

Place at which felt.	Date.	G. M. T. of earthquakes.		Duration.	Intensity Rossi Forel scale.	No. of shocks.
	Jan.	h.	m.	sec.		
Mount Abu	7th	16	18	11	3	1
Shillong	8th	17	51	1	3	1
,,	10th	0	47	1	3	1
Dikom (Assam)	10th	2	24	5	4	1
Drosh	15th	17	2	3	6	1
Salonah (Nowgong Assam)	16th	6	30	5	3	1
Shillong	17th	14	30	1	5	1
Borjuli	22nd	12	58	1	6	1
Lahore	24th	17	14	6	5	1
Shillong	26th	11	17	1	3	1
Midnapur	30th	19	42	2	4	3

Solar radiation.—The following figures give the intensity of solar radiation, as measured at Simla by Angstrom's pyrheliometer. The values are corrected to local noon, and expressed in grammecalories per square centimetre per minute :—

Maximum	1·38
Minimum	1·21
Mean	1·30
Number of days of observation	11

G. C. SIMPSON,
Imperial Meteorologist, Simla.

ROYAL ALFRED OBSERVATORY, MAURITIUS.

7. No information has been received.

Weather in the Indian monsoon region.

8. As in December, pressure was in excess over the equatorial belt where at Zanzibar and Seychelles it was ·03″ above the normal. The air movement was of about the average strength. The rainfall of the month was in large defect at both stations. At Mauritius pressure, rainfall and the velocity of wind were all distinctly above the average.

TABLE 7.

	Mauritius.	Zanzibar.	Seychelles.
Departure from normal of mean pressure.	+·021	+·031	+·035
Actual mean wind direction	N 80° E	N 29 E	N 38 W
Normal mean wind direction	S 86° E	N 28 E	N 39 W
Actual mean wind velocity (miles per diem).	196	133	115
Normal mean wind velocity (miles per diem).	169	137	107
Rainfall departure from normal.	+8·34	—2·98	—10·46

Depressions and cyclonic storms.

9. Four disturbances in all affected the Persian area, but of these only one was transmitted definitely into India. This apparently was the continuation of a depression which lay to the west of Sicily on the 15th and thence travelled eastwards across Asia Minor and Syria on the 17th, Persia on the 18th, Baluchistan on the 19th and into Sind on the 20th. It lay over the east Punjab on the 21st, over the region round Benares and Gaya on the 22nd and over Bengal on the 23rd. The disturbance was shallow throughout and produced only light to moderate precipitation in the mountainous region surrounding upper India and some showers in Assam.

It may be noted that the weather was almost as dry in the north of Egypt as in northern India, the total precipitation of the month there falling short of the normal by at least 40 per cent. In Ceylon (and presumably also over the equatorial region) the weather was phenomenally wet causing serious floods which inflicted extensive damage.

Pressure.

10. In most of the observing stations in India mercurial barometers on Fortin's principle of fiducial point adjustment, with tubes of 0·4″ bore throughout, are in use. These are on the whole preferable to the pattern of barometer on the Kew principle, still in use at some Indian stations, which has its scale divided to compensate for the change of level of the mercury in the cistern as the pressure alters.

The following list contains the names of all stations equipped with instruments of the latter class :—

Aden.	Fort Sandeman.	Nowakhali.
Akyab.	Gangtok.	Nowgong.
Barisal.	Gorakhpur.	Panjgur.
Bhamo.	Jalpaiguri.	Rangoon.
Bogra.	Kalat.	Ratnagiri.
Bushire.	Mangalore.	Tavoy.
Cochin.	Midnapur.	Toungoo.
Cuddapah.	Minbu.	Yamethin.
Dalbandin.	Monywa.	Zanzibar.
Delhi.	Mymensingh.	
Dinajpur.	Negapatam.	

The instruments at the following stations are by various makers and of various kinds :—

Colombo.	Kurnool.	Trincomalee.
Goa.	Patiala.	Trivandrum.
Katmandu.	Pusa.	

At Calcutta and Bombay the standards are Newman instruments on the Fortin principle, with adjustable scales and fiducial points, and tubes of large bore. Some portable Wild-Fuess standards for purposes of comparison during inspections are in use ; the principle of these instruments allows of the determination at any time of changes that occur in their corrections caused by the access during transport of small quantities of air to the vacuum spaces above the mercury.

All instruments are compared at Calcutta before issue, and their corrections determined to the Calcutta standard, which is ·011″ higher than the Kew standard.

The barometers are in all cases situated in masonry buildings to protect them as much as possible from rapid changes of temperature.

Those heights above mean sea-level of the barometers of all stations given in Table B or Table A which have been obtained accurately by actual measurement are given in Roman figures. In the great majority of cases they have been referred to datum levels determined by the Great Trigonometrical Survey of India; of the remaining stations those heights which have been determined barometrically are printed in italics, and those which are only approximate are indicated by notes of interrogation.

The readings of the barometers are reduced to 32°F., and from 1st January 1905, have been corrected to constant gravity in all cases. They are reduced to sea-level in the cases of stations the elevations of which are accurately known and are below 3,200 feet. Each reading is separately corrected and the means of the month are the means of the daily corrected readings.

In Table B (2), columns 4 to 11, under the general heading "Pressure, 8 hrs. in inches," are given for each station the 8 hrs. barometric data of the month, including—

(1) The mean 8 hrs. pressure reduced to 32°F., and its departure from the normal mean pressure (reduced to 32°F.) of the month.

(2) The mean 8 hrs. pressure corrected to sea-level and to constant gravity or to constant gravity only in cases of stations the elevations of which are above 3,200 feet.

(3) The highest and lowest pressures recorded during the month with their respective dates of occurrence.

(4) The total range of 8 hrs. pressure during the month.

In Table A, columns 4 to 9, under the general heading "Pressure," are given for all stations recording observations at 10 hrs. and 16 hrs.—

(1) The monthly means of the two hours of observation, at 10 hrs. and 16 hrs. reduced to 32°F.

(2) The mean daily range.

(3) The mean of daily mean pressures reduced to 32°F. and its departure from the normal.

(4) The mean of daily mean pressures reduced to 32°F., and corrected to constant gravity and to sea-level, or to constant gravity only in cases of stations the elevations of which are above 3,200 feet.

The means of daily pressures have been obtained by taking the means of the 10 hrs. and 16 hrs. observations and applying corrections for each month, derived from the observations of the same or neighbouring stations, to give true daily means.

The distribution of the mean 8 hrs. pressure of the month is shown on two charts. The first chart (Plate I) gives the distribution of the mean pressure of the month reduced to sea-level and to constant gravity (that of lat. 45°) by means of isobars drawn for differences of pressure of 0·05 or $\frac{1}{20}$ of an inch. The second chart (Plate II) gives the departures from the normal of the actual mean 8 hrs. pressure reduced to 32°F.

The greater part of the normal 8 hrs. daily and monthly means of pressure utilized in the pressure section of the review have been deduced from the barometric observations of the whole of the twenty-two years' period 1878-99, and in all except 22 cases the periods employed equalled or exceeded ten years.

A small chart, No. 2 of Plate IV, gives the distribution of the monthly mean daily pressure corrected to standard gravity and to sea-level, and of the mean winds; it is in the same form as in the monthly charts which were issued with the annual reports on the meteorology of India previous to the year 1891. The data on which this chart is based will be found in Table A.

The monthly means employed in the determination of the departures of the mean actual from the mean normal pressures of the month given in Table A are derived from all the available trustworthy pressure data for each station. These normal means are given in the "Indian Meteorological Memoirs," Vol. XVII, pages 66 to 69.

The more important barometric changes and movements during the month are described in the statement of depres-

sions and cyclonic storms of the month. The data that are chiefly used in that discussion are the 8 hrs. reduced observations and the departures derived from comparison of these observations with the normal daily 8 hrs. values.

In the month under review, as in December, barometric pressure was above the average almost everywhere. In the plains the excess ranged from about ·01″ in Malabar to ·05″ in the western half of the Central Provinces and the south-west of the Nizam's Dominions and to ·06″ in the region defined by Mandalay and Bhamo.

The vertical gradient was somewhat steeper than usual in north-east and central India and the Peninsula, but in north-west India it was, as is frequently the case during dry periods in the winter, less steep than the average.

TABLE 8.

DIVISION.	Departure from normal of mean 8 hrs. pressure.
	″
Burma	+·036
Assam	+·034
Bengal	+·029
Bihar and Orissa	+·038
United Provinces	+·037
Punjab	+·040
North-West Frontier Province	+·021
Sind	+·030
Rajputana	+·037
Bombay	+·034
Central India	+·042
Central Provinces	+·042
Hyderabad	+·040
Mysore	+·029
Madras	+·023

TABLE 9.

HILL STATION.	Departure from normal pressure. A	PLAIN STATION.	Departure from normal pressure. B	Departure of pressure difference. B—A.
	″		″	″
Quetta	+·054	Jacobabad	+·029	—·025
Leh	+·063	Lahore	+·035	—·028
Murree	+·054	Peshawar	+·016	—·038
Simla	+·055	Ludhiana	+·037	—·018
Chakrata	+·051	Roorkee	+·045	—·016
Darjiling	+·011	Dhubri	+·026	+·015
Mount Abu	+·057	Deesa	+·041	—·016
Pachmarhi	+·037	Khandwa	+·048	+·011
Kodaikanal	+·002	Madura	+·024	+·022

Temperature.

11. The mean temperature data are given in Tables A and B under the heading "Temperature of Air." In Table B they are based upon observations of the dry bulb thermometers recorded at 8 hrs., and of the maximum and minimum thermometers. In the preparation of the normal means of maximum and minimum temperature the same periods have been employed as for the normals of pressure, regarding which information has been given in the pressure section, page 5 of this review. Departures of the mean maximum and minimum temperatures from the corresponding normal means for the month are given in Table B. The monthly mean of the mean between maximum and minimum, as given in this table, differs from the true mean of the day by a small amount which varies from month to month.

It should be noted that for the purposes of Table B the mean temperature of the day really denotes the mean temperature of the 24 hours preceding 8 hrs. of the day in question, and that therefore the month for which the means are given in this table terminates at 8 hrs. of the last day of the month. In the case of Table A, however, the day or 24 hours period terminates at midnight (and not at 8 hrs. as in Table B) and the monthly means apply therefore to monthly periods ending at midnight of the last day of the month in question.

In Table A the mean of daily mean temperatures for each month is obtained by taking the mean of the maximum and minimum temperatures and applying a correction given on pages XV to XXI of Volume XVII of the "Indian Meteorological Memoirs." This correction was determined from the hourly observation data given in Volumes V, IX and X of the "Indian Meteorological Memoirs." The data at once furnish the necessary corrections for the stations at which these observations were recorded. At the remaining stations the corrections were determined from the values at the nearest stations with similar condition of exposure, etc., at which the hourly observations were recorded.

The departures from normal of the mean daily mean temperature of the month given in Table A have been obtained by a comparsion of the actual means with normal means calculated in the same manner. The normal means derived from all the available trustworthy temperature data for each station are given in the "Indian Meteorological Memoirs," Volume XVII, pages 16 to 20.

The methods of exposing thermometers will be found fully described in the Hand-book of instructions to observers

in India, or briefly in the Annual Report on the Meteorology of India for the year 1887, page 37. All thermometers in use have been verified by comparison with Kew standard thermometers at Calcutta and are re-standardised from time to time: all thermometer readings are corrected to their true values, and hence are strictly comparable.

The mean distribution of temperature in India in each month is exhibited by the help of three charts, which show the departures of the mean maximum, mean minimum and mean daily temperatures from their normal values for the month. These charts are Nos. 1 and 2 of Plate III and No. 1 of Plate IV. In them equal departures of temperature are indicated by lines, the lines being drawn for differences of 2 degrees of departure. A continuous line indicates that the temperature was in excess by the amount shown by the number given near the line, and a broken line that it was in defect by the amount indicated by the number similarly placed. The line of no departure separating areas of excessive from areas of deficient temperature consists of a continuous and of a broken line placed parallel and near to each other, the broken line being on the side of deficient temperature, and the continuous line on that of excessive temperature. The departures of the temperature of the month from the normal at the hill-stations are given in figures with a positive or negative sign to indicate excess or defect; they are not taken into account when the lines are drawn.

Tables of normal mean maximum, mean minimum and mean of daily mean temperatures for each month and for the whole year are given in pages 1 to 10 and pages 16 to 20 of the "Indian Meteorological Memoirs," Volume XVII, and are based on the data for the twenty-two years, 1878 to 1899.

Owing to the absence of the usual winter storms no marked cool or hot waves occurred and the temperature conditions of the month did not differ greatly from the normal over by far the greater part of the country. The monthly average of day temperature was within 3° of the normal in all the sub-divisions with the exception of the Punjab, Baluchistan and Rajputana West where it was 4° higher than usual, while temperature at night was lower than usual by 4° to 5° locally at Leh, Skardu, Deesa, Bhuj, Jhansi, Hanamkonda, Cuddapah and Darbhanga, 4° in excess at Cherat and Simla and approximately normal elsewhere.

TABLE 10.

Sub-division.	Actual temperature.					Departure from normal of		
	Mean maximum.	Mean minimum.	Monthly mean of mean between maximum and minimum.	Mean daily range of temperature.	Absolute range during month.	Maximum.	Minimum.	Daily range.
	°	°	°	°	°	°	°	°
1. Bay Islands	84·7	76·7	80·7	7·9	13·9	—0·7	+1·4	—2·1
2. Lower Burma	85·5	65·1	75·3	20·4	29·6	—0·3	+0·7	—1·0
3. Upper Burma	80·5	52·6	66·5	28·0	38·4	—2·2	+0·3	—2·5
4. Assam	73·5	51·4	62·4	22·1	30·4	—0·2	+0·1	—0·3
5. Bengal	77·3	54·2	65·8	23·1	33·0	+0·2	+0·2	0
6. Orissa	80·7	55·8	68·2	24·8	34·2	—2·1	—2·0	—0·1
7. Chota Nagpur	77·0	51·0	64·0	26·0	38·7	—1·1	—1·2	+0·1
8. Bihar	74·9	48·8	61·9	26·1	37·1	—0·2	—1·3	+1·1
9. United Provinces, East	75·0	45·7	60·3	29·3	40·6	+1·3	—2·0	+3·3
10. Do. do., West	73·9	44·9	59·4	29·0	41·6	+1·6	—2·4	+4·0
11. Punjab, East and North	71·5	42·5	57·0	29·1	41·1	+3·8	—0·6	+4·4
12. Do., South-west	74·0	44·4	59·2	29·7	43·4	+5·3	+2·1	+3·2
13. Kashmir	37·4	16·5	26·9	20·9	40·9	—0·9	—1·6	+0·9
14. North-West Frontier Province	69·1	40·6	54·9	28·5	42·5	+2·9	+0·6	+2·3
15. Baluchistan	62·8	37·4	50·1	25·4	42·6	+4·3	+0·2	+4·1
16. Sind	78·4	52·2	65·3	26·3	40·3	+3·1	+1·9	+1·2
17. Rajputana, West	78·4	48·0	63·2	30·4	45·6	+4·3	—1·5	+5·8
18. Do., East	76·4	48·1	62·3	28·3	42·0	+2·5	—0·3	+2·8
19. Gujarat	84·0	58·9	68·9	30·5	41·6	+1·8	—1·5	+3·3

Sub-division.	Actual temperature.					Departure from normal of		
	Mean maximum.	Mean minimum.	Monthly mean of mean between maximum and minimum.	Mean daily range of temperature.	Absolute range during month.	Maximum.	Minimum.	Daily range.
	°	°	°	°	°	°	°	°
20. Central India, West	78·9	47·6	63·3	31·3	41·9	+0·5	—1·7	+2·2
21. Do., East	76·1	44·5	60·3	31·7	46·1	+1·1	—2·9	+4·0
22. Berar	84·9	55·6	70·3	29·2	38·1	+2·1	—3·3	+5·4
23. Central Provinces, West	79·7	49·7	64·7	29·9	41·0	—0·6	—2·1	+1·5
24. Do., East	80·9	50·9	65·9	30·1	40·5	—1·0	—2·2	+1·2
25. Konkan	85·5	65·5	75·5	20·0	27·2	—0·5	—1·8	+1·3
26. Bombay Deccan	85·5	53·2	69·3	32·3	40·9	+0·1	—1·9	+2·0
27. Hyderabad, North	84·5	55·5	70·0	29·0	38·7	—0·2	—2·0	+1·8
28. Do., South	84·8	57·4	71·1	27·4	35·7	—1·1	—3·3	+2·2
29. Mysore	81·8	56·8	69·3	25·0	34·4	—0·6	—1·1	+0·5
30. Malabar	86·9	70·5	78·7	16·5	24·1	—0·5	+0·3	—0·8
31. Madras, South-east	84·6	67·2	75·9	17·4	25·9	—0·7	—0·3	—0·4
32. Do. Deccan	87·3	59·0	73·1	28·2	36·6	—1·0	—2·2	+1·2
33. Do. Coast, North	81·4	62·7	72·1	18·6	25·7	—1·1	—2·0	+0·9

TABLE 11.

Division.	Departure from normal of		
	Mean maximum temperature.	Mean minimum temperature.	Mean temperature.
	°	°	°
Burma	—1·0	+0·6	—0·2
Assam	—0·2	+0·1	—0·1
Bengal	+0·2	+0·2	+0·2
Bihar and Orissa	—1·1	—1·5	—1·3
United Provinces	+1·5	—2·2	—0·4
Punjab	+4·2	+0·2	+2·2
North-West Frontier Province	+2·9	+0·6	+1·7

Division.	Departure from normal of		
	Mean maximum temperature.	Mean minimum temperature.	Mean temperature.
	°	°	°
Sind	+3·1	+1·9	+2·4
Rajputana	+3·5	—0·9	+1·3
Bombay	+0·7	—1·7	—0·5
Central India	+0·7	—2·3	—0·7
Central Provinces	—0·4	—2·2	—1·3
Hyderabad	—0·8	—2·9	—1·9
Mysore	—0·6	—1·1	—0·8
Madras	—0·8	—0·8	—0·8

Winds.

12. The 8 hrs. wind data, consisting of observations of the direction of the wind and of the air movement as registered by Robinson anemometers, are given in Table B under the heading "Wind direction," "Wind velocity" and "Wind steadiness." In these columns are shown the number of days the wind at 8 hrs. blew from each of eight points, the resultant direction of the wind, the mean hourly air movement and the steadiness. The wind resultant is calculated in all cases by the use of Lambert's formula, in which equal values are given to each wind observation irrespective of velocity. The mean wind directions are shown in Plate I by means of arrows in the usual manner.

The wind data for 10 hrs. and 16 hrs. are given in a similar form in Table A. Under the heading "Wind direction" are shown the number of times that each of eight wind directions was observed at the hours of record, and the direction of the resultant of winds of unit strength in these directions. The ratio of the magnitude of the resultant so obtained to that which it would have if the wind always blew from the same direction (*i.e.*, throughout the whole of the observations), is called the wind steadiness and is given as a percentage, with a table of normals, under the heading "Wind steadiness." The mean diurnal movement of the air at each station and the average

nonthly value are to be found under the heading "Wind velocity."

The mean wind directions of the month for stations recording at 10 hrs. and 16 hrs. are indicated in the small chart No. 2 of Plate IV by means of arrows flying with the wind. The lengths of the arrows are so proportioned as to indicate the comparative wind prevalence in the mean direction on a scale such that five-eighths of an inch would represent a wind blowing continuously throughout the month from the mean direction.

The figures of normal values for wind used in Tables A and B are computed from all available data previous to 1899, or in some cases 1902, and have been published in Volume XVII of the "Indian Meteorological Memoirs."

All anemometers used in India are compared before issue with the standard Beckley anemograph at Calcutta Observatory, and then have corrections assigned which are taken into account in the wind tables and Plate I of the Review.

(*a*) The air movement was weaker than usual in Bengal, the United Provinces, the North-West Frontier Province, Sind and Hyderabad, and about equal to the average elsewhere.

(*b*) The steadiness was much greater than usual in Assam, the North-West Frontier Province and Hyderabad. The wind was, on the other hand unusually variable in Bengal and Central India.

(*c*) The usual northerly element in the mean wind direction in the United Provinces was either very weak or altogether suppressed. Elsewhere the deviations from the normal direction were local and of no significance.

TABLE 12.

Division.	Departure from normal of	
	Hourly wind velocity.	Wind steadiness.
Burma	—0·3	0
Assam	+0·1	+ 9
Bengal	—0·6	—14
Bihar and Orissa	—0·1	+ 2
United Provinces	—0·6	— 4
Punjab	0	+ 5
North-West Frontier Province	—0·3	+13
Sind	—1·6	— 5
Rajputana	—0·1	0
Bombay	—0·7	— 3
Central India	—0·4	— 7
Central Provinces	—0·2	+ 3
Hyderabad	—1·3	+31
Mysore	+0·6	+11
Madras	+0·5	+ 9

Humidity and cloud.

13. The hygrometric data of the month registered at certain stations are given in Table A. In that table appear columns giving the means of the wet bulb readings at 10 hrs. and at 16 hrs., of the minimum wet bulb readings, of the vapour tension and humidity at the same hours, and also the mean of daily means of these elements and of its departure from the normal mean. The hygrometric data are taken from the tables accompanying "*The Indian Meteorologist's Vade Mecum*," which were computed by means of Regnault's modification of August's formula. The means of daily means are obtained by taking the means of the minimum, 10 hrs. and 16 hrs. observations, and reducing them to true means, by applying, in case of vapour tension, the corrections given on pages XXXVIII to XLII, and in case of humidity the corrections given on pages XLIV to XLVIII of Volume XVII of the "Indian Meteorological Memoirs." These corrections were determined from the hourly observation data given in Volumes VIII, IX and X of the "Indian Meteorological Memoirs." The normal values, which have been used for obtaining the departures, are the means calculated in the same way.

The distribution of humidity in each month in India is exhibited by means of two charts in Plate V. The first chart shows the departure from normal of 8 hrs. absolute humidity, and the second that of the relative humidity.

The proportion of cloud is estimated in tenths of the sky expanse, an overcast sky being denoted by 10 and a cloudless sky by 0. The monthly means in Table A are the arithmetical means of the cloud amounts at 10 hrs. and 16 hrs., and the normal means, with which the actual monthly means are compared, are derived from the available cloud data for the same hours.

The departure from normal of the mean distribution of cloud amount at 8 hrs. in each month in India is shown in chart No. 1 of Plate VI, and the discussion of this and of the hygrometric features is based on the data given in Table B.

Normal values are deduced chiefly from ten or more years' records previous to 1899, but in some cases from observations extending from 1877 to 1902.

The air was appreciably drier than usual in the North-West Frontier Province, the Punjab, Rajputana, the Deccan and the Central Provinces, but in the rest of the country the humidity, both absolute and relative, was practically normal.

In Burma, east Bengal, Madras and at a few places elsewhere the cloud was thicker than usual, but in all other places skies were clearer than usual, particularly in the greater part of the plains of northern India where the

estimated cloud proportion was about half of the usual amount.

TABLE 13.

Division.	Hygrometry, 8 hrs.				Cloud.	
	Mean humidity.	Departure from normal.	Mean vapour tension in inches of mercury.	Departure from normal in inches of mercury.	Mean cloud amount at 8 hrs.	Departure from normal.
	%					
Burma	84	0	·519	+·004	2·9	+1·2
Assam	94	−2	·405	−·001	3·2	−0·3
Bengal	85	0	·425	−·008	1·6	+0·4
Bihar and Orissa	77	0	·352	−·031	0·7	−0·9
United Provinces	73	−6	·277	−·036	0·9	−1·3
Punjab	67	−11	·218	−·036	1·8	−2·0
North-West Frontier Province.	62	−9	·184	−·021	3·3	−0·7
Sind	62	−1	·293	+·025	1·8	−1·3
Rajputana	49	−10	·194	−·061	0·9	−2·1
Bombay	57	0	·339	−·037	0·8	−0·2
Central India	65	−2	·257	−·033	0·9	−0·7
Central Provinces	57	−6	·275	−·065	1·3	+0·2
Hyderabad	55	−6	·336	−·072	1·4	−0·7
Mysore	71	+1	·430	−·027	2·3	−0·1
Madras	77	0	·582	−·032	3·0	+0·6

Rainfall.

14. Rainfall observations are made at about 2,000 stations in India. The time of observation is 8 hrs. The rainfall data for each province are tabulated in the office of the Meteorologist, Director of Land Records, or other officer in the province, and are published in the provincial gazettes.

The charts illustrating the distribution of rainfall in the month under discussion are based in part upon the rainfall data of the meteorological observatories throughout India, and in part upon the rainfall statements of the month published by the Local Governments.

Plate VII is based on all the rainfall data available at the time of publication and shows the normal average rainfall and the departure of the rainfall from the normal of the month in the 33 meteorological or rainfall divisions.

The distribution of the total number of rainy days in each month is exhibited in chart No. 2 of Plate VI, and is based entirely on the data furnished by the meteorological observatories. A "rainy day" is one on which 0·10 inch or moreof rain is received within 24 hours.

The normal figures of rainfall, and of the number of "rainy days," in Table B are based on observations which extend in most cases over a period of 40 or 50 years ending in 1910.

The month was actually or practically rainless throughout the Indian region with the exception of the Bay Islands, Assam, Chota-Nagpur, Kashmir, the North-West Frontier Province, Baluchistan and Madras South-east. As the normal rainfall of January is small in the Peninsula and Burma the actual deficiency there was trifling, but over the greater part of northern and central India the deficit was both appreciable in amount and significant in view of the scanty fall in December.

Weather was on the other hand unusually rainy in Ceylon.

TABLE 14.

Sub-division.	Number of rainy days.		Rainfall.			
	Actual.	Normal.	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
			"	"	"	
1. Bay Islands	2·5	1·1	1·71	0·65	+1·06	+163
2. Lower Burma	0·2	0·1	0·08	0·06	+0·02	+33
3. Upper Burma	0·3	0·3	0·09	0·11	−0·02	−18
4. Assam	1·5	1·9	0·53	0·75	−0·22	−29
5. Bengal	0·1	0·8	0·04	0·39	−0·35	−90
6. Orissa	0·2	0·5	0·07	0·26	−0·19	−73
7. Chota Nagpur	0·4	1·1	0·11	0·51	−0·40	−78
8. Bihar	0	1·3	0	0·70	−0·70	−100

Sub-division.	Number of rainy days.		Rainfall.			
	Actual.	Normal.	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
			"	"	"	
9. United Provinces, East	0	1·6	0·01	0·75	−0·74	− 99
0. Do., West	0	2·0	0·02	0·98	−0·96	− 98
1. Punjab, East and North	0·3	2·4	0·08	1·29	−1·21	− 94
2. Do., South-west	0	1·3	0	0·56	−0·56	−100
3. Kashmir	4·4	5·0	2·10	3·29	−1·19	− 36
4. North-West Frontier Province	0·6	2·4	0·16	1·35	−1·19	− 88
5. Baluchistan	1·3	2·9	0·46	1·28	−0·82	− 64
6. Sind	0	0·8	0	0·28	−0·28	−100
7. Rajputana, West	0	0·5	0	0·16	−0·16	−100
8. Do., East	0	1·0	0	0·39	−0·39	−100
9. Gujarat	0	0·1	0	0·04	−0·04	−100
0. Central India, West	0	0·6	0	0·25	−0·25	−100
1. Do., East	0·1	1·8	0·02	0·86	−0·84	− 98
2. Berar	0	0·5	0	0·29	−0·29	−100
3. Central Provinces, West	0·1	1·0	0·04	0·55	−0·51	− 93
4. Do., East	0·1	0·8	0·04	0·40	−0·36	− 90
5. Konkan	0	0·2	0	0·13	−0·13	−100
6. Bombay Deccan	0	0·2	0	0·10	−0·10	−100
7. Hyderabad, North	0	0·2	0	0·08	−0·08	−100
8. Do., South	0	0·2	0	0·08	−0·08	−100
9. Mysore	0	0·1	0	0·06	−0·06	−100
0. Malabar	0	0·5	0	0·39	−0·39	−100
1. Madras, South-east	0·4	1·2	0·14	0·94	−0·80	− 85
2. Do., Deccan	0	0·2	0	0·16	−0·16	−100
3 Do., Coast, North	0	0·3	0	0·36	−0·36	−100

TABLE 15.

Division.	Rainfall.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"	
Burma	0·09	0·08	+0·01	+ 13
Assam	0·53	0·75	−0·22	− 29
Bengal	0·04	0·39	−0·35	− 90
Bihar and Orissa	0·04	0·56	−0·52	− 93
United Provinces	0·01	0·86	−0·85	− 99
Punjab	0·07	1·14	−1·07	− 94
North-West Frontier Province	0·16	1·35	−1·19	− 88
Sind	0	0·28	−0·28	−100
Rajputana	0	0·33	−0·33	−100
Bombay	0	0·09	−0·09	−100
Central India	0	0·46	−0·46	−100
Central Provinces	0·02	0·41	−0·39	− 95
Hyderabad	0	0·08	−0·08	−100
Mysore	0	0·06	−0·06	−100
Madras	0·07	0·62	−0·55	− 89
Mean of India	0·05	0·46	−0·41	− 89

Snowfall.

I.—AFGHANISTAN.

15. According to newspaper reports heavy snow fell on the hills during parts of January.

II.—NORTH-WEST FRONTIER PROVINCE.

(*a*) *Wano.*—Snowstorms occurred on the 13th and 20th but did not descend below 9,000 feet. The statement below shows the total fall recorded during the month.

TABLE 16.

Locality.	Elevation.	Aggregate snowfall.	
	Feet.	Ft.	In.
Marwatti and Pirghal	11,000	0	5
Jani Mela	9,000	0	5
Bosh and Dre Nashtar	11,000	0	3

By the end of the month the heights had become clear of snow.

(*b*) *Dera Ismail Khan.*—Snow to a depth of four inches fell on the 25th on the summit of the Takht-i-Suleman.

(*c*) *Kurram.*—Snow fell on the Sufed Koh on the 6th, 12th, 13th and 20th. The falls of the 13th and 20th extended a mile below the level of Parachinar. At the close of the month the unmelted residue on the Paiwar Kotal was estimated at 1 foot.

(*d*) *Kohat.*—The statement below shows the character of the snowfall in the hills bordering the Kohat district.

TABLE 17.

Locality.	Total number of falls.	Total amount during the month.	
		Ft.	In.
FORT LOCKHART.			
Ustar Samana	1	0	2½
Chauk	1	0	2½
Tirah Mazroghar	1	0	3½
Ispinghar	1	0	6½
Sarmelo	1	0	1½
SARMIRANZAI.			
Mandati	2	0	4
Zawa	2	0	4

(*e*) *Drosh.*—Snow fell on four days to a totaldepth of 3½ inches. At the end of the month but little snow remained on elevations below 7,000 feet, but on the Lowarai pass there was still an accumulation of about eight feet.

(*f*) *Hazara.*—The statement below gives the total snowfall received during the month in the various localities:

TABLE 18.

Locality.	Total snowfall recorded during month.	
	Ft.	In.
Narang	7	6
Paluderan	5	10
Kagan	4	8
Jared	1	0
Malkandi	0	8
Sundigali	6	4
Dunga	7	7
Tandiani	3	5
Dungagali	0	11

III.—KASHMIR.

The following statement shows the character of snowfall in this area.

TABLE 19.

Locality.	Number of days on which snow fell.	Aggregate amount of snowfall.		Approximate depth of unmelted residue at the end of the month.
		Ft.	In.	
Srinagar	6	1	7	
Kargil	8	1	9	About 7 feet on surrounding mountains.
Dras	...	3	0	About 7 feet on Zojila and 4½ feet in the grounds of the observatory.
Skardu	10	1	9	One foot in the grounds of the observatory.

On the mountains near Kargil the total fall of the month was reported to be about 32 feet in depth.

IV.—PUNJAB.

(*a*) *Murree.*—No snow fell at Murree and on the hills adjacent to Kahuta.

(*b*) *Kilba* (Simla hills).—There were altogether eight falls on the surrounding hills. The lowest level reached was 7,000 feet. The total quantity received at heights between 8,000 and 9,000 feet was about 1¾ feet. On the last day of the month snow lay about 6 feet deep on the Rupin and Brua passes.

V.—UNITED PROVINCES.

Almora.—The total fall during the month was estimated at 20 feet in Malla Johar, 7 feet in Byans, 5½ feet in Malla Darma, 3¼ feet in Malla Danpur and 2½ feet in Chaudas.

TABLE 20.

Name of pass or peak.	Depth of accumulation at the end of the month.	
	Reported.	Normal.
	Feet.	Feet.
Nuwe pass	30	31
Binkaru "	8	27½
Lipulekh "	13	17½
Lampia "	17	7½
Untadhura "	7	18½
Ralamdhura pass	6	12
Milamdhura "	3	14½
Pindari peak	3	8½
Kuntela "	3	8
Kaphini "	3	8

SUMMARY.

16. According to the available information the snowfall of the month in the western Himalayas and the hill districts of the North-West Frontier Province was on the whole considerably lighter than usual.

HEM RAJ.

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

Table

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

Number of subdivision.	Station.	Elevation of bar-cisterns 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.	Temperature, Wet-bulb. Mean minimum.	Mean 10 hrs.	Mean 16 hrs.	Mean of three previous columns.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	III.—Bengal.																					
5	Calcutta	21	30·114	29·983	·131	30·039	+·021	30·007	78·5	55·2	23·3	84·3	49·2	35·1	69·7	76·9	65·9	+0·7	53·4	60·7	62·7	59·0
	V.—United Provinces of Agra and Oudh.																					
9	Allahabad	309	29·839	29·712	·127	29·763	+·037	30·038	75·9	45·5	30·4	82·9	39·5	43·4	64·4	73·8	59·0	−0·5	44·1	54·1	57·2	51·8
	VI.—Punjab.																					
11	Lahore	702	29·409	29·319	·090	29·355	+·029	30·061	73·1	42·4	30·7	78·4	36·1	42·3	58·3	70·3	55·9	+2·9	40·1	50·2	55·8	48·7
	IX.—Rajputana.																					
18	Jaipur	1,431	28·686	28·576	·110	28·622	+·038	30·040	77·6	47·1	30·5	83·2	38·1	45·1	67·8	75·6	60·9	+1·0	41·6	52·6	56·5	50·2
	X.—Bombay.																					
25	Bombay	37	30·047	29·932	·115	29·982	+·027	29·960	83·7	68·0	15·7	86·5	63·8	22·7	74·7	80·0	75·1	+0·6	62·5	66·5	70·1	66·4
	XIV.—Mysore.																					
29	Bangalore	3,021	27·074	26·952	·122	27·011	+·025	29·884	80·7	55·7	25·0	84·5	50·8	33·7	71·4	78·6	67·2	−0·3	54·3	60·4	61·4	58·7
	XV.—Madras.																					
31	Pudukkottai	318	29·751	29·607	·144	29·679		29·932	85·3	68·5	16·8	90·7	63·9	26·8	77·8	83·3	76·9			67·0	67·7	
	Madras	22	30·073	29·964	·109	30·016	+·020	29·969	84·2	67·8	16·4	86·5	63·1	23·4	79·8	80·9	75·2	−0·1	68·2	71·4	71·7	69·7
	Hill stations, excluding Kashmir and Baluchistan.																					
	Sarain		23·239	23·175	·064	23·195		23·157	50·1	30·4	19·7	61·3	24·9	36·4	41·4	43·5	39·5			35·2	36·6	
	Kalabagh																					
	Mukteswar	7,592	22·910	22·844	·066	22·867		22·825	52·9	35·7	17·2	59·0	26·9	32·1	45·2	50·1	43·6		28·1	36·7	40·7	35·2
	Katmandu	4,388	25·778	25·658	·120	25·712	+·025†	25·666	64·5	37·5	27·0	68·0	32·2	35·8	48·7	61·1	50·3	+0·7†	35·9	45·6	51·1	44·2
	Ootacamund	7,327	23·119	23·049	·070	23·078		23·014	67·7	41·6	26·1	73·2	35·2	38·0	63·4	61·1	54·0		36·3	48·0	50·9	45·1
	Kodaikanal	7,688	22·889	22·825	·064	22·854		22·792	66·5	47·4	19·1	73·3	43·6	29·7	60·8	59·2	54·9		40·1	50·4	52·2	47·6
	Doddabetta	8,539†	22·132	22·065	·067	22·093		22·029	60·0	45·5	14·5	63·8	40·3	23·5	56·5	54·7	52·1		34·9	44·3	47·2	42·1
	Extra India.																					
	Diego Garcia																					
	Seychelles	15	29·995	29·899	·096	29·958	+·033†	29·896	83·0	77·3	5·7	85·7	73·8	11·9	81·0	81·7	78·9	+0·4†	71·0	75·7	75·8	74·2
	Mauritius	181				29·976	+·021	30·104									76·7	−1·8				72·9

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 3,000 feet.

ıtions in India, etc., in January, 1913.

Vapour tension, in inches of mercury.				Humidity.					Cloud.				Wind direction.											Wind steadiness.		Wind velocity.		Rainfall.		Station.	Number of subdivision.
	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 number of 10 hrs. and 16 hrs. winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Mean wind direction.	Normal mean wind direction of month.	Average percentage.	Normal percentage.	Mean velocity in miles per diem.	Normal.	Total rainfall for the month.	Heaviest rainfall during the month.		
1	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
																															III.—Bengal.	
89	·416	·382	·413	—·018	89	57	41	64	— 6	0·4	0·5	0·5	-1·0	2	13	8	1	1	1	9	5	22	N 37° W	N 30° W	53	44	53*	45	0·06	0·06	Calcutta	5
																															V.—United Provinces of Agra and Oudh.	
75	·287	·238	·275	—·059	89	47	28	59	— 9	0·7	0·5	0·6	-1·8	15	2	4	6		1	2	22	10	N 66° W	N 42° W	38	26	35	66	0	0	Allahabad	9
																															VI.—Punjab.	
21	·258	·249	·247	—·022	80	53	33	59	—11	1·6	2·4	2·0	—1·7	22	4	3	2	7	1		5	18	N 33° W	N 30° W	26	21	26	30	0·03	0·03	Lahore	11
																															IX.—Rajputana.	
00	·214	·221	·218	—·050	61	31	25	43	—13	0·9	1·3	1·1	—2·2	8	11	5	9	3	1	9	5	11	N 19° W	N	23	18	55*	58	0	0	Jaipur	18
																															X.—Bombay.	
91	·540	·605	·563	—·028	72	63	59	69	— 3	0·6	0·7	0·7	—0·4		2	12	15	2			8	23	N 1° E	N 6° E	40	58	145*	174	0	0	Bombay	25
																															XIV.—Mysore.	
07	·402	·344	·388	—·020	92	52	36	62	0	1·2	2·2	1·7		1	2	18	35	6					N 79° E	N 88° E	85	78	127	93	0	0	Bangalore	29
																															XV.—Madras.	
	·523	·464				55	40			4·3	6·2	5·3		3	14	37	2					6	N 28° E		83		168		0·07	0·07	Pudukkottai	31
26	·655	637	·658	—·027	92	65	61	75	— 4	3·9	3·4	3·7	—0·4		18	40	4						N 42° E	N 51° E	78	76	122*	100	0	0	Madras	
																															Hill stations, excluding Kashmir and Baluchistan.	
	·147	·148				60	53			3·3	4·0	3·7																	0·78	0·50	Sarain,	
																															Kalabagh.	
84	·131	·158	·132		42	45	45	48		2·8	4·3	3·5		17	1	1	1	2		1	36	3	N 87° W		58		132		0·37	0·13	Mukteswar.	
94	·272	·259	·250	—·003	86	80	49	76	— 1	1·4	2·6	2·0	—1·4	59	1		1				1		N	N 78° W	2	46	11*	15	0·21	0·21	Katmandu.	
88	·180	·272	·216		62	32	50	73		2·5	4·8	3·7		3	6	5	16	12	11	1	1	7	S 75° E		35		60		0·10	0·10	Ootacamund.	
91	·268	·326	·260		57	53	66	60		4·1	5·9	5·0			4	10	18	15	2		4	9	S 83° E		29		233*		0·27	0·10	Kodaikanal.	
81	·172	·253	·174		33	38	59	43		3·3	5·9	4·6		4	9	20	13	12	3	1			N 73° E		63		245		0	0	Dodabetta.	
																															Extra India.	
																															Diego Garcia.	
	·817	·815	·788	—·045	72	77	75	78	— 6	6·0	6.5	6·3	—0·7	7	10	3	1.				8	33	N 38° W	N 39° W	72	61	115	107	6·63	2·41	Seychelles.	
			·740	+·002				81	+ 5			8·0	+2·0										N 80° E	S 86° E			196*	169	15·83		Mauritius.	

* Uncorrected for scale error. † Departure from old normal. ‡ Mean of three previous columns.

NOTE.—From January 1912 to December 1912 multiply the figures in column 52 of this table by ·73.

Table B.—Abstract of observations taken at 8 hrs. at 215 stations in India, etc., in January, 1913.

(1) Provincial means.

(2) Data of stations.

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

	Pressure departure from normal.	Temperature of air.								Wind.		Hygrometry.				Cloud.		Rainfall.		
		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.	Absolute range during month.	Departure of velocity from normal.	Departure of steadiness from normal.	Mean humidity.	Departure from normal.	Mean vapour tension.	Departure from normal.	Mean cloud amount.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.
Burma	+·036	83·3	−1·0	59·5	+0·6	71·4	−0·2	23·8	33·5	−0·3	0	84	0	·519	+·004	2·9	+1·2	0·09	0·08	+0·
Assam	+·034	73·5	−0·2	51·4	+0·1	62·4	−0·1	22·1	30·4	+0·1	+9	94	−2	·495	−·001	3·2	−0·3	0·53	0·75	−0·
Bengal	+·029	77·3	+0·2	54·2	+0·2	65·8	+0·2	23·1	33·0	−0·6	−14	85	0	·425	−·008	1·6	+0·4	0·04	0·39	−0·
Bihar and Orissa	+·038	77·2	−1·1	51·6	−1·5	64·4	−1·3	25·7	36·6	−0·1	+2	77	0	·352	−·031	0·7	−0·9	0·04	0·56	−0·
United Provinces of Agra and Oudh.	+·037	74·5	+1·5	45·3	−2·2	59·9	−0·4	29·2	41·1	−0·6	−4	73	−6	·277	−·036	0·9	−1·3	0·01	0·86	−0·
Punjab	+·040	72·2	+4·2	43·0	+0·2	57·6	+2·2	29·2	41·8	0	+5	67	−11	·218	−·036	1·8	−2·0	0·07	1·14	−1·
North-West Frontier Province	+·021	69·1	+2·9	40·6	+0·6	54·9	+1·7	28·5	42·5	−0·3	+13	62	−9	·184	−·021	3·3	−0·7	0·16	1·35	−1·
Sind	+·030	78·4	+3·1	52·2	+1·9	65·3	+2·4	26·3	40·3	−1·6	−5	62	−1	·293	+·025	1·8	−1·3	0	0·28	−0·
Rajputana	+·037	77·2	+3·5	48·1	−0·9	62·6	+1·3	29·1	43·4	−0·1	0	49	−10	·194	−·061	0·9	−2·1	0	0·23	−0·
Bombay	+·034	84·8	+0·7	56·6	−1·7	70·7	−0·5	28·3	37·8	−0·7	−3	57	0	·339	−·037	0·8	−0·2	0	0·09	−0·
Central India	+·042	77·5	+0·7	46·0	−2·3	61·8	−0·7	31·5	44·0	−0·4	−7	65	−2	·257	−·033	0·9	−0·7	0	0·46	−0·
Central Provinces	+·042	81·3	−0·4	51·5	−2·2	66·3	−1·3	29·8	40·1	−0·2	+3	57	−6	·275	−·065	1·3	+0·2	0·02	0·41	−0·
Hyderabad	+·040	84·7	−0·8	56·6	−2·9	70·6	−1·9	28·1	37·0	−1·3	+31	55	−6	·336	−·072	1·4	−0·7	0	0·08	−0·
Mysore	+·029	81·8	−0·6	56·8	−1·1	69·3	−0·8	25·0	34·4	+0·6	+11	71	+1	·430	−·027	2·3	−0·1	0	0·06	−0·
Madras	+·023	84·5	−0·8	65·5	−0·8	75·0	−0·8	19·0	27·0	+0·3	+9	77	0	·582	−·032	3·0	+0·6	0·07	0·62	−0·

Table

(2) Abstract of observations taken at 8 hrs. at 215

Number of subdivision.	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
	I.—Burma.																						
2	Victoria Point		29·867		29·945	29·962	27th	29·779	7th	·183	76·8	87·3		73·5		80·4		13·8	91·1	16th	71·2	29th	19·9
	Mergui	56	29·973	+·035	29·969	30·070	31st	29·882	10th	·188	73·1	87·2	−0·9	67·2	+0·3	77·2	−0·3	20·0	90·0	13th & 24th.	61·8	3rd	28·2
	Tavoy	19	30·022	+·020	29·975	30·127	31st	29·935	10th	·192	71·6	89·9	+0·3	67·3	+3·1	78·5	+1·7	22·5	93·5	15th	60·3	3rd & 6th	33·2
	Moulmein	94	29·977	+·044	30·011	30·091	30th	29·890	12th	·201	70·2	89·2	+0·8	66·3	+1·1	77·8	+0·9	22·9	94·5	16th	60·8	6th & 7th	33·7
	Rangoon	18	30·044	+·027	30·000	30·152	31st	29·960	12th	·192	68·9	88·5	−0·6	65·7	+1·5	77·1	+0·5	22·8	93·0	16th	58·0	23rd	35·0
	Bassein	27?	30·032	+·030	29·996	30·136	31st	29·954	10th	·182	68·7	85·9	+0·2	65·4	+3·7	75·6	+1·9	20·5	89·2	16th & 29th.	59·9	7th	29·3
	Diamond Island	41	30·005†	+·018†	29·982†	30·126	30th	29·929	10th & 12th.	·197	77·0	84·6	+0·6	67·9	−3·1	76·3	−1·3	16·7	89·4	10th	66·0	6th, 7th & 8th.	23·4
	Toungoo	164	29·911	+·046	30·025	29·999	26th & 27th.	29·841	10th	·158	61·3	83·9	−1·4	57·2	−0·4	70·5	−0·9	26·7	87·5	2nd	50·4	19th	37·1
	Kyaukpyu	18	30·043		30·001	30·138	31st	29·965	12th	·173	68·0	78·8		61·3		70·0		17·5	81·0	7 days	54·4	21st	26·6
	Akyab	20	30·058	+·024	30·019	30·160	31st	29·980	12th	·189	62·6	79·7	−1·7	59·0	−0·3	69·3	−1·0	20·7	83·9	25th	54·5	17th	29·4
3	Thayetmyo	121	29·919†	+·029†	30·017†	30·044	27th	29·875	12th & 19th.	·169	62·1	84·4	−1·5	53·9	+0·4	69·2	−0·5	30·5	88·9	29th & 30th.	43·9	20th	45·0
	Minbu	*165*	29·910	+·023	30·025	29·999	26th	29·840	19th	·159	62·0	83·0	−2·7	53·1	0	69·6	−1·3	25·9	89·8	24th	48·0	20th	41·8
	Yamethin	657	29·397	+·035	30·033	29·463	26th & 27th.	29·316	19th	·167	61·3	85·2	−2·0	55·4	+0·8	70·3	−0·6	29·8	89·8	30th	48·5	18th	41·3
	Mandalay	250	29·843	+·060	30·054	29·931	26th & 27th.	29·763	19th	·168	60·6	87·2	+3·1	54·8	−1·2	71·0	+0·9	32·4	90·2	21th, 25th & 27th.	48·6	18th	41·6
	Monywa	*280*	29·818		30·061	29·913	27th	29·751	11th & 12th.	·162	62·4	83·1		57·4		70·2		25·7	86·8	24th	53·6	22nd	33·2
	Lashio	*2,820*	27·256†	+·035†	27·202†	27·349	26th	27·171	19th	·178	50·1	71·9	−3·2	45·4	+0·4	58·6	−1·4	26·5	75·1	26th	39·5	17th & 18th.	35·6
	Bhamo	*381*	29·732	+·072	30·093	29·824	31st	29·649	19th & 22nd.	·175	52·8	75·8	−1·4	48·6	+0·1	62·2	−0·7	27·2	79·9	26th	44·1	10th	35·8
	Myitkyina	458	29·629		30·077	29·738	31st	29·551	22nd.	·187	52·0	73·7		49·0		61·3		24·7	78·7	26th & 27th.	45·5	19th & 20th.	33·2
	II.—Assam.																						
4	Dibrugarh	353	29·753		30·093	29·876	27th	29·651	22nd	·225	52·4	70·8		50·2		60·5		20·6	77·9	7th	45·6	18th	32·3
	Sibsagar	333	29·808	+·039	30·123	29·923	27th	29·714	14th	·209	53·3	69·3	−0·8	49·1	−0·4	59·2	−0·6	20·2	72·6	11th	44·0	28th	28·6
	Tezpur	252	29·879†		30·107†	29·993	27th	29·782	22nd	·211	54·2	74·0		52·3		63·1		21·7	75·6	4 days	43·8	5th	31·8
	Gauhati	195	29·935‡		30·097‡	30·018	27th	29·826	22nd	·222	55·4	74·7		50·6		62·7		24·1	76·8	4 days	47·1	27th & 29th.	29·7
	Dhubri	115	29·990	+·026	30·067	30·103	27th	29·881	22nd	·222	56·7	73·7	−0·3	53·6	+0·5	63·7	+0·1	20·1	76·5	17th	50·1	26th	26·4
	Silchar	104	30·017	+·037	30·080	30·116	31st	29·935	7th	·181	57·8	78·3	+0·5	52·4	+0·1	65·3	+0·3	25·9	80·8	7th & 27th.	47·3	29th	33·5
	III.—Bengal.																						
5	Cox's Bazar	36	30·048		30·031	30·138	31st	29·968	12th	·170	62·1	79·5		56·2		67·8		23·3	83·7	26th	49·7	21st	34·0
	Chittagong	87	30·006	+·030	30·043	30·102	26th & 30th.	29·926	10th	·176	59·1	78·1	−0·2	54·7	−0·8	66·4	−0·4	23·4	81·5	25th	49·5	20th	32·0
	Noakhali	43	30·063		30·051	30·156	26th	29·980	13th	·176	60·2	76·9		54·4		65·7		22·5	79·8	26th & 27th.	47·4	20th	32·4
	Barisal	12	30·084	+·027	30·043	30·189	27th	30·004	12th	·185	61·1	78·0	+0·4	54·9	+0·5	66·5	+0·5	23·1	82·8	23rd & 24th.	48·1	20th	34·7
	Narayanganj	26	30·068	+·026	30·044	30·169	27th	29·986	22nd	·183	59·9	77·6	−0·3	55·9	+0·7	66·7	+0·2	21·7	80·5	23rd	51·8	17th & 20th.	28·7
	Mymensingh	63	30·041	+·027	30·059	30·146	27th	29·955	22nd	·191	57·1	77·0	+2·0	54·6	+2·1	65·8	+2·1	22·4	79·1	3rd & 7th	49·1	28th	30·0
	Bogra	75	30·027	+·034	30·058	30·144	27th	29·927	22nd	·217	55·8	75·3	−0·8	53·1	+1·2	64·2	+0·2	22·2	78·2	23rd & 24th.	48·2	28th	30·0
	Dinajpur	123	29·974	+·028	30·059	30·100	27th	29·870	22nd	·230	55·3	75·1	−0·6	50·5	+1·1	62·8	+0·3	24·6	76·3	5 days	44·5	27th	31·8
	Jalpaiguri	283	29·821	+·031	30·076	29·916	26th	29·723	19th	·193	56·7	74·6	+2·6	52·0	+1·2	63·3	+1·9	22·6	77·4	6th	46·9	27th	30·5

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

† Mean of 30 days.
‡ „ „ 29 „

ations in India, etc., in January, 1913.

Wind direction. Number of winds from 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 from 1st Dec. 1912 to 31st January 1913.	Normal rainfall for period, 1st Dec. to 31st January.	Departure from normal of period, 1st Dec. 1912 to 31st Jan. 1913.	Heaviest rainfall during month.	Station.
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
																														I.—Burma.
11	5	2	2			1	N 42° E		5·5*			66		77		·707		4·5		1			0·11			0·81			0·11	Victoria Point.
3	1						N 56° E	S 4° W	2·2	1·5	+0·7	10	−1	84	+3	·687	−·023	3·0	0	2	1·6	+0·4	1·18	1·02	+0·16	2·17	1·39	+0·78	1·00	Mergui.
							(a)	N 9° W	1·0*	0·9	+0·1	(a)		86	−1	·678	+·033	3·0	+1·0	0	0·4	−0·4	0	0·15	−0·15	0	0·36	−0·36	0	Tavoy.
10	14		1	1			N 68° E	N 48° E	2·8	1·8	+1·0	69	+8	81	−4	·603	+·001	2·2	+0·9	0	0·2	−0·2	0	0·25	−0·25	0	0·32	−0·32	0	Moulmein.
10	3	1				1	N 29° E	N 29° E	1·4	2·8	−1·4	59	+27	79	−4	·558	−·010	7·1	+5·6	0	0·2	−0·2	0	0·09	−0·09	0	0·24	−0·24	0	Rangoon.
	1					1	N 23° E	N 2° W	2·8	2·6	+0·2	2	−30	86	−1	·606	+·029	2·5	+0·7	0	0·1	−0·1	0	0·10	−0·10	0	0·39	−0·39	0	Bassein.
20	3						N 40° E	N 14° E	6·2	5·8	+0·4	86	+5	73	0	·683	+·030	2·5	+0·2	0	0·2	−0·2	0	0·18	−0·18	0	0·93	−0·93	0	Diamond Island.
7	4	4	1			2	N 48° E	N 9° W	1·0	1·2	−0·2	46	−19	89	+1	·482	−·019	3·4	+2·3	2	0·3	+1·7	0·81	0·13	+0·68	0·81	0·37	+0·44	0·53	Toungoo.
11	2	3				1	N 47° E		2·7			49		84		·574		1·4		1			0·25			0·25			0·20	Kyaukpyu.
7	3						N 23° E	N 21° E	1·6	2·0	−0·4	69	−18	87	0	·490	−·004	1·2	+0·5	0	0·2	−0·2	0	0·07	−0·07	0	0·80	−0·80	0	Akyab.
2						1	N 13° E	N 11° E	0·9*	2·0	−1·1	10	−26	80	+6	·454	+·037	2·5	+1·9	2	0·1	+1·9	0·79	0·03	+0·76	0·79	0·23	+0·56	0·50	Thayetmyo.
1			1			29	N 45° W	N 52° W	2·8	4·2	−1·4	92	+44	75	+1	·412	−·013	4·2	+3·5	1	0·1	+0·9	0·29	0·03	+0·26	0·29	0·49	−0·20	0·29	Minbu.
		2				2	N	N 11° W	1·5	1·8	−0·3	32	+6	76	−1	·414	−·015	1·2	+0·7	0	0·2	−0·2	0·10	0·09	+0·01	0·10	0·44	−0·34	0·04	Yamethin.
1	1	1	1		1	5	N 25° W	N 13° E	1·3	1·5	−0·2	20	+7	82	−1	·430	−·029?	0·8	−0·3	0	0	0	0·02	0·04	−0·02	0·21	0·37	−0·16	0·02	Mandalay.
1						3	N 3° W		1·5			76		86		·486		1·0		0	0	0	0	0	0	0·02	0·37	−0·35	0	Monywa.
							(a)		1·1*			(a)		93	+3	·333	−·005	2·4	−2·1	2	0·5	+1·5	0·41	0·24	+0·17	1·23	1·00	+0·23	0·27	Lashio.
							(a)	N 18° W	0·8	1·9	−1·1	(a)		97	+4	·390	+·007	5·6	+2·5	2	1·3	+0·7	0·69	0·61	+0·08	1·43	1·17	+0·26	0·55	Bhamo.
2	1						N 45° E		0·9			10		93		·360		3·2		1	1·4	−0·4	0·65	0·48	+0·17	0·90	0·99	−0·09	0·61	Myitkyina.
																														II.—Assam.
							(a)		0·3			(a)		99		·385		2·8		3	3·9	−0·9	1·22	1·76	−0·54	1·64	2·12	−0·48	0·62	Dibrugarh.
1			1				N 24° E	N 82° E	0·9	1·3	−0·4	7	−16	97	−2	·395	−·009	8·5	+3·1	3	3·8	−0·8	1·13	1·33	−0·20	1·40	1·82	−0·42	0·54	Sibsagar.
15	1		3			1	N 39° E		2·0			56		93		·393		1·9		1	1·7	−0·7	0·26	0·49	−0·23	0·48	0·74	−0·26	0·10	Tezpur.
2	3	3					S 83° E		1·1			23		94		·415		4·7		0	1·4	−1·4	0·01	0·38	−0·37	0·07	0·47	−0·40	0·01	Gauhati.
15	12	1			1		N 64° E	N 55° E	3·8	2·8	+1·0	79	+40	90	−1	·414	+·005	0·4	−1·5	0	0·9	−0·9	0	0·36	−0·36	0	0·41	−0·41	0	Dhubri.
1	1	2					N 84° E	S 72° E	1·0	1·2	−0·2	10	+4	89	−2	·431	0	1·0	−2·5	0	1·8	−1·8	0·06	0·83	−0·77	0·24	1·26	−1·02	0·05	Silchar.
																														III.—Bengal.
13	11	3					N 63° E		2·4*			79		85		·474		1·9		0			0·03			0·03			0·03	Cox's Bazar.
9							N 45° E	N 28° E	0·9	2·3	−1·4	27	−28	89	+1	·446	−·014	2·6	+1·5	0	0·5	−0·5	0	0·34	−0·34	0	1·13	−1·13	0	Chittagong.
2		2			1		N 8° E		1·3			45		88		·464		1·9		0	0·8	−0·8	0	0·35	−0·35	0	0·66	−0·66	0	Noakhali.
1							N 45° E	N 4° E	0·2	1·2	−1·0	3	−8	87	0	·468	−·001	2·0	+1·2	0	0·9	−0·9	0	0·55	−0·55	0	1·02	−1·02	0	Barisal.
	1		1				S	N 10° W	0·7	1·7	−1·0	1	−38	84	−3	·436	−·013	1·9	+0·6	0	0·9	−0·9	0	0·34	−0·34	0	0·51	−0·51	0	Narayanganj
	1	1					S 66° E	N 54° E	0·4	0·9	−0·5	7	−22	90	−1	·425	+·005	4·9	+3·4	0	1·1	−1·1	0	0·42	−0·42	0	0·49	−0·49	0	Mymensingh.
							N	N 18° W	0·3	1·2	−0·9	3	−31	90	+5	·405	+·009	4·5	+3·3	0	1·2	−1·2	0	0·47	−0·47	0	0·50	−0·50	0	Bogra.
6	4			2	5	3	N 3° W	N 61° W	1·0	1·7	−0·7	18	−18	91	+4	·399	+·022	0·6	−0·5	0	1·0	−1·0	0	0·39	−0·39	0	0·42	−0·42	0	Dinajpur.
2							N 45° E	N 18° E	1·1			3	−40	88	−3	·410	+·014	0·3	−0·8	0	0·8	−0·8	0	0·34	−0·34	0	0·42	−0·42	0	Jalpaiguri.

* Uncorrected for scale error.

(a) Indeterminate.

Tab

(2) *Abstract of observations taken at 8 hrs. at 215 statio*

Number of subdivision.	Station.	Elevation of barometer above sea-level, in feet.	Pressure, 8 hrs., in inches. 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.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	2
	III.—Bengal.—*concld.*																						
5	Saugor Island	25	30·084	+·029	30·055	30·193	27th	29·987	22nd	·206	61·9	76·5	−0·1	58·2	−1·0	67·4	−0·5	18·3	79·7	24th	52·2	12th & 20th.	27
	Midnapore	149	29·848		30·054	30·069	27th	29·832	22nd	·237	59·9	81·2		54·7†		68·0†		26·5	89·3	23rd	46·7	19th	42
	Calcutta	21	30·093	+·028	30·061	30·201	27th	29·984	22nd	·217	57·7	78·4	+1·3	54·6	−0·7	66·5	+0·3	23·8	84·1	23rd	49·0	12th	35
	Jessore	33	30·084	+·039	30·066	30·193	27th	29·982	22nd	·211	59·0	76·8	−1·1	52·3	−0·7	64·5	−0·9	24·5	82·5	23rd	45·7	20th	36
	Burdwan	9	30·013	+·024	30·063	30·123	27th	29·899	22nd	·224	57·7	79·3	+0·5	53·7	−1·2	66·5	−0·3	25·6	85·9	23rd	48·8	11th, 14th & 18th.	37
	Berhampore	67	30·046	+·028	30·066	30·164	27th	29·928	22nd	·236	55·8	75·8	−1·0	53·2	−0·2	64·5	−0·6	22·6	80·6	23rd & 24th.	48·7	28th	31
	IV.—Bihar and Orissa.																						
6	Balasore	50	30·068	+·032	30·066	30·193	27th	29·958	22nd	·235	59·0	80·7	−0·6	54·7	−1·0	67·7	−0·8	26·0	86·9	23rd	49·6	18th & 19th.	37
	Hukitala (False Point).	29	30·090	+·058	30·060	30·198	27th	30·012	22nd	·186													
	Cuttack	20	30·047	+·045	30·072	30·155	27th	29·957	22nd	·198	61·1	80·6	−3·9	57·5	−2·3	69·0	−3·1	23·1	85·5	23rd & 30th.	52·7	20th	32
	Puri	21	30·081		30·014	30·186	27th	30·003	14th	·183	64·8	80·2		61·7		71·0		18·5	82·6	17th	57·6	20th	25
	Angul	455	29·647		30·091	29·738	27th	29·582	22nd	·176	60·1	81·4		52·1		67·2		28·3	87·6	23rd	49·0	19th	38
	Sambalpur	486	29·632	+·044	30·097	29·731	27th	29·552	22nd	·179	58·5	80·4	−1·8	52·1	−2·7	66·2	−2·3	28·3	85·6	25th	46·6	20th	39
7	Chaibasa	733	29·348	+·029	30·083	29·458	27th	29·243	22nd	·215	53·1	78·7	−1·8	49·8	−2·0	64·3	−1·9	28·9	86·1	23rd	44·8	19th	41
	Ranchi	2,128	27·926	+·043	30·089	28·035	27th	27·832	22nd	·203	54·9	74·1	−0·3	50·5	−0·4	62·3	−0·3	23·6	81·2	23rd	46·4	12th	34
	Purulia	816	29·278		30·092	29·400	27th	29·159	22nd	·241	57·3	78·3		52·7		65·5		25·6	88·0	23rd	48·1	12th	39
	Daltonganj	730	29·391		30·132?	29·519	27th	29·309	14th	·210	48·3§	75·9§		44·5§		60·2§		31·4	86·6	23rd	38·0	27th	48
8	Purnea	134	29·994	+·049	30·092	30·120	27th	29·896	22nd	·224	52·0	74·5	−0·2	46·7‖	−1·8‖	60·6‖	−1·0‖	27·8	76·6	25th	40·8	27th	35
	Monghyr	155	29·968		30·086	30·114	27th	29·849	22nd	·265	57·0	73·9		50·8		62·3		23·1	78·2	23rd	44·9	27th	33
	Darbhanga	165	29·944‡	+·030‡	30·076‡	30·057	27th	29·827	22nd	·230	52·4	74·8	+2·1	46·7	−5·4?	60·8	−1·7?	28·1	77·1	6th & 16th	40·7	26th & 27th.	36
	Pusa	188	29·915		30·072	30·052	27th	29·798	22nd	·254	51·3	75·2		46·2		60·7		29·0	78·7	16th	40·9	27th	37
	Patna	183	29·935	+·022	30·083	30·070	27th	29·795	22nd	·275	55·1	73·0	0	50·3	+0·1	61·7	+0·1	22·7	77·5	23rd	45·7	11th	31
	Buxar	239	29·869		30·084	30·005	27th	29·721	22nd	·284	52·9	76·3		48·7		62·5		27·6	82·5	23rd	42·1	26th	40
	Gay †	372	29·738	+·028	30·089	29·869	27th	29·608	22nd	·261	55·0	75·4	−0·5	49·3	−2·3	62·4	−1·4	26·1	82·9	23rd	40·2	18th	42
	Naya Dumka	489	29·610	+·039	30·086	29·741	27th	29·486	22nd	·255	54·6	75·6	−0·1	49·6	−1·6	62·6	−0·9	26·0	82·4	23rd	45·0	12th & 19th.	37
	V.—United Provinces of Agra and Oudh.																						
9	Gorakhpur	257	29·833	+·024	30·067	29·964	27th	29·715	22nd	·249	52·1	73·7	+0·8	46·6	−2·6	60·2	−0·9	27·1	77·1	23rd	43·8	6 days	33
	Benares	267	29·857	+·043	30·096	29·992	27th	29·705	22nd	·287	53·9	75·2	+0·9	45·2	−2·0	60·2	−1·1	30·0	81·0	22nd & 23rd.	39·1	26th	41
	Allahabad	309	29·808	+·035	30·097	29·936	27th	29·663	22nd	·273	51·6	75·9	+1·5	45·4	−2·5	60·6	−0·5	30·5	83·1	22nd	39·5	26th	43
	Cawnpore	416	29·692	+·044	30·096	29·824	27th	29·568	22nd	·256	52·3	76·2	+2·3	45·2	−1·9	60·7	+0·2	31·0	84·7	22nd	37·9	28th	46
	Lucknow	368	29·740	+·041	30·094	29·876	27th	29·599	22nd	·277	52·6	75·6	+1·6	45·8	−0·9	60·7	+0·3	29·8	81·0	22nd	39·1	27th	41
	Bahraich	401	29·672	+·021	30·066	29·811	27th	29·540	22nd	·271	50·5	73·4	+1·0	45·9	−1·2	59·7	−0·1	27·5	76·1	22nd	40·0	28th	36
10	Jhansi	824	29·291	+·042	30·128	29·410	27th	29·173	21st	·237	53·9	77·3	+0·9	46·5	−4·6	61·9	−1·9	30·8	85·5	22nd	39·5	25th, 26th & 27th.	46
	Agra	556	29·563	+·044	30·118	29·687	27th	29·417	21st	·270	54·2	75·3	+1·8	47·5	−1·1	61·4	+0·3	27·8	82·5	22nd	42·0	27th & 28th.	40
	Mainpuri	516	29·578	+·035	30·095	29·712	27th	29·452	21st	·260	49·0	74·6	+2·9	44·6	−1·6	59·6	+0·7	30·0	82·8	22nd	37·1	27th	45
	Bareilly	568	29·508	+·031	30·082	29·626	27th	29·404	21st	·222	49·8	72·7	+2·1	44·4	−1·7	58·6	+0·2	28·3	76·8	22nd	39·0	25th & 28th.	37
	Roorkee	899	29·173	+·045	30·118	29·286	27th	29·051	21st	·235	45·2	69·8	+0·2	41·5	−2·9	55·6	−1·3	28·3	74·0	20th	35·9	26th	38·1

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

† Mean of 30 days.
‡ „ 29 „
§ „ 14 „
‖ „ 11 „

continued.

ndia, etc., in January, 1913—continued.

Wind direction.									Wind velocity.			Wind steadiness.		Hygrometry, 8 hrs.				Cloud.		Rainfall								
er of winds from																												
E.	S.E.	S.	S.W.	W.	N.W.		Resultant direction.	Normal direction.	Mean velocity, miles per hour.	Normal.	Departure from normal.	Actual percentage.	Departure from normal.	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.	Mean cloud amount at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st Dec. 1912 to 31st Jan. 1913.	Normal rainfall for period, 1st Dec. to 31st Jan.	Departure from normal of period, 1st Dec. 1912 to 31st Jan., 1913.	Heaviest rainfall during month.	Station.
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
																														III.—Bengal—*concld.*
	2		3				N 19° E	N 13° E	5·1	5·3	−0·2	62	− 2	91	+ 1	·506	−·020	0·6	−0·9	0	0·9	−0·9	0·09	0·34	−0·25	0·09	0·67	−0·58	0·09	Saugor Island.
1	1	1	1		7		N 5° W		1·2			39		72		·373		0·7		0	1·1	−1·1	0·01	0·57	−0·56	0·01	0·82	−0·81	0·01	Midnapore.
		1	2	1	9		N 31° W	N 6° W	1·9*	1·9	0	43	+11	86	+ 2	·414	−·024	0·5	−0·6	0	0·8	−0·8	0·06	0·41	−0·35	0·06	0·62	−0·56	0·06	Calcutta.
	1		1		2		N 11° W	N 14° W	1·1	1·2	−0·1	13	− 1	81	− 6	·413	−·022	1·0	−0·2	0	0·9	−0·9	0·02	0·43	−0·41	0·02	0·62	−0·60	0·02	Jessore.
				3	3		N 20° W	N 23° W	1·0	1·2	−0·2	40	+14	76	+ 4	·363	−·006	0·4	−1·1	0	0·8	−0·8	0	0·41	−0·41	0	0·57	−0·57	0	Burdwan.
					2		N 15° W	N 67° W	0·7	1·2	−0·5	17	− 9	84	− 4	·373	−·042	0·2	−1·2	0	1·1	−1·1	0	0·42	−0·42	0	0·53	−0·53	0	Berhampore.
																														IV.—Bihar and Orissa.
			1	1	7		N 24° W	N 27° W	1·1	2·0	−0·9	56	+ 6	73	− 8	·364	−·078	0·7	−0·8	1	1·1	−0·1	0·23	0·60	−0·37	0·23	0·86	−0·63	0·23	Balasore.
1		1	8	2	17		N 69° W	N 28° W	4·6	4·3	+0·3	66	− 2					0·8	−0·7	0	0·9	−0·9	0	0·55	−0·55	0	1·32	−1·32	0	Hukitala (False Point).
			2	3			S 72° W	N 8° W	1·0*	1·0	0	13	+ 3	82	+ 4	·449	−·006	1·2	−0·3	0	0·6	−0·6	0	0·25	−0·25	0	0·60	−0·60	0	Cuttack.
				4	5		N 12° W		4·9			78		84		·518		2·8		0	0·7	−0·7	0	0·37	−0·37	0	0·80	−0·80	0	Puri.
	1	1		5	19		N 56° W		2·6			68		73		·387		2·3		0	1·2	−1·2	0	0·71	−0·71	0	1·24	−1·24	0	Angul.
1				1	3		N 18° E	N 32° E	3·1	1·9	+1·2	76	+ 2	71	− 2	·352	−·053	0·9	−0·4	0	0·9	−0·9	0·08	0·38	−0·30	0·08	0·66	−0·58	0·08	Sambalpur.
2	1	2	7	5			S 43° W	S 68° W	1·0	0·9	+0·1	33	− 7	85	+ 9	·347	−·031	0·6	−0·8	1	1·5	−0·5	0·22	0·81	−0·59	0·22	1·05	−0·83	0·22	Chaibassa.
		1	2	5	10		N 71° W	N 73° W	3·5	3·8	−0·3	46	+10	58	− 5	·253	−·047	0·4	−1·2	0	1·5	−1·5	0·03	0·78	−0·75	0·03	1·00	−0·97	0·03	Ranchi.
				10	12		N 65° W		1·1			68		62		·296		0·1		0	2·2	−2·2	0	1·05	−1·05	0	1·22	−1·22	0	Purulia.
5	6			1			S 69° E		1·4			26		84§		·314§		0·3		1	2·1	−1·1	0·39	0·97	−0·58	0·40	1·21	−0·81	0·39	Daltonganj.
3	3		5	9	2		S 83° W	S 74° W	1·3¶	1·5	−0·2	33	+ 4	93	+ 2	·363	+·013	0·2	−1·0	0	0·8	−0·8	0	0·45	−0·45	0	0·55	−0·55	0	Purnea.
2	1		6	15	2		S 87° W		2·0			58		77		·361		0·4		0			0			0			0	Monghyr.
			6				W	S 84° W	0·8	1·9	−1·1	19	−12	91	+ 5	·359	−·021	0·3	−1·0	0	1·2	−1·2	0	0·55	−0·55	0	0·61	−0·61	0	Darbhanga.
1	2	3	2	5			S 34° W		1·4			23		89		·338		0		0			0			0			0	Pusa.
1		3	9	5			S 48° W	S 70° W	1·7	1·8	−0·1	46	− 2	75	− 2	·332	−·024	0·6	−1·1	0	1·2	−1·2	0	0·61	−0·61	0	0·70	−0·70	0	Patna.
3	1	7	9	5			S 32° W		2·4			48		75		·302		1·0		0	1·4	−1·4	0	0·72	−0·72	0	0·93	−0·93	0	Buxar.
1		5		14	4		S 88° W	S 16° W	2·0	2·2	−0·2	53	+21	71	− 2	·309	−·036	0·3	−1·4	0	1·4	−1·4	0	0·72	−0·72	0	0·86	−0·86	0	Gaya.
							(a)		0·8			(a)		71	− 2	·307		0·2		0	1·2	−1·2	0	0·58	−0·58	0	0·66	−0·66	0	Naya Dumka.
																														V.—United Provinces of Agra and Oudh.
2	2		1	11			N 85° W	N 84° W	1·0	1·2	−0·2	27	− 9	82	0	·321	−·029	0·2	−1·6	0	1·5	−1·5	0	0·76	−0·76	0	0·91	−0·91	0	Gorakhpur.
	1		10				S 39° W	S 49° W	1·2	2·1	−0·9	33	− 3	75	− 9	·312	−·029	0·5	−1·4	0	1·6	−1·6	0	0·72	−0·72	0·02	0·97	−0·95	0	Benares.
1			4	7	4		W	N 74° W	1·6	2·8	−1·2	37	+11	73	− 6	·279	−·054	0·5	−1·4	0	1·8	−1·8	0	0·82	−0·82	0·03	1·09	−1·03	0	Allahabad.
			5	9	1		S 82° W	N 79° W	1·6	2·2	−0·6	43	+11	73	− 6	·291	−·029	0	−1·9	0	1·5	−1·5	0	0·59	−0·59	0	0·83	−0·83	0	Cawnpore.
			1	2			S 75° W	N 84° W	1·0	1·6	−0·6	10	−19	70	−12	·279	−·041	0·3	−2·2	0	1·5	−1·5	0	0·84	−0·84	0	1·19	−1·19	0	Lucknow.
3	3	1	4	6	2		S 77° W	N 45° W	1·2	1·6	−0·4	13	−10	80	− 7	·292	−·046	0·6	−0·8	0	2·1	−2·1	0	0·89	−0·89	0	1·21	−1·21	0	Bahraich.
2			11	5	3		S 77° W	N 68° W	1·8	1·5	+0·3	43	+25	55	− 7	·230	−·064	4·1	+2·3	0	1·4	−1·4	0	0·68	−0·68	0·23	0·95	−0·72	0	Jhansi.
1	1	1	2	3	1		S 74° W	N 56° W	1·4	2·6	−1·2	10	−22	56	−16	·238	−·043	0·8	−1·8	0	1·4	−1·4	0	0·54	−0·54	0·07	0·87	−0·80	0	Agra.
1	1	1	2	9	3		N 86° W	N 59° W	1·54	1·2	+0·3	33	+ 5	71	− 5	·246	−·039	0·6	−2·9	0	1·7	−1·7	0	0·66	−0·66	0·03	1·12	−1·09	0	Mainpuri.
			1				S 45° W	N 45° W	0·2	1·6	−1·4	8	−22	80	− 3	·291	−·006	0·7	−2·0	0	2·4	−2·4	0	1·05	−1·05	0	1·43	−1·43	0	Bareilly.
				1	2		N 59° W	N 53° W	1·1	1·5	−0·4	7	− 9	87	+ 2	·263	−·014	1·3	−1·7	0	2·9	−2·9	0·05	1·59	−1·54	0·18	2·22	−2·04	0·03	Roorkee.

* Uncorrected for scale error. § Mean of 14 days. ¶ Mean of 27 days. (a) Indeterminate.

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(2) *Abstract of observations taken at 8 hrs. at 215 static*

Number of subdivision.	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.	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.	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
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
	VI.—Punjab.																						
11	Delhi	718	29·370	+·034	30·107	29·487	27th	29·233	21st	·254	50·8	72·6	+1·9	47·5†	−0·4†	60·0†	+0·7	25·1	80·5	21st	42·8	29th	3
	Sirsa	662	29·448	+·054	30·132	29·574	16th & 25th.	29·277	13th	·297	46·5	73·9	+2·9	42·2	−0·9	58·1	+1·0	31·7	82·8	21st	36·0	25th, 28th & 29th.	4
	Patiala	*818*	29·245		30·099	29·372	27th	29·108	21st	·264	46·5	70·8		43·8		57·3		27·0	76·4	21st	38·7	26th	3
	Ambala	892	29·175	+·048	30·111	29·297	27th	29·023	21st	·274	46·7	72·9	+5·1	42·4	−0·9	57·6	+2·1	30·5	78·5	21st	34·9	28th	4
	Ludhiana	812	29·263	+·037	30·114	29·379	25th	29·097	21st	·282	46·3	71·0	+3·8	43·9	−0·4	57·4	+1·7	27·1	77·6	21st	39·5	23rd	3
	Lahore	702	29·384	+·035	30·122	29·515	25th	29·235	21st	·280	44·2	73·2	+4·2	41·6	+0·9	57·4	+2·5	31·6	78·4	4th & 21st.	36·2	23rd	4
	Sialkot	830	29·248	+·045	30·124	29·365	25th	29·090	20th	·275	45·5	70·7	+4·5	40·3	−2·5	55·5	+1·0	30·4	75·0	4th	34·5	10th, 23rd & 26th.	4
	Rawalpindi	1,674	28·386*	+·040*	30·162*	28·512	16th	28·225	21st	·287	43·5	67·2	+4·1	38·2	+0·3	52·7	+2·2	29·0	74·9	3rd	32·4	10th	4
12	Khushab	612	29·491	+·046	30·129	29·635	25th	29·356	21st	·279	46·5	73·7	+6·1	44·7†	+3·4†	59·3†	+4·7	29·0	82·4	4th	36·4	24th & 25th.	4
	Montgomery	558	29·538	+·030	30·114	29·693	25th	29·349	20th	·344	47·5	73·2	+4·7	42·5	+0·3	57·9	+2·5	30·7	79·4	5th	37·0	23rd	4
	Multan	420	29·704	+·030	30·123	29·870	25th	29·506	20th	·364	51·4	75·2	+5·0	45·9	+2·6	60·5	+3·8	29·3	81·8	7th	40·0	22nd	4
	VII.—North-West Frontier Province.																						
	Peshawar	1,113	28·990	+·016	30·175	29·157	16th	28·839	21st	·318	44·0	67·2	+3·7	39·9	+0·3	53·5	+2·0	27·3	76·2	4th	34·9	9th, 10th & 24th.	4
	D. I. Khan	590	29·533	+·026	30·150	29·695	25th	29·382	1[illegible]th	·313	44·7	71·1	+2·0	41·3	+0·9	56·2	+1·5	29·8	78·9	5th	35·1	22nd	4
	VIII.—Sind.																						
16	Jacobabad	186	29·947	+·029	30·107	30·119	16th & 25th.	29·716	20th	·403	52·1	77·0	+3·4	45·4	+2·1	61·2	+2·7	31·6	84·1	5th	36·8	25th	4
	Hyderabad*	96	30·043	+·030	30·097	30·193	25th	29·880	12th	·313	55·8	79·9	+3·1	51·7	+1·6	65·8	+2·3	28·2	86·0	20th	42·5	22nd	4
	Karachi	13	30·130	+·032	30·093	30·269	25th	29·981	12th	·288	62·2	78·4	+2·7	59·4	+2·0	68·9	+2·3	19·0	82·0	1st	52·0	26th	3
	IX.—Rajputana.																						
17	Bikaner	*771*	29·322	+·034	30·112	29·471	25th	29·165	12th	·306	51·3	76·9	+5·1	45·9	−3·5	61·4	+0·8	31·0	85·0	21st	38·0	23rd	4
	Jodhpur	780	29·318	+·036	30·108	29·437	25th	29·176	12th	·271	54·7	79·9	+3·6	50·1	+0·5	65·0	+2·1	29·8	85·5	8th	41·3	24th	4
18	Jaipur	1,431	28·652	+·037	30·130	28·771	16th	28·506	21st	·265	52·8	77·7	+3·1	46·9	−1·1	62·3	+1·0	30·8	83·2	21st	38·1	23rd	4
	Ajmer	1,611	28·485	+·043	30·162?	28·607	25th	28·362	21st	·245	48·1	72·5	−1·6?	46·3	+0·8	59·4	−0·4?	26·2	76·6	21st	40·7	24th	3
	Kotah	819?	29·262	+·024?	30·088?	29·381	25th	29·157	21st	·224	56·4	79·0	+2·0	51·2	+0·6	65·1	+1·3	27·8	87·6	21st	44·6	26th	4
	X.—Bombay.																						
19	Deesa	466	29·637	+·041	30·087	29·716	25th	29·533	12th	·213	55·0	85·1	+2·0	47·2	−4·3	66·1	−1·1	37·9	89·8	7th	42·4	29th	4
	Bhuj	395	29·770	+·033	30·075	29·878	16th	29·670	12th	·208	57·7	82·1	+1·7	49·8	−4·6	66·0	−1·5	32·3	88·0	21st	42·0	26th	4
	Jamnagar	61	30·087		30·096	30·185	25th	29·981	12th	·204	64·4	82·1		52·0		67·0		30·1	86·4	22nd	44·2	25th	4
	Dwarka	37?	30·091	+·037	30·074	30·175	17th	29·999	12th	·176	63·5	80·1	+2·9	58·6	+0·3	69·9	+1·6	20·5	85·3	6th	55·2	24th	3
	Rajkot	429	29·671	+·041	30·074	29·754	16th	29·582	12th	·162	58·7	84·5	+0·5	49·0	−2·1	66·8	−0·8	35·5	89·6	3rd	39·8	24th	4
	Veraval	*18*	30·080	+·039	30·041	30·149	16th	30·019	7th	·130	64·1	84·4	+2·9	59·8	+1·0	72·0	+1·9	24·6	92·6	1st	50·8	23rd	4
	Bhavnagar Para	55	30·059	+·018?	30·063	30·145	17th	29·978	12th	·167	59·6*	84·7	+2·1	53·6	−2·4	69·1	−0·1	31·1	89·0	1st	45·8	25th	4
	Surat	39	30·061*	+·038*	30·044*	30·127	17th	29·998	12th	·129	63·0	87·4	+0·5	56·6	+0·1	71·9	+0·3	30·8	90·9	7th	53·1	25th	3
	Ahmadabad	163	29·941	+·033	30·061	30·042	17th	29·837	12th	·205	62·6	85·9	+1·9	57·1	+0·1	71·5	+1·0	28·8	89·6	4 days	52·2	25th	3
25	Bombay	37	30·031	+·020	30·010	30·101	27th	29·978	7th & 12th.	·123	76·5	83·7	+1·1	67·9	0	75·8	+0·5	15·8	86·5	2nd	64·0	24th	2
	Ratnagiri	110	29·927	+·018	29·979	29·993	27th	29·879	7th	·114	70·0	88·5	+0·8	63·8	−2·4	76·1	−0·8	24·7	94·3	21st	60·4	13th	3
	Goa	199	P	P	P	P	P	P	P	P	69·3	84·9	−2·0	65·9	−1·9	75·4	−1·9	19·0	88·1	20th 21st & 27th.	63·1	12th & 15th.	2
	Marmagao	*60*	29·993	+·034	29·989	30·046	27th	29·939	13th	·107	70·2	83·4	−2·4	67·5	−1·4	75·5	−1·9	15·9	87·5	27th	65·2	12th	2
	Karwar	44	30·009	+·030	29·989	30·063	27th	29·957	12th	·106	64·7	87·1	+0·2	62·4	−3·1	74·7	−1·5	24·7	91·7	22nd	59·5	5th	3

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

*Mean of 30 days.
† " 29 "

ontinued.

dia, etc., in January, 1913—continued.

Wind direction.									Wind velocity.			Wind steadiness.		Hygrometry, 8 hrs.				Cloud.		Rainfall.									
No. of winds from							Resultant direction.	Normal direction.	Mean velocity, miles per hour.	Normal.	Departure from normal.	Actual percentage.	Departure from normal.	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.	Mean cloud amount at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st Dec. 1912 to 31st Jan. 1913.	Normal rainfall for period, 1st Dec. to 31st Jan.	Departure from normal of period, 1st Dec. 1912 to 31st Jan. 1913.	Heaviest rainfall during month.	Station.
E.	S.E.	S.	S.W.	W.	N.W.																								
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
																														VI.—Punjab.
2	1	2		23			S 84° W†	S 87° W	2·2	2·1	+0·1	66	+31	62	−6	·229	−·030	1·2	−2·4	0	2·2	−2·2	0·09	1·07	−0·98	0·13	1·55	−1·42	0·06	Delhi.
3	2	5	4	6	2		S 38° W	N 36° W				23	+12	64	−12	·222	−·029	1·3	−2·9	0	1·5	−1·5	0·05	0·67	−0·62	0·05	0·93	−0·93	0·05	Sirsa.
1	4	1		4	16		N 60° W		3·7			26		72		·231		1·7		1	2·5	−1·5	0·14	1·31	−1·17	0·19	1·71	−1·52	0·14	Patiala.
4	2				8		N 7° W	N 48° W	2·6	1·4	+1·2	23	+5	75	−12	·239	−·045	1·5	−1·9	0	3·4	−3·4	0·08	1·57	−1·49	0·13	2·26	−2·13	0·06	Ambala.
	1				1		(a)	N 59° W	0·2	1·2	−1·0	(a)		72	−10	·230	−·043	1·5	−3·0	1	3·1	−3·1	0	1·72	−1·72	0·12	2·47	−2·35	0	Ludhiana.
1	1				2		N 7° E	N 88° W	1·2	1·2	0	9	+6	77	−5	·226	−·029	1·8	−2·2	0	2·2	−2·2	0·03	1·06	−1·03	0·20	1·46	−1·26	0·03	Lahore.
4			1				N 39° E	N 49° E	0·9*	0·9	0	17	+9	83	+1	·254	−·015	1·8	−1·6	1	3·0	−2·0	0·12	2·29	−2·17	0·32	2·98	−2·66	0·12	Sialkot.
1		2	2	1	1		S 45° W	N 40° W	2·0	1·5	+0·5	3	−11	69	−15	·194	−·036	3·1	−1·6	2	3·9	−1·9	0·26	2·67	−2·41	0·72	3·64	−2·92	0·14	Rawalpindi.
4	1		1	1			N 63° E	N 18° E	1·6	2·1	−0·5	23	+12	44	−26	·144	−·069	2·9	−0·3	0	1·7	−1·7	0·01	0·79	−0·75	0·15	1·22	−1·07	0·03	Khushab.
2	4	1		3	3		N 38° W	N 18° E	2·5	2·5	0	3	−11	56	−19	·194	−·052	1·5	−2·3	0	1·7	−1·7	0	0·57	−0·57	0·02	0·95	−0·93	0	Montgomery.
					1		N	N 45° E	0·9	0·9	0	11	−12	63	−8	·236	−·008	1·1	−2·1	0	1·2	−1·2	0·02	0·39	−0·37	0·02	0·64	−0·62	0·02	Multan.
																														VII.—North-West Frontier Province.
	1	16	3				S 4° W	S 18° W	1·7	1·8	−0·1	62	+23	59	−14	·173	−·031	4·2	−0·5	0	3·0	−3·0	0·11	1·64	−1·53	0·17	2·13	−1·93	0·07	Peshawar.
				1	3		N 27° W	N 37° W	0·6	1·0	−0·4	20	+2	65	−4	·195	−·010	2·5	−0·8		1·4	−1·4	0	0·52	−0·52	0·03	0·73	−0·70	0	D. I. Khan.
																														VIII.—Sind.
1							E	N 22° E	0	1·6	−1·6	3	−15	63	+1	·244	+·026	0·7	−2·8	0	0·8	−0·8	0	0·31	−0·31	0·05	0·42	−0·37	0	Jacobabad.
		3	2		10		N 32° W	N 7° E	3·2	5·1	−1·9	53	+2	62	+4	·280	+·022	2·0	−1·4	0	0·6	−0·6	0	0·23	−0·23	0	0·29	−0·29	0	Hyderabad.
4				1			N 45° E	N 50° E	5·5	6·7	−1·2	72	−2	61	−8	·355	+·026	2·6	+0·1	0	1·2	−1·2	0	0·62	−0·62	0	0·75	−0·75	0	Karachi.
																														IX.—Rajputana.
4	7	6	2		1		S 34° E	N 22° W	2·9	2·7	+0·2	43	+21	39	−18	·151	−·078	1·0	−2·3	0	0·9	−0·9	0	0·32	−0·32	0	0·51	−0·51	0	Bikaner.
				1			N 30° E		2·1			72		35	−9	·152		0·7		0	0·5	−0·5	0	0·17	−0·17	0	0·31	−0·31	0	Jodhpur.
3	3		2	1	4		N 24° E	N 6° E	2·2*	2·4	−0·2	23	−6	51	−15	·204	−·061	0·9	−2·2	0	1·2	−1·2	0	0·49	−0·49	0·10	0·71	−0·61	0	Jaipur.
					1		N 45° W	N 9° W	1·4	1·6	−0·2	3	−15	65	−8	·221	−·043	0·6	−1·9	0	1·2	−1·2	0	0·39	−0·39	0	0·67	−0·67	0	Ajmer.
		1		8	1		S 88° W		0·9			28		53	−2	·243		1·5		0	0·7	−0·7	0	0·23	−0·23	0·29	0·52	−0·23	0	Kotah.
																														X.—Bombay.
11							N 60° E	N 56° E	5·8	6·2	−0·4	86	+26	47	+1	·206	−·021	1·2	−0·4	0	0·3	−0·3	0	0·13	−0·13	0	0·19	−0·19	0	Deesa.
	1	2	2	1	1		S 36° W	N 45° W	2·2	4·7	−2·5	13	−5	52	−3	·256	−·059	2·6	+1·3	0	0·2	−0·2	0	0·07	−0·07	0	0·12	−0·12	0	Bhuj.
7	1	3					N 68° E		5·6			68		49		·303		0		0	0·2	−0·2	0	0·03	−0·03	0	0·10	−0·10	0	Jamnagar.
5	2				1		N 44° E		6·2			69		74	+5	·437		1·8		0	0·2	−0·2	0	0·05	−0·05	0	0·11	−0·11	0	Dwarka.
3					1		N 60° E	N 55° E	3·2	3·8	−0·6	13	−29	47	−6	·239	−·051	1·5	+0·5	0	0·2	−0·2	0	0·04	−0·04	0	0·09	−0·09	0	Rajkot.
1	1				3		N 16° E	N 20° E	4·3	4·3	0	72	−3	49	−3	·295	−·027	1·0	−0·3	0	0·1	−0·1	0	0·01	−0·01	0	0·13	−0·13	0	Veraval.
				9	3		N 70° W	N 85° W	1·2	5·0	−3·8	35	−29	49‡	−18?	·253‡	−·104?	1·3	+0·2	0	0·1	−0·1	0	0·03	−0·03	0	0·13	−0·13	0	Bhavnagar Para.
10	2				1		N 50° E	N 5° E	2·6*	3·6	−1·0	62	+20	70	+6	·409	+·033	0·4	−0·3	0	0·2	−0·2	0	0·07	−0·07	0	0·12	−0·12	0	Surat.
3	1		1		3		N 39° E	N 48° E	3·4	3·1	+0·3	59	−12	43	−4	·246	−·024	0·6	−1·1	0	0·1	−0·1	0	0·02	−0·02	0	0·06	−0·06	0	Ahmadabad.
12	2						N 65° E	N 58° E	6·0*	7·2	−1·2	86	+5	72	0	·536	−·013	1·2	+0·3	0	0·2	−0·2	0	0·09	−0·09	0	0·16	−0·16	0	Bombay.
2	17	1	1				S 72° E	S 88° E	6·4	5·6	+0·8	69	+14	55	−5	·392	−·087	0·5	−0·3	0	0·2	−0·2	0	0·12	−0·12	0	0·21	−0·21	0	Ratnagiri.
21							N 77° E	N 75° E	3·9	4·1	−0·2	92	+5	75	+8	·525	−·042	0·8	+0·4	0	0·3	−0·3	0	0·18	−0·18	0	0·32	−0·32	0	Goa.
20	6						S 89° E	S 84° E	5·1*	6·0	−0·9	87	+10	76	−5	·553	−·075	1·3	+0·9	0	0·1	−0·1	0	0·03	−0·03	0	0·21	−0·21	0	Marmagao.
							N 32° E	N 62° E	1·2	2·6	−1·4	43	−41	86	+7	·533	0	0·4	0	0	0·1	−0·1	0	0·07	−0·07	0	0·25	−0·25	0	Karwar.

* Uncorrected for scale error. † One wind less. (a) Indeterminate. ‡ Mean of 30 days.

Tab

(2) *Abstract of observations taken at 8 hrs. at 215 statio*

Number of subdivision.	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.	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.	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
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	2
	X.—Bombay—*concld.*																						
26	Malegaon . .	1,430	28·652	+·037	30·009	28·725	26th	28·571	12th	·154	57·5	86·3	+0·7	49·6	−2·3	68·0	−0·8	36·7	90·4	22nd	46·1	19th & 20th.	44
	Ahmadnagar .	2,154	27·923	+·047	30·082	28·012	27th	27·855	23rd	·157	59·7	85·3	+1·3	51·0	+0·3	68·1	+0·8	34·3	89·6	24th	46·0	11th	43
	Poona . . .	1,846	28·215*	+·025*	30·089*	28·281	27th	28·156	13th	·125	55·4	85·6	−0·3	50·4	−3·9	68·0	−2·1	35·2	90·0	23rd	46·8	3rd & 11th.	43
	Sholapur . .	1,590	28·476	+·030	30·058	28·567	27th	28·411	23rd	·156	63·5	86·6	−1·1	56·3	−1·9	71·5	−1·5	30·3	91·3	24th	51·1	3rd	40
	Bijapur . .	*1,948*	28·119	+·043	30·049	28·194	27th	28·056	12th	·133	65·3	86·6	+1·4	56·4	−1·6	71·5	−0·1	30·2	91·7	25th	50·3	11th & 12th.	41
	Belgaum . .	2,562	27·503	+·028	30·023	27·588	27th	27·446	13th	·142	65·8	82·4	−1·1	55·4	−2·1	68·9	−1·6	27·0	85·3	22nd, 24th & 25th.	52·5	1th	32
	XI—Central India.																						
20	Neemuch . .	1,626	28·456	+·040	30·119	28·572	16th	28·335	21st	·237	54·4	78·6	+1·0	47·0	−1·7	62·8	−0·3	31·6	81·4	21st	41·0	23rd	43
	Indore . . .	1,823	28·254	+·048	30·107	28·342	17th	28·163	12th	·179	57·5	79·3	−0·1	43·2	−1·6	63·8	−0·9	31·1	82·6	4th & 22nd.	42·1	25th & 26th.	40
21	Nowgong . .	754	29·360	+·041	30·127	29·479	27th	29·254	14th	·225	50·0	74·0	−1·1	45·0	−2·0	59·5	−1·5	29·0	82·0	22nd	38·5	2.th	43
	Sutna . . .	1,041	29·050*	+·039*	30·126*	29·150	27th	28·933	22nd	·217	49·0	78·3	+3·2	43·9	−3·7	61·1	−0·3	34·4	86·8	22nd	38·2	26th	48
	XII.—Central Provinces.																						
22	Buldana . .	2,132	27·940		30·050	28·022	2nd	27·856	12th	·166	65·8	82·1		58·1		70·1		24·0	85·1	24th	54·6	9th	30
	Akola . . .	925	29·170	+·051	30·093	29·252	2nd	29·084	23rd	·168	59·2	87·3	+2·1	50·1	−3·3	68·7	−0·6	37·2	91·7	25th	44·0	20th	47
	Amraoti . .	1,215	28·870	+·048	30·080	28·953	2nd	28·796	23rd	·157	64·4	85·2	+0·6	58·7	+0·9?	72·0	+0·7?	26·5	89·3	22nd & 25th.	53·3	2nd	36
23	Khandwa . .	1,044	29·049	+·048	30·105	29·139	17th	28·960	12th	·179	56·1	83·5	−0·4	49·0	−2·8	66·2	−1·6	34·5	89·2	22nd	42·1	19th	47
	Hoshangabad .	1,006	29·106†	+·055†	30·128†	29·203	17th & 25th.	29·016	13th	·187	53·7	79·1	−1·2	48·8	−3·5	64·0	−2·3	30·3	84·1	22nd & 29th.	43·9	20th	40
	Saugor . .	1,807	28·252	+·022	30·084?	28·348	16th & 17th.	28·144	12th	·204	57·8	76·9	0	52·6	+0·8	64·8	+0·4	24·3	82·3	22nd	46·1	25th	36
	Jubbulpore . .	1,327	28·739	+·022	30·106	28·838	26th	28·649	22nd	·189	50·4	76·7	−0·9	45·6	−2·4	61·1	−1·7	31·1	82·3	22nd	40·3	19th & 25th.	42
	Seoni . . .	2,032	28·018	+·046	30·109	28·139	26th	27·961	13th	·178	57·3	78·1	−1·1	49·4	−1·9	63·7	−1·5	28·7	83·6	22nd & 23rd.	44·0	19th	39
	Nagpur . .	1,017	29·070	+·041	30·085	29·156	27th	28·980	23rd	·176	60·2	83·6	+0·1	50·1	−2·5	68·3	−1·2	30·5	83·6	23rd	47·8	2nd & 18th.	40
24	Pendra . .	2,123?	28·027		30·104	28·131	26th	27·929	22nd	·202	57·0	76·8		50·6		63·7		26·2	83·8	23rd	46·2	26th	37
	Raipur . . .	970	29·122	+·042	30·090	29·216	27th	29·040	22nd	·176	58·9	81·2	−0·4	54·2	−1·2	67·7	−0·8	27·0	85·7	23rd, 24th & 25th.	50·6	5 days.	35
	Chanda . . .	*634*	29·449	+·027?	30·067?	29·536	27th	29·376	23rd	·160	57·1	83·8	−1·6	50·9	−3·2	67·3	−2·4	32·9	87·5	24th	44·5	4th	43
	Jagdalpur . .	1,813	28·250		30·082	28·360	27th	28·186	12th	·174	56·9	82·0		47·8		64·9		34·2	86·2	23rd, 24th & 25th.	40·1	10th	46
	XIII.—Hyderabad.																						
27	Aurangabad . .	1,905	28·180	+·021	30·080	28·264	27th	28·113	23rd	·151	63·5	85·2	0	54·8	−0·1	70·0	−0·1	30·4	88·9	1st	49·2	20th	39
	Nizamabad . .	1,218	28·821		30·067	28·915	27th	28·742	23rd	·173	60·6	84·9	−0·4	52·5	−3·9	68·7	−2·1	32·4	89·9	24th	45·7	12th	44
	Bidar . . .	*2,165*									71·5	83·4		59·1		71·3		24·3	88·5	23rd & 24th.	56·4	11th	32
28	Gulbarga . .	1,503	28·578	+·047	30·070	28·663	27th	28·524	12th	·139	64·1	86·4	−0·3	55·3	−3·2	70·8	−1·7	31·1	90·0	22nd	51·3	2nd, 3rd & 4th.	38
	Raichur . .	*1,311*	28·766	+·053	30·051	28·839	27th	28·702	12th	·167	68·2	85·0	−1·7	61·1	−2·3	73·1	−2·0	23·9	89·0	24th	56·6	11th	32
	Hyderabad (Deccan)	1,690	28·378	+·032	30·069	28·479	27th	28·317	13th	·162	60·2	84·0	−0·5	55·7	−2·4	69·8	−1·5	28·3	88·3	24th	50·7	11th	37
	Haramkonda .	877	29·213	+·045	30·066	29·303	27th	29·144	12th	·159	66·2	83·8	−2·0	57·4	−5·5	70·6	−3·7	26·4	87·5	23rd & 24th.	53·2	4th & 11th.	34
	XIV.—Mysore.																						
29	Chitaldrug . .	2,405	27·647	+·028	30·006	27·733	27th	27·596	11th	·137	66·7	82·5	−1·3	59·3	−1·8	70·9	−1·5	23·2	88·1	24th & 25th.	55·8	10th & 28th.	32
	Hassan . .	3,149	26·944	+·047	30·022	27·042	5th	26·888	7th	·154	63·7	81·4	−0·1	54·2	+0·1	67·8	0	27·2	85·5	25th	48·6	3rd	36
	Bangalore . .	3,021	27·060	+·022	30·030	27·143	27th	27·008	7th & 13th.	·135	61·7	80·5	+0·3	55·6	−1·2	68·1	−0·5	24·9	84·3	24th	50·8	1st	33
	Mysore . . .	2,518	27·542	+·020	30·009	27·607	27th	27·484	11th	·123	65·7	82·8	−1·2	59·0	−1·3	70·4	−1·3	24·8	87·0	24th & 25th.	52·0	3rd	35

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

* Mean of 30 days.
† " " 29 "

—continued.

n India, etc., in January, 1913—continued.

Wind direction. Number of winds from N. (26)	N.E. (27)	E. (28)	S.E. (29)	S. (30)	S.W. (31)	W. (32)	N.W. (33)	Resultant direction. (34)	Normal direction. (35)	Wind velocity. Mean velocity, miles per hour. (36)	Normal. (37)	Departure from normal. (38)	Wind steadiness. Actual percentage. (39)	Departure from normal. (40)	Hygrometry, 8 hrs. Mean humidity at 8 hrs. (41)	Departure from normal. (42)	Mean vapour tension at 8 hrs. in inches of mercury. (43)	Departure from normal in inches of mercury. (44)	Cloud. Mean cloud amount at 8 hrs. (45)	Departure from normal. (46)	Rainfall. Number of rainy days. (47)	Normal number of rainy days. (48)	Departure from normal. (49)	Rainfall of month. (50)	Normal rainfall of month. (51)	Departure from normal. (52)	Total rainfall from 1st Dec. 1912 to 31st Jan., 1913. (53)	Normal rainfall for period, 1st Dec. to 31st Jan. (54)	Departure from normal of period, 1st Dec. 1912 to 31st Jan., 1913. (55)	Heaviest rainfall during month. (56)	Station. (57)
																															X.—Bombay—*concld.*
1					6	15		S 80° W	N 68° W	2·9	3·7	−0·8	62	− 3	49	− 9	·237	−·070	0	−1·3	0	0·3	−0·3	0	0·14	−0·14	0·04	0·36	−0·32	0	Malegaon.
2			1	3			14	N 54° W	N 5[illegible] W	3·2‡	4·3	−1·1	49	+42	35	−25	·186	−·157?	0	−0·9	0	0·2	−0·2	0	0·13	−0·13	0	0·58	−0·58	0	Ahmadnagar.
	1		1	3	5	2		S 83° W	S 70° W	3·1	4·5	−1·4	27	−41	68	+11	·294	−·014	0·2	−0·6	0	0·2	−0·2	0	0·05	−0·05	0	0·25	−0·25	0	Poona.
1	9	7	6				2	N 75° E	S 66° E	7·7	5·7	+2·0	53	− 2	44	− 4	·230	−·065	0·5	−0·5	0	0·2	−0·2	0	0·13	−0·13	0	0·59	−0·59	0	Sholapur.
	6		10	1		1	4	S 82° E	S 59° E	2·7	3·1	−0·4	23	−21	47	−21	·294	−·161?	0	−1·2	0	0·1	−0·1	0	0·01	−0·01	0	0·31	−0·31	0	Bijapur.
	1	13	5					S 82° E	S 81° E	6·4	7·3	−0·9	56	+13	50	− 6	·313	−·043	0·2	−0·7	0	0·2	−0·2	0	0·10	−0·10	0	0·44	−0·44	0	Belgaum.
																															XI.—Central India.
4	1	11	1			1		N 71° E	N 48° E	3·1	4·7	−1·6	40	−10	52	− 5	·219	−·045	1·0	−0·6	0	0·4	−0·4	0	0·19	−0·19	0·09	0·40	−0·31	0	Neemuch.
	6	1	1					N 59° E	N 36° E	4·0	1·8	+2·2	23	+12	57	− 5	·275	−·023	0·9	−0·5	0	0·4	−0·4	0	0·14	−0·14	0	0·39	−0·39	0	Indore.
3	2			5	4	4	2	S 74° W	N 56° W	1·1	1·0	+0·1	23	− 3	75	− 1	·271	−·037?	1·4	−0·9	0	1·7	−1·7	0	0·67	−0·67	0·25	1·17	−0·92	0	Nowgong.
1	1	1			1	1	1	N 24° W	N 20° W	0·8	3·0	−2·2	7	−29	74	+ 4	·261	−·031	0·5	−0·7	1	2·0	−1·0	0·36	0·95	−0·59	0·41	1·38	−0·97	0·36	Satna.
																															XII—Central Provinces.
5	3	6	5	3	1	3	5	N 53° E		3·4	4·2	−0·8	16		53		·355		0·5		0	0·5	−0·5	0	0·23	−0·23	0·05	0·82	−0·77	0	Buldana.
	1	4	10	4	1		1	S 45° E	S 84° E	2·2	2·7	−0·5	46	+11	36	−19	·184	−·114	1·6	+0·4	0	0·5	−0·5	0	0·31	−0·31	0	1·02	−1·02	0	Akola.
	9	12	3		1	1		N 79° E	N 87° E	3·9	3·1	+0·8	62	+ 1	40	−12	·243	−·084	1·2	0	0	0·7	−0·7	0	0·35	−0·35	0	0·92	−0·92	0	Amraoti.
1	3	2						N 53° E	N 39° E	1·71	2·4	−0·7	17	− 6	58	+ 2	·263	−·012	4·9	+3·9	0	0·5	−0·5	0	0·24	−0·24	0	0·55	−0·55	0	Khandwa.
	20	4	3		3	1		N 60° E	N 63° E	1·8	2·0	−0·2	66	+ 9	72	+ 5	·295	−·018?	2·4	+1·0	0	0·8	−0·8	0	0·27	−0·27	0	0·78	−0·78	0	Hoshangabad.
1	1	7	2	2	6			S 40° E	S 84° E	3·0	2·6	+0·4	27	− 2	47	−12	·225	−·055	0·9	−0·4	0	1·2	−1·2	0·01	0·60	−0·59	0·06	1·13	−1·07	0·01	Saugor.
1			8	5	1			S 26° E	S 63° E	0·8	1·5	−0·7	37	+ 1	72	− 3	·266	−·055	1·1	−0·6	1	1·5	−0·5	0·16	0·75	−0·59	0·20	1·06	−0·86	0·16	Jubbulpore.
2	5	1	1	1	1	2	1	N 27° E	N 39° E	2·5	1·9	+0·6	17	−15	53	−11	·264	−·075	0·5	−1·1	0	1·2	−1·2	0	0·50	−0·50	0·11	1·05	−0·94	0	Seoni.
10	5	3	1				4	N 16° E	N 13° E	2·3	2·6	−0·3	56	+24	52	− 9	·278	−·070	1·2	−0·1	0	0·8	−0·8	0	0·34	−0·34	0·22	0·90	−0·68	0	Nagpur.
5				1	2		3	N 37° W		2·1			20		51		·237		1·0		0	1·9	−1·9	0·09	0·85	−0·76	0·09	1·23	−1·14	0·09	Pendra.
4	5	4	2			1	2	N 41° E	N 13° E	1·3	2·0	−0·7	33	+23	58	− 4	·287	−·060	0·4	−1·0	0	0·7	−0·7	0	0·21	−0·21	0	0·47	−0·47	0	Raipur.
		2	3	1				S 53° E	N 68° E	1·1	1·5	−0·4	17	−11	70	− 1	·333	−·064	1·3	+0·2	0	0·4	−0·4	0	0·23	−0·23	0	0·51	−0·51	0	Chanda.
5			6			2	2	N 21° E		?			7		75		·347		0·2		0			0			0			0	Jagdalpur.
																															XIII—Hyderabad.
1	8	11	4		1			N 81° E		5·4			62		40	− 8	·233		0·8		0	0·4	−0·4	0	0·27	−0·27	0	0·58	−0·58	0	Aurangabad.
			1		1		1	S 45° W		1·3			3		62	− 3	·330		0·9		0	0·3	−0·3	0	0·10	−0·10	0	0·21	−0·21	0	Nizamabad.
	3	1	6		3			S °51 E		2·6			23		41		·320		5·0		0	0·5	−0·5	0	0·21	−0·21	0	0·51	−0·51	0	Bidar.
	13	12	2	1				N 73° E	S 86° E	3·9	5·2	−1·3	79	+47	51	− 6	·304	−·072	0	−1·1	0	0·2	−0·2	0	0·12	−0·12	0	0·34	−0·34	0	Gulbarga.
	4	6	14	5	1	1		S 53° E	S 55° E	4·7	5·9	−1·2	69	+16	55	− 8	·378	−·071	1·5	0	0	0·1	−0·1	0	0·08	−0·08	0	0·23	−0·23	0	Raichur.
								(a)	S 51° E	1·1	2·6	−1·5	(a)		73	− 2	·382	−·072	0·5	−0·9	0	0·4	−0·4	0	0·23	−0·23	0	0·40	−0·40	0	Hyderabad (Deccan).
			8	6			1	S 25° E		2·9			40		62	−11	·403		1·4		0	0·6	−0·6	0	0·45	−0·45	0	0·67	−0·67	0	Hanamkonda.
																															XIV.—Mysore.
	2	13	11					S. 74° E	S 69° E	4·3	4·9	−0·6	76	+21	61	+ 3	·401	+·021?	1·9	+0·4	0	0·2	−0·2	0	0·15	−0·15	0	0·57	−0·57	0	Chitaldrug.
	6	13	5					N 87° E	S 80° E	3·2	2·1	+1·1	68	− 1	70	− 2	·414	−·046	2·4	−0·3	0	0·2	−0·2	0	0·03	−0·03	0	0·88	−0·88	0	Hassan.
	8	21	2					N 82° E	N 87° E	5·2	3·9	+1·3	92	+10	81	+ 3	·441	−·017	2·6	−0·4	0	0·4	−0·4	0	0·27	−0·27	0·01	0·76	−0·75	0	Bangalore.
3	16	10	1					N 58° E	N 72° E	7·0	6·4	+0·6	82	+12	73	0	·465	−·019	2·2	−0·3	0	0·2	−0·2	0	0·16	−0·16	0	0·59	−0·59	0	Mysore.

‡ Mean of 30 days.

(a) Indeterminate.

Table

(2) *Abstract of observations taken at 8 hrs. at 215 stations*

Number of subdivision.	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
	XV.—Madras.																						
30	Mangalore	65	29·966	+·012	29·964	30·027	31st	29·913	7th	·114	74·1	88·5	−1·1	68·1	−0·3	78·3	−0·7	20·4	92·3	27th	63·1	2nd	29·2
	Calicut	27	29·994	+·010	29·950	30·064	27th	29·924	7th	·130	73·3	86·3	−1·3	69·4	−0·2	77·9	−0·7	16·9	83·3	20th, 21st & 22nd.	63·1	4th	25·2
	Cochin	9	29·998	+·006	29·935	30·060	31st	29·944	8th	·116	75·6	89·5	+0·4	71·8	+0·3	80·7	+0·3	17·7	92·7	27th & 28th	66·7	1st	26·0
	Trivandrum	198	29·804	+·032	29·935	29·858	29th	29·735	8th	·123	75·1	83·3	−0·1	72·5	+1·3	77·9	+0·6	10·8	85·0	5 days	69·0	8th	16·0
31	Pamban	37	29·986	−·001	29·951	30·064	27th	29·911	7th	·153	75·3	82·2	+0·3	72·1	−2·7	77·2	−1·2	10·1	83·7	30th & 31st	70·8	18th	12·9
	Madura	447	29·608	+·024	29·930	29·692	27th	29·533	11th	·159	74·5	87·5	0	69·9	+1·3	78·7	+0·7	17·6	92·0	17th	66·1	8th	25·9
	Pudukkottai	318	29·745‡		30·0021	29·847	27th	29·649	7th	·198	72·9	85·0		68·5		76·7		16·5	89·9	25th	63·9	1st	26·0
	Negapatam	31	30·011	+·009	29·971	30·099	27th	29·935	11th	·164	74·1	81·1	−0·7	69·3	−1·5	75·2	−1·1	11·8	83·7	27th & 31st	61·2	4th	22·5
	Trichinopoly	255	29·816	+·028	30·009	29·907	27th	29·751	7th	·156	74·0	87·2	−0·2	68·4	+1·2	77·8	+0·5	18·8	91·6	25th	62·3	4th & 10th.	29·3
	Coimbatore	1,341	28·696	+·006	29·989	28·781	26th & 27th.	28·631	11th	·153	69·0	84·5	−2·3	61·6	−2·3	73·1	−2·3	22·9	89·0	21th	54·8	4th & 16th.	34·2
	Salem	940	29·153	+·027	30·0509	29·226	20th	29·086	11th	·140	70·5	87·6	−0·7	64·0	+0·3	75·8	−0·2	23·6	91·0	20th & 25th	55·8	1st	35·2
	Cuddalore	37	30·033	+·026	30·101	30·117	27th	29·963	7th	·154	71·3	82·2	−1·1	68·0	+0·7	75·1	−0·2	14·2	84·8	25th	64·2	3rd	20·6
	Vellore	707	29·372		30·040	29·461	27th	29·310	11th	·151	67·5	84·2		61·9		73·1		22·3	87·7	15th & 25th	58·0	16th	29·7
	Madras	22	30·057	+·016	30·010	30·156	27th	29·997	13th	·159	73·1	84·2	−0·5	68·0	+0·6	76·1	+0·1	16·2	86·5	25th & 31st	63·3	23rd	23·2
32	Cuddapah	433	29·650	+·032	30·037	29·731	27th	29·590	13th	·141	67·7	86·8	−1·6	60·2	−4·2	73·5	−2·9	26·6	90·7	31st	56·8	16th	33·9
	Bellary	1,475	28·580	+·025	30·038	28·677	27th	28·520	13th	·157	65·1	87·3	−0·3	59·3	−1·2	72·3	−0·7	28·0	92·0	25th	55·3	3rd	36·7
	Kurnool	923	29·139	+·021	30·045	29·241	27th	29·078	13th	·163	61·0	87·7	−1·0	57·6	−1·1	72·6	−1·1	30·1	91·2	24th & 25th	52·1	3rd	39·1
33	Nellore	66	30·023	+·032	30·026	30·119	27th	29·961	7th	·158	69·9	83·8	−2·2	64·7	−1·6	74·3	−1·9	19·1	87·0	31st	62·1	3rd	24·9
	Masulipatam	15	30·093	+·036	30·042	30·145	27th	30·025	12th	·170	67·6	82·3	−1·2	62·9	−2·4	72·6	−1·8	19·4	85·3	16th	60·7	10th & 24th.	24·6
	Cocanada	26	30·095	+·046	30·058	30·193	27th	29·999	12th	·194	68·1	79·8	−1·2	62·6	−2·7	71·2	−1·9	17·2	85·7	9th	59·6	11th	26·1
	Waltair (Vizag.)	226	29·883	+·032	30·058	29·937	27th	29·814	7th	·173	70·4	80·3		65·8		73·1		14·5	85·1	16th	63·4	3rd & 20th.	21·7
	Calingapatam	19	30·096		30·053	30·200	27th	30·024	14th	·176	64·8	81·8		60·5		71·2		21·3	86·8	27th	57·3	11th	29·5
	Gopalpur	72	30·081	+·046	30·056	30·178	27th	30·008	14th	·170	65·2	80·3	0	60·0	−1·2	70·1	−0·6	20·3	83·7	17th	56·0	11th	27·7
	Bay Islands.																						
1	P. V. Fraser	8	30·087		30·057	30·173	27th	30·009	11th	·164	72·7												
	Port Blair	58	29·951	+·011	29·939	30·049	27th	29·867	13th	·182	79·9	85·7	−0·7	77·0	+1·4	81·3	+0·3	8·7	87·7	2nd, 19th & 28th.	73·0	27th	11·7
	Slipper Island	90	29·911		29·936	29·995	27th	29·827	7th	·168	79·1	83·6		76·4		80·0		7·2	86·1	17th & 31st	73·1	24th	13·0
	Kashmir.																						
13	Muzaffarabad		27·702		30·319	27·821	25th	27·509	21st	·312	42·3	61·6		36·4		49·0		25·2	72·5	4th	30·5	23rd	42·0
	Srinagar	5,204	25·053	+·056	25·024	25·219	26th	24·803	21st	·416	31·3	44·0	+5·0	28·2	+1·8	36·1	+3·4	15·8	53·6	5th	20·1	26th	33·5
	Dras	10,059	20·870	+·091	20·838	21·118	1st	20·530	21st	·588	−2·5	16·9		−14·4		1·2		31·3	31·0	5th	−37·5	25th	68·5
	Leh	11,503	19·724	+·063	19·692	19·978	1st	19·370	21st	·608	8·0	25·3	−4·5	3·7	−5·1	14·5	−4·8	21·6	31·4	22nd	−6·0	26th	37·4
	Skardu	7,505	23·076	+·121	23·046	23·352	26th	22·700	21st	·652	16·3	30·4	−4·4	12·8	−4·1	21·6	−4·3	17·6	38·0	22nd	−2·9	26th	40·9
	Gilgit	4,890	25·419†		25·392†	25·790	16th	25·031	13th	·759	35·2	46·4	+1·2	32·5	+0·9	39·4	+1·1	13·9	52·2	9th	29·2	16th & 17th.	23·0

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 5,000 feet.

† Mean of 28 days. ‡ Mean of 30 days.

3—*continued.*

n India, etc., in January, 1913—continued.

Wind direction. Number of winds from 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 from 1st Dec. 1912 to 31st Jan. 1913.	Normal rainfall for period, 1st Dec. to 31st Jan.	Departure from normal of period, 1st Dec. 1912 to 31st Jan. 1913.	Heaviest rainfall during month.	Station.
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
																															XV.—Madras.
	5	25	1					N 84° E	S 85° E	4·3	2·3	+2·0	96	+18	65	− 6	·551	−·050	1·5	−0·1	0	0·2	− 0·2	0	0·08	− 0·03	0	0·56	− 0·56	0	Mangalore.
	6	12	6					E	N 80° E	2·9	6·1	−3·2	66	−17	79	+ 2	·652	−·009	0·9	−0·5	0	0·5	− 0·5	0	0·42	− 0·42	1·01	1·52	− 0·51	0	Calicut.
1	13	14	1					N 68° E	N 42° E	3·8*	3·7	+0·1	82	+ 1	73	+ 1	·645	+·004	2·1	+0·7	0	0·8	− 0·8	0	0·64	− 0·64	0·70	2·25	− 1·55	0	Cochin.
	4	8	3	1				S 89° E	N 44° E	2·4*	2·9	−0·5	42	− 8	82	+ 5	·680	+·003	4·5	+1·6	1	1·4	− 0·4	0·16	0·66	− 0·50	2·47	2·86	− 0·39	0·10	Trivandrum.
15	15	1						N 25° E	N 15° E	12·6	8·3	+4·3	92	+48	90	+ 5	·784		5·1		3	3·1	− 0·1	2·16	1·97	+ 0·19	6·89	9·52	− 2·63	1·00	Pamban.
11	15	4						N 34° E	N 3° E	6·3	3·7	+2·6	82	+ 3	72	− 2	·610	−·022	5·6	+2·8	0	1·0	− 1·0	0·03	0·51	− 0·48	0·68	2·29	− 1·61	0·03	Madura.
19	9						1	N 13° E		7·0			87		76		·562		4·9		0	1·6	− 1·6	0·07	1·23	− 1·16	1·15	2·28	− 1·13	0·07	Pudukkottai.
4	8	1				1	17	N 16° W	N 1° W	6·3	5·7	+0·6	72	+11	84	+ 2	·711	−·003	6·0	+0·5	4	2·4	+ 1·6	0·95	1·76	− 0·81	6·93	13·01	− 6·11	0·35	Negapatam.
17	3						4	N 2° W	N 18° E	3·9*	3·2	+0·7	72	+24	71	− 6	·595	−·037	3·7	+0·7	0	1·1	− 1·1	0	0·59	− 0·59	1·12	3·27	− 2·15	0	Trichinopoly.
5	11	3						N 41° E	N 67° E	3·2	2·1	+1·1	55	−16	81	− 3	·577	−·041	3·0	+0·5	0	1·0	− 1·0	0	0·60	− 0·60	0·04	1·75	− 1·71	0	Coimbatore.
	5	14				3		N 77° E	N 50° E	2·6	3·5	−0·9	49	+ 7	75	0	·567	−·018	4·6	+2·2	0	0·6	− 0·6	0	0·34	− 0·34	0	1·44	− 1·44	0	Salem.
12							19	N 28° W	N 21° W	7·8	1·9	+5·9	92	+13	85	− 3	·663	−·047	4·9	+0·7	0	1·8	− 1·8	0	1·23	− 1·23	0·52	8·44	− 7·92	0	Cuddalore.
								(a)		2·0			(a)		86		·580		2·1		0	1·7	− 1·7	0	1·62	− 1·62	0·17	5·14	− 4·97	0	Vellore.
15	2					1	13	N 19° W	N 16° E	5·2*	4·2	+1·0	89	+31	80	− 2	·682	−·007	2·7	−0·7	0	1·5	− 1·5	0	0·91	− 0·91	0·30	7·15	− 6·85	0	Madras.
5	7	3	5	3	3	2	3	N 57° E	S 65° E				20	−34	78	+ 3	·534	−·047	2·4	+0·9	0	0·4	− 0·4	0	0·36	− 0·36	0	1·40	− 1·40	0	Cuddapah.
		1	12	5				S 35° E	S 36° E	1·6	2·6	−1·0	53	+11	69	+ 3	·432	−·023	1·0	−0·6	0	0·2	− 0·2	0	0·11	− 0·11	0	0·23	− 0·23	0	Bellary.
1	1	5	1	1	1			S 83° E	S 80° E	2·3*			20	+16	72	+ 4	·386	−·076	1·0	−0·2	0	0·4	− 0·4	0	0·11	− 0·11	0	0·41	− 0·41	0	Kurnool.
9						1	18	N 33° W	N 51° W	2·9*	2·7	+0·2	86	+35	84	− 2	·611	−·064	4·2	+0·5	0	1·1	− 1·1	0	1·43	− 1·43	0·01	4·50	− 4·49	0	Nellore.
28	2			1				N 3° E	N 14° E	3·5	3·4	+0·1	92	+17	82	− 4	·548	−·095	0·4	−1·4	0	0·2	− 0·2	0	0·17	− 0·17	0	1·21	− 1·21	0	Masulipatam.
20	3							N 5° E	N 7° W	4·2	5·7	−1·5	72	− 9	74	+ 1	·513	−·029	3·3	+1·6	0	0·3	− 0·3	0	0·16	− 0·16	0	1·24	− 1·24	0	Cocanada.
10	2					15	3	N 49° W	N 73° W	4·0			66	+17	71	+ 5	·526	−·026	2·7	+1·3	0	0·7	− 0·7	0	0·71	− 0·71	0	1·76	− 1·76	0	Waltair. (Vizag.).
6						6	18	N 45° W		4·9			89		84		·510		0·9		0	1·3	− 1·3	0	0·39	− 0·39	0	3·17	− 3·17	0	Calingapatam.
16							16	N 22° W	N 21° W	3·9	6·1	−2·2	99	+18	75	− 2	·472	−·027	1·5	+0·1	0	0·4	− 0·4	0	0·23	− 0·23	0	1·20	− 1·20	0	Gopalpur.
																															Bay Islands.
12	7	1		1	3	2	2	N 2° E					48		73		·591		1·9		1			0·52			0·52			0·52	P. V. Fraser.
1	17	10	2					N 63° E	N 23° E	5·6	4·7	+0·9	82	+16	77	− 4	·793	+·012	4·7	+0·6	5	1·7	+ 3·3	3·31	1·01	+ 2·33	3·43	7·82	− 4·39	1·25	Port Blair.
8	17	6						N 41° E		5·5			89		72		·711		4·2		0	0·5	− 0·5	0·09	0·28	− 0·19	1·11	2·00	− 0·89	0·09	Slipper Island.
																															Kashmir.
7	6	2	2	7	6		1	S 72° E		1·2			10		77		·206		3·7		7			2·15			3·68			0·53	Muzaffarabad.
3	3		4	3	2		6	N 18° W	S 26° E	1·6	2·3	−0·7	7	−11	83	− 8	·146	−·003	7·6	−0·3	4	6·3	− 2·3	1·97	2·98	− 1·01	2·55	4·39	− 1·84	1·30	Srinagar.
						1	1	N 66° W		0·4			7		86§		·077§		4·4		10	3·2	+ 1·8	3·25	2·73	+ 0·52	4·80	4·44	+ 0·36	1·25	Dras.
4	6					1		N 22° E	S 13° W	1·0	0·7	+0·3	27	−11	67†	+14	·045†	+·009	7·2	+0·5	2	1·1	+ 0·9	0·37	0·37	0	0·77	0·54	+ 0·23	0·14	Leh.
			1	1	1			S		0·4			8		89‡	− 6	·099‡		7·4		6	2·2	+ 3·8	2·08	0·78	+ 1·30	3·62	1·10	+ 2·52	0·55	Skardu.
					3	3	2	S 83° W		0·8			23		59	− 6	·117	−·026	5·2	−1·7	0	0·7	− 0·7	0·09	0·21	− 0·12	0·24	0·32	− 0·08	0·05	Gilgit.

(a) Indeterminate.

* Uncorrected for scale error.

§ Mean of 11 days.

Table

(2) *Abstract of observations taken at 8 hrs. at 215 stations*

Number of subdivision.	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.	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.	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	16	17	18	19	20	21	22	23	24
	Baluchistan.																						
15	Fort Sandeman		25·526		25·495	25·639	16th	25·344	12th	·295	34·8	60·9		31·4		46·2		29·5	73·9	3rd	25·1	25th	48·8
	Quetta	5,502	24·741	+·054	24·701	24·821	25th	24·531	12th	·290	32·5	55·5	+4·2	28·9	−0·4	42·2	+1·9	26·6	65·1	1st & 3rd	21·7	24th & 25th.	43·4
	Chaman	4,311	25·800†	+·026†	25·762†	25·925	24th	25·620	12th	·295	41·4	57·1	+4·5	36·7	−0·8	46·9	+2·7	20·4	67·8	3rd	28·1	24th	39·7
	Kalat		23·804		23·766	23·897	2nd	23·616	12th	·281	30·6	54·6		26·7		40·7		27·9	67·0	1st	17·2	24th	49·8
	Dalbandin		27·247		27·219	27·401	8th	27·047	12th	·354	41·4	68·5		37·1		52·8		31·4	76·8	28th	26·2	25th	50·6
	Pasni		30·128		30·088	30·242	25th	29·973	12th	·269	63·1	79·6		60·5		70·0		19·1	85·0	9th	54·0	22nd	31·0
	Panjgur **		26·913		26·871	26·953	8th	26·878	5th	·075	45·9	70·9		43·9		57·4		27·0	74·3	3rd	39·0	8th	35·3
	Robat		26·999		26·957	27·183	23rd	26·766	19th	·417	43·0	63·5		40·4		52·0		23·1	69·0	29th	33·8	4 d s	35·2
	Hill Stations excluding Kashmir and Baluchistan.																						
	Chitral	*5,486*																					
	Para Chinar	6,000	24·544		24·520	24·647	16th	24·369	21st	·278	35·8	52·0		31·1		41·5		20·9	63·2	1st & 4th	22·6	15th	40·6
	Cherat	*4,256*	25·837	+·068	25·805	25·964	16th	25·669	21st	·295	45·4	51·9	+2·7	42·3	+4·4	47·1	+3·5	9·6	59·7	3rd & 4th	36·4	21st, 24th & 25th.	23·3
	Drosh										35·6	47·3		31·9		39·6		15·4	53·2	1st & 5th	27·6	24th	25·6
	Murree	6,333	23·918	+·054	23·886	24·029	2nd	23·740	21st	·289	40·9	48·7	+1·5	35·1	+2·9	43·4	+2·2	10·6	61·1	1st	30·7	13th	30·4
	Simla	7,232	23·160	+·055	23·122	23·258	2nd	23·071	21st	·187	41·3	49·3	+4·8	38·3	+3·8	43·8	+4·3	11·0	56·4	2nd	29·1	24th & 25th,	27·3
	Sarain		23·210		23·172	23·321	2nd	23·134	22nd	·187	32·8	50·3		29·9		40·1		20·4	61·3	2nd	24·9	15th	36th
	Kalabagh																						
	Chakrata	7,022	23·360	+·061	23·320	23·449	2nd	23·290	22nd	·159	41·8	55·4	+4·8	31·6	−1·6	45·0	+1·6	20·8	60·7	6th, 12th & 20th.	29·7	15th, 24th	31·0
	Mukteswar	7,592	22·876	+·027	22·835	22·961	27th	22·807	22nd	·154	41·7	53·2	+3·6	35·5	+0·1	44·3	+1·9	17·7	59·0	2nd	27·0	25th	32·0
	Darjiling	7,376	23·030	+·011	22·985	23·114	5th	22·939	16th	·175	40·1	46·8	0	35·0	+0·2	40·9	+0·1	11·8	54·3	21st	31·2	27th	23·1
	Shillong	4,920	25·223		25·175	25·320	26th	25·129	22nd	·191	47·0	59·4		39·4		49·4		20·0	63·9	24th	34·2	25th	29·7
	Cherrapunji	4,309	25·805		25·756	25·901	27th	25·732	7th	·169	52·0	61·4‡		43·1‖		55·0¶		21·3	79·7	22nd	32·1	16th	47·6
	Maymyo	3,545	26·539	+·037	26·484	26·630	26th	26·455	19th	·175	45·4	69·1	−2·2	40·6	+2·3	54·8	+0·1	28·5	73·5	25th	34·6	17th, 18th & 19th.	38·9
	Pachmarhi	3,528	26·594	+·037	26·541	26·685	17th	26·525	12th	·160	51·2	71·4	+0·1	44·7	−2·8	58·0	−1·3	26·7	76·0	22nd	38·1	19th	37·9
	Mount Abu	3,945	26·195	+·057	26·145	26·283	16th	26·095	12th	·188	58·2	68·6	+2·0	52·7	+1·5	60·6	+1·7	15·9	76·2	3rd	45·4	24th & 25th.	30·8
	Mercara	3,781	26·308	+·015	26·241	26·370	27th	26·238	8th	132	60·1	76·7	−1·0	55·6	−1·0	66·2	−1·0	21·1	82·0	25th	52·5	1st, 2nd & 3rd.	29·5
	Ootacamund	*7,327*	23·112		23·048	23·160	27th	23·050	8th	·110	54·0	67·8		41·6		54·7		26·2	73·0	23rd	35·2	15th	37·8
	Kodaikanal	7,688	22·875	+·002	22·810	22·924	27th	22·818	7th	·106	54·5	66·7	+3·8	47·4	+0·5	57·1	+2·1	19·3	73·5	5th	43·5	9th & 28th.	30·0
	Extra India.																						
	Singapore (a)	10	29·969		29·900	30·072	28th	29·870	7th	·202	80·8	86·0		74·4		80·2		11·6	92·0	23rd	73·0	4th, 21st & 25th.	19·0
	Penang (a)	165	29·920		29·865	29·999	26th	29·815	7th	·184	80·4	89·2		73·2		81·2		16·0	92·0	19th, 29th & 30th.	70·0	27th	22·0
	Trincomalee†	99	29·901		29·929	29·981	27th	29·799	7th	·182	75·5	79·1	−4·2	72·3	−2·3	75·7	−3·3	6·8	85·5	24th & 25th.	53·5	10th	32·0
	Colombo	24	29·954	−·012	29·904	30·030	31st	29·866	7th	·164	73·3	83·2	−4·3	72·1	0	77·6	−2·1	11·1	89·5	29th	68·0	22nd	21·5
	Minicoy	7																					
	Amini Divi	*13*	30·017	+·011	29·958	30·077	31st	29·950	8th	·127	80·4	86·6	+2·4	72·2	−1·8	79·4	+0·3	14·4	88·8	1st	66·1	4th	22·7
	Gyantse	13,120	17·180§		17·141§	17·314	8th	17·113	5th & 14th.	·201	13·1	41·2		3·7		22·4		37·5	51·2	22nd	−4·9	31st	56·1
	Pharijong	14,400									3·9	28·1		−12·6		7·8		40·7	35·8	24th	−20·0	18th	55·8
	Gangtok	5,660?	24·545		24·499	24·655	30th	24·434	22nd	·221	46·2	58·7		41·4		50·0		17·3	68·5	26th	37·0	26th & 27th.	31·5
	Gartok (c)	15,100?	17·761			17·775	14 days	17·725	1st	·050	8·7	26·9		−2·5		12·2		29·4	36·3	3rd	−21·6	26th	57·9

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.
(c) Aneroid corrected.
‖ Mean of 20 days.
¶ " " 19 "
** " " 8 "

—continued.

India, etc., in January, 1913—continued.

Wind direction. Number of winds from 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 from 1st Dec. 1912 to 31st Jan. 1913.	Normal rainfall for period, 1st Dec. to 31st Jan.	Departure from normal of period, 1st Dec. 1912 to 31st Jan. 1913.	Heaviest rainfall during month.	Station.
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
																															Baluchistan.
1	1	12	3	3		1		S 73° E		3·0			46		64		·132		3·5		1			0·27			0·42			0·23	Fort Sandeman.
1			4	1	2		1	S 11° E	N 13° W	1·7	2·1	−0·4	10	+ 5	77	− 2	·143	−·005	3·3	−0·4	3	4·5	−1·5	0·69	1·92	−1·23	2·19	2·86	−0·67	0·22	Quetta.
1		11	11	3	1			S 60° E	S 58° E	3·6	5·0	−1·4	66	+ 6	60	− 8	·154	−·011	2·6	−1·8	3	3·8	−0·8	1·06	1·38	−0·32	3·49	2·50	+0·99	0·39	Chaman.
			2	13	6			S 8° W	S 30° W	3·8			62	+13	86		·147		3·2		3	3·1	−0·1	0·49	1·17	−0·68	1·84	2·35	−0·51	0·22	Kalat.
2	3	3	2	1	1	3	6	N 15° W		4·4			17		68		·181		1·6		0			0			1·13			0	Dalbandin.
2	2	1						N 36° E		2·1			13		82		·481		2·7		1			0·23			1·77			0·23	Pasni.
	5	3						N 61° E		4·9			88		71		·221		1·9		0			0			0·55			0	Panjgur **
			1	1	7	13	4	S 79° W		1·5			66		67		·186		4·6		0			0·11			2·95			0·08	Robat.
																															Hill Stations excluding Kashmir and Baluchistan.
																						3·1			1·05			2·07			Chitral.
6	5					2	2	N 1° E		0·8			35		70		·152		3·8		3	4·4	−1·4	1·94	2·14	− 0·20	3·62	3·39	+0·23	1·17	Para Chinar.
8	1		1	1	1		9	N 14° W	N 12° W	14·0	9·8	+4·2	79	+ 9	37	−22	·114	−·037	3·9	−0·9	1	3·9	−2·9	0·24	2·66	− 2·42	0·37	4·15	−3·78	0·12	Cherat.
	7	6	2	3	3			S 81° E		3·7			33		68		·139		3·7		3	2·6	+0·4	0·73	0·84	− 0·11	2·82	1·86	+0·96	0·35	Drosh.
5			11	1	2		2	S 53° E	S 62° E	4·4	6·6	−2·2	23	−26	49	−13	·123	−·013	5·0	−0·3	2	6·0	−4·0	0·96	4·08	− 3·12	2·29	5·53	−3·24	0·62	Murree.
															41	−12	·105	−·017	3·9	−0·8	1	4·9	−3·9	0·79	2·64	− 1·85	1·16	3·88	−2·72	0·60	Simla.
															78		·142		3·5		3	7·3	−4·3	0·74	5·92	− 5·18	1·93	8·02	−6·09	0·46	Sarain.
																															Kalabagh.
9	3			1				N 12° E	N 34° E	2·9	4·2	−1·3	33	−12	55	− 3	·145	+·014	2·2	−1·9	2	5·3	−3·3	0·54	4·19	− 3·65	1·20	5·58	−4·38	0·29	Chakrata.
2	2	2	2			10	1	N 65° W		5·6			23		48	− 9	·117		2·5		2	4·1	−2·1	0·37	2·38	− 2·01	0·92	3·21	−2·29	0·16	Mukteswar.
	1	2						N 75° E	S 57° E	0·5	2·7	−2·2	10	−13	85	+ 3	·212	+·022	3·1	−1·1	0	1·5	−1·5	0·05	0·64	− 0·59	0·15	0·86	−0·71	0·05	Darjiling.
		1			1	1		S 45° W		1·1			3		78		·249		1·9		0	0·7	−0·7	0·10	0·26	− 0·16	0·21	0·45	−0·21	0·06	Shillong.
3	3	3		1	3	3	1	N 15° W		5·6			10		76		·293		1·4		1	1·3	−0·3	0·24	0·38	− 0·14	1·93	0·62	+1·31	0·19	Cherrapunji.
		1						E		1·0			3		96	+ 8	·299		0·5		1	0·3	+0·7	0·21	0·07	+ 0·14	1·33	0·53	+0·80	0·16	Maymyo.
		1	3		3		1	S 5° E	S 3° E	1·3	2·6	−1·3	11	− 7	70	+12	·262	−0·26	0·2	−1·7	0	1·3	−1·3	0	0·62	− 0·62	0·05	1·18	−1·13	0	Pachmarhi.
3	4			1	2	4		N 19° W	N 2° W	2·6	3·8	−1·2	27	+ 9	33	− 6	·184	−·021	2·0	+0·3	0	0·7	−0·7	0	0·29	− 0·29	0	0·45	−0·45	0	Mount Abu.
	13	13						N 68° E	N 74° E	3·9	3·6	+0·3	79	+ 5	75	0	·385	−·033	3·0	−0·1	0	0·3	−0·3	0	0·17	− 0·17	0	1·02	−1·02	0	Mercara.
1	3	4	10	4		1		S 57° E		2·4			46		47		·193		2·4		1	1·8	−0·8	0·10	2·07	− 1·97	0·77	4·35	−3·58	0·10	Ootacamund.
4	4	9	8			2	4	N 73° E		8·4*			46		57	− 2	·234		4·0		2	4·4	−2·4	0·27	3·22	− 2·95	5·52	7·31	−1·79	0·10	Kodaikanal.
																															Extra India.
6	15						2	N 27° E		*‖ 4·5			66						† 6·1		15	13·3	+1·7	21·67	10·96	+10·71	38·02	21·65	+16·37	5·27	Singapore. (a)
8	11		2				7	N 16° E		7·7			72								6	7·0	−1·0	6·15	4·22	+ 1·93	10·46	11·37	−0·91	2·70	Penang. (a)
3	20				1			N 37° E	N 30° E	*‡ 7·9	5·6	+2·3	69	+ 4	91	+12	·802	+·025	8·9	+4·9	22	7·0	+15·0	18·40	5·48	+12·92	24·22	19·73	+4·49	4·04	Trincomalee.
7	5	1					1	N 19° E	N 37° E	4·2*	6·3	−2·1	40	−41	92	+18	·756	−·013	9·1	+5·5	10	4·8	+5·2	8·31	3·52	+4·79	14·10	8·94	+5·16	1·69	Colombo.
									N 42° E		4·7											2·8			1·90			4·96			Minicoy.
16	11						3	N 13° E		4·2			87		70	− 3	·723	−·075	2·6	−0·9	0	1·0	−1·0	0	0·60	−0·60	2·81	1·44	+1·37	0	Amini Divi.
	1	2	4					S 68° E		2·9			16						0·1		0			0			0			0	Gyantse.
2	1		2					N 63° E		5·3			6						0·5		0			0			0			0	Phariyong.
1						2	2	N 56° W		0·9			10		85		·266		0·4		2	2·9	−0·9	0·60	1·00	−0·40	2·03	1·89	+ 0·14	0·37	Gangtok.
			8	4	5			S 81° W		6·1			42						2·5		0			0			0			0	Gartok.

* Uncorrected for scale error.

† Mean of 30 days.
§ " " 26 "
** " " 8 "

‡ Mean of 29 days.

Tab

(2) *Abstract of observations taken at 8 h*

Number of sub-division	Station.	Elevation of barometer 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.
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—*concld.*																					
	Kashgar (*c*) . .	4,255																				
	Kabu . . .																					
	Meshed . . .	3,104																				
	Jask . . .	13	30·129	+·002	30·095	30·227	21st	29·984	12th	·243	64·1	76·3	+2·5	62·2	+1·9	69·3	+2·2	14·1	79·8	5th	56·8	25th, & 26th.
	Muscat . . .	20	30·147	+·026	30·115	30·247	23rd	30·015	12th	·232	68·5	78·3	+6·1	66·6	−0·6	72·4	+2·7	11·7	84·3	5th	62·3	31st
	Bahrein . . .	18	30·198		30·170	30·373	20th	30·012	18th	·361	60·8	65·2		57·6		61·3		7·6	70·9	30th	53·1	6th & 7th.
	Bushire . . .	14	30·135	+·001	30·111	30·272	22nd	29·866	18th	·406	53·4	62·2	−1·9	50·5	−1·2	56·4	−1·5	11·7	67·8	1st	43·0	6th
	Busrah . . .	25	30·181		30·177	30·374	20th	29·977	18th	·397	50·6	57·0		46·0		51·6		11·0	64·5	26th	38·7	23rd
	Kerman (*c*) . .		24·644			24·870	7th	24·440	11th, 17th & 19th.	·430	43·9†	62·9		31·5		47·2		31·4	70·2	17th	19·5	23rd
	Ispahan (*b*) .	*5,817*	24·251			24·450	22nd	24·090	12th & 15th.	·360	27·9	48·8	+2·3	25·3	+2·2	37·1	+2·3	23·5	57·4	9th	19·2	21st, 22nd & 24th.
	Tehran (*b*) .	*4,002*	25·805			25·975	22nd	25·600	15th	·375	31·7	43·0	+0·7	27·8	+1·6	35·4	+1·1	15·2	52·6	31st	19·1	16th & 17th.
	Baghdad . .	127	30·094	+·068	30·207	30·350	22nd	29·819	8th	·531	43·4	56·1	−4·0	38·5	+0·2	47·3	−1·9	17·6	62·3	30th	32·0	16th
	Beirut . . .				30·100						54·9	60·0		50·6		55·3		9·4	63·5	24th	46·9	25th
	Aden . . .	94	30·032	+·050	30·059	30·084	21st	29·975	11th	·109	74·7	79·5	−1·1	72·9	+0·1	76·2	−0·5	6·6	82·1	20th	68·9	8th & 13th.
	Zanzibar . .	72	29·942	+·031	29·940	29·990	19th, 28th & 29th.	29·884	9th	·106	81·2	86·0	−0·1	79·5	−0·1	82·7	−0·1	6·5	87·5	31st	76·4	9th

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.
(*b*) Aneroid uncorrected.
(*c*) " corrected.

† Mean of 30 days.

—continued.

t 62 fourth and fifth class stations in India, etc., in January, 1913—continued.

Wind velocity.			Wind steadiness		Hygrometry, 8 hrs.				Cloud.		Rainfall.									Heaviest rainfall during month.	Station.
Mean velocity, miles per hour.	Normal.	Departure from normal.	Actual percentage.	Departure from normal.	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.	Mean cloud amount at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st Dec. 1912 to 31st Jan. 1913.	Normal rainfall of period, 1st Dec. to 31st Jan.	Departure from normal of period, 1st Dec. 1912 to 31st Jan. 1913.		
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
																					IV.—Bihar and Orissa.
...	...	...	...	...	...	...	...	...	...	...	1	1·6	−0·6	0·14	0·77	−0·63	0·14	0·99	−0·85	0·14	Hazaribagh.
...	...	...	...	...	...	...	...	...	...	...	0	1·2	−1·2	0	0·60	−0·60	0	0·64	−0·64	0	Bhagalpur.
...	...	...	...	...	...	...	...	...	...	...	0	1·3	−1·3	0	0·65	−0·65	0	0·70	−0·70	0	Muzaffarpur.
...	...	...	...	...	...	...	...	...	...	...	0	1·3	−1·3	0	0·57	−0·57	0	0·73	−0·73	0	Motihari.
...	...	...	...	...	...	...	...	...	...	...	0	1·4	−1·4	0	0·68	−0·68	0	0·81	−0·81	0	Chapra.
...	...	...	...	...	...	...	...	...	...	...	0	1·3	−1·3	0	0·74	−0·74	0	0·91	−0·91	0	Arrah.
...	...	...	...	...	...	...	...	...	...	...	0	1·4	−1·4	0	0·63	−0·63	0	0·86	−0·86	0	Dehri.
																					V.—United Provinces of Agra and Oudh.
...	...	...	...	...	...	...	...	...	...	...											Balia.
...	...	...	...	...	...	...	...	...	...	...	0	2·3	−2·3	0·08	1·17	−1·09	0·11	1·66	−1·55	0·08	Meerut.
...	...	...	...	...	...	...	...	...	...	...	1	3·8	−2·8	0·17	2·27	−2·10	0·61	3·14	−2·53	0·17	Dehra Dun.
																					IX.—Rajputana.
...	...	—	...	...	...	...	...	...	...	...	0	0·3	−0·3	0	0·06	−0·06	0·01	0·17	−0·16	0	Udaipur.
																					XII.—Central Provinces.
0·7	...	...	65	...	70	...	·285	...	0·4	...	0	...	...	0	...	...	0·33	...	...	0	Chhindwara.
																					XV.—Madras.
...	...	...	...	...	...	...	...	...	...	...	2	2·2	−0·2	0·62	1·35	−0·73	2·63	4·68	−2·05	0·38	Tinnevelly.
...	...	...	...	...	78	...	·503	...	4·2	...	0	...	...	0	...	...	0	...	...	0	Anantapur.
...	...	...	...	...	87	...	·595	...	4·4	...	0	...	...	0	...	...	0	...	...	0	Guntur.
																					Bay Islands.
...	...	...	...	...	...	...	...	...	...	...	4	4·5	−0·5	6·47	3·80	+2·67	6·47*	10·71	−4·24	5·00	Car Nicobar.
																					Kashmir.
...	...	...	87	...	55	...	·235	...	2·2	...	3	...	...	0·59	...	...	1·52	...	...	0·35	Jammu.
...	...	...	...	...	...	...	...	...	...	...	9	12·2	−3·2	9·04	11·50	−2·46	15·11	17·37	−2·26	3·12	Sonamarg.
...	...	...	78	...	97	...	·072	...	6·6	...	3	...	...	1·95	...	...	2·53	...	...	1·27	Kargil.
...	...	...	...	...	...	...	...	...	...	...	6	4·5	+1·5	2·03	1·39	+0·64	3·07	2·44	+0·63	0·50	Astor.

* Rainfall for December 1912 wanting.

Table C.—Abstract of observations taken at 8 hrs. at 62 fourth and fifth class stations in India, etc., in January, 1913.

62 fourth and fifth class stations in India, etc., in January, 1913.

Wind velocity.			Wind steadiness.		Hygrometry, 8 hrs.				Cloud.		Rainfall.									Heaviest rainfall during month.	Station.
per hour.	Normal.	Departure from normal.	Actual percentage.	Departure from normal.	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.	Mean cloud amount at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st Dec. 1912 to 31st Jan. 1913.	Normal rainfall of period, 1st Dec. to 31st Jan.	Departure from normal of period, 1st Dec. 1912 to 31st Jan., 1913.		
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
																					II.—Assam.
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Balek.
...	...	...	...	...	91	...	·394	...	...	...	1	2·8	—1·8	0·42	1·11	—0·69	0·61	1·36	—0·75	0·22	Bishnath.
...	...	...	...	...	89	...	·376	...	...	...	3	1·8	+1·2	0·67	0·79	—0·12	1·10	0·85	+0·25	0·19	Borjuli.
...	...	...	...	...	95	...	·404	...	...	...	0	2·6	—2·6	0	1·32	—1·32	0	1·86	—1·86	0	Chandkhira.
...	...	...	...	...	93	...	·343	...	...	...	4	4·2	—0·2	2·33	1·68	+0·65	3·16	2·09	+1·07	1·06	Doom Dooma.
...	...	...	...	...	95	...	·359	...	...	...	4	4·5	—0·5	1·27	1·48	—0·21	1·71	2·03	—0·32	0·50	Dikom.
...	...	...	...	...	90	...	·394	...	...	...	3	3·5	—0·5	0·54	1·07	—0·53	1·34	1·46	—0·12	0·22	Golaghat.
...	...	...	...	...	94	...	·409	...	...	...	2	1·8	+0·2	0·31	2·14	—1·83	0·31	2·65	—2·34	0·15	Hailakandi.
...	...	...	...	...	97	...	·390	...	...	...	1	2·5	—1·5	0·80	0·85	—0·05	1·04	1·27	—0·23	0·62	Jorehat.
...	...	...	...	...	?	...	?	...	...	...	0	...	...	0	...	...	0·61	...	...	0	Lumding.
...	...	...	...	...	80	...	·441	...	...	...	1	1·4	—0·4	0·49	0·56	—0·07	1·33	0·89	+0·44	0·32	Messa.
...	...	...	...	...	95	...	·346	...	...	...	1	1·5	—0·5	0·40	0·41	—0·01	0·94	0·67	+0·27	0·24	Panerihat.
...	...	...	...	...	91	...	·388	...	...	...	0	1·6	—1·6	0	0·65	—0·65	0	1·00	—1·00	0	Srimangal.
																					III.—Bengal.
...	...	...	...	...	...	...	...	...	...	...	0	1·0	—1·0	0	0·32	—0·32	0	0·54	—0·54	0	Comilla.
...	...	...	...	...	79	...	·495	...	...	...	0	1·3	—1·3	0·07	0·37	—0·30	0·07	0·87	—0·80	0·07	Brahmanbaria.
...	...	...	...	...	...	...	...	...	...	...	0	1·1	—1·1	0·08	0·55	—0·47	0·08	0·63	—0·55	0·08	Faridpur.
...	...	...	...	...	77	...	·416	...	...	...	0	1·3	—1·3	0	0·43	—0·43	0*	0·66	—0·66	0	Goalundo.
...	...	...	...	...	82	...	·418	...	...	...	0	1·2	—1·2	0	0·56	—0·56	0	0·75	—0·75	0	Pabna.
...	...	...	...	...	...		...	...	...		0	0·9	—0·9	0·02	0·41	—0·39	0·02	0·50	—0·48	0·02	Sirajganj.
...	...	...	...	...	...	...	...	...	...	...	0	1·0	—1·0	0	0·40	—0·40	0	0·43	—0·43	0	Rampur Boalia.
...	...	...	...	...	...	...	...	...	...	...	0	1·2	—1·2	0	0·70	—0·70	0	0·72	—0·72	0	Malda.
...	...	...	...	...	...	...	...	...	...	...	0	1·1	—1·1	0	0·44	—0·44	0	0·48	—0·48	0	Rangpur.
...	...	...	...	...	92	...	·388	...	...	...	1	1·0	0	0·60	0·32	+0·28	0·60	0·51	+0·09	0·58	Dam Dim.
...	...	...	...	...	74	...	·414	...	...	...	0	1·3	—1·3	0	0·48	—0·48	0	0·81	—0·81	0	Kalchini.
...	...	...	...	...	65	...	·390	...	...	...	1	1·5	—0·5	0·15	0·74	—0·59	0·15	1·12	—0·97	0·15	Nagrakata.
...	...	...	...	...	...	...	...	...	...	...	0	0·6	—0·6	0	0·16	—0·16	0	0·23	—0·23	0	Cooch Behar.
...	...	...	...	...	...	...	...	...	...	...	0	1·2	—1·2	0	0·57	—0·57	0	0·63	—0·63	0	Krishnagar.
...	...	...	...	...	...	...	...	...	...	...	1	1·3	—0·3	0·40	0·50	—0·10	0·40	0·59	—0·19	0·40	Bankura.
...	...	...	...	...	...	...	...	...	...	...	0	1·3	—1·3	0	0·56	—0·56	0	0·65	—0·65	0	Raniganj.

* Rainfall for December 1912 wanting.

Tal

Abstract of observations taken at 8 h

Number of subdivision.	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.	Wind direction. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
	IV.—Bihar and Orissa.																							
7	Hazaribagh	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
8	Bhagalpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Muzaffarpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Motihari	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Chapra	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Arrah	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Dehri	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	V.—United Provinces of Agra and Oudh.																							
9	Balia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
10	Meerut	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Dehra Dun	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	IX.—Rajputana.																							
18	Udaipur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	XII.—Central Provinces.																							
23	Chhindwara	53·2	78·9	...	47·4	...	63·1	...	31·5	82·9	22nd	42·2	19th	40·7	...	1	3	1	...	...	4	15	7	N 76° W
	XV.—Madras.																							
31	Tinnevelly	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
32	Anantapur	66·2	85·6	...	57·5	...	71·5	...	28·1	89·8	25th	54·1	3rd	35·7	...	...	...	...	...	...	...	...	...	
33	Guntur	68·0	86·8	...	61·1	...	73·9	...	25·7	89·2	17th & 22nd.	58·8	24th	30·4	...	...	...	...	...	...	...	...	...	
	Bay Islands.																							
1	Car Nicobar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Kashmir.																							
13	Jammu	55·1	68·1	...	48·9	...	58·5	...	19·2	71·1	20th	43·3	17th	27·8	...	13	17	...	...	1	...	...	...	N 27° E
	Sonamarg	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Kargil	9·0	27·9	...	2·6	...	15·3	...	25·3	38·9	5th & 14th	−17·6	26th	56·5	...	4	...	13	14	...	...	...	...	S 75° E
	Astor	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	

Tab

Abstract of observations taken at 8 h

Number of subdivision.	Station.	Temperature of air.													Wind direction.										
															Number of winds from										
		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.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	2
	Hill Stations, exclusive of Kashmir.																								
	Panighatta	56·6	73·9	...	52·9	...	63·4	...	21·0	76·3	1st	49·8	26th	26·5	...	...	...	...	...	...	...	...	...	...	..
	Kurseong	48·6	56·1	...	45·3	...	50·7	...	10·8	61·5	18th	42·9	26th	18·6	...	...	...	...	...	...	...	...	...	...	..
	Gnatong	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..
	Lachung	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..
	Ringim	...	...	...	...	...	...	...	...	...		...	...	...	...	...		...	...	...	...	...	...	...	..
	Poo	...	44·7	...	26·4	...	35·6	...	18·3	51·7	11th	19·6	25th	32·1	15	5	1	3	1	...	...	2	4	N 3° W	..
	Kailang	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..
	Bakloh	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...	...	...	...	...	...	...	..
	Pishin	...	55·5	...	30·4	...	42·9	...	25·1	64·3	3rd	22·0	24th	42·3	...	...	...	...	...	...	...	...	...	...	..
	Extra India.																								
	Ahwaz	...	58·4	...	48·4	...	53·4	...	10·0	64·0	31st	42·0	24th	22·0	...	...	...	...	...	...	...	...	...	...	..
	Birjand	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	..
	Chumbi	22·7	46·4	...	18·8	...	32·6	...	27·6	53·9	18th	13·6	25th	40·3	...	...	...	...	...	...	...	...	...	...	..
	Kirmanshah	27·8	38·0	...	22·7	...	30·4	...	15·3	46·4	3rd	11·4	23rd	35·0	...	...	...	...	...	...	...	...	...	...	..
	Koweit	...	59·9	...	48·6	...	54·2	...	11·3	68·9	12th	44·2	21st & 22nd.	24·7	2	6	...	3	...	4	2	10	4	N 75° W	..
	Maidan	...	58·7	...	45·5	...	52·1	...	13·2	63·2	3rd	38·2	22nd & 23rd.	25·0	...	...	...	...	...	...	...	...	...	...	..
	Muhammerah	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..
	Pemba	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..
	Prison Island	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..
	Seistan	...	60·2	...	37·4	...	48·8	...	22·8	65·9	20th	26·0	24th	39·9	8	10	1	...	...	...	2	2	7	N 32° W	..

—*concluded.*

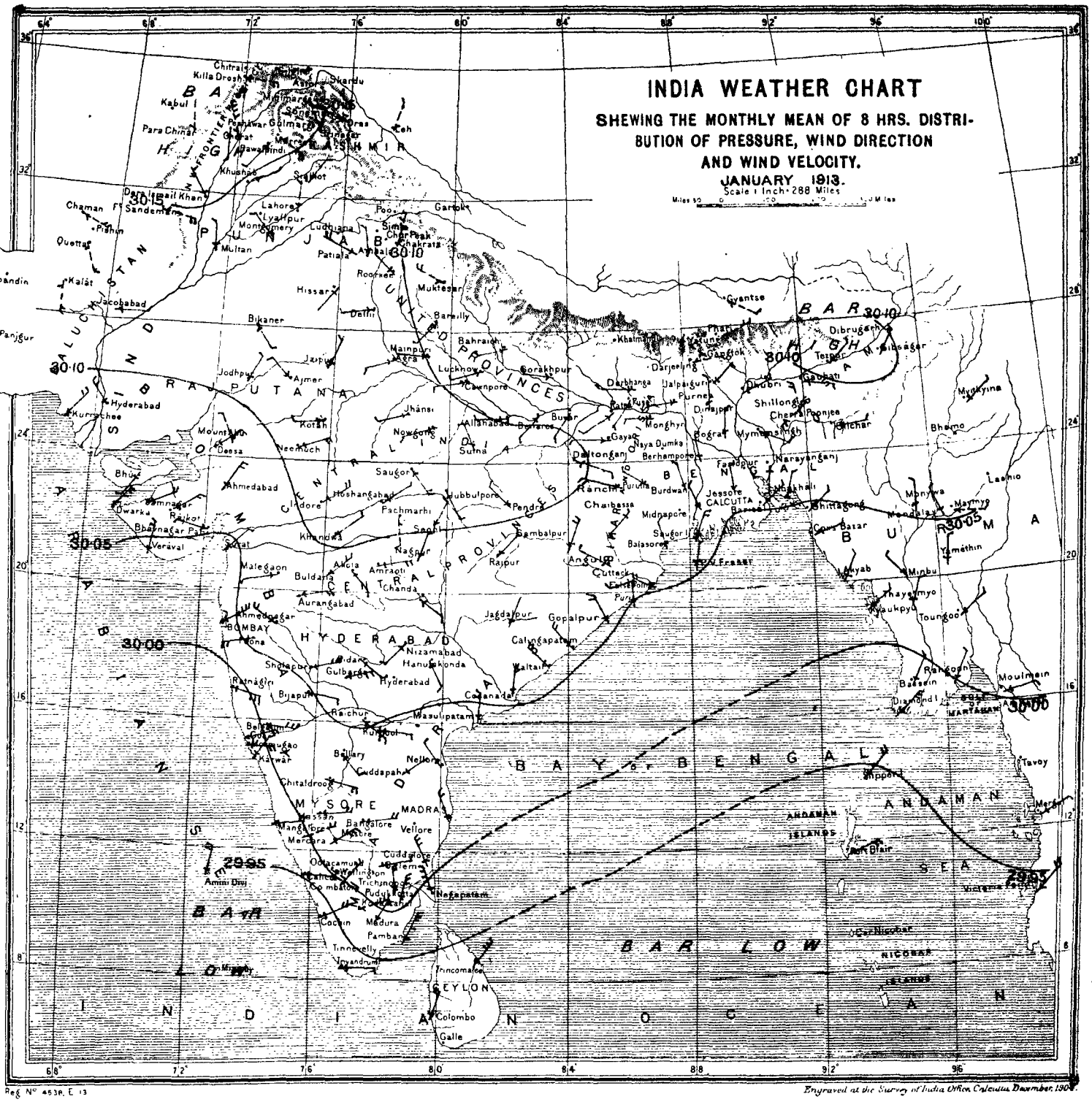
62 fourth and fifth class stations in India, etc., in January, 1913—concluded.

Wind velocity.			Wind steadiness.		Hygrometry, 8 hrs.				Cloud.		Rainfall.									Heaviest rainfall during month.	Station.
per hour.	Normal.	Departure from normal.	Actual percentage.	Departure from normal.	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.	Mean cloud amount at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st Dec. 1912 to 31st January 1913.	Normal rainfall for period, 1st Dec. to 31st Jan.	Departure from normal of period, 1st Dec. 1912 to 31st Jan. 1913.		
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
																					Hill Stations, exclusive of Kashmir.
...	...	...	...	...	74	...	·340	...	...	...	1	0·8	+0·2	0·70	0·35	+0·35	0·73	0·79	−0·06	0·63	Panighatta.
...	...	...	...	...	80	...	·272	...	...	...	3	1·5	+1·5	0·76	0·49	+0·27	0·90	1·11	−0·21	0·40	Kurseong.
...	...	...	...	...	...	...	...	...	...	...	1	...	...	0·75	...	...	2·31	...	...	0·75	Gnatong.
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Lachung.
...	...	...	...	...	...	...	...	...	...	...	4	...	...	1·74	...	...	4·00	...	...	0·61	Ringim.
...	...	...	26	...	...	...	...	...	5·4	...	3	5·3	−2·3	1·10	1·95	−0·85	1·68	2·78	−1·10	0·53	Poo.
...	...	...	...	...	...	...	...	...	...	...	7	5·3	+1·7	2·02	2·81	−0·79	2·78	3·81	−10·3	0·45	Kailang.
...	...	...	...	...	...	...	...	...	...	...	3	...	...	2·46	...	...	2·46	...	...	1·40	Bakloh.
...	...	...	...	...	...	...	...	...	2·0	...	2	3·6	−1·6	1·01	1·56	−0·55	4·29	2·83	+1·46	0·73	Pishin.
																					Extra India.
...	...	...	...	...	...	...	...	...	4·1	...	6	...	...	3·31	...	...	4·77	...	...	1·30	Ahwaz.
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Birjand.
...	...	...	...	...	?	...	?	...	...	...	0	...	...	0·06	...	...	0·08	...	...	0·05	Chumbi.
...	...	...	...	...	†93	...	†180	...	...	...	9	...	...	7·72†	...	...	10·24	...	...	1·80	Kirmanshah.
...	...	...	36	...	...	...	...	...	4·3	...	3	...	...	1·61	...	...	2·19	...	...	0·95	Koweit.
...	...	...	...	...	...	...	...	...	...	...	8	...	...	5·95	...	...	8·53	...	...	1·49	Maidan.
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Muhammerah.
...	...	...	...	...	...	...	...	...	...	...	2	5·4	−3·4	2·31	2·93	−0·62	19·17	10·29	+8·88	1·70	Pemba.
...	...	...	...	...	...	...	...	...	...	...	...	5·0	...	...	2·53	...	...	8·20	...	...	Prison Island.
3·0	...	...	48	...	...	...	...	...	...	...	0	...	...	0·07	...	...	1·44	...	...	0·03	Seistan.

* Rainfall for December 1912 wanting.

† Rain and snow water.

‡ Mean of 13 days.

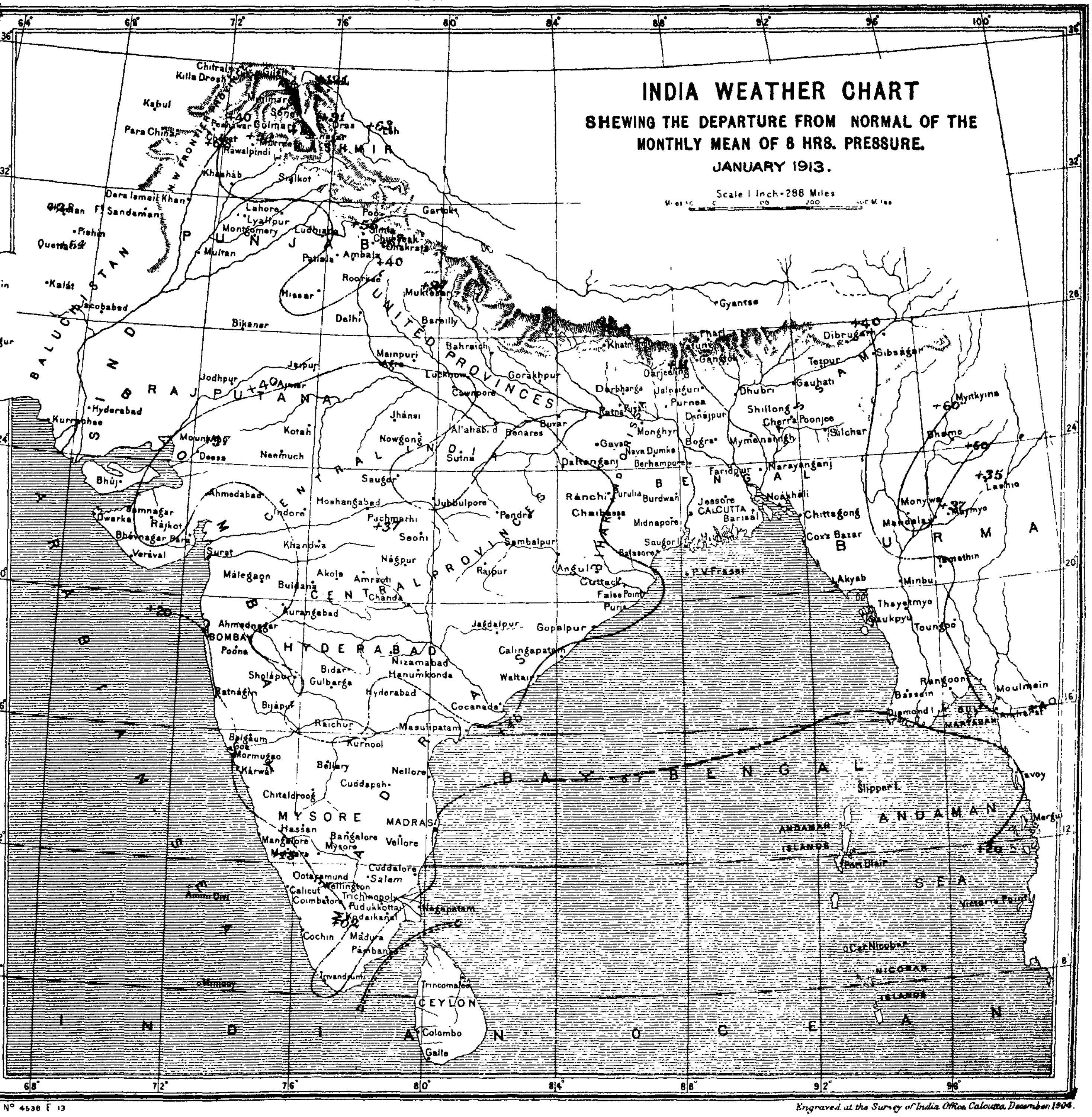


The lines of the above chart represent isobars or lines of equal barometric pressure, the numbers attached indicating the barometric pressure in inches and being drawn for differences of pressure of ·05 inch. The isobars in the Bay of Bengal are filled in by means of the shore observations, and by comparison with the normal distribution of pressure.

The mean 8 hrs. wind directions of the month are shewn by means of arrows flying with the wind, and are calculated by means of Lambert's formula applied to the winds as given in Table B of the 8 hrs. observations. The mean wind directions for the hill stations are indicated by broken arrows to distinguish them from the wind arrows for the plain stations. The mean velocity of the winds during the month is shewn by the following notation:—

Velocity of	0 to 2 miles per hour	...	one	feather added to the wind arrow.
,, ,,	2 to 5 ,, ,, ,,	...	two	feathers ,, ,, ,, ,,
,, ,,	5 to 10 ,, ,, ,,	...	three	,, ,, ,, ,, ,,
,, ,,	10 to 20 ,, ,, ,,	...	four	,, ,, ,, ,, ,,
	over 20 ,, ,, ,,	...	five	,, ,, ,, ,, ,,

Wind strengths are based on factor 2·2 for the standard type of Beckley Robinson anemograph, instead of 3·0 as used for this place up to December 1911 inclusive.



N° 4538 E 13

Engraved at the Survey of India Office, Calcutta, December 1904.

The chart shows the departure from normal of the mean during the month of 8 hrs. pressure by means of lines drawn for equal amounts of departure. The numbers are given in thousandths of an inch, 20 representing ·020″ or two hundredths of an inch, &c. Continuous lines indicate that the pressure was in excess by amounts indicated by the numbers attached to the lines, and broken or dotted lines that it was in defect by amounts indicated by the numbers attached to the lines. Two parallel lines near to each other, one continuous and the other broken or dotted, represent the line of no departure, the dotted line facing the area of deficient pressure or negative departures.

CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MAXIMUM TEMPERATURE.

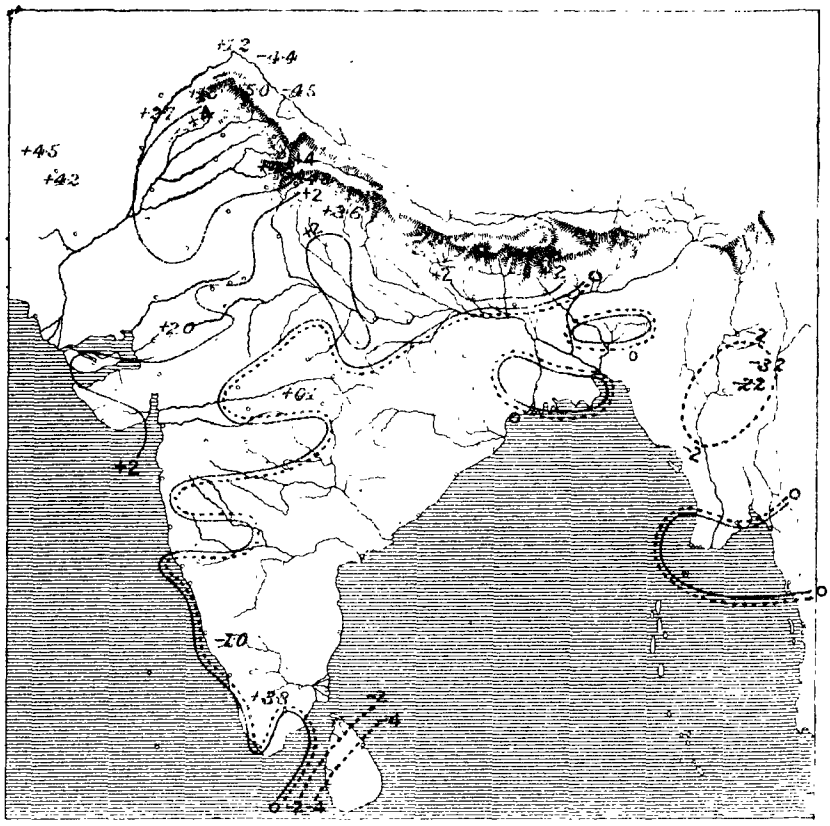
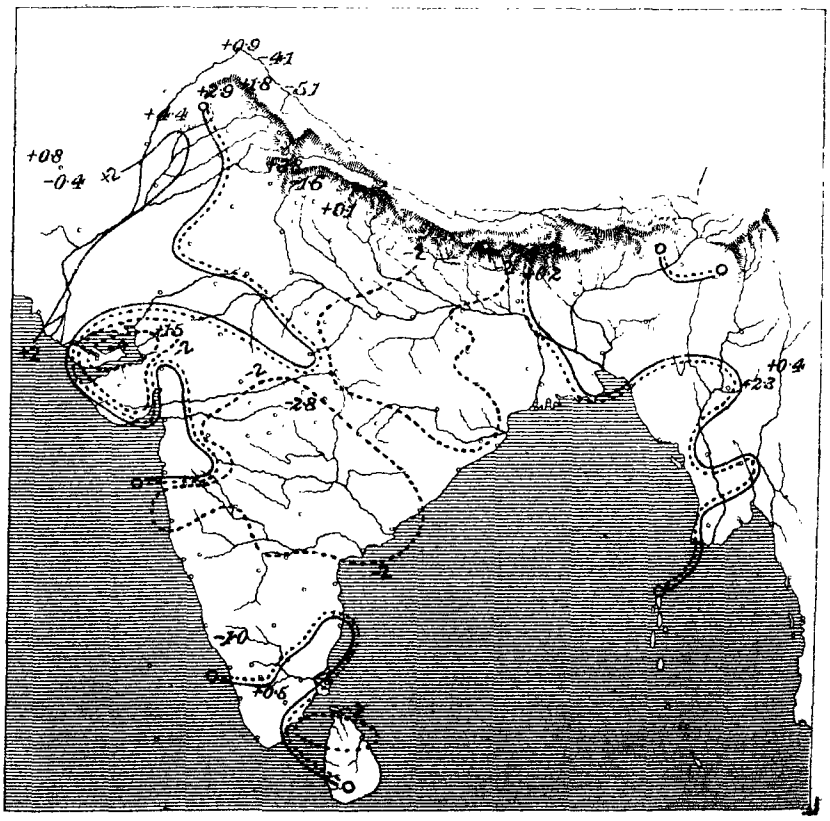


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MINIMUM TEMPERATURE.



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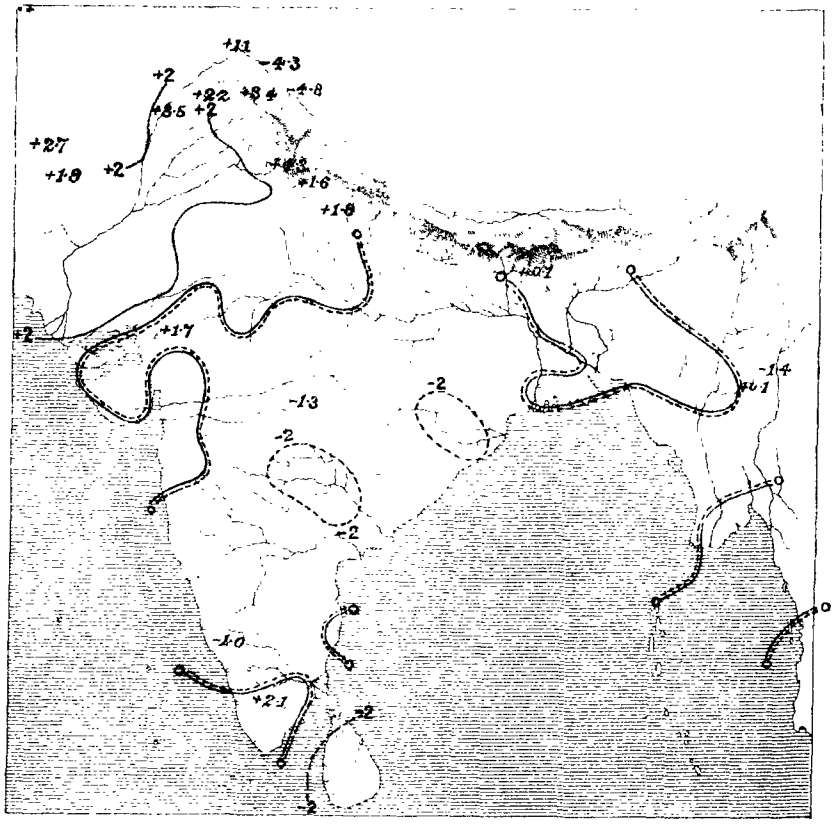


CHART SHEWING THE MONTHLY MEAN OF PRESSURE AND RESULTANT WIND DIRECTION.

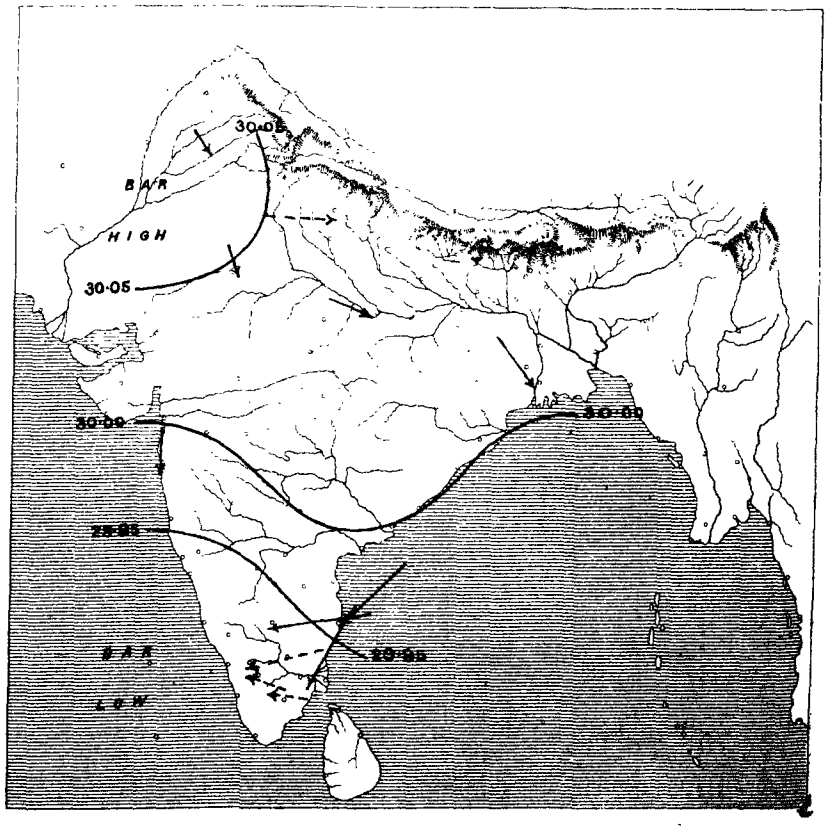


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF ABSOLUTE HUMIDITY AT 8 HRS.

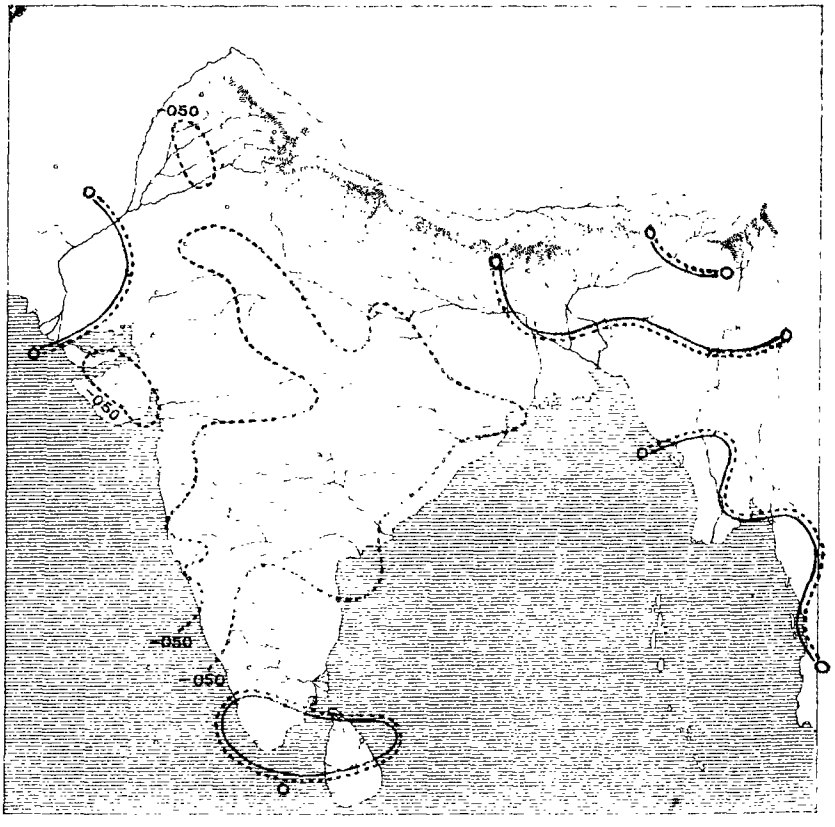
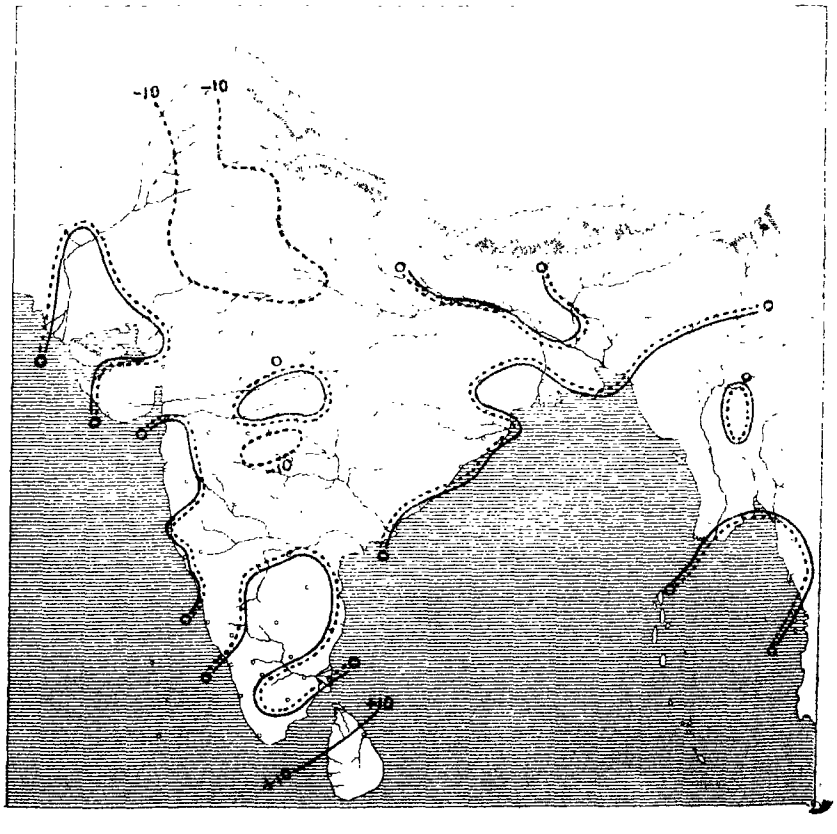


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF RELATIVE HUMIDITY AT 8 HRS.



LITHO. BY S. E. M.

CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF CLOUD AMOUNT AT 8 HRS.

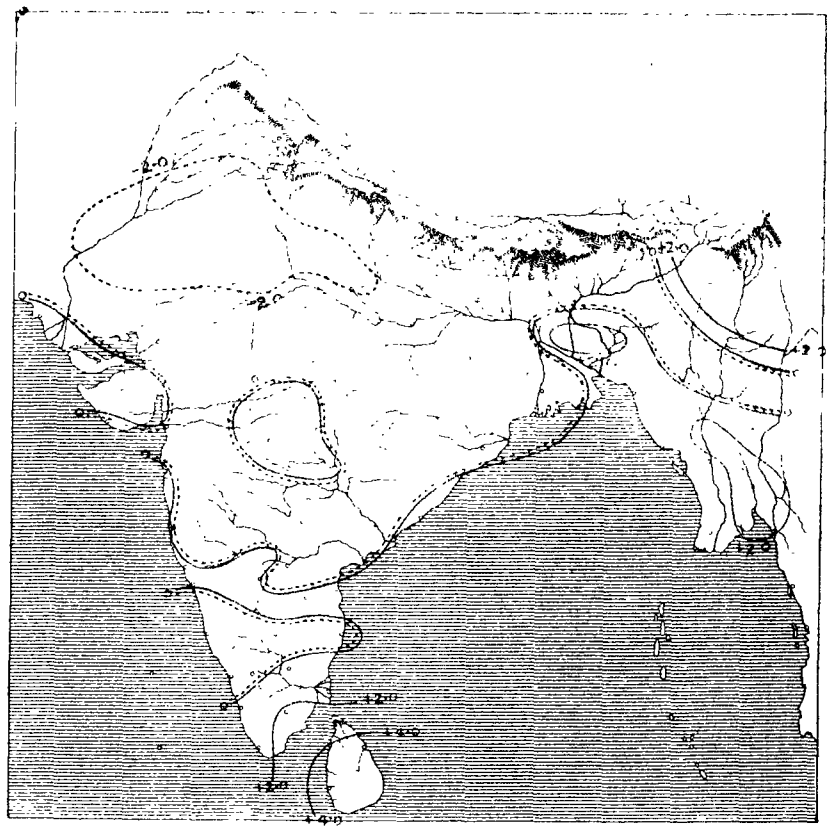
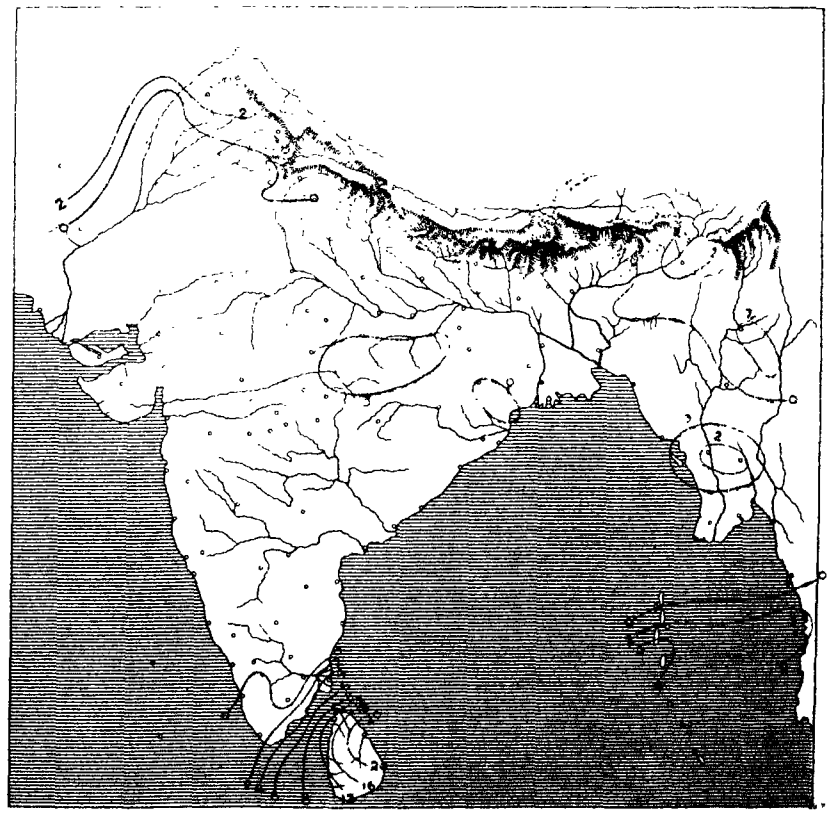


CHART SHEWING THE TOTAL NUMBER OF DAYS IN THE MONTH ON WHICH RAINFALL EQUALLED OR EXCEEDED 0·10 INCH.

(BASED ON THE RETURNS OF TABLE B.)



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
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

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GOVERNMENT OF INDIA.

METEOROLOGICAL DEPARTMENT.

MONTHLY WEATHER REVIEW

PUBLISHED BY ORDER OF

THE GOVERNMENT OF INDIA.

CALCUTTA, FEBRUARY, 1913.

INTRODUCTION.

THIS review of the weather in India during the month of February, 1913, is based on observations taken daily at 8 hrs. at 215 stations, and on additional observations taken at 10 hrs. and 16 hrs. at 16 stations. In the rainfall summary have been utilized the data furnished by the meteorological observatories, and such rainfall statements of the month as had been published by the Provincial Governments up to the date of the preparation of the review. The brief notes on solar, seismic and magnetic disturbances are supplied by the chief observatories in the Indian area.

For a statement of the methods adopted in recording and tabulating the data, for each of the elements of observation, reference should be made to the introductory portion of the review for January.

Summary of the chief features of the weather in India during the month.

2. The almost complete absence of rain in northern India which had characterized January continued up till the 12th of February when a change took place. Three depressions of the cold weather type advanced into India from the west between the 13th and the 24th and gave rise to very opportune and well distributed precipitation over the greater part of northern and central India. Indeed the rainfall received from these disturbances in some localities more than compensated for the previous deficit.

Of the fifteen chief political provinces only Burma, Bombay, Mysore and Madras had a deficient fall. The month's aggregate was on the other hand upwards of four times the normal in the region comprising Chota Nagpur the Central Provinces and Central India East.

Of the other climatic elements the quantity of cloud was high generally, while humidity was appreciably above the normal in the Central Provinces, Central India, the United Provinces, Bihar and Orissa. Temperature on the mean of the month was within 2° of the normal in all the larger provinces.

The last disturbance of the month was followed by a cold wave which advanced from Baluchistan on the 24th to Bengal on the 28th, reducing temperature appreciably below the average.

Barometric pressure was on the average of all the observing stations in the plains ·009″ higher than usual.

Solar, seismic and magnetic disturbances.

KODAIKANAL OBSERVATORY.

3. *Solar observations.*—The sun was examined for spots and faculæ on all the days during the month; but on two days visual observations of the prominences could not be made.

Sunspots.—There was only one spot observed during the month; it was of moderate size and was visible from the 19th February to 2nd March. It was situated in a relatively high latitude, its heliographic position being latitude +32° north and longitude 26°.

Prominences.—Sixty eight large and five eruptive prominences were recorded during the month. There was no metallic prominence observed. The highest prominences recorded were photographed on the 12th at

latitude —25° east and on the 18th at latitude —33° east; these attained heights of 135″ and 120″, respectively.

Magnetic disturbances.—Moderate disturbances were recorded from the 12th to 15th and from the 25th to 28th. These appear to be a continuation of the series of moderate disturbances occurring at approximate intervals of a synodic rotation of the sun and referred to in the January report. The earlier disturbance may be referred to that which began on December 22nd to 24th, and the later one to that beginning on December 7th to 8th.

Seismological records.

Instrument :—Milne horizontal pendulum.

TABLE 1.

No.	Date.	P.	L.	M.	F.	Duration.	Ampl.	REMARKS.
	1913.						mm.	
10	Feb. 11-12	23 e 49·9	...	...	0 16·5	0 26·6	...	Widening of line.
11	,, 20	9 e 10·0	...	9 19·2	9 56·0	0 46·0	0·2=0·1	

J. EVERSHED,
Director,
Kodaikanal and Madras Observatories.

BOMBAY OBSERVATORY.

Alibag magnetic record.

4. During the month of February, 1913, the traces showed 10 calm days, 17 days of small, and one day of moderate disturbance.

The days of the month selected as quiet for the purposes of the Magnetic Survey of India are the 3rd, 5th, 10th, 24th and 28th.

The following table represents the magnetic character of each day during the month :—

TABLE 2.

Day.	Character.	Day.	Character.	Day.	Character.	Day.	Character.
1	C	8	S	15	S	22	C
2	C	9	S	16	S	23	S
3	C	10	C	17	S	24	C
4	C	11	S	18	S	25	S
5	C	12	S	19	S	26	S
6	C	13	S	20	S	27	S
7	S	14	M	21	S	28	C

C=calm ; S=small ; M=moderate ; G=great ; V. G.=very great.

The mean observed absolute values of the several magnetical elements reduced to the mean monthly tabulations of the magnetograms, as also the ranges and the summed ranges of the horizontal force and declination for the month are as follows :—

Easterly declination	0° 48′ 50″
Horizontal force	0·36875 C. G. S. unit.
Vertical force	0·16434 C. G. S. unit.
Inclination	24° 1′·3
Inclination (observed)	24° 0′·3
Horizontal force range	0·00035 C. G. S. unit.
Horizontal force summed range	0·00231 C. G. S. unit.
Declination range	1′·0
Declination summed range	4′·1.

(NOTE.—Summed range means sum without regard to sign of 24 ordinates of the diurnal inequality.)

Seismic disturbances.

Instrument :—Milne's Horizontal Pendulum Seismograph (E-W).

TABLE 3.

Date.	Phase.	Time, G. M. T.	Period (secs).	Amplitude.	Distance.	REMARKS.
1913.		h. m. s.		M.		Refers to the maximum of a thickening which is mixed in tremors.
Feb. 7		3 49 0		Unity= ·001 mm.		
		10 57 0				Thickening.
,, 8		10 2 0				,,
,, 10		10 53 0				,,
		22 16 0				,,
,, 11		23 56 0				,,
,, 12		0 8 0				,,
,, 13		22 0 0				,,
,, 18		19 22 0				,,
		20 38 0				,,
,, 20	P	9 18 22				
	S					
	L					
	F	10 10 3				
	M	9 38 36		700		
	M	9 42 1		700		
,, 21		19 44 0				Thickening.
,, 24		14 41 0				,,
,, 26		8 9 0				,,
		20 57 0				,,
,, 28		14 59 0				,,

All times given above denote G. M. T. Sensibility to tilt 1 mm.= 0″·35. Only those thickenings which can be clearly distinguished are given ; thickenings mixed up in tremors are omitted from the above list.

N. A. F. MOOS,
Director,
Bombay & Alibag Observatories.

CALCUTTA OBSERVATORY.

5. *List of displacements recorded by the Milne seismograph.*

TABLE 4.

Date.	P. T. commencement. G. M. T.	L. W. commencement. G. M. T.	Maximum. G. M. T.	End. G. M. T.	Duration.	Maximum displacement on trace from mean position.	REMARKS.
1913.	h. m.	h. m.	h. m.	h. m.	h. m.	mm.	
Feb. 20th	8 50·9	9 14·8	9 27·9	10 10·7	1 19·8	1·00	
,, 27th	16 50·5	...	...	17 1·7	0 11·2	...	Thickening of line.

Sensibility 1 mm.=0″·38 of tilt.

C. W. PEAKE,

Meteorologist, Calcutta.

SIMLA OBSERVATORY.

6. List of earthquakes recorded by the Omori-Ewing seismographs :—

TABLE 5.

Date.		Beginning of 1st P. T.	Beginning of 2nd P. T.	Beginning of L. W.	Time of Maximum amplitude.	End approximately.	Duration.	Max. displacement of style.*	REMARKS.
February.		h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	m. m.	
24th	A	2 0·0	2 0·4	2 0·8	2 1·5	2 6	0 6	0·3	
24th	B	2 0·0	?	?	2 1·3	?	?	0·2	

February 7th A Slight tremors commencing at 3 hrs. 23 mins. lasting for 11 minutes.
,, 7th B ditto ditto ditto.
,, 8th A A very slight local shock at 18 hours 3 mins.
,, 8th B Not recorded by B instrument.
,, 20th A Tremors from 9 hrs. 9 mins. to 9 hrs. 50 mins. Max. Amp. 1 mm. at 9 hrs. 31·5 mins.
,, 20th B ditto ditto ditto.
,, 27th A Slight tremors from 16 hrs. 43 mins. to 17 hrs. 4 mins.
,, 27th B ditto ditto ditto.
,, 28th A Slight local shock commencing at 16 hrs. 17 mins. lasting half a minute.
,, 28th B ditto ditto ditto.

All times are given in G. M. T.
A=E—W component.
B=N—S component.
Magnification of both instruments was 15.
* Displacements less than 0·2 mm. are reported as "small."

The following table contains a list of earthquakes that were reported:—

TABLE 6.

Place at which felt.	Date.	G. M. T. of earthquakes.		Duration.	Intensity Rossi-Farel scale.	No. of shocks.
	Feb.	h.	m.	sec.		
Jodhpur	4th	15	20	10	3	1
Meshed	5th	11	49	30	5	1
Mount Abu	9th	6	35	15	...	1
Noakhali	18th	16	25	3	6	2
Borjuli	19th	8	25	1	6	1
Drosh	20th	21	35	5	6	1
,,	21st	15	20	5	6	2
Salonah (Nowgong, Assam)	22nd	4	42	8	5	1
Shillong	28th	9	31	1	4	1
Borjuli	28th	9	32	40	7	2
Salonah (Nowgong, Assam)	28th	9	34	15	5	2

Solar radiation.—The following figures give the intensity of solar radiation, as measured at Simla by Angstrom's pyrheliometer. The values are corrected to local noon, and expressed in grammecalories per square centimetre per minute :—

Maximum	1·36
Minimum	1·21
Mean	1·29
Number of days of observation	4

G. C. SIMPSON,

Imperial Meteorologist, Simla.

ROYAL ALFRED OBSERVATORY, MAURITIUS.

7. No information has been received.

Weather in the Indian monsoon region.

8. In the equatorial belt as represented by Zanzibar and Seychelles pressure, rainfall and the air movement were all below the normal, while the direction of wind at Seychelles was more northerly than usual.

TABLE 7.

—	Mauritius.	Zanzibar.	Seychelles.
Departure from normal of mean pressure.	—·032	—·003	—·011
Actual mean wind direction .	S 78° E	N 34° E	N 10° W

—	Mauritius.	Zanzibar.	Seychelles.
Normal mean wind direction .	S 83° E	N 27° E	N 21° W
Actual mean wind velocity (miles per diem).	186	98	85
Normal mean wind velocity (miles per diem).	162	118	107
Rainfall departure from normal .	—1·34	—0·86	—5·59

Depressions and cyclonic storms.

9. Five disturbances in all affected the weather in India during February 1913. The first appeared over Baluchistan from the west on the 4th; the second was probably formed locally in Hyderabad and the Bombay Deccan on the 8th; the third and fourth apparently passed into Baluchistan from Persia on the 13th and the 17th respectively; and the fifth appears to have entered the North-West Frontier Province and the Punjab from Afghanistan on the 24th. All the five depressions were attended with more or less precipitation, but the second third and fifth were specially fruitful, having caused widespread rainfall over the region extending from Assam in the east to the Suleman range in the west.

In connection with the large improvement during February in the winter rainfall over northern India it is interesting to note that precipitation was 14 per cent. above the normal in the Mediterranean and 80 per cent. above in Middle Egypt.

Pressure.

10. Atmospheric pressure was in defect to the west of a line through Rawalpindi, Multan, Ajmer, Jhansi, Seoni, Akola, Bijapur, Salem and Cuddalore, and was higher than usual over practically the whole of the rest of the plains of India. The negative departures were generally small in magnitude, but the positive departures were in the majority of cases strongly marked, ranging from ·02″ to ·06″ in amount over the whole tract extending from the west Punjab to central Burma.

TABLE 8.

DIVISION.	Departure from normal of mean 8 hrs. pressure.
	″
Burma	+·017
Assam	+·027
Bengal	+·022
Bihar and Orissa	+·025
United Provinces	+·021
Punjab	+·019
North-West Frontier Province	—·013
Sind	—·002
Rajputana	+·001
Bombay	—·006
Central India	—·001
Central Provinces	+·003
Hyderabad	+·011
Mysore	+·006
Madras	—·001

The vertical distribution was very nearly normal in character over the greater part of the country.

TABLE 9.

HILL STATION.	Departure from normal pressure. A	PLAIN STATION.	Departure from normal pressure. B	Departure of pressure difference. B—A.
	″		″	″
Quetta	—·009	Jacobabad	—·005	+·004
Leh	+·032	Lahore	+·012	—·020
Murree	+·013	Peshawar	—·022	—·035
Simla	+·034	Ludhiana	+·029	—·005
Chakrata	+·042	Roorkee	+·034	—·008
Darjiling	+·022	Dhubri	+·026	+·004
Mount Abu	—·001	Deesa	—·006	—·005
Pachmarhi	+·001	Khandwa	—·010	—·011
Kodaikanal	—·017	Madura	+·005	+·022

Temperature.

11. Night temperature exceeded the normal in all the plains divisions but the excess was not appreciable except in Central India East, the Central Provinces, the Bombay Deccan, Hyderabad and the Madras Deccan where it was between 3° and 5°. Maximum temperature was in defect by about 4° in Chota Nagpur and Orissa and very nearly normal elsewhere. In Kashmir and Baluchistan the temperature conditions were on the whole not very different from the normal.

A cold wave of moderate intensity appeared in Baluchistan on the 24th and advanced eastwards to Bengal during the next four days causing an appreciable reduction of temperature.

TABLE 10.

Sub-division.	Actual temperature.					Departure from normal of		
	Mean maximum.	Mean minimum.	Monthly mean of mean between maximum and minimum.	Mean daily range of temperature.	Absolute range during month.	Maximum.	Minimum.	Daily range.
	°	°	°	°	°	°	°	°
1. Bay Islands	86·3	76·5	81·3	9·9	16·3	−0·7	+1·6	−2·3
2. Lower Burma	89·3	67·3	78·3	22·0	33·2	+0·2	+1·5	−1·3
3. Upper Burma	86·2	57·3	71·7	28·9	45·1	−0·9	+0·2	−1·1
4. Assam	75·6	56·3	65·9	19·3	34·1	−1·0	+1·6	−2·6
5. Bengal	80·0	59·7	69·9	20·3	34·6	−1·4	+2·0	−3·4
6. Orissa	84·1	64·8	74·4	19·4	32·0	−3·8	+1·6	−5·4
7. Chota Nagpur	78·5	57·0	67·8	21·5	36·0	−3·6	+1·3	−4·9
8. Bihar	77·3	55·4	66·3	21·9	38·1	−2·5	+2·2	−4·7
9. United Provinces, East	77·7	54·0	65·9	23·7	41·3	−1·1	+2·5	−3·6
10. Do., West	75·8	52·8	64·3	23·0	41·1	−1·1	+1·7	−2·8
11. Punjab, East and North	70·9	47·9	59·4	23·1	40·1	−0·5	+1·2	−1·7
12. Do., South-west	71·2	48·3	59·8	22·9	37·4	−0·5	+1·7	−2·2
13. Kashmir	37·0	16·1	26·5	20·9	41·0	+0·7	+0·5	+0·2
14. North-West Frontier Province	67·7	45·1	56·4	22·7	35·3	−1·3	+1·3	−2·6
15. Baluchistan	60·4	37·6	48·9	22·8	41·2	−0·9	−2·3	+1·4
16. Sind	77·3	55·2	66·2	22·1	37·4	−1·5	+0·8	−2·3
17. Rajputana, West	78·1	53·1	65·7	25·1	43·6	+0·6	+1·5	−0·9
18. Do., East	77·9	55·3	66·6	22·6	42·2	−0·6	+2·4	−3·0
19. Gujarat	84·4	58·4	71·4	26·0	44·3	−1·2	−0·1	−1·1
20. Central India, West	81·6	54·7	68·1	26·9	49·2	−0·7	+2·6	−3·3
21. Do., East	77·5	55·9	66·7	21·6	39·1	−2·5	+4·2	−6·7
22. Berar	89·5	63·8	76·6	25·7	44·0	+0·4	+4·1	−3·7
23. Central Provinces, West	83·5	58·6	71·1	24·9	43·2	−1·6	+2·7	−4·3
24. Do., East	84·8	61·0	72·9	23·8	38·1	−2·5	+3·6	−6·1
25. Konkan	84·5	69·3	76·9	15·2	22·1	−0·9	+0·4	−1·3
26. Bombay Deccan	90·8	61·9	76·3	28·9	42·8	+0·5	+2·9	−2·4

Sub-division.	Actual temperature.					Departure from normal of		
	Mean maximum.	Mean minimum.	Monthly mean of mean between maximum and minimum.	Mean daily range of temperature.	Absolute range during month.	Maximum.	Minimum.	Daily range.
	°	°	°	°	°	°	°	°
27. Hyderabad, North	90·4	64·7	77·6	25·6	38·0	+1·1	+4·9	—3·8
28. Do., South	91·5	68·3	79·9	23·2	35·1	—0·1	+2·7	—2·8
29. Mysore	87·9	63·7	75·8	24·3	36·3	+0·4	+2·2	—1·8
30. Malabar	88·3	73·9	81·1	14·4	22·9	+0·1	+1·3	—1·2
31. Madras, South-east	89·6	70·9	80·3	18·7	29·3	+0·3	+2·2	—1·9
32. Do., Deccan	94·3	69·2	81·7	25·1	38·3	—0·3	+2·8	—3·1
33. Do. Coast, North	85·6	70·2	77·9	15·3	25·7	—0·8	+1·5	—2·3

TABLE 11.

Division.	Departure from normal of		
	Mean maximum temperature.	Mean minimum temperature.	Mean temperature.
	°	°	°
Burma	—0·3	+0·9	+0·3
Assam	—1·0	+1·6	+0·3
Bengal	—1·4	+2·0	+0·3
Bihar and Orissa	—3·2	+1·8	—0·7
United Provinces	—1·1	+2·1	+0·5
Punjab	—0·5	+1·4	+0·4
North-West Frontier Province	—1·3	+1·3	+0·1

Division.	Departure from normal of		
	Mean maximum temperature.	Mean minimum temperature.	Mean temperature.
	°	°	°
Sind	—1·5	+0·8	—0·4
Rajputana	—0·2	+2·1	+1·0
Bombay	—0·5	+1·1	+0·3
Central India	—1·5	+3·4	+0·9
Central Provinces	—1·4	+3·2	+0·9
Hyderabad	+0·3	+3·5	+1·9
Mysore	+0·4	+2·2	+1·3
Madras	—0·1	+1·9	+0·9

Winds.

12. Winds were steadier and stronger than usual over the greater part of the Peninsula and in Rajputana and Central India; while they were below their normal strength and more variable than is ordinarily the case in Burma and northern India generally. There was nothing strikingly abnormal in the direction of movement at the great majority of stations.

TABLE 12.

Division.	Departure from normal of	
	Hourly wind velocity.	Wind steadiness.
Burma	—0·4	—5
Assam	0	+6
Bengal	—0·8	—5
Bihar and Orissa	—0·1	—9
United Provinces	—0·8	—11
Punjab	—0·1	—1
North-West Frontier Province	—0·5	—12
Sind	—1·3	—1
Rajputana	+0·6	+7
Bombay	—0·4	0
Central India	+0·2	+5
Central Provinces	+0·7	+5
Hyderabad	—0·7	+23
Mysore	+0·5	+7
Madras	+0·4	+7

Humidity and cloud.

13. The air was damper and the sky more cloudy than usual in almost all parts of the plains of India.

In Baluchistan the absolute humidity was below the average and the relative humidity in excess, while in Kashmir the conditions were variable.

The cloud proportion was high at most stations in Kashmir and about normal in Baluchistan.

TABLE 13.

Division.	Hygrometry, 8 hrs.				Cloud.	
	Mean humidity.	Departure from normal.	Mean vapour tension in inches of mercury.	Departure from normal in inches of mercury.	Mean cloud amount at 8 hrs.	Departure from normal.
	%					
urma . . .	80	+ 1	·564	+ ·002	2·4	+ 0·6
ssam . .	91	+ 1	·466	+ ·019	4·1	+ 0·2
engal . . .	87	+ 6	·523	+ ·039	3·0	+ 0·9
ihar and Orissa .	83	+ 10	·482	+ ·057	3·6	+ 1·3
nited Provinces .	79	+ 8	·396	+ ·059	3·6	+ 1·0
Punjab . . .	78	+ 3	·309	+ ·021	4·4	+ 0·7
North-West Frontier Province.	75	+ 1	·263	+ ·007	5·1	+ 1·3
Sind	63	0	·329	+ ·010	3·9	+ 1·2
Rajputana . . .	56	+ 3	·280	+ ·015	3·5	+ 0·6
Bombay . . .	61	0	·430	— ·001	1·7	+ 0·6
Central India . .	70	+ 13	·382	+ ·082	4·2	+ 2·5
Central Provinces .	64	+ 8	·413	+ ·065	3·3	+ 1·9
Hyderabad . . .	56	+ 2	·455	+ ·022	2·2	+ 0·5
Mysore . . .	67	+ 3	·495	+ ·023	2·3	+ 0·4
Madras . . .	78	+ 2	·707	+ ·034	2·9	+ 0·6

Rainfall.

14. The rainfall of the month was in excess over the hole of northern and central India with the exception Gujarat, the amount received in Chota Nagpur being early seven times the normal; it was more than four nes the usual quantity in the Central Provinces and Central India East and two to three times the usual amount in Assam, Bengal, Bihar, Orissa, the United Provinces, the Punjab, Sind and Rajputana East.

Over the Peninsula, excluding Hyderabad North and Madras Coast North the weather was drier even than usual.

TABLE 14.

Sub-division.	Number of rainy days.		Rainfall.			
	Actual.	Normal.	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
			"	"	"	
Bay Islands	·0	0·9	0·01	0·59	—0·58	— 98
Lower Burma	0·2	0·3	0·14	0·20	—0·06	— 30
Upper do.	0·8	0·4	0·19	0·18	+ 0·01	+ 6
Assam	5·7	3·1	3·38	1·27	+ 2·11	+ 166
Bengal	4·3	1·5	2·83	0·87	+ 1·96	+ 225
Orissa	3·2	1·3	2·49	0·74	+ 1·75	+ 236
Chota Nagpur	6·8	1·6	5·27	0·76	+ 4·51	+ 593
Bihar	3·5	1·3	1·48	0·54	+ 0·94	+ 174
United Provinces, East	3·4	1·1	1·38	0·48	+ 0·90	+ 187
Do., West	3·0	1·6	1·88	0·87	+ 1·01	+ 116
Punjab, East and North	4·8	2·2	2·13	1·08	+ 1·05	+ 97

Sub-division.	Number of rainy days.		Rainfall.			
	Actual.	Normal.	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
			"	"	"	
12. Punjab, South-west	2·3	1·4	1·24	0·59	+0·65	+110
13. Kashmir	5·7	4·8	3·42	2·79	+0·63	+ 23
14. North-West Frontier Province	5·1	2·7	2·29	1·31	+0·98	+ 75
15. Baluchistan	4·4	3·7	2·34	1·57	+0·77	+ 49
16. Sind	1·4	0·7	0·65	0·25	+0·40	+160
17. Rajputana, West	0·5	0·3	0·24	0·13	+0·11	+ 85
18. Do., East	1·7	0·6	0·62	0·26	+0·36	+138
19. Gujarat	0	0·2	0	0·11	—0·11	—100
20. Central India, West	0·8	0·6	0·35	0·29	+0·06	+ 21
21. Do., East	5·7	1·3	3·12	0·64	+2·48	+387
22. Berar	1·3	0·6	0·49	0·24	+0·25	+104
23. Central Provinces, West	3·0	0·8	1·55	0·38	+1·17	+308
24. Do., East	4·0	0·8	2·48	0·45	+2·03	+451
25. Konkan	0	0·1	0·01	0·05	—0·04	— 80
26. Bombay, Deccan	0	0·2	0·01	0·09	—0·08	— 89
27. Hyderabad, North	1·1	0·3	0·38	0·16	+0·22	+137
28. Do., South	0·4	0·4	0·12	0·18	—0·06	— 33
29. Mysore	0	0·2	0	0·08	—0·08	—100
30. Malabar	0·1	0·3	0·09	0·20	—0·11	— 55
31. Madras, South-east	0·3	0·8	0·13	0·53	—0·40	— 75
32. Do., Deccan	0	0	0	0·09	—0·09	—100
33. Do. Coast, North	0·8	0·5	0·47	0·39	+0·08	+ 21

TABLE 15.

Division.	Rainfall.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"	
Burma	0·16	0·19	—0·03	— 16
Assam	3·38	1·27	+2·11	+166
Bengal	2·83	0·87	+1·96	+225
Bihar and Orissa	2·38	0·63	+1·75	+278
United Provinces	1·62	0·66	+0·96	+145
Punjab	1·94	0·97	+0·97	+100
North-West Frontier Province	2·29	1·31	+0·98	+ 75
Sind	0·65	0·25	+0·40	+160
Rajputana	0·50	0·22	+0·28	+127
Bombay	0·01	0·09	—0·08	— 89
Central India	0·84	0·41	+0·43	+105
Central Provinces	1·44	0·34	+1·10	+324
Hyderabad	0·25	0·17	+0·08	+ 47
Mysore	0	0·08	—0·08	—100
Madras	0·21	0·41	—0·20	— 49
Mean of India	1·08	0·46	+0·62	+ 115

Snowfall.

I.—AFGHANISTAN.

15. No information has been received.

II.—NORTH-WEST FRONTIER PROVINCE.

(*a*) *Wano.*—There were four falls but none of them descended to the level of the Wano plain.

The statement below shows the total fall recorded during the month on the various heights :—

TABLE 16.

LOCALITY.	Elevation.	Total snowfall during the month.	
	Feet.	Feet.	Inches.
Marwatti and Pirghal	11,000	1	7
Bosh and Dre Nashtar	11,000		8
Spera	10,000		7
Jani Mela	9,000		10½
Kundighar	9,000		5
Kotkun	7,900		8

At the end of the month the unmelted residue of snow accumulations on the higher passes was estimated at 4 inches.

(*b*) *Tochi* (North Waziristan).—Snowstorms occurred on the hills on the 14th and 15th.

(*c*) *Dera Ismail Khan.*—Snow fell from the 14th to the 20th to a total depth of 2½ feet on the Takht-i-Suleman and 1 foot on the Dabara.

(*d*) *Kurram.*—There were in all eleven falls on the Sufed Koh and six of these extended to Parachinar. On the last day of the month the unmelted residue on the Paiwar Kotal was estimated at 2 feet

(*e*) *Kohat.*—There was a total fall of about 9 inches on the Samana range, 1 foot on the Takhtarghar and 6 inches on the Mozioghar.

(*f*) *Drosh.*—Snowstorms occurred on the 6th, 21st and 22nd: the total fall amounted to 6¼″. On the surrounding hills the snowfall is said to have been fairly heavy.

(*g*) *Hazara.*—The following statement indicates the character of snowfall in this area :—

TABLE 17.

LOCALITY.	Total amount of snowfall during the month.		Number of days on which snow fell.	Total depth of unmelted snowfall on 15th March, 1913.	
	Ft.	In.		Ft.	In.
Malkandi	0	9	1	*Nil.*	
Jared	0	4	1	*Nil.*	
Kagan	5	9	3	8	0
Paluderan	7	1	3	12	0
Narang	9	10	3	14	6
Dungagali	6	8	4	4	0
Tandiani	14	5	9	6	0
Sundigali	8	5	5	3	0
Dunga	9	11	5	4	6

The lowest level to which the snowline descended was 4,500 feet.

III.—KASHMIR.

The statement below shows the character of snowfall in this region :—

TABLE 18.

Locality.	Number of days on which snow fell.	Aggregate amount of snowfall.		Approximate depth of unmelted residue, on the surrounding hills at the end of the month.
		ft.	inch.	
Leh	...	2	6	9 feet on the Zojila.
Skardu	5	0	9	About 1 foot on ground.
Kargil	8	about 1 foot.		
Hills surrounding Kargil	8	22	6	8 feet.

IV.—PUNJAB.

(*a*) *Murree.*—Snow fell at Murree on the 9th, 14th to 17th, the 21st, 22nd, 24th and 26th to a total depth of 3¼ feet. The falls of the 21st and 22nd were moderately heavy. There was no snowfall on the hills adjacent to Kahuta.

(*b*) *Kilba* (Simla Hills).—Snowstorms occurred on the 9th, 14th, 16th, 17th, 20th and the 22nd to the 26th. The lowest level reached by the snowline was 5,750 feet.

It is reported that contrary to the usual rule the snowfall was heavier on the hills near Simla than in the interior; at Narkanda the total fall was over 6 feet.

At the end of the month about twelve feet of snow still remained unmelted on the Rupin pass.

V.—UNITED PROVINCES.

(*a*) *Garhwal.*—Snowstorms occurred on the 15th, 16th, 24th and 25th. The last two falls were heavy and came down as low as 5,500 feet.

(*b*) *Almora.*—The total fall was estimated at 15 feet in Malla Johar, 14 feet in Malla Darma, about 11 feet in Malla Danpur and Chaudas and 10 feet in Byans. The snow line descended to a distance of 7 or 8 miles from the perpetual snows.

TABLE 19.

Name of pass or peak.	Depth of accumulation at the end of the month.		
	Reported.		Normal.
	Feet	Inch	Feet.
Nuwe pass	38	0	35
Untadhura ,,	8	0	25
Ralamdhura ,,	4	0	20½
Milamdhura ,,	2	0	19½
Pindari peak	11	3	8½
Kaphini ,,	11	3	8½
Kuntela ,,	11	3	8½
Binkaru pass	32	0	37½
Lipulekh ,,	16	0	19
Lampia ,,	20	0	21½

VI.—ASSAM.

Lakimpur.—The following report for 1912-13 has been received from the Deputy Commissioner: "Since March 1912, all through the hot weather and rains the weather was unusually open, leaving the hills clearly visible. There was no fall of snow during this period. The rain during the first week of October left a slight sprinkling of snow on Sajuba (Sita) and heavier deposits on peaks of 13,000 and over including Daphabum. This melted very soon in the fine weather that followed and it was not until the third week of November that the snow came down to 12,000 feet. Early in December snow had been falling in the hills leaving a fair amount of snow. Snow was fairly regular though not heavy in December and January. In the beginning of January snow was a little heavier but did not remain below 12,000 feet. February as far as I have been able to discover had a very heavy snowfall. It was an exceptionally wet month in the plains and lower hills. Snow lay for a week in the middle of February on peaks of 7,000 feet. The Phunkan pass, 10,000 feet, was knee-deep in snow early in February and was almost impassible ; on the Chaukan pass, 8,000 feet, there was foot of snow. This state continues. On the Daphabum range, about 10,000 feet (Phulobum on map), snowfall was unusually heavy extending down to about 6,000 feet. On the range east of Kunki snow came down to about 7,000 feet."

SUMMARY.

16. (*a*) Heavy snow is said to have fallen in Transcaspia during the earlier part of the month.

(*b*) So far as can be judged from the limited information available the snowfall of the month in the mountain zone bordering upper India was on the whole above the normal.

(*c*) In parts of the Assam Himalayas the fall was probably excessive.

HEM RAJ.

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

Tabl

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

Number of subdivision.	Station.	Elevation of barometer 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.	Temperature, wet-bu Mean minimum.	Mean 10 hrs.	Mean 16 hrs.	Mean of three
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	2
	III.—Bengal.																					
5	Calcutta . .	21	30·048	29·918	·130	29·975	+·018	29·943	81·4	62·3	19·1	88·8	54·7	34·1	73·7	80·1	71·0	+0·7	60·8	66·7	68·2	6
	V.—United Provinces of Agra and Oudh.																					
9	Allahabad . .	309	29·751	29·629	·122	29·679	+·011	29·951	78·7	55·7	23·0	87·4	48·0	39·4	69·2	77·9	66·1	+ 1·2	51·3	60·7	62·7	59
	VI.—Punjab.																					
11	Lahore . .	702	29·338	29·256	·082	29·288	+·007	29·993	70·4	48·7	21·7	76·3	39·7	36·6	59·6	68·0	58·5	+ 1·2	46·7	54·1	57·5	52
	IX.—Rajputana.																					
18	Jaipur . .	1,431	28·595	28·491	·104	28·532	—·006	29·943	77·6	54·7	22·9	87·8	40·4	47·4	68·9	75·5	65·0	+ 0·8	49·3	56·1	58·4	54
	X.—Bombay.																					
25	Bombay . .	37	29·984	29·873	·111	29·923	—·010	29·899	84·1	69·7	14·4	86·3	63·3	23·0	76·7	79·9	76·0	+ 1·2	64·1	68·5	70·8	67
	XIV.—Mysore.																					
29	Bangalore . .	3,021	27·035	26·910	·125	26·970	+·001	29·796	86·5	61·6	24·9	92·4	53·4	39·0	77·0	84·2	73·4	+ 1·4	59·4	64·5	64·6	56
	XV.—Madras.																					
31	Pudukkottai .	318	29·711	29·547	·164	29·629		29·877	92·1	71·2	20·9	96·3	65·7	30·6	83·0	90·0	81·7			71·3	72·0	
	Madras . .	22	30·019	29·901	·118	29·958	—·008	29·911	87·0	71·2	15·8	89·3	64·6	24·7	82·9	83·7	78·2	+ 1·6	70·8	75·2	75·8	73
	Hill stations excluding Kashmir and Baluchistan.																					
	Sanain . .		23·181	23·125	·056	23·141		23·163	45·3	29·3	16·0	56·4	22·9	33·5	38·8	41·1	37·1			34·5	37·2	
	Kalabagh . .																					
	Mukteswar . .	7,592	22·803	22·803	·060	22·826		22·784	48·9	33·5	15·4	58·5	25·8	32·7	42·8	46·1	41·0		26·9	37·3	40·0	35
	Katmandu . .	4,388	25·723	25·625	·103	25·674	+·026†	25·628	65·4	40·5	24·9	75·4	33·2	42·2	53·3	62·8	52·3	+ 0·3†	35·8	49·0	52·8	46
	Ootacamund .	7,327	23·115	23·041	·074	23·068		23·004	63·4	44·2	21·2	72·7	34·1	38·6	63·0	62·6	56·1		42·0	50·3	52·8	46
	Kodaikanal . .	7,688	22·886	22·821	·065	22·847		22·783	68·2	47·0	21·2	73·7	40·6	33·1	62·3	61·0	55·6		41·5	51·1	54·5	43
	Dodabetta . .	8,539	22·125	22·061	·064	22·083		22·020	59·7	45·1	14·6	65·1	37·1	28·0	55·5	56·1	52·2		38·7	46·7	49·8	45
	Extra India.																					
	Diego Garcia .																					
	Seychelles . .	15	29·955	29·865	·090	29·918	—·011†	29·856	84·9	78·2	6·7	86·7	75·9	10·8	82·4	83·8	80·5	+1·4†	72·3	77·4	77·6	75
	Mauritius . .	181				29·705	—·032	29·829									78·0	—0·5				75

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.

1.

6 stations in India, etc., in February, 1913.

Vapour tension in inches of mercury.					Humidity.					Cloud.				Wind direction.											Wind steadiness.		Wind velocity.		Rainfall.		Station.	Number of sub-division.
														Total number of 10 hrs. and 16 hrs. Number of winds from																		
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.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Mean wind direction.	Normal mean wind direction of month.	Average percentage.	Normal percentage.	Mean velocity in miles per diem.	Normal.	Total rainfall for the month.	Heaviest rainfall during the month.		
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	49	50	51	52	53	54	55	56
																															III.—Bengal.	
·515	·565	·536	·564	+·079	91	68	53	74	+ 8	2·8	3·5	3·1	+0·9	2	6	1	2	4	1	12	11	17	N 76° W	N 73° W	48	25	61*	58	3·29	1·30	Calcutta.	5
																															V.—United Provinces of Agra and Oudh.	
·410	·423	·373	·416	+·089	91	60	40	69	+11	4·7	3·2	3·9	+1·5	7	6	4	13	7	1	2	9	7	N 40° E	N 63° W	15	31	35	79	1·92	0·65	Allahabad.	
																															VI.—Punjab.	
·296	·346	·335	·334	+·047	85	69	51	71	+ 9	5·2	4·8	5·0	+1·1	17	4		10	6	3	1	5	10	N 25° E	N 30° W	7	30	34	39	1·39	0·35	Lahore.	11
																															IX.—Rajputana.	
·290	·301	·281	·298	+·036	68	42	32	51	+ 4	4·0	5·5	4·7	+1·6	2	5	9	13	8	3	2	5	9	N 58° E	N 20° W	27	33	83*	66	0·27	0·17	Jaipur.	
																															X.—Bombay.	
·524	·589	·633	·605	—·014	72	64	62	70	— 1	1·1	1·1	1·1	—0·1		3	8	9	3		1	7	25	N 20° W	N 1° W	45	57	150*	183	0	0	Bombay.	25
																															XIV.—Mysore.	
·484	·464	·381	·418	+·041	88	50	33	59	+ 5	1·9	1·6	1·7				5	28	14	3	3	3		S 72° E	S 69° E	68	59	137	88	0	0	Bangalore.	29
																															XV.—Madras.	
	628	·546				57	39			4·3	3·7	4·0		19	4	19	5	6	1	2			N 63° E		43		68		0	0	Pudukkottai.	1
·750	·768	·784	790	+·075	98	68	63	81	+ 3	3·8	2·3	3·1	—0·1		2	8	31	14	1				S 86° E	S 84° E	83	72	88*	88	0·14	0·14	Madras.	
																															Hill stations excluding Kashmir and Baluchistan.	
	·158	·184				68	72			6·0	6·4	6·2																	9·05*	2·77	Sarain.	
																															Kalabagh.	
·116	·168	·188	·167		63	62	62	65		5·2	6·3	5·7		13	1	1	10	3	5		22	1	S 64° W		20		127		3·64	1·41	Mukteswar.	
·219	·300	·286	·278	+·018	87	75	52	74	+ 5	3·6	5·1	4·3	+0·8	50			1				5		W	N 87° W	7	47	13*	21	1·29	0·39	Katmandu.	
·246	·236	·298	·275		84	41	53	63		2·1	3·9	3·0		1	2	3	8	20	16	1	1	4	S 40° E		55		66		0·21	0·09	Ootacamund.	
·216	·270	·364	·282		66	48	68	64		2·6	5·6	4·1			6	14	15	17	2			2	N 85° E		64		217		1·07	0·89	Kodaikanal.	
·169	·232	·294	·232		55	53	66	58		3·4	5·0	4·2		1	7	20	11	15	2				N 77° E		67		315		0·44	0·21	Dodabetta.	
																															Extra India.	
																															Diego Garcia.	
·714	·876	·865	·841	—·001	74	79	75	79	— 4	5·9	5·9	5·9	—0·6†	7	7	7	6	6	1	1	8	13	N 10° W	N 21° W	28	53	35*	107	7·01	4·23	Seychelles.	
			·784	+·024				82	+ 3			6·7	+0·8										S 78° E	S 83° E			188*	162	5·69		Mauritius.	

* Uncorrected for scale error. Departure from old normal. † Rain and snow water.

Table B.—Abstract of observations taken at 8 hrs. at 215 stations in India, etc., in February, 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.

	Pressure departure from normal.	Temperature of air.								Wind.		Hygrometry.				Cloud.		Rainfall.		
		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.	Absolute range during month.	Departure of velocity from normal.	Departure of steadiness from normal.	Mean humidity.	Departure from normal.	Mean vapour tension.	Departure from normal.	Mean cloud amount.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.
urma	+·017	87·9	—0·3	62·6	+0·9	75·2	+0·3	25·3	38·8	—0·4	— 5	80	+ 1	·564	+·002	2·4	+0·6	0·16	0·19	—0·03
ssam	+·027	75·6	—1·0	56·3	+1·6	65·9	+0·3	19·3	34·1	0	+ 6	91	+ 1	·466	+·019	4·1	+0·2	3·28	1·27	+2·11
engal	+·022	80·0	—1·4	59·7	+2·0	69·9	+0·3	20·3	34·6	—0·8	— 5	87	+ 6	·523	+·039	3·0	+0·9	2·83	0·87	+1·96
ihar and Orissa	+·025	79·6	—3·2	58·5	+1·8	69·0	—0·7	21·1	35·8	—0·1	— 9	83	+10	·482	+·057	3·6	+1·3	2·38	0·63	+1·75
nited Provinces of Agra and Oudh.	+·021	76·9	—1·1	53·5	+2·1	65·2	+0·5	23·4	41·2	—0·8	—11	79	+ 8	·396	+·059	3·6	+1·0	1·62	0·66	+0·96
unjab	+·019	71·0	—0·5	48·0	+1·4	59·5	+0·4	23·0	39·3	—0·1	— 1	78	+ 3	·309	+·021	4·4	+0·7	1·94	0·97	+0·97
orth-West Frontier Province	—·013	67·7	—1·3	45·1	+1·3	56·4	+0·1	22·7	35·3	—0·5	—12	75	+ 1	·263	+·007	5·1	+1·3	2·29	1·31	+0·98
nd	—·002	77·3	—1·5	55·2	+0·8	66·2	—0·4	22·1	37·4	—1·3	— 1	63	0	·329	+·010	3·9	+1·2	0·65	0·25	+0·40
ajputana	+·001	78·0	—0·2	54·4	+2·1	66·2	+1·0	23·6	42·7	+0·6	+ 7	56	+ 3	·280	+·015	3·5	+0·6	0·50	0·22	+0·28
ombay	—·006	86·3	—0·5	62·1	+1·1	74·2	+0·3	24·2	38·3	—0·4	0	61	0	·430	—·001	1·7	+0·6	0·01	0·09	—0·08
entral India	—·001	79·5	—1·5	55·3	+3·4	67·4	+0·9	24·3	44·1	+0·2	+ 5	70	+13	·382	+·082	4·2	+2·5	0·84	0·41	+0·43
entral Provinces	+·003	85·3	—1·4	60·5	+3·2	72·9	+0·9	24·8	41·8	+0·7	+ 5	64	+ 8	·413	+·065	3·3	+1·9	1·44	0·34	+1·10
yderabad	+·011	91·0	+0·3	66·8	+3·5	78·9	+1·9	24·3	36·4	—0·7	+22	56	+ 2	·455	+·022	2·2	+0·5	0·25	0·17	+0·08
ysore	+·006	87·9	+0·4	63·7	+2·2	75·8	+1·3	24·3	36·3	+0·5	+ 7	67	+ 3	·495	+·023	2·3	+0·4	0	0·08	—0·08
adras	—·001	89·0	—0·1	71·0	+1·9	80·0	+0·9	17·9	28·4	+0·4	+ 7	78	+ 2	·707	+·034	2·9	+0·6	0·21	0·41	—0·20

Tab

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

Number of subdivision.	Station.	Elevation of barometer above sea-level, in feet.	Pressure, 8 hrs., in inches. 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.	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
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
	I.—Burma.																						
2	Victoria Point	147	29·822		29·900	29·947	1st	29·744	24th	·203	78·0	89·9		74·2		82·0		15·7	96·6	18th	71·2	1st	
	Mergui	56	29·919	+·001	29·915	30·057	1st	29·826	24th	·231	74·7	89·0	—0·6	69·7	+0·6	79·4	0	19·3	92·0	18th	63·3	1st	
	Tavoy	19	29·978	—·007	29·930	30·122	1st	29·879	24th	·243	72·4	91·4	+0·3	69·5	+2·7	80·4	+1·5	21·9	94·0	11th	60·8	1st	
	Moulmein	94	29·920	+·027	29·952	30·076	1st	29·817	28th	·259	71·8	92·7	+1·2	69·2	+1·5	80·9	+1·3	23·5	95·5	4 days.	63·8	5th	
	Rangoon	18	29·984	+·003	29·940	30·150	1st	29·879	24th	·271	70·8	93·2	+0·4	67·8	+1·9	80·5	+1·1	25·4	97·0	17th & 26th.	64·5	11th	
	Bassein	27?	29·966	+·004	29·930	30·130	1st	29·854	24th	·276	71·0	90·9	+0·9	67·3	+2·4	79·1	+1·7	23·6	97·2	27th	61·9	2nd, 6th & 15th.	
	Diamond Island	41	29·955	—·005	29·931	30·098	1st	29·851	21st	·247	77·8	85·0	+0·8						88·9	17th			
	Toungoo	164	29·846	+·026	29·957	30·029	1st	29·723	23rd	·306	67·1	89·9	—1·0	61·8	+0·7	75·9	—0·1	28·1	96·5	28th	54·4	5th	
	Kyaukpyu	18	29·989		29·947	30·164	1st	29·874	22nd	·290	79·5	81·8		64·2		73·0		17·6	90·0	27th	57·4	5th	
	Akyab	20	29·996	+·002	29·957	30·177	1st	29·883	22nd	·294	66·8	85·2	+0·4	62·2	+0·7	73·7	+0·5	23·0	92·9	27th	56·0	3rd & 5th	
3	Thayetmyo	121	29·879	+·017	29·946	30·078	1st	29·750	22nd	·328	67·5	91·5	—1·1	58·1	+1·2	74·8	+0·1	33·4	100·9	28th	51·4	2nd	
	Minbu	*165*	29·832	+·018	29·945	30·039	1st	29·673	22nd	·366	67·4	89·2	—1·8	61·4	+0·2	75·6	—0·8	28·4	99·3	28th	54·0	10th	
	Yamethin	657	29·329	+·027	29·957	29·513	1st	29·178	22nd	·335	67·0	91·8	—0·7	60·0	—0·6	75·9	—0·7	31·8	99·8	26th	52·5	1st	
	Mandalay	250	29·765	+·042	29·973	29·944	2nd	29·638	28th	·306	65·9	91·6	+1·7	59·5	—0·6	75·5	+0·5	32·1	100·2	25th, 26th & 27th.	52·6	3rd & 5th	
	Monywa	*980*	29·750		29·883	29·837	2nd	29·592	22nd	·345	68·0	89·2		61·4		75·3		27·8	98·8	27th	55·1	1st	
	Lashio	*2,820*	27·199	+·020	27·145	27·365	1st	27·043	22nd	·322	55·6	77·3	—1·7	49·8	+1·1	63·5	—0·3	27·5	85·1	27th	43·0	6th	
	Bhamo	*381*	29·654	+·060	30·009	29·863	1st	29·471	22nd	·392	58·2	80·7	—1·5	53·5	—0·1	66·9	—0·8	27·7	90·4	27th	44·1	4th	
	Myitkyina	458	29·549		29·990	29·767	1st	29·368	22nd	·399	58·1	77·9		55·0		66·5		22·9	86·2	28th	47·5	4th	
	II.—Assam.																						
4	Dibrugarh	353	29·683		30·018	29·896	1st	29·504	22nd	·392	57·2	72·4		55·4		63·9		17·0	78·4	10th	47·6	4th	
	Sibsagar	333	29·732	+·023	30·042	29·936	1st	29·570	22nd	·366	58·3	71·9	—1·2	54·0	+0·7	62·9	—0·3	17·9	78·6	28th	45·0	3rd	
	Tezpur	252	29·816		30·040	30·018	1st	29·646	22nd	·372	59·5	75·6		57·0		66·3		18·6	81·6	9th	50·8	4 days	
	Gauhati	195	29·857		30·017	30·066	1st	29·694	24th	·372	60·5	76·6		55·8		66·2		20·8	84·8	25th	45·6	4th	
	Dhubri	115	29·920	+·026	29·995	30·135	1st	29·759	23rd	·376	61·0	76·4	—1·6	57·4	+1·4	66·9	—0·1	19·0	85·5	25th	50·6	3rd	
	Silchar	104	29·966	+·033	30·027	30·126	2nd	29·816	24th	·312	62·2	80·6	—0·1	58·3	+2·7	69·5	+1·3	22·3	86·3	27th	50·8	3rd, 4th & 6th.	
	III.—Bengal.																						
5	Cox's Bazar	36	29·993		29·971	30·169	1st	29·882	22nd	·286	66·3	83·7		60·1		71·9		23·6	92·7	26th	53·7	5th	
	Chittagong	87	29·946	+·016	29·982	30·126	1st	29·836	22nd	·290	64·3	82·2	—0·1	59·2	+0·2	70·7	+0·1	23·0	90·5	26th	51·5	4th	
	Noakhali	43	29·999		29·991	30·182	1st	29·868	23rd	·314	64·4	79·4		59·0		69·2		20·4	86·3	27th	50·9	4th	
	Barisal	12	30·024	+·024	29·982	30·181	1st	29·876	23rd	·305	66·5	80·7	—1·0	60·8	+1·1	70·7	+0·1	19·9	87·3	27th	54·6	4th	
	Narayanganj	26	30·0.0	+·022*	29·986*	30·185	1st	29·865	22nd	·320	64·9	80·1	—2·1	60·4	+1·8	70·2	—0·1	19·7	87·5	1st	53·8	4th	

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

* Mean of 27 days.

3.

tations in India, etc., in February, 1913.

Wind direction. Number of winds from 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 from 1st Dec. 1912 to 28th Feb. 1913.	Normal rainfall for period, 1st Dec. to 28th Feb.	Departure from normal of period, 1st Dec. 1912 to 28th Feb. 1913.	Heaviest rainfall during month.	Station.
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
																															I.—Burma.
																											0·93			0·12	Victoria Point.
5	15	4	2					N 49° E		5·4*			74		78		·744		4·6		1			0·12							
	1							N 45° E	N 8° W	2·9	1·5	+1·4	4	−43	89	+ 6	·768	+·011	3·3	−0·3	2	2·9	−0·9	1·36	2·12	− 0·76	3·53	3·51	+ 0·02	1·05	Mergui.
								(a)	N 52° W	1·0*	1·0	0	(a)		89	+ 1	·716	+·022	3·8	+1·4	3	1·0	+2·0	0·76	0·59	+ 0·17	0·76	0·95	− 0·19	0·51	Tavoy.
8	15	2				1		N 79° E	N 81° E	3·1	1·7	+1·4	74	+26	84	0	·668	−·008	2·1	+0·8	0	0·5	−0·5	0	0·19	− 0·19	0	0·51	− 0·51	0	Moulmein.
4	2			0	1		2	N 20° E	S 67° W	1·3	2·8	−1·5	29	−18	79	− 6	·592	−·041	7·0	+5·8	0	0·4	−0·4	0	0·28	− 0·28	0	0·52	− 0·52	0	Rangoon.
								(a)	N 43° W	2·8	3·3	−0·5	(a)		87	0	·672	+·003	1·4	−0·6	0	0·3	−0·3	0	0·36	− 0·36	0	0·75	− 0·75	0	Bassein.
																					0	0·3	−0·3	0	0·20	− 0·20	0	1·13	− 1·13	0	Diamond Island.
13	7						7	N	N 9° W	6·4	6·4	0	81	+ 6	73	− 3	·695	−·004	1·4	−0·9	0	0·4	−0·4	0·08	0·22	− 0·14	0·39	0·59	+ 0·30	0·08	Toungoo.
5	6	4	5	2	1		1	N 70° E	N 6° E	0·9	1·4	−0·5	39	+ 4	82	− 2	·547	−·008	3·3	+2·0	0						0·25			0	Kyaukpyu.
4	4	3	1				4	N 42° E		3·3			32		82		·623		0·7		0			0							
11	9	1						N 23° E	N 24° E	2·4	2·6	−0·2	67	−16	82	0	·544	+·004	1·1	−0·1	0	0·3	−0·3	0·03	0·12	− 0·04	0·08	0·92	− 0·84	0·08	Akyab.
	1		1					E	N 50° W	1·5*	2·6	−1·1	5	−33	74	+ 8	·507	+·061	1·1	+0·5	0	0·3	−0·3	0	0·12	− 0·12	0·79	0·35	+ 0·44	0	Thayetmyo.
1			2	2	1		2	N 50° W	N 70° W	2·7	4·6	−1·9	63	+45	64	0	·428	−·016	2·1	+1·3	0	0·2	−0·2	0	0·10	− 0·10	0·29	0·59	− 0·30	0	Minbu.
6			6	2			2	N 67° E	S 63° E	1·2	2·3	−1·1	11	− 1	65	− 5	·435	−·032	0·6	−0·1	0	0·5	−0·5	0·08	0·32	− 0·24	0·18	0·76	− 0·58	0·08	Yamethin.
1		2	1	1				S 75° E	S 30° W	1·1	1·8	−0·7	11	0	71	+ 2	·445	− 010	1·1	0	1	0·2	+0·8	0·33	0·07	+ 0·26	0·54	0·44	+ 0·10	0·33	Mandalay.
17	1						8	N 11° W		1·7			85		73		·500		1·1		0	0·1	−0·1	0·01	0·03	− 0·02	0·03	0·40	− 0·37	0·01	Monywa.
								(a)		1·0*			(a)		86	+ 4	·376	+·024	1·6	−2·3	1	0·8	+0·2	0·86	0·28	+ 0·58	2·09	1·28	+ 0·81	0·76	Lashio.
	2	1						N 59° E	N 18° W	1·0	2·0	−1·0	7	−17	93	+ 6	·462	+·028	3·9	+1·1	2	1·3	+0·7	0·67	0·46	+ 0·21	2·10	1·63	+ 0·47	0·42	Bhamo.
1			1				1	N		1·4			4		80		·435		3·7		5	2·0	+3·0	1·27	0·66	+ 0·61	2·17	1·65	+ 0·52	0·50	Myitkyina.
																															II.—Assam.
								(a)		0·3			(a)		97		·452		4·8		10	4·9	+5·1	3·55	1·91	+ 1·61	5·19	4·06	+ 1·13	0·71	Dibrugarh.
3	3		2	1			1	N 40° E	N 48° E	1·5	1·7	−0·2	14	−22	95	− 3	·462	+·004	6·0	+0·7	9	5·0	+4·0	4·98	1·86	+ 3·12	6·38	3·68	+ 2·70	1·53	Sibsagar.
2	13	8				1		N 58° E		3·0			67		86		·439		4·0		5	2·4	+2·6	2·84	0·84	+ 2·00	3·33	1·58	+ 1·74	0·71	Tezpur.
	2	3	1	1	2	1		S 57° E		1·1			11		89		·472		3·8		5	2·5	+2·5	3·27	0·92	+ 2·35	3·34	1·39	+ 1·95	1·05	Gauhati.
9	10	1	3	3				N 88° E	N 67° E	4·3	3·1	+1·2	53	+22	89	+ 5	477	+·050	3·5	+1·3	3	1·4	+1·6	2·01	0·67	+ 1·34	2·01	1·08	+ 0·93	1·51	Dhubri.
5	4	1			1			N 74° E	S 63° E	0·8	1·8	−1·0	25	+17	87	0	·494	+ ·002	2·2	−1·5	4	3·6	+0·4	4·28	2·04	+ 2·24	4·52	3·30	+ 1·22	1·83	Silchar.
																															III.—Bengal.
																											0·27			0·17	Cox's Bazar.
9	9	7	3					N 49° E		2·6*			67		84		·546		1·8		1			0·24							
14	2							N 50° E	N 45° E	1·0	2·8	−1·8	56	+ 1	84	0	·512	−·011	1·7	+0·6	1	1·2	−0·2	0·59	0·98	− 0·39	0·59	2·11	− 1·52	0·46	Chittagong.
4	1	4				1	1	N 21° E		1·5			43		89		·540		2·8		4	2·0	+2·0	2·02	1·13	+ 0·89	2·02	1·79	+ 0·23	0·88	Noakhali.
1				1				N 45° E	N 13° W	0·1	1·5	−1·4	4	− 4	86	+ 1	·560	+·001	2·3	−0·1	4	1·8	+2·2	3·30	1·02	+ 2·28	3·30	2·04	+ 1·26	1·59	Barisal.
1		3	1	1		1	2	N 60° E	N 27° W	0·9	2·1	−1·2	4	− 4	87	+ 3	·539	+·028	3·6	+0·6	5	1·9	+3·1	3·01	1·32	+ 1·69	3·01	1·83	+ 1·18	1·91	Narayanganj.

* Uncorrected for scale error.

(a) Indeterminate.

Ta

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

Number of subdivision.	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.	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.	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.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	III.—Bengal—*concld.*																					
	Mymensingh	63	29·977	+·025	29·995	30·161	1st	29·822	23rd	·339	61·9	79·2	+0·8	59·1	+3·5	69·1	+2·1	20·1	85·1	24th	52·1	3rd
	Bogra	75	29·959	+·028	29·989	30·145	1st	29·798	23rd	·347	61·3	78·8	−1·4	58·0	+3·5	68·5	+1·1	20·8	87·2	25th	52·2	3rd & 28th.
	Dinajpur	123	29·906	+·025	29·990	30·101	1st	29·736	22nd	·365	60·4	77·8	−1·6	55·5	+2·4	66·7	+0·4	22·3	88·3	25th	49·0	3rd
	Jalpaiguri	283	29·745	+·019	30·001	29·941	1st & 2nd.	29·578	24th	·363	59·9	76·7	+0·2	56·0	+3·2	66·3	+1·7	20·7	84·4	25th	48·9	1st
5	Saugor Island	25	30·012	+·021	29·982	30·172	1st	29·842	24th	·330	66·4	78·5	−1·6	62·7§	−1·2	70·6§	−1·4	15·8	81·7	8th	57·2	6th
	Midnapore	149	29·876		29·979	30·038	1st	29·713	23rd	·325	66·6	82·8		62·6		72·7		20·2	90·3	24th	53·7	6th
	Calcutta	21	30·019	+·016	29·987	30·184	1st	29·850	23rd	·334	65·0	81·5	−0·5	62·1	+1·7	71·8	+0·6	19·4	88·6	24th	54·5	6th
	Jessore	83	30·015	+·030	29·996	30·177	1st	29·843	23rd	·334	65·2	79·2	−3·9	60·1	+2·8	69·7	−0·5	19·1	86·0	25th	52·7	5th
	Burdwan	9	29·939	+·018	29·990	30·105	1st	29·764	23rd	·341	64·8	80·9	−2·9	60·9	+2·3	70·9	−0·3	20·0	88·4	25th	54·8	6th
	Berhampore	67	29·974	+·020	29·994	30·148	1st	29·810	24th	·338	62·3	79·0	−3·0	59·6	+3·1	69·3	+0·1	19·4	88·1	25th	53·7	5th
	IV.—Bihar and Orissa.																					
	Balasore	50	29·995	+·024	29·992	30·152	1st	29·834	23rd	·318	67·1	82·3	−3·1	63·1	+1·2	72·7	−0·9	19·2	88·4	23rd & 24th	55·1	6th
	Hukitala (False Point).	29	30·020	+·027	29·990	30·181	1st	29·883	24th	·298												
	Cuttack	80	29·969	+·032	29·993	30·127	2nd	29·827	23rd	·300	70·0	85·6	−4·5	66·3	+0·6	76·0	−1·9	19·3	92·5	24th	61·2	7th & 8th
	Puri	24	30·008		29·970	30·161	1st	29·873	23rd	·288	72·4	83·8		68·9		76·3		14·9	88·1	28th	63·6	17th & 18th.
	Angul	455	29·569		30·003	29·722	2nd	29·424	23rd	·298	67·5	84·9		62·6		73·7		22·3	91·1	23rd & 24th.	56·5	9th
	Sambalpur	486	29·542	+·014	29·995	29·693	1st	29·384	24th	·309	67·6	81·1	−3·9	62·9	+3·0	73·5	−0·5	21·2	92·1	24th	55·6	28th
7	Chaibasa	*733*	29·270	+·012	29·990	29·428	1st	28·107	23rd	·321	61·5	80·6	−4·0	58·3	+1·1	69·5	−1·5	22·3	90·1	24th	52·3	6th
	Ranchi	2,128	27·872	+·003	30·008	28·013	1st	27·736	23rd	·277	59·9	75·0	−3·2	56·2	+1·4	65·6	−0·9	18·8	82·7	24th	49·9	18th
	Purulia	*816*	29·208		30·011	29·375	1st	29·029	23rd	·346	68·3	79·8		59·3		69·6		20·5	89·0	24th	55·1	1st, 5th & 28th.
	Daltonganj †	*730*	29·320		30·045	29·455	2nd	29·156	25th	·299	73·0	78·5		54·3		66·4		24·2	88·1	25th	48·5	28th
8	Purnea	134	29·914	+·041	30·010	30·107	2nd	29·745	24th	·362	58·4	77·0	−2·1	54·1	+2·7	65·5	+0·3	22·9	87·1	25th	47·3	2nd, 3rd & 4th.
	Monghyr	155	29·890		30·007	30·080	1st	29·724	24th	·356	61·9	76·9		56·9		66·9		20·0	87·2	25th	51·4	1st
	Darbhanga	165	29·871	+·027	30·004	30·061	1st	29·708	23rd	·353	58·8	76·4	−0·4	52·7	−1·7?	64·5	−1·1?	23·7	86·6	25th	47·2	3rd & 5th
	Pusa	188	29·841		29·995	30·031	2nd	29·679	23rd	·352	58·7	77·5		52·7		65·1		24·8	87·9	25th	45·5	2nd
	Patna	183	29·852	+·016	30·000	30·033	2nd	29·684	23rd	·349	61·7	76·0	−2·2	56·9	+3·3	66·5	+0·5	19·1	86·0	25th	52·2	5th
	Buxar	239	29·785		29·995	29·966	2nd	29·619	23rd	·347	59·6	78·7		55·9		67·3		22·8	88·5	25th	50·1	1st
	Gaya	372	29·660‖	+·018‖	30·009‖	29·815	2nd	29·496	24th	·319	62·0‡	77·1¶	−4·8¶	56·2¶	−0·4¶	66·5**	−2·6¶	20·9	86·9	25th	49·2	2nd
	Naya Dumka	489	29·539	+·028	30·005	29·714	1st	29·373	24th	·341	62·8	78·8	−0·9	57·5	+3·3	68·1	+1·2	21·3	87·4	25th	50·0	5th
	V.—United Provinces of Agra and Oudh.																					
9	Gorakhpur	257	29·761	+·022	29·991	29·949	2nd	29·598	23rd	·351	58·9	76·3	−1·7	52·7	+0·1	64·5	−0·8	23·6	85·6	25th	43·8	1st
	Benares	267	29·764	+·016	29·999	29·948	2nd	29·591	23rd	·357	61·9	78·8	−1·6	54·5	+2·5	66·6	+0·5	24·3	87·5	25th	46·1	1st
	Allahabad	309	29·722	+·015	30·003	29·898	2nd	29·555	23rd & 24th.	·343	61·1	78·3	−1·9	55·4	+3·6	66·9	+0·9	22·9	87·6	25th	48·0	1st
	Cawnpore	416	29·606	+·027	30·002	29·791	2nd	29·445	24th	·346	60·0	78·2	−0·6	54·7	+3·2	66·4	+1·3	23·5	88·2	7th	44·9	1st

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

† Mean of 26 days except rainfall.

‖ Mean of 19 days.
** " " 16 "
§ " " 20 "
‡ " " 22 "

¶ Mean of 17 days.

B—*continued.*

stations in India, etc., in February, 1913—continued.

Wind direction. Number of winds from Calm. (25)	N. (26)	N.E. (27)	E. (28)	S.E. (29)	S. (30)	S.W. (31)	W. (32)	N.W. (33)	Resultant direction. (34)	Normal direction. (35)	Wind velocity. Mean velocity, miles per hour. (36)	Normal. (37)	Departure from normal. (38)	Wind steadiness. Actual percentage. (39)	Departure from normal. (40)	Hygrometry, 8 hrs. Mean humidity at 8 hrs. (41)	Departure from normal. (42)	Mean vapour tension at 8 hrs., in inches of mercury. (43)	Departure from normal, in inches of mercury. (44)	Cloud. Mean cloud amount at 8 hrs. (45)	Departure from normal. (46)	Rainfall. Number of rainy days. (47)	Normal number of rainy days. (48)	Departure from normal. (49)	Rainfall of month. (50)	Normal rainfall of month. (51)	Departure from normal. (52)	Total rainfall from 1st Dec. 1912 to 28th Feb. 1913. (53)	Normal rainfall for period, 1st Dec. to 28th Feb. (54)	Departure from normal of period, 1st Dec. 1912 to 28th Feb. 1913. (55)	Heaviest rainfall during month. (56)	Station. (57)
																																III.—Bengal —*concld.*
26								2	N 45° W	N 74° E	0·8	1·4	−0·6	4	−27	88	+ 3	·498	+·041	3·4	+1·3	6	1·6	+4·4	2·08	1·00	+ 1·08	2·08	1·49	+ 0·59	0·81	Mymensingh.
24	1		1			1		1	N 22° W	N 27° W	0·5	1·8	−1·3	4	− 7	88	+ 9	·486	+·065	3·9	+2·1	4	1·7	+2·3	1·45	0·88	+ 0·57	1·45	1·38	+ 0·07	0·54	Bogra.
9	4	5	1	1		5	1	2	N 9° W	N 83° W	1·4	2·6	−1·2	18	−11	89	+ 9	·473	+·080	3·0	+1·5	2	1·1	+ 0·9	0·88	0·53	+ 0·35	0·88	0·95	− 0·07	0·68	Dinajpur.
25				1	2				S 15° E	N 40° E	1·3			11	−22	88	+ 2	·462	+·030	3·1	+1·6	2	1·1	+ 0·9	0·85	0·61	+ 0·24	0·85	1·03	− 0·18	0·74	Jalpaiguri.
	6	13	2		3	3		1	N 38° E	N 3° W	5·6	6·4	−0·8	49	+25	93N	+ 7	·599N	−·043	3·2	0	4	1·8	− 2·2	1·25	1·14	+ 0·11	1·34	1·31	− 0·47	0·36	Saugor Island.
14	3	3	2	2	1	1		2	N 45° E		1·4			14		80		·524		1·8		7	1·8	+ 5·2	6·86	1·13	+5·73	6·87	1·95	+ 4·92	1·80	Midnapore.
9	2	1	3	2	1	2	1	7	N 31° W	S 46° W	2·4*	2·4	0	18	+ 2	89	+ 8	·557	+·010	3·9	+1·7	4	1·6	+ 2·4	3·50	1·15	+ 2·35	3·56	1·	+ 1·79	1·30	Calcutta.
20		1		2	2		1	2	S 15° W	N 18° W	1·4	1·5	−0·1	5	− 7	86	+ 3	·543	+·041	3·5	+1·2	8	1·9	+ 6·1	5·45	1·37	+ 4·08	5·47	1·99	+ 3·48	1·99	Jessore.
20	4						1	3	N 27° W	N 27° W	1·2	1·5	−0·3	25	+ 5	83	+15	·515	+·099	3·5	+1·0	7	1·7	+ 5·3	5·81	1·14	+ 4·67	5·81	1·71	+ 4·10	1·71	Burdwan.
15	4	1			2	3	2	1	N 72° W	S 83° W	1·1	1·6	−0·5	14	−17	87	+ 7	·493	+·048	2·9	+0·7	5	1·8	+ 3·2	3·09	0·94	+ 2·15	3·09	1·47	+ 1·62	1·46	Berhampore.
																																IV.—Bihar and Orissa.
9	3		1		1	5	1	8	N 66° W	N 42° W	1·6	2·8	−1·2	36	+ 1	80	+ 2	·529	+·003	3·2	+0·2	7	2·1	+ 4·9	5·95	1·31	+ 4·64	6·18	2·17	+ 4·01	1·97	Balasore.
2	2	5	2	1	1	6	1	8	N 42° W	N 57° W	5·5	5·7	−0·2	29	−14					2·3	−0·8	2	1·2	+ 0·7	0·89	0·97	− 0·08	0·89	2·29	− 1·40	0·49	Hukitala (Paiserpoint.)
15		5	5		1	1	1		N 75° E	N 36° E	1·3*	1·5	−0·2	25	+18	83	+ 5	·618	+·056	3·7	+1·3	1	1·2	− 0·2	1·52	0·60	+ 0·92	1·52	1·20	+ 0·32	1·50	Cuttack.
3	7	8				8		2	N 7° W		6·4			29		85		·671		5·8		0	0·8	− 0·8	0·04	0·75	− 0·71	0·04	1·55	− 1·51	0·03	Puri.
10	1	1	1	3	2		2	8	N 53° W		3·1			18		79		·545		5·2		2	1·8	+0·2	4·11	0·96	+ 3·15	4·11	2·20	+ 1·91	2·62	Angul.
	5	19	3					1	N 39° E	N 27° E	3·3	2·1	+1·2	85	+23	78	+11	·525	+·067	3·6	+1·5	5	1·6	+3·4	2·12	0·74	+ 1·38	2·20	1·40	+ 0·80	0·71	Sambalpur.
11			1	1	2	6	5	2	S 58° W	S 86° W	1·5	1·1	+0·4	36	−21	88	+15	·489	+·066	4·4	+2·3	7	2·4	+4·6	5·75	1·56	+ 4·19	5·97	2·61	+ 3·36	1·65	Chaibasa.
9	1		1	1	2	2	5	7	N 78° W	N 68° W	4·0	4·2	−0·2	36	+ 1	75	+16	·392	+·066	3·7	+1·6	9	2·9	+6·1	8·63	1·55	+ 7·08	8·66	2·55	+ 6·11	3·09	Ranchi.
15		1			1		6	5	N 72° W		1·1			32		76		·448		1·8		9	3·0	+6·0	7·25	1·44	+ 5·81	7·25	2·66	+ 4·59	2·99	Purulia.
16		2	4	2		2			S 72° E		2·0			12		92		·444		3·5		7	2·4	+4·6	3·55	1·14	+ 2·41	3·95	2·35	+ 1·60	1·11	Daltonganj.
9	2	1	2	4		7	2	1	S 26° W	S 64° W	N 1·7	2·3	−0·6	18	− 2	91	+ 7	·447	+·054	3·1	+1·9	2	1·3	+0·7	1·34	0·60	+0·74	1·34	1·15	+ 0·19	0·63	Purnea.
8		1	4	2		2	9	2	S 81° W		2·7			21		83		·465		4·6		3			1·97			1·97			0·87	Monghyr.
18			3	1		3	2	1	S 28° W	N 89° W	2·4	2·7	−0·3	7	−24	91	+14	·454	+·062	4·0	+2·4	4	1·3	+2·7	1·48	0·49	+ 0·99	1·48	1·10	+ 0·38	0·47	Darbhanga.
10	2		5	4	1	2	4		S 34° E		2·0			14		88		·438		3·4		3			1·43			1·43			0·51	Pusa.
9	2		6		2	5	3	1	S 8° W	S 70° W	2·4	2·4	0	11	−36	81	+13	·451	+·080	3·0	+0·6	3	1·5	+1·5	1·86	0·71	+1·15	1·86	1·41	+ 0·45	1·16	Patna.
8		4	5		2	5	2	2	S 45° E		2·2			4		81		·412		3·9		4	1·8	+2·2	1·30	0·72	+0·58	1·30	1·65	− 0·35	0·35	Buxar.
4	3	3	2	1	3	2	3	1	N 23° W	S 37° W	L 2·3	2·6	−0·3	L 3	−32	L 80	+12	L ·445	+·062	L 3·8	+1·5	4	1·8	+2·2	Z1·24	0·83	+0·41	1·24	1·69	− 0·45	0·47	Gaya.
26	1	1							N 24° E		0·8			7		74	+ 8	·429		2·6		3	1·9	+1·1	1·13	0·75	+0·38	1·13	1·41	− 0·28	0·62	Naya Dumka.
																																V.—United Provinces of Agra and Oudh.
6		5	5			1	9	2	N 32 W	N 72° W	1·2	1·6	−0·4	18	−21	86	+13	·429	+·065	1·7	−0·2	4	1·6	+2·4	1·08	0·53	+0·55	1·08	1·44	− 0·36	0·40	Gorakhpur.
13			4	4	2	2	2	1	S 7° E	S 52° W	1·7	2·8	−1·1	18	−16	81	+ 5	·450	+·072	3·5	+1·3	2	1·8	+0·2	0·57	0·70	−0·13	0·59	1·67	− 1·08	0·24	Benares.
11		5	1	1	1	1	7	1	N 60° W	N 81° W	1·4	3·3	−1·9	11	−13	78	+ 9	·433	+·072	4·9	+2·4	5	1·4	+3·6	1·92	0·50	+1·42	1·95	1·59	+ 0·36	0·65	Allahabad.
12	2	4	4			1	4	1	N 17° E	N 81° W	1·7	2·8	−1·1	18	− 6	81	+14	·419	+·085	2·0	+0·1	2	1·7	+0·3	2·43	0·63	+1·80	2·43	1·46	+ 0·97	1·90	Cawnpore.

* Uncorrected for scale error.

N Mean of 20 days.
L " " 22 "

Z Rainfall of 22 days only.

Table

(2) Abstract of observations taken at 8 hrs. at 215

Number of sub-division.	Station.	Elevation of barometer 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 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 of 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
	V.—United Provinces of Agra and Oudh—*concld.*																						
	Lucknow	368	29·661	+·025	30·007	29·858	2nd	29·505	24th	·353	60·0	78·5	−0·3	54·1	+3·2	66·3	+1·5	24·4	86·5	7th	44·1	1st	42·4
	Bahraich	401	29·596	+·014	29·981	29·725	2nd	29·440	24th	·355	57·5	76·1	−0·6	52·8	+2·1	64·5	+0·7	23·3	84·1	25th	45·0	4th	39·1
10	Jhansi	824	29·196	+·001	30·019	29·379	2nd	29·031	22nd	·348	60·6	79·6	−1·6	56·0	+0·6	67·8	−0·5	23·6	88·5	6th & 7th	46·5	27th & 28th.	42·0
	Agra	556	29·477	+·018	30·022	29·657	2nd	29·301	24th	·356	60·9	76·5	−2·1	54·9	+2·6	65·7	+0·3	21·6	85·5	6th & 7th	46·5	27th	39·0
	Mainpuri	516	29·497	+·024	30·004	29·694	2nd	29·319	25th	·375	57·1	76·6	−0·2	52·9	+2·5	64·7	+1·1	23·7	86·3	7th	44·6	1st	41·7
	Bareilly	568	29·444*	+·021*	30·007*	29·641	2nd	29·247	25th	·394	57·2	74·8	−0·2	51·6	+1·9	63·2	+0·9	23·2	84·3	7th	44·0	3rd	40·3
	Roorkee	899	29·102	+·034	30·029	29·299	2nd	28·895	25th	·404	52·4	71·7	−1·4	48·6	+0·9	60·2	−0·3	23·1	83·0	7th	40·4	1st, 3rd & 4th.	42·6
	VI.—Punjab.																						
11	Delhi	718	29·298	+·023	30·025	29·489	2nd	29·100	25th	·389	56·6	72·8	−2·0	52·9	+1·1	62·9	−0·5	19·9	83·0	6th	46·3	2nd	36·7
	Sirsa	662	29·360	+·023	30·033	29·564	2nd	29·194	25th	·370	54·4	72·9	−2·3	48·9	+2·1	60·9	−0·1	24·0	86·3	6th	42·0	17th	44·3
	Patiala	*818*	29·180		30·021	29·359	2nd	28·925	25th	·434	52·8	71·2		48·8		60·0		22·4	82·6	7th	40·3	1st	42·3
	Ambala	892	29·113	+·0537	30·036	29·305	2nd	28·950	25th	·355	52·3	73·6	+2·1	47·6	−0·2	60·6	+0·9	26·0	83·5	7th	38·9	1st & 2nd	44·6
	Ludhiana	812	29·195	+·029	30·035	29·403	2nd	28·972	25th	·431	51·5	70·7	−0·5	48·6	+1·1	59·7	+0·3	22·1	82·4	7th	42·5	2nd	39·9
	Lahore	702	29·309	+·012	30·035	29·516	2nd	29·101	25th	·415	50·8	70·5	−2·2	47·9	+3·8	59·2	+0·8	22·6	76·4	13th	39·7	3rd	36·7
	Sialkot	830	29·181	+·033	30·043	29·369	2nd	28·976	25th	·393	51·7	69·9	+0·3	46·3	+0·2	58·1	+0·3	23·6	77·0	13th	38·5	2nd	36·5
	Rawalpindi	1,674	28·316	+·016	30·074	28·506	2nd	28·096	25th	·410	47·5	65·8	+1·0	41·9	+0·5	53·8	+0·7	23·9	73·4	5th & 13th	35·9	1st	37·5
12	Khushab	612	29·418	+·021	30·047	29·609	2nd	29·204	25th	·405	52·6	69·3	+0·6	48·7	+2·6	59·0	+1·6	20·6	76·4	3rd	41·4	1st	35·0
	Montgomery	558	29·460	+·014	30·029	29·667	2nd	29·266	25th	·401	51·5	71·1	−1·7	46·7	+0·3	58·9	−0·7	24·4	82·9	6th	40·0	17th	42·9
	Multan	420	29·621	+·001	30·035	29·824	2nd	29·411	21st	·413	55·3	73·2	−0·5	49·6	+2·1	61·4	+0·8	23·6	78·8	13th	44·5	11th	34·3
	VII.—North-West Frontier Province.																						
14	Peshawar	1,113	28·904	−·022	30·076	29·095	2nd	28·672	21st	·423	48·4	66·5	+0·4	43·9	+1·3	55·2	+0·9	22·6	74·2	5th	38·4	1st & 2nd	35·8
	D. I. Khan	590	29·456	−·004	30·064	29·658	2nd	29·233	21st	·425	50·0	69·0	−2·9	46·2	+1·3	57·6	−0·8	22·8	75·4	4th & 5th	40·6	3rd & 7th	34·8
	VIII.—Sind.																						
16	Jacobabad	186	29·855	−·005	30·013	30·041	2nd	29·677	21st	·364	55·7	76·5	−1·4	49·6	+1·1	63·0	−0·1	26·9	82·1	28th	42·8	9th & 15th	39·3
	Hyderabad	96	29·959	0	30·012	30·082	2nd	29·826	23rd	·256	59·3	78·0	−2·8	54·6	+0·2	66·3	−1·3	23·4	86·0	6th	44·0	25th	42·0
	Karachi	13	30·045	0	30·008	30·161	1st	29·909	23rd	·252	64·3	77·4	−0·4	61·5	+1·0	69·4	+0·3	15·9	86·0	5th	55·0	25th & 26th	31·0
	IX.—Rajputana.																						
17	Bikaner	*771*	29·231	+·007	30·012	29·411	2nd	29·033	24th	·378	56·1	76·3	+0·4	51·3	−2·2P	63·9	−0·9P	25·0	86·0	6th	44·0	25th & 26th	42·0
	Jodhpur	780	29·228	−·001	30·005	29·[illegible]86	2nd	29·040	24th	·346	59·9	80·0	+0·6	54·8	+1·5	67·4	+1·1	25·2	88·5	5th	43·3	26th	45·2
18	Jaipur	1,431	28·564	−·002	30·016	28·720	3rd	28·402	24th	·318	59·4	77·5	−1·1	54·3	+2·4	65·9	+0·7	23·2	87·7	7th	40·6	26th	47·1
	Ajmer	1,211	28·397	+·002	30·040	28·555	2nd	28·215	24th	·344	56·2	75·1	−2·7	51·2	+4·8P	64·7	+1·1P	20·9	83·6	6th	44·7	26th	38·9
	Kotah	819P	29·166	−·020P	29·979P	29·317	2nd	28·988	24th	·319	62·7	81·0	−0·1	57·3	+2·4	69·2	+1·1	23·7	89·1	6th	48·6	26th	40·5

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

* Mean of 26 days.

B—*continued.*

stations in India, etc., in February, 1913—continued.

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 from 1st Dec., 1912 to 28th Feb., 1913.	Normal rainfall for period, 1st Dec. to 28th Feb.	Departure from normal of period, 1st Dec., 1912 to 28th Feb., 1913.	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
																																V.—United Provinces of Agra and Oudh—*concld.*
23		1	1			1	2		W	N 74° W	1·1	2·2	−1·1	4	−26	77	+ 5	·405	+ ·061	3·4	+0·6	5	1·4	+3·6	1·76	0·57	+1·19	1·76	1·76	0	0·55	Lucknow.
5	2	3	4	3		3	4	4	N 15° W	N 68° W	1·9	2·3	−0·4	11	−20	80	+ 2	·379	+ ·011	3·5	+0·5	2	2·2	−0·2	1·12	0·99	+0·13	1·12	2·20	−1·08	0·75	Bahraich.
6	1	7	3	2	1	4	2	2	N 56° E	S 81° W	3·0	1·8	+1·2	11	−12	71	+18	·379	+ ·083	6·0	+4·3	2	1·2	+0·8	0·57	0·45	+0·12	0·80	1·40	− 0·60	0·34	Jhansi.
15	2	3	3	1	1	2	1		N 41° W	N 53° W	2·0	3·1	−1·1	29	−10	67	+ 2	·361	+ ·051	3·4	+1·0	4	0·9	+3·1	2·26	0·37	+1·89	2·33	1·24	+ 1·09	1·19	Agra.
10	3	3	1		1	1	5	4	N 37° W	N 63° W	1·3	1·5	−0·2	32	+12	78	+ 6	·366	+ ·039	2·7	−1·1	3	1·6	+1·4	1·39	0·72	+0·67	1·42	1·84	− 0·42	0·90	Mainpuri.
28									*a*	N 51° W	0·3	2·3	−2·0	*a*		84	+ 8	·395	+ ·071	3·6	+0·5	3	1·8	+1·2	2·18	0·77	+1·41	2·18	2·20	− 0·02	1·90	Bareilly.
22				1				5	N 45° W	N 40° W	1·4	2·0	−0·6	14	+ 2	86	+ 6	·343	+ ·035	4·7	+1·4	4	2·7	+1·3	3·32	1·49	+1·83	3·50	3·71	− 0·21	2·07	Roorkee.
																																VI.—Punjab.
14	2	1		1			6	4	N 56° W	N 86° W	2·0	2·6	−0·6	29	− 4	74	+9	·340	+ ·058	5·1	+1·4	3	1·6	+1·4	1·61	0·66	+0·98	1·77	2·21	− 0·44	0·75	Delhi.
1	4	5	3	2	4	4	2	3	N 38° E	S 78° W				4	0	76	+ 3	·320	+ ·032	3·5	−0·6	2	1·0	+1·0	0·66	0·34	+0·32	0·71	1·32	− 0·61	0·40	Sirsa.
6	1	2	7	2	1		2	7	N 31° E		3·4			21		77		·307		3·5		4	2·3	+1·7	4·45	1·44	+3·01	4·64	3·15	+ 1·49	1·35	Patiala.
12	5		5	2	1		1	2	N 45° E	N 39° W	2·0	1·7	+0·3	21	− 4	80	− 4	·316	−·008	3·8	+0·4	5	3·4	+1·6	3·63	2·08	+1·55	3·76	4·34	− 0·58	1·50	Ambala.
25		2						1	N 8° E	N 52° W	0·6	1·4	−0·8	7	−21	82	+ 4	·313	+ ·005	4·2	−0·3	6	2·6	+3·4	2·94	1·38	+1·56	3·06	3·85	− 0·79	1·03	Ludhiana.
18	2	1	2	1			3	1	N 7° W	N 23° W	1·4	1·6	−0·2	10	+ 1	84	+ 6	·316	+ ·021	5·6	+2·0	6	2·2	+3·8	1·39	0·99	+0·40	1·59	2·45	− 0·86	0·35	Lahore.
12	7	4	2	1	1	1			N 34° E	N 18° E	1·1	1·3	−0·2	32	+18	86	+ 7	·331	+ ·024	4·1	+0·9	4	3·1	+0·9	1·69	1·72	−0·03	2·01	4·70	− 2·69	0·61	Sialkot.
23			1			1	2	1	W	N 45° W	1·5	1·7	−0·2	9[illegible]	−15	79	− 3	·262	−·001	5·7	+1·4	6	3·8	+2·2	1·84	2·29	−0·45	2·56	5·93	− 3·37	0·51	Rawalpindi.
16		2	3		2	3	2		S 7° E	N 29° E	3·1	2·4	+0·7	10	− 1	70	0	·284	+ ·052	5·3	+2·0	5	2·0	+3·0	2·03	0·87	+1·16	2·18	2·09	+ 0·09	0·97	Khushab.
6	2	6	5	1	2	2	1	3	N 52° E	N 18° E	3·4	3·1	+0·3	25	+ 9	73	+ 4	·281	+ ·006	4·6	+0·9	5	1·4	+3·6	1·32	0·48	+0·84	1·34	1·43	− 0·09	0·55	Montgomery.
20	6	2							N 11° E	N 37° E	0·9	1·3	−0·4	25	+ 5	75	+ 7	·325	+ ·021	2·7	−0·6	3	1·4	+1·6	0·76	0·40	+0·36	0·78	1·04	− 0·26	0·28	Multan.
																																VII.—North-West Frontier Province.
16	3			3	3	2		1	S	S 27° W	1·6	2·3	−0·7	10	−29	73	− 3	·248	−·004	5·8	+1·3	5	3·1	+1·9	1·48	1·31	+ 0·17	1·65	3·44	− 1·79	0·40	Peshawar.
18	2	2						6	N 20° W	N 22° W	1·0	1·4	−0·4	29	+ 5	76	+ 5	·278	+ ·018	4·5	+1·2	6	1·7	+4·3	1·66	0·71	+ 0·95	1·69	1·44	+ 0·25	0·16	D. I. Khan.
																																VIII.—Sind.
24		1	1					2	N 9° E	N 37° E	0·5	2·2	−1·7	7	−13	67	+10	·297	+ ·048	3·3	−0·1	0	1·1	−1·1	0·07	0·36	−0·29	0·12	0·78	− 0·66	0·04	Jacobabad.
7	9	1		1	1	2	1	6	N 25° W	N 21° W	3·2	5·0	−1·8	42	+ 2	60	+ 3	·309	+ ·007	4·0	+1·3	2	0·7	+1·3	1·33	0·28	+1·05	1·33	0·57	+ 0·76	0·82	Hyderabad.
3	5	12	5				1	2	N 36° E	N 39° E	6·7	7·2	−0·5	67	+ 8	62	−13	·382	−·024	4·5	+2·4	4	1·0	+3·0	1·00	0·41	+0·59	1·00	1·16	− 0·16	0·51	Karachi.
																																IX.—Rajputana.
12		2	4	4	4	1	1		S 47° E	N 39° W	3·9	3·3	+0·6	32	+ 8	52	− 1	·235	−·013	3·1	−0·2	2	0·8	+1·2	0·35	0·29	+0·06	0·35	0·80	− 0·45	0·21	Bikaner.
5	6	13	2			2			N 36° E		2·7			60		44	0	·230		3·6		0	0·6	−0·6	0·02	0·22	−0·20	0·02	0·53	− 0·51	0·02	Jodhpur.
11	2	5	8				1	1	N 58° E	N 2° W	3·5*	2·8	+0·7	42	+11	59	+ 2	·298	+ ·021	4·6	+1·7	1	0·7	+0·3	0·27	0·26	+0·01	0·37	0·97	−0·60	0·17	Jaipur.
19	1	6			1	1			N 45° E	N 2° W	2·2	1·8	+0·4	14	+ 3	70	+ 6	·320	+ ·036	2·7	+0·4	0	0·8	−0·8	0	0·28	−0·28	0	0·95	− 0·95	0	Ajmer.
17	1	2	2				1	5	N 10° W		1·3			21		56	+10	·319		3·5		1	0·5	+0·5	0·17	0·24	−0·07	0·46	0·76	− 0·30	0·11	Kotah.

a=Indeterminate.

* Uncorrected for scale error.

Table

(2) Abstract of observations taken at 8 hrs. at 215

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
	X.—Bombay.																						
19	Deesa	466	29·547	—·008	29·989	29·665	26th	29·430	24th	·230	62·1	85·5	—1·0	53·8	—1·3	69·6	—1·1	31·7	93·3	22nd	42·4	26th	50·9
	Bhuj	395	29·682	—·010	29·983	29·805	26th	29·579	24th	·226	62·8	81·8	—2·5	54·3	—3·8	68·1	—3·1	27·5	87·5	22nd	41·0	26th	43·5
	Jamnagar	61	29·982		29·990	30·112	26th	29·882	24th	·230	67·6	83·0		56·2		69·5		26·8	89·6	4th	47·6	26th	41·7
	Dwarka	37?	30·006	—·027?	29·989	30·116	26th	29·922	21st & 23rd.	·194	67·5	79·4	+1·4?	63·3†	+1·5†	71·3†	+1·5?	16·1	86·8	21st	54·7	26th	32·1
	Rajkot	429	29·685	—·011	29·982	29·694	26th	29·495	15th	·199	63·3	85·3	—1·9	54·3	—0·2	69·8	—1·1	31·0	92·6	22nd	39·8	26th	52·8
	Veraval	*18*	30·003	0	29·965	30·093	26th	29·917	21st	·176	65·9	80·6	—0·9	61·9	+1·2	71·3	+0·1	18·7	86·1	14th	53·3	26th	32·8
	Bhavnagar Para	55	29·971	—·021?	29·977	30·099	26th	29·880	21st	·219	65·2	87·4	+1·7?	58·7	—1·1	73·0	+0·3?	28·7	95·5	22nd	44·3	26th	51·2
	Surat	39	29·978	—·011	29·951	30·098	26th	29·869	21st	·229	67·2	83·9	—0·8	61·5	+2·5	75·2	+0·9	27·4	98·9	21st	51·1	26th	47·8
	Ahmadabad	163	29·819	—·006	29·957	29·982	26th	29·758	24th	·224	66·6	87·4	—0·1	51·4	+1·1	74·4	+0·5	26·0	95·6	21st & 22nd.	49·7	26th	45·9
25	Bombay	37	29·961	—·017	29·942	30·056	1st	29·876	28th	·180	72·4	84·0	+1·4	69·5	+0·8	76·7	+1·1	14·5	86·5	21st	63·5	26th	23·0
	Ratnagiri	110	29·871	—·011	29·921	29·976	1st	29·779	28th	·197	72·6	84·3	—2·1	68·2	+0·9	76·2	—0·6	16·1	87·3	28th	62·9	26th	24·4
	Goa‡	199	?	?	?	?	?	?	?	?	72·8	83·8	—2·7	69·8	+0·2	76·8	—1·3	14·0	87·1	5th	68·1	6th, 7th & 16th.	19·0
	Marmagao	*60*	29·928	—·005	29·923	30·035	1st	29·837	28th	·198	74·0	84·7	—0·2	71·2	0	78·0	—0·1	13·5	88·0	28th	67·7	26th	20·3
	Karwar	44	29·956	—·002	29·955	30·062	1st	29·873	28th	·189	70·0	85·6	—0·7	67·6	+0·3	76·6	—0·2	18·0	88·2	3rd & 22nd	64·5	6th	23·7
26	Malegaon	1,430	28·566	—·005	29·986	28·658	26th	28·478	21st	·190	65·4	91·3	+1·4	57·5	+2·1	74·4	+1·7	33·8	100·9	22nd	43·1	26th & 27th	57·8
	Ahmadnagar	2,154	27·844	+·009	29·956	27·942	2nd	27·765	23rd	·177	57·5	90·0	+1·9	59·7	+4·6	74·8	+3·3	30·3	97·1	21st & 22nd.	51·5	26th	45·6
	Poona	1,846	28·146	—·013	29·979	28·225	1st	28·038	28th	·187	63·5	90·6	—0·7	59·2	+2·1	74·9	+0·7	31·4	97·5	21st	51·3	26th & 27th.	46·2
	Sholapur	1,590	28·386	—·021	29·931	28·495	1st	28·295	19th	·198	72·9	92·5	—1·2	66·3	+4·6	79·7	+1·7	25·7	98·3	21st & 22nd.	61·1	26th	37·2
	Bijapur	*1,948*	28·043	+·015	29·934	28·151	5th	27·947	23rd	·204	72·7	92·6	+2·2	67·6	+3·4	80·1	+2·8	25·0	96·7	20th, 21st & 22nd.	62·3	25th	34·4
	Belgaum	2,662	27·447	—·003	29·931	27·550	1st	27·377	18th, 19th & 23rd.	·173	70·8	87·7	—0·9	60·4	+0·8	74·1	—0·1	27·3	94·3	22nd & 24th.	56·5	16th & 25th.	38·8
	XI.—Central India.																						
20	Neemuch	1,626	28·364	—·003	29·995	28·502	2nd	28·225	22nd	·277	61·4	80·7	—0·5	53·8	+1·7	67·2	+0·6	26·9	88·9	8th	40·5	26th	48·4
	Indore	1,823	28·160	—·008	29·979	28·262	2nd	28·056	24th	·206	61·2	82·5	—0·3	55·6	+3·5	69·0	+1·3	26·9	92·1	22nd	42·1	26th	50·0
21	Nowgong	754	29·267	+·008	30·014	29·425	2nd	29·108	22nd	·317	60·4	77·7	—2·6	55·5	+4·4	66·6	+0·9	22·2	86·0	7th	45·5	28th	40·5
	Sutna	1,041	28·958	+·002	30·009	29·104	2nd	28·793	23rd	·311	60·3	77·3	—2·3	56·3	+4·0	66·8	+0·9	21·2	85·8	23rd & 25th.	48·2	28th	37·6
	XII.—Central Provinces.																						
22	Buldana	2,132	27·855		29·940	27·953	2nd	27·777	22nd & 23rd.	·176	70·0	86·8		63·8		75·3		23·0	94·4	22nd	53·0	26th	41·4
	Akola	925	29·071	+·006	29·967	29·201	3rd	28·969	22nd	·232	70·4	91·9	+1·2	62·6	+5·1	77·2	+3·1	29·3	98·2	22nd	47·5	27th	50·7
	Amraoti	1,215	28·779	+·013	29·970	28·901	3rd	28·668	23rd	·233	69·9	89·7	—0·4	61·9	+3·2	77·3	+1·4	24·8	95·3	23rd	55·3	26th	40·0
23	Khandwa	1,044	28·945	—·010	29·975	29·054	1st	28·838	21st	·216	66·2	88·8	0	59·3	+3·4	74·1	+1·7	29·5	98·7	22nd	46·6	27th	52·1
	Hoshangabad	1,096	29·003	+·001	30·001	29·125	3rd	28·869	22nd	·256	62·9	84·1	—1·3	57·8	+1·8	71·0	+0·3	26·3	94·1	22nd	48·4	26th	45·7
	Saugor	1,807	28·170	—·005	29·980	28·322	1st	28·029	24th	·293	62·5	79·6	—1·7	57·6	+2·2	68·6	+0·3	22·0	88·3	23rd	47·6	27th	40·7
	Jubbulpore	1,327	28·659	—·005	29·990	28·786	3rd	28·515	22nd	·271	61·7	79·7	—2·7	57·4	+5·0	68·6	+1·1	22·3	87·3	22nd & 23rd.	47·3	28th	40·0
	Seoni	2,033	27·964	+·007	29·988	28·095	3rd	27·829	24th	·266	64·2	80·9	—2·9	57·3	+1·9	69·1	—0·5	23·6	89·1	22nd	50·0	27th & 28th.	39·1
	Nagpur	1,017	26·978	+·005	29·973	29·110	2nd	28·841	24th	·269	68·1	88·1	—1·2	62·1	+2·1	75·1	+0·5	26·0	94·6	23rd	52·8	18th	41·8
24	Pendra	2,123?	27·956		30·002	28·085	2nd	27·814	23rd	·271	62·3	78·3		57·0		67·7		21·3	87·8	24th	48·2	28th	39·6

F. S.—Elevations in italics indicate barometrical determinations.

† Mean of 27 days.
‡ „ „ 21 „

-continued.

tions in India, etc., in February, 1913—continued.

Wind direction. Number of winds from 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 from 1st Dec., 1912 to 28th Feb., 1913.	Normal rainfall for period, 1st Dec. to 28th Feb.	Departure from normal of period, 1st Dec., 1912 to 28th Feb., 1913.	Heaviest rainfall during month.	Stations.
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
																															X.—Bombay.
4	8	8	1		1	2	1	N 51° E	N 30° E	6·6	6·3	+0·3	49	+13	50	+ 7	·282	+·035	2·8	+0·8	0	0·4	−0·4	0	0·16	−0·16	0	0·35	− 0·35	0	Deesa.
2	3	2		1	3	4	2	N 54° W	N 63° W	3·3	5·3	−2·0	11	−24	51	− 8	·301	−·083	4·5	+3·2	0	0·4	−0·4	0	0·16	−0·16	0	0·28	− 0·28	0	Bhuj.
4	10	5	1	1	1	2	3	N 38° E		9·3			49		53		·405		1·5		0	0·3	−0·3	0	0·15	−0·15	0	0·25	− 0·25	0	Jamnagar.
10	9	2	1		1	1	4	N 14° E		7·6			67		68	− 2	·463		3·3		0	0·7	−0·7	0	0·51	−0·51	0	0·62	− 0·62	0	Dwarka.
2	6	2	1	2		3	3	N 19° E	N 2° W	4·9	4·5	+0·4	21	−10	48	−11	·230	−·078	2·8	+1·8	0	0·3	−0·3	0	0·13	−0·13	0	0·22	− 0·22	0	Rajkot.
8	7						7	N	N 7° E	6·2	5·2	+1·0	64	− 8	58	− 1	·385	−·016	1·7	+0·5	0	0·1	−0·1	0·02	0·03	−0·01	0·02	0·16	− 0·14	0·02	Veraval.
4					1	7	9	N 56° W	S 85° W	2·5	5·9	−3·4	61	− 4	60	− 2	·385	−·010	2·5	+1·4	0	0·3	−0·3	0	0·13	−0·13	0	0·26	− 0·26	0	Bhavnagar Para.
10	4	1		1			6	N 1° W	N 27° W	3·0†	3·7	−0·7	57	+14	71	+ 6	·483	+·046	1·9	+0·8	0	0·2	−0·2	0	0·08	−0·08	0	0·20	− 0·20	0	Surat.
1	13	1			4		8	N 7° E	N 11° E	3·5	2·9	+0·6	46	−12	46	− 4	·312	−·009	3·4	+2·0	0	0·3	−0·3	0	0·12	−0·12	0	0·18	− 0·18	0	Ahmadabad.
9	11	5	2					N 43° E	N 47° E	6·1*	7·6	−1·5	74	+ 3	70	− 1	·565	−·014	1·5	+0·3	0	0·1	−0·1	0·07	0·03	+0·04	0·07	0·19	− 0·12	0·07	Bombay.
2	7	4	12		1		2	S 87° E		7·0	6·0	+1·0	53	+13	70	+ 5	·565	+·026	1·1	+0·4	0	0·1	−0·1	0	0·02	−0·02	0	0·23	− 0·23	0	Ratnagiri.
	10	11						N 69° E	N 67° E	4·2	4·3	−0·1	90	+13	85	+11	·680	+·039	0·8	+0·2	0	0	0	0	0	0	0	0·32	−0·32	0	Goa.
9	10	8		1				N 45° E	N 80° E	6·5*	6·3	−0·3	74	+26	84	+ 2	·707	+·021	1·6	+1·0	0	0·1	−0·1	0	0·02	−0·02	0	0·23	− 0·23	0	Marmagao.
9	6					1		N 14° E	N 55° E	1·7†	3·0	−1·3	46	−37	87	+ 3	·634	+·021	0·7	+0·2	0	0	0	0	0·01	−0·01	0	0·26	− 0·26	0	Karwar.
1				2	5	13	3	S 83° W	N 53° W	5·4	4·5	+0·9	67	− 4	46	−11	·297	−·056	0·3	−1·0	0	0·2	−0·2	0	0·06	−0·06	0·04	0·42	− 0·38	0	Malegaon.
5				2	1	2	11	N 46° W	N 13° W	3·9	6·1	−2·2	49	+14	41	−18?	·278	−·104?	0·9	0	0	0·3	−0·3	0	0·19	−0·19	0	0·77	− 0·77	0	Ahmadnagar.
	1		1		5	5	1	S 70° W	N 76° W	4·7	5·2	−0·5	29	+13	70	+18?	·406	+·089?	0·5	−0·3	0	0·1	−0·1	0	0·05	−0·05	0	0·30	− 0·30	0	Poona.
2	5	3	6		2		5	N 57° E	N 72° E	8·0	5·5	+2·5	25	+ 9	43	+ 3	·318	+·038	1·3	+0·4	0	0·1	−0·1	0	0·03	−0·03	0	0·62	− 0·62	0	Sholapur.
3		1	7	4	2	4	7	S 61° W	N 79° W	4·6	3·5	+1·1	11	− 8	57	+ 1	·456	+·019?	0·2	−0·8	0	0·2	−0·2	0·07	0·04	+0·03	0·07	0·35	− 0·28	0·07	Bijapur.
1	2	2	3					N 87° E	N 68° E	4·4	7·1	−2·7	20	− 4	50	+ 2	·366	+·020	1·2	+0·3	0	0·1	−0·1	0	0·03	−0·03	0	0·47	− 0·47	0	Belgaum.
																															XI.—Central India.
4	2	14			1	1		N 71° E	N 30° E	4·5	5·1	−0·6	53	+22	66	+18	·357	+·094	3·7	+2·4	0	0·4	−0·4	0·01	0·17	−0·16	0·10	0·57	− 0·47	0·01	Neemuch.
1	8	1	1			2		N 42° E	N 29° W	5·3	2·0	+3·3	29	+17	56	+ 4	·345	+·051	3·5	+2·2	0	0·5	−0·5	0·06	0·17	−0·11	0·06	0·56	− 0·50	0·05	Indore.
1	3	7	1	3	2	4		S 65° E	N 85° W	1·4	1·5	−0·1	14	− 5	78	+11	·413	+·078	5·1	+2·6	2	1·1	+0·9	0·82	0·53	+0·29	1·07	1·70	− 0·63	0·38	Nowgong.
2		10		2	1	3		S 83° E	N 30° W	1·8	3·5	−1·7	21	−14	79	+20	·414	+·106	4·5	+2·8	4	1·7	+2·3	1·54	0·73	+0·81	1·95	2·11	− 0·16	0·46	Satna.
																															XII.—Central Provinces.
2	2	4	4	4	1	4	7	N 45° W		5·6	4·7	+0·9	4		64		·466		1·5		0	0·5	−0·5	0·03	0·27	−0·24	0·08	1·09	− 1·01	0·03	Buldana.
	7	7	3	2	1	4	2	N 73° E	S 34° E	3·6	3·1	+0·7	29	+21	41	− 4	·308	+·019	3·4	+1·9	0	0·4	−0·4	0·01	0·24	−0·23	0·01	1·26	− 1·25	0·01	Akola.
	8	12	3			2	1	N 76° E	S 83° E	5·2	3·5	+1·7	60	+28	49	0	·355	+·006	3·0	+1·7	0	0·6	−0·6	0·04	0·31	−0·27	0·04	1·23	− 1·19	0·04	Amraoti.
10	2	3	2		2	7	2	W	N 18° W	3·1	3·0	+0·1	14	−10	52	+ 6	·346	+·077	5·4	+4·2	0	0·3	−0·3	0	0·10	−0·10	0	0·65	− 0·65	0	Khandwa.
	17	1	7		3			N 73° E	N 60° E	2·5	2·1	+0·4	56	+16	70	+12	·403	+·080	3·7	+2·3	1	0·9	+0·1	0·24	0·34	−0·10	0·24	1·12	− 0·88	0·16	Hoshangabad.
3	7	6	5	3		2	2	S 89° E	S 72° E	5·3	2·7	+2·6	39	+ 8	62	+10	·345	+·065	4·3	+2·9	2	1·1	+0·9	0·50	0·41	+0·09	0·55	1·54	− 0·98	0·24	Saugor.
17	1	3		3	2		1	S 82° E	S 63° E	1·1	1·8	−0·7	9	−11	74	+ 8	·411	+·054	4·0	+1·9	6	1·6	+4·4	4·32	0·69	+3·63	4·52	1·75	+ 2·77	1·46	Jubbulpore.
7	3	2	2	6	3	2	2	1	S 45° E	N 31° E	3·4	2·1	+1·3	14	−22	67	+ 5	·401	+·034?	2·7	+0·5	4	1·9	+2·1	2·07	0·87	+1·20	2·18	1·92	+ 0·26	0·81	Seoni.
2	4	3	11	3		1	1	3	N 61° E	N 18° E	3·6	3·2	+0·4	42	+ 6	60	+ 8	·412	+·052	3·4	+1·6	1	1·2	−0·2	0·24	0·43	−0·19	0·46	1·33	− 0·87	0·17	Nagpur.
13	3	2		3	2	2	1	2	N 45° W		3·1			1		73		·410		3·6		7	3·4	+3·6	4·58	1·52	+3·06	4·67	2·75	+ 1·92	1·24	Pendra.

† Mean of 27 days.

* Uncorrected for scale error.

Table

(2) *Abstract of observations taken at 8 hrs. at 215*

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.	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.	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	16	17	18	19	20	21	22	23	24
	XII.—Central Provinces —*concld.*																						
	Raipur	970	29·036	+·011	29·985	29·175	2nd	28·895	24th	·280	67·1	85·1	−2·3	63·3	+2·8	74·2	+0·3	21·8	90·7	24th	55·6	28th	35·1
	Chanda	*634*	29·350	−·014?	29·949?	29·479	3rd	29·217	24th	·262	69·2	89·0	−2·8	63·6	+4·4	76·3	+0·8	25·4	93·0	23rd	53·5	27th	39·5
	Jagdalpur Bastar	1,813	28·184*		29·970*	28·321	2nd	28·061	24th	·260	67·4	86·8		60·2		73·5		26·6	91·2	23rd & 24th.	53·1	1st & 9th	38·1
	XIII.—Hyderabad.																						
27	Aurangabad	1,905	28·097	−·027?	29·964	28·194	3rd	27·985	21st	·209	70·4	89·5	+0·7	62·8	+4·8	76·2	+2·7	26·7	97·4	22nd	54·7	26th & 27th.	42·7
	Nizamabad	1,248	28·726		29·940	28·858	1st	28·623	24th	·235	71·2	91·8	+1·4	66·4	+5·1	79·1	+3·3	25·4	96·9	24th	59·7	5th	37·2
	Bidar	*2,165*									76·3	89·8		65·0		77·4		24·8	94·5	17th, 22nd & 24th.	60·4	3rd, 5th & 26th.	34·1
28	Gulbarga	1,503	28·479	−·001	29·939	28·595	2nd	28·382	24th	·213	72·6	93·1	+0·5	67·8	+3·5	80·5	+2·0	25·3	95·0	20th, 22nd & 24th.	60·3	1st & 4th	37·7
	Raichur	*1,311*	28·679	+·022	29·939	28·791	1st	28·571	23rd	·220	75·7	92·8	0	70·3	+2·1	81·6	+1·1	22·5	99·0	24th	64·1	6th	34·9
	Hyderabad (Deccan)	1,690	28·301	+·014	29·951	28·420	1st	28·181	24th	·239	70·2	89·9	−1·4	66·6	+3·2	78·3	+0·9	23·3	95·8	24th	59·7	4th	36·1
	Hanamkonda	877	29·133	+·009	29·968	29·264	1st & 2nd.	29·013	24th	·251	74·1	90·3	+0·3	68·5	+2·2	79·4	+1·3	21·8	95·0	23rd	63·2	4th	31·8
	XIV.—Mysore.																						
29	Chitaldrug	2,405	27·590	0	29·906	27·630	1st	27·515	28th	·165	74·0	89·7	+0·4	67·5	+1·6	78·6	+1·0	22·2	93·6	19th & 24th.	58·3	4th	35·3
	Hassan	3,149	26·898	+·018	29·936	26·986	2nd	26·830	23rd	·156	68·9	86·9	+0·6	60·9	+3·3	73·9	+1·9	26·0	91·2	18th	55·8	7th	35·4
	Bangalore	3,021	27·016	0	29·941	27·105	1st	26·940	23rd	·165	67·7	86·3	+0·5	61·6	+2·0	74·0	+1·3	24·7	92·3	19th	53·3	5th	39·0
	Mysore	2,518	27·497	+·005	29·927	27·587	1st	27·427	28th	·160	71·9	88·9	+0·1	64·7	+1·8	76·8	+0·9	24·2	92·5	18th, 19th & 24th.	57·0	5th	35·9
	XV.—Madras.																						
30	Mangalore	65	29·924	−·013	29·921	30·017	1st	29·848	28th	·169	78·2	88·7	−0·7	72·6	+1·4	80·7	+0·3	16·1	93·3	6th	67·4	6th	25·[illegible]
	Calicut	27	29·953	−·016	29·909	30·049	1st	29·887	23rd	·162	77·7	88·1	−0·6	73·9	+1·3	81·0	+0·3	14·2	89·8	17th & 21st.	67·6	6th	22·[illegible]
	Cochin	9	29·967	−·015	29·904	30·056	1st	29·909	28th	·147	78·8	89·9	0	75·1	+1·4	82·5	+0·7	14·8	94·2	2nd	70·2	6th	24·[illegible]
	Trivandrum	198	29·770	+·006	29·900	29·853	1st	29·704	28th	·149	77·1	86·7	+1·7	74·1	+1·1	80·4	+1·4	12·6	90·0	27th	70·5	11th	19·[illegible]
31	Pamban	37	29·947	−·015	29·911	30·028	1st & 2nd.	29·874	21st	·154	78·3	86·3	+1·4	74·2	−0·7	80·3	+0·3	12·1	89·2	24th & 27th.	72·3	9th	16·[illegible]
	Madura	447	29·569	+·005	29·953	29·664	1st	29·492	23rd	·172	77·9	92·1	+0·1	72·8	+3·3	82·5	+1·7	19·3	95·5	25th	67·1	6th	28·[illegible]
	Pudukkottai	318	29·698		29·952	29·808	1st	29·627	28th	181	76·5	92·0		71·2		81·6		20·8	96·3	25th	65·7	8th	30·[illegible]
	Negapatam	31	29·967	−·014	29·927	30·068	1st	29·877	25th	·191	79·3	86·5	+2·1	74·2	+2·1	80·3	+2·1	12·3	89·7	26th	67·7	6th	22·[illegible]
	Trichinopoly	255	29·767	−·002	29·958	29·868	1st	29·693	23rd	·175	77·4	92·7	+0·4	71·1	+2·7	81·9	+1·5	21·6	97·6	25th	64·8	5th & 6th	32·[illegible]
	Coimbatore	1,341	28·663	−·007	29·952	28·756	2nd	28·594	24th	·162	73·4	90·6	−1·4	66·9	+1·4	78·8	0	23·7	96·0	26th	57·8	5th	38·[illegible]
	Salem	940	29·103	+·001	29·991	29·190	2nd	29·028	23rd	·162	74·9	93·4	−0·2	68·7	+3·2	81·0	+1·5	24·7	100·0	27th	58·8	6th	41·[illegible]
	Cuddalore	37	29·983	+·007	29·950	30·093	1st	29·902	28th	·191	75·4	85·9	+0·5	71·0	+2·1	78·5	+1·3	14·9	88·8	26th	66·2	5 days	22·[illegible]
	Vellore	707	29·311		29·959	29·417	1st	29·228	24th	·189	72·9	90·0		67·6		78·8		22·4	96·2	25th	61·0	5th	35·[illegible]
	Madras	22	29·998	−·007	29·951	30·111	1st	29·909	23rd	·202	77·0	86·7	−0·2	71·2	+2·2	78·9	+1·5	15·5	89·5	25th	64·5	10th	25·[illegible]
32	Cuddapah	433	29·567	+·004	29·944	29·692	2nd	29·458	23rd	·234	76·5	93·8	−1·3	69·7	+0·6	81·7	−0·3	24·1	99·5	25th	63·8	4th	35·[illegible]

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

* Mean of 25 days.

continued.

ions in India, etc., in February, 1913—continued.

Wind direction.										Wind velocity.			Wind steadiness.		Hygrometry, 8 hrs.				Cloud.		Rainfall.								Heaviest rainfall during month.	Station.
Number of winds from								Resultant direction.	Normal direction.	Mean velocity, miles per hour.	Normal.	Departure from normal.	Actual percentage.	Departure from normal.	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.	Mean cloud amount at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st Dec., 1912, to 28th Feb., 1913.	Normal rainfall for period, 1st Dec. to 28th Feb.	Departure from normal of period, 1st Dec., 1912 to 28th Feb., 1913.		
N.E.	E.	S.E.	S.	S.W.	W.	N.W.																								
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
																														XII.—Central Provinces—*concld.*
6	5	1	1	4	2	2		N 42° E	N 4° W	2·6	2·9	−0·3	21	+ 9	72	+19	·479	+·124	3·4	+1·3	5	1·3	+3·7	2·93	0·65	+2·28	2·93	1·12	+1·81	1·00	Raipur.
4	6	6	2	2	3	3		S 67° E	N 76° E	2·3	2·0	+0·3	25	+ 5	72	+12	·518	+·099	2·5	+1·2	3	0·9	+2·1	4·68	0·51	+4·17	4·68	1·02	+3·66	3·28	Chanda.
3	1	6	4		2			S 59° E		3·2†			21		76		·511		1·8		1			1·15			1·15			1·10	Jagdalpur.
																														XIII.—Hyderabad.
4	6	9	1		3	1		S 76° E		7·5			39		43‡	+ 3	·329‡		1·9		0	0·3	−0·3	0·05	0·15	−0·10	0·05	0·73	−0·68	0·05	Aurangabad.
		6	3	2		2		S 11° E		2·7			25		61	+ 4	·471		2·4		3	0·7	+2·3	0·57	0·45	+0·12	0·57	0·66	−0·09	0·20	Nizamabad.
4		10		9	1	2		S 7° E		4·6			29		45		·418		2·1		0	0·6	−0·6	0	0·25	−0·25	0	0·76	−0·76	0	Bidar.
6	7	4	8			1		S 66° E	N 89° E	4·9	5·6	−0·7	49	+23	44	− 5	·350	−·043	0·4	−0·5	0	0·5	−0·5	0·02	0·15	−0·13	0·02	0·49	−0·47	0·02	Gulbarga.
1	2	10	3	3	1	3		S 18° E	S 23° E	4·9	5·1	−0·2	53	+22	56	+ 4	·501	+·063	1·5	+0·5	0	0·4	−0·4	0	0·25	−0·25	0	0·48	−0·48	0	Raichur.
								(*a*)	S 68° E	1·8	3·0	−1·2	(*a*)		74	+ 7	·542	+·047	3·0	+1·6	1	0·7	+0·3	0·31	0·24	+0·07	0·31	0·64	−0·33	0·31	Hyderabad (Deccan).
		20	4					S 38° E		6·2			78		68	− 1	·576		4·8		1	0·5	+0·5	0·21	0·20	+0·01	0·21	0·87	−0·66	0·12	Hanamkonda.
																														XIV.—Mysore.
1	4	6	1	5	4			S 11° E	S 6° E	4·0	4·6	−0·6	25	+ 9	53	+ 2	·438	+·014	2·0	+0·5	0	0·2	−0·2	0	0·06	−0·06	0	0·63	−0·63	0	Chitaldrug.
1	11	5	1		2			S 77° E	S 72° E	3·3	2·0	+1·3	46	− 5	71	+ 4	·493	+·018	3·1	+0·7	0	0·3	−0·3	0	0·13	−0·13	0	1·01	−1·01	0	Hassan.
1	14	9	2	1	1			S 67° E	S 62° E	5·7	3·7	+2·0	74	+19	76	+ 6	·518	+·040	1·8	+0·1	0	0·2	−0·2	0	0·18	−0·18	0·01	0·94	−0·93	0	Bangalore.
6	6	3	2	5	3			S 59° E	S 89° E	5·3	5·8	−0·5	25	+ 3	67	− 1	·527	+·019	2·4	+0·2	0	0·5	−0·5	0	0·15	−0·15	0	0·74	−0·74	0	Mysore.
																														XV.—Madras.
6	5	15				1		N 60° E	N 76° E	4·5	2·1	+2·4	70	+ 3	72	− 5	·699	−·006	1·7	0	0	0·1	−0·1	0	0·02	−0·02	0	0·58	−0·58	0	Mangalore.
2	2	11	6					S 87° E	N 69° E	4·4	7·2	−2·8	60	− 7	80	+ 2	·767	+·032	1·3	−0·7	0	0·2	−0·2	0	0·16	−0·16	1·01	1·68	−0·67	0	Calicut.
	15	12						N 65° E	N 41° E	5·0*	4·0	+1·0	88	+17	78	+ 3	·764	+·023	1·4	−0·2	2	1·2	+0·8	2·22	0·75	+1·47	2·92	3·00	−0·08	1·36	Cochin.
1	7	9						N 66° E	N 55° E	2·9*	3·4	−0·5	53	+ 6	77	− 1	·720	−·003	2·9	+0·3	1	1·2	−0·2	0·61	0·61	0	3·08	3·47	−0·39	0·60	Trivandrum.
1	18	3						N 49° E	N 56° E	6·1	6·6	−0·5	74	− 1	82	+ 3	·792		2·5		1	1·3	−0·3	0·44	0·98	−0·54	7·33	10·50	−3·17	0·42	Pamban.
6	10	7				2		N 41° E.	N 14° E	5·3	3·3	+2·0	67	+ 4	78	+ 3	·738	+·051	5·3	+3·3	0	0·8	−0·8	0·07	0·45	−0·38	0·75	2·74	−1·99	0·07	Madura.
12	2	1						N 9° E.		2·8			46		74		·673		3·4		0	1·2	−1·2	0	0·66	−0·66	1·15	2·94	−1·79	0	Pudukottai.
	19		1			8		N 25° E	N 18° E	6·8	4·7	+2·1	70	+30	81	+ 1	·811	+·057	4·5	+0·1	0	0·8	−0·8	0	0·72	−0·72	6·93	13·76	−6·83	0	Negapatam.
5	11	5				1		N 42° E	N 27° E	2·5*	2·8	−0·3	60	+24	76	− 2	·717	+·032	2·5	−0·2	0	0·7	−0·7	0	0·68	−0·68	1·12	3·95	−2·83	0	Trichinopoly.
4	11	7				1		N 48° E	N 63° E	3·7	2·1	+1·6	63	0	81	− 2	·670	+·008	3·4	+0·9	0	0·7	−0·7	0	0·37	−0·37	0·04	2·12	−2·08	0	Coimbatore.
	2	20						N 86° E	N 53° E	4·1	3·9	+0·2	74	+19	73	− 1	·635	+·001	3·5	+1·9	0	0·7	−0·7	0	0·32	−0·32	0	1·76	−1·76	0	Salem.
5	2	1				1	12	N 25° W	N 60° W	4·7	1·6	+3·1	60	+ 9	87	− 2	·766	−·014?	3·9	+0·4	0	1·4	−1·4	0	1·06	−1·06	0·52	9·50	−8·98	0	Cuddalore.
								(*a*)		2·0			(*a*)		86		·698		2·0		0	0·8	−0·8	0·04	0·46	−0·42	0·21	5·60	−5·39	0·04	Vellore.
8	1	3	1		5	5	3	N 70° W	S 34° W	3·7*	3·7	0	25	+ 9	85	+ 3	·789	+·047	2·9	+0·2	1	0·6	+0·4	0·14	0·33	−0·19*	0·44	7·48	−7·04	0·14	Madras.
	2	8	14	3				S 59° E	S 72° E				74	+11	71	+ 5	·660	+·046	1·4	+0·5	0	0·3	−0·3	0	0·14	−0·14	0	1·54	−1·54	0	Cuddapah.

* Uncorrected for scale error.
(*a*) Indeterminate.

† Mean of 15 days.
‡ " " 26 "

Table

(2) *Abstract of observations taken at 8 hrs. at 215*

Number of sub-division.	Station.	Elevation of barometer 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
	XV.—Madras— *concld.*																						
	Bellary	1,475	28·500	−·015	29·929	28·615	2nd	28·406	23rd	·209	73·4	94·7	+0·5	68·3	+2·9	81·5	+1·7	26·4	100·0	19th	60·3	5th	39·7
	Kurnool	923	29·050	−·014	29·926	29·174	2nd	28·942	24th	·232	74·2	94·4	−0·1	69·6	+4·8	82·0	+2·3	24·8	100·2	25th	60·6	5th	39·6
23	Nellore	66	29·947	+·009	29·949	30·060	1st & 3rd.	29·829	24th	·231	75·8	88·6	−2·0	70·9	+1·8	79·7	−0·1	17·7	94·5	25th	67·1	4th, 5th & 10th.	27·4
	Masulipatam	15	30·014	+·005	29·963	30·111	2nd	29·895	24th	·246	76·5	86·0	−0·9	70·5	+2·2	78·2	+0·7	15·5	90·3	28th	65·2	4th	25·1
	Cocanada	26	30·021	+·024	29·983	30·159	2nd	29·903	24th	·256	76·0	85·2	−0·6	70·5	+0·9	77·9	+0·1	14·7	91·7	24th & 27th.	64·6	4th	27·1
	Waltair (Vizagapatam).	*226*	29·810	+·012	29·981	29·953	2nd	29·683	24th	·270	75·4	83·3		71·4		77·4		11·9	85·6	23rd, 24th & 28th.	66·9	4th	18·7
	Calingapatam	19	30·017		29·974	30·174	2nd	29·878	24th	·296	73·3	86·6		69·1		77·9		17·5	94·3	27th	63·3	4th	31·0
	Gopalpur	72	30·002	+·032	29·977	30·164	1st	29·866	24th	·298	73·2	83·8	+0·3	69·0	+1·1	76·4	+0·7	14·8	88·2	28th	63·5	3rd	24·7
	Bay Islands.																						
1	P. V. Fraser	8	29·046		29·982	30·156	1st	29·915	23rd	·241	75·1												
	Port Blair	58	29·920	−·011	29·908	30·029	1st	29·846	24th	·183	79·4	87·4	−0·7	76·5	+1·6	81·9	+0·5	10·9	89·2	16th, 17th & 26th.	72·5	5th, 15th & 23rd.	16·7
	Slipper Island	90	29·873		29·897	29·993	1st	29·780	24th	·213	79·0	85·2		76·4		80·8		8·8	88·1	16th & 18th.	72·1	8th	16·0
	Kashmir.																						
14	Muzaffarabad	2,475	27·619		30·215	27·808	2nd & 3rd.	27·399	21st	·409	44·7	60·3		37·0		48·7		23·3	71·9	5th	34·3	23rd	37·6
13	Srinagar	5,204	24·942	−·012	24·913	25·196	3rd	24·681	25th	·515	35·3	45·6	+3·3	32·8	+5·5	39·2	+4·4	12·8	52·6	14th & 27th.	26·6	4th	26·0
	Dras	*10,059*	20·793	+·031	20·761	21·073	3rd	20·531	23rd	·542	−2·0	18·6		−14·5		2·0		33·1	38·0	21st	−31·0	11th	69·0
	Leh	*11,503*	19·643	+·032	19·611	19·905	3rd	19·422	23rd	·483	14·0	31·5	+0·1	9·4	−0·4	20·5	−0·1	22·1	45·4	22nd	0	2nd	45·4
	Skardu	*7,505*	22·954	+·026	22·924	23·262	4th	22·676	23rd	·586	18·9	35·0	−3·4	14·7	−4·3	24·9	−3·9	20·3	42·0	27th	4·1	2nd	37·9
	Gilgit	4,890	25·226		25·189	25·490	3rd	24·941	21st	·549	41·8	54·1	+2·8	37·9	+1·3	46·0	+2·1	16·2	60·2	27th	33·7	14th	26·5
	Baluchistan.																						
15	Fort Sandeman		25·441		25·410	25·635	2nd	25·280	21st	·355	36·2	56·2		32·5		44·4		23·7	63·4	28th	23·1	7th	40·3
	Quetta	5,502	24·651	−·009	24·611	24·794	2nd	24·536	21st	·258	32·5	51·9	−1·2	28·9	−2·8	40·4	−2·0	23·0	60·1	4th	19·7	10th	40·4
	Chaman	4,311	25·716	−·007	25·678	25·835	8th	25·565	14th	·270	40·7	55·3‡	−0·7‡	36·4‡	−1·7‡	45·9‡	−1·2‡	18·9	64·8	4th	23·8	24th	41·0
	Kalat		23·706		23·668	23·841	2nd	23·566	23rd	·275	30·5	50·6		26·5		38·5		24·1	60·0	7th	14·2	9th	45·8
	Dalbandin		27·156		27·119	27·326	8th	26·993	19th	·333	43·3	66·6		38·3		52·4		28·3	74·3	27th	26·7	25th	47·6
	Pasni		30·055		30·015	30·157	24th	29·930	23rd	·227	63·3	75·2		60·1		67·6		15·1	81·5	4th	49·0	25th	32·5
	Panjgur (*a*)		26·810		26·768	26·831	27th	26·763	28th	·068	40·9	62·1		37·4		49·7		24·7	70·8	27th	34·0	25th	36·8
	Robat		26·900		26·858	27·127	8th	26·665	4th	·462	43·3	65·1		40·4‡		52·6‡		24·7	74·0	23rd	28·8	24th	45·2
	Hill stations excluding Kashmir and Baluchistan.																						
	Chitral	*5,486*																					
	Para Chinar	6,000	24·457		24·434	24·660	2nd	24·233	8th	·427	35·5	50·0		31·0		40·5		19·0	57·2	4th	24·6	6th	32·6
	Cherat	*4,256*	25·761	+·032	25·729	25·957	2nd	25·538	21st	·419	44·4	51·1	−1·0	40·9	+0·8	46·0	−0·1	10·2	61·2	5th	32·4	6th	28·8
	Drosh‡ (*c*)				25·127§						38·1	49·9		34·3		42·1		15·6	61·7	4th	30·1	10th	31·6
	Murree	6,333	23·841	+·013	23·809	24·030	2nd	23·618	25th	·412	38·7	44·7	−3·3	35·7	+1·2	40·2	−1·1	9·0	53·1	5th	31·2	15th & 24th.	21·9

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

‡ Mean of 27 days.
(*a*) " " 4 "
§ " " 10 "
c=Aneroid corrected.

NOTE.—The barometric readings are not reduced to sea-level in the case

—continued.

ations in India, etc., in February, 1913—continued.

Wind direction. Number of winds from 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 from 1st Dec., 1912 to 28th Feb., 1913.	Normal rainfall for period, 1st Dec. to 28th Feb.	Departure from normal of period, 1st Dec., 1912, to 28th Feb., 1913.	Heaviest rainfall during month.	Station.
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
																															XV.—Madras—*concld.*
1		2	5	6	1	2	3	S 6° E	S 11° E	2·4	2·9	−0·5	25	+ 5	61	+ 5	·499	+·031	1·2	−0·3	0	0·2	−0·2	0	0·08	−0·08	0	0·31	− 0·31	0	Bellary.
1	1	3	9	3			2	S 51° E	S 58° E	4·4*			39	+31	64	+ 6	·540	+·062	1·1	+0·3	0	0·2	−0·2	0	0·16	−0·16	0	0·57	− 0·57	0	Kurnool.
1		2	4	8	3	1	1	S 5° E	S 14° E	3·6*	3·4	+0·2	39	+23	85	0	·760	+·018	3·3	+0·8	1	0·5	+0·5	0·10	0·16	−0·06	0·11	4·66	− 4·55	0·10	Nellore.
5	5	6	5	2			1	N 73° E	N 41° E	4·2	3·4	+0·8	46	+22	81	− 5	·736	−·012	3·4	+0·8	0	0·5	−0·5	0	0·46	−0·46	0	1·67	− 1·67	0	Masulipatam.
3	8	2	2	1		2	3	N 31° E	N 17° W	4·5	5·3	−0·8	36	−31	80	+ 6	·730	+·092	3·7	+1·5	0	0·5	−0·5	0·02	0·39	−0·37	0·02	1·63	− 1·61	0·02	Cocanada.
3	5		1		3	16		N 75° W	N 86° W	4·0			53	−10	81	+10	·713	+·065	4·2	+2·2	1	0·9	+0·1	1·27	1·02	+0·25	1·27	2·78	− 1·51	1·18	Waltair (Vizagapatam).
4	2		1	2	1	8	7	N 59° W		5·8			46		88		·714		2·6		1	0·7	+0·3	0·31	0·17	+0·14	0·31	3·34	− 3·03	0·31	Calingapatam.
10	1			4	4		9	N 40° W	N 27° W	6·2	8·0	−1·8	46	−16	83	+ 5	·679	+·062	2·9	+0·5	0	1·0	−1·0	0·08	0·47	−0·39	0·08	1·67	− 1·59	0·05	Gopalpur.
																															Bay Islands.
6	6	2			4	5	3	N 24° W					36		79		·682		3·3		1			0·34			0·88			0·33	P. V. Fraser.
7	7	3	1	1			1	N 37° E	N 9° E	4·6	3·7	+0·9	49	+ 2	80	− 4	·807	−·007	2·2	−1·2	0	1·3	−1·3	0·02	1·01	−0·99	3·45	8·83	− 5·38	0·02	Port Blair.
16	9						2	N 11° E		5·6			88		75		·739		2·0		0	0·4	−0·4	0	0·17	−0·17	1·11	2·17	− 1·06	0	Slipper Island.
																															Kashmir.
7	4	3	1	6	3	3	1	N 27° E		0·9			7		79		·231		4·3		9			4·94			8·62			1·15	Muzaffarabad.
2	1	1	6	2	2	1	4	S 18° E	S 24° E	1·6	2·6	−1·0	7	−16	82	− 7	·168	+·010	8·7	+1·1	7	6·3	+0·7	2·45	2·79	−0·34	5·00	7·18	−2·18	0·89	Srinagar.
							1	N 45° W		0·6			4		85†	− 5	·081†		5·3		9	7·1	+1·9	2·72	2·39	+0·33	7·52	6·83	+0·69	1·08	Dras.
1	2							N 31° E	S 27° W	1·3	0·9	+0·4	7	−29	67	+20	·059	+·023	7·7	+1·7	0	0·9	−0·9	0·17	0·34	−0·17	0·91	0·88	+0·06	0·08	Leh.
		1	1		1			S 38° E		0·2			4		83	− 7	·092		7·7		3	2·3	+0·7	0·85	0·63	+0·22	4·47	1·73	+2·74	0·35	Skardu.
					7	3		S 57° W		0·7			32		48	− 8	·127	−·009	4·7	−1·8	0	0·8	−0·8	0·10	0·21	−0·11	0·34	0·53	−0·19	0·06	Gilgit.
																															Baluchistan.
1	2	12	2	1		2		E		2·9			46		78		·176		3·9		5			1·62			2·04			0·57	Fort Sandeman.
1			6	2	2		4	S	S 4° W	2·5	2·6	−0·1	14	+ 2	77	+ 3	·146	−·020	4·1	+0·3	7	4·7	+2·3	3·73	1·99	+1·74	5·92	4·85	+1·07	1·12	Quetta.
	2	9	8	1	1		1	S 71° E	S 46° E	4·8	6·1	−1·3	56	− 5	71‡	+ 7	·180‡	−·002	4·1‡	0	6	4·1	+1·9	1·76	1·55	+0·21	5·25	4·05	+1·20	0·63	Chaman.
1	2		2	4	3		1	S	S 32° W	4·1			16	−44	86		·151		4·1		5	3·6	+1·2	1·68	1·33	+0·35	3·52	3·68	−0·16	0·45	Kalat.
2	7	4	3	1	1	2	3	N 50° E		4·8			29		68		·198		2·4		2			0·94			2·07			0·66	Dalbandin.
3	2	3				1	1	N 26° E		3·2			21		89		·533		4·5		5			5·73			7·50			1·65	Pasni.
	2	1		1				N 80° E		5·3			60		62		·161		0		3			1·08			1·64			0·75	Panjgur.
1	1		3		7	7	1	S 65° W		1·9			39		67		·194		4·7		3			0·62			3·57			0·26	Robat.
																															Hill stations excluding Kashmir and Baluchistan.
																						3·2			1·14			3·21			Chitral.
3	2		1			2	1	N 8° W		0·8			14		77		·157		0·5		7	4·3	+2·7	3·25	2·01	+1·24	6·87	5·40	+1·47	1·22	Para Chinar.
14	2		2	4		1	5	N 7° W	N 16° W	10·5	9·9	+0·6	46	−10	57	− 3	·161		6·6	+2·2	5	4·6	+0·4	3·59	3·15	+0·44	3·96	7·30	−3·34	0·98	Cherat.
	3	7	3		3			S 77° E		3·5			33		63		·144		5·4		8	3·0	+5·0	2·18	0·96	+1·22	5·00	2·82	+2·18	0·60	Drosh.
	1	2	14	2			1	S 48° E	S 68° E	5·8	6·5	−0·7	56	+16	66	+ 2	·161	+·017	6·7	+1·9	12	5·9	+6·1	6·28	4·28	+2·00	8·57	9·81	−1·24	1·93	Murree.

hill or plateau stations, the elevations of which exceed 3,500 feet.

Uncorrected for scale error.

† Mean of 9 days.

Table

(2) *Abstract of observations taken at 8 hrs. at 21*

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
	Hill stations, excluding Kashmir and Baluchistan —*concld.*																						
	Simla	7,232	23·105	+·034	23·057	23·255	2nd	22·895	25th	·360	38·3	46·7	+0·8	35·3	−0·3	41·0	+0·3	11·4	55·4	8th	28·1	16th	27·3
	Sarain		23·155		23·117	23·335	6th	22·920	25th	·415	32·2	45·3		29·1		37·2		16·2	56·4	8th	22·9	17th	33·5
	Kalabagh																						
	Chakrata	7,022	23·310	+·042	23·270	23·460	2nd & 6th.	23·097	25th	·363	39·0	50·7	−0·5	32·8	−3·3	41·8	−1·9	17·9	63·2	7th	28·7	17th & 28th.	34·5
	Mukteswar	7,592	22·835	+·004	22·794	22·969	2nd	22·701	25th	·268	39·5	48·7	−0·9	33·4	−1·3	41·0	−1·1	15·3	58·5	7th & 8th.	26·0	17th	32·5
	Darjiling	7,376	23·007	+·022	22·962	23·121	1st	22·915	17th	·206	41·4	48·3	+0·4	37·3	+1·7	42·8	+1·1	11·0	56·3	25th	32·2	1st	24·1
	Shillong	4,920	25·190		25·142	25·322	1st	25·072	22nd	·250	52·7	62·8		43·5		53·1		19·3	69·9	27th	36·7	4 days	33·2
	Cherrapunji	4,309	25·814		25·765	25·901	2nd	25·693	21st & 22nd.	·208	54·4	71·5		46·7		60·1		22·8	83·7	15th	44·1	1st	39·6
	Maymyo	3,545	26·502	−·001	26·447	26·644	1st	26·365	22nd	·279	51·4	74·0	−1·1	44·9	+2·3	59·5	+0·6	29·1	81·0	26th	36·6	5th	44·4
	Pachmarhi	3,528	26·522	+·001	26·469	26·619	3rd	26·421	24th	·228	59·9	74·1	−1·4	54·0	+2·5	64·1	+0·5	20·1	83·0	22nd	40·6	27th	42·4
	Mount Abu	3,945	26·109	−·001	26·059	26·215	2nd	25·966	24th	·249	57·7	67·9	−0·9	52·8	−0·8	60·4	−0·9	15·1	74·7	7th & 22nd	42·9	25th	31·8
	Mercara	3,781	26·284	−·001	26·217	26·358	1st & 2nd.	26·218	28th	·140	65·4	81·7	+0·5	59·4	+0·6	70·6	+0·5	22·3	86·0	20th, 22nd & 26th.	53·5	5th	32·5
	Ootacamund	7,327	23·099		23·035	23·158	1st	23·058	28th	·100	55·1	68·2		44·3		56·3		23·9	72·5	17th, 23rd & 24th.	31·2	6th	38·3
	Kodaikanal	7,688	22·865	−·017	22·800	22·916	1st	22·826	28th	·090	53·8	68·2	+2·3	47·1	−1·1	57·7	+0·6	21·1	73·5	24th & 25th.	40·5	5th	33·0
	Extra India.																						
	Singapore (a)	10	29·953		29·884	30·036	12th	29·870	23rd	·166	82·0	88·3		73·6		80·9		14·7	93·8	27th	71·0	27th	22·8
	Penang (a)	165	29·881		29·826	29·982	1st	29·816	23rd	·166	82·2	92·3		73·5		82·9		18·8	95·5	17th	71·0	1st	24·5
	Trincomalee	99									78·4	85·5	+0·5	75·9	+0·8	80·7	+0·7	9·6	90·0	27th	71·0	9th	19·0
	Colombo	24	29·940	−·024	29·890	30·021	1st & 5th.	29·862	28th	·159	72·9	88·2†	−0·1†	71·7	−1·2	80·0†	−0·7†	16·5	90·0	4 days	66·5	9th	13·5
	Minicoy	7	29·995			30·065	7th	29·913	28th	·152													
	Amini Divi	13	29·991	+·008	29·932	30·065	1st	29·925	28th	·140	82·4	88·0	+2·8	77·4	+1·4	82·7	+2·1	10·6	91·1	20th	69·9	6th	21·2
	Gyantse	13,120									19·1	44·2		11·7		28·0		32·5	56·0	22nd	0·5	5th	55·5
	Pharijong	14,400									7·2	30·8		−7·9		11·4		38·7	44·1	22nd	−14·5	3rd & 6th	58·6
	Gangtok	5,660?	24·499		24·452	24·638	11th	24·354	22nd	·284	46·9	58·7		42·6		50·6		16·1	66·5	5th & 25th.	37·2	13th	29·3
	Gartok (c)	15,100?	17·760			17·775	15 days.	17·650	3rd	·125	8·9	27·7		−1·0		13·4		28·7	36·3	6th & 20th.	−23·8	26th	60·1
	Kashgar (c)	4,255																					
	Kabul																						
	Meshed	3,104	26·800		26·142	27·057	27th	26·477	19th	·580	25·3	43·5		20·7	−7·7	32·1		22·8	53·4	17th	−1·9	5th	55·3
	Jask	13	30·035	−·017	30·001	30·194	24th	29·902	19th	·292	63·2	74·1	−0·8	61·0†	−0·8†	67·5†	−0·8†	13·1	77·8	3rd	54·3	6th	23·5
	Muscat	20	30·045	−·009	30·014	30·191	24th	29·896	19th	·295	68·0	75·1	+2·3	65·9	−1·9	70·5	+0·2	9·2	84·3	2nd	60·1	25th	24·2
	Bahrein	18	30·097		30·069	30·271	23rd	29·934	28th	·337	60·0	64·4		56·3		60·3		8·1	72·7	27th	47·9	4th & 5th	24·8
	Bushire	14	30·050	−·025	30·030	30·211	24th	29·953	18th	·258	53·6	62·6	−3·1	50·1	−2·7	56·3	−2·9	12·5	75·3	27th	39·0	5th	36·3
	Busrah	25	30·095		30·090	30·282	23rd	29·893	16th	·389	51·6	59·8		46·7		53·3		13·1	69·5	28th	36·7	4th	32·8
	Kerman		24·540			24·770	23rd	24·340	4 days	·430	39·0	59·3		31·9		45·6		27·4	73·4	26th	16·5	24th	56·9
	Ispahan (b)	5,817	23·145			24·310	7th	23·960	18th	·380	29·1	53·1	−1·0	26·3	−2·9	39·7	−1·9	26·8	62·9	25th	18·2	22nd	44·7
	Tehran (b)	4,004	25·699			25·900	7th	25·475	19th	·425	30·1	44·6	+7·4	24·8	−2·0	34·7	−7·7	19·8	57·7	1st	4·2	4th	53·5
	Baghdad	127	29·970	+·007	30·083	30·248	23rd	29·690	18th	·558	43·9	60·4	−4·2	39·1	−2·6	49·8	−3·4	21·3	70·4	27th	28·8	3rd	41·6
	Beirut				30·022						55·3	60·5		50·2		55·3		10·3	71·1	21th	45·1	3rd	26·0
	Aden	94	29·937	−·010	29·964	30·016	25th	29·839	13th	·177	76·5	80·3	−1·4	74·7	+1·3	77·5	−0·1	5·6	82·1	28th	72·4	3rd	9·7
	Zanzibar	72	29·906	−·003	29·904	29·976	8th	29·839	19th	·137	83·3	88·3	+1·2	80·7	+0·4	84·5	+0·8	7·6	90·2	25th & 26th.	76·9	14th	13·3

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 2,000 feet.

(a) 9 hrs. observations.
(c) Aneroid corrected.
(b) " uncorrected.

† Mean of 2½ days.

concluded.

ons in India, etc., in February, 1913—concluded.

Wind direction.										Wind velocity.			Wind steadiness.		Hygrometry, 8 hrs.				Cloud.		Rainfall.								Heaviest rainfall during month.	Station.
er of winds from								Resultant direction.	Normal direction.	Mean velocity, miles per hour.	Normal.	Departure from normal.	Actual percentage.	Departure from normal.	Mean humidity at 8 hrs.	Departure from normal.	Mean tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Mean cloud amount at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st Dec. 1912 to 28th February, 1913.	Normal rainfall for period, 1st Dec. to 28th February.	Departure from normal of period, 1st Dec., 1912, to 28th Feb. 1913.		
N. E.	E.	S. E.	S.	S. W.	W.	N. W.																								
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
																														Hill stations, excluding Kashmir and Baluchistan —*concld.*
															62	+ 6	·143	+ ·012	5·3	+0·8	8	5·8	+ 2·2	6·24	3·31	+ 2·93	7·40	7·19	+ 0·21	1·65	Simla.
															87		·159		5·4		11	9·0		9·05	9·07	—0·02	10·24†	17·09	— 8·04	2·77	Sarain.
																														Kalabagh.
	2			5				N 45° E	N 66° E	3·3	4·6	—1·3	4	—27	66	+ 2	·156	+ ·007	4·4	+0·8	11	5·8	+5·2	7·99	4·59	+3·40	9·19	10·17	— 0·98	2·20	Chakrata.
	4	4	2	3	1	6		S 43° E		5·2			7		68	+ 6	·162		4·6		7	4·8	+2·2	3·64	2·54	+1·10	4·56	5·75	— 1·19	1·41	Mukteswar.
	1	1				2	3	N 41° W	S 53° E	1·3	4·0	—2·7	14	— 6	83	— 1	·214	+ ·003	4·5	—0·3	4	2·4	+1·6	1·24	0·99	+0·25	1·39	1·85	+ 0·46	0·36	Darjiling.
	1			2	4			S 28° W		2·1			18		69		·277		2·4		4	2·9	+1·1	1·92	1·35	+0·57	2·16	1·80	+ 0·36	0·82	Shillong.
	3	2		1	4	5		N 85° W		4·1			13		76		·320		2·9		3	3·1	—0·1	4·84	2·69	+2·15	6·77	3·31	+ 3·46	2·97	Cherrapunji.
					5			S 45° W		1·1			14		91	+ 8	·351		1·0		1	·0·7	+0·3	0·84	0·16	+0·68	2·17	0·69	+ 1·48	0·81	Maymyo.
	3	1	2	8	2	2	1	S 3° E	S 23° W	2·1	3·2	—1·1	29	+13	70	+19	·360	+ ·065	2·8	+0·6	4	1·3	+2·7	2·78	0·56	+2·22	2·83	1·74	+ 1·09	1·00	Pachmarhi.
	2	1	2	1	4	4	4	S 72° W	N 45° W	8·0	4·5	+3·5	25	— 3	51	+ 9	·254	+ ·048	3·5	+1·5	0	0·7	—0·7	0	0·34	—0·34	0	0·79	— 0·79	0	Mount Abu.
	7	7	1			1		N 57° E	N 60° E	3·3	3·1	+0·2	49	+ 7	77	+ 7	·482	+ ·034	2·8	—0·2	0	0·5	—0·5	0	0·19	—0·19	0	1·21	— 1·21	0	Mercara.
	6		12	4				S 57° E		2·7			53		58		·251		2·0		0	1·1	—1·1	0·21	0·71	—0·50	0·98	5·06	— 4·08	0·09	Cotacamund.
3	6	9	4			1		N 56° E		8·9*			63		60	+ 3	·250		2·8		2	2·4	—0·4	1·07	1·74	—0·67	6·59	9·05	— 2·46	0·89	Kodaikanal.
																														Extra India.
6	17					1		N 31° E		6·9*			78						4·8		9	9·9	—0·9	7·70	7·60	+0·10	45·72	29·25	+16·47	2·53	Singapore
8	15		1			4		N 22° E		6·9*			72								2	6·3	—4·3	1·18	5·50	—4·32	11·64‖	16·87	— 5·23	0·78	Penang.
	16	3	1		1	1		N 45° E	N 7° E	5·9*	5·0	+0·9	53	+32	83	+ 2	·810	—·001	5·3	+2·2	6	2·5	+3·5	1·86	2·12	—0·26	26·08	21·85	+ 4·23	0·63	Trincomalee.
1	6							N 39° E	N 58° E	3·0*	4·7	—1·7	25	—28	92	+20	·746	—·042	7·3†	+4·9	4	3·7	+0·3	1·34	2·28	—0·94	15·44	11·22	+ 4·22	0·60	Colombo.
7	8	1	1			1		N 17° E	N 20° E	3·0	3·3	—0·8	86	+20					2·8	—0·3	0	1·3	—1·3	0·07	0·68	—0·61	6·74	5·64	+ 1·10	0·07	Minicoy.
4	12	1				1		N 21° E		5·5			89		70	— 6	·779	—·052	3·4	—0·5	0	0·2	—0·2	0	0·07	—0·07	2·81	1·51	+ 1·30	0	Amini Divi.
		10	11					S 66° E		5·6			71		?		?		2·1		0			0			0			0	Gyantse.
1	1		1	1				E		4·9			4						1·9		0			0·08			0·08			0·02	Pharijong.
1						1	3	N 45° W		1·3			14		87		·280		2·5		10	5·2	+4·8	4·81	2·54	+2·27	6·84	4·43	+ 2·41	1·02	Gangtok.
		2	7	5	1			S 29° E		6·4			46						4·7		0			0			0			0	Gartok.
									N 29° W		1·1											0·3			0·07			0·36			Kashgar.
									S 51° E													3·6			1·57			3·41			Kabul.
1			1	2				S 27° E		1·4			7		89		·133		6·0	+1·4	5	2·0	+3·0	1·90	0·95	+0·95	2·95§	2·49	+ 0·46	0·50	Meshed.
5	14	4				5		N 29° E	N 10° E	6·6	8·9	—2·3	53	—15	74	— 2	·429	—·068	5·0	+2·5	4	1·8	+2·2	1·50	0·86	+0·64	3·37	2·92	+ 0·45	0·45	Jask.
		1			1	8		N 45° W	S 82° W	4·5	3·4	+1·1	29	—12	70	— 1	·483	—·028	6·4	+4·0	4	1·6	+2·4	3·88	0·78	+3·10	4·85	2·48	+ 2·37	1·92	Muscat.
6		2	1	2	2	5	10	N 51° W		5·0			50		78		·411		4·1		3	1·7		2·36	0·59	+1·77	4·62	1·77	+ 2·85	1·50	Bahrein.
2	4	3	1	3	1	10		N 9° W	N 48° E	6·4	5·8	+0·6	25	—22	85	+ 9	·353	—·010	2·9		4	3·8	+0·2	1·67	2·06	—0·39	5·91	7·99	— 2·08	0·82	Bushire.
	1	2	3	3	2	7	6	S 76° W		3·1			29		86		·336		3·4		3	2·5	+0·5	1·00	1·05	—0·05	5·27	3·04	+ 2·23	0·35	Busrah.
4		1	1	5	4	3	1	S 51° W		4·9			25		46		·112		3·9		2			0·57			2·01			0·31	Kerman.
1						1		N 45° W	S 82° W	3·0	3·4	—0·4	4	—38	69‡	—11	·152‡	—·027	2·6	—0·6	0	1·3	—1·3	0·02	0·40	—0·38	0·55	1·86	— 1·31	0·02	Ispahan.
3	10	1						N 39° E	N 22° E	2·4	2·6	—0·2	46	+16	?		?		3·9	0	4	3·0	+1·0	1·46	1·04	+0·42	4·54	4·01	+ 0·53	0·50	Tehran.
2	1	2	4	4	1	2	9	N 72° W	N 8° E	16·2	3·2	+2·0	11	—12	75	+ 5	·225	—·036	4·3	+1·7	4	2·4	+1·6	0·93	1·37	—0·44	3·98	3·58	+ 0·40	0·31	Baghdad.
		2	5	7	3	2		S 4° E					46		69		·309		6·0								14·64§				Beirut.
1	21	1						N 4° E	N 81° E	1·2	11·2	—10·0	56	—23	79	+ 3	·710	+ ·035	7·3	+0·9	1	0·5	+0·5	0·15	0·31	—0·16	0·24	0·99	— 0·75	0·13	Aden.
9	11	1	3			1		N 34° E	N 27° E	4·1	4·9	—0·8	64	— 8	77	— 1	·874	+ ·010	5·4	—0·7	5	3·7	+1·3	1·55	2·41	—0·86	19·76	11·32	+ 8·44	0·42	Zanzibar.

* Uncorrected for scale error. † Mean of 27 days. ‡ " " 6 " ‖ Rainfall for January wanting. § " " February not recorded.

Table C.—Abstract of observations taken at 8 hrs. at 63 fourth and fifth class stations in India, etc., in February, 1913.

Table

Abstract of observations taken at 8 hrs. at 63 fourth

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.	Wind direction. Number of winds from: Calm.	N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.	Resultant direction.	Normal direction.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
	II.—Assam.																								
4	Balek	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Bishnath	59·7	75·5	...	53·3*	...	64·4*	...	22·2	83·5	28th	43·7	3rd	39·8	...	...	...	...	...	...	...	...	...	...	...
	Borjuli	59·6	75·8	...	52·8	...	64·3	...	23·0	80·6	28th	43·7	5th	36·9	...	...	...	...	...	...	...	...	...	...	...
	Chandkhira	61·5	82·7	...	52·9	...	67·8	...	29·8	90·6	27th	42·6	4th & 5th	48·0	...	...	...	...	...	...	...	...	...	...	...
	Doom Dooma	54·7	73·6	...	51·7	...	62·7	...	21·9	80·3	27th	42·2	5th	38·1	...	...	...	...	...	...	...	...	...	...	...
	Dikom	55·1	73·9	...	51·8	...	62·9	...	22·1	81·4	22nd	41·6	4th	39·8	...	...	...	...	...	...	...	...	...	...	...
	Golaghat	60·8	73·4	...	53·6	...	63·5	...	19·8	79·9	28th	44·6	4th	35·3	...	...	...	...	...	...	...	...	...	...	...
	Hailakandi	60·4	80·7	...	55·9	...	68·3	...	24·8	87·4	26th & 27th.	46·4	3rd	41·0	...	...	...	...	...	...	...	...	...	...	...
	Jorehat	57·0	74·2	...	54·3	...	64·3	...	19·9	81·4	28th	46·2	6th	35·2	...	...	...	...	...	...	...	...	...	...	...
	Lumding	56·9	77·6	...	52·4	...	65·0	...	25·2	84·3	26th	41·8	5th	42·5	...	...	...	...	...	...	...	...	...	...	...
	Messa	66·7	81·3	...	51·9	...	66·6	...	29·4	84·8	28th	42·1	3rd & 6th.	42·7	...	...	...	...	...	...	...	...	...	...	...
	Panerihat	54·3	72·3	...	53·5	...	62·9	...	18·8	78·2	5th	45·1	3rd	33·1	...	...	...	...	...	...	...	...	...	...	...
	Srimangal	61·1	83·0	...	53·5	...	68·3	...	29·5	88·9	27th	42·2	4th	46·7	...	...	...	...	...	...	...	...	...	...	...
	III.—Bengal.																								
5	Comilla	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Brahmanbaria	66·7	82·6	...	57·2	...	69·9	...	25·4	86·5	27th	50·9	4th	36·5	...	...	...	...	...	...	...	...	...	...	...
	Faridpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Goalundo	64·5†	80·9	...	55·7†	...	63·3†	...	25·2	87·2	25th	48·1	24th	39·1	...	...	...	...	...	...	...	...	...	...	...
	Pabna	64·3	81·2	...	59·1	...	70·1	...	22·1	90·7	25th	52·4	4th	38·3	...	...	...	...	...	...	...	...	...	...	...
	Sirajganj	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Rampur Boalia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Malda	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Rangpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Dam Dim	58·7	84·5	...	47·9	...	66·2	...	36·6	87·9	26th	39·0	2nd	48·9	...	...	...	...	...	...	...	...	...	...	...
	Kalchini	65·3	76·9	...	48·2	...	62·5	...	28·7	84·1	25th	37·9	1st	46·2	...	...	...	...	...	...	...	...	...	...	...
	Nagrakata	66·6	77·0	...	54·8	...	65·9	...	22·2	83·1	26th	48·0	2nd	35·1	...	...	...	...	...	...	...	...	...	...	...
	Cooch Behar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Krishnagar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Bankura	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Raniganj	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

* Mean of 25 days. † Mean of 27 days.

nd fifth class stations in India, etc., in February, 1913.

Wind velocity.			Wind steadiness.		Hygrometry, 8 hrs.				Cloud.		Rainfall.									Heaviest rainfall during month.	Station.
Mean velocity, miles per hour.	Normal.	Departure from normal.	Actual percentage.	Departure from normal.	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.	Mean cloud amount at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st December, 1912, to 28th February, 1913.	Normal rainfall of period, 1st December to 28th February.	Departure from normal of period, 1st December, 1912, to 28th Feb., 1913.		
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
																					II.—Assam.
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Balek.
...	...	...	...	...	91	...	·469	...	...	...	5	3·3	+1·7	3·20	0·99	+2·21	3·81	2·35	+1·46	0·96	Bishnath.
...	...	...	...	...	85	...	·439	...	...	...	6	1·5	+4·5	2·53	0·63	+1·90	3·63	1·48	+2·15	0·72	Borjuli.
...	...	...	...	...	92	...	·507	...	...	...	4	2·2	+1·8	2·61	1·17	+1·44	2·61	3·03	−0·42	1·83	Chandkhira.
...	...	...	...	...	93	...	·403	...	...	...	12	6·0	+6·0	4·36	2·36	+2·00	7·52	4·45	+3·07	0·64	Doom Dooma.
...	...	...	...	...	94	...	·413	...	...	...	12	5·2	+6·8	3·40	1·92	+1·48	5·11	3·95	+1·16	0·80	Dikom.
...	...	...	...	...	89	...	·478	...	...	...	8	3·5	+4·5	4·68	1·03	+3·65	6·02	2·49	+3·53	1·15	Golaghat.
...	...	...	...	...	91	...	·481	...	...	...	4	2·8	+1·2	3·40	1·09	+2·31	3·71	3·74	−0·03	1·82	Hailakandi.
...	...	...	...	...	97	...	·472	...	...	...	8	3·5	+4·5	5·11	0·96	+4·15	6·15	2·23	+3·92	1·84	Jorehat.
...	...	...	...	...	94	...	·440	...	...	...	5	...	...	2·19	...	...	2·80	...	...	0·90	Lumding.
...	...	...	...	...	73 †	...	·477 †	...	...	...	7	2·5	+4·5	4·94	0·68	+4·26	6·27	1·57	+4·70	2·42	Messa.
...	...	...	...	...	89	...	·381	...	...	...	7	1·8	+5·2	2·51	0·80	+1·71	3·45	1·47	+1·98	0·70	Panerihat.
...	...	...	...	...	91	...	·497	...	...	...	4	2·2	+1·8	2·70	1·37	+1·33	2·70	2·37	+0·33	1·77	Srimangal.
																					III.—Bengal.
...	...	...	...	...	...	...	...	...	...	...	4	1·9	+2·1	1·64	0·98	+0·66	1·64	1·52	+0·12	1·12	Comilla.
...	...	...	...	...	81	...	·531	...	...	...	5	2·2	+2·8	3·03	0·76	+2·27	3·10	1·63	+1·47	2·15	Brahmanbaria.
...	...	...	...	...	... ‡	...	... ‡	...	...	...	5	2·0	+3·0	3·95	1·18	+2·77	4·03	1·81	+2·22	2·20	Faridpur.
...	...	...	...	...	86	...	·522	...	...	...	5	2·2	+2·8	4·43	0·88	+3·55	4·43*	1·54	+2·89	1·80	Goalundo.
...	...	...	...	...	84	...	·512	...	...	...	5	1·8	+3·2	2·54	0·95	+1·59	2·54	1·70	+0·84	1·32	Pabna.
...	...	...	...	...	...	...	...	...	...	...	6	1·4	+4·6	3·23	0·76	+2·47	3·25	1·26	+1·99	0·94	Sirajganj.
...	...	...	...	...	...	...	...	...	...	...	4	1·5	+2·5	2·00	0·61	+1·39	2·00	1·04	+0·96	0·88	Rampur Boalia.
...	...	...	...	...	...	...	...	...	...	...	4	1·6	+2·4	1·26	0·95	+0·31	1·26	1·67	−0·41	0·38	Malda.
...	...	...	...	...	...	...	...	...	...	...	3	1·2	+1·8	1·15	0·57	+0·58	1·15	1·05	+0·10	0·55	Rangpur.
...	...	...	...	...	92	...	·458	...	...	...	3	2·2	+0·8	0·59	1·06	−0·47	1·19	1·57	−0·38	0·33	Dam Dim.
...	...	...	...	...	69	...	·439	...	...	...	4	2·7	+1·3	1·14	0·91	+0·23	1·14	1·72	−0·58	0·65	Kalchini.
...	...	...	...	...	65	...	·423	...	...	...	4	3·2	+0·8	1·56	1·25	+0·31	1·71	2·37	−0·66	0·88	Nagrakata.
...	...	...	...	...	...	...	...	...	...	...	3	1·8	+1·2	2·18	0·64	+1·54	2·18	0·87	+1·31	0·81	Cooch Behar.
...	...	...	...	...	...	...	...	...	...	...	7	1·5	+5·5	6·01	1·15	+4·86	6·01	1·78	+4·23	1·86	Krishnagar.
...	...	...	...	...	...	...	...	...	...	...	9	1·8	+7·2	5·65	1·00	+4·65	6·05	1·59	+4·46	2·05	Bankura.
...	...	...	...	...	...	...	...	...	...	...	9	1·6	+7·4	5·09	0·91	+4·18	5·09	1·56	+3·53	2·02	Raniganj.

* Rainfall for December 1912 wanting. † Mean of 27 days. ‡ Mean of 26 days.

Table

Abstract of observations taken at 8 hrs. at 63 fourth and

Number of sub-division.	Station.	Temperature of air.													Wind direction.										
		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.	Number of winds from: Calm.	N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.	Resultant direction.	Normal direction.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
	Hill Stations, exclusive of Kashmir.																								
	Panighatta	60·8	74·5	...	55·7	...	65·1	...	18·8	82·5	25th	49·4	18th	33·1	...	...	...	...	...	...	...	...	...	...	...
	Kurseong	51·8	57·8	...	47·0	...	52·4	...	10·8	64·3	24th	42·3	1st	22·0	...	...	...	...	...	...	...	...	...	...	...
	Gnatong	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Lachung	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Ringim	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Poo	...	44·0	...	27·9	...	35·9	...	16·1	53·9	7th	23·5	17th	30·4	15	...	...	8	4	...	1	...	...	S 73° E	...
	Kailang	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Bakloh	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Pishin	...	53·8	...	31·1	...	42·5	...	22·7	64·7	4th	20·6	11th	44·1	...	...	...	...	...	...	...	...	...	...	...
	Extra India.																								
	Ahwaz	...	60·4	...	47·8	...	54·1	...	12·6	66·2	2nd & 27th.	39·2	23rd	27·0	...	...	...	...	...	...	...	...	...	...	...
	Birjand	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Chumbi	26·7	45·8	...	21·6	...	33·7	...	24·2	56·0	6th	12·7	26th	43·3	...	...	...	...	...	...	...	...	...	...	...
	Kirmanshah	27·6	40·7	...	21·4	...	31·1	...	19·3	49·4	27th	2·4	23rd	47·0	...	...	...	...	...	...	...	...		...	...
	Koweit	...	62·1	...	47·6	...	54·9	...	14·5	70·5	17th	38·6	5th	31·9	6	2	...	2	...	7	2	6	3	S 60° W	...
	Maidan	...	61·2	...	44·1	...	52·7	...	17·1	69·2	18th & 28th.	34·4	4th	34·8	...	...	...	...	...	...	...	...	...	...	...
	Muhammerah	...	63·9	...	47·3	...	55·6	...	16·6	70·6	27th & 28th.	37·4	4th	33·2	...	...	...	...	1	...	6	...	14	a N 69° W	...
	Pemba	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Prison Island	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Seistan	...	61·1	...	38·9	...	50·0	...	22·2	72·5	3rd	28·5	26th	44·0		12	3	1	1	2	1	3	5	N 12° W	

a = 7 winds variable.

—concluded.

fth class stations in India, etc., in February, 1913—concluded.

Wind velocity.			Wind steadiness.		Hygrometry, 8 hrs.				Cloud.		Rainfall.									Heaviest rainfall during month.	Station.
Mean velocity, miles per hour.	Normal.	Departure from normal.	Actual percentage.	Departure from normal.	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.	Mean cloud amount at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st December, 1912, to 28th February, 1913.	Normal rainfall of period, 1st December to 28th February.	Departure from normal of period, 1st Dec., 1912, to 28th February, 1913.		
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
																					Hill stations, exclusive of Kashmir.
...	...	...	...	...	72	...	·380	...	...	...	4	1·8	+2·2	2·52	0·77	+1·75	3·25	1·56	+1·69	1·14	Panighatta.
...	...	...	...	...	75	...	·289	...	...	...	4	3·2	+0·8	2·51	1·23	+1·28	3·41	2·34	+1·07	1·63	Kurseong.
...	...	...	...	...	...	...	...	...	...	...	11	...	...	5·60*	...	...	7·91	...	...	1·17	Gnatong.
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Lachung.
...	...	...	...	...	...	...	...	...	...	...	9	...	...	5·03	...	...	9·03	...	...	1·12	Ringim.
...	...	...	36	...	...	...	...	...	7·6	...	8	5·5	+2·5	1·80	2·31	−0·51	3·48	5·09	−1·61	0·35	Poo.
...	...	...	...	...	...	...	...	...	...	...	8	5·9	+2·1	1·98	2·86	−0·88	4·76	6·67	−1·91	0·52	Kailang.
...	...	...	...	...	...	...	...	...	...	...	10	...	...	7·48	...	...	9·94†	...	...	1·50	Bakloh.
...	...	...	...	...	...	...	...	...	2·0	...	7	3·8	+3·2	5·09	1·79	+3·30	9·38	4·62	+4·76	1·39	Pishin.
																					Extra India.
...	...	...	...	...	...	...	...	...	3·9	...	3	...	...	2·17	...	...	6·94	...	...	1·20	Ahwaz.
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Birjand.
...	...	...	...	...	...	...	...	...	...	...	5	...	...	1·86*	...	...	1·94	...	...	0·91	Chumbi.
...	...	...	...	...	97	...	·151	...	...	...	8	...	...	4·55	...	...	14·79	...	...	1·50	Kirmanshah.
...	...	...	29	...	...	...	...	...	3·5	...	3	...	...	0·48	...	...	2·67	...	...	0·13	Koweit.
...	...	...	...	...	...	...	...	...	0·7	...	4	...	...	2·68	...	...	11·21	...	...	1·00	Maidan.
...	...	...	50	...	...	...	...	...	...	...	2	...	...	1·10	...	...	...	...	...	0·65	Muhammerah.
...	...	...	...	...	...	...	...	...	...	...	7	3·0	+4·0	2·57	1·76	+0·81	21·74	12·05	+9·69	0·42	Pemba.
...	...	...	...	...	...	...	...	...	...	...	...	1·9	...	...	1·46	...	...	9·66	...	...	Prison Island.
4·91	...	...	50	...	...	...	...	...	...	...	4	...	...	0·77	...	...	2·21	...	...	0·20	Seistan.

* Snow water.
† Rainfall for December, 1912, wanting.
‡ Mean of 26 days.

Reg. No. 4638 E 13

Engraved at the Survey of India Office, Calcutta, December 1904.

LITHO. BY S.B.M.

The lines of the above chart represent isobars or lines of equal barometric pressure, the numbers attached indicating the barometric pressure in inches and being drawn for differences of pressure of ·05 inch. The isobars in the Bay of Bengal are filled in by means of the shore observations, and by comparison with the normal distribution of pressure.

The mean 8 hrs. wind directions of the month are shewn by means of arrows flying with the wind, and are calculated by means of Lambert's formula applied to the winds as given in Table B of the 8 hrs. observations. The mean wind directions for the hill stations are indicated by broken arrows to distinguish them from the wind arrows for the plain stations. The mean velocity of the winds during the month is shewn by the following notation:—

Velocity of	0 to 2 miles per hour	...	one feather added to the wind arrow.
,, ,,	2 to 5 ,, ,, ,,	...	two feathers ,, ,, ,, ,,
,, ,,	5 to 10 ,, ,, ,,	...	three ,, ,, ,, ,, ,,
,, ,,	10 to 20 ,, ,, ,,	...	four ,, ,, ,, ,, ,,
	over 20 ,, ,, ,,	...	five ,, ,, ,, ,, ,,

Wind strengths are based on factor 2·2 for the standard type of Beckley Robinson anemograph, instead of 3·0 as used for this plate up to December 1911 inclusive.

The chart shows the departure from normal of the mean during the month of 8 hrs. pressure by means of lines drawn for equal amounts of departure. The numbers are given in thousandths of an inch, 20 representing ·020″ or two hundredths of an inch, &c. Continuous lines indicate that the pressure was in excess by amounts indicated by the numbers attached to the lines, and broken or dotted lines that it was in defect by amounts indicated by the numbers attached to the lines. Two parallel lines near to each other, one continuous and the other broken or dotted, represent the line of no departure, the dotted line facing the area of deficient pressure or negative departures.

CHART SHEWING THE

OF THE MONTHLY MEAN OF DAILY
MAXIMUM TEMPERATURE.

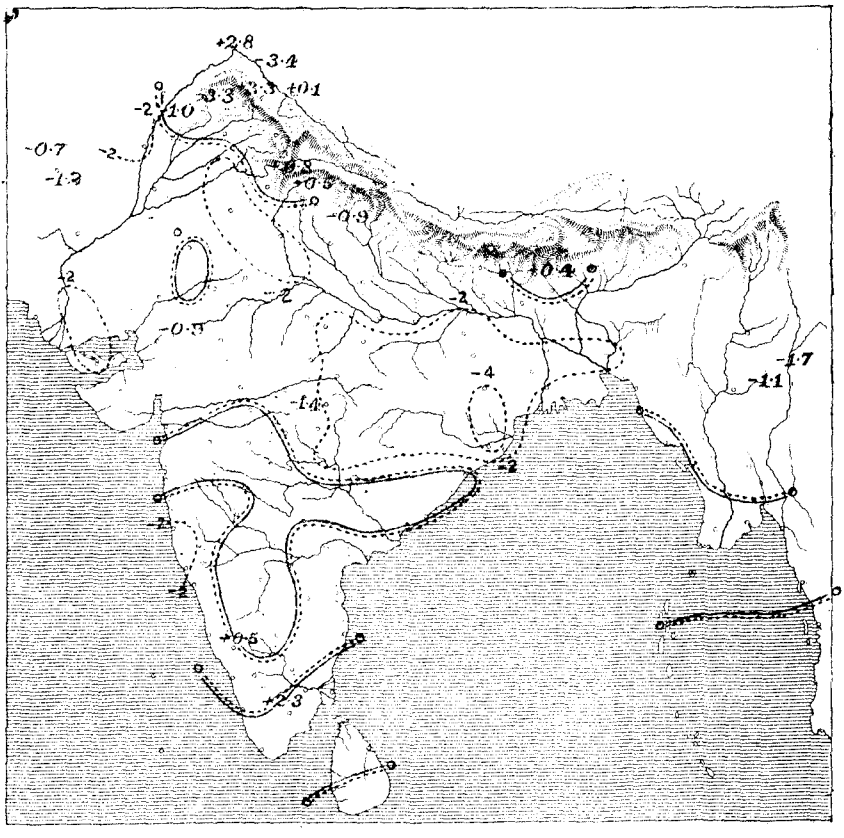


CHART SHEWING THE DEPARTURE FROM NORMAL
OF THE MONTHLY MEAN OF DAILY
MINIMUM TEMPERATURE.

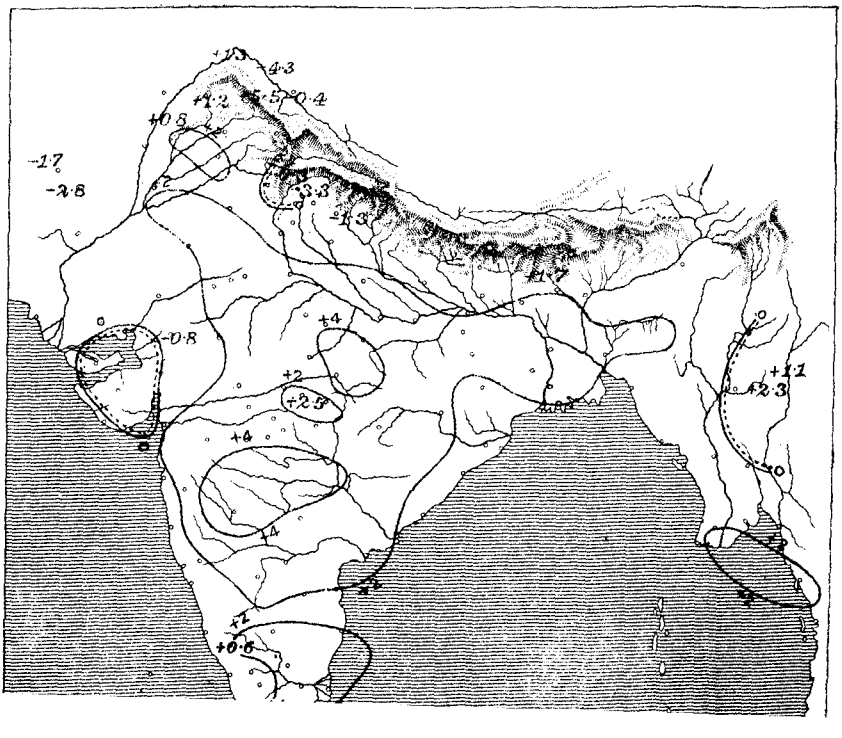


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MEAN TEMPERATURE.

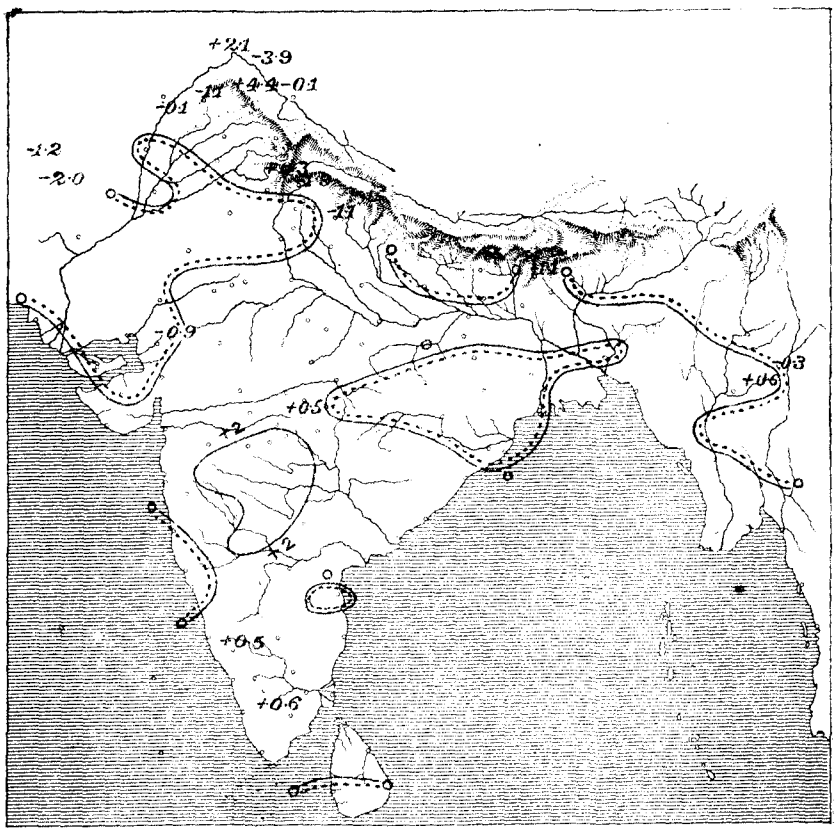


CHART SHEWING THE MONTHLY MEAN OF PRESSURE AND RESULTANT WIND DIRECTION.

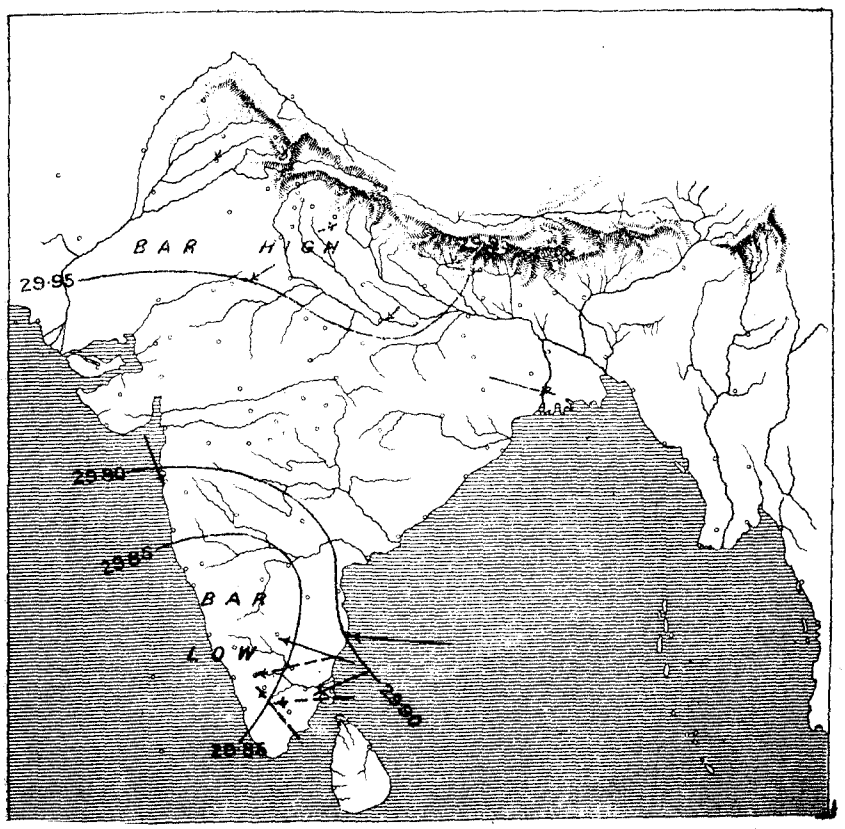


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF ABSOLUTE HUMIDITY AT 8 HRS.

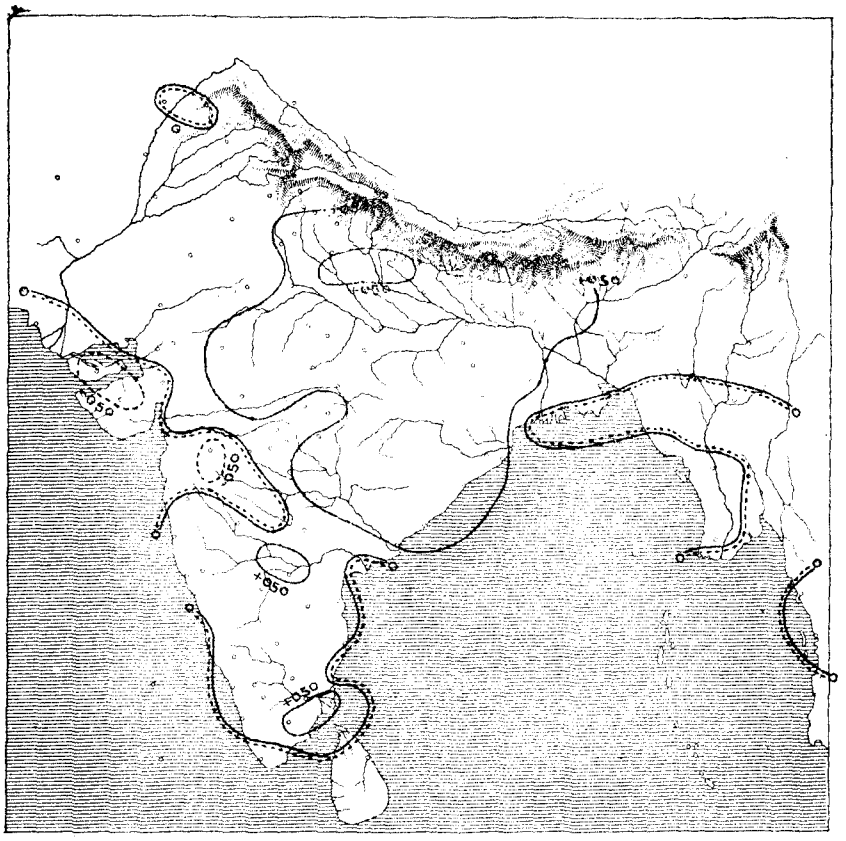


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF RELATIVE HUMIDITY AT 8 HRS.

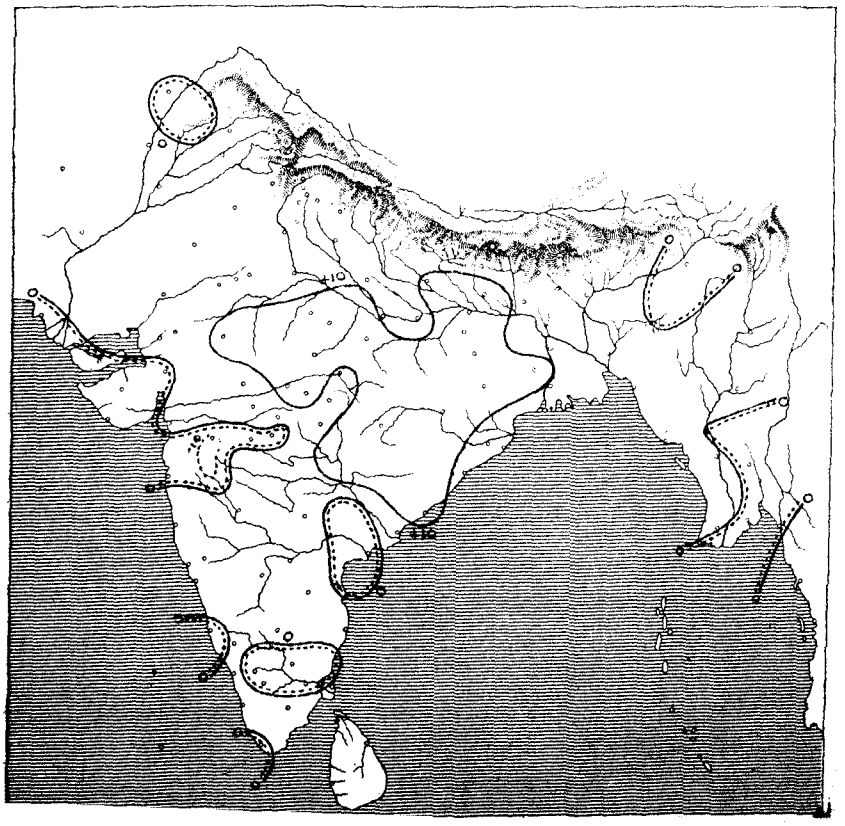


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF CLOUD AMOUNT AT 8 HRS.

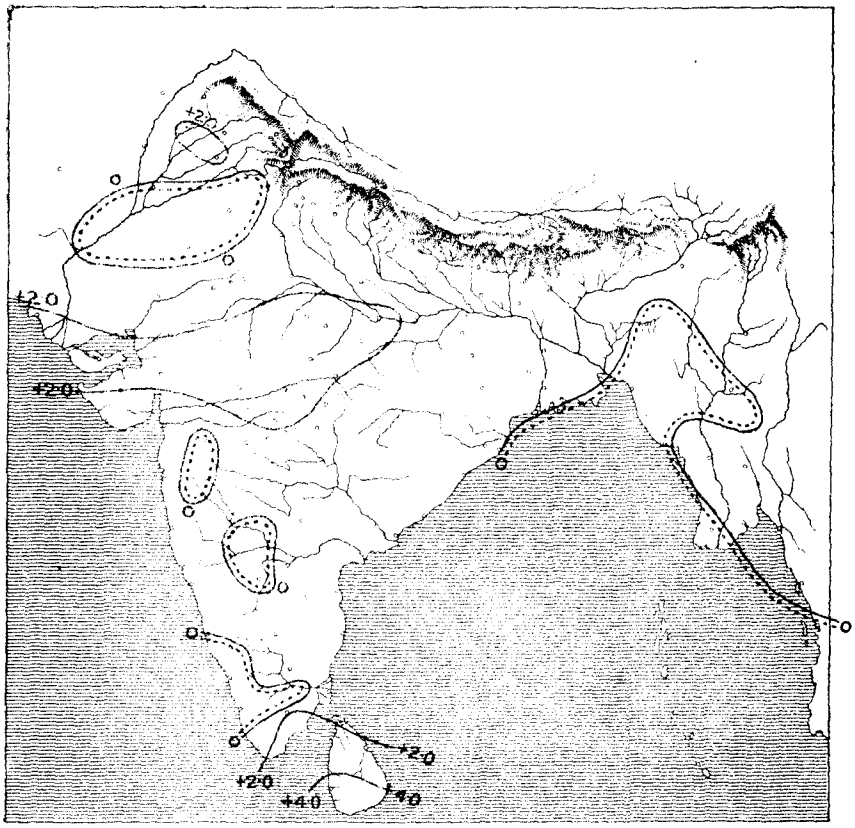
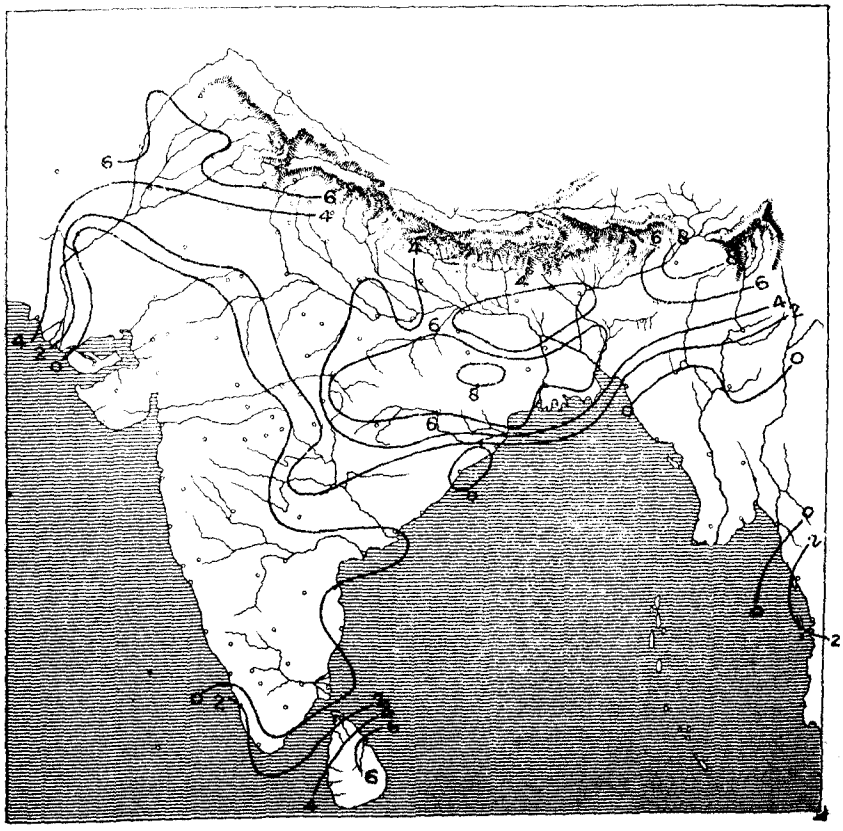
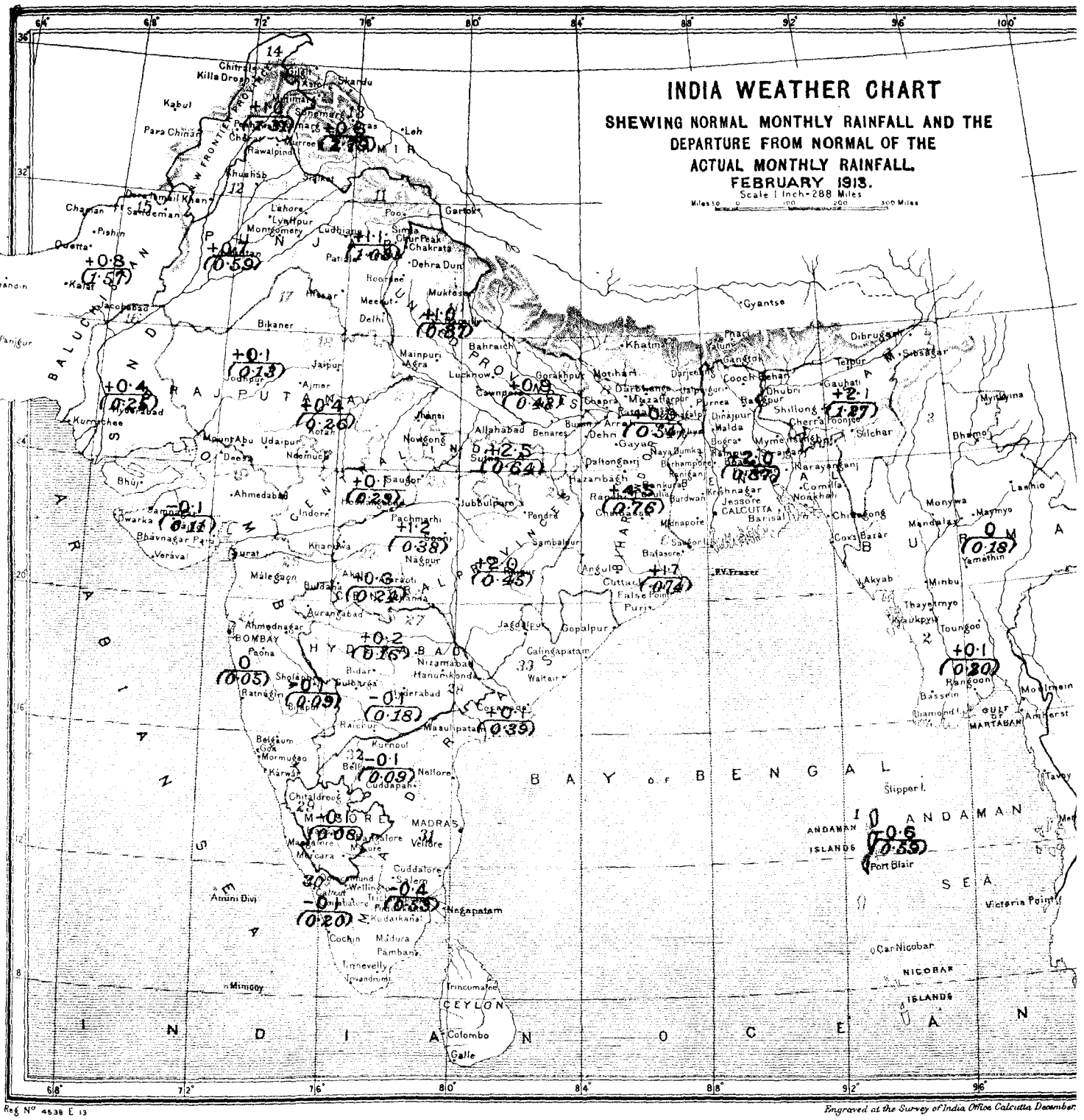


CHART SHEWING THE TOTAL NUMBER OF DAYS IN THE MONTH ON WHICH RAINFALL EQUALLED OR EXCEEDED 0·10 INCH.

(BASED ON THE RETURNS OF TABLE B.)



LITHO. BY S.S.M.



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
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

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GOVERNMENT OF INDIA

METEOROLOGICAL DEPARTMENT

MONTHLY WEATHER REVIEW

PUBLISHED BY ORDER OF

THE GOVERNMENT OF INDIA.

CALCUTTA, MARCH, 1913.

INTRODUCTION.

THIS review of the weather in India during the month of March, 1913, is based on observations taken daily at 8 hrs. at 216 stations, and on additional observations taken at 10 hrs. and 16 hrs. at 16 stations. In the rainfall summary have been utilized the data furnished by the meteorological observatories, and such rainfall statements of the month as had been published by the Provincial Governments up to the date of the preparation of the review.

The brief notes on solar, seismic and magnetic disturbances are supplied by the chief observatories in the Indian area.

For a statement of the methods adopted in recording and tabulating the data, for each of the elements of observation, reference should be made to the introductory portion of the review for January.

Summary of the chief features of the weather in India during the month.

2. Four depressions of the cold weather type crossed from Persia into India during the month. Three of these were fruitful in precipitation, but particularly the first of the series which occasioned fairly general rain over the greater part of the tract stretching from Baluchistan to north Burma. The total quantity of rainfall received during the month exceeded the normal in Burma, Assam, Chota Nagpur, Bihar, the United Provinces, the Punjab, Baluchistan, Central India East and the Central Provinces, the excess averaging about 1 inch in the second and third areas. Over the rest of northern and central India the fall of the month was either normal or below it, the actual deficiency being largest in the North-West Frontier Province where it amounted to half an inch. In the Peninsula the month was rainless or almost so.

The amount of cloud was below the average except in Baluchistan and Burma, and humidity was considerably in defect in Hyderabad. In Burma, Hyderabad, Mysore and Madras temperature was approximately normal, but in the rest of the country it was lower than usual, especially in Baluchistan, the Punjab and the United Provinces. The defect shown in northern India was largely due to the cold wave following the depression which appeared in Sind in the middle of the month.

On the mean of all the plains stations the barometric pressure was ·021″ lower than usual.

Solar, seismic and magnetic disturbances.

KODAIKANAL OBSERVATORY.

3. *Solar Observations.*—Observations of the sun were made on all the days during the month.

Sunspots.—Two new spots were observed, both of them were small and did not last more than a day each. One was situated in a high latitude at —33° south and was observed on the 14th of the month near the east limb. The other was at latitude—11° near the central meridian on the 20th. The sun was free from spots on all days except four during the month.

Prominences.—Eighty large, six eruptive and two metallic prominences were recorded for the month. There were nine which attained to heights of two minutes and over. The highest was 200″ and was observed on the 22nd at latitude + 31° east.

Magnetic disturbances.—Moderate magnetic disturbances were recorded from the 14th to 19th and from the 23rd to 24th. They are continuations of the two series of moderate disturbances which have occurred at approximate intervals of a synodic rotation of the sun since December

1912. The earlier disturbance may be referred to that first recorded on December 22nd to 24th, and the later one to that first recorded on December 7th and 8th.

Seismological records.

Instruments. Milne Horizontal pendulum.

TABLE 1.

No.	Date.	P.	L.	M.	F.	Duration.	Amplitude.	REMARKS.
	1913.						m.m.	
12	Mar. 4	7 e 22·5	...	...	7 44·4	0 21·9		W. L.
13	„ 6	2 e 16·9	2 e 21·5	2 23·6	2 38·2	0 21·3	0·4=0·2	
14	„ 6	...	11 i 11·5	11 14·3	12 03·8	0 52·3	5·0=2·1	No. P. T. S.
15	„ 14	8 i 54·9	8 i 56·2	9M1 08·6 M2 22·5	12 37·2	3 42·3	10·0=4·7	
16	„ 14	18 e 11·5	18 i 12·3	18 13·3	8 23·6	0 12·1	0·6=0·3	
17	„ 23	20 e 57·0	21 i 06·8	21 25·1	22 01·0	2 04·0	0·5=0·2	
18	„ 31	4 e 05·0	4 e 32·0	4 38·5	6 39·9	2 34·9	0·7=0·3	

W. L.=Widening of line.

J. EVERSHED,
Director,
Kodaikanal and Madras Observatories.

BOMBAY OBSERVATORY.

Alibag magnetic record.

4. During the month of March 1913 the traces showed 10 calm days, 20 days of small and 1 day of moderate disturbance.

The days of the month selected as quiet for the purposes of the Magnetic Survey of India are the 2nd, 6th, 10th, 27th and 28th.

The following table represents the magnetic character of each day during the month :—

TABLE 2.

Day.	Character.	Day.	Character.	Day.	Character.
1	S	12	S	23	S
2	C	13	S	24	S
3	C	14	M	25	S
4	S	15	S	26	C
5	C	16	S	27	C
6	C	17	S	28	C
7	S	18	S	29	S
8	S	19	C	30	S
9	S	20	C	31	S
10	C	21	S	...	...
11	S	22	S	...	...

C = calm ; S = small ; M = moderate ; G = great ; V. G. = very great.

The mean observed absolute values of the several magnetic elements reduced to the mean monthly tabulations of the magnetograms, as also the ranges and the summed ranges of the horizontal force and declination for the month are as follow :—

Easterly declination	0° 48′ 27″
Horizontal force	0·36878 C.G.S. unit.
Vertical force	0·16449 „ „
Inclination	24° 2′·3
Inclination (observed)	24° 0′·5
Horizontal force range	0·00041 C.G.S. unit.
Horizontal force summed range	0·00255 „ „
Declination range	2′·1
Declination summed range	6′·8

(NOTE.—Summed range means sum without regard to sign of the 24 ordinates of the diurnal in equality.)

Seismic disturbances.

Apparatus :—Milne's Horizontal pendulum seismograph.

TABLE 3.

Date 1913.	Phase.	Time, G. M. T.	Period (sec.)	Amplitude (u) An.	Ae.	Az.	Distance. Δ (Km.)	REMARKS.
March		h. m. s.						
1	...	12 53 0	...	...	...	...	...	Thickening.
		21 58 0	...	...	...	...	...	„
		23 11 0	...	...	...	...	...	„
2	...	5 43 0	...	...	...	...	...	„
		14 45 0	...	...	...	...	...	„
3	...	6 56 0	...	...	...	...	...	„
4	...	7 31 0	...	...	...	...	...	„
		12 53 0	...	...	...	...	...	„
6	P	mixed in tremors						„
	F	mixed in tremors						
	M	2 16 39	...	...	300	...	...	
6	P	11 10 12	...	...	...	...	...	
	F	11 57 42	...	...	...	...	...	
	M	11 11 55	...	...	1222	...	...	
6	...	14 36 0	...	...	...	...	...	Thickening.
		14 38 0	...	...	...	...	...	„
		14 52 0	...	...	...	...	...	„
8	...	20 10 0	...	...	...	...	...	„
9	...	10 4 0	...	...	...	...	...	„
		12 24 0	...	...	...	...	...	„
10	P	19 15 2	...	...	...	...	...	
	F	19 19 41	...	...	...	...	...	
	M	19 15 14	...	...	44	...	...	
11	...	18 13 0	...	...	...	...	...	Thickening.
13	...	22 18 0	...	...	...	...	...	„
14	P	8 54 24	...	...	...	...	...	
	F	12 36 51	...	...	...	...	...	
	M	9 22 45	...	...	778	...	...	
14	P	18 11 35	...	...	...	...	...	
	F	18 21 42	...	...	...	...	...	
	M	18 12 54	...	...	33	...	...	

Date 1913.	Phase.	Time, G. M. T.			Period (sec.)	Amplitude (u)			Distance. (Km.)	Remarks.
						An.	Ae.	Az.		
March		h.	m.	s.						
16	...	14	53	0	...	...	...	...	...	Thickening.
17	...	18	0	0	...	...	...	...	...	"
	...	20	41	0	...	...	...	...	...	"
18	...	8	7	0	...	...	...	...	...	"
20	...	12	5	0	...	...	...	...	...	"
21	...	20	48	0	...	...	...	...	...	"
23	...	18	37	0	...	...	...	...	...	"
	...	19	43	0	...	...	...	...	...	"
23	P	20	58	10	...	..	...	...	...	
	F	21	57	55	...	...	...	...	...	
	M	21	9	16	...	...	56	...	...	
24	P	10	42	58	...	...	...	...	...	
	F	11	0	49	...	...	...	...	...	
	M	10	48	31	...	...	22	...	...	
27	P	3	20	54	...	...	...	...	...	
	F	3	50	7	...	...	...	...	...	
	M	3	31	28	...	...	33	...	...	
30	...	12	14	0	...	...	...	...	...	Thickening.
	...	14	42	0	...	...	...	...	...	"
31	P	4	3	23	...	...	...	...	...	
	F	6	55	53	...	...	...	...	...	
	M	4	38	3	...	...	233	...	...	

All times given above denote G. M. T.
Sensibility to tilt 1 mm. of amplitude on the trace = 0″34.
Only those thickenings which can be clearly distinguished are given; thickenings mixed up in tremors are omitted from the above list.

N. A. F. MOOS,
Director, Bombay and Alibag Observatories.

CALCUTTA OBSERVATORY.

5. *List of displacements recorded by the Milne seismograph at the Alipore observatory.*

TABLE 4.

Date. 1913.	P. T. Commencement. G. M. T.	L. W. Commencement. G. M. T.	Maximum. G. M. T.	End. G. M. T.	Duration.	Maximum displacement on trace from mean position.	Remarks.
	h. m.	h. m.	h. m.	h. m.	h. m.	mm.	
Mar. 6	10 37·9	11 5·9	11 7·9	12 3·3	1 25·4	*13·50	* Measured from base line.
" 14	...	8 52·1	?	12 24·2	3 32·1	?	
As the boom move d throughout the trace twice the time of Maximum and its amplitude cannot be given.							
Mar. 18	19 4·0	...	19 6·0	19 13·1	0 9·1	0·50	
" 23	20 55·4	...	21 11·2	21 53·4	0 58·0	1·00	
" 27	3 28·5	...	3 44·3	3 51·5	0 23·0	0·75	
" 31	3 54·3	4 19·4	4 43·8	5 44·8	1 50·5	1·25	

Sensibility 1 mm.=0·38″ of tilt.

E. P. HARRISON,
Meteorologist, Calcutta.

SIMLA OBSERVATORY.

6. The Simla seismograph notes for March 1913 will appear in a future number of the review.

ROYAL ALFRED OBSERVATORY, MAURITIUS.

7. No information has been Received.

Weather in the Indian monsoon region.

8. In the equatorial region pressure differed but little from the normal, rainfall was in excess and the velocity of wind greater than usual.

At Zanzibar the usual easterly element in the mean wind direction was replaced by a large westerly component.

At Mauritius pressure and rainfall were largely below the average.

TABLE 5.

	Mauritius.	Zanzibar.	Seychelles.
Departure from normal of mean pressure.	−·066	+·001	0
Actual mean wind direction .	S 74° E	S 31 W	N 19 W
Normal mean wind direction .	S 82° E	S 27 E	N 17 W
Actual mean wind velocity (miles per diem).	179	103	106
Normal mean wind velocity (miles per diem).	165	94	86
Rainfall departure from normal .	−6·32	+3·98	+1·25

Depressions and cyclonic storms.

9. Four disturbances in all affected the weather in northern India. The first entered Baluchistan from Persia at the commencement of the month and travelling slowly eastwards was situate over the south Punjab on the 3rd and 4th, near Gorakhpur on the 5th and in north Bihar and north Bengal on the 6th. It was well marked throughout and occasioned fairly general rain over the greater part of northern India and in north Burma. The second disturbance was also transmitted from Persia; it lay over Baluchistan on the 8th, the southwest Punjab on the 9th and the southeast Punjab and north Rajputana on the 10th. It was feebly marked and gave precipitation only in Baluchistan and along the western Himalayas. The third depression appeared over Asiatic Turkey on the 13th and advancing eastwards by a somewhat more northerly course than its predecessors disappeared over the north Punjab on the 18th. The precipitation associated with it was restricted to Kashmir and the neighbouring districts of the Punjab and of the North-West Frontier Province and was moderately heavy. The fourth disturbance appeared over Persia on the 21st and thence passed eastwards reaching the Punjab on the 27th. Rainfall occurred in the Persian Gulf on the 22nd and Baluchistan on the 23rd but did not extend into upper India.

Pressure.

10. Barometric pressure was below the normal throughout the Indian region, and most so at Leh where the deficiency amounted to over a tenth of an inch. In the plains the deficit was greatest in the North-West Frontier Province where it was about a twentieth of an inch.

The deficiency over northern and central India accompanied a lower temperature than usual and was therefore not a temperature effect.

TABLE 6.

DIVISION.	Departure from normal of mean 8 hrs. pressure.
	"
Burma	—·027
Assam	—·028
Bengal	—·024
Bihar and Orissa	—·022
United Provinces	—·022
Punjab	—·030
North-West Frontier Province	—·054
Sind	—·011
Rajputana	—·034
Bombay	—·006
Central India	—·022
Central Provinces	—·016
Hyderabad	—·009
Mysore	—·006
Madras	—·020

The vertical gradient had its normal value in southern India and Baluchistan but was much steeper than usual elsewhere.

TABLE 7.

HILL STATION.	Departure from normal pressure. A	PLAIN STATION.	Departure from normal pressure. B	Departure of pressure difference. B—A.
	"		"	"
Quetta	—·030	Jacobabad	—·016	+·014
Leh	—·114	Lahore	—·034	+·080
Murree	—·08[illegible]	Peshawar	—·060	+·022
Simla	—·068	Ludhiana	—·024	+·044
Chakrata	—·065	Roorkee	—·019	+·046
Darjiling	—·083	Dhubri	—·028	+·055
Mount Abu	—·037	Deesa	—·013	+·024
Pachmarhi	—·030	Khandwa	—·013	+·017
Kodaikanal	—·016	Madura	—·010	+·006

Temperature.

11. Temperature was lower than usual, both by day and night, in most parts of northern and central India and on the Konkan coast. The depression was slightly more than 4° in amount in the United Provinces, the Punjab, the North-West Frontier Province, Baluchistan, Rajputana and Central India East. Over Burma, Assam, Madras, Mysore and the Deccan the departures from the normal were inappreciable.

The third disturbance of the month was followed by a well marked cold wave which advanced from Baluchistan on the 17th to upper Burma on the 25th.

The statement below shows the character and progress of the wave :—

TABLE 8.

Date.	Departure from normal of mean temperature.
18th	—15·1 in Baluchistan.
19th	—17·7 in Baluchistan.
20th	—13·5 in Sind.
20th	—11·5 in North-West Frontier Province.
"	—13·3 in Rajputana West.
21s	—12·8 in United Provinces West.
22nd	—11·8 in Central India East.
"	—8·7 in Bihar.
"	—8·3 in Chota Nagpur.
23rd	—6·1 in Bengal and Orissa.
24th	—4·8 in Assam.
25th	—1·9 in Upper Burma.

TABLE 9.

Sub-division.	Actual temperature.					Departure from normal of		
	Mean maximum.	Mean minimum.	Monthly mean of mean between maximum and minimum.	Mean daily range of temperature.	Absolute range during month.	Maximum.	Minimum.	Daily range.
	°	°	°	°	°	°	°	°
1. Bay Islands	87·8	76·2	81·9	11·6	17·1	—1·5	—0·3	—1·2
2. Lower Burma	91·4	71·1	81·3	20·4	31·2	—1·2	+0·2	—1·4
3. Upper Burma	92·3	63·0	77·6	29·3	45·2	—1·8	—1·5	—0·3
4. Assam	79·3	60·1	69·7	19·2	35·5	—3·9	—1·4	—2·5
5. Bengal	86·4	64·5	75·5	21·8	41·9	—3·3	—2·1	—1·2
6. Orissa	91·3	70·2	81·8	21·1	36·9	—3·1	—0·9	—2·2
7. Chota Nagpur	87·1	61·3	74·2	25·8	47·1	—4·6	—2·8	—1·8
8. Bihar	86·3	60·3	73·3	26·0	48·9	—4·7	—3·3	—1·4
9. United Provinces, East	85·9	57·9	71·9	27·9	49·7	—5·4	—3·1	—2·3
10. Do. do., West	83·2	56·2	69·7	27·0	46·6	—6·1	—4·4	—1·7
11. Punjab, East and North	77·1	52·3	64·7	24·9	45·1	—6·6	—4·2	—2·4
12. Do., South-west	79·3	54·1	66·7	25·3	48·1	—4·9	—3·0	—1·9
13. Kashmir	48·8	27·1	38·0	21·7	41·2	—2·7	—2·7	0
14. North-West Frontier Province	75·1	49·9	62·5	25·1	49·1	—4·7	—3·7	—1·0
15. Baluchistan	66·4	42·2	54·4	24·2	48·6	—6·9	—6·5	—0·4
16. Sind	85·1	60·4	72·8	24·7	45·9	—3·7	—3·5	—0·2
17. Rajputana, West	86·3	58·1	72·2	28·3	46·9	—3·7	—5·9	+2·2
18. Do., East	86·1	59·0	72·6	27·1	44·7	—4·4	—3·3	—1·1
19. Gujarat	89·2	61·3	75·2	27·9	45·4	—3·3	—4·2	+0·9
20. Central India, West	88·5	57·9	73·3	30·6	47·5	—3·4	—3·0	—0·4
21. Do., East	85·9	57·9	71·9	28·1	49·1	—5·9	—3·1	—2·8
22. Berar	95·5	66·2	80·9	29·3	45·5	—1·5	—2·3	+0·8
23. Central Provinces, West	91·1	61·0	76·1	30·1	48·4	—3·8	—3·3	—0·5
24. Do., East	92·5	63·3	77·9	29·2	46·9	—3·3	—3·3	0
25. Konkan	85·4	70·6	78·0	14·9	22·3	—1·6	—3·0	+1·4
26. Bombay Deccan	97·2	63·4	80·3	33·8	46·5	+0·6	—2·3	+2·9
27. Hyderabad, North	97·7	67·2	82·4	30·5	44·5	+1·1	—1·3	+2·4
28. Do., South	99·0	71·0	84·9	28·0	41·7	+0·6	—0·7	+1·3
29. Mysore	93·5	66·9	80·2	26·5	34·0	+1·1	+0·9	+0·2
30. Malabar	89·1	76·3	82·7	12·7	18·4	—0·7	+0·7	—1·4
31. Madras, South-east	95·0	72·8	83·9	22·1	31·6	+1·1	+0·4	+0·7
32. Do., Deccan	101·4	73·3	87·4	28·1	39·4	+0·5	+0·5	0
33. Do. Coast, North	91·3	73·5	82·4	17·7	26·4	+1·0	+0·4	+0·6

TABLE 10.

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

Winds.

12. The most noteworthy abnormal features were :—

(*a*) At Darjiling there was a large and unusual preponderance of winds from between north and west, at Chakrata from between south and east, and at Quetta from north and west.

(*b*) The steadiness was unusually low in Burma, Bengal, the North-West Frontier Province and Central India, and high in Sind, Hyderabad and Mysore.

(*c*) The rate of movement of the wind was greater than usual in Rajputana and the Central Provinces, and either about equal to the normal or below it over the rest of the country. In Bengal the actual velocity per hour averaged 2·5 miles, against 3·5, the normal for the month.

TABLE 11.

Division.	Departure from normal of	
	Hourly wind velocity.	Wind steadiness.
Burma	−0·7	−12
Assam	−0·2	− 2
Bengal	−1·0	− 9
Bihar and Orissa	+0·3	+ 2
United Provinces	−0·2	− 4
Punjab	+0·2	− 1
North-West Frontier Province	−0·5	− 9
Sind	−0·6	+ 6
Rajputana	+0·6	− 2
Bombay	−0·3	+ 3
Central India	−0·3	−10
Central Provinces	+1·0	+ 3
Hyderabad	−0·7	+ 8
Mysore	−0·1	+ 7
Madras	+0·1	+ 1

Humidity and cloud.

13. Humidity, both absolute and relative, was in general either about the average or somewhat below it. The dryness was greatest in the Deccan, and it was scarcely less in the tract represented by Karachi, Bhuj, Rajkot and Dwarka.

Except in Burma and a few places elsewhere there was a general defect of cloud, greatest in Rajputana and also in the Bombay Deccan.

TABLE 12.

DIVISION.	HYGROMETRY, 8 HRS.				CLOUD.	
	Mean humidity.	Departure from normal.	Mean vapour tension in inches of mercury.	Departure from normal in inches of mercury.	Mean cloud amount at 8 hrs.	Departure from normal.
	%					
Burma	75	+ 1	·631	—·017	3·1	+0·9
Assam	84	— 1	·509	—·036	3·6	—0·7
Bengal	77	— 1	·589	—·052	2·8	—0·3
Bihar and Orissa	64	+ 3	·469	—·018	1·6	—0·4
United Provinces	56	+ 3	·342	—·032	1·7	—0·3
Punjab	61	— 1	·306	—·056	2·3	—0·5
North-West Frontier Province.	62	— 7	·285	—·076	3·1	—0·9
Sind	55	— 9	·380	—·079	1·9	—0·6
Rajputana	34	— 6	·220	—·083	1·3	—1·3
Bombay	54	— 6	·432	—·066	0·8	—0·8
Central India	44	+ 3	·298	—·040	1·0	—0·5
Central Provinces	41	— 6	·325	—·081	1·0	—0·6
Hyderabad	36	—15	·348	—·141	0·7	—0·7
Mysore	57	— 5	·491	—·049	1·2	—0·3
Madras	73	— 1	·746	—·013	2·2	—0·3

Rainfall.

14. Although precipitation in northern and central India occurred almost entirely during the first seventeen days it was either equal to the average for the month or in excess, except in Bengal, Orissa, Kashmir, the North-West Frontier Province and Rajputana East. The excess was most pronounced in Assam, Chota Nagpur and the United Provinces East, where it amounted to about an inch.

Rainfall was heavier than usual also in Burma. In the Peninsula where under ordinary conditions nearly a third of an inch of rain is received the month was almost rainless.

TABLE 13.

SUB-DIVISION.	NUMBER OF RAINY DAYS.		RAINFALL.			
	Actual.	Normal.	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
			"	"	"	
1. Bay Islands	0	0·7	0·03	0·48	—0·45	— 94
2. Lower Burma	0·7	0·4	0·47	0·26	+0·21	+ 81
3. Upper Burma	1·2	0·7	0·39	0·25	+0·14	+ 56
4. Assam	7·9	6·4	4·76	3·83	+0·93	+ 4
5. Bengal	1·9	2·3	1·13	1·49	—0·36	—
6. Orissa	1·0	1·8	0·65	1·09	—0·44	— 40
7. Chota Nagpur	2·1	1·5	1·87	0·69	+1·18	+171
8. Bihar	1·6	0·8	0·78	0·37	+0·41	+111
9. United Provinces, East	2·2	0·7	1·22	0·31	+0·91	+294
10. Do., West	2·2	1·1	1·24	0·48	+0·76	+158
11. Punjab, East and North	2·8	1·5	1·42	0·73	+0·69	+ 95
12. Do., South-west	1·1	1·3	0·66	0·50	+0·16	+ 32
13. Kashmir	4·5	4·8	2·23	2·46	—0·23	— 9
14. North-West Frontier Province	2·9	3·5	1·35	1·85	—0·50	— 27
15. Baluchistan	2·6	3·1	1·78	1·12	+0·66	+ 59
16. Sind	0·6	0·4	0·17	0·16	+0·01	+ 6
17. Rajputana, West	0·3	0·2	0·08	0·07	+0·01	+ 14

Sub-division.	Number of rainy days.		Rainfall.			
	Actual.	Normal.	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
			"	"	"	
18. Rajputana, East	0·2	0·5	0·07	0·19	−0·12	− 63
19. Gujarat	0	0·1	0	0·02	−0·02	−100
20. Central India, West	0·2	0·2	0·05	0·08	−0·03	− 37
21. Do., East	1·3	0·7	0·77	0·31	+0·46	+148
22. Berar	0·2	0·7	0·05	0·32	−0·27	− 84
23. Central Provinces, West	1·7	0·8	0·59	0·36	+0·23	+ 64
24. Do., East	1·6	1·3	0·78	0·64	+0·14	+ 22
25. Konkan	0	0·1	0·01	0·06	−0·05	− 83
26. Bombay Deccan	0	0·4	0	0·19	−0·19	−100
27. Hyderabad, North	0	0·8	0	0·34	−0·34	−100
28. Do., South	0	0·8	0	0·49	−0·49	−100
29. Mysore	0·1	0·6	0·05	0·31	−0·26	− 84
30. Malabar	0·3	1·0	0·11	0·57	−0·46	− 81
31. Madras, South-east	0·3	0·8	0·19	0·54	−0·35	− 65
32. Do., Deccan	0	0·1	0	0·17	−0·17	−100
33 Do., Coast, North	0·1	0·9	0·04	0·52	−0·48	− 92

TABLE 14.

Division.	Rainfall.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"	
Burma	0·43	0·26	+0·17	+ 65
Assam	4·76	3·83	+0·93	+ 24
Bengal	1·13	1·49	−0·36	− 24
Bihar and Orissa	0·94	0·59	+0·35	+ 59
United Provinces	1·23	0·39	+0·84	+215
Punjab	1·27	0·68	+0·59	+ 87
North-West Frontier Province	1·35	1·85	−0·50	− 27

Division.	Rainfall.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"	
Sind	0·17	0·16	+0·01	+ 6
Rajputana	0·07	0·15	−0·08	− 53
Bombay	0	0·11	−0·11	−100
Central India	0·31	0·16	+0·15	+ 94
Central Provinces	0·49	0·41	+0·08	+ 20
Hyderabad	0	0·42	−0·42	−100
Mysore	0·05	0·31	−0·26	− 84
Madras	0·12	0·49	−0·37	− 76
Mean of India	0·67	0·56	+0·11	+ 20

Snowfall.

I.—AFGHANISTAN.

15. No information has been received from Kabul.

II.—NORTH-WEST FRONTIER PROVINCE.

(*a*) *Wano.*—Snow-storms occurred on the 2nd and 4th down to about 8,000 feet. The total fall measured 8 inches on the Marwatti, Pirghal, Bosh and Drenashter, 6 inches on the Jani Mela and Spera and 3½ inches on the Kotkum. At the end of the month the depth of the unmelted residue on the highest peaks was only about 3″.

(*b*) *Tochi* (North Waziristan).—A snow-storm occurred on the hills in North Waziristan on the night of the 3rd.

(*c*) *Dera Ismail Khan.*—About 1½ feet of snow are reported to have fallen on the 2nd and 3rd on the Takht-i-Suleman, Almer Sar, Dabara and Naveteza. On the last day of the month snow to a depth of 6 inches was reported to be lying on the Takht-i-Suleman peak.

(*d*) *Kurram.*—Snow-storms occurred on the Sufed Koh on the first four days. The snowline came down to about a mile below the level of Parachinar. At the close of the month about 3 feet of snow remained unmelted on the Paiwar Kotal.

(*e*) *Kohat.*—Snow fell on the Samana range on the 3rd, 9th and 28th to a total depth of 6 inches.

(*f*) *Drosh.*—One and half inches snow fell on the 19th. At the end of the month the accumulations on surrounding hills were considered to be above the average.

III.—KASHMIR.

The statement below shows the character of snowfall in this region :—

TABLE 15.

Locality.	Number of falls during the month.	Total fall during the month.		Depth of unmelted residue at the end of the month.
		Ft.	In.	
Srinagar	2	0	6	
Skardu	5	Over 1 foot		*Nil.*
		Ft.	In.	
Mountains around Kargil .	4	13	6	More than 3 feet.
Dras	13	2	4	Nine feet on the Zojila and about 4 feet in Dras itself.

IV.—PUNJAB.

(*a*) *Murree.*—Snow fell on the 4th, 5th, 9th to 11th, 18th, 19th and 29th. The total quantity received was nearly 2 feet. None of the falls extended to the hills adjacent to Kahuta.

(*b*) *Kilba* (Simla Hills).—There were altogether eight falls varying in depth from 2″ to 6″. The lowest position of the snowline was 7,000 feet. On the last day of the month there was still an accumulation of 14 feet on the Rupan pass.

V.—UNITED PROVINCES.

(*a*) *Garhwal.*—There were snowstorms on the 3rd, 4th, 5th, 7th, 10th, 11th, 12th and 14th. The snowline descended to a level of about 8,000 feet on the 3rd and 4th.

(*b*) *Almora.*—The aggregate fall of the month was reported as amounting to 14 feet in Malla Darma, 9 feet in Malla Johar, 8 feet in Chaudas and 6 feet in Byans and Malla Danpur. The snowline came down to a distance of about 8 or 9 miles from the perpetual snows.

TABLE 16.

Name of pass or peak.	Depth of accumulation at the end of the month.	
	Reported.	Normal.
	Feet.	Feet.
Nuwe pass	35	32
Ralamdhura pass	4	12½
Untadhura ,, ...	5	16½
Milamdhura ,, ...	3	9½
Kuntela ,, ...	15	4½
Binkaru ,, ...	30	27½
Lampia ,, ...	16	22½
Lipulekh ,, ...	12	22½
Kaphini ,, ...	15	4½
Pindari peak	15	4½

SUMMARY.

16. The available information indicates that on the whole the snowfall of the month in the mountain zone bordering upper India was somewhat above the average.

HEM RAJ.

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

Table

Abstract of observations taken at 10 hrs. and 16 hrs

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure. Mean of 10 hrs.	Pressure. Mean of 16 hrs.	Pressure. Mean daily range.	Pressure. Mean of daily mean pressures.	Pressure. Departure from normal.	Pressure. Mean reduced to sea-level and gravity, 45° Lat.	Temperature of air. Mean maximum.	Temperature of air. Mean minimum.	Temperature of air. Mean daily range.	Temperature of air. Highest maximum.	Temperature of air. Lowest minimum.	Temperature of air. Absolute range.	Temperature of air. Mean 10 hrs.	Temperature of air. Mean 16 hrs.	Temperature of air. Mean of daily means.	Temperature of air. Departure from normal.	Temperature, wet-bulb. Mean minimum.	Temperature, wet-bulb. Mean 10 hrs.	Temperature, wet-bulb. Mean 16 hrs.	Temperature, wet-bulb. Mean of three previous columns.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	III.—Bengal.																					
5	Calcutta	21	29·900	29·775	·125	29·831	—·025	29·800	89·2	68·3	20·9	98·7	57·3	41·4	81·0	87·7	77·9	—1·4	64·4	69·4	71·0	68·[illegible]
	V.—United Provinces of Agra and Oudh.																					
9	Allahabad	309	29·609	29·485	·124	29·538	—·010	29·803	87·9	58·9	29·0	101·2	50·9	50·3	77·7	87·0	72·6	—4·2	52·9	59·9	61·5	58·[illegible]
	VI.—Punjab.																					
11	Lahore	702	29·186	29·107	·079	29·140	—·027	29·829	78·0	52·0	26·0	94·6	45·2	49·4	68·3	76·3	64·3	—4·7	48·7	57·0	59·3	55·[illegible]
	IX.—Rajputana.																					
18	Jaipur	1,431	28·482	28·374	·108	28·420	—·033	29·802	86·5	53·9	29·6	100·2	47·4	52·8	76·7	85·1	71·3	—3·6	47·6	57·4	59·4	54·[illegible]
	X.—Bombay.																					
25	Bombay	37	29·940	29·828	·112	29·880	+·003	29·856	85·1	71·3	13·8	89·1	67·3	21·8	78·3	80·8	76·6	—1·4	66·0	70·4	71·6	69·[illegible]
	XIV.—Mysore.																					
29	Bangalore	3,021	26·992	26·857	·135	26·925	—·007	29·704	92·7	65·3	27·4	38·3	58·8	39·5	83·0	90·7	78·0	+1·3	58·6	65·4	65·0	63·[illegible]
	XV.—Madras.																					
31	Pudukkottai	318	29·638	29·473	·165	29·555		29·799	97·8	73·3	24·5	102·1	68·6	33·5	86·4	95·4	85·5			73·9	74·0	
	Madras	22	29·939	29·805	·134	29·872	—·033	29·825	92·0	73·1	18·9	97·4	69·2	28·2	86·9	87·9	81·0	+1·5	71·5	76·1	76·3	74·7
	Hill stations, excluding Kashmir and Baluchistan.																					
	Sarain		23·092	23·043	·049	23·057		23·019	51·6	31·3	20·3	66·8	22·3	44·5	46·4	47·3	41·8			37·2	38·7	
	Kalabagh																					
	Mukteswar	7,592	22·786	22·732	·054	22·752		22·710	55·9	37·4	18·5	71·6	27·4	44·2	48·4	52·4	46·3		30·2	39·2	42·5	37·[illegible]
	Katmandu	4,388	25·621	25·531	·090	25·573	—·038†	25·527	73·7	44·3	29·4	84·0	37·0	47·0	62·4	70·2	59·3	—1·5†	41·8	52·9	54·8	49·[illegible]
	Ootacamund	*7,327*	23·111	23·034	·077	23·067		23·003	71·3	47·6	23·7	77·4	44·0	33·4	66·2	66·6	59·8		43·9	51·5	53·5	49·[illegible]
	Kodaikanal	7,688	22·882	22·818	·064	22·850		22·785	71·0	50·5	20·5	75·0	45·7	29·3	66·0	64·4	60·8		42·8	52·4	54·7	50·[illegible]
	Dodabetta	8,539?	22·136	22·060	·066	22·087		22·024	61·0	48·1	15·9	69·5	42·9	26·6	59·7	60·4	56·4		41·1	48·1	50·4	46·[illegible]
	Extra India.																					
	Diego Garcia																					
	Seychelles	15	29·947	29·853	·094	29·905	0†	29·843	84·7	78·4	6·3	86·3	75·3	11·0	82·2	83·4	80·6	+1·7†	72·1	77·3	77·6	75·[illegible]
	Mauritius	181																				

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.

stations in India, etc., in March, 1913.

Tension in inches of mercury.				Humidity.					Cloud.				Wind direction.											Wind steadiness.		Wind velocity.		Rainfall.			
													Total number of 10 hrs. and 16 hrs. winds from																			
	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.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Mean wind direction.	Normal mean wind direction of month.	Average percentage.	Normal percentage.	Mean velocity in miles per diem.	Normal.	Total rainfall for the month.	Heaviest rainfall during the month.	Station.	Number of subdivision.
5	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
																														III.—Bengal.	
·577	·544	·601	−·042	80	55	42	64	− 3	2·0	1·2	1·6	−0·6		4	4	1	5	5	20	9	14	S 77° W	S 60° W	42	44	91	36	0·87	0·55	Calcutta . .	5
																														V.—United Provinces of Agra and Oudh.	
286	·212	·286	−·072	66	32	18	42	0	2·2	1·8	2·0	−0·2	5	3		6	4	2	3	23	16	N 75° W	N 63° W	46	41	70	89	0·85	0·74	Allahabad .	9
																														VI.—Punjab.	
318	·284	·312	−·018	78	48	33	55	+ 1	2·2	3·5	2·7	−0·8	11	7	3	1	10		1	13	16	N 50° W	N 12° W	31	31	52	51	1·50	1·06	Lahore . .	11
																														IX.—Rajputana.	
·239	·194	·221	−·084	48	27	16	33	− 6	1·5	2·3	1·9	−1·2	2	6	2	6	4	3	7	19	13	N 76° W	N 46° W	39	30	95	79	0·05	0·05	Jaipur . .	18
																														X.—Bombay.	
·641	·654	·652	−·085	76	66	62	72	− 3	0·9	0·4	0·7	−0·6		5	2	4	3		1	11	36	N 45° W	N 36° W	66	46	160	191	0	0	Bombay . .	25
																														XIV.—Mysore.	
·424	·318	·396	−·051	67	38	22	44	− 6	0·7	1·3	1·0		2	1	5	17	13	7	11	4	2	S 42° E	S 36° E	39	46	113	86	0	0	Bangalore . .	29
																														XV.—Madras.	
·663	·557				52	34			2·2	2·3	2·3		23		9	3	16	5	4	2		S 51° E		32		81		0	0	Pudukkottai .	31
·756	·756	·778	−·024	86	59	58	74	− 4	1·6	1·1	1·3	−0·9				9	28	14	11			S 28° E	S 44° E	73	81	105	109	0	0	Madras.	
																														Hill stations, excluding Kashmir and Baluchistan.	
·130	·147				44	49			3·7	4·3	4·3																	4·30	1·30	Sarain.	
																														Kalabagh.	
·147	·172	·138		49	46	47	48		4·3	5·0	4·7		10	1	2	6	2	6	5	30		S 71° W		42		160		3·21	1·33	Mukteswar.	
·291	·251	·258	−·043	82	54	37	59	− 2	3·3	4·1	3·7	+0·4	53			2				7		W	N 82° W	8	47	20	23	0·89	0·40	Katmandu.	
·229	·274	·252		76	36	43	53		2·7	4·9	3·8		2		3	15	23	17	1	1		S 45° E		72		79		0·42	0·25	Ootacamund.	
·254	·328	·260		54	41	56	50		2·3	5·1	3·7			11	13	15	20			1	2	N 78° E		58		237		5·30	2·94	Kodaikanal.	
·218	·265	·223		55	44	51	50		3·9	5·2	4·5		1	7	23	17	13				1	N 70° E		72		320		0·87	0·63	Dodabetta.	
																														Extra India.	
																														Diego Garcia.	
·871	·870	·843	−·018	72	79	76	80	− 3	6·5	7·0	6·7	0†	6	17	8	2	1			6	22	N 19° W	N 17° W	64	39	106	86	11·16	2·26	Seychelles.	
																														Mauritius.	

† Departure from old normal.

Table B.—Abstract of observations taken at 8 hrs. at 216 stations in India, etc., in March, 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.

	Pressure departure from normal.	Temperature of air.								Wind.		Hygrometry.				Cloud.		Rainfall.		
		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.	Absolute range during month.	Departure of velocity from normal.	Departure of steadiness from normal.	Mean humidity.	Departure from normal.	Mean vapour tension.	Departure from normal.	Mean cloud amount.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.
Burma	—·027	91·8	—1·5	67·3	—0·5	79·6	—1·0	24·6	37·8	—0·7	—12	75	+ 1	·631	—·017	3·1	+0·9	0·43	0·26	+0·17
Assam	—·028	79·3	—3·9	60·1	—1·4	69·7	—2·7	19·2	35·5	—0·2	— 2	84	— 1	·509	—·036	3·6	—0·7	4·76	3·83	+0·93
Bengal	—·024	86·4	—3·4	64·5	—2·2	75·5	—2·8	21·8	41·9	—1·0	— 9	77	— 1	·589	—·052	2·8	—0·3	1·13	1·49	—0·36
Bihar and Orissa	—·022	87·7	—4·3	63·0	—2·7	75·4	—3·5	24·7	45·5	+0·3	+ 2	64	+ 3	·469	—·018	1·6	—0·4	0·94	0·59	+0·35
United Provinces of Agra and Oudh	—·022	84·7	—5·7	57·1	—3·6	70·9	—4·7	27·5	48·3	—0·2	— 4	56	+ 3	·342	—·032	1·7	—0·3	1·23	0·39	+0·84
Punjab	—·030	77·7	—6·1	52·8	—3·8	65·3	—4·9	25·0	45·9	+0·2	— 1	61	— 1	·306	—·056	2·3	—0·5	1·27	0·68	+0·59
North-West Frontier Province	—·054	75·1	—4·7	49·9	—3·7	62·5	—4·3	25·1	49·1	—0·5	— 9	62	— 7	·285	—·076	3·1	—0·9	1·35	1·85	—0·50
Sind	—·011	85·1	—3·7	60·4	—3·5	72·8	—3·6	24·7	45·9	—0·6	+ 6	55	— 9	·380	—·079	1·9	—0·6	0·17	0·16	+0·01
Rajputana	—·034	86·2	—4·1	58·7	—4·3	72·4	—4·2	27·6	45·5	+0·6	— 2	34	— 6	·220	—·083	1·3	—1·3	0·07	0·15	—0·08
Bombay	—·006	90·9	—2·0	63·9	—3·6	77·4	—2·8	27·0	40·9	—0·3	+ 3	54	— 6	·432	—·066	0·8	—0·8	0	0·11	—0·11
Central India	—·022	87·3	—4·7	57·9	—3·1	72·6	—3·9	29·3	48·3	—0·3	—10	44	+ 3	·298	—·040	1·0	—0·5	0·31	0·16	+0·15
Central Provinces	—·016	92·6	—3·3	62·9	—3·1	77·8	—3·2	29·6	47·3	+1·0	+ 3	41	— 6	·325	—·081	1·0	—0·6	0·49	0·41	+0·08
Hyderabad	—·009	98·4	+0·8	69·4	—0·9	83·9	—0·1	29·1	42·9	—0·7	+ 8	36	—15	·348	—·141	0·7	—0·7	0	0·42	—0·42
Mysore	—·006	93·5	+1·1	66·9	+0·9	80·2	+0·9	26·5	34·0	—0·1	+ 7	57	— 5	·491	—·049	1·2	—0·3	0·05	0·31	—0·26
Madras	—·020	93·8	+0·6	73·7	+0·5	83·8	+0·5	20·1	29·0	+0·1	+ 1	73	— 1	·746	—·013	2·2	—0·3	0·12	0·49	—0·37

Table

(2) *Abstract of observations taken at 8 hrs. at 216 stations*

	Station.	Elevation of barometer 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.
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	I.—Burma.																						
2	Victoria Point	147	29·776		29·852	29·866	29th	29·714	14th	·152	80·1	90·2		76·1		83·2		14·1	93·6	26th & 27th, 31st	73·2	7th	20·4
	Mergui	65	29·862	—·030	29·857	29·944	28th	29·793	23rd	·151	79·3	90·9	—0·3	72·7	+0·8	81·8	+0·3	18·2	94·5	30th	68·8	10th	25·7
	Tavoy	19	29·920	—·031	29·872	29·999	28th	29·840	23rd	·159	75·8	91·8	—1·5	72·5	+2·3	82·1	+0·4	19·3	95·5	30th	65·3	18th	30·2
	Moulmein	94	29·846	—·014	29·878	29·945	28th	29·745	23rd	·200	76·8	93·3	—0·8	72·7	0	83·0	—0·4	20·6	96·5	29th	68·8	10th	27·7
	Rangoon	18	29·911	—·032	29·867	29·997	28th	29·815	23rd	·182	73·4	95·6	—1·0	69·7	—1·4	82·7	—1·2	25·9	98·5	29th	64·5	9th	34·0
	Bassein	27?	29·893	—·029	29·857	29·998	28th	29·800	14th	·198	76·6	93·4	—1·0	70·7	+0·2	82·1	—0·4	22·7	97·2	27th	65·9	2nd & 8th	31·3
	Diamond Island	41	29·881	—·043	29·857	29·980	28th	29·785	23rd	·195	78·7	84·1	—1·5	67·9†	—5·8†	76·1†			87·9	7th	67·0	1st & 2nd	20·9
	Toungoo	164	29·754	—·019	29·862	29·834	28th	29·647	23rd	·187	75·9	96·7	—1·1	68·8	+0·3	82·7	—0·4	27·9	101·5	24th, 30th & 31st.	60·9	9th	40·6
	Kyaukpyu	18	29·897		29·855	29·985	28th	29·815	23rd	·171	73·9	84·5		68·1		76·3		16·4	93·0	27th	56·4	4th	36·6
	Akyab	20	29·917	—·028	29·878	30·011	28th	29·843	23rd	·163	73·8	86·6	—2·5	68·3	—0·6	77·4	—1·5	18·3	91·4	24th	57·5	2nd & 3rd	33·9
3	Thayetmyo	121	29·771	—·036	29·835	29·864	2nd	29·657	23rd	·207	75·9	98·8	—1·0	65·1	—1·4	81·9	—1·2	33·7	103·9	24th	53·9	1st	50·0
	Minbu	*165*	29·720	—·034	29·831	29·812	3rd	29·616	23rd	·196	74·8	97·6	—1·7	67·5	—1·8	82·6	—1·7	30·1	105·8	31st	57·0	2nd	48·8
	Yamethin	657	29·230	—·026	29·844	29·301	3rd	29·125	23rd	·179	75·3	97·4	—1·7	68·6	+0·5	83·0	—0·6	23·8	103·8	24th	61·0	8th	42·8
	Mandalay	250	29·644	—·017	29·847	29·725	2nd	29·544	14th	·181	74·2	97·8	+0·1	65·1	—2·8	81·5	—1·3	32·7	108·2	30th	58·1	4th & 5th	50·1
	Monywa	*280*	29·617		29·850	29·705	2nd	29·519	14th	·186	74·3	96·8		66·0		81·4		30·8	107·8	30th	58·1	7th	49·7
	Lashio	*2,820*	27·101	—·031	27·047	27·197	2nd	26·999	14th	·198	61·9	83·5	—2·7	54·2	—1·5	68·8	—2·1	29·3	91·1	30th	48·0	1st	43·1
	Bhamo	*381*	29·527	—·009	29·875	29·615	2nd	29·357	14th	·258	64·2	85·1	—3·9	58·4	—1·7	71·8	—2·8	26·7	94·4	28th	53·1	3rd, 4th & 5th.	41·3
	Myitkyina	458	29·424		29·858	29·526	2nd	29·249	14th	·277	62·7	81·3		58·9		70·1		22·4	90·2	23rd & 28th.	54·5	10th	35·7
	II.—Assam.																						
4	Dibrugarh	353	29·554		29·883	29·736	2nd	29·431	14th	·305	62·1	75·6		59·5		67·6		16·1	86·4	5th	52·6	2nd	33·8
	Sibsagar	333	29·596	—·030	29·901	29·783	2nd	29·474	14th	·309	63·1	75·5	—3·6	59·1	—0·9	67·3	—2·3	16·4	82·6	22nd & 31st.	52·5	2nd	30·1
	Tezpur	252	29·677		29·898	29·853	2nd	29·565	14th	·288	64·2	79·3		60·4		69·9		18·9	89·1	30th	54·2	17th	34·3
	Gauhati	195	29·710		29·869	29·888	2nd	29·577	14th	·311	64·7	81·0		58·4		69·7		22·6	91·8	30th	52·1	1st	39·7
	Dhubri	115	29·772	—·028	29·846	29·964	2nd	29·632	14th	·332	65·7	81·8	—4·7	61·1	—2·3	71·5	—3·5	20·7	94·5	30th	55·1	2nd	39·4
	Silchar	104	29·832	—·025	29·890	29·972	2nd	29·730	14th	·242	67·7	82·5	—3·5	62·2	—1·0	72·3	—2·3	20·3	89·3	28th	53·8	2nd	35·5
	III.—Bengal.																						
5	Cox's Bazar	36	29·888		29·870	29·982	2nd	29·805	14th	·177	73·0	84·8		66·0		75·4		18·8	87·7	5th & 23rd	57·7	3rd	30·0
	Chittagong	87	29·835	—·030	29·870	29·932	2nd	29·759	15th	·173	71·2	84·8	—1·9	55·6	—2·0	75·2	—1·9	19·2	88·5	24th & 27th.	55·0	1st, 2nd & 3rd.	33·5
	Noakhali	43	29·873		29·832	30·009	1st	29·762	14th	·247	72·8	84·0		67·2		75·6		16·8	88·8	20th	51·4	2nd	37·4
	Barisal	12	29·893‖	—·024‖	29·852‖	30·029	2nd	29·776	14th	·253	73·8	87·4	—1·9	67·0	—2·2	77·2	—2·1	20·4	94·8	30th	52·6	2nd	42·2
	Narayanganj	26	29·873	—·028	29·848	30·030	2nd	29·761	14th	·269	72·1	86·7	—3·3	66·2	—2·0	76·4	—2·7	20·5	96·0	27th	55·3	2nd	40·7
	Mymensingh	63	29·843	—·022	29·860	30·004	2nd	29·714	14th	·290	67·3	85·2	—1·7?	63·1	—1·3	74·2	—1·5?	22·1	94·6	30th	54·1	2nd	40·5
	Bogra	75	29·816	—·013	29·845	29·996	2nd	29·699	14th	·297	68·6	87·2	—3·0	60·9	—3·0	74·0	—3·0	26·3	99·7	30th	52·2	2nd	47·5
	Dinajpur	123	29·749	—·025	29·831	29·942	2nd	29·621	14th	·321	66·6	85·6	—3·5	59·2	—2·1	72·4	—2·8	26·4	102·3	29th	50·5	2nd	51·8
	Jalpaiguri	283	29·603	—·025	29·855	29·799	2nd	29·467	14th	·332	62·7	80·8	—4·0	57·7	—2·0	69·2	—3·0	23·1	91·9	30th	50·4	3rd	41·5
	Saugor Island	25	29·877	—·025	29·847	30·023	2nd	29·742	14th	·281													
	Midnapore ‖	149	29·736		29·836	29·899	2nd	29·612	14th	·287	73·5	90·1		67·6		78·8		22·5	102·8	29th	59·2	2nd	43·6
	Calcutta	21	29·880	—·025	29·848	30·046	2nd	29·752	14th	·294	72·7	88·7	—2·1	68·2	—1·3	78·4	—1·7	20·5	98·5	29th & 30th	57·3	1st & 2nd	41·2

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

† Mean of 4 days.

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3.

n India, etc., in March, 1913.

Wind direction. Number of winds from Calm. (25)	N. (26)	N.E. (27)	E. (28)	S.E. (29)	S. (30)	S.W. (31)	W. (32)	N.W. (33)	Resultant direction. (34)	Normal direction. (35)	Wind velocity. Mean velocity, miles per hour. (36)	Normal. (37)	Departure from normal. (38)	Wind steadiness. Actual percentage. (39)	Departure from normal. (40)	Hygrometry, 8 hrs. Mean humidity at 8 hrs. (41)	Departure from normal. (42)	Mean vapour tension at 8 hrs. in inches of mercury. (43)	Departure from normal in inches of mercury. (44)	Cloud. Mean cloud amount at 8 hrs. (45)	Departure from normal. (46)	Rainfall. Number of rainy days. (47)	Normal number of rainy days. (48)	Departure from normal. (49)	Rainfall of month. (50)	Normal rainfall of month. (51)	Departure from normal. (52)	Total rainfall from 1st Dec. 1912 to 31st Mar. 1913. (53)	Normal rainfall for period, 1st Dec. to 31st Mar. (54)	Departure from normal of period, 1st Dec. 1912 to 31st Mar. 1913. (55)	Heaviest rainfall during month. (56)	Station. (57)
																																I.—Burma.
6	6	14	4					1	N 38° E		4·9*			63		80		·817		4·9		4			2·36			3·29			1·82	Victoria Point.
31									(a)	N 27° W	2·5	1·6	+0·9	(a)	(a)	85	+ 4	·846	+·011	3·8	+0·4	2	4·5	−2·5	1·09	3·05	− 1·96	4·62	6·56	− 1·94	0·63	Mergui.
31									(a)	N 34° W	1·0	1·2	−0·2	(a)	(a)	89	+ 4	·793	+ ·027	3·9	+1·5	4	2·2	+1·8	2·60	1·61	+ 0·99	3·36	2·56	+ 0·80	1·30	Tavoy.
4		5	20		2				N 87° E	S 58° E	3·3	2·4	+0·9	76	+11	84	+ 4	·785	−·001	2·5	+0·6	2	0·6	+1·4	1·54	0·43	+ 1·11	1·54	0·94	+ 0·60	1·20	Moulmein.
12	2	2	1	2	4	1	3	4	N 88° W	S 64° W	1·7	3·3	−1·6	9	−59	84	− 1	·697	−·039	8·1	+6·1	0	0·6	−0·6	0·09	0·37	− 0·28	0·09	0·89	− 0·80	0·08	Rangoon.
19	1						2	9	N 49° W	N 55° W	4·4	4·1	+0·3	33	−35	83	− 1	·767	−·011	1·6	−0·4	0	0·2	−0·2	0	0·19	− 0·19	0	0·94	− 0·94	0	Bassein.
1	10	1				1	3	15	N 34° W	N 30° W	7·1	6·8	+0·3	79	+ 6	75	− 1	·737	−·023	3·1	+0·3	0	0·3	−0·3	0	0·23	− 0·23	0	1·36	− 1·36	0	Diamond Island.
5	2	2	2	6	4	5	3	2	S 2° W	S 51° E	1·6	2·3	−0·7	22	−21	70	− 4	·637	−·040	5·6	+3·5	1	0·5	+0·5	0·13	0·36	− 0·23	1·02	0·95	+ 0·07	0·12	Toungoo.
6	1	5	4	7	3	2		3	S 72° E		4·0			30		83		·721		2·0		0			0			0·25			0	Kyaukpyu.
5	5	6	9	2		1	1	2	N 53° E	N 32° E	2·5	2·7	−0·2	46	−29	82	0	·634	−·018	2·5	+0·1	1	0·8	+0·2	0·28	0·58	− 0·30	0·36	1·50	− 1·14	0·28	Akyab.
16			3	3	7	1		1	S 22° E	S 68° W	1·4*	3·5	−2·1	33	− 6	70	+11	·633	+·082	0·6	0	0	0·2	−0·2	0	0·18	− 0·18	0·79	0·53	+ 0·26	0	Thayetmye.
	3	1		13	6	2		6	S 25° E	S 63° E	2·9	5·4	−2·5	33	+10	50	− 8	·443	−·084	2·1	+1·6	0	0·5	−0·5	0	0·44	− 0·44	0·29	1·03	− 0·74	0	Minbu.
3	1			11	10			1	S 24° E	S 38° E	1·5	3·4	−1·9	59	+ 8	60	+ 1	·522	−·014	0·7	0	1	0·6	+0·4	0·16	0·49	− 0·33	0·34	1·25	− 0·91	0·13	Yamethin.
25	1			3	2				S 34° E	S 8° W	1·3	3·1	−1·8	13	−13	52	− 2	·430	−·078	1·0	−0·3	2	0·5	+1·5	0·55	0·20	+ 0·35	1·09	0·64	+ 0·45	0·45	Mandalay.
3	16	2		6	1		1	2	N 13° E		1·7			46		56		·472		1·6		0	0·9	−0·9	0	0·40	− 0·40	0·03	0·80	− 0·77	0	Monywa.
29					1	1			S 21° W		1·6*			7		72	0	·385	−·035	1·9	−2·8	1	1·3	−0·3	0·90	0·62	+ 0·28	2·99	1·90	+ 1·09	0·74	Lashio.
21	1	8				1			N 40° E	N 3° W	1·7	2·4	−0·7	27	− 2	86	+ 7	·510	−·010	4·5	+2·3	3	1·7	+1·3	1·27	0·67	+ 0·60	3·37	2·30	+ 1·07	0·77	Bhamo.
15	5	6	2	1	1			1	N 37° E		4·9			33		83		·468		4·7		5	2·9	+2·1	2·12	0·85	+ 1·27	4·29	2·50	+ 1·79	0·92	Myitkyina.
																																II.—Assam.
29		1	1						N 65° E		0·7			7		93		·513		5·5		12	8·2	+3·8	3·50	4·33	− 0·83	8·69	8·39	+ 0·30	0·65	Dibrugarh.
12	3	10	2	1		1	1	1	N 38° E	N 51° E	1·8	2·2	−0·4	37	−13	90	− 3	·516	−·040	5·8	−0·4	11	9·5	+1·5	3·49	4·91	− 1·42	9·87	8·59	+ 1·28	0·60	Sibsagar.
2	1	13	15						N 67° E		4·0			86		81		·486		2·8		6	5·4	+0·6	2·37	1·95	+ 0·42	5·69	3·53	+ 2·16	0·70	Tezpur.
15		6	4	3	2		1		N 89° E		1·5			30		81		·493		1·8		6	4·5	+1·5	2·41	2·38	+ 0·03	5·75	3·77	+ 1·98	0·75	Gauhati.
		12	10		2	5	1	1	N 75° E	N 72° E	5·4	4·6	+0·8	46	− 1	75	0	·475	−·049	2·8	+0·2	2	2·7	+0·3	1·03	1·99	− 0·96	3·04	3·07	− 0·03	0·45	Dhubri.
22		5	4						N 64° E	S 83° E	1·3	2·2	−0·9	23	+ 7	83	+ 1	·569	−·018	3·1	−1·8	12	9·6	+2·4	13·14	7·84	+ 5·30	17·66	11·14	+ 6·52	3·05	Silchar.
																																III.—Bengal.
	6	2	6	14	2			1	S 77° E		4·6*			56		82		·676		2·7		3			2·33			2·60			1·58	Cox's Bazar.
20		1	10						N 86° E	N 87° E	1·4	4·0	−2·6	37	−17	80	− 3	·629	−·062	2·9	−0·3	4	2·9	+1·1	2·53	2·68	− 0·15	3·12	4·79	− 1·67	1·49	Chittagong.
6	5	2	2	6	4	5	1		S 31° E		3·0			19		85		·701		3·8		6	3·2	+2·8	2·12	2·80	− 0·68	4·14	4·59	− 0·45	1·15	Noakhali.
19	1				5	4	1	1	S 37° W	S 18° W	0·8	2·7	−1·9	27	+14	80	− 5	·677	−·077	3·7	−0·2	4	3·3	+0·7	1·67	2·08	− 0·41	4·97	4·12	+ 0·85	0·78	Barisal.
16	1		1	1	5	3	3	1	S 34° W	S 13° W	2·4	3·7	−1·3	23	−16	78	− 5	·626	−·071	3·3	−0·9	6	3·4	+2·6	3·15	2·57	+ 0·58	6·16	4·40	+ 1·76	1·29	Narayanganj.
18		1	7	3	1			1	S 79° E	S 76° E	1·1	2·3	−1·2	30	−31	84	+ 3	·574	−·036	4·6	+1·0	3	3·6	−0·6	1·21	2·28	− 1·07	3·29	3·77	− 0·48	0·56	Mymensingh.
22	1	1	1	1	3	2			S 16° E	S 53° E	0·9	2·6	−1·7	10	−14	74	0	·519	−·043	2·6	+0·2	1	2·2	−1·2	0·98	1·34	− 0·35	2·43	2·72	− 0·29	0·91	Bogra.
1	2	5	8	1	3	6	4	1	S 62° E	S 14° W	2·6	3·6	−1·0	10	+ 7	66	0	·424	−·052	1·6	−0·3	2	1·6	+0·4	0·51	0·81	− 0·30	1·39	1·76	− 0·37	0·24	Dinajpur.
27			1	3					S 56° E	N 75° E	1·4			10	−31	78	+ 3	·453	−·050	2·3	+0·4	4	2·4	+1·6	2·94	1·25	+ 1·69	3·79	2·28	+ 1·51	1·19	Jalpaiguri.
	4	5	1		6	9	2	4	S 73° W	S 49° W	10·1	9·6	+0·5	23	−16					2·8	−1·5	1	2·0	−1·0	0·91	1·44	− 0·53	2·25	3·25	− 1·00	0·91	Saugor Island.
8	3	3	3	3	4	3		3	S 72° E		2·1			10		76		·622		1·7		1	2·6	−1·6	1·63	1·33	+ 0·30	8·50	3·28	+ 5·22	1·60	Midnapore.
2	3	2		1	1	15	1	6	S 75° W	S 42° W	3·8*	3·6	+0·2	49	+ 2	78	− 3	·643	−·063	2·1	−0·8	2	2·2	−0·2	0·87	1·25	− 0·38	4·43	3·02	+ 1·41	0·55	Calcutta.

(a) Indeterminate.

* Uncorrected for scale error.

Table

(2) *Abstract of observations taken at 8 hrs. at 216 stations*

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.
2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
III.—Bengal—*concld.*																						
Jessore	33	29·874	—·017?	29·855	30·036	2nd	29·778	19th	·258	72·2	87·7	—4·7	65·3	—2·9	76·5	—3·8	22·4	100·0	29th	53·7	2nd	46·3
Burdwan	99	29·792	—·028	29·841	29·965	2nd	29·669	14th	·296	71·3	88·7	—5·0	65·9	—2·5	77·3	—3·7	22·8	101·9	29th	56·8	1st	45·1
Berhampore	67	29·823	—·024	29·841	30·004	2nd	29·706	14th	·298	68·9	87·7	—5·0	63·8	—1·9	75·8	—3·5	23·9	100·6	29th	55·7	1st	44·9
IV.—Bihar and Orissa.																						
Balasore	50	29·853	—·019	29·849	30·005	2nd	29·721	14th	·284	73·1	89·3	—3·4	68·4	—1·2	78·9	—2·3	20·9	100·9	30th	61·1	1st	39·8
Hukitala (False Point)	29	29·888	—·020	29·858	30·032	2nd	29·739	14th	·293													
Cuttack	80	29·834	—·018	29·856	29·970	2nd	29·702	14th	·268	76·1	94·3	—2·7	71·9	—0·6	83·1	—1·7	22·4	103·5	30th	65·2	7th	38·3
Puri	24	29·877		29·840	30·006	2nd	29·761	14th	·245	78·3	87·3		74·7		81·1		12·6	91·1	16th	66·6	6th	24·5
Angul	455	29·443		29·868	29·584	2nd	29·308	14th	·276	73·8	94·3		65·9		80·1		28·4	104·1	29th & 30th.	59·0	7th	45·1
Sambalpur	486	29·418	—·024	29·863	29·552	2nd	29·294	14th	·258	76·0§	97·2§	—1·5§	65·2§	—3·8§	81·2§	—2·7	32·0	103·1	30th	55·6	1st	47·5
Chaibasa	*733*	29·143	—·028	29·848	29·292	2nd	29·015	14th	·277	68·9	89·8	—4·5	62·4	—3·8	76·1	—4·1	27·4	102·1	29th	55·8	1st	46·3
Ranchi	2,128	27·760	—·017	29·849	27·889	2nd	27·649	14th	·210	67·2	82·9	—4·7	61·5	—1·8	72·2	—3·3	21·4	96·2	29th	52·9	6th & 7th.	43·3
Purulia	*816*	29·067		29·855	29·238	2nd	28·942	14th	·296	69·3	86·4		63·5		76·0		24·9	101·5	29th	55·6	1st	45·9
Daltonganj	*730*	29·173		29·892?	29·328	2nd	29·075	14th	·253	63·7	87·2		57·7		72·5		29·5	101·1	29th	48·0	1st	53·1
Purnea	134	29·751	—·018	29·845	29·950	2nd	29·627	14th & 30th.	·323	65·1	85·1	—4·8	57·9	—2·5	71·5	—3·7	27·2	99·6	29th	48·8	2nd	50·8
Monghyr	155	29·726*		29·838*	29·921	2nd	29·625	14th	·296	70·3	85·4		61·1		73·3		24·3	99·2	28th & 29th.	54·4	2nd	44·8
Darbhanga	165	29·715	—·018	29·841	29·919	2nd	29·594	30th	·325	67·0	85·0	—2·9	57·1	—5·8	71·0	—4·3	27·9	99·1	29th	48·7	1st	50·4
Pusa	188	29·682		29·831	29·889	2nd	29·570	30th	·319	67·0	86·5		57·1		71·8		29·4	101·1	29th	48·3	2nd	52·8
Patna	183	29·691	—·033	29·835	29·867	2nd	29·581	30th	·306	68·7	84·0	—6·9	61·5	—2·5	72·8	—4·7	22·5	97·5	28th	51·7	1st	45·8
Buxar*	239	29·624†		29·829†	29·774	1st	29·510	9th	·264	67·4	88·3†		61·5‡		74·9†		26·8	102·0	28th	52·6	1st	49·4
Gaya	372	29·506	—·036	29·839	29·692	2nd	29·377	19th	·315	70·9	88·3	—5·0	63·2	—2·9	75·7	—3·9	25·1	102·9	28th	54·7	1st	48·2
Naya Dumka	489	29·393	—·016	29·846	29·573	2nd	29·277	19th	·296	71·4	87·7	—3·7	62·6	—3·0	75·2	—3·3	25·1	102·4	29th	53·5	1st	48·9
V.—United Provinces of Agra and Oudh.																						
Gorakhpur	257	29·599	—·028	29·824	29·796	2nd	29·479	30th	·317	68·8	85·1	—5·4	57·9	—4·6	71·5	—5·0	27·2	98·1	28th	48·8	2nd	49·3
Benares	267	29·631	—·012	29·860	29·789	2nd	29·507	19th	·282	71·1	87·7	—5·1	58·9	—2·9	73·3	—4·0	28·8	102·0	28th	50·6	1st	51·4
Allahabad	309	29·585	—·020	29·860	29·749	2nd	29·447	18th	·302	68·3	87·2	—5·8	58·8	—3·3	73·0	—4·5	28·4	101·1	28th	51·0	1st	50·1
Cawnpore	416	29·466	—·012	29·853	29·623	2nd	29·323	18th	·300	66·7	86·2	—4·6	58·1	—2·3	72·1	—3·5	28·1	98·2	27th & 28th.	50·9	6th	47·3
Lucknow	368	29·511	—·018	29·849	29·687	2nd	29·379	18th	·308	68·1	86·2	—5·3	58·2	—2·1	72·2	—3·7	23·0	99·0	27th & 28th.	48·1	2nd	50·9
Bahraich	401	29·443	—·033	29·820	29·626	2nd	29·329	30th	·297	63·9	82·7	—6·3	55·7	—3·1	69·2	—4·7	27·0	96·1	28th	47·0	1st	49·1
Jhansi	824	29·081	—·031	29·886	29·229	21st	28·942	18th	·287	68·5	87·9	—5·2	59·5	—6·8	73·7	—6·0	28·4	97·5	26th, 27th & 29th.	48·5	1st	49·0
Agra	556	29·346	—·017	29·879	29·497	21st	29·204	18th	·293	68·9	85·3	—5·8	59·0	—3·7	72·2	—4·7	26·3	96·5	18th	51·5	6th	45·0
Mainpuri	516	29·353	—·023	29·848	29·509	2nd	29·189	18th	·320	64·3	85·2	—4·5	55·4	—3·3	70·3	—3·9	29·8	97·3	28th & 29th.	45·6	1st	51·7
Bareilly	568	29·282	—·032	29·837	29·449	2nd	29·154	18th	·295	62·7	80·8	—6·7	55·7	—3·3	68·2	—5·0	25·1	92·3	27th	49·0	2nd	43·3
Roorkee	899	28·959	—·019	29·869	29·099	5th	28·832	18th	·267	58·3	76·9	—8·5	51·4	—4·7	64·2	—6·6	25·5	89·0	29th	44·9	20th & 23rd.	44·1
VI.—Punjab.																						
Delhi	718	29·156	—·024	29·868	29·299	21st	29·011	18th	·288	62·8	80·5	—6·9	57·7	—4·5	69·1	—5·7	22·8	92·5	18th & 29th.	50·3	5th	42·2
Sirsa	662	29·220	—·020	29·877	29·403	21st	29·009	17th	·394	63·0	81·4	—7·2	53·1	—4·1	67·3	—5·7	28·3	92·8	18th & 31st.	46·5	20th & 21st.	46·3

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

* Mean of 30 days.
† " " 28 "
‡ " " 29 "
§ " " 7 "

B—*continued.*

in India, etc., in March, 1913—continued.

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 from 1st Dec. 1912 to 31st Mar. 1913.	Normal rainfall for period, 1st Dec. to 31st Mar.	Departure from normal of period, 1st Dec. 1912 to 31st Mar. 1913.	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
																																III.—Bengal—*concld.*
15	1	1		1	3	4	4	2	S 63° W	S 32° W	2·1	2·1	0	23	− 6	78	− 2	·623	−·078	3·3	−0·5	2	2·0	− 1·0	0·71	1·95	− 1·24	6·18	3·94	+ 2·24	0·61	Jessore.
11	2	1			1	6	6	4	N 89° W	S 58° W	1·5	2·3	−0·8	30	− 7	72	+ 8	·559	+·006	2·1	−0·7	2	2·3	− 0·3	1·76	1·45	+ 0·31	7·57	3·16	+ 4·41	1·07	Burdwan.
7	2	1		2	8	8	2	1	S 28° W	S 42° W	1·2	2·4	−1·2	46	+ 3	70	− 2	·522	−·044	2·9	+0·2	1	1·8	− 0·8	0·79	1·06	− 0·27	3·88	2·53	+ 1·35	0·73	Berhampore.
																																IV.—Bihar and Orissa.
8	6	1			3	9	1	3	S 87° W	S 61° W	2·6	4·2	−1·6	30	− 6	73	− 6	·610	−·100	2·3	−1·3	2	3·4	− 1·4	1·73	1·97	− 0·24	7·91	4·14	+ 3·77	1·00	Balasore.
	2	2	1		3	15	4	4	S 36° W	S 70° W	10·4	7·9	+2·5	53	− 1					2·3	−1·9	1	1·5	− 0·5	0·41	1·01	− 0·60	1·30	3·30	− 2·00	0·41	Hukitala (False Point).
11		3	3	1	2	8	3		S 25° W	S 50° W	1·8*	2·4	−0·6	23	− 6	79	+ 1	·718	+ ·001	2·5	−0·4	2	1·5	+ 0·5	0·89	1·03	− 0·14	2·41	2·23	+ 0·18	0·77	Cuttack.
2	3	5	1		2	13	4	1	S 66° W		9·4			32		84		·810		3·1		1	1·1	− 0·1	0·39	0·63	− 0·24	0·43	2·18	− 1·75	0·39	Puri.
5	3	5		2		1	3	12	N 28° W		4·1			48		68		·575		3·4		1	3·0	− 2·0	0·25	1·34	− 1·09	4·36	3·54	+ 0·82	0·25	Angul.
	6	15	1	1	1	2	1	4	N 24° E	N 46° E	3·3	2·3	+1·0	59	+13	52§		·453§		1·7	−0·1	1	2·0	− 1·0	0·91	0·96	− 0·05	3·11	2·36	+ 0·75	0·87	Sambalpur.
11	1				8	8	3		S 35° W	S 69° W	2·0	1·2	+0·8	53	+ 2	66	+ 3	·466	+·005	1·0	−0·9	2	2·0	0	1·61	0·95	+ 0·66	7·58	3·56	+ 4·02	0·84	Chaibasa.
6	1		1		2	4	10	7	N 86° W	N 86° W	5·7	4·7	+1·0	56	+13	46	+ 1	·297	−·019	1·1	−0·5	2	2·7	− 0·7	1·85	1·30	+ 0·55	10·51	3·85	+ 6·66	1·07	Ranchi.
16							10	5	N 77° W		1·3			42		56		·387		0·7		2	2·0	0	1·97	0·96	+ 1·01	9·22	3·62	+ 5·60	1·61	Purulia.
17		2	4	2	2	4			S 39° E		2·5			23		70		·407		1·3		3	1·5	+ 1·5	2·00	0·58	+ 1·42	5·95	2·93	+ 3·02	0·92	Daltonganj.
2	2	4	8	1	2	7	3	2	S 58° E	N 45° E	2·9	2·9	0	7	+ 3	75	+ 6	·454	−·018	1·2	−0·2	1	1·1	− 0·1	0·16	0·54	− 0·38	1·50	1·69	− 0·19	0·10	Purnea.
5		1	7	1		3	12	2	S 82° W		4·6			23		59		·406		0·9		2			0·78			2·75			0·61	Monghyr.
8		1	7	1		6	5	3	S 54° W	S 82° W	2·8†	3·3	−0·5	10	−14	63	+ 2	·410	−·029	1·2	−0·1	1	1·2	− 0·2	0·36	0·48	− 0·12	1·84	1·58	+ 0·26	0·29	Darbhanga.
4	1	2	5	3	2	6	8		S 34° W		3·7			23		62		·399		0·7		1			0·43			1·86			0·35	Pusa.
4			6	1	1	6	13		S 61° W	S 63° E	3·8	2·8	+1·0	43	+14	56	+ 6	·382	−·015	1·7	−0·1	2	1·1	+ 0·9	1·62	0·46	+ 1·16	3·48	1·87	+ 1·61	1·07	Patna.
3	1	1	1	1	5	15	2	1	S 38° W		6·5‡			60		51		·330		1·5		1	0·9	+ 0·1	0·44	0·33	+ 0·11	1·74	1·98	− 0·24	0·33	Buxar.
4	2	1	1	2	4	1	16		S 76° W	S 37° W	2·5	3·1	−0·6	46	+ 6	63	+10	·466	+·028	1·7	−0·1		1·2	− 0·2	0·71	0·46	+ 0·25	1·95	2·15	− 0·20	0·62	Gaya.
25	1				1		1	3	N 56° W		1·2			10		52	+ 1	·389		0·9		2	1·8	+ 0·2	1·51	0·98	+ 0·53	2·64	2·39	+ 0·25	1·17	Naya Dumka.
																																V.—United Provinces of Agra and Oudh.
3		3	3	1		3	16	2	N 87° W	N 72° W	2·1	2·3	−0·2	46	+10	62	+ 5	·395	−·017	0·5	−1·1	1	0·7	+ 0·3	1·00	0·36	+ 0·64	2·08	1·80	+ 0·28	0·82	Gorakhpur.
5		1	2	4	1	9	6	3	S 56° W	S 54° W	3·0	3·4	−0·4	37	−10	58	0	·434	+·012	1·6	−0·4	1	0·7	+ 0·3	0·64	0·28	+ 0·36	1·23	1·95	− 0·72	0·56	Benares.
4		1	3	2	3	4	9	5	S 73° W	S 85° W	3·1	3·7	−0·6	33	− 6	48	+ 1	·322	−·047	2·3	+0·3	1	0·6	+ 0·4	0·85	0·22	+ 0·63	2·80	1·81	+ 0·99	0·74	Allahabad.
6	3	3	2	1	1	5	8	2	N 81° W	S 89° W	2·9	3·1	−0·2	27	− 9	51	+ 5	·323	−·032	0·7	−0·6	1	0·6	+ 0·4	1·12	0·23	+ 0·89	3·55	1·69	+ 1·86	0·94	Cawnpore.
19	1			1			7	3	N 74° W	N 80° W	1·6	2·8	−1·2	27	−16	53	0	·355	−·031	0·7	−1·4	2	0·8	+ 1·2	0·82	0·29	+ 0·53	2·58	2·05	+ 0·53	0·65	Lucknow.
1	2	2	3	3		3	9	8	N 64° W	N 51° W	3·2	2·6	+0·6	37	+ 9	59	− 3	·342	−·033	1·3	−0·7	3	0·6	+ 2·4	2·49	0·36	+ 2·13	3·61	2·56	+ 1·05	1·51	Bahraich.
6	1	6			2	7	5	4	N 83° W	S 84° W	3·4	2·2	+1·2	30	− 2	42	+ 4	·278	−·036	3·7	+2·4	2	0·8	+ 1·2	0·61	0·27	+ 0·34	1·41	1·67	− 0·26	0·41	Jhansi.
6	1	2	1	3	1	5	8	4	S 81° W	N 66° W	3·5	3·5	0	33	−10	42	− 6	·261	−·031	1·2	−1·0	0	0·9	− 0·9	0	0·26	− 0·26	2·33	1·50	+ 0·83	0	Agra.
2	3	1	1	2	2	2	8	10	N 66° W	N 62° W	2·3	1·8	+0·5	46	+14	54	+ 3	·311	−·041	1·0	−1·5	1	0·4	+ 0·6	0·31	0·12	+ 0·19	1·73	1·96	− 0·23	0·25	Mainpuri.
26			1				3	1	N 75° W	N 43° W	0·9	2·7	−1·8	10	−26	67	+ 9	·379	+·006	3·0	+0·3	4	1·2	+ 2·8	1·53	0·62	+ 0·91	3·71	2·82	+ 0·89	1·13	Bareilly.
23				2				6	N 45° W	N 41° W	2·3	2·2	+0·1	13	− 2	75	+13	·361	+·009	2·2	−0·2	4	1·4	+ 2·6	2·27	0·72	+ 1·55	5·77	4·43	+ 1·34	1·18	Roorkee.
																																VI.—Punjab.
2	4		4	1	1	1	11	7	N 61° W	N 87° W	3·5	2·8	+0·7	43	− 7	55	+ 6	·302	−·021	2·7	−0·3	1	1·3	− 0·3	0·48	0·47	+ 0·01	2·25	2·68	− 0·43	0·45	Delhi.
6	3	7	3	1	2	2	4	3	N 10° E	N 21° W				20	+16	52	− 5	·293	−·061	1·3	−1·9	1	0·7	+ 0·3	0·30	0·35	− 0·05	1·01	1·67	− 0·66	0·16	Sirsa.

(a) Indeterminate.

* Uncorrected for scale error.

† Mean of 24 days.
§ " " 7 "
‡ " " 29 "
¶ " " 30 "

Tabl

(2) *Abstract of observations taken at 8 hrs. at 216 station*

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.
2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
VI.—Punjab—*concld.*																						
Patiala	*818*	29·039		29·865	29·193	1st	28·878	18th	·315	59·2	75·4		52·8†		64·4†		22·6	87·9	27th	46·2	22nd	41·7
Ambala	892	28·960	—·021	29·864	29·107	1st & 2nd.	28·813	18th	·291	59·0	78·0	—5·9	52·8	—4·3	65·4	—5·1	25·2	90·5	29th	44·9	2nd	45·6
Ludhiana	812	29·051	—·024	29·873	29·213	21st	28·873	18th	·340	58·5	76·5	—7·9	53·5	—4·0	65·0	—5·9	23·0	89·1	29th & 31st.	47·5	22nd	41·6
Lahore	702	29·163	—·034	29·873	29·354	21st	28·931	18th	·423	58·3	77·2	—7·9	52·0	—2·2	64·6	—5·1	25·2	91·4		45·2	21st & 22nd	46·2
Sialkot	830	29·029	—·032	29·875	29·215	21st	28·794	18th	·421	57·7	75·9	—5·8	49·5	—6·1	62·7	—5·9	26·4	90·0	31st	40·0	22nd	50·0
Rawalpindi	1,674	28·187	—·040	29·906	28·390	21st	27·864	18th	·526	55·3	72·1	—4·4	46·8	—3·9	59·4	—4·1	25·3	85·9	31st	38·9	22nd	47·0
Khushab	612	29·273	—·017?	29·887	29·443	21st	28·984	18th	·459	58·2	77·5	—3·1	53·6	—3·2	65·5	—3·1	23·9	92·4	31st	46·4	22nd	46·0
Montgomery	558	29·313	—·032	29·858	29·512	21st	29·066	17th	·446	60·6	78·9	—6·8	53·2	—2·7	66·0	—4·7	25·7	92·4	31st	42·5	19th	49·9
Multan	420	29·469	—·039	29·873	29·684	21st	29·214	17th	·470	63·0	81·6	—4·9	55·4	—3·0	68·5	—3·9	26·2	94·3	31st	46·0	19th	48·3
VII.—North-West Frontier Province.																						
Peshawar	1,113	28·782	—·060	29·933	28·991	21st	28·451	18th	·543	54·4	73·5	—2·6	47·7	—4·2	60·6	—3·4	25·8	90·7	31st	40·9	23rd	49·8
D. I. Khan	590	29·309	—·048	29·902	29·516	21st	29·028	18th	·488	59·2	76·6	—6·9	52·2	—3·3	64·4	—5·1	24·4	91·4	31st	43·1	20th	48·3
VIII.—Sind.																						
Jacobabad	186	29·724	—·016	29·878	29·874	21st	29·552	15th	·322	66·0	86·6	—4·5	55·5	—4·1	71·1	—4·3	31·1	101·1	31st	42·8	20th	58·3
Hyderabad*	96	29·836	—·011	29·887	29·986	29th	29·684	15th	·302	67·8	88·0	—5·1	60·4	—3·8	74·2	—4·5	27·6	100·0	31st	52·5	5th	48·5
Karachi	13	29·948	—·005	29·913	30·087	29th	29·808	15th	·279	70·2	80·6	—1·4	65·3	—2·7	73·0	—2·1	15·3	89·5	24th	58·5	20th	31·0
IX.—Rajputana.																						
Bikaner	*771*	29·101	—·031	29·863	29·283	21st	28·891	17th	·392	65·0	85·0	—4·3	57·8	—6·9	71·4	—5·6	27·2	95·5	31st	50·0	20th & 22nd	45·5
Jodhpur	780	29·115	—·032	29·878	29·282	21st	28·966	17th	·296	68·7	87·7	—3·2	58·4	—4·9	73·0	—4·1	29·3	96·5	31st	48·3	5th	48·2
Jaipur	1,431	28·458	—·036	29·880	28·615	21st	28·333	18th	·282	67·1	85·8	—3·9	56·8	—4·0	71·3	—3·9	29·0	94·2	26th & 29th	47·6	6th	46·6
Ajmer	1,611	28·291	—·037	29·903	28·447	21st	28·161	17th	·286	63·1	82·9	—6·2	57·7	—2·0	70·3	—4·1	25·2	90·6	26th	48·2	1st	42·4
Kotah	319?	29·059	—·044?	29·863?	29·206	21st	28·944	17th	·262	72·4	89·7	—3·1	62·6*	—3·8*	76·1*	—3·5	27·1	98·6	18th	53·6	1st	45·0
X.—Bombay.																						
Deesa	466	29·467	—·013	29·901	29·561	5th	29·378	16th	·183	69·6	92·1	—4·0	56·2	—7·6	74·1	—5·8	35·9	101·3	25th	47·4	19th	53·9
Bhuj	385	29·605	—·009	29·839	29·704	29th	29·498	15th	·206	70·0	89·4	—4·5	60·1	—5·3	74·7	—4·9	29·3	98·5	25th	48·5	1st	50·0
Jamnagar	61	29·913		29·921	30·003	21st	29·847	17th	·161	73·1	88·5		58·4		73·4		30·1	96·5	25th & 30th	51·3	1st	45·2
Dwarka	37?	29·944	—·013	29·927	30·024	29th	29·838	15th	·186	72·9	81·0	—0·5?	69·1*	—0·7?*	75·0*	—0·6?	11·9	93·8	24th	60·7	20th	33·1
Rajkot	429	29·522	—·006	29·912	29·599	5th	29·431	15th	·168	69·3	91·9	—3·7	56·3	—6·1	74·1	—4·9	35·6	101·1	25th	46·8	1st	54·3
Veraval	*18*	29·952	+·017	29·913	30·017	5th	29·860	15th	·157	69·4	80·7	—5·6	62·4	—2·5	71·6	—4·1	18·3	87·6	30th	55·8	1st	31·8
Bhavnagar Para	55	29·909	—·018	29·911	29·999	5th	29·607	15th	·192	70·5	93·0	—0·9	61·9	—4·8	77·5	—2·9	31·1	102·5	18th	52·8	1st	49·7
Surat	39	29·929	—·003	29·912	29·988	5th	29·841	15th	·147	72·8	92·3	—4·3	64·2	—1·8	78·3	—3·1	28·1	103·4	24th	59·1	7th & 21st	44·3
Ahmadabad	163	29·779	—·012	29·895	29·855	5th	29·677	15th	·178	70·3	93·8	—3·2	63·0	—4·8	78·4	—4·0	30·8	102·6	25th	56·2	5th	46·4
Bombay	37	29·925	—·006	29·902	29·985	5th	29·839	15th	·146	74·6	85·1	—0·6	71·2	—2·2	78·2	—1·4	13·9	89·0	24th	67·5	2nd	21·5
Ratnagiri	110	29·828	—·012	29·878	29·894	29th	29·742	15th	·152	74·6	85·2	—2·6	69·5	—2·9	77·3	—2·7	15·7	88·3	1st	61·9	21st	26·4
Marmagao	*60*	29·884	—·005	29·879	29·954	29th	29·787	15th	·167	76·7	85·7	—1·2	72·2	—3·3	79·0	—2·3	13·5	89·5	24th	70·2	6th & 15th	19·3
Karwar	44	29·914	—·001	29·893	29·982	29th	29·819	15th	·163	72·7	85·7	—2·1	69·4	—3·6	77·5	—2·9	16·3	87·7	4 days	65·5	15th	22·2

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

* Mean of 30 days.

† " " 27 "

3—*continued.*

n India, etc., in March, 1913—continued.

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 from 1st Dec. 1912 to 31st March 1913.	Normal rainfall for period, 1st Dec. to 31st March.	Departure from normal of period, 1st Dec. 1912 to 31st March 1913.	Heaviest rainfall during month.	Station.
5	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
																																VI.—Punjab—*concld.*
4	4		5	3		2	5	8	N 40° W		5·0			26		72		·362		1·3		4	1·8	+2·2	3·36	1·01	+2·35	8·00	4·16	+3·84	1·50	Patiala.
4	5	1	6	2			13		N 4° W	N 37° W	4·2*	2·3	+1·9	43	+19	68‡	+ 5	·337‡	—·050	1·9	—0·1	3	1·6	+1·4	1·85	0·81	+1·04	5·61	5·15	+0·46	0·78	Ambala.
3	2	3		1			1	1	N 15° E	N 31° W	0·9	1·6	—0·7	13	— 9	64	+ 1	·312	—·059	1·6	—2·2	4	2·0	+2·0	2·62	0·97	+1·65	5·68	4·82	+0·86	1·28	Ludhiana.
15	3		1	3	2	1	2	4	N 67° W	N 10° W	2·0	2·1	—0·1	7	—11	65	0	·316	—·058	2·7	—0·7	2	1·8	+0·2	1·50	0·76	+0·74	3·09	3·21	—0·12	1·06	Lahore.
11	7	4	4			1	1	3	N 15° E	N 7° E	1·4	1·5	—0·1	37	+ 8	71	+ 4	·331	—·052	2·2	—0·6	2	3·0	—1·0	0·69	1·35	—0·66	2·70	6·05	—3·35	0·30	Sialkot.
14	6	1	1	1	1		5	2	N 32° W	N 39° W	2·4	2·1	+0·3	23	— 3	65	— 7	·279	—·060	3·9	—0·2	5	4·5	+0·5	2·08	2·06	+0·02	4·64	7·99	—3·35	0·83	Rawalpindi.
12	3	5	2	1	2	3	2		N 61° E	N 22° E	3·8	3·7	+0·1	10	—12	50	— 8	·261	—·076	2·9	+0·1	2	2·5	—0·5	1·21	1·03	+0·18	3·39	3·12	+0·27	0·60	Khushab.
2	4	1	7	6	5	2	1	3	S 62° E	N 53° E	4·4	3·9	+0·5	27	+ 5	54	+ 2	·272	—·055	2·2	—0·2	1	1·5	—0·5	0·45	0·46	—0·01	1·79	1·89	—0·10	0·31	Montgomery.
22	4			3		1		1	N 21° E	N 50° E	0·9	1·4	—0·5	7	—18	54	— 5	·302	—·067	2·9	+1·1	1	1·0	0	0·38	0·38	0	1·16	1·42	—0·26	0·35	Multan.
																																VII.—North-West Frontier Province.
19	1		1	1	4		1	4	S 67° W	S 27° W	1·9	2·6	—0·7	7	—18	63	— 9	·268	—·091	3·2	—1·6	3	4·3	—1·3	0·95	2·13	—1·18	2·60	5·57	—2·97	0·61	Peshawar.
13	3	5		2			1	7	N 6° W	N 13° W	1·3	1·5	—0·2	33	+ 1	61	— 4	·301	—·061	3·0	—0·2	0	2·2	—2·2	0·09	0·98	—0·89	1·78	2·42	—0·64	0·09	D. I. Khan.
																																VIII.—Sind.
23		2	1					5	N 13° W	N 83° E	2·3	2·8	—0·5	17	— 8	54	+13?	·335	+·012?	1·9	—0·9	1	0·7	+0·3	0·32	0·23	+0·09	0·44	1·01	—0·57	0·32	Jacobabad.
2	7			1	6	5		9	N 71° W	S 83° W	3·5‡	6·1	—2·6	30	+ 2	50	+ 1	·346	—·037	1·4	—1·0	0	0·5	—0·5	0·09	0·18	—0·09	1·42	0·75	+0·67	0·09	Hyderabad.
1	5	5	2				9	9	N 34° E	N 32° E	9·7	8·3	+1·4	59	+23	60	—19	·460	—·120	2·3	0	1	0·5	+0·5	0·27	0·22	+0·05	1·27	1·38	—0·11	0·27	Karachi.
																																IX.—Rajputana.
6	1		6	7	1	4	4	2	S 24° E	S 46° W	4·3	3·9	+0·4	23	+12	35	— 5	·208	—·081	1·6	—1·4	1	0·6	+0·4	0·16	0·22	—0·06	0·51	1·02	—0·51	0·16	Bikaner.
8	2	8	1	1	3	6	2		S 74° E		3·3			4		26	— 9	·165		1·3*		0	0·2	—0·2	0	0·06	—0·06	0·02	0·59	—0·57	0	Jodhpur.
9	2	7	5			1	5	2	N 20° E	N 29° W	3·9	3·3	+0·6	27	—13	38	— 6	·243	—·084	1·4	—1·2	0	0·7	—0·7	0·05	0·32	—0·27	0·42	1·29	—0·87	0·05	Jaipur.
16	1	4		2		4	3	1	N 82° W	S 63° W	3·8	3·0	+0·8	7	— 4	44	— 4	·252	—·081	0·8	—1·3	0	0·7	—0·7	0	0·18	—0·18	0	1·13	—1·13	0	Ajmer.
19	1						8	3	N 73° W		2·1			33		29	— 4	·230		1·4		0	0·2	—0·2	0·05	0·08	—0·03	0·51	0·84	—0·33	0·05	Kotah.
																																X.—Bombay.
7	1	3	6	2	2	4	5	1	S 23° E	N 7° W	6·3	6·3	0	7	—25	43	+ 6	·306	—·006	1·2	—0·9	0	0·1	—0·1	0	0·04	—0·04	0	0·39	—0·39	0	Deesa.
5	3	3	1		1	3	9	6	N 63° W	N 60° W	4·7	6·4	—1·7	43	—22	50	— 7	·363	—·117	1·4	—0·6	0	0·2	—0·2	0·01	0·07	—0·06	0·01	0·35	—0·34	0·01	Bhuj.
		4	1			6	7	13	N 65° W		8·0			59		59		·487		0		0	0·2	—0·2	0	0·17	—0·17	0	0·42	—0·42	0	Jamnagar.
	9	2		1		2	9	8	N 45° W		9·2			66		65	—11	·529		1·5		0	0·3	—0·3	0	0·06	—0·06	0	0·68	—0·68	0	Dwarka.
6	3	2				5	13	2	N 82° W	N 25° W	6·2	5·6	+0·6	56	+ 2	54	—10	·385	—·129	1·8	—0·3	0	0·1	—0·1	0	0·05	—0·05	0	0·27	—0·27	0	Rajkot.
8	8	1				2	12	2	N 29° W	N 13° W	7·3	5·6	+1·7	66	+ 1	66	+ 4	·476	—·036	0·9	—0·9	0	0·1	—0·1	0	0·03	—0·03	0·02	0·19	—0·17	0	Veraval.
5						2	7	17	N 63° W	N 85° W	2·9	6·3	—3·4	74	+ 9	60	0	·451	—·047	0·6	—0·7	0	0·2	—0·2	0	0·11	—0·11	0	0·37	—0·37	0	Bhavnagar Pata.
9	7	3	3	3	2	1		3	N 35° E	N 46° W	2·9‖	4·5	—1·6	23	—13	67	+ 4	·548	—·008	0·5	—0·7	0	0·1	—0·1	0	0·02	—0·02	0	0·22	—0·22	0	Surat.
2		6	1			4	5	13	N 4[illegible] W	N 1° E	3·6	3·4	+0·2	53	+19	46	+ 3	·336	—·040	0·3	—1·7	1	0·2	+0·8	0·11	0·06	+0·05	0·11	0·24	—0·13	0·11	Ahmadabad.
1	7	11	6	2	1	1		2	N 45° E	N 40° E	6·7	8·0	—1·3	59	+ 5	75	0	·647	—·055	1·3	—0·5	0	0·1	—0·1	0	0·02	—0·02	0·07	0·21	—0·14	0	Bombay.
5	7	11	1	5	1			1	N 46° E	N 22° E	8·6	6·1	+2·5	49	+27	68	— 1	·582	—·096	0·9	—0·5	0	0·1	—0·1	0	0·05	—0·05	0	0·28	—0·28	0	Ratnagiri.
2	16	3	1		6	1		2	N 4° E	N 72° E	7·4¶	6·6	+0·8	43	+18	78	— 1	·718	—·083	2·0	—0·2	0	0	0	0	0	0	0	0·23	—0·23	0	Marmagao.
26	2	2				1			N 7° E	N 43° E	2·4	3·4	—1·0	11	—50	87	+ 5	·700	—·026	0·5	—1·0	0	0	0	0	0	0	0	0·26	—0·26	0	Karwar.

‡ Mean of 29 days. ¶ Uncorrected for scale error. ‖ Mean of 23 days. * Mean of 30 days.

Table

(2) Abstract of observations taken at 8 hrs. at 216 stations

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.	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.	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.
2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
X.—Bombay – *concld.*																						
Malegaon	1,430	28·513	−·007	29·908	28·573	6th	28·424	15th	·149	72·2	97·5	+0·2	53·8	−4·8	78·1	−2·3	38·7	104·4	30th	50·6	6th	53·8
Ahmadnagar	2,154	27·794	+·003	29·874	27·849	29th	27·704	15th	·145	73·3	96·5	+2·7?	60·6	−1·9	78·5	+0·4?	35·9	102·1	31st	53·0	5th & 6th	49·1
Poona	1,846	28·116	+·003	29·958	28·157	29th	28·017	15th	·140	66·0	96·5	−1·2	59·8	−4·1	78·1	−2·7	36·7	103·0	30th	54·3	21st	48·7
Sholapur	1,590	28·337	−·013	29·862	28·396	29th	28·231	15th	·165	77·2	99·7	−0·7	67·5	−1·8	83·6	−1·3	32·2	105·3	31st	59·1	6th	46·2
Bijapur	*1,948*	27·980	−·007	29·846	28·036	2nd & 6th,	27·888	15th	·148	77·5	98·5	+2·1	71·0	+0·4	84·8	+1·3	27·5	103·2	30th	62·3	7th	40·9
Belgaum	2,562	27·407	−·009	29·854	27·470	29th	27·314	15th	·156	75·5	94·3	+0·4	62·5	−1·7	78·4	−0·7	31·8	98·3	30th & 31st.	58·0	4th	40·3
XI.—Central India.																						
Neemuch	1,624	28·283	−·028	29·882	28·393	21st	28·189	15th	·204	69·1	88·0	−3·4	57·4	−4·1	72·7	−3·7	30·6	95·4	25th	48·0	6th	47·4
Indore	1,823	28·099	−·012	29·887	28·177	29th	28·012	15th	·165	70·8	89·1	−3·4	58·5	−1·9	73·8	−2·7	30·6	96·6	26th	49·1	5th	47·5
Nowgong	754	29·154	−·015	29·889	29·293	21st	29·026	18th	·272	66·9	86·1	−6·3	56·7	−4·1	71·4	−5·2	29·4	96·0	27th & 29th.	47·0	1st	49·0
Sutna	1,041	28·841	−·034	29·868	28·974	2nd & 21st.	28·727	18th	·247	66·3	85·8	−5·5	59·0	−2·2	72·4	−3·9	26·8	98·8	28th	49·7	1st	49·1
XII.—Central Provinces.																						
Buldana	2,132	27·802		29·862	27·862	2nd	27·724	14th	·138	75·0	92·3		68·0		80·2		24·3	98·6	25th & 29th.	59·8	6th	38·8
Akola	925	29·004	+·004	29·888	29·087	6th	28·918	14th	·169	76·1	97·8	−1·4	64·2	−1·8	81·0	−1·6	33·6	104·7	26th & 29th.	52·0	6th	52·7
Amraoti	1,215	28·703	−·004	29·880	28·787	6th	28·613	14th	·174	74·2	96·5	−1·6	66·5	−2·7	81·5	−2·1	30·0	103·3	30th	58·3	7th	45·0
Khandwa	1,044	28·877	−·013	29·893	28·965	6th	28·783	15th	·182	71·2	94·6	−3·0	61·8	−3·1	78·2	−3·1	32·8	101·2	25th, 26th & 29th.	51·1	6th	50·1
Hoshangabad	1,006	28·921	−·011	29·904	29·011	21st	28·823	14th	·188	68·4	92·1	−3·6	59·8	−4·8	76·0	−4·2	32·3	99·6	26th & 29th.	49·4	1st	50·2
Saugor	1,807	28·085	−·033	29·860	28·193	21st	27·999	14th	·194	69·7	87·3	−4·8	61·4†	−3·1†	74·4†	−3·9†	25·9	96·3	26th	50·1	6th	46·2
Jubbulpore	1,327	28·569	−·026	29·879	28·700	2nd	28·476	14th	·224	66·7	87·1	−5·7	57·3	−3·5	72·2	−4·6	29·8	97·8	29th	49·3	1st	48·5
Seoni	2,033	27·882	−·020	29·871	28·005	2nd	27·790	14th	·215	70·8	89·5	−3·7	60·1	−3·4	74·8	−3·5	29·4	99·1	29th	51·5	6th	47·6
Nagpur	1,017	28·887	−·017	29·864	29·004	2nd	28·794	14th	·210	74·9	96·2	−2·1	65·6	−2·2	80·9	−2·1	30·6	104·1	29th & 30th.	56·3	7th	47·8
Pendra	2,123?	27·857		29·855	28·021	2nd	27·757	14th	·264	70·6	85·2		60·8		73·0		24·4	96·8	29th	52·2	1st & 6th	44·6
Raipur	970	28·940	−·010	29·878	29·054	2nd	28·833	14th	·221	73·1	92·8	−3·7	66·5	−2·1	79·6	−2·9	26·3	101·7	29th & 30th.	58·6	1st & 6th	43·1
Chanda	*634*	29·261	−·027	29·852	29·355	2nd	29·163	14th	·192	74·1	96·7	−3·0	62·4	−4·6	79·5	−3·8	34·3	104·5	30th	53·0	6th	51·5
Jagdalpur	1,813	28·104		29·851	28·182	2nd	28·003	14th	·179	75·7	95·3		63·6		79·5		31·7	101·7	29th	53·1	7th	48·6
XIII.—Hyderabad.																						
Aurangabad	1,905	28·040	−·029?	29·880	28·097	6th	27·942	15th	·155	75·6	96·0	−0·4	64·5	−0·9	80·2	−0·7	31·5	101·9	30th	56·7	7th	45·2
Nizamabad	1,248	28·662		29·856	28·729	2nd	28·567	15th	·162	76·8	100·1	+2·5	66·6	−1·7	83·3	+0·4	33·5	106·4	30th	57·2	7th	49·2
Bidar	*2,165*									83·0	97·0		70·5		83·8		26·5	102·5	30th	63·4	6th	39·1
Gulbarga	1,503	28·424	−·005	29·861	28·505	29th	28·338	15th	·167	78·9	100·3	+1·1	70·4	−0·3	85·3	+0·4	29·9	105·5	31st	59·8	7th	45·7
Raichur	*1,311*	28·609	+·003	29·852	28·689	2nd	28·520	15th	·169	80·9	99·7	+0·9	73·0	−1·0	85·3	−0·1	26·7	105·5	31st	66·1	7th	39·4
Hyderabad (Deccan).	1,690	28·232	−·006	29·854	28·297	29th	28·132	14th	·165	76·7	97·6	−0·3	69·8	+0·2	83·7	−0·1	27·8	102·8	31st	62·7	7th	40·1
Hanamkonda	877	29·038	−·028	29·861	29·125	2nd	28·939	14th	·186	79·7	98·3	+0·8	70·7	−1·6	84·5	−0·4	27·6	104·0	30th & 31st.	62·2	7th	41·8
XIV.—Mysore.																						
Chitaldrug	2,405	27·544	−·012	29·829	27·612	29th	27·466	15th	·146	78·5	95·4	+1·0	71·1	+0·9	83·2	+0·9	24·3	99·1	30th	66·3	7th	32·8
Hassan	3,149	26·858	+·007	29·869	26·932	29th	26·783	15th	·149	71·9	91·9	+0·8	62·9	+0·7	77·4	+0·7	29·0	95·6	31st	60·3	24th	35·3
Bangalore	3,021	26·977	−·009	29·855	27·054	29th	26·895	14th	·159	74·0	92·4	+1·7	65·5	+0·8	78·9	+1·3	26·9	95·3	19th, 26th & 31st.	60·3		35·0
Mysore	2,518	27·454	−·009	29·859	27·523	29th	27·377	14th	·146	75·5	94·2	+0·7	68·2	+1·0	81·2	+0·9	26·0	97·5	31st	64·5	25th	33·0

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

† Mean of 30 days.

—*continued.*

India, etc., in March, 1913—continued.

Wind direction. Number of winds from 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 from 1st Dec. 1912 to 31st March 1913.	Normal rainfall for period, 1st Dec. to 31st March.	Departure from normal of period, 1st Dec. 1912 to 31st March 1913.	Heaviest rainfall during month.	Station.
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
																															X.—Bombay—*concld.*
3		1	1		5	12	4	N 85° W	N 66° W	6·0	5·6	+0·4	56	−9	31	−22	·244	−·225?	0	−1·7	0	0·2	−0·2	0	0·01	−0·01	0·01	0·46	−0·42	0	Malegaon.
6						1	17	N 35° W	N 1° W	4·4	6·6	−2·2	72	+22	27	−29	·213	−·298?	0·5	−0·6	0	0·3	−0·3	0	0·18	−0·18	0	0·95	−0·95	0	Ahmadnagar.
1			1	1	5	7	2	S 76° W	S 87° W	6·1	6·2	−0·1	37	+4	60	+19?	·381	+·041?	0·2	−1·0	0	0·2	−0·2	0	0·01	−0·01	0	0·34	−0·34	0	Poona.
5		2				1	18	N 27° W	N 14° E	7·4	5·8	+1·6	62	+10	25	−10	·233	−·114	0·6	−0·7	0	0·4	−0·4	0	0·20	−0·20	0	0·82	−0·82	0	Sholapur.
1			2	2	6	15		N 54° W	N 84° W	4·8	3·6	+1·2	69	+29	34	−21	·322	−·211?	0	−1·1	0	0·9	−0·9	0	0·31	−0·31	0·07	0·66	−0·59	0	Bijapur.
2	2	1						N 36° E	N 8° E	5·1	8·2	−3·1	13	+2	32	−16	·289	−·107	0·1	−0·8	0	0·8	−0·8	0	0·34	−0·34	0	0·81	−0·81	0	Belgaum.
																															XI.—Central India.
1	4	11			1	8	1	N 49° E	S 34° E	4·9	5·7	−0·8	20	−5	47	+10	·329	+·033?	0	−1·8	0	0·2	−0·2	0	0·08	−0·08	0·10	0·65	−0·55	0	Neemuch.
	9	2	2			4	10	N 11° W	N 7° W	4·7	2·5	+2·2	40	+11	34	−6	·256	−·064	0·9	−0·4	0	0·1	−0·1	0·05	0·01	+0·01	0·11	0·60	−0·49	0·05	Indore.
4	2	1	1	4	8	7	2	S 72° W	S 80° W	1·8	1·8	0	37	−6	48	−2	·312	−·048	1·9	+0·4	1	0·7	+0·3	1·02	0·27	+0·75	2·09	1·97	+0·12	1·02	Nowgong.
				3	2	2		S 38° W	N 54° W	1·4	3·9	−2·5	17	−40	48	+8	·296	−·008	1·3	0	1	1·0	0	0·72	0·39	+0·33	2·67	2·50	+0·17	0·66	Satna.
																															XII.—Central Provinces.
2	1	4	1			11	12	N 52° W		6·8	5·4	+1·4	55		81		·726		0·5		0	0·5	−0·5	0	0·19	−0·19	0·08	1·28	−1·20	0	Buldana.
		3	3	2	3	14	6	S 82° W	N 45° W	4·8	3·5	+1·3	49	+38	23	−12	·201	−·107	2·2	+0·5	0	0·7	−0·7	0·02	0·35	−0·33	0·03	1·61	−1·58	0·02	Akola.
1	4	5		1	4	9	4	N 67° W	N 72° E	5·7	3·5	+2·2	23	+1	31	−8	·251	−·117	1·1	−0·3	0	0·8	−0·8	0·09	0·30	−0·21	0·13	1·53	−1·40	0·07	Amraoti.
5	1			3	3	5		N 40° W	N 40° W	4·7	3·7	+1·0	23	−6	33	−2	·251	−·039	0·6	−0·5	1	0·4	+0·6	0·20	0·12	+0·08	0·20	0·77	−0·57	0·20	Khandwa.
10		3	1	11	1	4		W	N 63° E	2·8	1·9	+0·9	8	−17	43†	−3	·290†	−·048	1·2	−0·5	0	0·4	−0·4	0·02	0·20	−0·18	0·26	1·32	−1·06	0·02	Hoshangabad
1	2	6	6	2	3	8	2	S 1° E	S 69° E	5·8	3·1	+2·7	15	−3	32	−7	·217	−·090	0·9	−0·6	1	0·8	+0·2	0·22	0·31	−0·09	0·78	1·85	−1·07	0·11	Saugor.
2	2	1	5	4	3	4	2	S 19° W	S 23° E	1·2	2·0	−0·8	20	−9	49	+1	·305	−·052	0·7	−1·1	3	1·1	+1·9	0·68	0·41	+0·27	5·20	2·16	+3·04	0·25	Jubbulpore.
8	6		1	3	1	3	4	N 8° W	N 37° E	3·6	2·3	+1·3	37	+10	35	−12	·252	−·130	0·7	−1·2	2	1·8	+0·2	0·58	0·60	−0·02	2·76	2·52	+0·24	0·27	Seoni.
8	5	2	2			2	10	N 7° W	N 14° E	4·6	3·6	+1·0	56	+24	31	−10	·255	−·124	0·9	−1·0	1	1·2	−0·2	0·25	0·50	−0·25	0·71	1·83	−1·12	0·13	Nagpur.
6	1			2	5	2	8	N 57° W		4·3			40		38		·264		1·1		3	3·3	−0·3	1·70	1·44	+0·26	6·37	4·19	+2·18	1·25	Pendra.
1	6		2	1	7	7	3	W	N 59° W	5·4	3·6	−0·2	27	+16	43	+1	·340	−·029	1·5	−0·7	2	1·6	+0·4	0·62	0·65	−0·03	3·55	1·77	+1·78	0·30	Raipur.
		4	5	1	3	5	2	S 11° W	N 46° E	2·2	2·2	0	17	−15	43	−4	·365	−·069	0·7	−0·8	1	1·3	−0·3	0·12	0·99	−0·87	4·80	2·01	+2·79	0·12	Chanda.
10			2	5	2	2	2	N 43° W		?			17	−7	57		·502		0·4		0			0·01			1·16			0·01	Jagdalpur.
																															XIII.—Hyderabad.
2	4	4	5	2	4	3	3	S 59° E		8·4			7		34	+1?	·301		0·8		0	0·5	−0·5	0	0·24	−0·24	0·05	0·97	−0·92	0	Aurangabad.
1			3	2	3	4	1	S 46° W		2·5			27		31	−22	·283		0·9		0	1·0	−1·0	0	0·56	−0·56	0·57	1·22	−0·65	0	Nizamabad.
2	10		5		7		3	N 45° E		3·1			13		26		·296		0·7		0	1·2	−1·2	0	0·44	−0·44	0	1·20	−1·20	0	Bidar.
4	15	4	3	2	2			N 59° E	N 79° E	5·7	5·8	−0·1	56	+35	33	−10	·325	−·116	0·3	−0·7	0	0·8	−0·8	0	0·39	−0·39	0·02	0·88	−0·86	0	Gulbarga.
7	7	1	7	4	1	1	3	N 58° E	S 3° W	5·2	5·3	−0·1	27	−1	31	−18	·323	−·187	0·8	−0·6	0	0·4	−0·4	0	0·27	−0·27	0	0·75	−0·75	0	Raichur.
			1					S 45° E	S 47° E	1·2	3·1	−1·9	3	−9	45	−12	·402	−·120	0·4	−0·8	0	1·0	−1·0	0	0·64	−0·64	0·31	1·28	−0·97	0	Hyderabad (Deccan).
	2	1	11	7		1		S 35° E		4·8			53		51	−14	·505		1·2		0	0·5	−0·5	0	0·18	−0·18	0·21	1·05	−0·84	0	Hanamkonda.
																															XIV.—Mysore.
	1	3	3	7	6	5		S 60° W	S 56° W	3·0	4·7	−1·7	43	+6	39	−12	·381	−·199	0·7	−0·4	0	0·5	−0·5	0	0·21	−0·21	0	0·84	−0·84	0	Chitaldrug.
1	1	3	2	3	9	2	2	S 32° W	S 37° E	3·4	2·2	+1·2	32	+9	67	0	·517	−·031	2·3	+0·3	0	0·5	−0·5	0	0·24	−0·24	0	1·25	−1·25	0	Hassan.
		3	9	7	8	3	1	S	S 12° E	4·7	3·6	+1·1	59	+9	59	−7	·493	−·050	0·4	−1·2	0	0·9	−0·9	0	0·46	−0·46	0·01	1·40	−1·39	0	Bangalore.
	1	1	3	5	8	4	3	S 39° W	S 39° W	5·0	5·8	−0·8	43	+5	65	−3	·571	−·007	1·5	−0·1	0	0·5	−0·5	0·01	0·20	−0·19	0·01	0·94	−0·93	0·01	Mysore.

† Mean of 29 days.

Table

(2) *Abstract of observations taken at 8 hrs. at 216 stations*

	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.
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	XV.—Madras.																						
0	Mangalore	65	29·883	—·018	29·879	29·950	29th	29·805	15th	·145	80·3	88·9	−1·7	74·7	−0·1	81·8	−0·9	14·2	94·3	3rd	71·4	15th	22·9
	Calicut	27	29·911	—·024	29·867	29·979	29th	29·819	14th	·160	80·7	89·0	−1·3	76·6	+0·5	82·8	—0·4	12·4	91·3	20th	74·1	25th	17·2
	Cochin	9	29·928	—·024	29·855	29·977	29th	29·859	14th & 15th.	·118	82·1	90·7	—0·5	77·8	+0·8	84·2	+0·1	12·9	93·2	30th	75·7	2nd & 3rd.	17·5
	Trivandrum	198	29·734	—·003	29·863	29·794	29th	29·652	14th	·142	79·6	87·6	+0·5	76·3	+1·6	82·0	+1·1	11·3	90·0	2nd	74·0	2nd & 6th	16·0
1	Pamban	37	29·891	—·025	29·856	29·952	29th	29·817	14th	·135	81·0	99·4	+1·6	76·3	+0·2	83·4	+0·9	14·1	93·2	29th & 30th.	74·8	1st	18·4
	Madura	447	29·508	—·010	29·887	29·571	29th	29·422	14th	·149	81·4	97·6	+0·9	74·2	+1·4	85·9	+1·1	23·4	101·0	19th & 23rd.	68·6	25th	32·4
	Pudukkottai	318	29·632		29·888	29·705	28th	29·547	14th	·158	80·7	97·6		73·3		85·4		24·3	101·6	18th	68·6	12th	33·0
	Negapatam	31	29·906	—·032	29·866	29·968	29th	29·827	14th	·141	82·5	90·3	+1·6	76·5	+1·0	83·4	+1·3	13·8	95·7	20th	73·7	4 days	22·0
	Trichinopoly	255	29·700	—·019	29·889	29·764	2nd	29·611	14th	·153	81·5	98·7	+0·8	72·4	—0·4	85·6	+0·2	26·3	103·1	18th	66·8	13th & 25th.	36·3
	Coimbatore	1,341	28·612	—·017	29·887	28·677	29th	28·505	14th	·172	77·0	96·3	0	68·5	−1·3	82·4	—0·7	27·8	101·0	31st	61·3	25th	39·7
	Salem	940	29·040	—·014	29·913	29·105	29th	28·936	14th	·169	80·2	99·7	+1·1	71·5	+0·7	85·6	+0·9	28·2	104·0	31st	63·3	25th	40·7
	Cuddalore	37	29·911	—·005	29·878	29·975	29th	29·821	14th	·154	79·3	90·2	+0·9	72·8	+0·6	81·5	+0·7	17·4	94·3	20th	67·7	26th	26·6
	Vellore	707	29·227		29·877	29·301	2nd	29·144	14th	·157	76·5	97·1		69·6		83·4		27·5	103·7	18th	64·5	26th	39·2
	Madras	22	29·921	—·031	29·875	29·997	29th	29·825	14th	·172	80·7	91·7	+1·7	73·2	+1·0	82·4	+1·3	18·5	97·5	22nd	69·5	24th, 26th & 27th.	28·0
92	Cuddapah	433	29·478	—·019	29·846	29·556	3rd & 29th.	29·370	14th	·186	83·5	101·8	+0·1	74·5	—0·5	88·2	—0·2	27·3	106·0	31st	68·8	1st	37·2
	Bellary	1,475	28·433	—·027?	29·834	28·496	28th	28·342	14th	·154	80·9	101·8	+1·5	73·7	+1·6	87·7	+1·5	28·1	105·0	31st	67·3	7th	38·7
	Kurnool	923	28·983	—·017	29·850	29·059	2nd	28·871	14th	·188	78·1	100·7	—0·2	71·8	+0·3	86·2	+0·1	28·9	105·5	31st	63·1	7th	42·4
33	Nellore	66	29·852	—·020	29·853	29·951	2nd	29·744	14th	·207	78·9	96·9	+0·7	72·8	+0·4	84·9	+0·5	24·1	104·0	31st	70·1	4th & 26th	33·9
	Masulipatam	15	29·916	—·031	29·866	30·010	2nd	29·802	14th	·208	81·3	92·4	+1·0	72·4	+0·1	82·4	+0·5	20·0	99·3	13th	69·2	13th, 26th & 28th.	30·1
	Cocanada	26	29·920	—·014?	29·883?	30·022	2nd	29·814	14th	·208	80·6	93·5	+1·8	74·4	+0·9	83·9	+1·3	19·1	98·7	13th, 19th & 25th.	71·6	5th, 27th & 28th.	27·1
	Waltair (Vizagapatam).	*226*	29·701	—·030	29·869	29·808	2nd	29·589	14th	·219	79·6	87·1		74·8		81·0		12·3	90·6	19th	70·9	5th	19·7
	Calingapatam†	19	29·904		29·861	30·020	2nd	29·792	14th	·228	78·3	90·7		73·3		82·0		17·4	94·8	19th	68·8	4th & 5th	26·0
	Gopalpur	72	29·867	—·019	29·846	30·006	2nd	29·761	14th	·245	79·3	87·1	+0·5	73·5	+0·3	80·3	+0·4	15·6	89·2	16th	67·5	7th	21·7
	Bay Islands.																						
1	P. V. Fraser	8	29·890		29·857	30·062	2nd	29·735	14th	·327	79·3												
	Port Blair	58	29·872	—·034	29·860	29·945	28th	29·757	15th	·188	79·5	89·6	—1·5	76·3	—0·3	82·9	—0·9	13·3	91·7	7th	71·5	10th	20·2
	Slipper Island	90	29·820		29·845	29·921	28th	29·758	15th & 23rd.	·166	79·2	86·0		76·1		81·0		9·9	88·1	2nd, 7th & 28th.	74·1	9th	14·0
	Kashmir.																						
3	Muzaffarabad	2,475	27·515		30·075	27·892	21st	27·153	18th	·539	49·2	66·7		40·4		53·6		26·3	84·7	31st	36·1	1st	48·6
	Srinagar	5,204	24·848	—·082	24·819	25·045	29th	24·432	18th	·613	39·4	53·3	—2·1	35·1	—2·0	44·2	—2·1	18·2	64·6	31st	29·1	21st & 22nd.	35·5
	Dras	*10,059*	20·714	—·063	20·682	20·969	30th	20·275	18th	·694	10·5	27·1		—2·8		12·1		29·9	35·0	29th	—20·5	23rd	55·5
	Leh	*11,503*	19·578	—·114	19·549	19·814	30th	19·214	18th	·600	24·5	40·7	—2·4	18·6	—2·5	29·7	—2·5	22·1	48·4	31st	10·0	1st	38·4
	Skardu	*7,505*	22·846	—·039	22·816	23·093	30th	22·394	18th	·699	32·7	45·0	—4·8	29·0	—3·5	37·0	—4·1	16·0	55·0	31st	21·1	1st	33·9
	Gilgit	4,890	25·131		25·107	25·432	30th	24·717	18th	·715	47·2	60·2	—1·5	42·6	—2·7	51·4	—2·1	17·6	70·7	10th	35·2	11th & 22nd.	35·5

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.

† Mean of 30 days.

B—*continued.*

in India, etc., in March, 1913—continued.

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 from 1st Dec., 1912 to 31st March 1913.	Normal rainfall for period, 1st December to 31st March.	Departure from normal of period, 1st Dec., 1912 to 31st March 1913.	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
																																XV.—Madras.
4	4	6	14	3					N 73° E	N 70° E	4·5	2·2	+2·3	69	+29	74	− 4	·770	−·038	1·9	−0·5	0	0·2	−0·2	0	0·10	− 0·10	0	0·68	− 0·68	0	Mangalore.
11	2	1	2	2	3	1		6	N 19° E	N 42° E	4·9*	7·7	−2·8	13	−34	80	+ 4	·835	+·023	1·6	−0·4	0	0·8	−0·8	0	0·57	− 0·57	1·01	2·25	− 1·24	0	Calicut.
1		20	9	1					N 61° E	N 31° E	5·9*	5·0	+0·9	86	+11	78	+ 1	·844	−·004	1·5	−0·5	1	2·9	−1·9	0·10	2·07	− 1·97	3·02	5·07	− 2·05	0·10	Cochin.
17	7	1	1					5	N 9° W	N 24° E	3·2	4·0	−0·8	37	−10	78	+ 1	·784	−·011	3·8	+1·4	3	2·6	+0·4	2·37	1·70	+ 0·67	5·45	5·17	+ 0·28	1·33	Trivandrum.
16	1	4	6	3		1			N 84° E	S 87° E	3·7	5·4	−1·7	33	−36	77	0	·809		2·6		0	1·3	−1·3	0	0·54	− 0·54	7·33	11·04	− 3·71	0	Pamban.
3	4	11	9	1		1	1	1	N 54° E	N 28° E	4·2	2·8	+1·4	59	+ 9	70	− 3	·755	−·010	5·2	+3·0	0	0·8	−0·8	0	0·51	− 0·54	0·75	3·28	− 2·53	0	Madura.
20	4	1	1	2	1	2			N 63° E		3·3			6		70		·734		1·8		0	1·4	−1·4	0	0·44	− 0·44	1·15	3·38	− 2·23	0	Pudukkottai.
		8		5	16			2	S 32° E	S 85° E	5·1*	4·6	+0·5	49	+13	77	0	·851	+·024	4·3	+0·1	0	0·7	−0·7	0	0·38	− 0·38	6·93	14·14	− 7·21	0	Negapatam.
11	7	2	3	3	2	1	2		N 47° E	N 31° E	2·3	2·8	−0·5	20	− 2	68	− 5	·729	−·018	1·9	−0·9	0	0·6	−0·6	0	0·45	− 0·45	1·12	4·40	− 3·28	0	Trichinopoly.
18	2	6	3		2				N 59° E	N 84° E	3·1	2·1	+1·0	27	−13	82	+ 2	·765	+·035	2·1	−0·4	0	1·0	−1·0	0·05	0·44	− 0·39	0·09	2·56	− 2·47	0·05	Coimbatore.
12		1	10	1	1	2	4		S 68° E	N 66° E	3·6	3·9	−0·3	23	−17	66	− 5	·675	−·036	1·8	+0·1	0	1·0	−1·0	0	0·52	− 0·52	0	2·28	− 2·28	0	Salem.
5	2			2	4	7	6	5	S 70° W	N 86° W	5·0	1·8	+3·2	46	− 4	83	− 2	·823	−·042†	1·9	−1·2	0	0·3	−0·3	0	0·20	− 0·20	0·52	9·70	− 9·18	0	Cuddalore.
28		1	1		1				S 81° E		1·5*			6		77		·702		0·6		0	0·3	−0·3	0	0·15	− 0·15	0·21	5·75	− 5·54	0	Vellore.
1	1	1	1	3	6	16	2		S 28° W	S 25° W	4·4	4·5	−0·1	66	+12	78	0	·811	+·001	0·9	−1·6	0	0·4	−0·4	0	0·18	− 0·18	0·44	7·66	− 7·22	0	Madras.
1	1		5	13	5	3	1	2	S 35° E	S 72° E				56	− 1	54	− 4	·627	−·027	0·4	−0·6	0	0·1	−0·1	0	0·05	− 0·05	0	1·59	− 1·59	0	Cuddapah.
7	2		1		3	2	7	9	N 74° W	S 45° W	3·2*	3·4	−0·2	49	+38	39	−11	·402	−·127	0·6	−0·8	0	0·6	−0·6	0	0·19	− 0·19	0	0·50	− 0·50	0	Bellary.
9		1	3	2	10	1		5	S 6° E	E	3·5*			27	+16	47	− 6	·448	−·098	0·3	−0·9	0	0·5	−0·5	0	0·28	− 0·28	0	0·85	− 0·85	0	Kurnool.
2				5	22	2			S 4° E	S 32° E	4·3	4·7	+0·1	69	+21	79	− 2	·776	−·047	1·3	−1·2	0	0·2	−0·2	0	0·11	− 0·11	0·11	4·77	− 4·66	0	Nellore.
5			2	10	11	2		1	S 21° E	S 20° E	4·6	4·0	+0·6	69	+26	83	0	·831	+·024†	2·4	−0·3	0	0·3	−0·3	0	0·22	− 0·22	0	1·89	− 1·89	0	Masulipatam.
10			2	3		4	9	3	S 75° W	N 52° W	4·4	4·7	−0·3	33	−10	77	+ 2	·815	+·064	3·2	+0·7	0	0·8	−0·8	0	0·54	− 0·54	0·02	2·17	− 2·15	0	Cocanada.
2		2	1			20	4	2	S 57° W	S 88° W	6·8			66	− 9	75	+ 3	·753	+·011	2·3	−0·4	0	0·7	−0·7	0	0·35	− 0·35	1·27	3·13	− 1·86	0	Waltair (Vizagapatam).
5	1	1				6	12	5	N 87° W		8·0			62		84		·794		6·7		0	0·3	−0·3	0	0·17	− 0·17	0·31	3·51	− 3·20	0	Calingapatam.
4	5	2		1	7	8	1	3	S 54° W	S 89° W	8·4	10·1	−1·7	27	−15	79	+ 1	·781	+·041	1·1	−1·4	0	1·1	−1·1	0	0·57	− 0·57	0·08	2·24	−2·16	0	Gopalpur.
																																Bay Islands.
1	3	1	1		2	17	3	3	S 62° W					55		80		·803		4·5		1			0·61			1·47			0·61	P.V.Fraser.
17	3	2	4	2				3	N 43° E	N 22° W	4·0	3·1	+0·9	27	−13	80	− 3	·815	−·048	3·4	+0·6	0	1·0	−1·0	0·05	0·77	− 0·72	3·59	9·60	− 6·10	0·05	Port Blair.
2	11	6	2	1				9	N 2° E		6·2			69		77		·763		4·4		0	0·5	−0·5	0	0·19	− 0·19	1·11	2·36	− 1·25	0	Slipper Island.
																																Kashmir.
	1	1	3	4	6	8	6	2	S 33° W		1·3†			42		75		·262		2·7		7			3·18			11·80			0·98	Muzaffarabad.
12	1	1	3	7	2			5	S 72° E	S 3° W	1·9	3·5	−1·6	17	+ 9	81	− 8	·193	−·044	5·6	−0·3	7	7·9	−0·9	2·56	3·52	− 0·96	7·56	10·70	− 3·14	0·65	Srinagar.
29	1							1	N 24° W		0·8			7		86‡	− 5	·080‡		4·8		7	11·1	−4·1	2·69	3·82	− 1·13	10·21	10·65	−0·44	1·22	Dras.
19	2	2	2	2	3	1			S 67° E	S 63° W	2·3	1·5	+0·8	13	− 7	58	+ 8	·078	+·001	6·8	+0·7	1	1·1	−0·1	0·27	0·30	− 0·03	1·21	1·18	+ 0·03	0·22	Leh.
15				1	2	10	3		S 44° W		2·4			46		74	− 7	·136		6·2		1	3·1	−2·1	1·13	0·87	+ 0·26	5·60	2·60	+ 3·00	1·02	Skardu.
22		1				4	3	1	S 76° W		0·8			20		43	− 8	·137	−·042	4·7	−1·5	1	1·6	−0·6	0·33	0·49	−0·16	0·67	1·02	− 0·35	0·30	Gilgit.

stations, the elevations of which exceed 3,200 feet. † Mean of 30 days. * Uncorrected for scale error. ‡ Mean of 23 days.

Table

(2) *Abstract of observations taken at 8 hrs. at 216 stations*

Number of subdivision.	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.	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.	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	16	17	18	19	20	21	22	23	24
	Baluchistan.																						
15	Fort Sandeman		25·369		25·338	25·544	29th	25·089	18th	·455	45·2	65·1		40·6		52·8		24·5	81·4	31st	33·1	4 days	48·3
	Quetta	5,502	24·623	−·030	24·583	24·792	29th	24·469	3rd	·323	38·0	57·6	−6·9	33·4	−6·6	45·5	−6·7	24·2	74·1	31st	24·7	20th	49·4
	Chaman	4,311	25·698	−·018	25·660	25·890	29th	25·524	16th	·366	44·7	59·4	−6·9	39·5	−6·4	49·4	−6·7	19·9	74·6	17th	26·0	19th	48·6
	Kalat	6,630	23·697		23·659	23·859	29th	23·538	3rd	·321	34·5	55·5		30·0		42·8		25·5	73·0	31st	18·2	20th	54·8
	Dalbandin	2,779	27·135		27·098	27·242	28th	26·928	16th	·314	49·9	71·7		42·3		57·6		29·4	91·3	31st	34·2	19th	57·1
	Pasni		29·973		29·933	30·107	19th	29·799	15th	·308	66·4	81·7		61·8		71·7		19·9	89·5	27th & 28th.	58·0	5th, 6th & 20th.	31·5
	Panjgur		26·763		26·721	26·994	28th	26·607	15th	·297	49·3	69·7		45·4		57·5		24·3	84·8	31st	35·0	19th	49·8
	Robat		26·903		26·861	27·065	28th	26·732	15th	·337	48·7	70·4		44·8		57·6		25·6	85·0	16th	35·8	19th	49·2
	Hill stations excluding Kashmir and Baluchistan.																						
	Para Chinar	6,000	24·377		24·353	24·514	29th	24·019	18th	·495	42·5	57·3		33·3		45·3		24·0	75·7	31st	27·6	20th	48·1
	Cherat	*4,256*	25·672	−·042	25·640	25·831	21st	25·322	18th	·509	48·6	58·7	−2·8	43·2	−4·7	50·9	−3·7	15·5	73·2	31st	29·4	28th	43·8
	Drosh		25·135			25·320	29th	24·775	18th	·545	42·9	59·0		38·6		48·5		21·0	70·2	31st	28·6	19th	41·6
	Murree	6,333	23·765	−·082	22·733	23·902	2nd	23·398	18th	·504	42·0	50·0	−8·3	38·3	−5·0	44·2	−6·7	11·7	68·5	31st	29·2	20th	39·3
	Simla	7,232	23·030	−·068	22·992	23·156	28th	22·886	18th	·270	44·4	51·6	−4·8	38·9	−7·1	45·2	−5·9	12·7	61·5	31st	30·3	5th & 20th.	31·2
	Sarain		23·070		23·032	23·196	2nd	22·944	19th	·252	35·6	51·0		31·1		41·1		19·9	65·7	31st	22·3	20th	43·4
	Kalabagh																						
	Chakrata	7,022	23·226	−·065	23·188	23·359	28th	23·120	19th	·239	45·2	56·8	−4·9	36·9	−7·4	46·9	−6·1	19·9	67·7	31st	30·2	21st	37·5
	Mukteswar	7,592	22·756	−·094	22·715	22·894	28th	22·629	14th	·255	44·7	55·3	−4·7	37·4	−5·1	46·4	−4·9	17·9	70·0	31st	27·5	5th	42·5
	Darjiling	7,376	22·922	−·083	22·877	23·040		22·788	14th	·252	45·8	53·1	−3·4	39·9	−2·4	46·5	−2·9	13·2	65·3	29th	31·2	6th & 7th.	34·1
	Shillong	4,920	25·102		25·054	25·217	2nd	24·983	14th	·234	57·4	67·3		49·1		58·2		18·2	77·9	28th	35·7	1st	42·2
	Cherrapunji	4,309	25·768		25·718	25·873	28th	25·687	14th	·186	58·8	72·5		52·2		62·3		20·3	87·2	2nd	41·6	1st	45·6
	Maymyo	3,545	25·423	−·053	26·368	26·514	28th	26·323	14th	·191	59·4	78·3	−3·1	49·9	+0·3	64·1	−1·4	28·4	86·0	30th	42·1	3rd	43·9
	Pachmarhi	3,528	26·465	−·030	26·412	26·551	2nd	26·379	14th	·172	66·0	81·0	−3·4	58·3	−2·1	69·7	−2·7	22·7	90·5	29th	50·1	4 days	40·4
	Mount Abu	3,945	26·055	−·037	26·005	26·140	29th	25·968	19th	·172	63·5	73·5	−4·2	57·3	−4·2	65·4	−4·2	16·2	81·7	25th	48·4	4th & 20th	33·3
	Mercara	3,781	26·248	−·018	26·181	26·312	29th	26·169	14th	·143	70·2	86·2	+1·6	61·8	0	74·0	+0·8	24·4	80·0	27th & 28th.	59·0	10th & 15th.	31·0
	Ootacamund	*7,327*	23·095		23·031	23·154	29th	23·026	14th	·128	60·0	71·2		47·6		59·4		23·6	77·5	31st	44·2	3rd & 4th.	33·3
	Kodaikanal	7,688	22·860	−·016	22·795	22·910	29th	22·796	14th	·114	58·3	70·9	+2·2	50·6	−0·3	60·7	+0·9	20·3	75·0	27th	46·0	2nd & 24th	29·0
	Extra India.																						
	Singapore (*a*)	10	29·915		29·846	29·982	5th	29·812	23rd	·140	82·7	88·2		73·9		81·1		14·3	91·5	11th	71·0	4th	20·5
	Penang (*a*)	17	29·851		29·796	29·925	29th	29·794	16th	·131	82·7	91·8		74·3		83·1		17·5	97·0	14th	73·0	5 days	24·0
	Trincomalee	99	29·838	P	29·866	29·879	29th	29·771	14th	·108	79·5	92·1	+4·1P	76·2	+0·2	84·2	+2·1P	15·9	97·0	20th	70·0	14th	27·0
	Colombo	24	29·906	−·036	29·856	29·964	29th	29·832	14th	·132	74·3	83·7	−0·7	73·0	−1·9	80·9	−1·3	15·7	91·5	23rd	68·5	15th	23·0
	Minicoy	7	29·958			30·013	30th	29·875	14th	·133													
	Amini Divi	*13*	29·948	−·007	29·889	30·003	29th	29·873	15th	·130	82·6	89·8	+1·8	77·9	−0·3	83·8	+0·7	11·9	93·6	24th	74·7	13th & 25th	18·9
	Gyantse	13,120									30·1	48·9		20·3		34·6		28·6	64·0	26th	4·9	2nd	59·1
	Pharijong	14,400									15·9	35·4		3·4		19·4		32·0	48·4	25th	−12·4	7th	60·8
	Gangtok	5,660P	24·429		24·384	24·539	20th	24·315	9th	·224	49·9	62·2		42·9		52·5		19·3	76·5	30th	38·8	15th	37·7
	Gartok (*c*)	15,100	P			P	P	P	P	P	13·1	29·9		2·8		16·3		27·1	38·9	31st	−12·8	12th	51·7

N.B.—Elevations in italics indicate barometrical determinations.
(*a*) 9 hrs. observations.
(*c*) Aneroid corrected.

NOTE.—The barometric readings are not reduced to sea-level in the case of hill
f Mean of 28 days.

B—*continued.*

in India, etc., in March, 1913—continued.

Wind direction. Number of winds from Calm. (25)	N. (26)	N.E. (27)	E. (28)	S.E. (29)	S. (30)	S.W. (31)	W. (32)	N.W. (33)	Resultant direction. (34)	Normal direction. (35)	Wind velocity. Mean velocity, miles per hour. (36)	Normal. (37)	Departure from normal. (38)	Wind steadiness. Actual percentage. (39)	Departure from normal. (40)	Hygrometry, 8 hrs. Mean humidity at 8 hrs. (41)	Departure from normal. (42)	Mean vapour tension at 8 hrs in inches of mercury. (43)	Departure from normal in inches of mercury. (44)	Cloud. Mean cloud amount at 8 hrs. (45)	Departure from normal. (46)	Rainfall. Number of rainy days. (47)	Normal number of rainy days. (48)	Departure from normal. (49)	Rainfall of month. (50)	Normal rainfall of month. (51)	Departure from normal. (52)	Total rainfall from 1st Dec. 1912 to 31st March 1913. (53)	Normal rainfall for period, 1st Dec. to 31st March. (54)	Departure from normal of period, 1st Dec. 1912 to 31st March 1913. (55)	Heaviest rainfall during month. (56)	Station. (57)
																																Baluchistan.
											3·8			13		60		·175		2·3		3			1·74			3·78			0·80	Fort Sandeman.
17		3	1		2	5	2	1	S 49° W		2·2	2·9	−0·7	7	− 4	69	+ 7	·158	−·053	4·2	+1·2	3	5·1	−2·1	2·69	1·93	+ 0·76	8·61	6·78	+ 1·83	1·50	Quetta.
23	1		1		2		1	3	N 62° W	S 12° W	4·5	7·2	−2·7	53	+ 2	60	+ 1	·171	−·038	3·6	−0·1	4	4·7	−0·7	2·05	1·56	+ 0·49	7·30	5·61	+ 1·69	0·98	Chaman.
5		4	9	8	3	1	1		S 71° E	S 31° E	5·5			40	−20	78		·155		4·2		5	2·7	+2·3	1·35	0·94	+ 0·41	4·87	4·62	+ 0·25	0·41	Kalat.
8		2		2	8	7	1	3	S 25° W	S 22° W	5·5			23		51		·178		1·7		1			0·60			2·67			0·15	Dalbandin.
12	1	4	3		2		2	7	N 9° W		4·4			23		78		·512		1·6		0			0			7·50			0	Pasni.
23	3						2	3	N 39° W		6·0			59		63		·227		1·9		1			0·42			2·06			0·35	Panjgur.
4	7	11	5		1	1		2	N 36° E		1·4			30		58		·196		4·2		3			1·13			4·70			0·67	Robat.
																																Hill stations, excluding Kashmir and Baluchistan.
18	1	3	2	2		1	2	2	N 31° E		1·1			7		51		·142		1·9		6	9·2	−3·2	5·32	4·37	+ 0·95	12·19	9·77	+ 2·42	1·87	Para Chinar.
1	16	3			1	1	2	7	N 15° W	N 10° W	8·6	10·4	−1·6	72	+16	44	−12	·144	−·073	3·7	−1·2	4	6·3	−2·3	2·58	3·89	− 1·31	6·54	11·19	− 4·65	1·86	Cherat.
11	1	4	11	2	1	1			N 87° E		4·6			49		56		·134		2·6		5	7·0	−2·0	1·59	3·12	− 1·53	6·59	5·94	+ 0·65	0·49	Drosh.
10	3	3	2	7	1			5	N 64° E	S 85° E	5·7	6·6	−0·9	20	−12	54	0	·137	−·040	4·3	−0·6	6	7·0	−1·0	2·79	4·37	− 1·58	11·36	14·18	− 2·82	0·83	Murree.
																45	+ 1	·123	−·023	3·6	−0·2	5	4·6	+0·4	4·45	2·44	+ 2·01	11·85	9·63	+ 2·22	2·10	Simla.
																77		·157		3·0		6	7·4	−1·4	4·30	4·01	+ 0·29	15·28	21·10	− 5·82	1·30	Sarain.
																																Kalabagh.
14	1	1		4	11				S 16° E	N 13° E	3·5	5·2	−1·7	40	+ 1	59	+ 8	·176	0	2·9	+0·1	5	4·6	+0·4	4·27	2·63	+ 1·64	13·46	12·80	+ 0·66	1·22	Chakrata.
											6·6			6		49	0	·136		4·6		4	3·5	+0·5	3·21	1·55	+ 1·66	7·77	7·30	+ 0·47	1·33	Mukteswar.
11	1	2	4	2	2		9	1	S 80° W		3·0	5·5	−2·5	10	− 1	71	− 4	·212	−·039	4·1	+0·4	3	3·6	−0·6	2·26	1·77	+ 0·49	3·65	3·62	+ 0·03	1·03	Darjiling.
19	1	3	1	1		1	5		N 49° W	S 37° E	4·6			56		54		·252		1·5		3	5·3	−2·3	2·09	2·13	− 0·04	4·25	3·93	+ 0·32	1·28	Shillong.
10				1	6	11	3		S 35° W		6·6			46		72		·357		5·4		12	7·0	+5·0	12·09	8·60	+ 3·49	18·86	11·91	+ 6·95	3·40	Cherrapunji.
8			4		4	8	7		S 42° W		1·5			49		79	+10	·400		0·5		2	1·1	+0·9	1·81	0·49	+ 1·32	3·98	1·18	+ 2·80	1·50	Maymyo.
16						14	1		S 48° W		4·3	3·7	+0·6	30	+26	44	+ 9	·280	+·004	0·7	−1·4	1	0·9	+0·1	1·16	0·38	+ 0·78	3·99	2·12	+ 1·87	1·13	Pachmarhi.
9	2		2	3	1		7	7	N 63° W	N 3° W	6·2	5·3	+0·9	37	+ 8	35	0	·195	−·037	0·9	−1·1	0	0·4	−0·4	0	0·14	− 0·14	0	0·93	− 0·93	0	Mount Abu.
2	6	5	2		1	4	7	4	N 40° W	N 23° W	2·9	2·7	+0·2	21	− 1	62	− 6	·445	−·048	2·1	−0·8	0	1·8	−1·8	0	0·72	− 0·72	0	1·93	− 1·93	0	Mercara.
18	2	3	3	2	3				S 88° E	N 22° E	3·3			79		50		·254		1·9		2	2·2	−0·2	0·42	0·85	− 0·43	1·40	5·91	− 4·51	0·25	Ootacamund.
2		1	8	15	5				S 53° E		9·7*			76		48	+ 1	·232		2·1		5	3·2	+1·8	5·30	2·15	+ 3·15	11·89	11·20	+ 0·69	2·94	Kodaikanal.
	5	8	14	3				1	N 67° E																							**Extra India.**
																				6·6		11	9·8	+1·2	22·44	7·55	+14·89	68·16	36·80	+31·36	6·38	Singapore.
20	2	9							N 37° E		3·1*			33																		
											7·1*			76								8	6·8	+1·2	2·94	4·30	−1·36	14·58	21·17	−6·59	1·00	Penang.
	4	19	1	3				4	N 34° E																							
5		3	4	2	2	12	1	2	S 22° W	S 37° W	4·8*†	1·1	+0·7	27	+ 4	83	+ 2	·836	−·042	3·5	+1·1	1	2·2	−1·2	0·32	1·49	−1·17	26·40	23·34	+3·06	0·30	Trincomalee.
31									(a)	S 58° E	2·5*	3·9	−1·4	(a)		95	+21	·807	−·038	7·9	+5·0	7	5·7	+1·3	8·98	4·20	+4·78	24·42	15·42	+9·00	2·97	Colombo.
																				2·5	−0·5	2	1·7	+0·3	1·98	0·95	+1·03	8·72	6·59	+2·13	1·26	Minicoy.
	20	4				1		6	N 4° W	N 20° W	3·3	3·9	−0·6	84	+27																	
2	14	8	1					6	N 5° E		6·0			78		70	− 4	·781	−·091	3·3	+0·3	0	0·1	−0·1	0	0·05	−0·05	2·81	1·56	+1·25	0	Amini Divi.
9	1	1	7	7		1	2	2	S 72° E‡		7·9			30		57		·100		0·7		0			0			0			0	Gyantse.
25	2				1	2		1	N 80° W		5·7			6						0·3		0			0·08			0·16			0·02	Pharijong.
21		2		1		1		6	N 37° W		1·6			16		84		·301		1·5		6	8·5	−2·5	2·14	5·12	−2·98	8·98	9·56	−0·58	0·69	Gangtok.
11				3	12				S 18° E		7·9			61						4·3		0			0			0			0	Gartok.

* Uncorrected for scale error. † Mean of 27 days. ‡ " 30 " (a) Indeterminate.

or pleteau stations, the elevations of which exceed 3,200 feet.

Table

(2) *Abstract of observations taken at 8 hrs. at 216 stations*

Number of observations.	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
	Extra India—*concld.*																						
	Kashgar (*c*) . .	4,255																					
	Kabul . .																						
	Meshed . .	3,104	26·873		30·131	27·120	18th	26·527	16th	·593	38·0	55·3		30·9	−7·5	43·1		24·4	75·4	30th	20·6	17th	54·8
	Jask . . .	13	29·994	+·006	29·961	30·135	19th	29·813	15th	·322	65·8	78·4	−0·3	63·8	−2·3	71·1	−1·3	14·6	83·3	14th & 31st.	59·3	21st	24·0
	Muscat . .	20	30·011	+·040	29·980	30·142	19th	29·836	15th	·306	71·8	80·5	+3·9	68·7	−3·3	74·6	+0·3	11·8	87·3	31st.	63·6	4th	23·7
	Bahrein . .	18	30·067		30·039	30·210	25th	29·921	14th	·289	65·2	69·4		60·6		65·0		8·8	78·5	6th	54·9	10th	23·6
	Bushire . .	14	30·025	+·038	30·002	30·171	25th	29·901	20th	·270	59·7	68·8	−3·5	55·9	−2·9	62·3	−3·2	12·9	78·3	6th & 30th.	46·5	17th	31·8
	Busrah . .	25	30·052		30·047	30·226	16th	29·848	4th	·378	60·0	69·5		54·3		61·9		15·2	78·9	29th	42·3	16th	36·6
	Kerman . .		24·461‡			24·670	28th	24·240	1st, 14th & 16th.	·430	43·4	62·0		34·7		48·4		27·3	78·7	30th	22·5	19th	56·2
	Ispahan (*b*) .	*5,817*	24·255			24·450	18th & 25th.	24·030	15th	·420	37·3	58·5	−2·6	33·1	−3·1	45·8	−2·9	25·4	71·4	29th	21·7	17th	49·7
	Tehran (*b*) .	*4,002*	25·781			25·950	25th & 27th.	25·475	15th	·475	40·5	58·1	+0·9	35·5	−2·9	46·8	−1·0	22·6	72·7	27th	25·1	16th	47·6
	Baghdad . .	127	29·950	+·015	30·060	30·169	17th	29·644	4th	·525	54·1	73·3	+1·0	46·7	−1·6	60·0	−0·3	26·6	86·1	28th	36·5	16th	49·6
	Beirut (*a*) . .				30·074						60·1	65·5		53·8		59·7		11·7	79·9	27th	40·8	15th	39·1
	Aden . .	94	29·918	+·021	29·945	30·004	26th	29·826	22nd	·178	77·5	81·5	−2·9	75·0	−0·2	78·3	−1·5	6·5	85·1	18th	71·4	7th	13·7
	Zanzibar . .	72	29·907	+·001	29·905	30·016	26th	29·822	15th	·194	80·4	85·2	−1·2	77·6	−1·8	81·4	−1·5	7·6	90·1	10th	72·2	10th	17·9

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*) ,, corrected.

(*e*) Mean of 29 days.
‡ ,, 30 ,,

—concluded.

India, etc., in March, 1913—concluded.

Wind direction. Number of winds from 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 stradiness. 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 from 1st Dec. 1912 to 31st March 1913.	Normal rainfall for period, 1st Dec. to 31st March.	Departure from normal of period, 1st Dec. 1912 to 31st March 1913.	Heaviest rainfall during month.	Station.
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
																															Extra India—*concld.*
									N 1° W		1·8											0·8			0·37			0·73			Kashgar.
									N 80° W													7·1			4·05			7·49			Kabul.
4				1			2	N 14° W			2·3		13		71		·161		3·7	−1·8	2	5·1	−3·1	1·04	2·32	−1·28	4·24	4·81	− 0·57	0·42	Meshed.
8	7	3				4	8	N 5° W	N 23° E	7·1	8·0	−0·9	62	+26	65	− 9	·415	−·151	3·3	+1·0	2	1·7	−0·3	1·84	0·77	+1·07	5·21	3·69	+ 1·52	1·58	Jask.
		2	1			3	11	N 49° W	N 72° W	4·8	3·4	+1·4	33	+ 3	61	− 7	·375	−·101	3·5	+1·3	2	1·9	+0·1	0·85	0·76	+0·09	5·70	3·24	+ 2·46	0·62	Muscat.
10	2	3	2			3	11	N 16° W		5·9			61		70		·436		2·1		0	1·1	−1·1	0	0·38	−0·38	4·62	2·15	+2·47	0	Bahrein.
2	5	6	2			2	7	N 24° E	N 41° E	8·1	6·2	+1·9	33	−7	79	+ 9	·408	−·024	2·5	−0·4	0	2·2	−2·2	0·12	0·91	−0·79	6·03	8·90	− 2·87	0·04	Bushire.
1	1		4	3	2	8	7	S 85° W		3·0			36		71		·389		3·7		2	2·1	−0·1	0·95	1·09	−0·14	6·22	4·13	+ 2·09	0·61	Busra.
		1	4	4	5	1		S 6° W		5·9			32		52		·142		4·2		5			1·94			3·95			0·49	Kerman
2					1	3	1	N 63° W	S 82° W	2·7	4·6	−1·9	13	−31	62	−14	·142	−·096	3·1	−0·5	2	3·4	−1·4	0·56	1·13	−0·57	1·11	2·99	− 1·88	0·31	Ispahan.
6	12	1				1		N 31° E	N 14° E	2·7	2·8	−0·1	58	+36	55*f*	− 1	·141‡	−·053	9·9	+5·8	1	5·6	−4·6	0·46	1·93	−1·47	5·00	5·94	− 0·94	0·34	Tehran.
5	4	1	3	1	1	2	8	N 11° W	N 11° W	4·0	2·9	+1·1	32	+ 8	57	−13	·246	−·098	2·2	−0·1	1	3·6	−2·6	0·53	1·41	−0·88	4·51	4·99	− 0·48	0·48	Baghdad.
	3		1	3	1		1	S 27° E					7		66		·343		2·9		6			3·07			17·71			0·77	Beirut.
1	21	1						N 45° E	N 82° E	10·1	11·5	−1·4	72	− 7	74	− 2	·689	−·037	5·2	0	0	0·8	−0·8	0·02	0·65	−0·63	0·26	1·64	− 1·38	0·02	Aden.
5	5	1		7	9	1		S 31° W	S 27° E	4·3	3·9	+0·4	19	− 3	64	+	·870	−·024	7·6	+2·1	11	8·3	+2·7	9·99	6·01	+3·98	29·75	17·33	+12·42	2·57	Zanzibar.

f Mean of 28 days.

Table C.—Abstract of observations taken at 8 hrs. at 63 fourth and fifth class stations in India, etc., in March, 1913.

Table

Abstract of observations taken at 8 hrs.

Number of sub division.	Station.	Temperature of air.													Wind direction.										
		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.	Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
	II.—Assam.																								
4	Balek	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Bishnath	62·6	79·4	...	62·6	...	71·0	...	16·8	90·9	30th	55·1	4th	35·8	...	...	...	...	...	...	...	...	...	...	...
	Borjuli	65·3	79·7	...	57·1	...	68·4	...	22·6	89·7	30th&31st	51·1	9th	38·6	...	...	...	...	...	...	...	...	...	...	...
	Chandkhira	68·1	86·0	...	58·6	...	72·3	...	27·4	93·1	27th&28th	45·0	2nd	48·1	...	...	...	...	...	...	...	...	...	...	...
	Doom Dooma	61·0	77·2	...	57·2	...	67·2	...	20·0	84·5	22nd	48·7	2nd	35·8	...	...	...	...	...	...	...	...	...	...	...
	Dikom	60·8	76·9	...	57·2	...	67·1	...	19·7	86·0	22nd	48·0	2nd	38·0	...	...	...	...	...	...	...	...	...	...	...
	Golaghat	63·6	77·1	...	57·9	...	67·5	...	19·2	83·9	30th	52·2	2nd	31·7	...	...	...	...	...	...	...	...	...	...	...
	Hailakandi	66·0	83·6	...	61·6	...	72·6	...	22·0	91·4	28th	50·8	3rd	40·6	...	...	...	...	...	...	...	...	...	...	...
	Jorehat	62·6	77·7	...	58·6	...	68·1	...	19·1	85·0	31st	53·2	17th	31·8	...	...	...	...	...	...	...	...	...	...	...
	Lumding	62·5	81·8	...	56·4	...	69·1	...	25·4	91·9	28th	48·0	2nd & 3rd.	43·9	...	...	...	...	...	...	...	...	...	...	...
	Messa	71·1	83·8	...	57·9	...	70·9	...	25·9	92·5	31st	50·1	3rd, 7th & 17th.	42·4	...	...	...	...	...	...	...	...	...	...	...
	Panerihat	57·1	74·6	...	56·7	...	65·7	...	17·9	83·9	31st	46·9	1st	37·0	...	...	...	...	...	...	...	...	...	...	...
	Srimangal	69·9	86·8	...	60·6	...	73·7	...	26·2	93·7	28th	46·2	2nd	47·5	...	...	...	...	...	...	...	...	...	...	...
	III.—Bengal.																								
5	Comilla	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Brahmanbaria	75·3	86·4	...	63·5	...	74·9	...	22·9	92·9	28th	52·1	3rd	40·8	...	...	...	...	...	...	...	...	...	...	...
	Faridpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Goalundo	68·8	89·4	...	(j) 58·3	...	(j) 73·9	...	31·1	101·4	29th	42·1	2nd	59·3	...	...	...	...	...	...	...	...	...	...	...
	Pabna	72·0	88·6	...	65·4	...	77·0	...	23·2	101·2	29th	56·3	3rd	44·9	...	...	...	...	...	...	...	...	...	...	...
	Sirajganj	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Rampur Boalia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Malda	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Rangpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Dam Dim	63·4	86·9	...	52·1	...	69·5	...	34·8	93·9	30th	44·0	1st	49·9	...	...	...	...	...	...	...	...	...	...	...
	Kalchini	70·1	80·6	...	48·9	...	64·7	...	31·7	91·1	30th	42·9	15th	48·2	...	...	...	...	...	...	...	...	...	...	...
	Nagrakata	68·8	83·7	...	56·5	...	70·1	...	27·2	89·1	30th	50·0	16th	39·1	...	...	...	...	...	...	...	...	...	...	...
	Cooch Behar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Krishnagar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Bankura	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Raniganj	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

(j) Mean of 24 days.

63 fourth and fifth class stations in India, etc., in March, 1913.

Wind velocity.			Wind steadiness.		Hygrometry, 8 hrs.				Cloud.		Rainfall.										Station.
hour.	Normal.	Departure from normal.	Actual percentage.	Departure from normal.	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.	Mean cloud amount at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st December 1912 to 31st March, 1913.	Normal rainfall of period, 1st December to 31st March.	Departure from normal of period, 1st December 1912 to 31st March 1913.	Heaviest rainfall during month.	
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
																					II.—Assam.
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	**Balek.**
...	...	...	...	...	95	...	·546	...	...	...	6	4·8	+1·2	2·40	2·61	−0·21	6·21	4·96	+1·25	0·63	Bishnath.
...	...	...	...	...	76	...	·474	...	...	...	6	4·0	+2·0	3·11	1·85	+1·26	6·74	3·33	+3·41	1·11	Borjuli.
...	...	...	...	...	86	...	·599	...	...	...	10	3·8	+6·2	9·04	2·64	+6·40	11·65	5·67	+5·98	2·27	Chandkhira.
...	...	...	...	...	89	...	·476	...	...	...	16	10·2	+5·8	6·51	5·59	+0·92	14·03	10·04	+3·99	0·99	Doom Dooma.
...	...	...	...	...	90	...	·481	...	...	...	13	9·3	+3·7	4·79	5·03	−0·24	9·90	8·98	+0·92	0·81	Dikom.
...	...	...	...	...	86	...	·511	...	...	...	13	5·8	+7·2	4·05	2·45	+1·60	10·07	4·94	+5·13	0·74	Golaghat.
...	...	...	...	...	88	...	·562	...	...	...	10	6·7	+3·3	13·77	4·15	+9·62	17·48	7·89	+9·59	4·45	Hailakandi.
...	...	...	...	...	88	...	·499	...	...	...	8	6·8	+1·2	2·62	3·07	−0·45	8·77	5·30	+3·47	0·45	Jorehat.
...	...	...	...	...	87	...	·487	...	...	...	6	...	...	2·42	...	...	5·22	...	...	0·74	Lumding.
...	...	...	...	...	66	...	·490	...	...	...	8	3·8	+6·2	3·30	2·00	+1·30	9·57	3·57	+6·00	0·77	Messa.
...	...	...	...	...	85	...	·400	...	...	...	7	5·7	+1·3	3·14	3·10	+0·04	6·59	4·57	+2·02	1·44	Panerihat.
...	...	...	...	...	85	...	·632	...	...	...	6	4·2	+1·8	3·45	2·73	+0·72	6·15	5·10	+1·05	1·22	Srimangal.
																					III.—Bengal.
...	...	...	...	...	...	...	...	...	...	...	3	3·4	−0·4	1·14	2·76	−1·62	2·78	4·28	−1·50	0·75	Comilla.
...	...	...	...	...	73	...	·640	...	...	...	5	4·2	+0·8	2·22	2·52	−0·30	5·32	4·15	+1·17	1·02	Brahmanbaria.
...	...	...	...	...	...	...	...	...	...	...	2	2·8	−0·8	1·14	1·91	−0·77	5·17	3·72	+1·45	0·57	Faridpur.
...	...	...	...	...	80	...	·576	...	...	...	4	3·2	+0·8	1·58	1·88	−0·30	6·01	3·42	+2·59	0·52	Goalundo.
...	...	...	...	...	80	...	·640	...	...	...	1	2·8	−1·8	0·67	1·23	−0·56	3·21	2·93	+0·28	0·60	Pabna.
...	...	...	...	...	...	...	...	...	...	...	1	2·1	−1·1	0·72	1·37	−0·65	3·97	2·63	+1·34	0·70	Sirajganj.
...	...	...	...	...	...	...	...	...	...	...	1	2·0	−1·0	0·78	1·12	−0·34	2·78	2·16	+0·62	0·78	Rampur Boalia.
...	...	...	...	...	...	...	...	...	...	...	2	1·3	+0·7	0·56	0·75	−0·19	1·82	2·42	−0·60	0·45	Malda.
...	...	...	...	...	...	...	...	...	...	...	4	1·9	+2·1	0·98	1·33	−0·35	2·13	2·38	−0·25	0·43	Rangpur.
...	...	...	...	...	85	...	·497	...	...	...	5	3·3	+1·7	4·16	1·70	+2·46	5·35	3·27	+2·08	2·18	Dam Dim.
...	...	...	...	...	76	...	·568	...	...	...	4	3·3	+0·7	3·30	1·60	+1·70	4·44	3·32	+1·12	1·43	Kalchini.
...	...	...	...	...	63	...	·431	...	...	...	5	4·5	+0·5	2·80	2·13	+0·67	4·51	4·50	+0·01	1·30	Nagrakata.
...	...	...	...	...	...	...	...	...	...	...	3	3·0	0	1·77	1·99	−0·22	3·95	2·86	+1·09	1·17	Cooch Behar.
...	...	...	...	...	...	...	...	...	...	...	2	2·2	−0·2	1·52	1·52	0	7·53	3·30	+4·23	0·76	Krishnagar.
...	...	...	...	...	...	...	...	...	...	...	2	2·0	0	1·70	1·08	+0·62	7·75	2·67	+5·08	1·20	Bankura.
...	...	...	...	...	...	...	...	...	...	...	3	1·9	+1·1	1·83	1·07	+0·76	6·92	2·63	+4·29	1·44	Raniganj.

Table

Abstract of observations taken at 8 hrs.

Number of observation.	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.	Wind direction. Number of winds from Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
	IV.—Bihar and Orissa.																								
7	Hazaribagh	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
8	Bhagalpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Muzaffarpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Motihari	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Chapra	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Arrah	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Dehri	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	V.—United Provinces of Agra and Oudh.																								
10	Meerut	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Dehra Dun	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	IX.—Rajputana.																								
18	Udaipur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	XII.—Central Provinces.																								
23	Chhindwara	69·0	88·5	...	60·0	...	74·2	...	28·5	97·9	29th	50·4	6th	47·5	...	...	...	...	...	...	...	...	...	...	...
	XV.—Madras.																								
31	Tinnevelly	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
32	Anantapur	80·6	100·5	...	70·2	...	85·3	...	30·3	104·3	31st	66·1	28th	38·2	...	...	...	...	...	...	...	...	...	...	...
33	Guntur	79·7*	98·6	...	73·6	...	86·1	...	25·0	106·2	13th	69·0	5th	37·2	...	...	...	...	...	...	...	...	...	...	...
	Bay Islands.																								
1	Car Nicobar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Kashmir.																								
13	Jammu	63·0	74·3	...	55·1	...	64·7	...	19·2	86·1	31st	46·8	5th	39·3	...	13	15	...	...	3	...	...	...	N 28° E	
	Sonamarg	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Kargil	21·0	37·5	...	13·3	...	25·4	...	24·2	46·3	19th & 31st.	—0·2	1st	46·5	...	3	...	13	13	...	2	...	...	S 69° E	
	Astor	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	

* Mean of 30 days.

C—*continued.*

at 61 fourth and fifth class stations in India, etc., in March, 1913—continued.

Wind velocity.			Wind steadiness.		Hygrometry, 8 hrs.				Cloud.		Rainfall.									Heaviest rainfall during month.	Station.
Mean velocity, miles per hour.	Normal.	Departure from normal.	Actual percentage.	Departure from normal.	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.	Mean cloud amount at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st Dec. 1912 to 31st March 1913.	Normal rainfall of period, 1st December to 31st March.	Departure from normal of period, 1st Dec. 1912 to 31st March 1913.		
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
																					IV.—Bihar and Orissa.
...	...	...	...	...	...	...	...	...	...	...	2	2·0	0	2·34	1·01	+1·33	7·04	3·07	+3·97	1·25	Hazaribagh.
...	...	...	...	...	...	...	...	...	...	...	2	1·2	+0·8	0·48	0·56	−0·08	1·84	1·97	−0·13	0·27	Bhagalpur.
...	...	...	...	...	...	...	...	...	...	...	2	1·1	+0·9	0·52	0·48	+0·04	2·62	1·66	+0·96	0·37	Muzaffarpur.
...	...	...	...	...	...	...	...	...	...	...	2	0·8	+1·2	1·34	0·45	+0·89	4·47	1·65	+2·82	1·00	Motihari.
...	...	...	...	...	...	...	...	...	...	...	2	0·9	+1·1	0·65	0·35	+0·30	1·93	1·74	+0·19	0·41	Chapra.
...	...	...	...	...	...	...	...	...	...	...	2	1·0	+1·0	1·61	0·45	+1·16	3·73	2·07	+1·66	1·16	Arrah.
...	...	...	...	...	...	...	...	...	...	...	1	1·1	−0·1	0·52	0·48	+0·04	2·27	2·10	+0·17	0·40	Dehri.
																					V.—United Provinces of Agra and Oudh.
...	...	...	...	...	...	...	...	...	...	...	2	1·4	+0·6	1·48	0·55	+0·93	3·13	3·14	−0·01	0·90	Meerut.
...	...	...	...	...	...	...	...	...	...	...	4	2·2	+1·8	2·42	0·98	+1·44	11·15	6·45	+4·70	0·81	Dehra Dun.
																					IX.—Rajputana.
...	...	...	...	...	...	...	...	...	...	...	0	0·2	−0·2	0	0·07	−0·07	0·01	0·42	−0·41	0	Udaipur.
																					XII.—Central Provinces.
2·1	...	...	...	...	50	...	·349	...	0·9	...	3	...	...	0·94	...	...	2·03	...	...	0·39	Chhindwara.
																					XV.—Madras.
...	...	...	...	...	...	...	...	...	...	...	1	1·9	−·09	0·23	1·06	−0·83	4·51	6·72	−2·21	0·18	Tinnevelly.
...	...	...	...	...	65	...	·671	...	3·2	...	0	...	...	0	...	...	0	...	...	0	Anantapur.
...	...	...	...	...	85	...	·858 †	...	2·1 †	...	0	...	...	0	...	...	0	...	...	0	Guntur.
																					Bay Islands.
...	...	...	...	...	...	...	...	...	...	...	0	2·7	−2·7	0	1·50	−1·50	6·47*	13·57	−7·10	0	Car Nicobar.
																					Kashmir.
...	...	...	78	...	56	...	·314	...	2·6	...	5	...	...	1·90	...	...	7·63	...	...	0·55	Jammu.
...	...	...	...	...	...	...	...	...	...	...	15	15·7	−0·7	7·50	16·75	−9·25	31·75	43·60	−11·85	1·75	Sonamarg.
...	...	...	71	...	98	...	·117	...	4·8	...	1	...	...	1·64	...	...	5·21	...	...	1·50	Kargil.
...	...	...	...	...	...	...	...	...	...	...	6	5·7	+0·3	3·13	2·72	+0·41	7·63	6·25	+1·38	1·35	Astor.

* Rainfall for December, 1912, wanting. † Mean of 30 days.

Table

Abstract of observations taken at 8 hrs.

Station.	Temperature of air.													Wind direction.										
														Number of winds from										
	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.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.
2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
Hill stations, exclusive of Kashmir.																								
Panighatta	64·7	79·1	...	57·8	...	68·5	...	21·3	92·5	30th	51·2	7th	41·3	...	...	...	...	...	...	...	...	...	...	...
Kurseong	56·4	63·3	...	50·5	...	56·9	...	12·8	74·3	28th	40·4	6th	33·9	...	...	...	...	...	...	...	...	...	...	...
Gnatong	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lachung	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ringim	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Poo	...	49·7	...	31·7	...	40·7	...	18·0	60·5	31st	26·8	20th	33·7	7	2	...	7	4	3	...	6	2	S 45° E	...
Kailang	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bakloh	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pishin	...	58·9	...	34·0	...	46·5	...	24·9	75·5	31st	24·0	20th	51·5	...	...	...	...	...	...	...	...	...	...	...
Extra India.																								
Ahwaz	...	70·6	...	55·1	...	62·9	...	15·5	82·6	28th & 29th.	43·8	16th	38·8	...	...	...	...	...	...	...	...	...	...	...
Chumbi*	31·3	49·9	...	25·7	...	37·8	...	24·2	62·8	28th	13·7	15th	49·1	...	...	...	...	...	...	...	...	...	...	...
Kirmanshah	39·3	53·8	...	29·3	...	41·6	...	24·5	67·2	28th	15·2	17th	52·0	...	...	...	...	...	...	...	...	...	...	...
Koweit	...	70·6	...	54·6	...	62·6	...	16·0	83·1	27th	42·9	16th	40·2	2	1	...	6	...	1	...	20	1	N 86° W	...
Maidan	...	70·3	...	50·5	...	60·4	...	19·8	82·7	29th	38·7	16th	44·0	...	...	...	...	...	...	...	...	...	...	...
Muhammerah	...	72·9	...	54·4	...	63·6	...	18·5	82·6	29th	42·8	18th	39·8	...	...	...	...	11	...	6	...	7	S 8° W†	...
Pemba	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Prison Island	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Seistan	...	67·2	...	42·6	...	54·9	...	24·6	100·0	31st	36·5	28th	63·5	...	10	3	3	...	4	2	...	9	N 13° W	...

* Mean of 14 days.
† 6 variable winds.

—concluded.

61 fourth and fifth class stations in India, etc., in March, 1913—concluded.

Wind velocity.			Wind steadiness.		Hygrometry, 8 hrs.				Cloud.		Rainfall.										
hour.	Normal.	Departure from normal.	Actual percentage.	Departure from normal.	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.	Mean cloud amount at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st December 1912 to 31st March 1913.	Normal rainfall of period, 1st Dec. to 31st March.	Departure from normal of period, 1st December 1912 to 31st March 1913.	Heaviest rainfall during month.	Station.
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
																					Hill stations, exclusive of Kashmir.
...	...	...	...	...	61	...	·366	...	...	...	5	3·5	+1·5	4·27	1·95	+2·32	7·52	3·51	+4·01	2·89	Panighatta.
...	...	...	...	...	79	...	·363	...	...	...	6	3·7	+2·3	7·94	2·35	+5·59	11·35	4·69	+6·66	6·03	Kurseong.
...	...	...	...	...	...	...	...	...	...	...	11	...	...	11·52	...	...	19·43	...	...	2·80	Gnatong.
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Lachung.
...	...	...	...	...	...	...	...	...	...	...	11	...	...	5·48	...	...	14·51	...	...	1·12	Ringim.
...	...	...	10	...	...	...	...	...	5·3	...	4	6·5	—2·5	1·07	3·49	—2·42	4·55	8·58	—4·03	0·26	Poo.
...	...	...	...	...	...	...	...	...	...	...	7	7·1	—0·1	2·43	3·84	—1·41	7·19	10·51	—3·32	0·54	Kailang.
...	...	...	...	...	...	...	...	...	...	...	5	...	...	3·04	...	...	‡[illegible]·98	...	...	1·40	Bakloh.
...	...	...	...	...	...	...	...	...	1·6	...	4	5·1	—1·1	2·44	2·17	+0·27	11·82	6·79	+5·03	1·44	Pishin.
																					Extra India.
...	...	...	...	...	...	...	...	...	2·2	...	1	...	...	0·34	...	...	7·28	...	...	0·21	Ahwaz.
...	...	...	...	...	74*	...	·154*	...	...	...	5	...	...	†2·53	...	...	4·47	...	...	0·87	Chumbi.
...	...	...	...	...	70	...	·167	...	...	...	2	...	...	†0·44	...	...	15·23	...	...	0·25	Kirmanshah.
...	...	...	48	...	...	...	...	...	2·4	...	0	...	...	0·15	...	...	2·82	...	...	0·08	Koweit.
...	...	...	...	...	...	...	...	...	...	...	3	...	...	1·52	...	...	12·73 (d)	...	...	0·97	Maidan.
...	...	...	23	...	...	...	...	...	...	...	3	...	...	1·05	...	...	4·25	...	...	0·50	Muhammerah.
...	...	...	...	...	...	...	...	...	...	...	15	7·3	+7·7	13·15	5·44	+7·71	34·89	17·49	+17·40	2·09	Pemba.
...	...	...	...	...	...	...	...	...	...	...	...	6·7	...	...	5·77	...	...	15·43	...	...	Prison Island.
6·2§	...	...	42	...	...	...	...	...	...	...	1	...	...	0·10	...	...	2·31	...	...	0·10	Seistan.

* Mean of 5 days. † Snow and rain water. † Rainfall for December, 1912, wanting. (d) Rainfall for January, 1913, wanting. § Mean of 29 days.

The lines of the above chart represent isobars or lines of equal barometric pressure, the numbers attached indicating the barometric pressure in inches and being drawn for differences of pressure of ·05 inch. The isobars in the Bay of Bengal are filled in by means of the shore observations, and by comparison with the normal distribution of pressure.

The mean 8 hrs. wind directions of the month are shewn by means of arrows flying with the wind, and are calculated by means of Lambert's formula applied to the winds as given in Table B of the 8 hrs. observations. The mean wind directions for the hill stations are indicated by broken arrows to distinguish them from the wind arrows for the plain stations. The mean velocity of the winds during the month is shewn by the following notation:—

Velocity of	0 to 2 miles per hour	...	one feather	added to the wind arrow.
,, ,,	2 to 5 ,, ,, ,,	...	two feathers	,, ,, ,, ,,
,, ,,	5 to 10 ,, ,, ,,	...	three ,,	,, ,, ,, ,,
,, ,,	10 to 20 ,, ,, ,,	...	four ,,	,, ,, ,, ,,
	over 20 ,, ,, ,,	...	five ,,	,, ,, ,, ,,

Wind strengths are based on factor 2·2 for the standard type of Beckley Robinson anemograph, instead of 3·0 as used for this plate up to December 1911 inclusive.

The lines of the above chart represent isobars or lines of equal barometric pressure, the numbers attached indicating the barometric pressure in inches and being drawn for differences of pressure of ·05 inch. The isobars in the Bay of Bengal are filled in by means of the shore observations, and by comparison with the normal distribution of pressure.

The mean 8 hrs. wind directions of the month are shewn by means of arrows flying with the wind, and are calculated by means of Lambert's formula applied to the winds as given in Table B of the 8 hrs. observations. The mean wind directions for the hill stations are indicated by broken arrows to distinguish them from the wind arrows for the plain stations. The mean velocity of the winds during the month is shewn by the following notation:—

Velocity of	0 to 2 miles per hour	...	one feather added to the wind arrow.
,, ,,	2 to 5 ,, ,, ,,	...	two feathers ,, ,, ,, ,,
,, ,,	5 to 10 ,, ,, ,,	...	three ,, ,, ,, ,, ,,
,, ,,	10 to 20 ,, ,, ,,	...	four ,, ,, ,, ,, ,,
	over 20 ,, ,, ,,	...	five ,, ,, ,, ,, ,,

Wind strengths are based on factor 2·2 for the standard type of Beckley Robinson anemograph, instead of 3·0 as used for this plate up to December 1911 inclusive.

The chart shows the departure from normal of the mean during the month of 8 hrs. pressure by means of lines drawn for equal amounts of departure. The numbers are given in thousandths of an inch, 20 representing ·020″ or two hundredths of an inch, &c. Continuous lines indicate that the pressure was in excess by amounts indicated by the numbers attached to the lines, and broken or dotted lines that it was in defect by amounts indicated by the numbers attached to the lines. Two parallel lines near to each other, one continuous and the other broken or dotted, represent the line of no departure, the dotted line facing the area of deficient pressure or negative departures.

CHART SHEWING THE DEPARTURE FROM NORMAL
OF THE MONTHLY MEAN OF DAILY
MAXIMUM TEMPERATURE.

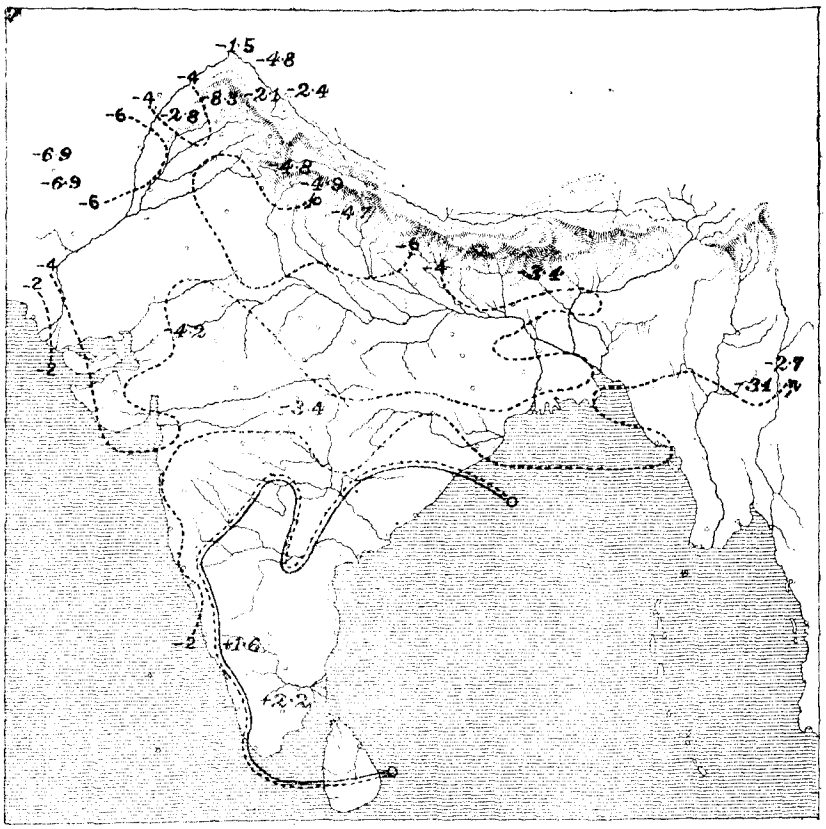


CHART SHEWING THE DEPARTURE FROM NORMAL
OF THE MONTHLY MEAN OF DAILY
MINIMUM TEMPERATURE.

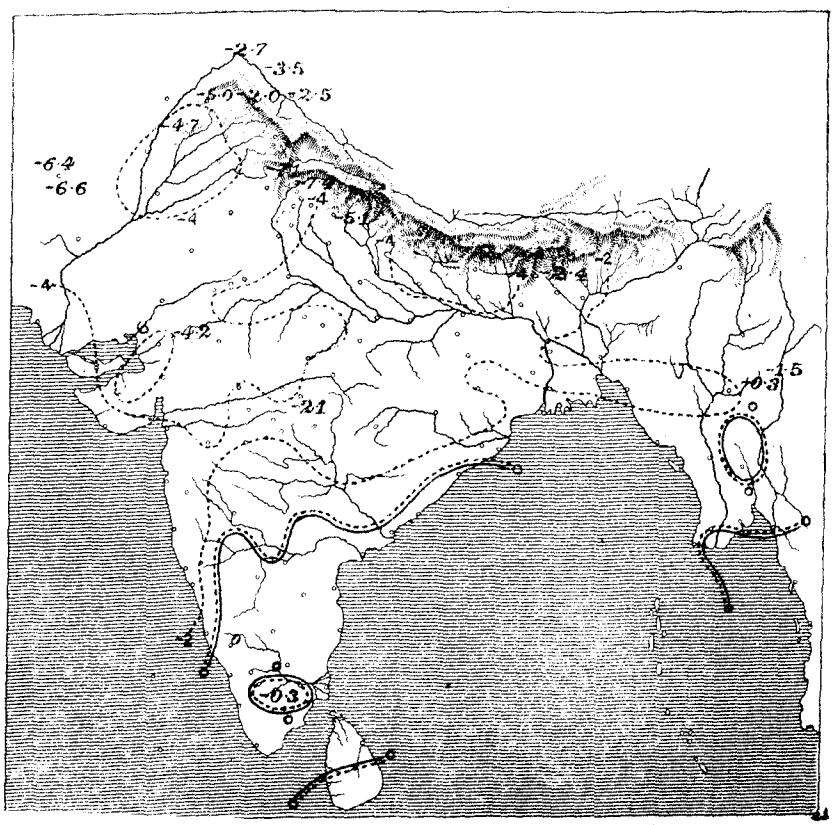


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MEAN TEMPERATURE.

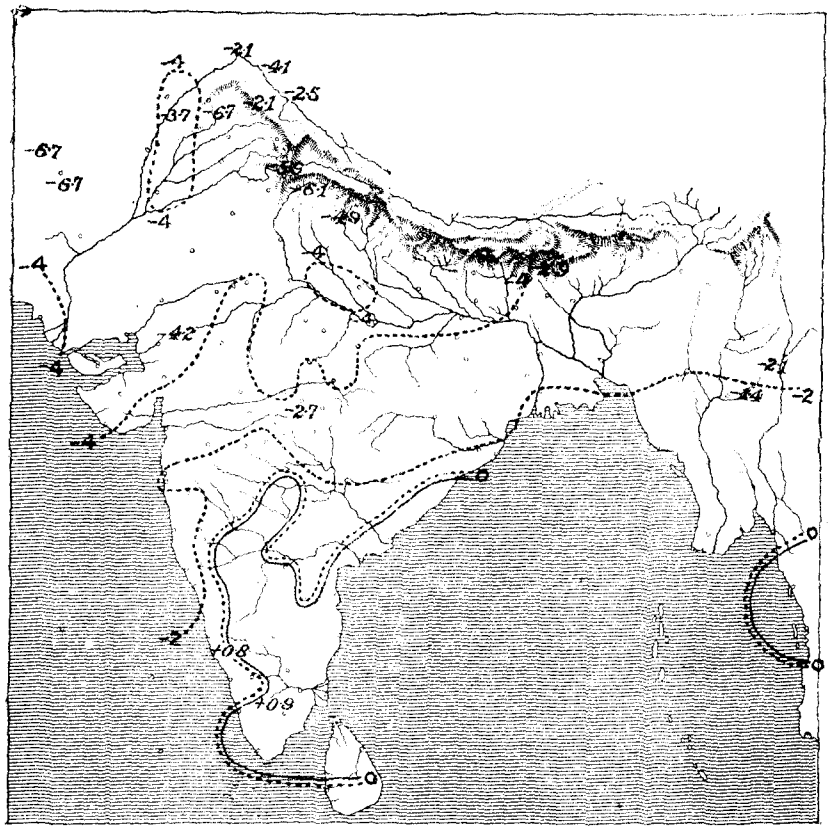
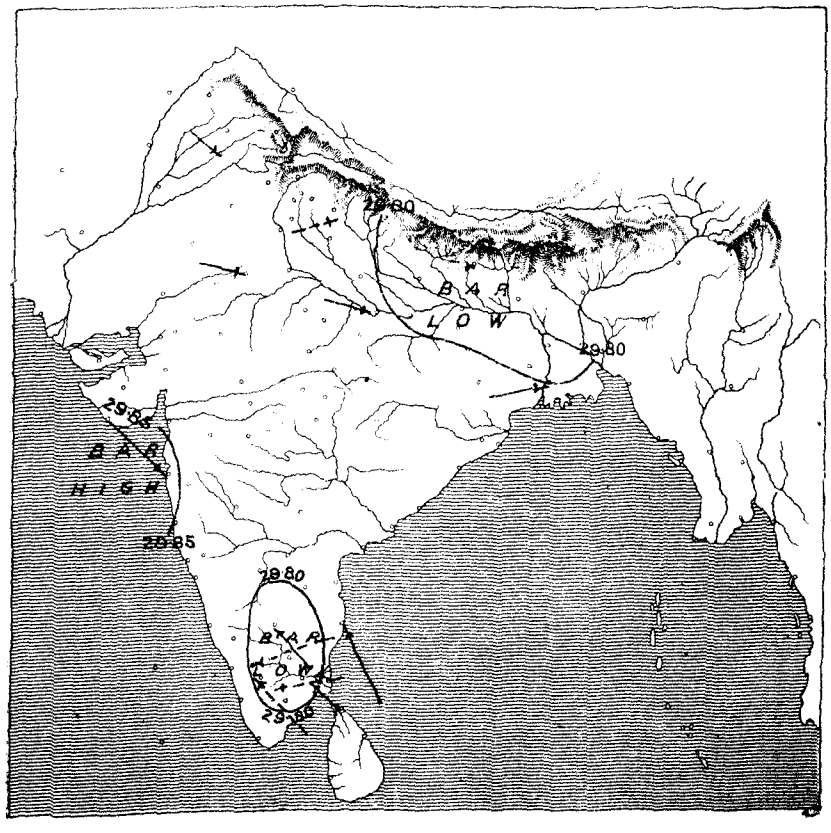


CHART SHEWING THE MONTHLY MEAN OF PRESSURE AND RESULTANT WIND DIRECTION.



LITHO. BY G.B.M.

CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF ABSOLUTE HUMIDITY AT 8 HRS.

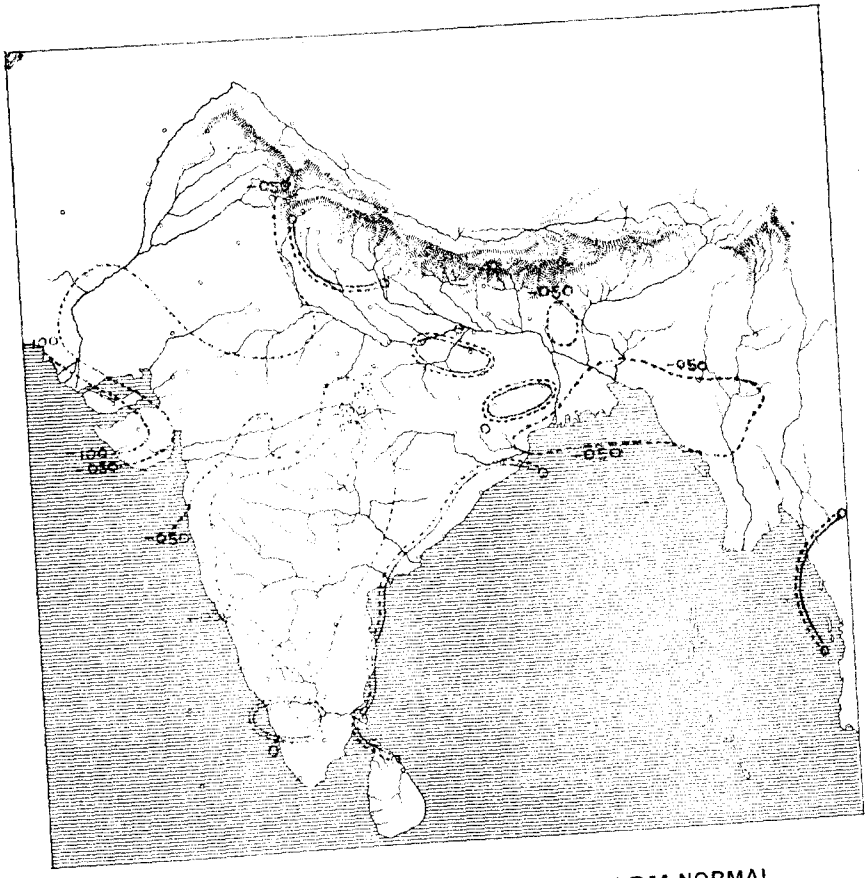


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF RELATIVE HUMIDITY AT 8 HRS.

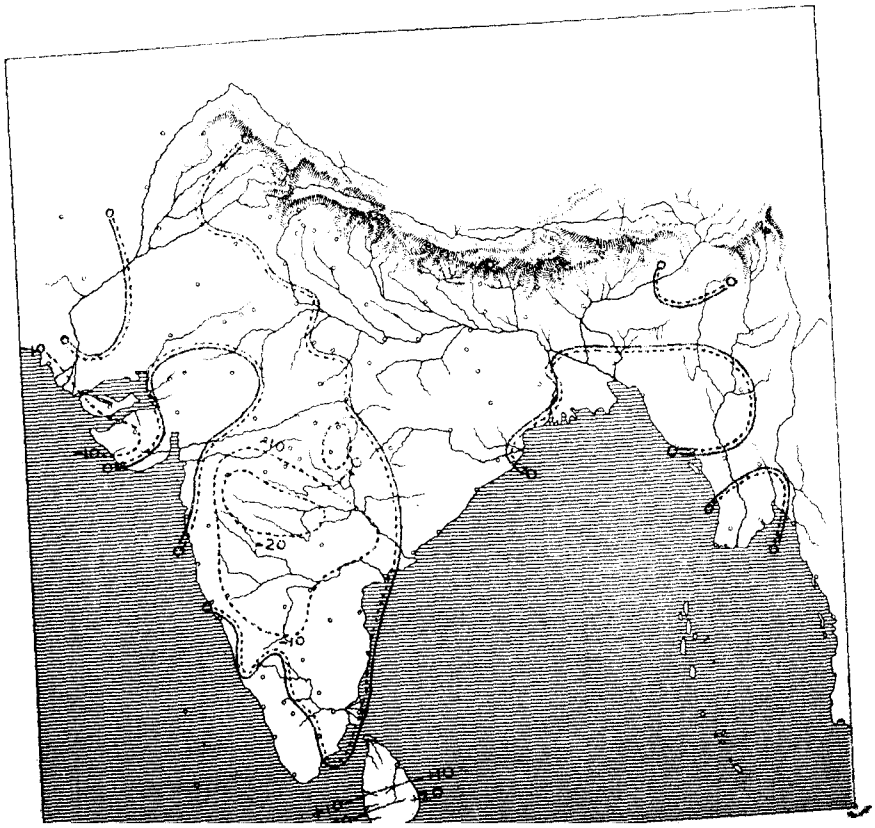


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF CLOUD AMOUNT AT 8 HRS.

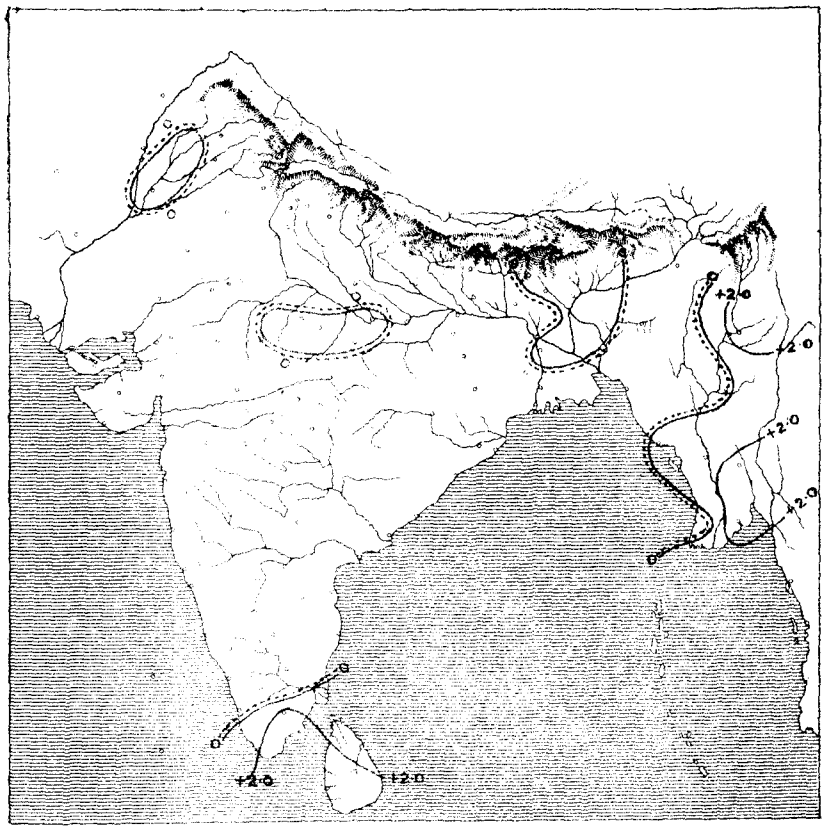
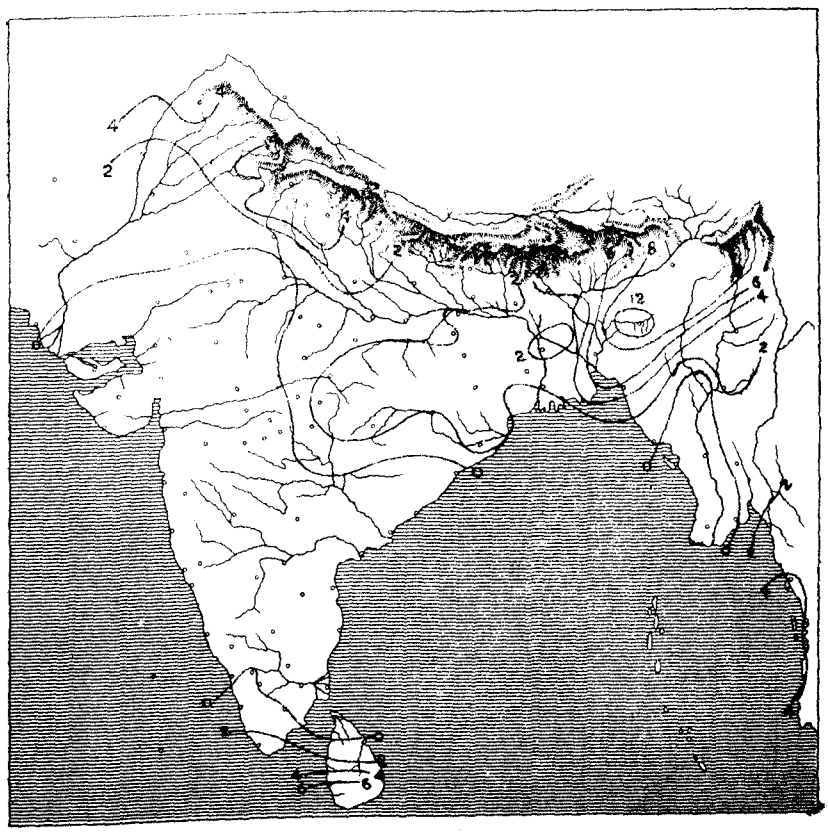
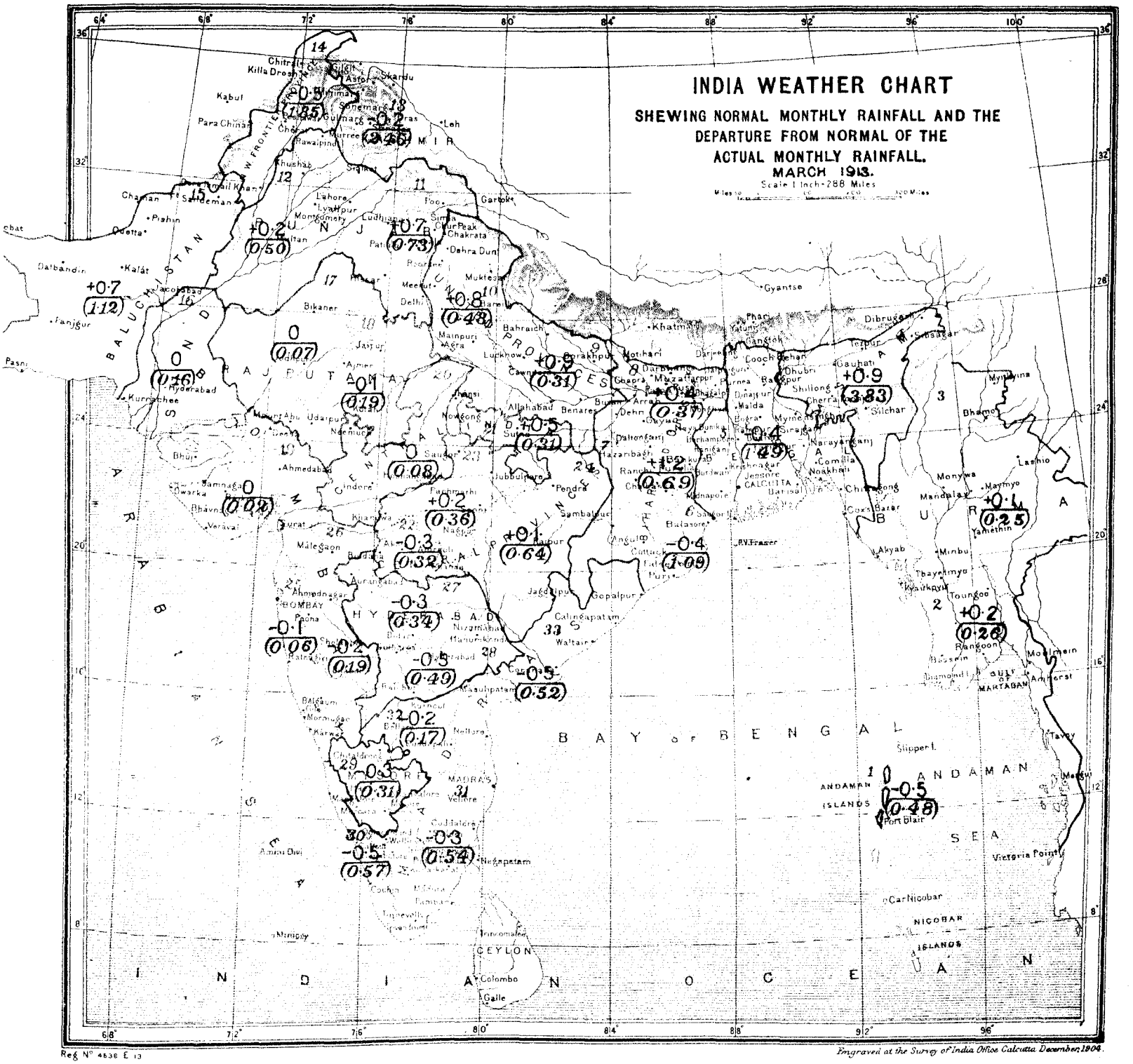


CHART SHEWING THE TOTAL NUMBER OF DAYS IN THE MONTH ON WHICH RAINFALL EQUALLED OR EXCEEDED 0·10 INCH.

(BASED ON THE RETURNS OF TABLE B.)





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
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

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GOVERNMENT OF INDIA.

METEOROLOGICAL DEPARTMENT.

MONTHLY WEATHER REVIEW

PUBLISHED BY ORDER OF

THE GOVERNMENT OF INDIA.

CALCUTTA, APRIL, 1913.

INTRODUCTION.

THIS review of the weather in India during the month of April, 1913, is based on observations taken daily at 8 hrs. at 218 stations, and on additional observations taken at 10 hrs. and 16 hrs. at 16 stations. In the rainfall summary have been utilized the data furnished by the meteorological observatories, and such rainfall statements of the month as had been published by the Provincial Governments up to the date of the preparation of the review. The brief notes on solar, seismic and magnetic disturbances are supplied by the chief observatories in the Indian area.

For a statement of the methods adopted in recording and tabulating the data for each of the elements of observation, reference should be made to the introductory portion of the review for January.

Summary of the chief features of the weather in India during the month.

2. The month was remarkably dry. Several disturbances of the cold weather type affected north-west India, but the associated precipitation was in general light and occurred chiefly in Kashmir and the North-West Frontier Province. In north-east India the influx of damp air from the Bay was on the whole stronger than usual, but was directed largely to Assam. In Burma and the Peninsula the usual thunder-storms were comparatively rare, and practically none occurred in Lower Burma and the Bay Islands.

The month's total rainfall was above the normal in Assam, Kashmir and Hyderabad North, and was in defect over the rest of the country. The defect exceeded half an inch in Madras, Mysore, the North-West Frontier Province, Bihar and Orissa, Bengal, Burma and the Bay Islands, and was greatest in the last named area where it averaged 4·2″ or 99 per cent.

Of the climatic elements other than rainfall, humidity was appreciably low in the United Provinces, the Punjab, the North-West Frontier Province, Rajputana, the Central Provinces and Hyderabad, while the quantity of cloud was in marked defect in Rajputana, Hyderabad, Mysore, Orissa and lower Bengal, and above the average in Kashmir and Gujarat. The monthly values of mean temperature differed to no important extent from the normal.

Very high day temperatures were recorded over the greater part of Bengal and Bihar during the last fourteen days of the month.

The barometer over India stood ·028″ lower than is ordinarily the case in April.

Solar, seismic and magnetic disturbances.

KODAIKANAL OBSERVATORY.

3. *Solar observations.*—Observations of the sun were made on all the days during the month except on the 17th.

Sunspots.—Only one small group was observed for the whole month and was visible from the 5th to 7th. Its heliographic position was latitude—2° south and longitude 219°.

Prominences.—Sixty-two large and twenty-two eruptive prominences were recorded. There was no metallic prominence observed. Four prominences were 2 minutes and over in height. The highest was 180″ and was recorded on the 25th at latitude —52° east.

Magnetic disturbances.—A "moderate" magnetic disturbance was recorded on the 9th and 10th of the month and is the fourth in a series of moderate disturbances that have occurred at intervals of a synodic rotation of the sun which began about December 23, 1912.

Seismic disturbances.

Apparatus :—Milne horizontal pendulum.

TABLE 1.

No.	Date.	Phase.	Time, G. M. T.	Period (secs.)	Amplitude (u). An.	Ae.	Az.	Distance. Δ (Km.)	Remarks.
	1913.		h. m. s.						
19	Apl. 7	e P	14 27 2						Widening of line.
		F	14 58 7						
20	„ 9	e P	18 20 3						Ditto.
		F	19 19 7						
21	„ 13	e P	7 02 0						
		e L	7 12 8						
		M	7 22 3			·005			
		F	7 59 7						
22	„ 18	e P	13 39 2						
		i L	13 43 1						
		M	13 43 6			·002			
		F	14 00 5						
23	„ 18	e P	19 10 7						
		i L	19 28 0						
		M	19 35 1			·009			
		F	20 09 2						
24	„ 24	e P	10 23 1						
		i L	10 41 2						
		M	10 50 6			·011			
		F	11 40 2						
25		i P	12 35 4						
		e L	12 46 0						
		M	12 51 1			·004			
		F	13 26 4						
26	„ 25	i P	18 06 7						
		i L	18 14 8						
		M	18 30 0			·030			
		F	21 38 7						
27	„ 26	e P	4 17 8						
		e L	4 31 3						
		M	4 52 9			·007			
		F	5 37 1						
28	„ 30	e P	11 58 7						Hour signal at 12h. 39·0 m.
		i L	12 30 0						
		M	12 34 6			·005			
		F	13 24 9						

J. EVERSHED,
Director,
Kodaikanal and Madras Observatories.

BOMBAY OBSERVATORY.

Alibag magnetic record.

During the month of April 1913 the traces showed 11 calm days, 18 days of small and one day of moderate disturbance.

The days of the month selected as "quiet" for the purposes of the Magnetic Survey of India are the 6th, 8th, 19th, 21st and 26th.

The following table represents the magnetic character of each day during the month.

TABLE 2.

Day.	Character.	Day.	Character.	Day.	Character.	Day.	Character.
1	S	9	M	17	S	25	S
2	S	10	S	18	S	26	C
3	S	11	S	19	C	27	S
4	S	12	S	20	C	28	S
5	C	13	S	21	C	29	C
6	C	14	S	22	C	30	C
7	S	15	S	23	S		
8	C	16	S	24	C		

C=calm ; S=small ; M=moderate ; G=great ; V. G.=very great.

The mean observed absolute values of the several magnetic elements reduced to the mean monthly tabulations of the magnetograms as also the ranges and the summed ranges of the horizontal force and declination for the month are as follows :—

Easterly declination . . .	0° 48′ 29″
Horizontal force . . .	0·36872 C. G. S. unit.
Vertical force	0·16456 C. G. S. unit.
Inclination	24° 3′·1.
Inclination (observed) . . .	24° 1′·0.
Horizontal force range . .	0·00042 C. G. S. unit.
Horizontal force summed range .	0·00262 C. G. S. unit.
Declination range . . .	3′·4.
Declination summed range . .	12′·8.

(NOTE.—Summed range means sum without regard to sign of the 24 ordinates of the diurnal inequality.)

Seismic disturbances.

Instrument.—Milne's Horizontal Pendulum Seismograph (E-W).

TABLE 3.

Date.	Phase.	Time G. M. T.	Period (Sec.)	Amplitude unity = ·001 mm.	Distance Δ (Km.)	Remarks.
1913.		H. M. S.				
April 2 .	.	2 10				Thickening.
		4 6 to				
		4 10				

Date.	Phase.	Time G. M. T.	Period (Sec.)	Amplitude unity = 100 mm.	Distance Δ (Km.)	REMARKS.
1913.		H. M. S.				
April 2 .		6 19				Thickening.
,, 3 .		4 15				,,
		14 46				,,
		20 4				,,
		22 17				,,
,, 4 .		17 5				,,
,, 5 .		18 3				,,
		19 4				,,
,, 7 .	P	14 1 56				
	F	15 9 5				
	M	14 30 58		44		
,, 9 .		4 24				Thickening.
		14 51 to				,,
		14 55				
,, 9 .	P	18 18 12				
	F	19 29 25				
	M	18 53 55		44		
,, 10 .		8 7				Thickening.
,, 11 .		9 2				,,
,, 12 .		6 16				,,
		6 22				,,
		6 29				,,
,, 13 .		3 20				,,
		4 47 to				,,
		4 51				
	P	6 53 13				
	F	7 50 48				
	M	7 19 50		167		
		9 52				Thickening.
		10 45				
,, 14 .	P	8 4 46				
	F	8 35 1				
	M	8 19 47		22		
,, 15 .		11 6				Thickening.
		13 1				,,
,, 16 .		9 14				,,
		11 4				,,
,, 17 .		10 17				,,
		14 40				,,
,, 18 .	P	13 37 23				
	F	13 59 56				
	M	13 46 30		44		

Date.	Phase.	Time G. M. T.	Period (Sec.)	Amplitude unity = 100 mm.	Distance Δ (Km.).	REMARKS.
1913.		h. m. s.				
April 18 .	P	19 11 15				
	F	20 20 20				
	M	19 36 28		122		
,, 20 .		6 3				Thickening.
		12 7				,,
,, 21 .		11 0				,,
,, 23 .		11 40				
,, 24 .	P	10 24 2				
	F	11 39 33				
	M	10 51 21		67		
	P	12 31 41				
	F	13 15 50				
	M	12 51 38		22		
,, 25 .		11 43				Thickening.
		13 1				,,
	P	18 6 2				
	F	Mixed in tremors				
	M	18 34 4		333		
,, 26 .	P	4 27 8				
	F	5 17 33				
	M	4 55 59		33		
		7 1				Thickening.
,, 28 .	P	3 49 31				
	F	4 12 45				
	M	4 4 3		11		
		17 58				Thickening.
	P	18 55 17				
	F	19 38 51				
	M	19 13 38		22		
,, 29 .	P	3 28 14				
	F	4 5 14				
	M	3 42 27		11		
,, 30 .	P	11 59 53				
	F	13 35 39				
	M	12 32 51		78		

All times given above denote G. M. T. Sensibility to tilt 1 mm. of amplitude on the trace = 0″·34.

Only those thickenings which can be clearly distinguished are given.

Thickenings mixed up in tremors are omitted from the above list.

N. A. F. MOOS,
Director,
Bombay & Alibag Observatories.

CALCUTTA OBSERVATORY.

5. *List of displacements recorded by the Milne seismograph.*

TABLE 4.

Date. 1913.	P. T. commencement. G. M. T.	L. W. commencement. G. M. T.	Maximum. G. M. T.	End. G. M. T.	Duration.	Maximum displacement on trace from mean position.	REMARKS.
	h. m.	h. m.	h. m.	h. m.	h. m.	mm.	
April 7th	14 2·6	14 15·8	14 18·9	14 38·9	0 36·3	1·00	As the lamp was put out at 1 P.M. for time check, time of Max. and its amplitude cannot be given.
,, 13th	6 48·9	6 57·5	?	7 51·5	1 2·6	?	
April 14th	7 58·3	...	8 8·5	8 27·8	0 29·5	1·00	
,, 18th	19 7·7	19 18·4	19 30·6	20 25·5	1 17·8	2·50	
,, 24th	10 20·4	10 24·5	10 42·8	13 18·4	2 58·0	1·75	
,, 25th	18 4·2	18 6·2	18 22·4	21 46·4	3 42·2	5·50	
,, 26th	4 13·8	4 34·7	4 37·7	5 32·6	1 18·8	0·50	
,, 28th	18 48·9	18 56·0	19 7·2	19 36·7	0 47·8	0·50	
,, 30th	11 10·8	12 16·4	12 18·4	13 17·4	2 6·6	0·75	

Sensibility 1 mm. = 0″·38 of tilt.

E. P. HARRISON,
Meteorologist, Calcutta.

SIMLA OBSERVATORY.

6. The Simla seismograph notes for March 1913 will appear in the May 1913 review.

ROYAL ALFRED OBSERVATORY, MAURITIUS.

7. No information has been received.

Weather in the Indian monsoon region.

8. In the equatorial region pressure was normal, the air movement about the average in intensity but unusual in direction, and the rainfall in defect.

TABLE 5.

—	Mauritius.	Zanzibar.	Seychelles.
Departure from normal of mean pressure.	+·052	+·001	+·001
Actual mean wind direction .	S 63° E	S 25° W	S 48° W
Normal mean wind direction .	S 72° E	S 7° W	N 8° E
Actual mean wind velocity (miles per diem).	201	104	91
Normal mean wind velocity (miles per diem).	159	103	82
Rainfall departure from normal .	+0·08	−6·17	−2·39

Depressions and cyclonic storms.

9. During the month under review five disturbances appeared over north-west India. The precipitation due to them was restricted mainly to Kashmir and the North-West Frontier Province and occurred on the 4th, 8th to 10th, 17th and 18th, 20th to 22nd and 26th to 29th. Heavy snow is reported to have fallen in Ladak during the fourth period. The origin of these disturbances is rather obscure. The available evidence does not indicate the passage eastwards of any definite depression through the Perso-Baluchistan region. But although it is not possible to say where the disturbed conditions were generated the fact that their influence extended northwards into Tibet and westwards into Persia establishes clearly that they were of the class of cold weather storms and not of the heat depressions which are usually formed over the Western Desert in the hot weather season.

Pressure.

10. Except at one or two stations in the Peninsula barometric pressure was below the normal everywhere. The defect was largest in north-east India (about ·05″), and it was only somewhat less in the Indus valley. In northern and central India the reduction in the density of the atmosphere was more marked in the plains than at the level of the hill stations, while the opposite was the case in southern India.

TABLE 6.

DIVISION.	Departure from normal of mean 8 hrs. pressure.
	″
Burma	—·017
Assam	—·049
Bengal	—·049
Bihar and Orissa	—·044
United Provinces	—·040
Punjab	—·031
North-West Frontier Province	—·047
Sind	—·039
Rajputana	—·037
Bombay	—·015
Central India	—·024
Central Provinces	—·024
Hyderabad	—·016
Mysore	—·006
Madras	—·013

TABLE 7.

HILL STATION.	Departure from normal pressure. A	PLAIN STATION.	Departure from normal pressure. B	Departure of pressure difference. B—A.
	″		″	″
Quetta	—·013	Jacobabad	—·063	—·050
Leh	—·038	Lahore	—·030	+·008
Murree	—·017	Peshawar	—·046	—·029
Simla	+·004	Ludhiana	—·025	—·029
Chakrata	—·012	Roorkee	—·027	—·015
Darjiling	—·059	Dhubri	—·064	—·005
Mount Abu	—·009	Deesa	—·016	—·007
Pachmarhi	—·012	Khandwa	—·021	—·009
Kodaikanal	—·015	Madura	+·004	+·019

Temperature.

11. Day temperature was in defect by 5° in upper Assam and 3°½ in Kashmir, and in excess by 3° in Hyderabad North, but in the rest of the country the departures from the normal were feebly marked, being less than 2° in amount at the great majority of stations. Night temperature was within 2° of the average in all the larger provinces as well as in Kashmir.

An important feature of the temperature condition was the prevalence of very high day temperature over the greater part of Bengal and Bihar during the last fourteen days of the month; unprecedentedly high maxima being recorded at Monghyr, Darbhanga and Pusa.

TABLE 8.

SUB-DIVISION.	ACTUAL TEMPERATURE.					DEPARTURE FROM NORMAL OF		
	Mean maximum.	Mean minimum.	Monthly mean of mean between maximum and minimum.	Mean daily range of temperature.	Absolute range during month.	Maximum.	Minimum.	Daily range.
	°	°	°	°	°	°	°	°
1. Bay Islands	90·8	79·3	85·1	11·5	16·9	—0·6	—0·1	—0·5
2. Lower Burma	94·7	75·7	85·2	19·0	27·2	+0·5	+0·2	+0·3
3. Upper Burma	100·0	73·0	86·5	27·0	40·8	+1·0	+0·6	+0·4
4. Assam	82·8	67·9	75·3	14·9	29·3	—3·1	0	—3·1
5. Bengal	95·2	75·4	85·3	19·8	33·9	+1·1	+1·6	—0·5
6. Orissa	100·0	77·1	88·5	22·8	35·9	+1·2	+0·9	+0·3
7. Chota Nagpur	102·8	75·5	89·2	27·3	44·8	+1·6	+1·4	+0·2
8. Bihar	102·1	73·8	87·9	28·3	45·3	+2·3	+1·2	+1·1
9. United Provinces, East	103·8	71·8	87·8	32·0	51·3	+1·9	+0·2	+1·7

Sub-division.	Actual temperature.					Departure from normal of		
	Mean maximum.	Mean minimum.	Monthly mean of mean between maximum and minimum.	Mean daily range of temperature.	Absolute range during month.	Maximum.	Minimum.	Daily range.
	°	°	°	°	°	°	°	°
10. United Provinces, West	101·7	70·9	86·3	30·8	48·7	+0·3	—0·4	+0·7
11. Punjab, East and North	96·7	67·2	81·9	29·5	45·5	0	+0·5	—0·5
12. Do., South-west	98·1	69·2	83·7	28·9	45·4	0	+1·0	—1·0
13. Kashmir	61·1	39·9	50·5	21·2	37·3	—3·5	—1·1	—2·4
14. North-West Frontier Province	91·3	63·3	77·3	27·9	45·1	+0·5	—0·1	+0·6
15. Baluchistan	83·0	55·8	69·4	27·1	43·5	—0·5	—3·1	+2·6
16. Sind	98·3	73·7	86·0	24·6	36·8	+0·9	+1·9	—1·0
17. Rajputana, West	103·3	74·3	88·7	28·9	42·6	+2·0	0	+2·0
18. Do., East	102·8	75·9	89·4	26·9	42·0	+1·9	+1·3	+0·6
19. Gujarat	98·0	71·8	84·9	26·2	40·2	0	—0·7	+0·7
20. Central India, West	101·9	72·5	87·2	29·3	46·7	+1·1	+2·0	—0·9
21. Do., East	103·1	71·5	87·3	31·5	50·5	+0·5	+0·1	+0·4
22. Berar	105·9	78·5	92·2	27·4	44·3	+2·3	+2·9	—0·6
23. Central Provinces, West	104·5	75·1	89·8	29·5	46·2	+1·4	+1·3	+0·1
24. Do., East	103·9	76·3	90·1	27·6	44·5	+1·1	+1·9	—0·8
25. Konkan	88·9	77·5	83·1	11·4	20·5	—0·8	—0·8	0
26. Bombay Deccan	103·1	71·9	87·5	31·2	44·3	+1·9	0	+1·9
27. Hyderabad, North	104·8	76·2	90·5	28·5	40·5	+2·8	+1·2	+1·6
28. Do., South	104·4	78·1	91·3	26·3	35·3	+2·2	+1·3	+0·9
29. Mysore	95·6	70·3	82·9	25·3	32·7	+2·1	+0·9	+1·2
30. Malabar	90·9	79·5	85·2	11·4	18·4	+0·2	+2·1	—1·9
31. Madras, South-east	98·0	78·1	88·0	19·9	28·5	+1·4	+1·3	+0·1
32. Do., Deccan	105·5	79·8	92·7	25·7	36·8	+1·5	+1·2	+0·3
33. Do. Coast, North	93·7	78·2	86·0	15·5	23·6	+0·1	+0·2	—0·1

TABLE 9.

Division.	Departure from normal of		
	Mean maximum temperature.	Mean minimum temperature.	Mean temperature.
	°	°	°
Burma	+0·7	+0·4	+0·5
Assam	—3·1	0	—1·5
Bengal	+1·1	+1·6	+1·3
Bihar and Orissa	+1·8	+1·2	+1·5
United Provinces	+1·2	—0·1	+0·6
Punjab	0	+0·6	+0·3
North-West Frontier Province	+0·5	—0·1	+0·2

Division.	Departure from normal of		
	Mean maximum temperature.	Mean minimum temperature.	Mean temperature.
	°	°	°
Sind	+0·9	+1·9	+1·4
Rajputana	+2·0	+0·6	+1·3
Bombay	+0·4	—0·5	—0·1
Central India	+0·8	+1·0	+0·9
Central Provinces	+1·6	+1·8	+1·7
Hyderabad	+2·4	+1·3	+1·8
Mysore	+2·1	+0·9	+1·5
Madras	+0·9	+1·2	+1·1

Winds.

12. (*a*) Except in Burma, the North-West Frontier Province, Sind, Bombay and Hyderabad where the wind velocity was low, and in Bihar and Orissa, Rajputana and Mysore where it was high the rate of air movement did not depart to any extent from the normal.

The departures indicate that the indraught into the interior across the Burma and Bombay coasts was not so strong as usual in April.

(*b*) Winds were remarkably steady throughout the country excluding Burma, north-east India, the North-West Frontier Province and Bombay.

(*c*) The prevailing direction of air motion at Darjiling was north-west as compared with south-east, the normal for the month; this would indicate the existence of a dry air current at that elevation. Elsewhere the deviations from the normal direction were of no great significance.

TABLE 10.

Division.	Departure from normal of	
	Hourly wind velocity.	Wind steadiness.
Burma	−0·9	−4
Assam	+0·2	−1
Bengal	−0·1	+10
Bihar and Orissa	+1·1	+5
United Provinces	0	+16
Punjab	+0·1	+10
North-West Frontier Province	−0·7	−5
Sind	−0·5	+8
Rajputana	+1·1	+18
Bombay	−0·8	+3
Central India	−0·6	+11
Central Provinces	+0·2	+23
Hyderabad	−1·1	+11
Mysore	+0·6	+23
Madras	+0·3	+16

Humidity and cloud.

13. Both humidity and vapour tension were appreciably in excess in Sind, and in defect in the United Provinces, the Punjab, the North-West Frontier Province, Rajputana, the Central Provinces and Hyderabad, but over the rest of the country the hygrometric conditions were nearly normal.

Skies were covered to more than the customary extent in Kashmir, the Punjab, the North-West Frontier Province, Baluchistan, lower Sind, Gujarat, the Konkan and in a few places elsewhere, and were clearer than usual generally in Burma, deltaic Bengal, Orissa, Bihar, the eastern half of the United Provinces, Rajputana, Hyderabad, Mysore and the Carnatic.

TABLE 11.

Division.	Hygrometry, 8 hrs.				Cloud.	
	Mean humidity.	Departure from normal.	Mean vapour tension in inches of mercury.	Departure from normal in inches of mercury.	Mean cloud amount at 8 hrs.	Departure from normal.
	%					
Burma	70	−4	·735	−·039	2·8	−0·6
Assam	87	+2	·674	−·005	5·8	+0·1
Bengal	79	+1	·831	+·023	3·9	−0·3
Bihar and Orissa	54	−4	·605	−·016	1·5	−0·9
United Provinces	35	−6	·402	−·067	0·9	−0·5
Punjab	38	−7	·360	−·066	2·5	+0·4
North-West Frontier Province.	53	−5	·413	−·065	3·5	+0·7
Sind	62	+6	·652	+·077	2·2	+0·3
Rajputana	28	−3	·334	−·064	1·4	−0·8
Bombay	61	+3	·640	+·012	2·4	+0·3
Central India	34	−1	·395	−·003	1·4	+0·1
Central Provinces	29	−10	·361	−·102	1·6	−0·3
Hyderabad	44	−8	·548	−·030	1·6	−1·4
Mysore	73	+2	·658	+·013	3·0	−0·8
Madras	73	0	·860	+·011	3·3	−0·5

Rainfall.

14. Precipitation was either wanting or lighter than usual in all parts of the Indian region except in Assam, Kashmir and Hyderabad North where the recorded quantities were 41, 45 and 33 per cent. in excess of the respective normal amounts. The defect averaged three-quarters of an inch in Madras, Mysore, Bihar and Orissa and the North-West Frontier Province, and was more than an inch in Bengal (1·4″ or 47 per cent.), Burma (1·3″ or 89 per cent.) and the Bay Islands (4·2″ or 99 per cent.).

TABLE 12.

Sub-division.	Number of rainy days.		Rainfall.			
	Actual.	Normal.	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
			″	″	″	
1. Bay Islands	0·5	4·5	0·05	4·27	—4·22	— 99
2. Lower Burma	0	2·6	0·02	1·89	—1·87	— 99
3. Upper do.	0·9	2·2	0·31	1·13	—0·82	— 73
4. Assam	14·6	12·0	13·21	9·35	+3·85	+ 41
5. Bengal	2·3	4·2	1·60	3·02	—1·42	— 47
6. Orissa	0·7	2·1	0·28	1·22	—0·94	— 77
7. Chota Nagpur	0·1	1·8	0·04	0·90	—0·86	— 96
8. Bihar	0·1	1·1	0·05	0·59	—0·54	— 92
9. United Provinces, East	0·1	0·4	0·02	0·14	—0·12	— 86
10. Do., West	0·2	0·6	0·07	0·23	—0·16	— 70
11. Punjab, East and North	0·3	1·0	0·07	0·44	—0·37	— 84
12. Punjab, South-west	0·4	0·9	0·13	0·37	—0·24	— 65
13. Kashmir	7·2	4·4	3·40	2·35	+1·05	+ 45
14. North-West Frontier Province	1·9	2·6	0·62	1·32	—0·70	— 53
15. Baluchistan	0·2	1·2	0·08	0·48	—0·40	— 83
16. Sind	0	0·3	0	0·13	—0·13	—100
17. Rajputana, West	0	0·2	0	0·06	—0·06	—100
18. Do., East	0·1	0·3	0·02	0·11	—0·09	— 82
19. Gujarat	0	0·1	0	0·02	—0·02	—100
20. Central India, West	0	0·1	0	0·05	—0·05	—100
21. Do., East	0	0·3	0	0·12	—0·12	—100
22. Berar	0·1	0·6	0·06	0·24	—0·18	— 75
23. Central Provinces, West	0	0·6	0·01	0·22	—0·21	— 95
24. Do., East	0·2	1·2	0·05	0·48	—0·43	— 90
25. Konkan	0·3	0·8	0·10	0·45	—0·35	— 78
26. Bombay, Deccan	1·1	1·6	0·52	0·78	—0·26	— 33
27. Hyderabad, North	1·1	1·3	0·64	0·48	+0·16	+ 33
28. Do., South	0·9	1·6	0·19	0·67	—0·48	— 72
29. Mysore	1·7	2·9	0·77	1·64	—0·87	— 53
30. Malabar	2·5	4·3	1·21	2·90	—1·69	— 58
31. Madras, South-east	1·3	2·3	0·75	1·49	—0·74	— 50
32. Do., Deccan	0·6	1·5	0·30	0·69	—0·39	— 57
33. Do. Coast, North	0·5	1·6	0·31	0·96	—0·65	— 68

TABLE 13.

DIVISION.	RAINFALL.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"	
Burma	0·17	1·49	—1·32	— 89
Assam	13·21	9·35	+3·86	+ 41
Bengal	1·60	3·02	—1·42	— 47
Bihar and Orissa	0·10	0·79	—0·69	— 87
United Provinces	0·04	0·18	—0·14	— 78
Punjab	0·08	0·42	—0·34	— 81
North-West Frontier Province	0·62	1·32	—0·70	— 53
Sind	0	0·13	—0·13	—100
Rajputana	0·02	0·09	—0·07	— 78
Bombay	0·27	0·48	—0·21	— 44
Central India	0	0·07	—0·07	—100
Central Provinces	0·04	0·29	—0·25	— 86
Hyderabad	0·40	0·59	—0·19	— 32
Mysore	0·77	1·64	—0·87	— 53
Madras	0·61	1·37	—0·76	— 55
Mean of India	0·76	1·09	—0·33	— 30

Snowfall.

I.—AFGHANISTAN.

15—No snow fell in and around Kabul.

II.—NORTH-WEST FRONTIER PROVINCE.

Wano and Kohat.—No snow fell.

III.—KASHMIR.

On the mountains surrounding Srinagar moderate falls of snow occurred on the 18th, 19th, 22nd and 23rd, and a heavy fall on the 27th. At Skardu rainfall was of very frequent occurrence, but there was only one light fall of snow. At the end of the month there was no snow lying in the grounds of the observatory. In Kargil and the neighbouring mountains severe snowstorms occurred on the 11th, 18th, 22nd and 27th, and on the last day of the month the unmelted residue of snow accumulations on the three mountains adjoining Kargil was estimated at about 8 feet. In Dras the total snowfall during the month amounted to a little over 8 feet. At the close of the month about 3½ feet of snow still remained unmelted in the grounds of the Dras observatory and 10½ feet on the Zojila. Heavy snow fell in Ladak during the fourth week.

IV.—PUNJAB.

(*a*) *Murree.*—No snow fell at Murree and on the hills adjacent to Kahuta.

(*b*) *Kilba* (Simla Hills).—There were altogether twelve falls. The total fall at the level of 8,000 to 10,000 feet was a little over 2 feet. At the end of the month, unmelted portion of the accumulations at levels between 12,000 and 15,000 feet was estimated at 4 feet and all the passes remained closed.

V.—UNITED PROVINCES.

Almora.—The total snowfall of the month was reported as amounting to 8 feet in Malla Darma, 4½ feet in Chaudas, 3½ feet in Byans and 2½ feet in Malla Johar and Malla Danpur. In some parts of the district the snowline came down to 6 or 7 miles from the perpetual snows.

TABLE 14.

Name of pass or peak.	DEPTH OF ACCUMULATION AT THE END OF THE MONTH.		
	Reported.		Normal.
	Feet.	Inches.	Feet.
Nuwe pass	31	0	17
Milamdhura	0	6	6
Pindari peak	2	4	2
Kaphini "	2	4	2
Kantela "	2	4	2
Lipulekh pass	8	0	10
Lampia "	12	0	11½
Binkaru "	20	0	20
Untadhura	1	6	10
Ralamdhura	*Nil*		8

SUMMARY.

16. According to the available information the aggregate snowfall of the month in the western Himalayas and the Afghan mountains did not exceed the average except in the Simla Hills, and parts of Kashmir and of Almora.

Hem Raj.

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

Table

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

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure. Mean of 10 hrs.	Pressure. Mean of 16 hrs.	Pressure. Mean daily range.	Pressure. Mean of daily mean pressures.	Pressure. Departure from normal.	Pressure. Mean reduced to sea-level and gravity, 45° Lat.	Temperature of air. Mean maximum.	Temperature of air. Mean minimum.	Temperature of air. Mean daily range.	Temperature of air. Highest maximum.	Temperature of air. Lowest minimum.	Temperature of air. Absolute range.	Temperature of air. Mean 10 hrs.	Temperature of air. Mean 16 hrs.	Temperature of air. Mean of daily means.	Temperature of air. Departure from normal.	Temperature, Wet-bulb. Mean minimum.	Temperature, Wet-bulb. Mean 10 hrs.	Temperature, Wet-bulb. Mean 16 hrs.	Temperature, Wet-bulb. Mean of three previous columns.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	III.—Bengal.																					
5	Calcutta . .	21	29·751	29·631	·130	29·695	−·056	29·662	97·4	77·8	19·6	103·6	71·1	35·5	89·7	93·9	86·9	+1·9	73·8	79·7	79·4	77·6
	V.—United Provinces of Agra and Oudh.																					
9	Allahabad . .	309	29·454	29·318	·136	29·379	−·039	29·629	103·2	72·3	33·9	112·1	59·8	52·3	96·9	101·9	88·8	+1·2	59·1	67·2	68·6	65·0
	VI.—Punjab.																					
11	Lahore . .	702	29·054	28·959	·095	29·001	−·034	29·056	97·0	66·5	31·4	103·8	57·2	46·6	87·2	95·2	81·8	+0·9	58·6	65·7	68·4	64·6
	IX.—Rajputana.																					
18	Jaipur . .	1,431	28·372	28·255	·117	28·307	−·040	29·628	103·3	71·2	32·1	107·8	61·6	46·2	94·6	101·4	87·1	+0·8	56·8	66·6	67·0	63·5
	X.—Bombay.																					
25	Bombay . .	37	29·856	29·741	·115	29·798	−·011	29·774	88·9	76·8	12·1	91·0	71·3	19·7	82·5	85·5	81·9	−0·2	73·6	76·9	77·4	76·0
	XIV.—Mysore.																					
28	Bangalore . .	3,021	26·935	26·806	·129	26·877	−·001	29·654	95·3	70·3	25·0	97·6	65·6	32·0	83·9	93·5	81·5	+1·6	64·2	71·2	68·5	68·0
	XV.—Madras.																					
31	Pudukkottai .	318	29·509	29·414	·155	29·491		29·733	100·3	79·0	21·3	103·1	76·5	26·6	90·5	96·1	89·6			78·6	81·5	
	Madras . .	22	29·858	29·731	·127	29·802	−·023	29·755	94·2	73·9	15·3	99·1	73·5	25·6	90·6	89·1	85·6	+1·5	76·8	79·4	80·2	78·8
	Hill stations, excluding Kashmir and Baluchistan.																					
	Sarain . .		23·151	23·091	·060	23·111		23·073	66·4	42·7	23·7	72·2	37·4	34·8	60·1	63·7	55·2			47·1	48·9	
	Kalabagh . .																					
	Murkteswar . .	7,592	22·852	22·785	·067	22·811		22·709	71·0	50·2	20·8	77·7	38·2	39·5	62·2	67·6	61·2		39·1	48·1	51·1	46·1
	Katmandu . .	4,388	25·595	25·494	·101	25·543	−·006†	25·497	87·2	54·0	33·2	96·4	49·0	47·4	76·6	82·9	71·2	+4·14	50·5	60·8	61·1	57·5
	Ootacamund .	*7,327*	23·083	23·011	·072	23·045		22·981	72·9	51·2	21·7	75·9	44·2	31·7	66·7	66·6	62·6		48·7	55·7	57·1	53·9
	Kodaikanal . .	7,688	22·860	22·800	·060	22·830		22·765	71·5	54·0	17·5	73·9	51·4	22·5	67·1	64·1	62·7		48·9	57·1	57·6	52·5
	Dodabetta . .	8,539†	22·110	22·045	·065	22·076		22·013	66·0	51·6	14·4	68·9	47·7	21·2	62·5	61·1	59·4		44·9	52·4	54·2	50·5
	Extra India.																					
	Diego Garcia .																					
	Seychelles . .	15	29·955	29·853	·102	29·907	+·001	29·845	85·6	78·7	6·9	88·2	76·7	11·5	83·5	84·6	80·8	+1·4	73·5	78·4	78·1	76·7
	Mauritius . .	131				29·872	+·052	30·001									74·3	−1·0				69·4

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

NOTE.—The barometric readings are not reduced to sea-level in the case of hilltop plateau stations, the elevations of which exceed 3,000 feet.

L.

tations in India, etc., in April, 1913.

Vapour tension, in inches of mercury.					Humidity.					Cloud.				Wind direction.											Wind steadiness.		Wind velocity.		Rainfall.			
														Total number of 10 hrs. and 16 hrs. winds from																		
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.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Mean wind direction.	Normal mean wind direction of month.	Average percentage.	Normal percentage.	Mean velocity in miles per diem.	Normal.	Total rainfall for the month.	Heaviest rainfall during the month.	Station.	Number of subdivision
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	49	50	51	52	53	54	55	56
																															III.—Bengal.	
·763	·876	·810	·855	+·058	82	63	52	71	+ 1	1·2	1·9	1·5	-1·1					1	18	35	3	3	S 35° W	S 30° W	85	69	147*	123	1·51	1·18	Calcutta	5
																															V.—United Provinces of Agra and Oudh.	
·323	·272	·213	·288	—·086	41	16	10	24	— 8	0·8	1·7	1·3	-0·4	1	2	3	2		3	4	23	22	N 50° W	N 54° W	36	35	70	93	0	0	Allahabad	9
																															VI.—Punjab.	
·388	378	323	·380	—·015	61	30	19	39	— 2	2·8	2·7	2·7	—0·2	11	9	4	3	9	3	1	6	14	N 21° W	N 15° W	20	28	54	56	0·04	0·03	Lahore	11
																															IX.—Rajputana.	
·286	·303	·235	·283	—·045	37	19	11	24	— 6	1·4	2·9	2·1	—0·4	1	4	4		1	2	9	22	15	N 77° W	N 57° W	63	50	97*	88	0	0	Jaipur	16
																															X.—Bombay.	
781	·832	·829	·839	—·002	85	73	68	78	+ 1	2·9	1·7	2·3	+0·7					1	5	6	27	21	N 84° W	N 60° W	77	56	139*	185	0	0	Bombay	25
																															XIV.—Mysore.	
·539	·614	·404	·536	—·019	72	53	26	52	— 3	2·5	2·7	2·6		3	2	4	13	5	6	11	12	4	S 19° W	S 27° W	17	38	109	84	0·04	0·04	Bangalore	29
																															XV.—Madras.	
	·820	·775				57	46			2·6	3·8	3·2		21			1	15	13	8	2		S 7° E		50		121*		0·93	0·30	Pudukkottai	31
·894	·851	·906	·906	+·006	91	59	66	75	— 3	2·7	1·7	2·2	—1·3		1		2	27	23	7			S 19° E	S 36° E	81	83	141*	133	0·02	0·02	Madras	
																															Hill stations, excluding Kashmir and Baluchistan.	
	·190	·192				38	34			5·6	5·8	5·7																	0·93	0·31	Saraln.	
																															Kalabagh.	
·124	·190	·205	·166		36	35	32	34		3·5	4·6	4·1		2		1	2			2	53		S 89° W		85		191		0·73	0·57	Mukteswar.	
·325	·247†	·232	·311	—·049	78	39	26	48	—10	1·1	2·7	1·9	—2·1	46			1				11		W	N 87° W	17	42	23*	26	0·35	0·30	Katmandu.	
·318	·311	·367	·327		85	45	58	64		4·1	7·1	5·6		1	1	4	13	28	8	1	1	3	S 52° E		65		81		2·63	0·82	Ootacamund.	
·394	·364	·407	·355		70	56	69	65		3·1	6·8	4·9			14	15	14	14	1			2	N 66° E		62		234		4·18	1·19	Kodaikanal.	
·231	·239	·350	·290		69	52	66	59		5·5	7·4	6·5			4	24	20	10				2	N 70° E		75		392		2·18	0·92	Dodabetta.	
																															Extra India.	
																															Diego Garcia.	
·757	·902	·876	·870	+·007	77	78	73	79	— 1	5·4	5·1	5·3	+0·2	10	1	1	7	32	4	1	1	3	S 43° W	N 8° E	59	9	91	82	4·96	1·46	Seychelles.	
			·654	—·040				77	— 2			6·3	+1·1										S 63° E	S 72° E			291*	159	4·66		Mauritius.	

* Uncorrected for scale error. † Departure from old normal.

Table B.—Abstract of observations taken at 8 hrs. at 217 stations in India, etc., in April, 1913.

(1) Provincial means.

(2) Data of stations.

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.

	Pressure departure from normal.	Temperature of air.								Wind.		Hygrometry.				Cloud.		Rainfall.		
		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.	Absolute range during month.	Departure of velocity from normal.	Departure of steadiness from normal.	Mean humidity.	Departure from normal.	Mean vapour tension.	Departure from normal.	Mean cloud amount.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.
. . . . .	—·017	97·2	+0·7	74·4	+0·4	85·8	+0·5	22·8	33·6	—0·9	— 4	70	— 4	·735	—·039	2·8	—0·6	0·17	·49	—1·32
. . . . .	—·049	82·8	—3·1	67·9	0	75·3	—1·5	14·9	29·3	+0·2	— 1	87	+ 2	·674	—·005	5·8	+0·1	13·21	9·35	+3·86
l	—·049	95·2	+1·1	75·4	+1·6	85·3	+1·3	19·8	33·9	—0·1	+10	79	+ 1	·831	+·023	3·9	—0·3	1·60	3·02	—1·42
and Orissa . . .	—·044	101·6	+1·8	75·2	+1·2	88·4	+1·5	26·4	42·3	+1·1	+ 5	54	— 4	·605	—·016	1·5	—0·9	0·10	0·79	—0·69
l Provinces of Agra and h.	—·040	102·8	+1·2	71·4	—0·1	87·1	+0·6	31·4	50·1	0	+16	35	— 6	·402	—·067	0·9	—0·5	0·04	0·18	—0·14
b	—·031	97·1	0	67·7	+0·6	82·4	+0·3	29·3	45·4	+0·1	+10	38	— 7	·360	—·066	2·5	+0·4	0·08	0·42	—0·34
West Frontier Province .	—·047	91·3	+0·5	63·3	—0·1	77·3	+0·2	27·9	45·1	—0·7	— 5	53	— 5	·413	—·065	3·5	+0·7	0·6	1·32	—0·70
. . . . .	—·039	98·3	+0·9	73·7	+1·9	86·0	+1·4	24·6	36·8	—0·5	+ 8	62	+ 6	·652	+·077	2·2	+0·3	[illegible]	0·13	—0·13
tana	—·037	103·0	+2·0	75·3	+0·6	89·1	+1·3	27·7	42·2	+1·1	+18	28	— 3	·334	—·064	1·4	—0·8	0·2	0·09	—0·07
ay	—·015	97·7	+0·4	73·0	—0·5	85·4	—0·1	24·7	37·3	—0·8	+ 3	61	+ 3	·640	+·012	2·4	+0·3	0·7	0·48	—0·21
l India	—·024	102·5	+0·8	72·0	+1·0	87·3	+0·9	30·4	48·6	—0·6	+11	34	— 1	·395	—·003	1·4	+0·1	[illegible]	0·07	—0·07
l Provinces . . .	—·024	104·6	+1·6	76·2	+1·8	90·4	+1·7	28·4	45·2	+0·2	+23	29	—10	·361	—·102	1·6	—0·3	·04	0·29	—0·25
abad	—·016	104·6	+2·4	77·3	+1·3	91·0	+1·8	27·2	37·5	—1·1	+11	44	— 8	·548	—·030	1·6	—1·4	·40	0·59	—0·19
e	—·005	95·6	+2·1	70·3	+0·9	82·9	+1·5	25·3	32·7	+0·6	+23	73	+ 2	·658	+·013	3·0	—0·8	0·77	1·64	—0·87
s	—·013	96·6	+0·	78·6	+1·2	87·6	+1·1	18·0	26·6	+0·3	+16	73	0	·861	+·011	3·3	—0·5	·61	·37	—0·76

Tabl

(2) Abstract of observations taken at 8 hrs. at 21

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.	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.	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
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	I.—Burma.																						
2	Victoria Point	147	29·755		29·832	29·804	2nd	29·666	24th	·138	82·0	90·9		76·9		83·9		14·0	93·6	1st & 29th.	74·2	4th & 30th	19
	Mergui	65	29·840	—·006	29·840	29·900	13th & 14th.	29·753	24th	·147	82·9	92·8	+0·9	74·3	+0·6	83·5	+0·7	18·5	95·5	28th	70·8	28th	24
	Tavoy	19	29·903	—·018	29·854	29·955	14th	29·807	24th	·148	79·8	94·7	+0·7	74·9	+0·7	84·8	+0·7	19·8	98·0	21st & 28th	70·3	4th & 6th	27
	Moulmein	94	29·825	+·006	29·854	29·878	13th & 14th.	29·732	24th	·146	82·4	95·7	+1·1	76·9	+0·5	86·3	+0·8	18·8	99·5	29th	70·8	4th	28
	Rangoon	18	29·882	—·009	29·838	29·941	13th	29·797	24th	·144	79·6	93·3	—0·3	74·6	—1·6	86·4	—0·5	23·7	103·5	30th	71·5	4th	32
	Bassein	27?	29·858	—·011	29·822	29·925	5th	29·766	24th	·159	82·0	95·7	—0·5	75·8 †	+0·3 †	85·8 †	—0·1 †	19·9	101·2	28th	72·9	4th & 13th	28
	Diamond Island	41	29·856	—·019	29·832	29·918	14th	29·763	24th	·155	82·3	86·9	—1·8	80·3 †	+0·8 †	84·0 †	—0·5 †	6·6	88·4	5 days	80·0	27th, 28th & 29th.	8
	Toungoo	164	29·71[illegible]	—·008	29·820	29·776	1st	29·622	24th	·154	84·6	101·7	+1·3	77·6	+1·0	89·6	+1·5	24·1	107·0	28th	69·9	2nd	37
	Kyaukpyu	18	29·855		29·813	29·929	14th	29·763	24th	·166	81·3	89·9		74·6		82·3		15·3	94·0	21st	70·4	4th & 7th	23
	Akyab	20	29·870	—·008	29·831	29·942	13th	29·741	24th	·201	83·1	92·1	+0·3	75·5	—0·5	83·8	—0·1	16·6	93·9	5 days	71·0	7th	22
3	Thayetmyo	121	29·725	—·022	29·786	29·796	1st	29·616	24th	·180	83·9	104·5	+1·5	75·5	—0·3	90·0	+0·6	29·0	109·7	28th	68·9	7th	40
	Minbu	***165***	29·663	—·028	29·709	29·746	1st	29·555	24th	·193	85·3	105·4	+2·0	78·0	+1·1	91·7	+1·5	27·4	110·3	27th	73·4	5th	36
	Yamethin	657	29·180	—·021	29·780	29·261	1st	29·074	24th	·187	83·7	103·5	+1·2	78·3	+2·2	90·9	+1·7	25·2	109·7	28th	72·8	1st	36
	Mandalay	250	29·575	—·021	29·770	29·665	1st	29·464	24th	·201	86·1	106·9	+1·6?	78·6	+0·8	92·8	+2·7?	28·3	113·0	24th	67·9	1st	45
	Myingyan	***280***	29·535		29·766	29·652	4th	29·408	24th	·244	84·0	106·2		76·5		91·3		29·7	112·8	28th	69·6	8th	43
	Lashio	***2,820***	27·160	—·053	27·006	27·146	1st	26·920	24th	·226	72·5	91·4	+0·5	63·8	+0·9	77·6	+0·7	27·6	98·1	27th & 29th.	55·0	1st	43
	Bhamo	***381***	29·455	—·017?	29·791	29·572	1st	29·305	24th	·267	73·5	93·8	—0·1	66·5	—1·1	80·1	—0·6	27·3	102·9	27th	60·4	1st	42
	Myitkyina	458	29·350		29·774	29·486	1st	29·217	24th	·265	70·5	88·0		66·6		77·2		21·4	98·2	26th	60·4	1st	37
	II.—Assam.																						
4	Dibrugarh	353	29·455		29·779	29·601	5th	29·255	20th	·346	67·0	77·1		64·9		71·0		12·2	83·9	6th	58·1	8th	25
	Sibsagar	333	29·495	—·054	29·793	29·639	5th	29·257	20th	·332	68·7	77·3	—5·2	65·5	—1·0	71·4	—3·1	11·8	86·1	10th	61·5	1s	24
	Tezpur	252	29·576		29·791	29·732	5th	29·357	20th	·375	71·4	82·7		67·8		75·2		14·9	92·1	17th	63·3	1st	28
	Gauhati	195	29·601		29·756	29·774	5th	29·367	20th	·387	72·5	86·4		68·4		77·4		18·0	94·8	17th	61·1	1st	33
	Dhubri	115	29·657	—·064	29·728	29·832	5th	29·446	20th	·386	75·2	87·1	—1·6	71·4	+0·7	79·2	—0·5	15·7	95·5	17th & 20th.	65·6	1st & 3rd	29
	Silchar	104	29·747	—·030	29·835	29·865	5th	29·621	24th	·244	74·7	86·1	—2·4	69·6	+0·4	77·9	—1·0	16·5	91·8	30th	58·8	7th	33
	III.—Bengal.																						
5	Cox's Bazar	36	29·835		29·815	29·896	1st & 14th	29·703	24th	·194	82·6	89·1		75·1		82·1		14·0	91·2	5 days	71·2	5th & 10th	20
	Chittagong	87	29·765	—·022	29·802	29·844	5th	29·645	24th	·199	80·0	87·3	—1·6	74·1	+0·4	80·7	—0·6	13·2	90·0	28th, 29th & 30th	67·0	4th	23
	Noakhali	43	29·791		29·780	29·892	1st	29·652	24th	·242	82·2	87·9		77·5		82·7		10·4	89·8	28th	64·9	5th	24
	Barisal	12	29·797	—·030	29·756	29·912	1st	29·665	24th	·247	83·1	92·2	0	76·3	+0·9	84·3	+0·5	15·9	94·8	17th	69·1	5th	25
	Narayanganj	26	29·762	—·047	29·739	29·881	1st	29·644	24th	·237	81·8	92·2	—1·0	76·2	+1·9	84·2	+0·5	16·0	97·0	29th	67·8	5th	29
	Mymensingh	63	29·737	—·038	29·752	29·877	5th	29·590	20th	·287	78·0	92·5	+1·7	74·4	+2·2	83·4	+1·9	18·1	102·1	21st	67·1	7th	35
	Bogra	75	29·695	—·052	29·721	29·852	5th	29·549	20th	·303	79·5	97·9	+1·7	74·5	+2·8	86·1	+2·1	23·4	108·2	30th	67·2	1st	41
	Dinajpur	123	29·620	—·069	29·698	29·792	5th	29·420	20th	·372	79·6	98·3	+3·7	72·4	+1·7	85·3	+2·7	25·9	107·3	27th	65·0	1st	42
	Jalpaiguri	283	29·480	—·068	29·723	29·652	5th	29·282	20th	·377	74·8	89·6	+0·1	69·8	+1·6	79·7	+0·9	19·8	95·4	26th	62·4	1st	33

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

† Mean of 4 days.

tions in India, etc., in April, 1913.

Wind direction. Number of winds from N.E. (27)	E. (28)	S.E. (29)	S. (30)	S.W. (31)	W. (32)	N.W. (33)	Resultant direction. (34)	Normal direction. (35)	Wind velocity. Mean velocity, miles per hour. (36)	Normal. (37)	Departure from normal. (38)	Wind steadiness. Actual percentage (39)	Departure from normal. (40)	Hygrometry, 8 hrs. Mean humidity at 8 hrs. (41)	Departure from normal. (42)	Mean vapour tension at 8 hrs. in inches of mercury. (43)	Departure from normal in inches of mercury. (44)	Cloud. Mean cloud amount at 8 hrs. (45)	Departure from normal. (46)	Rainfall. Number of rainy days. (47)	Normal number of rainy days. (48)	Departure from normal. (49)	Rainfall of month. (50)	Normal rainfall of month. (51)	Departure from normal. (52)	Total rainfall from 1st Dec. 1912 to 30th April, 1913. (53)	Normal rainfall for period, 1st Dec. to 30th April. (54)	Departure from normal of period, 1st Dec. 1912 to 30th April, 1913. (55)	Heaviest rainfall during month. (56)	Station. (57)
																														I.—Burma.
12	7				1		N 38° E		4·6*			72		83		·903		4·9		11			4·19			7·73			1·32	Victoria Point.
	1	1					S 66° E	N 8° W	2·7	1·7	+1·0	7	−50	78	− 3	·871	−·022	3·1	−1·5	2	6·4	− 4·4	2·28	5·72	−3·44	6·90	12·28	−5·38	1·20	Mergui.
							(a)	N 27° W	1·1*	1·2	−0·1	(a)		83	0	·817	−·020	1·3	−3·0	1	4·5	− 3·5	0·57	3·14	−2·57	3·93	5·70	−1·77	0·57	Tavoy.
	2	4	12		2		S 13° E	S 34° E	3·7	2·8	+0·9	43	− 2	75	− 4	·829	−·032	2·2	−1·8	0	4·2	− 4·2	0	2·90	−2·90	1·54	3·84	−2·30	0	Moulmein.
		1	5	5	8	5	S 71° W	S 61° W	2·9	4·1	−1·2	49	−21	81	+ 1	·827	−·021	7·9	+4·8	0	1·9	− 1·9	0	1·58	−1·58	0·09	2·47	−2·38	0	Rangoon.
					5	19	N 54° W	N 55° W	5·5	4·5	+1·0	72	+ 5	82	+ 3	·892	+·022	2·9	−0·5	0	1·6	− 1·6	0	1·25	−1·25	0	2·19	−2·19	0	Bassein.
				3	14	12	N 75° W	N 47° W	0·7	6·2	+0·5	86	+23	73	− 1	·816	−·033	3·6	−0·6	0	1·0	− 1·0	0	1·03	−1·03	0	2·39	−2·39	0	Diamond Island.
	2	6	12	6	1		S 3° E	S 28° E	2·9	3·4	−0·5	66	− 8	63	− 5	·802	−·046	3·8	+1·0	0	2·6	− 2·6	0	1·97	−1·97	1·02	2·92	−1·90	0	Toungoo.
																										0·25			0	Kyaukpyu.
2	1	14	1	3	1	2	S 38° E		4·0			43		79		·853		1·9		0			0						0	Akyab.
	10	4	6	3			S 47° E	N 48° E	2·5	2·8	−0·3	49	+2	77	− 3	·861	−·024	3·3	−1·2	0	1·8	− 1·8	0	1·70	−1·70	0·36	3·20	−2·84	0	Thayetmyo.
			21	1	1		S 4° W	S 10° W	2·9*	4·7	−1·8	72	+ 9	60	− 2	·696	−·029	0·6	−0·5	0	1·4	− 1·4	0	0·84	−0·84	0·79	1·37	−0·58	0	Minbu.
	5	17	1			5	S 61° E	S 46° E	2·7	7·1	−4·4	46	− 2	51	− 9	·612	−·065	2·0	+0·8	0	1·2	− 1·2	0	0·93	−0·93	0·29	1·96	−1·67	0	Yamethin.
		14	14				S 23° E	S 28° E	2·9	5·0	−2·1	36	+15	60	− 5	·687	−·055	0·4	−0·6	0	2·3	− 2·3	0	1·66	−1·66	0·31	2·91	−2·57	0	Mandalay.
		2	2				S 23° E	S 3° W	?	4·6	?	10	−37	47	−12	·577	−·138	1·4	−1·0	0	2·4	− 2·4	0	1·13	−1·13	1·09	1·77	−0·68	0	Monywa.
		14	1	1		1	S 75° E		2·9			27		49		·571		1·9		0	1·9	− 1·9	0·01	1·08	−1·07	0·04	1·88	−1·84	0·01	Monywa.
			2	3	1		S 37° W		2·3*			17		61	− 9	·485	−·046	2·5	−3·0	2	4·4	− 2·4	0·64	2·05	−1·41	3·66	3·95	−0·32	0·35	Lashio.
7	2				3	3	N 7° E	N 14° W	2·5	3·1	−0·6	46	+13	73	− 1	·596	−·038	3·1	−0·7	2	4·7	− 2·7	0·69	1·71	−1·02	4·06	4·01	+0·05	0·29	Bhamo.
10	2	3		1			N 52° E		4·0			43		73		·540		4·2		4	5·1	− 1·1	1·54	1·81	−0·27	5·83	4·31	+1·52	0·60	Myitkyina.
																														II.—Assam.
3	3	1					N 76° E		1·4			29		95		·634		6·7		21	15·7	+ 5·3	26·49	11·83	+8·66	29·18	20·22	+8·96	7·76	Dibrugarh.
12	1					1	N 27° E	N 48° E	2·4	2·4	0	62	+ 9	91	+ 1	·638	−·051	7·9	+1·0	18	14·6	+ 3·4	23·33	10·22	+13·11	33·20	18·81	+14·39	5·85	Sibsagar.
15	15	1					N 71° E		5·8			86		84		·612		5·9		17	12·7	+ 4·3	11·76	6·52	+5·24	17·45	10·05	+7·40	2·16	Tezpur.
6	9	4					N 78° E		1·2			53		85		·677		4·0		9	11.6	− 2·6	5·63	6·43	−0·80	11·38	10·20	+1·18	1·29	Gauhati.
13	11		2	3			N 74° E	N 72° E	7·7	6·4	+1·3	59	− 4	80	+ 1	·606	+ 009	6·8	+1·0	7	7·5	− 0·5	4·29	4·75	−0·46	7·33	7·82	−0·49	1·48	Dhubri.
4	1						N 53° E	N 82° E	1·7	2·5	−0·8	17	− 8	87	+ 4	·757	+·027	4·4	−1·7	19	14·4	+ 4·6	19·74	14·62	+5·12	37·40	25·76	+11·64	3·58	Silchar.
																														III.—Bengal.
	1	17	12				S 28° E		6·9*			89		78		·861		4·0		1			0·21			2·81			0·21	Cox's Bazar.
1	9	12	5				S 55° E	S 47° E	1·9	5·0	−3·1	72	+15	82	+ 2	·842	+·002	3·7	−0·7	3	5·2	− 2·2	3·32	4·76	−1·44	6·44	9·55	−3·11	1·55	Chittagong.
		8	19	3			S 6° E		5·6			90		80		·880		3·9		4	5·6	− 1·6	8·12	5·73	+2·39	12·26	10·32	+1·94	3·32	Noakhali.
			18	9			S 15° W	S 8° W	2·4	4·2	−1·8	82	+27	80	− 2	·902	−·001	4·0	−0·9	2	5·0	− 3·0	1·73	4·01	−2·28	6·70	8·13	−1·43	1·20	Barisal.
		2	19	6	1		S 9° W	S 10° E	5·7	5·3	+0·4	82	+25	83	+ 1	·892	+·042	5·1	−0·8	8	6·2	+ 1·8	7·07	4·95	+2·12	13·23	9·35	+3·88	1·20	Narayanganj.
	9	13	2				S 59° E	S 68° E	2·8	3·1	−0·3	66	− 4	86	+ 4	·837	+·065	8·4	+3·1	3	6·9	− 3·9	1·54	5·57	−3·93	4·93	9·34	−4·41	0·77	Mymensingh.
	7	3	6	1			S 44° E	S 63° E	1·5	3·4	−1·9	40	−19	81	+ 4	·819	+·059	5·2	+1·4	3	3·4	− 0·4	2·02	1·92	+0·10	4·45	4·64	−0·19	0·84	Bogra.
3	17	3	4	3			S 72° E	N 86° E	4·2	4·1	+0·1	66	+18	69	− 3	·683	+·004	4·6	+0·5	0	3·1	− 3·1	0·03	2·19	−2·16	1·42	3·95	−2·53	0·03	Dinajpur.
1	5	10					S 63° E	N 88° E	1·9			46	−21	78	+ 2	·685	+·008	3·6	+0·8	2	5·3	− 3·3	0·68	3·48	−2·80	4·47	5·76	−1·29	0·46	Jalpaiguri.

* Uncorrected for scale error.

(a) Indeterminate.

Tab

(2) *Abstract of observations taken at 8 hrs. at 217 static*

Number of subdivision.	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.	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.	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.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	III.—Bengal—*concld.*																					
5	Saugor Island	25	29·770	—·033	29·739	29·887	1st	29·647	24th	·240	84·5†	88·9†	—2·8†	80·9†	—0·1†	84·9†	—1·5†	8·0	89·2	30th	80·7	29th
	Midnapore	149	29·612		29·707	29·735	1st	29·498	24th	·237	83·9	104·7		77·9		91·3		26·8	112·8	30th	71·7	1st & 8th.
	Calcutta	21	29·751	—·051	29·719	29·873	1st	29·619	24th	·254	82·6	97·2	+1·6	77·8	+2·1	87·5	+1·9	19·4	106·5	25th	70·8	5th
	Jessore	33	29·739	—·056	29·719	29·873	1st	29·604	24th	·269	81·5	98·8	+1·6	76·9	+1·8	87·9	+1·7	21·9	105·5	26th	71·7	5th
	Burdwan	99	29·654	—·055	29·700	29·788	1st	29·531	24th	·257	81·7	103·3	+2·7	76·8	+1·1	90·0	+1·9	26·5	111·4	30th	68·3	1st
	Berhampore	67	29·684	—·056	29·700	29·844	5th	29·550	20th	·294	82·0	101·3	+1·3	75·9	+1·3	86·6	+1·3	25·4	110·6	29th & 30th.	64·2	1st
	IV.—Bihar and Orissa.																					
6	Balasore	50	29·729	—·010	29·724	29·849	1st	29·617	24th	·232	82·9	100·3	+2·8	77·6	+1·6	89·0	+2·2	22·7	107·4	29th	73·1	1st
	Hukitala (False Point).	29	29·790	—·024	29·760	29·889	1st	29·677	24th	·212												
	Cuttack	80	29·731	—·019	29·754	29·841	1st	29·629	24th	·212	83·5	100·8	—1·2	78·5	+0·5	89·6	—0·3	22·3	105·5	12th	73·2	20th
	Puri	24	29·787		29·750	29·878	1st	29·686	24th	·192	80·1	87·1		77·4		82·2		9·7	89·1	12th	70·1	20th
	Angul	455	29·335		29·748	29·437	1st	29·233	24th	·204	83·4	105·4		75·8		90·6		29·6	111·1	30th	66·5	1st
	Sambalpur	496	29·303	—·037	29·732	29·422	1st	29·201	26th	·221	86·8	106·2	+1·9	76·3	+0·7	91·2	+1·3	29·9	112·1	30th	62·6	1st
7	Chaibasa	*733*	29·021	—·046	29·701	29·137	1st	28·884	24th	·253	83·3	104·9	+1·6	75·9	+0·5	90·4	+1·1	29·0	111·1	29th	63·3	1st
	Ranchi	2,128	27·682	—·017?	29·693	27·772	1st	27·594	24th	·178	82·9	98·7	+1·6	74·4§	+2·3§	86·5§	+1·9§	24·3	101·2	28th, 29th & 30th.	65·4	1st
	Purulia	*816*	28·937§		29·699§	29·051	1st	28·840	24th	·211	82·3	104·9		76·3		90·6		28·6	112·0	29th	61·1	1st
	Daltonganj	*730*	29·041		29·733	29·159	1st	28·934	24th	·225	78·7	104·8		69·7?		87·2?		35·1?	111·1	29th	56·0	1st
8	Purnea	134	29·610	—·055	29·700	29·784	5th	29·439	20th	·345	79·3	99·6	+2·6	71·5	+1·5	85·6	+2·1	28·1	107·6	27th	64·8	13th & 15th.
	Monghyr	155	29·577		29·684	29·722	5th	29·429	20th	·303	84·2	101·0		73·8		87·4		27·2	108·7	28th & 30th.	63·9	1st
	Darbhanga	165	29·571	—·061	29·661	29·726	5th	29·406	20th	·320	81·4	99·7	+3·6	70·7	—1·2	85·2	+1·2	29·0	108·1	29th	63·7	1st
	Pusa	188	29·550		29·693	29·755	29th	29·378	20th	·377	82·5	103·0		70·5		86·7		32·5	111·1	29th	61·8	7th
	Patna	183	29·541	—·066	29·678	29·674	1st	29·400	20th	·274	83·2	100·0	—0·6	75·0	+1·5	87·5	+0·5	25·0	107·5	29th	65·7	1st
	Buxar	239	29·488§		29·682§	29·600	1st	29·363	24th	·237	83·4	104·2		75·1		89·7		29·1	110·5	28th, 29th & 30th.	61·1	1st
	Gaya	372	29·364	—·053	29·681	29·479	1st	29·237	24th	·242	88·9	105·5	+2·1	77·7	+2·8	91·6	+2·5	27·8	111·9	29th & 30th.	65·2	1st
	Naya Dumka	489	29·256	—·036	29·691	29·385	5th	29·132	20th	·253	86·5	103·9	+3·8	76·1	+1·5	89·9	+2·7	27·8	111·4	29th	65·0	1st
	V.—United Provinces of Agra and Oudh.																					
9	Gorakhpur	257	29·459	—·056	29·672	29·603	5th	29·326	20th	·277	83·7	102·1	+1·7	71·9	—0·5	87·0	+0·6	30·2	110·6	30th	59·3	1st
	Benares	267	29·482	—·035	29·700	29·604	1st	29·362	24th	·242	87·5	104·8	+1·7	72·9	+1·0	88·8	+1·3	31·9	111·0	28th & 29th.	58·6	1st
	Allahabad	309	29·439	—·041	29·701	29·553	1st	29·313	24th	·239	85·2	105·8	+2·0	72·4	0	89·1	+1·0	33·4	112·1	28th	60·0	1st
	Cawnpore	416	29·325	—·032	29·694	29·426	1st & 15th.	29·200	24th	·226	84·5	104·5	+2·3	71·4	—0·9	88·0	+0·7	33·1	110·2	23rd, 29th & 30th.	59·4	1st
	Lucknow	368	29·369	—·038	29·691	29·488	1st	29·237	24th	·251	87·1	104·5	+2·1	72·5	+1·6	88·5	+1·9	32·0	111·5	30th	60·1	1st
	Bahraich	401	29·311	—·059	29·670	29·439	1st	29·181	24th	·258	82·0	101·1	+1·5	69·9	+0·2	85·5	+0·9	31·2	109·6	30th	60·0	1st
10	Jhansi	824	28·952	—·041	29·717	29·064	13th	28·854	24th	·210	87·9	105·1	+0·9	76·5	—1·2	90·3	—0·1	29·6	109·5	29th & 30th.	63·0	1st
	Agra	556	29·202	—·033	29·712	29·320	13th	29·099	24th	·221	86·2	103·7	+1·1	74·3	+0·6	89·0	+0·9	29·4	110·0	30th	65·5	1st
	Mainpuri	516	29·224	—·035	29·696	29·340	13th	29·108	24th	·232	82·6	104·3	+1·8	69·9	—0·6	87·1	+0·6	34·4	111·3	30th	58·6	1st
	Bareilly	568	29·158	—·037	29·686	29·260	5th	29·046	24th	·234	81·4	99·2	—0·1	69·4	+0·5	84·3	+0·2	29·8	106·8	30th	58·0	1st
	Roorkee	899	28·840	—·027	29·709	28·943	8th	28·743	24th	·200	77·5	96·1	—2·1	65·2	—1·3	80·7	—1·7	30·9	104·5	30th	53·4	1st

† Mean of 2 days.
§ „ 29 „

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

—*continued.*

India, etc., in April, 1913—continued.

Wind direction. Number of winds from 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 from 1st Dec. 1912 to 30th Apl., 1913.	Normal rainfall for period, 1st Dec. to 30th Apl.	Departure from normal of period, 1st Dec. 1912 to 30th Apl., 1913.	Heaviest rainfall during month.	Station.
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
																															III.—Bengal—*concld.*
				18	11	1		S 19° W	S 18° W	17·8§	13·1	+4·7	92	+15	85¶		1·008¶		5·2	−0·6	0	2·0	−2·0	0	1·19	−1·19	2·25	4·44	−2·19	0	Saugor Island.
			11	15	3			S 14° E		3·2			87		76		·872		1·4		9	3·5	−3·5	0·02	1·97	−1·95	8·52	5·25	+3·27	0·02	Midnapore.
			1	4	24	1		S 39° W	S 25° W	6·0*	5·1	+0·9	86	+16	79	+1	·878	+·025	1·6	−1·8	2	3·2	−1·2	1·51	1·75	−0·24	5·94	4·77	+1·17	1·18	Calcutta.
			4	1	6	1		S 7° W	S 1° E	3·6	3·0	+0·6	59	+7	82	+1	·881	−·006	2·9	−1·8	2	4·9	−2·9	0·63	3·38	−2·75	6·81	7·32	−0·51	0·50	Jessore.
1		1	3	19	3	2		S 48° W	S 27° W	3·1	3·5	−0·4	72	+12	74	+4	·797	+·033	1·9	−1·4	0	3·6	−3·6	0·09	2·18	−2·09	7·66	5·34	+2·32	0·09	Burdwan.
	2		17	11				S 13° W	S 2° E	3·1	3·5	−0·4	86	+29	74	−2	·805	+·018	2·3	−1·5	1	2·7	−1·7	0·70	1·48	−0·78	4·58	4·01	+0·57	0·70	Berhampore.
																															IV.—Bihar and Orissa.
				8	22			S 35° W	S 39° W	5·7	6·3	−0·6	89	+34	73	−5	·826	−·047	1·9	−2·1	2	3·8	−1·8	0·30	2·14	−1·84	8·21	6·28	+1·93	0·18	Balasore.
			1	1	28			S 41° W	S 38° W	17·9	10·1	+7·8	92	+15					3·0	−2·2	0	1·6	−1·6	0·02	0·79	−0·77	1·32	4·09	−2·77	0·01	Hukitala (False Point).
				7	14	4		S 39° W	S 39° W	4·0*	3·7	+0·3	69	+9	75	+3	·866	+·040	2·4	−1·1	1	1·8	−0·8	0·56	1·18	−0·62	2·97	3·41	−0·44	0·56	Cuttack.
				4	22	4		S 45° W		11·1			93		89		·906		3·9		1	1·3	−0·3	0·55	0·67	−0·12	0·98	2·85	−1·87	0·55	Puri.
3	1	3			1	4		N 6° E		5·2			23		68		·779		2·6		0	3·6	−3·6	0·07	1·92	−1·85	4·43	5·46	−1·03	0·04	Angul.
7	3	1	2	11	2	2		S 59° W	S 87° E	3·4	2·8	+0·6	13	+3	46	−5	·583	−·027	1·8	−0·4	0	1·6	−1·6	0·02	0·72	−0·70	3·13	3·08	+0·05	0·02	Sambalpur.
			8	7	6	1		S 44° W	S 62° W	2·8	1·9	+0·9	56	−3	56	−2	·643	−·012	1·2	−0·6	0	2·9	−2·9	0·03	1·55	−1·52	7·61	5·11	+2·50	0·03	Chaibasa.
			2	11	5	7		S 80° W	S 51° W	6·0	5·4	+0·6	72	+24	33	−11	·363	−·119	1·3	−0·2	0	2·8	−2·8	0	1·09	−1·09	10·51	4·94	+5·57	0	Ranchi.
		1		1	14	2		W		2·4			50		41		·447		0·3		0	3·3	−3·3	0·02	1·38	−1·36	9·24	5·00	+4·24	0·02	Purulia.
	6	4		2		3		S 88° E		3·2			16		38		·371		1·0		0	1·1	−1·1	0	0·46	−0·46	5·95	3·39	+2·56	0	Daltonganj.
7	11	3		3	4			N 82° E	N 68° E	3·5§	3·4	+0·1	40	−20	67	0	·653	+·002	2·0	−0·6	0	1·8	−1·8	0	1·15	−1·15	1·50	2·84	−1·34	0	Purnea.
2	8	2		5	9	2		S 63° W		6·6			7		51		·563		0·7		0			0			2·75			0	Monghyr.
	19				8	1		N 86° E	S 67° E	?	4·2	?	33	−20	61	−2	·653	+·030	0·7	−0·5	0	1·5	−1·5	0·02	0·70	−0·68	1·36	2·28	−0·92	0·02	Darbhanga.
2	10	4		6	3	1		S 56° E†		10·6			27		52		·549		0·5		0			0·01			1·87			0·01	Pusa.
1	9	1		5	10			S 42° W	S 81° E	4·6	3·6	+1·0	13	−7	45	−6	·487	−·069	1·0	−0·3	0	0·7	−0·7	0·03	0·32	−0·29	3·51	2·19	+1·32	0·03	Patna.
2	2	1	1	14	8	2		S 58° W		6·5			50		36		·396		0·6		0	0·4	−0·4	0	0·19	−0·19	1·74	2·17	−0·43	0	Buxar.
6			1	2	15	1		N 78° W	S 34° W	2·6	3·5	−0·9	43	+10	49	−2	·658	+·060	1·0	−0·7	0	0·6	−0·6	0	0·24	−0·24	1·95	2·39	−0·44	0	Gaya.
	1	1		2		1		S 18° W		1·5§			5		45	−7	·535		1·0		0	2·1	−2·1	0	1·00	−1·00	2·64	3·39	−0·75	0	Naya Dumka.
																															V.—United Provinces of Agra and Oudh.
8	1		2	14	1			N 73° W	N 57° E	2·7	2·6	+0·1	17	+6	46	−5	·518	−·016	0·1	−1·2	0	0·8	−0·8	0	0·47	−0·47	2·08	2·27	−0·19	0	Gorakhpur.
1	5		8	8	4			S 65° W	S 53° W	3·3	2·6	+0·7	43	+21	38	−10	·476	−·018	0·8	−0·5	0	0·3	−0·2	0	0·19	−0·19	1·23	2·14	−0·91	0	Benares.
1	1	1	2	13	6			N 81° W	N 86° W	3·1	3·9	−0·8	49	+27	25	−11	·311	−·113	1·1	−0·5	0	0·5	−0·5	0	0·16	−0·16	2·80	1·97	+0·83	0	Allahabad.
2	1		8	10				S 82° W	S 79° W	2·6	3·0	−0·4	33	+14	33	−7	·390	−·075	0·1	−0·8	0	0·5	−0·5	0	0·24	−0·24	3·55	1·93	+1·62	0	Cawnpore.
	1			5	2			N 83° W	N 81° W	1·6	2·9	−1·3	20	0	30	−10	·386	−·059	0·2	−1·5	0	0·5	−0·5	0	0·29	−0·29	2·58	2·34	+0·24	0	Lucknow.
3	3	1	2	9	7			N 72° W	N 55° E	3·6	3·0	+0·6	30	+24	36	−15	·387	−·166	0·7	−0·3	0	0·7	−0·7	0	0·38	−0·38	3·61	2·94	+0·67	0	Bahraich.
1			8	10	4			N 89° W	S 87° W	5·5	2·6	+2·9	51	+21	23	−5	·302	−·062	1·1	+0·2	0	0·6	−0·6	0	0·17	−0·17	1·41	1·84	−0·43	0	Jhansi.
	1	3	6	8	5			S 77° W	S 89° W	2·8	3·7	−0·9	49	+12	25	−10	·313	−·082	1·1	−0·1	0	0·6	−0·6	0	0·25	−0·25	2·33	1·75	+0·58	0	Agra.
	2	3	7	9	4			S 74° W	S 74° W	2·8	1·8	+1·0	53	+39	32	−5	·354	−·046	0·2	−1·2	0	0·8	−0·8	0	0·42	−0·42	1·73	2·38	−0·65	0	Mainpuri.
					3	2		N 72° W	N 20° W	1·1	2·7	−1·6	13	+5	56	+11	·599	+·154?	2·0	+0·6	1	0·7	+0·3	0·43	0·29	+0·14	4·14	3·11	+1·03	0·43	Bareilly.
						4		N 32° W	S 60° E	2·3	2·4	−0·1	13	+6	41	0	·384	−·037	2·3	+0·7	0	1·1	−1·1	0·05	0·47	−0·42	5·82	4·90	+0·92	0·03	Roorkee.

* Uncorrected for scale error. § Mean of 29 days. ¶ Mean of 2 days. † 1 Windless.

Table

(2) *Abstract of observations taken at 8 hrs. at 217 stations*

Number of subdivision.	Station.	Elevation of barometer 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
	VI.—Punjab.																						
11	Delhi	718	29·032	—·026	29·714	29·128	12th	28·936	24th	·192	80·9	99·5	−0·2	74·0	+0·5	86·7	+0·1	25·5	106·0	30th	64·3	6th	41·7
	Sirsa	662	29·078	−·035	29·705	29·212	11th	28·954	21st	·258	81·3	101·1	0	68·5	0	84·8	0	32·6	105·8	4 days	58·0	1st	47·8
	Patiala	*818*	28·922		29·710	29·040	12th	28·825	20th	·215	77·5	95·8		68·2		82·0		27·6	102·2	30th	57·8	1st	44·4
	Ambala	892	28·839	—·034	29·700	28·942	13th	28·741	21st	·201	78·5	97·9	+0·2	66·7	+0·5	82·3	+0·3	31·2	104·5	30th	53·9	1st	50·6
	Ludhiana	812	28·930	−·025	29·713	29·049	13th	28·814	24th	·235	78·1	98·1	+0·7	69·0	+1·8	83·6	+1·3	29·1	103·1	29th	59·0	1st	44·1
	Lahore	702	29·036	—·030	29·715	29·173	13th	28·902	21st	·271	76·3	97·6	−0·6	66·4	+2·1	82·0	+0·7	31·2	103·9	18th	57·2	14th	46·7
	Sialkot	830	28·906	−·033	29·718	29·043	13th	28·772	22nd	·271	75·4	94·3	−0·9	64·6	−1·7	79·5	−1·3	29·7	100·0	18th & 22th.	55·5	14th	44·5
	Rawalpindi	1,674	28·101	—·025	29·751	28·239	13th	27·971	24th	·268	72·7	89·1	+0·7	60·2	+0·3	74·7	+0·5	28·9	97·4	19th	53·6	24th	43·8
2	Khushab	612	29·147	—·015?	29·733	29·294	13th	28·992	21st	·302	79·3	95·6	+0·3	68·5	+0·5	82·1	+0·4	27·1	101·9	19th	58·4	11th	43·5
	Lyallpur*		29·071			29·193	28th	28·976	21st	·217	77·8	95·1		71·7		83·4		23·4	101·1	18th	63·5	20th	37·6
	Montgomery	558	29·179	−·032	29·708	29·331	13th	29·010	21st	·321	80·6	98·9	−1·2	68·5	+0·4	83·7	−0·4	30·4	105·4	18th	59·0	11th	46·4
	Multan	420	29·333	—·039	29·718	29·486	11th	29·138	21st	·348	80·7	99·9	+0·9	70·6	+2·0	85·2	+1·5	29·3	105·3	18th & 22nd.	59·0	1st	46·3
	VII.—North-West Frontier Province.																						
14	Peshawar	1,113	28·684	—·046	29·793	28·843	13th	28·533	25th	·310	69·5	88·9	+2·0	59·8	−1·0	74·4	+0·5	29·1	98·2	5th	50·9	3rd & 24th.	47·3
	D. I. Khan	590	29·180	—·048	29·749	29·350	12th	28·977	21st	·373	75·7	93·6	−0·9	66·9	+0·8	80·3	−0·1	26·7	95·4	18th	56·6	11th	42·8
	VII.—Sind.																						
16	Jacobabad	186	29·541	—·063	29·685	29·712	13th	29·345	21st	·367	85·6	106·0	+2·9	74·1	+4·4	90·1	+3·7	31·9	112·1	22nd	64·8	15th	47·3
	Hyderabad	96	29·687	−·032	29·735	29·812	13th	29·566	25th	·246	83·6	103·9	+1·2	72·2	−0·1	88·1	+0·5	31·7	109·5	27th	66·5	1st	43·0
	Karachi	13	29·814	—·023	29·778	29·915	13th	29·690	25th	·225	78·3	84·9	−1·4	74·8	+1·5	79·8	+0·1	10·1	96·0	4th	70·0	2nd & 7th.	20·0
	IX.—Rajputana.																						
17	Bikaner	*771*	28·970	—·043	29·697	29·113	11th	28·851	26th	·262	84·1	103·4	+2·1	73·9	−1·7	88·6	+0·2	29·5	109·0	29th	66·0	11th	43·0
	Jodhpur	780	29·004	−·036	29·737	29·114	11th	28·892	25th	·222	83·2	103·1	+1·9	74·7	+1·7	88·9	+1·8	28·4	108·5	29th	66·3	1st	42·2
18	Jaipur	1,431	28·358	−·037	29·721	28·464	13th	28·249	24th	·215	84·7	103·1	+1·4	71·2	+0·1	87·1	+0·7	31·9	107·7	29th	61·6	1st	46·1
	Ajmer	1,611	28·200	−·031	29·736	28·308	13th	28·078	24th	·230	83·2	100·3	+1·0	77·2	+5·8†	88·8	+3·4†	23·1	106·1	28th	67·2	1st	38·9
	Kotah	819†	28·946	—·037	29·714	29·059	12th	28·839	25th	·220	80·4	105·1	+2·5	79·3	+2·4	92·2	+2·5	25·8	109·6	27th & 30th.	68·6	1st	41·0
	X.—Bombay.																						
19	Deesa	466	29·372	−·016	29·791	29·454	1st	29·277	25th	·177	82·6	101·7	+0·5	68·9	−2·8	86·8	−1·1	35·8	111·3	29th	60·4	1st	50·9
	Bhuj	395	29·500	—·016	29·785	25·583	11th	29·392	25th	·191	81·0	101·0	0	71·4	−0·1	86·2	−0·1	29·6	108·0	28th	65·0	1st	43·0
	Jamnagar	61	29·811		29·818	29·889	1st	29·702	25th	·187	81·1	97·2		69·5		83·3		27·7	102·5	30th	60·2	1st	42·3
	Dwarka	37?	29·837	—·025	29·826	29·922	1st	29·728	25th	·194	78·4	84·7	−0·1	76·4	+0·4	80·5	+0·1	8·3	88·3	30th	72·7	1st	15·6
	Rajkot	429	29·423	—·023	29·803	29·507	1st	29·326	25th	·181	79·7	102·9	+0·1	67·2	−2·2	85·0	−1·1	35·7	108·6	29th	60·8	2nd, 3rd & 7th.	47·8
	Veraval	*18*	29·855	—·003	29·816	29·934	1st	29·761	25th	·173	77·9‡	84·1‡	−3·6†	71·7‡	−0·8‡	77·9‡	−2·2†	12·4	93·6	12th	64·8	1st	28·8
	Bhavnagar Para	55	29·809	—·032	29·810	29·902	1st	29·726	24th	·176	82·5	102·8	+2·0†	73·0	−1·9	87·9	+0·1†	29·8	109·0	29th	64·8	1st	44·2
	Surat†	39	29·835	—·016	29·817	29·919	1st	29·748	24th	·171	82·6	99·4‡	−0·7‡	73·8§	+1·1§	86·7‡	+0·2‡	25·5	108·9	29th	65·6	1st	43·3
	Ahmadabad	163	29·681	−·014	29·794	29·760	1st	29·576	25th	·184	81·5	105·6	+0·2	74·3	−0·9	89·9	−0·3	31·3	112·6	29th	66·7	1st	45·9
25	Bombay	37	29·849	—·018	29·826	29·918	1st	29·757	24th	·161	80·6	88·9	+0·4	76·9	−0·8	82·9	−0·2	12·0	91·0	14th, 29th & 30th.	71·5	1st	19·5
	Ratnagiri	110	29·770	—·011	29·818	29·828	2nd & 3rd.	29·684	24th	·144	81·7	88·2	−1·9	76·9	−0·5	82·5	−1·2	11·3	91·8	29th & 30th.	70·9	3rd	20·9
	Marmagao	*60*	29·830	—·010	29·824	29·895	2nd	29·753	25th	·142	83·5	89·7	−0·4	78·8	−1·2	84·3	−0·8	10·9	94·0	29th	73·7	1st & 4th.	20·3
	Karwar	44	29·862	+·002	29·840	29·932	2nd	29·768	26th	·164	81·5	88·6	−1·4	77·3	−0·6	82·9	−1·0	11·3	91·2	30th	70·0	4th	21·2

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

* Mean of 13 days.
† " " 29 "
‡ " " 27 "
§ " " 28 "

continued.

ndia, etc., in April, 1913—continued.

Station.	Wind direction. Number of winds from N.E. (27)	E. (28)	S.E. (29)	S. (30)	S.W. (31)	W. (32)	N.W. (33)	Resultant direction. (34)	Normal direction. (35)	Wind velocity. Mean velocity, miles per hour. (36)	Normal. (37)	Departure from normal. (38)	Wind steadiness. Actual percentage. (39)	Departure from normal. (40)	Hygrometry, 8 hrs. Mean humidity at 8 hrs. (41)	Departure from normal. (42)	Mean vapour tension at 8 hrs. in inches of mercury. (43)	Departure from normal in inches of mercury. (44)	Cloud. Mean cloud amount at 8 hrs. (45)	Departure from normal. (46)	Rainfall. Number of rainy days. (47)	Normal number of rainy days. (48)	Departure from normal. (49)	Rainfall of month. (50)	Normal rainfall of month. (51)	Departure from normal. (52)	Total rainfall from 1st Dec. 1912 to 30th Apl. 1913. (53)	Normal rainfall of period, 1st Dec. to 30th Apl. (54)	Departure from normal of period, 1st Dec. 1912 to 30th Apl. 1913. (55)	Heaviest rainfall during month. (56)	(57)
V.—Punjab.																															
Phi.	1		3		3	10	7	N 77° W	N 77° W	2·8	2·8	0	46	+ 9	35	− 1	·359	−·014	1·6	−0·4	1	0·8	+0·2	0·12	0·38	−0·26	2·37	3·06	−0·69	0·12	
a.	4	3	2	4	2	2	3	N 39° E	N 28° W				10	+ 8	36	− 3	·373	−·019	1·8	−1·1	1	0·7	+0·3	0·29	0·33	−0·04	1·30	2·00	−0·70	0·29	
iala.	2		6	1		3	9	N 39° W		5·4			23		42		·387		1·3		0	1·1	−1·1	0	0·45	−0·45	8·00	4·61	+3·39	0	
bala.		7	2				9	N 10° E	N 18° W	3·9	2·3	+1·6	43	+34	36	−17	·342	−·133	2·7	+1·4	0	1·7	−1·7	0·06	0·51	−0·45	5·67	5·66	+0·01	0·04	
dhiana.	1		1	1			1	N 45° E	N 27° E	0·9	1·8	−0·9	3	− 4	37	− 8	·347	−·084	1·4	−1·3	0	1·5	−1·5	0	0·83	−0·83	5·68	5·65	+0·03	0	
hore.	2	2	2	1		2	2	N 11° E	N 31° E	2·[illegible]	2·3	−0·2	23	+ 3	44	− 3	·398	−·021	2·9	+0·6	0	1·5	−1·5	0·04	0·50	−0·46	3·13	3·71	−0·58	0·03	
ikot.	5	2					6	N 4° E	N 20° E	2·3	2·0	+0·3	66	+33	46	− 2	·397	−·039	2·9	+0·8	1	1·8	−0·8	0·16	0·82	−0·66	2·86	6·87	−4·01	0·11	
walpindi.	3	1		3		4		N 9° W	N 30° W	2·7	2·3	+0·4	20	− 9	47	− 9	·370	−·052	3·7	+0·6	1	3·8	−2·8	0·37	1·85	−1·48	5·01	9·84	−4·83	0·16	
aushab.	6	8	3	3	1	1		N 79° E	N 37° E	4·9	4·9	0	43	+ 6	32	−10	·305	−·097	4·8	+2·0	0	2·1	−2·1	0·16	0·89	−0·73	3·55	4·01	−0·46	0·0[illegible]	
allpur.	3	4	2	1				N 61° E		3·2‡			54		41		·390		4·8		1			0·17†	0·49	−0·32	0·17†			0·17	
ontgomery.	5	6	7	2	3		4	S 79° E	S 83° E	4·9	4·6	+0·3	30	+ 4	27	−11	·273	−·135	2·3	+0·1	0	0·8	−0·8	0·09	0·29	−0·20	1·88	2·18	−0·30	0·09	
ultan.	4						1	N 9° E	N 51° E	1·0	1·6	−0·6	43	+20	39	− 9	·402	−·039	2·6	+1·0	0	0·7	−0·7	0·06	0·20	−0·14	1·22	1·52	−0·49	0·06	
VI.—North-West Frontier Province.																															
Peshawar.			1	3	1		2	S 52° W	S 54° W	1·7	2·9	−1·2	3	− 7	57	− 5	·402	−·067	3·5	+0·1	4	3·8	+0·2	1·05	1·78	−0·73	3·65	7·35	−3·70	0·4	
D. I. Khan.	6				1	1	4	N 2° W	N 5° E	1·6	1·8	−0·2	31	− 2	49	− 5	·425	−·061	3·5	+1·4	0	1·6	−1·6	0·21	0·74	−0·53	1·99	3·16	−1·17	0·0	
II.—Sind.																															
Jacobabad.	5	1	1	1			4	N 28° E	N 88° E	3·0	3·1	−0·1	20	− 7	43	+ 5	·525	+·104	0·9	−1·0	0	0·5	−0·5	0	0·16	−0·16	0·44	1·17	−0·73		
Hyderabad.				10	13	1	1	S 32° W	S 48° W	5·2	7·9	−2·7	66	+ 9	60	+12	·615	+·104	2·4	+0·8	0	0·1	−0·1	0	0·04	−0·04	1·42	0·79	+0·63		
Karachi.	1				7	19	2	S 85° W	N 89° W	11·0	9·6	+1·4	82	+21	83	0	·815	+·022	3·4	+1·2	0	0·2	−0·2	0	0·16	−0·16	1·27	1·54	−0·27		
X.—Rajputana.																															
Bikaner.		4	6	5	7	7	1	S 18° W	S 51° W	5·3	4·3	+1·0	46	+24	26	−10	·297	−·112	1·1	−0·7	0	0·5	−0·5	0·11	0·14	−0·03	0·62	1·16	−0·54	08	
Jodhpur.	2	1		4	14	4		S 43° W		3·7			53		28	+ 1	·309		1·8		0	0·5	−0·5	0	0·14	−0·14	0·02	0·73	−0·71	0	
Jaipur.	4				1	6	7	N 38° W	N 34° W	4·1*	3·7	+0·4	46	+12	27	− 8	·321	−·072	1·1	−1·0	0	0·6	−0·6	0	0·19	−0·19	0·42	1·48	−1·0	0	
Ajmer.	1				12	5	2	S 66° W	W	6·1	4·2	+1·9	49	+18	37	0	·414	−·009	0·8	−0·7	0	0·5	−0·5	0	0·20	−0·20	0	1·33	−1·[illegible]	0	
Kotah.	1		1			8	19	N 59° W		2·7			53		23	+ 1	·329		2·0		0	0·8	−0·8	0	0·43	−0·43	0·51	1·27	−0·[illegible]	0	
X.—Bombay.																															
Deesa.	1	1		4	9	5	6	S 76° W	N 88° W	6·6	6·6	0	46	+16	47	+ 7	·504	+·047	1·3	+0·1	0	0·1	−0·1	0	0·03	−0·03		0·42	−	0	
Bhuj.					7	13	9	N 84° W	N 75° W	6·3	8·5	−2·2	79	+ 2	59	+ 4	·605	−·005	3·3	+2·3	0	0·1	−0·1	0	0·09	−0·09	0·0	0·44	[illegible]	0	
Jamnagar.					8	19	3	S 82° W		10·6			90		72		·754		0·9		0	0	0	0	0	0	0	0·42	·2	0	
Dwarka.					12	7	10	S 89° W		7·6			72		84	+ 3	·810		3·6		0	0	0	0	0	0	0	0·68	68	0	
Rajkot.				1	11	13	4	S 79° W	N 66° W	8·4	7·6	+0·8	76	+ 3	62	− 3	·645	−·025	2·4	+1·3	0	0·1	−0·1	0	0·03	−0·03	0	0·30	·30	0	
Veraval.				1	7	7	6	N 75° W	N 47° W	7·1	6·1	+1·0	53	−10	79§	+ 7	·744§	+·020	2·8	+0·2	0	0	0	0	0	0	0·02	0·18	·17	0	
Bhavnagar Para.				1	4	4	12	N 70° W	S 66° W	2·3	7·7	−5·4	54	−13	71	+ 9	·776	+·075	2·0	+0·4	0	0·2	−0·2	0	0·13	−0·13	0	0·50	0·50	0	
Surat.	2		8	8	4			S 19° E	S 61° W	3·6‖	5·4	−1·8	43	+ 3	69	+ 4	·772	+·033	2·7	+1·0	0	0·1	−0·1	0	0·05	−0·05	0	0·27	0·27	0	
Ahmadabad.				3	7	2	17	N 78° W	N 45° W	3·6	3·4	+0·2	62	+21	55	+ 8	·590	+·048	0·7	−0·8	0	0·1	−0·1	0	0·03	−0·03	0·11	0·27	−0·16	0	
Bombay.	5	5	4	3	1	4	3	N 65° E	N 33° E	5·9*	7·7	−1·8	17	+ 7	81	+ 6	·845	+·013	4·2	+1·1	0	0·1	−0·1	0	0·06	−0·06	0·07	0·2	−0·20	0	
Ratnagiri.	3	2	6	3	1	1	2	S 65° E	N 81° W	4·9	6·1	−1·2	17	− 3	75	+ 4	·811	−·001	3·2	+0·2	0	0·3	−0·3	0	0·10	−0·10	0	0·[illegible]	−0·38	0	
Marmagao.	3	2		3	5	1	1	N 7° E	N 5° W	4·5*	6·2	−1·7	27	+23	73	+ 1	·888	−·019	6·5	+2·7	0	0·9	−0·9	0·01	0·87	−0·86	0·01	1[illegible]	−1·09	0·01	
Karwar.	3							N 45° E	N 9° W	2·3	3·5	−1·2	10	−33	79	+ 1	·835	+·005	3·8	+0·5	0	1·0	−1·0	0	0·57	−0·57	0	[illegible]	−0·33	0	

* Uncorrected for scale error.

† Since 13th April 1913.

‡ Mean of 12 days.
§ " 27 "
‖ " 28

Table

(2) Abstract of observations taken at 8 hrs. at 217 stations

Number of subdivision.	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.	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.	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		3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	X.—Bombay—*concld.*																						
26	Malegaon	1,430	28·432	−·014	29·780	28·517	1st	28·348	25th	·169	86·3	106·1	+2·9	71·1	−0·7	88·6	+1·1	35·0	109·4	29th	61·1	3rd	48·3
	Ahmednagar	2,154	27·736	−·007?	29·757	27·807	1st	27·662	24th & 26th	·145	85·2	103·5	+4·6?	71·8	+2·2	87·7	+3·4?	31·7	107·6	28th	60·0	3rd & 4th.	47·6
	Poona	1,846	28·016	−·010	29·817	28·117	1st	27·962	25th	·155	77·8	103·0	+1·4	69·8	+0·1	86·4	+0·7	33·2	108·5	28th	61·3	1st	47·2
	Sholapur	1,590	28·260	−·025	29·749	28·318	1st	28·176	26th	·142	86·6	105·7	+0·9	76·8	+1·3	91·3	+1·1	28·9	108·8	27th	67·6	1st	41·2
	Bijapur	*1,948*	27·918	−·016	29·755	27·974	1st	27·849	26th	·125	82·8	103·6	+3·8	75·6	+0·8	89·6	+2·3	28·0	105·7	30th	66·3	4th	39·4
	Belgaum	2,562	27·359	−·006	29·805	27·400	1st	27·283	26th	·117	76·3	96·5	+0·5	66·1	−1·4	81·3	−0·5	30·4	100·3	2nd & 7th	58·5	4th	41·8
	XI—Central India.																						
20	Neemuch	1,624	28·197	−·014	29·741	28·275	1st & 11th.	28·114	24th	·161	83·7	102·1	+1·2	73·1	+1·8	87·6	+1·5	29·0	106·9	29th & 30th.	62·0	1st	44·9
	Indore	1,823	28·024	−·008	29·754	28·099	1st	27·941	25th	·158	84·5	101·6	+1·0	71·9	+2·2	86·8	+1·6	29·7	107·1	29th	58·6	1st	48·5
21	Nowgong	754	29·024	−·027	29·727	29·132	13th	28·923	24th & 26th	·209	84·3	103·3	−0·1	70·6	−0·8	87·0	−0·5	32·7	110·5	28th	58·5	1st	52·0
	Sutna	1,041	28·723	−·037	29·707	28·825	13th	28·607	24th	·218	84·0	102·8	+1·1	72·5	+0·9	87·7	+1·0	30·3	108·8	28th, 29th & 30th.	59·7	1st	49·1
	XII.—Central Provinces.																						
22	Buldana	2,132	27·737?		29·739	27·809	1st	27·695	25th	·144	86·3	102·0		78·5		90·3		23·5	108·2	29th	70·6	4th	37·6
	Akola	925	28·903	−·016	29·755	28·996	1st	28·833	24th	·163	90·1	108·5	+2·5	77·5	+2·7	93·1	+2·6	31·0	114·2	29th	62·0	1st	52·2
	Amraoti	1,215	28·613	−·009	29·749	28·697	1st	28·546	25th	·151	88·0	107·1	+2·1	79·5	+3·2	93·3	+2·7	27·6	112·3	29th	69·3	1st	43·0
23	Khandwa	1,044	28·779	−·021	29·760	28·855	1st	28·694	25th	·161	85·3	106·6	+1·8	77·0	+1·7	91·8	+1·7	29·6	112·7	29th	68·1	1st	44·6
	Hoshangabad	1,006	28·814	−·028	29·754	28·901	1st	28·721	25th	·180	86·1	105·4	+0·6	74·7	+0·9	90·1	+0·7	30·7	110·6	29th	59·9	1st	50·7
	Saugor	1,807	27·996	−·035	29·699	28·077	1st	27·897	25th	·180	86·5	101·8	+0·3	76·2	+3·4?	88·9	+1·9?	25·6	107·3	28th & 29th.	69·1	1st	38·2
	Jubbulpore	1,327	28·472	−·025	29·729	28·565	1st	28·379	26th	·186	83·2	102·7	+0·7	70·3	−0·3	86·5	+0·2	32·4	107·8	28th, 29th & 30th.	55·3	1st	52·5
	Seoni	2,033	27·802	−·021	29·714	27·888	1st	27·716	26th	·172	86·7	103·0	+1·9	73·4	+1·6	88·2	+1·7	29·6	107·6	28th	61·5	1st	46·1
	Nagpur	1,017	28·786	−·024	29·725	28·674	1st	28·709	26th	·165	90·4	107·7	+2·2	78·8	+2·6	93·2	+2·4	28·9	111·6	28th	66·3	3rd	45·3
24	Pendra	2,123?	27·792*		29·717*	27·863	1st	27·704	20th	·159	87·0	100·6		74·4		87·5		26·2	105·8	28th	64·2	1st	41·6
	Raipur	970	28·831	−·021	29·729	28·938	1st	28·746	26th	·192	88·2	106·0	+1·7	79·8	+2·9	93·0	+2·3	26·2	111·7	29th	67·6	1st	44·1
	Chanda	*634*	29·161	−·038	29·729	29·245	1st	29·078	26th	·167	88·7	107·0	+0·5	77·2	+0·8	92·1	+0·7	29·8	111·0	29th	61·0	1st	50·0
	Jagdalpur	1,813	28·043		29·755	28·160	13th	27·965	26th	·195	83·7	101·9		73·7		87·8		28·2	105·2	10th, 12th & 30th.	63·1	1st & 2nd.	42·1
	XIII.—Hyderabad.																						
27	Aurangabad	1,905	27·972	−·031	29·764	28·044	1st	27·891	24th	·153	86·2	104·1	+1·5	74·9	+1·9	89·5	+1·7	29·2	106·6	28th & 29th.	64·2	4th	42·7
	Nizamabad	1,248	28·588		29·751	28·658	1st	28·507	26th	·151	87·7	107·1	+4·1	77·0	+0·5	92·1	+2·3	30·1	110·4	21st & 23rd.	65·7	1st	44·7
	Bidar	*2,165*									88·1	103·1		76·8		89·9		26·3	105·4	10th & 30th.	71·4	23rd	34·0
28	Gulbarga	1,503	28·354	−·016	29·762	28·411	1st	28·271	26th	·140	86·0	106·0	+2·8	77·3	+1·2	91·6	+2·0	28·7	109·5	30th	68·8	1st	40·7
	Raichur	*311*	28·548	+·002	29·771	28·599	20th	28·461	26th	·138	86·6	104·2	+2·1	80·0	+0·8	92·1	+1·5	24·2	107·5	7th	72·6	4th	34·9
	Hyderabad (Deccan)	1,690	28·167	−·012	29·752	28·221	1st	28·089	26th	·132	85·2	103·6	+1·6	77·3	+2·0	90·5	+1·8	26·3	106·3	6th & 30th.	72·7	5th	33·6
	Haramkonda	1,877	28·960	−·025	29·770	29·027	1st	28·894	26th	·133	84·3	103·9	+2·4	78·0	+1·1	91·0	+1·7	25·9	106·0	9th, 13th & 30th.	74·2	13th, 14th & 15th.	31·8
	XIV.—Mysore.																						
29	Chitaldrug	[illegible]	27·497	−·015	29·778	27·543	3rd	27·414	26th	·129	78·4	98·3	+2·5	72·2	+0·4	85·2	+1·5	26·1	100·6	7th	67·3	3rd	33·3
	Hassan	[illegible]	26·818	+·007	29·806	26·862	1st	26·733	26th	·129	74·1	93·6	+2·5	67·9	+1·5	80·7	+2·0	25·7	97·0	7th	63·4	4th	33·6
	Bangalore	[illegible]	26·932	−·010	29·789	26·970	1st	26·848	25th	·122	76·4	95·4	+2·2	70·3	+1·1	82·8	+1·7	25·1	98·3	1st	65·8	14th	32·5
	Mysore	[illegible]	27·417	−·007	29·809	27·459	1st	27·329	26th	·130	76·7	95·1	+1·1	70·7	+0·4	82·9	+0·7	24·4	98·5	1st	67·0	3rd	31·5

N.B.—Elevations in [illegible] indicate barometrical determinations.

* Mean of 22 days.

—continued.

India, etc., in April, 1913—continued.

Wind direction. Number of winds from 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 from 1st Dec. 1912 to 30th April, 1913.	Normal rainfall for period, 1st Dec. to 30th April.	Departure from normal of period, 1st Dec. 1912 to 30th April, 1913.	Heaviest rainfall during	Station.
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
																															X.—Bombay—*concld.*
1			1		6	7	10	N 80° W	N 69° W	6·8	6·9	−0·1	56	− 7	26	−27?	·325	−·326?	0·9	−1·1	0	0·4	−0·4	0	0·13	−0·13	0·04	0·59	−0·55	0	Malegaon.
6	1			2	2		16	N 40° W	N 1° E	4·9	7·7	−2·8	62	+14	24	−31?	·294	−·337?	1·9	+0·3	0	1·1	−1·1	0	0·34	−0·34	0	1·29	−1·29	0	Ahmadnagar.
			1	1	5	16	5	S 86° W	N 83° W	7·1	7·7	−0·6	72	+15	48	+ 7	·438	+·012?	1·7	−0·2	3	1·4	+1·6	0·95	0·60	+0·35	0·95	0·94	+0·01	0.69	Poona.
5	3	5	3				13	N	N 45° W	8·8	6·4	+2·4	47	+24	34	− 5	·426	−·046	1·3	−1·3	0	1·1	−1·1	0·07	0·51	−0·44	0·07	1·33	−1·26	0.05	Sholapur.
5	1			3	9	5	6	N 88° W	N 82° W	5·9	4·1	+1·8	49	− 9	49	−11	·541	−·117?	2·2	−0·1	3	2·1	+0·9	1·32	0·82	+0·50	1·39	1·48	−0·09	0·81	Bijapur.
				2	3	5	1	S 66° W	S 83° W	8·54	9·6	−1·1	27	− 1	55	+ 3	·576	+·012	1·1	−1·4	5	3·5	+1·5	1·18	1·74	−0·56	1·18	2·55	−1·37	0·50	Belgaum.
																															XI.—Central India.
1	3	1		1	7	13	1	S 82° W	S 51° W	7·0	6·4	+0·6	49	+27	41	+ 9	·504	+·082	1·2	−0·1	0	0·2	−0·2	0	0·12	−0·12	0·10	0·77	−0·67	0	Neemuch.
2	3				1	7	9	N 51° W	N 45° W	3·3	3·2	+0·1	53	+ 3	31	− 8	·363	−·089	2·0	+0·6	0	0·3	−0·3	0	0·14	−0·14	0·11	0·74	−0·63	0	Indore.
1	1			6	4	10		S 60° W	S 75° W	1·7	2·3	−0·6	43	+ 6	29	− 9	·338	−·085?	1·5	+0·3	0	0·2	−0·2	0	0·17	−0·17	2·09	2·14	−0·05	0	Nowgong.
1				4	4	9	1	S 66° W	N 55° W	2·1	4·9	−2·5	46	+ 6	32	+ 6	·370	+·051?	0·8	−0·2	0	0·4	−0·4	0·01	0·16	−0·15	2·68	2·66	+0·02	0·0	Satna.
																															XII—Central Provinces.
2					2	15	14	N 64° W		6·0	6·6	−0·6	83		20*		·263*		1·4		0	0·6	−0·6	0·04	0·23	−0·19	0·12	1·51	−1·39	0·1	Buldana.
1					2	16	11	N 73° W	N 67° W	4·5	4·3	+0·2	86	+33	16	−14	·226	−·152?	3·1	+1·2	0	0·5	−0·5	0	0·17	−0·17	0·03	1·78	−1·75		Akola.
4	3	1		1	4	11	6	N 66° W	S 69° W	4·5	3·9	+0·6	53	+23	23	−12	·308	−·135	1·7	−0·4	0	0·7	−0·7	0	0·26	−0·26	0·13	1·79	−1·66	0	Amraoti.
1					2	13	7	N 77° W	N 68° W	5·3	4·7	+0·6	52	− 1	25	− 5	·301	−·059?	2·2	+0·8	0	0·4	−0·4	0	0·13	−0·13	0·20	0·90	−0·70	0	Khandwa.
	2	1	2	1	13	1	5	S 52° W	S 48° W	2·8	2·2	+0·6	56	+39	26	−12	·314	−·132	1·6	−0·1	0	0·3	−0·3	0	0·16	−0·16	0·26	1·48	−1·22	0	Hoshangabad.
	1	2	3	1	5	10	7	S 86° W	S 53° W	5·8	3·4	+2·4	46	29	18	−12	·228	−·123	1·6	+0·3	0	0·4	−0·4	0	0·37	−0·37	0·78	2·22	−1·44	0	Saugor.
	1		4	3	3	8	1	S 48° W	S 18° W	1·9	2·4	−1·1	33	0	28	− 7	·311	−·079	1·0	−0·6	0	0·7	−0·7	0	0·27	−0·27	5·20	2·43	+2·77	0	Jubbulpore.
10	2			3	3	3	6	N 37° W	S 86° W	3·3	2·8	+0·5	46	+37	24	−15	·303	−·141	0·8	−1·3	0	1·3	−1·3	0	0·50	−0·50	2·76	3·02	−0·26	0	Seoni.
4	1	3	3		3	6	8	N 52° W	N 83° W	4·3	4·4	−0·1	33	+25	21	−15	·303	−·164	1·7	−0·8	0	1·2	−1·2	0	0·56	−0·56	0·71	2·39	−1·68	0	Nagpur.
5	3	1	1	4	2	2	8	N 39° W		4·5			30		22		·286		1·8		1	3·1	−2·1	0·21	1·50	−1·29	6·58	5·69	+0·8	0·21	Pendra.
2		1			15	5	4	S 72° W	S 56° W	3·9	4·6	−0·7	59	+22	35	− 2	·481	+·025	1·1	−1·4	0	1·4	−1·4	0	0·66	−0·66	3·55	2·43	+1·	0	Raipur.
		1	6	9	4	2	3	S 7° W	S 52° E	2·7	2·6	+0·1	46	+27	35	−10	·481	−·069	1·6	−0·8	2	1·6	+0·4	0·42	0·65	−0·23	5·22	2·66	+2·	0·31	Chanda.
		2		10	12	4	2	S 35° W		4·4			69		56		·636		1·4		5			1·65			2·81			0·55	Jagdalpur.
																															XIII—Hyderabad.
5	3		3	1	4	8	6	N 61° W		3·1			40		37	+ 8?	·460		1·8		0	0·6	−0·6	0	0·27	−0·27	0·24	1·24	−·00	0	Aurangabad.
1			1	5	6	8		S 52° W		3·1			46		34	−19	·438		1·1		1	1·9	−0·9	1·06	0·93	+0·13	1·63	2·15	0·52	1·03	Nizamabad.
1	4		2		10		7	N 88° W		4·1			26		34		·460		3·2		1	2·9	−1·9	0·34	1·41	−1·07	0·34	2·61	2·27	0·10	Bidar.
1	8	4	2	4	3	2	3	N 76° E	N 78° W	6·0	6·6	−0·6	17	+10	41	− 9	·515	−·068	0·3	−2·2	3	2·3	+0·7	0·46	1·05	−0·59	0·48	1·93	−1·45	0·16	Gulbarga.
1	2		3	2	15	2	5	S 55° W	S 58° W	5·4	6·2	−0·8	53	+11	44	− 9	·567	−·068	1·4	−1·3	0	1·5	−1·5	0	0·84	−0·84	0	1·59	−1·59	0	Raichur.
								(a)	S 72° W	1·4	3·3	−1·9	(a)		57	+ 1	·682	+·047	1·4	−0·8	1	1·8	−0·8	0·27	1·05	−0·78	0·58	2·33	−1·75	0·27	Hyderabad (Deccan).
	4		15	11				S 35° E		6·2			76		61	− 3	·711		1·7		0	2·2	−2·2	0	1·04	−1·04	0·21	2·09	−1·88	0	Hanamkonda.
																															XIV.—Mysore.
1		1		1	12	10	2	S 70° W	S 70° W	3·6	4·9	−1·3	66	+ 3	65	+ 2	·630	+·002	1·5	−1·4	1	2·3	−1·3	0·13	1·21	−1·08	0·13	2·	−1·92	0·13	Chitaldrug.
1	1	1		1	11	11	4	S 79° W	S 82° W	5·3	2·5	+2·8	67	+38	76	+ 3	·643	+·008	3·9	−0·5	2	4·4	−2·4	0·62	2·34	−1·72	0·62	3·	−2·97	0·39	Hassan.
			2	2	14	10	2	S 59° W	S 41° W	4·5	3·5	+1·0	76	+22	72	0	·654	+·005	2·5	−0·8	0	2·4	−2·4	0·04	1·37	−1·33	0·05	7	−2·72	0·04	Bangalore.
				1	10	16	2	S 75° W	S 68° W	5·7	5·2	−0·1	82	+30	77	+ 3	·706	+·036	4·0	−0·4	3	4·9	−1·9	1·38	2·65	−1·27	1·39	59	−2·20	0·75	Mysore.

‡ Mean of 23 days.

(a) Indeterminate.

* Mean of 19 days.

Table

(2) Abstract of observations taken at 8 hrs. at 217 stations

Number of subdivision.	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.	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.	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	16	17	18	19	20	21	22	23	24
	XV.—Madras.																						
30	Mangalore	65	29·836	−·009	29·832	29·904	1st	29·736	26th	·168	84·5	92·3	0	79·9	+2·7	86·1	+1·3	12·4	94·3	29th	71·4	21st	22·9
	Calicut	27	29·870	−·012	29·826	29·936	2nd	29·773	26th	·163	83·9	91·4	+0·1	80·4	+2·5	85·9	+1·3	11·0	93·3	22nd	76·6	18th	17·2
	Cochin	9	29·893	−·009	29·830	29·959	1st	29·805	26th	·154	84·5	91·9	+0·4	79·4	+1·0	85·7	+0·7	12·5	93·7	21st & 24th	74·7	24th	19·0
	Trivandrum	198	29·699	+·004	29·826	29·764	1st	29·600	26th	·164	82·3	87·9	+0·4	78·3	+2·0	83·2	+1·2	9·6	90·0	11th & 16th	75·5	18th	14·5
31	Pamban	37	29·838	−·020	29·301	29·903	1st	29·740	26th	·163	81·6	93·9	+3·0	79·4	+0·4	85·6	+1·7	14·5	94·7	5 days	77·3	4th	17·4
	Madura	447	29·448	+·004	29·822	29·513	1st	29·359	26th	·154	86·0	100·4	+1·1	78·6	+2·2	89·5	+1·7	21·8	103·0	5th, 8th & 9th.	73·1	17th	29·9
	Pudukkottai	318	29·566		29·813	29·619	1st	29·486	25th	·133	85·0	100·3		79·0		89·6		21·3	103·1	10th	76·5	12th	26·6
	Negapatam	31	29·849	−·019	29·809	29·907	1st	29·781	25th	·126	85·6	95·5	+3·0	79·9	+0·9	87·7	+1·9	15·6	99·7	24th & 27th	75·2	11th	23·5
	Trichinopoly	255	29·637	−·007	29·823	29·701	1st	29·549	26th	·152	86·8	101·8	+0·7	78·7	+1·2	90·3	+0·9	23·1	105·6	9th	74·3	12th & 17th.	31·3
	Coimbatore	1,341	28·558	−·006	29·820	28·610	13th	28·463	26th	·147	81·0	97·4	0	73·7	+0·3	85·5	+0·1	23·7	101·0	6th	68·8	17th	32·2
	Salem	940	28·977	−·009	29·841	29·039	1st	28·880	27th	·159	84·4	101·8	+1·1	77·8	+2·0	89·8	+1·5	24·0	104·0	5 days	68·8	19th	35·2
	Cuddalore	37	29·848	−·007	29·815	29·905	1st	29·757	26th	·148	85·4	94·1	+1·3	78·7	+1·9	86·4	+1·6	15·4	98·8	17th	72·2	12th	26·6
	Vellore	707	29·150		29·788	29·201	13th	29·073	25th	·128	83·4	100·6		76·4		88·5		24·2	105·7	9th	68·5	12th	37·2
	Madras	22	29·852	−·025	29·806	29·913	13th	29·770	25th & 26th.	·143	85·7	94·2	+1·1	78·9	+1·8	86·5	+1·5	15·3	99·0	8th	73·5	12th	25·5
32	Cuddapah	433	29·408	−·027	29·771	29·461	1st	29·313	25th	·148	88·3	105·3	+0·7	81·4	+0·6	93·7	+0·7	24·5	109·0	1st	75·3	14th	33·7
	Bellary	1,475	28·373	−·026	29·759	28·423	3rd	28·278	26th	·145	84·3	105·3	+1·9	77·5	+0·4	91·4	+1·1	27·8	108·0	7th	66·8	21st	41·2
	Kurnool	923	28·925	−·017	29·773	28·983	13th	28·858	25th	·125	85·8	100·4	+1·8	80·5	+2·5	93·0	+2·1	24·9	108·0	7th	72·6	5th	35·4
33	Nellore	66	29·782	−·019	29·783	29·856	14th	29·697	26th	·159	84·2	99·9	−1·0	77·4	0	88·7	−0·5	22·5	105·0	5th	72·6	12th	32·4
	Masulipatam	15	29·851	−·016	29·801	29·920	1st	29·777	26th	·143	85·7	95·3	+0·4	78·4	+0·9	86·8	+0·7	16·9	98·3	8th	72·7	13th & 15th.	25·6
	Cocanada	26	29·856	−·007	29·819	29·925	1st	29·763	25th	·162	84·7	97·0	+1·4	79·0	+0·7	88·0	+1·1	18·0	100·7	30th	74·6	14th	26·1
	Waltair (Vizagapatam.)	76	29·632	−·015	29·799	29·705	1st	29·541	25th	·161	83·3	89·7		78·4		84·1		11·3	93·1	12th	73·4	18th	19·7
	Calingapatam	9	29·825		29·782	29·906	1st	29·724	24th	·182	84·5	93·0		79·4		86·2		13·6	94·8	16th & 27th	73·3	15th	21·5
	Gopalpur	2	29·755	−·028	29·747	29·860	1st	29·653	24th	·207	81·1	87·4	−0·3	76·8	−0·7	82·1	−0·5	10·6	90·7	1st	74·5	18th	16·2
	Bay Islands.																						
1	P. V. Fraser	[illegible]	29·799†		29·716†	29·890	15th	29·700	24th	·190	82·3												
	Port Blair	58	29·854	−·003	29·842	29·900	1st	29·763	30th	·137	82·7	91·9	−0·6	78·7	−0·1	85·3	−0·3	13·2	91·2	4 days	75·5	7th	18·7
	Slipper Island	90	29·800		29·824	29·853	1st	29·707	24th	·146	83·4	89·7		79·9		84·8		9·8	92·1	21st, 29th & 30th.	77·1	8th	15·0
	Kashmir.																						
13	Muzaffarabad	2,475	2485		29·982	27·585	1st	27·367	19th	·218	60·2	79·8		50·2		65·0		29·6	89·5	8th	44·1	2nd	45·4
	Srinagar	5,204	2381	−·028	24·852	25·013	15th	24·680	21th	·333	51·3	65·0	−3·2	45·3	−0·1	55·2	−1·7	19·7	73·1	4th	38·1	30th	35·0
	Dras	10,059	2299	−·009	20·767	20·930	7th	20·611	24th	·319	32·0	41·2		21·4		31·3		19·8	48·0	23th	6·0	7th	42·0
	Leh	11,503	1962	−·038	19·660	19·798	8th	19·515	24th	·283	37·8	54·1	−3·0	30·4	−0·5	42·3	−1·7	23·7	59·9	23rd	24·5	7th	35·4
	Skardu	7,505	22[illegible]	−·011	22·845	23·007	1st	22·689	22nd	·318	44·9	56·8	−4·4	40·7	−1·2	48·7	−2·8	16·1	64·5	17th	32·6	23rd	31·9
	Gilgit	4,890	25[illegible]		25·109	25·310	15th	24·897	22nd	·413	57·2	69·5	−3·2	51·4	−2·6	60·4	−2·9	18·1	79·2	8th	45·2	11th & 12th.	34·0

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 3,000 feet.

† Mean of 29 days.

—continued.

India, etc., in April, 1913—continued.

Wind direction. Number of winds from 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 from 1st Dec. 1912 to 30th April 1913.	Normal rainfall of period, 1st Dec. to 30th April.	Departure from normal of period, 1st Dec. 1912 to 30th April 1913.	Heaviest rainfall during month.	Station.
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
																															XV.—Madras.
4	3	8	4		1	3	3	N 56° E	N 60° E	4·1	2·3	+1·8	27	− 3	69	− 7	·822	−·041	4·1	−0·4	3	2·2	+ 0·8	0·79	1·48	− 0·69	0·79	2·16	− 1·37	0·54	Mangalore.
3		2		1		5	8	N 48° W	N 13° E	4·7	7·5	−2·8	40	+ 7	78	0	·902	+·031	4·7	−0·2	0	4·7	− 4·7	0·03	3·86	− 3·83	1·04	6·11	− 5·07	0·03	Calicut.
2	10	11	1	1				N 69° E	N 27° E	5·6*	4·4	+1·2	66	+ 6	74	− 5	·868	−·023	5·3	+0·8	5	6·7	− 1·7	1·78	5·21	− 3·43	4·80	10·28	− 5·48	0·60	Cochin.
20	1	1				5		N 4° W	N 4° E	3·8*	4·3	−0·5	79	+27	77	− 2	·841	−·020	5·1	+0·8	6	7·0	− 1·0	4·37	4·72	− 0·35	9·82	9·89	− 0·07	2·30	Trivandrum.
1	1			9	7			S 19° W	S 38° E	4·7	5·3	−0·6	43	− 3	76	− 2	·897		2·7		1	3·5	− 2·5	0·18	1·96	− 1·78	7·51	13·00	− 5·49	0·16	Pamban.
3	8	7	2	1	2	3	3	N 47° E	N 41° E	4·1	2·3	+1·8	33	+ 7	63	− 3	·839	+·006	4·7	+0·7	1	3·0	− 2·0	0·78	2·25	− 1·47	1·53	5·53	− 4·00	0·75	Madura.
	1		1	9	6		1	S 13° W		5·1			43		73		·876		3·0		2	2·4	− 0·4	0·93	1·42	− 0·49	2·08	4·80	− 2·72	0·80	Pudukkottai.
		1	4	4	20		1	S 29° W	S 6° E	4·8	5·0	−0·2	76	+46	75	0	·920	+·012	3·5	−1·0	0	1·1	− 1·1	0	0·69	− 0·69	6·93	14·83	− 7·90	0	Negapatam.
	2	3	6	6	5	5		S	S 34° W	3·3*	3·9	−0·6	41	+24	63	− 5	·793	−·011	2·5	−1·7	1	1·8	− 0·8	0·25	1·77	− 1·52	1·37	6·17	− 4·80	0·25	Trichinopoly.
4	1		1	8	5		1	S 21° W	S 1° W	3·4	2·2	+1·2	27	+12	82	0	·853	+·036	3·1	−1·4	2	3·1	− 1·1	1·08	1·67	− 0·59	1·17	4·23	− 3·06	0·53	Coimbatore.
		5	1	6	3	9		S 32° W	S 67° E	3·7	3·4	+0·3	33	+20	75	+ 4	·875	+·069	3·6	+0·1	2	3·7	− 1·7	1·27	2·03	− 0·76	1·27	4·31	− 3·04	1·07	Salem.
			7	10	6	2		S 4° W	S 39° W	7·2	2·6	+5·2	62	+10	82	+ 1	·997	+·030?	2·7	−1·7	0	1·2	− 1·2	0	0·69	− 0·69	0·52	10·39	− 9·87	0	Cuddalore.
1						9		N 41° W		2·0			30		74		·846		1·8		1	1·5	− 0·5	2·32	1·01	+ 1·31	2·53	6·76	− 4·23	2·32	Vellore.
				19	10		1	S 17° W	S 10° W	5·7*	5·5	+0·2	89	+16	74	0	·901	+·006	3·1	−1·3	0	0·8	− 0·8	0·02	0·61	− 0·59	0·46	8·2[illegible]	− 7·81	0·02	Madras.
1	2	5	7	10		3	1	S 33° E	S 41° E				49	+12	58	+ 3	·781	+·050	1·2	−1·4	0	1·0	− 1·0	0	0·53	− 0·53	0	2·12	− 2·12	0	Cuddapah.
3	1		2	2	4	5	8	N 75° W	N 69° W	2·8	3·9	−1·1	37	+ 7	55	+ 2	·635	+·006	1·4	−1·5	1	2·0	− 1·0	0·78	0·85	− 0·07	0·78	1·35	− 0·57	0·78	Bellary.
4		1	4	6	7	4	2	S 38° W	S 10° E	5·5*			33	+26	56	+ 2	·698	+·032	1·2	−1·0	0	1·9	− 1·9	0·05	0·71	− 0·66	0·05	1·56	− 1·51	0·04	Kurnool.
			1	23	6			S 7° W	S 29° E	6·2*	6·0	+0·2	92	+25	77	+ 2	·898	−·007	3·8	−0·3	0	0·5	− 0·5	0	0·41	− 0·41	0·11	5·18	− 5·07	0	Nellore.
			1	8	14	5	2	S 2° E	S 1° E	6·1	5·6	+0·5	76	+ 9	80	− 1	·984	+·005?	2·8	−1·2	0	0·8	− 0·8	0·02	0·66	− 0·64	0·02	2·[illegible]5	− 2·53	0·02	Masulipatam.
			1	1	13	10	1	S 62° W	S 66° W	4·7	5·5	−0·8	69	+22	74	0	·895	+·025	5·8	+2·0	0	1·0	− 1·0	0	0·62	− 0·62	0·02	2·[illegible]9	− 2·77	0	Cocanada.
				1	29			S 44° W	S 75° W	9·8			92	+19	74	− 1	·847	0	4·7	+1·0	1	1·9	− 0·9	0·44	0·86	− 0·42	1·71	3·9[illegible]	− 2·28	0·44	Waltair (Vizagapatam).
				5	17	8		S 49° W		11·9			86		80		·934		3·3		0	4·0	− 4·0	0	2·43	− 2·43	0·31	5·94	− 5·63	0	Calingapatam.
				15	15			S 23° W	S 35° W	13·2	13·1	+0·1	92	+25	85	+ 3	·895	+·011	1·3	−2·2	0	1·5	− 1·5	0	0·79	− 0·79	0·08	3·03	− 2·95	0	Gopalpur.
																															Bay Islands.
				4	26			S 39° E					93		87		·967		3·8		0			0			1·47			0	P. V. Fraser.
5	1			2			5	N 21° W		4·1	3·5	+0·6	27	− 3	79	− 4	·880	−·069	2·6	−1·8	1	4·3	− 3·3	0·10	2·88	− 2·78	3·60	12·48	− 8·88	0·10	Port Blair.
7		1			1	5	14	N 42° W		4·9			69		71		·808		2·7		0	1·4	− 1·4	0	0·78	− 0·78	1·11	3·14	− 2·03	0	Slipper Island.
																															Kashmir.
3	3			8	7	9		S 56° W		1·5			47		70		·260		3·0		9			2·93			14·73			0·75	Muzaffarabad.
2	3	2	8	2	1	2	7	N 72° E	S 29° E	2·2	3·5	−1·3	7	− 4	81	− 3	·307	−·026	5·6	+1·1	10	7·4	+ 2·6	3·55	3·65	− 0·09	11·12	14·35	− 3·23	1·20	Srinagar.
	1					1		N		1·3			5		76	−12	·138		5·8		13	9·1	+ 3·9	8·34	4·01	+ 4·33	18·55	14·66	+ 3·89	2·07	Dras.
				3		1		S 17° W	S 66° W	2·9	2·3	+0·6	7	−21	58	+10	·131	+·021	6·3	+0·8	2	0·7	+ 1·3	1·05	0·22	+ 0·83	2·26	1·40	+ 0·86	0·82	Leh.
	3	1			1	9	1	N 74° W		3·8			23		70	+ 8	·207		7·5		9	2·8	+ 6·2	4·91	1·11	+ 3·80	10·51	3·71	+ 6·80	1·44	Skardu.
		3				4		W		0·8			3		60	+10	·275	+·031	6·2	+1·0	3	2·9	+ 0·1	1·34	1·05	+ 0·29	2·01	2·07	− 0·06	0·57	Gilgit.

* Uncorrected for scale error.

Table

(2) *Abstract of observations taken at 8hrs. at 217 stations*

Number of subdivision.	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.	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.	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	16	17	18	19	20	21	22	23	24
	Baluchistan.																						
15	Fort Sandeman		25·360		25·329	25·488	13th	25·199	21st	·299	61·0	81·0		54·8		67·9		26·2	87·7	21st	46·1	11th	41·6
	Quetta	5,502	24·619	—·013	24·579	24·735	13th	24·488	21st	·247	55·0	75·9	+1·7	46·1	—0·2	61·0	+0·7	29·8	82·6	21st	37·7	23rd	44·9
	Chaman	4,311	25·663	—·033	25·625	25·819	15th	25·514	21st	·305	63·3	78·3	—2·6	53·8	—6·1	65·1	—4·3	24·5	88·6	21st	44·0	23rd	44·6
	Kalat	6,630	23·718		23·680	23·829	13th	23·605	25th	·224	49·4	74·0		41·6		57·8		32·4	80·5	21st	34·2	23rd	46·3
	Dalbandin	2,779	27·058		27·021	27·224	13th	26·899	21st	·325	71·0	90·7		58·5		74·6		32·2	99·3	21st	46·7	11th	52·6
	Pasni		29·814		29·774	29·923	11th	29·677	25th	·246	76·3	89·8		71·7		80·5		18·1	99·0	4th	65·5	1st	33·5
	Panjgur*		26·682		26·640	26·776	13th	26·561	25th	·215	64·7	88·9		60·3		74·6		28·6	93·8	19th & 21st.	54·5	19th	39·3
	Robat		26·840		26·798	27·006	2nd	26·644	20th	·362	64·7	85·2		59·9		72·5		25·3	97·0	20th	51·8	2nd	45·2
	Hill Stations excluding Kashmir and Baluchistan.																						
	Para Chinar	6,000	24·396		24·372	24·514	13th	24·250	22nd	·264	58·8	70·9		47·5		59·2		23·4	78·2	1st	41·1	24th	37·1
	Cherat	*4,256*	25·660	—·013	25·628	25·766	13th	25·516	22nd	·250	62·7	74·3	—1·2	56·9	—1·0	65·6	—1·1	17·4	80·2	17th	50·9	10th & 11th.	29·3
	Drosh		25·162			25·590	20th	24·952	22nd	·638	52·8	69·5		47·7		58·6		21·8	76·2	3rd, 16th & 17th.	41·1	23rd	35·1
	Murree	6,333	23·816	—·017	23·784	23·912	13th	23·679	24th	·233	56·7	65·7	—3·1	52·1	—0·2	58·9	—1·7	13·6	72·6	17th	41·2	23rd	31·4
	Simla	7,232	23·106	+·004	23·068	23·212	9th	23·011	21th	·201	57·9	66·7	+1·5	53·0	+0·8	59·8	+1·1	13·7	72·3	19th	45·3	19th	27·0
	Sarain		23·131		23·093	23·250	9th	23·034	20th	·216	50·4	66·3		42·7		54·5		23·6	71·4	29th	37·4	1st	34·0
	Kalabagh																						
	Chakrata	7,022	23·278	—·012	23·238	23·386	9th	23·177	7th	·209	58·5	71·4	+1·1	52·1	0	61·7	+0·5	19·3	77·2	30th	43·7	6th & 19th.	33·5
	Mukteswar	7,592	22·829	—·023	22·788	22·928	27th	22·694	7th	·234	56·1	70·8	+1·4	49·9	—0·4	60·3	+0·5	20·9	76·5	30th	38·0	6th	38·5
	Darjiling	7,376	22·945	—·059	22·901	23·053	9th	22·827	20th	·226	56·6	65·3	+3·1	50·9	+2·0	58·1	+2·5	14·4	70·8	27th	45·2	4 days	25·6
	Shillong	4,920	25·070		25·022	25·183	9th	24·958	20th	·225	67·0	75·9		59·5		67·7		16·4	81·9	25th	51·2	9th	30·7
	Cherrapunji	4,309	25·751		25·702	25·845	9th	25·627	7th	·218	63·7	72·0		58·3		65·2		13·7	75·7	9 days	48·1	25th	27·6
	Maymyo	3,545	26·403	—·030	26·348	26·471	1st	26·303	24th	·168	71·8	87·0	+2·5	60·9	+2·2	73·9	+2·3	26·1	93·5	27th	51·6	5th	41·9
	Pachmarh	3,528	26·432	—·012	26·379	26·489	1st	26·356	24th	·133	80·0	94·9	+2·4	71·8	+2·2	83·3	+2·3	23·1	100·0	29th & 30th.	57·1	1st	42·9
	Mount Abu	3,945	26·044	—·009	25·994	26·111	13th	25·954	25th	·157	76·5	86·3	+0·6	70·1	+1·3	78·4	+0·9	15·9	92·2	29th	61·9	12th	30·3
	Mercara	3,781	26·216	—·018	26·149	26·258	1st	26·129	26th	·129	70·2	82·8	+0·9	64·2	0	74·5	+0·5	20·6	90·0	6th	59·0	4th & 5th.	31·0
	Ootacamund	*7,327*	23·076		23·012	23·129	1st	23·003	26th	·126	63·6	73·0		51·2		62·1		21·8	76·0	11th	44·2	14th	31·8
	Kodaikanal	7,688	22·844	—·015	22·779	22·886	1st	22·779	26th	·107	60·5	71·6	+2·2	54·0	+0·5	62·8	+1·3	17·6	74·0	11th & 15th.	51·5	10th	22·5
	Extra India.																						
	Singapore (a)	10	29·914		29·845	29·995	15th	29·822	26th	·173	83·9	88·9		74·1		81·5		14·8	92·5	29th	72·0	6th	20·5
	Penang (a)	17	29·867		29·812	29·923	14th	29·781	26th	·142	83·2	89·6		74·8		82·2		14·8	92·5	28th	73·0	1st, 4th & 22nd.	19·5
	Trincomalee	99	29·787	+·003	29·815	29·864	1st	29·699	26th	·165	81·9	95·7	+4·7	77·8	+0·2	86·8	+2·5	17·9	99·5	9th & 10th.	72·0	18th	27·5
	Colombo	24	29·867	—·030	29·817	29·937	1st	29·778	26th	·159	77·1	88·0	—0·9	75·0	—1·0	81·5	—0·9	13·0	89·5	5 days	73·0	10th	16·5
	Minicoy	7	29·920			29·991	2nd	29·823	26th	·168													
	Amini Divi	*13*	29·896	0	29·837	29·961	1st	29·802	26th	·159	84·3	93·0	+2·7	80·0	—0·1	86·5	+1·3	13·0	96·8	22nd	73·6	28th	23·2
	Gyantse	13,120																					
	Pharijong	14,400									35·9	47·9		16·5		32·2		31·4	60·4	30th	4·1	20th	56·3
	Gangtok	5,6602	24·393		24·348	24·483	9th	24·262	7th	·221	61·7	72·5		55·2		63·9		17·3	76·6	28th	48·6	1st	28·0
	Gartok (c)	15,100									25·4	42·1		17·3		29·7		24·8	47·5	9th	4·1	7th	43·4

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.
(c) Aneroid corrected.
* Mean of 27 days.

continued.

India, etc., in April, 1913—continued.

Wind direction. Number of winds from N.E. (27)	E. (28)	S.E. (29)	S. (30)	S.W. (31)	W. (32)	N.W. (33)	Resultant direction. (34)	Normal direction. (35)	Wind velocity. Mean velocity, miles per hour. (36)	Normal. (37)	Departure from normal. (38)	Wind steadiness. Actual percentage. (39)	Departure from normal. (40)	Hygrometry, 8 hrs. Mean humidity at 8 hrs. (41)	Departure from normal. (42)	Mean vapour tension at 8 hrs. in inches of mercury. (43)	Departure from normal in inches of mercury. (44)	Cloud. Mean cloud amount at 8 hrs. (45)	Departure from normal. (46)	Rainfall. Number of rainy days. (47)	Normal number of rainy days. (48)	Departure from normal. (49)	Rainfall of month. (50)	Normal rainfall of month. (51)	Departure from normal. (52)	Total rainfall from 1st Dec., 1912, to 30th April, 1913. (53)	Normal rainfall of period, 1st Dec. to 30th April. (54)	Departure from normal of period, 1st Dec., 1912, to 30th April 1913. (55)	Heaviest rainfall during month. (56)	Station. (57)
																														Baluchistan.
1	4	2		5	5		S 37° W		4·1			13		45		·234		2·8		2			0·68			4·46			0·23	Fort Sandeman.
1					1	3	N 33° W	S 45° W	1·5	2·6	−1·1	17	+10	55	+ 3	·240	−·042	2·1	−0·4	0	3·0	−3·0	0·12	1·04	−0·92	8·73	7·82	+0·91	0·08	Quetta.
	8	10	1	1		2	S 64° E	S 2° W	4·2	5·9	−1·7	46	+ 3	56‡	− 2	·321‡	+·013	3·4	+1·0	0	1·6	−1·6	0·25	0·56	−0·31	7·55	6·17	+1·38	0·08	Chaman.
1		4	8	2	2	1	S 3° W	S 35° W	5·3			37	−13	59		·206		2·9		0	1·4	−1·4	0	0·45	−0·45	4·87	5·07	−0·20	0	Kalat.
5	9		2	2	1	3	N 62° E		5·8			30		23		·168		0		0			0·07			2·74			0·07	Dalbandin.
	1				3	1	N 75° W		4·2			10		83		·753		2·4		0			0			7·50			0	Pasni.
22	2			1			N 44° E		4·8			79		55		·331		1·5		1			0·10			2·16			0·10	Panjgur.
6	3		4	4	6		S 32° W†		2·4			13		43		·257		2·7		1			0·12			4·82			0·12	Robat.
																														Hill Stations excluding Kashmir and Baluchistan.
2	1	2	2	1	4	3	N 82° W		0·9			10		45		·219		3·4		6	8·7	−2·7	1·99	3·82	− 1·83	14·18	13·59	0·59	0·70	Para Chinar.
5		1	2			6	N	N 11° W	9·8	9·6	+0·2	63	+11	42	− 6	·227	−·050	4·1	+0·9	0	5·1	−5·1	0·32	2·62	− 2·30	6·86	13·81	−6·95	0·09	Cherat.
2	9		1		3		N 87° E		2·2			25		67		·253		4·1		12	8·1	+3·9	5·41	4·17	+ 1·24	12·00			1·00	Drosh.
2	2	9	4			3	S 70° E	N 68° E	4·2	6·8	−2·6	27	+ 7	44	− 2	·198	−·027	4·7	+0·6	6	6·6	−0·6	2·99	3·67	− 1·58	13·45	17·85	−4·40	0·57	Murree.
														39	− 1	·183	−·014	4·7	+1·5	2	3·7	−1·7	0·75	1·75	− 1·00	12·60	11·38	+1·22	0·26	Simla.
														63		·224		5·3		3	5·6	−2·6	0·93	2·75	− 1·82	16·21	23·85	−7·64	0·31	Sarain.
																														Kalabagh.
4		1	1			3	N 4° E	N 17° E	3·3	5·5	−2·2	66	+28	43	0	·207	−·003	3·1	+0·5	2	4·0	−2·0	0·49	1·59	− 1·10	13·95	14·3	−0·44	0·18	Chakrata.
2		1			21		N 85° W		8·2			62		34	− 6	·161		3·5		1	3·6	−2·6	0·73	1·40	− 0·67	8·50	8·7	−0·20	0·57	Mukteswar.
4		1			5		N 26° W	S 28° E	4·0	6·3	−2·3	10	+ 2	76	− 5	·345	−·004	4·2	−0·6	4	7·1	−3·1	0·68	3·66	− 2·98	4·33	7·4	−2·95	0·20	Darjiling.
			7	15	1		S 33° W		8·7			66		62		·407		3·0		6	9·6	−3·6	1·45	4·21	− 2·76	5·70	8·4	−2·44	0·57	Shillong.
1	2		11	12	3		S 25° W		6·9			69		94		·561		6·7		25	18·0	+7·0	52·05	33·18	+18·87	60·91	49·9	+15·82	6·85	Cherrapunji.
			1	16			S 43° W		2·1			53		65	− 2	·500		0·1		0	3·0	−3·0	0·03	1·88	− 1·85	4·01	4·06	+0·95	0·03	Maymyo.
		1		1	5	12	N 53° W	N 88° W	2·6	4·4	−1·8	56	+29	29	0	·295	−·010	0·3	−1·6	0	0·7	−0·7	0	0·32	− 0·32	3·99	4·44	+1·55	0	Pachmarhi.
2	1			6	11	6	N 79° W	N 63° W	6·7	6·4	+0·3	56	+13	31	+ 2	·282	+·018	1·8	+0·8	0	0·4	−0·4	0	0·15	− 0·15	0	1·08	−1·08	0	Mount Abu.
2	1		1	7	8	2	S 84° W	N 21° W	3·1	2·9	+0·2	40	0	86	+ 8	·627	+·041	3·7	−0·5	4	5·3	−1·3	2·04	2·60	− 0·56	2·04	4·53	−2·49	0·66	Mercara.
1	6	11	7		1	1	S 44° E		3·3			52		56		·330		3·3		7	6·6	+0·4	2·63	2·40	+ 0·23	4·03	8·31	−4·28	0·82	Ootacamund.
5	5	3				5	N 23° E		8·5*			62		68	+ 7	·355		2·8		8	7·4	+0·6	3·18	4·28	− 1·10	14·87	15·48	−0·61	0·99	Kodaikanal.
																														Extra India.
		2				2	N		3·2*			3						6·1		12	11·7	+0·3	10·99	8·65	+ 2·34	79·1	45·45	+33·70	3·54	Singapore.
20	1	4	3			1	N 60° E		7·2			66								10	10·3	−0·3	4·15	7·53	− 3·38	18·7	28·70	− 9·97	0·86	Penang.
				28			S 45° W	S 39° W	4·1*	5·0	−0·6	92	+24	80	− 1	·866	−·061	3·3	+0·2	2	3·2	−1·2	3·11	2·06	+1·05	29·1	25·40	+4·11	1·93	Trincomalee.
					2		N 45° W	S 12° E	2·8*	4·6	−1·8	3	−49	93	+15	·861	−·033	8·5	+3·6	15	10·6	+4·4	11·63	10·27	+1·36	36·5	25·69	+10·36	2·84	Colombo.
1				2	3	17	N 42° W	N 59° W	3·4	5·4	−2·0	77	+22					3·7	−1·0	3	4·2	−1·2	2·10	3·24	−1·14	10·2	9·83	+0·99	0·95	Minicoy.
1					3	17	N 34° W		5·0			83		71	− 4	·838	−·093	3·6	−1·3	1	2·0	−1·0	1·27	1·90	−0·63	4·08	3·46	+0·62	1·24	Amini Divi.
																														Gyantse.
				2	1		N 63° W‖		7·3			40						0·9		2			1·19			1·35			0·60	Pharijong.
						1	N 45° W		1·6			3		81		·447		0·5		12	14·7	−2·7	9·23	11·43	−2·20	18·21	20·98	− 2·77	1·70	Gangtok.
		7	12				S 16° E		8·3			60						3·5		0			0			0			0	Gartok.

* Uncorrected for scale error.

‡ Mean of 29 days.

§ Rainfall for March wanting.

‖ Wind observations for 5 days.

† " " " 29 "

Table

(2) Abstract of observations taken at 8 hrs. at 217

Number of subdivisi	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.	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.	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	16	17	18	19	20	21	22	23	24
	Extra India—*concld.*																						
	Kashgar (*c*)	4,255																					
	Kabul*		P	P	P	P	P	P	P	P	55·7	73·3	−3·3	53·4	+5·3	63·4	+1·0	19·9	80·4	24th	50·4	27th	30·0
	Meshed	3,104	26·794		29·963	27·086	1st	26·628	19th	·458	49·1	62·5		41·9	−6·2	52·2		20·6	79·4	14th	34·1	1st, 2nd & 22nd.	45·3
	Jask	13	29·816	−·066	29·782	29·942	1st	29·668	25th	·274	76·1	87·4	+0·2	73·1	−0·2	80·3	0	14·3	91·3	4th	67·8	10th	23·5
	Muscat (*e*)	20	29·834	−·035	29·803	29·963	1st	29·684	21st	·279	84·6	93·0	+7·2	79·7	−0·8	86·3	+3·2	13·3	98·3	26th	73·1	10th	25·2
	Bahrein	18									77·3	82·5		72·0		77·3		10·5	95·5	6th	66·3	13th	29·2
	Bushire	14	29·871	−·020	29·847	29·970	1st	29·758	24th	·212	74·1	81·7	+0·1	68·0	+1·3	74·8	+0·7	13·7	91·3	3rd	59·5	7th	31·8
	Busrah	25	29·885		29·879	30·015	15th	29·762	24th	·253	73·2	85·0		67·2		76·1		17·8	94·5	30th	60·5	11th	34·0
	Kerman		24·469			24·620	13th	24·240	24th	·380	57·0	79·2		46·8		63·0		32·4	90·0	20th	37·7	10th	52·3
	Ispahan (*b*)	5,587	24·215 (*f*)			24·340	14th&15th	24·060	24th	·280	51·3 (*f*)	70·5 (*f*)	−2·0	45·3 (*f*)	−0·3 (*f*)	57·9 (*f*)	−1·5 (*f*)	25·2	81·4	19th	35·2	11th	46·2
	Tehran (*b*)	4,000	25·711			25·850	1st	25·575	6th	·275	54·6	66·7	−4·7	47·4	−2·3	57·0	−3·5	19·3	81·0	21st	39·1	28th	41·9
	Baghdad (*e*)	11	29·771	−·079	29·876	29·922	14th	29·636	1st	·286	66·7	84·3	+2·7	58·9	+2·0	71·6	+2·3	25·4	94·5	18th	51·8	3rd	42·7
	Beirut (*a*)				29·916						65·9	71·1		58·9		65·0		12·2	82·6	30th	54·0	3rd	28·6
	Aden	98	29·833	−·008	29·859	29·919	1st	29·727	25th	·192	80·6	86·3	−2·8	77·5	+0·2	81·9	−1·3	8·8	95·6	24th	74·4	7th	21·2
	Zanzibar	72	29·938	+·001	29·937	30·003	1st	29·882	4th	·121	78·2	82·9	−1·8	75·9	−1·7	79·4	−1·7	7·0	87·9	6th	73·1	24th	14·8

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 7 days. (*e*) Mean of 29 days.
(*f*) „ „ 28 „

concluded.

ons in India, etc., in April, 1913—concluded.

Wind direction.									Wind velocity.			Wind steadiness.		Hygrometry, 8 hrs.				Cloud.		Rainfall.									Station.
er of winds from																													
E.	N.E.	E.S.E.	S.W.	W.	N.W.	Resultant direction.	Normal direction.	Mean velocity, miles per hour.	Normal.	Departure from normal.	Actual percentage.	Departure from normal.	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.	Mean cloud amount at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st December 1912 to 30th April 1913.	Normal rainfall of period, 1st December to 30th April.	Departure from normal of period, 1st December 1912 to 30th April 1913.	Heaviest rainfall during month.	
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
																													Extra India —*concld.*
							N 21° W		3·4											1·1			0·28			1·01			Kashgar.
5			1	1		S 72° E	N 89° W				43		74		·325		3·3		2	6·1	—4·1	0·33	2·86	—2·53	* 0·33	10·35	—10·02	0·20	Kabul.
	2	2				S 18° E		2·2			10		69		·242		5·1	+0·7	5	4·5	+0·5	1·71	1·75	—0·04	5·95	6·56	—0·61	0·45	Meshed.
3		1	1	11	7	N 65° W	N 45° W	6·1	7·2	—1·1	46	+31	69	+ 3	·519	—·153	3·5	+2·5	0	0·2	—0·2	0	0·06	—0·06	5·21	3·75	+1·46	0	Jask.
1				5	11	N 54° W	N 51° W	4·4	3·1	+1·3	49	+19	50	— 8	·578	—·067	5·1	+4·3	0	0·4	—0·4	0	0·11	—0·11	5·70	3·35	+2·35	0	Muscat.
1	1	1	1	3	11	N 25° W		4·7			63		57		·534		1·9		0	0·9	—0·9	0	0·17	—0·17	4·62	2·32	+2·30	0	Bahrein.
2	1	2	1	3	6	N 22° W	N 1° E	7·1	6·6	+0·5	27	—10	74	+12	·629	+·112	2·4	0	0	1·1	—1·1	0·02	0·48	—0·46	6·05	9·38	—3·33	0·02	Bushire.
1	3	4	1	5	2	S 63° W		3·2			7		61		·490		3·6		0	1·5	—1·5	0·05	0·48	—0·43	6·27	4·61	+1·66	0·05	Busra.
2	3	5	4		2	S 18° E		7·0			20		38		·176		1·8		1			0·28			4·23			0·19	Kerman.
1	1		1	7		S 81° W	N 23° W	3·3	4·7	-1·4	20	—17	67	+ 2	·255	—·068	3·4	+0·7	2	2·4	—0·4	0·37	0·53	—0·16	1·48	3·52	—2·04	0·16	Ispahan.
1	1					N 45° E	S 63° W	(g) (h) 2·9	3·2	-0·3	31	+16	(f) 61	-15	(f) ·250	+·010	(f) 9·8	+6·7	7	3·0	+4·0	4·00	1·13	+2·87	9·00	7·07	+1·93	0·95	Tehran.
2	3	3	2	2	8	N 34° W	N 2° W	6·0	3·1	+2·9	24	— 9	58	— 4	·377	—·025	3·9	+2·3	0	2·1	—2·1	0·13	0·81	—0·68	4·64	5·80	—1·16	0·07	Baghdad.
2		15	5	1		S 4° W					50		75		·472		5·6		5			2·51			20·22			0·99	Beirut.
1						N 41° E	N 80° E	10·3	11·2	—0·9	63	— 5	77	+ 3	·800	+·009	4·8	+1·4	0	0·4	—0·4	0	0·27	—0·27	0·26	1·91	—1·65	0	Aden.
	1	11	10	3		S 25° W	S 15° W	4·3	5·2	—0·9	70	—14	89	+ 3	·857	—·001	8·1	+1·8	21	14·8	+6·2	17·59	13·85	+3·74	47·34	31·18	+16·16	2·97	Zanzibar.

* Rainfall since 24th April 1913.

(*f*) Mean of 28 days.
(*g*) Wind observations for 27 days.
(*h*) Mean of 26 days.

Table C.—Abstract of observations taken at 8 hrs. at 63 fourth and fifth class stations in India, etc., in April, 1913.

Table

Abstract of observations taken at 8 hrs.

Number of subdivision.	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.	Wind direction. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
	II.—Assam.																								
4	Balek	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Bishnath	69·0	81·6	...	69·3	...	75·5	...	12·3	93·2	17th	63·1	1st	30·1	...	...	...	...	...	...	...	...	...	...	...
	Borjuli	70·6	82·0	...	65·7	...	73·9	...	16·3	90·3	17th	60·4	1st	29·9	...	...	...	...	...	...	...	...	...	...	...
	Chandkhira	76·2	89·3	...	68·7	...	79·0	...	20·6	93·6	21st, 27th & 29th.	60·0	5th	33·6	...	...	...	...	...	...	...	...	...	...	...
	Doom Dooma	65·7	79·1	...	62·4	...	70·7	...	16·7	88·5	10th	58·7	1st & 8th	29·8	...	...	...	...	...	...	...	...	...	...	...
	Dikom	67·6	77·8	...	64·3	...	71·1	...	13·5	89·4	10th	56·4	8th	33·0	...	...	...	...	...	...	...	...	...	...	...
	Golaghat	70·8	79·2	...	66·0	...	72·6	...	13·2	87·9	17th	61·2	1st	26·7	...	...	...	...	...	...	...	...	...	...	...
	Hailakandi	75·2	87·4	...	69·6	...	78·5	...	17·8	92·0	28th, 29th & 30th.	63·0	7th	29·0	...	...	...	...	...	...	...	...	...	...	...
	Jorehat	68·9	79·0	...	65·9	...	72·5	...	13·1	87·1	10th	61·8	8th & 26th	25·3	...	...	...	...	...	...	...	...	...	...	...
	Lumding	74·1	89·3	...	67·9	...	78·6	...	21·4	95·4	29th	60·0	1st	35·4	...	...	...	...	...	...	...	...	...	...	...
	Messa	77·2	87·5	...	66·4	...	76·9	...	21·1	97·0	17th	59·9	1st	37·1	...	...	...	...	...	...	...	...	...	...	...
	Panerihat	67·4	78·3	...	66·8	...	72·5	...	11·5	84·9	21st	61·0	2nd	23·9	...	...	...	...	...	...	...	...	...	...	...
	Srimangal	77·9	91·4	...	72·2	...	81·8	...	19·2	95·7	29th	62·0	5th	33·7	...	...	...	...	...	...	...	...	...	...	...
	III.—Bengal.																								
5	Comilla	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Brahmanbaria	81·9	91·4	...	74·4	...	82·9	...	17·0	95·1	30th	64·4	5th	30·7	...	...	...	...	...	...	...	...	...	...	...
	Faridpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Goalundo	79·1	99·3	...	73·4	...	86·3	...	25·9	107·2	29th	63·1	4th & 5th	44·1	...	...	...	...	...	...	...	...	...	...	...
	Pabna	81·9	100·3	...	76·2	...	88·3	...	24·1	109·0	30th	70·1	5th	38·9	...	...	...	...	...	...	...	...	...	...	...
	Sirajganj	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Rampur Boalia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Malda	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...	...	...	...
	Rangpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Dam Dim	76·4*	92·0	...	65·9	...	78·9	...	26·1	96·9	27th	57·0	1st	39·9	...	...	...	...	...	...	...	...	...	...	...
	Kalchini	78·1	88·2	...	62·2	...	75·2	...	26·0	94·1	21st	54·9	1st	39·2	...	...	...	...	...	...	...	...	...	...	...
	Nagrakata	77·3	88·4	...	67·0	...	77·7	...	21·4	93·1	21st & 28th.	57·0	1st	36·1	...	...	...	...	...	...	...	...	...	...	...
	Cooch Behar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Krishnagar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Bankura	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Raniganj	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

* Mean of 29 days.

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t 63 fourth and fifth class stations in India, etc., in April, 1913.

Wind velocity.			Wind steadiness.		Hygrometry, 8 hrs.				Cloud.		Rainfall.										Station.
Mean velocity, miles per hour.	Normal.	Departure from normal.	Actual percentage.	Departure from normal.	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.	Mean cloud amount at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st Dec. 1912 to 30th April 1913.	Normal rainfall of period, 1st Dec. to 30th April.	Departure from normal of period, 1st Dec. 1912 to 30th April 1913.	Heaviest rainfall during month.	
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
																					II.—Assam.
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Balek.
...	...	...	...	...	98	...	·697	...	...	...	19	12·5	+6·5	14·92	6·73	+8·19	21·13	11·69	+9·44	5·03	Bishnath.
...	...	...	...	...	86	...	·646	...	...	...	17	10·4	+6·6	14·37	5·11	+9·26	21·11	8·44	+12·67	3·77	Borjuli.
...	...	...	...	...	84	...	·753	...	...	...	12	12·8	−0·8	15·52	12·40	+3·12	27·17	18·07	+9·10	3·50	Chandkhira.
...	...	...	...	...	91	...	·571	...	...	...	22	15·0	+7·0	18·99	11·12	+7·87	33·02	21·16	+11·86	2·81	Doom Dooma.
...	...	...	...	...	91	...	·615	...	...	...	20	15·5	+4·5	18·52	11·65	+6·87	28·42	20·63	+7·79	4·95	Dikom.
...	...	...	...	...	88	...	·666	...	...	...	17	13·0	+4·0	9·70	6·52	+3·18	19·77	11·46	+8·31	1·58	Golaghat.
...	...	...	...	...	86	...	·756	...	...	...	15	14·8	+0·2	17·02	14·49	+2·53	20·73	22·38	−1·65	3·1[illegible]	Hailakandi.
...	...	...	...	...	92	...	·650	...	...	...	19	13·3	+5·7	20·47	7·91	+12·56	29·24	13·21	+16·03	3·7[illegible]	Jorehat.
...	...	...	...	...	79	...	·644	...	...	...	6	...	...	2·82	...	...	5·62†	...	...	1·9	Lumding.
...	...	...	...	...	74	...	·685	...	...	...	16	10·0	+6·0	7·21	5·16	+2·05	16·78	8·73	+8·05	1·2	Messa.
...	...	...	...	...	93	...	·625	...	...	...	19	10·7	+8·3	16·96	6·59	+10·37	23·55	11·16	+12·39	2·1	Panerihat.
...	...	...	...	...	85	...	·815	...	...	...	7	12·3	−5·3	5·79	11·02	−5·23	11·94	16·12	−4·18	1·97	Srimangal.
																					III.—Bengal.
...	...	...	...	...	...	...	...	...	...	...	6	6·9	−0·9	4·26	6·37	−2·11	7·04	10·65	−3·61	1·52	Comilla.
...	...	...	...	...	79	...	·858	...	...	...	6	7·8	−1·8	4·23	6·76	−2·53	9·55	10·91	−1·36	2·06	Brahmanbaria.
...	...	...	...	...	...	...	...	...	...	...	4	6·0	−2·0	2·65	4·53	−1·88	[illegible]·82	8·25	−0·43	1·03	Faridpur.
...	...	...	...	...	88	...	·868	...	...	...	3	6·3	−3·3	2·87	4·45	−1·58	7·30†	7·87	−0·57	1·68	Goalundo.
...	...	...	...	...	85	...	·917	...	...	...	1	4·7	−3·7	0·76	3·12	−2·36	3·97	6·05	−2·08	0·67	Pabna.
...	...	...	...	...	...		...	...	...		2	5·0	−3·0	0·56	3·29	−2·7[illegible]	4·53	5·92	−1·39	0·42	Sirajganj.
...	...	...	...	...	...	...	...	...	...	...	1	2·9	−1·9	0·14	1·90	−1·[illegible]	2·92	4·06	−1·14	0·14	Rampur Boalia.
...	...	...	...	...	...	...	...	...	...	...	2	2·0	0	0·87	1·03	−0·6	2·69	3·45	−0·76	0·64	Malda.
...	...	...	...	...	...	...	...	...	...	...	2	4·3	−2·3	0·24	2·99	−75	2·37	5·37	−3·00	0·14	Rangpur.
...	...	...	...	...	82*	...	·751*	...	...	...	3	6·7	−3·7	1·09	5·68	−4·59	6·44	8·95	−2·51	0·54	Dam Dim.
...	...	...	...	...	72	...	·709	...	...	...	8	9·0	−1·0	6·09	5·89	0·20	10·53	9·21	+1·32	1·80	Kalchini.
...	...	...	...	...	67	...	·619	...	...	...	5	8·8	−3·8	1·50	5·94	−4·44	6·01	10·44	−4·43	0·60	Nagrakata.
...	...	...	...	...	...	...	...	...	...	...	5	6·4	−1·4	1·92	4·99	−3·07	5·87	7·85	−1·98	0·50	Cooch Behar.
...	...	...	...	...	...	...	...	...	...	...	1	3·8	−2·8	1·13	2·34	−1·21	8·66	5·64	+3·02	1·12	Krishnagar.
...	...	...	...	...	...	...	...	...	...	...	2	3·1	−1·1	0·83	1·38	−0·55	8·58	4·05	+4·53	0·60	Bankura.
...	...	...	...	...	...	...	...	...	...	...	1	2·8	8.1−	0·12	1·5[illegible]	−1·45	7·04	4·20	+2·84	0·12	Raniganj.

* Mean of 29 days.
† Rainfall for March wanting.

Table

Abstract of observations taken at 8 hrs.

Number of subdivision.	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.	Wind direction. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
	IV.—Bihar and Orissa.																								
7	Hazaribagh	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...
8	Bhagalpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...
	Muzaffarpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...
	Motihari	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...
	Chapra	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...
	Arrah	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...
	Debri	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...
	V.—United Provinces of Agra and Oudh.																								
10	Meerut	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...
	Dehra Dun	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...
	IX.—Rajputana.																								
18	Udaipur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...
	XII.—Central Provinces.																								
23	Chhindwara	85·4	102·1	...	72·6	...	87·4	...	29·5	107·6	29th	58·9	1st	48·7	16	2	1	...	...	...	...	5	6	N 52° W	...
	XV.—Madras.																								
31	Tinnevelly	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...
32	Anantapur	85·4	104·0	...	78·1	...	9·0	...	25·9	108·0	7th	70·1	14th	37·9	...	...	...	...	...	...	...	...	...		...
33	Guntur	84·8	100·1	...	79·2	...	85	...	20·9	106·7	4th & 5th.	75·0	12th, 13th & 15th.	31·7	...	...	...	...	...	...	...	...	...		...
	Bay Islands.																								
1	Car Nicobar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...
	Kashmir.																								
13	Jammu	80·9	92·0	...	71·2	...	81·6	...	20·8	98·1	18th	60·8	7th	37·3	...	10	18	...	...	2	...	...	...	N 32° E	...
	Sonamarg	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...
	Kargil	40·0	54·5	...	33·8	...	44·2	...	20·7	62·3	16th	27·0	1st	35·3	...	10	...	9	9	...	1	...	1	N 74° E	...
	Astor	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...

—*continued.*

63 fourth and fifth class stations in India, etc., in April, 1913—continued.

Wind velocity.			Wind steadiness		Hygrometry, 8 hrs.				Cloud.		Rainfall.									Heaviest rainfall during month.	Station.
hour.	Normal.	Departure from normal.	Actual percentage.	Departure from normal.	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.	Mean cloud amount at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st Dec. 1912 to 30th April, 1913.	Normal rainfall of period, 1st Dec. to 30th April.	Departure from normal of period, 1st Dec. 1912 to 30th April 1913.		
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
																					IV.—Bihar and Orissa.
...	...	...	...	...	...	...	...	...	...	...	0	1·5	−1·5	0	0·54	−0·54	7·04	3·61	+3·43	0	Hazaribagh.
...	...	...	...	...	...	...	...	...	...	...	1	1·6	−0·6	0·32	0·76	−0·44	2·16	2·73	−0·57	0·29	Bhagalpur.
...	...	...	...	...	...	...	...	...	...	...	0	1·0	−1·0	0	0·43	−0·43	2·62	2·09	+0·53	0	Muzaffarpur.
...	...	...	...	...	...	...	...	...	...	...	0	1·2	−1·2	0	0·85	−0·85	4·47	2·50	+1·97	0	Motihari.
...	...	...	...	...	...	...	...	...	...	...	0	0·7	−0·7	0	0·32	−0·32	1·93	2·06	−0·13	0	Chapra.
...	...	...	...	...	...	...	...	...	...	...	0	0·5	−0·5	0	0·29	−0·29	3·73	2·36	+1·37	0	Arrah.
...	...	...	...	...	...	...	...	...	...	...	0	0·6	−0·6	0	0·20	−0·20	2·27	2·30	−0·03	0	Dehri.
																					V.—United Provinces of Agra and Oudh.
...	...	...	...	...	...	...	...	...	...	...	0	0·8	−0·8	0·10	0·33	−0·23	3·23	3·47	−0·24	0·08	Meerut.
...	...	...	...	...	...	...	...	...	...	...	0	1·7	−1·7	0·06	0·70	−0·64	11·21	7·15	+4·06	0·03	Dehra Dun.
																					IX.—Rajputana.
...	...	...	...	...	...	...	...	...	...	...	0	0·5	−0·5	0	0·25	−0·25	0·01	0·67	−0·66	0	Udaipur.
																					XII.—Central Provinces.
·8	...	...	37	...	42	...	·517	...	0·5	...	0	...	...	0	...	...	2·03	...	...	0	Chhindwara.
																					XV.—Madras.
...	...	...	...	...	...	...	...	...	...	...	3	4·3	−1·3	0·58	2·88	−2·30	5·09	9·60	−4·51	0·17	Tinnevelly.
...	...	...	...	...	67	...	·818	...	3·3	...	0	...	...	0	...	...	0	...	...	0	Anantapur.
...	...	...	...	...	83	...	·990	...	0·2	...	0	...	...	0	...	..	0	...	...	0	Guntur.
																					Bay Islands.
...	...	...	...	...	...	...	...	...	...	...	3	5·6	−2·6	2·28	3·38	−1·10	8·75*	16·95	−8·20	1·05	Car Nicobar.
																					Kashmir.
...	...	...	80	...	30	...	·309	...	2·7	...	1	...	...	0·17	..	...	7·80	...	...	0·10	Jammu.
...	...	...	...	...	...	...	...	...	...	...	21	13·0	+8·0	16·47	0·26	+6·21	48·22	53·86	−5·64	3·23	Sonamarg.
...	...	...	50	...	99	...	·248	...	5·4	...	7	...	...	3·95	...	...	9·16	...	...	0·90	Kargil.
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Astor.

* Rainfall for December 1912 wanting.

Table

Abstract of observations taken at 8 hrs.

Number of subdivision.	Station.	Temperature of air.													Wind direction.										
		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.	Number of winds from: Calm.	N.	N.E.	E.	S.E.	S	S.W.	W.	N.W.	Resultant direction.	Normal direction.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
	Hill stations, exclusive of Kashmir.																								
	Panighatta	75·8	88·2	...	69·2	...	78·7	...	19·0	94·1	26th	62·6	7th	31·5	...	...	...	...	...	...	...	...	...	...	...
	Kurseong	65·6	72·4	...	60·4	...	66·4	...	12·0	78·3	14th	52·9	4th	25·4	...	...	...	...	...	...	...	...	...	...	...
	Gnatong	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Lachung	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Ringim	...	...	...	...	...	...	...	...	...		...	...	...	...	...		...	...	...	...	...	...	...	...
	Poo	...	58·4	...	40·1	...	49·2	...	18·3	66·1	9th	34·0	20th	32·1	17	...	...	2	2	2	1	3	3	S 45° W	...
	Kailang	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Bakloh	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...	...	...	...	...	...	...	...
	Pishin	...	76·2	...	46·6	...	61·4	...	29·6	83·4	17th	39·1	23rd	44·3	...	...	...	...	...	...	...	...	...	...	...
	Extra India.																								
	Ahwaz	...	85·7	...	68·6	...	77·2	...	17·1	93·0	19th	62·0	7th	31·0	...	...	...	...	...	...	...	...	...	...	...
	Chumbi	42·2	61·7	...	34·3	...	48·0	...	27·4	68·6	13th	24·7	24th	43·9	...	...	...	...	...	...	...	...	...	...	...
	Kirmanshah	51·7	64·4	...	41·3	...	52·9	...	23·1	79·8	19th	32·5	7th	47·3	...	...	...	...	...	...	...	...	...	...	...
	Koweit	...	85·7	...	68·3	...	76·9	...	17·4	100·4	19th	61·2	7th	39·2	1	4	...	3	...	5	...	14	3	N 86° W	...
	Maidan	...	85·8	...	61·9	...	73·8	...	23·9	97·7	20th	51·7	8th	46·0	...	...	...	...	...	...	...	...	...	...	...
	Muhammerah	...	86·1	...	65·4	...	75·8	...	20·7	92·6	21st	59·6	7th & 17th.	33·0	...	...	...	...	1	...	8	...	10	N 85° W	...
	Pemba	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Prison Island	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Seistan¶	...	82·2	...	55·2	...	68·7	...	27·0	94·0	20th	48·0	2nd	46·0	...	14	4	...	...	1	...	...	7	N 5° W	...

‖ 11 winds variable.

¶ Mean of 26 days.

—*concluded.*

63 fourth and fifth class stations in India, etc., in April, 1913—concluded.

Wind velocity.			Wind steadiness.		Hygrometry, 8 hrs.				Cloud.		Rainfall.									Heaviest rainfall during month.	Station.
Mean velocity, miles per hour.	Normal.	Departure from normal.	Actual percentage.	Departure from normal.	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.	Mean cloud amount at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st Dec. 1912 to 30th April 1913.	Normal rainfall of period, 1st Dec. to 30th April.	Departure from normal of period, 1st Dec. 1912 to 30th April 1913.		
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
																					Hill Stations, exclusive of Kashmir.
...	...	...	...	...	65	...	·571	...	...	...	2	5·5	—3·5	0·46	3·55	—3·09	7·98	7·06	+0·92	0·22	Panighatta.
...	...	...	...	...	80	...	·499	...	...	...	4	6·7	—2·7	1·26	4·39	—3·13	12·61	9·08	+3·53	0·59	Kurseong.
...	...	...	...	...	...	...	...	...	...	...	20	...	...	12·22	...	...	31·65	...	...	1·47	Gnatong.
...	...	...	...	...	...	...	...	...	...	...	14	...	...	6·12	...	...	...	...	...	1·19	Lachung.
...	...	...	...	...	...	...	...	...	...	...	15	...	...	10·64	...	...	25·15	...	...	3·24	Ringim.
...	...	...	10	...	...	...	...	...	6·4	...	11	4·5	+6·5	5·16	2·20	+2·96	8·64*	10·78	—2·14	1·09	Poo.
...	...	...	...	...	...	...	...	...	...	...	12	6·3	+5·7	5·18	3·17	+2·01	12·37	13·68	—1·31	0·98	Kailang.
...	...	...	...	...	...	...	...	...	...	...	2	...	...	0·54	...	...	13·52†	...	...	0·37	Bakloh.
...	...	...	...	...	...	...	...	...	2·4	...	0	1·9	—1·9	0	0·71	—0·71	11·82	7·50	+4·32	0	Pishin.
																					Extra India.
...	...	...	...	...	...	...	...	...	2·4	...	2	...	...	0·31	...	...	7·25*	...	...	0·19	Ahwaz.
...	...	...	...	...	79	...	·212	...	...	...	9	...	...	3·56	...	...	8·03	...	...	0·62	Chumbi.
...	...	...	...	...	66	...	·246	...	...	...	9	...	...	3·16	...	...	18·39	...	...	0·60	Kirmanshah.
...	...	...	43	...	...	...	...	...	...	...	0	...	...	0·04	...	...	2·86	...	...	0·04	Koweit.
...	...	...	...	...	...	...	...	...	...	...	0	...	...	0	...	...	12·73	...	...	0	Maidan.
...	...	...	63	...	...	...	...	...	...	...	0	...	...	0	...	...	4·25‡	...	...	0	Muhammerah.
...	...	...	...	...	...	...	...	...	...	...	24	19·0	+5·0	30·52	24·31	+6·21	65·41	41·80	+23·61	5·24	Pemba.
...	...	...	...	...	...	...	...	...	...	...	...	14·9	...	...	15·26	...	...	30·69	...	...	Prison Island.
7·01‖	...	...	81	...	...	...	...	...	...	...	0	...	...	0	...	...	2·31	...	...	0	Seistan.

* Rainfall for March wanting. † Rainfall for December 1912, wanting. ‡ Rainfall for January wanting. ‖ Mean of 21 days.

Reg No. 4636 E 13

The lines of the above chart represent isobars or lines of equal barometric pressure, the numbers attached indicating the barometric pressure in inches and being drawn for differences of pressure of ·05 inch. The isobars in the Bay of Bengal are filled in by means of the shore observations, and by comparison with the normal distribution of pressure.

The mean 8 hrs. wind directions of the month are shewn by means of arrows flying with the wind, and are calculated by means of Lambert's formula applied to the winds as given in Table B of the 8 hrs. observations. The mean wind directions for the hill stations are indicated by broken arrows to distinguish them from the wind arrows for the plain stations. The mean velocity of the winds during the month is shewn by the following notation:—

Velocity of	0 to 2 miles per hour	...	one	feather added to the wind arrow.
,, ,,	2 to 5 ,, ,, ,,	...	two	feathers ,, ,, ,, ,,
,, ,,	5 to 10 ,, ,, ,,	...	three	,, ,, ,, ,, ,,
,, ,,	10 to 20 ,, ,, ,,	...	four	,, ,, ,, ,, ,,
	over 20 ,, ,, ,,	...	five	,, ,, ,, ,, ,,

Wind strengths are based on factor 2·2 for the standard type of Beckley Robinson anemograph, instead of 3·0 as used for this plate up to December 1911 inclusive.

The chart shows the departure from normal of the mean during the month of 8 hrs. pressure by means of lines drawn for equal amounts of departure. The numbers are given in thousandths of an inch, 20 representing ·020″ or two hundredths of an inch, &c. Continuous lines indicate that the pressure was in excess by amounts indicated by the numbers attached to the lines, and broken or dotted lines that it was in defect by amounts indicated by the numbers attached to the lines. Two parallel lines near to each other, one continuous and the other broken or dotted, represent the line of no departure, the dotted line facing the area of deficient pressure or negative departures.

CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MAXIMUM TEMPERATURE.

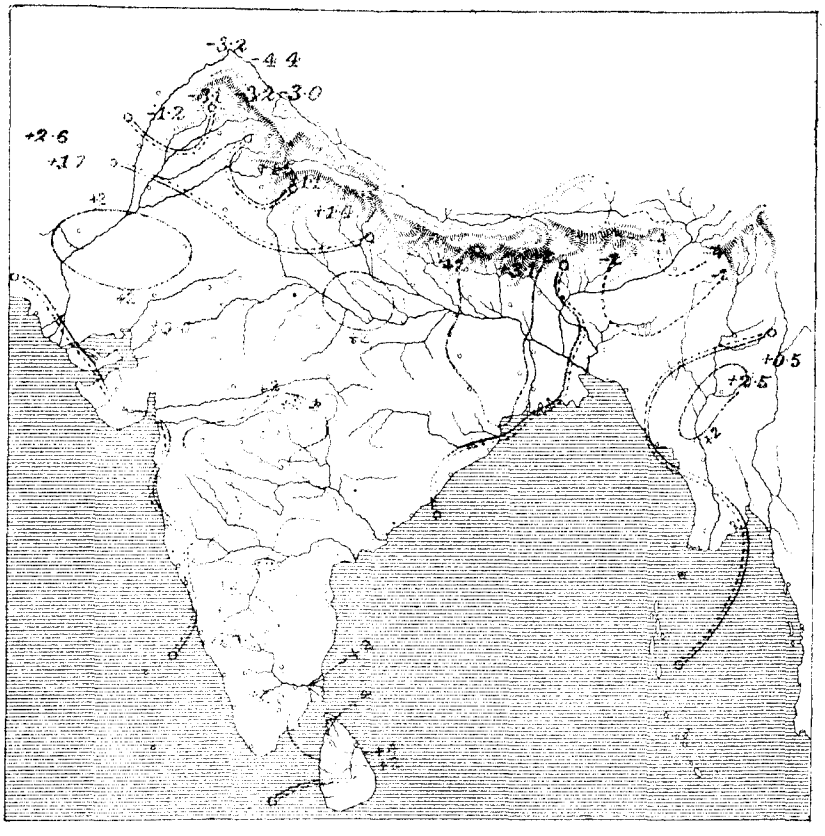


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MINIMUM TEMPERATURE.

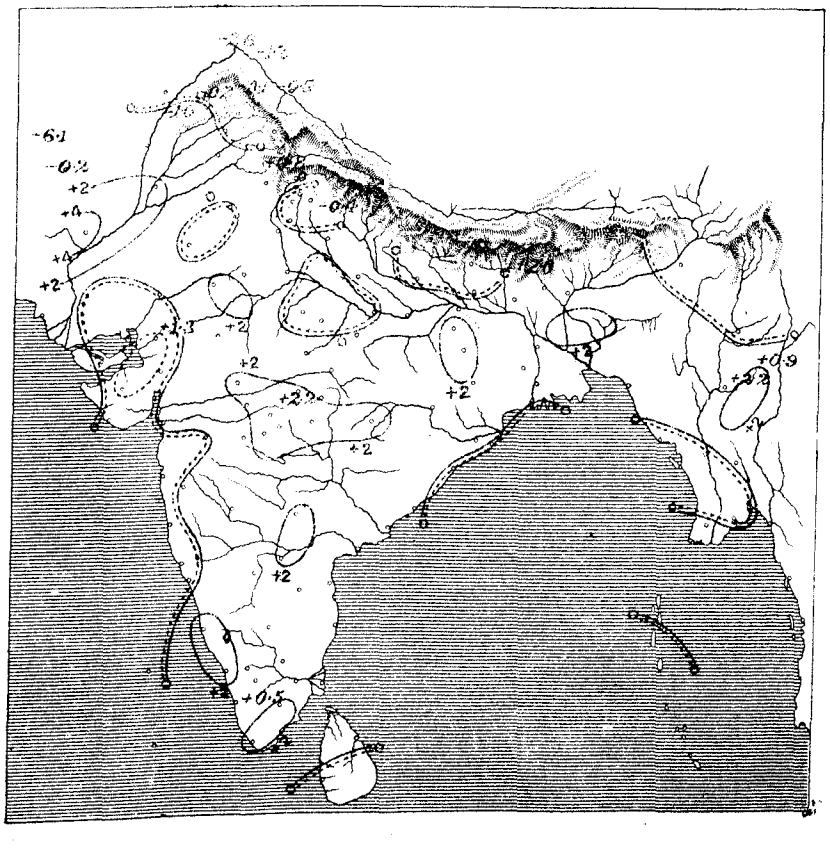


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MEAN TEMPERATURE.

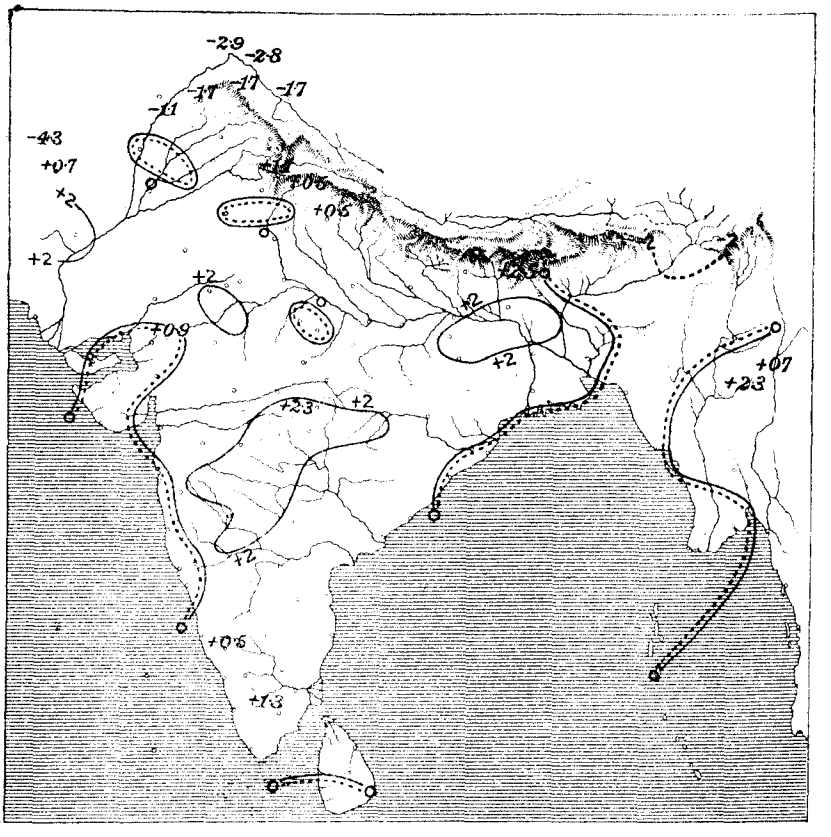
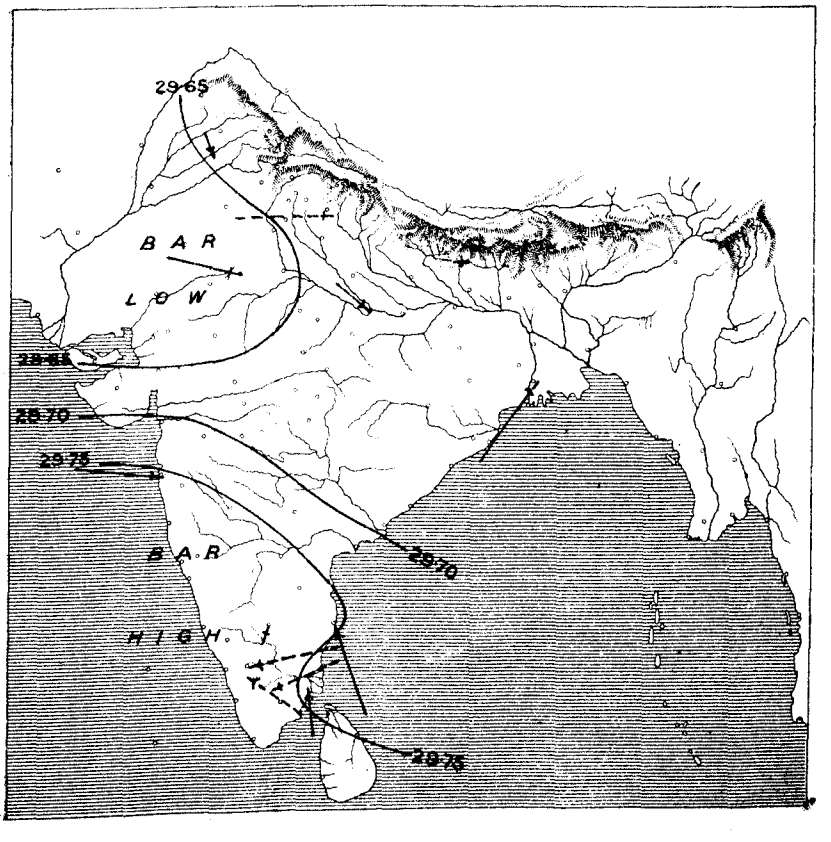


CHART SHEWING THE MONTHLY MEAN OF PRESSURE AND RESULTANT WIND DIRECTION.



LITHO. BY S. S. MUNDLE.

CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF ABSOLUTE HUMIDITY AT 8 HRS.

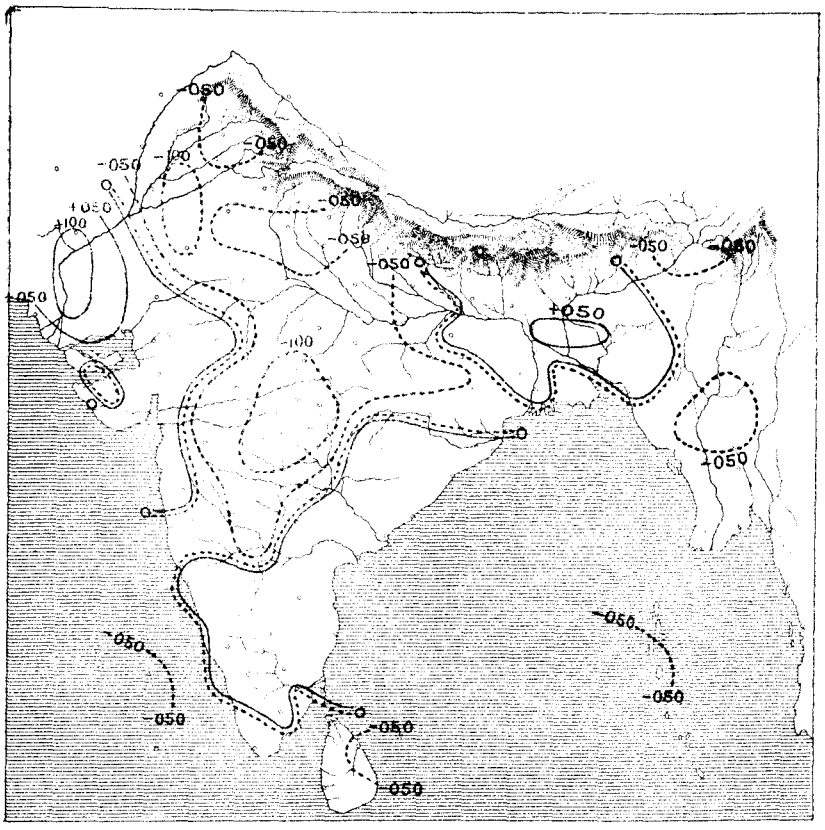
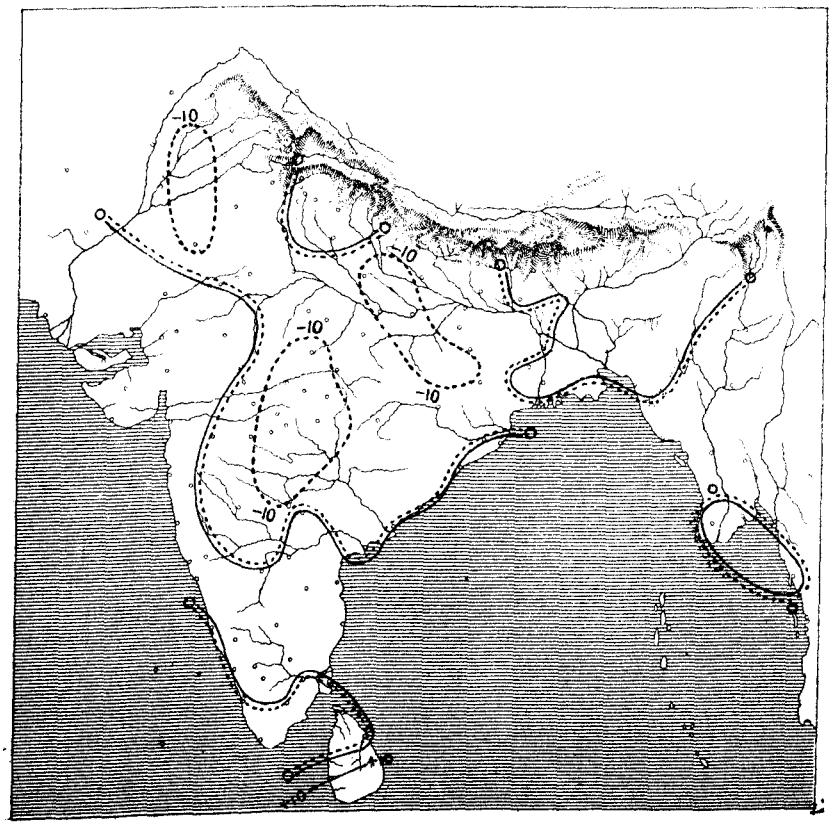


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF RELATIVE HUMIDITY AT 8 HRS.



LITHO. BY S.S.G.

CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF CLOUD AMOUNT AT 8 HRS.

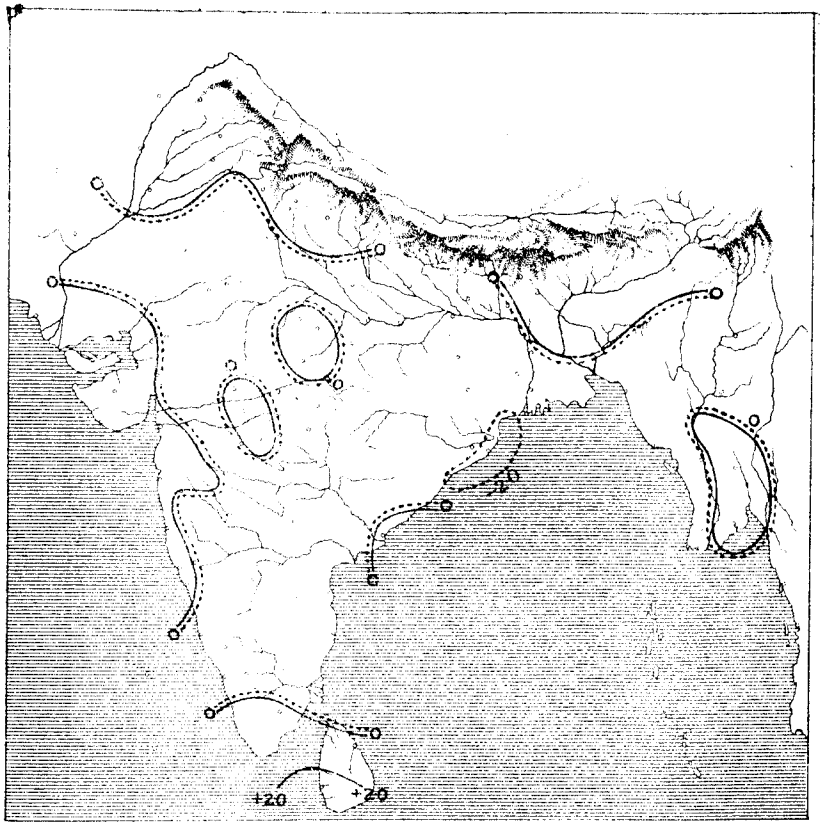
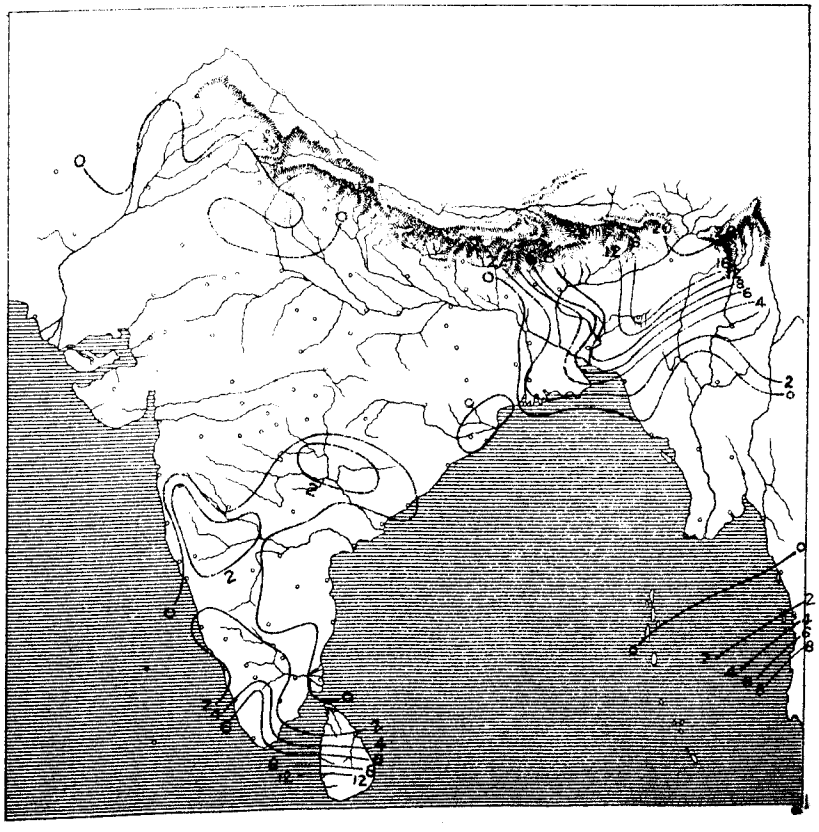
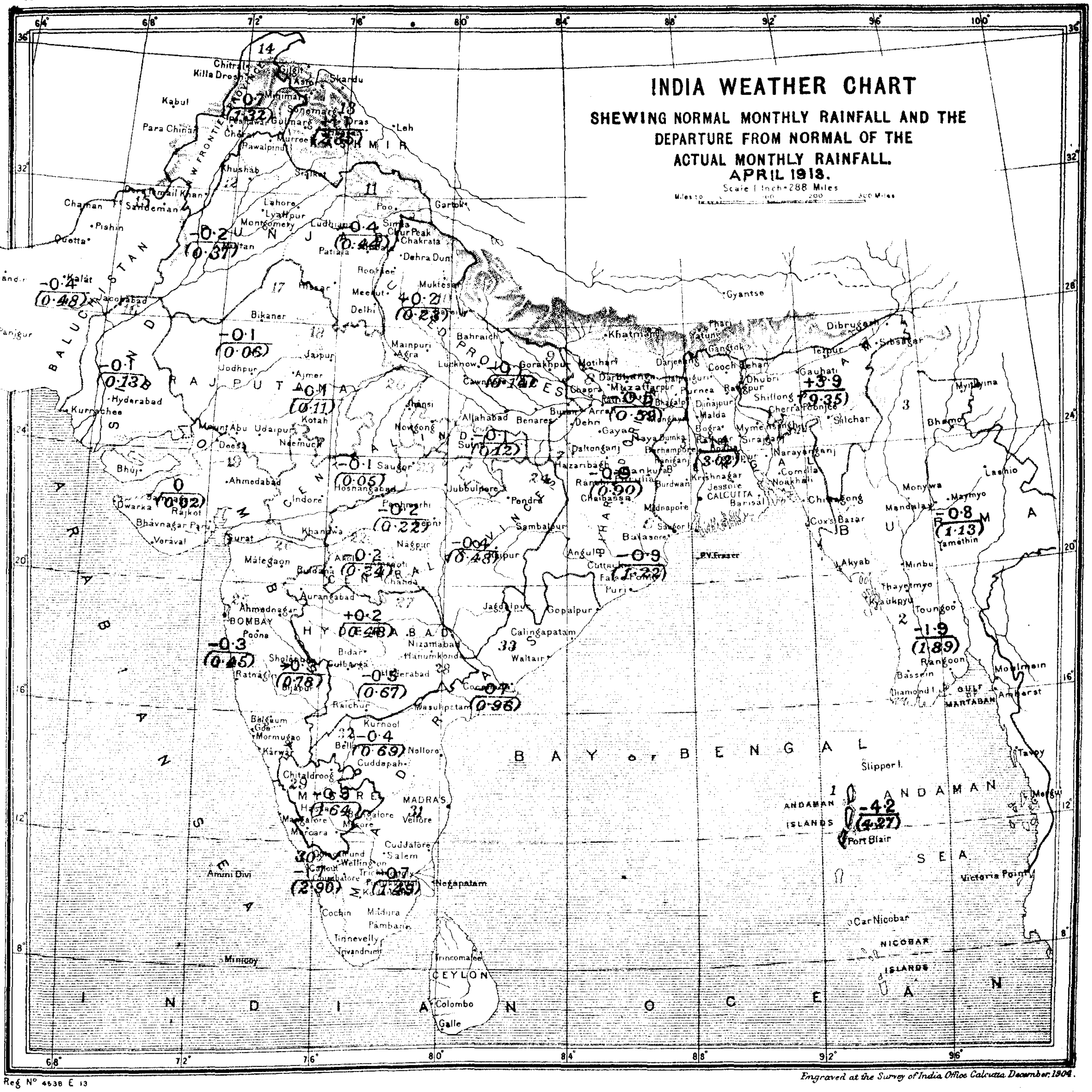


CHART SHEWING THE TOTAL NUMBER OF DAYS IN THE MONTH ON WHICH RAINFALL EQUALLED OR EXCEEDED 0·10 INCH.

(BASED ON THE RETURNS OF TABLE B.)





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
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

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GOVERNMENT OF INDIA

METEOROLOGICAL DEPARTMENT

MONTHLY WEATHER REVIEW

PUBLISHED BY ORDER OF

THE GOVERNMENT OF INDIA.

CALCUTTA, MAY, 1913.

INTRODUCTION.

THIS review of the weather in India during the month of May, 1913, is based on observations taken daily at 8 hrs. at 216 stations, and on additional observations taken at 10 hrs. and 16 hrs. at 16 stations. In the rainfall summary have been utilized the data furnished by the meteorological observatories, and such rainfall statements of the month as had been published by the Provincial Governments up to the date of the preparation of the review.

The brief notes on solar, seismic and magnetic disturbances are supplied by the chief observatories in the Indian area.

For a statement of the methods adopted in recording and tabulating the data, for each of the elements of observation, reference should be made to the introductory portion of the review for January.

Summary of the chief features of the weather in India during the month.

2. May, unlike April, was very wet. The total rainfall for the month was very generally above the normal in northern and central India and also in a large part of the Peninsula.

In Burma and the Bay Islands the weather was very dry.

The departures of other climatic elements were in fair accordance with the abnormal feature of the rainfall distribution, but were in general not very pronounced.

Barometric pressure at the level of the plains was ·004″ short of the normal.

Solar, seismic and magnetic disturbances.

KODAIKANAL OBSERVATORY.

3. *Solar Observations.*—Observations of sun were made on all the days during the month excepting the 5th.

Sunspots.—The sun was completely free from spots throughout the month.

Prominences.—Forty-five large and seven eruptive prominences were observed during the month. There were seven prominences which attained to heights of 2 minutes and over. The highest was recorded on the 11th at latitude—25° east and was 210″ high.

Magnetic disturbances.—One moderate disturbance was recorded for the month and lasted from the 4th to 8th. It is the fifth in a series of moderate disturbances that have occurred at intervals of a synodic rotation of the sun since December 23, 1912.

Seismic records.

$\phi = 10° 13' 50''$ $\lambda = 77° 28' 00''$ h = 2343 m. Subsoil Rock.

Apparatus.—Milne's Horizontal Pendulum.

TABLE 1.

	V	To	C	$\frac{r}{To^2}$
AN :				
AE :	9·76	16·3	1	
AZ :				

Date.	Phase.	Time, G. M. T.			Period (sec.)	Amplitude (u)			Distance Δ (Km.)	Remarks.
						An.	Ae.	Az.		
1913		h.	m.	s.						
May 7th	E P	0	12	0	...	...	...	...	...	
	F	0	39	8	...	...	...	...	...	Widening of line.
„ 8th	E P	18	54	7	...	...	...	...	...	
	E L	19	5	3	...	...	...	...	...	
	M	19	6	5	...	...	5	...	...	
	F	20	37	0	...	...	...	...	...	
„ 16th	E P	12	40	7	...	...	...	...	...	
	F	12	56	8	...	...	...	...	...	Widening of line.
„ 18th	E P	2	20	7	...	...	...	...	...	
	F	3	40	2	...	...	...	...	...	Widening of line.
„ 30th	E P	11	59	7	...	...	...	...	...	
	I L	12	9	2	...	...	...	...	...	
	M	12	39	7	...	...	10	...	...	
	M	12	44	9	...	...	9	...	...	
	M	12	53	1	...	...	9	...	...	
	F	15	23	3	...	...	...	...	...	

J. EVERSHED,

Director,

Kodaikanal and Madras Observatories.

BOMBAY OBSERVATORY.

Alibag magnetic record.

4. During the month of May, 1913, the traces showed 14 calm days and 17 days of small disturbance.

The days of the month selected as quiet for the purposes of the Magnetic Survey of India are the 10th, 11th, 14th, 22nd and 23rd.

The following table represents the magnetic character of each day during the month :—

TABLE 2.

Day.	Character.	Day.	Character.	Day.	Character.
1	S	12	C	23	C
2	S	13	C	24	C
3	S	14	C	25	C
4	S	15	S	26	C
5	S	16	C	27	S
6	S	17	C	28	S
7	S	18	S	29	S
8	S	19	S	30	S
9	S	20	S	31	C
10	C	21	C	...	...
11	C	22	C	...	...

C = calm ; S = small ; M = moderate ; G = great ; V. G. = very great.

The mean observed absolute values of the several magnetic elements reduced to the mean monthly tabulations of the magnetograms, as also the ranges and the summed ranges of the horizontal force and declination for the month are as follows :—

Easterly declination . . .	0° 48′ 6″
Horizontal force . . .	0·36879 C.G.S. unit.
Vertical force	0·16468 „ „
Inclination	24° 3′·8
Inclination (observed) . . .	24° 1′·8
Horizontal force range . .	0·00036 C.G.S. unit.
Horizontal force summed range .	0·00240 „ „
Declination range . . .	4′·1
Declination summed range . .	17′·8

(NOTE.—Summed range means sum without regard to sign of the 24 ordinates of the diurnal inequality.)

Seismic records.

$\phi = 18^\circ\ 53'\ 45''$ $\lambda = 72^\circ\ 48'\ 56''$ h = 11 m. Subsoil Basaltic trap.

Apparatus.—Milne's Horizontal Pendulum Seismograph (E.—W.)

TABLE 3.

	V	To	G	$\frac{r}{To^2}$
AN :				
AE :	9	19	1	
AZ :				

Date.	Phase.	Time, G. M. T.	Period (sec.)	Amplitude (u) An.	Ae.	Az.	Distance Δ (Km.)	Remarks.
		h. m. s.						
1913 May 1st	...	9 39 0 to	...	...	...	...	...	Thickening.
		9 42 0						
„ 3rd	...	6 40 0 to	...	...	...	...	...	„
		6 44 0						
	...	10 55 0	...	...	...	...	...	„
„ 4th	...	13 9 0	...	...	...	...	...	„
	...	13 12 0	...	...	...	...	...	„
	...	13 16 0	...	...	...	...	...	„
„ 5th	...	6 26 0	...	...	...	...	...	„
„ 6th	...	10 45 0 to	...	...	...	...	...	„
		10 50 0						
„ 10th	...	10 23 0	...	...	...	...	...	„
	...	11 19 0	...	...	...	...	...	„
	...	23 11 0 to	...	...	...	...	...	„
		23 15 0						
„ 12th	...	10 59 0	...	...	...	...	...	„
	...	11 6 0	...	...	...	...	...	„
„ 14th	...	12 18 0	...	...	...	...	...	„
„ 16th	P	12 36 37	...	...	...	...	...	
	M	12 45 53	...	...	22	...	...	
	F	12 58 5	...	...	...	...	...	
„ 18th	P	mixed in tremors	...	...	...	...	...	
	M	2 55 30	...	...	56	...	...	
	F	4 2 58	...	...	...	...	...	
		h. m. s.						
1913 May 19th	...	7 27 0	...	...	...	...	...	Thickening.
	...	12 6 0	...	...	...	...	...	„
	...	12 9 0 to	...	...	...	...	...	„
		12 12 0						
„ 24th	P	mixed in tremors	...	...	...	...	...	
	M	19 8 7	...	...	56	...	...	
	F	mixed in tremors	...	...	...	...	...	
	P	mixed in tremors	...	...	...	...	...	
	M	20 43 42	...	...	56	...	...	
	F	mixed in tremors	...	...	...	...	...	
„ 25th	P	mixed in tremors	...	...	...	...	...	
	M	0 51 9	...	...	67	...	...	
	F	mixed in tremors	...	...	...	...	...	
	...	18 57 0 to	...	...	...	...	...	Thickening.
		19 1 0						
„ 28th	...	13 6 0	...	...	...	...	...	„
	...	13 13 0	...	...	...	...	...	„
„ 29th	...	13 8 0	...	...	...	...	...	„
	P	13 43 12	...	...	...	...	...	
	M	13 59 20	...	...	11	...	...	
	F	14 29 35	...	...	...	...	...	
„ 30th	...	11 19 0	...	...	...	...	...	Thickening.
	P	11 56 20	...	...	...	...	...	
	M	12 39 16	...	...	111	...	...	
	F	mixed in tremors	...	...	...	...	...	
	...	17 48 0 to	...	...	...	...	...	Thickening.
		17 53 0						
„ 31st	...	9 0 0 to	...	...	...	...	...	„
		9 2 0						
	...	12 7 0 to	...	...	...	...	...	„
		12 10 0						

Sensibility to tilt 1 mm. of amplitude on the trace is = 0'34".

Only those thickenings which can be clearly distinguished are given. Thickenings mixed up in tremors are omitted from the above list.

N. A. F. MOOS,

Director, Bombay and Alibag Observatories.

5. CALCUTTA (ALIPORE) OBSERVATORY.

Seismic records.

$\phi = 22° 32' 00''$ $\lambda = 88° 20' 00''$ h = 6·4 m. Subsoil.

Apparatus.—Milne's Horizontal Pendulum.

TABLE 4.

	V	To	ϵ	$\frac{r}{To^2}$
AN :				
AE :	8·688	18	1	
AZ :				

Date.	Phase.	Time, G. M. T.			Period (Sec.)	Amplitude (u)			Distance Δ (Km.)	Remarks.
						An.	Ae.	Az.		
1913		h.	m.	s.						
May 8th	P	18	53	0	...	...	...	...	...	
	S	19	0	1	...	..	...	...	...	
	L	19	3	6	...	...	...	...	...	
	M	19	4	2	...	...	115	...	...	
	F		?		...	...	...	...	...	Ends in morning air tremors.

The driving clock did not work properly during 1st half of the month and it was under repair during the 2nd half.

6. SIMLA OBSERVATORY.

Seismic records for March, 1913.

$\phi = 31° 6' 0''$ $\lambda = 77° 11' 00''$ h = 2433·5 m. Subsoil Rock.

Apparatus.—Two Omori-Ewing Horizontal Pendulums (Masses 50 Kg.)

TABLE 5.

	V	To	ϵ	$\frac{r}{To^2}$
AN :	14	45	1	
AE :	14	45	1	
AZ :				

Date.	Phase.	Time, G. M. T.			Period (sec.)	Amplitude (u)			Distance. Δ (Km.)	Remarks.
						An.	Ae.	Az.		
1913		h.	m.	s.						
Mar. 3rd	E	20	17	4	...	...	...	...	...	
	F	20	41	9	...	...	...	...	...	Very slight tremors.
1913		h.	m.	s.						
Mar. 6th	P	2	10	0	...	...	...	...	...	
	S	2	10	8	...	...	...	...	...	
	L	2	11	1	7	232	232	...	...	
	F	2	30	0	...	...	...	...	...	
„ 6th	E	3	4	1	...	...	...	...	...	
	M	3	5	2	15	11	11	...	...	
	F	3	10	7	...	...	...	...	...	
„ 6th	P	11	4	9	...	...	...	...	...	
	L	11	5	9	...	...	...	...	...	
	M	11	6	6	?	2679	1000	...	...	
	F	11	50	0	...	...	...	...	...	
„ 6th	P	5	57	6	...	...	...	...	...	
	S	5	58	0	...	...	...	...	...	
	L	5	58	2	...	...	...	...	...	
	M	5	58	2	8	71	36	...	...	
	F	6	0	0	...	...	...	...	...	
„ 7th	E	8	48	5	...	...	...	...	...	
	F	8	49	6	...	4	4	...	...	
„ 7th	P	10	36	5	...	...	...	...	...	
	EL	10	37	2	...	...	...	...	...	
	M	10	37	6	...	36	25	...	...	
	F	10	41	0	...	...	...	...	...	
„ 7th	P	12	6	9	...	...	...	...	...	
	L	12	7	1	...	...	...	...	...	
	M	12	7	2	6	4	25	...	...	
	F	12	9	0	...	...	...	...	...	
„ 7th	E	22	59	7	...	...	...	...	...	
	F	23	0	2	...	...	...	...	...	Slight tremors.
„ 10th	E	3	24	3	...	...	...	...	...	
	F	3	24	7	...	...	...	...	...	Slight thickening of trace.
„ 10th	P	19	9	9	...	...	...	...	...	
	S	19	10	8	...	...	...	...	...	
	L	19	11	0	...	...	...	...	...	
	M	19	11	2	...	125	64	...	...	
	F	19	19	0	...	...	...	...	...	
„ 14th	P	8	54	2	...	...	...	...	...	
	S	9	1	4	...	...	...	...	...	
	L	9	11	1	...	...	...	...	...	
	M	9	13	1	40	2679	2429	...	...	
	F	11	7	0	...	...	...	...	...	
„ 16th	E	0	3	3	...	...	...	...	...	
	F	0	4	3	...	4	4	...	...	

Date.	Phase.	Time, G. M. T.			Period (sec.)	Amplitude (u)			Distance Δ (Km.)	Remarks.
						An.	Ae.	Az.		
1913		h.	m.	s.						
Mar. 16th	E	0	21	0	..	...	...	...	...	
	F	0	21	3	...	4	...	...	...	
„ 18th	E	1	49	7	...	...	...	...	...	
	F	2	0	7	...	...	...	...	...	Slight tremors.
„ 23rd	E	20	57	0	...	...	...	...	...	
	M	21	6	6	...	...	...	...	...	
	M	21	18	1	...	71	36	...	...	Tremors.
	F	21	41	0	...	...	...	...	...	
„ 24th	E	10	39	1	...	...	...	...	...	
	M	10	47	6	...	43	25	...	...	
	F	11	2	0	...	...	...	...	...	
„ 26th	E	21	51	4	...	...	...	...	...	
	F	21	53	6	...	...	...	...	...	Slight tremors.
„ 27th	E	3	21	2	...	...	...	...	...	
	M	3	37	0	...	25	18	...	...	
	F	3	46	0	...	...	...	...	...	Tremors.
„ 28th	P	17	12	4	...	...	...	...	...	
	S. M	17	12	8	2	7	29	...	..	Local shock.
	F	17	18	0	...	...	...	...	...	
„ 29th	E	12	54	5	...	...	...	...	...	
	F	12	56	5	2	4	4	...	...	
„ 31st	P	3	52	8	...	...	...	...	...	
	S	4	2	4	...	...	...	...	...	
	L	4	16	4	...	...	...	...	...	
	M	4	26	0	20	143	107	...	...	
	F		?							

The following table contains a list of earthquakes that were reported :—

TABLE 6.

Place at which felt.	Date.	G. M. T. of earthquakes.		Duration.	Intensity Rossi-Farel scale.	No. of shocks.
	Mar.	h.	m.	sec.		
Shillong	1st	1	47	1	3	1
Kalonah (Nowgong, Assam) .	8th	0	7	7	6	2
Shillong	10th	15	30	1	5	1
Shillong	11th	7	37	1	4	1
Drosh	12th	10	20	7	6	2
„	13th	8	15	3	6	1
Chaman	17th	4	40	1	3	1
„	18th	13	35	2	3	2
Drosh	20th	20	0	5	6	1
„	26th	0	15	5	6	3
Sialkot	27th	23	0	5	5	4
Lahore	27th	23	3	2	6	1
Drosh	28th	15	10	8	6	2
Sialkot	28th	17	5	5	5	5
Srinagar	28th	17	5	2	6	1
Rawalpindi	28th	17	12	10	6	2
Ghora Gali (Murree) . . .	28th	18	2	4	3	1
Srinagar	29th	3	30	3	6	1
Drosh	29th	12	55	25	6	4
Zanzibar	30th	16	53	15	5	2

Solar radiation during March.—The following figures give the intensity of solar radiation, as measured at Simla by Angstrom's pyrheliometer. The values are corrected to local noon, and expressed in gramme-calories per square centimetre per minute :—

Maximum	1·40
Minimum	1·29
Mean	1·34
Number of days of observation .	8

G. C. SIMPSON,

Imperial Meteorologist, Simla.

ROYAL ALFRED OBSERVATORY, MAURITIUS.

7. No information has been received.

Weather in the Indian monsoon region.

8. Pressure was in defect by ·04″ at Zanzibar and Seychelles, and was normal at Mauritius. Winds were normal as regards direction, but their velocity was higher than usual at Mauritius and Seychelles, and below the average at Zanzibar. About the usual amount of rain fell at Zanzibar, but at Seychelles the recorded quantity was over 55 per cent. below the average.

The general conditions in the Indian Ocean were thus not unfavourable for Indian monsoon rainfall.

TABLE 7.

	Mauritius.	Zanzibar.	Seychelles.
Departure from normal of mean pressure.	—·001	—·039	—·039
Actual mean wind direction	S 75° E	S 16° W	S 39° E
Normal mean wind direction	S 64° E	S 7° W	S 43° E
Actual mean wind velocity (miles per diem).	182	108	171
Normal mean wind velocity (miles per diem).	158	142	120
Rainfall departure from normal.	—1·28	—0·24	—3·36

Depressions and cyclonic storms.

9. No well-formed depression or storm originated or crossed into India during the month under review.

Pressure.

10. On the mean of the whole month pressure was below the normal generally in north-west and central India and the coast districts of the Peninsula from Nellore round to Bombay. The deficiency was not marked, except in the Indus valley and the northern half of Rajputana where it ranged between ·02″ and ·05″. Over the rest of the country pressure was above the normal, but the magnitude of the departures was small.

TABLE 8.

DIVISION.	Departure from normal of mean 8 hrs. pressure.
	″
Burma	+·001
Assam	+·001
Bengal	+·005
Bihar and Orissa	+·007
United Provinces	+·001
Punjab	—·007
North-West Frontier Province	—·032
Sind	—·028
Rajputana	—·023
Bombay	—·003
Central India	—·001
Central Provinces	—·001

DIVISION.	Departure from normal of mean 8 hrs. pressure.
	″
Hyderabad	—·008
Mysore	+·002
Madras	0

The vertical gradient was considerably steeper than usual in southern India, Upper Burma and north Bengal, and was on the whole about normal in northwest and central India.

TABLE 9.

HILL STATION.	Departure from normal pressure. A	PLAIN STATION.	Departure from normal pressure. B	Departure of pressure difference. B—A.
	″		″	″
Quetta	—·008	Jacobabad	—·047	—·039
Leh	—·004	Lahore	—·008	—·004
Murree	—·020	Peshawar	—·039	—·019
Simla	—·011	Ludhiana	—·002	+·009
Chakrata	—·019	Roorkee	+·009	+·028
Darjiling	—·032	Dhubri	—·001	+·031
Mount Abu	—·003	Deesa	—·003	0
Pachmarhi	+·005	Khandwa	—·005	—·010
Kodaikanal	—·014	Madura	+·016	+·030
Maymyo	—·020	Mandalay	+·014	+·034

Temperature.

11. Both day and night temperatures were appreciably below the average in the tract of country stretching from west Bihar to the east Punjab, and day temperature was in excess also in central Burma, but in all other parts of the Indian region the temperature conditions did not depart to any great extent from the normal.

From the 14th to the 22nd temperature was considerably below normal in the greater part of northern and central India: the defect was shown chiefly in the day temperature which at times was as much as 20° to 35° below the average at some stations.

The highest temperature of the month, *viz.*, 124°, was, as usual, registered at Jacobabad, and was 2° lower than the highest previously recorded there in May.

TABLE 10.

Sub-division.	Actual temperature.					Departure from normal of		
	Mean maximum.	Mean minimum.	Monthly mean of mean between maximum and minimum.	Mean daily range of temperature.	Absolute range during month.	Maximum.	Minimum.	Daily range.
	°	°	°	°	°	°	°	°
1. Bay Islands	90·1	79·9	85·1	10·3	18·9	+1·6	+0·8	+0·8
2. Lower Burma	90·9	76·5	83·7	14·4	24·9	+0·7	0	+0·7
3. Upper Burma	97·5	75·4	86·4	22·1	35·8	+2·3	+0·4	+1·9
4. Assam	84·4	71·0	77·7	13·4	27·5	−2·2	−0·6	−1·6
5. Bengal	92·0	74·6	83·3	17·4	33·3	−0·3	−1·7	+1·4
6. Orissa	99·0	78·1	88·6	20·9	35·8	−1·3	−2·1	+0·8
7. Chota Nagpur	100·6	75·7	88·1	24·9	41·9	−2·7	−2·7	0
8. Bihar	97·1	74·9	86·0	22·3	42·6	−1·9	−1·7	−0·2
9. United Provinces, East	100·2	75·7	88·0	24·5	43·3	−4·4	−2·9	−1·5
10. Do. do., West	101·6	76·0	89·0	25·6	42·3	−4·2	−3·2	−1·0
11. Punjab, East and North	100·3	73·5	86·9	26·7	45·8	−3·8	−1·6	−2·2
12. Do., South-west	105·0	78·2	91·6	26·9	49·5	−0·8	+1·6	−2·4
13. Kashmir	74·4	48·0	61·2	26·3	44·5	+0·1	0	+0·1
14. North-West Frontier Province	102·6	74·1	88·3	28·5	49·7	+1·5	+1·6	−0·1
15. Baluchistan	95·0	65·7	80·3	29·3	47·7	+1·9	+0·3	+1·6
16. Sind	103·4	79·9	91·7	23·4	38·1	+0·8	+1·6	−0·8
17. Rajputana, West	106·3	79·4	92·9	26·9	43·1	−0·7	−2·3	+1·6
18. Do East	103·9	80·2	92·0	23·7	39·2	−2·6	−1·1	−1·5
19. Gujarat	100·5	77·8	89·2	22·7	34·5	−0·7	+0·1	−0·8
20. Central India, West	101·9	76·2	89·1	25·7	39·7	−1·5	−0·3	−1·2
21. Do., East	103·5	77·5	90·5	26·1	42·9	−2·9	−2·1	−0·8
22. Berar	104·8	79·4	92·1	25·4	37·1	−0·9	−0·1	−0·8
23. Central Provinces, West	104·4	78·1	91·2	26·4	41·7	−1·9	−1·5	−0·4
24. Do., East	103·9	78·5	91·2	25·5	41·5	−1·3	−0·7	−0·6
25. Konkan	91·2	80·5	85·8	10·7	18·9	+0·8	+0·2	+0·6
26. Bombay Deccan	100·4	72·5	86·5	27·8	39·6	−0·2	−0·5	+0·3
27. Hyderabad, North	103·7	77·5	90·6	26·2	37·6	−0·5	+0·1	−0·6
28. Do., South	103·8	79·0	91·5	24·8	37·4	−0·3	−0·7	+0·4

Sub-division.	Actual temperature.					Departure from normal of		
	Mean maximum.	Mean minimum.	Monthly mean of mean between maximum and minimum.	Mean daily range of temperature.	Absolute range during month.	Maximum.	Minimum.	Daily range.
	°	°	°	°	°	°	°	°
29. Mysore	92·7	69·6	81·2	23·1	35·3	+1·6	+0·5	+1·1
30. Malabar	89·9	78·6	84·3	11·3	19·8	+0·6	+1·3	—0·7
31. Madras, South-east	99·2	79·1	89·2	20·1	31·4	+0·7	+0·5	+0·2
32. Do., Deccan	104·2	79·6	91·9	24·6	38·4	—0·3	—1·1	+0·8
33. Do. Coast, North	97·0	80·5	88·7	16·5	29·2	—0·7	—1·3	+0·6

TABLE 11.

Division.	Departure from normal of		
	Mean maximum temperature.	Mean minimum temperature.	Mean temperature.
	°	°	°
Burma	+1·4	+0·2	+0·8
Assam	—2·2	—0·6	—1·4
Bengal	—0·3	—1·7	—1·0
Bihar and Orissa	—1·9	—2·0	—2·0
United Provinces	—4·3	—3·1	—3·7
Punjab	—2·9	—0·6	—1·8
North-West Frontier Province	+1·5	+1·6	+1·5

Division.	Departure from normal of		
	Mean maximum temperature.	Mean minimum temperature.	Mean temperature.
	°	°	°
Sind	+0·8	+1·6	+1·2
Rajputana	—1·9	—1·6	—1·7
Bombay	—0·2	—0·1	—0·1
Central India	—2·2	—1·2	—1·7
Central Provinces	—1·6	—1·1	—1·3
Hyderabad	—0·4	—0·4	—0·4
Mysore	+1·6	+0·5	+1·1
Madras	+0·3	0	+0·2

Winds.

12. The most noteworthy features were :—

(*a*) The air movement was weaker than usual in Burma, Bengal, the North-West Frontier Province, Bombay and Hyderabad, and above its normal intensity in Rajputana.

(*b*) The steadiness was appreciably low in Bengal and Rajputana, while in Assam, the United Provinces, the Punjab and the North-West Frontier Province the direction of movement was very steady.

(*c*) Over the region between Gaya and Sirsa, there was an undue prevalence of easterly elements at the expense of the usual westerly components.

TABLE 12.

Division.	Departure from normal of	
	Hourly wind velocity.	Wind steadiness.
Burma	—1·1	—3
Assam	—0·1	+14
Bengal	—1·3	—14
Bihar and Orissa	+0·4	+5
United Provinces	—0·4	+9
Punjab	+0·2	+8
North-West Frontier Province	—0·6	+15
Sind	—0·7	+9
Rajputana	+1·1	—14
Bombay	—1·2	—3
Central India	+0·2	—6
Central Provinces	+0·5	+7
Hyderabad	—1·3	—2
Mysore	+0·1	—3
Madras	—0·2	+6

Humidity and cloud.

13. Humidity, both absolute and relative, was higher than usual in Mysore, the Madras Deccan, east Gujarat, upper Sind, the east Punjab, the north-west of the United Provinces and Baghelkhand, and was about normal or in defect in the remainder of the country.

The cloud distribution was slightly different from that of humidity. The cloud proportion was low in Burma, Assam, Bengal, the North-West Frontier Province, Kashmir, Baluchistan, Sind, Khandesh and the south of the Peninsula, and high elsewhere. In the region defined by Nowgong, Jhansi and Saugor the excess was equal to one-fifth of the total sky expanse; while around the north of the Bay from Diamond Island to Gopalpur, the quantity of cloud recorded during the month was about two-third of the normal.

TABLE 13.

Division.	Hygrometry, 8 hrs.				Cloud.	
	Mean humidity.	Departure from normal.	Mean vapour tension in inches of mercury.	Departure from normal in inches of mercury.	Mean cloud amount at 8 hrs.	Departure from normal.
	%					
Burma	78	— 4	·822	—·044	5·5	—0·5
Assam	87	— 2	·754	—·050	6·0	—1·2
Bengal	81	— 1	·850	—·055	5·0	—0·5
Bihar and Orissa	66	+ 1	·739	—·051	3·3	—0·1
United Provinces	53	+ 7	·608	+·004	2·2	+0·8
Punjab	44	+ 4	·502	—·008	1·9	+0·3
North-West Frontier Province.	42	— 3	·499	—·047	1·1	—0·5
Sind	63	+ 3	·799	+·070	1·3	—0·6
Rajputana	42	+ 3	·522	—·052	1·4	+0·2
Bombay	66	0	·757	+·014	3·2	+0·2
Central India	48	+ 7	·573	+·029	1·9	+0·7
Central Provinces	43	+ 1	·536	—·018	2·4	+0·6
Hyderabad	51	+ 2	·612	+·035	3·3	+0·3
Mysore	75	+ 1	·669	+·009	4·8	—0·5
Madras	71	+ 1	·864	+·005	4·1	—0·4

Rainfall.

14. During the first twelve days of the month there were frequent showers in Assam and occasional showers in Burma and the south of the Peninsula, but over the rest of the country the weather was generally dry. During the next four days the pressure distribution underwent a material change and from the 18th to the 21st the position of the trough of low pressure favoured an extension of moist east winds from the Bay along the Gangetic plain into the Punjab. Widespread and in places heavy rain occurred in northern India on these four days, but with the passing away of these conditions on the 22nd the rainfall became confined again to Burma, Assam, Bengal and the south of the Peninsula. An area of deficient pressure such as accompanies the advance of the monsoon in the Arabian Sea appeared in the extreme south on the 24th, but although a marked increase in rainfall took place on the 29th in the Malabar coast districts the heavy rainfall characteristic of the first burst of the monsoon did not occur until the 2nd June.

The total rainfall of the month was distinctly above the average in all the larger provinces with the exception of Burma, the North-West Frontier Province, Sind and Madras. It was unusually heavy for May in the United Provinces, Central India, Rajputana and the Punjab.

In Kashmir and Baluchistan the weather was drier even than usual.

TABLE 14.

Sub-division.	Number of rainy days.		Rainfall.			
	Actual.	Normal.	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
			"	"	"	
1. Bay Islands	10·0	13·9	5·59	13·07	—7·48	— 57
2. Lower Burma	11·4	13·6	9·52	12·66	—3·14	— 25
3. Upper Burma	7·3	8·2	4·13	5·82	—0·69	— 12
4. Assam	15·4	14·3	14·43	11·88	+2·55	+ 21
5. Bengal	11·9	8·1	10·17	7·84	+2·33	+ 30
6. Orissa	7·3	4·9	4·27	3·46	+0·81	+ 23
7. Chota Nagpur	5·1	3·8	2·86	2·30	+0·56	+ 24

Sub-division.	Number of rainy days.		Rainfall.			
	Actual.	Normal.	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
			"	"	"	
8. Bihar	5·9	3·3	4·07	2·32	+1·75	+ 75
9. United Provinces, East	4·6	1·3	2·42	0·67	+1·75	+261
10. Do., West	4·4	1·4	2·29	0·60	+1·69	+282
11. Punjab, East and North	3·7	1·4	2·26	0·65	+1·61	+248
12. Do., South-west	1·1	0·9	0·43	0·41	+0·02	+ 5
13. Kashmir	3·7	3·7	1·45	1·67	—0·22	— 13
14. North-West Frontier Province	1·4	1·6	0·56	0·72	—0·16	— 22
15. Baluchistan	0	0·5	0·02	0.18	—0·16	— 89
16. Sind	0	0·3	0	0·10	—0·10	—100
17. Rajputana, West	1·4	0·7	0·60	0·31	+0·29	+ 94
18. Rajputana, East	3·8	1·1	1·95	0·43	+1·52	+353
19. Gujarat	0·4	0·4	0·32	0·23	+0·09	+ 39
20. Central India, West	2·6	0·6	1·24	0·26	+0·98	+377
21. Do., East	0·3	0·9	1·66	0·37	+1·29	+349
22. Berar	1·9	0·8	0·84	0·42	+0·42	+100
23. Central Provinces, West	2·4	0·9	0·90	0·39	+0·51	+131
24. Do., East	1·7	1·4	0·76	0·72	+0·04	+ 6
25. Konkan	1·7	1·8	0·65	1·47	—0·82	— 56
26. Bombay Deccan	3·2	2·4	1·99	1·34	+0·65	+ 49
27. Hyderabad, North	2·1	1·5	1·06	0·68	+0·38	+ 56
28. Do., South	3·5	1·9	1·92	0·98	+0·94	+ 96
29. Mysore	5·8	5·4	3·65	3·39	+0·26	+ 8
30. Malabar	7·8	7·7	6·13	7·18	—1·05	— 15
31. Madras, South-east	3·8	3·8	2·18	2·66	—0·48	— 18
32. Do., Deccan	4·3	2·8	2·49	1·59	+0·90	+ 57
33 Do., Coast, North	4·4	3·0	2·51	2·03	+0·48	+ 24

TABLE 15.

Division.	Rainfall.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"	
Burma	6·78	9·06	—2·28	— 25
Assam	14·43	11·88	+2·55	+ 21
Bengal	10·17	7·84	+2·33	+ 30
Bihar and Orissa	3·88	2·57	+1·31	+ 51
United Provinces	2·36	0·64	+1·72	+269
Punjab	1·88	0·69	+1·28	+213
North-West Frontier Province	0·56	0·72	—0·16	— 22

Division.	Rainfall.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"	
Sind	0	0·10	—0·10	—100
Rajputana	1·46	0·40	+1·06	+265
Bombay	1·21	1·01	+0·20	+ 20
Central India	1·34	0·30	+1·04	+347
Central Provinces	0·85	0·47	+0·38	+ 81
Hyderabad	1·49	0·83	+0·66	+ 80
Mysore	3·65	3·39	+0·26	+ 8
Madras	2·67	2·75	—0·08	— 3
Mean of India	3·29	2·75	+0·54	+ 20

Snowfall.

I.—AFGHANISTAN.

15. On the hills surrounding Kabul rain fell on two or three occasions, but there was no snowfall.

II.—NORTH-WEST FRONTIER PROVINCE.

(*a*) *Wano.*—There was no snowfall in south Waziristan.

(*b*) *Tochi* (north Waziristan).—No snow fell, and the weather was moderately hot.

(*c*) *Dera Ismail Khan.*—No snow fell on the hills bordering this district.

(*d*) *Kurram.*—No snow fell. Temperature was high and the previous accumulations on the Sufed Koh were disappearing fast.

(*e*) *Kohat.*—No snow fell on the hills bordering this district.

(*f*) *Drosh.*—Slight snow fell on the surrounding hills.

(*g*) *Khyber.*—No snow fell.

(*h*) *Malakand.*—There were three falls during the month on the Lawarai pass.

(*i*) *Hazara.*—Snow to the total depth of two to four inches fell in the Kagan valley. The lowest level reached by the snow line was 13,000 feet.

III.—KASHMIR.

A few light falls of snow are reported to have occurred on the higher mountains around Srinagar as well as on those near Sonamarg and Dras. On the hills surrounding Leh there was a snowstorm on the 30th. Duststorms were of almost daily occurrence in Leh, and there were but few sunny days in the month. On the 31st the residue of unmelted snow on the hills near Kargil was estimated at 5 feet.

IV.—PUNJAB.

(*a*) *Chamba.*—Weather was disturbed throughout the month and on the 20th snow fell down to 11,000 feet. The passes opened fifteen days later than in May 1912 owing to recent soft snow. At the end of the month the unmelted residue of snow on the higher elevations was said to be thicker than usual.

(*b*) *Kangra.*—Weather was disturbed and cold, but no information regarding snowfall is forthcoming.

(*c*) *Kilba* (Simla Hills).—Snowstorms occurred on the 19th, 20th, 22nd and 30th down to about 10,000 feet at which elevation the total fall for the month was estimated at 3½ inches. At the end of the month all the passes were open.

V.—UNITED PROVINCES.

(*a*) *Garhwal.*—Snowstorms occurred on the higher peaks in the north on the 24th and 31st, but on the whole the weather was mild.

(*b*) *Almora.*—The total fall measured 9½ feet in depth in Malla Darma, 8½ feet in Chaudas, 4 feet in Byans, 2½ feet in Malla Danpur and 1 foot in Malla Johar.

TABLE 16.

Name of pass or peak.	Depth of accumulation in the last week of May.			
	Reported.		Normal.	
	Feet.	Inches.	Feet.	Inches.
Nuwe pass	28	0	17	10
Milamdhura	1	3	7	6
Pindari peak	12	7	1	0
Kaphini ,,	12	7	1	0
Kuntela ,,	12	7	1	0
Lipulekh pass	8	0	8	7
Lampia ,,	12	0	10	4
Binkaru ,,	20	0	22	0

The snowline came down to a distance of two or three marches from the perpetual snows.

VI.—ASSAM.

Sikkim.—Light snow fell at Gyantse on the 9th, 19th, 22nd, 23rd, 26th and 29th.

SUMMARY.

16. There was no heavy widespread snowfall during the month. But little information is available regarding the accumulations of snow. 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.

HEM RAJ.

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

Tab

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

Number of subdivision.	Station.	Elevation of barometer 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.	Temperature, wet-b Mean minimum.	Mean 10 hrs.	Mean 16 hrs.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	III.—Bengal.																				
5	Calcutta . .	21	29·718	29·588	·130	29·655	—·006	29·622	94·3	76·4	17·9	104·1	69·4	24·7	87·8	91·2	85·1	—0·6	73·4	79·5	80·1
	V.—United Provinces of Agra and Oudh.																				
9	Allahabad . .	309	29·386	29·261	·125	29·321	+·007	29·572	103·0	76·8	26·2	110·7	70·5	40·2	93·4	100·9	89·1	—3·4	67·5	73·0	72·9
	VI.—Punjab.																				
11	Lahore . .	702	28·942	28·847	·095	28·888	—·017	29·534	102·3	74·1	28·2	112·2	66·1	46·1	92·4	100·2	87·9	—1·0	65·2	71·8	73·4
	IX.—Rajputana.																				
18	Jaipur . .	1,431	28·281	28·164	·117	28·217	—·027	29·537	103·5	77·2	26·3	110·2	67·8	42·4	92·8	101·7	89·5	—2·1	64·7	70·7	71·9
	X.—Bombay.																				
25	Bombay . .	37	29·795	29·695	·100	29·744	—·030	29·721	92·0	81·4	10·6	94·5	78·8	15·7	87·5	89·0	85·6	+1·0	76·6	79·3	79·9
	XIV.—Mysore.																				
29	Bangalore . .	3,021	26·905	26·782	·123	26·850	+·007	29·637	93·4	69·8	23·6	100·3	66·7	33·6	83·3	87·9	79·9	+1·4	65·4	71·1	69·2
	XV.—Madras.																				
31	Pudukkottai .	318	29·520	29·378	·142	29·449		29·690	101·5	80·0	21·5	107·1	76·1	31·0	91·5	95·7	90·8			79·3	80·0
	Madras . .	22	29·781	29·656	·125	29·727	—·006	29·679	98·3	80·5	17·8	107·7	71·9	35·8	93·1	90·5	88·3	—0·4	76·2	79·5	80·3
	Hill stations excluding Kashmir and Baluchistan.																				
	Sarain . .		23·113	23·062	·051	23·078		23·040	69·7	49·5	20·2	77·6	44·0	33·6	63·5	66·7	59·7			51·8	53·7
	Kalabagh . .																				
	Mukteswar . .	7,592	22·795	22·733	·062	22·755		22·713	69·1	50·8	18·3	77·7	42·2	35·5	61·9	65·1	60·1		44·0	53·3	55·7
	Katmandu . .	4,388	25·584	25·493	·091	25·535	+·042†	25·489	80·7	59·0	21·7	94·2	52·0	42·2	73·0	76·6	69·9	—0·9†	55·9	62·2	64·1
	Ootacamund .	7,327	23·059	22·987	·072	23·023		22·959	71·5	51·9	19·6	78·2	47·6	30·6	68·0	64·9	61·8		50·3	58·4	57·9
	Kodaikanal . .	7,686	22·838	22·773	·065	22·805		22·741	71·4	54·6	16·8	77·4	52·0	25·4	67·2	63·5	63·0		50·5	58·5	58·8
	Dodabetta . .	8,539	22·086	22·018	·068	22·052		21·989	65·2	51·8	13·4	70·7	48·7	22·0	62·4	59·4	58·6		46·5	55·0	54·6
	Extra India.																				
	Diego Garcia .																				
	Seychelles . .	15	29·944	29·858	·086	29·902	—·039†	29·840	85·3	79·4	5·9	86·9	75·7	11·2	83·5	84·2	81·0	+1·5†	73·3	77·8	77·9
	Mauritius . .	181				29·892	—·001	30·022									71·8	—0·2			

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.

stations in India, etc., in May, 1913.

OUR TENSION IN INCHES OF MERCURY.				HUMIDITY.					CLOUD.				WIND DIRECTION.											WIND STEADINESS.		WIND VELOCITY.		RAINFALL.			
													Total number of 10 hrs. and 16 hrs. winds from																			
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.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Mean wind direction.	Normal mean wind direction of month.	Average percentage.	Normal percentage.	Mean velocity in miles per diem.	Normal.	Total rainfall for the month.	Heaviest rainfall during the month.	STATION.	Number of sub-division.
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
																														III.—Bengal.	
·895	·878	·861	—·022	86	68	60	75	0	3·6	3·8	3·7	—0·6		1	1	4	16	16	24			S 1° W	S 9° W	69	67	109*	123	8·59	3·25	Calcutta.	5
																														V.—United Provinces of Agra and Oudh.	
·543	·437	·526	+·005	61	37	24	43	+ 4	2·4	1·6	2·0	+0·4	9	6	11	12	3	1		8	12	N 16° E	N 6° W	32	24	81	119	1·00	0·37	Allahabad.	9
																														VI.—Punjab.	
·505	·465	·504	+·050	61	36	27	42	+ 6	1·5	1·8	1·7	—0·5	8	6	5	11	10	3		5	14	N 31° E	N 12° E	19	18	59	56	3·29	2·94	Lahore.	11
																														IX.—Rajputana.	
·476	·412	·458	+·010	50	34	23	38	+ 3	2·7	3·0	2·9	+0·6		4	4	2	2	4	8	22	16	N 78° W	N 72° W	53	48	133*	110	1·15	0·49	Jaipur.	18
																														X.—Bombay.	
·890	·896	·891	+·002	80	68	66	74	— 2	3·3	3·1	3·2	+0·6				1		3	13	35	10	S 84° W	N 83° W	82	71	135*	177	0	0	Bombay.	25
																														XIV.—Mysore.	
·618	·497	·577	—·028	80	55	39	60	— 3	3·1	6·3	4·7			3	2	4	3	3	9	24	14	N 88° W	S 81° W	53	63	120	110	1·71	0·62	Bangalore.	29
																														XV.—Madras.	
·838	·816				57	49			3·3	5·5	4·4		15	1	1		11	10	17	5	2	S 20° W		45		131		1·10	0·50	Pudukkottai.	31
·824	·896	874	—·022	82	54	63	88	— 2	2·5	2·5	2·5	—1·2		1		1	22	12	18	6	2	S 43° W	S 9° E	63	66	152*	159	2·14	1·01	Madras.	
																														Hill stations excluding Kashmir and Baluchistan.	
·268	·283				48	47			3·9	4·9	4·4																	6·90	1·96	Sarain.	
																														Kalabagh.	
·319	·351	·291		61	60	60	60		4·7	5·5	5·1		3		2	7	1		1	47	1	N 89° W		63		174		4·61	1·55	Mukteswar.	
·434	·452	·428	—·062	82	56	52	63	— 5	5·6	6·5	6·1	+0·9	53			2				7		W	S 89° W	8	39	17*	31	5·45	1·10	Katmandu.	
·390	·407	·379		90	58	68	72		6·0	8·5	7·3		3		5	12	19	10	1	7	5	S 45° E		40		56		6·05	1·86	Ootacamund.	
·399	·449	·391		76	61	77	71		4·5	7·7	6·1			4	3	14	25	6		3	6	S 63° E		48		188		3·52	0·66	Kodaikanal.	
·356	·376	·331		69	64	75	69		6·4	8·3	7·3			10	19	15	13		1		4	N 64° E		60		259		4·37	0·89	Dodabetta.	
																														Extra India.	
																														Diego Garcia.	
·878	·870	·842	—·004	74	76	74	73	— 7	4·3	5·2	4·7	—0·4†	3		1	1	47	9	1			S 39° E	S 43° E	87	59	171*	120	2·71	0·56	Seychelles.	
		·618	+·012				80	+ 2			5·1	+0·3										S 73° E	S 64° E			182*	158	2·27		Mauritius.	

† Departure from old normal.

* Uncorrected for scale error.

Table B.—Abstract of observations taken at 8 hrs. at 216 stations in India, etc., in May, 1913.

(1) Provincial means.

(2) Data of stations.

.) 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.

	Pressure departure from normal.	Temperature of air.								Wind.		Hygrometry.				Cloud.		Rainfall.		
		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.	Absolute range during month.	Departure of velocity from normal.	Departure of steadiness from normal.	Mean humidity.	Departure from normal.	Mean vapour tension.	Departure from normal.	Mean cloud amount.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.
irma	+·001	93·8	+1·4	76·0	+0·2	84·9	+0·8	17·8	29·7	—1·1	— 3	78	— 4	·822	—·044	5·5	—0·5	6·78	9·06	—2·28
ssam	+·001	84·4	—2·2	71·0	—0·6	77·7	—1·4	13·4	27·5	—0·1	+14	87	— 2	·754	—·050	6·0	—1·2	14·43	11·88	+2·55
engal	+·005	92·0	—0·3	74·6	—1·7	83·3	—1·0	17·4	33·3	—1·3	—14	81	— 1	·850	—·055	5·0	—0·5	10·17	7·84	+2·33
har and Orissa	+·007	98·5	—1·9	76·0	— 2·0	87·3	— 2·0	22·5	40·4	+0·4	+ 5	66	+ 1	·739	—·051	3·3	—0·1	3·88	2·57	+1·31
nited Provinces of Agra and Oudh.	+·001	100·8	—4·3	75·8	—3·1	88·4	—3·7	25·0	42·9	—0·4	+ 9	53	+ 7	·608	+·004	2·2	+0·8	2·36	0·64	+1·72
unjab	—·007	102·0	—2·9	75·2	—0·6	88·6	—1·8	26·8	47·2	+0·2	+ 8	44	+ 4	·502	—·008	1·9	+0·3	1·88	0·60	+1·28
orth-West Frontier Province	—·032	102·6	+1·5	74·1	+1·6	88·3	+1·5	28·5	49·7	—0·6	+15	42	— 3	·499	—·047	1·1	—0·5	0·56	0·72	—0·16
nd	—·028	103·4	+0·8	79·9	+1·6	91·7	+1·2	23·4	38·1	—0·7	+ 9	63	+ 3	·799	+·070	1·3	—0·6	0	0·10	—0·10
ajputana	—·023	104·9	—1·9	79·9	—1·6	92·4	—1·7	25·0	40·7	+1·1	—14	42	+ 3	·522	—·052	1·4	+0·2	1·46	0·40	+1·06
ombay	—·003	98·4	—0·2	76·6	—0·1	87·5	—0·1	21·7	32·7	—1·2	— 3	66	0	·757	+·014	3·2	+0·2	1·21	1·01	+0·20
entral India	—·001	102·7	—2·2	76·8	—1·2	89·8	—1·7	25·9	41·3	+0·2	— 6	48	+ 7	·573	+·029	1·9	+0·7	1·34	0·30	+1·04
entral Provinces	—·001	104·4	—1·6	78·5	—1·1	91·4	—1·3	25·9	40·5	+0·5	+ 7	39	+ 1	·504	—·018	2·4	+0·6	0·85	0·47	+0·38
yderabad	—·008	103·8	—0·4	78·3	—0·4	91·1	—0·4	25·4	37·5	—1·3	— 2	51	+ 2	·612	+·035	3·3	+0·3	1·49	0·83	+0·66
ysore	+·002	92·7	+1·6	69·6	+0·5	81·2	+1·1	23·1	35·3	+0·1	— 3	75	+ 1	·669	+·009	4·8	—0·5	3·65	3·39	+0·26
adras	0	97·7	+0·3	79·5	0	88·6	+0·2	18·2	29·7	—0·2	+ 6	71	+ 1	·864	+·005	4·1	—0·4	2·67	2·75	—0·08

Table

(2) Abstract of observations taken at 8 hrs. at 21

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
	I.—Burma.																						
2	Victoria Point	147	29·739		29·816	29·798	17th	29·697	29th	·101	80·5	87·2		74·7		80·9		12·5	104·6	2nd	71·2	5th	33
	Mergui	65	29·810	−·004	29·806	29·877	17th	29·762	29th	·115	79·6	88·4	−0·7	73·4	−0·4	80·9	−0·5	15·0	93·0	5th	70·8	4th & 5th	22
	Tavoy	19	29·859	−·014	29·811	29·921	17th	29·799	9th	·122	79·3	88·8	+0·4	75·8	+0·6	82·3	+0·5	13·0	94·5	2nd, 3rd & 4th.	74·3	4th, 10th & 28th.	20
	Moulmein	94	29·778	+·015	29·810	29·837	21st & 22nd.	29·709	9th	·128	78·2	89·7	+0·4	75·5	−0·3	82·6	+0·1	14·2	99·0	4th	72·3	10th	26
	Rangoon	18	29·833	+·005	29·789	29·904	21st	29·764	9th	·140	81·5	92·3	+0·4	76·3	−1·0	84·3	−0·3	16·0	102·0	1st	74·0	6th, 24th & 25th.	28
	Bassein	27?	29·805	+·004	29·769	29·866	17th	29·732	29th	·134	82·5	92·7	+1·2	77·7	+0·7	85·2	+0·9	15·0	97·7	9th	74·9	11th	22
	Diamond Island	41	29·798	0	29·774	29·868	3rd	29·721	29th	·147	84·4	89·7	+1·1	79·9	+1·1	84·8	+1·1	9·8	91·9	13th	75·0	11th, 26th & 31st.	16
	Toungoo	164	29·613	+·011	29·778	29·736	21st	29·599	9th	·137	83·5	97·9	+2·2	77·1	+0·4	87·5	+1·3	20·8	104·5	1st	73·4	7th	31
	Kyaukpyu	18	29·785		29·743	29·850	4th	29·693	29th	·157	82·8	91·2		77·4		84·3		13·8	97·0	10th	72·4	27th	24
	Akyab	20	29·795	+·002	29·756	29·874	4th	29·698	29th	·176	82·5	91·3	+0·7	77·3	−0·9	84·3	−0·1	14·0	95·4	3rd & 7th.	72·5	11th & 30th	22
3	Thayetmyo†	121	29·680	−·005	29·742	29·744	17th	29·614	29th	·130	84·8	100·1	+1·7	78·5	+0·8	89·3	+1·3	21·6	108·4	1st	71·9	6th	33
	Minbu	*165*	29·617	−·006	29·724	29·676	21st	29·552	9th	·124	84·9	100·8	+3·3	79·0	+1·3	89·8	+2·3	21·8	109·7	1st	74·0	14th	35
	Yamethin	657	29·145	0	29·747	29·206	21st	29·075	9th	·131	83·0	99·2	+3·9	76·8	+0·6	88·0	+2·3	22·4	106·3	1st	72·0	15th	34
	Mandalay	250	29·558	+·014	29·754	29·627	5th	29·475	2nd	·152	86·3	103·1	+4·1	79·1	+0·1	91·1	+2·1	24·0	112·6	1st	71·4	5th	41
	Monywa	*280*	29·508		29·733	29·608	5th	29·430	2nd	·178	85·9	102·6		79·3		91·0		23·3	112·1	1st	74·1	9th	38
	Lashio	*2,820*	27·037	−·016	26·883	27·184	5th	26·864	29th	·220	73·7	88·3	0	68·0	+1·2	78·1	+0·6	20·3	93·1	2nd	62·0	8th	37
	Bhamo	*381*	29·414	+·006	29·751	29·521	5th	29·303	9th	·218	76·4	94·5	+0·8	70·9	−1·8	82·7	−0·5	23·6	100·4	4th	66·2	6th	34
	Myitkyina	458	29·311		29·729	29·438	5th	29·212	9th	·226	75·7	91·2		71·7		81·4		19·5	100·6	13th	68·0	11th	32
	II.—Assam.																						
4	Dibrugarh	353	29·429		29·749	29·588	6th	29·306	2nd	·282	72·2	80·9		68·5		74·7		12·4	89·9	15th	63·1	3rd	26
	Sibsagar	333	29·474	+·003	29·769	29·623	6th	29·347	2nd	·276	74·1	81·9	−4·0	71·3	−0·4	76·6	−2·2	10·6	91·1	21st	66·0	3rd	25
	Tezpur	252	29·556		29·769	29·700	6th	29·419	2nd	·281	74·9	85·2		71·2		78·2		14·0	91·6	20th	65·8	5th	25
	Gauhati	195	29·592		29·745	29·774	5th	29·442	2nd	·332	75·9	86·6		70·8		78·7		15·8	93·8	3rd	64·1	4th	29
	Dhubri	115	29·655	−·001	29·726	29·773	21st	29·521	2nd	·252	76·3	85·4	−0·5	72·1	−1·1	78·8	−0·8	13·3	93·5	3rd	68·1	5th & 13th.	30
	Silchar	104	29·700	+·002	29·758	29·788	21st	29·614	25th	·174	76·8	86·6	−2·1	72·2	−0·3	79·4	−1·2	14·4	92·8	2nd	65·8	5th	27
	III.—Bengal.																						
5	Cox's Bazar	36	29·753		29·734	29·841	5th	29·668	29th	·173	80·9	89·3		74·7		82·0		14·6	93·2	6th	70·2	11th	29
	Chittagong	87	29·701	−·002	29·734	29·786	4th	29·616	29th	·180	80·2	88·9	+0·3	74·0	−1·4	81·4	−0·5	14·9	93·0	6th & 14th.	68·0	6th	25
	Noakhali	43	29·734		29·724	29·810	4th	29·639	29th	·171	81·2	87·5		75·3		81·4		12·2	91·8	5th	65·4	6th	26
	Barisal	12	29·753	+·009	29·712	29·836	21st	29·646	29th	·190	83·2	91·1	−0·8	74·6	−2·8	82·9	−1·8	16·5	95·3	4th, 5th & 6th.	65·6	6th	29
	Narayanganj	26	29·728	−·003	29·703	29·836	21st	29·628	24th	·208	81·2	90·5	−0·8	74·4	−1·4	82·4	−1·1	16·1	94·5	4 days	67·8	6th	27

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

† Mean of 30 days.

B.

stations in India, etc., in May, 1913.

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 from 1st to 31st May, 1913.	Normal rainfall for period, 1st to 31st May.	Departure from normal of period, 1st to 31st May, 1913.	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
																																I.—Burma.
2		6	6	10	2	3	2		S 63° E		4·0*			46		87		·897		5·9		21			18·32			18·32			1·82	Victoria Point.
27				3				1	S 45° E	S 81° W	2·7	1·4	+1·3	3	−20	88	0	·880	−·025	5·6	−0·7	18	17·9	+0·1	15·30	18·20	− 2·90	15·30	18·20	− 2·90	3·34	Mergui.
20	2	1	1	2	2	1		2	E	S 61° W	1·0*	1·2	−0·2	3	− 6	87	− 1	·867	−·027	5·5	−1·3	20	18·9	+1·1	11·06	25·49	−14·43	11·06	25·49	−14·43	1·50	Tavoy.
5	2	6	10	1	3		4		N 77° E	S 47° E	3·2	2·5	+0·7	37	+ 1	89	+ 1	·859	−·028	9·0	+1·7	20	17·6	+2·4	18·29	20·89	− 2·60	18·29	20·89	− 2·60	3·20	Moulmein.
10	1	2	1	2	4	4	4	3	S 54° W	S 39° W	1·9	3·4	−1·5	23	−31	83	− 5	·901	−·017	8·4	+1·4	12	13·6	−1·6	14·34	12·23	+ 2·11	14·34	12·23	+ 2·11	4·87	Rangoon.
25					1	5	1	1	S 53° W	S 51° W	3·6	3·5	+0·1	23	− 6	83	− 3	·924	−·011	4·9	−1·1	13	11·5	+1·5	5·13	10·27	− 5·14	5·13	10·27	− 5·14	1·15	Bassein.
4	1	2	1	1	4	8	6	4	S 66° W	S 64° W	5·1	5·7	−0·6	40	0	76	− 3	·897	−·009	5·2	−2·0	7	11·0	−4·0	6·10	11·16	− 5·06	6·10	11·16	− 5·06	1·76	Diamond Island.
3				13	13	2			S 18° E	S 28° E	2·9	3·4	−0·5	82	+14	75	− 8	·849	−·074	5·8	−1·1	5	10·1	−5·1	3·59	6·98	− 3·39	3·59	6·98	− 3·39	1·49	Toungoo.
2			2	20	1	4		2	S 36° E		3·6			66		80		·901		4·0		8			9·34			9·34			2·91	Kyaukpyu.
6	1	4	9	4	2	3		2	S 82° E	N 81° E	2·3	2·6	−0·3	37	−13	81	− 3	·885	−·082	4·2	−2·7	12	10·3	+1·7	14·40	11·62	+ 2·78	14·40	11·62	+ 2·78	5·70	Akyab.
3				1	26				S 1° E	S 5° E	3·9*§	5·2	−1·3	89	+14	71	− 1	·833	−·010	5·6	+0·5	5	6·8	−1·8	1·31	4·53	− 3·22	1·31	4·53	− 3·22	0·37	Thayetmyo.
				31					S 45° E	S 38° E	3·3	7·5	−4·2	100	+26	64	−13	·749	−·093	2·8	−1·6	6	6·6	−0·6	3·30	5·00	− 1·70	3·30	5·00	− 1·70	1·10	Minbu.
3				13	15				S 21° E	S 28° E	4·5	5·9	−1·4	86	+12	67	−10	·749	−·074	3·2	−0·6	6	8·7	−2·7	3·66	6·15	− 2·49	3·66	6·15	− 2·49	1·92	Yamethin.
24				2	4	1			S 7° E	S 4° E	0·2	5·4	−5·2	20	−41	63†	− 8	·747†	−·098	4·4	−0·5	7	7·6	−0·6	2·57	5·65	− 3·08	2·57	5·65	− 3·08	0·73	Mandalay.
3	5	1		14	4	1	1	2	S 45° E		2·7			33		62		·756		4·9		6	6·7	−0·7	1·78	5·94	− 4·16	1·78	5·94	− 4·16	0·51	Monywa.
29						1	1		S 66° W		1·4*			7		73‡	− 6	·631‡	−·039	6·6	−0·2	14	11·4	+2·6	4·27	6·05	− 1·78	4·27	6·05	− 1·78	0·50	Lashio.
14	2	7	2			3		3	N 23° E	N 53° W	1·7	2·3	−0·6	27	+ 7	84	+ 4	·759	−·032	7·0	+1·4	15	9·7	+5·3	7·61	5·80	+ 1·81	7·61	5·80	+ 1·81	1·43	Bhamo.
20	3	5	1	2					N 49° E		2·2			27		79		·705		5·7		8	9·5	−1·5	3·64	5·42	− 1·78	3·64	5·42	− 1·78	1·04	Myitkyina.
																																II.—Assam.
24		3	3	1					N 76° E		1·3			20		92		·736		6·2		17	14·3	+2·7	21·16	9·22	+11·94	21·16	9·22	+11·94	3·40	Dibrugarh.
12	4	12			2			1	N 35° E	N 60° E	2·2	2·1	+0·1	46	+13	88	− 4	·741	−·083	7·3	−0·8	17	15·7	+1·3	17·42	11·77	+ 5·65	17·42	11·77	+ 5·65	3·49	Sibsagar.
5	1	12	7		1	2	2	1	N 56° E		3·3			46		86		·739		5·9		15	14·4	+0·6	10·10	8·25	+ 1·85	10·10	8·25	+ 1·85	1·50	Tezpur.
11		3	4	5	6	1		1	S 48° E		1·3			33		84		·748		5·0		16	13·6	+2·4	11·31	9·45	+ 1·86	11·31	9·45	+ 1·86	2·18	Gauhati.
2	1	11	12	3	1		1		N 75° E	N 67° E	5·8	5·2	+0·6	72	+18	85	− 2	·774	−·027	6·8	−0·2	15	15·5	−0·5	14·06	14·94	− 0·88	14·06	14·94	− 0·88	4·49	Dhubri.
22		5	3			1			N 64° E	N 84° E	1·2	2·3	−1·1	23	+10	85	− 1	·788	−·040	4·6	−2·7	17	16·1	+0·9	26·97	15·22	+11·75	26·97	15·22	+11·75	6·38	Silchar.
																																III.—Bengal.
	1	3	4	15	7	1			S 47° E		5·6*			72		83		·869		5·2		16			21·06			21·06			6·10	Cox's Bazar.
8		1	7	8	5	2			S 46° E	S 50° E	1·7	4·7	−3·0	53	−12	82	0	·842	−·066	6·0	−0·1	15	10·7	+4·3	18·23	9·31	+ 8·92	18·23	9·31	+ 8·92	3·35	Chittagong.
3		1	3	14	9	1			S 34° E		3·6			74		83		·880		4·0		14	10·6	+3·4	16·27	11·66	+ 4·61	16·27	11·66	+ 4·61	2·40	Noakhali.
19					9	3			S 10° W	S 9° E	1·0	3·7	−2·7	37	−13	80	− 2	·900	−·068	3·7	−2·6	13	9·7	+3·3	14·43	8·89	+ 5·54	14·43	8·89	+ 5·54	2·82	Barisal.
15		1	3	1	6	4	1		S 4° E	S 28° E	3·4	4·9	−1·5	30	−24	82	− 3	·865	−·063	5·8	−0·5	13	10·9	+2·1	9·22	8·94	+ 0·28	9·22	8·94	+ 0·28	2·28	Narayanganj.

* Uncorrected for scale error. ‡ Mean of 30 days.

§ Mean of 29 days.

† „ „ 21 „

Tab

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

Number of subdivision.	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.	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.	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
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	III.—Bengal—*concld.*																						
	Mymensingh	63	29·711	+·006	29·726	29·806	21st	29·616	2nd & 30th.	·190	78·5	89·2	+0·6	73·9	+0·1	81·5	+0·3	15·3	99·1	1st	67·1	6th	32
	Bogra	75	29·687	+·024?	29·713	29·797	21st	29·568	2nd	·229	78·9	92·2	−0·3	73·4	−1·1	82·8	−0·7	18·8	108·7	1st	66·2	6th	42
	Dinajpur	123	29·617	+·006	29·695	29·727	6th	29·456	2nd	·271	79·4	93·9	+2·2	73·4	−0·9	83·6	+0·7	20·5	107·3	2nd, 3rd & 4th.	68·0	31st	39
	Jalpaiguri	283	29·486	+·005	29·729	29·585	6th & 21st.	29·332	2nd	·253	76·5	89·5	+1·2	71·3	−1·0	80·4	+0·1	18·2	96·4	2nd, 3rd & 4th.	66·9	5th	29
	Saugor Island	10	29·727*	+·003	29·682	29·824	21st	29·581	29th	·243	84·4	89·5	−2·3	77·2	−3·8	83·4	−3·1	12·3	91·2	23rd, 24th & 30th.	70·2	8th & 9th.	21
	Midnapore	149	29·564		29·661*	29·667	21st	29·439	29th	·228	82·8	98·6		76·1		87·3		22·5	113·3	2nd	69·7	8th	13
	Calcutta	21	29·711	+·003	29·679	29·809	21st	29·582	29th	·227	82·4	94·5	0	76·2	−1·2	85·4	−0·6	18·3	104·0	3rd	69·3	12th	34
	Jessore	33	29·715	+·005	29·695	29·810	21st	29·600	29th	·210	80·3	93·1	−1·7	74·1	−2·7	83·6	−2·2	19·0	104·5	1st	67·2	6th	37
	Burdwan	99	29·628	+·009	29·674	29·731	17th	29·493	29th	·238	81·2	96·9	−1·5	75·6	−2·2	86·2	−1·9	21·3	111·9	1st	66·8	12th	45
	Berhampore	67	29·672	+·010	29·688	29·782	21st	29·548	25th	·234	80·3	95·7	−0·8	74·6	−2·0	85·2	−1·4	21·1	111·6	1st	67·7	6th	43
	IV.—Bihar and Orissa.																						
6	Balasore	50	29·678	+·013	29·672	29·796	21st	29·545	29th	·251	83·7	96·6	−1·0	76·2	−2·5	86·4	−1·7	20·4	107·4	2nd	67·1	9th	40
	Hukitala (False Point).	29	29·717	+·009	29·687	29·811	21st	29·555	29th	·256													
	Cuttack	30	29·658	+·012	29·678	29·758	21st	29·519	30th	·239	84·6	100·0	−1·6	77·9	−2·2	89·0	−1·9	22·1	109·5	4th	72·2	20th & 31st.	37
	Puri	24	29·715		29·680	29·801	21st	29·602	29th	·199	83·3	89·9		78·6		84·3		11·3	92·1	7th & 22nd.	71·1	31st	21
	Angul	455	29·268		29·665	29·379	21st	29·115	29th	·264	84·4	103·0		77·9		90·4		25·1	112·1	2nd	71·0	9th	41
	Sambalpur	486	29·225	−·007	29·652	29·326	16th	29·064	29th	·262	87·2	105·6	−1·3	80·0	−1·5	92·8	−1·5	25·6	112·6	1st	73·1	16th	39
7	Chaibasa	*733*	28·962	−·005	29·639	29·058	21st	28·814	29th	·244	83·6	102·7	−2·4	76·6	−3·0	89·7	−2·7	26·1	112·1	1st	68·8	9th	43
	Ranchi	2,128	27·616	+·009	29·632	27·697	21st	27·453	29th	·244	80·5	96·5	−3·1	73·6	−2·4	85·0	−2·7	22·9	101·7	1st	66·9	13th	37
	Purulia	*816*	28·865*		29·657*	28·991	21st	28·774	29th	·217	80·5	99·8		75·8		87·8		24·0	112·0	1st & 2nd.	69·1	13th	42
	Daltonganj	*730*	28·975		29·648	29·082	16th	28·825	29th	·257	84·6	103·4		76·7		90·0		26·7	111·1	1st	67·5	18th	43
8	Purnea	134	29·605	+·007	29·694	29·722	6th	29·450	2nd	·272	80·0	95·9	+1·1	74·0	−0·2	84·9	+0·5	21·9	107·6	2nd & 3rd.	65·3	31st	42
	Monghyr	155	29·561*		29·668*	29·668	6th	29·421	2nd	·247	83·1	97·1		74·3		85·7		22·8	108·2	1st	66·4	31st	41
	Darbhanga	165	29·564	+·014	29·684	29·690	6th	29·398	2nd	·292	80·5	94·8	−0·8	73·4†	−2·9†	84·2†	−1·9†	21·4	107·6	1st, 2nd & 3rd.	66·7	31st	40
	Pusa	188	29·521		29·664	29·651	6th	29·364	28th	·287	82·0	96·8		72·4		84·6		24·4	111·0	1st	65·3	31st	45
	Patna	183	29·519	+·004	29·657	29·642	6th & 21st.	29·390	25th	·252	82·0	95·7	−4·5	75·8	−1·9	85·8	−3·2	19·9	108·0	1st	68·7	31st	39
	Buxar	239	29·410		29·644	29·577	21st	29·301	29th	·276	83·5	99·1		75·9		87·5		23·2	111·0	1st	69·1	8th	41
	Gaya	372	29·324	+·008	29·642	29·430	21st	29·197	28th	·233	87·0	101·5	−3·4	78·1	−1·4	89·8	−2·4	23·4	111·9	1st	68·2	31st	43
	Naya Dumka	489	29·230	+·010	29·668	29·338	6th	29·106	29th	·232	83·1	96·3	−2·1	75·1	−2·1	85·7	−2·1	21·2	111·4	1st	66·5	18th	44
	V.—United Provinces of Agra and Oudh.																						
9	Gorakhpur	257	29·434	+·001	29·650	29·572	16th	29·218	29th	·354	82·2	96·5	−4·5	72·7	−4·6	84·6	−4·5	23·8	111·1	1st	65·0	29th	46
	Benares	267	29·430	+·018	29·648	29·548	17th	29·252	29th	·296	85·7	101·1	−4·4	77·3*	−1·6*	89·3*	−3·0*	23·8	111·0	1st	68·1	18th	42
	Allahabad	306	29·373	+·006	29·634	29·487	16th	29·216	29th	·271	85·9	103·3	−3·7	76·8	−2·7	90·1	−3·2	26·5	111·6	1st	70·5	5th, 15th & 18th.	41
	Cawnpore	416	29·251	+·006	29·619	29·410	16th	29·079	29th	·331	85·3	102·1	−4·1	77·0	−3·6	89·6	−3·9	25·1	111·2	1st	67·9	5th	44

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

* Mean of 30 days.
† " " 28 "

—continued.

ations in India, etc., in May, 1913—continued.

Wind direction. Number of winds from N. (26)	N.E. (27)	E. (28)	S.E. (29)	S. (30)	S.W. (31)	W. (32)	N.W. (33)	Resultant direction. (34)	Normal direction. (35)	Wind velocity. Mean velocity, miles per hour. (36)	Normal. (37)	Departure from normal. (38)	Wind steadiness. Actual percentage. (39)	Departure from normal. (40)	Hygrometry, 8 hrs. Mean humidity at 8 hrs. (41)	Departure from normal. (42)	Mean vapour tension at 8 hrs., in inches of mercury. (43)	Departure from normal, in inches of mercury. (44)	Cloud. Mean cloud amount at 8 hrs. (45)	Departure from normal. (46)	Rainfall. Number of rainy days. (47)	Normal number of rainy days. (48)	Departure from normal. (49)	Rainfall of month. (50)	Normal rainfall of month. (51)	Departure from normal. (52)	Total rainfall from 1st to 31st May, 1913. (53)	Normal rainfall for period, 1st to 31st May. (54)	Departure from normal of period, 1st to 31st May, 1913. (55)	Heaviest rainfall during month. (56)	Station. (57)
																															III.—Bengal *—concld.*
1		7	11	3				S 56° E	S 81° E	2·0	3·0	−1·0	59	− 9	84	− 1	·830	−·010	7·0	+0·8	14	13·3	+0·7	11·34	13·03	− 0·69	11·34	13·03	− 0·69	2·22	Mymensingh.
	4	1	1	3	2			S 53° E	S 72° E	1·1	3·2	− 2·1	10	−50	83	+ 1	·821	−·030	5·5	+0·8	12	10·0	+2·0	12·34	8·34	+ 4·00	12·34	8·34	+ 4·00	5·74	Bogra.
	5	12	5	3				S 81° E	N 88° E	2·2	3·4	−1·2	62	−10	79	− 1	·791	−·009	4·6	−1·3	5	8·9	− 3·9	3·54	7·49	− 3·95	3·54	7·49	− 3·95	1·62	Dinajpur.
		2	7					S 51° E	N 88° E	1·9			27	− 5	83	− 1	·761	−·036	5·9	+1·6	14	12·6	+ 1·4	10·08	11·39	− 1·31	10·08	11·39	− 1·3	2·32	Jalpaiguri.
2		1	6	13	9			S 3° W	S 5° W	11·1	12·3	−1·2	69	− 6	81	0	·942	−·067	5·8	−1·2	9	5·8	+ 3·2	5·28	4·48	+ 0·80	5·28	4·48	+ 0·80	1·25	Saugor Island.
3	5	1	10	9	1		2	S 45° E		3·0			42		76		·852		3·9		13	7·3	+ 5·7	11·92	5·05	+6·87	11·92	5·05	+ 6·87	2·19	Midnapore.
2	4	2	6	5	12			S 3° E	S 6° W	4·5*	5·1	−0·6	43	−25	79	0	·883	−·061	3·7	−1·3	12	7·2	+ 4·8	8·59	5·74	+ 2·85	8·59	5·74	+ 2·85	3·25	Calcutta.
	2	4	10	5	1			S 46° E	S 16° E	4·0	3·4	+0·6	53	− 1	83	− 1	·859	−·113	4·2	−1·7	13	9·6	+ 3·4	15·03	8·05	+ 6·98	15·03	8·05	+ 6·98	2·69	Jessore.
3	3	2	3	6	7	1		S 2° E	S 11° W	2·6	3·4	−0·8	25	−29	79	+ 4	·847	−·036	4·8	−0·2	9	7·4	+ 1·6	7·22	6·36	+ 0·86	7·22	6·36	+ 0·86	1·70	Burdwan.
	5	12	5	6	1			S 70° E	S 37° E	3·0	3·7	−0·7	62	+12	77	− 6	·601	−·103	5·3	−0·3	8	7·4	+ 0·6	4·89	5·24	− 0·35	4·89	5·24	− 0·35	1·10	Berhampore.
																															IV.—Bihar and Orissa.
		2	11	15	1	1		S 26° W	S 29° W	4·4	6·4	−2·0	82	+ 7	76	− 3	·877	−·094	4·2	−1·3	10	6·3	+ 3·7	4·62	4·75	− 0·13	4·62	4·75	− 0·13	1·10	Balasore.
1		3	10	15				S 20° W	S 27° W	14·3	10·0	+4·3	79	+ 4					3·5	−2·9	6	4·3	+ 1·7	5·65	4·35	+ 1·30	5·65	4·35	+ 1·30	1·65	Hukitola (Kaisar point).
		3	10	9	4	1		S 27° W	S 46° W	3·1*	3·7	−0·6	66	+26	73	+ 1	·876	−·028	4·8	+0·2	8	5·5	+ 2·5	6·42	3·99	+ 2·43	6·42	3·99	+ 2·43	2·58	Cuttack.
2	1		8	17	1			S 34° W		10·7			71		83		·943		3·9		6	3·1	+ 2·9	2·75	2·73	+ 0·02	2·75	2·73	+ 0·02	1·96	Puri.
4	7	5	9	2	1		2	N 86° E		6·4			45		69		·814		4·7		7	3·8	+3·2	2·89	1·54	+ 1·35	2·89	1·54	+ 1·35	1·40	Angul.
	4	4	6	4	10	1	1	S 11° E	S 7° E	3·6	3·1	+0·5	40	− 2	86	+ 5	·710	−·013	4·6	+1·1	3	2·5	+0·5	0·85	1·31	− 0·46	0·85	1·31	− 0·46	0·42	Sambalpur.
1		3	8	14	2	1		S 30° W	S 58° W	2·9	2·0	+0·9	69	+22	62	0	·705	−·084	3·1	+0·6	6	5·6	+0·4	2·00	3·34	− 1·34	2·00	3·34	− 1·34	0·58	Chaibassa.
1	4	2	5	8	8	2		S 45° W	S 43° W	5·9	5·7	+0·2	46	− 1	58	+ 7	·586	−·019	2·8	+0·6	8	4·6	+3·4	3·41	2·29	+ 1·12	3·41	2·29	+ 1·12	0·84	Ranchi.
1 2	4	6	4	2	5			S 23° E		2·6			26		68		·692		1·1		9	5·1	+3·9	3·32	2·74	+ 0·58	3·32	2·74	+ 0·58	0·75	Purulia.
1	3	4		4		4		S 1° E		3·8			58		53		·615		2·4		3	1·1	+1·9	1·21	0·51	+ 0·70	1·21	0·51	+ 0·70	0·50	Daltonganj.
1 5	18	5		1		1		N 88° E	N 82° E	3·1	3·3	−0·2	79	+ 4	75	− 1	·764	−·049	3·4	−1·0	7	5·6	+1·4	5·38	4·45	+0·93	5·38	4·45	+ 0·93	1·65	Purnea.
4	18	3			4	1		N 87° E		4·9			58		66		·727		2·8		6			2·95			2·95			0·92	Monghyr.
1 2	19				3	1		N 79° E	S 79° E	4·3	4·5	−0·2	56	−20	68	− 3	·697	−·095	3·2	+0·9	8	3·9	+4·1	4·07	2·86	+ 1·21	4·07	2·86	+ 1·21	0·94	Darbhanga.
12	7	4			3	2		N 60° E		4·3			48		68		·719		3·5		9			7·00			7·00			1·68	Pusa.
1 1	21			1	3	1		N 84° E	N 87° E	6·2	4·2	+ 2.0	56	−12	66	+ 1	·710	−·056	2·9	+0·9	6	3·0	+3·0	3·90	1·66	+2·24	3·90	1·66	+ 2·24	1·33	Patna.
1 4	14	3	1	3	4	1		S 86° E		4·5			38		57		·640		3·8		5	1·4	+3·6	1·75	0·67	+1·08	1·75	0·67	+ 1·08	0·63	Buxar.
4 12	5	2			6			N 38° E	S 78° W	2·9	3·9	−1·0	46	+18	60	+ 2	·759	−·019	2·9	+0·3	4	1·7	+2·3	2·22	1·03	+1·19	2·22	1·03	+ 1·19	0·95	Gaya.
1	4	4	1		1	1		S 76° E		1·9†			20		66	− 3	·722		2·4		5	4·8	+0·2	4·51	3·27	+1·24	4·51	3·27	+ 1·24	1·12	Naya Dumka.
																															V.—United Provinces of Agra and Oudh.
8	11	1			5	1		N 64° E	N 76° E	2·5‡	2·6	−0·1	43	0	63	0	·659	−·075	1·2	−0·4	7	2·8	+4·2	4·96	1·42	+3·54	4·96	1·42	+ 3·54	1·36	Gorakhpur.
3	8	10	1	2	2	3		S 70° E	N 72° E	3·1	3·7	−0·6	43	+31	58	+ 5	·684	+·010	2·6	+0·9	6	0·9	+5·1	2·74	0·51	+2·23	2·74	0·51	+ 2·23	0·99	Benares.
8	9	4		1	3	2		N 74° E	N 2° E	3·7	5·0	−1·3	40	+31	48	+ 6	·572	−·016	3·1	+1·5	3	0·8	+2·2	1·00	0·26	+0·74	1·00	0·26	+ 0·74	0·37	Allahabad.
2	10	5	1	4	3	1		S 63° E	S 56° W	2·6	3·6	−1·0	30	+15	52	+ 6	·609	−·023	0·7	−0·5	5	0·7	+4·3	1·85	0·28	+1·57	1·85	0·28	+ 1·57	1·00	Cawnpore.

* Uncorrected for scale error.

† Mean of 30 days.
‡ „ „ 29 „

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

Number of sub-division.	Station.	Elevation of barometer above sea-level, in feet.	Pressure, 8 hrs., in inches. 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.	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.
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—*concld.*																					
	Lucknow	368	29·319	+·014	29·641	29·462	16th	29·162	29th	·300	85·2	100·7	−4·3	75·9	−1·9	88·3	−3·1	24·8	111·5	1st	67·1	31st
	Bahraich	401	29·277	+·006	29·634	29·428	21st	29·127	29th	·301	83·6	97·6	−5·4	74·6	−3·3	86·1	−4·3	23·0	109·6	1st	67·5	3rd
10	Jhansi	824	28·852	−·028	29·614	28·978	16th	28·669	29th	·309	89·0	109·2‡	+1·0‡	79·3	−4·3	95·3‡	−1·7‡	29·9	114·6	30th	68·5	16th
	Agra	556	29·107	−·016	29·613	29·227	16th & 21st.	28·904	29th	·323	88·0	103·1	−4·1	78·5	−3·0	90·8	−3·5	24·6	113·0	29th	72·0	14th&16th
	Mainpuri	516	29·144	+·001	29·614	29·285	16th	28·961	29th	·324	84·5	101·8	−5·7	75·9	−3·9	88·9	−4·8	25·9	111·8	11th	69·1	20th
	Bareilly	568	29·100	−·002	29·626	29·233	21st	28·941	29th	·292	82·7	98·4	−4·8	74·5	−1·9	86·4	−3·3	23·9	106·8	1st	67·0	5th & 31st
	Roorkee	899	28·780	+·009	29·638	28·922	21st	28·607	29th	·315	81·2	95·3	−7·5	71·7	−2·9	83·5	−5·2	23·6	104·0	6th	61·9	5th
	VI.—Punjab.																					
11	Delhi	718	28·947	−·004	29·623	29·063	21st	28·765	29th	·298	83·0	99·6	−5·1	76·6	−3·6	88·1	−4·3	23·0	107·5	6th	69·8	21st
	Sirsa	662	28·970	−·018	29·587	29·119	21st	28·758	29th	·361	86·8	103·9	−3·3	76·0	−1·4	90·0	−2·3	27·9	114·8	29th	67·0	5th
	Patiala	*818*	28·843		29·621	28·975	21st	28·604	29th	·371	82·2	96·8		74·4		85·6		22·4	106·9	6th	65·5	4th
	Ambala	892	28·769	+·013	29·621	28·980	21st	28·592	29th	·378	81·5	98·5	−6·7	72·4	−4·5	85·5	−5·6	26·1	109·5	6th	63·9	4th
	Ludhiana	812	28·840	−·002	29·617	28·991	21st	28·625	29th	·366	81·0	99·5	−4·9	73·6	−1·8	86·5	−3·3	25·9	110·1	6th	65·5	3rd
	Lahore	702	28·932	−·003	29·595	29·113	21st	28·693	29th	·420	83·7	102·3	−3·4	74·2	+1·6	88·2	−0·9	28·1	112·4	30th	66·2	2nd, 3rd & 4th.
	Sialkot	830	28·808	−·011	29·603	28·992	21st	28·561	29th	·431	82·3	99·0	−4·1	72·5	−2·3	85·8	−3·2	26·5	108·0	4 days	61·0	2nd
	Rawalpindi	1,674	27·997	−·014	29·598	28·171	21st	27·778	29th	·393	84·1	99·0	+0·9	69·5	+0·9	84·3	+0·9	29·5	110·4	28th	58·6	3rd
12	Khushab	612	28·032	−·006	29·607	29·230	21st	28·799	29th	·431	89·0	103·8	−1·1	78·7	+1·4	91·2	+0·1	25·1	116·4	29th	67·4	2nd
	Lyallpur		29·018			29·205	21st	28·798	29th	·407	84·6	102·7		74·5		88·6		28·2	113·1	28th	62·5	4th
	Montgomery	558	29·064	0	29·580	29·245	21st	28·863	29th	·382	89·6	105·7	−2·6	78·1	−0·3	91·9	−1·5	27·6	115·2	30th	64·5	4th
	Multan	420	29·203	−·019	29·579	29·391	21st	29·029	29th	·362	89·7	107·9	+1·3	81·4	+3·8	94·7	+2·5	26·5	117·3	30th	69·5	3rd
	VII.—North-West Frontier Province.																					
13	Peshawar	1,113	28·549	−·039	29·618	28·697	7th	28·345	29th	·352	83·8	101·7	+3·7	71·4	+1·4	86·5	+2·5	30·3	112·8	28th	61·4	4th
	D. I. Khan	590	29·059	−·025	29·618	29·256	21st	28·854	29th	·403	86·6	103·5	−0·7	76·7	+1·8	90·1	+0·5	26·8	114·2	30th	66·1	2nd & 3rd
	VIII.—Sind.																					
16	Jacobabad	186	29·411	−·047	29·552	29·638	1st	29·238	30th	·400	92·2	114·5	+2·9	80·8	+2·6	97·7	+2·7	33·7	124·1	28th&29th	68·8	2nd
	Hyderabad	95	29·566	−·027	29·613	29·711	1st	29·427	19th	·284	83·6	106·4	−0·5	79·0	+0·6	92·7	+0·1	27·4	112·0	19th	74·0	4th
	Karachi	13	29·715	−·010	29·679	29·807	1st	29·513	19th	·294	83·2	89·2	−0·1	80·0	+1·5	84·6	+0·7	9·2	95·0	3rd	74·0	2nd
	IX.—Rajputana.																					
17	Bikaner	*771*	28·862	−·029	29·579	28·988	3rd	28·725	29th	·263	88·7	107·7	+0·6	79·8	−2·8	93·7	−1·1	27·9	116·0	29th	69·0	2nd
	Jodhpur	780	28·916	−·024	29·644	29·009	3rd	28·807	29th	·193	85·1	105·0	−2·0	79·0	−1·8	92·0	−1·9	26·0	110·5	5th	71·3	2nd
18	Jaipur	1,431	28·269	−·023	29·624	28·377	17th	28·135	29th	·242	86·1	103·4	−3·2	76·9	−1·3	90·2	−2·3	26·5	110·2	4 days	67·6	5th
	Ajmer	1,511	28·112	−·015	29·640	28·203	4th	27·989	29th	·214	84·3	101·7	−2·1	80·5	+1·2	91·1	−0·5	21·2	108·6	31st	72·2	19th
	Kotah	832	28·852	−·032P	29·614P	28·935	16th	28·708	29th	·227	92·8	106·6†	−2·6†	83·2†	−3·2†	94·8†	−2·9†	23·4	112·1	28th	73·6	19th

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

‡ Mean of 18 days.

† Mean of 20 da

—continued.

tions in India, etc., in May, 1913—continued.

Wind direction. Number of winds from 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 from 1st to 31st May, 1913.	Normal rainfall for period, 1st to 31st May.	Departure from normal of period, 1st to 31st May, 1913.	Heaviest rainfall during month.	Station.
6	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
																															V.—United Provinces of Agra and Oudh—*concld.*
1	1	13	2	2		2	1	S 85° E	N 72° E	2·3	2·9	−0·6	40	+27	51	+ 8	·636	+·043	2·1	+0·6	6	1·4	+4·6	3·14	0·88	+2·26	3·14	0·88	+ 2·26	1·15	Lucknow.
1	3	10	8	2	1	3	2	S 73° E	S 72° E	3·4	3·6	−0·2	46	0	51	− 9	·574	−·186	2·1	+0·7	4	2·9	+1·1	2·61	1·53	+1·08	2·61	1·53	+ 1·08	1·14	Bahraich.
	2	3	2	1	7	13	2	S 72° W	N 70° W	4·5	3·4	+1·1	46	+ 6	34	+ 2	·434	−·049	3·7	+2·7	3	1·2	+1·8	1·20	0·35	+0·85	1·20	0·35	+ 0·85	0·68	Jhansi.
1	2	5	4	2	2	4	1	S 45° E	S 49° W	4·1	4·5	−0·4	13	−26	44	+ 6	·547	+·011	2·5	+1·5	2	1·4	+0·6	1·15	0·48	+0·67	1·15	0·48	+ 0·67	0·78	Agra.
	1	7	6	4	2	4	2	S 35° E	N 84° W	2·4†	2·0	+0·4	30	+15	52	+10	·594	+·027	1·2	−0·1	7	0·7	+6·3	4·47	0·33	+4·14	4·47	0·33	+ 4·14	1·22	Mainpuri.
		5	4	1		1	2	S 66° E	S 73° E	1·4	3·1	−1·7	17	+ 4	73	+25	·810	+·220	3·1	+1·6	5	1·7	+3·3	2·10	0·70	+1·40	2·10	0·70	+ 1·40	0·87	Bareilly.
		1	13		1		6	S 43° E	S 45° E	2·9†	2·7	+0·2	27	− 2	55	+15	·568	+·086	2·2	+0·6	6	1·8	+4·2	3·86	0·83	+3·03	3·86	0·83	+ 3·03	1·48	Roorkee.
																															VI.—Punjab.
2	1	5	9	2	1	8	3	S 16° E	S 73° W	4·1	3·2	+0·9	13	−12	55	+17	·596	+·106	3·2	+0·8	4	1·8	+2·2	0·90	0·63	+0·27	0·90	0·63	+ 0·27	0·29	Delhi.
4	2	5	2	5	3	2	3	S 56° E	S 39° W				7	−18	45	+ 8	·530	+·039	2·3	−0·6	3	1·5	+1·5	0·52	0·61	−0·09	0·52	0·61	− 0·09	0·15	Sirsa.
4	1	3	14	1			5	S 73° E		5·3			3·2		51		·548		1·9		5	1·7	+3·3	3·09	0·63	+2·46	3·09	0·63	+ 2·46	1·24	Patiala.
6	1	10	8	1		1	1	N 87° E	S 89° E	4·4	2·3	+2·1	49	+41	51	+ 2	·526	−·070	2·8	+1·6	6	1·6	+4·4	5·16	0·60	+4·56	5·16	0·60	+ 4·56	3·35	Ambala.
	1	1	6	1			1	S 53° E	S 44° E	0·8	1·9	−1·1	23	+ 9	5.	+11	·515	+·004	2·0	+0·1	6	1·5	+4·5	3·56	0·60	+2·96	3·56	0·60	+ 2·96	1·23	Ludhiana.
1	1	7	10	1		1	3	S 70° E	N 72° E	2·4	2·3	+0·1	43	+21	47	+ 6	·541	+·040	1·5	−0·3	2	1·4	+0·6	3·29	0·67	+2·62	3·29	0·67	+ 2·62	2·94	Lahore.
5	4	4	3	1	1		5	N 33° E	N 41° E	2·2	2·3	−0·1	30	− 9	49	+ 8	·514	−·004	1·9	+0·4	4	2·2	+1·8	2·62	1·09	+1·53	2·62	1·09	+ 1·53	1·20	Sialkot.
2	2	2	2	2		5	1	N 52° W	N 14° E	2·6	2·2	+0·4	3	−15	39	− 5	·446	−·026	1·7	−0·4	3	2·7	+0·3	0·89	1·42	−0·53	0·89	1·42	− 0·53	0·51	Rawalpindi.
3	6	11	1	1	1	1	1	N 68° E	N 14° E	4·9	5·1	−0·2	46	+28	28	− 4	·353	−·089	2·4	+1·3	3	1·5	+1·5	0·55	0·77	−0·22	0·55	0·77	+ 0·22	0·15	Khushab.
4	3	3	8	5	1	1	4	S 69° E		3·6*			23		41		·476		2·1		3			0·47			0·47			0·16	Lyallpur.
2	6	6	5	3	3	1	3	S 88° E	S 48° E	5·6†	5·5	+0·1	27	+13	31	− 5	·397	−·123	0·9	−0·3	0	1·0	−1·0	0·01	0·36	−0·35	0·01	0·36	− 0·35	0·01	Montgomery.
4	5		2				1	N 32° E	S 12° E	1·2	1·9	−0·7	30	+23	45	+ 2	·622	+·046	0·5	−0·1	1	0·7	+0·3	0·33	0·29	+0·04	0·33	0·29	+ 0·04	0·28	Multan.
																															VII.—North-West Frontier Province.
2	1	1	2	2		2	11	N 43° W	N 50° W	2·4†	3·4	−1·0	33	+22	40	− 2	·444	−·036	1·5	−0·6	0	2·1	−2·1	0·07	0·93	−0·86	0·07	0·93	− 0·86	0·05	Peshawar.
6	8		4	1	1		1	N 42° E	N 16° E	1·6	1·8	−0·2	33	+ 8	44	− 5	·554	−·057	0·6	−0·3	1	0·9	+0·1	0·10	0·42	−0·32	0·10	0·42	− 0·32	0·10	D. I. Khan.
																															VIII.—Sind.
	3	5	3	2			4	S 81° E	S 53° E	2·6	3·4	−0·8	30	+ 1	50	+10	·739	+·156	0	−0·9	0	0·4	−0·4	0	0·14	−0·14	0	0·14	− 0·14	0	Jacobabad.
1	1			13	15			S 24° W	S 45° W	8·3†	10·6	−2·3	79	−11	60	+ 3	·745	+·054	0·5	−0·5	0	0·3	−0·3	0	0·17	−0·17	0	0·17	− 0·17	0	Hyderabad.
				1	3	25	1	S 85° W	S 56° W	13·2	12·3	+0·9	92	+38	80	− 4	·914	0	3·3	−0·3	0	0·1	−0·1	0	0·06	−0·06	0	0·06	− 0·06	0	Karachi.
																															IX.—Rajputana.
1	1		1	4	13	9	1	S 57° W	S 36° W	6·9	5·8	+1·1	66	+ 1	42	− 4	·545	−·101	0·8	−0·3	3	1·2	+1·8	0·81	0·64	+0·20	0·81	0·61	+ 0·20	0·24	Bikaner.
			1	4	21	5		S 45° W		5·4			89		46	+ 5	·547		1·2		3	0·7	+2·3	0·71	0·25	+0·46	0·71	0·25	+ 0·46	0·32	Jodhpur.
4	1	2	3	2	3	6	5	N 74° W	S 88° W	5·5*	4·6	+0·9	23	−27	44	+ 4	·510	−·026	2·1	+0·6	3	1·4	+1·6	1·15	0·53	+0·62	1·15	0·53	+0·62	0·49	Jaipur.
			1		10	9	2	S 70° W	S 79° W	7·6	6·4	+1·2	53	−16	47	+ 3	·541	−·028	1·2	+0·2	3	1·6	+1·4	2·00	0·55	+1·45	2·00	0·55	+ 1·45	0·72	Ajmer.
1			1		6	12	9	N 72° W		3·8			84		33	+ 5	·471		1·5		4	1·2	+2·8	2·93	0·43	+2·50	2·93	0·43	+ 2·50	1·69	Kotah.

† Mean of 30 days.

* Uncorrected for scale error.

Tabl

(2) Abstract of observations taken at 8 hrs. at 21

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.	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.	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
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	X.—Bombay.																						
19	Deesa	466	29·300	—·003	29·715	29·369	6th	29·180	19th	·189	85·4	106·4	—0·3	75·8	—1·7	91·1	—1·0	30·6	112·3	4th & 5th	69·4	3rd	42
	Bhuj	395	29·411	—·009	29·696	29·480	6th	29·264	19th	·216	85·4	100·2	-1·1	77·6	+0·9	88·9	—0·1	22·6	110·5	4th	72·0	1st	38
	Jamnagar	61	29·720		29·726	29·754	6th	29·630	30th	·164	86·7	97·9		76·8		87·4		21·1	105·6	4th	72·2	1st	33
	Dwarka	37?	29·755	—·023?	29·738	29·822	6th	29·613	19th	·209	83·0	88·5	+0·7	81·0†	+0·9†	84·8†	+0·8†	7·5	91·3	30th & 31st.	78·2	2nd	13
	Rajkot	429	29·3.5	—·004	29·730	29·425	6th	29·241	19th	·184	81·8	104·2	—1·2	74·0	-1·1	89·1	—1·1	30·2	110·1	4th	68·8	3rd	41
	Veraval	*18*	29·793	—·016	29·754	29·857	7th	29·705	30th	·152	83·8‡	87·1‡	+0·4‡	81·0‡	+0·9‡	84·0‡	+0·7‡	6·1	88·1	29th	79·8	26th & 27th.	8
	Bhavnagar Para	55	29·757	—·029?	29·757	29·824	6th	29·660	19th	·164	86·0	104·2	+1·3?	78·0	—0·3	91·1	+0·3?	26·2	109·5	29th	67·8	18th	41
	Surat	39	29·781	—·006	29·763	29·839	17th	29·696	30th	·143	86·1	95·9	-2·3	79·7	+1·6	87·8	—0·3	16·2	103·4	3rd	75·6	4th	27
	Ahmadabad	163	29·615	—·022?	29·726	29·688	6th	29·492	19th	·196	85·1	106·8	—0·3	79·4	-0·1	93·1	—0·2	27·4	112·6	4th	75·7	6th & 10th	36
25	Bombay	37	29·812	—·010	29·789	29·887	17th	29·705	31st	182	84·8	91·8	+1·1	81·4	+0·7	86·5	+0·9	10·4	94·0	28th	79·0	6th	15
	Ratnagiri	110	29·743	0	29·790	29·820	17th	29·623	31st	·197	85·1	91·3	+0·2	80·0	+0·4	85·7	+0·3	11·3	92·3	4days	70·9	30th	21
	Mahabaleshwar	*60*	29·796	—·015	29·790	29·878	17th	29·671	31st	·207	85·7	91·5	+1·5	80·8	-0·3	86·1	+0·6	10·7	93·5	5th	74·7	26th & 30th.	18
	Karwar	44	29·825	+·004	29·803	29·902	17th	29·701	31st	·201	83·6	90·1	+0·3	79·8	+0·1	84·9	+0·2	10·3	92·7	24th	72·5	30th	20
26	Malegaon	1,430	28·377	—·003	29·723	29·448	17th	29·296	30th	·152	85·3	104·8	+0·8	75·1	0	89·9	+0·4	29·7	110·4	5th	72·1	23rd	38
	Ahmadnagar	2,154	27·699	+·006	29·729	27·768	17th	27·603	31st	·165	82·6	101·8	+2·4?	71·5	—0·3	86·8	+1·1?	30·3	107·1	3rd	63·5	13th	42
	Poona	1,846	28·003	-·003	29·761	28·077	17th	27·911	31st	·166	80·3	98·4	—0·8	72·5	+0·6	85·4	—0·1	25·9	104·5	2nd & 5th	69·8	17th, 13th & 17th.	34
	Sholapur	1,590	28·236	+·005	29·740	28·312	17th	28·131	31st	·181	82·1	103·2	—1·6	75·4	—1·1	89·3	—1·3	27·8	109·3	1st & 3rd	67·1	30th	42
	Bijapur	*1,948*	27·895	—·001	29·748	27·967	17th	27·786	31st	·181	79·9	100·8	+0·5	73·3	—1·4	87·1	—0·5	27·5	108·2	3rd	65·3	17th	42
	Belgaum	2,862	27·336	+·014	29·780	27·414	17th	27·230	31st	·184	76·2	93·2	+0·2	67·5	—0·7	80·4	—0·3	25·7	99·3	4th	63·5	20th	35
	XI.—Central India.																						
20	Neemuch	1,626	28·121	—·011	29·656	28·195	21st	28·004	30th	·191	85·2	102·7	—1·3	76·3	—0·8	89·5	—1·1	26·4	108·9	6th	68·0	20th	40
	Indore	1,823	27·956	+·006	29·683	28·020	7th	27·858	30th	·162	84·9	101·2	—1·6	76·1	+0·2	88·6	—0·7	25·1	106·6	5th	68·1	4th	38
21	Nowgong	754	28·942	+·004	29·638	29·087	16th	28·755	29th	·332	86·9	104·5	—2·9	77·3	—2·5	90·9	—2·7	27·2	112·7	30th	68·0	4th	44
	Sutna	1,041	28·048	—·001	29·624	28·780	16th	28·457	29th	·323	86·3	102·6	-2·9	77·6	—1·7	90·1	—2·3	25·0	109·3	30th	68·2	16th	41
	XII.—Central Provinces.																						
22	Buldana	2,132	27·682		29·694	27·742	17th	27·582	30th	·154	83·6	100·9		77·1		89·0		23·8	105·2	5th	72·2	19th	33
	Akola	925	28·848	+·009	29·700	28·915	16th	28·750	31st	·165	89·0	107·4	—0·3	80·8	—0·3	94·1	—0·3	26·6	111·7	6th & 8th	73·5	18th	38
	Amraoti	1,215	28·547	+·009	29·678	28·617	1st	28·424	30th	·193	88·6	106·1	—1·6	80·2	+0·2	93·2	—0·7	25·9	111·8	3rd & 8th	71·8	13th	40
23	Khandwa	1,044	28·716	—·005	29·692	28·780	7th & 17th.	28·626	30th	·154	86·0	105·2	—1·3	80·0	—0·9	92·6	—1·1	25·2	111·2	4th	68·1	17th	43
	Hoshangabad	1,006	28·738	—·008	29·672	28·796	21st	28·632	29th & 30th.	·164	88·1	105·6	—2·0	77·9	—2·4	91·8	—2·2	27·7	111·1	28th & 29th.	67·4	17th	43
	Saugor	1,867	27·919	—·016	29·618	28·021	16th	27·784	29th	·237	86·9	102·4	—2·7	77·5	—1·0	89·8	—1·9	24·9	107·3	8th	66·1	16th	41
	Jubbulpore	1,327	28·391	—·004	29·635	28·501	16th	28·251	29th	·250	86·8	103·7	—1·9	76·9	—2·0	90·3	—1·9	26·8	108·8	31st	68·3	3rd & 5th.	40
	Seoni	2,033	27·730	—·001	29·630	27·816	16th	27·587	29th	·229	88·6	102·5	—1·4	75·5	—1·6	89·0	—1·5	27·0	107·6	11th & 30th.	65·5	16th	42
	Nagpur	1,017	28·719	+·008	29·657	28·831	16th	28·596	31st	·235	90·0	107·1	—2·2	80·5	-1·4	93·8	—1·8	26·6	112·1	1st, 9th & 11th.	72·8	19th	39
24	Pendra	2,123?									86·8	100·3		76·0		88·2		24·3	106·2	30th	66·1	16th	40

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

† Mean of 30 days.
‡ " " 6 "

-continued.

tions in India, etc., in May, 1913—continued.

Wind direction. Number of winds from N.E.	N.	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 from 1st to 31st May, 1913.	Normal rainfall for period, 1st to 31st May.	Departure from normal of period, 1st to 31st May, 1913.	Heaviest rainfall during month.	Station.
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
																														X.—Bombay.
			3	15	9	3	S 62° W	S 83° W	10·2	9·8	+0·4	79	+14	58	0	·697	—·002	3·3	+0·9	2	0·4	+1·6	0·49	0·19	+0·30	0·49	0·19	+ 0·30	0·33	Deesa.
				11	14	5	S 83° W	S 77° W	9·3	12·7	—3·4	82	—1	62	— 1	·747	—·023	2·4	+1·1	0	0·2	—0·2	0	0·07	—0·07	0	0·07	— 0·07	0	Bhuj.
				23	8		S 56° W		15·7			94		69		·868		1·8		0	0·1	—0·1	0	0·02	—0·02	0	0·02	— 0·02	0	Jamnagar.
				14	15	1	S 72° W		10·6			86		79	— 2	·899		3·1		0	0	0	0	0·01	—0·01	0	0·01	— 0·01	0	Dwarka.
			1	17	12	1	S 63° W	N 89° W	12·7	10·5	+2·2	89	+ 7	70	— 1	·819	—·006	3·5	+1·9	0	0·4	—0·4	0	0·17	—0·17	0	0·17	— 0·17	0	Rajkot.
			2	10	16	1	S 73° W	N 89° W	6·0	6·9	—0·9	82	+ 6	86‡		·995‡		3·0	—1·0	0	0·1	—0·1	0	0·05	—0·05	0	0·05	— 0·05	0	Veraval.
				13	8	7	S 82° W	S 62° W	4·5	10·3	—5·8	72	— 9	65	— 1	·801	—·037	2·4	—1·3	0	0·4	—0·4	0	0·15	—0·15	0	0·15	— 0·15	0	Bhavnagar Para.
		1	8	14	5	3	S 45° W	S 54° W	6·8	8·1	—1·3	72	+ 4	75	+ 7	·940	+·093	4·8	+1·4	0	0·2	—0·2	0·01	0·10	—0·09	0·01	0·10	— 0·09	0·01	Surat.
			3	15	9	4	S 64° W	S 81° W	5·2	5·1	+0·1	79	+16	68	+ 9	831	+·077	3·7	+1·0	1	0·2	+0·8	0·14	0·08	+0·06	0·14	0·08	+ 0·06	0·14	Ahmadabad.
1	3	1	2	8	7	6	S 79° W	N 81° W	5·7*	7·4	—1·7	80	— 7	74	+ 1	·883	+·004	4·4	+0·3	0	0·7	—0·7	0	0·71	—0·71	0	0·71	— 0·71	0	Bombay.
7		1	1	2	3	6	N 14° W	N 48° W	5·9	7·1	—1·2	46	—11	70	+ 1	·839	0	3·5	0	2	1·3	+0·7	1·04	1·17	—0·13	1·04	1·17	— 0·13	0·80	Ratnagiri.
2		1		2	4	11	N 12° W	N 28° W	6·2*	8·0	—1·8	46	—16	73	— 3	·892	—·018	5·7	+1·1	3	2·3	+0·7	1·23	1·78	—0·55	1·23	1·78	— 0·55	0·54	Marmagao.
2		2	2	6	1		N 33° W	N 30° W	2·9	4·2	—1·3	47	—46	75	— 2	·861	+·012	4·2	+0·3	4	3·1	+0·3	4·99	2·68	+2·31	4·99	2·68	+ 2·31	2·84	Karwar.
	1			8	14	4	N 89° W	N 79° W	10·1	9·7	+0·4	68	—12	45	—13	·557	—·181?	0·2	—1·9	2	1·1	+0·9	0·27	0·86	—0·59	0·27	0·86	— 0·59	0·22	Malegaon.
		1	1	3	7	17	N 69° W	N 34° W	6·0	10·9	—4·9	62	— 6	49	—11	·518	—·161?	1·3	—0·8	1	1·4	—0·1	0·39	0·69	—0·30	0·39	0·69	— 0·30	0·28	Ahmadnagar.
					24	4	N 84° W	N 80° W	9·6	11·2	—1·6	89	+ 6	61	+ 7	·623	+·075	1·8	—0·8	4	1·5	+2·5	1·57	1·18	+0·39	1·57	1·18	+ 0·39	0·66	Poona.
		1		1	3	24	N 50° W	N 55° W	11·4	8·2	+3·2	82	+ 6	56	+11	·603	+·075	4·5	+1·4	4	2·1	+1·9	2·10	0·94	+1·16	2·10	0·94	+ 1·16	0·64	Sholapur.
1	2			10	14	4	S 86° W	N 81° W	8·6	6·1	+2·5	72	— 5	62	— 2	·625	—·057	4·1	+0·9	4	2·5	+1·5	3·92	1·09	+2·83	3·92	1·09	+ 2·83	1·57	Bijapur.
				5	12		S 77° W	N 67° W	8·0	12·8	—4·8	49	— 5	69	0	·619	+·002	3·1	—0·6	5	4·5	+0·5	1·88	2·45	—0·57	1·88	2·45	— 0·57	0·80	Belgaum.
																														XI.—Central India.
	3			5	21	1	S 83° W	S 84° W	11·1	8·8	+2·3	72	+ 3	57	+ 7	·665	+·027	1·2	+0·3	4	0·8	+3·2	3·15	0·38	+2·77	3·15	0·38	+ 2·77	1·78	Neemuch.
				4	8	18	N 82° W	N 71° W	5·4	4·6	+0·8	67	— 8	51	+ 1	·594	—·026	1·0	—0·1	2	1·1	+0·9	1·58	0·47	+1·11	1·58	0·47	+ 1·11	1·07	Indore.
1	1	4	1	2	5	14	1	S 74° W	N 82° W	2·8	2·7	+0·1	46	— 8	41	+ 7	·503	+·013	3·5	+2·1	2	0·7	+1·3	1·49	·029	+1·20	1·49	0·29	+ 1·20	1·22	Nowgong.
3		6		2	2	15		S 88° W	N 73° W	3·5	5·9	—2·4	34	—10	44	+15	·530	+·102	1·7	+0·7	2	1·2	+0·8	1·32	0·37	+0·95	1·32	0·37	+ 0·95	0·82	Satna.
																														XII.—Central Provinces.
				1	14	16	N 67° W		9·3	8·9	+0·4	90		30§		·371§		0·6		1	1·1	—0·1	0·61	0·52	+0·09	0·61	0·52	+ 0·09	0·41	Buldana.
			1	1	18	10	N 76° W	N 68° W	7·0	7·0	0	89	+ 3	37	— 1	·499	—·020	2·7	+0·8	0	0·8	—0·8	0·16	0·37	—0·21	0·16	0·37	— 0·21	0·09	Akola.
			1	3	12	12	N 79° W	N 77° W	6·6	5·0	+1·6	72	+ 4	40	+ 1	·528	—·014	2·2	+0·1	2	1·4	+0·6	0·85	0·54	+0·31	0·85	0·54	+ 0·31	0·69	Amraoti.
				2	19	9	S 78° W	N 70° W	8·4	7·5	+0·9	92	+ 6	47	+ 4	·580	+·031	1·8	+0·7	3	0·8	+2·2	1·66	0·33	+1·33	1·66	0·33	+ 1·33	1·10	Khandwa.
				17	3	11	S 79° W	S 66° W	4·1	3·0	+1·1	76	+14	46	+ 5	·603	+·050	2·0	+0·7	3	1·1	+1·9	0·60	0·53	+0·07	0·60	0·53	+ 0·07	0·25	Hoshangabad.
	1	3	1	4	16	5	S 83° W	S 86° W	6·2	3·9	+2·3	62	+12	34	— 2	·401	—·085	3·2	+2·0	3	0·9	+2·1	1·06	0·46	+0·60	1·06	0·46	+ 0·60	0·50	Saugor.
1	1	2	5	5	6	4	S 55° W	S 78° W	1·9	3·1	—1·2	37	—17	35	+ 2	·435	—·029	2·2	+0·8	2	1·2	+0·8	0·61	0·49	+0·12	0·61	0·49	+ 0·12	0·35	Jubbulpore.
1			3	5	3	7	N 44° W	N 39° W	4·0	3·4	+0·6	49	+11	29	— 4	·372	—·089	2·1	+0·3	2	1·9	+0·1	0·71	0·69	+0·02	0·71	0·69	+ 0·02	0·56	Seoni.
3	1	2		3	5	10	N 42° W	N 48° W	5·7	5·8	—0·1	49	— 2	35	+ 1	·468	—·046	2·5	—0·2	5	1·8	+3·2	2·50	0·75	+1·75	2·50	0·75	+ 1·75	1·01	Nagpur.
		4	5	6	1	8	S 73° W		5·2			27		33		·463		2·5		6	1·3	+4·7	1·90	0·91	+0·99	1·90	0·91	+ 0·99	0·52	Pendra.

‡ Mean of 6 days.
§ " " 7 "

* Uncorrected for scale error.

Tab

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

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.	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.	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
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
	XII.—Central Provinces *—contd.*																						
	Raipur	970	28·756	+·009	29·648	28·856	16th	28·613	29th	·245	89·2	106·0	−1·4	81·7	−0·3	93·8	−0·9	24·3	111·7	1st	69·6	16th	1
	Chanda	*634*	28·091	−·010	29·655	29·185	17th	28·975	29th	·210	91·2	108·4	−1·1	80·9	−1·0	94·6	−1·1	27·5	117·0	11th	72·5	18th	4
	Jagdalpur	1,813	27·970		29·672	28·042	3rd	27·874	29th	·168	84·8	101·0		75·2		88·2		25·8	107·2	12th	68·1	16th & 26th.	3
	XIII.—Hyderabad.																						
27	Aurangabad	1,905	27·927	−·027	29·724	28·008	17th	27·835	31st	·173	83·6	102·3	−2·1	75·3	+0·1	88·8	−1·0	27·0	106·9	5 days	69·7	17th, 18th & 19th.	3
	Nizamabad	1,248	28·535		29·695	28·604	17th	28·430	31st	·174	88·0	107·0	+1·1	81·3	+0·2	94·2	+0·7	25·7	112·4	11th	75·7	17th	3
	Bidar	*2,165*									85·8	101·8		75·8		88·8		26·0	107·4	1st & 3rd.	68·4	30th	3
28	Gulbarga	1,503	28·295	−·025?	29·707	28·364	17th	28·178	31st	·186	83·9	104·2	−0·6	77·8	−0·7	91·1	−0·7	26·4	111·0	8th	70·8	31st	4
	Raichur	*1,311*	28·508	+·005	29·736	28·565	13th & 17th.	28·411	31st	·154	84·1	102·7	−0·7	77·6	−1·9	90·2	−1·3	25·1	108·5	3rd	69·6	24th	3
	Hyderabad (Deccan)	1,690	28·111	+·001	29·693	28·179	4th	28·016	29th	·163	86·0	102·8	−1·0	79·1	+0·5	91·0	+0·3	23·7	108·3	4 days	72·2	30th	4
	Hanamkonda	877	28·891	−·010	29·690	28·971	17th	28·781	29th	·190	89·3	105·5	+0·9	81·5	−0·5	93·5	+0·2	24·0	110·5	11th	76·0	17th	3
	XIV.—Mysore.																						
29	Chitaldrug	2,405	27·476	0	29·768	27·561	17th	27·376	31st	·185	76·2	94·7	+1·0	71·1	+0·1	82·9	+0·5	23·6	101·6	2nd	64·8	5th	3
	Hassan	3,149	26·790	+·007	29·775	26·865	17th	26·685	30th	·180	74·4	89·9	+2·3	67·6	+1·0	78·8	+1·7	22·3	97·6	2nd	61·3	3rd	3
	Bangalore	3,021	26·903	+·007	29·760	26·980	17th	26·789	30th	191	76·1	93·6	+2·3	69·7	+0·6	81·6	+1·5	23·9	100·3	4th	66·8	8th & 29th.	3
	Mysore	2,518	27·389	−·006	29·781	27·467	17th	27·280	31st	·187	76·5	92·8	+0·7	70·1	+0·5	81·4	+0·6	22·7	99·5	4th	65·0	7th	3
	XV.—Madras.																						
30	Mangalore	65	29·805	−·011	29·801	29·882	17th	29·689	31st	·193	84·1	91·1	+0·1	79·1	+1·7	85·1	+0·9	12·0	94·3	2nd	71·4	3rd	2
	Calicut	27	29·839	−·015	29·795	29·927	17th	29·720	31st	·207	83·0	89·9	−0·5	78·7	+0·8	84·3	+0·1	11·2	93·3	4th	73·1	5th	2
	Cochin	9	29·870	−·005	29·807	29·945	17th	29·769	31st	·176	83·8	91·4	+1·8	78·3	+0·7	84·8	+1·3	13·1	93·7	4 days	73·7	30th	2
	Trivandrum	108	29·674	−·013	29·802	29·746	17th	29·574	31st	·172	82·2	87·4	+1·1	78·4	+2·1	82·9	+1·6	9·0	90·0	10th & 11th.	74·0	31st	1
31	Pamban	37	29·791	−·014	29·755	29·868	17th	29·689	30th	·179	84·6	93·5	+2·3	79·9	−1·5	86·7	+0·4	13·6	94·7	4 days	74·3	24th	2
	Madura	447	29·400	+·016	29·773	29·478	3rd	29·286	30th	·192	86·4	101·3	+1·2	80·1	+2·6	90·7	+1·9	21·2	105·5	9th	75·6	30th	2
	Pudukkottai	318	29·516		29·762	29·592	17th	29·412	31st	·180	85·8	101·6		80·0		90·8		21·6	107·1	14th	76·1	18th	3
	Negapatam	31	29·787	−·007	29·747	29·868	17th	29·677	30th	·191	86·8	99·4	+2·1	81·1	+0·9	90·3	+1·5	18·3	105·7	14th	75·2	24th	3
	Trichinopoly	255	29·581	+·003	29·767	29·653	17th	29·466	30th	·187	85·9	100·8	−1·0	78·6	−0·1	89·7	−0·5	22·2	107·6	7th	68·8	23rd	3
	Coimbatore	1,341	28·516	+·003	29·777	28·589	17th	28·414	31st	·175	80·4	95·4	+0·4	73·2	−0·2	84·3	+0·1	22·2	99·5	1st, 2nd & 3rd.	68·8	7th	3
	Salem	940	28·932	+·005	29·797	29·014	17th	28·829	30th	·185	83·7	100·6	+1·4	77·4	+1·5	89·0	+1·5	23·2	107·0	13th	72·3	5th & 18th.	3
	Cuddalore	37	29·776	+·006	29·743	29·858	17th	29·669	30th	·186	87·2	98·3	−0·5	80·8	+0·7	89·6	+0·1	17·5	105·3	13th	74·2	5th & 23rd.	3
	Vellore	707	29·102		29·725	29·183	17th	29·000	31st	·183	86·2	102·5		78·9		90·7		23·6	106·7	9th	74·5	9th, 18th & 23rd.	3
	Madras	22	29·777	−·007	29·730	29·863	17th	29·671	30th	·192	87·1	98·5	0	81·2	+0·1	89·8	+0·1	17·3	107·5	13th	72·5	15th	3
32	Cuddapah	433	29·374	−·004	29·735	29·464	17th	29·258	31st	·206	89·8	105·8	−0·5	82·5	−1·0	94·1	−0·7	23·3	110·0	5th & 11th.	70·8	5th	3

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

-continued.

tions in India, etc., in May, 1913—continued.

Wind direction. Number of winds from N.E. (27)	E. (28)	S.E. (29)	S. (30)	S.W. (31)	W. (32)	N.W. (33)	Resultant direction. (34)	Normal direction. (35)	Wind velocity. Mean velocity, miles per hour. (36)	Normal. (37)	Departure from normal. (38)	Wind steadiness. Actual percentage. (39)	Departure from normal. (40)	Hygrometry, 8 hrs. Mean humidity at 8 hrs. (41)	Departure from normal. (42)	Mean vapour tension at 8 hrs., in inches of mercury. (43)	Departure from normal, in inches of mercury. (44)	Cloud. Mean cloud amount at 8 hrs. (45)	Departure from normal. (46)	Rainfall. Number of rainy days. (47)	Normal number of rainy days. (48)	Departure from normal. (49)	Rainfall of month. (50)	Normal rainfall of month. (51)	Departure from normal. (52)	Total rainfall from 1st to 31st May, 1913. (53)	Normal rainfall for period, 1st to 31st May. (54)	Departure from normal of period, 1st to 31st May, 1913. (55)	Heaviest rainfall during month. (56)	Station. (57)
																														XII.—Central Provinces—*concld.*
2	3		5	16	2	3	S 41° W	S 76° W	4·9	5·8	−0·9	46	+ 3	43	+ 8	·569	+ ·057	2·9	−0·2	2	2·1	−0·1	1·30	0·92	+0·38	1·30	0·92	+0·38	0·75	Raipur.
		2	3	6	10	8	S 81° W	S 84° W	4·8	3·5	+1·3	54	+31	35	− 1	·504	−·034	2·9	+0·6	0	1·6	−1·6	0·05	0·65	−0·60	0·05	0·65	−0·60	0·03	Chanda.
1	1	2	7	13	5		S 34° W		4·3			62		58		·681		2·3		2			0·77			0·77			0·39	Jagdalpur.
																														XIII.—Hyderabad.
3	1			2	13	12	N 64° W		13·6			70		53	+13	·592		1·8		3	1·4	+1·6	1·33	0·65	+0·68	1·33	0·65	+0·68	0·45	Aurangabad.
2			2	[illegible]	5	5	S 85° W		4·2			69		41	−10	·535		2·5		1	0·9	+0·1	0·33	0·31	+0·02	0·33	0·31	+0·02	0·17	Nizamabad.
3		1		4	3	15	N 32° W		7·3			61		46		·555		4·0		3	2·1	+0·9	0·83	0·80	+0·03	0·83	0·80	+0·03	0·22	Bidar.
4	3	1	1	2	7	12	N 46° W	N 44° W	8·3†	9·1	−0·8	59	− 2	51	− 4	·578	−·069	2·3	−1·1	2	2·2	−0·2	1·50	1·01	+0·49	1·50	1·01	+0·49	0·88	Gulbarga.
1	4			6	7	13	N 63° W	N 83° W	7·3	8·4	−1·1	67	− 2	68	+14	·794	+·152	4·0	+0·7	5	1·2	+3·8	4·06	0·64	+3·42	4·06	0·64	+3·42	1·84	Raichur.
					18		W	S 82° W	2·6	4·7	−2·1	58	− 2	53	+ 3	·611	+·023	4·2	+1·3	4	1·7	+2·3	2·36	0·79	+1·57	2·36	0·79	+1·57	0·87	Hyderabad (Deccan).
3		13	2	2	1	5	S 28° W		3·4†			23		44	− 6	·587		4·1		3	1·5	+1·5	1·38	0·52	+0·86	1·38	0·52	+0·86	0·93	Hanamkonda.
																														XIV.—Mysore.
1				15	14	2	S 74° W	S 81° W	5·0	6·6	−1·6	82	− 1	74	+ 4	·664	0	4·6	−0·9	5	4·5	+0·5	1·41	3·05	−1·64	1·41	3·05	−1·64	0·51	Chitaldrug.
3	1	1		1	5	11	7	N 77° W	N 80° W	5·7	2·9	+2·8	58	−20	75	+ 1	·646	+·007	4·4	−1·3	7	7·3	−0·3	6·99	5·24	+1·75	6·99	5·24	+1·75	2·80	Hassan.
1					4	17	9	N 80° W	S 75° W	5·3	4·6	+0·7	86	+ 3	74	− 2	·664	−·004	4·1	−0·6	6	6·8	−0·8	1·71	4·34	−2·63	1·71	4·34	−2·63	0·62	Bangalore.
					16	11	1	S 65° W	S 74° W	5·8	7·4	−1·6	82	+ 6	76	+ 2	·700	+·033	6·0	+1·0	7	7·8	−0·8	4·31	5·06	−0·75	4·31	5·06	−0·75	1·05	Mysore.
																														XV.—Madras.
7	6	6	3	1	1	1	4	N 38° E	N 18° E	4·7	2·8	+1·9	43	+18	73	− 5	·855	−·021	4·8	−1·6	8	6·4	+1·6	3·55	6·26	−2·71	3·55	6·26	−2·71	1·61	Mangalore.
	1	1	2	1		4	14	N 52° W	N 15° W	4·7	8·2	−3·5	43	+ 3	79	0	·896	+·016	5·5	+0·1	8	8·3	−0·3	9·36	7·79	+1·57	9·36	7·79	+1·57	3·33	Calicut.
	6	10	4	1		1	2	N 83° E	N 29° E	4·6*	4·5	+0·1	49	+ 2	77	− 5	·887	−·010	5·1	−0·6	9	12·1	−3·1	9·80	11·39	−1·59	9·80	11·39	−1·59	3·95	Cochin.
18						11		N 17° W	N 16° W	3·5‡	5·2	−1·7	92	+24	77	− 4	·850	−·021	5·6	−0·6	7	10·1	−3·1	6·28	8·67	−2·39	6·28	8·67	−2·39	4·35	Trivandrum.
		1	13	13				S 20° W	S 22° W	6·9	8·5	−1·6	82	+ 9	79	0	·929		3·0		2	1·5	+0·5	0·34	0·80	−0·46	0·34	0·80	−0·46	0·18	Pamban.
2	4	3				10	11	N 43° W	N 38° W	4·5	4·5	0	56	− 1	65	− 1	·809	−·005	5·9	+1·9	4	4·7	−0·7	1·15	2·87	−1·72	1·15	2·87	−1·72	0·55	Madura.
			2	3	9	3	4	S 54° W		5·4			45		70		·854		3·9		4	3·4	+0·6	1·10	2·26	−1·16	1·10	2·26	−1·16	0·50	Pudukkottai.
			5	1	15	10		S 49° W	S 46° W	5·8	5·8	0	76	+ 4	75	+ 7	·953	+·078	4·3	+0·2	2	2·0	0	0·62	1·81	−1·19	0·62	1·81	−1·19	0·45	Negapatam.
				3	15	11		S 57° W	S 76° W	3·9*	4·5	−0·6	79	+ 4	63	− 1	·776	−·005	3·6	−0·8	6	4·3	+1·7	7·10	3·24	+3·86	7·10	3·24	+3·86	2·50	Trichinopoly.
	1		1	6	6			S 16° W	S 22° W	4·7	3·3	+1·4	33	−35	88	+ 8	·920	+·103	3·2	−1·1	4	4·9	−0·9	1·61	2·47	−0·86	1·61	2·47	−0·86	0·69	Coimbatore.
				2	4	16	1	S 78° W	S 48° W	3·3	3·0	+0·3	62	+12	70	− 1	·809	−·003	5·3	+1·1	10	7·7	+2·3	3·81	4·90	−1·09	3·81	4·90	−1·09	0·85	Salem.
		1	3	8	13	3	1	S 27° W	S 47° W	7·3	2·1	+5·2	72	+ 4	70	− 3	·898	−·046?	3·0	−1·2	1	1·1	−0·1	0·18	0·74	−0·56	0·18	0·74	−0·56	0·16	Cuddalore.
	1	6	3		2	2	7	N 13° E		2·2			7		67		·835		2·0		4	4·2	−0·2	1·89	2·76	−0·87	1·89	2·76	−0·87	1·30	Vellore.
				16	14	1		S 23° W	S 41° W	6·4*	6·6	−0·2	96	+24	67	+ 3	·864	0	2·4	−1·7	3	1·1	+1·9	2·14	1·08	+1·06	2·14	1·08	+1·06	1·01	Madras.
1	1		1	2	2	15	9	N 79° W	N 89° W				69	+ 8	65	+12	·908	+·169	2·1	−1·5	2	2·8	−0·8	1·52	1·58	−0·06	1·52	1·58	−·006	1·26	Cuddapah.

* Uncorrected for scale error.
† Mean of 30 days.
‡ „ „ 18 „

Tab

(2) *Abstract of observations taken at 8 hrs. at 21*

Number of sub-division.	Station.	Elevation of barometer above sea-level, in feet.	Pressure, 8 hrs., in inches. 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.	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	16	17	18	19	20	21	22	23	24
	XV.—Madras— *concld.*																						
	Bellary	1,475	28·344	−·007	29·733	28·400	13th	28·242	31st	·158	82·8	102·8	+0·4	76·9	−0·6	89·8	−0·1	25·9	109·0	1st, 2nd & 3rd.	72·3	5th & 28th	36·7
	Kurnool	923	28·890	+·002	29·741	28·966	17th	28·798	31st	·168	84·5	104·1	−0·7	79·4	−1·6	91·7	−1·1	24·7	109·5	1st	70·1	30th	39·4
33	Nellore	66	29·706	−·002	29·706	29·803	17th	29·611	31st	·192	89·3	105·8	−0·2	80·5	−1·5	93·1	−0·9	25·3	112·0	12th	75·1	17th	36·9
	Masulipatam	15	29·764	+·008	29·714	29·873	1st	29·655	29th	·218	87·7	100·0	−0·1	81·4	−0·2	90·7	−0·1	18·6	110·3	15th	74·2	20th	36·1
	Cocanada	26	29·764	+·015	29·726	29·846	1st	29·618	29th	·250	85·7	98·0	−2·7	81·0	−1·8	89·5	−2·3	17·0	105·7	6th	76·1	16th	29·6
	Waltair (Vizagapatam).	*226*	29·548	+·011	29·712	29·633	16th	29·392	29th	·24[illegible]	86·0	92·5		80·6		86·6		11·9	96·1	29th	71·9	16th	28·2
	Calingapatam	19	29·743		29·700	29·812	12th & 16th.	29·638	29th	·174	86·7	95·5		80·8		88·1		14·7	98·3	2nd, 6th & 31st.	70·8	16th	27·5
	Gopalpur	52	29·689	+·020	29·681	29·780	12th	29·567	30th	·213	84·4	90·2	+0·4	78·7	−1·8	84·4	−0·7	11·5	91·7	13th & 24th.	71·0	15th	20·7
	Bay Islands.																						
1	P. V. Fraser	8	29·730		29·688	29·815	7th	29·559	29th	·256	83·9												
	Port Blair	58	29·800	+·004	29·787	29·865	17th	29·707	20th	·158	83·0	90·6	+1·6	79·2	+0·8	84·9	+1·2	11·4	95·2	4 days	75·5	31st	19·7
	Slipper Island	90	29·726		29·749	29·793	3rd	29·644	29th	·149	81·3	89·7		80·6		85·2		9·1	93·6	4th	75·6	21st	18·0
	Kashmir.																						
13	Muzaffarabad	2,475	27·405		29·845	27·512	3rd	27·235	29th	·277	68·8	92·0		57·3		74·6		34·7	102·1	29th	53·1	1st & 3rd	49·0
	Srinagar	5,204	24·822	−·026	24·791	24·998	7th	24·638	29th	·360	61·0	75·7	−1·2	52·4	+0·3	64·0	−0·5	23·3	84·1	30th	43·6	3rd	40·5
	Dras	*10,059*	20·820	−·004	20·788	21·025	4th	20·679	29th	·346	42·9	56·6		30·8		43·7		25·8	67·0	27th, 28th & 29th.	15·0	3rd & 4th	52·0
	Leh	*11,503*	19·723	−·004	19·691	19·919	4th	19·598	29th	·321	47·6	62·3	−1·7	36·5	−0·3	49·4	−1·0	25·8	70·9	19th	27·5	3rd	43·4
	Skardu	*7,505*	22·852	−·013	22·822	23·118	4th	22·688	20th	·430	59·7	72·6	+1·4	50·3	+0·8	61·4	+1·1	22·3	81·0	21st	41·6	1st	39·4
	Gilgit	4,890	25·098		25·071	25·363	4th	24·872	19th	·491	72·1	87·1	+1·7	60·9	−0·9	74·0	+0·4	26·2	95·2	18th & 19th	52·2	1st	43·0
	Baluchistan.																						
15	Fort Sandeman		25·309		25·278	25·415	3rd	25·231	19th	·184	74·8	94·3		64·6		79·5		29·7	102·7	28th	56·6	22nd	46·1
	Quetta	5,502	24·576	−·008	24·536	24·685	3rd	24·489	15th	·196	66·4	87·6	+4·1	53·5	+1·3	70·6	+2·7	34·1	95·1	27th	44·7	1st	50·4
	Chaman	4,311	25·588	−·043	25·550	25·735	2nd	25·500	20th	·235	79·1	93·5	−0·2	66·8	−0·8	80·1	−0·5	26·7	101·4	27th	55·0	1st	46·4
	Kalat	6,630	23·712		23·674	23·794	3rd	23·623	15th	·171	62·0	85·0		50·0		67·5		35·0	92·0	27th & 31st	39·2	1st	52·8
	Dalbandin	2,279	26·984		26·947	27·148	1st	26·869	20th	·279	85·7	104·2		69·2		86·8		34·9	112·3	31st	58·7	1st	53·6
	Pasni		29·719		29·679	29·825	2nd	29·514	20th	·311	82·9	93·8		77·1		85·4		16·7	108·0	20th	71·0	1st & 3rd	37·0
	Panjgur		26·621		26·579	26·741	2nd	26·525	30th	·216	76·2	99·8		70·0		84·9		29·8	106·8	31st	61·0	1st	45·8
	Robat		26·766		26·724	26·835	1st	26·640	16th	·295	80·8	101·5		74·4		87·9		27·1	111·0	27th & 31st	61·8	1st	49·2
	Hill stations excluding Kashmir and Baluchistan.																						
	Para Chinar	6,000	24·365		24·341	24·467	7th	24·264	29th	·203	71·9	82·7		58·0		70·4		24·7	91·7	28th	47·6	3rd	44·1
	Cherat	*4,256*	25·603	+·010	25·571	25·721	21st	25·434	29th	·287	75·2	87·4	−2·2	67·1	−1·2	77·3	−1·7	20·3	98·3	29th	58·9	1st	39·4
	Drosh (e)		25·042			25·200	3rd, 4th & 7th.	24·910	29th	·290	68·2	84·9		61·4		73·1		23·5	93·8	27th	49·1	1st	44·5
	Murree	6,333	23·777	−·020	23·745	23·882	21st	23·637	29th	·245	64·6	74·5	−2·4	60·0	+0·6	67·2	−0·9	14·5	84·7	28th	47·7	15th	37·0

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

e=Aneroid corrected.

NOTE.—The barometric readings are not reduced to sea-level in the c

—continued.

tions in India, etc., in May, 1913—continued.

Wind direction. Number of winds from N.E. (27)	E. (28)	S.E. (29)	S. (30)	S.W. (31)	W. (32)	N.W. (33)	Resultant direction. (34)	Normal direction. (35)	Wind velocity. Mean velocity, miles per hour. (36)	Normal. (37)	Departure from normal. (38)	Wind steadiness. Actual percentage. (39)	Departure from normal. (40)	Hygrometry, 8 hrs. Mean humidity at 8 hrs. (41)	Departure from normal. (42)	Mean vapour tension at 8 hrs. in inches of mercury. (43)	Departure from normal in inches of mercury. (44)	Cloud. Mean cloud amount at 8 hrs. (45)	Departure from normal. (46)	Rainfall. Number of rainy days. (47)	Normal number of rainy days. (48)	Departure from normal. (49)	Rainfall of month. (50)	Normal rainfall of month. (51)	Departure from normal. (52)	Total rainfall from 1st to 31st May, 1913. (53)	Normal rainfall for period, 1st to 31st May. (54)	Departure from normal of period, 1st to 31st May, 1913. (55)	Heaviest rainfall during month. (56)	Station. (57)
																														XV.—Madras— *concld.*
1	1		1	3	11	9	N 74° W	N 74° W	4·8	6·2	−1·4	59	− 6	61	+11	·704	+·078	3·7	−1·0	6	3·3	+2·7	2·31	2·04	+0·27	2·31	2·04	+ 0·27	0·71	Bellary.
			2	9	7	12	W	N 84° W	6·4*			70	+34	56‡	+ 4	·679‡	+·008	3·7	+0·3	3	2·2	+0·8	1·79	0·95	+0·84	1·79	0·95	+ 0·84	0·95	Kurnool.
1		1	9	4	4	9	S 69° W	S 69° W	5·5*	6·4	−0·9	43	+11	56	− 7	·767	−·115	4·1	−0·1	1	1·0	0	0·11	0·69	−0·58	0·11	0·69	− 0·58	0·11	Nellore.
1	1	5	7	8	3	5	S 30° W	S 38° W	6·6	6·5	+0·1	46	+ 5	75	− 1	·867	−·078	3·8	−1·4	2	1·8	+0·2	0·97	1·14	−0·17	0·97	1·14	− 0·17	0·47	Masulipatam.
2	1	2		10	8	3	S 70° W	S 56° W	5·0	5·9	−0·9	46	− 8	73	+ 3	·919	−·002	6·6	+1·6	4	2·4	+1·6	1·74	1·16	+0·58	1·74	1·16	+ 0·58	0·83	Cocanada.
1				27	3		S 49° W	S 72° W	8·7			89	+ 6	70	− 5	·863	−·068	6·1	+0·2	1	3·0	−2·0	0·52	2·31	−1·79	0·52	2·31	− 1·79	0·19	Waltair (Vizagapatam).
1			3	15	7	2	S 60° W		10·7			66		75		·951		3·4		3	3·3	−0·3	1·16	2·03	−0·87	1·16	2·03	− 0·87	0·68	Calingapatam.
	1		11	12	2	1	S 27° W	S 20° W	11·2	12·8	−1·6	72	+ 4	81	− 3	·959	−·027	3·6	−1·8	3	3·1	−0·1	1·76	1·94	−0·18	1·76	1·94	− 0·18	0·83	Gopalpur.
																														Bay Islands.
		3	9	17	1		S 27° W					81		83		·938		4·6		5			1·25			1·25			0·49	P. V. Fraser.
			4	1	2	12	N 59° W	S 73° W	6·8	5·4	+1·4	43	−18	80	− 7	·906	−·060	6·1	−0·8	11	16·4	−5·4	7·51	16·90	−9·39	7·51	16·90	− 9·39	2·18	Port Blair.
1			2	8	13	7	S 85° W		8·3			76		80		·938		6·8		9	11·3	−2·3	3·66	9·25	−5·59	3·66	9·25	− 5·59	1·10	Slipper Island.
																														Kashmir.
1			5	10	6	5	S 69° W		0·7			52		65		·453		1·4		7			5·08			5·08			2·10	Muzaffarabad.
	1	7	4	2	1	5	S	S 49° E	1·9	3·1	−1·2	19	−17	78	− 3	·400	−·017	3·3	−0·1	8	5·7	+2·3	1·27	2·63	−1·36	1·27	2·63	−1·36	0·38	Srinagar.
					3	3	N 67° W		2·4			17		67	− 6	·181		2·6		0	5·9	−5·9	0·23	3·09	−2·86	0·23	3·09	−2·86	0·07	Dras.
		1	6	2			S 5° W	S 41° W	2·8	2·3	+0·5	27	−18	43	− 2	·141	0	4·0	−0·7	1	0·7	+0·3	0·30	0·21	+0·09	0·30	0·21	+0·09	0·13	Leh.
4	4			1	5	1	N 5° E		5·1			15		44	−13	·224		3·4		1	2·7	−1·7	0·30	1·27	−0·97	0·30	1·27	−0·97	0·10	Skardu.
	1			2		1	S 57° W		0·8†			3		45	+ 1	·354	+·043	1·6	−2·5	1	2·7	−1·7	0·11	0·94	−0·83	0·11	0·94	−0·83	0·11	Gilgit.
																														Baluchistan.
2	3	1		3	2		S 68° E		3·3			3		43		·366		0·8		1			0·60			0·60			0·56	Fort Sandeman.
		1	1				S 24° E	N 80° W	1·3	2·4	−1·1	7	+ 3	50	+ 5	·328	−·013	0·5	−0·5	0	1·0	−1·0	0	0·38	−0·38	0	0·38	−0·38	0	Quetta.
	1	4	5	1			S 20° E	S 32° W	4·0†	5·5	−1·5	30	−16	33	+ 2	·324	+·018	0·1	−0·2	0	0·4	−0·4	0	0·11	−0·11	0	0·11	−0·11	0	Chaman.
		5	12	5		1	S 2° W	S 34° W	5·7†			59	+22	47		·265		0·6		0	0·8	−0·8	0	0·25	−0·25	0	0·25	−0·25	0	Kalat.
1	4	2	3	4	6	4	S 55° W		5·4			23		30		·390		0·1		0			0			0			0	Dalbandin.
	3			2	14	2	W		5·6			45		84		·951		4·7		0			0			0			0	Pasni.
2	4			2	2	2	N 34° E		5·0			46		60		·554		0·7		0			0			0			0	Panjgur.
4	4			1	14	2	N 64° W		3·7†			40		57		·593		0·3		0			0			0			0	Robat.
																														Hill stations excluding Kashmir and Baluchistan.
1		1	2	1	3	1	S 56° W		1·1			10		39		·297		1·1		4	7·8	−3·8	1·19	2·76	−1·57	1·19	2·76	−1·57	0·46	Para Chinar.
3		3	3	1		3	N 11° E	N 6° W	7·9†	8·8	−0·9	23	−24	36	+ 2	·291	−·003	2·2	0	0	2·8	−2·8	0·18	1·74	−1·56	0·18	1·74	−1·56	0·09	Cherat.
	10	1		2	1		S 76° E		5·2†			27		40		·275		0·8		0	4·6	−4·6	0·25	2·38	−2·13	0·25	2·38	−2·13	0·09	Drosh.
1	1	1	6	3		1	N 80° E	N 7° E	3·0†	5·8	−2·8	8	− 7	46	+ 7	·265	+·008	2·8	0	3	5·2	−2·2	1·38	2·95	−1·57	1·38	2·95	−1·57	0·43	Murree.

or plateau stations, the elevations of which exceed 3,200 feet.

* Uncorrected for scale error.

† Mean of 30 days.
‡ „ „ 23 „

Table

(2) *Abstract of observations taken at 8 hrs. at 216*

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.	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.	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	16	17	18	19	20	21	22	23	24
	Hill stations, excluding Kashmir and Baluchistan —*concld.*																						
	Simla	7,232	23·054	—·011	23·016	23·163	7th	22·495	29th	·218	61·1	68·2	—4·3	55·9	—2·7	62·4	—3·5	12·9	77·4	30th	45·5	31st	31·9
	Sarain		23·088		23·050	23·188	21st	22·981	29th	·207	58·0	69·7		49·4		59·6		20·3	77·6	29th	44·0	2nd	33·6
	Kalabagh																						
	Chakrata	7,022	23·227	—·019	23·187	23·335	7th	23·117	29th	·218	61·0	70·4	—3·9	54·7	—1·9	62·6	—2·9	15·7	79·7	6th	48·5	31st	31·2
	Mukteswar	7,592	22·777	—·058	22·736	22·875	7th	22·672	29th	·203	58·4	69·4	—6·1	50·9	—4·6	60·1	—5·3	18·5	77·5	1st, 5th & 6th.	42·0	14th	35·5
	Darjiling	7,376	22·949	—·032	22·904	23·027	6th	22·861	2nd	·166	56·8	64·6	+0·8	51·2	—1·4	57·9	—0·3	13·4	72·3	1st	47·2	5th	25·1
	Shillong	4,920	25·068		25·020	25·174	4th	24·971	1st	·203	64·7	73·0		57·3		65·1		15·7	78·0	4 days	49·7	5th	29·2
	Cherrapunji	4,309	25·723		25·674	25·833	17th	25·607	30th	·226	64·9	71·3		58·2		64·8		13·1	75·7	3rd & 5th	40·1	2nd	35·6
	Maymyo	3,545	26·364	—·020	26·309	26·440	5th	26·299	9th	·141	71·7	83·3	+0·4	61·6	+1·0	74·0	+0·7	18·7	93·0	1st	55·6	10th	37·4
	Pachmarhi	3,528	26·372	—·005	26·319	26·429	7th	26·257	29th	·162	80·8	95·2	+0·1	74·4	—0·7	84·8	—0·3	20·8	99·5	27th	63·1	16th	36·4
	Mount Abu	3,945	25·977	—·003	25·927	26·066	4th	25·856	19th	·210	76·7	87·4	—0·8	70·1	—1·0	78·7	—0·9	17·3	92·2	4th, 5th & 6th.	58·9	19th	33·3
	Mercara	3,781	26·183	—·016	26·116	26·252	17th	26·080	31st	·172	69·4	81·2	+0·9	64·5	—0·4	72·9	+0·3	16·7	85·0	2nd	60·0	30th	25·0
	Ootacamund	7,327	23·056		22·992	23·113	13th	22·964	31st	·149	63·4	71·6		51·9		61·8		19·7	78·0	4th	47·7	15th & 20th.	30·3
	Kodaikanal	7,688	22·825	—·014	22·760	22·882	3rd & 17th.	22·736	30th	·146	61·9	71·5	+2·2	54·5	—0·4	63·0	+0·9	17·0	77·5	13th	52·0	21st	25·5
	Extra India.																						
	Singapore (a)	10	29·904		29·835	29·953	13th & 17th.	29·858	30th	·095	84·4	89·2		75·5		82·3		13·7	92·4	12th	73·8	16th	18·6
	Penang (a)	17	29·845		29·790	29·915	3rd	29·807	7th & 30th.	·108	82·9	89·1		74·1		81·6		15·0	95·0	29th	72·0	14th	23·0
	Trincomalee	99	29·741	†	29·769	29·817	17th	29·625	30th	·192	81·6	96·3	+3·3	78·2	—0·6	87·2	+1·3	18·1	99·0	22nd	72·5	16th	26·5
	Colombo	24	29·853	—·019	29·803	29·924	17th	29·770	30th	·154	79·2	87·3	—0·7	76·7	—1·7	82·0	—1·2	10·6	88·5	21st	72·0	22nd	16·5
	Minicoy	7	29·893			29·974	17th	29·763	31st	·211													
	Amini Divi	13																					
	Gyantse	13,120									45·9	62·1		35·0		48·6		27·1	71·0	24th	26·1	6th	44·9
	Pharijong	14,400									41·4	51·0		22·3		36·6		28·7	59·4	1st	11·0	5th	48·4
	Gangtok	5,660	24·402		24·357	24·522	5th	24·306	25th	·216	62·7	71·4		56·4		63·9		15·0	75·7	2nd	53·6	16th	22·1
	Gartok (c)	15,100	?			?	?	?	?	?	27·5	50·4		21·2		35·8		29·2	72·0	10th	12·6	9th	59·4
	Kashgar (c)	4,255																					
	Kabul		?		?	?	?	?	?	?	71·0	87·6	+5·0	68·8	+15·6	78·2	+10·3	18·8	96·4	27th	53·3	1st	37·6
	Meshed	3,104	26,714		29·743	29·936	18th	26·523	30th	·413	68·6	85·2		54·5	—2·7	69·9		30·7	97·4	31st	40·1	1st	57·3
	Jask	13	29·694	—·057	29·660	29·828	1st	29·526	31st	·302	81·9	92·4	0	78·4	+0·1	85·4	+0·1	14·0	96·8	30th	72·3	3rd	24·5
	Muscat	30	29·714	—·020	29·682	29·865	1st	29·551	31st	·314	91·7	100·1	+8·6	87·2	+1·3	93·6	+4·9	12·9	109·8	21st	78·6	4th	31·2
	Bahrein	18	29·793		29·764	29·911	1st	29·696	15th	·215	85·9	90·9		79·8		85·3		11·1	97·7	27th	72·3	1st	25·4
	Bushire	14	29·752	—·015	29·728	29·878	7th	29·612	31st	·266	83·6	91·1	+2·0	77·2	+1·9	84·1	+1·9	13·9	105·8	18th	69·0	9th	36·8
	Busrah	25	29·761		29·735	29·858	7th	29·672	31st	·276	81·6	99·1		77·2		88·2		21·9	115·3	29th	69·1	7th	46·2
	Kerman (c)		24·477			24·720	18th	24·340	15, 22 & 30th.	·380	73·3	93·3		56·4		74·9		36·9	102·3	31st	44·5	1st	57·8
	Ispahan (b)	5,817	24·280			24·430	18th	24·130	15th	·300	68·3	82·3	—1·8	57·1	+3·0	69·7	+0·6	25·2	93·4	30th	48·2	1st	45·2
	Tehran (b)	4,002																					
	Baghdad	127	29·678	—·034	29·780	29·799	7th	29·554	15th	·245	79·2	96·5	+4·8	68·7	+0·8	82·6	+2·8	27·8	103·3	29th	58·8	4th	44·5
	Beirut (d)				29·839						71·0	76·0		63·0		69·5		13·0	90·3	7th	57·9	4th	32·4
	Aden	94	29·752	—·016	29·777	29·953	13th	29·612	31st	·341	85·8	93·6	+0·3	82·4	+1·4	88·0	+0·9	11·2	98·6	31st	75·9	11th	22·7
	Zanzibar	72	29·969	—·039	29·967	30·013	4th	29·866	30th	·147	77·8	82·8	+0·4	75·9	+0·3	79·4	+0·3	6·9	85·9	15th	72·5	24th	13·4

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 27 days.

(a) 9 hrs. observations.
(b) Aneroid uncorrected.
(c) " corrected.
(d) 8½ hrs. observations.

—concluded.

ations in India, etc., in May, 1913—concluded.

Wind direction. Number of winds from 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 from 1st to 31st May, 1913.	Normal rainfall for period, 1st to 31st May.	Departure from normal of period, 1st to 31st May, 1913.	Heaviest rainfall during month.	Station.
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
																															Hill stations, excluding Kashmir and Baluchistan—*concld.*
															53	+ 8	·276	+·009	3·5	+0·7	11	4·8	+6·2	5·23	2·68	+2·55	5·23	2·68	+ 2·55	1·42	Simla.
															61		·287		3·5		11	4·6	+6·4	6·90	2·04	+4·86	6·90	2·04	+ 4·86	1·96	Sarain.
																															Kalabagh.
3	2		6	4	1		2	S 48° E	N 21° E	2·3†	5·7	—3·4	13	+ 3	61	+ 14	·313	+·033	4·2	+2·3	10	5·2	+4·8	5·67	2·46	+3·21	5·67	2·46	+ 3·21	1·28	Chakrata.
	1	4	1		16			W		7·3			34		64	+14	·301		4·4		8	5·4	+2·6	4·61	2·09	+2·52	4·61	2·09	+ 2·52	1·55	Mukteswar.
	1	1			1	2		W	S 59° W	2·0	5·0	—3·0	3	— 8	85	— 5	·392	—·037	6·7	0	15	13·9	+1·1	8·34	8·74	—0·40	8·34	8·74	— 0·40	2·42	Darjiling.
			1	2	4	1		S 30° W		3·8			20		76		·456		6·2		24	16·1	+7·9	12·43	9·17	+3·26	12·43	9·17	+ 3·26	1·53	Shillong.
3	4	6	2	3	2	4		E		5·2			15		94		·578		6·8		23	21·4	+1·6	46·64	32·16	+14·48	46·64	32·16	+ 14·48	5·05	Cherrapunji.
			2		15	1	3	S 51° W		2·3			53		75	— 4	·580		4·5		11	12·5	—1·5	5·79	9·31	—3·52	5·79	9·31	— 3·52	1·71	Maymyo.
2				3	12	14		N 68° W	N 81° W	5·0†	5·5	—0·5	86	+23	42	+ 2	·331	+·024	1·2	—0·8	3	1·3	+1·7	0·82	0·55	+0·27	0·82	0·55	+ 0·27	0·50	Pachmarhi.
2	1			3	9	12	3	S 77° W	S 72° W	8·5†	7·9	+0·6	66	— 2	42	+ 2	·357	—·003	1·2	+0·4	2	1·2	+0·8	1·29	0·72	+0·57	1·29	0·72	+ 0·57	0·90	Mount Abu.
3					1	11	12	N 62° W	N 45° W	3·4	3·9	—0·5	72	+ 7	88	+ 5	·623	+·011	6·4	+0·3	11	8·7	+2·3	5·65	5·79	—0·14	5·65	5·79	— 0·14	1·04	Mercara.
	1	4	11	6		3	2	S 35° E		2·2			49		64†		·372†		4·9		15	11·7	+3·3	6·05	7·84	—1·79	6·05	7·84	— 1·79	1·86	Cotacamund.
5	3	7	8	1		1	6	N 63° E		6·8*			33		70	+ 4	·386		3·9		11	11·5	—0·5	3·52	5·86	—2·34	3·52	5·86	— 2·34	0·66	Kodaikanal.
																															Extra India.
		1	6	1	3			S 23° E		4·3*			27						6·5		11	8·9	+2·1	7·75	5·96	+1·79	7·75	5·96	+ 1·79	3·28	Singapore.
	15	1	10				5	N 65° E		8·8*			53								15	10·9	+4·1	15·68	8·48	+7·20	15·68	8·48	+ 7·20	3·64	Penang.
					31			S 45° W	S 45° W	5·7*	8·8	—3·1	100	+ 3	78	0	·840	—·078	4·5	+2·0	3	3·4	—0·4	1·29	2·36	—1·07	1·29	2·36	— 1·07	0·72	Trincomalee.
	1	1			9	1	1	S 52° W	S 45° W	3·4*	6·7	—3·3	27	—51	89	+11	·898	—·016	6·2	+1·9	15	12·8	+2·2	7·52	10·70	—3·18	7·52	10·70	— 3·18	1·13	Colombo.
4	1		1		1	11	13	N 56° W	N 69° W	4·4	7·4	—3·0	74	— 4					4·7	—0·6	10	8·9	+1·1	9·61	5·68	+3·93	9·61	5·68	+ 3·93	3·45	Minicoy.
																						4·3			3·14			3·14			Amini Divi.
1	1	2	2				1	N 72° E		1·8			10		90		·284		1·8		2			0·50			0·50			0·30	Gyantse.
2	3		2					N 45° E		8·8			13						3·6		0			0·26			0·26			0·03	Pharijong.
							4	N 45° W		1·5			13		84		·478		2·5		17	20·2	—3·2	15·68	19·45	—3·77	15·68	19·45	— 3·77	2·25	Gangtok.
		1	12	6	1			S 28° E		6·0			55						2·6		0			0			0			0	Gartok.
									N 50° W		3·3											1·2			0·70			0·70			Kashgar.
	3	12	1	10	4	1		S 45° E	N 34° W				42	+37	78		·591		1·6	+0·9	0	2·4	—2·4	0·03	0·95	—0·92	0·03	0·95	— 0·92	0·3	Kabul.
2				1			1	N 27° W		1·4			6		51		·352		2·1	—0·4	1	3·3	—2·3	0·42	1·39	—0·97	0·42	1·39	—0·97	0·42	Meshed.
2	1	9	3			9	7	N 21° W	N 60° E	6·9	8·0	—1·1	20	+14	73	+ 5	·779	—·044	1·3	+0·6	0	0	0	0	0	0	0	0	0	0	Jask.
3		4				4	12	N 36° W	N 36° W	4·6	3·1	+1·5	46	+ 4	54	— 8	·784	—·034	1·0	+0·6	0	0	0	0	0	0	0	0	0	0	Muscat.
7	3	3	1		1	4	12	N 24° W		5·2			58		56		·686		3·3		0	0·2	—0·2	0·01	0·10	—0·09	0·01	0·10	— 0·09	0·01	Bahrein.
1	2	2	1	1	2	5	11	N 55° W	N 25° W	8·4	6·9	+1·5	40	—15	77	+17	·891	+·238	2·2	+0·8	0	0	0	0·02	0·04	0	0·02	0·02	0	0·02	Bushire.
5	3		3	4	6	6	4	S 87° W		2·8			28		54		·582		2·7		1	1·2	—0·2	0·34	0·46	—0·12	0·34	0·46	— 0·12	0·25	Busrah.
1	1	2	2		2			S 72° E		4·8			10		37		·360		0·7		0			0			0			0	Kerman.
1					1	5	5	N 66° W	N 58° W	2·5	3·4	—0·9	32	—16	57	— 4	·394	—·052	2·5	+0·8	1	0·9	+0·1	0·11	0·25	—0·14	0·11	0·25	— 0·14	0·10	Ispahan.
									S 46° W		2·6											1·9			0·45			0·45			Tehran.
5	6	4	2	3		1	7	N 22° E	N 1° E	7·2	2·9	+4·3	36	— 9	42	—14	·412	—·095	3·9	+3·1	0	0·7	—0·7	0·06	0·23	—0·17	0·06	0·23	— 0·17	0·06	Baghdad.
3	1	2		13	5	6	1	S 30° W					45		66		·594		3·3		0			0·04			0·04			0·03	Beirut.
3	10		1					N 40° E	S 87° E	4·7	8·2	—3·5	40	+ 1	77	+ 2	·950	+·032	4·1	+1·1	0	0·3	—0·3	0·09	0·13	—0·04	0·09	0·13	— 0·04	0·09	Aden.
			1	16	10	1		S 16° W	S 7° W	4·5	5·9	—1·4	81	— 6	89	+ 3	·842	+·035	7·6	+1·2	14	12·3	+1·7	11·18	11·42	—0·24	11·18	11·42	— 0·24	1·62	Zanzibar.

* Uncorrected for scale error. † Mean of 30 days.

Table C.—Abstract of observations taken at 8 hrs. at 63 fourth and fifth class stations in India, etc., in May, 1913.

Table

Abstract of observations taken at 8 hrs. at 63 fourth

Number of sub-division	Station.	Temperature of air.													Wind direction.										
		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.	Number of winds from: Calm.	N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.	Resultant direction.	Normal direction.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
	II.—Assam.																								
4	Balek	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Bishnath	72·8	85·6	...	72·8	...	79·2	...	12·8	92·9	9th	67·3	3rd	25·6	...	...	...	...	...	...	...	...	...	...	...
	Borjuli	75·1	85·9	...	68·9	...	77·4	...	17·0	91·6	9th	63·1	5th	28·5	...	...	...	...	...	...	...	...	...	...	...
	Chandkhira	78·1	89·2	...	69·9	...	79·5	...	19·3	96·9	12th	65·5	7th	31·4	...	...	...	...	...	...	...	...	...	...	...
	Doom Dooma	71·6	84·9	...	68·1	...	76·5	...	16·8	93·3	9th	63·0	5th	30·3	...	...	...	...	...	...	...	...	...	...	...
	Dikom	73·7	83·5	...	68·8	...	76·1	...	14·7	92·8	9th & 13th.	62·4	7th	30·4	...	...	...	...	...	...	...	...	...	...	...
	Golaghat	75·5	84·3	...	70·0	...	77·1	...	14·3	90·9	15th	63·4	7th	27·5	...	...	...	...	...	...	...	...	...	...	...
	Hailakandi	76·9	88·3	...	71·1	...	79·7	...	17·2	92·4	1st & 2nd.	65·8	10th	26·6	...	...	...	...	...	...	...	...	...	...	...
	Jorehat	74·9	84·5	...	70·5	...	77·5	...	14·0	90·9	15th	65·0	3rd	25·9	...	...	...	...	...	...	...	...	...	...	...
	Lumding	75·9	88·9	...	69·5*	...	79·4*	...	19·4	96·9	2nd	62·8	7th	34·1	...	...	...	...	...	...	...	...	...	...	...
	Messa	79·7	90·1	...	69·2	...	79·7	...	20·9	94·4	5th	60·5	7th	33·9	...	...	...	...	...	...	...	...	...	...	...
	Panerihat	69·8	79·7	...	68·7	...	74·2	...	11·0	85·2	3rd	63·5	5th	21·7	...	...	...	...	...	...	...	...	...	...	...
	Srimangal	78·6	90·0	...	71·1	...	80·5	...	18·9	95·0	4th	64·6	6th	30·4	...	...	...	...	...	...	...	...	...	...	...
	III.—Bengal.																								
5	Comilla	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Brahmanbaria	82·2	91·1	...	72·8	...	81·9	...	18·3	96·4	6th	59·9	6th	36·5	...	...	...	...	...	...	...	...	...	...	...
	Faridpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Goalundo	79·9	93·0	...	72·7	...	82·9	...	20·3	109·2	1st	65·1	6th	44·1	...	...	...	...	...	...	...	...	...	...	...
	Pabna	80·3	93·4	...	73·8	...	83·7	...	19·7	109·6	1st	66·2	6th	43·4	...	...	...	...	...	...	...	...	...	...	...
	Sirajganj	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Rampur Boalia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Malda	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Rangpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Dam Dim	78·3	91·7	...	68·0	...	79·9	...	23·7	97·9	4th	62·0	11th	35·9	...	...	...	...	...	...	...	...	...	...	...
	Nalchini	78·6	87·4	...	66·3	...	76·9	...	21·1	93·1	3rd	59·9	5th	33·2	...	...	...	...	...	...	...	...	...	...	...
	Nagrakata	77·8	87·5	...	68·5	...	78·0	...	19·0	95·1	3rd	63·0	13th	32·1	...	...	...	...	...	...	...	...	...	...	...
	Cooch Behar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Krishnagar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Bankura	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Raniganj	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

* Mean of 30 days.

C.

and fifth class stations in India, etc., in May, 1913.

Wind velocity.			Wind steadiness.		Hygrometry, 8 hrs.				Cloud.		Rainfall.										Station.
Mean velocity, miles per hour.	Normal.	Departure from normal.	Actual percentage.	Departure from normal.	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.	Mean cloud amount at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st to 31st May 1913.	Normal rainfall of period, 1st to 31st May.	Departure from normal of period, 1st to 31st May 1913.	Heaviest rainfall during month.	
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
																					II.—Assam.
...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Balek.
...	...	...	...	...	98	...	·788	...	...	...	18	14·0	+4·0	10·95	8·15	+2·80	10·95	8·15	+2·80	1·97	Bishnath.
...	...	...	...	...	85	...	·734	...	...	...	20	13·4	+6·6	15·63	8·39	+7·24	15·63	8·39	+7·24	2·57	Borjuli.
...	...	...	...	...	82	...	·788	...	...	...	18	15·4	+2·6	18·29	12·82	+5·47	18·29	12·82	+5·47	3·15	Chandkhira.
...	...	...	...	...	90	...	·692	...	...	...	14	12·7	+1·3	13·05	7·94	+5·11	13·05	7·94	+5·11	1·91	Doom Dooma.
...	...	...	...	...	87	...	·724	...	...	...	17	13·2	+3·8	20·02	8·81	+11·21	20·02	8·81	+11·21	2·47	Dikom.
...	...	...	...	...	83	...	·769	...	...	...	12	12·7	−0·7	5·37	8·25	−2·88	5·37	8·25	−2·88	0·75	Golaghat.
...	...	...	...	.	85	...	·779	...	...	...	19	14·5	+4·5	21·89	12·25	+9·64	21·89	12·25	+9·64	3·62	Hailakandi.
...	...	...	...	...	88	...	·757	...	...	...	15	13·2	+1·8	7·34	8·94	−1·60	7·34	8·94	−1·60	1·19	Jorehat.
...	...	...	...	...	82 (a)	...	·725 (a)	...	...	...	13	...	...	5·10	...	...	5·10	...	...	0·88	Lumding.
...	...	...	...	...	70	...	·745	...	...	...	14	13·8	+0·2	7·68	7·76	−0·08	7·68	7·76	−0·08	1·77	Messa.
...	...	...	...	...	97	...	·707	...	...	...	16	15·0	+1·0	13·45	10·78	+2·67	13·45	10·78	+2·67	2·41	Panerihat.
...	...	...	...	...	84	...	·816	...	...	...	19	13·2	+5·8	18·29	12·99	+5·30	18·29	12·99	+5·30	2·80	Srimangal.
																					III.—Bengal.
...	...	...	...	...	...	...	...	...	...	...	15	11·9	+3·1	21·66	11·30	+10·36	21·66	11·30	+10·36	5·64	Comilla.
...	...	...	...	...	78	...	·857	...	...	...	14	11·3	+2·7	15·73	10·63	+5·10	15·73	10·63	+5·10	5·02	Brahmanbaria.
...	...	...	...	...	...	...	...	...	..	...	16	10·7	+5·3	15·25	8·54	+6·71	15·25	8·54	+6·71	1·95	Faridpur.
...	...	.	...	...	82	...	·837	...	...	...	16	9·7	+6·3	10·94	7·52	+3·42	10·94	7·52	+3·42	2·41	Goalundo.
...	...	...	...	...	81	...	·839	...	...	...	17	8·0	+9·0	7·87	6·49	+1·38	7·87	6·49	+1·38	1·39	Pabna.
...	...	...	...	...	...	...	...	...	...	...	15	10·5	+4·5	10·66	8·11	+2·55	10·66	8·11	+2·55	2·03	Sirajganj.
...	...	...	...	...	...	...	...	...	...	...	12	7·6	+4·4	9·23	5·69	+3·54	9·23	5·69	+3·54	1·07	Rampur Boalia.
...	...	...	...	...	..	...	...	...	...	...	10	5·7	+4·3	7·17	4·48	+2·69	7·17	4·48	+2·69	1·40	Malda.
...	...	...	...	...	...	...	...	...	...	...	11	12·8	−1·8	9·42	11·28	−1·85	9·42	11·28	−1·86	3·36	Rangpur.
...	...	...	...	...	80	...	·761	...	...	...	15	13·5	+1·5	12·76	12·26	+0·50	12·76	12·26	+0·50	1·68	Dam Dim.
..	...	...	...	...	77	...	·707	...	...	...	15	12·7	+2·3	32·63	11·17	+21·46	32·63	11·17	+21·46	12·73	Kalchini.
...	...	...	...	...	74	...	·700	...	...	...	19	14·5	+4·5	22·62	12·65	+9·97	22·62	12·65	+9·97	4·25	Nagrakata.
...	...	...	...	...	...	...	...	...	...	...	17	14·3	+2·7	14·02	16·44	−2·42	14·02	16·44	−2·42	2·08	Cooch Behar.
...	...	...	...	...	...	...	...	...	...	...	11	7·8	+3·2	11·00	6·60	+4·40	11·00	6·60	+4·40	1·77	Krishnagar.
...	...	...	...	...	...	...	...	...	...	...	8	5·9	+2·1	3·68	4·24	−0·56	3·68	4·24	−0·56	1·43	Bankura.
...	...	...	...	...	...	...	...	...	...	...	7	5·4	+1·6	8·14	3·95	+4·19	8·14	3·95	+4·19	2·58	Raniganj.

(a) Mean of 16 days.

Table

Abstract of observations taken at 8 hrs. at 63 fourth

Number of sub-division.	Station.	Temperature of air.													Wind direction.										
		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.	Number of winds from: Calm.	N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.	Resultant direction.	Normal direction.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
	IV.—Bihar and Orissa.																								
7	Hazaribagh	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
8	Bhagalpur	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...
	Muzaffarpur	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...
	Motihari	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Chapra	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...
	Arrah	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...
	Dehri	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...
	V.—United Provinces of Agra and Oudh.																								
10	Meerut	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Dehra Dun	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...
	IX.—Rajputana.																								
18	Udaipur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	..	...	...	...
	XII.—Central Provinces.																								
23	Chhindwara	86·4	101·2	...	75·9	...	88·5	...	25·3	106·5	29th	64·6	16th	41·9	7	5	...	...	...	1	1	5	12	N 49° W	...
	XV.—Madras.																								
31	Tinnevelly	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...
32	Anantapur	83·9	102·5	...	77·6	...	90·1	...	24·9	108·6	2nd	68·6	30th	40·0	...	...	...	...	...	...	...	...	...	...	...
33	Guntur	87·8	105·8	...	80·9	...	93·4	...	24·9	114·2	11th	70·0	28th	44·2	...	...	...	...	...	...	...	...	...	...	...
	Bay Islands.																								
1	Car Nicobar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...
	Kashmir.																								
13	Jammu	86·7	97·3	...	76·1	...	86·7	...	21·2	107·1	28th & 29th.	66·3	31st	40·8	...	8	7	1	...	15	...	..	...	N 72° E	...
	Sonamarg	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...
	Kargil	53·2	70·9	...	45·0	...	58·0	...	25·9	79·3	29th	35·0	3rd	44·3	...	26	2	1	2	...	...	...	...	N 9° E	...
	Astor	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

C—*continued.*

and fifth class stations in India, etc., in May, 1913—continued.

Wind velocity.			Wind steadiness.		Hygrometry, 8 hrs.				Cloud.		Rainfall.									Heaviest rainfall during month.	Station.
Mean velocity, miles per hour.	Normal.	Departure from normal.	Actual percentage.	Departure from normal.	Mean humidity, 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Mean cloud amount at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st to 31st May, 1913.	Normal rainfall of period, 1st to 31st May.	Departure from normal of period, 1st to 31st May, 1913.		
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
																					V—Bihar and Orissa.
...	...	...	...	...	...	...	...	...	...	...	4	4·0	0	1·84	2·19	−0·35	1·84	2·19	−0·35	0·90	Hazaribagh.
...	...	...	...	...	...	...	...	...	...	...	5	4·0	+1·0	3·68	3·26	+0·42	3·68	3·26	+0·42	1·01	Bhagalpur.
...	...	...	...	...	...	...	...	...	...	...	8	3·6	+4·4	4·40	2·54	+1·86	4·40	2·54	+1·86	1·84	Muzaffarpur.
...	...	...	...	...	...	...	...	...	...	...	5	4·1	+0·9	3·85	2·81	+1·04	3·85	2·81	+1·04	1·57	Motihari.
...	...	...	...	...	...	...	...	...	...	...	6	1·8	+4·2	4·94	1·38	+3·56	4·94	1·38	+3·56	1·65	Chapra.
...	...	...	...	...	...	...	...	...	...	...	4	2·0	+2·0	2·41	1·37	+1·04	2·41	1·37	+1·04	0·91	Arrah.
...	...	...	...	...	...	...	...	...	...	...	2	1·4	+0·6	0·71	0·72	−0·01	0·71	0·72	−0·01	0·32	Dehri.
																					V.—United Provinces of Agra and Oudh.
...	...	...	...	...	...	...	...	...	...	...	4	1·5	+2·5	1·45	0·58	+0·87	1·45	0·58	+0·87	0·75	Meerut.
...	...	...	...	...	...	...	...	...	...	...	6	3·3	+2·7	2·30	1·48	+0·82	2·30	1·48	+0·82	0·86	Dehra Dun.
																					IX.—Rajputana.
...	...	...	...	...	...	...	...	...	...	...	3	1·6	+1·4	1·70	0·79	+0·91	1·70	0·79	+0·91	1·45	Udaipur.
																					XII.—Central Provinces.
3·2	...	...	58	...	54	...	·669	...	1·7	...	3	...	...	1·20	...	...	1·20	...	...	0·52	Chhindwara.
																					XV.—Madras.
...	...	...	...	...	...	...	...	...	...	...	3	2·7	+0·3	1·67	1·51	+0·16	1·67	1·51	+0·16	1·41	Tinnevelly.
...	...	...	...	...	69	...	·798	...	5·0	...	6	...	...	2·52	...	...	2·52	...	...	1·02	Anantapur.
...	...	...	...	...	71	...	·935	...	0·8	...	2	...	...	2·62	...	...	2·62	...	...	2·15	Guntur.
																					Bay Islands.
...	...	...	...	...	...	...	...	...	...	...	10	16·5	−6·5	8·33	13·72	−5·39	8·33	13·72	−5·39	1·57	Car Nicobar.
																					Kashmir.
...	...	...	23	...	39	...	·477	...	2·0	...	4	...	...	1·47	...	...	1·47	...	...	0·75	Jammu.
...	...	...	...	...	...	...	...	...	...	...	5	9·8	−4·8	2·04	5·82	−3·78	2·04	5·82	−3·78	0·71	Sonamarg.
...	...	...	84	...	91	...	·367	...	1·9	...	0	...	...	0·06	...	...	0·06	...	...	0·06	Kargil.
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Astor.

* Snow water.

Table

Abstract of observations taken at 8 hrs. at 63 fourth and

Number of sub-division.	Station.	Temperature of air.													Wind direction.										
		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.	Number of winds from: Calm.	N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.	Resultant direction.	Normal direction.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
	Hill stations, exclusive of Kashmir.																								
	Panighatta	76·1	87·4	...	68·7	...	78·1	...	18·7	95·7	8th	62·6	16th	33·1	...	...	...	...	...	...	...	...	...	...	...
	Kurseong	66·1	72·1	...	60·1	...	66·1	...	12·0	78·3	4th	54·6	6th	23·7	...	...	...	...	...	...	...	...	...	...	...
	Gnatong	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Lachung	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Ringim	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Poo	...	69·5	...	48·4	...	59·0	...	21·1	76·1	28th	41·2	2nd	34·9	11	...	1	5	2	1	...	9	2	S 84° W	...
	Kailang	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Bakloh	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Pishin	...	89·7	...	55·6	...	72·6	...	34·1	96·9	29th	46·1	1st	50·8	...	...	...	...	...	...	...	...	...	...	...
	Extra India.																								
	Ahwaz	...	99·0	...	79·1	...	89·1	...	19·9	108·6	29th	70·8	7th	37·8	25	3	...	3	...	...	...	...	...	N 45° E	...
	Chumbi	47·1	60·5	...	39·5	...	50·0	...	21·0	67·9	2nd	31·7	5th & 7th	36·2	...	...	...	...	...	...	...	...	...	...	...
	Kirmanshah	63·6	76·0	...	49·8†	...	62·9†	...	26·2	88·0	15th	43·0	5th	45·0	...	...	...	...	...	...	...	...	...	...	...
	Koweit	...	96·4	...	76·9	...	86·7	...	19·5	107·4	29th	60·4	7th	47·0	3	5	1	4	...	3	1	9	5	N 61° W	...
	Maidan	...	100·2	...	75·1	...	87·7	...	25·1	113·7	30th	62·7	9th	51·0	...	...	...	...	...	...	...	...	...	...	...
	Muhammerah	...	94·4	...	75·1	...	84·7	...	19·3	100·6	28th	70·5	6th	30·0	...	...	...	...	2	...	4	...	17	N 58° W[a]	...
	Pemba	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Prison Island	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Seistan	...	92·9†	...	64·6	...	78·9†	...	28·3	107·0	27th	50·2	30th	56·8	...	16	1	...	...	...	1	...	12	N 20° W†	...

a=Mean of 23 days. † Mean of 30 days.

C—*concluded.*

fifth class stations in India, etc., in May, 1913—concluded.

Wind velocity.			Wind steadiness.		Hygrometry, 8 hrs.				Cloud.		Rainfall.										Station.
Mean velocity, miles per hour.	Normal.	Departure from normal.	Actual percentage.	Departure from normal.	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.	Mean cloud amount at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st to 31st May, 1913.	Normal rainfall of period, 1st to 31st May.	Departure from normal of period, 1st to 31st May, 1913.	Heaviest rainfall during month.	
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
																					Hill stations, exclusive of Kashmir.
...	...	...	...	...	73	...	·649	...	...	...	15	12·0	+3·0	19·79	8·58	+11·21	19·79	8·58	+11·21	5·60	Panighatta.
...	...	...	...	...	78	...	·494	...	...	...	18	12·8	+5·2	13·12	9·13	+3·99	13·12	9·13	+3·99	2·03	Kurseong.
...	...	...	...	...	...	...	...	...	...	...	28	...	...	32·85	...	...	32·85	...	...	3·02	Gnatong.
...	...	...	...	...	...	...	...	...	...	...	15	...	...	7·32	...	...	7·32	...	...	2·80	Lachung.
...	...	...	...	...	...	...	...	...	...	...	19	...	...	17·10	...	...	17·10	...	...	2·95	Ringim.
...	...	...	10	...	...	...	...	...	4·2	...	1	2·3	−1·3	0·16	1·05	−0·89	0·16	1·05	−0·89	0·13	Poo.
...	...	...	...	...	...	...	...	...	...	...	5	6·0	−1·0	1·32	2·60	−1·28	1·32	2·60	−1·28	0·30	Kailang.
...	...	...	...	...	...	...	...	...	...	...	6	...	...	3·03	...	...	3·03	...	...	0·96	Bakloh.
...	...	...	...	...	...	...	...	...	0·6	...	0	0·6	−0·6	0	0·18	−0·18	0	0·18	−0·18	0	Pishin.
																					Extra India.
...	...	...	13	...	...	...	...	...	3·2	...	0	...	...	0·04	...	...	0·04	...	...	0·03	Ahwaz.
...	...	...	...	...	81	...	·264	...	0	...	14	...	...	5·74	...	...	5·74	...	...	0·81	Chumbi.
...	...	...	...	...	58	...	·332	...	...	...	4	...	...	1·13	...	...	1·13	...	...	0·40	Kirmanshah.
...	...	...	32	...	...	...	...	...	2·2	...	1	...	...	0·11	...	...	0·11	...	...	0·11	Koweit.
...	...	...	...	...	...	...	...	...	...	...	0	...	...	0	...	...	0	...	...	0	Maidan.
...	...	...	48	...	...	...	...	...	...	...	1	...	...	0·20	...	...	0·20	...	...	0·20	Muhammerah.
...	...	...	...	...	...	...	...	...	...	...	24	19·2	+4·8	22·16	18·29	+3·87	22·16	18·29	+3·87	3·65	Pemba.
...	...	...	...	...	...	...	...	...	...	...	...	12·0	...	...	12·11	...	...	12·11	...	...	Prison Island.
8·2	...	...	87	...	...	...	...	...	...	...	0	...	...	0	...	...	0	...	...	0	Seistan.

The lines of the above chart represent isobars or lines of equal barometric pressure, the numbers attached indicating the barometric pressure in inches and being drawn for differences of pressure of ·05 inch. The isobars in the Bay of Bengal are filled in by means of the shore observations, and by comparison with the normal distribution of pressure.

The mean 8 hrs. wind directions of the month are shewn by means of arrows flying with the wind, and are calculated by means of Lambert's formula applied to the winds as given in Table B of the 8 hrs. observations. The mean wind directions for the hill stations are indicated by broken arrows to distinguish them from the wind arrows for the plain stations. The mean velocity of the winds during the month is shewn by the following notation:—

Velocity of	0 to 2	miles per hour	...	one	feather	added to the wind arrow.				
,, ,,	2 to 5	,, ,, ,,	...	two	feathers	,,	,,	,,	,,	
,, ,,	5 to 10	,, ,, ,,	...	three	,,	,,	,,	,,	,,	
,, ,,	10 to 20	,, ,, ,,	...	four	,,	,,	,,	,,	,,	
	over 20	,, ,, ,,	...	five	,,	,,	,,	,,	,,	

Wind strengths are based on factor 2·2 for the standard type of Beckley Robinson anemograph, instead of 3·0 as used for this plate up to December 1911 inclusive.

The chart shows the departure from normal of the mean during the month of 8 hrs. pressure by means of lines drawn for equal amounts of departure. The numbers are given in thousandths of an inch, 20 representing ·020″ or two hundredths of an inch, &c. Continuous lines indicate that the pressure was in excess by amounts indicated by the numbers attached to the lines, and broken or dotted lines that it was in defect by amounts indicated by the numbers attached to the lines. Two parallel lines near to each other, one continuous and the other broken or dotted, represent the line of no departure, the dotted line facing the area of deficient pressure or negative departures.

CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MAXIMUM TEMPERATURE.

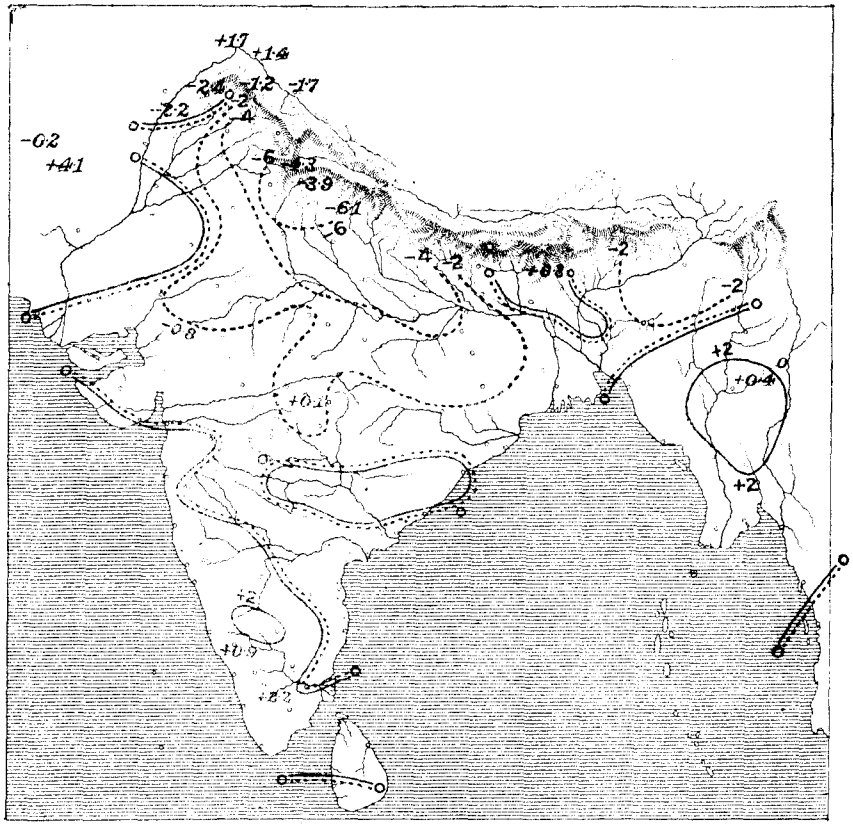


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MINIMUM TEMPERATURE.

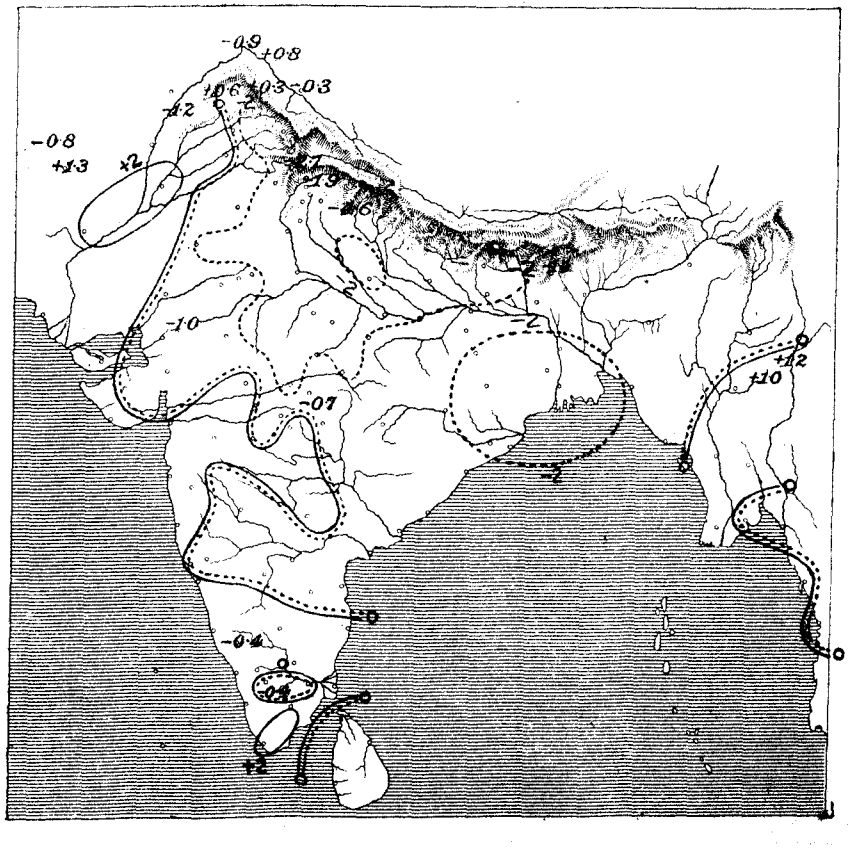


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MEAN TEMPERATURE.

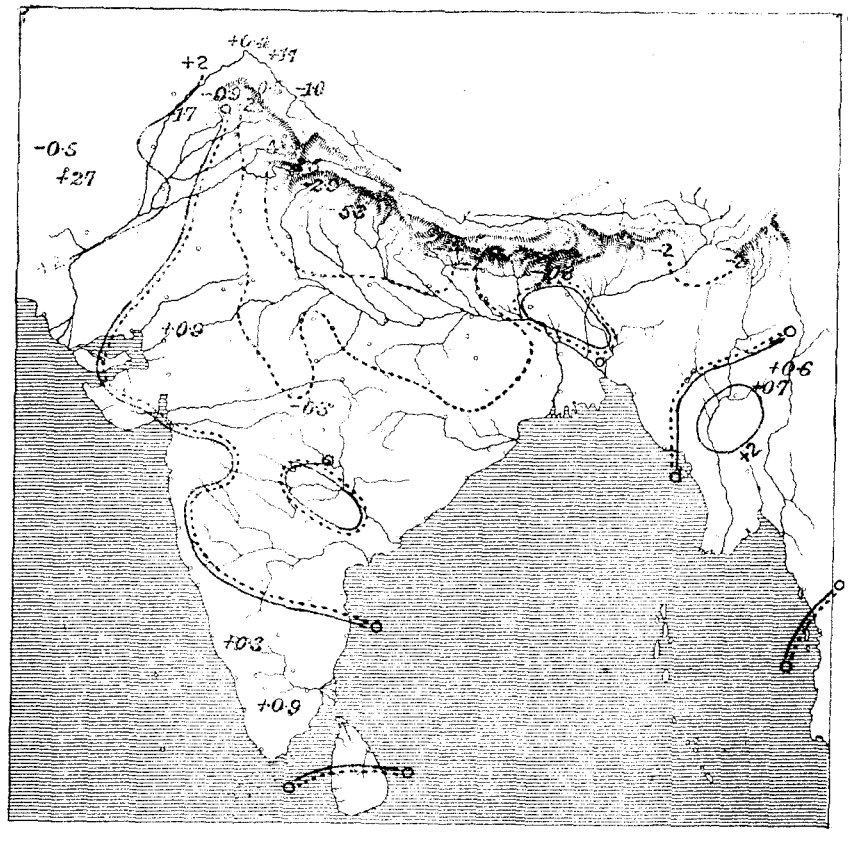
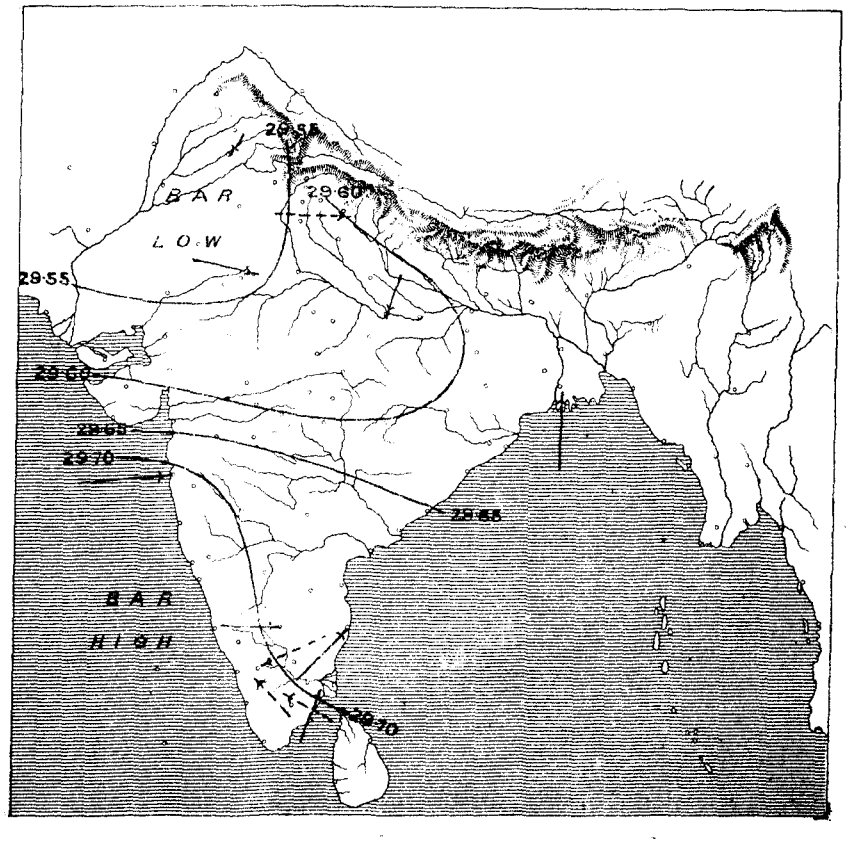


CHART SHEWING THE MONTHLY MEAN OF PRESSURE AND RESULTANT WIND DIRECTION.



LITHO. BY S.B.M.

CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF ABSOLUTE HUMIDITY AT 8 HRS.

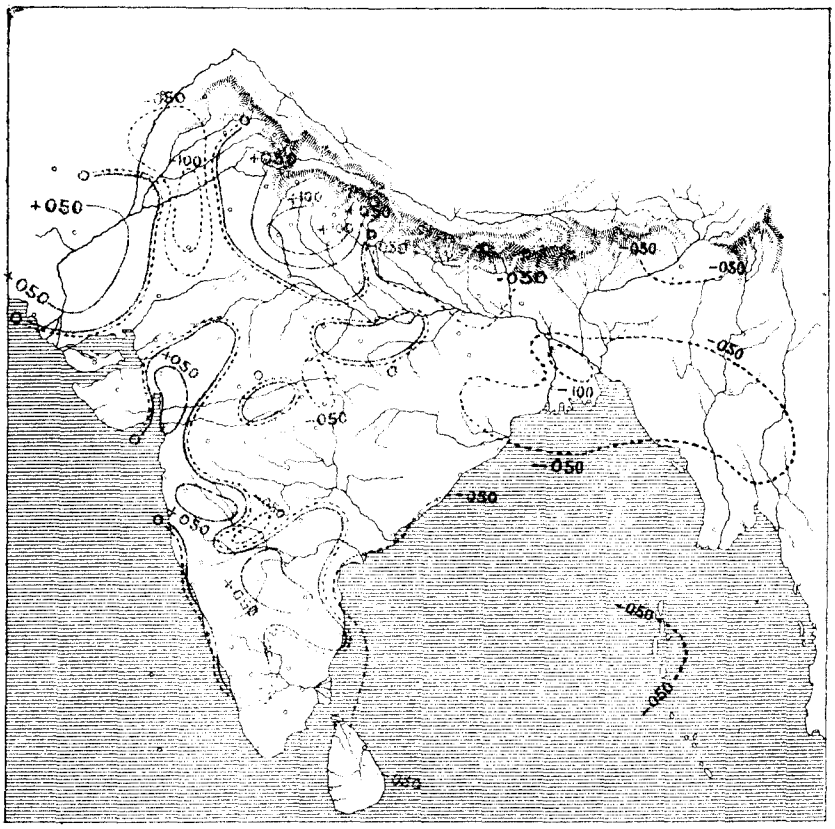


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF RELATIVE HUMIDITY AT 8 HRS.

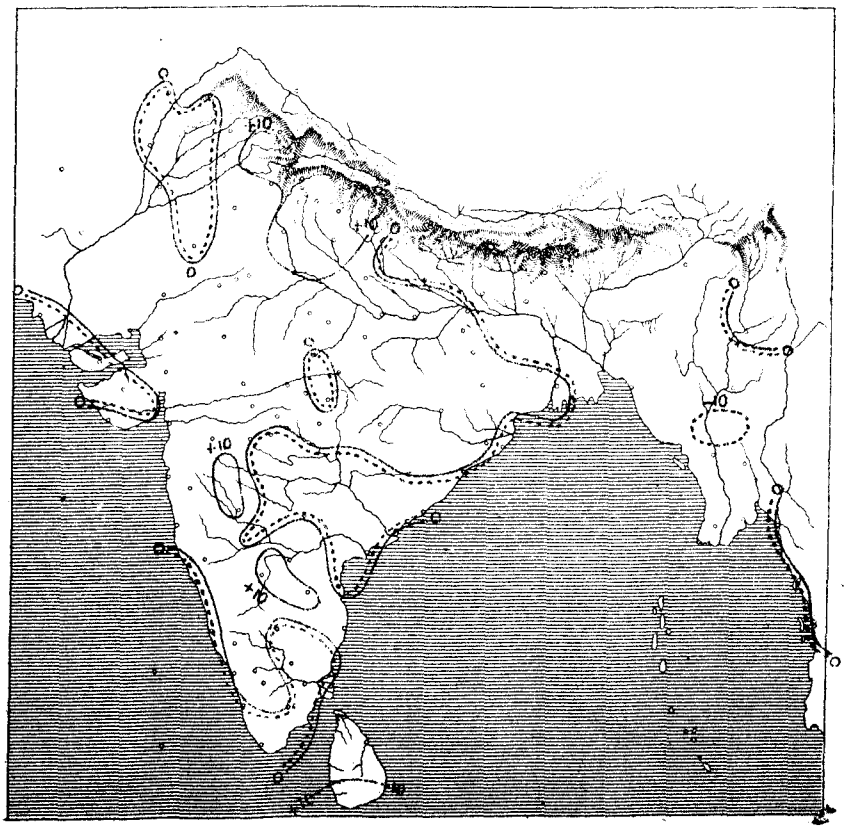


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF CLOUD AMOUNT AT 8 HRS.

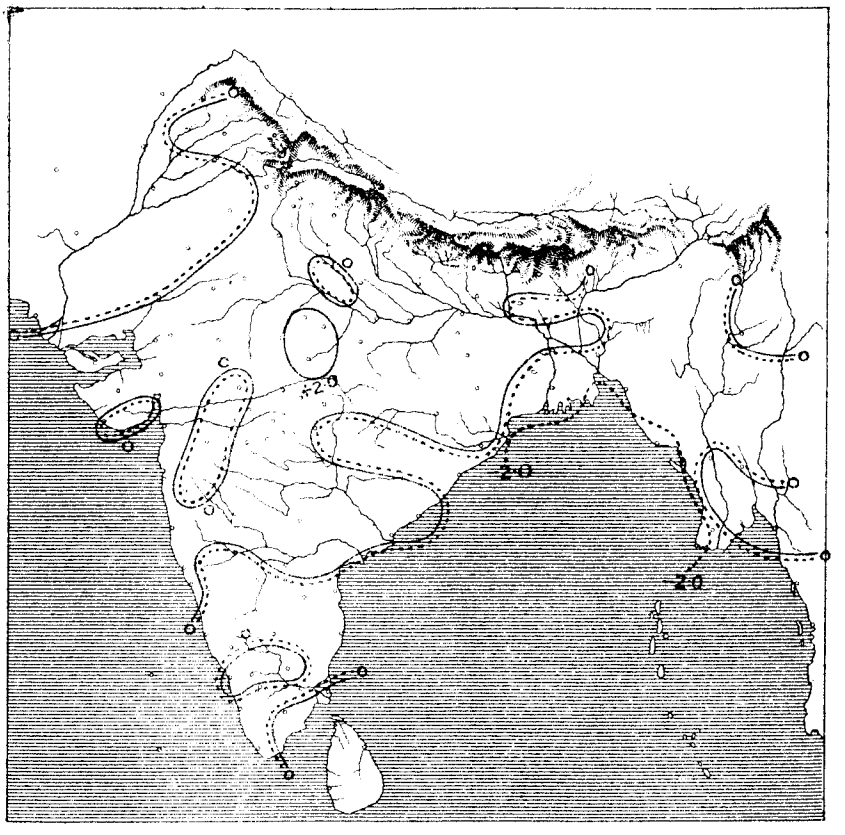
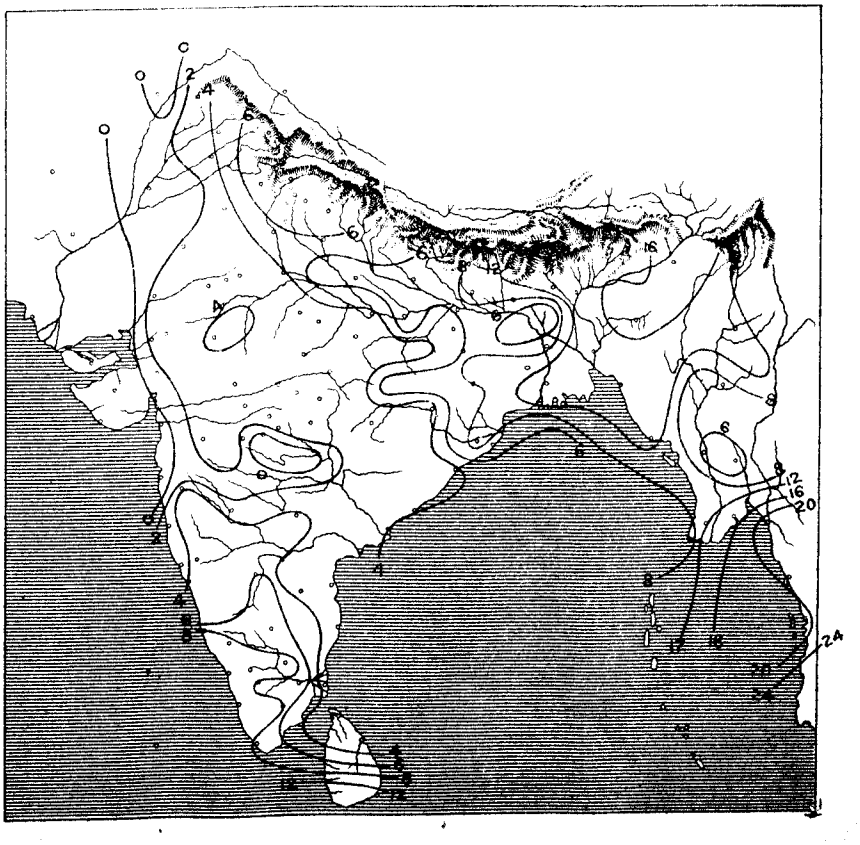
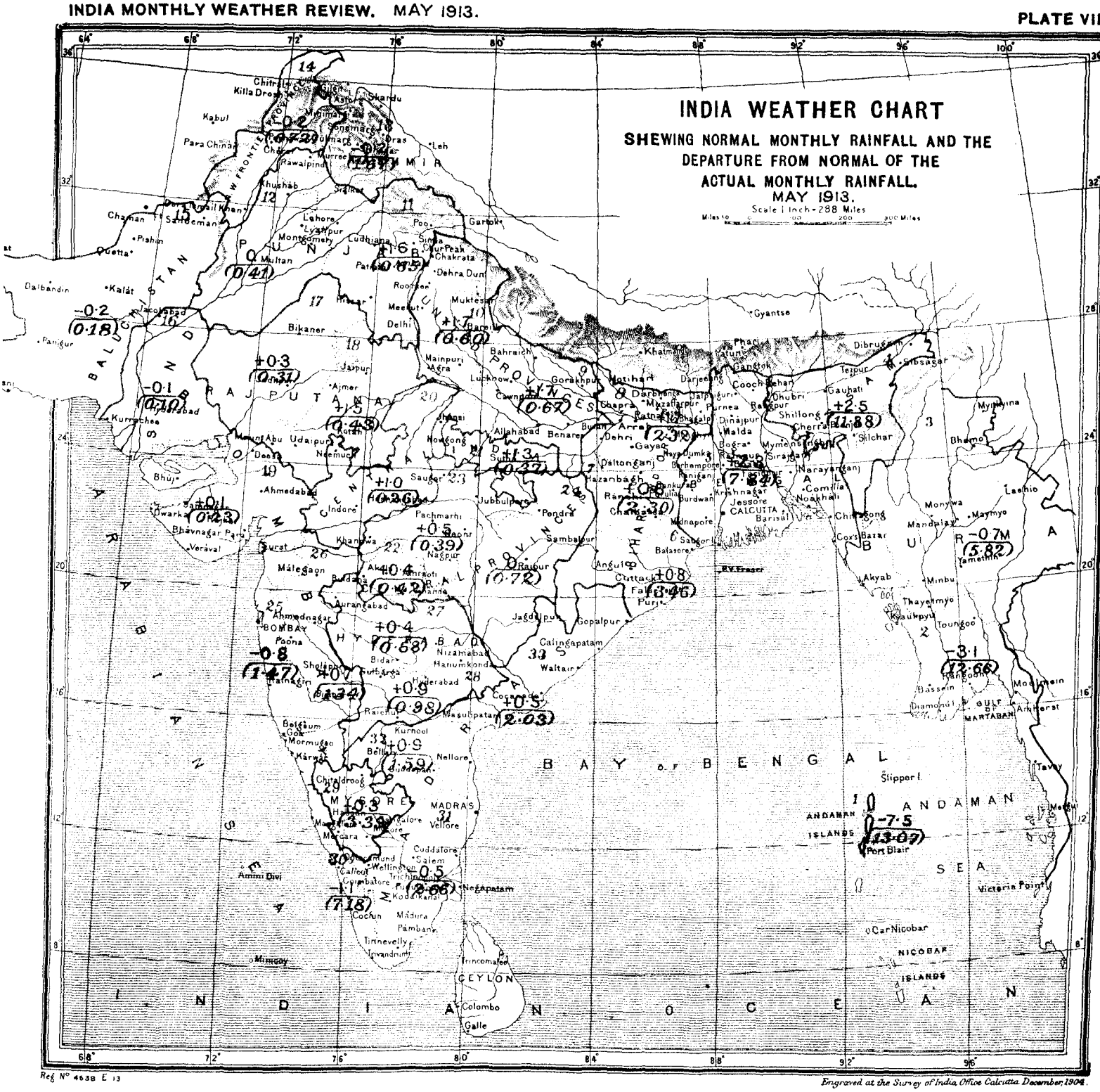


CHART SHEWING THE TOTAL NUMBER OF DAYS IN THE MONTH ON WHICH RAINFALL EQUALLED OR EXCEEDED 0·10 INCH.

(BASED ON THE RETURNS OF TABLE B.)





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
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

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GOVERNMENT OF INDIA.

METEOROLOGICAL DEPARTMENT.

MONTHLY WEATHER REVIEW

PUBLISHED BY ORDER OF

THE GOVERNMENT OF INDIA.

CALCUTTA, JUNE, 1913.

INTRODUCTION.

THIS review of the weather in India during the month of June, 1913, is based on observations taken daily at 8 hrs. at 217 stations, and on additional observations taken at 10 hrs. and 16 hrs. at 15 stations. In the rainfall summary have been utilized the data furnished by the meteorological observatories, and such rainfall statements of the month as had been published by the Provincial Governments up to the date of the preparation of the review. The brief notes on solar, seismic and magnetic disturbances are supplied by the chief observatories in the Indian area.

For a statement of the methods adopted in recording and tabulating the data, for each of the elements of observation, reference should be made to the introductory portion of the review for January.

Summary of the chief features of the weather in India during the month.

2. The monsoon rains set in on both sides of India at about the usual time, but the currents extended more rapidly than usual into the interior, so that in the Punjab and the adjacent districts the first burst of monsoon rainfall occurred between the 9th and 12th, about a fortnight in advance of the average date.

Except in Lower Burma, Assam, Sind, Central India West, Hyderabad, Mysore and Madras the total rainfall of the month was above the normal in all parts of India. The excess amounted to about 10″ in the Konkan, Gujarat and Bengal, 7″ in Bihar, 5″ in Chota Nagpur and 3½″ in the Bombay Deccan. The deficit was most marked in Hyderabad South (2″ or 49 per cent), Lower Burma (2½″ or 10 per cent) and Malabar (4½″ or 14 per cent).

Over the greater part of the country the departures of the other climatic elements were not strongly marked The cloud proportion was decidedly low in Assam, the central districts of the United Provinces, the extreme south-east of the Punjab, north Rajputana, the Bombay Deccan, and Malabar, and high in Bengal, Chota Nagpur, the western Himalayas, the west of Central India and Kathiawar, while humidity was approximately normal except in the east of Central India and the western Himalayas where the percentage of saturation was 14 in excess. Temperature was about 4° lower than usual in Bihar and Orissa and the United Provinces and 3° in the Punjab and Central India due chiefly to the lowness of day temperature.

On the mean of all the plain stations barometric pressure was ·010″ higher than usual.

Solar, seismic and magnetic disturbances.

KODAIKANAL OBSERVATORY.

3. *Solar Observations.*—No observations of the sun could be made on two days during the month and on four other days prominences could not be observed.

Sunspots.—The sun was completely free from spots throughout the month.

Prominences.—Twenty-three large and five eruptive prominences were observed during the month. There were only two that attained to heights of two minutes and over. The highest was 200″ and was recorded on the 9th at latitude + 27° east.

Magnetic disturbances.—There was a moderate disturbance recorded on the 1st and 2nd. This is the sixth in a series of disturbances that have occurred at intervals of a synodic rotation of the sun since December 23rd, 1912, the average interval being 26·8 days.

TABLE 1.

Seismic Records.

$\phi = 10° 13' 50''$ $\lambda = 77° 28' 00''$ $h = 2343m$. Subsoil-Rock.

Apparatus :—*Milne's Horizontal Pendulum.*

	V	To	ϵ	$\frac{r}{To^2}$
AN :				
AE :	9·76	16·4	1	
AZ :				

Date.	Phase.	Time G. M. T.			Period (sec.)	Amplitude (u). AN.	AE.	AZ.	Distance. Δ (Km.)	REMARKS.
1913.		h.	m.	s.						
June. 4	e P	10	7	7						
	e L	10	25	9						
	M	10	44	9			5			
	Ci	10	57	2			5			
	F	11	25	9						
„ 14	e P	9	50	7						
	i L	10	6	7						
	M	10	15	4			12			
	F	11	24	1						
„ 22	e P	14	14	0						Widening of line.
	F	16	45	4						
„ 26	e P	5	9	7						Instrument examined at 5 hrs. 11 mins.
	i L	5	22	3						
	M	5	27	4			25			
	Ci	6	11	5			32			
	C2	6	13	6			28			
	C 3	6	19	2			26			
	C 4	6	22	8			32			
	F	8	56	7						

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Director,
Kodaikanal and Madras Observatories.

BOMBAY OBSERVATORY.

Alibag magnetic record.

4. During the month of June 1913 the traces showed 10 calm days and 20 days of small disturbance.

The days of the month selected as "quiet" for the purposes of the Magnetic Survey of India are the 7th, 8th, 12th, 18th and 27th.

The following table represents the magnetic character of each day during the month.

TABLE 2.

Day.	Character.	Day.	Character.	Day.	Character.	Day.	Character.
1	S	9	C	17	S	25	S
2	S	10	C	18	C	26	S
3	S	11	C	19	S	27	C
4	S	12	C	20	S	28	S
5	S	13	C	21	S	29	S
6	C	14	S	22	S	30	S
7	C	15	S	23	S		
8	C	16	S	24	S		

C = calm ; S = small ; M = moderate ; G = great ; V. G. = very great.

The mean observed absolute values of the several magnetic elements reduced to the mean monthly tabulations of the magnetograms, as also the ranges and the summed ranges of the horizontal force and declination for the month are as follows :—

Easterly declination	0° 47′ 57″
Horizontal force	0·36886 C. G. S. unit.
*Vertical force	0·16466 C. G. S. unit.
*Inclination	24° 3′·3.
*Inclination (observed)	24° 2′·6.
Horizontal force range	0·00035 C. G. S. unit.
Horizontal force summed range	0·00243 C. G. S. unit.
Declination range	4′·4.
Declination summed range	19′·5.

(NOTE.—Summed range means sum without regard to sign of the 24 ordinates of the diurnal inequality.)

* The inclination and the vertical force results are derived from the daily observations of the inductor throughout the month. The inductor however was out of order from the 1st to the 6th. The means for this month hence, have been obtained from observations from the 7th to the 30th.

TABLE 3.

Seismic records.

$\phi = 18° 53' 45''$ $\lambda = \frac{72° 48' 56''}{4h\ 51m\ 16s}$ $h = 11$ m. Subsoil Basaltic trap.

Apparatus.—Milne's Horizontal Pendulum Seismograph (E—W)

	V	To	ϵ	$\frac{r}{To^2}$
AN :				
AE :	9 times	19 seconds		
AZ :				

Date.	Phase.	Time G. M. T.	Period (Sec.)	Amplitude (u) An.	Ae.	Az.	Distance Δ (Km.)	REMARKS.
1913.		h. m. s.						
June, 1 .		2 40						Thickening.
„ 4 .		8 39						„
	P	Mixed up in tremors.						
	F	11 23 42						
	M	10 55 10			33			
„ 9 .		3 30						Thickening.
„ 11 .		4 6						„
		4 9						„
		12 38						„
„ 12 .		14 20						„
		18 18 to 18 20						„
„ 13 .		3 46 to 3 51						„
„ 14 .		9 11						
	P	9 43 38						
	F	11 18 51						
	M 1	9 49 38			56			
	M 2	10 7 56			100			
„ 15 .		7 16						Thickening.
„ 18 .		5 22						„
		17 44						„
„ 20 .	P	18 42 59						
	F	Mixed up in tremors.						
	M	19 4 9			56			
1913.		h. m. s.						
June, 21 .		10 29 to 10 33						Thickening.
„ 22 .	P	Mixed up in tremors.						
	F	„						
	M	14 44 22			222			
		9 59 to 10 2						Thickening.
„ 24 .		10 5						Thickening.
		14 37						„
		16 36 to 16 38						„
„ 26 .	P	5 17 6						
	F	8 15 40						
	M 1	5 26 47			278			
	M 2	6 9 50			400			
		11 33						Thickening.
		16 2 to 16 6						„
„ 27 .		21 18 to 21 22						Thickening.
„ 28 .		2 56 to 2 59						„
„ 29 .		11 43						„

All times given above denote G. M. T. Sensibility to tilt 1 mm. of amplitude on the trace = 0'34" from 1st to 19th and 0'36" from 20th to 30th June.
Only thickenings which can be clearly distinguished are given.
Thickenings mixed up in tremors are omitted from the above list.

N. A. F. MOOS,
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Bombay & Alibag Observatories.

5. CALCUTTA (ALIPORE) OBSERVATORY.

TABLE 4.

Seismic records.

$\phi = 22° 32' 00''$ $\lambda = 88° 20' 00''$ $h = 6{\cdot}4$ m. Subsoil.

Apparatus.—Milne's Horizontal Pendulum.

	V	To	ϵ	r/To²
AN:				
AE:	8·688	18	1	
AZ:				

Date.	Phase.	Time G. M. T.	Period (Sec.)	Amplitude (u) An.	Ae.	Az.	Distance △ (Km.)	Remarks.
		h. m. s.						
1913. June, 9	P	3 19 42						
	S	3 20 42						
	L	3 22 12						
	M	3 23 42			173			
	F	3 33 54						
„ 11	P	6 27 18						Thickening of line.
	F	6 43 36						
„ 14	P	9 50 12						
	L	10 5 24						
	M	10 12 6			201			
	F	11 12 12						
„ 22	P	14 5 54						
	S	14 11 30						
	L	14 31 18						
	M	14 54 42			86			
	F	16 49 36						
„ 26	I	4 48 6						Begins with air tremor.
	S	5 11 30						
	L	5 21 36						
	M	6 12 36			345			
	F	8 49 12						

6. SIMLA OBSERVATORY.

TABLE 5.

Seismic records for April 1913.

$\phi = 31° 6' 00''$ $\lambda = 77° 11' 00''$ $h = 2433{\cdot}5$ m. Subsoil Rock.

Apparatus.—Two Omori-Ewing Horizontal Pendulums (Masses 50 Kg.)

	V	To	ϵ	r/To²
AN:	14	45		
AE:	14	45		
AZ:				

Date.	Phase.	Time G. M. T.	Period (sec.)	Amplitude (u). An.	Ae.	Az.	Distance △ (Km.)	Remarks.
1913.		h. m. s.						
Apl., 1	E	22 55 17	Very rapid.					
	F	22 55 57						Slight local shock.
„ 3	E	0 18 0						
	F	0 30 0						Slight tremors.
„ 4	E	13 58 0						
	F	14 3 0						„
„ 7	E	14 4 0						
	F	14 30 0						„
„ 8	E	2 51 0						
	F	3 4 0						„
„ 19	P	5 34 4						
	S	5 34 6		7	7			
	F	5 36 7		25	25			
„ 13	E	6 55 7						
	M	7 9 9	15	125	214			
	F	7 30 0						
„ 14	E	8 0 3						„
	M	8 12 1	15	36	43			
	F	8 32 0						Tremors.
	P	20 4 2						
	F	20 9 0	Very rapid.					Slight local shock.

Date.	Phase.	Time G. M. T.			Period (sec.)	Amplitude (u).			Distance Δ (Km.)	Remarks.
						An.	Ae.	Az.		
1913.		h.	m.	s.						
Apl., 17	E	20	42	0						
	F	20	46	0						Very slight tremors.
„ 18	E	13	43	0						
	F	13	58	0						Slight tremors.
„ 18	E	19	11	0						
	F	19	52	0						Tremors.
„ 20	E	3	24	6						
	F	3	46	0						Very slight tremors.
„ 22	P	15	2	1						
	M	15	2	2	Very rapid.	29	29			
	F	15	2	7						Slight local shock.
„ 23	E	10	8	5						
	F	10	11	0						Very slight tremors.
„ 24	E	1	5	2						
	F	1	15	0						Slight tremors.
„ 24	E	10	24	3						
	M	10	50	5	15	36	36			
	F	13	30	5						Tremors.
„ 25	E	4	25	6						
	F	4	37	0						Slight tremors.
„ 25	E	18	5	6						
	M	18	17	4	20		143			
	C_1	18	27	4	30		107			
	C_2	18	33	4	25		89			
	F	20	0	0						
„ 30	E	1	6	2						
	F	1	23	0						Slight tremors.
„ 30	E	11	56	7						
	M	12	21	2	20		36			
	F	13	0	0						Tremors.

Following table contains a list of earthquakes that were reported :—

TABLE 6.

Place at which felt.	Date.	G. M. T. of earthquake.		Duration.	Intensity Rassi-Farel scale.	No. of shocks.
	April.	h.	m.	sec.		
Meshed	5th	9	4	3	7	3
Drosh	6th	0	50	3	6	1
„	9th	5	29	10	6	3
„	14th	20	4	30	7	2
Srinagar	17th	6	48	1	6	1
Drosh	17th	20	38	39	7	1
„	18th	6	24	6	7	1
Bandar Abbas. . . .	22nd	14	30	...	...	1
„ „	22nd	21	0	...	...	1
Skardu	30th	22	45	7	7	2

Solar radiation for April, 1913.—The following figures give the intensity of solar radiation, as measured at Simla by Angstrom's pyrheliometer. The values are corrected to local noon, and expressed in grammecalories per square centimetre per minute :—

Maximum	1·40
Minimum	1·17
Mean	1·32
Number of days of observation . . .	9

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Imperial Meteorologist, Simla.

ROYAL ALFRED OBSERVATORY, MAURITIUS.

7. No information has been received.

Weather in the Indian monsoon region.

8. Barometric pressure was well below the normal at Mauritius, but further north in the equatorial region as represented by Zanzibar and Seychelles the pressure conditions did not depart to any marked extent from the normal. On the mean of the month the winds were more southerly than usual and above normal in strength at Seychelles, and of average strength but unusually westerly at Zanzibar. Rainfall was short of the average at both the equatorial stations. The general conditions in the Indian Ocean thus favoured the prevalence of a satisfactory monsoon over the land area of India.

TABLE 7.

—	Mauritius.	Zanzibar.	Seychelles.
Departure from normal of mean pressure.	—·039	—·007	—·014
Actual mean wind direction .	S 62° E	S 27° W	S 13° E
Normal mean wind direction .	S 63° E	S 13° W	S 27° E
Actual mean wind velocity (miles per diem).	193*	151	226
Normal mean wind velocity (miles per diem).	174	154	188
Rainfall departure from normal .	+8·53	—1·72	—1·60

* Uncorrected for scale error.

Depressions and cyclonic storms.

9. The advance of the monsoon over the Arabian Sea was as usual associated with an area of deficient pressure which travelled up the west coast of the Peninsula, without concentrating into a storm, and passed on the 9th into Gujarat where some remarkably heavy downpours of rain occurred round Palitana on the 11th.

Over the Bay also the advance of the monsoon gave rise to a depression; this first showed itself on the 12th over the Sandheads and thence passed into Bihar where it disappeared on the 16th. Although of slight intensity the disturbance was the cause of heavy rain in Bihar and north Bengal. Another shallow depression was generated over the north of the Bay on the 25th. Like its predecessor this also travelled into Bihar causing heavy rainfall in the districts of Darbhanga, Purnea, Sonthal Parganas, Jalpaiguri and Cooch Behar on the 27th and 28th.

Pressure.

10. Atmospheric pressure exceeded the normal in Burma, north-east India, the United Provinces, the Punjab, the North-West Frontier Province and the east of Central India, and was below the normal over the rest of the plains. The excess was greatest (between ·04″ and ·06″) in the tract extending from Bihar to the west of the Punjab, while the defect was most marked (from ·03″ to ·05″) on the Kathiawar and Konkan coasts. The pressure difference between north and south was considerably smaller than usual.

TABLE 8.

DIVISION.	Departure from normal of mean 8 hrs. pressure.
	″
Burma	+·021
Assam	+·026
Bengal	+·030
Bihar and Orissa	+·030
United Provinces	+·038
Punjab	+·048
North-West Frontier Province	+·025
Sind	—·007
Rajputana	—·004
Bombay	—·024
Central India	+·003
Central Provinces	—·003
Hyderabad	—·014
Mysore	—·005
Madras	—·012

The vertical gradient was generally steeper than usual in northern India and the south of the Peninsula, and below its normal strength in the central parts of the country.

TABLE 9.

HILL STATION.	Departure from normal pressure. A	PLAIN STATION.	Departure from normal pressure. B	Departure of pressure difference. B—A.
	″		″	″
Quetta	+·005	Jacobabad	—·005	—·010
Leh	+·004	Lahore	+·053	+·049
Murree	+·023	Peshawar	+·018	—·005
Simla	+·032	Ludhiana	+·060	+·028
Chakrata	+·025	Roorkee	+·062	+·037
Darjiling	—·010	Dhubri	+·034	+·044
Mount Abu	—·001	Deesa	—·018	—·017
Pachmarhi	—·007	Khandwa	—·024	—·017
Kodaikanal	—·028	Madura	—·005	+·023

Temperature.

11. Over the region comprising Bengal, Orissa, Bihar, Chota Nagpur, the United Provinces, Central India East and the Punjab day temperature was moderately and the night temperature slightly below the average, but over the rest of the country temperature departed but little from the normal.

In the hill districts of Baluchistan and Kashmir temperature was inclined to be high, an indication that the snowfall conditions were not more marked than usual.

TABLE 10.

Sub-division.	Actual temperature.					Departure from normal of		
	Mean maximum.	Mean minimum.	Monthly mean of mean between maximum and minimum.	Mean daily range of temperature.	Absolute range during month.	Maximum.	Minimum.	Daily range.
	°	°	°	°	°	°	°	°
1. Bay Islands	84·9	77·6	81·3	7·2	15·3	−0·9	−0·5	−0·4
2. Lower Burma	86·5	75·8	81·2	10·7	19·8	+0·7	+0·3	+0·4
3. Upper Burma	90·8	75·7	83·2	15·1	24·5	−0·5	−0·1	−0·4
4. Assam	87·6	75·7	81·6	11·9	23·1	−1·1	−0·3	−0·8
5. Bengal	86·6	76·8	81·7	9·8	20·0	−3·1	−1·3	−1·8
6. Orissa	90·3	78·3	84·3	11·9	25·4	−5·1	−1·5	−3·6
7. Chota Nagpur	89·1	75·4	82·3	13·7	27·4	−6·5	−2·1	−4·4
8. Bihar	89·2	76·5	82·9	12·7	24·8	−6·1	−2·3	−3·8
9. United Provinces, East	94·1	78·0	86·1	16·1	27·8	−5·5	−3·1	−2·4
10. Ditto, West	98·1	79·3	88·7	18·8	33·3	−4·0	−2·6	−1·4
11. Punjab, East and North	98·4	78·0	88·2	20·4	38·9	−5·6	−2·3	−3·3
12. Do., South-west	104·2	82·0	93·1	22·3	43·0	−3·3	−0·8	−2·5
13. Kashmir	80·2	54·9	67·6	25·3	43·7	+0·1	+0·6	−0·5
14. North-West Frontier Province	105·4	79·3	92·3	26·1	47·1	−1·5	0	−1·5
15. Baluchistan	98·3	70·4	84·3	27·9	46·0	+0·3	+0·3	0
16. Sind	103·6	84·4	93·9	19·2	41·0	+1·0	+1·5	−0·5
17. Rajputana, West	105·5	83·0	94·3	22·5	45·9	−0·3	−0·9	+0·6
18. Do., East	99·6	81·4	90·5	18·2	38·0	−2·9	−0·3	−2·6
19. Gujarat	94·2	79·1	86·7	15·1	31·8	−1·7	−1·1	−0·6
20. Central India, West	94·7	75·5	85·1	19·1	42·9	−1·7	−0·7	−1·0
21. Do., East	94·9	78·6	86·8	16·3	34·1	−5·2	−3·1	−2·1
22. Berar	94·8	75·7	85·2	19·1	40·4	−1·5	−0·4	−1·1
23. Central Provinces, West	94·3	76·4	85·3	17·9	39·3	−2·9	−1·5	−1·4
24. Ditto, East	92·3	75·8	84·1	16·5	37·6	−2·9	−1·0	−1·9
25. Konkan	86·2	77·2	81·7	9·0	20·3	−0·4	−0·5	+0·1
26. Bombay Deccan	88·8	71·7	80·3	17·1	35·3	−1·3	−0·4	−0·9
27. Hyderabad, North	92·8	73·4	83·2	19·4	38·2	−2·2	−0·4	−1·8
28. Do., South	94·9	76·2	85·4	18·7	32·2	−0·6	+0·5	−1·1
29. Mysore	84·1	67·7	75·9	16·5	26·2	+0·5	0	+0·5
30. Malabar	85·1	75·5	80·3	9·6	16·7	+0·5	+1·4	−0·9
31. Madras, South-east	97·6	79·0	88·3	18·6	26·9	+1·5	+1·2	+0·3
32. Do., Deccan	97·7	78·3	88·0	19·4	29·8	+0·6	+0·6	0
33. Do. Coast, North	94·5	80·6	87·6	13·9	28·1	+0·1	+0·1	0

TABLE 11.

Division.	Departure from normal of		
	Mean maximum temperature.	Mean minimum temperature.	Mean temperature.
	°	°	°
Burma	+0·2	+0·1	+0·2
Assam	−1·1	−0·3	−0·7
Bengal	−3·1	−1·3	−2·2
Bihar and Orissa	−6·0	−2·1	−4·0
United Provinces	−4·9	−2·9	−3·9
Punjab	−4·9	−1·9	−3·4
North-West Frontier Province	−1·5	0	−0·7
Sind	+1·0	+1·5	+1·2
Rajputana	−1·7	−0·6	−1·1
Bombay	−1·3	−0·7	−1·0
Central India	−3·4	−1·9	−2·7
Central Provinces	−2·6	−1·2	−1·9
Hyderabad	−1·1	+0·2	−0.5
Mysore	+0·5	0	+0·3
Madras	+0·9	+0·9	+0·9

Winds.

12. (*a*) The velocity of the monsoon current was less than usual throughout the Indian region with the exception of Assam, Bihar and Orissa, the Punjab, the Central Provinces, Mysore and Madras.

(*b*) The degree of steadiness was remarkably low in Bengal, Bihar and Orissa, Rajputana, the Central Provinces, Central India and Hyderabad, and very high in the North-West Frontier Province, the Punjab and the United Provinces.

(*c*) The westerly component in the mean direction of wind over the Central Provinces and Central India was somewhat weaker than usual, but in other parts of the country the deviations from the normal direction were local and of no significance.

TABLE 12.

Division.	Departure from normal of	
	Hourly wind velocity.	Wind steadiness.
Burma	−0·9	−10
Assam	0	−3
Bengal	−1·4	−19
Bihar and Orissa	+0·3	−13
United Provinces	−0·7	+10
Punjab	+0·1	+8
North-West Frontier Province	−0·5	+21
Sind	−1·8	−2
Rajputana	−0·5	−21
Bombay	−1·3	−7
Central India	−1·8	−17
Central Provinces	+0·1	−16
Hyderabad	−0·5	−16
Mysore	+0·6	0
Madras	+0·6	−1

Humidity and cloud.

13. Relative humidity was appreciably in excess in Bundelkhand, Baghelkhand, the north-west of the United Provinces, the Punjab and Baluchistan, and in the first two areas the absolute humidity also was well above the average; but over the rest of the country the hygrometric conditions of the month were not very different from the normal.

The amount of cloud was low in Assam, the central districts of the United Provinces, the extreme south-east of the Punjab, the Bombay Deccan and Malabar, and high in Bengal, Chota Nagpur, the western Himalayas, Kathiawar and the west of Central India. Elsewhere the sky was clouded to about the customary extent.

TABLE 13.

DIVISION.	HYGROMETRY, 8 HRS.				CLOUD.	
	Mean humidity.	Departure from normal.	Mean vapour tension in inches of mercury.	Departure from normal in inches of mercury.	Mean cloud amount at 8 hrs.	Departure from normal.
	%					
Burma . . .	86	— 1	·869	—·019	7·6	0
Assam . .	89	— 1	·890	—·024	7·3	—1·1
Bengal . . .	89	+ 2	·920	—·039	8·1	+0·7
Bihar and Orissa .	85	+ 6	·895	—·004	6·9	+0·5
United Provinces .	72	+ 5	·845	+·025	4·5	—0·4
Punjab . . .	61	+ 9	·745	+·055	3·0	+0·2
North-West Frontier Province.	53	+ 3	·685	—·011	1·9	+0·2
Sind	68	+ 3	·912	+·062	3·0	—0·3
Rajputana . . .	58	+ 3	·731	—·001	3·1	—0·8
Bombay . . .	80	+ 3	·850	+·008	6·8	+0·2
Central India . .	73	+ 7	·789	+·036	5·5	+0·5
Central Provinces .	72	+ 4	·749	+·010	6·0	+0·2
Hyderabad . . .	69	0	·700	—·024	6·3	—0·1
Mysore . . .	80	— 1	·642	—·011	7·6	—0·5
Madras . . .	73	— 1	·832	—·008	6·1	—0·4

Rainfall.

14. The most important feature of the month was the early commencement of the monsoon rains in northern India.

Moderate to heavy rainfall, such as marks the advent of the monsoon, began on the Malabar coast on the 2nd, in the south Konkan on the 5th, at Bombay on the 8th and in Gujarat and east Rajputana on the 9th. The advance of the monsoon over the Arabian Sea was, as usual, associated with an area of low pressure. This after travelling northwards parallel to the west coast of the Peninsula passed into Gujarat on the 9th, and during the next two days caused general and in places very heavy rain which resulted in destructive floods.

The passage inland of the depression was followed immediately by an influx of monsoon winds into Central India and the Central Provinces, where general but light rain was reported on the 11th. The distribution of pressure at this time favoured the prevalence of moist east winds from the head of the Bay up the Gangetic plain into the Punjab, and these in conjunction with the Arabian Sea current resulted in a burst of general and for the time of year heavy rainfall in the west of the United Provinces, the Punjab and the North-West Frontier Province between the 9th and the 12th.

On the Bengal side the rains set in on the 12th a few days in advance of the average date. They were introduced by a depression, formed at the head of the Bay, which first travelled into east Bengal and then turning north-westwards disappeared over Bihar on the 16th. It produced heavy rain in north Bengal and Bihar. The disappearance of this disturbance was followed by an almost complete cessation of rainfall over the greater part of India. Rainfall re-appeared over Bombay and the Central Provinces on the 21st and 22nd and in Bengal on the 23rd, and by the 25th both currents had become fairly active over northern and central India. Another small depression formed over the head of the Bay on the 25th, followed a north-by-west course and disappeared over Bihar during the 28th, after giving heavy rain in north Bengal and Bihar. About this time there was a strong determination of the Arabian Sea current to Gujarat, and very heavy rain fell round Veraval and Palitana on the 25th and 26th. On the 28th and 29th both currents gave good rain over the greater part of northern and central India, but on the 30th the monsoon trough of low pressure was displaced northwards to the foot of the hills and the rainfall became confined to Burma and north-east India.

The month's total precipitation was more or less above the normal in Upper Burma, Bengal, Bihar and Orissa, the United Provinces, the whole of north-west India excluding Sind, Central India East, the Central Provinces and Bombay, and equal to or below the average elsewhere. The excess was more than 5″ in amount in Bengal (10″ or 69 per cent), Chota Nagpur (5″ or 55 per cent), Bihar (7″ or 86 per cent), Gujarat (10″ or 210 per cent), and the Konkan (9½″ or 38 per cent); while the largest proportional defect occurred in Hyderabad South which received only half of the normal amount.

TABLE 14.

Sub-division.	Number of rainy days.		Rainfall.			
	Actual.	Normal.	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
			"	"	"	
1. Bay Islands	16·0	19·1	17·24	17·63	—0·39	— 2
2. Lower Burma	18·9	22·1	22·70	25·34	—2·64	— 10
3. Upper do.	10·7	9·9	7·70	6·80	+0·90	+ 13
4. Assam	17·0	17·7	17·24	17·86	—0·62	— 3
5. Bengal	18·1	14·2	24·77	14·67	+10·10	+ 69
6. Orissa	13·5	10·2	10·56	9·25	+1·31	+ 14
7. Chota Nagpur	15·9	10·5	14·25	9·22	+5·03	+ 55
8. Bihar	12·9	9·0	15·42	8·29	+7·13	+ 86
9. United Provinces, East	7·5	5·9	6·27	5·35	+0·92	+ 17
10. Do., West	6·5	5·3	5·72	4·64	+1·08	+ 23
11. Punjab, East and North	5·6	3·1	3·86	2·34	+1·52	+ 65
12. Punjab, South-west	2·4	1·3	1·25	0·71	+0·54	+ 76
13. Kashmir	4·3	3·0	2·51	1·71	+0·80	+ 47
14. North-West Frontier Province	3·2	1·5	1·64	0·85	+0·79	+ 93
15. Baluchistan	1·2	0·6	0·71	0·30	+0·41	+137
16. Sind	0·7	0·6	0·36	0·52	—0·16	— 31
17. Rajputana, West	3·3	2·1	2·17	1·39	+0·78	+ 56
18. Do., East	5·0	4·2	3·47	3·15	+0·32	+ 10
19. Gujarat	11·1	5·9	14·93	4·82	+10·11	+210
20. Central India, West	10·2	6·7	6·65	6·64	+0·01	0
21. Do., East	10·9	7·3	8·18	7·33	+0·85	+ 12
22. Berar	10·4	8·1	7·10	5·56	+1·54	+ 28
23. Central Provinces, West	11·7	8·6	7·90	7·17	+0·73	+ 10
24. Do., East	12·1	9·6	9·52	8·46	+1·06	+ 13
25. Konkan	20·2	18·6	34·67	25·21	+9·46	+ 38
26. Bombay, Deccan	11·3	8·4	8·78	5·18	+3·60	+ 69
27. Hyderabad, North	7·8	8·1	5·50	5·61	—0·11	— 2
28. Do., South	3·7	6·8	2·05	4·05	—2·00	— 49
29. Mysore	6·9	7·2	4·42	5·27	—0·85	— 16
30. Malabar	22·4	22·3	28·00	32·41	—4·41	— 14
31. Madras, South-east	1·6	2·9	0·94	1·53	—0·59	— 39
32. Do., Deccan	2·8	4·6	1·91	2·49	—0·58	— 23
33. Do. Coast, North	7·2	6·3	4·48	4·57	—0·09	— 2

TABLE 15.

Division.	Rainfall. Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"	
Burma	14·81	15·51	−0·70	− 5
Assam	17·24	17·86	−0·62	− 3
Bengal	24·77	14·67	+10·10	+ 69
Bihar and Orissa	14·13	8·68	+5·45	+ 63
United Provinces	6·01	5·01	+1·00	+ 20
Punjab	3·31	2·00	+1·31	+ 65
North-West Frontier Province	1·64	0·85	+0·79	+ 93
Sind	0·36	0·52	−0·16	− 31
Rajputana	3·12	2·68	+0·44	+ 16
Bombay	15·41	8·65	+6·76	+ 78
Central India	6·92	6·88	+0·04	+ 1
Central Provinces	7·95	6·82	+1·13	+ 17
Hyderabad	3·62	4·76	−1·14	− 24
Mysore	4·42	5·27	−0·85	− 16
Madras	4·59	5·39	−0·80	− 15
Mean of India	9·07	7·40	+1·67	+ 23

Snowfall.

I.—AFGHANISTAN.

15. On the hills around Kabul there was no fall of snow and the previous accumulations melted away from the lower elevations.

II.—NORTH-WEST FRONTIER PROVINCE.

(*a*) *Kurram*—No snow fell during the month and the passes were all clear of snow.

(*b*) *Chitral*—The snowfall was confined to altitudes above 16,000 feet.

(*c*) *Khyber*—There were no snowstorms.

(*d*) *Hazara*—No snowfall occurred on the mountain ranges and passes in this district.

III.—KASHMIR.

Snowstorms occurred on the higher mountains near Gulmarg on the 10th, 11th, 12th, 13th, 18th and 28th, and on those around Skardu on the 11th and 12th. On the hills surrounding Sonamarg snow fell down to lower levels than usual but did not lie. There was no snow on the mountains adjacent to Kargil, but in Dras the total fall of the month was equivalent to 1·1″ of rain. Snowstorms are reported to have occurred also on the mountains around Leh.

IV.—PUNJAB.

(*a*) *Kangra*—During the period 15th June to 15th July there were several falls of snow down to an altitude of 12,000 feet in the upper Beas drainage area—an unusual occurrence. The falls were not however heavy and melted away quickly.

On the northern slopes there were 2 or 3 feet of snow lying at elevations of 14,000 feet, *e.g.*, in the Chandra vailey immediately after crossing the Rotang pass.

(*b*) *Kilba* (*Simla Hills*)—As is ordinarily the case the snowfall was restricted to the higher elevations.

V.—UNITED PROVINCES.

(*a*) *Garhwal*.—There were several snowstorms on the higher peaks (above 14,000 feet), those of the 13th and 21st being severe.

(*b*) *Almora*.—The total snowfall of the month was estimated at 10½ feet in Malla Darma, 8⅓ feet in Chaudas, 4½ feet in Byans, 1⅓ feet in Malla Danpur and half a foot in Malla Johar.

TABLE 16.

Name of pass or peak.	Depth of accumulation at the end of the month. Reported. Feet.	Inches.	Normal. Feet.
Nuwe pass	26	0	16
Untadhura "	0	6	7
Ralamdhura "	0	3	5
Milandhura "	0	1	5
Pindari peak	10	0	½
Kuntela pass	10	0	½
Binkaru "	17	0	23
Lipulekh	7	0	6
Lampia	10	0	8½

SUMMARY.

16. There was no heavy widespread snowfall during the month, and the winter accummulations were on the whole by no means excessive.

HEM RAJ.

Table A.—Abstract of observations taken at 10 hrs. and 16 hrs. at 15 stations in India, etc., in June, 1913.

Tal

Abstract of observations taken at 10 hrs. and 16 h

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure. Mean of 10 hrs.	Pressure. Mean of 16 hrs.	Pressure. Mean daily range.	Pressure. Mean of daily mean pressures.	Pressure. Departure from normal.	Pressure. Mean reduced to sea-level and gravity, 45° Lat.	Temperature of air. Mean maximum.	Temperature of air. Mean minimum.	Temperature of air. Mean daily range.	Temperature of air. Highest maximum.	Temperature of air. Lowest minimum.	Temperature of air. Absolute range.	Temperature of air. Mean 10 hrs.	Temperature of air. Mean 16 hrs.	Temperature of air. Mean of daily means.	Temperature of air. Departure from normal.	Temperature, wet-bulb. Mean minimum.	Temperature, wet-bulb. Mean 10 hrs.	Temperature, wet-bulb. Mean 16 hrs.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	III.—Bengal.																				
5	Calcutta . .	21	29·627	29·538	·089	29·589	+·040	29·557	87·3	77·9	9·4	95·0	74·0	21·0	83·3	84·5	82·3	−2·2	75·8	79·3	79·8
	V.—United Provinces of Agra and Oudh.																				
9	Allahabad . .	309	29·296	29·188	·108	29·245	+·045	29·501	96·0	78·6	17·4	103·1	73·5	29·6	88·1	93·5	86·0	−4·8	75·6	78·1	78·4
	V.—Punjab.																				
11	Lahore . . .	702	28·875	28·769	·106	28·814	+·041	29·459	101·0	79·3	21·7	111·2	70·4	40·8	91·6	99·4	89·7	−3·3	73·1	77·1	78·6
	IX.—Rajputana.																				
18	Jaipur . . .	1,431	28·188	28·084	·104	28·135	+·002	29·461	99·3	79·7	19·6	110·8	70·2	40·6	91·2	95·3	88·3	−2·3	72·2	76·3	76·2
	X.—Bombay.																				
25	Bombay . .	37	29·680	29·605	·075	29·644	−·029	29·621	87·6	79·8	7·8	95·0	74·4	20·6	84·4	84·6	82·5	+0·1	76·0	79·7	79·3
	XIV.—Mysore.																				
29	Bangalore . .	3,021	26·846	26·757	·089	26·808	−·015	29·625	85·3	66·8	18·5	89·5	64·4	25·1	77·4	82·2	74·2	+0·2	65·2	69·2	69·7
	XV.—Madras.																				
31	Pudukkottai .	318	29·479	29·347	·132	29·412		29·653	99·9	79·8	20·1	104·2	76·5	27·7	87·3	96·9	83·9			79·0	80·0
	Madras . .	22	29·718	29·603	·115	29·670	−·029	29·623	100·1	82·7	17·4	105·3	78·9	26·4	93·3	92·8	90·2	+1·8	75·1	77·6	80·1
	Hill stations, excluding Kashmir and Baluchistan.																				
	Sanain . . .																				
	Kalahagh . .		20·095	20·064	·031	20·074		20·036	54·2	44·6*	9·6	59·4	39·7	19·7	50·8	52·9	48·6		...	47·5	49.3
	Mukteswar . .	7,592	22·757	22·698	·059	22·720		22·679	69·0	53·3	15·7	75·5	49·4	26·1	62·2	65·2	60·3		56·8	58·3	61·1
	Katmandu . .	4,388	25·520	25·445	·075	25·479	+·076‡	25·432	82·2	66·4	15·8	88·0	55·2	29·8	76·2	77·9	73·5	−0·4‡	64·3	68·9	70·2
	Ootacamund † .	*7,327*	22·968	22·906	·062	22·934		22·870	63·9	53·3	10·6	71·7	51·2	20·5	61·0	59·3	57·8		51·8	56·9	56·6
	Kodaikanal . .	7,688	22·776	22·727	·049	22·751		22·686	65·9	53·3	12·6	69·5	49·8	19·7	62·9	60·8	58·6		49·5	56·6	56·8
	Dodabetta . .	8,539?	21·998	21·938	·060	21·965		21·902	58·6	48·4	10·2	64·4	43·8	20·6	55·5	54·1	52·7		44·7	52·1	52·4
	Extra India.																				
	Diego Garcia .																				
	Seychelles . .	15	29·970	29·893	·077	29·933	−·014‡	29·872	82·9	77·9	5·0	85·3	74·8	10·5	80·8	81·7	79·3	+1·7‡	71·5	75·8	75·8
	Mauritius . .	181																			

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.

* Mean of 29 days.
† Mean of 17 days.

A.

at 15 stations in India, etc., in June, 1913.

Vapour tension in inches of mercury.					Humidity.					Cloud.				Wind direction.											Wind steadiness.		Wind velocity.		Rainfall.		Station.	Number of subdivision.
														Total number of 10 hrs. and 16 hrs. winds from																		
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.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Mean wind direction.	Normal mean wind direction of month.	Average percentage.	Normal percentage.	Mean velocity in miles per diem.	Normal.	Total rainfall for the month.	Heaviest rainfall during the month.		
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	49	50	51	52	53	54	55	56
																															III.—Bengal.	
·863	·945	·952	·931	—·040	90	83	81	87	+ 4	8·7	8·8	8·7	+1·2	2		2	12	17	6	18	2	1	S 20° E	S 3° W	50	59	99	104	31·15	5·69	Calcutta . .	5
																															V.—United Provinces of Agra and Oudh.	
·847	·820	·769	·828	+·055	87	62	51	68	+12	5·9	6·3	6·1	+1·0	3	3	11	17	7	2	4	9	4	N 76° E	N 10° W	52	16	90	140	4·11	1·66	Allahabad .	9
																															VI.—Punjab.	
·731	·735	·697	·739	+·112	74	51	39	55	+11	1·9	0·6	1·3	−1·6	6	3	11	8	18	3	1	5	5	S 84° E	N 18° E	33	7	59	63	1·57	0·34	Lahore . .	11
																															IX.—Rajputana.	
·696	·723	·670	·703	+·047	69	50	43	56	+ 4	3·4	5·8	4·6	+0·2	2	7	9	10	4	3	4	10	11	N 6° W	N 70° W	22	43	107	119	6·96	2·78	Jaipur . .	18
																															X.—Bombay.	
·848	·949	·934	·926	−·012	84	81	79	83	0	7·7	7·3	7·5	+0·4		1		1	1	8	18	25	6	S 68° W	S 63° W	72	64	210	266	25·81	4·11	Bombay . .	25
																															XIV.—Mysore.	
·603	618	·582	·608	−·015	92	66	54	73	− 1	6·6	7·7	7·1			2					16	33	9	S 87° W	S 72° W	85	81	192	163	2·78	0·82	Bangalore . .	29
																															V.—Madras.	
	837	·790				58	45			5·2	7·8	6·5		13					2	16	9	19	S 89° W		55		158		1·72	0·95	Pudukkottai .	31
·764	·735	855	·802	−·031	69	48	57	60	− 6	4·5	6·0	5·3	−0·9		2		9	11	6	7	18	7	S 43° W	S 37° W	27	57	142	154	0·13	0·04	Madras.
																															Hill stations, excluding Kashmir and Baluchistan.	
																															Sarain.	
...	·305	·326			...	81	80	...		8·1	8·6	8·3		9	10	...	...	7	8	...	5	21	N 52° W		32		122		8·01	2·66	Kalabagh.	
·344	·447	·498	·428		85	81	80	82		7·3	7·1	7·2		18	1	...	4	4	2	...	29	2	S 84° W		40		124		14·01	4·71	Mukteswar.	
·579	·620	·643	·613	—.027	89	69	69	76	0	6·6	7·1	7·0	+0·8	55	...	...	4	...	...	...	1	...	E	N 87° W	5	20	15	23	10·95	2·70	Katmandu.	
·370	·421	·430	·403		91	79	85	85		8·1	9·6	8·9				1	3	2	1	6	12	9	N 69° W		51		153		3·32	0·82	Ootacamund.	
·314	·394	·418	·375		78	69	79	75		6·0	7·9	6·9		...	4	2	2	3	2	...	31	16	N 71° W		65		304		2·30	0·60	Kodaikanal.	
·260	·356	·375	·330		76	82	90	83		8·5	9·4	8·9		5	2	3	4	1	1	10	29	5	S 83° W		55		325		4·84	2·58	Dodabetta.	
																															Extra India.	
																															Diego Garcia.	
·685	·826	·813	·791	+·010	71	78	75	77	− 2	6·2	5·9	6·1	‡ −1·0			1	1	21	30	7			S 13° E	S 27° E	85	81	226	188	3·20	0·84	Seychelles.	
																															Mauritius.	

‡ Departure from old normal.

Table B.—Abstract of observations taken at 8 hrs. at 217 stations in India, etc., in June, 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.

	Pressure departure from normal.	Temperature of air.								Wind.		Hygrometry.				Cloud.		Rainfall.		
		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.	Absolute range during month.	Departure of velocity from normal.	Departure of steadiness from normal.	Mean humidity.	Departure from normal.	Mean vapour tension.	Departure from normal.	Mean cloud amount.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.
Burma	+·021	88·4	+0·2	75·7	+0·1	82·1	+0·2	12·7	21·8	—0·9	—10	86	—1	·869	—·019	7·6	0	...	...	...
Assam	+·026	87·6	—1·1	75·7	—0·3	81·6	—0·7	11·9	23·1	0	—3	89	—1	·890	—·024	7·3	—1·1	17·24	17·86	—0·62
Bengal	+·030	86·6	—3·1	76·8	—1·3	81·7	—2·2	9·8	20·0	—1·4	—19	89	+2	·920	—·039	8·1	+0·7	24·77	14·67	+10·10
Bihar and Orissa	+·030	85·5	—6·0	76·8	—2·1	83·1	—4·0	12·7	25·6	+0·3	—13	85	+6	·895	—·004	6·9	+0·5	14·13	8·68	+5·45
United Provinces of Agra and Oudh	+·038	95·9	—4·9	78·6	—2·9	87·3	—3·9	17·3	30·3	—0·7	+10	72	+5	·845	+·025	4·5	—0·4	6·01	5·01	+1·00
Punjab	+·048	100·3	—4·9	79·3	—1·9	89·9	—3·4	21·0	40·3	+0·1	+8	61	+9	·745	+·055	3·0	+0·2	3·31	2·00	+1·31
North-West Frontier Province	+·025	105·4	—1·5	79·3	0	92·3	—0·7	25·1	47·1	—0·5	+21	53	+3	·685	—·011	1·9	+0·2	1·64	0·85	+0·79
Sind	—·007	103·6	+1·0	84·4	+1·5	93·9	+1·2	19·2	41·0	—1·8	—2	68	+3	·912	+·062	3·0	—0·3	0·36	0·52	—0·16
Rajputana	—·004	102·0	—1·7	82·0	—0·6	92·0	—1·1	19·9	41·2	—0·5	—21	58	+3	·731	—·001	3·1	—0·8	3·12	2·68	+0·44
Bombay	—·024	90·8	—1·3	76·4	—0·7	83·6	—1·0	14·4	30·5	—1·8	—7	80	+3	·850	+·008	6·8	+0·2	15·41	8·65	+6·76
Central India	+·003	94·8	—3·4	77·1	—1·9	85·9	—2·7	17·7	38·5	—1·8	—17	73	+7	·789	+·036	5·5	+0·5	6·92	6·88	+0·04
Central Provinces	—·003	95·3	—2·0	76·1	—1·2	84·9	—1·9	17·7	39·0	+0·1	—16	72	+4	·749	+·010	6·0	+0·2	7·95	6·82	+1·13
Hyderabad	—·014	94·0	—1·1	75·0	+0·2	84·5	—0·5	19·0	34·8	—0·5	—16	69	0	·700	—·024	6·3	—0·1	...	...	...
Mysore	—·005	84·1	+0·5	67·7	0	75·9	+0·3	16·5	26·2	+0·6	0	80	—1	·642	—·011	7·0	—0·5	4·42	5·27	—0·85
Madras	—·012	94·6	+0·9	78·7	+0·9	86·7	+0·9	15·9	25·8	+0·6	—1	73	—1	·832	—·008	6·1	—0·4	...	...	...

Tab

(2) Abstract of observations taken at 8 hrs. at 217 stati

Number of sub division.	Station.	Elevation of barometer above sea-level, in feet.	Pressure, 8 hrs., in inches. 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.	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.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	I.—Burma.																					
2	Victoria Point	147	29·736		29·813	29·804	29th	29·668	7th	·136	78·7	84·0		74·0		79·0		10·0	89·6	4th	71·2	26th
	Mergui	65	29·808	+·007	29·801	29·893	29th	29·729	7th	·164	78·2	84·5	−1·2	71·7	−1·4	78·1	−1·3	12·8	92·5	5th	68·8	4 days
	Tavoy	19	29·818	+·003	29·800	29·936	29th	29·791	7th	·145	78·5	85·5	+0·7	75·6	+0·9	80·6	+0·8	9·9	93·5	4th	72·8	24th
	Moulmein	94	29·752	+·030	29·784	29·870	29th	29·662	17th	·208	77·8	85·1	+0·5	75·7	+0·9	80·4	+0·7	9·4	92·0	4th	73·3	26th
	Rangoon	18	29·800	+·020	29·756	29·945	29th	29·716	16th	·229	80·7	87·5	+1·0	76·3	−0·2	81·9	+0·4	11·2	92·0	4 days	73·0	26th
	Bassein	27?	29·762	+·013	29·726	29·945	29th	29·669	11th	·276	80·5	87·4	+1·1	76·9	+0·6	82·2	+0·9	10·5	92·7	6th & 8th.	74·9	5 days
	Diamond Island	41	29·717	+·005	29·723	29·919	29th	29·666	11th	·253	83·0	86·9	+1·3	78·8	+2·4	82·9	+1·9	8·1	89·9	6th & 8th.	75·0	4 days
	Toungoo	164	29·625	+·034	29·751	29·783	29th	29·551	17th	·232	80·4	91·5	+2·4	76·2	+0·7	83·8	+1·5	15·3	99·3	5th	73·9	26th
	Kyaukpyu	18	29·722		29·666	29·918	29th	29·571	12th	·347	80·3	86·9		76·2		81·6		10·7	93·9	6th	73·4	15th & 17th.
	Akyab	20	29·720	+·019	29·680	29·924	29th	29·541	12th	·383	80·3	86·1	+0·1	76·6	−1·5	81·3	−0·7	9·5	92·9	1st	73·5	14th
3	Thayetmyo	121	29·643	+·018	29·706	29·784	29th	29·529	12th	·255	81·7	91·8	+0·4	77·1	+0·3	81·5	+0·3	14·7	100·4	6th	73·7	27th
—	Minbu	*165*	29·588	+·022	29·697	29·739	29th	29·473	12th	·266	81·8	92·8	−0·2	77·7	−0·1	85·2	−0·1	15·1	97·7	1st	76·4	4 days
—	Yamethin	657	29·122	+·029	29·725	29·264	29th	29·023	12th	·241	80·4	93·6	+1·7	76·0	+0·7	84·8	+1·2	17·6	97·9	2nd & 5th.	73·4	19th
	Mandalay	250	29·521	+·046	29·717	29·654	4th	29·406	16th	·249	83·1	95·5	+0·5	77·6	−0·9	86·6	−0·2	17·9	102·0	1st	73·7	3rd
	Monywa	*280*	29·473		29·665?	29·609	4th	29·355	12th	·254	82·1	94·3		79·0		86·6		15·3	100·8	1st	73·5	4th
	Lashio	*2,820*	26·998	+·006	26·944	27·107	4th	26·902	17th	·205	73·2	82·4	−3·1	69·9	+0·6	76·1	−1·3	12·5	88·6	5th	67·5	24th
	Bhamo	*381*	29·369	+·042	29·704	29·508	3rd	29·245	16th	·263	77·4	88·6	−1·9	73·7	−1·2	81·2	−1·5	14·9	93·9	16th	70·2	1st
	Myitkyina	458	29·257		29·674	29·414	4th	29·142	15th	·272	76·8	87·2		74·2		80·8		13·0	94·2	2nd	71·2	4th
	II.—Assam.																					
4	Dibrugarh	353	29·347		29·661	29·517	4th	29·167	13th	·350	78·1	87·5		73·6		80·5		13·9	93·4	13th	70·1	7th
	Sibsagar	333	29·365†	+·014†	29·655†	29·542	4th	29·218	13th	·324	80·3	88·7	−0·6	76·7‡	+0·5‡	82·7‡	−0·1	12·0	98·1	26th	73·0	2nd
	Tezpur	252	29·473		29·683	29·638	4th	29·305	13th	·333	79·2	88·4		76·5		82·5		11·9	93·6	16th	71·2	2nd
	Gauhati	195	29·500		29·650	29·672	4th	29·331	13th	·341	80·5	88·4		76·1		82·3		12·3	93·8	22nd	70·1	2nd
	Dhubri	115	29·570	+·034	29·640	29·743	4th	29·379	13th	·364	79·2	85·2	−0·5	76·0	−0·4	80·6	−0·5	9·2	90·5	22nd	70·1	1st
	Silchar	104	29·616	+·029	29·673	29·788	4th	29·417	12th	·371	78·8	87·3	−2·1	75·3‡	−0·9‡	81·0‡	−1·5	12·0	95·8	13th	71·8	5th
	III.—Bengal.																					
5	Cox's Bazar	36	29·726§		29·707§	29·873	29th	29·591	10th	·282	80·7	85·6		75·5		80·5		10·1	90·7	26th	73·2	3rd & 8th
	Chittagong	87	29·621	+·024	29·653	29·813	29th	29·413	12th	·400	79·3	85·6	−1·0	75·5	−1·1	80·5	−1·1	10·1	90·0	20th & 26th.	70·5	14th
	Noakhali	43	29·653		29·643	29·828	29th	29·459	12th	·369	80·1	83·8		77·0		80·4		6·8	87·8	1st, 2nd & 19th.	73·9	8th & 17th.
	Barisal	12	29·660	+·026	29·619	29·837	29th	29·449	13th	·388	80·7	85·2	−3·5	76·3	−1·9	80·8	−2·7	8·9	91·3	2nd	72·1	17th
	Narayanganj	26	29·645	+·031	29·620	29·825	4th	29·404	13th	·421	80·3	86·2	−2·8	76·7	−1·6	81·5	−2·2	9·5	91·5	23rd	73·8	6th, 8th & 17th.
	Mymensingh	63	29·625	+·027	29·640	29·807	4th	29·405	13th	·402	79·9	86·5	−0·7	76·8	−0·1	81·7	−0·4	9·7	91·6	13th	70·1	1st
	Bogra	75	29·597	+·036	29·623	29·762	4th	29·376	13th	·386	79·7	86·8	−3·0	76·8	−0·4	81·8	−1·7	10·0	91·2	13th	69·2	2nd
	Dinajpur	123	29·524	+·026	29·601	29·711	4th	29·326	16th	·385	80·1	87·6	−1·9	76·3	−1·2	81·9	−1·5	11·3	92·3	13th	71·0	1st
	Jalpaiguri	223	29·395	+·026	29·636	29·589	4th	29·222	14th	·367	79·5	87·9	0	74·9	−0·3	81·4	−0·1	13·0	93·4	20th	71·9	17th
	Saugor Island	25	29·626	+·028	29·581	29·820	29th	29·463	12th & 13th.	·357	82·4	86·0	−4·4	78·7	−3·0	82·3	−3·7	7·3	91·2	1st	75·2	2nd & 15th
	Midnapore	149	29·477		29·574	29·633	29th	29·322	14th	·311	81·7	88·8		77·8		83·3		11·0	96·3	17th	70·2	15th
	Calcutta	21	29·615	+·029	29·583	29·790	29th	29·433	13th	·357	81·0	87·3	−3·8	77·6	−0·9	82·5	−2·3	9·7	95·0	17th	73·9	15th

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

† Mean of 19 days.
‡ „ „ 25 „
§ „ „ 11 „

B.

in India, etc., in June, 1913.

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 from 1st May to 30th June, 1913.	Normal rainfall for period, 1st May to 30th June.	Departure from normal of period 1st May to 30th June, 1913.	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
																																I.—Burma.
1		5	8	5	3	2	3	3	S 76° E		4·8*			30		87		·856		7·1		23			44·30			62·62			5·90	Victoria Point.
28				2					S 45° E	S 72° W	1·7	1·3	+0·4	3	−54	91	0	·874	−·020	7·5	+0·2	24	24·3	−0·3	26·91	29·29	− 2·38	42·21	47·49	− 5·28	3.57	Mergui.
11				4	8	4	2	1	S 12° W	S 55° W	1·0*	1·5	−0·5	43	+23	89	− 3	·874	−·014	6·6	−1·0	18	25·6	−7·6	29·01	42·67	−13·66	40·07	68·16	−28·09	4·21	Tavoy.
3	1	3	9	7	6		1		S 63° E	S 14° E	3·4	2·7	+0·7	56	+ 4	93	+ 1	·893	+·003	8·2	+0·3	19	25·8	−6·8	31·54	35·52	− 3·98	49·83	56·41	− 6·58	4·10	Moulmein.
1			2	6	10	5	2	1	S	S 37° W	2·6	3·7	−1·1	57	−10	87	− 6	·916	−·012	9·2	+0·4	20	22·8	−2·8	17·46	17·57	− 0·11	31·80	29·80	+ 2·00	3·85	Rangoon.
24				2	2	2			S	S 13° W	3·6	3·4	+0·2	16	−43	90	− 2	·944	+·005	7·5	−0·5	20	23·8	−3·8	13·30	22·99	− 9·09	19·03	33·26	−14·23	2·22	Bassein.
2				6	5	11	6		S 30° W	S 39° W	7·9	7·0	+0·9	62	− 8	82	− 1	·925	+·022	8·2	−0·2	19	21·0	−2·0	19·09	23·77	− 4·68	25·19	34·93	− 9·74	3·34	Diamond Island.
4		1		10	13	2			S 17° E	S 32° E	2·6	3·7	−1·1	72	−13	87	− 3	·888	−·038	8·0	−0·9	11	20·7	−9·7	7·35	14·35	− 7·00	10·94	21·33	−10·39	1·38	Toungoo.
		1	1	21	5	2			S 37° E		4·7			82		87		·901		7·6		21			40·36			49·70			8·65	Kyaukpyu.
2		2	10	8	3	5			S 52° E	S 48° E	3·0	2·8	+0·2	56	+ 4	92	− 1	·934	−·038	7·6	−1·4	25	23·9	+1·1	48·09	45·06	+ 2·94	62·40	56·68	+ 5·72	8·60	Akyab.
4				5	21				S 8° E	S 6° E	3·9*	5·6	−1·7	82	−11	84	+ 1	·901	+·027	8·3	0	12	13·6	−1·6	4·86	6·55	− 1·69	6·17	11·08	− 4·91	0·75	Thayetmyo.
				29	1				S 44° E	S 48° E	2·7	8·5	−5·8	82	+21	80	− 2	·850	−·040	6·5	+0·8	10	9·8	+0·2	5·44	5·55	− 2·11	6·74	10·55	− 3·81	0·85	Minbu.
4				13	13				S 22° E	S 29° E	4·6	7·2	−2·6	79	− 7	76	− 5	·775	−·075	5·3	+0·1	5	8·8	−3·8	3·85	5·09	− 1·24	7·51	11·24	− 3·73	0·86	Yamethin.
20				3	6	1			S 5° E	S 1° W	?	6·4	?	30	−42	73	− 2	·832	−·034	6·0	−0·5	11	7·0	+4·0	4·19	5·38	− 1·19	6·76	11·03	− 4·27	1·08	Mandalay.
5	1			17	5			2	S 36° E		3·5			62		80		·868		8·2		9	5·9	+3·1	5·20	4·63	+ 0·57	6·93	10·57	− 3·59	1·90	Monywa.
22					1	6	1		S 45° W		1·6*			27		86	− 1	·637	−·033	9·6	+1·4	14	16·0	−2·0	12·21	10·87	+ 1·34	16·48	16·92	− 0·44	1·48	Lashio.
20	3	1	1			2		3	N 23° W	N 81° W	1·1	1·8	−0·7	17	+ 7	95	+ 4	·874	−·012	8·6	+1·0	21	19·1	+1·9	14·09	14·41	− 0·32	21·70	20·21	+ 1·49	2·85	Bhamo.
24	1	1		2	2				S 51° E		1·4			16		92		·846		7·1		20	19·6	+0·4	15·27	13·91	+ 1·36	18·91	19·32	− 0·42	2·46	Myitkyina.
																																II.—Assam.
25		1	2	1	1				S 74° E		0·9			10		92		·872		6·2		17	20·1	−3·1	16·38	18·97	− 2·59	37·54	28·19	+ 9·35	3·68	Dibrugarh.
18	2	3		1	2	4			S	N 70° E	2·0	2·0	0	5	−20	87	− 5	·903	−·035	6·7	−2·1	15	17·0	−1·0	7·98	14·20	− 6·22	25·40	25·97	− 0·57	2·32	Sibsagar.
7		4	10		1	5	3		S 75° E		1·4			23		88		·885		7·6		13	16·1	−3·1	7·21	11·35	− 4·14	17·31	19·60	− 2·29	1·30	Tezpur.
18		1	5	1	2	3			S 46° E		1·2			20		86		·890		7·1		15	16·6	−1·6	10·94	14·73	− 3·79	23·25	24·18	− 1·93	2·71	Gauhati.
5	1	8	9	2	3	2			N 87° E	N 77° E	5·2	4·2	+1·0	49	+ 5	90	− 1	·891	−·011	9·1	+1·0	13	18·2	−5·2	15·60	24·20	− 7·60	30·66	39·14	− 8·48	5·00	Dhubri.
25		2		2	1				S 70° E	N 85° E	1·0	2·0	−1·0	10	+ 5	91	+ 2	·897	−·026	6·8	−2·2	20	21·1	−1·1	27·25	22·27	+ 4·98	54·22	37·49	+16·73	8·95	Silchar.
																																III.—Bengal.
		2	4	17	6	1			S 44° E		4·9*			76		89		·925		7·1		22			36·37			57·43			8·11	Cox's Bazar.
6		3	3	14	3	1			S 51° E	S 44° E	2·1	5·1	−3·0	56	−18	89	+ 3	·885	−·037	8·0	+0·2	22	16·0	+6·0	36·75	20·39	+16·36	54·98	29·70	+25·28	7·29	Chittagong.
2		2	1	17	5	3			S 34° E		4·1			73		90		·914		6·7		19	18·4	+0·6	32·67	20·98	+11·69	48·94	32·64	+16·30	5·18	Noakhali.
16	1	1	1	4	5	2			S 23° E	S 17° E	0·5	3·2	−2·7	27	−14	89	+ 2	·926	−·058	8·2	+0·1	20	16·6	+3·4	40·90	15·38	+25·52	55·33	24·27	+31·06	4·67	Barisal.
4		2	9	5	6	3	1		S 47° E	S 32° E	3·3	5·5	−2·2	49	−21	90	+ 1	·923	−·059	8·7	+0·2	22	14·2	+7·8	20·42	12·62	+ 7·80	29·64	21·56	+ 8·08	3·02	Narayanganj.
18			3	6	2	1			S 43° E	S 61° E	1·7	2·9	−1·2	33	−34	91	+ 1	·927	−·010	9·1	+1·5	18	18·3	−0·5	26·88	13·74	+ 8·14	38·22	31·77	+ 6·45	10·87	Mymensingh.
17		2	4	1	5	1			S 47° E	S 66° E	0·7	2·9	−2·2	27	−40	89	+ 1	·905	−·047	8·7	+2·0	16	14·3	+1·7	27·65	13·23	+14·42	39·99	21·57	+18·42	10·16	Bogra.
7		3	13	3	4				S 77° E	S 78° E	2·0	3·2	−1·2	56	−18	90	+ 1	·921	−·007	7·5	−0·5	17	13·7	+3·3	30·31	13·69	+16·62	33·85	21·18	+12·67	5·75	Dinajpur.
21			4	4			1		S 64° E	S 86° E	1·8			23	−35	88	− 1	·886	−·021	6·7	+1·5	16	17·9	−1·9	29·00	23·68	+ 5·32	39·08	35·07	+ 4·01	5·30	Jalpaiguri.
	2	3	2	6	9	6	1	1	S 2° W	S 11° W	10·0	11·6	−1·6	33	−26	88	+ 3	·872	−·042	8·2	−0·3	16	11·9	+4·1	28·46	10·53	+17·93	33·74	15·01	+18·73	8·00	Saugor Island.
6	1	7		8	3	2	2	1	S 67° E		2·2			23		85		·916		7·8		17	12·7	+4·3	15·11	9·74	+ 5·37	27·03	14·79	+12·24	2·64	Midnapore.
1		3	7	5	2	10	1	1	S 23° E	S 4° E	4·1*	4·3	−0·2	37	−11	89	+ 4	·941	−·031	8·7	+1·4	21	12·8	+8·2	31·15	11·43	+19·72	39·74	17·17	+22·57	5·69	Calcutta.

* Uncorrected for scale error.

Ta

(2) *Abstract of observations taken at 8 hrs. at 217 sta*

Number of subdivision.	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.	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.	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.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	III.—Bengal—*concld.*																					
5	Jessore	34	29·625	+·037	29·606	29·795	29th	29·384	13th	·411	80·2	86·4	−5·1	77·1	−1·7	81·7	−3·4	9·3	92·0	2nd	73·7	2nd & 4th
	Burdwan	99	29·540	+·034	29·587	29·682	29th	29·355	13th	·327	80·9	88·1	−5·7	77·0	−2·3	82·5	−4·0	11·1	95·9	17th	71·8	2nd
	Berhampore	67	29·580	+·035	29·596	29·739	4th	29·379	15th	·360	80·8	87·3	−5·1	77·4	−1·1	82·3	−3·1	9·9	92·6	2nd	71·7	17th
	IV.—Bihar and Orissa.																					
6	Balasore	50	29·586	+·033	29·581	29·780	29th	29·429	12th	·351	81·7	89·2	−2·7?	77·1	−1·5	83·1	−2·2	12·1	97·4	17th & 18th	70·1	5th
	Hukitala (False Point)	29	29·615	+·022	29·585	29·821	29th	29·467	12th	·354												
	Cuttack	80	29·566	+·034	29·586	29·758	29th	29·426	12th	·332	82·7	90·3	−5·2	79·1	−1·0	84·8	−3·1	11·2	99·0	19th	73·2	2nd
	Puri	24	29·613		29·578	29·813	29th	29·473	12th	·340	83·1	88·5		79·5		83·9		9·2	93·6	19th	74·6	1st
	Angul	455	29·173		29·572	29·339	29th	29·052	12th & 13th	·287	81·9	91·1		77·4		84·3		13·7	99·1	13th & 19th.	73·0	1st & 2nd.
	Sambalpur	486	29·115	+·016	29·577	29·325	29th	29·013	13th	·310	81·9	92·2	−5·1	78·7	−2·0	85·4	−3·5	13·5	103·6	2nd	74·6	8th
7	Chaibasa	*733*	28·873	+·015	29·554	29·029	29th	28·722	12th	·307	80·0	89·7	−6·8	76·2	−2·5	82·9	−1·7	13·5	99·1	2nd	72·8	2nd & 15th.
	Ranchi	2,128	27·527	+·029	29·559	27·664	29th	27·375	14th	·289	76·1	85·0	−6·1	72·9	−2·7	72·5	−3·9	12·1	95·2	2nd	69·4	2nd & 9th.
	Purulia	*816*	28·816		29·581	28·955	29th	28·653	14th	·310	79·0	90·0		75·5		82·3		14·5	100·5	18th	71·1	1st & 2nd.
	Daltonganj	*730*	28·890		29·569	29·022	29th	28·739	14th	·283	81·0	91·7		77·1		84·4		14·6	101·1	2nd & 3rd	73·0	12th
8	Purnea	134	29·517	+·037	29·606	29·691	4th	29·283	14th	·408	80·1	87·8	−4·2	76·7	−0·6	82·3	−2·4	11·2	93·6	13th	72·3	17th
	Monghyr	155	29·471		29·578	29·634	4th	29·268	14th	·366	81·5	89·7		76·4		83·1		13·3	94·7	23rd	70·4	1st
	Darbhanga	165	29·474	+·030	29·593	29·622	5th	29·282	14th	·340	80·1	88·8	−3·6	75·5	−3·7	82·2	−3·7	13·3	93·6	21st	68·7	1st
	Pusa	188	29·415		29·585	29·615	4th	29·261	14th	·352	81·1	89·5		75·1		82·3		14·4	95·4	23rd	69·8	1st
	Patna	183	29·442	+·039	29·580	29·596	3rd & 4th	29·258	14th	·338	81·3	88·3	−8·1	77·4	−2·6	82·8	−5·5	10·9	95·0	23rd	71·2	1st
	Buxar	239	29·376		29·570	29·526	4th	29·215	14th	·313	81·8	90·3		77·1		83·7		13·2	97·6	4th	72·1	1st
	Gaya	372	29·244	+·039	29·565	29·380	3rd	29·070	14th	·310	82·7	91·3	−8·3	77·9	−2·3	84·5	−5·3	13·4	97·9	23rd	65·2	6th
	Naya Dumka	489	29·145	+·052?	29·583	29·231	4th	28·916	14th	·335	80·4	87·7	−6·3	76·2	−2·5	82·0	−4·4	11·5	93·4	19th	72·5	1st & 5th
	V.—United Provinces of Agra and Oudh.																					
8	Gorakhpur	257	29·363	+·048	29·576	29·520	4th	29·207	14th	·313	82·5	90·9	−6·0	75·2	−4·5	83·1	−5·3	15·7	95·4	23rd	69·1	1st
	Benares	267	29·380	+·043	29·559	29·489	4th	29·188	14th	·301	83·5	93·2	−6·9	78·4	−3·5	85·8	−5·2	14·8	99·5	24th	75·1	1st, 5th & 6th.
	Allahabad	309	29·291	+·042	29·555	29·425	20th	29·135	13th	·290	84·0	96·2	−5·5	78·5	−4·0	87·3	−4·7	17·7	103·1	24th	73·5	8th & 9th
	Cawnpore	416	29·189	+·049	29·557	29·339	20th	29·020	13th	·319	84·4	96·1	−5·0	79·3	−2·7	87·7	−3·9	16·8	104·6	22nd	73·5	1st
	Lucknow	368	29·239	+·046	29·561	29·385	3rd	29·072	13th	·314	84·5	95·5	−4·9	78·8	−2·5	87·2	−3·7	16·8	102·0	23rd	72·1	1st
	Bahraich	401	29·203	+·022?	29·561	29·365	4th	29·051	13th	·317	83·3	92·7	−4·7	77·8	−1·4	85·2	−3·1	14·9	98·1	13th & 20th.	73·5	1st
	Jhansi	824	28·773	+·007	29·536	28·948	20th	28·634	13th	·314	87·0	101·3	−1·5	80·7	−3·3	91·0	−2·4	20·6	111·6	1st	75·5	30th
	Agra	556	29·032	+·024	29·536	29·200	20th	28·884	12th	·316	88·8	101·3	−3·0	81·7	−2·8	91·5	−2·9	19·6	110·0	24th	76·0	18th & 30th.
	Mainpuri	516	29·069	+·029	29·536	29·218	20th	28·929	13th	·289	85·2	95·3	−1·9?	80·2	−1·3	89·7	−1·6?	19·1	107·8	22nd & 23rd.	74·6	1st
	Bareilly	568	29·036	+·046	29·559	29·191	3rd	28·895	13th	·296	83·9	95·5	−4·2	77·8	−2·0	86·7	−3·1	17·7	102·7	22nd	71·5	19th
	Roorkee	899	28·725	+·032	29·560	28·906	3rd	28·585	18th	·321	82·3	93·2	−7·2	76·3	−2·3	84·8	−4·7	16·9	102·1	22nd	69·9	9th
	VI.—Punjab.																					
	Delhi	718	28·886	+·051	29·556	29·042	20th	28·732	12th	·310	85·1	98·2	−5·0	78·9	−4·4	83·5	−4·7	19·3	107·0	24th	69·8	10th
	Sirsa	662	28·894	+·022	29·509	29·084	20th	28·750	25th	·334	87·2	102·6	−4·1	80·6	−3·1	91·3	−3·6	22·6	110·8	24th	68·0	18th

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

B—*continued.*

in India, etc., in June, 1913—continued.

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 from 1st May to 30th June, 1913.	Normal rainfall for period, 1st May to 30th June.	Departure from normal of period, 1st May to 30th June, 1913.	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
																																III.—Bengal—*co*
9	1	1	5	9	5				S 51° E	S 27° E	3·5	3·3	+0·2	53	+ 1	89	+ 1	·914	—·095	8·1	+0·2	16	14·2	+ 1·8	24·92	12·33	+12·59	39·95	20·38	+19·57	4·50	Jessore.
7	1	4	3	4	2	6	2	1	S 22° E	S 4° E	2·3	3·6	—1·3	20	—24	87	+ 5	·920	—·012	8·7	+1·2	20	12·4	+ 7·6	19·85	9·59	+10·26	27·07	15·95	+11·12	2·19	Burdwan.
1	1	4	11	6	5	2			S 68° E	S 36° E	3·1	3·4	—0·3	59	+ 7	88	— 1	·926	—·046	8·9	+0·8	20	11·8	+ 8·2	16·27	9·33	+ 6·94	21·16	14·57	+ 6·59	3·11	Berhampo
																																IV.—Bihar Orissa.
5	2	3	3	2	4	9	1	1	S 13° W	S 32° W	3·3	5·3	—2·0	23	—36	89	+ 4	·959	—·023	7·4	—0·6	17	11·1	+ 5·9	17·73	9·66	+ 8·07	22·35	14·41	+ 7·94	3·92	Balasore.
1	1		1	3	5	12	1	6	S 46° W	S 42° W	10·1	9·1	+1·0	49	—18					5·7	—2·3	13	9·7	+ 3·3	12·23	8·42	+ 3·81	17·88	12·77	+ 5·11	3·13	Hukitala (False Poi
9		1	1		3	9	7		S 53° W	S 47° W	2·2*	2·9	—0·7	49	—10	81	+ 3	·904	— ·009	8·0	+1·0	11	11·3	— 0·3	6·01	9·84	— 3·83	12·43	13·83	— 1·40	1·98	Cuttack.
2	5	1	1		4	10	4	3	S 75° W		1·5			37		85		·958		7·5		11	7·6	+ 3·4	11·91	7·03	+ 4·88	14·66	9·76	+ 4·90	7·15	Puri.
5	2	2	5	3	1	4	3	5	N 45° W		5·0			3		80		·872		8·2		14	13·6	+ 0·4	7·33	8·09	— 0·76	10·22	9·63	+ 0·59	2·55	Angul.
	1	6	4		2	9	8		S 63° W	S 23° W	3·5	3·8	—0·3	23	—35	83	+ 9	·900	+·041	7·1	+0·5	14	10·7	+ 3·3	11·50	10·36	+ 1·14	12·35	11·67	+ 0·68	2·23	Sambalpu
12		4			3	8	3		S 45° W	S 52° W	2·4	2·1	+0·3	27	—14	83	+ 8	·852	—·018	8·4	+2·6	21	11·2	+ 9·8	13·72	8·46	+ 5·26	15·72	11·80	+ 3·92	1·98	Chaibasa.
2	2	1	5	4	2	4	8	2	S 47° W	S 42° W	9·1	6·4	+2·7	17	—27	84	+ 8	·755	—·007	7·8	+1·9	17	11·6	+ 5·4	17·97	9·13	+ 8·84	21·38	11·42	+ 9·96	2·26	Ranchi.
6		3	4	3	2	6	3	3	S 14° W		2·1			13		87		·863		4·7		16	10·1	+ 5·9	12·48	7·42	+ 5·06	15·30	10·16	+ 5·64	2·28	Purulia.
15		2	5	2	1	3	2		S 53° E		3·1			17		82		·856		5·9		14	8·8	+ 5·2	13·37	5·67	+ 7·70	14·58	6·18	+ 8·40	3·51	Daltongan
3	1	6	13	4	2		1		N 89° E	N 34° E	2·7	2·9	—0·2	63	— 3	91	+ 5	·931	—·001	5·9	—0·9	13	11·8	+ 1·2	19·46	11·07	+ 8·39	24·84	15·52	+ 9·32	5·12	Purnea.
2		3	14	9			1	1	S 82° E		2·8			70		86		·916		7·9		16			16·28			19·23			7·86	Monghyr.
5	1	4	17	2			1		N 83° E	S 75° E	6·5	4·4	+2·1	66	—11	88	+ 6	·900	—·024	7·0	+1·6	12	9·0	+ 3·0	17·58	8·29	+ 9·29	21·65	11·15	+10·50	4·18	Darbhanga
2	1	7	14	4					N 82° E†		3·5			73		87		·921		7·1		14			17·71			24·71			5·25	Pusa.
4			24	1	1				S 86° E	S 87° E	6·0	4·1	+1·9	82	+19	87	+10	·927	+·016	6·5	+0·7	12	7·7	+ 4·3	20·52	7·87	+12·65	24·42	9·53	+14·89	5·37	Patna.
4			16	5	1	1	2	1	S 73° E		2·3			53		83		·897		6·9		13	7·4	+ 5·6	9·51	5·32	+ 4·19	11·26	5·99	+ 5·27	2·91	Buxar.
6		13		3	4	2	2		N 78° E	S 66° E	2·0	3·6	—1·6	27	+ 4	84	+ 7	·908	—·008	6·0	+0·7	9	7·9	+ 1·1	9·83	7·26	+ 2·57	12·05	8·29	+ 3·76	3·62	Gaya.
14		1	6	5	3	1			S 56° E		2·4			37		87	+ 3	·894		6·0		19	11·7	+ 7·3	21·84	9·45	+12·39	26·35	12·72	+13·63	5·62	Naya Dum
																																V.—United Provi of Agra and Oud
4		8	16	2					N 80° E	N 81° E	2·6	2·3	+0·3	76	+26	82	+ 3	·907	+·001	3·0	—1·9	8	8·5	— 0·5	7·81	7·96	— 0·12	12·80	9·38	+ 3·42	2·18	Gorakhpur
1	1		11	10	1	1	3	2	S 64° E	S 89° E	3·4‡	3·8	—0·4	46	+26	81	+ 9	·915	+·068	6·3	+0·7	8	6·0	+ 2·0	5·75	5·19	+ 0·56	8·49	5·70	+ 2·79	1·98	Benares.
4		6	9	2	1	1	6	1	N 76° E	N 46° E	4·1	5·8	—1·7	23	+10	73	+ 7	·838	+·013	6·0	+0·2	6	5·4	+ 0·6	4·11	4·92	— 0·81	5·11	5·18	— 0·07	1·66	Allahabad.
13	2		8	4			2	1	S 89° E	S 59° E	1·7	4·0	—2·3	27	+ 5	76	+11	·891	+·055	2·4	—3·0	5	4·7	+ 0·3	4·61	3·21	+ 1·40	6·46	3·49	+ 2·97	1·92	Cawnpore.
9		1	16	2	1		1		S 84° E	S 89° E	2·4	3·1	—0·7	56	+20	73	+ 4	·862	+·025	4·7	—1·1	7	5·7	+ 1·3	6·31	4·65	+ 1·66	9·45	5·53	+ 3·92	3·45	Lucknow.
3	1	1	9	11	4	1			S 58° E	S 69° E	2·6	3·6	—1·0	66	+ 6	74	— 1	·826	—·069	4·8	0	7	7·3	— 0·3	10·97	6·27	+ 4·70	13·58	7·80	+ 5·78	4·86	Bahraich.
	2	1	6	1	1	8	10	1	S 65° W	N 89° W	4·8	4·0	+0·8	33	+ 2	58	+ 2	·745	+·014	6·6	+3·1	3	5·8	— 2·8	0·97	4·87	— 3·90	2·17	5·22	— 3·05	0·31	Jhansi.
7	1	2	6	6	2	2	3	1	S 55° E	S 16° W	4·8	4·7	+0·1	27	+ 1	58	+ 1	·775	+·011	3·8	0	3	4·0	— 1·0	2·32	2·51	— 0·19	3·47	2·99	+ 0·48	1·50	Agra.
1	1	2	10	8		2	4	2	S 72° E	N 80° E	2·5	2·1	+0·4	33	+17	68	+ 2	·837	+·016	2·2	—2·7	3	4·4	— 1·4	1·61	2·94	— 1·33	6·08	3·27	+ 2·81	1·26	Mainpuri.
19			6	5					S 69° E	S 56° E	0·9‡	3·1	—2·2	30	—11	80	+10	·919	+·095	4·6	+0·2	8	5·4	+ 2·6	5·17	5·42	— 0·25	7·27	6·12	+ 1·15	1·47	Bareilly.
13			1	16					S 47° E	S 41° E	2·1	2·6	—0·5	53	+12	72	+ 9	·776	+·048	4·8	+0·6	9	5·5	+ 3·5	5·79	5·10	+ 0·69	9·65	5·93	+ 3·72	1·88	Roorkee.
																																VI.—Punjab.
2	2	1	9	10	1		4	1	S 69° E	S 44° E	5·3§	3·6	+1·7	43	+30	72	+16	·845	+·123	3·2	—1·8	6	4·2	+ 1·8	6·35	3·10	+ 3·25	7·25	3·73	+ 3·52	2·97	Delhi.
8	1	6	6	2	3	3	1		S 81° E	S 27° W				30	+ 4	63	+12	·793	+·083	2·7	—1·8	6	2·9	+ 3·1	6·62	1·65	+4·97	7·14	2·26	+ 4·88	3·12	Sirsa.

* Uncorrected for scale error. † Two winds variable. ‡ Mean of 29 days. § „ „ 25 „

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(2) *Abstract of observations taken at 8 hrs. at 217 sta*

Number of subdivision.	Station.	Elevation of barometer above sea-level, in feet.	Pressure, 8 hrs., in inches. 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.	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.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	VI.—Punjab—*concld.*																					
11	Patiala	*818*	28·771		29·545	28·972	3rd	28·600	13th	·372	83·7	94·5		78·2		86·4		16·3	104·4	24th	70·8	26th
	Ambala	892	28·715	+·048	29·563	28·898	3rd	28·578	12th	·320	83·3	95·3	−5·1	76·6	−3·6	86·5	−4·3	19·7	104·5	24th	70·9	12th & 13th.
	Ludhiana	812	28·786	+·060	29·555	28·972	3rd	28·617	25th	·355	83·5	97·5	−7·3	78·3	−2·4	88·0	−4·9	19·2	110·3	24th	70·4	10th
	Lahore	702	28·873	+·053	29·534	29·087	5th	28·670	25th	·417	86·2	101·2	−6·2	79·3	0	90·3	−3·1	21·9	111·4	24th	70·2	12th
	Sialkot	830	28·761	+·062	29·551	28·967	3rd	28·575	25th	·392	84·1	96·9	−8·6	77·2	−3·3	87·0	−5·9	19·7	107·9	24th	67·6	26th
	Rawalpindi	1,674	27·938	+·046	29·532	28·146	3rd	27·752	25th	·394	85·1	99·9	−2·9	75·7	+0·4	87·8	−1·3	24·2	110·4	24th	67·6	28th
12	Khushab	612	28·962	+·062	29·533	29·158	3rd	28·749	25th	·409	88·9	104·0	−3·1	81·6	−0·8	92·9	−1·9	22·4	112·2	24th	71·9	15th
	Lyallpur		28·942			29·143	20th	28·747	25th	·396	86·4	101·8		80·1		90·9		21·7	110·6	9th	68·5	12th
	Montgomery	558	28·950	+·045	29·504	29·198	20th	28·804	25th	·394	89·5	104·1	−5·9	81·6	−2·5	92·9	−4·2	22·5	114·6	9th	71·2	12th
	Multan	420	29·110	+·031	29·483	29·328	20th	28·917	9th	·411	91·1	107·0	−0·8	84·6	+0·9	95·8	+0·1	22·4	117·8	9th	71·5	29th
	VII.—North-West Frontier Province.																					
14	Peshawar	1,113	28·156	+·018	29·515	28·654	20th	28·260	25th	·394	87·2	106·3	+0·9	77·2	−0·1	92·0	+0·1	29·6	115·3	3rd	67·1	13th
	D. I. Khan	590	28·962	+·033	29·512	29·171	20th	28·728	25th	·443	87·6	104·0	−4·0	81·3	+0·1	92·6	−1·9	22·7	118·1	25th	72·1	15th
	VIII.—Sind.																					
16	Jacobabad	186	29·308	−·005	29·448	29·503	19th	29·166	8th	·337	93·5	112·9	+0·2	87·1	+2·7	99·9	+1·5	25·8	123·6	3rd	72·8	20th
	Hyderabad*	96	29·440	−·008	29·487	29·675	20th	29·305	7th	·374	88·8	106·2	+2·0	83·2	+1·5	94·7	+1·7	23·0	118·0	4th	77·4	10th
	Karachi	13	29·573	−·007	29·537	29·799	20th	29·426	11th	·373	85·8	91·7	+0·8	82·8	+0·3	87·2	+0·5	8·9	112·5	5th	81·0	1st & 3rd
	IX.—Rajputana.																					
17	Bikaner	*771*	28·778	+·002	29·491	28·989	20th	28·598	12th	·391	90·2	106·9	+0·4	83·9	−1·3	95·4	−0·5	23·0	117·0	2nd	69·0	18th
	Jodhpur	780	28·799	−·021	29·523	29·021	20th	28·627	12th	·394	87·7	101·0	−1·1	82·1	−0·6	93·1	−0·9	21·9	115·2	3rd	71·3	19th
18	Jaipur	1,331	28·186	+·011	29·538	28·369	20th	28·058	12th	·311	85·8	100·0	−2·5	79·6	−1·5	89·8	−2·0	20·4	110·7	2nd	70·1	30th
	Ajmer	1,611	28·014	0	29·535	28·210	20th	27·868	12th	·342	84·4	97·1	−3·4	81·8	+1·0	89·5	−1·2	15·3	107·6	2nd	72·2	17th
	Kotah	819?	28·754	−·014	29·520	28·955	20th	28·617	12th	·338	89·4	101·8	−5·0?	82·8	−4·2?	92·3	−4·6?	19·0	112·6	2nd	74·6	27th
	X.—Bombay.																					
19	Deesa	466	29·162	−·018	29·574	29·387	20th	28·997	12th	·390	85·8	101·1	−0·8	79·5	−1·1	90·3	−0·9	21·6	115·3	4th	69·9	29th
	Bhuj	395	29·268	−·025	29·548	29·502	20th	29·106	10th	·396	85·8	98·1	+0·5	80·3	+0·5	89·2	+0·5	17·8	110·0	7th	73·0	11th
	Jamnagar	61	29·568		29·574	29·798	20th	29·408	10th	·390	87·2	94·5		79·4		87·0		15·1	100·1	7th & 8th	72·6	10th
	Dwarka	37?	29·602	−·036	29·585	29·839	20th	29·422	11th	·417	84·1	89·9	+0·9	82·2*	* +0·3	86·1*	+0·6	7·7	92·3	1st	73·7	11th
	Rajkot	429	29·208	−·020	29·581	29·429	20th	29·022	11th	·407	83·6	96·1	−3·7	75·0	−2·6	85·5	−3·1	21·1	107·6	3rd & 5th	67·8	20th
	Veraval	*18*	29·658	−·022	29·599	29·865	20th	29·407	11th	·458	82·4	85·2	−1·2	79·7	−1·3	82·4	−1·3	5·5	87·6	2nd, 6th & 7th.	74·8	25th
	Bhavnagar Para	55	29·601	−·052?	29·602	29·822	20th	29·391	11th	·431	83·5	95·4	−3·0	78·6	−1·8	87·0	−2·4	16·8	110·0	2nd	72·8	27th
	Surat	39	29·629	−·031	29·611	29·853	20th	29·394	12th	·459	82·7	90·1	−3·6	78·5	−0·8	84·3	−2·2	11·6	102·9	3rd	72·1	19th
	Ahmadabad	163	29·469	−·026	29·580	29·698	20th	29·292	10th	·406	83·3	97·4	−2·3	76·9	−1·8	88·2	−2·1	18·5	110·6	3rd	73·7	24th&25th
25	Bombay	37	29·668	−·041	29·645	29·877	20th	29·491	12th	·386	82·6	87·8	+0·2	79·8	+0·3	83·8	+0·3	8·0	95·0	5th	74·5	23rd, 24th & 28th.
	Ratnagiri	110	29·631	−·029	29·680	29·799	20th	29·467	6th	·332	81·0	86·5	−0·1	76·9	−0·3	81·7	−0·2	9·6	95·3	2nd	72·4	29th
	Marmagao	*60*	29·710	−·025	29·704	29·873	30th	29·537	6th	·336	81·1	86·3	−0·7	76·5	−1·4	81·4	−1·1	9·8	91·5	3rd	72·2	19th
	Karwar	41	29·753	−·013	29·731	29·906	30th	29·602	6th	·304	80·1	84·3	−1·0	75·7	−0·4	80·0	−0·7	8·6	89·7	1st	71·0	11th

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

* Mean of 29 days.

3—continued.

n India, etc., in June, 1913—continued.

Wind direction. Number of winds from Calms	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 from 1st May to 30th June, 1913.	Normal rainfall for period, 1st May to 30th June.	Departure from normal of period, 1st May to 30th June, 1913	Heaviest rainfall during month.	Sta
5	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	5
																																VI.—Pu cont
3	2			2	18	2			3	S 50° E		5·3*		57		66		·755		2·7		6	3·1	+2·9	4·06	2·20	+1·86	7·15	2·83	+4·32	1·82	Patiala
7	1		13	8	1					S 73° E	S 61° E	3·5	1·8	+1·7	66	+14	69	+ 2	·757	—·042	4·3	+1·3	9	5·0	+4·0	11·47	3·68	+7·79	16·63	4·28	+12·35	3·10	Ambal
3	1	2	2	12						S 63° E	S 37° E	0·9†	2·0	—1·1	43	+ 6	64	+ 8	·728	+·002	3·3	0	6	3·5	+2·5	4·16	2·58	+1·58	7·72	3·13	+4·51	1·42	Ludhia
4		3	9	10			1	3		S 80° E	S 60° E	2·5	2·6	—0·1	49	+19	61	+ 9	·753	+·060	3·0	+0·2	6	2·9	+3·1	1·57	1·84	—0·27	4·86	2·51	+2·35	0·31	Lahore
6	3	4	9	5	1	1		1		N 85° E	N 81° E	2·0†	2·3	—0·3	46	+ 2	65	+13	·758	+·059	3·8	+1·8	6	3·7	+2·3	4·15	2·56	+1·59	6·77	3·65	+3·12	1·42	Sialkot
8	4	2	3	4	8	1				S 47° E	N 89° E	1·8	2·0	—0·2	30	+10	62	+12	·732	+·112	3·1	+0·3	6	3·5	+2·5	4·31	2·10	+2·21	5·20	3·52	+1·68	2·63	Rawalp
1	1	3	16	5	1	2	1			S 82° E	N 69° E	5·9	5·2	+0·7	62	+10	50	+ 7	·666	+·072	2·4	+0·6	2	2·5	—0·5	0·74	1·41	—0·67	1·29	2·18	—0·89	0·39	Khush
	1	4	2	15	3	4		1		S 45° E		3·7*			56		57		·694		4·2		4			2·31			2·81			1·20	Lyallp
	2	3	4	7	8	4	2			S 28° E	S 3° W	6·4	6·9	—0·5	46	+ 9	48	+ 5	·622	—·045	2·6	+1·1	2	1·6	+0·4	1·09	1·08	+0·01	1·10	1·44	—0·34	0·51	Montgo
4	4	2		3	2	4		1		S	S 3° W	1·3	2·4	—1·1	3	—27	59	+11	·833	+·131	0·8	+0·1	2	1·2	+0·8	1·92	0·59	+1·33	2·25	0·88	+1·37	1·35	Multa
																																VII.—North Frontier Prov
4	8	2						6		N 12° W	N 6° W	1·8	3·2	—1·4	46	+24	49	+ 5	·626	+·033	1·7	—0·2	1	0·9	+0·1	0·34	0·32	+0·02	0·41	1·25	—0·84	0·26	Peshaw
6	8	9		5	1	1				N 45° E	N 51° E	2·3	1·8	+0·5	43	+17	58	+ 2	·743	—·054	2·0	+0·6	1	1·2	—0·2	0·97	0·67	+0·30	1·07	1·09	—0·02	0·92	D. I. K
																																VIII.—Sin
7	1	2	6	11	2			1		S 65° E	S 51° E	3·6	3·9	—0·3	49	— 6	61	+10	·920	+·134	0·5	—0·6	2	0·4	+1·6	0·82	0·16	+0·66	0·82	0·30	+0·52	0·50	Jacob
1	1				11	14	3			S 33° W	S 39° W	7·9	12·8	—4·9	79	— 2	63	+ 2	·823	+·031	3·5	—0·3	0	0·8	—0·8	0·09	0·53	—0·44	0·09	0·70	—0·61	0·06	Hyder
						7	21	2		S 83° W	S 75° W	12·5	12·8	—0·3	89	+ 3	80	— 2	·953	+·022	5·1	—0·1	0	0·6	—0·6	0·06	0·93	—0·92	0·05	1·04	—0·98	0·04	Karach
																																IX.—Rajput
3	1		1	5	4	8	6	2		S 38° W	S 38° W	6·8	6·9	—0·1	46	—21	53	— 1	·723	—·051	1·0	—1·3	3	2·4	+0·6	1·99	1·43	+0·56	2·83	2·07	+0·76	1·36	Bikan
1	1		3	1	2	16	6			S 46° W		3·7			59		55	— 2	·634		3·7		3	1·9	+1·1	1·15	1·23	—0·08	1·86	1·48	+0·38	0·42	Jodhp
2	1	1	5	2	1	3	8	7		N 75° W	S 88° W	4·7*	5·0	—0·3	27	—10	60	+ 3	·724	+·006	3·6	—0·6	6	3·7	+2·3	6·96	2·05	+4·91	8·11	2·58	+5·53	2·78	Jaipur
3	1	2	2	2		8	5	7		N 88° W	S 84° W	5·9	6·9	—1·0	37	—33	68	+ 7	·792	+·042	3·1	—0·5	7	2·1	+4·9	4·57	2·23	+2·34	6·57	2·78	+3·79	1·16	Ajmer
3		2	2	1		8	7	7		W		4·1			45		54	+ 8	·720		4·2		5	4·3	+0·7	3·06	2·70	+0·36	5·99	3·13	+2·86	1·77	Kotan
																																X.—Bomb
1	1		1	3	6	10	3	5		S 44° W	S 69° W	9·1	12·2	—3·1	49	—14	71	+ 3	·863	+·043	5·7	—0·2	7	2·9	+4·1	7.27	1·92	+5·35	7·76	2·11	+5·65	2·49	Deesa.
1	1	1				7	15	5		N 89° W	S 72° W	8·1	12·9	—4·8	76	— 2	70	— 1	·850	—·023	6·7	+1·7	3	2·3	+0·7	3·70	1·87	+1·83	3·70	1·94	+1·76	1·73	Bhuj.
1	1					11	12	5		S 82° W		11·8			78		69		·885		5·0		4	2·6	+1·4	3·70	1·90	+1·80	3·70	1·92	+1·78	2·04	Jamnag
					1	9	17	3		S 78° W		10·6			82		80	0	·913		6·2		2	2·7	—0·7	1·95	2·39	—0·44	1·95	2·40	—0·45	1·33	Dwarka
		2			2	17	7	2		S 60° W	S 81° W	10·4	10·3	+0·1	69	— 5	80	+ 6	·903	+·028	8·4	+2·8	10	4·7	+5·3	9·47	4·16	+5·31	9·47	4·33	+5·14	2·20	Rajkot.
1					1	9	13	3		S 76° W	S 69° W	6·7	8·3	—1·6	69	0	87	+ 3	·955	—·009	6·7	—0·2	10	4·0	+6·0	17·33	3·48	+13·85	17·33	3·53	+13·80	7·82	Veraval
3				2	2	12	6	5		S 63° W	S 48° W	3·7	11·5	—7·8	62	—18	80	+ 4	·910	—·043	7·2	+1·1	11	4·7	+6·3	22·61	3·48	+19·13	22·61	3·63	+18·98	8·65	Bhavna Para.
5	1		1	2	5	12	2	2		S 37° W	S 49° W	5·7‡	9·6	—3·9	49	—21	87	+ 8	·967	+·049	8·0	+1·1	15	7·9	+7·1	20·14	7·94	+12·20	20·15	8·04	+12·11	3·65	Surat.
1	1			3	2	13	1	9		S 68 W	S 61° W	4·4	5·6	—1·2	49	—10	82	+10	·935	+·059	5·5	—0·7	14	4·7	+9·3	11·72	4·40	+7·32	11·85	4·48	+7·38	2·86	Ah nad
			2	3	5	8	8	4		S 51° W	S 58° W	7·0*	11·1	—4·1	53	+ 5	84	+ 1	·931	+·002	8·2	+0·3	13	11·7	—1·7	25·81	18·48	+7·33	25·81	19·19	+6·62	4·11	Bombay
1	2	2	2	4	1	10	4	4		S 58° W	S 60° W	8·3	7·4	+0·9	30	— 1	85	+ 2	·890	—·011	8·9	+1·3	23	20·1	+2·9	25·12	29·10	—3·98	26·16	30·27	—4·11	4·02	Ratnag
	5	2	1	1	2	4	12	3		N 78° W	N 76° W	8·0*	8·0	0	46	— 3	89	+ 4	·940	+·005	8·6	+1·8	25	20·1	+4·9	30·57	29·77	+0·80	31·80	31·55	+0·25	6·55	Marma
5	1	1			7	5	1			S 83° W	S 82° W	3·8	4·4	—0·6	33	—19	87	+ 4	·891	+·024	6·5	—1·5	25	22·9	+2·1	30·84	38·65	—7·81	35·83	41·33	—5·50	3·55	Karwar

† Mean of 29 days. * Uncorrected for scale error. ‡ Mean of 28 days.

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(2) *Abstract of observations taken at 8 hrs. at 217 stat*

Number of subdivision.	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.	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.	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.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	X.—Bombay *—concld.*																					
26	Malegaon	1,430	28·246	−·029	29·601	28·449	20th	28·039	12th	·410	81·2	93·7	−1·2	74·4	−0·6	84·0	−0·9	19·3	110·4	3rd	70·1	30th
	Ahmadnagar	2,154	27·579	−·014?	29·627	27·757	20th	27·426	12th	·331	77·4	89·2	−1·2?	71·1	−1·2	80·2	−1·2?	18·1	106·1	3rd	66·5	19th
	Poona	1,846	27·882	−·023	29·647	28·064	20th	27·734	12th	·330	76·5	85·3	−3·9	71·8	−0·8	78·6	−2·3	13·5	102·0	3rd	66·8	23rd
	Sholapur	1,590	28·141	−·024	29·653	28·286	20th	28·001	6th	·285	78·1	94·0	−0·8	73·8†	+0·6†	83·9†	−0·1	20·2	104·8	5th	69·1	25th
	Bijapur	*1,948*	27·794	−·018	29·654	27·940	20th	27·648	6th	·292	76·1	90·1	−0·4	71·7	−0·5	80·9	−0·5	18·4	97·7	1st	68·3	24th
	Belgaum	2,562	27·246	−·008	29·702	27·396	30th	27·085	6th	·311	72·3	80·5	−0·3	67·5	−0·6	74·0	−0·5	13·0	93·3	3rd	61·5	19th
	XI.—Central India.																					
20	Neemuch	1,624	28·009	−·016	29·546	28·205	20th	27·897	11th	·308	82·0	96·5	−1·8	76·2	−1·1	86·3	−1·5	20·3	111·9	4th	67·0	19th
	Indore	1,823	27·827	−·019	29·561	28·021	20th	27·657	12th	·364	80·3	92·9	−1·5	74·9	−0·4	83·9	−0·9	18·0	109·1	2nd & 3rd	68·1	19th
21	Nowgong	754	28·856	+·027	29·554	29·016	20th	28·711	13th	·305	84·5	96·8	−4·8	79·4	−3·0	88·1	−3·9	17·4	110·0	1st	75·0	14th & 17th
	Sutra	1,041	28·555	+·020	29·538	28·693	20th	28·390	13th	·303	81·9	93·1	−5·6	77·8	−3·3	85·5	−4·5	15·3	105·3	1st	72·2	30th
	XII.—Central Provinces.																					
22	Buldana	2,132	27·561		29·585	27·744	20th	27·415	12th	·329	78·9	92·1		73·4		82·7		18·7	107·1	3rd	67·7	19th
	Akola	925	28·739	−·011	29·690	28·912	20th	28·610	12th	·302	83·1	97·4	−0·8	77·2	−0·5	87·3	−0·7	20·2	112·7	1st & 2nd	71·0	22nd
	Amraoti	1,215	28·451	−·002	29·599	28·604	30th	28·317	12th	·287	81·4	94·9	−2·3	76·5	−0·3	85·7	−1·3	18·4	111·3	1st, 2nd & 3rd.	71·3	5th
23	Khandwa	1,044	28·597	−·024	29·579	28·784	20th	28·443	12th	·341	81·7	95·0	−2·6	77·5	−1·2	86·3	−1·9	17·5	112·7	2nd & 3rd	70·1	18th
	Hoshangabad	1,006	28·632	−·009	29·573	28·822	20th	28·489	12th	·333	83·3	97·6	−0·5	77·6	−1·4	87·6	−0·9	20·0	112·1	2nd	72·4	19th & 26th.
	Saugor	1,807	27·822	−·002	29·539	27·981	20th	27·673	13th	·308	80·3	92·7	−5·1	75·0	−2·6	83·8	−3·9	17·7	107·8	2nd	69·1	19th
	Jubbulpore	1,327	28·290	+·003	29·544	28·442	20th	28·143	13th	·299	82·0	93·1	−3·8	77·1	−1·3	85·1	−2·5	16·0	109·3	1st	73·3	14th
	Seoni	2,033	27·632	+·008	29·567	27·764	20th	27·498	13th	·266	79·8	91·5	−2·7	73·7	−1·8	82·6	−2·3	17·8	108·6	1st	70·6	26th & 30th.
	Nagpur	1,017	28·728	+·003	29·579	28·779	30th	28·502	13th	·277	82·5	95·8	−2·5	77·5	−1·0	86·6	−1·7	18·3	111·6	1st	70·8	25th
24	Pendra	2,123?	27·650t		29·593t	27·750	20th	27·543	25th	·207	79·2	88·9		73·9†		81·5†		15·0	105·8	1st	71·1	26th
	Raipur	970	28·667	+·016	29·573	28·822	29th	28·544	13th	·278	82·1	94·2	−3·0	77·7	−0·7	86·0	−1·9	16·5	111·7	1st	73·6	21st, 28th & 29th.
	Chanda	*634*	29·007	−·016	29·579	29·153	30th	28·905	13th	·248	83·6	95·8	−2·7	78·3	−1·3	87·0	−2·0	17·5	112·0	1st	73·5	22nd
	Jagdalpur	1,813	27·874		29·588	28·032	29th	27·775	12th	·257	80·7	90·4		73·4		81·9		17·0	102·2	1st	63·1	21st
	XIII.—Hyderabad.																					
27	Aurangabad	1,905	27·809	−·050?	29·628	27·989	20th	27·653	12th	·336	77·6	91·5	−3·3	72·1	−0·9	81·8	−2·1	19·4	107·9	3rd	68·2	25th
	Nizamabad	1,248	28·446		29·618	28·578	20th	28·329	6th	·249	81·6	95·9	−1·1	77·2	+0·1	86·6	−0·5	18·7	108·4	1st	70·7	23rd
	Bidar	*2,165*									77·4	91·1		71·0		81·1		20·1	103·5	1st	66·4	22nd & 23rd.
28	Gulbarga	1,503	28·216	−·033	29·646	28·347	30th	28·098	7th	·249	77·4	93·9	−0·8	74·0	+0·3	83·9	−0·3	19·9	102·2	1st	70·2	23rd
	Raichur	*1,311*	28·441	+·002	29·677	28·612	30th	28·301	6th	·311	80·7	95·0	+0·3	75·1	+0·3	85·1	+0·3	19·9	101·5	3rd	72·1	24th
	Hyderabad (Deccan).	1,690	28·031	−·007	29·629	28·170	29th	27·905	6th	·265	80·1	93·5	−0·8	76·1	+1·7	84·8	+0·5	17·4	102·3	1st	71·2	23rd & 24th.
	Hanamkonda	877	28·808	−·018	29·616	28·970	29th	28·688	6th	·282	84·2	97·0	−1·1	79·6	−0·2	87·9	−0·7	17·4	108·5	1st	72·2	22nd
	XIV.—Mysore.																					
29	Chitaldrug	2,405	27·402	−·004	29·697	27·529	30th	27·260	6th	·269	74·3	86·5	+0·7	69·8	+0·3	78·1	+0·5	16·7	94·1	1st	66·7	25th
	Hassan	3,149	26·725	+·002	29·729	26·828	30th	26·591	6th	·237	70·9	79·9	+0·4	66·1	+0·1	73·0	+0·3	13·8	88·1	1st	63·2	25th
	Bangalore	3,021	26·844	−·006	29·718	26·950	29th	26·723	6th	·227	71·9	85·5	+0·8	66·8	0	76·1	+0·4	18·7	91·8	1st	64·3	26th
	Mysore	2,518	27·335	−·010	29·741	27·437	30th	27·196	6th	·241	73·4	84·8	0	67·9	−0·3	76·2	−0·1	16·7	90·1	30th	65·1	25th

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

† Mean of 29 days.
t „ „ 14 „

3—*continued.*

n India, etc., in June, 1913—continued.

Calm.	Wind direction. Number of winds from 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 from 1st May to 30th June, 1913.	Normal rainfall for period, 1st May to 30th June.	Departure from normal of period, 1st May to 30th June, 1913.	Heaviest rainfall during month.	Stati
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
																																X.—Bo —conc
2	1				5	9	8	5	S 69° W	S 81° W	11·0	10·2	+0·8	62	—11	71	0	·745	—·012	4·2	−2·0	9	7·1	+1·9	4·89	4·45	+0·44	5·16	5·31	—0·15	1·17	Malegac
	2				5	10	4	9	S 78° W	N 88° W	6·9	11·8	—4·9	56	+ 1	73	− 5	·677	—·058	5·0	−1·5	7	7·7	−0·7	10·21	5·03	+5·18	10·60	5·72	+4·88	3·80	Ahmadn
6					1	5	16	2	S 82° W	S 82° W	8·5	11·9	−3·6	69	−12	82	+ 9	·739	+·033	6·6	−0·7	16	7·2	+8·8	15·12	4·51	+10·61	16·69	5·69	+11·00	2·69	Poona.
				1	2	10	13	4	S 72° W	S 81° W	13·8	10·0	+3·8	76	− 1	77	+11	·740	+·070	5·7	−1·0	8	6·6	+1·4	4·76	4·79	—0·03	6·86	5·73	+1·13	1·30	Sholapu
	1			1	6	12	8	2	S 54° W	S 78° W	10·2	7·1	+3·1	69	−10	77	0	·692	—·029	6·5	—0·5	8	5·6	+2·4	3·70	3·44	+0·26	7·62	4·53	+3·09	1·30	Bijapur,
5						12	13		S 69° W	S 75° W	13·7 t	16·7	—3·0	72	+ 2	89	+ 2	·697	+·002	9·1	+0·9	17	13·4	+3·6	9·26	8·38	+0·88	11·14	10·83	+0·31	1·30	Belgaum
																																XI.—Central I
1		2	4	1	1	4	17		S 77° W	S 81° W	8·2	9·9	−1·7	46	—28	72	+ 2	·754	—·029	5·3	+0·9	9	4·8	+4·2	5·96	3·99	+1·97	9·11	4·37	+4·74	1·76	Neemuc
7	1			2	1	1	9	9	N 73° W	S 87° W	4·0	5·1	−1·1	53	—21	72	0	·722	—·036	7·1	+1·1	8	7·4	+0·6	8·08	5·64	+2·44	9·66	6·11	+3·55	2·13	Indore.
2	2	3	2	1	6	2	11	1	S 68° W	S 86° W	2·8	3·4	−0·6	27	—21	71	+10	·838	+·082	4·3	—0·4	8	6·2	+1·8	7·63	6·47	+1·16	9·12	6·76	+2·36	2·16	Nowgon
7			6		1	4	12		S 67° W	S 84° W	3·3	7·1	−3·8	33	+ 4	78	+18	·841	+·127	5·2	+0·6	11	6·3	+4·7	7·24	5·83	+1·41	8·56	6·20	+2·36	2·57	Sutna.
																																XII.—Central I VINCES.
	2				5	7	9	7	S 81° W		8·5	8·0	+0·5	63		71		·684		5·0		10	9·4	+0·6	6·06	6·43	—0·37	6·67	6·95	—0·28	2·52	Buldana,
				2	2	10	9	7	S 74° W	N 81° W	6·5	7·2	−0·7	62	—11	65	− 3	·720	—·038	7·3	+1·1	9	8·2	+0·8	7·02	5·12	+1·90	7·18	5·49	+1·69	2·95	Akola.
1		1	1	2	4	5	9	7	S 77° W	S 87° W	6·8	6·5	+0·3	46	—32	74	+ 3	·759	+·005	5·2	—0·8	14	8·6	+5·4	12·43	6·57	+5·86	13·28	7·11	+6·17	2·80	Amraoti
7					1	8	9	5	S 81° W	N 87° W	6·7	7·5	—0·8	59	—23	72	+ 4	·758	+·009	7·2	+1·7	14	6·9	+7·1	8·63	5·18	+3·45	10·29	5·51	+4·78	1·70	Khandw
		1		1		16	1	11	S 79° W	S 62° W	4·6	3·7	+0·9	62	− 9	74	+ 3	·813	+·005	5·8	—0·2	11	8·0	+3·0	5·37	5·89	—0·52	5·97	6·42	—0·45	0·81	Hoshang
			3	1	2	5	18	1	S 73° W	S 80° W	6·9	4·7	+2·2	62	− 5	73	+ 8	·732	+·025	5·4	+0·4	14	8·1	+5·9	7·78	6·93	+0·85	8·84	7·39	+1·45	1·27	Saugor.
2		1	1	3	5	6	8	4	S 55° W	S 70° W	2·1	3·7	−1·6	46	—13	71	+ 6	·757	+·035	5·4	+0·2	14	9·1	+4·9	9·99	7·69	+2·30	10·60	8·18	+2·42	2·10	Jubbalpo
1	2	1		1	9	8	6	2	S 46° W	S 66° W	†5·0	4·2	+0·8	53	− 3	70	+ 3	·697	—·009	5·5	+0·4	14	11·5	+2·5	11·14	8·87	+2·27	11·85	9·56	+2·29	2·90	Seoni.
1	1	1	3	3	2	6	7	6	S 77° W	S 87° W	6·2	6·6	—0·4	33	—26	69	+ 5	·757	+·005	6·0	—0·6	12	10·6	+1·4	12·49	8·71	+3·78	14·99	9·46	+5·53	5·71	Nagpur.
3	3	2	1	3	8	5	2	3	S 23° W		4·4			27		76		·716		5·6		14	11·4	+2·6	12·49	8·19	+4·30	14·39	9·10	+5·29	1·91	Pendra.
3			4	2	2	14	4	1	S 36° W	S 56° W	5·3	7·1	−1·8	53	—23	74	+ 6	·790	+·028	6·4	0	13	9·9	+3·1	7·22	8·39	—1·17	8·52	9·31	—0·79	1·95	Raipur.
3			1	3	3	7	9	4	S 62° W	S 61° W	5·8	4·5	+1·4	49	—16	69	+ 5	·777	+·036	6·1	—0·5	14	9·5	+4·5	9·72	7·22	+2·50	9·77	7·87	+1·90	2·93	Chanda.
	1		1		9	12	3	4	S 44° W					62		73		·745		6·6		12			6·46			7·23			2·10	Jagdalpu
																																XIII.—Hyderal
2				1	2	9	11	5	S 75° W		12·6			66		77	+ 8	·718		7·0		10	7·3	+2·7	7·65	5·21	+ 2·44	8·98	5·86	+3·12	1·73	Aurangab
2		1		1	3	15	4	4	S 56° W		6·8			62		67	− 2	·709		5·1		8	7·9	+0·1	6·08	4·87	+ 1·21	6·41	5·18	+1·23	2·64	Nizamab
	1		1			12	8	8	S 85° W		7·1 *			70		72		·677		7·2		11	6·7	+4·3	8·40	4·96	+ 3·44	9·23	5·76	+3·47	3·33	Bidar.
1		1		1	2	10	6	9	S 82° W	S 86° W	10·9 †	10·3	+0·6	59	− 8	74	− 2	·696	−·045	5·9	−0·4	8	7·3	+0·7	5·13	5·31	— 0·18	6·63	6·32	+0·31	2·60	Gulbarga.
	2	1	1	3	4	6	8	5	S 71° W	S 74° W	10·0	10·2	−0·2	43	—32	66	− 4	·697	—·021	6·7	+0·3	3	6·3	−3·3	1·82	3·81	— 1·99	5·88	4·45	+1·43	0·80	Raichur.
7							23		W	N 87° W	4·7	6·6	—1·9	77	− 7	70	− 1	·706	—·007	6·0	—0·2	4	6·0	−2·6	4·20	4·47	— 0·27	6·56	5·26	+1·30	1·34	Hyderaba (Deccan
		1		5	5	8	6	5	S 48° W		7·5			49		60	0	·698		6·2		7	7·8	—0·8	2·93	5·87	— 2·94	4·31	6·39	—2·08	0·99	Hanamko
																																XIV.—Mysore.
1					1	14	11	3	S 69° W	S 68° W	† 6·8	8·1	—1·3	79	− 7	78	− 4	·660	—·015	6·9	—1·7	5	6·6	—1·6	1·57	3·33	— 1·76	2·98	6·38	—3·40	1·05	Chitaldru
1	1					9	15	4	S 83° W	S 83° W	7·9	3·7	+4·2	80	− 1	85	+ 2	·638	—·002	8·0	—0·7	8	9·9	—1·9	1·89	4·01	— 2·12	8·88	9·25	—0·37	0·35	Hassan.
						9	19	2	S 80° W	S 70° W	7·9	6·8	+1·1	89	0	80	− 1	·625	−·015	7·2	+0·3	5	5·8	—0·8	2·78	2·87	— 0·09	4·49	7·21	—2·72	0·82	Bangalore
						17	12	1	S 65° W	S 62° W	† 9·1	10·7	—1·6	89	+ 8	78	− 2	·646	—·011	8·4	+0·3	4	6·5	—2·5	1·43	2·90	— 1·47	5·74	7·96	—2·22	0·62	Mysore.

* Uncorrected for scale error.

t Mean of 14 days.

† „ „ 29 „

x „ „ 21

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(2) *Abstract of observations taken at 8 hrs. at 217 stat*

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.	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.	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.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	XV.—Madras.																					
30	Mangalore	65	29·764	—·019	29·761	29·874	30th	29·612	6th	·262	79·7	86·4	+0·7	75·2	+1·7	80·8	+1·2	11·2	90·8	1st & 4th.	71·4	29th
	Calicut	27	29·814	—·024	29·770	29·913	28th	29·656	4th	·257	78·6	84·4	—0·2	75·7	+1·0	80·0	+0·4	8·7	88·3	2nd	72·6	8th & 27th.
	Cochin	9	29·851	—·021	29·788	29·933	29th	29·694	4th	·239	79·8	85·5	+0·5	75·0	+0·3	80·3	+0·4	10·5	88·7	10th	71·7	7th
	Trivandrum	198	29·657	—·017	29·785	29·746	24th	29·522	4th	·226	79·3	84·0	+1·1	76·1	+2·5	80·1	+1·8	7·9	87·5	10th	73·0	6th & 7th
31	Pamban	37	29·752	—·026	29·716	29·853	29th	29·648	3rd	·205	84·4	93·7	+4·0	80·1	—0·2	86·9	+1·9	13·6	98·7	11th	79·3	2nd, 3rd & 29th.
	Madura	447	29·351	—·005	29·724	29·465	28th	29·241	5th	·224	86·3	98·8	+0·6	79·4	+2·3	89·1	+1·5	19·4	103·0	21st	74·1	30th
	Pudukkottai	318	29·472		29·717	29·583	29th	29·363	2nd	·220	86·2	100·1		79·8		90·0		20·3	104·2	15th	76·5	30th
	Negapatam	31	29·734	—·033	29·694	29·858	30th	29·627	3rd	·231	86·4	99·5	+2·4	80·7	+1·5	90·1	+1·9	18·8	103·7	15th	78·7	5th & 6th.
	Trichinopoly	255	29·531	—·020	29·716	29·647	30th	29·415	4th	·232	85·5	99·0	0	79·5	+1·1	89·2	+0·5	19·5	102·1	21st	74·3	30th
	Coimbatore	1,341	28·471	—·011	29·737	28·580	29th	28·337	4th	·243	78·3	89·9	0	72·1	+0·5	81·0	+0·3	17·8	94·0	15th	67·8	27th
	Salem	940	28·885	—·014	29·751	28·992	30th	28·755	6th	·237	81·6	97·0	+1·8	75·4	+1·2	86·2	+1·5	21·6	101·0	15th	70·3	8th
	Cuddalore	37	29·727	—·013	29·694	29·861	30th	29·609	6th	·252	86·5	99·8	+1·6	80·7	+1·3	90·2	+1·5	19·1	104·3	21st	74·7	28th
	Vellore	707	29·051		29·681	29·184	30th	28·922	6th	·262	84·5	98·5		79·8		89·1		18·7	101·7	18th & 21st,	75·0	4th
	Madras	22	29·719	—·027	29·672	29·868	29th	29·605	5th	·263	86·0	100·1	+1·6	82·8	+2·1	91·5	+1·9	17·3	105·5	21st	79·0	4th
32	Cuddapah	433	29·316	—·016	29·679	29·467	30th	29·171	6th	·296	86·9	100·9	+0·6	80·8	+0·2	90·8	+0·4	20·1	105·0	1st	74·8	30th
	Bellary	1,475	28·279	—·020	29·671	28·443	30th	28·134	6th	·309	80·2	95·1	+0·6	76·2	+0·5	85·7	+0·5	18·9	102·0	1st	73·3	4th
	Kurnool	923	28·824	—·008	29·679	28·995	30th	28·672	6th	·323	81·2	97·2	+0·5	77·9	+1·0	87·5	+0·7	19·3	101·5	1st, 2nd & 3rd,	71·1	30th
33	Nellore	66	29·652	—·011	29·651	29·810	29th	29·529	6th	·281	88·9	102·2	+0·4	82·4	+0·2	92·3	+0·3	19·8	105·0	12th	79·1	2nd, 6th & 29th.
	Masulipatam	15	29·686	—·005	29·636	29·852	29th	29·569	6th	·283	87·6	98·4	+0·7	81·8	+1·6	90·1	+1·1	16·6	107·8	20th	76·2	4th & 23rd.
	Cocanada	26	29·664	—·002	29·629	29·851	30th	29·565	12th	·286	85·2	94·7	—0·5	80·7	—0·3	87·7	—0·4	14·0	104·7	19th	75·1	28th
	Waltair (Vizagapatam).	*226*	29·451	+·022	29·616	29·659	29th	29·324	25th	·335	83·7	90·3		79·4		84·9		10·9	100·1	15th	71·9	21st
	Calingapatam	19	29·648		29·605	29·854	28th	29·526	12th & 13th.	·328	83·7†	92·3†		79·8†		86·0†		12·5	105·8	5th	74·8	27th
	Gopalpur	72	29·595	+·022	29·587	29·793	29th	29·475	12th	·318	83·5	89·1	—0·1	79·7	—0·9	84·4	—0·5	9·4	94·7	15th	73·5	1st
	Bay Islands.																					
1	P. V. Fraser	8	29·641		29·591	29·880	29th	29·471	12th	·409	83·9											
	Port Blair	58	29·766	+·005	29·754	29·895	29th	29·699	25th	·196	81·1	85·1	—0·9	77·3	—0·5	81·2	—0·7	7·8	88·7	5th	74·0	4 days
	Slipper Island	90	29·679		29·703	29·841	29th	29·594	25th	·247	82·1	84·7		77·9		81·3		6·6	88·1	7th	72·1	18th
	Kashmir.																					
13	Muzaffarabad	2,475	27·304		29·695	27·495	20th	27·153	25th	·342	76·1	95·8		67·5		81·7		28·4	110·1	4th	61·1	2nd
	Srinagar	5,204	24·732	+·001	24·703	24·919	20th	24·604	25th	·315	68·1	84·1	0	60·1	+1·3	71·6	+0·7	23·0	91·4	9th	52·6	1st
	Gulmarg	*8,569*	21·775	—·018	21·743	21·954	20th	21·653	12th	·301	57·4	64·7‡	—2·2‡	45·8	+2·0	55·2‡	—0·1	18·9	76·1	9th	37·5	13th
	Dras	*10,059*	20·754	—·006	20·722	20·974	3rd	20·576	12th	·398	54·5	68·6		41·3		54·9		27·3	79·0	4th	32·0	1st
	Leh	*11,503*	19·684	+·004	19·652	19·921	3rd	19·486	12th	·435	55·4	71·5	—1·6	44·8	+0·2	58·1	—0·7	26·7	80·2	24th	36·8	13th
	Skardu	*7,505*	22·743	—·037	22·713	23·003	3rd	22·581	12th	·422	67·4	82·3	+3·7	57·8	+2·9	70·1	+3·3	24·5	91·0	22nd & 24th,	48·6	13th
	Gilgit	4,890	24·956		24·929	25·161	20th	24·786	9th & 25th.	·375	77·6	95·2	+0·6	66·7	—3·3	81·0	—1·3	28·5	103·2	23rd	56·2	12th

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

NOTE.—The barometric readings are not reduced to sea-level in the case of hillor pl

† Mean of 29 days.

‡ „ „ 23 „

B—*continued.*

in India, etc., in June, 1913—continued.

Wind direction. Number of winds from Calm. (25)	N. (26)	N. E. (27)	E. (28)	S. E. (29)	S. (30)	S. W. (31)	W. (32)	N. W. (33)	Resultant direction. (34)	Normal direction. (35)	Wind velocity. Mean velocity, miles per hour. (36)	Normal. (37)	Departure from normal. (38)	Wind steadiness. Actual percentage. (39)	Departure from normal. (40)	Hygrometry, 8 hrs. Mean humidity at 8 hrs. (41)	Departure from normal. (42)	Mean vapour tension at 8 hrs. in inches of mercury. (43)	Departure from normal in inches of mercury. (44)	Cloud. Mean amount at 8 hrs. (45)	Departure from normal. (46)	Rainfall. Number of rainy days. (47)	Normal number of rainy days. (48)	Departure from normal. (49)	Rainfall of month. (50)	Normal rainfall of month. (51)	Departure from normal. (52)	Total rainfall from 1st May to 30th June, 1913. (53)	Normal rainfall for period, 1st May to 30th June. (54)	Departure from normal of period, 1st May to 30th June, 1913. (55)	Heaviest rainfall during month. (56)	Station. (57)
																																XV.—Madras.
2	1	2	6	1	1	5	9	3	S 84° W	S 83° W	5·6	2·4	+3·2	23	+12	84	−5	·855	−·018	7·7	−1·1	25	24·5	+0·5	33·96	36·76	−2·80	37·51	43·02	−5·51	3·84	Mangalore.
10	2	2	1	6	1	1	2	5	N 22° E	N 22° E	4·1 *	7·1	−3·0	3	−8	90	+2	·881	+·023	8·2	+0·1	24	23·9	+0·1	25·13	34·19	−9·06	34·19	41·98	−7·49	4·70	Calicut.
7	3	4	8	3			3	2	N 59° E	N 9° W	4·5 §§	4·5	0	33	+11	84	−3	·857	−·005	6·4	−1·2	26	23·7	+2·3	22·06	28·13	−6·07	31·86	39·52	−7·66	4·75	Cochin.
	12	2		1			2	13	N 22° W	N 16° W	6·9	5·1	+1·8	79	+12	83	−4	·826	−·014	7·5	−0·6	10	16·7	−6·7	13·27	12·97	+0·30	19·55	21·64	−2·09	5·88	Trivandrum.
8				1	1	10	10		S 62° W	S 39° W	9·0	9·8	−0·8	59	−19	79	0	·929		3·1		0	0·3	−0·3	0	0·12	−0·12	0·34	0·92	−0·58	0	Pamban.
	1			1	1		13	14	N 68° W	N 79° W	8·5	3·0	+5·5	79	+19	57	−7	·704	−·059	7·5	+2·1	2	2·2	−0·2	0·41	1·38	−0·97	1·56	4·25	−2·69	0·25	Madura.
6	1				1	7	3	12	N 79° W		6·6			53		69		·863		5·2		2	2·8	−0·8	1·72	1·16	+0·56	2·82	3·42	−0·60	0·	Pudukkottai.
						11	18	1	S 75° W	S 61° W	5·1 *	6·1	−1·0	89	+8	69	+5	·869	+·079	4·2	−0·6	2	2·3	−0·3	0·59	1·33	−0·74	1·21	3·14	−1·93	0·37	Negapatam.
					2	6	20	2	S 79° W	S 80° W	7·9	6·7	+1·2	86	+1	58	−5	·707	−·025	3·9	−2·1	2	2·1	−0·1	0·43	1·44	−1·01	7·53	4·68	+2·85	0·23	Trichinopoly.
7				1	6	16			S 31° W	S 45° W	9·1	5·1	+4·0	69	−9	63	+2	·808	+·041	5·0	−0·9	0	4·7	−4·7	0·38	1·56	−1·18	1·99	4·03	−2·04	0·09	Coimbatore.
4		1			8	6	9	2	S 54° W	S 32° W	4·5	3·7	+0·8	56	−13	71	−3	·754	−·017	6·7	+0·7	5	5·2	−0·2	1·36	3·16	−1·80	5·17	8·06	−2·89	0·39	Salem.
5					2	14	8	1	S 59° W	S 62° W	5·8	2·1	+3·7	69	−1	75	+3	·958	+·056?	4·7	−0·7	2	2·8	−0·8	1·23	1·55	−0·32	1·41	2·29	−0·88	0·86	Cuddalore.
2						9	13	6	S 85° W		4·4 *			79		69		·803		4·0		0	5·1	−5·1	0·09	2·90	−2·81	1·98	5·66	−3·68	0·09	Vellore.
				1	1	9	15	1	S 64° W	S 66° W	6·1	6·4	−0·3	76	+2	59	−4	·768	−·033	4·8	−1·4	0	3·8	−3·8	0·13	1·90	−1·77	2·27	2·98	−0·71	0·04	Madras.
	2		2	1	1	7	14	3	S 83° W	N 87° W				59	−19	55	−6	·703	−·055	4·8	−1·6	2	4·7	−2·7	0·76	3·12	−2·36	2·28	4·70	−2·42	0·47	Cuddapah.
						6	16	8	N 87° W	S 84° W	6·9 *	7·7	−0·8	86	+12	65	+4	·666	+·026	7·4	−0·2	2	3·9	−1·9	0·87	2·04	−1·17	3·18	4·08	−0·90	0·40	Bellary.
2		1			1	14	4	8	S 76° W	S 89° W	6·1 *			62	−1	69¶		·690¶		5·8	−0·6	3	5·8	−2·8	1·01	3·17	−2·16	2·80	4·12	−1·32	0·38	Kurnool.
					3	3	13	11	N 83° W	N 73° W	6·2	7·0	−0·8	76	+13	54	−8	·727	−·095	7·1	+0·5	1	2·7	−1·7	0·43	1·27	−0·84	0·54	1·96	−1·42	0·15	Nellore.
2				1	4	2	11	10	N 87° W	N 80° W	7·3	6·9	+0·4	62	−1	73	−4	·939	−·011	6·3	−0·3	4	6·2	−2·2	1·20	4·69	−3·49	2·17	5·83	−3·66	0·60	Masulipatam.
7			2	2		4	10	5	S 87° W	S 69° W	5·1	6·4	−1·3	43	−32	74	+2	·900	+·034	7·6	+0·6	9	6·3	+2·7	4·87	4·74	+0·13	6·61	5·90	+0·71	1·42	Cocanada.
1		1			1	22	5		S 51° W	S 73° W	6·2			82	+8	79 **	+5	·900 **	+·011	8·2	+0·8	12	6·1	+5·9	3·58	4·58	+4·00	9·10	6·89	+2·21	2·22	Waltair (Vizagapatam).
5	3	2		1	2	7	7	3	S 85° W		7·4			40		84		·957		6·1		3	5·5	+2·5	4·99	3·99	+1·00	6·15	6·02	+0·13	1·58	Cuddalore.
3	1	1	1		9	11	2	2	S 35° W	S 39° W	8·4	11·0	−2·6	56	−18	84	0	·938	−·025	6·8	−0·4	8	7·6	+0·4	4·65	5·83	−1·18	6·41	7·77	−1·36	2·37	Gopalpur.
																																Bay Islands.
	1	3	1	2	6	14	2	1	S 32° W					50		87		1·009		7·5		11			11·32			12·57			4·10	P.V.Fraser.
10					9	2	6	3	S 49° W	S 57° W	6·9	7·6	−0·7	40	−34	84	−4	·894	−·060	8·0	−0·4	19	21·2	−2·2	20·87	19·24	+1·63	28·38	36·14	−7·76	4·15	Port Blair.
				1	9	11	6		S 38° W		11·1			79		89		·971		8·3		13	17·0	−4·0	13·61	16·01	−2·40	17·27	25·26	−7·99	2·72	Slipper Island.
																																Kashmir.
6	1	1			8	10	3	1	S 38° W		0·9			53		64		·567		2·2		7			4·38			9·46			1·10	Muzaffarabad
8	3	6		4	4			5	N 42° E	S 45° E	3·0	2·8	+0·2	17	+9	76	−5	·521	−·050	4·2	+1·0	4	4·1	−0·1	1·16	1·73	−0·57	2·43	4·36	−1·93	0·34	Srinagar.
9	1	6	1		3	3		1	N 71° E		3·2			7		75	−6	·358		4·5		8	9·8	−1·8	2·90	3·77	−0·87	2·90 (b)	3·77 (c)	−0·87	0·60	Gulmarg.
23			1			1	4	1	W		4·1			15		57	−4	·241		3·2		5	2·4	+2·6	1·09	0·71	+0·38	1·32	3·80	−2·48	0·45	Dras.
25					3	1	1		S 26° W	S 72° W	3·0 **	1·9	+1·1	17	−30	45	+3	·189	+·005	4·5	+0·9	3	0·6	+2·4	0·69	0·17	+0·52	0·99	0·38	+0·61	0·30	Leh.
14			4	1	1	1	6		S 18° E		5·9*			(a)		39	−13	·252		3·7		0	0·9	−0·9	0·06	0·34	−0·28	0·36	1·61	−1·25	0·04	Skardu.
30									(a)		0·8			(a)		49	+11	·449	+·094	2·4	−0·4	1	1·3	−0·3	0·30	0·40	−0·10	0·41	1·34	−0·93	0·20	Gilgit.

stations, the elevations of which exceed 3,200 feet. § Mean of 16 days. * Uncorrected for scale error. ** Mean of 29 days. ¶ Mean of 12 days.

(a) Indeterminate.

(b) Actual rainfall since 7th June 1913.

(c) Normal rainfall since 1st June.

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(2) *Abstract of observations taken at 8 hrs. at 217 stat*

Number of subdivision.	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.	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.	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.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	Baluchistan.																					
15	Fort Sandeman		25·222		25·191	25·405	20th	25·089	25th	·316	78·1	97·9		71·2		84·5		26·7	106·5	9th	62·1	12th
	Quetta	5,502	24·485	+·005	24·445	24·626	20th	24·387	25th	·239	71·6	92·2	+1·6	60·4	+1·3	76·3	+1·5	31·8	98·7	5th	49·7	12th & 13th.
	Chaman	4,311	25·490	+·002	25·452	25·659	20th	25·386	17th	·273	81·9	98·7	−1·0	72·3	−0·6	85·5	−0·8	26·4	106·6	5th	61·0	12th
	Kalat	6,630	23·624		23·586	23·743	3rd & 20th.	23·534	25th	·209	65·9	89·6		54·3		71·9		35·3	96·0	5th & 9th	44·2	14th & 16th.
	Dalbandin	2,779	26·866		26·829	27·016	1st	26·741	26th	·275	87·0	107·4		73·3		90·3		34·1	115·1	8th	59·7	26th
	Pasni		29·580		29·540	29·769	20th	29·450	11th	·349	86·3	95·3		81·8		88·6		13·5	103·5	13th	79·0	16th
	Panjgur		26·510		26·468	26·653	20th	26·397	7th	·256	79·8	101·8		72·9		87·4		28·9	111·8	4th	61·9	14th
	Robat		26·682		26·640	26·762	21st	26·508	7th	·254	83·5	103·3		76·9		90·1		26·4	112·8	7th	68·7	10th
	Hill stations, excluding Kashmir and Baluchistan.																					
	Para Chinar	6,000	24·306		24·282	24·482	20th	24·154	12th	·328	74·9	85·8		63·3		74·6		22·5	97·7	3rd	54·6	12th
	Cherat	*4,956*	25·545 (c)	+·037	25·513	25·725	20th	25·397	25th	·328	76·7	89·5	−4·8	70·7	−2·4	80·1	−3·6	18·8	102·4	3rd	60·8	12th
	Drosh		24·292			25·125	3rd & 4th.	24·800	12th & 25th.	·325	76·0	93·9		69·2		81·5		24·7	101·2	5th	58·1	11th
	Murree	6,333	23·755	+·023	23·723	23·936	3rd	23·598	12th	·338	65·4	76·3	−5·4	60·7	−3·8	68·5	−4·6	15·6	86·5	24th	52·1	30th
	Simla	7,232	23·030	+·032	22·992	23·175	3rd	22·901	13th	·274	61·9	67·8	−6·6	58·4	−2·6	63·1	−4·6	9·4	74·4	23rd	53·6	18th
	Sarain																					
	Kalabagh†		20·084		20·046	20·235	3rd	19·921	13th	·314	48·9	54·2		44·3		49·2		9·9	59·4	23rd	39·7	18th
	Chakrata	7,022	23·197	+·025	23·157	23·345	4th & 20th.	23·063	13th	·282	61·6	68·1	−6·2	56·9	−3·1	62·5	−4·7	11·2	73·3	22nd	53·2	1st
	Mukteswar	7,592	22·747	−·006	22·706	22·896	3rd	22·608	13th	·288	59·3	69·1	−6·9	53·1	−5·1	61·1	−6·0	16·0	75·5	8th	45·4	1st
	Darjiling	7,376	22·915	−·010	22·870	23·049	4th	22·785	16th	·264	59·7	65·3	+0·1	55·9	−0·3	60·6	−0·1	9·4	72·3	14th	51·7	1st
	Shillong	4,920	25·015		24·967	25·161	4th	24·863	7th	·293	67·3	73·2		62·3		67·7		10·9	76·9	22nd	55·7	2nd
	Cherrapunji	4,309	25·688		25·639	25·844	20th	25·505	13th	·339	66·7	71·8		63·6		67·7		8·2	76·2	27th	60·6	6th
	Maymyo	3,545	25·330	+·020	26·275	26·465	29th	26·235	10th	·230	70·2	77·5	−1·1	66·4	+0·8	71·9	−0·1	11·1	80·8	6th	63·6	27th
	Pachmarhi	3,528	26·247	−·007	26·194	26·402	20th	26·118	12th	·284	73·4	81·1	−1·8	70·4	−1·6	77·3	−1·7	13·7	101·0	2nd	65·1	19th
	Mount Abu	3,945	25·859	−·001	25·809	26·041	20th	25·719	12th	·322	74·1	83·2	−0·1	69·2	+1·1	76·2	+0·5	14·0	98·0	4th	63·4	29th
	Mercara	3,781	26·132	−·026	26·065	26·214	29th	26·002	6th	·212	65·9	72·5	−0·4	62·8	−0·5	67·7	−0·5	9·7	82·0	1st	60·0	19th
	Ootacamund	*7,327*	22·994		22·930	23·074	29th	22·884	4th	·190	57·9	64·1		52·3		58·2		11·8	71·5	3rd	48·2	29th
	Kodaikanal	7,688	22·763	−·028	22·698	22·852	29th	22·657	4th	·195	59·2	65·9	+0·6	53·1	−0·7	59·6	−0·1	12·8	70·5	1st	50·0	2nd & 20th.
	Extra India.																					
	Singapore (a)	10	29·925		29·856	29·991	28th	29·826	7th	·165	83·0	87·5		75·5		81·5		12·0	91·4	13th	72·8	30th
	Penang (a)	17	29·814		29·755	29·902	30th	29·705	3rd	·197	82·7	89·7		74·5		82·1		15·2	92·5	13th	71·0	29th
	Trincomalee	99	29·694	?	29·721	29·807	29th	29·587	6th	·220	80·8	94·9	+3·3	78·4	0	86·7	+1·7	16·5	99·0	21st	75·0	28th
	Colombo	24	29·837	−·039	29·787	29·915	29th	29·727	2nd	·188	79·6†	86·2	+0·5	77·1	−0·4	81·6	+0·1	9·1	88·0	10th	73·5	3rd, 6th & 12th.
	Minicoy	7	29·880			29·961	24th	29·725	3rd	·236												
	Amini Divi	*13*																				
	Gyantse	13,120									54·1	70·9		43·8		57·3		27·1	79·0	13th & 21st	32·9	3rd
	Phari Jong	14,400									46·5	53·9		24·9		39·4		29·0	63·4	6th	14·0	24th
	Gangtok	5,560?	24·343		24·298	24·490	4th	24·234	15th	·256	65·3	71·7		60·8		66·3		10·9	76·9	22nd	56·8	1st
	Gartok (c)	15,100	?			17·775	3rd & 17th.	17·600	28th	·175	37·2	60·7		30·3		45·5		30·4	68·3	25th	15·6	1st

N.B.—Elevations in italics indicate barometrical determinations.
(a) 9 hrs. observations. (c) Aneroid corrected.

NOTE.—The barometric readings are not reduced to sea-level in the case
† Mean of 29 days.

B—*continued.*

in India, etc., in June, 1913—continued.

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 from 1st May to 30th June, 1913.	Normal rainfall for period, 1st May to 30th June.	Departure from normal of period, 1st May to 30th June, 1913.	Heaviest rainfall during month.	Station.
25	25	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
																																Baluchistan.
16	5	5		1		1	1	1	N 14° E		3·8†			27		53		·484		1·2		5			1·30			1·90			0·56	Fort Sandeman.
27				3					S 45° E	S 8° W	1·2†	2·2	−1·0	10	+ 4	55	+ 6	·438	−·017	0·3	−0·3	0	0·5	−0·5	0·08	0·17	− 0·09	0·08	0·55	− 0·47	0·07	Quetta.
19	1		2	1	3	4			S 1° W	S 53° W	3·3	6·6	−3·3	18	−30	40	+12	·421	+·059	0·2	−0·3	0	0·1	−0·1	0	0·03	− 0·03	0	0·14	− 0·14	0	Chaman.
14		1		5	6	2	1	1	S 7° E	S 32° W	4·5			30	−12	47		·307		0·9		3	0·6	+2·4	0·40	0·31	+ 0·09	0·40	0·56	− 0·16	0·13	Kalat.
3		2	5	2	1	7	7	3	S 58° W		5·8†			27		28‡		·383‡		0·4		1			0·12			0·12			0·12	Dalbandin.
13		2	1			1	12	1	N 83° W		4·9			37		88		1·139		6·5		0			0			0			0	Pasni.
8	3	4	3		4	3	2	3	N 13° W		4·9†			6		58		·591		1·7		1			0·29			0·29			0·24	Panjgur.
1	2	5	3		3	3	11	2	N 77° W		6·5†			27		51		·595		0·3		0			0			0			0	Robat.
																																Hill stations, excluding Kashmir and Baluchistan.
21		1	1	2	4	1			S 24° E		0·9†			20		48		·406		1·0		5	4·8	+0·2	3·91	2·21	+ 1·70	5·10	4·37	+ 0·13	2·50	Para Chinar.
6	2	2		7	9	3		1	S 17° E	S 79° E	6·7	7·2	−0·5	40	+35	53	+ 2	·471	−·032	2·7	0	3	1·9	+1·1	2·16	1·04	+ 1·12	2·34	2·78	− 0·44	0·50	Cherat.
22			5	2	1				S 69° E		5·8†			23		42		·353		0·5		3	1·9	+1·1	1·40	0·63	+ 0·77	1·65	3·01	− 1·36	0·90	Drosh.
12	1	1		4	8	4			S 3° E	S 63° E	3·5	5·3	−1·8	40	+29	66	+14	·406	+·023	4·8	+1·3	11	5·5	+5·5	8·21	3·50	+ 4·71	9·59	6·45	+ 3·14	1·54	Murree.
																79	+13	·433	+·031	6·1	+1·1	12	9·5	+2·5	9·40	6·91	+ 2·49	14·63	9·59	+ 5·04	1·76	Simla.
																							8·6			5·79			7·83			Sarain.
11	1			3	4	1	2	7	S 79° W		4·9‖			17		82		·289		7·5		15	10·5	+4·5	8·01	8·01	0	8·01 (*a*)	8·01 (*b*)	0	2·66	Kalabagh.
14	3	1		6	5			1	S 41° E	S 8° W	2·5	5·4	−2·9	23	+14	86	+15	·466	+·029	7·3	+3·3	17	10·2	+16·3	13·84	7·79	+ 6·05	19·51	10·25	+ 9·26	2·32	Chakrata.
6	1	2	5	2	2	1	8	3	N 82° W		5·3			10		85	+18	·433		7·3		16	9·3	+6·7	14·01	5·88	+ 8·13	18·62	7·97	+10·65	4·71	Mukteswar.
22		2	1	3	1		1		S 63° E	S 76° E	0·7	3·7	−3·0	10	− 5	94	− 1	·481	−·017	8·7	+0·1	23	20·6	+2·4	43·48	22·77	+25·71	56·82	31·51	+25·31	9·22	Darjiling.
22		3	1		1	3			S 45° E		1·5			3		83		·556		7·9		22	19·4	+2·6	25·81	17·18	+ 8·63	38·24	26·35	+11·89	5·07	Shillong.
7	5	4	1	3	6	2	2		S 55° E		4·3‖			10		94		·612		8·3		24	25·7	−1·7	92·84	90·95	+ 1·89	139·48	123·11	+16·37	15·30	Cherrapunji.
10					2	17	1		S 43° W		2·7			62		88	+ 3	·648		7·1		12	13·5	−1·5	5·78	9·02	−3·24	11·57	18·33	− 6·76	0·95	Maymyo.
5				1	2	9	8	5	S 73° W	S 81° W	3·4	6·7	−3·3	56	−11	82	+10	·662	+·041	5·7	−0·3	15	10·5	+4·5	9·57	9·38	+ 0·19	10·39	9·93	+ 0·46	1·70	Pachmarhi.
10	1	2	2		1	8	3	3	S 74° W	S 59° W	4·7	8·3	−3·6	23	−44	75	+ 2	·608	+·037	5·7	+0·4	9	6·2	+2·8	5·73	5·25	+ 0·48	7·02	5·97	+ 1·05	1·15	Mount Abu.
1	2					6	13	8	N 82° W	N 88° W	5·6	5·7	−0·1	76	+ 2	97	+ 4	·613	+·007	8·7	−0·3	20	23·7	−3·7	17·31	25·74	− 8·43	22·96	31·53	− 8·57	2·00	Mercara.
			2	3	1	6	11	7	S 81° W		5·8			53		82		·392		8·1		8	13·1	−5·1	3·32	6·10	− 2·78	9·37	13·94	− 4·57	0·82	Ootacamund.
1	1			3	1	2	16	6	N88° W		11·4*			62		74	− 1	·368		6·0		6	10·0	−4·0	2·30	3·86	−1·56	5·82	9·72	− 3·90	0·60	Kodaikanal.
																																Extra India.
14				9	4	2	1		S 19° E		4·6*			43						6·2		14	9·0	+5·0	10·41	6·92	+ 3·49	18·16	12·88	+ 5·28	3·65	Singapore.
		16		10		1		3	N 70° E		10·5*			53								9	9·9	−0·9	10·47	7·61	+2·86	26·15	16·09	+10·06	3·25	Penang.
						30			S 45° W	S 47° W	8·2*	12·2	−4·0	96	+ 2	77	+ 1	·805	−·071	6·2	+2·7	1	1·9	−0·9	0·22	1·31	−1·09	1·51	3·67	−2·16	0·19	Trincomalee.
8						9	6	6	¶ S 83° W	S 62° W	4·1*	7·7	−3·6	60	−26	88†	+ 7	·885†	−·001	8·8	+1·6	10	13·0	−3·0	5·27	7·62	−2·35	12·79	18·32	−5·53	1·24	Colombo.
						7	15	8	N 88° W	S 81° W	8·9	11·8	−2·9	87						6·2	−0·5	16	17·1	−1·1	9·92	10·52	−0·60	19·53	16·20	+3·33	2·00	Minicoy.
																							15·7			13·67			16·81			Amini Divi.
14	2		9				1	4	N 45° E		1·7‖			27		93		·397		3·6		1			0·27			0·77			0·10	Gyantse.
17	2	1		8	2				S 50° E		10·3			27						5·1		18			12·57			12·83			1·26	Pharijong.
28								2	N 45° W		0·8			3		93		·589		4·7		21	22·8	−1·8	29·83	20·62	+0·21	36·51	40·07	−3·56	3·18	Gangtok.
11					10				S 21° E		6·8			57						3·5		0			0·07			0·07			0·07	Gartok.

or plateau stations, the elevations of which exceed 3,200 feet.

* Uncorrected for scale error.

† Mean of 29 days.
‡ " 23 "
‖ " 28 "
(*a*) Actual rainfall since 2nd June 1913.
(*b*) Normal " 1st "

¶ 1 Wind less.

Ta

(2) *Abstract of observations taken at 8 hrs. at 217 stat*

Number of subdivision.	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.
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—*concld.*																					
	Kashgar (*c*)	4,255																				
	Kabul		24·068†			24·210	20th	23·950	25th	·260	78·7	93·8	+4·6	76·5	+17·8	85·1	+11·2	17·3	101·4	23rd	66·6	12th
	Meshed	3,104	26·735		29·735	26·900	4th	26·573	26th	·327	73·0	89·3		56·7	—6·7	73·0		32·6	97·4	18th	46·1	10th
	Jask	13	29·533‡	—·034‡	29·499‡	29·727	21st	29·378	26th	·349	89·1	98·2	+2·4	85·8	+2·7	92·0	+2·5	12·4	103·8	16th	81·3	13th
	Muscat	20	29·542	—·011	29·510	29·707	20th	29·385	7th	·322	90·8	98·7	+4·9	88·0	—0·1	93·3	+2·4	10·7	107·3	1st	84·6	20th & 28th.
	Bahrein	18	29·597*		29·568*	30·055	1st	29·459	11th	·596	88·0	91·9		82·9		87·4		9·0	99·7	23rd	75·5	21st
	Bushire	14	29·550	—·021	29·526	29·661	22nd	29·420	26th	·241	84·4	90·3	—1·6	80·1	—0·4	85·2	—1·0	10·2	96·8	3rd & 29th.	74·5	21st
	Busrah	25	29·551		29·545	29·646	22nd	29·368	5th	·278	85·5	103·0		81·1		92·0		21·9	116·9	4th	76·5	21st
	Kerman		24·399			24·520	5 days	24·240	7th & 26th.	·280	77·7	98·4		60·4		79·4		38·0	108·4	7th	49·5	13th
	Ispahan (*b*)	*5,817*	24·224			24·330	15th	24·020	26th	·310	77·5	94·1	—0·3	68·5	+1·6	78·8	+0·7	30·6	102·4	30th	53·7	11th
	Tehran (*b*)	*4,002*																				
	Baghdad	127	29·563	—·015	29·663	29·737	6th	29·426	26th	·311	85·9	105·5	+3·7	75·7	+0·3	90·6	+2·0	29·8	113·6	25th	68·6	6th
	Beirut (*a*)				29·868						76·5	80·3		68·6		74·5		11·7	83·5	21st	62·1	19th
	Aden	94	29·640	—·007	29·665	29·762	24th	29·486	3rd	·276	88·1	95·8	—0·1	84·2	+0·5	89·4	+0·2	10·6	97·1	23rd	77·9	6th
	Zanzibar	72	30·070	—·007	30·069	30·128	17th	29·974	3rd & 4th.	·154	75·8	82·3	+0·8	74·2	0	78·2	+0·4	8·1	84·2	3rd	72·0	29th

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*) ,, corrected.

† Mean of 13 days.
‡ ,, 27 ,,
* ,, 29 ,,

B—*concluded.*

in India, etc., in June, 1913—concluded.

Wind direction.													Wind velocity.			Wind steadiness.		Hygrometry, 8 hrs.				Cloud.		Rainfall.										Stati
Number of winds from																																		
Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.		Resultant direction	Normal direction.		Mean velocity, miles per hour.	Normal.	Departure from normal.	Actual percentage.	Departure from normal.	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.	Mean cloud amount at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st May to 30th June, 1913.	Normal rainfall for period, 1st May to 30th June.	Departure from normal of period, 1st May to 30th June, 1913.	Heaviest rainfall during month.	
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
																																		Extra I (concl
											N 28° W			3·5											0·9						1·04			Kashgar.
		2	3	2	13	5	5			S 10° W	N 23° E					57	+51	81		·823		0·7	+0·4	0	0·7	−0·7	0·04	0·24	−0·20	0·07	1·19	− 1·12	0·04	Kabul.
24	1			1	2	1		1		S 27° W			1·8‡			7		39		·316		0·8	−0·4	0	0·8	−0·8	0	0·33	−0·33	0·42	1·72	−1·30	0	Meshed.
1	3	5	14	3	1			3		N 73° E	S 48° E		7·7	9·6	−1·9	56	+36	70	+ 3	·944	+·007	1·3	+0·2	0	0·1	−0·1	0	0·05	−0·05	0	0·05	− 0·05	0	Jask.
12	1		11				1	4		N 62° E	N 27° E		4·2	3·4	+0·8	27	+ 8	71	+ 4	1·013	+·065	2·7	+1·2	0	0·2	−0·2	0	0·15	−0·15	0	0·15	−0·15	0	Muscat.
	9	1	1				2	17		N 29° W			6·4			83		55†		·722†		0·8		0	0	0	0	0	0	0·01	0·10	−0·09	0	Bahrein.
2	4		2	1	1		5	15		N 45° W	N 37° W		10·0	7·8	+2·2	59	+ 3	78	+16	·921	+·136	0·4	+0·2	0	0	0	0	0	0	0·02	0·02	0	0	Bushire.
	1	1				1	16	11		N 69° W			3·9			83		57		·695		0·1		0	0	0	0	0	0	0·34	0·46	− 0·12	0	Busrah.
25	2	2		1						N 34° E			3·2			13		37		·355		0·4		0			0			0			0	Kerman.
25	1			1			3			N 82° W	N 50° W		2·0	2·8	−0·8	6	−33	41	−10	·393	−·104	0·5	+0·4	0	0	0	0	0·01	−0·01	0·11	0·26	−0·15	0	Ispahan.
											S 7° W			2·2											0·3			0·08			0·53			Tehran.
	11	4	1				1	13		N 15° W	N 9° W		9·3	3·6	+5·7	80	+12	26	−14	·327	−·162	0·7	+0·6	0	0	0	0	0	0	0·06	0·23	− 0·17	0	Baghdad
5	2	3			5	6	9			S 66° W						40		66		·602		1·9		0			0·05			0·10			0·03	Beirut.
17	1	6	1	2	3					N 83° E	S 34° E		4·3	6·8	−2·5	23	− 3	72	0	·943	+·005	4·3	+1·3	1	0·1	+0·9	0·25	0·07	+0·18	0·34	0·20	+ 0·14	0·20	Aden.
					12	18				S 27° W	S 13° W		6·3	6·4	−0·1	93	+ 6	85	+ 2	·754	+·026	5·7	+0·6	0	3·4	−3·4	0·07	1·79	−1·72	11·25	13·21	−1·96	0·04	Zanzibar

† Mean of 29 days.
‡ „ „ 28 „

* 1 Wind less.

Table C.—Abstract of observations taken at 8 hrs. at 63 fourth and fifth class stations in India, etc., in June 1913.

Tab

Abstract of obervations taken at 8

Number of subdivision.	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.	Wind direction. Number of winds from Calm.	N	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
	II.—Assam.																							
4	Balek	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Bishnath	78·5	89·8	...	78·4	...	84·1	...	11·4	94·7	20th	74·4	1st	20·3	...	...	...	...	...	...	...	...	...	...
	Borjuli	80·3	89·7	...	74·5	...	82·1	...	15·2	95·6	16th	70·4	2nd	25·2	...	...	...	...	...	...	...	...	...	...
	Chandkhira	80·0	88·7	...	73·7	...	81·2	...	15·0	98·6	12th	70·0	1st	28·6	...	...	...	...	...	...	...	...	...	...
	Doom Dooma	77·1	90·2	...	74·0	...	82·1	...	16·2	97·3	13th	68·2	7th	29·1	...	...	...	...	...	...	...	...	...	...
	Dikom	79·4	90·5	...	75·3	...	82·9	...	15·2	97·0	20th	72·4	2nd	24·6	...	...	...	...	...	...	...	...	...	...
	Golaghat	80·7	88·8	...	74·9	...	81·9	...	13·9	95·3	20th	67·6	5th	27·7	...	...	...	...	...	...	...	...	...	...
	Hailakandi	79·4	88·0	...	75·1	...	81·5	...	12·9	95·0	13th	69·8	1st	25·2	...	...	...	...	...	...	...	...	...	...
	Jorehat	81·3	90·7	...	76·1	...	83·4	...	14·6	95·5	20th	72·4	2nd	23·1	...	...	...	...	...	...	...	...	...	...
	Lumding	79·5	89·0	...	74·4	...	81·7	...	14·6	94·5	27th	67·0	2nd	27·5	...	...	...	...	...	...	...	...	...	...
	Messa	84.3	92·7	...	74·9	...	83·8	...	17·8	97·2	16th	72·1	3rd	25·1	...	...	...	...	...	...	...	...	...	...
	Panerihat	74·5	82·8	...	73·9	...	78·3	...	8·9	88·7	12th	67·2	2nd	21·5	...	...	...	...	...	...	...	...	...	...
	Srimangal	79·4	88·0	...	75·0	...	81·5	...	13·0	94·5	13th	70·8	7th	23·7	...	...	...	...	...	...	...	...	...	...
	III.—Bengal.																							
5	Comilla	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Brahmanbaria	81·5	87·6	...	75·5	...	81·5	...	12·1	92·5	19th	71·2	1st	21·3	...	...	...	...	...	...	...	...	...	...
	Faridpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Goalundo	80·5	89·2*	...	75·7	...	82·5*	...	13·5	94·2	24th	71·1	17th	23·1	...	...	...	...	...	...	...	...	...	...
	Pabna	80·8	87·2	...	76·0	...	81·6	...	11·2	92·3	24th	71·2	5th & 16th.	21·1	...	...	...	...	...	...	...	...	...	...
	Sirajganj	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Rampur Boalia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Malda	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Rangpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Dam Dim	80·0	91·4	...	72·6	...	82·0	...	18·8	95·9	13th	68·2	3rd	27·7	...	...	...	...	...	...	...	...	...	...
	Kalchini	81·1	88·1	...	70·2	...	79·1	...	17·9	92·1	20th	65·9	2nd	26·2	...	...	...	...	...	...	...	...	...	...
	Nagrakata	79·7	88·7†	...	72·5	...	80·6	...	16·2	92·1	4 days	68·0	2nd	24·1	...	...	...	...	...	...	...	...	...	...
	Cooch Behar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Krishnagar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Bankura	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Asansol	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

* Mean of 23 days.
† „ „ 29 „

C.

at 63 fourth and fifth class stations in India, etc., in June, 1913.

Wind velocity.			Wind steadiness.		Hygrometry, 8 hrs.				Cloud.		Rainfall.									Heaviest rainfall during month.	Station.
Mean velocity, miles per hour.	Normal.	Departure from normal.	Actual percentage.	Departure from normal.	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.	Mean cloud amount at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st May to 30th June, 1913.	Normal rainfall of period, 1st May to 30th June.	Departure from normal of period, 1st May to 30th June 1913.		
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
																					II.—Assam.
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	**Balek.**
...	...	...	...	...	97	...	·944	...	...	...	15	17·3	−2·3	13·29	14·36	−1·07	24·24	22·51	+1·73	6·09	Bishnath.
...	...	...	...	...	88	...	·907	...	...	...	12	18·2	−6·2	7·26	14·98	−7·72	22·89	23·37	−0·48	1·63	Borjuli.
...	...	...	...	...	89	...	·905	...	...	...	26	23·4	+2·6	36·42	23·50	+12·92	54·71	36·32	+18·39	10·56	Chandkhira.
...	...	...	...	...	92	...	·861	...	...	...	22	17·5	+4·5	14·15	18·29	−4·14	27·20	26·23	+0·97	1·81	Doom Dooma.
...	...	...	...	...	83	...	·882	...	...	...	19	20·3	−1·3	10·38	18·11	−7·73	30·40	26·92	+3·48	2·17	Dikom.
...	...	...	...	...	86	...	·900	...	...	...	17	15·8	+1·2	11·55	9·88	+1·67	16·92	18·13	−1·21	2·45	Golaghat.
...	...	...	...	...	89	...	·885	...	...	...	21	23·0	−2·0	31·02	23·33	+7·69	52·91	35·58	+17·33	13·33	Hailakandi.
...	...	...	...	...	84	...	·897	...	...	...	17	17·0	0	8·38	10·63	−2·25	15·72	19·57	−3·85	1·54	Jorehat.
...	...	...	...	...	85	...	·857	...	...	...	15	...	...	10·74	...	...	15·84	...	...	2·27	Lumding.
...	...	...	...	...	76	...	·899	...	...	...	16	17·3	−1·3	7·78	13·51	−5·73	15·46	21·27	−5·81	1·49	Messa.
...	...	...	...	...	96	...	·825	...	...	...	12	15·5	−3·5	10·24	13·75	−3·51	23·69	24·53	−0·84	2·63	Panerihat.
...	...	...	...	...	88	...	·886	...	...	...	25	20·0	+5·0	27·49	17·30	+10·19	45·78	30·29	+15·49	7·74	Srimangal.
																					III.—Bengal.
...	...	...	...	...	...	...	...	...	...	...	21	17·5	+3·5	32·26	17·60	+14·66	53·92	28·90	+25·02	5·10	Comilla.
...	...	...	...	...	85	...	·906	...	...	...	20	15·8	+4·2	28·33	14·35	+13·98	44·06	24·98	+19·08	5·03	Brahmanbaria.
...	...	...	...	...	...	...	...	...	...	...	23	14·7	+8·3	19·45	13·16	+6·29	34·70	21·70	+13·00	3·70	Faridpur.
...	...	...	...	...	90	...	·931	...	...	...	23	14·7	+8·3	14·19	12·03	+2·16	25·13	19·55	+5·58	2·40	Goalundo.
...	...	...	...	...	90	...	·944	...	...	...	15	14·7	+0·3	12·34	11·04	+1·30	20·21	17·53	+2·68	1·88	Pabna.
...	...	...	...	...	...	...	...	...	...	...	16	14·3	+1·7	14·39	12·24	+2·15	25·05	20·35	+4·70	5·26	Sirajganj.
...	...	...	...	...	...	...	...	...	...	...	15	12·6	+2·4	11·83	10·16	+1·67	21·06	15·85	+5·21	2·50	Rampur Boalia.
...	...	...	...	...	...	...	...	...	...	...	14	11·2	+2·8	16·38	9·32	+7·06	23·55	13·80	+9·75	4·67	Malda.
...	...	...	...	...	...	...	...	...	...	...	14	15·8	−1·8	25·96	17·27	+8·69	35·38	28·55	+6·83	4·73	Rangpur.
...	...	...	...	...	86	...	·874	...	...	...	24	21·3	+2·7	35·96	29·23	+6·46	48·65	41·49	+7·16	5·12	Dam Dim.
...	...	...	...	...	81	...	·868	...	...	...	20	19·8	+0·2	26·29	29·27	−2·98	58·92	40·44	+18·48	5·61	Kalchini.
...	...	...	...	...	82	...	·827	...	...	...	20	21·8	−1·8	20·49	30·59	−10·10	43·11	43·24	−0·13	4·80	Nagrakata.
...	...	...	...	...	...	...	...	...	...	...	15	18·9	−3·9	33·14	33·45	−0·31	47·16	49·89	−2·73	7·90	Cooch Behar.
...	...	...	...	...	...	...	...	...	...	...	21	12·4	+8·6	20·82	9·87	+10·95	31·82	16·47	+15·35	4·50	Krishnagar.
...	...	...	...	...	...	...	...	...	...	...	17	11·2	+5·8	16·48	10·74	+5·74	20·16	14·98	+5·18	3·30	Bankura.
...	...	...	...	...	...	...	...	...	...	...	21	11·6	+9·4	25·04	9·23	+15·81	33·18	13·18	+20·00	5·13	Asansol.

T

Abstract of observations taken at 8

Number of subdivision.	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.	Wind direction. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
	IV.—Bihar and Orissa.																							
7	Hazaribagh	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
8	Bhagalpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Muzaffarpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Motihari	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Chapra	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Arrah	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Dehri	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	V.—United Provinces of Agra and Oudh.																							
10	Meerut	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Dehra Dun	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	IX.—Rajputana.																							
18	Udaipur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	XII.—Central Provinces.																							
23	Chhindwara	78·4	90·7	...	73·9	...	82·3	...	16·8	106·8	1st	69·4	25th	37·4	4	2	1	...	1	4	8	6	4	S 69° V
	XV.—Madras.																							
31	Tinnevelly	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
32	Anantapur	81·0	95·7	...	76·2	...	86·0	...	19·5	100·8	3rd	73·4	5th & 25th.	27·4	...	...	...	...	...	...	...	...	...	...
33	Guntur	86·7	99·5	...	81·9	...	90·7	...	17·6	107·0	20th	73·5	21st & 22nd.	33·5	...	...	...	...	...	...	...	...	...	...
	Bay Islands.																							
1	Car Nicobar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Kashmir.																							
13	Jammu	85·2	96·0	...	77·6	...	86·8	...	18·4	104·1	23rd, 24th & 27th.	66·3	26th	37·8	...	7	11	5	...	5	...	1	1	N 45° I
	Sonamarg	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Kargil	61·8	80·6	...	52·5	...	66·5	...	28·1	92·3	23rd	42·0	13th	50·3	...	11	...	5	5	...	2	1	6	N 11° I
	Astor	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

C—*continued.*

at 63 fourth and fifth class stations in India, etc., in June, 1913—continued.

Wind velocity.			Wind steadiness.		Hygrometry, 8 hrs.				Cloud.		Rainfall.									Heaviest rainfall during month.	Station.
Mean velocity, miles per hour.	Normal.	Departure from normal.	Actual percentage.	Departure from normal.	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.	Mean cloud amount at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st May to 30th June, 1913.	Normal rainfall of period, 1st May to 30th June.	Departure from normal of period, 1st May to 30th June, 1913.		
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
																					IV.—Bihar and Orissa.
...	..	...	...	...	...	...	...	...	...	...	17	10·7	+6·3	17·63	8·29	+9·34	19·47	10·48	+8·99	3·10	Hazaribagh.
...	...	..	...	...	...	...	...	...	...	...	14	10·0	+4·0	14·96	8·08	+6·88	18·64	11·34	+7·30	5·06	Bhagalpur.
...	...	...	...	...	...	...	...	...	...	...	14	8·0	+6·0	24·49	7·97	+16·52	28·89	10·51	+18·38	4·14	Muzaffarpur.
...	...	...	...	...	...	...	...	...	...	...	13	9·9	+3·1	13·72	9·47	+4·25	17·57	12·28	+5·29	2·72	Motihari.
...	...	...	...	...	...	...	...	...	...	...	9	7·3	+1·7	14·35	6·25	+8·10	19·29	7·63	+11·66	3·50	Chapra.
...	...	...	...	...	...	...	...	...	...	...	11	7·6	+3·4	13·67	6·50	+7·17	16·08	7·87	+8·21	4·47	Arrah.
...	...	...	...	...	...	...	...	...	...	...	13	7·1	+5·9	8·90	6·21	+2·69	9·61	6·93	+2·68	2·00	Dehri.
																					V.—United Provinces of Agra and Oudh.
...	...	...	...	...	...	..	...	...	...	...	7	3·9	+3·1	7·70	3·24	+4·46	9·15	3·82	+5·33	2·48	Meerut.
...	...	...	...	...	...	...	...	...	...	...	13	9·2	+3·8	17·19	8·42	+8·77	19·49	9·90	+9·59	4·18	Dehra Dun.
																					IX.—Rajputana.
...	...	...	...	...	...	...	...	...	...	...	7	3·4	+3·6	6·49	2·74	+3·75	8·19	3·53	+4·66	1·87	Udaipur.
																					XII.—Central Provinces.
3·9	...	...	47	...	75	...	·730	...	5·0	...	12	...	...	11·00	...	...	12·20	...	...	3·45	Chhindwara.
																					XV.—Madras.
...	...	...	...	...	...	...	...	...	...	...	0	1·3	−1·3	0·09	0·51	−0·42	1·76	2·02	−0·26	0·06	Tinnevelly.
...	...	...	...	...	74	...	·779	...	9·2	...	4	...	...	1·51	...	...	4·03	...	...	0·60	Anantapur.
...	...	...	...	...	71	...	·888	...	3·9	...	6	...	...	2·84	...	...	5·46	...	...	1·84	Guntur.
																					Bay Islands.
...	...	...	...	...	...	...	...	...	...	...	13	16·3	−3·3	17·04	12·20	+4·84	25·37	25·92	−0·55	3·33	Car Nicobar.
																					Kashmir.
...	...	...	50	...	56	...	·663	...	4·9	...	6	...	...	9·10	...	...	10·57	...	...	3·80	Jammu.
...	...	...	...	...	...	...	...	...	...	...	6	8·8	−2·8	2·35	3·11	−0·76	4·39	8·93	−4·54	0·72	Sonamarg.
...	...	...	33	...	46	...	·245	...	4·1	...	3	...	...	0·41	...	...	0·47	...	...	0·19	Kargil.
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Astor.

Tabl

Abstract of observations taken at 8 hr

Number of subdivision.	Station.	Temperature of air.													Wind direction.									
		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.	Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
	Hill stations, exclusive of Kashmir.																							
	Panighatta	77·8	86·1e	...	71·3	...	78·7e	...	14·8	91·9	13th	68·6	18th	23·3	...	...	...	...	...	...	...	...	...	...
	Kurseong	67·5	72·3	...	62·3	...	67·8	...	9·0	76·3	18th	59·9	6th	16·4	...	...	...	...	...	...	...	...	...	...
	Gnatong	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Lachung	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Ringim	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Poo	...	76·7†	...	56·1†	...	66·4	...	20·6	86·6	4th	49·1	17th	37·5	18	...	...	...	...	...	1	7	1	*W
	Kailang	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Bakloh	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Pishin	...	94·7	...	63·7	...	79·2	...	31·0	102·4	5th	50·1	16th	52·3	...	...	...	...	...	...	...	...	...	...
	Extra India.																							
	Ahwaz	...	108·0	...	82·5	...	95·2	...	25·5	113·0	26th	73·6	7th	39·4	14	16	...	...	...	...	...	...	...	N
	Chumbi	53·6	63·5	...	47·6	...	55·6	...	15·9	68·5	8th & 13th.	38·2	4th	30·3	...	...	...	...	...	...	...	...	...	...
	Kirmanshah	75·7	90·6	...	53·8§	...	72·3§	...	36·8	99·0	30th	42·8	7th	56·2	...	...	...	...	...	...	...	...	...	...
	Koweit	...	97·9	...	80·9	...	89·4	...	17·0	111·4	4th	73·4	15th	38·0	...	8	...	...	...	...	1	14	7	N 59° W
	Maidan	...	113·0	...	81·7	...	97·3	...	31·3	117·2	24th, 25th & 30th.	70·6	7th	46·6	...	...	...	...	...	...	...	...	...	...
	Muhammerah	...	100·5	...	79·3	...	89·9	...	21·2	107·2	23rd	72·6	8th	34·6	...	...	5	...	...	...	2	2	21	N 41° W
	Pemba	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Prison Island	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Seistan	...	76·5	...	55·3‡	...	66·1†	...	21·2	101·0	10th	39·0	25th	62·0	...	15	...	...	...	...	...	...	15	N 23° W

* 3 variable winds.
† Mean of 27 days.
‡ „ 28 „
§ „ 29 „

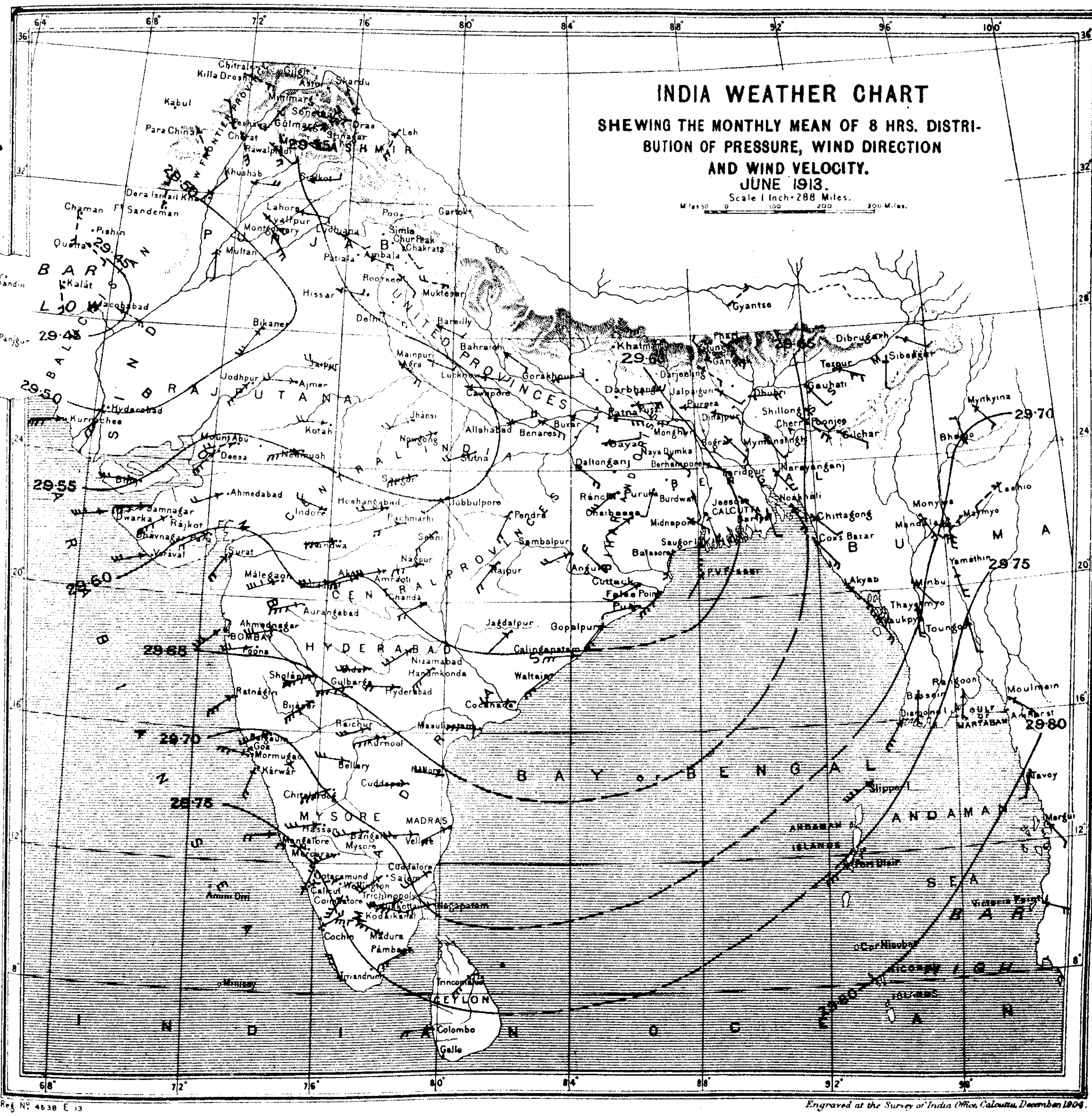
C—*concluded.*

at 63 fourth and fifth class stations in India, etc., in June, 1913—concluded.

Wind velocity.			Wind steadiness.		Hygrometry, 8 hrs.				Cloud.		Rainfall.										Station.
Mean velocity, miles per hour.	Normal.	Departure from normal.	Actual percentage.	Departure from normal.	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.	Mean cloud amount at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st May to 30th June, 1913.	Normal rainfall of period, 1st May to 30th June.	Departure from normal of period, 1st May to 30th June, 1913.	Heaviest rainfall during month.	
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
																					Hill stations, exclusive of Kashmir.
...	...	...	84	...	...	...	·791	...	...	...	21	21·5	−0·5	31·93	26·90	+5·03	51·72	35·48	+16·24	6·67	Panighatta.
...	...	...	89	...	...	...	·598	...	...	...	22	23·5	−1·5	55·80	28·98	+26·82	68·92	38·11	+30·81	11·97	Kurseong.
...	...	...	...	...	...	...	...	...	...	...	27	...	...	33·38	...	...	66·23	...	...	3·11	Gnatong.
...	...	...	...	...	...	...	...	...	...	...	17	...	...	6·95	...	...	14·27	...	...	1·10	Lachung.
...	...	...	...	...	...	...	...	...	...	...	22	...	...	14·56	...	...	31·66	...	...	2·20	Ringim.
...	...	...	28	...	...	...	...	...	5·0*	...	1	0·5	+0·5	0·39	0·25	+0·14	0·55	1·30	−0·75	0·27	Poo.
...	...	...	...	...	...	...	...	...	...	...	3	2·8	+0·2	1·73	1·12	+0·61	3·05	3·72	−0·67	0·82	Kailang.
...	...	...	...	...	...	...	...	...	...	...	16	...	...	13·60	...	...	16·63	...	...	2·24	Bakloh.
...	...	...	...	...	...	...	...	...	...	...	0	0·2	−0·2	0	0·05	−0·05	0	0·23	−0·23	0	Pishin.
																					Extra India.
...	...	...	53	...	...	...	...	...	...	...	0	...	...	0	...	...	0·04	...	...	0	Ahwaz.
...	...	...	...	...	83	...	·343	...	...	...	17	...	...	7·64	...	...	13·38	...	...	1·06	Chumbi.
...	...	...	...	...	33	...	·301	...	...	...	0	...	...	0	...	...	1·13	...	...	0	Kirmanshah.
...	...	...	77	...	...	...	...	...	...	...	0	...	...	0	...	...	0·11	...	...	0	Koweit.
...	...	...	...	...	...	...	...	...	...	...	0	...	...	0	...	...	0	...	...	0	Maidan.
...	...	...	73	...	...	...	...	...	...	...	0	...	...	0	...	...	0·20	...	...	0	Muhammerah.
...	...	...	...	...	...	...	...	...	...	...	9	7·6	+1·4	4·07	5·24	−1·17	26·23	23·53	+2·70	1·42	Pemba.
...	...	...	...	...	...	...	...	...	...	...	...	4·3	...	...	3·06	...	...	15·17	...	...	Prison Island.
10·5†	...	...	97	...	...	...	...	...	...	...	0	...	...	0	...	...	0	...	...	0	Seistan.

* Mean of 28 days.

† Mean of 25 days.



Reg. No. 4638 E. 13

Engraved at the Survey of India Office, Calcutta, December 1904.

LITHO. BY S.S.M.

The lines of the above chart represent isobars or lines of equal barometric pressure, the numbers attached indicating the barometric pressure in inches and being drawn for differences of pressure of ·05 inch. The isobars in the Bay of Bengal are filled in by means of the shore observations, and by comparison with the normal distribution of pressure.

The mean 8 hrs. wind directions of the month are shewn by means of arrows flying with the wind, and are calculated by means of Lambert's formula applied to the winds as given in Table B of the 8 hrs. observations. The mean wind directions for the hill stations are indicated by broken arrows to distinguish them from the wind arrows for the plain stations. The mean velocity of the winds during the month is shewn by the following notation:—

Velocity of	0 to 2 miles per hour	...	one feather added to the wind arrow.
,, ,,	2 to 5 ,, ,, ,,	...	two feathers ,, ,, ,, ,,
,, ,,	5 to 10 ,, ,, ,,	...	three ,, ,, ,, ,, ,,
,, ,,	10 to 20 ,, ,, ,,	...	four ,, ,, ,, ,, ,,
	over 20 ,, ,, ,,	...	five ,, ,, ,, ,, ,,

Wind strengths are based on factor 2·2 for the standard type of Beckley Robinson anemograph, instead of 3·0 as used for this plate up to December 1911 inclusive.

The chart shows the departure from normal of the mean during the month of 8 hrs. pressure by means of lines drawn for equal amounts of departure. The numbers are given in thousandths of an inch, 20 representing ·020″ or two hundredths of an inch, &c. Continuous lines indicate that the pressure was in excess by amounts indicated by the numbers attached to the lines, and broken or dotted lines that it was in defect by amounts indicated by the numbers attached to the lines. Two parallel lines near to each other, one continuous and the other broken or dotted, represent the line of no departure, the dotted line facing the area of deficient pressure or negative departures.

CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MAXIMUM TEMPERATURE.

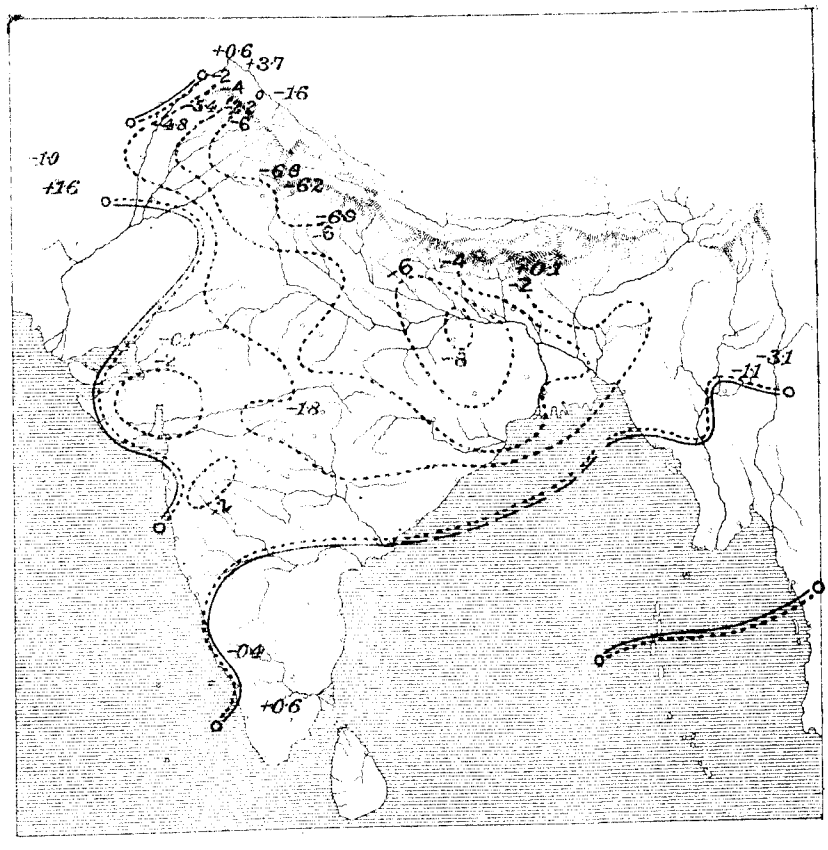
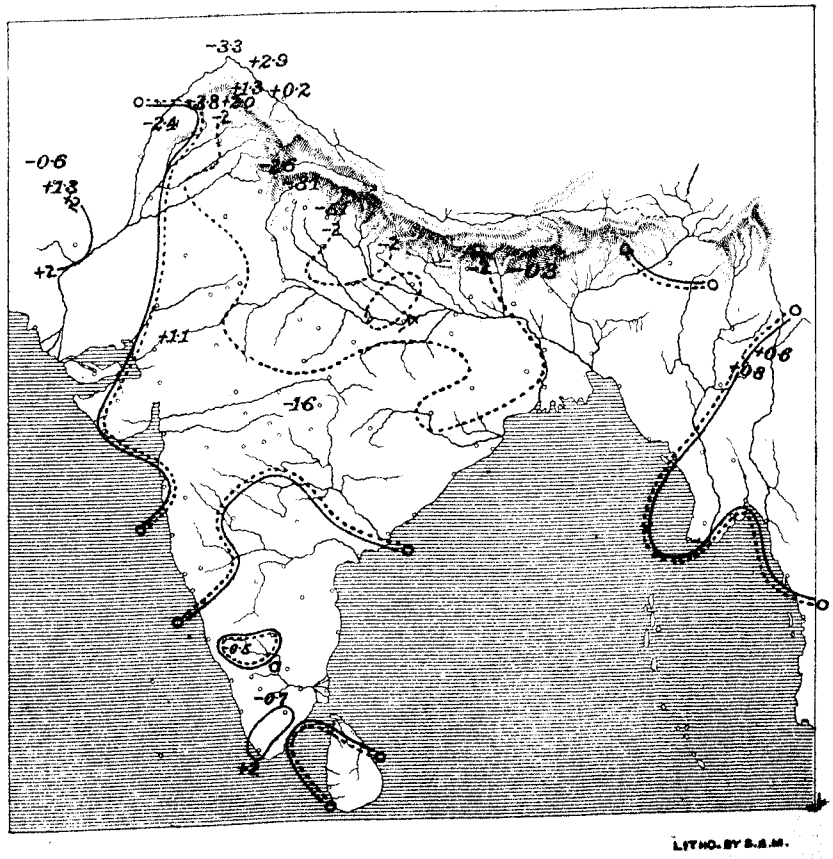


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MINIMUM TEMPERATURE.



LITHO. BY S.S.M.

CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MEAN TEMPERATURE.

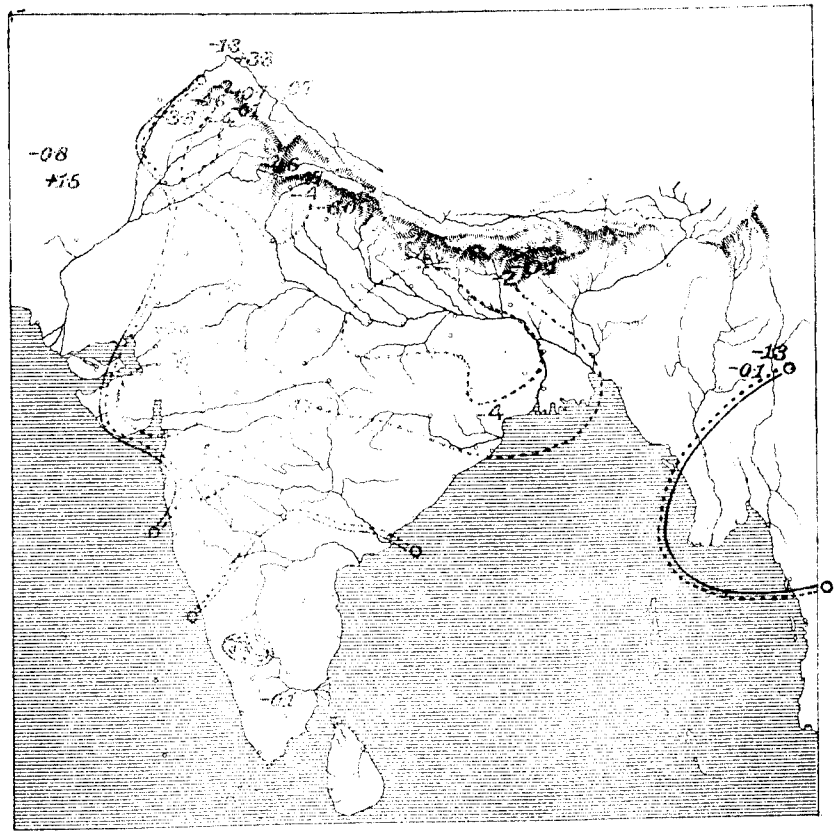


CHART SHEWING THE MONTHLY MEAN OF PRESSURE AND RESULTANT WIND DIRECTION.

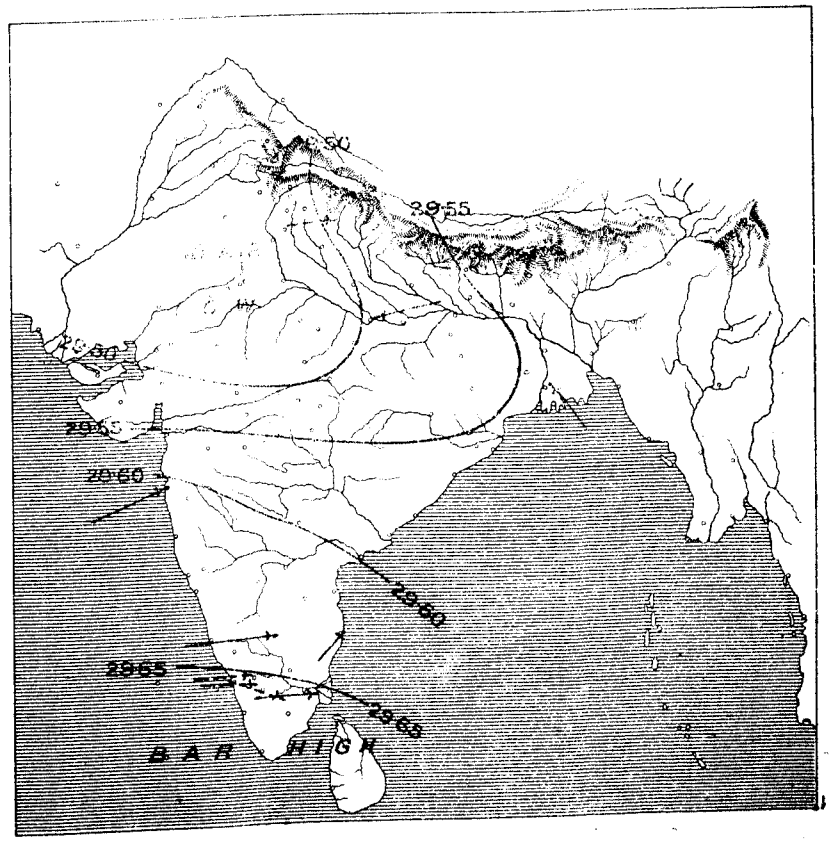


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF ABSOLUTE HUMIDITY AT 8 HRS.

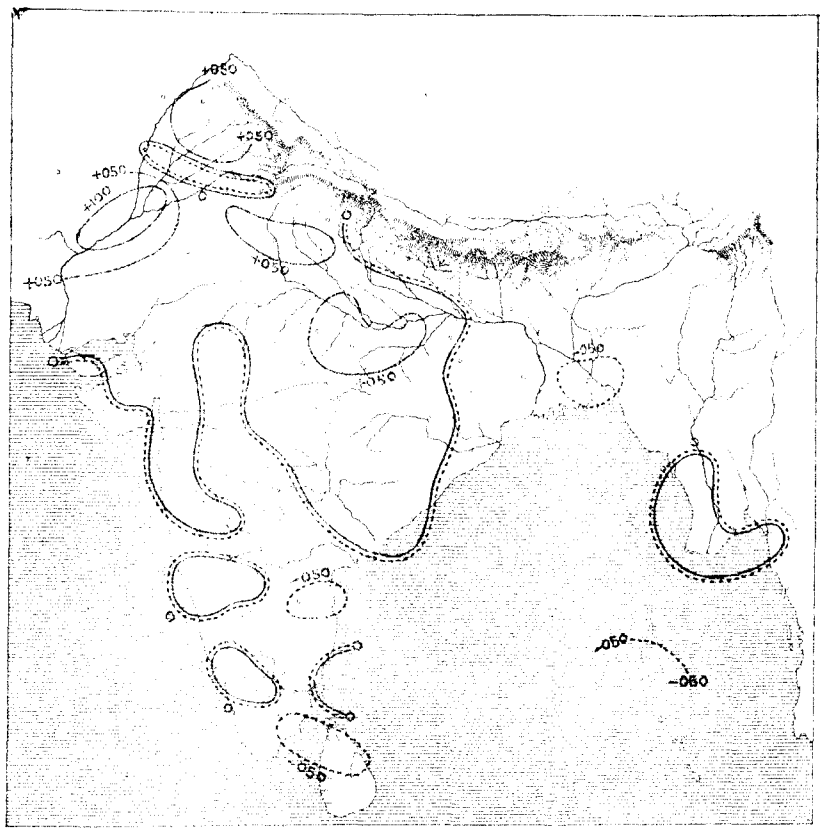


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF RELATIVE HUMIDITY AT 8 HRS.

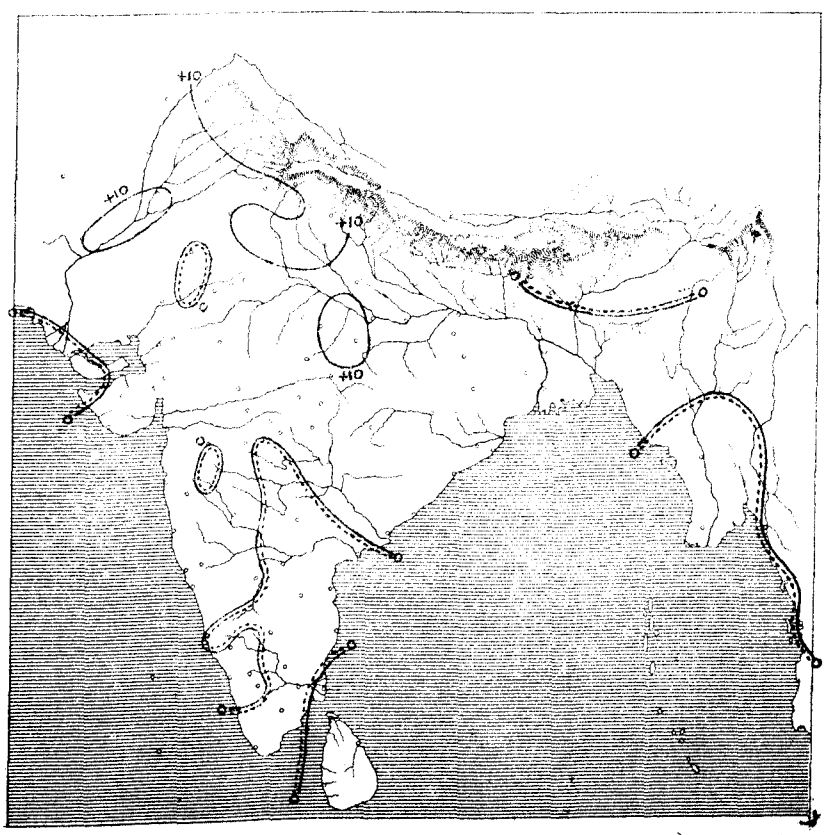


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF CLOUD AMOUNT AT 8 HRS.

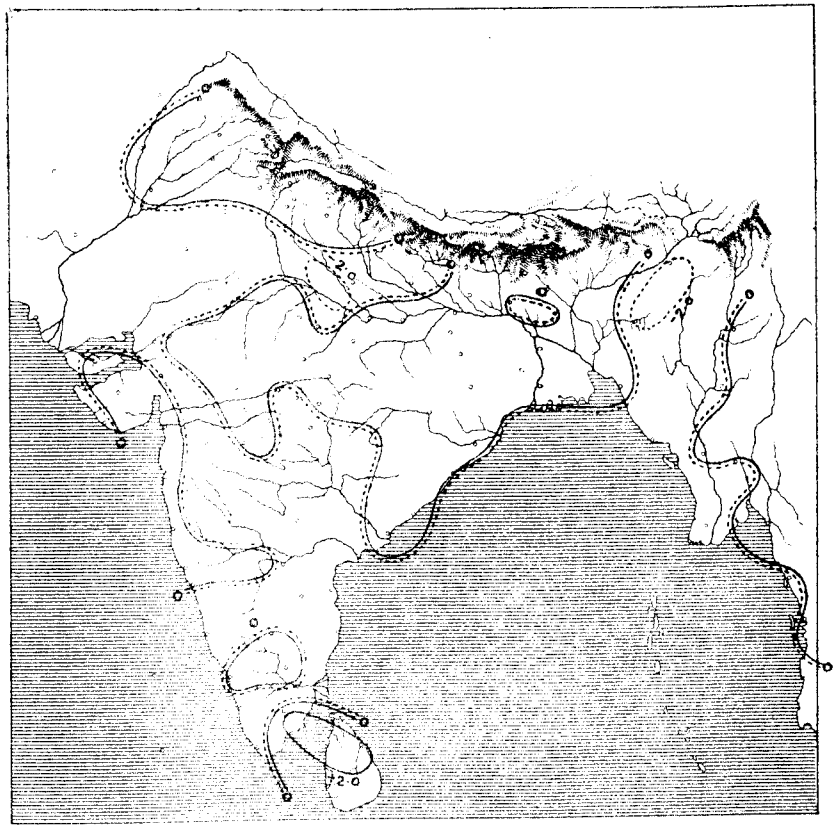
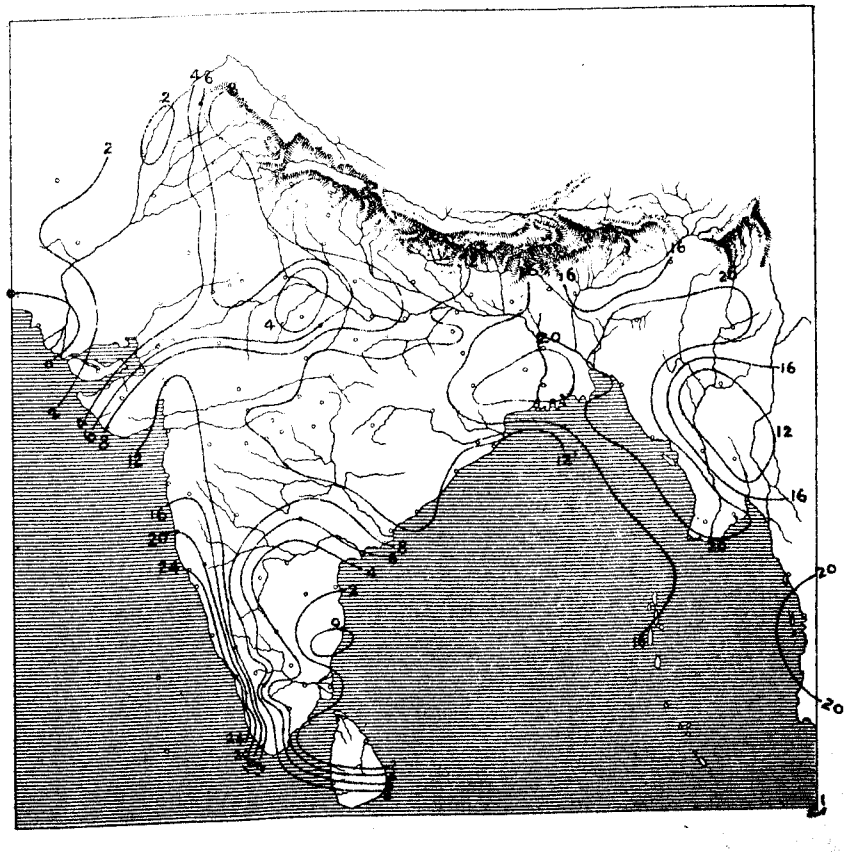
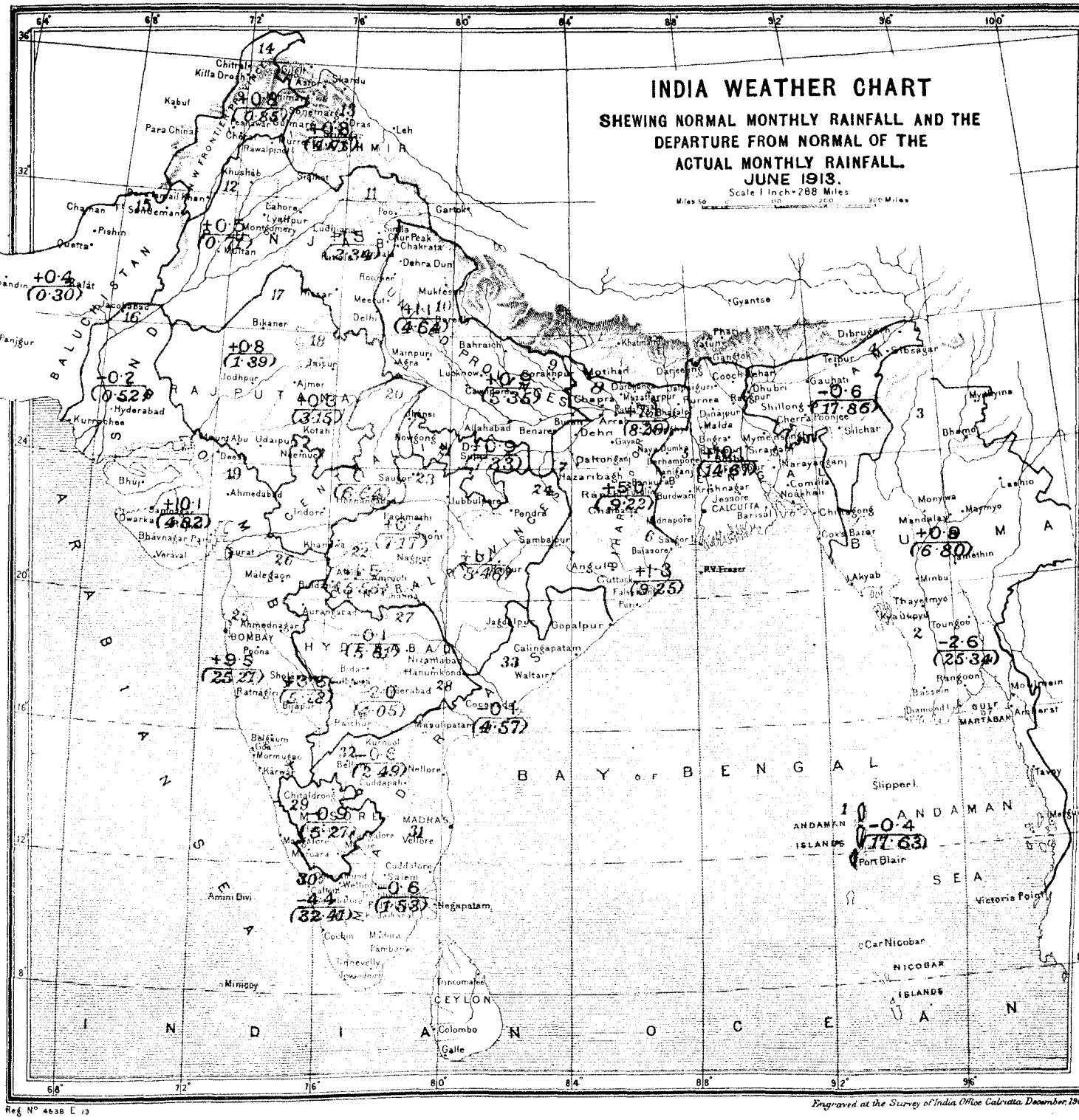


CHART SHEWING THE TOTAL NUMBER OF DAYS IN THE MONTH ON WHICH RAINFALL EQUALLED OR EXCEEDED 0·10 INCH.

(BASED ON THE RETURNS OF TABLE B.)





Reg N° 4638 E 13

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
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

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GOVERNMENT OF INDIA

METEOROLOGICAL DEPARTMENT

MONTHLY WEATHER REVIEW

PUBLISHED BY ORDER OF

THE GOVERNMENT OF INDIA.

CALCUTTA, JULY, 1913.

INTRODUCTION.

THIS review of the weather in India during the month of July, 1913, is based on observations taken daily at 8 hrs. at 216 stations, and on additional observations taken at 10 hrs. and 16 hrs. at 15 stations. In the rainfall summary have been utilized the data furnished by the meteorological observatories, and such rainfall statements of the month as had been published by the Provincial Governments up to the date of the preparation of the review.

The brief notes on solar, seismic and magnetic disturbances are supplied by the chief observatories in the Indian area.

For a statement of the methods adopted in recording and tabulating the data, for each of the elements of observation, reference should be made to the introductory portion of the review for January.

Summary of the chief features of the weather in India during the month.

2. The monsoon currents were quite up to their average intensity, but owing to a succession of storms and abnormal pressure distribution were deflected from their normal course with the result that the large tract of country comprising Bihar, the United Provinces, Central India East, the Central Provinces proper, Rajputana, the Punjab East and North Kashmir and the North-West Frontier Province failed to receive their proper supply of rainfall. On the other hand Orissa, the Madras Deccan, the Madras Coast North, Hyderabad, Mysore, Berar, Sind and the Punjab South-west obtained considerably more than their due share. The month's rainfall was heavy also in Lower Burma and Central India West.

Of the climatic elements other than rainfall temperature and humidity were nearly normal in most parts of the country; the cloud proportion was decidedly low in north-east India, the United Provinces, Sind, Rajputana and Kashmir, but higher than usual in Baluchistan. On the mean of all the plains stations barometric pressure was ·012″ higher than usual.

Solar, seismic and magnetic disturbances.

KODAIKANAL OBSERVATORY.

3. *Solar observations.*—The sun was examined for spots on 29 days in the month and for prominences on 24; but the prominence record was imperfect on 18 days.

Sunspots.—A train of small spots was visible at latitude 28° north from the 10th to the 14th, giving a daily average of 0·2. This is the eighth spot and the third high latitude spot for the year. The spot spectrum showed slight reversals and displacement of the C line on 2 days.

Prominences.—Only twenty-three large and one eruptive prominences were recorded during the month. None of them was over 100″ in height.

Magnetic disturbances.—There were only "small" disturbances recorded during the month. The series of disturbances noted during the past seven months have been diminishing in intensity and have evidently come to an end.

Seismic records.

$\phi = 10^\circ\ 13'\ 50''$ $\lambda = 77^\circ\ 28'\ 00''$ h = 2343 m. Subsoil Rock.

Apparatus.—Milne's Horizontal Pendulum Seismograph.

TABLE 1.

	V	To	ϵ	$\frac{r}{To^2}$
AN :				
AE :	9·76	16·6	1	
AZ :				

Date.	Phase.	Time, G. M. T. h.	m.	s.	Period (sec.)	Amplitude (u) An.	Ae.	Az.	Distance Δ (Km.)	Remarks.
1913 July 7th	E P	17	55	36	...	...	...	...	...	
	I L	17	58	30	...	...	...	...	...	
	M	17	58	42	...	...	...	·004	...	
	F	19	03	54	...	...	...	...	...	
„ 12th	E P	10	47	24	...	...	...	...	...	Widening of line.
	F	11	53	36	...	...	...	...	...	
„ 28th	E P	7	00	18	...	...	...	...	...	
	I L	7	07	24	...	...	...	...	...	
	M	7	10	24	...	...	...	...	...	
	F	7	42	12	...	...	...	·006	...	

Air tremors during high wind July 16th to 20th.

T. ROYDS,

Ag. Director,

Kodaikanal and Madras Observatories.

BOMBAY OBSERVATORY.

Alibag magnetic record.

4. During the month of July 1913 the traces showed 13 calm days and 18 days of small disturbance.

The days of the month selected as "quiet" for the purposes of the Magnetic Survey of India are the 3rd, 9th, 18th, 19th and 27th.

The following table represents the magnetic character of each day during the month :—

TABLE 2.

Day.	Character.	Day.	Character.	Day.	Character.	Day.	Character
1	C	9	C	17	S	25	S
2	S	10	S	18	C	26	S
3	C	11	C	19	C	27	C
4	C	12	S	20	S	28	C
5	S	13	S	21	S	29	C
6	S	14	S	22	C	30	S
7	S	15	S	23	C	31	C
8	S	16	S	24	S		

C = calm ; S = small ; M = moderate ; G = great ; V. G. = very great.

The mean observed absolute values of the several magnetic elements reduced to the mean monthly tabulations of the magnetograms, as also the ranges and the summed ranges of the horizontal force and declination for the month, are as follow :—

Easterly declination	0° 47′ 13″
Horizontal force	0·36880 C. G. S. unit.
Vertical force	0·16483 C. G. S. unit.
Inclination	24° 4′·9.
Inclination (observed)	24° 2′·9.
Horizontal force range	0·00037 C. G. S. unit.
Horizontal force summed range	0·00259 C. G. S. unit.
Declination range	4′·0.
Declination summed range	17′·9.

(NOTE.—Summed range means sum without regard to sign of the 24 ordinates of the diurnal inequality.)

Seismic records.

$\phi = 18^\circ\ 53'\ 45''$ $\lambda = 72^\circ\ 48'\ 56''$ $h = 11$ m. Subsoil Basaltic trap.

Apparatus.—Milne's Horizontal Pendulum Seismograph.

TABLE 3.

	V	To	ϵ	$\frac{r}{To^2}$
AN :				
AE :	9	19		
AZ :				

Date.	Phase.	Time G. M. T.	Period (sec.)	Amplitude (u). An.	Ae.	Az.	Distance. Δ (Km.)	REMARKS.
1913.		h. m. s.						
July 6	P	16 33 0						
	M	16 52 6			44			
	F	17 16 48						
„ 7	P	17 58 30						
	M	18 28 18			33			
	F	19 11 42						
„ 12	P	10 42 48						Commencement doubtful.
	M	11 6 0			56			
	F	11 22 36						
„ 22	P	6 52 30						
	M	7 29 6			22			
	F	8 16 6						
„ 28	P	12 4 48						
	M	12 52 36			56			
	F	13 47 18						

Thickening of line was noted on the following occasions :—

d. h. m.	d. h. m.	d. h. m.	d. h. m.	d. h. m.	h. m.
2 12 33;	3 11 45;	3 14 1;	7 10 17;	8 10 59 to	11 2;
8 11 15 to 17;	8 22 31;	9 19 22;	10 1 51;	10 1 53;	
10 5 41 to 43;	10 19 26;	10 20 38;	11 8 49;	11 18 43;	
12 7 39;	13 11 47;	14 4 19 to 23;	14 9 12;	14 18 7;	
15 11 9;	15 16 29;	15 18 8;	17 18 14;	17 19 20;	
18 20 14 to 18	20 21 1 to 5;	21 11 46;	21 23 39;	22 10 22;	
23 10 44;	23 12 13;	23 13 9;	25 20 6;	26 3 8;	
26 10 58;	26 12 3;	27 22 5;	28 14 18;	29 7 17;	
29 11 0;	30 10 17;	31 8 40			

Only those thickenings, which can be clearly distinguished, are given; thickenings mixed in tremors are omitted from the above list.

Sensibility to tilt: 1 m.m. of amplitude on the trace = 0·36"

N. A. F. MOOS,
Director,
Bombay & Alibag Observatories.

5. CALCUTTA (ALIPORE) OBSERVATORY.

Seismic records.

$\phi = 22° 32' 00''$ $\lambda = 88° 20' 00''$ h = 6·4 m. Subsoil.

Apparatus.—Milne's Horizontal Pendulum Seismograph.

TABLE 4.

	V	To	G	$\frac{r}{To^2}$
AN :				
AE :	8·688	18	1	
AZ :				

Date.	Phase.	Time, G. M. T.	Period (sec.)	Amplitude (u) An.	Ae.	Az.	Distance Δ (Km.)	REMARKS.
1913		h. m. s.						
July 6th	P	16 20 42	...	...	...	...	...	
	S	16 27 48	...	...	...	...	...	
	L	16 41 6	...	...	...	...	...	
	M	16 44 36	...	...	144	...	...	
	Cl	16 48 12	...	...	115	...	...	
	F	17 15 36	...	...	...	...	...	
„ 7th	P	17 57 0	...	...	...	...	...	
	S	18 7 42	...	...	...	...	...	
	L	18 19 24	...	...	...	...	...	
	M	18 24 0	...	...	86	...	...	
	F	19 6 12	...	...	...	...	...	
„ 12th	P	10 32 6	...	...	...	...	...	
	S	10 39 42	...	...	...	...	...	
	L	10 52 54	...	...	...	...	...	
	M	10 57 30	...	...	115	...	...	
	Cl	10 59 36	...	...	86	...	...	
	F	11 49 24	...	...	...	...	...	
„ 22nd	P	6 53 18	...	...	...	...	...	
	L	7 10 30	...	...	...	...	...	
	M	7 11 30	...	...	57	...	...	
	F	7 40 0	...	...	...	...	...	
„ 28th	P	6 59 18	...	...	...	...	...	
	L	7 10 30	...	...	...	...	...	
	M	7 25 48	...	...	57	...	...	
	F	7 44 6	...	...	...	...	...	

SIMLA OBSERVATORY.

6. *Solar radiation during May.*—The following figures give the intensity of solar radiation, as measured at Simla by Angstrom's pyrheliometer. The values are corrected to local noon, and expressed in grammecalories per square centimetre per minute :—

Maximum	1·43
Minimum	1·17
Mean	1·33
Number of days of observation .	10

During June and July no solar radiation observations were possible owing to overcast skies.

The Simla seismograph records for May, June and July will be published in a later number of this Review.

The following table contains a list of earthquakes that were reported during May, June and July.

TABLE 5.

Place at which felt.	Date.	G. M. T. of earthquake.		Duration.	Intensity Rossi-Forel scale.	No. of shocks.
	May.	h.	m.	sec.		
Cuttack	2nd	4	57	2	3	1
Drosh	7th	17	28	6	6	2
Mount Abu	9th	15	39	16	2	1
Drosh	22nd	6	10	5	6	1
"	27th	11	38	10	7	1
Srinagar	30th	18	27	1	4	1
Drosh	31st	6	36	26	6	1
Salonah (Nowgong, Assam)	June. 18th	2	39	6	4	2
Drosh	19th	13	26	2	5	1
Shillong	June. 23rd	h. 13	m. 55	sec. 1	3	1
Muktesar	27th	23	56	4	4	[illegible]
Shillong	27th	10	15	1	4	1
Drosh	30th	20	31	3	6	[illegible]
Mount Abu	July. 18th	15	10	11	2	1
Drosh	22nd	19	40	3	5	1

G. C. SIMPSON,

Imperial Meteorologist, Simla.

ROYAL ALFRED OBSERVATORY, MAURITIUS.

7. No information has been received.

Weather in the Indian monsoon region.

8. Barometric pressure was ·02″ in excess at Mauritius and Zanzibar, and in defect by a similar amount at Seychelles.

The air movement did not depart materially from the average. Rainfall was irregularly distributed, being markedly in defect at Mauritius and Zanzibar and in large excess at Seychelles.

The general conditions in the Indian Ocean were thus less favourable to Indian rainfall than in June.

TABLE 6.

	Mauritius.	Zanzibar.	Seychelles
Departure from normal of mean pressure.	+·026	+·016	—·018
Actual mean wind direction	S 55°E	S 27° W	S 23° E
Normal mean wind direction	S 64°E	S 15° W	S 33° E
Actual mean wind velocity (miles per diem).	194	132	87
Normal mean wind velocity (miles per diem).	185	144	86
Rainfall departure from normal.	—1·59	—2·47	+2·40

Depressions and cyclonic storms.

9. July, unlike June, was much disturbed over the north of the Bay where three cyclonic disturbances appeared in rapid succession during the second half of the month and moved inland.

A depression was generated over the north-west of the Bay on the 6th and crossing the coast on the 7th lay between Jagdalpur and Chanda on the morning of the 8th. It continued to move north-westwards during the following two days and finally became merged in the semi-permanent area of minimum pressure over Sind and west Rajputana on the 10th. It was diffuse throughout, but it caused widespread rainfall over the Peninsula. A second disturbance appeared over the Bay to the north of Lat. 16° on the 13th and 14th and after developing slowly passed inland near Gopalpur on the early morning of the 17th. It advanced in a westnorthwesterly direction through Orissa, the Central Provinces, the west of Central India and south Rajputana into Sind where it disappeared on the 22nd. Its barometric depth was over a third of an inch while crossing the coast but had diminished to less than a twentieth of an inch by the 21st. It gave some heavy falls of rain in Cutch and lower Sind of which the most noteworthy were :

TABLE 7.

STATION.	RAINFALL.				Norm annu rainfa
	19th.	20th.	21st.	Total, 19th to 21st.	
	″	″	″		″
Bhuj	0·85	12·14	0·45	13·44	14
Mandvi	0·45	11·17	0·54	12·16	20
Anjar	0·27	7·41	0·27	7·95	14
Karachi	0·12	4·25	3·55	7·92	7
Tatta	0·02	4·70	12·63	17·35	8
Jerruck	4·06	7·12	1·10	12·28	6
Shahbandar	3·90	5·30	0·05	9·25	9
Hyderabad	0·05	6·93	5·68	12·66	7
Hala	1·60	2·50	6·40	10·50	6

The dissipation of the storm coincided with the formation of a fresh disturbance over the Sandheads. The latter intensified considerably *in situ* on the 22nd and 23rd, and on the 24th it was a storm of considerable severity with a barometric depression of about half an inch at the centre and an inner area of violent winds (force 10 to 12). The centre crossed the Bengal coast on the evening of the 24th and travelling along a line joining Chaibasa, Jubbulpore and Neemuch it broke up over Sind on the 28th. It was more concentrated than its predecessor and gave heavy rain to the south of its path.

Another storm, the third of the month, appeared over the head of the Bay on the 28th and after developing rapidly passed inland near Saugor Island on the evening of the 30th. At this stage it was apparently of even greater intensity than its predecessor and occasioned winds of hurricane violence with tremendous seas. 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.

By the morning of the 31st the centre had reached the neighbourhood of Midnapore.

A violent local storm, in all probability a tornado, visited Taman in the Attock district of the Punjab on the 1st of July.

For the following details the Department is indebted to the Punjab Government :—

"On the noon of 1st July 1913 the whirlwind passed Kathera village, Police Station Talagang. Its direction was south-east to north-west. The three wells through which it passed suffered great damage. A few trees and maize crop were destroyed on the first well. Three men, five women and two children who were sitting under different trees were blown up in the whirlwind and trees were uprooted. Out of them a man and a woman died, others being only injured. A buffalo tied to a tree was also blown up and thrown down at a distance of 15 yards and was killed. The Persian wheel of the well was smashed to pieces and blown away. The "kanjan" weighing about 100 maunds was also blown to a small distance. Another buffalo tied on the third well was similarly blown away to a distance of about 25 yards and killed. Many other trees were also uprooted.

Wherever the whirlwind passed the crops were totally destroyed. The whirlwind was very dark. The injured persons say that a good lot of small stones were flying in the whirlwind and caused them some of the injuries. The whirlwind took about half an hour to pass a distance of about 800 yards making a noise like a railway train at full speed."

Pressure.

10. Mean monthly pressure exceeded the normal over nearly the whole of the plains, the only notable exceptions being Lower Burma, deltaic Bengal, the west coast of the Peninsula from Calicut to Bombay, the Madras Deccan and the Coromandel coast where a slight defect was recorded. The excess was more than ·03″ in amount in the North-West Frontier Province and the Punjab. The western extremity of the trough thus lay much further south than is usual in July.

TABLE 8.

DIVISION.	Departure from normal of mean 8 hrs. pressure.
	″
Burma	—·009
Assam	+·005
Bengal	—·001
Bihar and Orissa	+·004
United Provinces	+·026
Punjab	+·049
North-West Frontier Province	+·034
Sind	+·010
Rajputana	+·023
Bombay	+·003
Central India	+·021
Central Provinces	+·016
Hyderabad	+·003
Mysore	—·001
Madras	+·002

The vertical distribution of pressure was of the normal type except in north-east India where the vertical gradient was considerably steeper than usual.

TABLE 9.

HILL STATION.	Departure from normal pressure. A	PLAIN STATION.	Departure from normal pressure. B	Departure of pressure difference. B—A.
	″		″	″
Quetta	+·016	Jacobabad	+·018	+·002
Leh	+·026	Lahore	+·044	+·018
Murree	+·028	Peshawar	+·035	+·007
Simla	+·038	Ludhiana	+·046	+·008
Chakrata	+·038	Roorkee	+·041	+·003
Darjiling	—·021	Dhubri	+·016	+·037
Mount Abu	+·012	Deesa	+·013	+·001
Pachmarhi	+·019	Khandwa	+·010	—·009
Kodaikanal	+·004	Madura	+·015	+·011

Temperature.

11. Temperature was in defect in the Punjab by 3° during the daytime and 2° at night, but over the rest of the country the monthly values of temperature did not differ to any appreciable extent from the normal.

TABLE 10.

Sub-division.	Actual temperature.					Departure from normal of		
	Mean maximum.	Mean minimum.	Monthly mean of mean between maximum and minimum.	Mean daily range of temperature.	Absolute range during month.	Maximum.	Minimum.	Daily range.
	°	°	°	°	°	°	°	°
1. Bay Islands	83·9	76·8	80·3	7·1	14·9	−1·0	−0·3	−0·7
2. Lower Burma	84·6	75·1	79·8	9·5	18·0	−0·1	−0·1	0
3. Upper Burma	90·9	75·9	83·5	15·0	24·2	+1·3	+0·5	+0·8
4. Assam	88·9	77·0	83·0	11·9	22·7	+0·1	0	+0·1
5. Bengal	88·5	78·3	83·4	10·2	19·5	+0·5	−0·2	+0·7
6. Orissa	88·8	77·8	83·3	11·0	21·3	+0·8	−0·3	+1·1
7. Chota Nagpur	89·3	76·1	82·7	13·3	24·0	+0·2	−0·2	+0·4
8. Bihar	91·1	79·0	85·1	12·1	22·7	+0·9	+0·2	+0·7
9. United Provinces, East	93·3	78·9	86·1	14·3	27·5	+1·6	−0·4	+2·0
10. Do. do., West	94·5	78·7	86·6	15·8	28·3	+2·3	−0·4	+2·7
11. Punjab, East and North	94·7	77·7	86·2	16·9	31·9	−2·4	−2·0	−0·4
12. Do., South-west	99·5	80·5	90·0	19·0	36·8	−3·4	−2·3	−1·1
13. Kashmir	82·4	57·5	70·0	24·9	44·4	−0·3	−1·7	+1·4
14. North-West Frontier Province	101·5	79·8	90·7	21·7	38·3	−1·7	−1·1	−0·6
15. Baluchistan	98·9	73·5	86·2	25·4	40·8	−0·1	−0·1	0
16. Sind	97·7	82·1	89·8	15·6	30·0	−0·6	+0·6	−1·2
17. Rajputana, West	98·4	80·4	89·4	18·0	32·3	−1·4	−1·5	+0·1
18. Do., East	92·5	78·0	85·2	14·5	25·3	−0·8	−0·9	+0·1
19. Gujarat	88·8	77·3	83·1	11·5	22·5	−0·3	−0·7	+0·4
20. Central India, West	85·7	72·7	79·3	12·9	23·9	−0·3	−0·6	+0·3
21. Do., East	89·8	77·5	83·6	12·3	21·5	+1·1	−0·1	+1·2
22. Berar	86·8	73·1	79·9	13·6	23·8	+0·1	+0·5	−0·4
23. Central Provinces, West	87·1	74·1	80·6	13·0	22·0	+0·9	−0·4	+1·3
24. Do., East	86·1	74·0	80·1	12·1	22·3	+0·5	+0·2	+0·3
25. Konkan	83·7	76·1	79·9	7·6	14·6	0	0	0
26. Bombay Deccan	84·2	70·5	77·3	13·7	22·9	−0·2	−0·1	−0·1
27. Hyderabad, North	85·4	70·7	78·1	14·7	24·3	−1·3	−0·7	−0·6
28. Do., South	88·1	73·1	80·6	14·9	26·1	−1·0	−0·1	−0·9
29. Mysore	80·0	66·7	73·3	13·3	23·0	−0·9	+0·1	−1·0
30. Malabar	82·9	74·4	78·7	8·5	14·7	−0·1	+0·9	−1·0
31. Madras, South-east	94·4	77·2	85·8	17·2	26·1	0	+0·5	−0·5
32. Do. Deccan	92·2	75·3	83·7	16·9	26·8	−0·3	−0·5	+0·2
33. Do. Coast, North	90·1	78·5	84·3	11·6	22·8	−0·9	−0·6	−0·3

TABLE 11.

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

Winds.

12(*a*). The velocity of both monsoon currents was on the whole somewhat below the average and owing to the rapidity with which storms succeeded each other the degree of steadiness was in general lower than usual.

(*b*). In Central India and the Central Provinces, the mean wind direction had an abnormal northerly component, while at Darjiling the mean wind direction for the month was south-by-west as compared with S 83° E, the normal for July. At Chakrata the usual southerly winds were absent almost entirely. In east Baluchistan the mean direction was south-east instead of south-by-west which is normally the case.

TABLE 12.

Division.	Departure from normal of	
	Hourly wind velocity.	Wind steadiness.
Burma	—0·6	— 7
Assam	—0·3	+ 4
Bengal	—0·6	—19
Bihar and Orissa	+1·7	—11
United Provinces	0	— 9
Punjab	—0·3	— 6
North-West Frontier Province	—0·5	+ 3
Sind	—0·7	—13
Rajputana	+0·6	—23
Bombay	—2·1	— 4
Central India	—0·9	—15
Central Provinces	+0·5	— 9
Hyderabad	—1·7	— 2
Mysore	+0·5	— 3
Madras	+0·7	+ 2

Humidity and cloud.

13. Humidity, both absolute and relative, was inclined to be low in the United Provinces, but elsewhere in the plains the hygrometric conditions of the month approximated closely to the normal.

TABLE 13.

Division.	Hygrometry, 8 hrs.				Cloud.	
	Mean humidity.	Departure from normal.	Mean vapour tension in inches of mercury.	Departure from normal in inches of mercury.	Mean cloud amount at 8 hrs.	Departure from normal.
	%					
Burma	88	— 1	·865	—·013	8·2	+0·1
Assam	90	— 1	·930	—·019	7·0	—1·5
Bengal	87	— 2	·948	—·017	7·6	—0·8
Bihar and Orissa	84	— 2	·912	—·011	6·7	—1·1
United Provinces	77	— 6	·892	—·038	4·9	—2·1
Punjab	74	+ 3	·863	—·001	4·5	0
North-West Frontier Province.	68	+ 2	·845	—·011	2·7	—0·1
Sind	74	+ 2	·929	+·037	4·0	—1·3
Rajputana	71	0	·801	—·027	5·2	—1·0
Bombay	85	+ 2	·843	+·011	7·5	—0·6

Division.	Hygrometry, 8 hrs.				Cloud.	
	Mean humidity.	Departure from normal.	Mean vapour tension in inches of mercury.	Departure from normal in inches of mercury.	Mean cloud amount at 8 hrs.	Departure from normal.
	%					
Central India . . .	84	+ 1	·831	0	6·8	—0·6
Central Provinces . .	83	— 1	·782	—·015	7·3	—0·6
Hyderabad . . .	81	+ 3	·724	0	7·4	0
Mysore	86	+ 3	·635	+·001	8·9	+0·3
Madras	77	+ 1	·808	+·003	6·8	—0·5

In the hill districts the distribution of humidity irregular : thus the percentage of saturation was disti high in Baluchistan and the North-West Frontier vince, low in parts of Kashmir and about the avera the Himalayas, the Aravalis and the Sutpuras. quantity of cloud was either normal or in defect. I United Provinces the deficiency was equal to one-fif the total sky expanse.

Rainfall.

14. The monsoon was only of about normal intensity during the first two weeks of the month and was directed chiefly to Burma, north-east India and the Peninsula. During the rest of the month the current was more vigorous than usual, but owing to three deep cyclonic storms which travelled from the head of the Bay westwards across the country its activity was displayed largely in the belt of country extending from Orissa to Sind. The first storm gave exceptionally heavy rain to the dry region of lower Sind and Cutch.

The aggregate rainfall in the plains of India was in defect of the normal by one-fifth of an inch or 2 per cent. Its distribution was however not quite satisfactory, being determined in part by the storms, and partly by the deflection of the Arabian Sea current from northern India to the Peninsula during the first fortnight. Thus the month's rainfall was more or less in excess in Bu Orissa, the Punjab South-west, Sind, Gujarat, Ce India West, Berar and the Peninsula excluding Bombay Deccan, Malabar, and Madras South- and normal or in defect over the rest of the cou The defect was more than 30 per cent. in amou the United Provinces, the North-West Frontier Prov Rajputana and Central India East; while the la proportional excess occurred in Orissa (+ 60 per ce the Punjab South-west (+ 23 per cent.), Sind (+ per cent), Berar (+ 32 per cent.), Hyderabad (+ per cent.), Mysore (+ 26 per cent.), Madras De (+ 32 per cent.) and Madras Coast North (+ per cent.).

In Kashmir and Baluchistan the weather was unus dry.

TABLE 14.

Sub-division.	Number of rainy days.		Rainfall.			
	Actual.	Normal.	Actual.	Normal.	Departure from normal.	Percent depart from nor
			"	"	"	
1. Bay Islands	21·5	18·6	13·75	14·79	−1·04	− 7
2. Lower Burma	23·1	25·2	32·71	29·67	+3·04	+ 10
3. Upper Burma	10·6	10·0	7·22	6·92	+0·30	+ 4
4. Assam	15·8	18·9	17·67	17·91	—0·24	— 1
5. Bengal	16·2	16·7	14·73	15·55	—0·82	— 5
6. Orissa	16·4	15·0	20·10	12·53	+7·57	+ 60
7. Chota Nagpur	15·2	16·6	12·89	14·09	—1·20	— 9
8. Bihar	11·2	14·5	9·92	13·05	—3·13	— 24
9. United Provinces, East	10·0	12·7	7·83	11·97	—4·14	— 35
10. Do., West	8·5	11·9	6·11	12·28	—6·17	— 50
11. Punjab, East and North	5·0	6·9	5·11	6·67	—1·56	— 23
12. Do., South-west	4·0	2·9	3·00	2·43	+0·57	+ 23
13. Kashmir	5·1	4·9	2·91	3·90	—0·99	— 25
14. North-West Frontier Province	3·7	4·2	2·05	3·17	—1·12	— 35
15. Baluchistan	2·1	1·5	0·80	0·87	—0·07	—

Sub-division.	Number of rainy days.		Rainfall.			
	Actual.	Normal.	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
			"	"	"	
16. Sind	5·4	2·7	9·39	2·55	+6·84	+268
17. Rajputana, West	4·9	4·7	2·32	3·88	—1·56	— 40
18. Rajputana, East	7·4	9·4	4·65	7·92	—3·27	— 41
19. Gujarat	15·3	13·1	14·63	13·52	+1·11	+ 8
20. Central India, West	13·6	12·6	11·27	9·63	+1·64	+ 17
21. Do., East	11·8	14·1	7·92	13·51	—5·59	— 41
22. Berar	13·6	12·0	12·08	9·15	+2·93	+ 32
23. Central Provinces, West	13·3	15·3	12·89	14·40	—1·51	— 10
24. Do., East	16·0	16·7	13·65	16·66	—3·01	— 18
25. Konkan	26·9	26·6	42·07	40·55	+1·52	+ 4
26. Bombay Deccan	11·8	11·6	7·61	8·00	—0·39	— 5
27. Hyderabad, North	13·7	12·3	11·05	8·39	+2·66	+ 32
28. Do., South	12·7	10·2	8·36	5·73	+2·63	+ 46
29. Mysore	10·8	9·4	8·93	7·09	+1·84	+ 26
30. Malabar	26·6	27·5	36·52	39·21	—2·69	— 7
31. Madras, South-east	3·2	3·6	1·77	1·94	—0·17	— 9
32. Do., Deccan	7·0	6·2	4·04	3·07	+0·97	+ 32
33. Do., Coast, North	11·9	9·7	7·87	6·32	+1·55	+ 25

TABLE 15.

Division.	Rainfall.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"	
Burma	19·14	17·62	+1·52	+ 9
Assam	17·67	17·91	—0·24	— 1
Bengal	14·73	15·55	—0·82	— 5
Bihar and Orissa	12·65	13·13	—0·48	— 4
United Provinces	7·02	12·11	—5·09	— 42
Punjab	4·67	5·78	—1·11	— 19
North-West Frontier Province	2·05	3·17	—1·12	— 35

Division.	Rainfall.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"	
Sind	9·39	2·55	+6·84	+268
Rajputana	4·02	6·82	—2·80	— 41
Bombay	16·05	15·61	+0·44	+ 3
Central India	10·11	10·98	—0·87	— 8
Central Provinces	12·74	12·80	—0·06	0
Hyderabad	9·71	6·94	+2·77	+ 40
Mysore	8·93	7·09	+1·84	+ 26
Madras	6·95	6·71	+0·24	+ 4
Mean of India	10·93	11·14	—0·21	— 2

Snowfall.

I.—AFGHANISTAN.

15. No snow fell during the month in the Kabul district. The winter accumulations had all melted away from the lower hills.

II.—NORTH-WEST FRONTIER PROVINCE.

(*a*) *Kurram.*—During the month no snowstorms occurred and the passes were clear of snow.

(*b*) *Chitral.*—No snow fell on elevations below 16,000 feet. At the end of the month the sides of hills exposed to the sun were bare of snow, but in shaded situations much snow remained still unmelted. On the higher altitudes the snow-covering was well up to the average.

Some accumulations also existed on the higher peaks in the neighbourhood of the Lowarai pass.

(*c*) *Khyber.*—As is usually the case in July there was no snowfall in this agency.

(*d*) *Hazara.*—Snowstorms occurred on the 3rd and 4th in the Kagan valley down to 13,000 feet giving 2 inches of snow. By the end of the month the mountain ranges and passes in this district had become bare of snow.

III.—KASHMIR.

Snowstorms occurred on the 1st, 4th and 5th on the higher mountains near Gulmarg. There were some falls also on the heights surrounding Sonamarg, but the snow did not lie. On the mountains around Skardu snowfalls were observed on the 3rd, 21st, 28th and 29th, while light snow is reported to have fallen in Dras.

No snow fell on the mountains near Kargil or on those surrounding Srinagar.

Weather was on the whole abnormally dry and the unmelted residue of the winter accumulations was not so thick as usual in July, although at the end of the month on the mountains near Kargil 4 or 5 feet were still lying unmelted.

On the hills adjacent to Leh there were snowstorms during the first half of the month.

IV.—PUNJAB.

(*a*) *Chamba.*—Fairly frequent falls occurred and in the Chenab valley the snowline came down to about 9,500 feet.

More snow than is usual in the last week of July was said to be lying on the Sach pass.

(*b*) *Kilba* (Simla Hills).—Light snow fell on several occasions on the hills near Kilba ; the snowline came down to 10,000 feet on the 5th, 13th and 14th.

V.—UNITED PROVINCES.

(*a*) *Garhwal.*—Some falls occurred on all the peaks above 14,000 feet in height, that of the 6th being heavy.

(*b*) *Almora.*—During the first twenty-two days f which alone information is available, the total snowfa measured 6 feet in Malla Darma, 4½ feet in Chaudas, 3 feetin Byans, 3 feet in Malla Johar and about 1 foot Malla Danpur. The snowline came down to a distanc of about 1½ miles from the perpetual snows.

TABLE 16.

Name of pass or peak.	Depth of accumulation on 22nd July.		
	Reported.		Normal.
	Feet.	Inches.	Feet.
Nuwe pass	18	0	15
Milamdhura pass	0	3	3
Pindari peak	0	8	½
Kaphini ,,	0	8	½
Kantela ,,	0	8	½
Lipulekh pass	2	0	3
Lampia ,,	3	6	½
Binkaru ,,	4	6	13
Untadhura ,,	2	0	7
Ralamdhura ,,	0	9	4

VI.—SIKKIM.

No snow fell during the month at Gangtok.

SUMMARY.

16. Except locally in the Punjab Himalayas wher snow fell to much lower levels than is ordinarily the cas in July, the snowfall conditions of the month in the wester Himalayas were by no means unusual.

In Ladak the accumulations existing at the end of th month were appreciably above the normal.

HEM RAJ.

Table A.—Abstract of observations taken at 10 hrs. and 16 hrs. at 15 stations in India, etc., in July, 1913.

Table

Abstract of observations taken at 10 hrs. and 16 hrs. at 15

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure. Mean of 10 hrs.	Pressure. Mean of 16 hrs.	Pressure. Mean daily range.	Pressure. Mean of daily mean pressures.	Pressure. Departure from normal.	Pressure. Mean reduced to sea-level and gravity, 45° Lat.	Temperature of air. Mean maximum.	Temperature of air. Mean minimum.	Temperature of air. Mean daily range.	Temperature of air. Highest maximum.	Temperature of air. Lowest minimum.	Temperature of air. Absolute range.	Temperature of air. Mean 10 hrs.	Temperature of air. Mean 16 hrs.	Temperature of air. Mean of daily means.	Temperature of air. Departure from normal.	Temperature, Wet-bulb. Mean minimum.	Temperature, Wet-bulb. Mean 10 hrs.	Temperature, Wet-bulb. Mean 16 hrs.	Temperature, Wet-bulb. Mean of three previous columns.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	III.—Bengal.																					
5	Calcutta . .	21	29·552	29·466	·096	29·520	—·020	29·483	88·2	79·3	8·9	94·5	75·8	18·7	84·4	85·3	83·5	+0·5	77·3	80·1	80·6	79·3
	V.—United Provinces of Agra and Oudh.																					
9	Allahabad . .	309	29·284	29·177	·107	29·234	+·029	29·492	94·6	78·9	15·7	102·2	75·1	27·1	88·0	91·3	85·8	+1·3	76·0	78·7	79·3	78·0
	VI.—Punjab.																					
11	Lahore . .	702	28·867	28·775	·092	28·817	+·049	29·469	96·7	79·3	17·4	104·8	70·2	34·6	88·6	93·6	87·1	−2·0	75·5	79·1	80·6	78·4
	IX.—Rajputana.																					
18	Jaipur . .	1,421	28·188	28·098	·090	28·142	+·027	29·487	92·0	76·7	15·3	96·7	72·4	24·3	84·8	88·7	83·1	−1·6	73·6	77·4	78·3	76·4
	X.—Bombay.																					
25	Bombay . .	37	29·703	29·637	·066	29·669	—·003	29·646	84·6	77·7	6·9	87·4	73·9	13·5	81·8	82·2	79·6	+0·1	75·1	78·6	78·4	77·4
	XIV.—Mysore.																					
29	Bangalore . .	3,021	26·869	26·786	·083	26·835	+·007	29·685	80·5	65·7	14·8	86·9	63·5	23·4	73·9	77·1	71·2	−0·8	64·7	68·2	69·2	67·4
	XV.—Madras.																					
31	Pudukkottai .	318	29·512	29·392	·120	29·452		29·695	96·8	77·4	19·4	101·9	73·5	28·4	85·2	89·7	87·1			76·0	77·2	
	Madras . .	22	29·757	29·642	·115	29·711	—·007	29·664	95·9	79·1	16·8	103·0	70·8	32·2	88·9	90·7	86·0	+0·3	74·2	77·4	78·8	76·8
	Hill stations, excluding Kashmir and Baluchistan.																					
	Sarain . .																					
	Kalabagh . .		20·096	20·066	·030	20·077		20·039	55·5	46·7	8·8	59·4	41·1	18·3	52·2	53·6	50·7			50·2	51·6	
	Mukteswar . .	7,592	22·742	22·691	·052	22·715		22·673	69·7	55·1	14·6	75·3	52·1	23·2	63·7	65·7	62·0		52·8	60·7	62·0	58·5
	Katmandu . .	4,388	25·485	25·414	·081	25·453	+·063†	25·407	84·8	67·9	16·9	88·4	65·5	22·9	77·9	81·1	75·9	+0·8†	65·8	71·0	73·0	69·9
	Ootacamund .	*7,327*																				
	Kodaikanal . .	7,688	22·785	22·730	·055	22·757		22·693	63·5	52·7	10·8	68·4	49·7	18·7	60·2	59·1	58·1		49·1	55·9	56·0	53·7
	Dodabetta . .	8,539†	22·012	21·952	·060	21·981		21·918	56·5	47·7	8·8	63·2	44·2	19·0	53·8	53·0	51·7		44·9	52·0	51·3	49·4
	Extra India.																					
	Diego Garcia .																					
	Seychelles . .	15	30·013	29·935	·078	29·975	—·018†	29·913	81·3	76·5	4·8	82·9	75·2	7·7	79·0	80·1	77·6	+1·2†	70·0	74·1	74·2	72·8
	Mauritius . .	181				30·037	+·026	30·168									65·7	−1·9				61·2

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.

stations in India, etc., in July, 1913.

Vapour tension, in inches of mercury.					Humidity.					Cloud.				Wind direction.											Wind steadiness.		Wind velocity.		Rainfall.		Station.	Number of sub-division.
														Total number of 10 hrs. and 16 hrs. winds from																		
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.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Mean wind direction.	Normal mean wind direction of month.	Average percentage.	Normal percentage.	Mean velocity in miles per diem.	Normal.	Total rainfall for the month.	Heaviest rainfall during the month.		
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	49	50	51	52	53	54	55	56
																															III.—Bengal.	
·908	·971	·981	·953	—·018	91	83	81	86	— 1	8·6	9·0	8·8	+0·2	2	5	6	6	11	7	17	5	3	S 4° W	S 1° W	25	63	125	88	14·18	2·44	Calcutta	5
																															V.—United Provinces of Agra and Oudh.	
·861	·860	·847	·869	—·076	87	66	61	73	— 7	7·5	6·8	7·1	−1·0	4	2	7	10	4	2	5	20	8	N 70° W	N 75° E	20	6	109	128	6·96	1·13	Allahabad	9
																															VI.—Punjab.	
·834	·867	·869	·875	+·012	83	65	56	69	+ 4	3·9	3·0	3·5	—0·8	15		6	7	17	3	2	3	8	S 59° E	S 78° E	23	30	48	60	7·55	2·31	Lahore	11
																															IX.—Rajputana.	
·793	·847	·843	·837	+·003	86	70	63	75	− 1	6·4	7·2	6·8	−0·6		1	12	10	2	3	9	20	5	N 77° W	N 78° W	16	30	115	95	4·38	1·16	Jaipur	18
																															X.—Bombay.	
·833	·930	·921	·910	—·011	88	86	84	87	0	8·1	8·2	8·1	—0·6				1	2	4	26	26	3	S 64° W	S 75° W	79	83	223	340	33·33	7·95	Bombay	25
																															XIV.—Mysore.	
·598	·625	·623	·615	+·008	95	75	68	80	+ 3	8·9	8·8	8·9			3					17	37	5	S 84° W	S 72° W	85	88	190	168	5·35	1·54	Bangalore	29
																															XV.—Madras.	
	·732	·725				55	45			6·7	8·4	7·5		19		1		2	4	18	9	9	S 67° W		45		125		2·37	0·80	Pudukkottai	31
·780	·784	·822	·810	—·002	79	58	58	66	— 2	6·4	7·4	6·9	—0·4			2	5	6	6	20	20	3	S 24° W	S 51° W	37	66	131	139	3·11	1·33	Madras	
																															Hill stations, excluding Kashmir and Baluchistan.	
																															Sarain.	
	·350	·368				88	87			9·0	8·6	8·8		9	10	1	2	24	6		1	9	S 65° E		23		97		13·48	2·58	Kalabagh.	
·376	·500	·519	·469		87	85	82	85		7·5	7·9	7·7		12	1		5	8	6		29	1	S 63° W		35		126		7·31	2·73	Mukteswar.	
·610	·675	·715	·671	—·022	89	71	68	76	— 5	6·6	6·9	6·7	—0·1	53			5				4		E	S 63° W	2	11	15	15	10·24	1·59	Katmandu.	
																															Ootacamund.	
·313	·401	·417	·377		79	77	83	80		7·0	8·2	7·6			1		2	1		2	32	21	N 73° W*		77		306		6·08	1·85	Kodaikanal.	
·270	·369	·361	·333		82	89	90	87		8·9	9·5	9·2			1	3	1			21	33	3	S 78° W		77		378		8·28	2·28	Dodabetta.	
																															Extra India.	
																															Diego Garcia.	
·649	·783	·772	·750	—·001	71	79	75	79	+ 1	6·6	6·2	6·4	+0·8†			1		33	24	4			S 23° E	S 33° E	87	86	213	211	4·81	0·70	Seychelles.	
			·473	—·038				75	— 1			4·7	—0·1										S 55° E	S 64 E			194	185	0·85		Mauritius.	

* 3 variable winds. † Departure from old normal.

Table B.—Abstract of observations taken at 8 hrs. at 216 stations in India, etc., in July, 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.

	Pressure departure from normal.	Temperature of air.								Wind.		Hygrometry.				Cloud.		Rainfall.		
		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.	Absolute range during month.	Departure of velocity from normal.	Departure of steadiness from normal.	Mean humidity.	Departure from normal.	Mean vapour tension.	Departure from normal.	Mean cloud amount.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.
Burma	—·009	87·4	+0·5	75·5	+0·1	81·4	+0·3	11·9	20·7	—0·6	— 7	88	— 1	·865	—·013	8·2	+0·1	19·14	17·62	+1·52
Assam	+·005	88·9	+0·1	77·0	0	83·0	0	11·9	22·7	—0·3	+ 4	90	— 1	·930	—·019	7·0	—1·5	17·67	17·91	—0·24
Bengal	—·001	88·5	+0·5	78·3	—0·2	83·4	+0·2	10·2	19·5	—0·6	—19	87	— 2	·948	—·017	7·6	—0·8	14·73	15·55	—0·82
Bihar and Orissa	+·004	90·0	+0·7	78·0	0	84·0	+0·4	12·1	22·6	+1·7	—11	84	— 2	·912	—·011	6·7	—1·1	12·65	13·13	—0·48
United Provinces of Agra and Oudh.	+·026	93·8	+1·9	78·8	—0·4	86·3	+0·8	15·0	27·9	0	— 9	77	— 6	·892	—·038	4·9	—2·1	7·02	12·11	—5·09
Punjab	+·049	96·3	—2·7	78·7	—2·1	87·5	—2·4	17·6	33·5	—0·3	— 6	74	+ 3	·863	—·001	4·5	0	4·67	5·78	—1·11
North-West Frontier Province	+·034	101·5	—1·7	79·8	—1·1	90·7	—1·4	21·7	38·3	—0·5	+ 3	68	+ 2	·845	—·011	2·7	—0·1	2·05	3·17	—1·12
Sind	+·010	97·7	—0·6	82·1	+0·6	89·8	0	15·6	30·0	—0·7	—13	74	+ 2	·929	+·037	4·0	—1·3	9·39	2·55	+6·84
Rajputana	+·023	94·8	—1·1	78·9	—1·1	86·9	—1·1	15·9	28·1	+0·6	—23	71	0	·801	—·027	5·2	—1·0	4·02	6·82	—2·80
Bombay	+·003	86·3	—0·2	74·9	—0·4	80·6	—0·3	11·4	21·0	—2·1	— 4	85	+ 2	·843	+·011	7·5	—0·6	16·05	15·61	+0·44
Central India	+·021	87·7	+0·5	75·1	—0·3	81·4	0	12·7	22·7	—0·9	—15	84	+ 1	·831	0	6·8	—0·6	10·11	10·98	—0·87
Central Provinces	+·016	86·7	+0·6	73·8	—0·1	80·3	+0·3	12·8	22·5	+0·5	— 9	83	— 1	·782	—·015	7·3	—0·6	12·74	12·80	—0·06
Hyderabad	+·003	86·9	—1·1	72·1	—0·3	79·5	—0·7	14·8	25·4	—1·7	— 2	81	+ 3	·724	0	7·4	0	9·71	6·94	+2·77
Mysore	—·001	80·0	—0·9	66·7	+0·1	73·3	—0·3	13·3	23·0	+0·5	— 3	86	+ 3	·635	+·001	8·9	+0·3	8·93	7·09	+1·84
Madras	+·002	91·0	—0·3	76·8	+0·2	83·9	0	14·2	23·4	+0·7	+ 2	77	+ 1	·808	+·003	6·8	—0·5	6·95	6·71	+0·24

Table

(2) *Abstract of observations taken at 8 hrs. at 216*

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.	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.	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	16	17	18	19	20	21	22	23	24
	I.—Burma.																						
2	Victoria Point	147	29·736		29·813	29·806	2nd	29·662	15th	·144	78·6	83·1		74·2		78·6		8·9	85·6	5 days	71·2	15th & 21st.	14·4
	Mergui	65	29·799	+·001	29·795	29·887	2nd	29·708	15th	·179	76·7	82·9	−1·6	71·1	−1·4	77·0	−1·5	11·8	88·0	30th	68·8	9th	19·2
	Tavoy	19	29·833	−·012	29·786	29·929	2nd	29·746	15th	·183	77·0	82·2	−1·1	74·5	+0·4	78·4	−0·3	7·7	88·0	1st	72·3	30th	15·7
	Moulmein	94	29·727	+·009	29·759	29·829	2nd	29·615	15th	·214	75·8	82·2	−0·8	74·3	+0·1	78·3	−0·3	7·9	89·0	1st	72·8	2nd, 29th & 30th.	16·2
	Rangoon	18	29·768	−·011	29·724	29·861	2nd	29·647	15th	·214	78·2	85·2	−0·1	75·0	−0·8	80·1	−0·5	10·2	90·0	1st, 2nd & 10th.	72·0	29th	18·0
	Bassein	27?	29·730	−·017	29·694	29·835	2nd	29·610	16th	·225	79·2	85·2	+0·5	76·2	+0·4	80·7	+0·5	9·0	90·2	25th	73·4	29th	16·8
	Diamond Island	41	29·727	−·019	29·703	29·832	2nd	29·587	16th	·245	81·1	85·1	+0·8	76·8	+1·2	80·9	+1·0	8·3	88·4	2nd	72·0	4th & 28th.	16·4
	Toungoo	164	29·605	−·006	29·710	29·705	8th	29·480	15th	·223	79·2	87·9	+1·2	75·3	+0·2	81·6	+0·7	12·6	94·4	10th	72·3	25th	22·1
	Kyaukpyu	18	29·695		29·654	29·819	9th	29·561	15th	·258	79·2	86·1		76·2		81·1		9·9	91·0	4th	71·4	11th	22·6
	Akyab	20	29·675	−·016	29·634	29·838	9th	29·494	23rd	·344	79·9	85·4	+0·7	76·6	−0·9	81·0	−0·1	8·8	89·9	9th	71·5	18th	18·4
3	Thayetmyo	121	29·599	−·020	29·661	29·738	7th	29·468	21st	·270	81·0	90·6	+1·7	77·2	+0·9	83·9	+1·3	13·4	97·4	10th	75·4	4 days	22·0
	Minbu	*165*	29·538	−·016	29·645	29·682	8th	29·428	28th	·254	82·1	93·2	+1·9	78·2	+1·0	85·7	+1·5	15·0	101·7	11th	75·0	25th	26·7
	Yamethin	657	29·077	−·009	29·681	29·211	8th	28·974	28th	·237	79·2	92·1	+2·1	75·5	+0·9	83·8	+1·5	16·6	97·9	9th	73·0	25th	24·9
	Mandalay	250	29·468	+·009	29·664	29·612	8th	29·346	23rd	·265	82·2	94·1	−0·1	77·6	−0·8	85·9	−0·5	16·5	101·3	11th, 1st	73·4	6th	27·9
	Monywa	*280*	29·422		29·650	29·593	8th	29·293	23rd	·300	81·7	93·9		78·9		86·4		15·0	98·8	1st, 3rd & 12th.	75·4	7th	23·4
	Lashio	*2,820*	26·951	−·028	26·897	27·099	7th	26·855	28th	·244	73·6	83·8	+0·2	70·0	+0·7	76·9	+0·5	13·8	88·6	10th	67·5	7th & 12th,	21·1
	Bhamo	*381*	29·316	+·008	29·649	29·485	7th	29·207	23rd	·278	78·5	90·1	+2·3	75·1	0	82·6	+1·1	15·0	95·8	9th	72·4	7th	23·4
	Myitkyina	458	29·205		29·622	29·369	7th	29·116	28th	·253	77·4	89·6		75·1		82·4		14·5	94·6	17th	70·6	3rd	24·0
	II.—Assam.																						
4	Dibrugarh	353	29·291		29·604	29·463	8th	29·121	23rd	·342	78·4	87·6		74·8		81·2		12·8	93·4	4 days	70·1	3rd	23·3
	Sibsagar	333									79·6	89·6	−0·4						94·6	31st			
	Tezpur	252	29·416		29·626	29·605	7th	29·233	23rd	·372	80·2	90·1		77·1		83·6		13·0	95·6	30th	72·3	3rd	23·3
	Gauhati	195	29·442		29·591	29·635	8th	29·266	23rd & 24th.	·369	82·1	90·7		77·6		84·2		13·1	96·8	25th & 30th.	73·1	3rd	23·7
	Dhubri	115	29·525	+·016	29·594	29·745	8th	29·348	24th	·397	81·5	86·8	+0·9	78·1	−0·2	82·5	+0·3	8·7	91·5	28th & 30th,	74·1	11th	17·4
	Silchar	104	29·562	−·006	29·618	29·798	8th	29·349	23rd	·449	80·8	89·4	−0·8	77·4	+0·2	83·4	−0·3	12·0	98·3	30th	72·3	3rd	26·0
	III.—Bengal.																						
5	Cox's Bazar	36	29·616		29·597	29·807	9th	29·363	23rd	·444	80·6	86·2		76·6		81·4		9·6	89·7	8th & 15th	71·7	4th	18·0
	Chittagong	87	29·569	−·009	29·601	29·758	9th	29·317	23rd	·441	80·0	86·5	+0·8	76·5	−0·1	81·5	+0·3	10·0	91·0	23rd	67·5	24th	23·5
	Noakhali	43	29·595		29·585	29·790	9th	29·320	24th	·470	81·0	86·2		76·2		82·2		8·0	89·8	12th	75·9	6 days	13·9
	Barisal	12	29·600	−·005	29·559	29·811	9th	29·262	24th	·549	82·0	87·7	+0·4	78·4	−0·2	83·0	+0·1	9·3	92·3	12th	74·6	5th	17·7
	Narayanganj	26	29·592	−·006	29·567	29·802	8th	29·313	24th	·489	82·6	88·8	+0·5	78·2	−1·0	83·5	−0·2	10·6	92·5	22nd	71·8	26th	20·7
	Mymensingh	63	29·576	+·011	29·590	29·795	8th	29·362	24th	·433	82·0	89·5	+2·4	78·6	+0·3	84·0	+1·2	10·9	94·1	22nd & 29th.	72·1	5th	22·0
	Bogra	75	29·546	+·012	29·572	29·800	8th	29·330	24th	·470	82·0	89·7	+0·6	78·8	+0·3	84·3	+0·5	10·9	92·7	10th, 22nd & 28th.	73·7	5th	19·0
	Dinajpur	123	29·479	+·007	29·555	29·690	8th	29·294	24th	·396	82·6	90·4	+1·3	78·4	−0·5	84·4	+0·4	12·0	94·8	22nd, 25th & 30th.	73·0	22nd	21·8
	Jalpaiguri	283	29·345	+·014	29·584	29·556	8th	29·186	24th	·370	80·8	90·5	+2·3	76·6	−0·2	83·6	+1·1	13·9	95·9	30th	73·9	4 days	22·0

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

3.

ations in India, etc., in July, 1913.

Wind direction. Number of winds from N. (26)	N.E. (27)	E. (28)	S.E. (29)	S. (30)	S.W. (31)	W. (32)	N.W. (33)	Resultant direction. (34)	Normal direction. (35)	Wind velocity. Mean velocity, miles per hour. (36)	Normal. (37)	Departure from normal. (38)	Wind steadiness. Actual percentage (39)	Departure from normal. (40)	Hygrometry, 8 hrs. Mean humidity at 8 hrs. (41)	Departure from normal. (42)	Mean vapour tension at 8 hrs. in inches of mercury. (43)	Departure from normal in inches of mercury. (44)	Cloud. Mean cloud amount at 8 hrs. (45)	Departure from normal. (46)	Rainfall. Number of rainy days. (47)	Normal number of rainy days. (48)	Departure from normal. (49)	Rainfall of month. (50)	Normal rainfall of month. (51)	Departure from normal. (52)	Total rainfall from 1st May to 31st July, 1913. (53)	Normal rainfall for period, 1st May to 31st July. (54)	Departure from normal of period, 1st May to 31st July, 1913. (55)	Heaviest rainfall during month. (56)	Station. (57)
																															I.—Burma.
2		2	3	6	11	6		S 35° W		7·1*			56		87		·847		7·7		24			25·99			88·61			6·71	Victoria Point.
			1		4			S 32° W	S 70° W	2·0	1·3	+0·7	13	−42	93	+ 1	·848	−·027	8·8	+1·3	28	25·4	+ 2·6	37·31	30·99	+6·85	80·05	78·48	+1·57	5·04	Mergui.
	1		1	4	9			S 26° W	S 61° W	1·0*	1·2	−0·2	37	+19	91	− 1	·853	−·016	9·4	+1·2	28	27·0	+ 1·0	77·83	48·07	+29·76	117·90	116·23	+1·67	7·28	Tavoy.
1	1	6	4	10	4		1	S 25° E	S 2° E	4·3	2·8	+1·5	46	+ 3	96	+ 3	·859	−·013	9·4	+0·9	28	27·7	+ 0·3	62·40	45·51	+16·89	112·23	101·92	+10·31	6·50	Moulmein.
1		1	3	12	6	3	1	S 16° W	S 45° W	3·3	3·7	−0·4	59	−15	92	− 2	·896	−·017	9·7	+0·7	28	25·2	+ 2·8	33·81	20·93	+9·88	62·61	50·73	+11·88	3·90	Rangoon.
			1	8	3			S 7° W	S 18° W	4·1	3·3	+0·8	37	−28	92	− 2	·919	0	8·5	−0·3	21	26·1	− 5·1	30·34	24·77	+5·57	49·37	58·03	−8·66	6·21	Bassein.
			1	2	20	5	1	S 50° W	S 43° W	8·3	7·7	+0·6	79	− 2	86	0	·918	+·021	9·3	+0·5	26	23·2	+ 2·8	39·06	25·54	+13·52	64·25	60·47	+3·78	7·11	Diamond Island.
1			12	13	2			S 18° E	S 31° E	2·6	3·8	−1·2	76	−10	89	− 3	·888	−·016	8·9	−0·4	23	24·4	− 1·4	19·84	17·60	+2·24	30·78	38·93	−8·15	2·33	Toungoo.
	1	4	7	3	13	2	1	S 8° W		7·7			53		88		·880		8·1†		25			48·81			98·51			6·35	Kyaukpyu.
1	1	8	3	6	4	3	1	S 27° E	S 38° E	4·4	2·8	+1·6	33	−22	93	− 1	·931	−·029	8·1	−0·2	25	27·6	− 2·6	58·70	52·77	+5·93	121·10	109·45	+11·65	8·40	Akyab.
			1	26	1			S	S 7° E	4·3*	5·0	−0·7	88	− 2	85	0	·893	+·020	8·6	+0·5	12	15·0	− 3·0	5·26	6·77	−1·51	11·43	17·85	−6·42	0·90	Thayetmyo.
			31					S 45° E	S 39° E	2·6	9·0	−6·4	100	+ 8	77	− 6	·832	−·041	5·2	−1·2	10	8·7	+ 1·3	2·65	4·19	−1·54	9·39	11·74	−5·35	0·45	Minbu.
			15	15	1			S 20° E	S 28° E	4·7	7·6	−2·9	92	0	79	− 5	·782	−·052	5·8	+0·8	6	9·0	− 3·0	2·44	4·05	−1·61	9·95	15·29	−5·34	0·42	Yamethin.
	1	1	11	15	2			S 19° E	S 5° E	5·9§	6·6	−0·7	82	+ 1	76	+ 1	·836	−·007	5·7	−2·5	9	5·9	+ 3·1	7·05	3·26	+3·79	13·81	14·29	−0·48	1·59	Mandalay.
	1	3	21	4				S 46° E		2·9			82		83		·889		8·5		9	3·6	+ 5·4	9·33	1·70	+7·63	16·31	12·27	+4·04	2·41	Monywa.
				2	3			S 27° W		2·0*			17		88	− 2	·717	−·007	9·1	+0·2	14	18·0	− 4·0	9·78	12·48	−2·70	26·26	29·40	−3·14	1·81	Lashio.
2		1	1	4	3	2		N 76° W	N 70° W	1·0	1·4	−0·4	17	− 2	93	+ 1	·903	+·007	8·5	−0·2	14	20·3	− 6·3	19·51	17·28	+2·23	41·21	37·49	+3·72	3·95	Bhamo.
		2	1	1		1		S		1·3			8		91		·858		7·5		20	21·3	− 1·3	18·98	19·35	−0·37	37·89	38·68	−0·79	3·60	Myitkyina.
																															II.—Assam.
1	1			2				S 23° E		1·0			2		95		·921		7·2		14	22·0	− 8·0	13·46	20·23	−6·77	51·00	48·42	+2·58	4·63	Dibrugarh.
1			4	3				S 18° W	S 11° E	2·5	2·1	+0·4	13	− 3	91	− 2	·910	−·065	7·2	−1·7	16	19·3	− 3·3	19·10	18·61	+2·49	44·50	42·61	+1·89	5·36	Sibsagar.
4	5			2	6			N 10° E		1·5			8		89		·905		7·5		17	16·8	+ 0·2	13·28	12·67	+0·61	30·59	32·27	−1·68	2·83	Tezpur.
	1	2	1					S 45° E		1·2			10		86		·943		5·6		10	14·3	− 4·3	9·66	10·13	−0·47	31·91	34·31	−2·40	1·62	Gauhati.
8	10	2	5	3				S 78° E	S 83° E	3·9	3·4	+0·5	49	+20	90	− 1	·961	+·017	8·0	−0·4	11	15·8	− 4·8	17·14	16·49	+0·65	47·80	55·63	−7·83	6·26	Dhubri.
3	1			1	1			N 45° E	N 84° E	1·1	2·0	−0·9	3	− 4	89	− 1	·938	−·009	6·7	−2·5	13	22·8	− 9·8	20·18	19·12	+1·06	74·40	56·61	+17·79	7·55	Silchar.
																															III.—Bengal.
1	3	17	6	3	1			S 33° E		6·0*			76		90		·933		7·4		19			29·61			87·04			5·80	Cox's Bazar.
3	14	10		3				S 72° E	S 36° E	2·5	5·3	−2·8	72	− 2	88	− 1	·961	−·049	7·9	−0·4	19	18·7	+ 0·3	14·48	21·34	−6·86	69·46	51·01	+18·42	5·36	Chittagong.
	6	12	5	4	3			S 29° E		5·0			58		89		·939		7·0		20	23·3	− 3·3	22·40	24·27	−1·87	71·34	56·91	+14·43	3·24	Noakhali.
	3	5	6	3				S 20° E	S 14° E	0·6	3·1	−2·5	43	0	89	+ 1	·961	−·018	8·1	−0·8	19	20·7	− 1·7	18·38	15·23	+3·15	73·71	39·50	+34·21	3·33	Barisal.
3	7	6	7	3	2			S 39° E	S 27° E	4·1	5·7	−1·6	46	−25	87	− 3	·961	−·020	8·6	−0·1	18	17·2	+ 0·8	9·49	12·46	−2·97	39·13	34·02	+5·11	1·45	Narayanganj.
	10	8	3	1				S 61° E	S 49° E	1·8	3·0	−1·2	56	−12	87	− 4	·963	+·003	7·8	−0·1	14	20·1	− 6·1	11·55	16·68	−5·13	49·77	48·45	+1·32	3·51	Mymensingh.
3	7	1	4	3				S 71° E	S 48° E	1·31	3·1	−1·8	27	−38	87	− 2	·952	−·027	6·8	−1·4	13	16·5	− 3·5	17·51	12·83	+4·68	57·50	34·40	+23·10	3·38	Bogra.
2	11	3	4	2		1		S 66° E	S 86° E	1·8	2·9	−1·1	43	−14	87	− 3	·976	+·006	5·5	−2·9	15	17·2	− 2·2	11·29	14·91	−3·62	45·14	36·09	+9·05	2·87	Dinajpur.
								S 45° E	N 88° E	1·1			3	−54	89	− 3	·944	−·005	6·1	−2·4	18	21·6	− 3·6	30·87	31·59	−0·72	69·95	66·66	+3·29	6·19	Jalpaiguri.

* Uncorrected for scale error. † Mean of 30 days. ‡ Mean of 27 days. § Mean of 6 days.

Table

(2) *Abstract of observations taken at 8 hrs. at 216 station*

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.	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.	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	16	17	18	19	20	21	22	23	24
	III.—Bengal—*concld.*																						
5	Saugor Island	10	29·559	—·019	29·514	29·772	9th	29·146	30th	·626	82·8	86·5	—1·3	80·2	—0·4	83·4	—0·9	6·3	91·2	13th	75·2	31st	16
	Midnapore	149	29·411†		29·508†	29·623	9th	29·015	31st	·608	82·6	89·9		78·7		84·3		11·2	95·8	5th & 12th.	75·2	5th	20
	Calcutta	21	29·554	—·015	29·522	29·782	9th	29·213	30th	·569	82·2	88·5	+0·5	79·2	+0·7	83·8	+0·6	9·3	94·5	12th	75·7	4th	18
	Jessore	33	29·570	—·002	29·550	29·797	9th	29·249	24th	·548	82·1	88·5	—0·7	78·8	—0·2	82·7	—0·5	9·7	93·5	12th	75·2	4th	18
	Burdwan	99	29·489	+·002	29·536	29·701	9th	29·203	24th	·498	82·3	90·0	—0·2	78·8	—0·6	84·4	—0·4	11·2	95·4	21st & 22nd.	74·8	30th	20
	Berhampore	67	29·532	+·003	29·548	29·755	9th	29·268	24th	·487	81·8	89·3	—0·1	78·8	0	84·0	—0·1	10·5	93·1	11th	74·2	12th & 29th.	18
	IV.—Bihar and Orissa.																						
6	Balasore	50	29·520	—·010	29·515	29·735	9th	29·089	31st	·646	81·6	89·2	+0·7	77·7	—0·7	83·5	0	11·5	94·4	3rd & 12th	67·6	25th	26
	Hukitala (False Point).	29	29·570	—·009	29·540	29·762	9th	29·304	17th	·458													
	Cuttack	80	29·526	+·005	29·547	29·711	9th	29·167	17th	·544	81·9	89·0	—0·8	78·2	—0·4	83·6	—0·6	10·8	95·5	12th & 13th.	74·2	25th & 31st.	21
	Puri	24	29·577		29·542	29·761	9th	29·186	17th	·575	82·1	87·2		78·5		82·8		8·7	92·6	13th	74·1	22nd, 23rd & 24th.	1
	Angul	455	29·128§		29·527§	29·301	2nd	28·839	17th	·462	80·8	83·2 **		76·8 **		82·5 **		11·4	94·6	3rd	73·5	30th	21
	Sambalpur	486	29·128	+·008	29·561	29·292	3rd	28·844	17th	·448	80·6	90·6	+2·5	78·0	+0·3	84·3	+1·4	12·6	93·6	12th	74·6	5th	19
7	Chaibasa	*733*	28·835	—·003	29·514	29·028	9th	28·432	25th	·596	80·7	89·5	—0·5	76·8	—0·9	83·1	—0·7	12·7	95·1	3rd & 5th	73·8	7th & 22nd.	2
	Ranchi	2,128	27·492	+·020	29·520	27·656	9th	27·231	25th	·425	76·4	84·9	+0·9	73·4	+0·5	79·1	+0·7	11·5	90·7	11th	70·4	7th.	2
	Purulia	*816*	28·773		29·536	28·973	9th	28·436	25th	·537	79·6	92·3		76·3		84·3		16·0	97·5	5th & 7th	67·1	26th	3
	Daltonganj	*730*	28·800		29·542	29·011	9th	28·711	25th	·300	81·5	90·7		77·8		84·2		12·9	97·1	5th, 11th & 12th.	73·0	30th	2
8	Purnea	124	29·461	—·009	29·549	29·663	8th	29·299	24th	·364	82·4	90·4	+0·4	78·6	—0·1	84·5	+0·1	11·8	95·6	11th	73·8	8th	2
	Monghyr	155	29·427		29·533	29·631	8th	29·280	23rd	·351	83·6	91·1		78·9		85·0		12·2	96·7	11th	73·9	12th	2
	Darbhanga	165	29·426	+·009	29·544	29·630	8th	29·261	24th	·369	83·7	90·5	+1·0	79·6	—0·2	85·0	+0·4	10·9	95·6	9th	73·7	5th	2
	Pusa	188	29·395		29·537	29·592	8th	29·231	24th	·361	84·0	91·8		78·3		85·0		13·5	99·6	12th	74·3	14th	2
	Patna	183	29·400	+·010	29·536	29·590	8th	29·250	24th	·340	83·8	90·6	+0·5	80·1	+0·3	85·4	+0·4	10·5	97·0	12th	77·7	13th, 14th & 31st.	1
	Buxar	239	29·348		29·541	29·521	8th	29·209	24th	·312	82·7	91·8		79·0		85·4		12·8	100·5	12th	76·1	25th.	1
	Gaya	372	29·207	+·010	29·526	29·379	8th	29·061	31st	·318	84·1	92·9	+1·5	79·4	+0·6	86·1	+1·1	13·5	100·4	11th	74·7	23rd	1
	Naya Dumka	489	29·101	+·017	29·539	29·307	9th	28·683	31st	·424	82·2	89·9	+1·3	78·1	+0·5	84·0	+0·9	11·8	95·4	4th & 5th	75·0	26th	1
	V.—United Provinces of Agra and Oudh.																						
9	Gorakhpur	257	29·321	+·017	29·533	29·512	8th	29·170	24th	·342	83·8	91·8	+0·7	76·8	—2·6	84·3	—0·9	15·0	100·1	12th	69·8	6th	
	Benares	267	29·314	+·027	29·532	29·471	8th	29·183	24th	·288	83·9	93·0	+1·8	79·3	—0·3	86·2	+0·8	13·6	102·5	12th	74·4	22nd	
	Allahabad	309	29·273	+·028	29·534	29·416	8th	29·138	18th	·278	84·5	94·5	+2·9	79·1	—0·3	86·8	+1·3	15·4	102·1	11th & 12th.	75·0	31st	
	Cawnpore	416	29·168	+·047	29·536	29·337	8th	29·049	24th	·288	84·3	94·1	+1·6	80·1	+0·5	87·1	+1·1	14·0	101·6	13th	75·5	1st	
	Lucknow	368	29·210	+·027	29·532	29·390	8th	29·082	24th	·308	84·8	98·8	+1·6	79·6	+0·3	86·7	+0·9	14·2	102·0	12th	75·1	13th	
	Bahraich	401	29·160	+·004	29·517	29·354	8th	29·013	24th	·341	83·6	92·3	+1·0	78·8	0	85·5	+0·5	13·5	101·6	12th	75·0	23rd	
10	Jhansi	824	28·770	+·022	29·541	28·901	8th	28·591	19th	·310	83·8	95·4	+4·2	78·5	—0·3	86·9	+1·9	16·9	101·1	13th	74·5	15th & 28th.	
	Agra	556	29·018	+·026	29·525	29·182	8th	28·891	19th	·291	86·7	97·0	+3·7	80·5	+0·1	88·8	+1·9	16·5	104·0	11th	76·5	6th	
	Mainpuri	516	29·049	+·022	29·517	29·222	8th	28·925	24th	·297	85·0	96·2	+3·5	80·2	+0·7	88·2	+2·1	16·0	104·3	12th	77·1	31st	
	Bareilly	568	29·001	+·022	29·522	29·210	8th	28·869	12th	·341	84·6 ††	93·9 ††	+2·3 ††	78·1 ††	—0·6 ††	86·0 ††	+0·9	15·8	103·6	12th	69·2	15th	
	Roorkee	899	28·694	+·041	29·550?	28·963	8th	28·554	24th	·409	81·5	90·1	—2·0	76·2	—2·0	83·1	—2·0	13·9	95·3	11th	69·7	8th	

† Mean of 30 days.
§ " 29 "
** " 16 "
†† " 2 "

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

B—*continued.*

in India, etc., in July, 1913—continued.

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 from 1st May to 31st July, 1913.	Normal rainfall for period, 1st May to 31st July.	Departure from normal of period, 1st May to 31st July, 1913.	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
																																III.—Bengal—*concld.*
1	1	3	3	2	4	7	7	3	S 55° W	S 27° W	12·2	11·2	+1·0	27	−27	86	− 2	·960	−·036	7·8	−1·5	18	16·1	+1·9	37·96	15·32	+22·64	71·70	30·33	+41·37	13·94	Saugor Island.
3	3	3	3	4	7	3		5	S 34° E		3·2			13		82		·907		7·3		19	16·3	+2·7	15·64	12·78	+ 2·86	42·67	27·57	+15·10	5·84	Midnapore.
1	2	4	3	7	3	3	1	2	S 20° E	S 3° W	5·3*	3·7	+1·6	27	−23	89	0	·976	+·009	8·7	+0·3	18	18·6	−0·6	14·48	12·89	+ 1·59	54·22	30·06	+24·16	2·44	Calcutta.
9	1	2	3	10	5		1		S 47° E	S 21° E	4·5	3·0	+1·5	46	− 4	87	− 3	·957	−·046	8·1	−0·3	16	17·9	−1·9	13·26	12·38	+ 0·88	53·21	32·76	+20·45	3·64	Jessore.
4	4	5	6	2	3	3	3	1	N 72° E	S 3° E	3·2	3·1	+0·1	17	−22	86	0	·942	0	8·7	+0·5	22	15·9	+6·1	13·84	12·91	+ 0·93	40·91	28·86	+12·05	1·87	Burdwan.
1	2	1	15	2	5	4	1		S 64° E	S 25° E	3·3	3·3	0	46	− 6	87	− 5	·912	−·051	8·6	−0·2	16	15·6	+0·4	13·24	10·80	+ 2·44	34·40	25·37	+ 9·03	2·89	Berhampore.
																																IV.—Bihar and Orissa.
	1	2	3	1	3	16	2	3	S 41° W	S 37° W	4·2	4·3	−0·1	46	− 8	89	+ 1	·955	−·015	7·1	−1·1	19	14·6	+4·4	30·94	11·10	+19·84	53·29	25·51	+27·78	7·73	Balasore.
2	1	2		2	4	11	7	2	S 55° W	S 59° W	13·6	8·2	+5·4	53	−15					6·1	−2·3	19	14·3	+4·7	31·91	11·80	+20·11	49·79	24·57	+25·22	5·98	Hukitala (False Point).
5		3	2			12	8	1	S 67° W	S 60° W	3·3*	2·4	+0·9	46	− 6	81	0	·888	−·003	7·2	−0·3	18	15·6	+2·4	21·33	11·64	+9·69	33·76	25·47	+8·29	5·46	Cuttack.
2	5	2			1	10	8	3	N 86° W		9·7			52		86		·934		7·3		16	11·7	+4·3	15·55	9·50	+6·05	30·21	19·26	+10·95	2·36	Puri.
2	2	4	2	1	2	4	8	6	N 72° W		6·6			29		81		·852		7·2		17	14·4	+2·6	15·37	9·90	+5·47	25·59	19·53	+6·06	6·15	Angul.
	2		3	2	3	9	9	3	S 63° W	S 34° W	4·5	3·5	+1·0	46	−14	85	− 1	·884	−·006	8·5	+0·3	15	20·4	−5·4	12·52	21·37	−8·85	24·87	33·04	−8·17	3·27	Sambalpur.
4		4	2		2	11	6	2	S 62° W	S 66° W	3·2	2·0	+1·2	37	− 7	83	0	·864	−·034	7·8	+0·1	18	15·6	+2·4	16·62	12·24	+4·38	32·34	24·04	+8·30	2·29	Chaibasa.
	2	1	5	3	2	4	9	5	S 85° W	S 63° W	9·2‡	5·8	+3·4	23	− 9	85	− 3	·773	−·023	7·8	−0·2	14	18·1	−4·1	16·00	15·23	+0·77	37·38	26·65	+10·73	2·82	Ranchi.
6	2	4	7	1		4	4	3	N 34° E		2·7			13		86		·870		4·5		16	16·5	−0·5	13·31	12·28	+1·03	29·11	22·44	+6·67	3·91	Purulia.
1	3	4	5	1	2	10	5		S 37° W		4·1			16		81		·864		6·1		10	15·2	−5·2	11·19	11·26	−0·07	25·77	17·44	+8·33	2·35	Daltonganj.
2	1	3	12	4	3	3	2	1	S 72° E	S 81° E	2·5§	2·6	−0·1	43	− 8	88	− 1	·964	−·017	5·6	−1·6	12	16·9	−4·9	8·09	14·16	−6·07	32·93	29·68	+3·25	2·35	Purnea.
6			7	6		11			S 14° E†		2·6			40		83		·958		7·8		13			9·87			29·10			4·31	Monghyr.
14			11			2	3	1	S 83° E	S 80° E	7·7	3·5	+4·2	20	−35	83	− 5	·952	−·017	6·5	−0·6	10	14·3	−4·3	8·05	11·79	−3·74	29·70	22·94	+6·76	2·50	Darbhanga.
6		6	5	5	1	3	4	1	S 72° E		3·2			23		86		·985		4·2		13			10·22			34·93			2·68	Pusa.
5			15	1		2	8		S 72° E	N 81° E	5·6	3·4	+2·2	23	−19	88	− 3	·969	0	7·3	−1·3	13	14·2	−1·2	7·77	12·21	−4·44	32·19	21·74	+10·45	3·26	Patna.
2	1	1	11	2		5	9		S 18° E		5·4			10		84		·915		9·6		9	13·5	−4·5	7·41	11·17	−3·76	18·67	17·16	+1·51	2·64	Buxar.
5		7	3	1	1	1	13		N 64° W	S 3° E	2·1	2·9	−0·8	20	+10	81	− 3	·946	+·017	5·4	−3·6	15	15·3	−0·3	16·51	12·79	+3·72	28·56	21·08	+7·48	4·74	Gaya.
12		2	11	3		1	1		S 84° E		3·3‖			43		85	− 5	·932		5·1		12	18·6	−6·6	6·76	13·65	−6·89	33·11	26·37	+6·74	1·67	Naya Dumka.
																																V.—United Provinces of Agra and Oudh.
9		5	7	1		1	7	1	N 45° E	N 63° E	2·3	1·7	+0·6	13	−19	82	− 4	·946	−·005	2·0	−3·9	10	14·6	−4·6	8·19	13·39	−5·20	20·99	22·77	−1·78	2·02	Gorakhpur.
2			6	8	1	4	8	2	S 4° W	S 7° E	3·7	3·4	+0·3	27	+17	81	− 5	·919	−·043	6·4	−1·6	13	14·0	−1·0	13·81	11·00	+2·81	22·30	16·70	+5·60	2·73	Benares.
1		4	5	2	1	2	13	3	N 81° W	S 27° W	5·2	5·3	−0·1	23	+17	74	−10	·873	−·068	6·6	−1·6	12	13·9	−1·9	6·96	11·76	−4·80	12·07	16·94	−4·87	1·13	Allahabad.
6			8	4		2	9	2	S 20° W	S 1° E	2·6	3·4	−0·8	10	− 4	78	− 4	·902	−·039	2·9	−4·5	9	12·4	−3·4	3·72	10·92	−7·20	10·18	14·41	−4·23	1·37	Cawnpore.
11		1	10		1	2	6		S 62° E	S 82° E	1·6	2·8	−1·2	10	−14	77	− 7	·917	−·024	4·6	−2·3	12	13·2	−1·2	6·58	11·85	−5·27	16·03	17·38	−1·35	1·85	Lucknow.
1	1	1	6	7	1	2	7	5	S 9° W	S 68° E	2·8	2·6	+0·2	7	−33	78	− 7	·875	−·082	4·9	−1·8	10	12·1	−2·1	6·01	10·82	−4·81	19·59	18·62	+0·97	2·18	Bahraich.
1	1	3	4	1		10	11		S 68° W	S 72° W	5·6	3·2	+2·4	40	− 7	69	− 9	·796	−·074	7·6	+1·1	10	13·5	−3·5	3·93	11·91	−7·98	6·10	17·13	−11·03	1·36	Jhansi.
7		4	3	5	1	6	5		S 1° E	S 24° W	4·7	4·0	+0·7	19	−23	68	−11	·853	−·069	4·6	−2·4	10	11·6	−1·6	3·15	9·57	−6·42	6·62	12·56	−5·94	0·63	Agra.
1	2	1	6	6	2	2	9	2	S 15° W	S 41° E	2·2	1·5	+0·7	10	+ 7	75	− 7	·897	−·031	2·5	−4·5	8	10·0	−2·0	4·72	7·16	−2·44	10·80	10·13	+0·37	1·22	Mainpuri.
22			4	2			3		S 59° E	S 47° E	0·9	2·4	−1·5	7	−25	81	− 4	·960	+·028	6·2	−0·4	9	13·1	−4·1	6·07	14·02	−7·95	13·34	20·14	−6·80	2·30	Bareilly.
20			1	8				2	S 51° E	S 38° E	1·3	2·1	−0·8	23	−16	81¶	− 1	·870¶	−·009	5·5	−0·9	10	11·9	−1·9	5·63	12·36	−6·73	15·28	18·29	−3·01	1·13	Roorkee.

* Uncorrected for scale error. § Mean of 28 days. ‖ Mean of 13 days. ¶ Mean of 24 days. † 1 Windless. ‡ Mean of 30 days.

Tabl

(2) *Abstract of observations taken at 8 hrs. at 216 station*

Number of sub-division.	Station.	Elevation of barometer 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
	VI.—Punjab.																						
11	Delhi	718	28·864	+·042	29·535	29·058	8th	28·736	24th	·322	84·3	94·9	+0·9	79·6	−1·1	87·3	−0·1	15·3	101·0	11th	73·8	2nd	27·2
	Sirsa	662	28·901	+·044	29·523	29·046	9th	28·769	24th	·277	82·6	94·0	−6·5	77·5	−4·3	85·8	−5·4	16·5	99·3	11th, 25th & 31st.	69·0	2nd	30·3
	Patiala	*818*	28·713		29·517	28·969	8th	28·602	24th	·367	82·8	93·8		78·7		86·3		15·1	99·4	11th & 31st.	71·8	2nd	27·6
	Ambala	892	28·690	+·046	29·510	28·919	8th	28·547	24th	·372	81·9	93·6	+0·3	76·8	−2·0	85·4	−0·9	16·8	100·5	11th	70·9	5th	29·6
	Ludhiana	812	28·765	+·043	29·536	28·969	8th	28·612	24th	·357	82·8	94·3	−2·7	78·3	−2·0	86·1	−2·3	16·0	99·7	8th	70·4	1st	29·3
	Lahore	702	28·852	+·044	29·514	29·059	8th	28·675	24th	·384	84·7	96·9	−3·7	79·2	−0·2	88·0	−1·9	17·7	104·9	11th	70·2	2nd	34·7
	Sialkot	830	28·733	+·041	29·527	29·025	8th	28·562	24th	·373	81·9	93·7	−3·9	76·8	−2·7	85·2	−3·3	16·9	102·2	12th	66·5	2nd	35·7
	Rawalpindi	1,674	27·913	+·042	29·511	28·119	8th	27·735	24th	·384	83·4	96·4	−0·9	75·1	−1·6	85·8	−1·3	21·3	106·4	12th	35·6	2nd, 6th & 7th.	40·8
12	Khushab	612	28·949	+·072	29·522	29·157	9th	28·756	24th	·401	86·5	99·2	−3·4	80·6	−1·5	89·9	−2·5	18·6	108·7	12th	70·7	2nd	38·0
	Lyallpur		28·939			29·143	8th	28·763	24th	·380	84·9	97·2		79·2		88·2		18·0	104·6	12th	68·5	2nd	36·1
	Montgomery	558	28·932	+·059	29·199	29·174	8th	28·813	24th	·361	87·2	99·8	−4·9	80·3	−3·6	90·0	−4·3	19·5	105·9	26th	68·0	2nd	37·9
	Multan	420	29·111	+·051	29·487	29·320	7th & 8th.	28·961	24th	·359	87·7	101·8	−2·0	82·0	−1·7	91·9	−1·9	19·8	106·8	13th & 14th.	71·5	2nd	35·3
	VII.—North-West Frontier Province.																						
14	Peshawar	1,113	28·446	+·035	29·509	28·674	8th	28·250	24th	·424	86·0	103·4	+0·5	78·5	−0·9	91·0	−0·2	24·9	110·6	12th	68·5	2nd	42·1
	D. I. Khan	590	28·945	+·033	29·497	29·165	7th	28·757	24th	·408	85·9	99·6	−3·8	81·1	−1·4	90·4	−2·6	18·5	107·6	12th	73·1	7th	34·5
	VIII.—Sind.																						
16	Jacobabad	186	29·306	+·018	29·416	29·512	7th	29·199	24th	·313	91·6	107·3	−0·5	85·0	+0·7	96·1	+0·1	22·3	113·6	13th	75·8	30th	37·8
	Hyderabad	96	29·412	−·003	29·459	29·571	7th	29·185	20th	·386	84·9	97·8	−1·1	80·5	−0·3	89·1	−0·7	17·3	110·1	9th	73·5	21st	36·6
	Karachi	13	29·562	+·014	29·526	29·715	7th	29·425	28th	·320	83·3	87·9	−0·2	80·8	+1·3	84·3	+0·5	7·1	91·5	2nd & 10th.	76·0	21st	15·5
	IX.—Rajputana.																						
17	Bikaner	*771*	28·778	+·022	29·497	28·935	8th	28·666	19th & 20th.	·269	86·0	99·9	−0·5	81·3	−1·5	90·6	−1·0	18·6	107·0	17th	74·0	2nd	33·0
	Jodhpur	780	28·795	+·020	29·524	28·937	3rd	28·613	19th	·324	83·3	96·9	−2·3	79·5	−1·6	88·2	−1·9	17·4	105·0	8th	73·4	30th	31·6
18	Jaipur	1,431	28·175	+·025	29·539	28·319	7th	28·021	19th	·298	81·5	92·1	−1·4	76·5	−1·7	84·3	−1·5	15·6	96·7	16th & 25th.	72·6	7th	24·1
	Ajmer	1,611	28·004	+·022	29·539	28·142	7th	27·844	19th	·298	80·1	90·8	−0·5	77·8	+0·5	84·3	0	13·0	97·6	17th	70·2	1st	27·4
	Kotah	852	28·757	+·028	29·532	28·911	2nd	28·520	19th	·391	81·2	94·5	−0·6	79·6	−1·4	87·0	−1·0	14·9	99·6	6th & 16th.	75·1	28th	24·5
	X.—Bombay.																						
19	Deesa	466	29·149	+·013	29·565	29·312	3rd	28·914	19th	·398	80·7	90·2	−1·5	76·3	−1·3	83·2	−1·1	13·9	100·6	8th	71·4	30th	29·4
	Bhuj	331	29·258	+·001	29·511	29·424	3rd	29·013	20th	·411	81·7	90·3	+0·5	77·4	−0·7	83·9	−0·2	12·9	102·0	9th	71·0	30th	31·0
	Jamnagar	61	29·535		29·571	29·727	3rd	29·392	19th	·335	84·3	89·5		77·3		83·4		12·2	95·5	3rd	71·4	8th	24·1
	Dwarka	37?	29·585	+·019	29·573	29·755	3rd	29·411	19th	·311	82·5	87·3	+0·5	80·5	−0·1	85·0	+0·2	6·8	91·3	3rd	75·7	29th	15·6
	Rajkot	429	29·205	+·010	29·533	29·367	3rd	29·019	19th	·348	81·4	90·1	−0·5	78·1	−2·7	81·6	−1·6	17·0	97·1	7th	70·3	20th	26·8
	Veraval	*18*	29·647	+·000	29·603	29·801	3rd	29·455	19th	·346	81·4	83·7	0	79·3	+0·1	81·5	+0·1	4·4	86·0	16th & 18th.	76·3	20th	10·3
	Bhavnagar Para	55	29·600	−·022?	29·601	29·756	3rd	29·375	19th	·373	81·8	90·3	−3·1?	77·2	−1·5	83·7	−2·5?	13·1	96·5	8th	74·8	9th	21·7
	Surat	39	29·640	+·007	29·622	29·785	3rd	29·416	19th	·379	81·1	87·5	+0·2	77·6	+0·3	82·5	+0·3	9·9	91·4	8th & 17th.	73·1	8th	18·3
	Ahmadabad	163	29·465	−·003	29·576	29·621	3rd	29·215	19th	·409	80·9	90·5	−0·9	77·4	−0·8	83·9	−0·9	13·1	95·0	8th	74·7	28th & 30th.	21·9
25	Bombay	37	29·692	−·010	29·669	29·829	3rd	29·524	19th	·305	80·6	84·8	+0·1	77·6	+0·1	81·2	+0·3	7·2	87·5	3rd	73·9	6th	13·6
	Ratnagiri	110	29·662	−·005	29·711	29·763	2nd	29·522	17th	·241	80·2	84·4	+0·5	75·5	+0·8	80·5	+0·7	7·9	87·3	13th	71·9	6th	15·4
	Marmagao	*60*	29·739	−·012	29·731	29·826	2nd	29·610	17th	·216	79·5	83·4	−0·3	75·6	−0·6	79·5	−0·5	7·8	86·5	6 days	71·7	5th	14·8
	Kaswar	44	29·736	0	29·725	29·863	13th	29·672	16th	·196	78·0	82·3	−0·7	74·3	−0·3	78·6	−0·5	7·5	85·7	3rd	71·0	6th	14·7

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

B—*continued.*

n India, etc., in July, 1913—continued.

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 from 1st May to 31st July, 1913.	Normal rainfall of period, 1st May to 31st July.	Departure from normal of period, 1st May to 31st July, 1913.	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
																																VI.—Punjab.
8			4	9	1		8	3	S 2° E	S 22° E	4·0	3·1	+0·9	17	−5	82	+7	·960	+·090	4·8	−1·5	7	9·3	−2·3	3·67	8·06	−4·39	10·92	11·79	−0·87	1·96	Delhi.
9	5	5	1	3	2	5		1	N 56° E	S 16° W				10	−19	79	+12	·873	+·016	5·0	−0·9	9	5·3	+3·7	7·02	3·91	+3·11	14·16	6·17	+7·99	1·35	Sirsa.
3	2	2	1	11	3		4	5	S 37° E		4·3			16		76		·855		4·5		7	8·7	−1·7	1·86	6·43	−4·57	9·01	9·26	−0·25	0·72	Patiala.
7	2		9	7			3	3	S 85° E	S 62° E	2·5	1·1	+1·4	30	+7	79	−7	·851	−·086	6·4	+0·7	8	9·7	−1·7	7·60	7·83	−0·23	24·23	12·16	+12·07	1·40	Ambala.
5		1	1	4					S 64° E	S 34° E	0	1·8	−1·8	17	−19	75	−1	·841	−·052	4·1	−2·3	7	8·5	−1·5	4·55	8·32	−3·77	12·27	11·50	+0·77	2·77	Ludhiana.
5	2	2	4	9	5		3	1	S 48° E	S 42° E	1·7	2·5	−0·8	33	−6	73	+2	·877	0	3·5	−0·8	11	5·9	+5·1	7·55	5·49	+2·06	12·41	8·00	+4·41	2·31	Lahore.
5	2	7	6	7	2	2			S 78° E	S 85° E	1·5	2·0	−0·5	43	−4	73	+5	·857	−·028	4·9	+1·0	7	8·5	−1·5	4·82	7·85	−3·03	11·59	11·53	+0·06	2·84	Sialkot.
5	2	3	2	4	4	1	1		S 57° E	S 82° E	1·5	1·8	−0·3	20	−5	78	+6	883	+·075	4·5	+0·3	10	9·0	+1·0	4·33	8·06	−3·73	9·53	11·58	−2·05	0·66	Rawalpindi.
5	2	6	10	6	1	1	1	1	N 86° E	N 62° E	4·9	5·5	−0·6	53	−1	65	0	·814	−·031	4·3	+1·6	6	4·7	+1·3	5·55	3·78	+1·77	6·84	5·96	+0·88	2·77	Khushab.
		3	3	14	2	5	2	1	S 35° E		2·9*			53		71		·851		4·9		6			5·37			8·18			2·09	Lyallpur.
		2	5	8	5	8	1	1	S 19° E	S 15° E	7·0	7·0	0	49	+10	59	−1	·757	−·081	3·3	+0·4	2	3·5	−1·5	2·63	2·18	+0·45	3·73	3·62	+0·11	2·25	Montgomery.
	5		1	3	6	1			S 33° E	S 89° W	1·2	2·3	−1·1	17	−17	73	+11	·939	+·089	3·4	+1·3	6	2·2	+3·8	3·78	2·03	+1·75	6·03	2·92	+3·11	1·20	Multan.
																																VII.—North-West Frontier Province.
	6	3	1		1			7	N 8° W	N 9° W	2·3	3·0	−0·7	40	−2	63	0	·783	−·015	2·7	−0·5	2	2·1	−0·1	0·61	1·42	−0·81	1·02	2·67	−1·65	0·30	Peshawar.
	2	5	4	8	2	1		1	S 80° E	N 69° E	1·6	1·8	−0·2	40	+8	73	+4	·906	−·066	2·7	+0·3	1	3·1	−2·1	0·46	2·27	−1·81	1·53	3·36	−1·83	0·25	D. I. Khan.
																																VIII.—Sind.
	3	4	3	9	6			2	S 65° E	S 49° E	5·3	4·1	+1·2	40	−25	67	+2	·976	+·073	1·5	−0·9	3	1·4	+1·6	0·48	1·01	−0·53	1·30	1·31	−0·01	0·20	Jacobabad.
	5				11	13	1	1	S 37° W	S 47° W	7·9	12·2	−4·3	59	−22	73	+6	·859	+·044	3·9	−2·1	4	3·3	+0·7	13·21	2·92	+10·29	13·30	3·62	+9·68	6·93	Hyderabad.
						9	20	2	S 80° W	S 76° W	13·5	12·6	+0·9	92	+8	83	−1	·952	−·005	6·5	−0·8	6	2·6	+3·4	10·35	3·12	+7·43	10·61	4·16	+6·45	4·25	Karachi.
																																IX.—Rajputana.
	1	3	4	5	8	5	1		S 22° W	S 29° W	6·5	6·1	+0·4	43	−21	65	−1	·796	−·048	3·1	−1·3	4	5·2	−1·2	1·13	3·30	−2·17	3·96	5·37	−1·41	0·60	Bikaner.
	2	1	2	3	18	4			S 39° W		4·4			66		68	+1	·762		6·1		7	5·0	+2·0	1·46	4·21	−2·75	3·32	5·69	−2·37	0·42	Jodhpur.
	4	6	3		4	9	4		N 79° W	S 73° W	4·9*	3·9	+1·0	13	−29	77	+1	·830	−·008	5·7	−1·1	9	10·6	−1·6	4·38	7·87	−3·49	12·49	10·45	+2·04	1·16	Jaipur.
	5		1	1	13	7	3		S 69° W	S 87° W	6·2	5·8	+0·4	49	−19	79	−1	·813	−·025	5·1	−0·5	6	9·2	−3·2	2·80	6·98	−4·18	9·37	9·76	−0·39	1·09	Ajmer.
4	3	1		2	6	9	1		N 87° W		4·6			37		68	−2	·804		6·0		8	10·4	−2·4	2·11	10·15	−8·04	8·10	13·28	−5·18	0·59	Kotah.
																																X.—Bombay.
	1		1	7	13	4	3		S 45° W	S 61° W	8·9	11·2	−2·3	66	+1	86	+3	·897	+·031	8·2	−0·3	16	10·4	+5·6	14·53	9·61	+4·92	22·29	11·72	+10·57	4·52	Deesa.
	1				12	13	4		S 80° W	S 78° W	8·7	13·3	−4·6	76	−2	80	0	·848	−·028	8·9	+1·2	11	6·5	+4·5	19·66	6·65	+13·01	23·36	8·59	+14·77	12·14	Bhuj.
				2	17	9	3		S 71° W		15·3			81		76		·891		5·7		7	7·7	−0·7	14·75	7·89	+6·86	18·45	9·81	+8·64	4·84	Jamnagar.
			1		15	14	1		S 67° W		12·8			89		82	−2	·909		6·8		6	6·4	−0·4	11·75	6·69	+5·06	13·70	9·09	+4·61	7·30	Dwarka.
				4	19	7	1		S 52° W	S 76° W	12·2	10·4	+1·8	89	+8	83	0	·884	+·011	8·8	+0·8	9	11·1	−2·1	12·53	11·70	+0·83	22·00	16·03	+5·97	3·09	Rajkot.
				1	15	12			S 65° W	S 75° W	10·2†	9·8	+0·4	82	−1	88	0	933	+·001	7·3	−1·3	11	9·5	+1·5	6·27	7·70	−1·43	23·60	11·23	+12·37	3·15	Veraval.
					20	7	4		S 65° W	S 48° W	5·1	10·7	−5·6	85	+8	83	+3	·900	−·022	6·7	−0·9	12	9·0	+1·0	6·08	6·49	−0·41	28·69	10·12	+18·57	1·47	Bhavnagar Para.
1				2	11	8	4		S 71° W	S 55° W	6·5‡	9·5	−3·0	62	−15	89	+3	·952	+·039	8·2	+0·2	16	15·5	+0·5	8·05	17·54	−9·48	28·21	25·58	+2·63	2·33	Surat.
1		1	4	20	2	3			S 47° W	S 55° W	4·7	4·8	−0·1	76	+5	89	+6	·917	+·057	6·9	−1·9	19	12·5	+6·5	12·69	12·18	+0·51	24·55	16·66	+7·89	2·81	Ahmadabad.
		2	4	11	11	2			S 58° W	S 70° W	8·4*	14·2	−5·8	72	−2	87	+1	·911	0	8·1	−0·9	23	21·8	+1·2	33·33	25·17	+8·16	58·14	44·36	+14·78	7·95	Bombay.
1		5		12	9	2			S 62° W	S 65° W	9·3	8·5	+0·8	56	−12	86	−2	·873	−·019	8·8	+0·1	24	25·8	−1·8	31·13	34·41	−3·28	57·29	64·68	−7·39	5·14	Ratnagiri.
	1	2	2	9	12	2			S 70° W	N 63° W	8·4*	9·6	−1·2	59	−21	92	+3	·920	+·014	8·6	+1·0	27	25·5	+1·5	38·75	32·10	+6·65	70·55	63·65	+6·90	6·59	Marmagao.
2			7	11		3			S 40° W	S 75° W	3·6	4·2	−0·6	43	−24	90	+4	·854	+·012	7·6	−0·4	27	27·2	−0·2	39·10	38·93	+0·12	71·93	80·31	−5·38	4·73	Karwar.

* Uncorrected for scale error.

† Mean of 29 days.
‡ " 19 "

Table

(2) *Abstract of observations taken at 8 hrs. at 216 station*

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
	X.—Bombay—*concld.*																						
26	Malegaon	1,430	28·267	+·013	29·633	28·398	2nd	28·060	19th	·338	77·8	87·8	+0·4	72·8	−0·5	80·3	−0·1	15·0	94·9	7th	70·6	2nd	24·3
	Ahmednagar	2,154	27·589	+·009	29·650	27·731	3rd	27·425	18th	·306	74·6	84·2	−1·0	69·5	−1·0	76·8	−1·0	14·7	89·6	3rd & 4th.	66·0	22nd	23·6
	Poona	1,846	27·894	−·001	29·668	28·031	3rd	27·710	18th	·321	74·6	82·3	0	71·2	+0·4	76·7	+0·2	11·1	87·5	29th	68·3	6th	19·2
	Sholapur	1,590	28·158	−·003	29·675	28·292	3rd	27·992	18th	·300	76·5	88·4	−1·1	72·1	+0·4	80·2	−0·3	16·3	95·8	2nd & 3rd	70·1	4 days	25·7
	Bijapur	*1,948*	27·813	−·003	29·680	27·944	3rd	27·648	18th	·295	74·4	86·2	0	70·7	−0·1	78·5	−0·1	15·5	93·2	2nd	67·4	26th	25·9
	Belgaum	2,562	27·266	+·012	29·734	27·374	2nd	27·157	18th	·237	70·8	76·3	+0·6	66·8	−0·1	71·6	+0·3	9·5	82·3	3rd	63·5	6th	18·1
	XI.—Central India.																						
20	Neemuch	1,626	28·004	+·011	29·558	28·147	3rd	27·760	19th	·387	77·3	86·6	−0·8	73·3	−0·8	80·0	−0·8	13·3	94·4	7th	69·5	28th	24·9
	Indore	1,823	27·836	+·017	29·586	27·991	2nd	27·602	19th	·389	76·1	84·8	+0·3	72·2	−0·4	78·5	−0·1	12·6	90·6	7th	67·6	11th	23·0
21	Nowgong	754	28·855	+·041	29·557?	28·977	2nd	28·690	18th	·287	82·4	91·3	+1·4	78·5	+0·4	81·9	+0·9	12·8	96·2	11th	74·3	28th	21·9
	Sutna	1,041	28·540	+·016	29·527	28·662	2nd	28·345	18th & 26th.	·317	79·8	88·3	+0·9	76·4	−0·6	82·3	+0·1	11·9	93·8	11th	72·7	31st	21·1
	XII.—Central Provinces.																						
22	Buldana	2,132	27·573		29·616	27·726	3rd	27·349	18th	·377	74·7	83·8		70·7		77·2		13·1	90·6	5th	68·4	20th & 24nd.	22·2
	Akola	925	28·750	+·008	29·620	28·917	3rd	28·501	18th	·416	79·0	89·2	+0·2	71·5	+0·2	81·9	+0·2	14·7	97·2	5th	72·0	21st	25·2
	Amraoti	1,215	28·459	+·018	29·617	28·608	3rd	28·185	18th	·423	77·5	87·3	0	74·2	+0·7	80·7	+0·3	13·1	95·3	3rd	71·3	27th	24·0
23	Khandwa	1,044	28·612	+·010	29·604	28·767	3rd	28·386	18th	·381	77·9	87·2	−0·4	74·4	−0·9	80·8	−0·7	12·8	94·2	7th	71·1	27th	23·1
	Hoshangabad	1,006	28·638	+·016	29·588	28·800	3rd	28·369	18th	·431	79·3	83·3	+1·6	75·0	−0·2	81·6	+0·7	13·3	93·1	4 days	70·9	27th	22·2
	Saugor	1,807	27·816†	+·014†	29·547†	27·960	2nd	27·599	18th	·361	77·0	86·1	+0·9	73·2	−0·7	79·7	+0·1	12·9	89·8	4th, 11th & 14th.	70·1	27th	19·7
	Jubbulpore	1,327	28·287	+·016	29·550	28·439	3rd	27·936	26th	·453	78·5	87·8	+1·9	75·0	+0·4	81·4	+1·1	12·8	92·8	3rd & 14th.	72·3	6th	20·5
	Seoni	2,033	27·624	+·017	29·571	27·780	3rd	27·334	18th	·446	76·4	84·8	+1·0	71·8	−0·8	78·3	+0·1	13·0	92·5	2nd	69·6	27th	22·9
	Nagpur	1,017	28·632	+·016	29·593	28·784	3rd	28·307	18th	·477	78·8	88·1	+0·3	75·1	0	81·6	+0·1	13·0	96·6	3rd	72·8	6th & 19th.	23·8
24	Pendra	2,123?	27·596		29·554	27·750	2nd	27·277	18th	·473	76·8	84·5		73·0		78·8		11·5	89·7	3rd & 14th.	69·4	6th	20·3
	Raipur	970	28·667	+·025	29·578	28·019	2nd	28·380	18th	·439	79·2	87·5	+1·0	75·6	+0·7	81·5	+0·9	11·9	94·7	3rd & 14th.	72·0	6th	23·1
	Chanda	*634*	29·021	−·003?	28·599?	29·186	3rd	28·710	18th	·476	79·3	88·5	−0·1	75·6	−0·3	83·1	−0·2	12·9	95·0	1st	70·5	18th	21·5
	Jagdalpur	1,813	27·870		29·600	28·032	3rd	27·618	17th	·414	76·4	83·8		71·9		77·8		11·9	91·2	5th	69·1	7th & 31st.	22·1
	XIII.—Hyderabad.																						
27	Aurangabad	1,905	27·818	−·008	29·647	27·972	3rd	27·637	18th	·335	74·7	85·6	−1·3	70·2	−0·4	77·9	−0·9	15·4	90·5	4th & 5th.	66·7	22nd	24·1
	Nizamabad	1,248	28·460		29·650	28·621	3rd	28·242	18th	·379	75·9	86·9	−1·2	72·9	−1·0	79·9	−1·1	14·0	94·9	3rd	70·2	18th	24·7
	Bidar	*2,165*									74·0	83·8		69·1		76·4		14·7	91·5	1st, 2nd & 3rd.	67·4	8th, 21st & 22nd.	24·1
28	Gulbarga	1,503	28·230	−·019?	29·667	28·385	3rd	28·063	18th	·322	74·7	88·0	−1·8	71·9	+0·1	80·0	−0·9	16·1	96·1	3rd	68·5	21st	27·6
	Raichur	*1,311*	28·457	+·003	29·704	28·563	2nd	28·299	17th	·264	77·2	89·4	−0·7	72·8	−0·3	81·1	−0·5	16·6	96·5	2nd	71·1	4 days	25·4
	Hyderabad (Deccan)	1,690	28·045	+·003	29·662	28·172	3rd	27·863	18th	·309	75·5	86·6	−0·5	72·6	+0·9	79·6	+0·2	14·0	94·3	3rd	70·2	15th	24·1
	Hanamkonda	877	28·825	+·014	29·642	28·972	3rd	28·612	17th	·360	79·4	88·3	−0·9	75·2	−0·9	81·7	−0·9	13·1	97·7	3rd	70·2	14th	27·1
	XIV.—Mysore.																						
29	Chitaldrug	2,405	27·421	−·001	29·734	27·492	13th & 21st.	27·292	17th	·200	71·3	81·1	−0·8	68·3	−0·1	74·7	−0·5	12·8	88·1	1st	65·9	2nd & 3rd,	22·2
	Hassan	3,149	26·744	+·004	29·760	26·804	15th	26·651	17th & 18th.	·153	69·2	77·1	+0·3	65·5	+0·5	71·3	+0·4	11·6	85·5	1st	63·2	12th	22·3
	Bangalore	3,021	26·862	0	29·753	26·923	21st	26·756	17th,	·167	69·4	80·8	−1·1	65·7	−0·1	73·2	−0·6	15·1	86·8	2nd & 3rd,	63·3	6th	23·5
	Mysore	2,518	27·259	−·006	29·777	27·423	13th	27·263	17th	·160	71·7	80·9	−1·8	67·2	+0·3	74·0	−0·7	13·7	88·8	2nd	64·8	23rd	24·0

N B.—Elevations in italics indicate barometrical determinations.

† Mean of 30 days.

—continued.

ı India, etc., in July, 1913—continued.

Wind direction. Number of winds from 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 from 1st May to 31st July, 1913.	Normal rainfall for period, 1st May to 31st July.	Departure from normal of period, 1st May to 31st July, 1913.	Heaviest rainfall during month.	Station.
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
																															X.—Bombay —concld.
1			1	2	14	9	4	S 65° W	S 75° W	10·1	10·6	−0·5	76	−10	79	+ 1	·758	+ ·001	5·8	−1·9	11	8·1	+2·9	5·08	4·95	+0·13	10·24	10·26	−0·02	1·12	Malegaon.
				2	12	12	5	S 74° W	S 74° W	5·8	15·1	−9·3	82	+ 7	82	0	·704	−·012	5·9	−1·9	11	6·3	+4·7	6·08	3·39	+2·69	16·68	9·11	+7·57	1·46	Ahmadnagar.
2					2	25	2	W	S 76° W	8·6	12·3	−3·7	90	+ 4	86	+ 4	·725	+·016	6·4	−2·4	9	12·7	−3·7	4·08	7·43	−3·35	20·77	13·12	+7·65	0·77	Poona.
	1				12	13	5	S 81° W	S 69° W	12·6	10·5	+2·1	82	− 2	81	+ 9	·730	+·049	7·3	−0·8	13	7·6	+5·4	4·94	4·28	+0·66	11·80	10·01	+1·79	1·04	Sholapur.
				2	18	11		S 58° W	S 74° W	10·5	7·4	+3·1	92	+ 7	81	+ 1	·688	−·010	7·4	−0·7	3	4·0	−1·0	4·84	2·00	+2·84	12·46	6·53	+5·93	2·74	Bijapur.
4					9	12	4	S 82° W	S 77° W	11·7	19·3	−7·6	76	−11	93	0	·696	+·014	8·9	−0·4	20	22·3	−2·3	11·80	15·97	−4·17	22·94	26·80	−3·86	2·66	Belgaum.
																															XI.—Central India.
	1	5			4	20	1	S 85° W	S 71° W	8·8	8·9	−0·1	59	−21	88	+ 6	·814	+·014	7·0	+0·2	10	10·5	−0·5	8·52	8·87	−0·35	17·63	13·24	+4·39	1·97	Neemuch.
9				1	2	6	13	N 68° W	S 81° W	3·6	4·9	−1·3	59	−16	85	− 2	·770	−·012	8·2	−0·5	11	12·7	−1·7	15·94	9·84	+6·10	25·60	15·95	+9·65	11·55	Indore.
1	1	1	5	1		6	15	1	S 80° W	3·4	3·1	+0·3	43	−15	78	− 5	·853	−·022	6·3	−0·7	6	14·2	−8·2	2·46	13·69	−11·23	11·58	20·45	−8·87	0·87	Nowgong.
1	3		7		1	3	16		S 89° W	S 74° W	4·4	6·7	−2·3	36	− 9	86	+ 3	·877	+·019	5·7	−1·4	12	15·0	−3·0	12·11	13·93	−1·82	20·67	20·13	+0·54	3·72	Sutna.
																															XII.—Central Provinces.
				3	4	16	6	S 85° W		7·3	6·8	+0·5	81		82		·701		6·3		14	13·4	+0·6	11·77	9·02	+2·75	18·44	15·87	+2·47	3·33	Buldana.
				3	7	17	4	S 79° W	N 88° W	6·6	6·6	0	82	0	77	− 2	·760	−·022	8·2	+0·3	11	12·2	−1·2	8·98	10·03	−1·05	16·16	15·52	+0·64	2·57	Akola.
1	1			1	4	14	10	N 80° W	S 88° W	7·7	6·6	+1·1	79	− 4	86	0	·802	+·008	6·9	−0·9	12	12·4	−0·4	11·01	9·47	+1·54	24·29	16·58	+7·71	3·18	Amraoti.
6	1			1	9	9	5	S 82° W	W	6·9	6·9	0	62	−24	83	+ 2	·795	+·009	7·0	−0·5	11	10·8	+0·2	15·94	8·93	+7·01	26·23	14·44	+11·79	6·22	Khandwa.
	3		1	1	17	3	6	S 66° W	S 54° W	4·7	3·5	+1·2	56	−19	84	− 4	·836	−·016	7·9	−0·5	13	15·1	−2·1	15·23	15·75	−0·52	21·20	22·17	−0·97	4·62	Hoshangabad.
	1	2	2	1	4	14	7	N 79° W	S 80° W	3·3	4·7	+3·6	59	−12	85	− 2	·779	−·027	7·7	+0·5	10	15·8	−5·8	5·10	14·56	−9·46	13·94	21·95	−8·01	1·46	Saugor.
	2	1	1	3	3	3	11	7	N 88° W	S 74° W	2·6	3·4	−0·8	46	−19	82	− 5	·797	−·031	7·6	−0·5	13	17·8	−4·8	7·57	18·44	−10·87	18·17	26·62	−8·45	2·35	Jubbulpore.
	3	2	1		3	4	10	7	N 74° W	S 76° W	5·5	4·5	+1·0	53	−12	81	− 6	·731	−·058	7·2	−1·0	15	18·3	−3·3	11·33	15·87	−4·54	23·18	25·43	−2·25	1·85	Seoni.
	1		1	1	1	6	12	9	N 86° W	S 76° W	6·0	6·4	−0·4	69	+ 1	81	− 2	·796	−·029	7·9	−0·5	19	16·6	+2·4	12·15	14·38	−2·23	27·14	23·81	+3·30	2·97	Nagpur.
4	4	2	2	1	3	5	5	5	N 77° W		4·7			27		82		·750		6·4		14	17·3	−3·3	12·83	14·52	−1·69	27·22	23·62	+3·60	3·20	Pendra.
	1		2		2	15	10	1	S 61° W	S 49° W	6·1	8·1	−2·0	69	+ 4	85	− 1	·837	−·004	6·7	−1·9	14	15·7	−1·7	12·73	14·95	−2·22	21·25	24·26	−3·01	2·50	Raipur.
2				1	3	6	15	4	S 71° W	S 69° W	5·2	4·4	+0·8	69	− 9	83	+ 5	·819	+·023	7·2	−0·8	16	17·0	−1·0	17·78	17·14	+0·64	27·55	25·01	+2·54	5·95	Chanda.
	1			2	4	10	12	2	S 62° W		3·7			69		84		·759		8·0		19			12·93			20·16			2·85	Jagdalpur.
																															XIII.—Hyderabad.
1		1				10	16	3	S 80° W		12·3			79		86	+ 5	·731		7·6		10	11·5	−1·5	6·85	6·66	+0·19	15·83	12·52	+3·31	1·67	Aurangabad.
7				1	18	4	1	S 54° W		5·9			69		83	+ 3	·735		6·1		18	14·0	+4·0	20·58	10·26	+10·32	26·99	15·44	+11·55	5·25	Nizamabad.
3	2			1	14	8	2	S 70° W		§5·1			67		83		·705		8·7		13	11·0	+2·0	9·72	8·03	+1·69	18·95	13·79	+5·16	1·70	Bidar.
1					13	10	7	S 80° W	S 84° W	9·3	11·5	−2·2	79	− 2	84	+ 5	·716	−·002	7·2	−1·0	13	9·5	+3·5	8·17	6·21	+1·96	14·80	12·53	+2·27	2·70	Gulbarga.
	1				21	7	2	S 62° W	S 50° W	10·7	10·9	−0·2	82	+13	76	+ 1	·710	−·003	6·9	+0·3	9	9·3	−0·3	7·22	5·25	+1·97	13·10	9·70	+3·40	3·32	Raichur.
8						23			W	N 85° W	4·5	7·2	−2·7	74	−18	82	+ 4	·713	+·005	8·2	+0·7	12	9·8	+2·2	5·89	5·90	−0·01	12·45	11·16	+1·29	0·94	Hyderabad. (Deccan).
				3	3	11	8	6	S 64° W		7·0			66		75	+ 3	·756		6·8		13	12·5	+0·5	14·78	9·50	+5·28	19·09	15·89	+3·20	3·81	Hanamkonda.
																															XIV.—Mysore.
					13	14	4	S 76° W	S 72° W	6·8	8·5	−1·7	89	− 4	86	+ 4	·655	−·004	8·2	−1·1	12	8·7	+3·3	5·28	3·20	+2·08	8·26	9·58	−1·32	1·27	Chitaldrug.
1		1			12	14	3	S 76° W	S 87° W	8·0	3·7	+4·3	81	− 8	88	+ 3	·626	+·003	9·1	+0·6	12	12·4	−0·4	7·18	5·27	+1·91	16·06	14·52	+1·54	1·90	Hassan.
	1				12	17	1	S 76° W	S 68° W	7·7	7·0	+0·7	89	− 1	87	+ 3	·625	+·006	9·4	+1·2	11	8·3	+2·7	5·25	4·17	+1·18	9·84	11·38	−1·54	1·54	Bangalore.
1					15	11	1	S 69° W	S 67° W	9·2	10·5	−1·3	89	−1	82	0	·632	0	8·9	+0·4	8	6·8	+1·2	4·78	2·52	+2·26	10·52	10·48	+0·04	1·86	Mysore.

§ Mean of 29 days. ‡ Wind observations for 30 days. * Mean of 17 days.

Tabl

(2) *Abstract of observations taken at 8 hrs. at 216 station*

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.	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.	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	16	17	18	19	20	21	22	23	24
	XV.—Madras.																						
30	Mangalore	65	29·797	—·010	29·793	29·871	13th	29·691	17th	·180	78·9	83·7	—0·1	74·5	+1·8	79·1	+0·9	9·2	87·3	29th	70·4	12th	16·9
	Calicut	27	29·856	—·009	29·813	29·932	15th	29·768	17th	·164	76·4	81·6	—0·9	74·3	+0·4	78·0	—0·3	7·3	85·8	1st	72·1	15th	13·7
	Cochin	9	29·897	+·001	29·834	29·952	13th	29·828	17th	·124	77·1	83·7	+0·2	73·9	—0·2	78·8	0	9·8	86·7	13th	71·7	15th & 16th.	15·0
	Trivandrum	198	29·704	+·010	29·833	29·757	14th	29·632	17th	·125	77·2	82·7	+0·6	74·8	+1·8	78·8	+1·2	7·9	86·0	2nd	73·0	3rd & 10th	13·0
31	Pamban	37	29·790	—·007	29·755	29·836	14th	29·695	17th	·141	82·1	90·5	+1·4	78·2	—1·3	84·4	+0·1	12·3	92·7	14th	77·3	3rd	15·4
	Madura	447	29·389	+·015	29·764	29·435	4th	29·283	17th	·152	82·6	95·9	—1·3	77·6	+1·2	86·8	—0·1	18·3	100·0	12th	74·1	6th & 18th.	25·9
	Pudukkottai	318	29·511		29·759	29·565	30th	29·413	17th	·152	85·1	96·9		77·5		87·2		19·4	101·9	22nd	73·5	3rd	28·4
	Negapatam	31	29·778	—·008	29·738	29·833	2nd	29·681	16th	·152	84·0	97·2	+1·3	78·8	+0·6	88·0	+0·9	18·4	101·7	22nd	76·2	2nd & 22nd.	25·5
	Trichinopoly	255	29·572	+·023	29·759	29·632	13th	29·466	17th	·166	83·3	97·0	—0·5	78·2	+0·3	87·6	—0·1	18·8	102·6	28th	73·8	2nd	28·8
	Coimbatore	1,341	28·503	+·005	29·777	28·564	13th	28·398	17th	·166	75·8	86·1	—1·9	71·1	+0·4	78·6	—0·7	15·0	93·0	2nd	68·3	12th	24·7
	Salem	940	28·922	+·006	29·796	28·983	13th	28·811	17th	·172	78·2	92·4	—0·7	73·7	+0·7	83·0	0	18·7	98·0	26th	70·8	2nd & 6th	27·2
	Cuddalore	37	29·762	+·002	29·729	29·826	2nd	29·648	16th	·178	84·2	96·9	+1·0	79·4	+1·7	88·2	+1·3	17·5	103·3	22nd	76·2	5th	27·1
	Vellore	707	29·672		29·709	29·147	2nd	28·943	17th	·204	82·6	95·1		78·1		86·6		17·0	100·7	1st	75·0	13th	25·7
	Madras	22	29·753	—·013	29·706	29·829	2nd	29·618	16th	·211	84·3	96·1	+0·4	79·2	+0·6	87·7	+0·5	16·8	103·0	30th	70·5	4th	32·5
32	Cuddapah	433	29·343	—·003	29·711	29·433	3rd	29·215	18th	·218	82·4	95·0	—0·3	76·4	—1·6	85·7	—0·9	18·6	100·5	28th	71·8	6th	28·7
	Bellary	1,475	28·297	—·011	29·699	28·399	2nd	28·145	17th	·254	78·7	91·2	+0·3	74·9	+0·3	83·1	+0·3	16·3	98·0	3rd	71·8	6th	26·2
	Kurnool	923	28·842	0	29·704	28·943	2nd	28·677	18th	·266	77·8	90·4	—1·0	74·5	—0·2	82·4	—0·6	15·9	97·0	2nd & 3rd	71·6	3rd, 7th & 23rd.	25·4
33	Nellore	66	29·679	0	29·679	29·777	3rd	29·520	17th	·257	84·2	96·3	—1·0	78·8	—0·8	87·5	—0·9	17·5	103·5	29th	72·1	8th	31·4
	Masulipatam	15	29·706	+·004	29·656	29·838	2nd	29·524	17th	·314	82·6	92·5	—0·2	78·2	+0·1	85·3	—0·1	14·3	100·3	29th	73·2	14th & 31st.	27·1
	Cocanada	26	29·671	+·014	29·634	29·836	2nd	29·449	17th	·387	81·5	89·6	—2·1	78·1	—1·2	83·9	—1·7	11·5	96·7	12th	75·1	17th	21·6
	Waltair (Vizagapatam.)	*226*	29·445	+·016	29·611	29·614	3rd	29·184	17th	·430	80·8	87·5		77·8		82·6		9·7	95·1	22nd	74·9	13th, 17th & 19th.	20·2
	Calingapatam	19	29·628		29·585	29·808	2nd & 3rd.	29·332	17th	·476	81·4	87·6		79·1		83·4		8·5	93·8	22nd	76·3	18th	17·5
	Gopalpur	52	29·565	+·009	29·557	29·733	3rd	29·236	17th	·497	81·9	87·0	—0·4	78·8	—0·4	82·9	—0·4	8·2	92·7	13th	73·5	13th	19·2
	Bay Islands.																						
1	P. V. Fraser	8	29·576		29·534	29·825	9th	29·161	24th	·664	83·3												
	Port Blair	58	29·766	—·006	29·754	29·845	3rd	29·641	16th	·204	80·4	84·4	—1·0	77·1	—0·3	80·7	—0·7	7·3	88·2	9th	73·5	6th	14·7
	Slipper Island	90	29·671		29·696	29·771	1st	29·529	16th	·242	80·6	83·5		76·5		80·0		7·0	87·1	1st	72·1	28th	15·0
	Kashmir.																						
13	Muzaffarabad		27·252			27·475	8th	27·038	24th	·437	76·8	92·6		67·7		80·1		24·9	100·9	12th	60·1	3rd	40·8
	Srinagar	5,204	24·693	+·026	24·664	24·922	8th	24·520	24th	·402	71·6	85·5	+0·6	63·6	—1·0	74·5	—0·2	21·9	94·2	26th	52·0	4th	42·2
	Gulmarg	*8,569*	21·777	+·013	21·745	21·955	8th	21·658	23rd	·297	61·8	68·5	+0·1	49·1	—1·0	58·8	—0·5	19·4	76·4	19th	38·5	2nd	37·9
	Dras	*10,059*	20·734	+·025	20·702	20·926	9th	20·638	23rd	·288	58·6	73·2		44·5		58·8		23·7	83·0	26th	35·0	4th	48·0
	Leh	*11,503*	19·669	+·026	19·637	19·821	8th	19·564	23rd	·257	57·4	75·5	—4·7	48·5	—2·1	61·0	—3·4	25·0	81·9	20th	40·0	4th	41·9
	Skardu	*7,505*	22·714	+·020	22·684	22·959	8th	22·587	23rd	·372	69·4	87·2	+2·3	59·5	—1·1	73·3	+0·6	27·7	99·0	27th	48·1	3rd	50·9
	Gilgit	4,890	24·903		24·876	25·251	8th	24·754	31st	·497	79·4	96·6	0	69·9	—3·4	83·3	—1·7	26·7	106·7	31st	57·7	8th	49·0

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 3,000 feet.

3—*continued.*

n India, etc., in July, 1913—continued.

Wind direction. Number of winds from 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 from 1st May to 31st July, 1913.	Normal rainfall for period, 1st May to 31st July.	Departure from normal of period, 1st May to 31st July, 1913.	Heaviest rainfall during month.	Station.
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
																															XV.—Madras.
1	2	6	3	1	4	12	2	S 73° W	N 76° W	5·8	2·3	+3·5	23	−17	87	− 4	·863	+·092	8·1	−0·9	27	27·7	− 0·7	29·93	38·64	− 8·71	67·44	81·66	−14·22	2·31	Mangalore.
3	2	1	2	1	4	5	3	S 75° W	N 11° W	3·7	5·8	−2·1	23	+ 1	94	+ 3	·850	+·018	8·7	+0·1	27	26·9	+ 0·1	32·69	31·20	+ 1·49	67·13	73·18	− 6·00	3·21	Calicut.
6	1	3	4	2	1	4	7	3	W	5·5*	4·6	+0·9	14	−18	87	− 1	·805	−·030	8·4	+0·1	25	24·2	+ 0·8	35·40	22·88	+12·52	67·26	62·40	+ 4·86	6·05	Cochin.
	16					1	14	N 23° W	N 18° W	5·5*	6·6	−1·1	96	+17	87	− 1	·810	−·001	9·3	+0·8	11	13·6	+ 0·4	8·22	7·16	+ 1·06	27·77	28·80	− 1·03	2·10	Trivandrum.
6				1	21	3		S 48° W	S 51° W	8·6	8·8	−0·2	76	+ 1	80	+ 3	·861		3·7		1	0·7	+ 0·3	2·43	0·32	+ 2·11	2·77	1·24	+ 1·53	2·43	Pamban.
1					1	15	14	N 70° W	N 59° W	8·4	2·8	+5·6	86	+21	61	− 3	·639	−·026	7·5	+2·3	2	2·5	− 0·5	2·11	1·95	+ 0·19	3·70	6·20	− 2·50	1·48	Madura.
1	1			2	5	7	5	S 86° W		5·2 ¶			45		66		·741		6·8		5	6·2	− 1·2	2·37	3·98	− 1·61	5·19	7·40	− 2·21	0·80	Pudukkottai.
				2	3	21	5	S 89° W	S 77° W	5·8	5·1	+0·4	89	+ 6	75	+ 8	·869	+·032	4·7	−1·1	2	3·4	− 1·4	0·55	1·90	− 1·43	1·77	5·13	− 3·36	0·42	Negapatam.
					11	19	1	S 75° W	S 86° W	8·2*	7·2	+1·0	92	+ 5	61	− 1	·681	−·017	4·6	−2·5	2	2·2	− 0·2	0·85	1·31	− 0·46	8·38	5·99	+ 2·39	0·41	Trichinopoly.
2				7	20	2		S 37° W	S 49° W	9·5	5·3	+4·2	85	+ 7	83	− 1	·744	−·004	5·5	−1·0	6	4·3	+ 1·7	2·41	1·38	+ 1·03	4·40	5·41	− 1·01	0·75	Coimbatore.
3				9	11	8		S 43° W	S 25° W	4·3	3·4	+0·9	72	− 1	77	− 1	·747	−·019	7·5	+1·1	9	7·3	+ 1·7	4·95	3·84	+ 1·11	10·12	11·90	− 1·78	2·93	Salem.
4				1	20	5	1	S 54° W	S 76° W	6·1	1·8	+4·3	79	+ 7	80	+ 3	·946	+·074?	6·0	−0·5	4	5·7	− 1·7	1·03	3·44	− 2·41	2·44	5·73	− 3·29	0·54	Cuddalore.
1					3	21	3	W		6·0			91		70		·779		5·0		2	7·0	− 5·0	1·05	5·05	− 4·01	3·03	10·72	− 7·69	0·57	Vellore.
1				3	15	12		S 59° W	S 72° W	5·6*	5·8	−0·2	86	+ 2	68	− 1	·790	−·002	6·6	−0·8	4	7·2	− 3·2	3·11	4·09	− 0·98	5·38	7·07	− 1·69	1·33	Madras.
	1				4	19	7	N 83° W	S 88° W				89	+10	67	− 1	·740	−·013	6·4	−1·4	7	6·5	+ 0·5	3·24	3·84	− 0·60	5·52	8·54	− 3·02	1·21	Cuddapah.
	1				6	19	5	N 89° W	S 87° W	7·0 ‖	8·7	−1·7	86	− 4	69	+ 4	·668	+·021	7·5	−0·7	8	3·9	− 0·9	2·20	1·71	+ 0·49	5·38	5·79	− 0·41	1·05	Bellary.
				1	22	3	5	S 59° W	S 87° W	9·4*			82	+10	76	+ 4	·734	+·014	6·3	−1·8	10	9·4	+ 0·6	5·57	4·89	+ 0·68	8·37	9·01	− 0·64	2·22	Kurnool.
2	1			1	5	17	7	N 83° W	N 78° W	5·4*	7·3	−1·9	79	+ 7	65	− 3	·756	−·052	7·8	+0·2	7	5·2	+ 1·8	5·38	2·74	+ 3·14	6·42	4·70	+ 1·72	2·12	Nellore.
				2	5	11	13	N 81° W	N 69° W	7·1	6·4	+0·7	79	− 3	81	+ 2	·887	+·015	7·3	−0·7	12	9·6	+ 2·4	3·97	6·02	− 2·05	6·14	11·85	− 5·71	0·90	Masulipatam.
3				1	1	17	6	N 83° W	S 74° W	4·3	6·1	−1·8	72	−12	82	+ 5	·891	+·057	7·9	−0·1	14	9·9	+ 4·1	8·11	5·71	+ 2·40	14·72	11·61	+ 3·11	1·25	Cocanada.
	2	1			26	2		S 46° W	S 75° W	6·7			79	− 1	83	+ 7	·866	−·001	8·1	−0·2	10	7·9	+ 2·1	7·01	4·01	+ 3·00	16·11	10·90	+ 5·21	1·52	Waltair (Vizagapatam).
2	1			1	15	10	4	S 74° W		8·5			76		88		·933		5·8		11	7·5	+ 3·5	9·16	5·38	+ 3·78	15·31	11·40	+ 3·91	3·47	Calingapatam.
	3	1		10	14	1	2	S 38° W	S 49° W	9·3	9·3	0	62	− 3	87	+ 2	·929	−·001	6·4	−1·9	12	10·3	+ 1·7	11·75	7·39	+ 4·45	18·16	15·07	+ 3·09	4·77	Gopalpur.
																															Bay Islands.
	1	2	4	6	11	5	2	S 31° W					58		88		1·000		7·5		9			22·96			35·53			10·56	P. V. Fraser.
5				3	6	15	2	S 74° W	S 61° W	8·0	8·5	−0·5	72	− 9	84	− 3	·877	−·050	9·0	+0·5	20	19·6	+ 0·4	11·05	15·70	− 4·65	39·43	51·84	−12·41	1·75	Port Blair.
1	1			5	19	5	2	S 55° W		15·8			79		97		·959		9·2		23	17·6	+ 5·4	16·46	13·89	+ 2·57	33·73	39·15	− 5·42	3·12	Slipper Island.
																															Kashmir.
5	2		1	10	5		6	S 56° W		0·7			26		76		·703		3·7		17			7·02			16·48			1·18	Muzaffarabad.
3	2	1	7	2	1	4	4	S 27° W	S 48° E	3·0	2·8	+2·0	1	−21	73	−10	·558	−·051	3·1	−1·5	3	5·7	− 2·7	0·57	2·87	− 2·30	3·00	7·23	− 4·23	0·22	Srinagar.
2	10	3	4	3	2			N 81° E		3·0			37		73	− 5	·405		3·3		10	9·5	+ 0·4	3·84	4·28	− 0·91	6·24†	8·05‡	− 1·81	0·45	Gulmarg.
						1		W		4·3‖			3		60	−	·300		1·8		1	1·6	− 0·6	0·35	0·81	− 0·46	1·67	4·61	− 2·94	0·10	Dras.
1	1		1	3	4			S 17° W	S 85° W	2·3	1·5	+0·8	17	−26	51	− 1	·233	−·016	4·5	+0·3	2	1·2	+ 0·8	0·37	0·47	− 0·10	1·36	0·85	+ 0·51	0·15	Leh.
	3	5			4	7	1	W		4·5			11		33	−15	·270		3·0		0	1·2	− 1·2	0·10	0·57	− 0·47	0·46	2·18	− 1·72	0·07	Skardu.
	1							N 45° E		0·7			3		52	+ 5	·518	+·007	1·9	−2·2	1	1·9	− 0·9	0·43	0·59	− 0·16	0·84	1·93	− 1·09	0·27	Gilgit.

* Uncorrected for scale error. † Rainfall since 7th June, 1913. ‡ Rainfall since 1st June. ‖ Mean of 30 days. ¶ Mean of 23 days.

Tab

(2) *Abstract of observations taken at 8hrs. at 216 statio*

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.	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.	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
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	Baluchistan.																						
15	Fort Sandeman		25·199		25·168	25·400	9th	25·068	23rd	·332	76·6	95·5		71·9		83·7		23·6	102·9	14th	65·1	9th	37
	Quetta	5,502	24·442	+·016	24·402	24·618	8th	24·351	23rd & 24th.	·267	73·6	93·2	+0·5	65·7	+1·0	79·5	+0·7	27·5	99·9	27th	55·7	5th	44
	Chaman	4,311	25·434	−·005	25·396	25·631	8th	25·307	28th	·334	83·5	100·2	−0·8	75·7	−1·3	87·9	−1·1	24·5	105·8	27th	67·0	5th	38
	Kalat	6,630	23·582		23·544	23·741	8th	23·502	24th	·239	68·0	90·2		60·5		75·4		29·7	97·5	26th	50·7	5th	46
	Dalbandin	2,779	26·782		26·745	26·991	9th	26·671	24th	·320	88·2	108·7		76·4		92·6		32·3	115·3	28th	64·7	5th	50
	Pasni		29·566		29·526	29·750	7th	29·442	28th	·308	84·3	91·7		81·3		86·5		10·4	102·5	10th	78·0	23rd	24
	Panjgur		26·466		26·424	26·628	8th	26·357	24th	·271	79·8	103·3		76·3		89·8		27·0	110·6	26th	69·2	8th	41
	Robat		26·566		26·524	26·726	8th	26·430	29th	·296	86·5	108·5		80·5		94·5		28·0	116·2	29th	73·6	6th	42
	Hill Stations excluding Kashmir and Baluchistan.																						
	Para Chinar	6,000	24·288		24·264	24·475	8th	24·173	24th	·302	73·9	84·8		64·2		74·5		20·6	91·2	14th&26th	55·7	2nd	35
	Cherat	*4,956*	25·520	+·038	25·488	25·750	8th	25·367	24th	·383	73·8	85·5	−3·1	68·8	−1·9	77·2	−2·5	16·7	95·9	12th	58·4	5th	37
	Drosh (c)		24·682			25·100	8th	24·740	23rd	·360	78·7	96·3		71·9		84·1		24·4	104·4	25th	61·5	29th	42
	Murree	6,338	23·732	+·028	23·700	23·924	8th	23·601	23rd & 24th.	·323	64·9	73·0	−4·0	60·9	−1·6	66·9	−2·8	12·1	80·9	12th	50·6	5th	30
	Simla	7,232	23·005	+·038	22·967	23·171	9th	22·889	23rd	·282	62·1	66·8	−2·4	59·4	−0·7	63·1	−1·5	7·4	69·7	11th	53·9	6th	15
	Sarain																						
	Kalabagh		20·075		20·037	20·212	9th	19·996	23rd	·216	51·0	55·4		46·6		51·0		8·8	59·4	29th&31st	41·1	1st & 5th	18
	Chakrata	7,023	23·180	+·038	23·140	23·366	8th	23·065	24th	·301	62·6	68·2	−1·7	58·4	−1·8	63·3	−1·7	9·8	72·9	31st	54·9	6th	16
	Mukteswar	7,592	22·727	+·003	22·686	22·896	8th	22·620	23rd & 24th.	·276	60·6	69·4	−1·7	55·0	−3·7	62·2	−2·7	14·4	75·3	11th	52·1	1st	23
	Darjiling	7,376	22·892	−·021	22·847	23·067	8th	22·776	25rd	·291	62·9	67·8	+1·8	57·6	−0·1	62·7	+0·9	10·2	72·8	17th&30th	54·2	10th	18
	Shillong	4,920	24·984		24·936	25·176	8th	24·833	23rd	·343	68·7	74·8		63·5		69·2		11·3	79·9	30th	59·7	13th	20
	Cherrapunji	4,309	25·643		25·594	25·836	8th	25·501	23rd	·335	68·2	74·6		64·5		69·6		10·1	80·2	17th	61·6	5th&11th	18
	Maymyo	3,545	26·285	−·002	26·246	26·432	8th	26·190	28th	·242	69·6	77·0	−0·1	66·2	+0·2	71·6	+0·5	10·8	80·7	6th	63·2	9th	17
	Pachmarhi	3,528	26·238	+·019	26·185	26·387	2nd	25·987	18th	·400	69·6	77·2	+1·4	67·4	−0·5	72·3	+0·4	9·8	82·5	4th	65·1	23rd & 27th.	17
	Mount Abu	3,945	25·828	+·012	25·778	25·974	2nd	25·635	19th	·339	68·0	74·2	−0·4	65·8	+0·1	70·0	−0·1	8·4	81·6	9th	61·6	30th	20
	Mercara	3,781	26·156	−·011	26·089	26·215	18th	26·067	17th	·148	64·4	69·7	+0·8	61·8	−0·4	65·7	+0·2	7·9	78·0	1st & 2nd	60·0	5th & 12th.	18
	Ootacamund	*7,397*	23·002		22·938	23·060	18th	22·912	17th	·148	56·3	62·5		51·9		57·2		10·6	68·5	1st & 2nd	49·2	1st	19
	Kodaikanal	7,638	22·771	+·004	22·706	22·824	13th	22·677	17th	·147	57·3	63·5	+0·6	52·7	0	58·1	+0·3	10·8	69·0	1st	49·5	6th	19
	Extra India.																						
	Singapore (a)	10	29·927		29·858	29·999	3rd	29·838	15th	·161	83·8	88·3		75·0		81·7		13·3	91·0	30th	72·0	1st&11th	19
	Penang (a)	17	29·825		29·767	29·923	3rd	29·762	15th	·161	82·3	88·5		73·7		81·1		14·8	91·5	17th	71·0	8th & 10th.	20
	Trincomalee	99	29·733	?	29·761	29·788	3rd&4th	29·653	16th	·135	79·4	92·9	+1·3	77·4	−0·2	85·2	+0·5	15·5	98·0	1st	74·0	3rd	24
	Colombo	24	29·882	−·009	29·832	29·921	4th & 13th.	29·819	17th	·102	78·5	84·6	−0·8	76·6	−1·0	80·6	−0·9	8·0	86·5	7th	71·0	3rd	15
	Minicoy	7	29·919			29·979	3rd	29·855	8th	·126													
	Amini Divi	*13*																					
	Gyantse	13,120	18·442		18·403	18·550	9th	18·368	24th	·182	54·1	72·3		44·7		58·5		27·6	79·0	3rd	41·3	18th	37
	Pharijong	14,400									48·7	56·7		29·6		43·1		27·1	61·8	27th	11·0	3rd	50
	Gangtok	5,660†	24·336		24·291	24·488	8th	24·217	23rd	·271	66·8	73·8		62·5		68·1		11·3	81·3	30th	59·4	1st	31
	Gartok † (c)	15,100	P			P	P	P		P	43·5	62·8		34·9		48·9		27·9	75·3	20th	27·5	4th	47

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. † *Mean of 27 days.*
(c) Aneroid corrected.

B—*continued.*

in India, etc., in July, 1913—continued.

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 from 1st May to 31st July, 1913.	Normal rainfall for period, 1st May to 31st July.	Departure from normal of period, 1st May to 31st July, 1913.	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
																																Baluchistan.
20		7	2			1	1		N 51° E		3·8			23		67		·613		3·3		3			1·97			3·87			1·14	Fort Sandeman.
21		1		5	3	1			S 28° E	S 6° W	1·8	2·4	−0·6	27	+20	65	+ 8	·537	0	2·3	+1·2	1	1·4	−0·4	0·19	0·74	−0·55	0·27	1·29	−1·02	0·17	Quetta.
23			1	4	3				S 34° E	S 33° W	2·9	6·9	−4·0	23	−37	41	+ 8	·464	+·036	1·1	+0·5	1	0·1	+0·9	0·49	0·06	+0·43	0·49	0·20	+0·29	0·49	Chaman.
17		2	2	4	4	2			S 36° E	S 21° W	4·4			30	−12	61		·422		3·5		0	1·4	−1·4	0·11	0·62	−0·51	0·51	1·18	−0·67	0·08	Kalat.
9				2	5	6	5	4	S 54° W		4·8			46		34		·451		1·0		0			0·08			0·20			0·08	Dalbandin.
19			1	1		3	5	2	S 78° W		3·9			23		92		1·077		8·7		0			0·01			0·01			0·01	Pasni.
17		1	1	1	1	6	4		S 48° W		5·0			27		76‖		·787‖		4·0		0			0·09			0·38			0·07	Panjgur.
4	1	1	1		2	4	17	1	S 83° W		5·9			62		52		·663		1·0		0			0			0			0	Robat.
																																Hill Stations excluding Kashmir and Baluchistan.
24				3	3	1			S 14° E		0·9			20		61		·517		1·4		5	7·1	−2·1	1·83	3·57	− 1·74	6·93	8·54	−1·61	0·40	Para Chinar.
3	2	3		7	11	5			S 13° E	S 18° E	5·7	6·6	−0·9	49	+17	81	+ 9	·684	+·051	4·3	+0·1	6	5·2	+0·8	5·35	3·86	+ 1·49	7·69	6·64	+1·05	1·84	Cherat.
25						3	3		S 67° W		6·6			17		50		·496		0·9		2	1·6	+0·4	0·95	0·57	+ 0·38	2·60	3·58	−0·98	0·79	Drosh.
16	2	1	2	1	6	3			S 12° E	S 86° E	3·8	1·5	−0·7	20	+15	83	+ 6	·511	−·006	6·2	+1·5	13	12·6	+0·4	15·97	11·67	+ 4·30	25·56	18·12	+7·44	4·37	Murree.
																89	+ 1	·497	−·015	7·0	−1·4	22	19·4	+2·6	10·89	16·95	− 6·06	25·52	26·54	−1·02	1·91	Simla.
																							17·9			10·96			18·79			Sarain.
9	3			12			1	6	S 72° E		4·0			10		88		·335		8·6		20	19·8	+0·2	13·48	15·37	− 1·89	41·49†	23·38‡	−1·89	2·58	Kalabagh.
17	6			1	3			4	N 23° W	S 48° W	1·9	4·5	−2·6	20	+ 9	91	0	·514	−·023	8·2	+2·3	18	20·2	−2·2	17·00	20·22	− 3·22	36·51	30·47	+6·04	2·76	Chakrata.
8	1	1	5	3	2		11		S 53° W		5·3			10		89	− 1	·475		7·5		10	19·0	−9·0	7·34	13·50	− 6·16	25·96	21·47	+4·49	2·73	Mukteswar.
25	1	1			3		1		S 15° W	S 83° E	1·0	2·6	−1·6	4	−26	93	− 4	·518	−·006	8·4	− 1·2	25	25·0	0	24·07	32·37	− 8·30	80·89	63·88	+17·01	3·25	Darjiling.
17		1	2	2	3	5	1		S 3° W		2·1			23		82		·574		6·3		18	19·4	−1·4	15·57	15·29	+ 0·28	53·81	41·64	+12·17	2·54	Shillong.
7	2	6	5		4	4	3		S 80° E		4·2			10		95		·655		7·6		25	27·3	−4·3	75·75	104·70	−28·95	215·23	227·81	−12·58	21·75	Cherrapunji.
14					1	15	1		S 45° W		2·1			49		93	+ 7	·663		8·5		21	11·2	+9·8	11·48	5·56	+ 5·92	23·05	23·89	−0·84	1·60	Maymyo.
	1	2		1	1	6	14	6	N 88° W	S 85° W	6·0	7·9	−1·9	66	− 9	93	+ 3	·616	+·001	8·4	−0·4	21	21·3	−0·3	28·43	23·93	+ 4·50	38·82	33·86	+4·96	3·32	Pachmarni.
4	2		2	1	6	10	5	1	S 42° W	S 55° W	5·7	8·4	−2·7	49	−19	95	− 1	·643	−·002	8·3	−0·7	21	17·6	+3·4	35·10	22·96	+12·14	42·12	28·93	+13·19	6·17	Mount Abu.
	1					4	20	6	N 85° W	N 84° W	6·9	7·2	−0·3	89	− 1	99	+ 3	·588	+·001	9·3	+0·5	29	29·0	0	49·69	42·28	+ 7·41	72·65	73·81	−1·16	7·65	Mercara.
1				1	1	5	16	7	S 89° W		5·7			76		85		·399		8·4		13	16·5	−3·5	10·99	9·02	+ 1·97	20·36	22·96	−2·60	3·28	Ootacamund.
	1	1		1	1		22	5	N 82° W		11·1*			79		81	0	·379		6·6		11	11·8	−0·8	6·08	5·01	+ 1·07	11·90	14·73	−2·83	1·85	Kodaikanal.
																																Extra India.
12		1	1	8	5	3	1		S 19° E		5·4*			43						5·5		7	9·3	−2·3	4·58	6·79	− 2·21	22·74	19·67	+3·07	2·07	Singapore.
	1	20	1	8				1	N 63° E		9·6			72								10	10·1	−0·1	4·58	6·53	− 1·95	30·73	22·62	+8·11	1·29	Penang.
						31			S 45° W	S 45° W	8·7*	11·9	−3·2	100	0	76	− 2	·765	−·102	7·7	+4·5	3	2·3	+0·7	2·47	1·99	+ 0·48	3·98	5·66	−1·68	1·03	Trincomalee.
4	2					12	10	3	S 78° W	S 65° W	4·2*	6·8	−2·6	69	−14	87	+ 8	·846	−·006	9·2	+3·0	6	7·9	−1·9	6·21	5·05	+ 1·16	19·06	23·37	−4·37	2·44	Colombo.
						7	18	6	S 88° W	N 87° W	9·1	12·4	−3·3	87	0					6·2	0	19	13·6	+5·4	8·48	8·00	+ 0·48	28·01	24·20	+3·81	1·42	Minicoy.
																							15·3			11·83			28·04			Amini Divi.
20	2	1	5				1	2	N 37° E		1·6			16		82		·349		5·3		5			1·42			2·19			[illegible]	Gyantse.
											9·4§									6·0		13			5·48			18·31			[illegible]	Phari Jong
29			1					1	N 19° E		0·8			4		93		·610		3·5		29	27·7	+1·3	23·72	24·90	−1·18	60·23	64·97	−4·74	[illegible]	Gangtok.
8	2			6	9			1	S 15° E		6·3‖			41						4·9		4			1·75			1·82			[illegible]	Gartok.

* Uncorrected for scale error.

§ Mean of 29 days.
‖ " " 25 "
†Rainfall since 1st June, 1913.
‡Rainfall since 1st June.

Tabl

(2) *Abstract of observations taken at 8 hrs. at 21*

Number of sub-division.	Station.	Elevation of barometer 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
	Extra India—*concld.*																						
	Kashgar (*c*)	4,255																					
	Kabul		24·027			24·260	10th	23·910	23rd	·350	79·3	97·8	+5·5?	77·4	+15·9?	87·6	+10·7?	20·4	105·4	31st	71·8	8th	33·6
	Meshed	3,104	26·605		29·549	26·767	9th	26·446	29th	·321	78·9	97·2		60·7	−4·8	78·9		36·5	104·4	31st	53·1	2nd	51·3
	Jask	13	29·519	−·011	29·485	29·721	8th	29·396	24th	·325	87·6	95·8	0	86·0	+1·2	90·9	+0·6	9·8	101·3	11th	82·8	8th	18·5
	Muscat	20	29·520	+·004	29·488	29·713	8th	29·401	24th	·312	87·9	94·9	+3·5	85·3	−2·2	90·1	+0·7	9·6	109·3	28th	78·1	9th	31·2
	Bahrein	18	29·587		29·558	29·733	2nd	29·378	15th	·355	91·0	94·8		84·7		89·8		10·1	102·9	15th	78·5	8th	24·4
	Bushire	14	29·501	+·020	29·477	29·667	8th	29·396	16th	·271	88·6	93·4	−1·9	83·4	−0·9	88·4	−1·4	10·0	97·3	8th	75·0	3rd & 4th	22·3
	Busrah	25	29·507		29·501	29·654	9th	29·390	20th	·264	86·0	104·0		81·5		92·8		22·5	110·5	13th	65·7	27th	44·8
	Kerman (*c*)		24·340*			24·520	3rd, 4th & 8th.	24·240	8 days	·280	79·7	102·0		61·9		81·9		40·1	109·0	31st	54·3	16th	54·7
	Ispahan (*b*)	*5,817*	24·123			24·300	13th	23·950	29th	·350	82·2	99·2	+0·8	68·5	+2·2	83·8	+1·5	30·7	104·9	31st	62·7	23rd	42·2
	Tehran (*b*)	*4,002*																					
	Baghdad	127	29·466	+·021	29·565	29·593	9th	29·290	20th	·309	86·0	108·2	+1·0	78·2	−1·2	93·2	−0·1	30·0	115·2	14th	69·9	28th	45·3
	Beirut (*a*)																						
	Aden	94	29·649	+·029	29·675	29·746	4th	29·556	20th	·190	87·3	95·0	+1·9	83·7	+1·4	89·3	+1·7	11·3	97·6	14th & 26th	77·9	30th	19·7
	Zanzibar	72	30·115	+·016	30·114	30·179	14th	30·062	24th	·117	74·3	81·5	+1·3	72·7	0	77·1	+0·7	8·8	83·9	27th	71·2	19th	12·7

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*) 8½ hrs. observations.
(*b*) Aneroid uncorrected.
(*c*) Aneroid corrected.

* Mean of 27 days.

B—*concluded.*

stations in India, etc., in July, 1913—concluded.

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 from 1st May to 31st July, 1913.	Normal rainfall for period, 1st May to 31st July.	Departure from normal of period, 1st May to 31st July, 1913.	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
																																Extra India —*concld.*
										N 52° W		3·6											0·7			0·25						Kashgar.
		1	4	11	10	2	2	1	S 24° E	S 68° E				65	+62	83		·829		0·9	+0·7	1	0·5	+0·5	0·30	0·13	+0·17	0·37	1·32	—0·95	0·30	Kabul.
30	1								N		1·7			3		42		·419		0·8	+0·3	0	0·1	—0·1	0	0·07	—0·07	0·42	1·79	—1·37	0	Meshed.
1		2	22	2			1	3	N 85° E	S 66° E	8·3	11·1	—2·8	72	+15	75	+ 3	·981	—·018	4·5	+2·8	0	0	0	0	0·01	—0·01	0	0·06	—0·06	0	Jask.
12		3	11				1	4	N 62° E	N 72° E	3·7	3·4	+0·3	33	—13	72	— 4	·917	—·114	5·1	+2·6	0	0·1	—0·1	0	0·02	—0·02	0	0·17	—0·17	0	Muscat.
	8			1			3	19	N 37° W		5·5			84		47		·683		0·6		0	0	0	0	0	0	0·01	0·10	—0·09	0	Bahrein.
4			3	3	2	2	6	11	N 78° W	N 37° W	9·2	6·2	+3·0	33	—11	80	+16	1·058	+·142	1·2	—0·7	0	0	0	0	0	0	0·02	0·02	0	0	Bushire.
						4	22	4	W (*b*)		3·7			94		49		·604		0·8		0	0	0	0	0	0	0·34	0·46	—0·12	0	Busrah.
26	2	1			1	1			N		5·6			3		28		·381		0·8		0			0			0			0	Kerman.
29				1			1		S 20° W	N 49° W	1·8	2·6	—0·8	4	—28	42	— 7	·466	—·060	1·2	+0·4	0	0·1	—0·1	0	0·03	—0·03	0·11	0·29	—0·18	0	Ispahan.
										S 44° W		1·7											0·6			0·22			0·75			Tehran.
	2						1	26	N 44° W	N 11° W	5·5	3·4	+2·1	97	+23	31	—11	·385	—·196	0·3	+0·3	0	0	0	0	0	0	0·06	0·23	—0·17	0	Baghdad.
																																Beirut.
13	1	5	1	5	4	2			S 56° E	S 12° W	6·4	7·7	—1·3	27	—25	73	+ 2	·940	+·062	5·8	+2·1	0	0	0	0	0·03	—0·03	0·34	0·23	+0·11	0	Aden.
2					13	15	1		S 27° W	S 15° W	(*f*) 5·5	6·0	—0·5	87	— 3	85	0	·716	0	5·3	—0·7	1	5·8	—4·8	0·31	2·78	—2·47	11·56	15·99	—4·43	0·11	Zanzibar.

(*f*) Mean of 30 days.
(*b*) Wind observations for 30 days.

Table C.—Abstract of observations taken at 8 hrs. at 60 fourth and fifth class stations in India, etc., in July, 1913.

Abstract of observations taken at

Number of sub-division.	Station.	Temperature of air.													Wind direction.								
		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.	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	24
	II.—Assam.																						
4	Balek	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Bishnath	79·7	90·7	...	73·8	...	82·3	...	16·9	96·7	9th	64·9	7th	31·8	...	...	...	...	...	...	...	...	...
	Borjuli	81·0	90·5	...	75·2	...	82·9	...	15·3	97·3	30th	71·7	30th	25·6	...	...	...	...	...	...	...	...	...
	Chandkhira	81·8	91·5	...	74·8	...	83·1	...	16·7	98·6	29th	71·0	3rd	27·6	...	...	...	...	...	...	...	...	...
	Doom Dooma	77·4	90·6	...	75·8	...	83·2	...	14·8	98·8	18th	73·2	3rd & 22nd.	25·6	...	...	...	...	...	...	...	...	...
	Dikom	80·3	91·4	...	75·7	...	83·5	...	15·7	98·6	18th	72·6	27th	26·0	...	...	...	...	...	...	...	...	...
	Golaghat	80·6	90·3	...	75·8	...	83·1	...	14·5	95·5	30th	70·4	19th	25·1	...	...	...	...	...	...	...	...	...
	Hailakandi	81·3	90·0	...	76·2	...	83·1	...	13·8	97·0	30th	71·8	3rd	25·2	...	...	...	...	...	...	...	...	...
	Jorehat	80·9	90·9	...	76·7	...	83·8	...	14·2	96·3	25th & 30th.	71·4	6th	24·9	...	...	...	...	...	...	...	...	...
	Lumding	80·8	91·1	...	75·7	...	83·4	...	15·4	97·2	30th	73·2	5th	24·9	...	...	...	...	...	...	...	...	...
	Messa	83·7	93·7	...	75·6	...	84·7	...	18·1	100·9	30th	72·1	12th	27·9	...	...	...	...	...	...	...	...	...
	Panerihat	76·0	85·1*	...	74·2	...	79·7†	...	10·8	90·0	23rd	70·2	1st	19·8	...	...	...	...	...	...	...	...	...
	Srimangal	81·0	91·1	...	75·8	...	83·5	...	15·3	94·9	31st	71·2	5th	23·7	...	...	...	...	...	...	...	...	...
	III.—Bengal.																						
5	Comilla	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Brahmanbaria	83·6	90·2	...	75·6	...	82·9	...	14·6	98·6	15th	70·9	5th	27·7	...	...	...	...	...	...	...	...	...
	Faridpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Goalundo	83·1	90·3	...	76·9	...	83·6	...	13·4	96·2	4th & 22nd.	71·1	5th	25·1	...	...	...	...	...	...	...	...	...
	Pabna	83·0	89·3	...	77·6	...	83·5	...	11·7	94·6	22nd	74·2	6th	20·4	...	...	...	...	...	...	...	...	...
	Sirajganj	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Rampur Boalia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Malda	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...	...
	Rangpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Dam Dim	80·7*	92·5	...	74·3	...	83·4	...	18·2	96·9	30th	71·0	8th	25·9	...	...	...	...	...	...	...	...	...
	Kalchini	81·9	89·7	...	71·1	...	80·4	...	18·6	95·1	30th	67·9	4th & 10th	27·2	...	...	...	...	...	...	...	...	...
	Nagrakata	80·1	89·6*	...	74·0	...	81·8*	...	15·6	95·1	30th	71·0	1st, 5th & 30th.	24·1	...	...	...	...	...	...	...	...	...
	Cooch Behar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Krishnagar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Bankura	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Asansol	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

* Mean of 30 days.
† „ 29 „

3.

t 60 fourth and fifth class stations in India, etc., in July, 1913.

Wind velocity.			Wind steadiness.		Hygrometry, 8 hrs.				Cloud.		Rainfall.									Heaviest rainfall during month.	Station.
Mean velocity, miles per hour.	Normal.	Departure from normal.	Actual percentage.	Departure from normal.	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.	Mean cloud amount at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st May to 31st July, 1913.	Normal rainfall of period, 1st May to 31st July.	Departure from normal of period, 1st May to 31st July, 1913.		
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
																					II.—Assam.
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Balek.
...	...	...	...	...	94	...	·952	...	...	...	20	19·8	+0·2	12·62	17·27	−4·65	36·86	39·78	−2·92	2·86	Bishnath.
...	...	...	...	...	88	...	·931	...	...	...	14	20·5	−6·5	16·04	17·59	−1·55	38·93	40·96	−2·03	2·54	Borjuli.
...	...	...	...	...	87	...	·937	...	...	...	23	23·2	−0·2	22·24	18·57	+3·67	76·95	54·89	+22·06	9·50	Chandkhira.
...	...	...	...	...	93	...	·864	...	...	...	17	23·0	−6·0	16·51	19·82	−3·31	43·71	46·05	−2·34	6·24	Doom Dooma.
...	...	...	...	...	89	...	·915	...	...	...	14	22·3	−8·3	11·87	20·18	−8·31	42·27	47·10	−4·83	2·65	Dikom.
...	...	...	...	...	90	...	·940	...	...	...	20	18·0	+2·0	14·92	12·79	+2·13	31·84	30·92	+0·92	3·86	Golaghat.
...	...	...	...	...	86	...	·916	...	...	...	20	23·3	−3·3	24·80	20·45	+4·35	77·71	56·03	+21·68	9·03	Hailakandi.
...	...	...	...	...	86	...	·908	...	...	...	16	17·7	−1·7	13·49	13·60	−0·11	29·21	33·17	−3·96	2·76	Jorehat.
...	...	...	...	...	86	...	·891	...	...	...	11	...	...	7·94	...	...	23·78	...	...	1·41	Lumding.
...	...	...	...	...	81	...	·934	...	...	...	15	21·5	−6·5	11·70	21·21	−9·51	27·16	42·48	−15·32	1·82	Messa.
...	...	...	...	...	94	...	·842	...	...	...	17	17·0	0	18·74	14·62	+4·12	42·43	39·15	+3·28	5·00	Panerlhat.
...	...	...	...	...	89	...	·943	...	...	...	22	21·8	+0·2	23·57	15·39	+8·18	69·35	45·68	+23·67	6·21	Srimangal.
																					III.—Bengal.
...	...	...	...	...	...	...	...	...	...	...	19	18·7	+0·3	18·91	14·69	+4·22	72·83	43·59	+29·24	3·08	Comilla.
...	...	...	...	...	85	...	·967	.	...	...	19	18·3	+0·7	16·89	12·87	+4·02	60·95	37·85	+23·10	2·66	Brahmanbaria.
...	...	...	...	...	...	...	...	...	...	...	17	17·3	−0·3	11·60	12·78	−1·18	46·30	34·48	+11·82	1·53	Faridpur.
...	...	...	...	...	82	...	·933	...	...	...	15	16·3	−1·3	9·52	11·72	−2·20	34·65	31·27	+3·38	1·41	Goalundo.
...	...	...	...	...	86	...	·974	...	...	...	15	16·0	−1·0	6·87	13·77	−6·90	27·08	31·30	−4·22	1·37	Pabna.
...	...	...	...	...	...	...	...	...	...	...	15	15·4	−0·4	10·47	11·66	−1·19	35·52	32·01	+3·51	1·81	Sirajganj.
...	...	...	...	...	...	...	...	...	...	...	16	15·1	+0·9	10·02	10·66	−0·64	31·08	26·51	+4·57	2·04	Rampur Boalia.
...	...	...	...	...	...	...	...	...	...	...	9	14·7	−5·7	10·12	10·50	−0·38	33·67	24·30	+9·37	3·20	Malda.
...	...	...	...	...	...	...	...	...	...	...	13	14·9	−1·9	21·23	14·37	+6·86	56·61	42·92	+13·69	6·38	Rangpur.
...	...	...	...	...	95*	...	1·001*	...	...	...	23	24·8	−1·8	34·42	42·62	−8·20	82·87	84·11	−1·24	5·47	Dam Dim.
...	...	...	...	...	81	...	·901	...	...	...	25	22·5	+2·5	33·15	39·23	−6·08	92·07	79·67	+12·40	7·26	Kalchini.
...	...	...	...	...	84	...	·860	...	...	...	24	26·2	−2·2	38·38	42·73	−4·35	81·49	85·97	−4·48	4·85	Nagrakata.
...	...	...	...	...	...	...	...	...	...	...	16	19·4	−3·4	33·98	29·53	+4·45	81·14	79·42	+1·72	10·23	Cooch Behar.
...	...	...	...	...	...	...	...	...	...	...	21	16·0	+5·0	11·34	11·38	−0·04	43·16	27·85	+15·31	2·20	Krishnagar.
...	...	...	...	...	...	...	...	...	...	...	16	15·5	+0·5	14·75	12·64	+2·11	34·91	27·62	+7·29	3·51	Bankura.
...	...	...	...	...	...	...	...	...	...	...	17	16·5	+0·5	13·89	12·38	+1·51	47·07	25·56	+21·51	2·09	Asansol.

* Mean of 30 days.

Tal

Abstract of observations taken at 8 h

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.	Wind direction. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
	IV.—Bihar and Orissa.																							
7	Hazaribagh	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
8	Bhagalpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Muzaffarpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Motihari	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Chapra	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Arrah	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Dehri	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	V.—United Provinces of Agra and Oudh.																							
10	Meerut	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Dehra Dun	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	IX.—Rajputana.																							
18	Udaipur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	XII.—Central Provinces.																							
23	Chhindwara	75·7	84·0	...	71·5	...	77·7	...	12·5	91·1	4th	63·2	30th	27·9	2	2	2	...	...	3	4	9	9	N 77° W
	XV.—Madras.																							
31	Tinnevelly	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
32	Anantapur	78·4	91·3	...	74·0	...	82·6	...	17·3	96·2	2nd	71·1	5th	25·1	...	...	...	...	...	...	...	...	...	
33	Guntur	82·0	93·0	...	78·0	...	85·5	...	15·0	101·2	1st	73·5	14th	27·7	...	...	...	...	...	...	...	...	...	
	Bay Islands.																							
1	Car Nicobar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	
	Kashmir.																							
13	Jammu	83·7	93·2	...	76·5	...	84·8	...	16·7	100·6	12th	65·8	5th	34·8	...	9	13	1	...	7	...	1	...	N 39° E
	Sonamarg	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Kargil	66·8	86·9	...	57·2	...	72·1	...	29·7	98·1	25th & 26th	47·0	4th, 5th & 6th	51·1	...	12	1	3	4	3	1	...	7	N 5° E
	Astor	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	

C—*continued.*

at 60 fourth and fifth class stations in India, etc., in July, 1913—continued.

Wind velocity.			Wind steadiness		Hygrometry, 8 hrs.				Cloud.		Rainfall.									Heaviest rainfall during month.	Station.
Mean velocity, miles per hour.	Normal.	Departure from normal.	Actual percentage.	Departure from normal.	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.	Mean cloud amount at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st May to 31st July, 1913.	Normal rainfall of period, 1st May to 31st July.	Departure from normal of period, 1st May to 31st July 1913.		
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
																					IV.—Bihar and Orissa.
...	...	...	...	...	...	...	...	...	...	...	12	18·4	−6·4	9·47	13·30	−3·83	28·94	23·78	+5·16	2·77	Hazaribagh.
...	...	...	...	...	...	...	...	...	...	...	9	15·1	−6·1	6·65	12·38	−5·73	25·29	23·72	+1·57	2·03	Bhagalpur.
...	...	...	...	...	...	...	...	...	...	...	11	14·5	−3·5	14·56	12·55	+2·01	43·45	23·06	+20·39	3·62	Muzaffarpur.
...	...	...	...	...	...	...	...	...	...	...	12	14·3	−2·3	9·97	15·40	−5·43	27·54	27·68	−0·14	3·25	Motihari.
...	...	...	...	...	...	...	...	...	...	...	15	14·0	+1·0	8·26	11·76	−3·50	27·55	19·39	+8·16	1·83	Chapra.
...	...	...	...	...	...	...	...	...	...	...	8	14·6	−6·6	4·98	12·89	−7·91	21·06	20·76	+0·30	0·95	Arrah.
...	...	...	...	...	...	...	...	...	...	...	13	13·9	−0·9	14·11	10·83	+3·28	23·72	17·76	+5·96	3·20	Dehri.
																					V.—United Provinces of Agra and Oudh.
...	...	...	...	...	...	...	...	...	...	...	8	10·0	−2·00	6·31	9·29	−2·98	15·46	13·11	+2·35	2·00	Meerut.
...	...	...	...	...	...	...	...	...	...	...	18	20·7	−2·7	16·77	27·00	−10·23	36·26	36·90	−0·64	2·39	Dehra Dun.
																					IX.—Rajputana.
...	...	...	...	...	...	...	...	...	...	...	11	9·8	+1·2	8·97	7·82	+1·15	17·16	11·35	+5·81	1·92	Udaipur.
																					XII.—Central Provinces.
4·5	...	...	55	...	82	...	·723	...	5·2	...	14	...	...	15·06	...	...	27·26	...	...	3·60	Chhindwara.
																					XV.—Madras.
...	...	...	...	...	...	...	...	...	...	...	2	0·5	+1·5	0·82	0·42	+0·40	2·58	2·44	+0·14	0·64	Tinnevelly.
...	...	...	...	...	82	...	·796	...	9·8	...	6	...	...	2·32	...	...	6·35	...	...	1·00	Anantapur.
...	...	...	...	...	74	...	·804	...	7·2	...	12	...	...	6·78	...	...	12·24	...	...	1·43	Guntur.
																					Bay Islands.
...	...	...	...	...	...	...	...	...	...	...	8	13·6	−5·6	7·92	8·27	−0·35	33·84	34·19	−0·35	2·80	Car Nicobar.
																					Kashmir.
...	...	...	45	...	69	...	·781	...	6·8	...	12	...	...	9·89	...	...	20·46	...	...	2·10	Jammu.
...	...	...	...	...	...	...	...	...	...	...	9	9·9	−0·9	5·70	4·06	+1·64	10·09	12·99	−2·90	1·28	Sonamarg.
...	...	...	36	...	43	...	·278	...	3·2	...	1	...	...	0·21	...	...	0·68	...	...	0·12	Kargil.
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Astor.

Table

Abstract of observations taken at 8 hrs.

Number of subdivision.	Station.	Temperature of air.													Wind direction.										
															Number of winds from										
		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.	Calm.	N.	N.E.	E.	S.E.	S	S.W.	W.	N.W.	Resultant direction.	Normal direction.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
	Hill stations, exclusive of Kashmir.																								
	Panighatta	*79·9	87·7	...	73·6	...	80·7	...	14·1	93·1	30th	71·0	5th & 6th.	22·1	...	...	...	...	...	...	...	...	...	...	...
	Kurseong	69·4	74·3	...	65·4	...	69·9	...	8·9	78·3	16th	62·9	12th	15·4	...	...	...	...	...	...	...	...	...	...	...
	Gnatong	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Lachung	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Ringim	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Poo	...	77·9	...	57·6	...	67·7	...	20·3	86·8	31st	48·7	3rd	38·1	15	...	1	2	...	10	...	2	1	S	...
	Kailang	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Bakloh	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Pishin	...	96·2	...	67·6	...	81·9	...	28·6	101·4	27th	51·1	2nd	50·3	...	...	...	...	...	...	...	...	...	...	...
	Extra India.																								
	Ahwaz	...	109·5	...	86·7	...	98·1	...	22·8	116·0	21st	81·6	1st	34·4	28	...	...	3	...	...	...	...	...	E	...
	Chumbi	55·1	66·3	...	50·3	...	58·3	...	16·0	70·7	30th	44·3	26th	26·4	...	...	...	...	...	...	...	...	...	...	...
	Kirmanshah	82·6	96·9	...	61·2	...	79·1	...	35·7	104·2	22nd	55·2	30th	49·0	...	...	...	...	...	...	...	...	...	...	...
	Koweit	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Maidan	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Muhammerah	...	99·7	...	83·0	...	91·4	...	16·7	105·0	14th	77·4	26th	27·6	...	...	...	...	...	...	9	1	21	N 68° W	...
	Pemba	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Prison Island	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Seistan	...	102·5	...	75·4	...	88·9	...	27·1	110·0	26th & 30th.	63·0	13th & 19th.	47·0	...	16	...	...	...	...	...	...	15	N 22° W	...

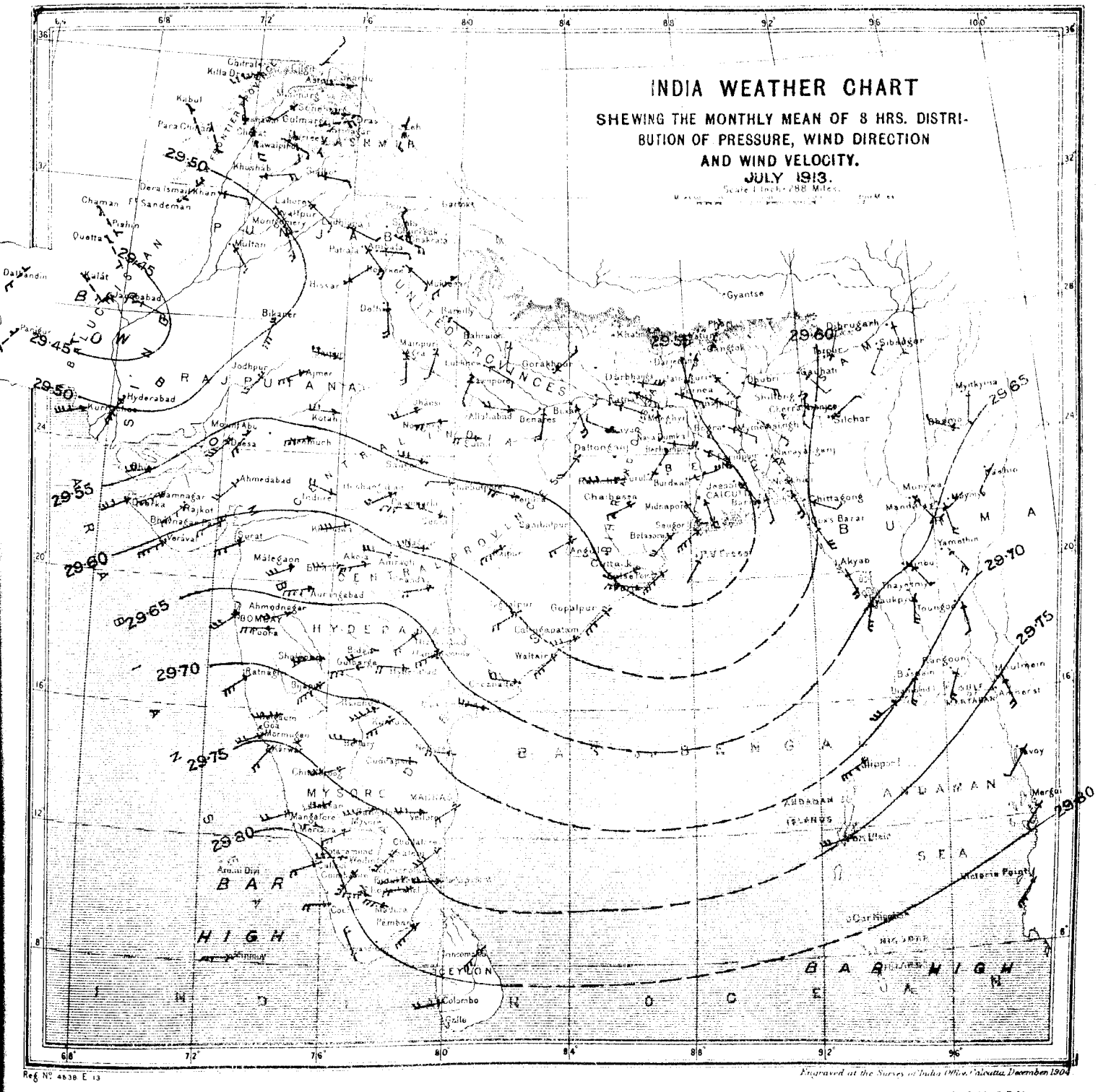
*Mean of 30 days.

C—*concluded.*

at 60 fourth and fifth class stations in India, etc., in July, 1913—concluded.

Wind velocity.			Wind steadiness.		Hygrometry, 8 hrs.				Cloud.		Rainfall.									Heaviest rainfall during month.	Station.
Mean velocity, miles per hour.	Normal.	Departure from normal.	Actual percentage.	Departure from normal.	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.	Mean cloud amount at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st May to 31st July, 1913.	Normal rainfall of period, 1st May to 31st July.	Departure from normal of period, 1st May to 31st July, 1913.		
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
																					Hill Stations, exclusive of Kashmir.
...	...	...	...	...	83*	...	·842*	...	...	...	25	23·0	+2·0	21·93	35·30	−13·37	73·65	70·78	+2·87	3·59	Panighatta.
...	...	...	...	...	91	...	·647	...	...	...	25	27·8	−2·8	28·84	43·74	−14·90	97·76	81·85	+15·91	4·07	Kurseong.
...	...	...	...	...	...	...	...	...	...	...	28	...	...	48·94	...	...	115·17	...	...	3·21	Gnatong.
...	...	...	...	...	...	...	...	...	...	...	20	...	...	5·76	...	...	20·03	...	...	0·83	Lachung.
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Ringim.
...	...	...	29	...	...	...	...	...	5·3	...	1	2·3	−1·3	0·27	0·74	−0·37	0·92	2·04	−1·12	0·18	Poo.
...	...	...	...	...	...	...	...	...	...	...	1	4·3	−3·3	0·40	1·39	−0·99	3·45	5·11	−1·66	0·27	Kailang.
...	...	...	...	...	...	...	...	...	...	...	20	...	...	23·73	...	...	40·36	...	...	4·87	Bakloh.
...	...	...	...	...	...	...	...	...	1·6	...	1	0·2	+0·8	0·11	0·07	+0·04	0·11	0·30	−0·19	0·11	Pishin.
																					Extra India.
...	...	...	10	...	...	...	...	...	1·1	...	0	...	...	0	...	...	0·04	...	...	0	Ahwaz.
...	...	...	...	...	87	...	·375	...	...	...	14	...	...	4·45	...	...	17·83	...	...	0·50	Chumbi.
...	...	...	...	...	29	...	·325	...	...	...	0	...	...	0	...	...	1·13	...	...	0	Kirmanshah.
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Koweit.
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Maidan.
...	...	...	78	...	...	...	...	...	...	...	0	...	...	0	...	...	0·20	...	...	0	Muhammerah.
...	...	...	...	...	...	...	...	...	...	...	5	8·1	−3·1	1·92	3·69	−1·77	28·15	27·22	+0·93	66	Pemba.
...	...	...	...	...	...	...	...	...	...	...	...	5·7	...	...	2·81	...	...	...	...	...	Prison Island.
10·8	...	...	97	...	...	...	...	...	...	...	0	...	...	0	...	...	0	...	...	0	Seistan.

* Mean of 30 days.



The lines of the above chart represent isobars or lines of equal barometric pressure, the numbers attached indicating the barometric pressure in inches and being drawn for differences of pressure of ·05 inch. The isobars in the Bay of Bengal are filled in by means of the shore observations, and by comparison with the normal distribution of pressure.

The mean 8 hrs. wind directions of the month are shewn by means of arrows flying with the wind, and are calculated by means of Lambert's formula applied to the winds as given in Table B of the 8 hrs. observations. The mean wind directions for the hill stations are indicated by broken arrows to distinguish them from the wind arrows for the plain stations. The mean velocity of the winds during the month is shewn by the following notation:—

Velocity of	0 to 2 miles per hour	...	one	feather added to the wind arrow.
,, ,,	2 to 5 ,, ,, ,,	...	two	feathers ,, ,, ,, ,,
,, ,,	5 to 10 ,, ,, ,,	...	three	,, ,, ,, ,, ,,
,, ,,	10 to 20 ,, ,, ,,	...	four	,, ,, ,, ,, ,,
	over 20 ,, ,, ,,	...	five	,, ,, ,, ,, ,,

Wind strengths are based on factor 2·2 for the standard type of Beckley Robinson anemograph, instead of 3·0 as used for this plate up to December 1911 inclusive.

The chart shows the departure from normal of the mean during the month of 8 hrs. pressure by means of lines drawn for equal amounts of departure. The numbers are given in thousandths of an inch, 20 representing ·020″ or two hundredths of an inch, &c. Continuous lines indicate that the pressure was in excess by amounts indicated by the numbers attached to the lines, and broken or dotted lines that it was in defect by amounts indicated by the numbers attached to the lines. Two parallel lines near to each other, one continuous and the other broken or dotted, represent the line of no departure, the dotted line facing the area of deficient pressure or negative departures.

CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MAXIMUM TEMPERATURE.

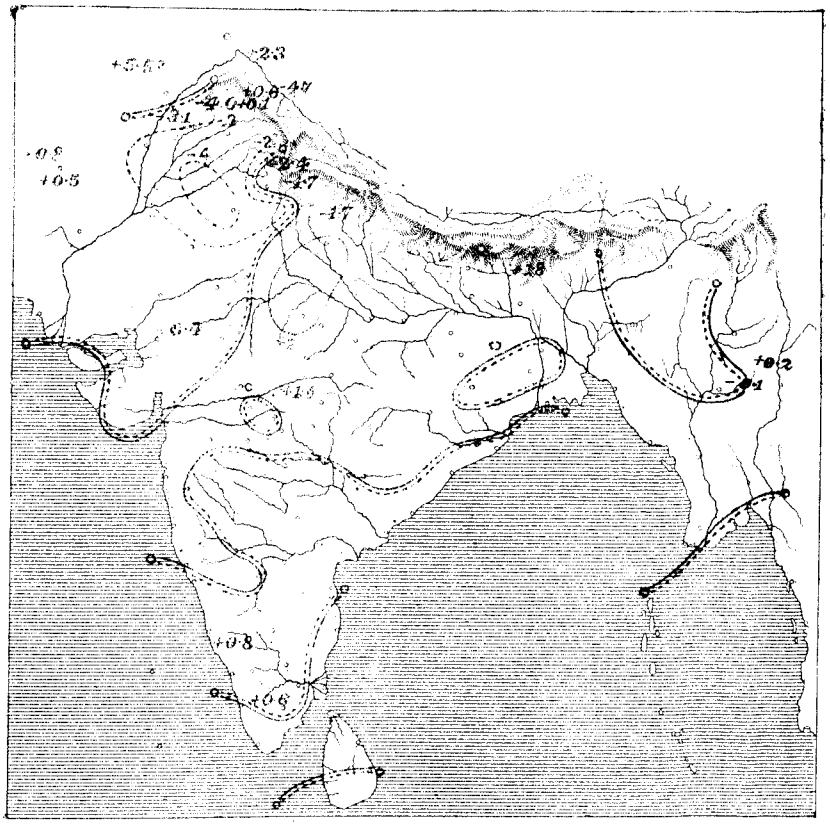


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MINIMUM TEMPERATURE.

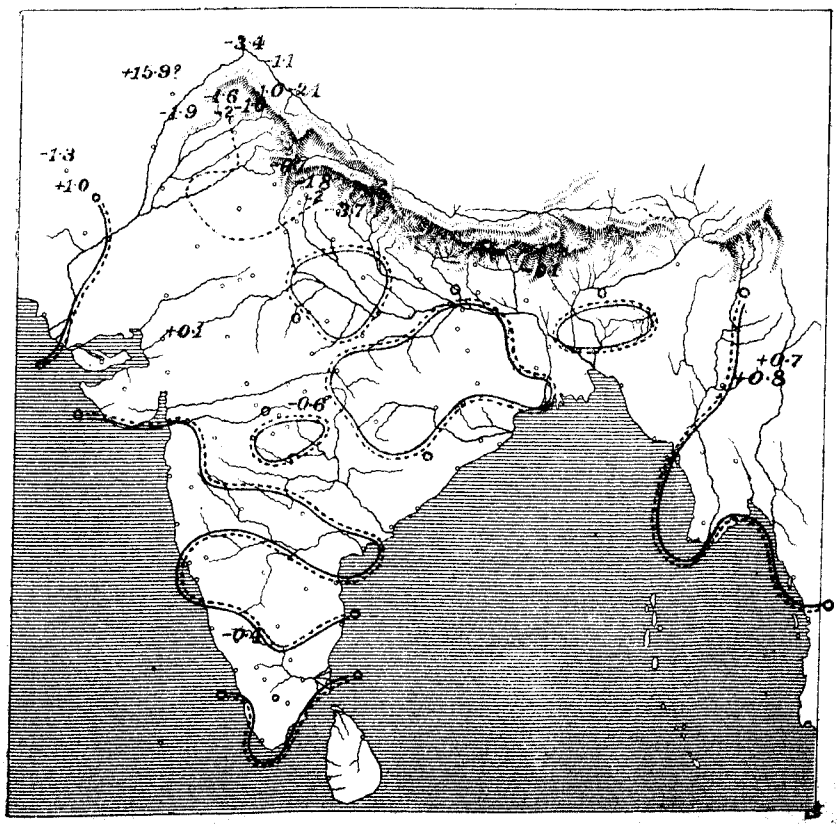


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MEAN TEMPERATURE.

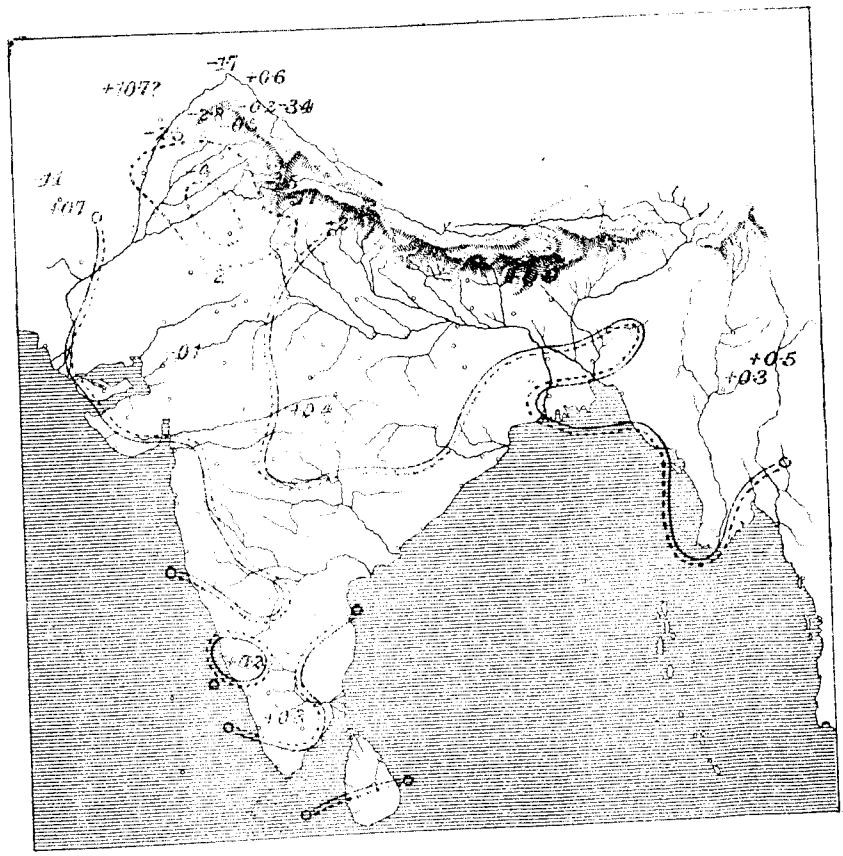
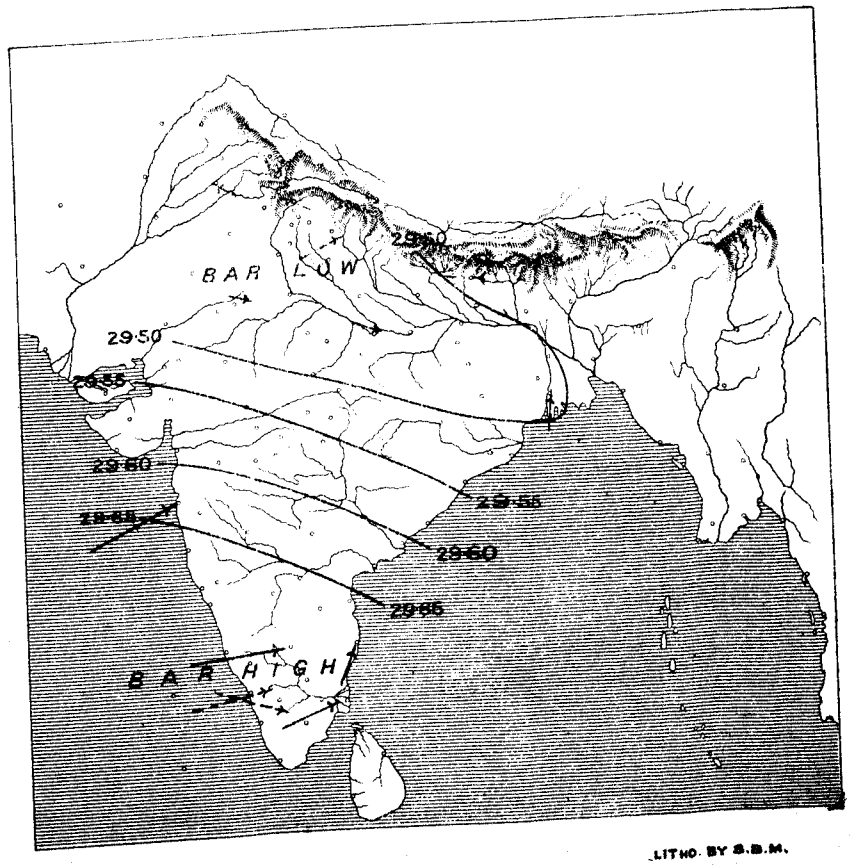


CHART SHEWING THE MONTHLY MEAN OF PRESSURE AND RESULTANT WIND DIRECTION.



LITHO. BY S.B.M.

CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF ABSOLUTE HUMIDITY AT 8 HRS.

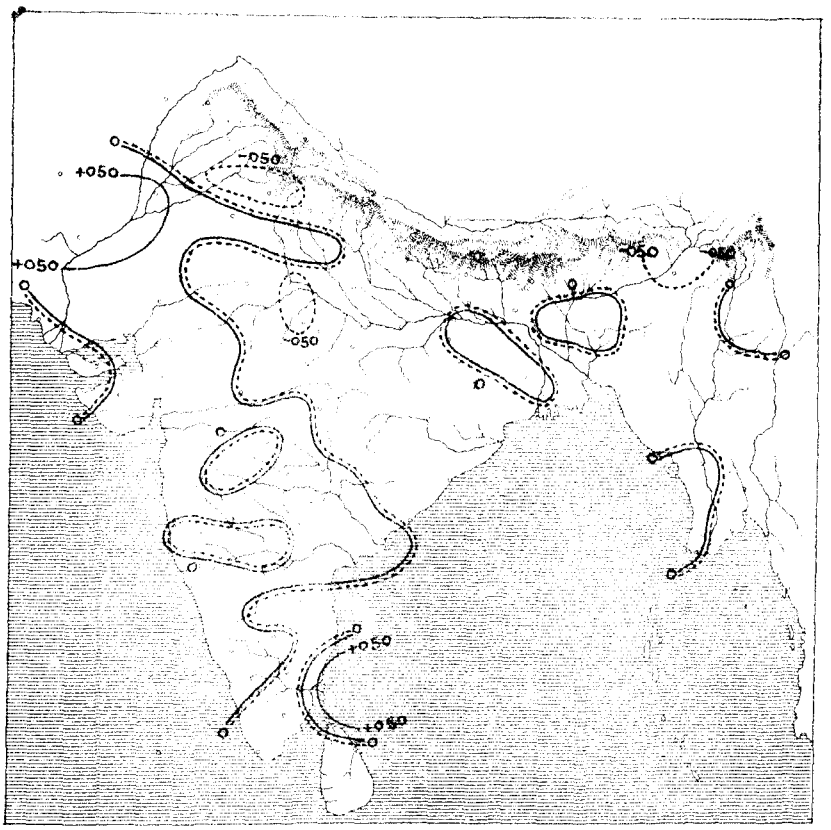


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF RELATIVE HUMIDITY AT 8 HRS.

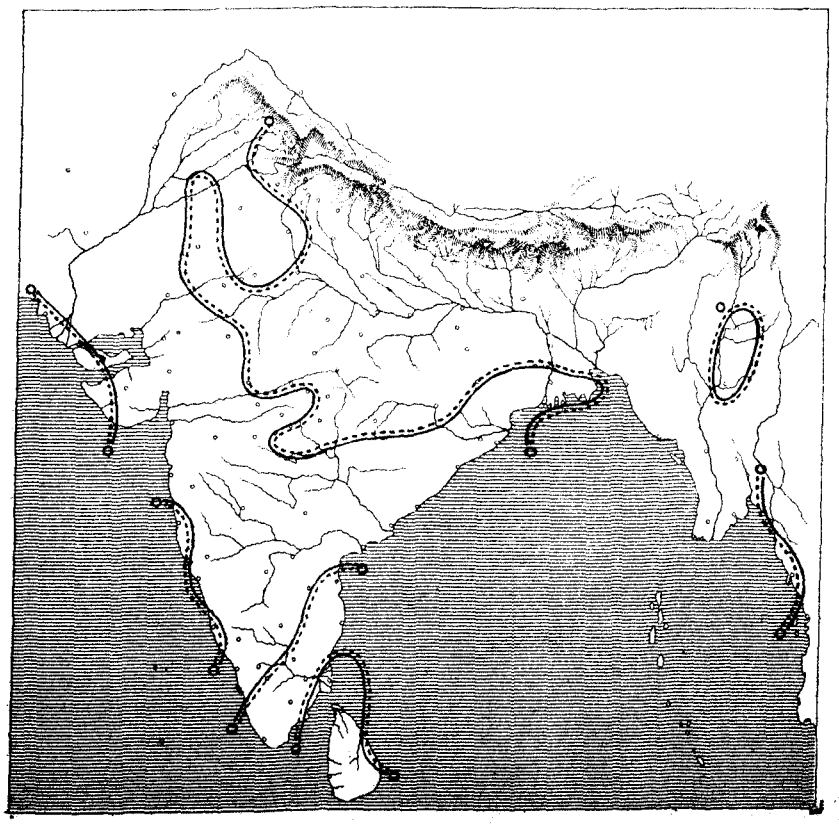


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF CLOUD AMOUNT AT 8 HRS.

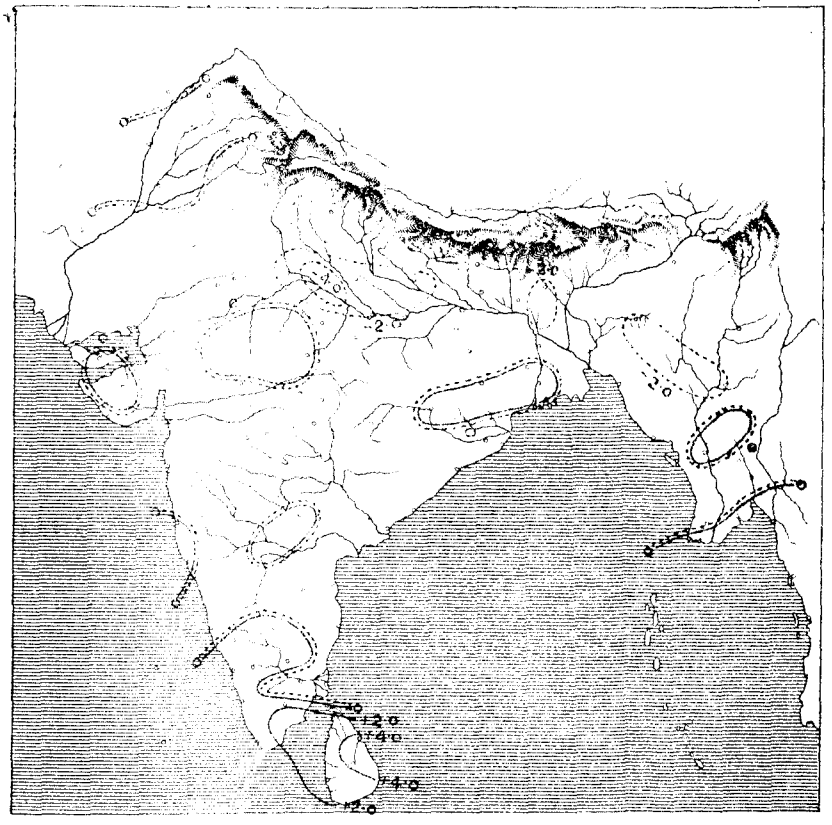
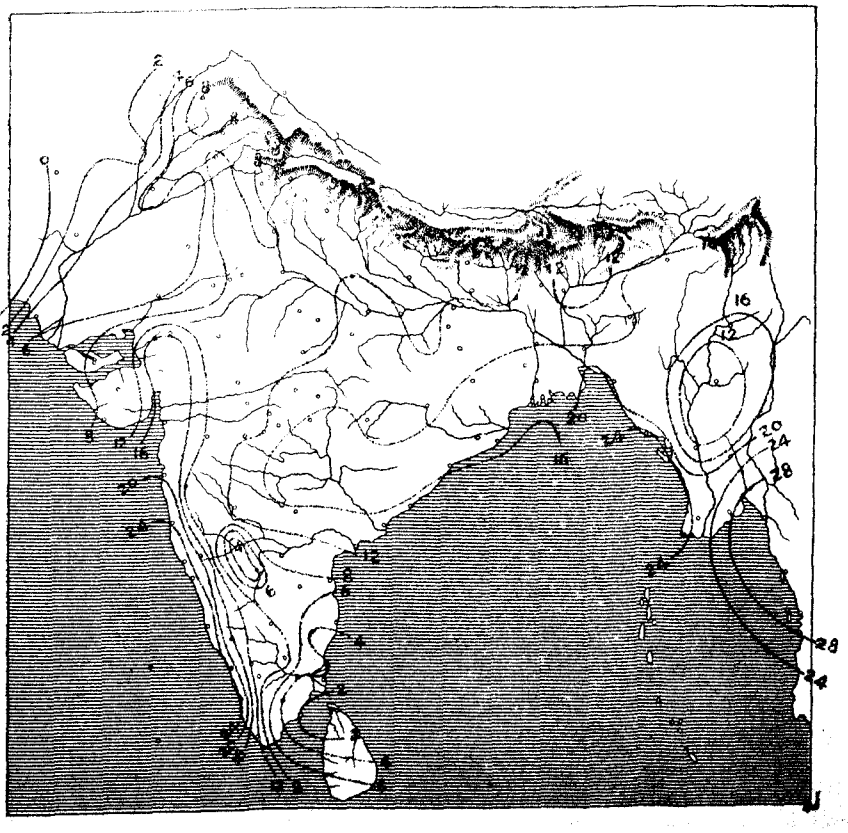


CHART SHEWING THE TOTAL NUMBER OF DAYS IN THE MONTH ON WHICH RAINFALL EQUALLED OR EXCEEDED 0·10 INCH.

(BASED ON THE RETURNS OF TABLE B.)



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
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

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GOVERNMENT OF INDIA.

METEOROLOGICAL DEPARTMENT.

MONTHLY WEATHER REVIEW

PUBLISHED BY ORDER OF

THE GOVERNMENT OF INDIA.

CALCUTTA, AUGUST, 1913.

INTRODUCTION.

THIS review of the weather in India during the month of August, 1913, is based on observations taken daily at 8 hrs. at 219 stations, and on additional observations taken at 10 hrs. and 16 hrs. at 15 stations. In the rainfall summary have been utilized the data furnished by the meteorological observatories, and such rainfall statements of the month as had been published by the Provincial Governments up to the date of the preparation of the review. The brief notes on solar, seismic and magnetic disturbances are supplied by the chief observatories in the Indian area.

For a statement of the methods adopted in recording and tabulating the data, for each of the elements of observation, reference should be made to the introductory portion of the review for January.

Summary of the chief features of the weather in India during the month.

2. The month, unlike June and July, was one of deficient rainfall, the aggregate quantity received in the plains of India being 16 per cent. short of the average. The local distribution departed considerably from the normal type. Thus while the month's total rainfall was above the normal in Burma, Chota Nagpur, Bihar, the Punjab South-west, Kashmir, the North-West Frontier Province, Baluchistan and Sind it was upwards of 20 per cent. in defect in the Bay Islands, the United Provinces, Rajputana East, Gujarat, Central India and the whole of the Peninsula. The defect was serious in the United Provinces West, Rajputana East, Central India East, Hyderabad and the Madras Deccan, where it exceeded 50 per cent. in amount.

In keeping with the scantiness of rainfall the air was somewhat drier and the sky less cloudy than usual over the greater part of the country. Temperature differed to no great extent from the normal.

Solar, seismic and magnetic disturbances.

KODAIKANAL OBSERVATORY.

3. *Solar Observations.*—No observations of the sun could be made on two days during the month and on two other days prominences could not be recorded.

Sunspots.—The sun was completely free from spots throughout the month.

Prominences.—Twenty-two large and three eruptive prominences were recorded during the month. Only three attained heights over two minutes. The highest was observed on the 23rd at latitude +45° east and was 160″ high.

Magnetic disturbances.—Only "small" disturbances were recorded. There were five of these during the month.

Seismic records.

$\phi = 10° 13' 50''$ $\lambda = 77° 28' 00''$ h = 2343 m. Subsoil. Rock.

Apparatus.—Milne's Horizontal Pendulum Seismograph.

TABLE 1.

	V	To	ϵ	$\frac{r}{To^2}$
An:				
Ae:	9·76	16·8	1	2·8×10·4
Az:				

Date.	Phase.	Time, G. M. T.			Period (sec.)	Amplitude (u)			Distance Δ (Km.)	Remarks.
						An.	Ae.	Az.		
1913		h.	m.	s.						
Aug. 1st.	e P	17	22	6	...	...	...	...	...	
	i L	17	31	54	...	...	...	...	...	
	M	17	33	24	...	...	50	...	...	
	F		?		...	...	...	...	...	
„ 1st	P		?		...	...	...	...	...	
	e L	17	53	12	...	...	...	...	...	
	M	17	59	48	...	...	110	...	...	
	F	18	54	30	...	...	...	...	...	
„ 6th & 7th	e P	22	28	48	...	...	...	...	...	
	i L	22	47	42	...	...	...	...	...	
	M	23	46	42	...	...	410	...	...	
	F	1	30	0	...	...	...	...	...	
„ 7th	e P	14	37	48	...	...	...	...	...	Widening of line.
	F	15	39	18	...	...	...	...	...	
„ 13th	e P	4	28	48	...	...	...	...	...	
	i L	4	40	48	...	...	...	...	...	
	M	4	48	0	...	...	580	...	...	
	F	5	44	54	...	...	...	...	...	

T. ROYDS,

Ag. Director,

Kodaikanal and Madras Observatories.

BOMBAY OBSERVATORY.

Alibag magnetic record.

4. During the month of August 1913 the traces showed 8 calm days and 23 days of small disturbance.

The days of the month selected as "quiet" for the purposes of the Magnetic Survey of India are the 2nd, 8th, 14th, 22nd and 30th.

The following table represents the magnetic character of each day during the month.

TABLE 2.

Day.	Character.	Day.	Character.	Day.	Character.
1	C	12	S	23	S
2	C	13	S	24	S
3	S	14	C	25	S
4	S	15	S	26	S
5	S	16	S	27	S
6	S	17	S	28	S
7	S	18	S	29	S
8	C	19	C	30	C
9	S	20	C	31	S
10	S	21	S	...	...
11	S	22	C	...	...

C = calm; S = small; M = moderate; G = great; V. G. = very great.

The mean observed absolute values of the several magnetic elements reduced to the mean monthly tabulations of the magnetograms, as also the ranges and the summed ranges of the horizontal force and the declination for the month are as follows:—

Easterly declination	0° 47′ 0″
Horizontal force	0·36884 C.G.S. unit.
Vertical force	0·16485 „ „
Inclination	24° 5′·0
Inclination (observed)	24° 2′·9
Horizontal force range	0·00029 C.G.S. unit.
Horizontal force summed range	0·00206 „ „
Declination range	4′·4
Declination summed range	18′·7

(NOTE.—Summed range means sum without regard to sign of the 24 ordinates of the diurnal inequality.)

Seismic records.

$\phi = 18° 53' 45''$ $\lambda = 72° 48' 56''$ h = 11m

Subsoil Basaltic Trap.

Apparatus.—Milne's Horizontal Pendulum Seismograph.

TABLE 3.

	V	To	G	$\frac{r}{To^2}$
AN :				
AE :	9	19	1	...
AZ :				

Date.	Phase.	Time, G. M. T.			Period (sec.)	Amplitude (u) An.	Ae.	Az.	Distance Δ (Km.)	Remarks.
1913		h.	m.	s.						
Aug. 1st	P	17	22	30	...	...	...	...	...	
	M	17	55	36	...	...	167	...	...	
	F	19	55	12	...	...	...	...	...	
„ 6th & 7th	P	22	34	6	...	...	...	...	...	
	M	23	40	24	...	...	1022	...	...	
	F	1	25	42	...	...	...	...	...	
„ 7th	P	3	22	42	...	...	...	...	...	
	M	3	39	54	...	...	44	...	...	
	F	4	14	42	...	...	...	...	...	
„ 13th	P	4	33	6	...	...	...	...	...	
	M	4	49	42	...	...	178	...	...	
	F	5	22	0	...	...	...	...	...	
„ 15th	P	19	23	42	...	...	...	...	...	
	M	19	45	54	...	...	33	...	...	
	F	20	5	30	...	...	...	...	...	
„ 30th & 31st	P	23	26	18	...	...	...	...	...	Commencement doubtful.
	M	0	4	48	...	...	56	...	...	
	F	0	40	48	...	...	...	...	...	

Thickening of line was noted on the following occasions :—

D. H. M.	D. H. M.	D. H. M.	D. H. M.
1 5 16	1 15 2	4 0 54	4 22 15 to 17
5 3 12	7 2 29	7 15 16 to 20	11 13 12
12 16 18	14 16 50	15 8 10	15 9 10
18 12 19	21 5 15 to 17	22 22 13	23 9 17
24 4 40	26 16 43	28 4 13 to 15	28 8 18
29 12 36	31 7 1 to 4	31 7 9 to 13	

Only those thickenings which can be clearly distinguished are given. Thickenings mixed in tremors are omitted from the above list.
Sensibility to tilt = 1 mm. of amplitude on the trace is = 0·32″.

N. A. F. MOOS,

Director, Bombay and Alibag Observatories.

5. CALCUTTA (ALIPORE) OBSERVATORY.

Seismic records.

$\phi = 22° 32' 00''$ $\lambda = 88° 20' 00''$ h = 6·4 m. Subsoil.

Apparatus.—Milne's Horizontal Pendulum Seismograph (E.—W.).

TABLE 4.

	V	To	G	$\frac{r}{To^2}$
AN :				
AE :	8·688	18	1	...
AZ :				

Date.	Phase.	Time, G. M. T.			Period (sec.)	Amplitude (u) An.	Ae.	Az.	Distance Δ (Km.)	Remarks.
1913		h.	m.	s.						
Aug. 1st	P	17	28	24						
	S	17	33	29						
	L	17	43	8						
	M	17	50	46	...	...	259			
	C	17	53	49	...	...	115			
	F	19	11	7						
„ 6th	P	22	34	8						
	S	22	38	12						
	L	22	46	20						
	M	23	49	25	...	...	806	...	...	Measured from base line.
	C	23	54	50	...	...	575	...	...	Ditto.
„ 7th	F	4	33	47	...	...	...	...	...	Ends in morning air tremor.
„ 13th	P	4	37	27						
	S	4	41	31						
	L	4	46	36						
	M	4	54	13	...	...	460	...	...	Measured from base line.
	F	6	59	48						
„ 19th	P	5	9	27						
	M	5	10	59	...	...	86			
	F	5	15	34						

6. SIMLA OBSERVATORY.

Solar radiation.—The following figures give the intensity of solar radiation, as measured at Simla by Angstrom's pyrheliometer. The values are corrected to local noon, and expressed in grammecalories per square centimetre per minute :—

Maximum	1·34
Minimum	1·34
Mean	1·34
Number of days of observation	1

The following table contains a list of earthquakes that were reported :—

TABLE 5.

Place at which felt.	Date.	G. M. T. of earthquake.		Duration.	Intensity Rossi-Forel scale.	No. of shocks.
	Aug.	h.	m	sec.		
Shillong	3rd	0	59	1	3	1
Jodhpur	10th	17	44	61	4	2
Drosh	10th	22	20	3	5	1
"	15th	22	42	3	6	1
Drosh	17th	22	27	4	4	1
Kohat	19th	18	48	2	9	1
Srinagar	21st	5	2	3	6	1
Jodhpur	21st	18	36	20	5	1
Drosh	24th	12	49	2	4	1
"	29th	10	18	38	6	1
"	29th	17	50	3	5	1
Jodhpur	31st	17	35	40	7	1
Jubbulpore	31st	22	0	1	4	1

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7. No information has been received.

Weather in the Indian Ocean.

8. Pressure was higher than usual at all the stations in the Indian Ocean. The air movement differed to no important extent from the average. Rainfall was in defect by 8 per cent. at Seychelles and by 49 per cent. at Zanzibar.

The rise of pressure which had occurred in equatorial regions since July was unfavourable to the prospects of rainfall in India during September.

TABLE 6.

—	Mauritius.	Zanzibar.	Seychelles.
Departure from normal of mean pressure.	+·025	+·027	+·023
Actual mean wind direction	S 71° E	S 14° W	S 37° E
Normal mean wind direction	S 68° E	S 1° W	S 35° E
Actual mean wind velocity (miles per diem).	298	106	230
Normal mean wind velocity (miles per diem).	296	120	231
Rainfall departure from normal	−0·05	−0·84	−0·21

Depressions and cyclonic storms.

9. Four disturbances occurred during the month and were mainly responsible for the unsatisfactory distribution of rainfall referred to in a later section.

The first of these depressions has already been mentioned in the Review for July; it was on July 31st central near Midnapore, and thence travelled westwards, reaching the neighbourhood of Jubbulpore on the 2nd and disappearing abruptly during that day. Very heavy downpours of rain occurred in the central parts of the Central Provinces on the 1st, the districts of Seoni, Narsinghpur, Hoshangabad and Chhindwara recording an average of about 7″ and Balaghat of 5″.

The second disturbance developed over Bengal on the 5th in an area of deficient pressure which first showed itself over Burma on the 3rd and was thence transferred westwards. The disturbance was between Narayanganj and Calcutta on the 6th with a depth of probably a quarter of an inch. It moved very slowly north-westwards on the 7th and 8th and after remaining practically stationary over Bihar and the northern districts of Bengal during the succeeding three days passed away completely on the 12th. Its barometric depth was slight on the last four days of its existence, but it gave some heavy rain in Bihar and Chota Nagpore resulting in destructive floods in Burdwan and its neighbourhood.

The third disturbance appeared over the north-west of the Bay on the 21st; it crossed inland near False Point on the night of the 22nd and travelling slowly along the head of the Peninsula was dissipated over Sind and East Baluchistan on the 27th. It was of feeble intensity, the deficiency of pressure at the centre being less than two-tenths of an inch throughout. While it was crossing from Rajputana into Sind an independent disturbance appeared over the extreme north and the combined action of the two gave rise to widespread rainfall in north-west India. Rainfall was remarkably heavy in Baluchistan over the Mari and Bagti hills and the Sibi plains, and caused the heaviest floods known there for 25 years.

The fourth disturbance was generated over the north of the Bay on the 28th. It intensified on the 29th and travelling westwards passed inland on the evening of the 30th. By 8 hours of the 31st the centre had advanced to a position between Gopalpur and Raipur.

Pressure.

10. The barometer stood below its normal height in Burma, north-east India, the United Provinces, the North-West Frontier Province and the north of the Punjab, but over the rest of the country the mean barometric pressure for the month was in excess of the average. The excess was most marked in the region round Indore and Khandwa where it averaged about ·03″, while the greatest defect (about ·04″) occurred in Assam and the neighbourhood of Chittagong.

TABLE 7.

DIVISION.	Departure from normal of mean 8 hrs. pressure.
	″
Burma	—·025
Assam	—·035
Bengal	—·029
Bihar and Orissa	—·020
United Provinces	—·004
Punjab	0
North-West Frontier Province	—·019
Sind	+·003
Rajputana	+·021
Bombay	+·018
Central India	+·022
Central Provinces	+·024
Hyderabad	+·012
Mysore	+·019
Madras	+·011

The vertical gradient over southern India, the Central Provinces and north-east India was steeper than usual; while over north-west India the vertical distribution was very nearly normal.

TABLE 8.

HILL STATION.	Departure from normal pressure. A.	PLAIN STATION.	Departure from normal pressure. B.	Departure of pressure difference. B—A.
	″		″	″
Quetta	—·001	Jacobabad	+·001	+·002
Leh	+·003	Lahore	—·009	—·012
Murree	—·008	Peshawar	—·017	—·009
Simla	+·013	Ludhiana	+·002	—·011
Chakrata	+·003	Roorkee	—·006	—·009
Darjiling	—·054	Dhubri	—·031	+·023
Mount Abu	+·012	Deesa	+·023	+·011
Pachmarhi	+·013	Khandwa	+·032	+·019
Kodaikanal	+·001	Madura	+·027	+·026

Temperature.

11. Day temperature exceeded the normal by 3° in the Madras Deccan and by about 4° in the United Provinces, but in no other sub-division did the departures exceed 2½° in value. Night temperature approximated even more closely to the normal, almost all the sub-divisional departures being less than 1° in magnitude.

Of the daily changes the most noteworthy was a rapid fall of temperature in the extreme north between the 4th and the 7th when an excess of about 2° to 9° gave place to a defect of about 4° to 16°; thereafter for four days the weather was appreciably cooler than usual.

TABLE 9.

SUB-DIVISION.	ACTUAL TEMPERATURE.					DEPARTURE FROM NORMAL OF		
	Mean maximum.	Mean minimum.	Monthly mean of mean between maximum and minimum.	Mean daily range of temperature.	Absolute range during month.	Maximum.	Minimum.	Daily range.
	°	°	°	°	°	°	°	°
1. Bay Islands	84·7	77·5	81·1	7·1	13·3	+0·1	+0·6	—0·5
2. Lower Burma	84·5	75·2	79·9	9·3	15·7	+0·1	+0·3	—0·2
3. Upper Burma	88·1	75·5	8·8	12·6	20·3	—1·2	+0·1	—1·3
4. Assam	88·5	77·1	82·8	11·5	20·2	—0·3	—0·6	+0·3
5. Bengal	87·5	77·9	82·7	9·6	18·1	0	—0·2	+0·2
6. Orissa	87·9	77·3	82·6	10·6	20·1	—0·2	—0·7	+0·5
7. Chota Nagpur	87·6	75·1	81·4	12·5	22·3	—0·3	—0·6	+0·3
8. Bihar	88·9	78·2	83·6	10·7	21·3	—0·4	—0·4	0
9. United Provinces, East	92·8	78·5	85·7	14·3	24·8	+3·0	0	+3·0
10. Ditto, West	94·6	78·8	86·6	15·8	26·2	+4·3	+0·9	+3·4

Sub-division.	Actual temperature.					Departure from normal of		
	Mean maximum.	Mean minimum.	Monthly mean of mean between maximum and minimum.	Mean daily range of temperature.	Absolute range during month.	Maximum.	Minimum.	Daily range.
	°	°	°	°	°	°	°	°
11. Punjab, East and North	95·2	78·2	86·7	17·0	30·0	+0·6	+0·1	+0·5
12. Do., South-west	98·3	80·1	89·2	18·2	33·8	—2·1	—0·8	—1·3
13. Kashmir	81·0	56·9	69·0	24·1	44·3	—1·3	—1·5	+0·2
14. North-West Frontier Province	98·2	78·5	88·4	19·7	37·6	—1·9	—0·9	—1·0
15. Baluchistan	95·3	68·5	81·9	26·8	43·4	—1·1	—1·9	+0·8
16. Sind	93·8	79·3	86·5	14·5	24·0	—0·9	+0·2	—1·1
17. Rajputana, West	95·5	78·1	86·8	17·5	29·3	—0·3	—1·5	+1·2
18. Do., East	92·0	76·5	84·2	15·5	27·2	+1·5	—0·4	+1·9
19. Gujarat	86·6	75·8	81·2	10·9	19·3	—1·4	—0·9	—0·5
20. Central India, West	82·7	70·1	76·4	12·7	22·2	—1·3	—1·9	+0·6
21. Do., East	89·2	76·1	82·7	13·1	20·8	+2·3	—0·1	+2·4
22. Berar	84·9	71·2	78·0	13·7	23·1	—0·3	—0·5	+0·2
23. Central Provinces, West	85·0	72·1	78·5	12·9	22·0	+0·1	—1·3	+1·4
24. Ditto, East	84·9	73·1	79·0	11·9	21·1	0	—0·4	+0·4
25. Konkan	84·2	76·1	80·2	8·1	13·3	+0·8	+0·5	+0·3
26. Bombay Deccan	84·8	68·4	76·6	16·5	25·7	+0·8	—1·1	+1·9
27. Hyderabad, North	85·6	69·9	77·8	15·7	24·9	+0·3	—0·5	+0·8
28. Do., South	89·7	73·1	81·4	16·5	25·7	+1·9	+0·6	+1·3
29. Mysore	81·8	65·7	73·8	16·1	23·5	+0·3	—0·4	+0·7
30. Malabar	83·6	74·9	79·3	8·7	15·3	+0·5	+1·3	—0·8
31. Madras, South-east	94·6	76·5	85·5	18·1	27·7	+1·5	+0·8	+0·7
32. Do., Deccan	94·4	75·8	85·2	18·6	27·4	+3·0	+1·1	+1·9
33. Do. Coast, North	92·0	79·0	85·5	13·0	22·9	+2·1	+0·4	+1·7

Table 10.

Division.	Departure from normal of		
	Mean maximum temperature.	Mean minimum temperature.	Mean temperature.
	°	°	°
Burma	—0·5	+0·2	—0·1
Assam	—0·3	—0·6	—0·5
Bengal	0	—0·2	—0·1
Bihar and Orissa	—0·3	—0·5	—0·4
United Provinces	+3·6	+0·4	+2·0
Punjab	—0·2	—0·2	—0·2
North-West Frontier Province	—1·9	—0·9	—1·5

Division.	Departure from normal of		
	Mean maximum temperature.	Mean minimum temperature.	Mean temperature
	°	°	°
Sind	—0·9	+0·2	—0·3
Rajputana	+0·8	—0·8	0
Bombay	—0·2	—0·6	—0·4
Central India	+0·5	—1·0	—0·3
Central Provinces	0	—1·0	—0·5
Hyderabad	+1·4	+0·3	+0·9
Mysore	+0·3	—0·4	—0·1
Madras	+1·7	+0·9	+1·3

Winds.

12. (*a*) In the United Provinces the direction of air movement was very abnormal, the mean actual direction at Benares, Lucknow, Bahraich, Bareilly and Roorkee being from between south and west, while the normal for the month is southeast or eastsoutheast. A similar deflection occurred at Gaya in Bihar and at Ambala and Lahore in the east of the Punjab. This is explained by the fact that during the greater part of the month the axis of the trough of low pressure lay over the Himalayas instead of along the axis of the Gangetic plain; and accordingly the Bay current which usually prevails along the base of the Himalayas failed during the month under review to extend beyond north-east India. At Darjiling the direction contained an undue northerly component. In north-east Baluchistan the usual westerly element in the mean wind direction was entirely absent. In the Central Provinces and the greater part of the Deccan an unusual northerly component was present in the mean direction.

(*b*) The velocity was decidedly low in Bengal, and high in Bihar and Orissa, Rajputana, the Central Provinces, Mysore and Madras.

(*c*) The degree of steadiness was much lower than usual in Bengal and also in the Punjab and the North-West Frontier Province, and very high in the United Provinces.

The data thus show that the flow of air through Bengal was not only weaker than usual but was also remarkably unsteady.

TABLE 11.

Division.	Departure from normal of	
	Hourly wind velocity.	Wind steadiness.
Burma	−0·5	+ 2
Assam	+0·1	+ 5
Bengal	−1·2	−21
Bihar and Orissa	+1·1	− 1
United Provinces	+0·1	+ 8
Punjab	0	− 9
North-West Frontier Province	−0·4	− 8
Sind	−0·6	−10
Rajputana	+1·2	+ 4
Bombay	−0·3	− 5
Central India	−0·5	+ 6
Central Provinces	+0·7	+ 8
Hyderabad	−0·7	− 9
Mysore	+0·9	+ 7
Madras	+0·7	− 2

Humidity and cloud.

13. The air was dry, both absolutely and relatively, over nearly the whole country, the dryness being on the whole most pronounced in the United Provinces where the month's rainfall was in large defect.

The quantity of cloud recorded during the month was markedly below the normal except in Baluchistan, the North-West Frontier Province, Gujarat and Burma where it was either about the average or in excess. The defect averaged as much as 2·0 in the United Provinces, Rajputana and the Deccan.

TABLE 12.

Division.	Hygrometry, 8 hrs.				Cloud.	
	Mean humidity.	Departure from normal.	Mean vapour tension in inches of mercury.	Departure from normal in inches of mercury.	Mean cloud amount at 8 hrs.	Departure from normal.
	%					
Burma	90	0	·870	−·001	8·2	+0·2
Assam	90	− 1	·936	−·007	7·5	−1·2
Bengal	89	− 2	·944	−·021	7·4	−0·7
Bihar and Orissa	86	− 1	·901	−·030	7·0	−0·7
United Provinces	76	−10	·862	−·070	5·1	−1·9
Punjab	73	− 3	·831	−·040	3·6	−0·7
North-West Frontier Province.	73	0	·827	−·043	2·7	−0·1
Sind	76	0	·854	−·025	4·5	−0·5
Rajputana	71	− 4	·738	−·079	4·9	−1·7
Bombay	82	− 2	·785	−·019	7·2	−0·4
Central India	84	− 3	·773	−·051	6·9	−0·9
Central Provinces	82	− 6	·734	−·062	6·8	−1·2
Hyderabad	76	− 5	·679	−·049	6·2	−1·9
Mysore	82	− 1	·609	−·021	7·6	−0·8
Madras	75	− 4	·793	−·024	5·9	−0·9

Rainfall.

14. Both monsoon currents were less active than usual, and the total rainfall of the month in the plains of India was in defect of the normal by 1½″ or 16 per cent.

The cyclonic storm which at the end of July lay near Midnapore moved westwards to the neighbourhood of Jubbulpore where it broke up suddenly during the 2nd. It occasioned very heavy rain in parts of the Central Provinces, Pachmarhi recording 18″ and Seoni 11″ during the 24 hours ending at 8 hrs. of the 2nd. On the 3rd and 4th the monsoon was very weak, and the rainfall was restricted mainly to Burma and the central parts of the country. A rapid increase in the activity of the monsoon occurred on the two succeeding days and resulted in the formation of a disturbance over deltaic Bengal. This travelled on a northerly course and disappeared on the 12th over Bihar and the adjoining districts. It was remarkable for the heavy rain it gave to Bihar and the neighbouring districts of the United Provinces and Chota Nagpur.

A marked decrease in the activity of the Arabian Sea current had taken place on the 8th and rain had practically ceased to fall in India proper except in the restricted area affected by the disturbance just noticed. The break thus initiated held uninterruptedly over the interior districts until the 21st, when an inrush of moist winds occurred from across the west coast into the interior; and during the course of the next two days monsoon conditions were re-established.

The termination of the break coincided with the appearance over the Bay of Bengal of a depression which crossed inland on the 22nd and travelled along the head of the Peninsula to Sind on the 26th, giving moderate to heavy rain. In north-west India its rain-producing action was supplemented by an independent disturbance in the extreme north, with the result that very satisfactory rain fell over Kashmir, the North-West Frontier Province and the Punjab from the 25th to the 27th and some heavy falls in Baluchistan. With the disappearance of these disturbed conditions the Arabian Sea current weakened materially, while the Bay current began to feed into a cyclonic storm off the coast of Orissa, so that on the 28th and 29th but little rainfall was recorded anywhere outside of Burma and north-east India. The passage inland of the disturbance on the 30th led again to an extension of rainfall into the central parts of the country.

Not only was the rainfall of the month below the normal but owing to the occurrence of a large number of disturbances its geographical distribution was unsatisfactory. Thus while the aggregate fall of the month was within 10 per cent. of the normal in Burma, Bengal, Orissa, Punjab East and North, Rajputana West, Berar and the Central Provinces, and was in excess between 11 and 192 per cent. in Chota Nagpur, Bihar, the Punjab South-west, Kashmir, North-West Frontier Province, Baluchistan and Sind, it was below the normal over the rest of the country. The deficiency amounted to 10½″ or 44 per cent. in the Konkan, 8½″ or 42 per cent. in Malabar, 7″ or 61 per cent. in the United Provinces West, 6¾″ or 51 per cent. in Central India East and 6½″ or 47 per cent. in the Bay Islands; it was considerable also in Assam, the United Provinces East, Rajputana East, Hyderabad and the Madras Deccan.

TABLE 13.

Sub-division.	Number of rainy days.		Rainfall.			
	Actual.	Normal.	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
			″	″	″	
1. Bay Islands	17·0	18·5	7·31	13·83	—6·52	— 47
2. Lower Burma	24·5	24·0	28·17	26·62	+1·55	+ 6
3. Upper do.	12·2	10·8	8·13	7·45	+0·68	+ 9
4. Assam	16·6	18·0	14·03	16·93	—2·90	— 17
5. Bengal	16·5	16·5	14·51	14·59	—0·08	— 1
6. Orissa	12·0	15·1	11·26	12·24	—0·98	— 8
7. Chota Nagpur	13·4	16·4	14·98	13·35	+1·63	+ 12
8. Bihar	12·1	13·8	14·14	11·86	+2·28	+ 19
9. United Provinces, East	7·2	12·5	7·03	11·35	—4·32	— 38
10. Do., West	5·6	11·8	4·57	11·71	—7·14	— 61
11. Punjab, East and North	5·5	6·7	6·24	6·49	—0·25	— 4

Sub-division.	Number of rainy days.		Rainfall.			
	Actual.	Normal.	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
			"	"	"	
12. Punjab, South-west	4·6	2·8	4·93	2·08	+2·85	+137
13. Kashmir	5·4	4·9	4·45	3·51	+0·94	+ 27
14. North-West Frontier Province	5·2	4·1	3·92	3·29	+0·63	+ 19
15. Baluchistan	1·9	1·3	1·45	0·83	+0·62	+ 75
16. Sind	2·7	2·2	5·17	1·77	+3·40	+192
17. Rajputana, West	4·0	4·3	3·09	3·32	—0·23	— 7
18. Do., East	4·6	9·1	3·07	7·32	—4·25	— 58
19. Gujarat	9·2	11·1	6·32	8·40	—2·08	— 25
20. Central India, West	7·3	12·3	7·79	10·34	—2·55	— 25
21. Do., East	7·1	14·6	6·35	13·05	—6·70	— 51
22. Berar	9·0	10·3	6·22	6·71	—0·49	— 7
23. Central Provinces, West	10·0	13·7	11·92	11·78	+0·14	+ 1
24. Do., East	11·9	15·1	13·38	13·97	—0·59	— 4
25. Konkan	19·7	24·7	13·45	23·99	—10·54	— 44
26. Bombay, Deccan	6·3	9·7	3·10	5·61	—2·51	— 45
27. Hyderabad, North	5·8	11·4	3·29	7·91	—4·62	— 58
28. Do., South	5·3	10·4	2·36	6·43	—4·07	— 63
29. Mysore	6·4	8·5	3·50	5·42	—1·92	— 35
30. Malabar	19·4	21·2	12·06	20·64	—8·58	— 42
31. Madras, South-east	3·7	5·6	2·37	3·77	—1·40	— 37
32. Do., Deccan	2·6	6·8	0·94	4·04	—3·10	— 77
33. Do. Coast, North	7·7	10·2	5·29	6·97	—1·68	— 24

TABLE 14.

Division.	Rainfall.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"	
Burma	17·55	16·46	+1·09	+ 7
Assam	14·03	16·93	—2·90	— 17
Bengal	14·51	14·59	—0·08	— 1
Bihar and Orissa	13·67	12·23	+1·44	+ 12
United Provinces	5·87	11·52	—5·65	— 49
Punjab	5·95	5·57	+0·38	+ 7
North-West Frontier Province	3·92	3·29	+0·63	+ 19
Sind	5·17	1·77	+3·40	+192

Division.	Rainfall.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"	
Rajputana	3·08	6·24	—3·16	— 51
Bombay	5·99	9·80	—3·81	— 39
Central India	7·28	11·28	—4·00	— 35
Central Provinces	9·96	10·24	—0·28	— 3
Hyderabad	2·79	7·10	—4·31	— 61
Mysore	3·50	5·42	—1·92	— 35
Madras	3·92	6·25	—2·33	— 37
Mean of India	8·29	9·84	—1·55	— 16

Snowfall.

I.—AFGHANISTAN.

15. No information has arrived.

II.—NORTH-WEST FRONTIER PROVINCE.

No information has been received

III.—KASHMIR.

Snow fell on the higher mountains around Skardu on the 6th, 7th, 12th, 26th to 28th and 30th and a fall of about three inches occurred at the Nakthula near Kargil on the 25th.

IV.—PUNJAB.

No snowfall occurred on the hills near Kilba, and at the close of the month the Rupan Pass (elevation 15,500 feet) was quite clear of snow.

V.—UNITED PROVINCES.

Garhwal.—No information is forthcoming.

Almora.—The aggregate snowfall of the month was estimated at about 9 feet in Malla Darma, 5 feet in Byans and Chaudas, 2 feet in Malla Johar and 1 foot in Malla Danpur. In Malla Johar the snowline came down to a distance of about 6 miles from the perpetual snows.

TABLE 15.

Name of pass or peak.	Depth of accumulation at the end of the month.	
	Reported.	Normal.
	Feet.	Feet.
Nuwe Pass	23	17
Untadhura "	1	6
Ralamdhura "	½	4
Pindari Peak	10	½
Kaphini Pass	10	½
Kuntela "	10	½
Binkaru "	12	12
Lipulekh "	6	3
Lampia "	8	7½

SUMMARY.

16. According to the available information the snowfall o the month was confined to Kashmir and the Almora hills and in the latter locality the residue of the unmelte snow at the end of the month was locally in excess of th normal.

HEM RAJ.

Table A.—Abstract of observations taken at 10 hrs. and 16 hrs. at 15 stations in India, etc., in August, 1913.

Ta

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

Number of subdivision.	Station.	Elevation of barometer 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.	Temperature, wet. Mean minimum.	Mean 10 hrs.	Mean 16 hrs.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	III.—Bengal.																				
5	Calcutta	21	29·615	29·517	·098	29·568	—·023	29·536	88·1	78·6	9·5	92·1	76·5	15·6	84·0	85·2	83·1	+0·7	76·8	79·4	79·7
	V.—United Provinces of Agra and Oudh.																				
9	Allahabad	309	29·322	29·221	·101	29·275	+·009	29·533	92·5	78·5	14·0	98·4	73·5	24·9	86·7	90·7	84·5	+1·3	75·3	77·8	79·1
	VI.—Punjab.																				
11	Lahore	702	28·882	28·807	·075	28·836	+·002	29·488	96·9	79·5	17·4	104·4	71·2	33·2	88·9	94·7	87·3	+0·2	75·8	79·0	80·8
	IX.—Rajputana.																				
18	Jaipur	1,431	28·245	28·154	·091	28·199	+·020	29·542	94·8	75·7	19·1	102·2	71·1	31·1	86·2	92·5	83·7	+1·4	71·5	75·1	76·2
	X.—Bombay.																				
25	Bombay	37	29·789	29·723	·066	29·754	+·025	29·731	84·9	77·8	7·1	87·1	74·9	12·2	82·0	82·5	80·2	+0·8	74·3	77·5	77·3
	XIV.—Mysore.																				
29	Bangalore	3,021	26·905	26·809	·096	26·866	+·022	29·706	83·0	65·2	17·8	87·5	61·8	25·7	75·4	79·8	72·2	+0·4	64·0	67·8	68·6
	XV.—Madras.																				
31	Pudukkottai	318	29·537	29·402	·135	29·469		29·712	98·4	77·3	21·1	104·4	72·9	31·5	89·0	94·3	87·9			75·7	77·7
	Madras	22	29·785	29·668	·117	29·736	—·010	29·688	87·6	79·9	17·7	102·4	75·5	26·9	89·6	92·1	87·6	+3·1	73·9	76·2	78·0
	Hill stations excluding Kashmir and Baluchistan.																				
	Sarain																				
	Kalapagh		20·107	20·071	·036	20·086		20·048	55·9	46·5	9·4	63·0	42·7	20·3	52·4	54·2	50·7			49·5	51·7
	Mukteswar	7,592	22·758	22·703	·055	22·729		22·686	69·9	55·0	14·9	76·5	52·6	23·9	63·4	65·8	62·0		52·9	60·6	62·7
	Katmandu	4,388	25·497	25·420	·077	25·457	+·020†	25·411	83·3	68·1	15·2	88·6	65·1	23·5	77·2	78·7	75·2	+0·7†	66·1	71·0	71·[illegible]
	Ootacamund	*7,327*																			
	Kodaikanal	7,688	22·808	22·753	·055	22·781		22·716	64·2	51·4	12·8	69·7	47·0	22·7	60·6	59·1	57·8		48·1	55·2	55·1
	Dodabetta	8,539?	22·038	21·979	·059	22·010		21·947	56·3	46·7	9·6	61·8	43·0	18·8	53·7	53·1	51·0		43·4	51·4	51·[illegible]
	Extra India.																				
	Diego Garcia																				
	Seychelles	15	30·035	29·952	·083	29·996	+·023†	29·934	80·9	76·3	4·6	82·6	71·1	11·5	79·1	79·9	76·9	+0·3†	69·5	73·6	73·
	Mauritius	181				30·039	+·025	30·179									67·6	—0·3			

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 1,200 feet.

ations in India, etc., in August 1913.

R TENSION IN INCHES OF MERCURY.				HUMIDITY.					CLOUD.				WIND DIRECTION.											WIND STEADINESS.		WIND VELOCITY.		RAINFALL.		STATION.	Number of sub-division.
													Total number of 10 hrs. and 16 hrs. winds from																		
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.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Mean wind direction.	Normal mean wind direction of month.	Average percentage.	Normal percentage.	Mean velocity in miles per diem.	Normal.	Total rainfall for the month.	Heaviest rainfall during the month.		
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
																														III.—Bengal.	
·940	·941	·927	—·040	91	81	73	85	− 3	8·3	8·3	8·3	−0·4	3	1	2	9	11	12	17	4	3	S 1° E	S 2° E	43	56	* 93	82	13·40	2·39	Calcutta.	5
																														V.—United Provinces of Agra and Oudh.	
·837	·853	·854	—·092	86	66	60	74	−10	8·3	8·0	8·1	0	4	1	6	7	2	2	3	25	12	N 70° W	N 6° E	39	5	88	115	8·38	4·21	Allahabad.	9
																														VI.—Punjab.	
·858	·863	·879	−·005	84	64	55	69	− 2	2·8	3·2	3·0	−1·0	7	2	3	3	9	4		22	12	N 83° W	S 78° E	31	24	48	49	8·70	3·37	Lahore.	11
																														IX.—Rajputana	
·732	·703	·732	—·084	81	59	47	64	−14	5·8	6·8	6·3	−1·3	1	3	4	3	1	2	12	26	10	N 87° W	N 69° W	56	42	* 102	82	0·08	0·08	Jaipur.	18
																														X.—Bombay.	
·875	·863	·854	—·031	84	81	78	82	− 5	7·5	7·8	7·7	−0·7			1				18	41	2	S 79° W	S 81° W	89	79	* 205	270	3·72	1·01	Bombay.	25
																														XIV.—Mysore.	
·591	·566	·584	−·029	94	68	57	75	− 4	7·9	7·7	7·8			1					10	41	10	N 89° W	S 81° W	89	88	177	145	1·48	0·36	Bangalore.	29
																														XV.—Madras.	
·711	·729				52	45			4·6	7·5	6·1		3	2				7	18	15	17	S 82° W		64		239		1·92	0·39	Pudukkottai.	31
·722	·769	·748	−·088	74	53	53	61	−12	5·6	6·7	6·1	−0·8		1		8	5	1	4	25	18	N 78° W	S 36° W	48	56	* 132	121	0·72	0·21	Madras.
																														Hill stations excluding Kashmir and Baluchistan.	
																														Sarain.	
·331	·364				84	86			6·9	8·1	7·5		4	14	2	2	6	7	1	4	22	N 33° W		37		163		9·38	3·98	Kalabagh.	
·500	·538	·472		88	86	85	87		7·7	8·1	7·9		12	1		4	5		1	37	2	S 87° W		52		135		6·82	1·13	Mukteswar.	
·686	·687	·664	—·018	90	74	71	79	− 3	7·5	8·3	7·9	+0·8	60			2						E	N 66° W	3	2	* 9	13	8·17	1·09	Katmandu.	
																														Ootacamund.	
·380	·409	·364		80	72	82	78		5·4	7·8	6·6			4	3	2	3	6		22	22	N 67° W		55		275		4·94	0·87	Kodaikanal.	
·356	·368	·319		78	87	91	85		8·2	9·5	8·9		7	2			1		5	32	15	N 80° W		75		267		3·65	0·72	Dodabetta.	
																														Extra India.	
																														Diego Garcia.	
·760	·752	·724	—·023	70	76	74	74	− 4	5·7	5·4	5·5	−0·9†					51	10	1			S 37° E	S 35° E	95	89	* 230	231	2·35	0·38	Seychelles.	
		·512	+·009				76	+ 1			5·1	0										S 71° E	S 66° E			* 217	185	2·17		Mauritius.	

* Uncorrected for scale error.

† Departure from old normal.

Table B.—Abstract of observations taken at 8 hrs. at 219 stations in India, etc., in August, 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.

	Pressure departure from normal.	Temperature of air.								Wind.		Hygrometry.				Cloud.		Rainfall.		
		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.	Absolute range during month.	Departure of velocity from normal.	Departure of steadiness from normal.	Mean humidity.	Departure from normal.	Mean vapour tension.	Departure from normal.	Mean cloud amount.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.
Burma	—·025	86·1	—0·5	75·3	+0·2	80·7	—0·1	10·8	17·7	—0·5	+ 2	90	0	·870	—·001	8·2	+0·2	17·55	16·46	+1·09
Assam	—·035	88·5	—0·3	77·1	—0·6	82·8	—0·5	11·5	20·2	+0·1	+ 5	90	— 1	·936	—·007	7·5	—1·2	14·03	16·93	—2·90
Bengal	—·029	87·5	0	77·9	—0·2	82·7	—0·1	9·6	18·1	—1·2	—21	89	— 2	·944	—·021	7·4	—0·7	14·51	14·59	—0·08
Bihar and Orissa	—·020	88·3	—0·3	77·2	—0·5	82·8	—0·4	11·1	21·2	+1·1	— 1	86	— 1	·901	—·030	7·0	—0·7	13·67	12·23	+1·44
United Provinces of Agra and Oudh.	—·004	93·6	+3·6	78·7	+0·4	86·1	+2·0	15·0	25·4	+0·1	+ 8	76	—10	·862	—·070	5·1	—1·9	5·87	11·52	—5·65
Punjab	0	96·3	—0·2	78·9	—0·2	87·6	—0·2	17·4	31·3	0	— 9	73	— 3	·831	—·040	3·6	—0·7	5·95	5·57	+0·38
North-West Frontier Province	—·019	98·2	—1·9	78·5	—0·9	88·4	—1·5	19·7	37·6	—0·4	— 8	73	0	·827	—·043	2·7	—0·1	3·92	3·29	+0·63
Sind	+·003	93·8	—0·9	79·3	+0·2	86·5	—0·3	14·5	24·0	—0·6	—10	76	0	·854	—·025	4·5	—0·5	5·17	1·77	+3·40
Rajputana	+·021	93·4	+0·8	77·1	—0·8	85·3	0	16·3	28·0	+1·2	+ 4	71	— 4	·738	—·079	4·9	—1·7	3·06	6·24	—3·18
Bombay	+·018	85·6	—0·2	73·5	—0·6	79·5	—0·4	12·1	20·1	—0·3	— 5	82	— 2	·785	—·019	7·2	—0·4	5·99	9·80	—3·81
Central India	+·022	85·9	+0·5	73·1	—1·0	79·5	—0·3	12·9	21·5	—0·5	+ 6	84	— 3	·773	—·051	6·9	—0·9	9·36	11·28	—1·92
Central Provinces	+·024	84·9	0	72·2	—1·0	78·6	—0·5	12·8	22·0	+0·7	+ 8	82	— 6	·734	—·062	6·8	—1·2	9·96	10·24	—0·28
Hyderabad	+·012	87·9	+1·4	71·8	+0·3	79·8	+0·9	16·2	25·4	—0·7	— 9	76	— 5	·679	—·049	6·2	—1·9	2·79	7·10	—4·31
Mysore	+·019	81·8	+0·3	65·7	—0·4	73·8	—0·1	16·1	23·5	+0·9	+ 7	82	— 1	·609	—·021	7·6	—0·8	3·50	5·42	—1·92
Madras	+·011	91·9	+1·7	76·8	+0·9	84·3	+1·3	15·1	24·1	+0·7	— 2	75	— 4	·793	—·024	5·9	—0·9	3·92	6·25	—2·33

Table

(2) Abstract of observations taken at 8 hrs. at 219

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
	I.—Burma.																						
2	Victoria Point	147	29·750		29·829	29·839	26th	29·684	13th	·155	79·2	83·6		74·3		79·0		9·3	86·1	16th & 19th.	70·7	25th	15·4
	Mergui	65	29·806	−·011	29·801	29·907	26th	29·726	13th	·181	78·0	84·6	+0·4	72·0	−0·6	78·3	−0·1	12·6	89·0	17th	69·8	9 days	19·2
	Tavoy	19	29·846	−·018	29·798	29·951	30th	29·751	3rd	·200	76·9	82·4	−0·4	74·8	+1·0	78·6	+0·3	7·6	88·0	18th	72·3	21st, 22nd & 31st.	15·7
	Moulmein	94	29·736	−·002	29·768	29·836	26th	29·606	3rd	·230	76·4	82·3	−0·7	74·6	+0·5	78·5	−0·1	7·7	87·5	19th	72·8	21st & 22nd.	14·7
	Rangoon	18	29·762	−·023	29·738	29·895	26th	29·646	4th	·249	78·8	84·9	−0·2	75·5	−0·2	80·2	−0·2	9·4	88·5	17th	72·5	30th	16·0
	Bassein	27?	29·744	−·030	29·708	29·850	26th	29·615	4th	·235	79·1	84·8	+0·3	76·5	+0·8	80·7	+0·5	8·3	89·2	10th & 19th	74·9	6 days	14·3
	Diamond Island	41	29·740	−·032	29·716	29·838	26th	29·620	4th	·218	80·8	85·4	+1·1	77·0	+1·4	81·2	+1·3	8·4	87·4	4 days	73·5	26th	13·9
	Toungoo	164	29·611	−·024	29·718	29·727	26th	29·441	4th	·286	78·5	86·5	−0·2	75·3	+0·3	80·9	+0·1	11·2	91·0	29th	73·6	22nd	17·4
	Kyaukpyu	18	29·716		29·674	29·841	26th	29·547	4th	·294	78·3	86·0		75·9		80·9		10·1	88·0	4 days	73·4	31st	14·6
	Akyab	20	29·695	−·037	29·656	29·822	26th & 31st.	29·512	5th	·310	79·0	84·9	+0·5	76·2	−1·1	80·5	−0·3	8·7	88·9	27th	73·5	15th & 21st.	15·4
3	Thayetmyo	121	29·606	−·046	29·669	29·730	26th	29·420	4th	·310	80·3	88·1	−0·8	76·8	+0·7	82·4	−0·1	11·3	90·1	6 days	71·4	31st	15·7
	Minbu	*165*	29·548	−·034	29·655	29·692	26th	29·376	4th	·316	80·2	89·7	−0·9	76·9	−0·1	83·3	−0·5	12·8	94·1	17th	75·2	6th	18·9
	Yamethin	657	29·089	−·019	29·695	29·220	23rd	28·919	4th	·301	77·9	83·5	−1·3	74·6	+0·3	81·5	−0·5	13·9	93·7	25th	72·8	29th	20·9
	Mandalay	250	29·480	−·015	29·677	29·621	26th & 31st.	29·301	4th	·320	80·5	92·1	−1·2	76·6	−1·0	84·3	−1·1	15·5	95·9	1st & 28th	73·7	18th	22·2
	Monywa	*280*	29·430		29·659	29·597	23rd	29·272	4th	·325	80·7	91·4		78·5		85·0		12·9	95·6	17th	76·4	22nd	19·2
	Lashio	*2,820*	26·953	−·036	26·899	27·105	20th	26·800	4th	·305	72·6	80·6	−2·5	70·1	+1·0	75·4	−0·7	10·5	86·1	25th, 26th & 28th.	67·5	30th	18·6
	Bhamo	*381*	29·327	−·018	29·662	29·490	30th	29·135	4th	·355	77·9	87·4	−0·7	75·3	−0·1	81·4	−0·4	12·1	94·9	5th	73·0	17th	21·9
	Myitkyina	458	29·214		29·631	29·380	30th	29·030	4th	·350	77·3	87·4		75·3		81·3		12·1	97·2	5th	72·6	30th	24·6
	II.—Assam.																						
6	Dibrugarh	353	29·309		29·622	29·471	26th	29·174	4th	·297	78·8	87·2		76·0		81·6		11·2	93·9	5th	71·1	6th	22·8
	Sibsagar	333									80·1	89·1	−0·1	76·5e	−1·2e	82·7e	−0·7	12·6	95·1	5th	71·5	7th	23·6
	Tezpur	252	29·429		29·638	29·599	26th	29·284	6th	·315	80·4	89·5		77·5		83·5		12·0	93·1	3rd & 4th	75·3	8th	17·8
	Gauhati	195	29·468		29·614	29·621	30th	29·288	7th	·332	81·9	90·6		77·9		84·3		12·7	96·3	5th	75·6	5th & 6th	20·7
	Dhubri	115	29·532	−·031	29·601	29·718	26th	29·361	7th	·357	81·0	86·1	+0·1	77·7	−0·6	81·9	−0·3	8·4	91·0	5th	75·1	6th & 16th.	15·9
	Silchar	104	29·580	−·038	29·636	29·732	31st	29·409	4th	·323	79·3	88·5	−1·0	76·7	−0·1	82·6	−0·5	11·8	94·3	23rd	73·8	16th	20·5
	III.—Bengal.																						
5	Cox's Bazar	36	29·641		29·623	29·783	26th	29·455	5th	·328	80·0	85·3		75·7		80·5		9·6	90·2	29th	72·7	17th	17·5
	Chittagong	87	29·588	−·039	29·621	29·751	26th	29·405	5th	·346	79·5	85·7	+0·2	76·2	+0·1	81·0	+0·1	9·5	90·0	28th & 30th.	73·0	20th & 21st.	17·0
	Noakhali	43	29·624		29·614	29·799	26th	29·409	6th	·390	80·9	85·6		77·8		81·7		7·8	88·8	5th	74·4	16th	14·4
	Barisal	12	29·630	−·022	29·589	29·804	26th	29·404	6th	·400	81·7	87·0	+0·2	77·9	−0·3	82·5	−0·1	9·1	90·3	4th & 27th	75·1	18th	15·2
	Narayanganj	26	29·614	−·033	29·589	29·795	26th	29·350	6th	·405	82·4	87·7	+0·2	78·4	−0·6	83·0	−0·2	9·3	93·5	5th	74·3	18th	19·2

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

e Mean of 29 days.

3.

ations in India, etc., in August, 1913.

Wind direction. Number of winds from N. (26)	N.E. (27)	E. (28)	S.E. (29)	S. (30)	S. W. (31)	W. (32)	N. W. (33)	Resultant direction. (34)	Normal direction. (35)	Wind velocity. Mean velocity, miles per hour. (36)	Normal. (37)	Departure from normal. (38)	Wind steadiness. Actual percentage. (39)	Departure from normal. (40)	Hygrometry, 8 hrs. Mean humidity at 8 hrs. (41)	Departure from normal. (42)	Mean vapour tension at 8 hrs., in inches of mercury. (43)	Departure from normal, in inches of mercury. (44)	Cloud. Mean cloud amount at 8 hrs. (45)	Departure from normal. (46)	Rainfall. Number of rainy days. (47)	Normal number of rainy days. (48)	Departure from normal. (49)	Rainfall of month. (50)	Normal rainfall of month. (51)	Departure from normal. (52)	Total rainfall from 1st May to 31st August, 1913. (53)	Normal rainfall for period, 1st May to 31st August. (54)	Departure from normal of period, 1st May to 31st August, 1913. (55)	Heaviest rainfall during month. (56)	Station. (57)
																															I.—Burma.
																														3·22	Victoria Point.
1			1	5	12	11	1	S 58° W		6·7*			72		85		·815		7·1		24			18·73			107·34				
			1				1	*a*	N 87° W	2·2	1·2	+1·0	*a*		91	−1	·866	+·072	6·5	−1·1	25	25·5	−0·5	36·37	29·43	+ 6·94	116·42	107·91	+ 8·51	4·57	Mergui.
9			1	3	8	2	1	S 42° W	S 62° W	1·1*	1·2	−0·1	40	+26	92	−1	·813	−·022	8·7	+0·3	26	27·5	−1·5	63·63	46·14	+17·49	181·53	162·37	+19·16	8·05	Tavoy.
6																															
8		3	4	11	3	2		S 7° E	S 4° W	4·3	2·8	+1·5	53	− 2	96	+ 2	·874	+·004	9·6	+1·6	28	26·9	+1·1	46·16	42·86	+ 3·30	158·39	144·78	+13·61	5·56	Moulmein
6		1	2	12	7	3		S 17° W	S 57° W	2·5	3·2	−0·6	62	+ 1	91	− 3	·901	−·010	9·5	+0·3	27	23·6	+3·4	17·52	19·67	− 2·15	80·13	70·40	+ 9·73	2·34	Rangoon.
3			1	2	2	3		S 42° W	S 15° W	4·4	3·1	+1·3	20	−37	93	− 1	·927	+·012	8·3	−0·3	24	21·8	−0·8	23·68	22·93	+ 0·75	73·05	80·96	− 7·91	5·19	Bassein.
3				2	22	3	1	S 49° W	S 46° W	7·7	6·5	+1·2	82	+ 7	89	+ 3	·943	+·053	8·9	+0·3	25	21·5	+3·5	29·50	23·21	+ 6·29	93·75	83·68	+10·07	4·11	Diamond Island.
1		1	13	13	3			S 18° E	S 34° E	2·4	3·1	−0·7	86	+11	92	0	·891	−·010	9·8	+0·5	24	24·2	−0·2	27·40	18·86	+ 8·54	58·18	57·79	+ 0·39	2·89	Toungoo.
																														2·92	Kyaukpyu.
	1	2	4	9	10	4	1	S 22° W		4·9			62		91		·892		9·0		27			35·67			134·18				
8	1	7	6	3	3	2	1	S 40° E	S 39° E	2·7	2·5	+0·2	33	−21	95	+ 1	·932	−·017	7·8	−1·2	27	26·4	+0·6	43·11	43·21	− 0·10	164·21	152·66	+11·55	6·80	Akyab.
3				28				S	S 10° E	3·3*	4·7	−1·4	90	+ 8	85	0	·876	+·003	9·1	+0·4	22	13·0	+9·0	10·75	6·25	+ 4·50	22·18	24·10	− 1·92	2·37	Thayetmyo.
			31					S 45° E	S 39° E	2·7	8·9	−6·2	100	+ 8	84	− 1	·857	−·015	6·6	+0·4	14	9·9	+4·1	3·96	5·12	− 1·16	13·35	19·86	− 6·51	0·90	Minbu.
			14	15	2			S 18° E	S 28° E	4·9	6·1	−1·2	92	+.4	85	− 2	·808	−·037	6·2	+1·2	11	10·2	+0·8	4·99	5·69	− 0·70	14·94	20·98	− 6·04	1·03	Yamethin.
1			14	12	4			S 16° E	S 1° W	5·4	5·8	−0·4	85	+ 6	81	+ 2	·841	−·017	6·4	−1·2	9	7·5	+1·5	8·48	4·11	+ 4·37	22·29	18·40	+ 3·89	3·16	Mandalay.
2		3	22	4				S 43° E		3·6			86		86		·890		9·0		10	5·1	+4·9	7·52	3·21	+ 4·31	23·83	15·48	+ 8·35	2·50	Monywa.
23				3	5			S 28° W		2·1*			27		90	− 1	·713	−·025	9·5	+0·5	23	19·3	+3·7	12·26	13·47	− 1·21	38·52	42·87	− 4·35	1·92	Lashio.
18	1	1		2	7	1	1	S 52° W	N 89° W	0·6	1·2	−0·6	27	+15	94	+ 2	·894	−·004	9·1	+0·9	24	19·0	+5·0	19·51	15·44	+ 4·07	60·72	52·93	+ 7·79	3·83	Bhamo.
26		1	3	1				S 45° E		1·3			13		92		·862		7·3		20	18·9	+1·1	15·94	15·27	+ 0·67	53·83	53·95	− 0·12	3·35	Myitkyina.
																															II.—Assam.
29	1			1				S 67° E		0·9			2		95		·938		6·8		19	20·0	−1·0	16·39	19·65	− 3·26	67·39	68·07	− 0·68	1·64	Dibrugarh.
16	3 1		1	7	2		1	S 9° W	S 1° W	2·4	2·0	+0·4	17	+ 1	92	− 2	·943	−·021	7·6	−1·5	16	18·5	−2·5	11·04	16·95	− 5·91	55·54	59·56	− 4·02	2·00	Sibsagar.
18	2	5	1	1	4			S 54° E		1·2			17		90		·933		8·1		18	17·4	+0·6	11·91	15·33	− 3·42	42·50	47·60	− 5·10	1·86	Tezpur.
28								*a*		1·3			*a*		85		·923		6·6		11	13·3	−2·3	7·87	9·45	− 1·58	39·78	43·76	− 3·98	2·46	Gauhati.
4	5	9	3	5	3	2		S 62° E	S 69° E	3·8	3·2	+0·6	12	+11	90	− 1	·956	+·015	8·5	0	15	14·3	+0·7	12·65	13·07	− 0·42	60·45	68·70	− 8·25	2·23	Dhubri.
29	1		1					E	S 87° E	1·0	1·8	−0·8	5	+ 3	91	0	·921	−·016	7·1	−2·2	19	22·3	−3·3	16·41	20·37	− 3·96	90·81	76·98	+13·83	3·64	Silchar.
																															III.—Bengal.
																														5·92	Cox's Bazar.
	2	4	15	7	3			S 35° E		4·9*			72		92		·938		6·2		20			25·51			112·55				
	1	7	9		2	1		S 59° E	S 41° E	1·9	4·6	−2·7	43	−29	89	0	·900	−·012	7·5	−0·7	19	16·2	+2·8	21·75	17·97	+ 3·78	91·21	69·01	+22·20	3·26	Chittagong.
11			22	2	4			S 33° E		4·0			78		90		·948		6·0		20	23·7	−3·7	15·32	27·39	−12·07	86·66	84·30	+ 2·36	2·56	Noakhali.
21		1	2	3	1			S 18° E	S 17° E	0·3	2·6	−2·3	20	−16	89	0	·949	−·016	7·6	−1·0	19	20·0	−1·0	15·20	13·55	+ 1·65	88·91	53·05	+35·86	3·84	Barisal.
7		3	9	8	2	1	1	S 23° E	S 32° E	3·2	5·2	−2·0	53	−15	86	− 4	·949	−·023	8·5	−0·2	17	17·3	−0·3	13·38	12·17	+ 1·21	52·51	46·19	+ 6·32	2·45	Narayanganj.

* Uncorrected for scale error.

a Indeterminate.

Table

(2) Abstract of observations taken at 8 hrs. at 21

Number of subdivision.	Station.	Elevation of barometer cistern above sea-level, in feet.	Pressure, 8 hrs., in inches. 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.	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	16	17	18	19	20	21	22	23	24
	III.—Bengal—*concld.*																						
	Mymensingh	63	29·590	−·028	29·605	29·766	26th	29·390	7th	·376	80·9	87·9	+1·0	78·4	+0·3	83·2	+0·7	9·5	95·1	5th	76·1	9th & 21st	19·0
	Bogra	75	29·559	−·032	29·585	29·748	26th	29·368	7th	·380	81·4	88·3	0	78·4	0	83·3	0	9·9	95·7	5th	73·2	18th	22·5
	Dinajpur	123	29·495	−·033	29·572	29·686	26th	29·258	7th	·428	81·4	88·5	−0·3	78·0	−0·6	83·2	−0·5	10·5	95·3	5th	74·0	17th	21·3
	Jalpaiguri	283	29·364	−·025	29·603	29·534	31st	29·181	7th	·353	80·9	88·9	+0·8*	77·2	+0·5	83·1	+0·7	11·7	95·9	5th	73·9	16th, 17th & 20th.	22·0
	Saugor Island	10	29·612	−·024	29·567	29·796	26th	29·438	6th	·358	81·9	86·2	−1·0	78·7	−1·1	82·4	−1·1	7·5	91·2	29th	75·7	6th & 7th.	15·5
	Midnapore	149	29·460		29·557	29·642	26th	29·291	7th	·351	81·6	89·1		77·5		83·3		11·6	93·8	17th	73·7	14th	20·1
	Calcutta	21	29·599	−·025	29·567	29·789	26th	29·414	7th	·375	80·9	88·1	+1·0	78·5	+0·2	83·3	+0·6	9·6	92·1	4th	76·4	7th	15·7
	Jessore	33	29·605	−·020	29·585	29·805	26th	29·382	7th	·423	81·4	87·9	−0·7	78·0	−0·7	82·9	−0·7	9·9	91·5	4th & 5th	74·7	18th & 19th.	16·8
	Burdwan	99	29·430‖	−·081‖	29·477‖	29·641	31st	29·301	7th	·340	81·5	88·4	−0·8	78·8	−0·3	83·6	−0·5	9·6	93·4	5th	75·8	16th	17·6
	Berhampore	67	29·548	−·038	29·564	29·745	26th	29·232	7th	·513	81·6	87·9	−0·7	79·1	+0·4	83·5	−0·1	8·8	94·6	5th	76·2	15th & 16th.	18·4
	IV.—Bihar and Orissa.																						
6	Balasore	50	29·567	−·016	29·563	29·749	26th	29·405	5th	·344	81·3	88·5	+0·6	77·3	−0·7	82·9	−0·1	11·2	92·9	17th	72·6	1st	20·3
	Hukitala (False Point).	29	29·604	−·022	29·574	29·764	26th	29·425	30th	·339													
	Cuttack	80	29·563	−·006	29·585	29·715	26th	29·389	1st	·326	81·5	88·7	−0·4	77·9	−0·4	83·3	−0·4	10·8	93·5	12th & 13th.	74·2	1st	19·3
	Puri	24	29·611		29·576	29·774	26th	29·445	1st	·329	81·8	88·5		78·5		83·5		10·0	95·1	13th	74·1	29th	21·0
	Angul	455	29·177		29·577	29·341	26th	28·963	1st	·378	80·1	87·2		76·5		81·9		10·7	92·1	13th & 19th.	72·5	15th	19·6
	Sambalpur	486	29·168	−·002	29·603	29·324	26th	28·878	1st	·446	79·0	86·5	−0·7	76·3	−0·9	81·4	−0·8	10·2	93·9	19th	72·7	30th	20·3
7	Chaibasa	*733*	28·875	−·012	29·556	29·043	26th	28·678	1st	·365	79·2	88·3	−0·6	76·0	−1·2	82·1	−0·9	12·3	94·1	20th & 21st.	69·8	8th	24·2
	Ranchi	2,128	27·515	−·004	29·551	27·676	26th	27·313	1st	·363	75·0	83·2	−0·1	72·6	0	77·9	−0·1	10·6	88·7	18th	69·9	9th	18·8
	Purulia	*816*	28·794		29·557	28·937	26th	28·628	1st	·309	76·8	90·0		75·7		83·1		14·3	97·5	27th	73·1	8th & 9th	24·4
	Daltonganj	*730*	28·8941		29·573†	29·057	26th	28·678	1st	·379	79·9*	88·8*		76·2*		82·5*		12·6	94·1	20th & 21st.	72·5	9th	21·6
8	Purnea	124	29·485	−·041	29·570	29·658	26th	29·267	7th	·391	81·1	88·7	−0·5	78·3	−0·1	83·5	−0·3	10·4	96·1	5th	73·8	15th	22·3
	Monghyr	155	29·446		29·552	29·609	26th	29·250	7th	·359	82·0	89·0		78·1		83·6		10·9	95·2	5th	73·9	31st	21·7
	Darbhanga	165	29·444	−·030	29·564	29·606	26th	29·272	7th	·334	81·8	88·6	+0·1	78·1	−1·2	83·4	−0·5	10·5	95·1	5th	75·7	4 days	19·4
	Pusa	188	29·414		29·556	29·577	26th	29·248	7th	·329	82·1	90·0		77·6		83·8		12·4	97·1	5th	73·7	11th	23·4
	Patna	183	29·420	−·030	29·557	29·579	26th	29·255	7th	·324	83·0	88·3	−0·8	79·3	−0·2	83·8	−0·5	9·0	93·5	5th	73·7	11th	19·8
	Buxar	239	29·376		29·570	29·537	26th	29·233	7th	·304	81·7	90·0		78·8		84·4		11·2	96·5	5th	73·1	12th	23·
	Gaya	372	29·228	−·024	29·548	29·398	26th	29·068	1st	·330	83·1	89·4	−0·6	78·1	−0·3	83·8	−0·5	11·3	91·9	5th, 21st & 27th.	73·2	12th	21·7
	Naya Dumka	489	29·115	−·030	29·554	29·305	26th	28·861	8th	·444	80·6	87·4	−0·3	77·1	0	82·3	−0·1	10·3	94·4	5th	75·0	1st, 8th & 9th.	19·4
	V.—United Provinces of Agra and Oudh.																						
9	Gorakhpur	257	29·341	−·020	29·554	29·504	31st	29·190	5th	·314	82·5	91·1	+1·3	76·2	−2·6	83·6	−0·7	14·9	95·1	19th	71·0	12th	24·1
	Benares	267	29·338	−·008	29·557	29·493	26th	29·212	1st	·281	82·5	91·1	+1·6	73·7	−0·1	84·9	+0·7	12·4	95·7	20th	73·8	9th	21·9
	Allahabad	309	29·308	+·005	29·570	29·474	26th	29·177	1st & 2nd.	·297	82·8	92·5	+2·7	78·4	−0·2	85·5	+1·3	14·1	98·6	5th	73·5	6th	25·1
	Cawnpore	416	29·202	+·011	29·571	29·372	31st	29·080	7th	·292	82·9	94·4	+4·5	79·4	+1·1	86·9	+2·8	15·0	100·1	20th	74·5	6th & 7th	25·6

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

* Mean of 30 days.
† „ „ 25 „
‖ „ „ 10 „

B—*continued.*

tations in India, etc., in August, 1913—continued.

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 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 from 1st May to 31st August, 1913.	Normal rainfall for period, 1st May to 31st Aug.	Departure from normal of period, 1st May to 31st August, 1913.	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
																																III.—Bengal —*concld.*
17			5	4	3	1		1	S 48° E	S 56° E	1·3	2·6	−1·3	27	−41	91	0	·968	+·013	8·6	+0·6	17	19·5	−2·5	14·51	15·24	− 0·73	64·28	63·69	+ 0·59	2·90	Mymensingh.
14		1	8	3	4	1			S 59° E	S 55° E	0·6	2·6	−2·0	40	−31	88	−1	·953	−·015	6·6	−0·6	16	16·4	−0·4	16·86	12·26	+ 4·60	74·36	46·66	+27·70	3·92	Bogra
13			12	2	1		2	1	S 81° E	S 68° E	1·4	2·8	−1·4	37	−31	90	0	·906	+·003	7·3	−0·7	17	15·6	+1·4	9·32	13·33	− 4·01	54·46	49·42	+ 5·04	2·14	Dinajpur.
29				2					S 45° E	N 78° E	1·1			3	−54	89	−3	·951	+·005	6·5	−1·8	17	20·0	−3·0	15·12	25·74	−10·62	85·07	92·40	− 7·33	3·25	Jalpaiguri.
2		5	3	3	5	10	3		S 7° W	S 10° W	7·6	9·8	−2·2	37	−10	87	−2	·940	−·050	7·7	−1·4	12	16·8	−4·8	11·15	14·49	− 3·33	82·86	44·82	+38·04	4·51	Saugor Island.
3	2	1	1	6	9	7		2	S 2° W		4·3			46		90		·965		6·4		16	16·6	−0·6	11·19	12·56	− 1·37	53·86	40·13	+13·73	3·28	Midnapore.
3		1	6	6	4	8	1	2	S 14° E	S 18° E	4·0*	3·4	+0·6	40	− 7	89	0	·931	−·033	8·5	0	18	18·3	−0·3	13·40	12·16	+ 1·24	67·62	42·22	+25·40	2·39	Calcutta.
18			3	6	3	1			S 39° E	S 25° E	3·0	2·7	+0·3	33	−17	87	−4	·936	−·062	7·5	−0·9	17	17·1	−0·1	12·06	10·88	+ 1·18	65·27	43·64	+21·63	1·17	Jessore.
5	1	1	4	4	4	5	4	3	S 18° W	S 32° E	2·2	2·5	−0·3	23	− 9	87	0	·930	−·013	7·9	−0·8	15	16·0	−1·0	10·89	11·53	− 0·64	51·80	40·39	+11·41	3·06	Burdwan.
4	1		6	3	10	6		1	S 12° E	S 79° E	2·8	2·9	−0·1	49	+ 9	87	−5	·942	−·045	8·4	−0·5	14	16·5	−2·5	12·32	11·74	+ 0·58	46·72	37·11	+ 9·61	2·47	Berhampore.
																																IV.—Bihar and Orissa.
7	3	2	1		4	14			S 38° W	S 41° W	3·4	3·1	+0·3	37	− 3	88	−1	·930	−·044	6·6	−1·7	11	14·4	−3·4	16·40	11·22	+ 5·18	69·69	36·73	+32·96	5·75	Balasore.
1	3	1			4	10	6	6	S 79° W	S 57° W	8·9	7·2	+1·7	55	− 5					6·3	−2·0	11	15·5	−4·5	12·60	13·13	− 0·53	62·39	37·70	+24·69	5·12	Hukitala (false point).
6		2		1		8	12	2	S 78° W	S 65° W	2·5*	2·0	+0·5	56	+ 9	89	−3	·863	−·033	7·5	−0·1	13	16·1	−3·1	7·69	14·06	− 6·37	41·45	39·53	+ 1·92	1·16	Cuttack.
2	3	1			1	14	4	6	S 80° W		7·0			55		86		·929		8·0		9	13·1	−4·1	12·92	12·09	+ 0·83	43·13	31·35	+11·78	3·17	Puri.
3	1	1		2		1	8	15	N 60° W		6·0			65		81		·835		7·4		13	14·2	−1·2	8·04	12·67	− 4·63	33·63	32·20	+ 1·43	1·32	Angul.
	1	3	1	1		13	11	1	S 71° W	S 30° W	4·7	3·2	+1·5	59	− 1	89	+3	·877	−·009	9·1	+1·0	15	19·1	−4·1	16·74	18·60	− 1·86	41·61	51·64	−10·03	4·76	Sambalpur.
6		3		1		18	2	1	S 50° W	S 54° W	2·9	1·3	+1·6	58	+23	84	−1	·843	−·060	7·7	0	14	16·9	−2·9	12·91	11·81	+ 1·10	45·25	35·85	+ 9·40	1·89	Chaibasa.
1		1	4	1	1	4	14	7	N 86° W	S 56° W	7·0	5·3	+1·7	46	+32	87	−2	·753	−·046	8·0	0	15	18·9	−3·9	15·00	12·88	+ 2·12	52·38	39·53	+12·85	4·07	Ranchi.
0		4	1	1		2	9	4	N 72° W		2·6			29		89		·867		4·3		14	17·7	−3·7	13·27	11·25	+ 2·02	42·38	33·69	+ 8·69	5·25	Purulia.
2		3	4			5	6		S 79° W		3·4†			17		88†		·895†		5·7†		13	16·8	−3·8	13·55	12·27	+ 1·28	39·32	29·71	+ 9·61	2·85	Daltonganj.
3	2	5	12	3	3	1	1	1	N 88° E	S 89° E	1·9	2·2	−0·3	49	− 5	92	+2	·964	−·016	6·8	−0·8	12	16·3	−4·3	10·50	13·60	− 3·10	43·43	43·28	+ 0·15	3·83	Purnea.
3	1	6	9	4		2	4	2	N 77° E		3·0			27		88		·961		8·2		13			9·78			38·88			2·38	Monghyr.
2		4	1	1		1	1	2	N 75° E	S 74° E	6·4	3·2	+3·2	33	−31	88	−1	·959	−·013	7·2	+0·4	14	14·5	−0·5	26·43	13·38	+ 7·05	50·13	36·32	+13·81	10·41	Darbhanga.
1	3	4	9	5			3	3	N 68° E		2·6			36		89		·972		6·8		11			18·57			53·50			8·66	Pusa.
7	3		9	2	2	1	5	2	N 85° E	S 78° E	4·9	3·2	+1·7	11	−43	85	−2	·954	−·015	7·8	−1·1	13	13·8	−0·8	20·32	12·88	+ 7·44	52·51	34·62	+17·89	5·09	Patna.
1			9	1	3	7	7	2	S 34° W		3·9			23		84		·892		7·2		10	14·0	−4·0	13·73	11·90	+ 1·83	32·40	29·06	+ 3·34	3·70	Buxar.
2	6	1	1	1	2	12	3		N 61° W	S 52° E	1·7	2·7	−1·0	37	+18	82	−4	·904	−·027	5·8	−2·2	11	15·0	−4·0	26·84	12·86	+13·96	55·40	33·96	+21·44	7·94	Gaya.
1	4	2	3		1	5	4		N 6° E		1·9†			12		89	−2	·924		5·2		16	18·1	−2·1	14·67	12·95	+ 1·72	47·78	39·32	+ 8·46	3·72	Naya Dumka.
																																V.—United Provinces of Agra and Oudh.
	4	8	1	1	1	7	1		N 71° E	S 88° E	2·6	1·6	+1·0	10	−26	85	−3	·943	−·012	2·2	−3·7	10	14·9	−4·9	15·06	13·66	+1·20	36·05	36·63	− 0·58	7·30	Gorakhpur.
1		2	5	2	7	6	6		S 61° W	S 54° E	3·0	3·0	0	37	+26	85	−4	·942	−·021	6·5	−1·5	11	14·7	−3·7	10·05	11·51	−1·46	32·35	28·21	+ 4·14	5·02	Benares.
	2	3	2	1	4	16	3		S 83° W	N 79° W	4·1	4·8	−0·7	49	+45	74	−13	·831	−·123	8·0	−0·7	10	14·0	−4·0	8·38	12·03	−3·65	20·45	28·97	− 8·52	4·21	Allahabad.
	1	1	3	1	5	11	1		S 65° W	S 2° W	2·4	2·9	−0·5	40	+33	77	−10	·855	−·099	3·3	−4·2	7	13·3	−6·3	7·50	11·81	−4·31	17·68	26·22	− 8·54	2·65	Cawnpore.

*Uncorrected for scale error. † Mean of 30 days.

Table

(2) *Abstract of observations taken at 8 hrs. at* 219

Number of sub-division.	Station.	Elevation of barometer above sea-level, in feet.	Pressure, 8 hrs., in inches. 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.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean 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
	V.—United Provinces of Agra and Oudh—*concld.*																						
	Lucknow	368	29·240	−·002	29·563	29·417	31st	29·129	7th	·288	84·2	94·3	+4·0	79·3	+0·7	86·8	+2·3	15·0	100·5	5th	73·1	6th	27·4
	Bahraich	401	29·180	−·027	29·536	29·369	31st	29·046	7th	·323	83·6	93·6	+3·7	79·3	+1·3	86·4	+2·5	14·3	98·6	18th	74·0	6th	24·6
10	Jhansi	824	28·822	+·016	29·595	28·961	26th	28·686	2nd	·275	82·3	91·5	+5·6	77·7	+0·6	86·1	+3·1	16·8	101·6	22nd	74·5	28th	27·1
	Agra	556	29·058	+·001	29·565	29·230	31st	28·913	7th	·317	86·2	97·5	+6·4	80·7	+1·9	89·1	+4·1	16·8	104·0	16th & 21st.	77·0	27th	27·0
	Mainpuri	516	29·075‡	−·007‡	29·543‡	29·267	31st	28·947	7th	·320	83·5	95·4	+4·6	79·8†	+1·3†	87·0†	+2·9	15·6	103·3	20th & 22nd.	76·1	2nd	27·2
	Bareilly	568	29·025	−·011	29·547	29·228	31st	28·893	7th	·335	84·3	91·7	+4·8	78·8	+0·8	86·7	+2·8	15·9	100·3	20th	74·0	31st	26·3
	Roorkee	899	28·705	−·006	29·569	28·895	31st	28·566	7th	·329	82·1	91·0	+0·3	77·1	+0·1	84·1	+0·2	13·9	97·0	20th	73·8	14th	23·2
	VI.—Punjab.																						
11	Delhi	718	28·892	+·008	29·564	29·039	31st	28·755	7th	·284	84·7	96·6	+4·8	80·7	+1·4	88·7	+3·1	15·9	102·0	20th & 22nd.	75·8	7th	26·2
	Sirsa	662	28·933	+·011	29·550	29·085	31st	28·771	7th	·314	85·5	98·1	−0·3	79·3	−0·9	88·7	−0·6	18·8	103·3	4 days	74·0	11th	29·3
	Patiala	*818*	28·767		29·543	28·929	26th	28·638	7th	·291	81·9	93·1		78·2		85·7		14·9	100·4	21st	71·5	7th	28·9
	Ambala	892	28·704	+·010	29·555	28·854	31st	28·586	7th	·268	81·6	93·4	+0·6	76·7	−1·4	85·1	−0·4	16·7	99·5	19th, 20th & 22nd.	72·9	7th, 8th & 27th.	26·6
	Ludhiana	812	28·779	+·002	29·549	28·924	31st	28·646	7th	·278	83·1	95·8	+0·8	79·2	+0·2	87·5	+0·5	16·6	103·3	22nd	72·8	7th	30·5
	Lahore	702	28·864	−·009	29·526	29·027	31st	28·702	7th	·325	84·0	97·0	−1·2	79·3	+1·5	88·1	+0·1	17·7	104·4	3rd	71·2	8th	33·2
	Sialkot	830	28·736	−·017	29·528	28·895	31st	28·582	7th	·313	82·7	93·7	−1·0	77·6	−0·1	85·6	−0·5	16·1	101·0	23rd	71·5	28th	29·5
	Rawalpindi	1,674	27·921	−·010	29·527	28·074	31st	27·723	7th	·351	82·2	94·2	+0·3	74·9	−0·3	84·5	0	19·3	102·9	23rd	67·1	11th	35·8
12	Khushab	612	28·659	+·016?	29·536	29·168	26th	28·735	7th	·433	84·5	97·7	−2·5	80·8	0	89·3	−1·3	16·9	107·3	3rd	71·9	8th	35·4
	Lyallpur		28·949		29·021§	29·128	31st	28·750	7th	·378	83·5	96·8		78·3		87·5		18·5	105·6	3rd & 4th	72·5	12th & 31st.	33·1
	Montgomery	558	29·003	+·002	29·521	29·170	31st	28·841	7th	·329	86·3	100·1	−1·9	80·9	−0·7	90·5	−1·3	19·2	106·4	4th	74·0	30th	32·4
	Multan	420	29·136	+·004	29·515	29·313	31st	28·904	7th	·409	85·6	98·7	−2·0	80·5	−1·6	89·6	−1·8	18·2	105·8	26th	71·5	26th	34·3
	VII.—North-West Frontier Province.																						
14	Peshawar	1,113	28·459	−·017	29·526	28·625	31st	28·247	7th	·378	83·8	99·3	+0·1	77·2	−0·6	88·3	−0·3	22·1	112·5	3rd	69·1	12th	43·4
	D. I. Khan	590	28·957	−·021	29·512	29·179	26th	28·730	7th	·449	83·5	97·1	−4·0	79·8	−1·2	88·5	−2·6	17·3	104·9	3rd	73·1	9th & 27th.	31·8
	VIII.—Sind.																						
16	Jacobabad	186	29·367	+·001	29·509	29·525	31st	29·118	7th	·407	85·1	103·1	−0·7	80·6	−0·8	91·8	−0·7	22·5	108·1	2nd, 5th & 25th.	75·3	27th	32·8
	Hyderabad	96	29·493	0	29·541	29·636	31st	29·296	7th	·340	81·5*	92·4*	−3·3*	78·4*	−0·4*	85·4*	−1·9	14·0	96·5	12th	71·8	27th	24·7
	Karachi	13	29·633	+·008	29·597	29·780	31st	29·466	7th	·314	80·9	85·8	+1·3	78·9	+1·9	82·4	+1·6	6·9	88·5	10th	74·0	27th	14·5
	IX.—Rajputana.																						
17	Bikaner	*771*	28·837	+·015	29·562	28·982	31st	28·644	7th	·338	83·7	99·1	+2·0	80·0	−0·6	89·5	+0·7	19·1	105·0	4th	74·0	28th	31·7
	Jodhpur	780	28·869	+·019	29·604	29·004	31st	28·703	7th	·301	79·8	92·0	−2·7	76·1	−2·3	84·1	−2·5	15·9	97·8	20th	70·3	28th	27·5
18	Jaipur	1,431	28·231	+·016	29·599	28·360	31st	28·092	7th	·268	81·4	94·5	+2·9	75·7	−0·4	85·1	+1·3	18·8	102·2	21st	71·1	28th	31·3
	Ajmer	1,811	28·069	+·024	29·617	28·201	31st	27·920	7th	·281	77·8	90·0	+1·8	76·4	+1·3	83·2	+1·5	13·6	95·6	22nd	72·2	28th	22·4
	Kotah	832	28·830	+·021	29·611	28·967	27th	28·702	2nd	·265	81·9	91·5	−0·2	77·3	−2·2	84·4	−1·2	14·2	99·6	22nd	72·6	28th	27·0

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

* Mean of 21 days. † Mean of 22 days. ‡ Mean of 30 days. § Mean of 7 days and not reduced to sea-level.

—continued.

ations in India, etc., in August, 1913—continued.

Wind direction. Number of winds from 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 from 1st May to 31st August, 1913.	Normal rainfall for period, 1st May to 31st August.	Departure from normal of period, 1st May to 31st August, 1913.	Heaviest rainfall during month.	Station.
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
																															V.—United Provinces of Agra and Oudh—*concld.*
		4	1	1	2	10	1	S 72° W	S 88° E	1·3	2·1	−0·8	23	− 3	74	−14	·865	−·087	4·9	−3·0	7	13·2	−6·2	8·73	11·27	−2·54	24·76	28·65	− 3·89	4·03	Lucknow.
1	1	6	6	2	3	6	4	S	S 70° E	2·0	2·0	0	12	−35	77	−11	·873	−·082	5·0	−1·0	2	13·6	−11·6	3·55	14·29	−10·74	23·14	32·91	− 9·77	1·83	Banraich.
	3	2			14	11		S 65° W	S 85° W	4·9	2·8	+2·1	62	+26	67	−15	·739	−·131	7·9	+1·2	7	13·9	−6·9	3·78	11·63	−7·85	9·88	28·76	−18·88	1·06	Jhansi.
	1	2	1	1	11	8	2	S 61° W	S 40° W	4·2	3·6	+0·6	49	+20	63	−19	·778	−·135	4·7	−1·9	5	10·2	−5·2	1·52	8·26	−6·74	8·14	20·82	−12·68	0·51	Agra.
	1	4	2			17	3	N 79° W	S 13° W	2·1	1·2	+0·9	46	+40	77	− 8	·881	−·052	2·8	−4·0	4	10·3	−6·8	3·78	9·05	−5·27	14·58	19·48	− 4·90	1·50	Mainpuri.
		2	1	1	1	5		S 41° W	S 71° E	0·8	1·9	−1·1	10	−12	79	− 9	·918	−·009	5·9	−1·0	5	12·8	−7·8	2·23	13·20	−10·97	15·57	33·34	−17·77	0·68	Bareilly.
			5		1		6	W	S 36° E	1·7	1·8	−0·1	5	−27	79	− 7	·857	−·021	5·1	−1·6	5	12·4	−7·4	5·68	12·63	−6·95	20·96	30·92	− 9·96	2·11	Roorkee.
																															VI.—Punjab.
	1	2	1	1	3	17	5	N 89° W	S 27° W	3·3	2·8	+0·5	62	+44	63	− 9	·809	−·052	3·7	−3·0	3	9·8	−6·8	2·78	7·88	−5·10	13·70	19·67	− 5·97	2·30	Delhi.
1	1	4		8	14	2		S 24° W	S 42° W				59	+19	66	− 5	·794	−·061	2·4	−2·3	4	5·4	−1·4	2·09	3·62	−1·53	16·25	9·79	+ 6·46	0·82	Sirsa.
	3	1	5	5	3	1	10	3	S 76° W	5·1			13		77		·827		3·2		11	9·0	+2·0	5·49	7·38	−1·89	14·50	16·64	− 2·14	2·15	Patiala.
7	2	1	5	2	2	2	5	5	N 63° W	S 51° E	2·5	0·9	+1·7	10	−14	73	−10	·832	−·109	4·9	−0·6	11	9·1	+1·9	9·10	7·90	+1·20	33·33	20·06	+13·27	3·85	Ambala.
29			2						S 45° E	S 29° E	0·3	1·3	−1·0	3	−36	73	− 6	·817	−·075	3·3	−3·0	5	8·2	−3·2	5·22	7·61	−2·39	17·49	19·11	− 1·62	2·69	Ludhiana.
8		2	2	6	3	1	6	3	S 15° W	S 41° E	1·9	2·0	−0·1	13	−27	74	− 1	·876	−·014	3·6	−0·2	6	5·9	+0·1	8·70	5·30	+3·40	21·11	13·30	+ 7·81	3·37	Lahore.
12		1	10	1	1	3	1	2	S 76° E	N 83° E	1·6	1·8	−0·2	23	−24	81	+ 2	·889	−·003	3·2	−1·0	6	9·4	−3·4	4·74	9·38	−4·64	16·33	20·91	− 4·58	0·98	Sialkot.
18	3	2	1	2	2	1	1	1	N 52° E	S 82° E	1·3	1·2	+0·1	3	−26	79	− 1	·870	+·031	3·9	−0·3	6	9·3	−3·3	12·61	8·62	+3·79	22·14	20·40	+ 1·74	5·05	Rawalpindi.
8		5	6	2	5	2	2	1	S 62° E	N 68° E	4·1	4·5	−0·4	27	−30	72	+ 4	·840	−·019	4·3	+1·5	6	3·2	+2·8	6·63	3·03	+3·60	13·52	8·99	+ 4·53	2·37	Khushab.
2		2	3	6	3	13	1	1	S 9° W		3·1*			46		72		·816		4·7		5		6·41			14·59			2·69	Lyallpur.
3			3	2	7	13	2	1	S 24° W	S 12° W	6·7	6·0	+0·7	62	+ 8	59	− 4	·728	−·103	3·2	+0·6	4	3·8	+0·2	2·01	3·24	−1·23	5·74	6·86	− 1·12	0·88	Montgomery.
5	5	1		2	9	9			S 21° W	S 14° E	1·3	2·1	−0·8	40	− 3	72	+ 4	·875	+·007	3·1	+1·0	4	2·3	+1·7	4·58	1·74	+2·84	10·61	4·66	+ 5·95	2·50	Multan.
																															VII.—North-West Frontier Province.
23	3	1					4		N 18° W	N 10° W	2·0	2·6	−0·6	23	−20	68	− 3	·780	−·043	3·2	−0·1	2	2·3	−0·3	1·26	2·08	− 0·82	2·28	4·75	− 2·47	0·64	Peshawar.
9	2	7	4	6	2		1		N 81° E	N 72° E	1·3	1·5	−0·2	40	+ 4	77	+ 3	·873	−·046?	2·1	−0·1	4	2·4	+1·6	2·67	2·10	+ 0·57	4·20	5·46	− 1·26	0·75	D. I. Khan.
																															VIII.—Sind.
10		2	3	13	3				S 52° E	S 41° E	3·6	3·1	+0·5	56	−14	71	0	·873	−·012	1·8	−0·3	3	1·6	+1·4	1·47	1·01	+0·46	2·77	2·32	+ 0·45	0·67	Jacobabad.
	1				13	16		1	S 28° W	S 42° W	8·0	11·9	−3·9	86	0	77†	+ 7	·826†	+·052?	4·4	−0·7	2	2·4	−0·4	2·70	2·14	+0·56	16·00	5·76	+10·24	2·40	Hyderabad.
				6			25		S 78° W	S 76° W	13·7	12·0	+1·7	69	−17	81	− 6	·863	−·039	7·4	−0·4	2	1·9	+0·1	1·40	1·59	−0·19	12·01	5·75	+ 6·26	1·25	Karachi.
																															IX.—Rajputana.
1	1	1	1	6	12	8	1		S 47° W	S 36° W	6·6	5·6	+1·0	66	−14	64	− 5	·730	−·100	2·9	−1·6	1	5·0	−4·0	0·20	3·57	−3·37	4·16	8·94	− 4·78	0·20	Bikaner.
		1		6	19	5			S 42° W		5·3			82		73	0	·733		6·6		3	5·7	−2·7	1·89	4·31	−2·42	5·21	10·00	− 4·79	1·30	Jodhpur.
1	1		1		3	18	7		N 81° W	N 88° W	4·2*	3·4	+0·8	79	+22	68	−11	·725	−·088	5·1	−1·8	0	10·7	−10·7	0·06	8·31	−8·25	12·57	18·76	− 6·19	0·08	Jaipur.
1		1		1	20	8			S 54° W	S 85° W	6·8	5·0	+1·8	86	+ 4	79	− 3	·750	−·049	4·6	−1·7	7	8·6	−1·8	2·07	7·05	−4·98	11·44	16·81	− 5·37	0·65	Ajmer.
					14	12	5		S 76° W		4·4			86		70	− 2	·753		5·2		5	10·2	−5·2	8·99	8·20	+0·79	17·09	21·48	− 4·39	3·93	Kotah.

† Mean of 21 days.

* Uncorrected for scale error.

Tab

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

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.	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.	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.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	X.—Bombay.																					
19	Deesa	466	29·234	+·003	29·655	29·356	31st	29·075	25th	·281	78·1	86·5	−2·4	74·3	−1·3	80·4	−1·9	12·2	92·3	23rd	68·9	28th
	Bhuj	395	29·342	+·012	29·627	29·479	31st	29·200	7th	·279	79·1	86·4	−2·3	75·4	−0·8	80·9	−1·5	11·0	91·0	19th, 20th & 22nd.	68·0	27th
	Jamnagar	61	29·644		29·651	29·768	31st	29·510	7th	·258	81·0	87·6		75·8		81·7		11·8	91·4	10th	72·2	27th
	Dwarka	37?	29·683	+·013	29·666	29·802	31st	29·549	7th	·253	80·6	85·1	+0·6	78·7*	+0·6*	81·9*	+0·6	6·4	87·8	14th	74·2	27th
	Rajkot	429	29·288	+·014	29·666	29·411	31st	29·174	7th	·237	79·2	87·6	−1·3	72·3	−2·2	80·0	−1·7	15·3	92·1	17th & 18th.	68·8	12th & 14th
	Veraval	*18*	29·734	+·010	29·695	29·843	30th	29·638	7th	·205	79·8	82·5	−0·2	78·2	+0·5	80·4	+0·1	4·3	89·1	11th	75·8	25th
	Bhavnagar Para	55	29·689	−·022?	29·690	29·808	30th	29·576	7th	·232	80·5	89·8	−3·0	75·2	−1·6	82·5	−2·5	14·6	96·0	17th	72·8	30th
	Surat	39	29·725	+·026	29·707	29·840	30th	29·628	7th	·212	80·0	86·4	−0·6	76·3	−0·2	81·3	−0·4	10·1	89·4	19th & 31st	73·6	25th
	Ahmadabad	163	29·558	+·015	29·670	29·672	30th	29·430	7th	·242	78·9	87·9	−2·2	75·6	−1·5	81·7	−1·9	12·3	91·6	14th, 15th & 16th.	72·7	26th
25	Bombay	37	29·774	+·017	29·751	29·869	26th	29·685	2nd	·184	80·2	84·8	+0·8	77·8	+0·3	81·3	+0·8	7·0	87·1	31st	74·9	21st
	Ratnagiri	110	29·736	+·027	29·785	29·834	28th	29·667	2nd	·167	79·7	84·6	+0·9	75·9	+0·7	80·3	+0·8	8·7	85·8	11th, 12th & 18th.	72·9	21st
	Marmagao	*60*	29·798	+·002	29·793	29·901	26th	29·729	14th	·172	79·5	84·1	+0·7	75·6	−0·2	79·8	+0·3	8·5	86·0	1st	72·7	21st, 22nd & 24th.
	Karwar	44	29·843	+·024	29·822	29·950	26th	29·760	14th	·190	78·4	83·3	+0·8	75·3	+0·7	79·3	+0·7	8·0	85·7	12th	71·0	21st
26	Malegaon	1,430	28·342	+·030	29·717	28·445	30th	28·243	7th	·202	76·5	87·6	+1·0	70·2	−1·3	78·9	−0·1	17·4	92·9	14th	67·1	15th, 27th & 28th.
	Ahmadnagar	2,154	27·653	+·017	29·723	27·744	26th	27·563	1st	·181	73·3	84·6	−0·2	65·6	−3·4	75·1	−1·8	19·0	90·6	15th	60·5	29th
	Poona	1,846	27·962	+·019	29·743	28·057	26th	27·885	2nd	·172	73·8	82·1	+0·2	68·6	−0·9	75·4	−0·3	13·5	86·0	31st	65·8	4 days.
	Sholapur	1,590	28·216	+·016	29·741	28·321	26th	28·122	1st	·199	75·8	90·7	+1·9	71·1	+0·5	80·9	+1·2	19·6	94·8	31st	65·6	29th
	Bijapur	*1,948*	27·874	+·016	29·746	27·982	27th	27·787	1st	·195	74·4	88·1	+2·0	69·5	−0·4	78·8	+0·8	18·6	93·2	31st	65·8	29th
	Belgaum	2,562	27·318	+·029	29·796	27·435	27th	27·245	1st	·190	69·6	75·9	−0·2	65·2	−1·0	70·5	−0·6	10·7	84·3	18th	62·5	15th & 16th.
	XI.—Central India.																					
20	Neemuch	1,626	28·077	+·021	29·648	28·181	30th	27·935	25th	·246	74·2	83·7	−1·3	70·5	−2·0	77·1	−1·7	13·2	88·9	21st & 22nd	65·5	28th
	Indore	1,823	27·910	+·033	29·675	28·023	27th	27·762	2nd	·261	73·4	81·7	−1·2	69·6	−1·7	75·7	−1·5	12·1	88·1	21st & 22nd	67·1	3rd, 5th & 25th.
21	Nowgong	754	28·904	+·031?	29·610	29·060	26th	28·744	2nd	·316	80·7	90·6	+2·9	76·8	+0·1	83·8	+1·5	14·0	96·3	22nd	74·3	25th & 26th.
	Sutna	1,041	28·593	+·012	29·585	28·736	26th	28·413	2nd	·323	78·8	87·6	+1·7	75·5	−0·4	81·5	+0·7	12·1	92·3	21st	72·7	18th
	XII.—Central Provinces.																					
22	Buldana	2,132	27·643		29·701	27·743	27th	27·532	2nd	·211	73·0	81·8		68·7		75·3		13·1	86·8	21st	65·7	25th & 27th.
	Akola	925	28·822	+·028	29·697	28·937	27th	28·712	24th	·225	77·4	87·4	+0·2	72·8	−0·5	80·1	−0·1	14·6	94·2	21st	69·5	27th
	Amraoti	1,215	28·524	+·035	29·689	28·653	26th	28·389	2nd	·264	75·9	85·4	−0·7	72·0	−0·6	78·7	−0·7	13·4	92·8	19th	68·3	24th
23	Khandwa	1,044	28·691	+·032	29·690	28·804	27th	28·565	24th	·239	76·0	84·4	−1·1	72·3	−1·8	78·3	−1·5	12·1	90·7	21st	69·1	3rd
	Hoshangabad	1,006	28·708	+·030	29·667	28·841	27th	28·528	2nd	·313	76·4	84·9	−0·1	72·4	−1·4	78·6	−0·7	12·5	90·6	19th	69·4	3rd & 4th
	Saugor	1,807	27·873	+·016	29·615	28·007	26th	27·692	2nd	·315	74·7	85·2	+1·6	71·0	−1·8	78·1	−0·1	14·2	91·8	22nd	68·6	18th & 29th.
	Jubbulpore	1,327	28·346	+·024	29·618	28·490	26th	28·115	2nd	·375	76·5	85·9	+1·2	73·4	−0·5	79·7	+0·3	12·5	92·8	21st	71·3	3rd
	Seoni	2,033	27·679	+·027	29·639	27·819	26th	27·477	2nd	·342	74·6	83·0	−0·1	69·9	−1·7	76·4	−0·9	13·1	87·9	17th	67·0	29th
	Nagpur	1,017	28·689	+·025	29·655	28·828	26th	28·522	2nd	·306	77·4	86·4	−0·6	73·7	−0·9	80·0	−0·7	12·7	91·6	19th	70·8	2nd & 3rd
24	Pendra	2,122?	27·633		29·594	27·770	26th	27·381	1st	·389	76·3	83·5		72·3		77·9		11·2	88·3	20th	70·2	3rd

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

* Mean of 30 days.

—continued.

ations in India, etc., in August, 1913—continued.

Wind direction. Number of winds from 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 from 1st May to 31st August, 1913.	Normal rainfall for period, 1st May to 31st August.	Departure from normal of period, 1st May to 31st August, 1913.	Heaviest rainfall during month.	Station.
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
																															X.—Bombay.
				5	17	8	1	S 52° W	S 71° W	8·3	8·8	−0·5	86	+11	87	+ 3	·831	−·009	8·9	+0·8	10	9·5	+0·5	11·27	8·01	+ 3·26	33·56	19·73	+13·83	7·02	Deesa.
				1	12	14	4	S 75° W	S 76° W	8·4	11·5	−3·1	85	− 4	80	− 2	·782	−·055	8·7	+1·4	2	4·2	−2·2	9·27	2·95	+ 6·32	32·63	11·54	+21·09	5·02	Bhuj.
				2	21	8		S 54° W		14·7			82		77		·810		3·5		4	7·5	−3·5	2·48	7·01	− 4·53	20·93	16·82	+ 4·11	1·27	Jamnagar.
				1	14	15	1	S 68° W		13·1			89		82	− 4	·850		7·4		3	4·9	−1·9	2·04	3·56	− 1·52	15·74	12·65	+ 3·09	1·15	Dwarka.
				4	25	2		S 43° W	S 77° W	10·5	9·1	+1·4	92	+ 2	82	− 2	·810	−·028	8·7	+1·2	10	7·7	+2·3	4·29	5·91	− 1·62	25·29	21·94	+ 4·35	1·43	Rajkot.
					17	3	1	S 66° W	S 77° W	13·0†	8·6	+4·4	92	+10	85	− 3	·858	−·022	8·6	+0·4	2	6·0	−4·0	0·76	4·08	− 3·32	24·36	15·31	+ 9·05	0·26	Veraval.
					22	7		S 56° W	S 48° W	4·4	8·6	−4·2	88	− 2	82	+ 1	·849	−·031	7·7	+0·6	10	8·4	+1·6	3·26	5·96	− 2·70	31·95	16·08	+15·87	0·84	Bhavnagar Para.
			1	6	4	7	1	S 47° W	S 66° W	6·0	7·2	−1·2	76	− 4	85	+ 1	·884	−·005	8·5	+0·9	10	12·5	−2·5	5·44	7·67	− 2·23	33·65	33·25	+ 0·40	2·25	Surat.
			7	4	16	1	1	S 23° W	S 63° W	4·3	3·6	+0·7	69	− 3	84	+ 1	837	−·022	6·7	−1·6	8	10·8	−2·8	3·82	8·57	− 4·75	28·37	25·23	+ 3·14	1·51	Ahmadabad.
				1	10	19	1	S 74° W	S 77° W	8·5*	11·2	−2·7	92	+ 9	83	− 3	·855	−·026	8·5	−0·4	15	19·2	−4·2	3·72	11·19	−10·47	62·36	58·55	+ 4·31	1·01	Bombay.
1	3	3	1	7	9	7		S 79° W	N 74° W	7·7 ‡	6·9	+0·8	43	−25	84	− 4	·845	−·030	8·0	0	19	23·6	−4·6	7·76	20·02	−12·26	65·35	84·70	−19·65	1·00	Ratnagiri.
3	1	1		5	15	1		S 81° W	N 55° W	7·8*	8·2	−0·4	49	−·8	90	0	·908	+·010	7·7	+0·7	19	22·0	−3·0	8·89	15·67	− 6·78	79·44	79·32	+ 0·12	1·50	Marmagao.
			1	7	2	1	1	S 16° W	N 81° W	2·9	5·1	−0·2	27	−26	88	0	·852	+·018	6·5	−0·8	21	23·7	−2·7	10·91	22·15	−11·24	85·84	102·46	−16·62	2·04	Karwar.
				2	22	6	1	S 53° W	S 78° W	9·7	5·3	+0·4	92	+ 6	75	− 2	·581	−·039	5·6	−1·7	5	5·9	−0·9	1·46	3·40	− 1·94	11·70	13·66	− 1·96	0·44	Malegaon.
					9	12	10	N 88° W	S 85° W	6·7	13·5	−6·8	82	+ 7	77	− 6	·633	+·001	4·8	−2·4	5	5·4	−0·4	1·70	2·78	− 1·08	18·33	11·89	+ 6·49	0·79	Ahmadnagar.
					3	25	5	N 87° W	S 85° W	11·3	10·8	+0·5	96	+ 6	83	0	·682	−·011	5·0	−3·4	7	8·9	−1·9	2·36	3·76	− 1·40	25·13	16·88	+ 6·25	0·49	Poona.
3					7	9	12	N 69° W	S 83° W	13·0	9·3	+3·7	72	−12	73	− 2	·650	−·020	6·2	−1·5	3	8·3	−5·3	1·00	5·46	− 4·46	12·80	15·47	− 2·67	0·52	Sholapur.
1				3	9	12	6	S 80° W	S 82° W	10·9	7·8	+3·1	76	− 9	75	− 7	·637	−·058	6·8	−0·7	2	5·3	−3·3	0·41	2·73	− 2·32	12·87	9·26	+ 3·61	0·16	Bijapur.
					7	15		S 76° W	S 83° W				66	−25	92	0	·669	+·001	8·9	+0·2	16	17·0	−1·0	9·95	9·23	+ 0·72	32·89	36·03	− 3·14	1·40	Belgaum.
																															XI.—Central India.
					10	21		S 76° W	S 75° W	8·6	8·6	+0·6	96	+12	88	+ 3	·731	−·045	7·0	+0·2	7	10·0	−3·0	7·36	9·02	− 1·66	24·99	22·26	+ 2·73	2·83	Neemuch.
					1	4	16	N 57° W	S 85° W	2·5	4·2	−1·7	62	−20	85	− 3	·711	−·055	8·9	0	9	10·8	−1·8	11·16	7·67	+ 3·49	36·76	23·62	+13·14	3·25	Indore.
2	1	1		1	2	21	1	N 87° W	S 89° W	3·0	2·3	+0·7	69	+18	78	− 9	·814	−·068	5·9	−2·1	7	13·6	−6·6	6·60	13·26	− 6·66	18·18	33·71	−15·53	1·75	Nowgong.
3		3		1	5	17		S 85° W	S 89° W	4·1	5·6	−1·5	55	+15	85	− 2	835	−·036	5·9	−1·5	7	14·8	−7·8	3·91	12·26	− 8·35	24·58	32·39	− 7·81	0·87	Satna.
																															XII.—Central Provinces.
				1	2	16	12	N 77° W		6·4	6·3	+0·1	87		81		·659		4·9		8	12·3	−4·3	3·53	7·41	− 3·88	21·97	23·38	− 1·41	0·83	Buldana.
					3	19	9	N 82° W	N 78° W	6·2	6·3	−0·1	89	+ 3	75	− 8	·700	−·068	7·3	−0·5	9	10·1	−1·1	5·12	7·03	− 1·91	21·28	22·55	− 1·27	1·38	Akola.
					1	16	14	N 71° W	N 89° W	7·2	5·7	+1·5	92	+ 6	85	− 4	·752	−·030	6·3	−1·6	10	10·2	−0·2	6·39	6·97	− 0·58	30·68	23·55	+ 7·13	2·08	Amraoti.
					5	18	3	S 87° W	N 85° W	6·2	6·4	−0·2	79	−14	82	− 3	·732	−·036	6·2	−1·5	10	10·3	−0·3	8·37	6·65	+ 1·71	34·60	21·10	+13·50	2·29	Khandwa.
				1	15	4	11	S 80° W	S 53° W	3·7	2·8	+0·9	72	− 7	85	− 6	·770	−·066	7·8	−0·5	10	15·5	−5·5	13·82	14·63	− 0·81	35·02	36·80	− 1·78	4·93	Hoshangabad.
1	2	1			1	20	6	N 75° W	S 87° W	8·0	3·9	+4·1	79	+14	84	− 6	·713	−·086	7·8	+0·2	10	15·5	−5·5	6·57	13·37	− 6·80	20·51	35·32	−14·81	2·00	Saugor.
1					1	12	4	S 79° W	S 77° W	2·2	3·1	−0·9	76	+ 8	85	− 7	·700	−·079	7·5	−0·8	14	17·5	−3·5	11·92	16·54	− 4·62	30·09	43·16	−13·07	3·80	Jubbulpore.
5	1			1	2	10	11	N 59° W	N 75° W	4·5	5·6	+0·9	65	+23	79	−11	·674	−·112	6·7	−1·8	10	16·8	−6·8	19·14	12·75	+ 6·39	42·32	38·18	+ 4·14	11·10	[illegible]
1					3	12	15	N 69° W	S 89° W	5·7	5·3	+0·4	86	+25	77	− 8	·722	−·088	7·5	−1·2	11	13·8	−2·8	16·24	11·76	+ 4·48	43·38	35·60	+ 7·78	7·25	Nagpur.
1	1		2	1	1	8	15	N 41° W		4·0			56		81		·720		5·7		11	18·5	−7·5	7·10	13·65	− 6·55	34·32	37·27	− 2·95	2·56	[illegible]

† Mean of 26 days.
‡ „ „ 30 „

* Uncorrected for scale error.

Tab

(2) *Abstract of observations taken at 8 hrs. at 21*

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.	Mean 8 hrs. pressure reduced and 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.	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.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	XII.—Central Provinces *—concld.*																					
	Raipur	970	28·703	+·014	29·620	28·851	26th	28·468	1st	·383	77·9	86·0	+0·1	75·0	+0·1	80·5	+0·1	11·0	93·7	19th & 20th.	72·6	4 days
	Chanda	*634*	29·079	+·007	29·659	29·199	26th	28·962	2nd	·237	78·6	87·5	—0·1	74·1	—0·9	80·8	—0·5	13·4	94·0	15th	71·0	1st
	Jagdalpur	1,813	27·903		29·641	28·043	26th	27·738	2nd	·305	75·6	82·8		70·8		76·8		12·0	89·2	15th, 19th & 20th.	67·1	24th
	XIII.—Hyderabad.																					
27	Aurangabad	1,905	27·858	+·007	29·725	28·010	27th	27·799	1st	·211	73·5	84·6	—0·5	68·2	—1·1	76·4	—0·8	16·4	90·4	21st	61·5	29th
	Nizamabad	1,243	28·520		29·713	28·635	26th	28·421	1st	·214	75·7	87·3	+1·2	72·9	+0·1	80·1	+0·7	14·4	92·9	15th & 18th.	69·2	21th
	Bidar	*2,165*									75·0	85·2		68·7		76·9		16·5	90·5	14th & 15th.	65·4	24th, 25th & 29th.
28	Gulbarga	1,503	28·287	+·001	29·725	28·403	27th	28·185	1st	·218	75·4	89·9	+1·6	71·7	+0·6	80·8	+1·1	18·2	95·6	15th	66·7	29th
	Raichur	*1,311*	28·512	+·026	29·759	28·628	26th	28·438	1st	·190	77·6	92·6	+4·1	73·0	+0·5	82·8	+2·3	19·6	96·5	14th & 27th.	68·6	29th
	Hyderabad (Deccan)	1,690	28·092	+·013	29·709	28·214	26th	28·010	1st	·204	76·2	87·8	+1·7	72·7	+1·6	80·3	+1·7	15·1	93·3	15th	69·2	24th
	Hanamkonda	877	28·873	+·011	29·690	29·004	26th	28·789	1st	·215	79·6	88·3	+0·3	75·1	—0·2	81·7	+0·1	13·2	93·0	15th, 18th & 19th.	71·0	24th
	XIV.—Mysore.																					
29	Chitaldrug	2,405	27·469	+·020	29·785	27·572	26th	27·403	1st & 14th	·169	71·7	83·2	+1·1	67·6	—0·4	75·4	+0·3	15·6	87·6	14th	66·1	16th
	Hassan	3,149	26·783	+·019	29·805	26·885	26th	26·704	14th	·181	68·7	78·5	+0·3	64·0	—0·5	71·3	—0·1	14·5	83·5	18th	61·6	26th
	Bangalore	3,021	26·904	+·021	29·797	27·015	26th	26·828	14th	·187	69·8	82·8	+1·0	65·2	—0·4	74·1	+0·3	17·6	87·3	5 days	61·8	24th
	Mysore	2,518	27·399	+·015	29·823	27·502	26th	27·319	14th	·183	71·4	82·7	—1·3	66·1	—0·4	74·4	—0·9	16·6	87·9	18th	63·0	24th
	XV.—Madras.																					
30	Mangalore	65	29·844	+·011	29·841	29·953	26th	29·743	14th	·210	78·2	84·4	+0·9	74·4	+1·3	79·4	+1·1	10·0	86·8	1st, 6th & 8th.	71·9	20th
	Calicut	27	29·889	+·009	29·845	29·987	26th	29·812	14th	·175	77·2	82·9	+0·1	75·1	+1·0	79·0	+0·5	7·8	85·8	5th	72·1	21st
	Cochin	9	29·823	+·015	29·860	30·004	26th	29·826	14th	·178	79·0	84·4	+0·7	75·1	+0·8	79·7	+0·7	9·3	87·7	18th	69·7	20th
	Trivandrum	198	29·726	+·020	29·855	29·812	26th	29·613	14th	·199	77·6	82·8	+0·5	75·1	+2·1	79·0	+1·3	7·7	87·0	10th	72·5	21st & 22nd.
31	Pamban	37	29·813	0	29·778	29·922	26th	29·699	14th	·223	81·8	90·0	+1·0	77·9	—0·7	83·9	+0·1	12·1	91·2	9th, 12th & 16th.	76·8	3rd & 19th
	Madura	447	29·418	+·027	29·795	29·523	26th	29·317	14th	·206	83·2	96·8	+0·2	76·9	+1·1	86·8	+0·7	19·9	101·5	10th	71·1	15th
	Pudukkottai	318	29·535		29·783	29·643	26th	29·453	13th & 14th.	·190	83·0	98·2		77·2		87·7		21·0	104·4	10th	72·9	15th
	Negapatam	31	29·808	+·002	29·768	29·911	26th	29·708	14th	·203	82·0	95·3	+1·6	77·1	—0·2	86·2	+0·7	18·2	103·2	9th	68·7	28th
	Trichinopoly	255	29·600	+·013	29·786	29·708	26th	29·505	14th	·203	83·5	98·4	+1·8	77·5	+0·8	87·9	+1·3	20·9	102·1	12th	74·3	21th
	Coimbatore	1,341	28·533	+·017	29·810	28·644	26th	28·360	13th	·284	76·4	88·4	—0·3	71·1	+0·5	79·7	+0·1	17·3	92·0	10th	68·3	8th
	Salem	940	28·958	+·024	29·831	29·063	26th	28·869	14th	·194	78·8	95·1	+2·9	73·8	+1·3	84·4	+2·1	21·3	101·0	12th	70·8	22nd & 24th.
	Cuddalore	37	29·800	+·016	29·767	29·920	26th	29·705	13th	·215	82·7	95·3	+1·6	77·4	+1·1	86·4	+1·3	17·9	101·8	8th	70·2	14th
	Vellore	707	29·114		29·754	29·240	26th	29·037	13th & 14th.	·203	80·9	95·1		77·0		86·1		18·1	101·7	12th	72·0	19th & 20th.
	Madras	22	29·787	—·003	29·740	29·898	26th	29·698	13th	·200	84·1	97·2	+3·4	79·8	+2·5	88·5	+2·9	17·4	102·5	4th	75·5	20th
32	Cuddapah	433	29·391	+·010	29·758	29·512	26th	29·322	1st	·190	83·5	96·8	+3·1	77·3	+0·5	87·1	+1·8	19·5	102·0	15th	70·8	21st

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

B—*continued.*

tations in India, etc., in August, 1913—continued.

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 from 1st May to 31st August 1913.	Normal rainfall for period, 1st May to 31st August.	Departure from normal of period, 1st May to 31st August 1913.	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
																																XII.—Central Provinces—*concld.*
					1	15	13	2	S 68° W	S 56° W	5·7	6·1	−0·4	89	+17	86	−3	·815	−·027	7·0	−1·7	11	15·5	−4·5	12·41	13·07	−0·66	33·66	37·33	−3·67	3·86	Raipur.
2						6	18	5	S 88° W	S 76° W	5·2	4·1	+1·1	86	+8	81	−1	·774	−·025	6·3	−2·1	9	15·3	−6·3	13·42	13·47	−0·05	40·97	38·48	+2·49	4·41	Chanda.
	1		1			7	15	7	N 88° W		3·4			79		86		·753		7·0		14			12·10			32·26			3·65	Jagdalpur.
																																XIII.—Hyderabad.
4						3	18	10	N 80° W		12·4			89		82	−1	·668		6·5		6	9·5	−3·5	2·13	5·35	−3·22	17·96	17·87	+0·09	0·58	Aurangabad.
1	1					9	15	3	S 80° W		4·5			76		78	−3	·692		5·5		13	14·5	−1·5	7·27	10·82	−3·55	34·26	26·26	+8·00	2·30	Nizamabad.
	1			1		12	7	9	S 85° W		5·6			68		77		·676		7·5		5	11·7	−6·7	2·11	7·33	−5·22	21·06	21·12	−0·06	0·55	Bidar.
	2					6	15	9	N 83° W	N 75° W	9·4	10·0	−0·6	82	+1	74	−6	·647	−·057	4·2	−3·4	6	9·1	−3·1	2·04	6·45	−4·41	16·84	18·98	−2·14	0·55	Gulbarga.
						10	12	7	W	S 81° W	9·7	9·5	+0·2	77	−4	70	−8	·662	−·051	6·2	−1·4	4	9·3	−5·3	1·57	5·74	−4·17	14·67	15·44	−0·77	0·74	Raichur.
10							21		W	N 83° W	4·5	6·1	−1·6	68	−25	76	−6	·678	−·038	6·7	−0·9	7	11·3	−4·3	2·89	6·80	−3·91	15·34	17·96	−2·62	0·80	Hyderabad (Deccan).
5						6	14	6	W		6·3			72		72	−3	·727		6·9		5	10·8	−5·8	4·49	6·94	−2·45	23·58	22·83	+0·75	1·80	Hanamkonda.
																																XIV.—Mysore.
	1					9	16	6	S 86° W	S 78° W	7·0	7·8	−0·8	89	+1	81	−1	·622	−·025	6·5	−2·4	4	7·3	−3·3	1·24	3·26	−2·02	9·50	12·84	−3·34	0·40	Chitaldrug.
						9	16	5	S 86° W	N 87° W	7·4	3·2	+4·2	84	−4	86	+3	·604	−·010	7·0	−1·7	8	9·4	−1·4	2·22	4·21	−1·99	18·23	18·73	−0·45	0·60	Hassan.
						7	19	5	S 87° W	S 78° W	7·5	6·1	+1·4	89	+21	82	−3	·594	−·022	9·0	+0·8	5	9·7	−4·7	1·48	5·49	−4·01	11·32	16·87	−5·55	0·36	Bangalore.
						10	21		S 76° W	S 72° W	8·1	9·1	−1·0	96	+8	80	−1	·614	−·028	7·9	0	6	6·7	−0·7	2·14	3·53	−1·39	12·66	14·01	−1·35	0·50	Mysore.
																																XV.—Madras.
5	2	4		4	1	1	1	8	5	N 39° W	N 72° W	4·3	1·8	+2·5	27	+2	86	−6	·840	−·015	7·2	−1·3	25	24·6	+0·4	12·68	22·79	−10·11	80·12	104·45	−24·33	1·11	Mangalore.
17	1	4		1		1	2	9	1	N 47° W	N 22° W	3·3	5·6	−2·3	10	−30	92	+1	·857	+·023	6·4	−0·9	14	18·4	−4·4	6·97	16·05	−9·08	74·15	89·23	−15·08	1·32	Calicut.
9		4		6		1	1	4	6	N 1° W	N 13° W	5·1*	4·2	+0·9	17	−30	84	−2	·832	−·009	5·6	−1·5	14	18·2	−4·2	6·38	13·09	−6·71	73·64	75·49	−1·85	1·87	Cochin.
	5						1	25	N 40° W	N 13° W	6·6*	6·6	0	99	+16	84	−2	·800	−·007	9·4	+2·0	2	9·3	−7·3	0·70	4·09	−3·39	28·47	32·89	−4·42	0·25	Trivandrum.
11		1			1	2	4	8	4	S 32° W	S 43° W	6·0	7·3	−1·3	40	−25	80	+4	·857		3·3		0	1·3	−1·3	0·10	0·92	−0·82	2·87	2·16	+0·71	0·05	Pamban.
1								15	15	N 67° W	N 41° W	6·6	2·3	+4·3	89	+10	59	−7	·664	−·070	7·2	+1·9	5	5·8	−0·8	2·64	4·13	−1·49	6·34	10·33	−3·99	1·50	Madura.
3	1						3	5	19	N 60° W		7·2			78		65		·728		5·0		5	9·6	−4·6	1·92	6·77	−4·85	7·11	14·17	−7·06	0·39	Pudukkottai.
							9	21	1	S 79° W	S 72° W	6·7†	4·5	+2·2	96	+13	77	+6	·834	+·038	5·0	−0·7	6	5·4	+0·6	5·59	3·68	+1·91	7·36	8·81	−1·45	2·20	Negapatam.
							6	17	8	N 87° W	S 85° W	7·3*	5·8	+1·5	89	+1	59	−8	·676	−·050	4·5	−2·4	3	5·5	−2·5	0·70	4·28	−3·58	9·08	10·27	−1·19	0·32	Trichinopoly.
3				1	8	17	2		S 33° W	S 36° W	8·5	4·7	+3·8	79	0	85	+1	·774	+·031	4·0	−1·8	0	3·2	−3·2	0·04	1·22	−1·18	4·44	6·63	−2·19	0·03	Coimbatore.
1					2	4	22	2	S 82° W	S 37° W	4·1	2·9	+1·2	86	+14	76	−3	·751	−·020	7·0	+0·6	6	11·0	−5·0	4·46	7·25	−2·79	14·58	19·15	−4·57	1·95	Salem.
4						19	7	1	S 59° W	S 73° W	5·1	1·7	+3·4	79	+7	78	−2	·879	−·001	5·4	−1·3	5	7·8	−2·8	5·27	4·84	+0·43	7·71	10·57	−2·86	3·24	Cuddalore.
2							20	9	N 76° W		4·4*			99		72		·765		3·5		6	8·3	−2·3	3·63	7·77	−4·14	6·66	18·49	−11·83	1·07	Vellore.
2					1	14	12	2	S 68° W	S 66° W	5·6*	5·0	+0·6	79	0	65	−10	·755	−·071	6·1	−1·2	2	8·2	−6·2	0·72	4·94	−4·22	6·10	12·01	−5·91	0·21	Madras.
1	1					2	19	8	N 79° W	N 82° W				86	+3	63	−10	·726	−·047	5·0	−2·8	4	8·5	−4·5	1·42	6·31	−4·89	6·94	14·25	−7·31	0·62	Cuddapah.

* Uncorrected for scale error.
† Mean of 11 days.

Table

(2) *Abstract of observations taken at 8 hrs. at 219*

Number of observations.	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 rain 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
	XV.—Madras— *concld.*																						
	Bellary	1,475	28·349	+·008	29·752	28·464	26th	28·280	1st	·184	78·6	93·6	+2·8	74·3	+0·7	84·0	+1·7	19·3	98·0	12th & 13th.	72·3	16th & 27th	25·7
	Kurnool	923	28·894	+·016	29·756	29·013	26th	28·821	1st	·192	79·1	92·8	+3·0	75·9	+2·2	84·4	+2·6	16·9	97·0	15th	71·6	1st & 25th	25·4
33	Nellore	66	29·719	+·007	29·719	29·845	26th	29·639	13th	·206	84·5	98·1	+2·5	79·6	+0·9	88·8	+1·7	18·5	103·5	14th	74·6	22nd	28·9
	Masulipatam	15	29·740	+·006	29·690	29·855	26th	29·676	1st	·189	83·1	94·3	+3·0	77·7	+0·1	86·0	+1·5	16·6	100·3	12th	73·2	14th	27·1
	Cocanada	26	29·705	+·012	29·668	29·832	26th	29·621	1st	·211	82·6	91·6	+1·9	78·8	+0·3	85·2	+1·1	12·8	97·2	13th	74·6	22nd, 23rd & 24th.	22·6
	Waltair (Vizagapatam).	*226*	29·468	—·002	29·633	29·600	26th	29·340	1st	·260	83·0	90·8		78·7		84·8		12·1	96·6	9th & 10th	74·9	27th	21·7
	Calingapatam	19	29·653		29·610	29·802	26th	29·502	1st	·300	82·3	88·8		80·2		84·5		8·6	94·3	6th	77·3	2nd, 11th & 31st.	17·0
	Gopalpur	52	29·600	+·002	29·592	29·747	26th	29·419	1st	·328	82·1	88·6	+1·2	79·0	+0·2	83·8	+0·7	9·6	95·7	10th	75·5	31st	20·2
	Bay Islands.																						
1	P. V. Fraser	8	29·633†		29·577†	29·820	26th	29·415	5th	·405	82·7												
	Port Blair	58	29·779	—·010	29·767	29·877	26th	29·707	13th	·170	80·9	85·4	+0·1	77·8	+0·6	81·6	+0·3	7·6	88·2	17th	74·0	25th & 29th.	14·2
	Slipper Island	90	29·678		29·702	29·769	26th	29·576	4th	·193	81·6	83·9		77·3		80·6		6·6	86·6	18th	74·1	24th & 25th.	12·5
	Kashmir.																						
13	Muzaffarabad	?	27·260			27·445	31st	27·090	7th	·355	75·0	90·3		64·0		77·1		26·3	98·5	3rd	57·1	9th	41·4
	Srinagar	5,204	24·707	0	24·678	24·888	26th	24·513	7th	·375	69·8	84·6	+0·7	62·8	—0·1	73·7	+0·3	21·8	95·2	3rd	53·6	14th	41·6
	Gulmarg	*8,569*	21·787	—·008	21·755	21·921	26th	21·608	7th	·313	60·7	67·5	—0·9	48·9	—1·8	58·2	—1·3	18·6	77·0	3rd	42·1	10th	34·9
	Dras	*10,059*	20·735	+·007	20·703	20·877	26th	20·595	8th	·282	58·0	72·9		45·3		59·1		27·6	86·0	2nd	35·7	13th & 14th.	50·3
	Leh	*11,503*	19·667	+·003	19·635	19·805	26th	19·484	7th	·321	58·4	75·8	—1·6	48·1	—1·7	61·9	—1·7	27·7	82·7	3rd	39·3	9th	43·4
	Skardu	*7,505*	22·711	+·008	22·681	22·841	25th	22·511	7th	·330	67·6	85·1	—1·6	60·3	—0·6	72·7	—1·1	24·8	100·2	1st	50·1	27th	50·1
	Gilgit	4,890	24·943		24·916	25·197	27th	24·698	7th	·499	76·8	91·0	—3·2	69·0	—3·1	80·0	—3·1	22·0	103·2	2nd	59·7	9th	48·5
	Baluchistan.																						
5	Fort Sandeman		25·211		25·180	25·343	31st	25·002	7th	·341	75·1	94·0		70·7		82·3		23·3	100·8	8th	63·5	29th	37·3
	Quetta	5,502	24·478	—·001	24·438	24·584	31st	24·323	8th	·261	68·3	91·1	+0·6	59·7	—1·4	75·4	—0·4	31·4	99·5	1st & 3rd	51·8	21st	47·7
	Chaman	4,311	25·489	+·002	25·451	25·599	22nd	25·329	8th	·270	77·2	95·0	—2·8	70·1	—2·5	82·5	—2·7	24·9	105·7	1st	64·3	21st	41·4
	Kalat	6,630	23·617		23·579	23·713	31st	23·476	8th	·237	61·0	88·7		55·5		71·1		31·2	95·5	1st	49·5	30th	46·0
	Dalbandin	2,779	26·864		26·827	27·014	31st	26·705	8th	·309	79·2	104·1		69·1†		86·6†		35·0	114·0	1st	49·7	13th	64·3
	Pasni		29·634		29·594	29·795	31st	29·441	7th	·354	82·7	90·0		78·8		84·4		11·2	91·5	4 days	75·0	23rd, 24th & 27th.	16·5
	Panjgur		26·526		26·484	26·634	31st	26·383	7th	·251	75·6	98·5		70·3		84·4		28·2	105·8	3rd	61·6	27th	44·2
	Robat		26·655		26·613	26·781	31st	26·485	7th	·296	78·7	103·3		74·0		88·6		29·3	115·6	3rd	65·7	25th	49·9
	Hill stations excluding Kashmir and Baluchistan.																						
	Para Chinar	6,000	24·295		24·271	24·431	31st	24·058	7th	·372	71·8	82·0		62·9		72·4		19·1	91·6	3rd	56·1	12th	35·5
	Cherat	*4,956*	25·532	+·010	25·500	25·681	26th	25·302	7th	·379	73·4	83·4	—3·5	68·3	—1·8	75·8	—2·7	15·1	94·0	3rd	59·4	9th	34·6
	Drosh		24·898			25·100	26th	24·650	7th	·450	73·6	92·4		68·1		80·3		24·3	103·2	3rd	59·3	9th	43·9
	Murree	6,333	23·735	—·008	23·703	23·852	26th	23·526	7th	·326	64·8	72·4	—2·0	60·5	—0·5	66·5	—1·3	11·9	78·5	4th	54·0	14th	24·5

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

† Mean of 29 days.

NOTE.—The barometric readings are not reduced to sea-level, in the case

-continued.

ions in India, etc., in August, 1913—continued.

Wind direction. Number of winds from 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 from 1st May to 31st August, 1913.	Normal rainfall for period, 1st May to 31st August.	Departure from normal of period, 1st May to 31st August, 1913.	Heaviest rainfall during month.	Station.
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
																														XV.—Madras— *concld.*
				3	19	8	N 83° W	N 85° W	8·2	8·2	0	89	+ 3	63	− 5	·617	−·031	5·8	−2·1	0	4·4	−4·4	0	2·36	−2·36	5·38	8·15	− 2·77	0	Bellary.
				5	10	15	N 74° W	N 89° W	10·3*			82	+17	70	− 5	·706	−·009	5·4	−2·1	2	9·8	−7·8	0·69	5·56	−4·87	9·06	14·57	− 5·51	0·32	Kurnool.
	1			1	16	12	N 70° W	N 68° W	6·1*	6·9	−0·8	82	+ 7	61	−11	·713	−·103	7·5	−0·2	5	5·9	−0·9	1·35	3·48	−2·13	7·77	8·18	− 0·41	0·46	Nellore.
			1	6	15	8	N 89° W	N 72° W	6·1	5·6	+0·5	80	− 3	74	− 9	·832	−·059	6·5	−1·3	10	10·6	−0·6	2·14	6·83	−4·69	8·28	18·68	−10·40	0·42	Masulipatam.
			1	5	20	2	S 83° W	S 71° W	4·5	5·6	−1·1	82	+ 3	77	− 4	·873	+·023	7·0	−0·6	3	9·9	−6·9	1·74	5·55	−3·81	16·46	17·16	− 0·70	0·66	Cocanada.
2	1			24	1		S 44° W	S 84° W	5·2			72	− 9	72	− 7	·812	−·049	7·6	−0·2	5	8·8	−3·8	1·51	5·68	−4·07	17·62	16·48	+ 1·14	0·63	Waltair (Vizagapatam).
	1			8	12	6	N 88° W		6·0			69		81		·883		4·9		5	11·0	−6·0	2·48	8·75	−6·27	17·79	20·15	− 2·36	1·70	Calingapatam.
1			5	5		4	S 80° W	S 63° W	5·0	8·0	−3·0	20	−38	84	− 1	·899	−·026	6·3	−1·2	6	11·4	−5·4	7·75	7·53	+0·22	25·91	22·60	+ 3·31	4·33	Gopalpur.
																														Bay Islands.
4	3	1	3	13	4	2	S 42° W					39		88		·997		7·3		6			2·68			36·21			1·10	P. V. Fraser.
			2	7	12	3	S 79° W	S 62° W	7·2	7·9	−0·7	62	−17	84	− 5	·881	−·039	7·7	−0·7	18	19·2	−1·2	8·10	14·79	−6·69	47·53	66·63	−19·10	1·25	Port Blair.
			4	19	8		S 52° W		15·1			92		89		·900		8·5		16	16·9	−0·9	6·52	12·87	−6·35	40·25	52·02	−11·77	0·85	Slipper Island.
																														Kashmir.
2			5	8	1	6	N 72° W		0·4			29		78		·674		3·1		12			8·60			25·08			2·47	Muzaffarabad.
1	3	6	4		3	8	N 82° W	S 48° E	3·3	2·6	+0·7	2	−30	75	−11	·546	−·079	3·6	−1·0	5	5·4	−0·4	1·62	2·41	−0·79	4·62 §	9·64	−5·02	0·56	Srinagar.
3	2	1	1	9	2		S 36° W		3·0			20		75	− 5	·396		3·3		10	10·1	−0·1	7·10	4·91	+2·19	13·34	12·96‡	+0·38	1·79	Gulmarg.
					1	1	N 60° W		4·8			7		60	− 1	·230		2·5		2	1·1	+0·9	0·47	0·48	−0·01	2·14	5·09	−2·95	0·25	Dras.
	1		2				S 27° E	N 85° W	2·2	1·3	+0·9	7	−53	53	− 6	·261	−·021	3·2	−1·0	1	1·7	−0·7	0·20	0·52	−0·32	1·56	1·37	+0·19	0·10	Leh.
1	1	1		1	10	1	W		5·0			29		49	− 5	·318		3·9		1	1·1	−0·1	0·35	0·41	−0·06	0·81	2·59	−1·78	0·14	Skardu.
				1			S 45° W		0·4			3		57	+ 7	·526	+·032	4·6	+0·4	2	1·8	+0·2	0·92	0·45	+0·47	1·76	2·38	−0·62	0·44	Gilgit.
																														Baluchistan.
6	1			1	4	1	N 2° W		3·1			17		68		·590		1·3		6			3·24			7·11			2·15	Fort Sandeman.
		2	1				S 31° E	S 22° W	1·3	2·0	−0·7	7	+ 1	58	0	·410	−·069	1·7	+0·6	0	0·7	−0·7	0·02	0·45	−0·43	0·29	1·74	−1·45	0·02	Quetta.
	2	1	2	1			S 31° E	S 61° W	3·0	6·1	−3·1	13	−36	43	+13	·407	+·038	1·9	+1·3	0	0·1	−0·1	0	0·02	−0·02	0·49	0·22	+0·27	0	Chaman.
		2	10	2		1	S 3° W	S 16° W	4·2			39	+ 1	54		·303		2·8		3	0·4	+2·6	0·46	0·19	+0·27	0·97	1·37	−0·40	0·24	Kalat.
		1		4	5	2	S 76° W		5·2			30		40		·404		0·3		0			0			0·20			0	Dalbandin.
	2	2	1	1	7	1	S 64° W		4·6			17		92		1·036		7·3		0			0			0·01			0	Pasni.
5	2	3	1	4	1	1	S 77° E		4·4			10		57		·517		2·0		0			0			0·38			0	Panjgur.
1	4	2	1	2	16		S 85° W		5·3			37		48		·489		0·5		0			0			0			0	Robat.
																														Hill stations excluding Kashmir and Baluchistan.
	1	3	2			1	S 36° E		0·9			13		66		·507		3·2		11	6·8	+4·2	4·53	2·83	+1·70	11·46	11·37	+0·09	1·14	Para Chinar.
2	1	5	6	1		1	S 65° E	S 31° E	5·6	5·9	−0·3	17	−11	72	− 1	·578	−·010	4·1	+0·2	6	6·1	−0·1	2·49	4·50	−2·01	10·18	11·14	−0·96	1·01	Cherat.
			1	1	1		S 45° W		5·5			10		62		·493		2·1		3	2·8	+0·2	1·24	0·85	+0·39	3·84			0·70	Drosh.
	1	5	1	1		1	S 81° E	N 46° W	3·3	3·9	−0·6	10	−12	80	− 2	·490	−·024	4·4	−0·4	12	14·6	−2·6	12·32	14·12	−1·80	37·88	32·24	+5·64	3·57	Murree.

or plateau stations, the elevations of which exceed 3,500 feet.

* Uncorrected for scale error.

‡ Normal rainfall since 1st June.
§ Actual rainfall since 7th June 1913.

Table

(2) *Abstract of observations taken at 8 hrs. at 21*

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.	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.	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.
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	Hill stations, excluding Kashmir and Baluchistan —*concld.*																						
	Simla	7,232	23·015	+·013	22·977	23·144	26th	22·865	7th	·279	61·2	67·4	+0·3	58·8	−0·7	63·1	−0·2	8·6	71·6	5th	54·4	27th	17·2
	Sarain		20·085		20·047	20·215	26th	19·994	8th	·221	50·5	56·0		46·1		51·2		9·6	63·0	3rd	42·7	16th	20·3
	Kalabagh																						
	Chakrata	7,022	23·181	+·003	23·141	23·293	31st	23·059	7th	·234	62·8	68·4	−0·4	59·1	−0·4	63·7	−0·4	9·3	71·9	16th	56·5	7th	15·4
	Mukteswar	7,592	22·740	−·016	22·699	22·870	31st	22·604	7th	·266	60·9	70·3	+1·1	54·9	−3·1	62·6	−1·0	15·4	76·5	4th	52·6	11th	23·9
	Darjiling	7,376	22·903	−·048	22·858	23·041	31st	22·768	7th	·273	61·8	66·7	+1·2	57·7	+0·5	62·2	+0·9	9·0	72·8	5th.	53·2	18th	19·6
	Shillong	4,920	24·992		24·944	25·139	26th	24·850	7th	·289	68·4	74·5		63·6		69·1		10·9	78·9	5th	60·7	19th	18·2
	Cherrapunji	4,309	25·654		25·605	25·752	22nd	25·555	14th	·197	67·5	72·2		64·5		68·3		7·7	80·7	5th	62·0	16th & 23rd.	18·1
	Maymyo	3,545	26·235	−·039	26·240	26·434	26th	26·144	4th	·290	68·8	75·4	−1·1	66·1	+0·8	70·7	−0·1	9·3	80·0	26th	63·5	28th	16·5
	Pachmarhi	3,528	26·289	+·013	26·236	26·421	26th	26·096	2nd	·325	67·9	74·6	−0·1	65.7	−1·4	70·1	−0·7	8·9	81·0	19th	63·1	22nd	17·9
	Mount Abu	3,945	25·878	+·012	25·828	25·985	31st	25·740	25th	·245	64·4	70·3	−1·7	62·8	−1·4	66·5	−1·5	7·5	74·2	19th & 22nd.	58·9	28th	15·3
	Mercara	3,781	26·190	+·009	26·123	26·286	26th	26·107	14th	·179	63·7	70·0	+0·3	61·2	−0·8	65·6	−0·3	8·8	74·0	15th & 19th.	60·0	16th, 20th & 21st.	14·0
	Ootacamund	7,327	23·029		22·965	23·120	26th	22·966	14th	·154	55·3	62·5		50·1		56·3		12·4	67·5	12th & 14th.	46·7	9th.	20·8
	Kodaikanal	7,688	22·795	+·001	22·730	22·888	26th	22·732	20th	·156	55·8	64·1	+0·8	51·5	−0·9	57·8	−0·1	12·6	69·5	10th & 11th.	47·0	24th	22·5
	Extra India.																						
	Singapore (a)	10	29·937		29·868	29·974	27th	29·901	2nd	·073	84·2	88·5		74·8		81·7		13·7	91·4	2nd	72·0	6th	19·4
	Penang (a)	17	29·829		29·771	29·883	27th	29·749	13th	·134	81·8	88·1		73·0		80·5		15·1	91·0	10th & 18th.	71·0	22nd, 26th & 29th.	20·0
	Trincomalee	99	29·748	?	29·776	29·853	26th	29·651	14th	·202	79·1	94·1	+2·3	76·6	−0·4	85·5	+0·9	17·8	99·5	10th	68·0	19th	31·5
	Colombo	24	29·897	−·004	29·847	29·996	26th	29·797	14th	·199	78·3	85·2	−0·4	76·4	−1·1	80·8	−0·7	8·8	87·5	27th	72·0	21st	15·5
	Minicoy	7	29·961			30·049	26th	29·855	14th	·194													
	Amini Divi	13	29·913	+·025	29·854	30·012	26th	29·830	14th	·182	80·9	86·4	+1·2	77·4	0	81·9	+0·6	9·0	89·8	9th	73·0	18th & 31st.	16·8
	Gyantse	13,120	18·442		18·403	18·548	23rd	18·349	9th	·199	51·5	73·6		45·0		59·3		28·6	82·0	13th	39·5	2nd	42·5
	Phariong	14,400									49·2	58·8		33·7		46·3		25·1	67·6	14th	27·0	4th	40·6
	Gangtok	5,660?	24·345		24·299	24·474	31st	24·212	8th	·232	67·2	74·1		63·1		68·6		11·0	81·7	5th	53·0	22nd	28·7
	Gartok (c)	15,100									45·8	65·9		35·4		50·7		30·5	74·2	20th	28·6	2nd	45·8
	Kashgar (c)	4,255																					
	Kabul		24·023			24·110	26th	23·830	7th	·280	74·6	96·4	+4·0	72·6	+13·1	84·5	+8·5	23·8	106·2	3rd	63·6	27th	42·6
	Meshed	3,104	26·705		29·712	28·855	22nd	26·520	1st	·335	71·8	91·5		53·9	−6·5	72·7		37·6	103·4	1st	44·1	22nd	59·3
	Jask	13	29·584	−·024	29·550	29·746	31st	29·404	8th	·342	68·8	96·4	+1·9	84·4	+0·4	90·4	+1·1	12·0	105·3	26th	79·3	28th	26·0
	Muscat	20	29·586	−·007	29·555	29·744	31st	29·424	7th	·320	89·9	97·7	+9·8	87·6	+8·3	92·6	+6·5	10·1	106·8	18th	85·6	10th	21·2
	Bahrein	18	29·662		29·633	29·837	26th	29·511	8th	·326	89·4	94·6		82·8		88·7		11·8	98·7	21st	78·5	12th	20·2
	Bushire	14	29·578	+·034	29·554	29·736	31st	29·403	8th	·333	86·8	92·8	−4·2	81·3	−2·7	87·0	−3·5	11·5	104·8	20th	75·0	14th	29·8
	Busrah	25	29·575		29·569	29·738	31st	29·419	8th	·319	85·9	103·5		79·3		92·9		27·2	115·9	23rd	74·1	8th & 9th	41·8
	Kerman		24·370			24·600	28th & 30th.	24·100	3rd	·500	68·4	94·1		53·3		73·7		40·8	107·8	7th	44·7	26th & 28th.	63·1
	Ispahan (b)	5,817	24·240			24·380	18th & 31st.	24·050	8th	·330	75·0	92·3	−3·2	60·4	−1·0	76·3	−2·1	31·9	102·4	3rd	52·7	29th	49·7
	Tehran (b) (k)	4,002	25·044			25·300	31st	25·500	1st	·300	79·7	97·1	+0·8	68·8	−1·5	82·9	−0·3	28·3	109·1	5th	64·0	29th	45·1
	Baghdad (d)	127	29·514	+·006	29·814	29·675	31st	29·405	9th	·270	85·6	109·5	+1·1	78·4	−0·4	93·9	+0·3	31·1	115·7	24th & 28th.	72·1	10th	43·6
	Beirut ¶				29·793						80·5	85·2		73·6		79·4		11·6	89·2	17th	69·1	5th	18·2
	Aden	94	29·678	+·028	29·794	29·773	26th	29·593	21st	·180	85·4	92·5	+1·0	81·4	+1·8	86·9	+1·4	11·1	95·1	23rd	77·4	10th	17·7
	Zanzibar	72	30·115	+·027	30·214	30·183	27th	30·062	21st	·121	74·7	81·3	+0·5	72·7	0	77·0	+0·3	8·6	85·3	29th	70·3	17th	12·5

N.B.—The amounts 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 3,000 feet.

(k) Mean of 16 days.
(d) " " 30 "
(e) " " 29 "

(a) 9 hrs. observations.
(b) Aneroid uncorrected.

¶ 8½ hrs. observations.
(c) Aneroid corrected.

B—*concluded.*

stations in India, etc., in August, 1913—concluded.

Wind direction. Number of winds from Calm. (25)	N. (26)	N.E. (27)	E. (28)	S.E. (29)	S. (30)	S.W. (31)	W. (32)	N.W. (33)	Resultant direction. (34)	Normal direction. (35)	Wind velocity. Mean velocity, miles per hour. (36)	Normal. (37)	Departure from normal. (38)	Wind steadiness. Actual percentage. (39)	Departure from normal. (40)	Hygrometry, 8 hrs. Mean humidity at 8 hrs. (41)	Departure from normal. (42)	Mean vapour tension at 8 hrs. in inches of mercury. (43)	Departure from normal in inches of mercury. (44)	Cloud. Mean amount at 8 hrs. (45)	Departure from normal. (46)	Rainfall. Number of rainy days. (47)	Normal number of rainy days. (48)	Departure from normal. (49)	Rainfall of month. (50)	Normal rainfall of month. (51)	Departure from normal. (52)	Total rainfall from 1st May to 31st August 1913. (53)	Normal rainfall for period, 1st May to 31st August. (54)	Departure from normal of period, 1st May to 31st August 1913. (55)	Heaviest rainfall during month. (56)	Station. (57)
																																Hill stations, excluding Kashmir and Baluchistan—*concld.*
																88	− 3	·477	−·029	6·6	−1·4	11	19·8	−8·8	11·56	18·16	−6·60	37·08	44·70	− 7·62	4·84	Simla.
																							18·9			12·06			30·85			Sarain.
5	9		1	3	3			10	N 20° W		6·3			39		85		·317		6·0		13	23·8	−10·8	9·88	19·02	−9·14	31·37†	42·40‡	−11·03	3·98	Kalabagh.
20	2	1		3	5				S 33° E	S 39° E	1·6	3·9	−2·3	17	+ 9	92	− 1	·526	−·005	7·5	+1·6	17	20·3	−3·3	11·23	19·98	−8·75	47·74	50·45	− 2·71	2·30	Chakrata.
11		1	3	2			13	1	W		5·7			28		85	− 6	·465		7·5		11	17·9	−6·9	6·82	12·67	−5·85	32·78	34·14	− 1·36	1·13	Mukteswar.
24		4	1	1			1		N 58° E	N 88° E	0·7	2·7	−2·0	10	−30	96	0	·530	+·016	8·7	−0·3	22	24·4	−2·4	22·85	26·60	−3·75	103·74	90·48	+13·26	4·20	Darjiling.
28				1	1		1		S 11° W		0·8			5		85		·589		7·7		18	20·3	−2·3	12·91	16·35	−3·41	66·72	57·99	+ 8·73	2·06	Shillong.
13	1	2	6	1	4	1	3		S 55° E		5·0			17		96		·647		8·6		24	27·7	−3·7	60·77	81·81	−20·04	274·24	312·62	−38·38	11·55	Cherrapunji.
14						17			S 45° W		2·5			56		93	+ 4	·651		9·3		21	15·0	+6·0	12·77	8·29	+4·48	35·82	32·18	+ 3·64	2·60	Maymyo.
						4	14	13	N 75° W	S 87° W	5·5	6·8	−1·3	89	+13	91	− 1	·617	−·034	7·2	−1·9	14	21·5	−7·5	31·29	21·78	+9·51	70·11	55·64	+14·47	13·06	Pachmarhi.
1					8	17	4	1	S 41° W	S 59° W	4·6	8·2	−3·6	82	+ 4	99	+ 3	·601	−·008	9·6	+0·9	20	17·9	+2·1	22·29	21·06	+1·23	64·41	49·99	+14·42	4·35	Mount Abu.
						4	18	9	N 83° W	N 76° W	6·4	6·1	+0·3	89	− 1	98	+ 3	·571	−·006	9·6	+1·0	22	26·3	−4·3	16·50	26·39	−9·89	85·15	100·20	−11·05	3·40	Mercara.
5				1	2	4	12	7	S 88 W		5·0			62		86		·374		8·5		9	13·5	−4·5	3·05	6·67	−3·62	23·41	29·63	− 6·22	0·71	Gotacamund.
1					3		14	13	N 75° W		10·0*			79		74	− 6	·343		5·2		11	12·7	−1·7	4·94	7·49	−2·55	16·84	22·22	− 5·38	0·87	Kodaikanal.
																																Extra India.
8			2	11	4	6			S 19° E		4·6*			56						5·8		6	12·5	−6·5	2·54	7·47	−4·93	25·28	27·14	− 1·86	0·84	Singapore.
		19		5		1		6	N 42° E		10·2*			56								12	13·8	−1·8	6·15	11·33	−5·18	36·88	33·95	+ 2·93	2·20	Penang.
						31			S 45° W	S 45° W	8·6*	10·2	−1·6	100	+ 3	75	− 3	·746	−·123	5·8	+2·9	4	5·2	−1·2	2·75	4·45	−1·70	6·73	10·11	− 3·38	1·33	Trincomalee.
5						9	16	1	S 76° W	S 61° W	4·5*	6·7	−2·2	79	− 9	86	+ 9	·837	−·009	8·6	+2·5	4	6·3	−2·3	1·15	3·61	−2·46	20·15	26·98	− 6·83	0·53	Colombo.
						2	23	6	N 84° W	N 79° W	6·2	10·9	−4·7	94	+ 4					5·5	+0·3	9	10·8	−1·8	9·27	7·46	+1·81	37·28	31·66	+ 5·62	3·10	Minicoy.
	1					3	15	12	N 75° W		12·4			87		82	− 1	·858	−·041	6·5	−0·2	11	10·9	+0·1	11·09	6·86	+4·23	50·35	35·50	+14·85	1·74	Amini Divi.
23	1		7						N 82° E		1·0			23		82		·352		4·3		5			2·24			4·43			1·00	Gyantse.
29	1				1				(a)		7·8			(a)		69		·237		4·5		11			4·58			22·89			1·00	Pharijong.
30		1							N 45° E		0·7			3		92		·616		4·1		26	27·3	−1·2	22·02	22·69	−0·67	82·25	87·66	− 5·41	2·98	Gangtok.
19				2	10				S 5° E		6·0			36						3·1		3			1·09			2·82			0·45	Gartok.
										N 48° W		3·1											1·9			0·64			1·93			Kashgar.
	1	1	3	8	9	5	2	2	S 8° E	S 88° E				48	+34	81		·698		1·5	+1·3	2	0·5	+1·5	0·40	0·15	+0·25	0·77	1·47	− 0·70	0·20	Kabul.
29	1							1	N 27° W		1·5			6		33		·267		0·3	?	0	0·1	−0·1	0	0·03	−0·03	0·42	1·82	− 1·40	0	Meshed.
3	5	4	8	7				4	N 66° E	S 74° E	6·7	10·5	−3·8	46	−30	72	− 3	·901	−·120	2·4	+0·3	0	0	0	0	0	0	0	0·06	−0·06	0	Jask.
10		1	17					3	N 80° E	S 76° E	4·1	3·2	+0·9	53	− 7	74	− 8	1·039	+·037	6·2	+4·0	0	0	0	0	0	0	0	0·17	−0·17	0	Muscat.
	6	1	1	1	1	3	2	16	N 43° W		5·4			61		57		·795		1·7		0	0	0	0	0	0	0·01	0·10	− 0·09	0	Bahrein.
4	4	2	1	3	1		3	13	N 34° W	N 59° E	6·9	5·3	+1·6	46	+24	77	+10	·969	−·020	1·7		0	0	0	0	0·01	−0·01	0·02	0·03	− 0·01	0	Bushire.
				3	6	5	14	2	S 60° W‖		3·3			67		47		·594		1·0		0	0	0	0	0	0	0·34	0·46	− 0·12	0	Busrah.
22	1	3		3	1	1			S 72° E		4·3			10		35		·248		0		0			0			0			0	Kerman.
30		1							N 45° E	N 34° W	1·5	2·4	−0·9	3	−16	38	−11	·332	−·129	0·3	−0·3	0	0	0	0	0·01	−0·01	0·11	0·30	− 0·19	0	Ispahan.
15						1			S 45° W	S 14° W	(l) 0·1	1·6	−1·5	6	− 5	43	+11	·436	+·077	0	−0·8	0	0·2	−0·2	0	0·05	−0·05	0·86	0·80	+ 0·06	0	Tehran.
3	6	3				1	3	14	N 33° W	N 4° W	7·1	2·8	+4·3	67	+ 6	34	−11	·411	−·203	0·9	+0·7	0	0·1	−0·1	0	0·05	−0·05	0·06	0·28	− 0·22	0	Baghdad.
14						3	14		S 83° W					52		68		·706		3·1		0			0			§ 0·10			0	Beirut.
6		7		5	8	5			S 26° E	S 12° W	9·9	7·8	+2·1	37	−17	72	0	·866	+·028	4·0	+0·3	0	0·3	−0·3	0	0·13	−0·13	0·34	0·36	− 0·02	0	Aden.
2				4	13	12			S 14° W	S 1° W	4·4	5·0	−0·6	81	− 5	81	− 1	·720	−·008	6·2	0	5	4·2	+0·8	0·88	1·72	−0·84	12·44	17·71	− 5·27	0·17	Zanzibar.

* Uncorrected for scale error.

(a) Indeterminate.

† Actual rainfall since 1st June, 1913.
‡ Normal " " 1st June.
§ Rainfall for July wanting.

‖ Windless.
(l) Mean of 11 days.
" " 16 "

Table C.—Abstract of observations taken at 8 hrs. at 63 fourth and fifth class stations in India, etc., in August, 1913.

Table

Abstract of observations taken at 8 hrs at 63 fourth

Number of sub-division.	Station.	Temperature of air.													Wind direction.										
		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.	Number of winds from: Calm.	N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.	Resultant direction.	Normal direction.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
	II.—Assam.																								
4	Balek	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Bishnath	79·2	90·3	...	76·2	...	83·3	...	14·1	96·2	5th	71·8	30th	24·4	...	...	...	...	...	...	...	...	...	...	...
	Borjuli	80·7	90·2	...	75·9	...	83·1	...	14·3	95·3	5th	73·1	5th	22·2	...	...	...	...	...	...	...	...	...	...	...
	Chandkhira	80·5	90·6	...	74·9	...	82·7	...	15·7	99·6	24th	73·0	4 days	26·6	...	...	...	...	...	...	...	...	...	...	...
	Doom Dooma	77·5	90·2	...	75·7	...	82·9	...	14·5	96·8	23rd	73·7	5th	23·1	...	...	...	...	...	...	...	...	...	...	...
	Dikom	79·7	91·2	...	76·4	...	83·8	...	14·8	98·4	5th	73·0	5th	25·4	...	...	...	...	...	...	...	...	...	...	...
	Golaghat	80·4	90·1	...	76·4	...	83·3	...	13·7	95·9	5th	74·0	30th	21·9	...	...	...	...	...	...	...	...	...	...	...
	Hailakandi	80·1	89·0	...	76·0	...	82·5	...	13·0	94·0	24th	73·4	16th & 25th	20·6	...	...	...	...	...	...	...	...	...	...	...
	Jorenat	80·8	91·0	...	77·0	...	84·0	...	14·0	96·1	5th & 6th	71·8	11th	24·3	...	...	...	...	...	...	...	...	...	...	...
	Lumding	79·6	90·3	...	76·0	...	83·1	...	14·3	94·9	4th & 5th	73·4	29th	21·5	...	...	...	...	...	...	...	...	...	...	...
	Messa	85·4	94·6	...	76·3	...	85·5	...	18·3	99·3	5th	72·9	5th	26·4	...	...	...	...	...	...	...	...	...	...	...
	Panerihat	77·0	84·4	...	74·3	...	79·3	...	10·1	88·6	5th	71·5	5th	17·1	...	...	...	...	...	...	...	...	...	...	...
	Srimangal	81·0	90·0	...	76·0	...	83·0	...	14·0	94·7	24th	73·8	31st	20·9	...	...	...	...	...	...	...	...	...	...	...
	III.—Bengal.																								
5	Comilla	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Brahmanbaria	83·2	88·3	...	76·3	...	82·3	...	12·0	94·0	5th	74·5	20th	19·5	...	...	...	...	...	...	...	...	...	...	...
	Faridpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Goalundo	82·8	89·7	...	76·8	...	83·3	...	12·9	94·7	4th	74·1	15th & 18th	20·6	...	...	...	...	...	...	...	...	...	...	...
	Pabna	82·3	88·9	...	77·6	...	83·3	...	11·3	95·5	5th	74·6	8th	20·9	...	...	...	...	...	...	...	...	...	...	...
	Sirajganj	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Rampur Boalia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Malda	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Rangpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Dam Dim	80·1	92·1	...	75·0	...	83·5	...	17·1	98·7	4th	71·5	24th	27·2	...	...	...	...	...	...	...	...	...	...	...
	Kalchini	83·7	89·9	...	71·7	...	80·8	...	18·2	95·1	5th	68·4	16th	26·7	...	...	...	...	...	...	...	...	...	...	...
	Nagrakata	79·5	88·9*	...	74·4	...	81·7	...	14·5	94·1	5th	73·0	5 days	21·1	...	...	...	...	...	...	...	...	...	...	...
	Cooch Behar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Krishnagar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Bankura	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Asansol	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

* Mean of 30 days.
† " " 27 "

d fifth class stations in India, etc., in August, 1913.

Wind velocity.			Wind steadiness.		Hygrometry, 8 hrs.				Cloud.		Rainfall.										
Mean velocity, miles per hour.	Normal.	Departure from normal.	Actual percentage.	Departure from normal.	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.	Mean cloud amount at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st May to 31st August, 1913.	Normal rainfall of period, 1st May to 31st August.	Departure from normal of period, 1st May to 31st August, 1913.	Heaviest rainfall during month.	Station.
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
																					II.—Assam.
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Balek.
...	...	...	...	...	96	...	·951	...	...	...	21	18·2	+2·8	12·93	19·65	−6·72	49·79	59·43	−9·64	1·40	Bishnath.
...	...	...	...	...	91	...	·957	...	...	...	14	17·5	−3·5	11·34	13·71	−2·37	50·27	54·67	−4·40	3·03	Borjuli.
...	...	...	...	...	88	...	·911	...	...	...	23	20·0	+3·0	12·46	13·85	−1·39	89·41	68·74	+20·67	1·45	Chandkhira.
...	...	...	...	...	94	...	·879	...	...	...	18	17·3	+0·7	22·53	15·45	+7·08	66·24	61·50	+4·74	4·39	Doom Dooma.
...	...	...	...	...	91	...	·927	...	...	...	17	19·8	−2·8	20·67	18·28	+2·39	62·94	65·38	−2·44	5·11	Dikom.
...	...	...	...	...	90	...	·935	...	...	...	13	16·7	−3·7	13·05	12·56	+0·49	44·89	43·48	+1·41	2·90	Golaghat.
...	...	...	...	...	89	...	·906	...	...	...	19	23·5	−4·5	14·17	18·89	−4·72	91·88	74·92	+16·96	2·43	Hailakandi.
...	...	...	...	...	91	...	·955	...	...	...	17	18·8	−1·8	8·54	16·83	−8·29	37·75	50·00	−12·25	1·20	Jorehat.
...	...	...	...	...	88	...	·882	...	...	...	12	...	...	9·99	...	...	33·77	...	...	2·70	Lumding.
...	...	...	...	...	78	...	·951	...	...	...	15	20·2	−5·2	8·45	18·51	−10·06	35·61	60·99	−25·38	1·44	Messa.
...	...	...	...	...	93	...	·858	...	...	...	10	13·5	−3·5	5·15	11·17	−6·02	47·58	50·32	−2·74	1·26	Panerihat.
...	...	...	...	...	87	...	·926	...	...	...	16	22·5	−6·5	15·47	12·84	+2·63	84·82	58·52	+26·30	4·40	Srimangal.
																					III.—Bengal.
...	...	...	...	...	...	...	...†	...	...	...	19	17·7	+1·3	20·77	15·96	+4·81	93·60	59·55	+34·05	3·47	Comilla.
...	...	...	...	...	86†	...	·974	...	...	...	14	19·0	−5·0	15·85	14·10	+1·75	76·80	51·95	+24·85	2·85	Brahmanbaria.
...	...	...	...	...	...	...	...	...	...	...	18	17·1	+0·9	11·92	11·78	+0·14	58·22	46·26	+11·96	2·30	Faridpur.
...	...	...	...	...	85	...	·948	...	...	...	16	16·2	−0·2	9·87	10·58	−0·71	44·52	41·85	+2·67	2·00	Goalundo.
...	...	...	...	...	89	...	·982	...	...	...	16	14·5	+1·5	12·28	8·69	+3·59	39·36	39·99	−0·63	1·43	Pabna.
...	...	...	...	...	...	...	...	...	...	...	15	15·0	0	9·73	11·14	−1·41	45·25	43·15	+2·10	1·70	Sirajganj.
...	...	...	...	...	...	...	...	...	...	...	16	14·1	+1·9	12·34	9·74	+2·60	43·42	36·25	+7·17	4·05	Rampur Boalia.
...	...	...	...	...	...	...	...	...	...	...	13	14·5	−1·5	11·03	10·74	+0·29	44·70	35·04	+9·66	3·27	Malda.
...	...	...	...	...	...	...	...	...	...	...	20	14·1	+5·9	19·91	13·32	+6·59	76·52	56·24	+20·28	4·32	Rangpur.
...	...	...	...	...	95	...	·982	...	...	...	20	22·5	−2·5	23·85	35·03	−11·18	106·72	119·14	−12·42	4·80	Dam Dim.
...	...	...	...	...	79	...	·927	...	...	...	19	20·8	−1·8	16·91	37·92	−21·01	108·98	117·59	−8·61	6·23	Kalchini.
...	...	...	...	...	86	...	·866	...	...	...	22	22·8	−0·8	37·32	34·96	+2·36	118·81	120·93	−2·12	6·40	Nagrakata.
...	...	...	...	...	...	...	...	...	...	...	16	18·5	−2·5	13·95	25·73	−11·78	95·09	105·15	−10·06	4·50	Cooch Behar.
...	...	...	...	...	...	...	...	...	...	...	15	14·5	+0·5	14·08	10·09	+3·99	57·24	37·94	+19·30	3·33	Krishnagar.
...	...	...	...	...	...	...	...	...	...	...	15	15·6	−0·6	9·05	10·57	−1·52	43·96	38·19	+5·77	3·72	Bankura.
...	...	...	...	...	...	...	...	...	...	...	19	16·0	+3·0	14·33	11·78	+2·55	61·40	37·34	+24·06	4·20	Asansol.

† Mean of 27 days.

Table

Abstract of observations taken at 8 hrs. at 63 fourth

Number of sub-division.	Station.	Temperature of air.													Wind direction.										
		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.	Number of winds from: Calm.	N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.	Resultant direction.	Normal direction.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
	IV.—Bihar and Orissa.																								
7	Hazaribagh	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
8	Bhagalpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Muzaffarpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Motihari	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Chapra	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Arrah	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Dehri	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	V.—United Provinces of Agra and Oudh.																								
10	Meerut	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Dehra Dun	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	IX.—Rajputana.																								
18	Udaipur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	XII.—Central Provinces.																								
23	Chhindwara	74·0	82·2	...	69·8	...	76·0	...	12·4	89·2	19th	66·9	3rd	22·3	8	1	...	...	...	...	2	10	10	N 70° W	...
	XIII.—Hyderabad.																								
27	Parbhani	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	XV.—Madras.																								
31	Tinnevelly	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
32	Anantapur	78·9	93·9	...	74·1	...	84·0	...	19·8	98·0	31st	71·4	28th	26·6	...	...	...	...	...	...	...	...	...	...	...
33	Guntur	82·1	94·2	...	77·3	...	85·8	...	16·9	98·7	12th	71·5	17th	27·2	...	...	...	...	...	...	...	...	...	...	...
	Bay Islands.																								
1	Car Nicobar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Kashmir.																								
13	Jammu	83·3	91·8	...	76·4	...	84·1	...	15·4	98·1	23rd	69·8	27th & 28th.	28·3	...	13	12	1	...	5	...	...	...	N 28° E	...
	Sonamarg	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Kargil	67·8	88·1	...	58·1	...	73·1	...	30·0	100·9	2nd	50·0	9th	50·9	...	20	...	4	4	...	1	...	2	N 16° E	...
	Astor	...	...	...	...	...	...	...	...	...	Observatory closed for summer months				...	...	...	...	...	...	...	...	...	...	...

C—*continued.*

and fifth class stations in India, etc., in August, 1913—continued.

Wind velocity.			Wind steadiness.		Hygrometry, 8 hrs.				Cloud.		Rainfall.									Heaviest rainfall during month.	Station.
Mean velocity, miles per hour.	Normal.	Departure from normal.	Actual percentage.	Departure from normal.	Mean humidity, 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Mean cloud amount at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st May to 31st Aug., 1913.	Normal rainfall of period, 1st May to 31st Aug.	Departure from normal of period, 1st May to 31st Aug., 1913.		
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
																					IV.—Bihar and Orissa.
...	...	...	...	...	...	...	...	...	...	...	15	17·9	—2·9	13·87	12·74	+1·13	42·81	36·52	+6·29	5·51	Hazaribagh.
...	...	...	...	...	...	...	...	...	...	...	14	12·6	+1·4	9·25	10·90	—1·65	34·54	34·62	—0·08	2·04	Bhagalpur.
...	...	...	...	...	...	...	...	...	...	...	12	13·3	—1·3	17·26	13·51	+3·75	60·71	36·57	+24·14	3·72	Muzaffarpur.
...	...	...	...	...	...	...	...	...	...	...	13	13·9	—0·9	16·87	13·63	+3·24	44·41	41·31	+3·10	2·96	Motihari.
...	...	...	...	...	...	...	...	...	...	...	9	12·9	—3·9	19·02	10·93	+8·09	46·57	30·32	+16·25	6·17	Chapra.
...	...	...	...	...	...	...	...	...	...	...	10	13·9	-3·9	23·06	11·25	+11·81	44·12	32·01	+12·11	6·03	Arrah.
...	...	...	...	...	...	...	...	...	...	...	9	14·4	—5·4	24·36	12·64	+11·72	48·08	30·40	+17·68	7·75	Dehri.
																					V.—United Provinces of Agra and Oudh.
...	...	...	...	...	...	...	...	...	...	...	4	10·2	—6·2	3·61	9·29	—5·68	19·07	22·40	—3·33	1·97	Meerut.
...	...	...	...	...	...	...	...	...	...	...	15	22·0	—7·0	11·03	30·55	—19·52	47·29	67·45	—20·16	2·46	Dehra Dun.
																					IX.—Rajputana.
...	...	...	...	...	...	...	...	...	...	...	5	9·2	—4·2	5·07	6·95	—1·88	22·23	18·30	+3·93	2·83	Udaipur.
																					XII.—Central Pro vinces.
3·4	...	...	65	...	80	...	·674	...	5·1	...	9	...	...	13·44	...	...	40·70	...	...	9·50	Chhindwara.
																					XIII.—Hyderabad.
...	...	...	...	...	...	...	...	...	...	...	7	...	...	5·86	...	...	29·74*	...	...	2·58	Parbhani.
																					XV.—Madras.
...	...	...	...	...	...	...	...	...	...	...	0	1·1	—1·1	0	0·63	—0·63	2·58	3·07	—0·49	0	Tinnevelly.
...	...	...	...	...	81	...	·794	...	8·6	...	1	...	...	0·64	...	...	6·93	...	...	0·43	Anantapur.
...	...	...	...	...	72	...	·783	...	7·6	...	10	...	...	4·75	...	...	16·99	...	...	2·11	Guntur.
																					Bay Islands.
...	...	...	...	...	...	...	...	...	...	...	4	15·5	—11·5	6·34	10·69	—4·35	39·63	44·88	—5·25	2·86	Car Nicobar.
																					Kashmir.
...	...	...	61	...	73	...	·826	...	3·5	...	10	...	...	11·96	...	...	32·42	...	...	3·80	Jammu.
...	...	...	...	...	...	...	...	...	...	...	9	9·2	—0·2	5·70	3·38	+2·32	15·79	16·37	—0·58	1·28	Sonamarg.
...	...	...	61	...	42	...	·286	...	2·2	...	1	...	...	0·17	...	...	0·85	...	...	0·11	Kargil.
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Astor.

* Rainfall since 10th May, 1913.

Table

Abstract of observations taken at 8 hrs. at 63 fourth and

Number of sub-division.	Station.	Temperature of air.													Wind direction.										
		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.	Number of winds from: Calm.	N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.	Resultant direction.	Normal direction.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
	Hill stations, exclusive of Kashmir.																								
	Panighatta	78·6	86·8	...	74·1	...	80·5	...	12·7	91·7	5th	72·0	6th	19·7	...	...	...	...	...	...	...	...	...	...	...
	Kurseong	66·8	71·7	...	§ 63·1	...	67·4	...	8·6	78·3	4th	58·9	18th	19·4	...	...	...	...	...	...	...	...	...	...	...
	Gnatong	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Lachung	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Ringim	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Poo	...	80·3	...	58·5	...	69·4	...	21·8	92·1	2nd	54·6	8th	37·5	14	...	1	...	...	1	2	13	...	S 82° W	...
	Kailang	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Bakloh	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Pishin	...	93·0	...	63·6	...	78·3	...	29·4	101·4	1st, 2nd & 3rd.	55·1	20th	46·3	...	...	...	...	...	...	...	...	...	...	...
	Extra India.																								
	Ahwaz	...	108·1	...	85·3	...	96·7	...	22·8	113·2	25th	80·6	7th & 31st	32·6	...	...	...	...	...	...	...	...	...	...	...
	Chumbi	55·0	67·2	...	50·4	...	58·8	...	16·8	72·8	5th	44·3	4th & 24th	28·5	...	...	...	...	...	...	...	...	...	...	...
	Kirmanshah	79·9	96·0	...	59·1‡	...	77·5	...	36·9	103·5	7th	53·2	26th	50·3	...	...	...	...	...	...	...	...	...	...	...
	Koweit	...	101·8	...	83·8	...	92·8	...	18·0	111·9	29th	78·2	27th	33·7	2	...	...	4	...	3	...	19	3	S 87° W	...
	Maidan	...	112·3	...	84·0	...	98·1	...	28·3	115·1	18th	74·7	14th	40·4	...	...	...	...	...	...	...	...	...	*	...
	Muhammerah	...	100·9	...	80·7	...	90·8	...	20·2	105·4	22nd	75·4	8th	30·0	...	...	...	1	1	...	3	...	19	N 52° W	...
	Pemba	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Prison Island	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Seistan	...	101·7	...	78·6†	...	90·9†	...	23·1	110·0	2nd, 16th & 18th.	70·0	10th & 14th.	40·0	...	16	...	...	...	...	...	...	15	N 22° W	...

* Winds variable.
§ Mean of 30 days.

† Mean of 19 days.
‡ „ „ 26 „

—concluded.

th class stations in India, etc., in August, 1913—concluded.

Wind velocity.			Wind steadiness.		Hygrometry, 8 hrs.				Cloud.		Rainfall.									Heaviest rainfall during month.	Station.
Mean velocity, miles per hour.	Normal.	Departure from normal.	Actual percentage.	Departure from normal.	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.	Mean cloud amount at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st May to 31st August, 1913.	Normal rainfall of period, 1st May to 31st August.	Departure from normal of period, 1st May to 31st August., 1913.		
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
																					Hill stations, exclusive of Kashmir.
...	...	...	...	...	87	...	·844	...	...	...	26	21·7	+4·3	19·33	32·39	−13·06	92·98	103·17	−10·19	2·43	Panighatta.
...	...	...	...	...	93	...	·614	...	...	...	27	25·3	+1·7	35·13	33·96	+1·17	132·89	115·81	+17·08	4·72	Kurseong.
...	...	...	...	...	...	...	...	...	...	...	19	...	...	21·61	...	...	136·78	...	...	3·09	Gnatong.
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Lachung.
...	...	...	...	...	...	...	...	...	...	...	27	...	...	20·14	...	...	51·80*	...	...	4·71	Ringim.
...	...	...	45	...	...	...	...	...	4·7	...	1	1·9	−0·9	0·20	0·74	−0·54	1·12	2·78	−1·66	0·12	Poo.
...	...	...	...	...	...	...	...	...	...	...	2	3·9	−1·9	0·87	1·47	−0·60	4·32	6·58	−2·26	0·40	Kailang.
...	...	...	...	...	...	...	...	...	...	...	14	...	...	25·50	...	...	65·86	...	...	5·40	Bakloh.
...	...	...	...	...	...	...	...	...	1·1	...	0	0·2	−0·2	0	0·13	−0·13	0·11	0·43	−0·32	0	Pishin.
																					Extra India.
...	...	...	...	...	...	...	...	...	1·4	...	0	...	...	0	...	...	0·04	...	...	0	Ahwaz.
...	...	...	...	...	86	...	·374	...	...	...	14	...	...	3·51	...	...	21·34	...	...	0·51	Chumbi.
...	...	...	...	...	24	...	·247	...	...	...	0	...	...	0	...	...	1·13	...	...	0	Kirmanshah.
...	...	...	55	...	...	...	...	...	0·3	...	0	...	...	0	...	...	0·11*	...	...	0	Koweit.
...	...	...	...	...	...	...	...	...	...	...	0	...	...	0	...	...	0*	...	...	0	Maidan.
...	...	...	55	...	...	...	...	...	...	...	0	...	...	0	...	...	0·20	...	...	0	Muhammerah.
...	...	...	...	...	...	...	...	...	...	...	4	4·8	−0·8	0·90	1·73	−0·83	29·05	28·95	+0·10	0·27	Pemba.
...	...	...	...	...	...	...	...	...	...	...	...	6·4	...	...	2·07	...	...	20·05	...	...	Prison Island.
10·0	...	...	97	...	...	...	...	...	...	...	0	...	...	0	...	...	*	...	...	0	Seistan.

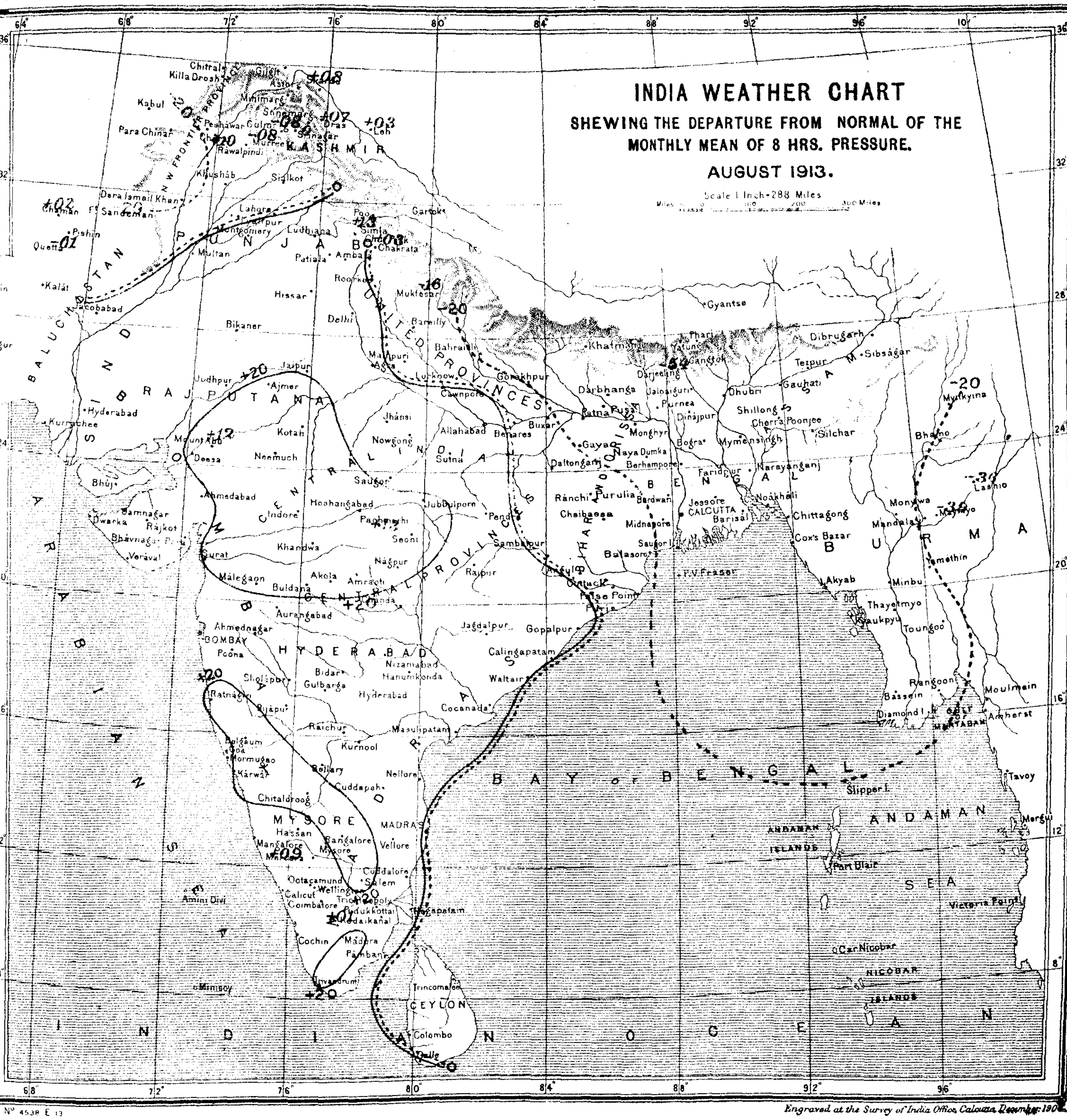
* Rainfall for July, 1913 wanting.

The lines of the above chart represent isobars or lines of equal barometric pressure, the numbers attached indicating the barometric pressure in inches and being drawn for differences of pressure of ·05 inch. The isobars in the Bay of Bengal are filled in by means of the shore observations, and by comparison with the normal distribution of pressure.

The mean 8 hrs. wind directions of the month are shewn by means of arrows flying with the wind, and are calculated by means of Lambert's formula applied to the winds as given in Table B of the 8 hrs. observations. The mean wind directions for the hill stations are indicated by broken arrows to distinguish them from the wind arrows for the plain stations. The mean velocity of the winds during the month is shewn by the following notation:—

Velocity of	0 to 2 miles per hour	...	one feather added to the wind arrow.
,, ,,	2 to 5 ,, ,, ,,	...	two feathers ,, ,, ,, ,,
,, ,,	5 to 10 ,, ,, ,,	...	three ,, ,, ,, ,, ,,
,, ,,	10 to 20 ,, ,, ,,	...	four ,, ,, ,, ,, ,,
	over 20 ,, ,, ,,	...	five ,, ,, ,, ,, ,,

Wind strengths are based on factor 2·2 for the standard type of Beckley Robinson anemograph, instead of 3·0 as used for this plate up to December 1911 inclusive.



The chart shows the departure from normal of the mean during the month of 8 hrs. pressure by means of lines drawn for equal amounts of departure. The numbers are given in thousandths of an inch, 20 representing ·020″ or two hundredths of an inch, &c. Continuous lines indicate that the pressure was in excess by amounts indicated by the numbers attached to the lines, and broken or dotted lines that it was in defect by amounts indicated by the numbers attached to the lines. Two parallel lines near to each other, one continuous and the other broken or dotted, represent the line of no departure, the dotted line facing the area of deficient pressure or negative departures.

CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MAXIMUM TEMPERATURE.

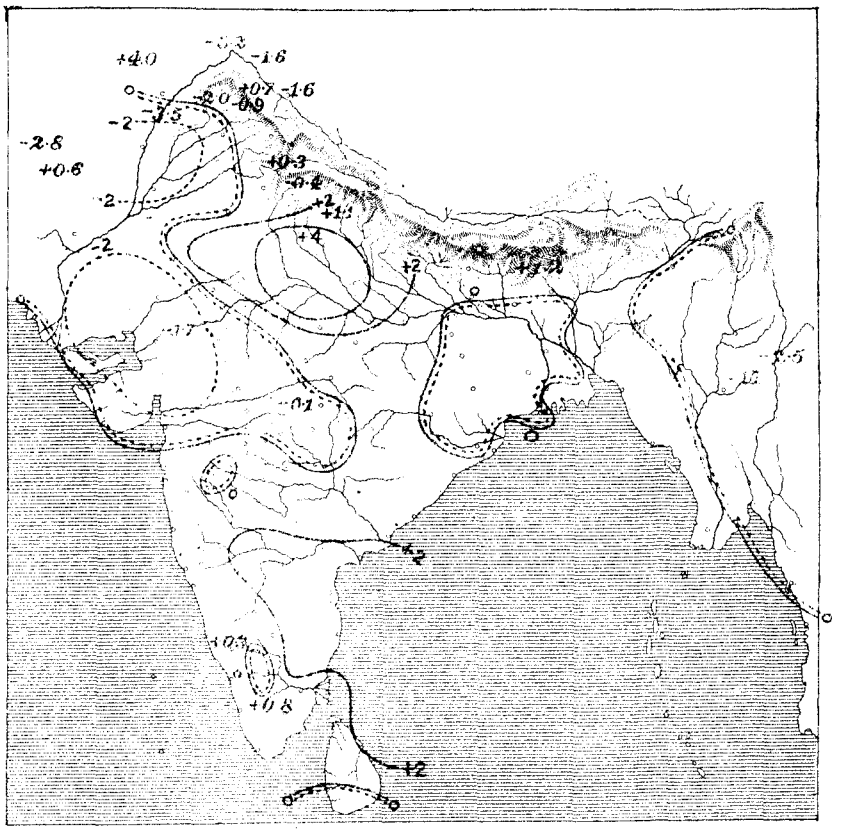


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MINIMUM TEMPERATURE.

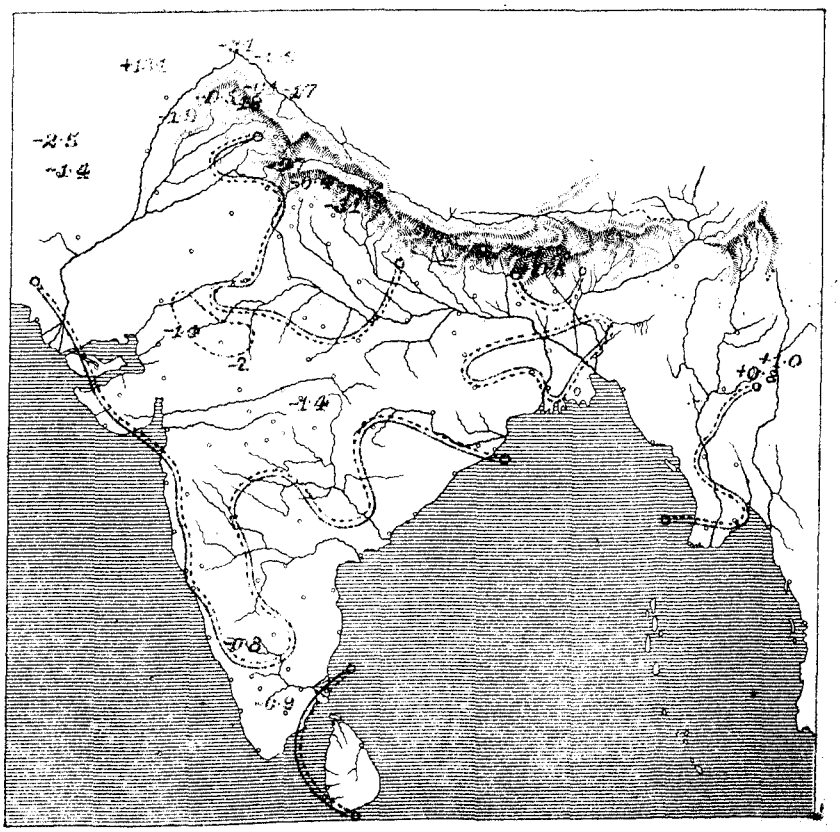


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MEAN TEMPERATURE.

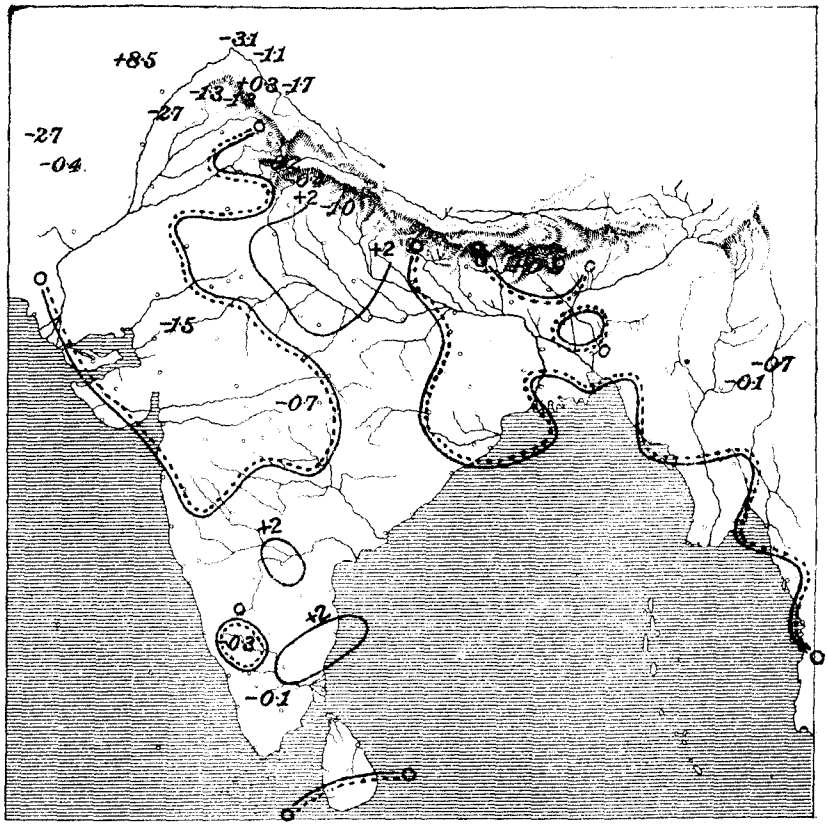


CHART SHEWING THE MONTHLY MEAN OF PRESSURE AND RESULTANT WIND DIRECTION.

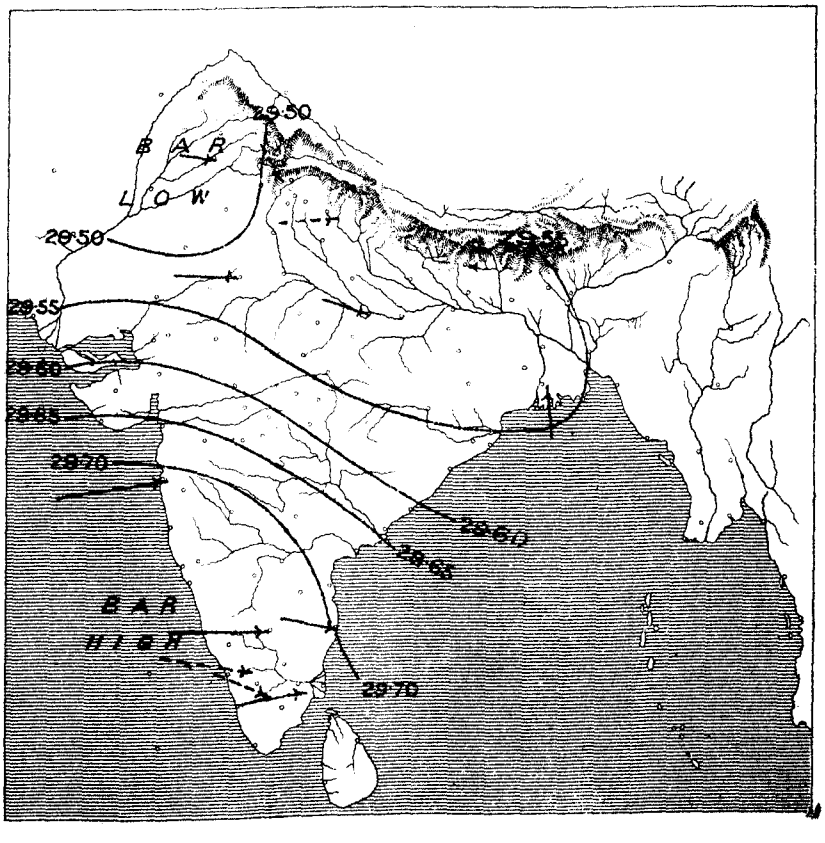


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF ABSOLUTE HUMIDITY AT 8 HRS.

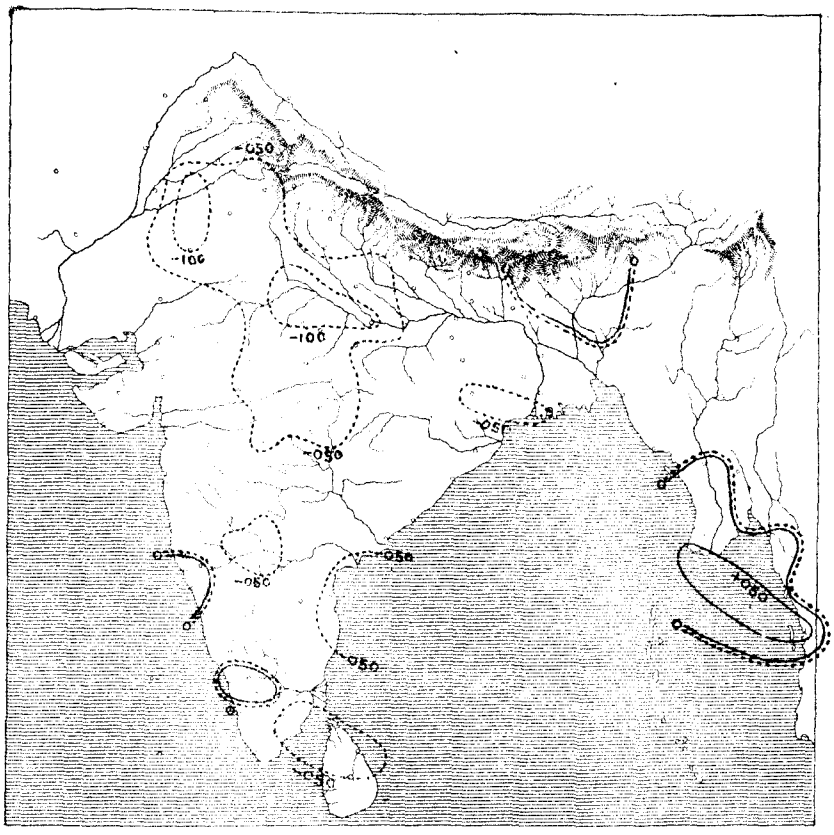


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF RELATIVE HUMIDITY AT 8 HRS.

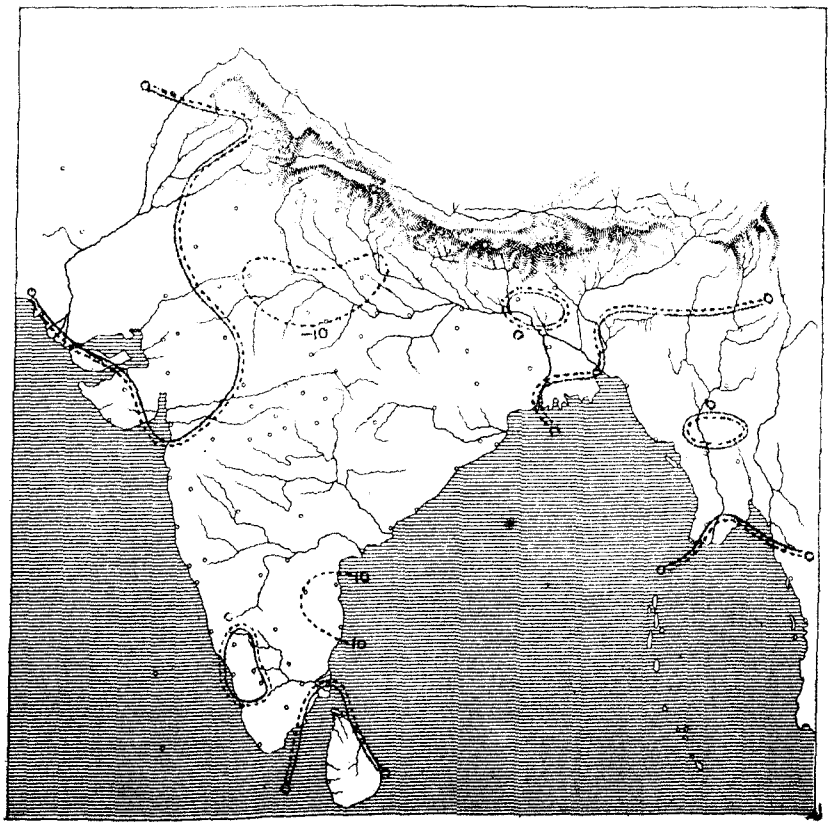


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF CLOUD AMOUNT AT 8 HRS.

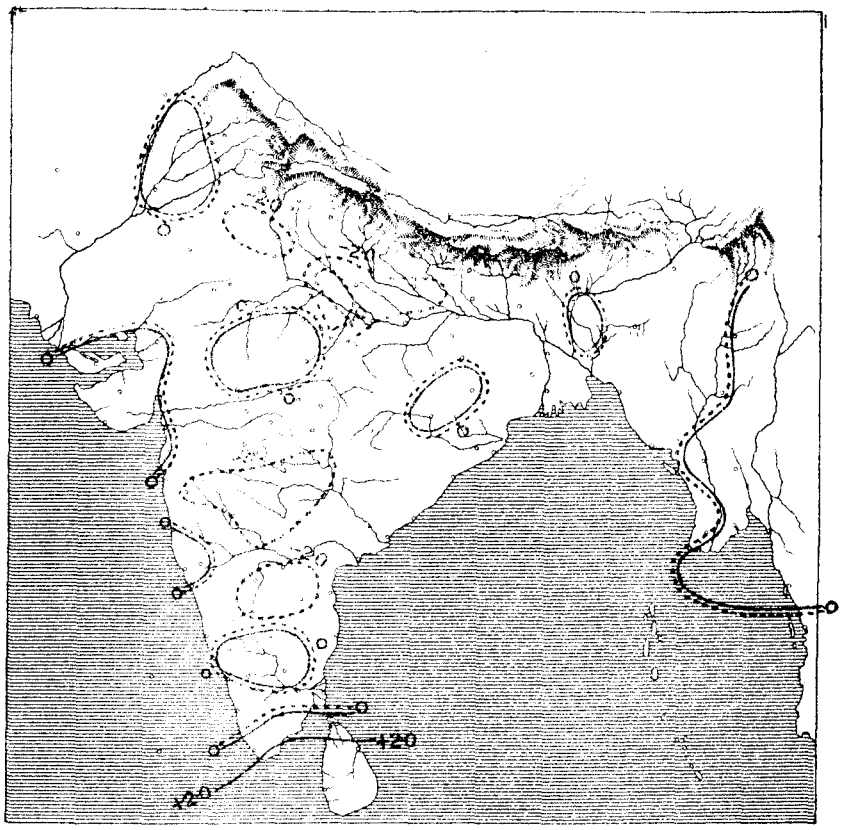
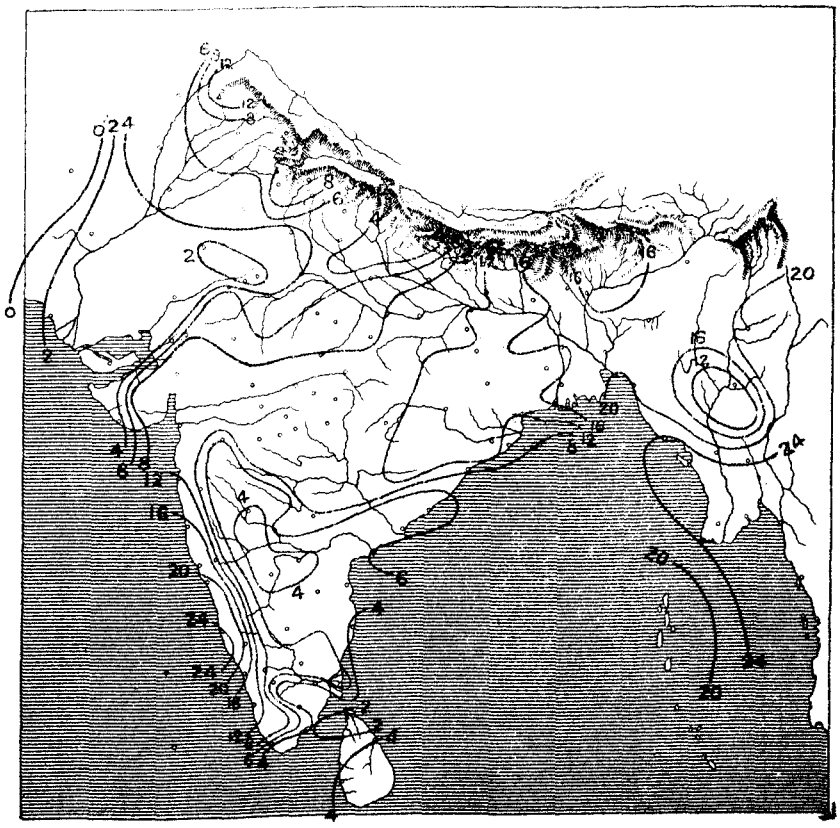
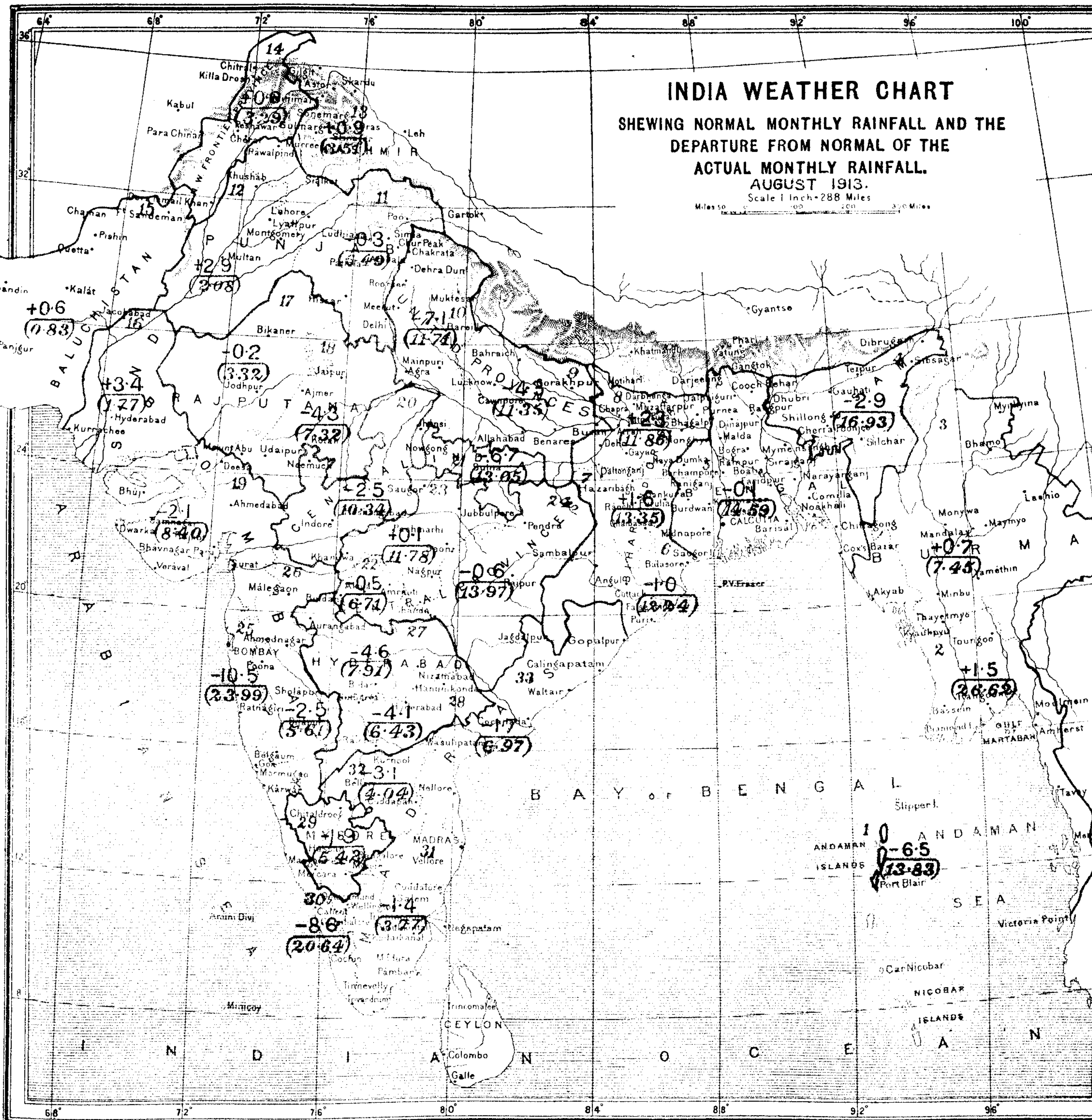


CHART SHEWING THE TOTAL NUMBER OF DAYS IN THE MONTH ON WHICH RAINFALL EQUALLED OR EXCEEDED 0·10 INCH.

(BASED ON THE RETURNS OF TABLE B.)





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
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

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GOVERNMENT OF INDIA

METEOROLOGICAL DEPARTMENT

MONTHLY WEATHER REVIEW

PUBLISHED BY ORDER OF

THE GOVERNMENT OF INDIA.

CALCUTTA, SEPTEMBER, 1913.

INTRODUCTION.

THIS review of the weather in India during the month of September, 1913, is based on observations taken daily at 8 hrs. at 216 stations, and on additional observations taken at 10 hrs. and 16 hrs. at 15 stations. In the rainfall summary have been utilized the data furnished by the meteorological observatories, and such rainfall statements of the month as had been published by the Provincial Governments up to the date of the preparation of the review.

The brief notes on solar, seismic and magnetic disturbances are supplied by the chief observatories in the Indian area.

For a statement of the methods adopted in recording and tabulating the data, for each of the elements of observation, reference should be made to the introductory portion of the review for January.

Summary of the chief features of the weather in India during the month.

2. The most striking feature of the meteorology of the month was the extremely early withdrawal of the monsoon from the central and northern parts of the country. As a rule, monsoon conditions hold through September in Central India and the west of the United Provinces, and until about the middle of October in the Central Provinces and the east of the United Provinces ; but this year no rain of importance was received in those areas after the 9th September. The total rainfall of the month was lighter than usual over nearly the whole country, the only important exceptions being Bihar, Sind, Mysore and Madras South-east. It was unusually scanty in the region comprising the United Provinces West, the Punjab East and North and Rajputana East, which received barely 20 per cent. of the normal amount. The defect was large also in Central India (60 per cent.), the United Provinces East (52 per cent.), the Central Provinces excluding Berar (50 per cent.) and Hyderabad (63 per cent.).

The scantiness of precipitation was, as usual, associated with low humidity and a defect of cloud over a large part of the country. Temperature was within 2° of the normal in all the larger divisions. Barometric pressure in the plains averaged ·02″ in excess.

Solar, seismic and magnetic disturbances.

KODAIKANAL OBSERVATORY.

3. *Solar Observations.*—The sun was examined for spots and faculæ on all the days during the month, but on three days prominences could not be observed.

Sunspots.—A group of small spots were observed in the western hemisphere from the 7th to 10th, when it disappeared at the west limb. Its heliographic position was latitude + 5° and longitude 349°. The spectrum of the spot region showed reversals and a slight displacement of the C line to red on the 8th.

Prominences.—Eighteen large and six eruptive prominences were recorded during the month. The highest for the month was only 100″ and was photographed on the 26th at latitude —39° west.

Magnetic disturbances.—Only "small" disturbances were recorded on 5 days during the month.

Seismic records.

$\phi = 10° 13' 50''$; $\lambda = 77° 28' 00''$; h = 2,343 m. Subsoil Rock.

Apparatus.—Milne's Horizontal Pendulum Seismograph.

TABLE 1.

	V	To	ϵ	$\frac{r}{To^2}$
AN :				
AE :	9·76	16·7	1	$2·8 \times 10^{-+}$
AZ :				

Date.	Phase.	Time G. M. T.			Period (sec.).	Amplitude (u)			Distance Δ (Km.)	Remarks.
		h.	m.	s.		An.	Ae.	Az.		
1913 September 3rd	e P	22	02	48	...	...	...	...	...	Widening of line.
	F	23	30	00	...	...	...	...	...	
13th	e P	2	22	36	...	...	...	...	...	Widening of line.
	F	2	56	42	...	...	...	...	...	
16th	e P	12	17	42	...	...	...	...	...	
	e L	12	19	12	...	...	...	...	...	
	M	12	23	18	...	...	90	...	...	
	F	12	40	18	...	...	...	...	...	

T. ROYDS,

Ag. Director,

Kodaikanal and Madras Observatories.

BOMBAY OBSERVATORY.

Alibag magnetic record.

4. During the month of September 1913 the traces showed 8 calm days and 22 days of small disturbance.

The days of the month selected as quiet for the purposes of the Magnetic Survey of India are the 2nd, 4th, 14th, 27th and 29th.

The following table represents the magnetic character of each day during the month.

TABLE 2.

Day.	Character.	Day.	Character.	Day.	Character.	Day.	Character.
1	S	9	S	17	S	25	S
2	C	10	S	18	S	26	S
3	S	11	S	19	S	27	C
4	C	12	S	20	S	28	C
5	S	13	S	21	S	29	C
6	S	14	C	22	S	30	S
7	S	15	C	23	S		
8	S	16	C	24	S		

C = calm ; S = small ; M = moderate ; G = great ; V. G. = very great.

The mean observed absolute values of the several magnetic elements reduced to the mean monthly tabulations of the magnetograms, as also the ranges and the summed ranges of the horizontal force and declination for the month are as follows:—

Easterly declination . . .	0° 46′ 30″
Horizontal force . . .	0·36876 C. G. S. unit.
Vertical force	0·16489 C G. S. unit.
Inclination	24° 5′·5.
Inclination (observed) . .	24° 3′·3.
Horizontal force range . .	0·00030 C. G. S. unit.
Horizontal force summed range .	0·00183 C. G. S. unit.
Declination range . . .	4′·4.
Declination summed range .	16′·6.

(NOTE.—Summed range means sum without regard to sign of 24 ordinates of the diurnal inequality.)

Seismic records.

$\phi = 18° 53' 45''$; $\lambda = 72° 48' 56''$; $h = 11$ m. Subsoil Trap.

Apparatus.—Milne's Horizontal Pendulum Seismograph.

TABLE 3.

	V	To	ϵ	$\frac{r}{To^2}$
AN :				
AE :	9	19	1	
AZ :				

Date.	Phase.	Time G. M. T.			Period (sec.)	Amplitude (u).			Distance Δ (Km.)	Remarks.
1913.		h.	m.	s.		An.	Ae.	Az.		
Sep. 3	P	21	13	36						
	M	21	20	0			56			
	F	22	30	54						
" 16	P	12	17	12						Commencement doubtful.
	M	12	20	42			133			
	F	12	30	36						

Thickening of line was noted on the following occasions :—

d. h. m.	d. h. m.	d. h. m.	d. h. m.
2 17 38	3 19 17	3 23 26 to 29	4 19 15
5 14 10	5 20 24	7 2 53	10 5 14
11 11 12	12 10 44	12 10 59	13 2 39 to 43
13 11 42	14 13 8	16 11 47	19 12 15
20 0 55 to 57	22 5 20	23 5 23 to 25	23 12 13
24 5 14 to 17	25 4 10 to 14	25 5 14	

Only those thickenings which can be clearly distinguished are given; thickenings mixed in tremors are omitted from the above list.

Sensibility to tilt: 1 m.m. of amplitude on the trace = 0·32"

N. A. F. MOOS,
Director,
Bombay & Alibag Observatories.

5. CALCUTTA (ALIPORE) OBSERVATORY.

TABLE 4.

Seismic records.

$\phi = 22° 32' 0''$; $\lambda = 88° 20' 0''$; h = 6·4 m. Subsoil Alluvial.

Apparatus.—Milne's Horizontal Pendulum Seismograph.

	V	To	G	$\frac{r}{To^2}$
AN :				
AE :	8·688	18	1	
AZ :				

Date.	Phase.	Time G. M. T.	Period (sec.)	Amplitude (u) An.	Ae.	Az.	Distance Δ (Km.)	Remarks.
1913.		h. m. s.						
Sept. 3	P	21 11 17	...	...	...	...	...	Driving clock was under repair from 9th September to 7th October 1913.
	L	21 19 25	...	...	...	...	...	
	M	21 19 35	...	...	86	...	...	
	F	22 46 55	...	...	...	...	...	

E. P. HARRISON,
Offg. Meteorologist, Calcutta.

6. SIMLA OBSERVATORY.

$\phi = 31° 6'$N $\lambda = 77° 11'$ E h = 2433·5 m. Subsoil Rock.

Apparatus.—Two Omori-Ewing Horizontal Pendulum Seismographs Masses 50 Kg.

TABLE 5.

	V	To	G	$\frac{r}{To^2}$
AN :	14	45	1	
AE :	14	45	1	
AZ :				

Date.	Phase.	Time, G. M. T.	Period (sec.)	Amplitude (u) An.	Ae.	Az.	Distance Δ (Km.)	Remarks.
1913		h. m. s.						
May 8th	i P	18 54 57	...	...	...	...	...	
	M	19 6 0	...	11	18	...	...	
	e F	19 37 33	...	...	...	...	...	Slight tremors.
„ 15th	i P	0 49 21	...	...	...	...	...	
	L & M	0 49 33	Very rapid.	21	18	...	...	
	F	0 51 21	...	...	...	...	...	Slight local shock.
„ 16th	e P	12 28 45	...	...	...	...	...	
	M	12 43 45	13	7	7	...	...	
	e F	12 56 45	...	...	...	...	...	Slight tremors.
„ 18th	P	2 19 9	...	...	...	...	...	
	S	2 28 27	...	...	18	...	...	
	L	2 43 57	...	...	...	...	...	
	M	2 49 3	24	...	46	...	...	
	F	3 7 45	...	...	...	...	...	
„ 29th	P	13 37 6	...	...	...	...	...	
	L	13 53 42	...	...	...	...	...	
	M	13 54 48	30	93	Hardly visible		...	
	F	14 7 6	...	...	...	...	...	
„ 30th	P	11 59 54	...	...	...	...	...	
	S	12 9 18	...	...	103	...	...	
	L	12 14 36	...	...	...	...	...	
	M	12 34 42	25	Instr. out of order.	114	..	...	
	F	13 34 42	...	...	...	...	...	

Date.	Phase.	Time G. M. T.			Period (sec.)	Amplitude (u). An.	Ae.	Az.	Distance Δ (Km.)	Remarks.
1913.		h.	m.	s.						
June 4th	i	10	18	24	9	7	...	...	...	
	e F	10	52	0	...	...	...	...	...	Slight tremors.
„ 9th	i	3	23	36	8	11	7	...	...	
	e F	3	44	6	...	...	...	...	...	Slight tremors.
„ 11th	e	18	48	0	...	...	...	...	...	
	e F	18	55	0	...	...	...	...	...	Very slight tremors.
„ 14th	e P	9	41	36	...	...	...	...	...	
	S	9	48	18	12	...	7	...	...	
	L	9	58	24	...	...	...	...	...	
	M	10	1	0	21	...	79	...	...	
	F	10	49	12	...	...	...	...	...	
„ 22nd	P	14	1	48	...	...	...	...	...	
	S	14	11	18	...	...	...	...	...	
	L	14	29	36	...	...	...	...	...	
	M	14	36	0	21	57	25	...	...	
	e F	15	28	0	...	...	...	...	...	
„ 26th	P	5	16	42	...	...	...	...	...	
	S	5	23	54	...	...	...	...	...	
	L	5	36	42	...	...	...	...	...	
	M_1	5	38	30	35	...	643	...	...	Period slow and pendulum probably set swinging, thus giving too large an amplitude.
	M_2	5	52	30	42	564	...	...	...	
	e F	8	36	0	...	...	...	...	...	
„ 26th	i P	23	29	42	...	...	...	...	...	
	M	23	30	0	Very rapid.	125	107	...	...	
	e F	23	43	24	...	...	...	...	...	Local shock.
„ 27th	e P	2	23	0	...	...	...	...	...	
	e F	2	39	0	...	...	...	...	...	Very slight tremors.
July 6th	e P	16	22	12	...	...	...	...	...	
	M	16	30	54	8	7	4	...	...	
	F	17	8	24	...	...	...	...	...	Slight tremors.
„ 6th	i	18	23	0	...	...	...	...	...	
	F	18	31	0	Very rapid.	...	...	...	...	Very slight local shock.
„ 7th	e	17	48	42	...	...	...	...	...	
	e F	18	57	0	...	11	7	...	...	Slight tremors.
„ 8th	i	22	30	12	...	...	...	...	...	
	e F	22	55	0	...	...	...	...	...	Very slight tremors.
„ 12th	i	10	54	12	...	...	...	...	...	
	e F	11	33	0	19	18	14	...	...	Slight tremors.
„ 22nd	i	6	57	24	...	...	...	...	...	
	e F	7	33	0	...	...	...	...	...	Very slight tremors.
„ 28th	i	6	36	6	...	...	...	...	...	
	F	7	43	54	25	11	11	...	...	Slight tremors.

Date.	Phase.	Time G. M. T.			Period (sec.)	Amplitude (u). An.	Ae.	Az.	Distance Δ (Km.)	Remarks.
1913.		h.	m.	s.						
July 28th	i	12	51	42	...	...	...	...	...	
	F	13	25	6	...	...	...	...	...	Very slight tremors.
Aug. 1st	P	17	20	54	...	...	...	...	...	
	S	17	29	6	...	...	...	...	...	
	L	17	43	48	...	...	...	...	...	
	M	17	50	54	15	54	39	...	...	
	e F	18	44	0	...	...	...	...	...	
„ 4th	i	15	28	42	...	...	...	...	...	
	F	15	33	0	...	...	...	...	...	Very slight tremors.
„ 4th	i	21	32	36	...	...	...	...	...	
	e F	21	39	0	...	...	...	...	...	„
„ 6th	i	18	9	12	...	...	...	...	...	
	M	18	9	30	Very rapid.	...	...	...	...	
	e F	18	11	30	...	...	...	...	...	Slight local shock.
„ 6th	P	22	34	0	...	...	...	...	...	*
	S	22	45	0	...	...	...	...	...	
	L	22	55	0	...	...	...	...	...	
	M	23	29	0	30	1464	304	...	...	
„ 7th	F	0	27	0	...	...	...	...	...	
„ 11th	e	6	44	0	...	...	...	...	...	
	F	7	4	36	...	...	...	...	...	Very slight tremors.
„ 13th	P	4	34	0	...	...	...	...	...	
	S	4	40	36	...	...	...	...	...	
	L	4	49	0	...	...	...	...	...	
	M	4	51	0	31	196	54	...	...	
	e F	5	58	0	...	...	...	...	...	
„ 18th	i	6	41	18	...	...	...	...	...	
	e F	7	0	0	...	...	...	...	...	Very slight tremors.
„ 19th	i	5	10	54	...	...	...	...	...	
	e F	5	33	0	...	...	...	...	...	Very slight tremors.
„ 20th	i	3	14	48	...	...	...	...	...	
	F	3	15	36	...	...	...	...	...	Very slight local shock.
„ 21st	i	5	3	0	...	...	...	...	...	
	M	5	3	30	Very rapid.	182	146	...	...	
	e F	5	33	0	...	...	...	...	...	Slight local shock.
„ 21st	i	8	52	48	...	...	...	...	...	
	e F	8	55	0	...	...	...	...	...	Very slight local shock.
„ 28th	i	4	24	6	...	...	...	...	...	
	F	4	24	42	...	...	...	...	...	Very slight local shock.

* The slow period has probably caused pendulum to swing thus giving too large an amplitude. The electromagnet failed to work after 24 hrs. and therefore only the approximate times of the commencements of the phases can be given.

Date.	Phase.	Time G. M. T.	Period (Sec.)	Amplitude (u) An.	Ae.	Az.	Distance Δ (Km).	Remarks.
1913.		h. m. s.						
Aug. 31st	e	0 0 0	...	...	...	...	...	
	e F	0 29 0	...	...	...	...	...	Very slight tremors.
„ 31st	i	17 33 0	...	...	...	...	...	
	e F	18 9 0	...	...	...	...	...	Very slight tremors.
Sept. 3rd	P	21 3 24	...	...	...	...	...	
	S	21 13 36	25	14	14	...	...	
	e F	22 34 0	...	...	...	...	...	Slight tremors.
„ 11th	i	14 10 48	...	...	...	...	...	
	M	14 11 18	...	...	...	...	...	
	F	14 12 18	...	...	...	...	...	Very slight local shock.
„ 13th	i	2 19 54	...	...	...	...	...	
	e F	2 53 0	...	...	...	...	...	Very slight tremors.
„ 16th	i	12 15 12	...	...	...	...	...	
	F	12 42 36	...	...	...	...	...	Very slight tremors.
„ 22nd	i	20 34 24	...	...	...	...	...	
	M	20 34 42	...	50	57	...	...	
	F	20 37 24	...	...	...	...	...	Slight local shock.
„ 22nd	i	21 55 0	...	...	...	...	...	
	M	21 55 18	...	25	18	...	...	
	F	21 56 36	...	...	...	...	...	Slight local shock.
„ 24th	e	5 21 0	...	...	...	...	...	
	e F	5 36 0	...	...	...	...	...	Very slight tremors.

Following table contains a list of earthquakes that were reported :—

TABLE 6.

Place at which felt.	Date.	G. M. T. of earthquakes.		Duration.	Intensity Rossi-Forel scale.	No. of shocks.
	Septr.	h.	m.	sec.		
Mandalay	1st	3	33	2	4	1
Jodhpur	13th	18	12	120	5	1
Drosh	22nd	15	5	3	5	1
„	22nd	16	40	2	6	1
„	25th	8	30	3	5	1
„	25th	12	50	6	6	1

Solar radiation.—The following figures give the intensity of solar radiation, as measured at Simla by Angstrom's pyrheliometer. The values are corrected to local noon, and expressed in grammecalories per square centimetre per minute :—

Maximum	1·41
Minimum	1·35
Mean	1·38
Number of days of observation .	10

C. W. NORMAND,

Imperial Meteorologist, Simla.

ROYAL ALFRED OBSERVATORY, MAURITIUS.

7. No information has been received.

Weather in the Indian Ocean.

8. In the equatorial belt pressure was normal at Zanzibar and moderately above it at Seychelles. Winds at both these stations were practically normal in direction and velocity. Rainfall was irregularly distributed, being about 20 per cent. in excess at Zanzibar and 93 per cent. short of the average at Seychelles. Further south at Mauritius both barometric pressure and the movement of air were higher than usual.

TABLE 7.

	Mauritius.	Zanzibar.	Seychelles.
Departure from normal of mean pressure.	+·013	+·005	+·022
Actual mean wind direction .	S 74° E	S	S 48° E
Normal mean wind direction .	S 71° E	S 5° E	S 40° E
Actual mean wind velocity (miles per diem).	208	84	199
Normal mean wind velocity (miles per diem).	186	98	210
Rainfall departure from normal .	+·005	+0·48	—4·52

Depressions and cyclonic storms.

9. Three disturbances affected the weather in India during the course of the month. The early history of the first of the three has already been given in the August Weather Review. At the opening of September the centre of the disturbance lay in the neighbourhood of Nagpur and Chanda, where barometric pressure was nearly two-tenths of an inch below the normal. From here it travelled in a north-westerly direction and was dissipated

on the 5th over the high ground to the west of Sind. Barometrically it was shallow, but it caused some heavy rain on the southern side of its track. The most remarkable fall of rain due to the action of the disturbance was one of 9·05″ on the 4th at Umarkot in the dry zone of lower Sind.

The second disturbance was first seen on the 13th as a shallow low pressure area at the head of the Bay. It travelled slowly westwards during the next three days without any appreciable change in its depth, crossed the Orissa coast on the night of the 16th, and traversing Chota Nagpur disappeared over Bihar on the 18th. It caused moderate to heavy rain in Chota Nagpur and Bihar.

The third disturbance was ill-defined throughout its course. It was generated over the Bay nearly midway between the Andamans and the Coromandel coast on the 26th, and after moving in a north-north-easterly direction disappeared over the head of the Bay during the 30th. So far as can be ascertained from the available marine information, it was throughout an area of disturbed squally weather, and its chief effect was a heavy fall of rain on the Chittagong coast on the 30th.

Pressure.

10. Atmospheric pressure was greater than usual almost everywhere, the excess being least (about ·005″) in Burma and greatest (about ·04″) in Sind and Berar and round Malegaon and Khandwa.

Averaged over the whole of the plains of India, the monthly readings of the barometer were as much as ·02″ above their normal September value.

TABLE 8.

Division.	Departure from normal of mean 8 hrs. pressure.
	″
Burma	+·004
Assam	+·009
Bengal	+·008
Bihar and Orissa	+·014
United Provinces	+·009
Punjab	+·028
North-West Frontier Province	+·013
Sind	+·038
Rajputana	+·029
Bombay	+·027
Central India	+·029
Central Provinces	+·034
Hyderabad	+·019
Mysore	+·019
Madras	+·017

The vertical gradient was appreciably stronger than usual in southern India and north Bengal, and about the average elsewhere.

TABLE 9.

Hill station.	Departure from normal pressure. A	Plain station.	Departure from normal pressure. B	Departure of pressure difference B—A.
			″	
Quetta	+·027	Jacobabad	+·042	+·015
Leh	+·017	Lahore	+·024	+·007
Murree	+·023	Peshawar	+·012	—·011
Simla	+·032	Ludhiana	+·028	—·004
Chakrata	+·015	Roorkee	+·020	+·005
Darjiling	—·028	Dhubri	+·006	+·034
Pachmarhi	+·037	Khandwa	+·042	+·005
Kodaikanal	+·002	Madura	+·028	+·026

Temperature.

11. Maximum temperature was in excess by 5° in Central India East, by 4° in the United Provinces, Hyderabad South and the Madras Deccan, and by 3° in the Bombay Deccan; was in defect by 3° in Kashmir, and was nearly normal elsewhere.

Minimum temperature was within 2° of the normal in all the sub-divisions with the exception of the Punjab South-west, Kashmir and Baluchistan, where it was about 3° lower than usual.

Deviations from normal of mean temperature for the month were generally small, in few places exceeding two degrees.

TABLE 10.

Sub-division.	Actual temperature.					Departure from normal of		
	Mean maximum.	Mean minimum.	Monthly mean of mean between maximum and minimum.	Mean daily range of temperature.	Absolute range during month.	Maximum.	Minimum.	Daily range.
	°	°	°	°	°	°	°	°
1. Bay Islands	84·1	77·1	80·6	7·1	13·6	−1·3	−0·4	−0·9
2. Lower Burma	85·7	75·3	80·5	10·4	17·9	+0·3	+0·3	0
3. Upper Burma	89·8	74·8	82·3	14·9	23·7	−0·5	−0·1	−0·4
4. Assam	87·7	76·0	81·8	11·7	21·1	−0·4	−0·1	−0·3
5. Bengal	88·7	78·0	83·4	10·7	18·6	+0·7	+0·3	+0·4
6. Orissa	90·1	77·9	84·0	12·3	19·2	+0·5	0	+0·5
7. Chota Nagpur	89·4	74·3	81·9	15·1	24·0	+0·6	0	+0·6
8. Bihar	89·7	77·6	83·7	12·1	20·1	+0·1	−0·1	+0·2
9. United Provinces, East	94·3	75·4	84·9	18·9	29·8	+2·9	−1·5	+4·4
10. Do. do., West	98·0	74·9	86·5	23·1	33·5	+6·1	−0·6	+6·7
11. Punjab, East and North	96·8	72·3	84·5	24·5	34·9	+1·2	−1·8	+3·0
12. Do., South-west	98·5	73·2	86·1	25·3	36·6	−1·7	−2·8	+1·1
13. Kashmir	73·8	47·3	60·6	26·5	39·5	−2·7	−3·3	+0·6
14. North-West Frontier Province	96·9	70·5	83·7	26·3	37·9	−1·4	−1·9	+0·5
15. Baluchistan	90·9	60·3	75·6	30·6	42·7	−1·7	−2·5	+0·8
16. Sind	94·0	75·6	84·8	18·5	30·8	−1·4	−0·3	−1·1
17. Rajputana, West	96·9	76·1	86·5	20·7	31·1	−0·2	−1·5	+1·3
18. Rajputana, East	94·4	75·8	85·1	18·6	30·5	+1·8	+0·9	+0·9
19. Gujarat	88·7	74·4	81·5	14·3	25·3	−1·2	−0·7	−0·5
20. Central India, West	87·7	69·9	78·8	17·9	31·2	+1·1	−0·7	+1·8
21. Do., East	94·0	73·9	83·9	20·1	33·5	+4·8	−0·9	+5·7
22. Berar	88·2	71·0	79·6	17·2	29·1	+1·5	−0·5	+2·0
23. Central Provinces, West	89·9	71·7	80·8	18·2	30·0	+2·4	−0·8	+3·2
24. Do., East	88·5	72·9	80·7	15·7	24·6	+1·9	+0·1	+1·8
25. Konkan	84·1	75·2	79·6	8·9	14·0	+0·4	+0·2	+0·2
26. Bombay Deccan	88·0	68·7	78·3	19·3	29·7	+2·9	0	+2·9
27. Hyderabad, North	87·8	70·4	79·1	17·4	26·9	+1·6	+0·1	+1·5
28. Do., South	91·1	73·7	82·4	17·4	26·5	+3·5	+1·6	+1·9
29. Mysore	84·8	66·2	75·5	18·6	26·1	+2·3	+0·3	+2·0
30. Malabar	84·8	74·8	79·8	9·9	14·7	+0·8	+0·9	−0·1
31. Madras, South-east	94·3	76·0	85·1	18·3	26·3	+1·8	+0·8	+1·0
32. Do., Deccan	94·5	75·5	85·0	19·0	28·6	+3·8	+1·7	+2·1
33. Do., Coast, North	91·4	78·8	85·1	12·6	22·6	+2·1	+0·4	+1·7

TABLE 11.

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

Winds.

12. (*a*). Winds were weaker than usual over the greater part of northern India as well as in Bombay, Hyderabad and Burma; they were up to their average strength in Madras, Mysore and the Central Provinces.

Their steadiness was considerably above the normal in Assam, Bihar and Orissa, the United Provinces, Rajputana, Central India and the Central Provinces, and markedly low in Bengal and the North-West Frontier Province.

(*b*) 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.

TABLE 12.

Division.	Departure from normal of	
	Hourly wind velocity.	Wind steadiness.
Burma	—0·4	—7
Assam	—0·3	+10
Bengal	—1·2	—14
Bihar and Orissa	—0·3	+9
United Provinces	—0·5	+8
Punjab	—0·3	0
North-West Frontier Province	—0·6	—14
Sind	—2·1	—2
Rajputana	+0·5	+11
Bombay	—0·9	—9
Central India	—1·0	+8
Central Provinces	+0·3	+18
Hyderabad	—1·5	—9
Mysore	+0·2	—3
Madras	+0·5	—3

Humidity and cloud.

13. Over the United Provinces, the east Punjab, Bundelkhand, the north-east of the Central Provinces and in parts of the Deccan both humidity and vapour tension were distinctly low, but elsewhere in the plains the hygrometric conditions were nearly normal.

In Baluchistan the absolute humidity was in defect, but owing to the lowness of temperature relative humidity was above the normal. In the western Himalayas humidity was below the average in both respects.

There was less cloud than usual over nearly the whole country excepting Burma and Baluchistan. In relation to the normal the quantity of cloud was smallest in the United Provinces, the east Punjab, Baghelkhand, the eastern districts of the Central Provinces and the Bombay Deccan, where the defect averaged 2·0.

TABLE 13.

DIVISION.	HYGROMETRY, 8 HRS.				CLOUD.	
	Mean humidity.	Departure from normal.	Mean vapour tension in inches of mercury.	Departure from normal in inches of mercury.	Mean cloud amount at 8 hrs.	Departure from normal.
	%					
Burma	89	− 1	·865	−·016	7·3	+0·3
Assam	91	− 1	·897	−·013	6·9	−1·3
Bengal	88	− 1	·951	−·006	6·5	−0·5
Bihar and Orissa	85	+ 1	·905	+·003	5·1	−0·9
United Provinces	69	−11	·770	−·088	2·4	−1·8
Punjab	61	− 7	·647	−·082	0·7	−1·2
North-West Frontier Province.	65	0	·633	−·049	0·6	−0·3
Sind	77	+ 4	·805	+·021	1·9	−0·5
Rajputana	64	− 6	·672	−·073	3·3	−0·2
Bombay	82	− 1	·779	−·009	5·0	−0·8
Central India	75	− 6	·715	−·067	4·4	−0·7
Central Provinces	76	− 8	·721	−·063	4·0	−1·6
Hyderabad	73	− 7	·695	−·057	4·9	−1·4
Mysore	81	− 2	·618	−·011	6·9	−1·0
Madras	78	− 2	·816	−·001	5·4	−0·9

Rainfall.

14. The monsoon was decidedly weaker than usual and provided but little rain in the United Provinces and north-west and central India after the 9th. In normal years the final cessation of the regular monsoon rains occurs about September 15th in the Punjab, towards the end of the month in Central India, Gujarat and the west of the United Provinces and in the second week of October in the Central Provinces, and the east of the United Provinces.

Rainfall was of frequent occurrence in north-east India, but in the Peninsula hardly any rain fell except in the beginning and towards the end of the month. In Burma the monsoon was up to its average strength and rainfall occurred daily.

The aggregate rainfall of the month was within 15 per cent. of the normal in the Bay Islands, Burma, Bengal, Bihar, Gujarat, Berar, Malabar, Madras South-east and Madras Deccan, was in excess by 16 per cent. in Mysore and 407 per cent. in Sind, and was in defect over the rest of the country. The deficiency was large, *i.e.*, upwards of 50 per cent., in the United Provinces East (52 per cent.), United Provinces West (86 per cent.), the Punjab East and North (74 per cent.), Rajputana East (76 per cent.), Kashmir (58 per cent.), Baluchistan (71 per cent.), Central India (60 per cent.), Central Provinces West (60 per cent.) and Hyderabad (63 per cent.). It was considerable also in Rajputana West, Central Provinces East, the Konkan, the Bombay Deccan and Orissa.

TABLE 14.

SUB-DIVISION.	NUMBER OF RAINY DAYS.		RAINFALL.			
	Actual.	Normal.	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
			"	"	"	
1. Bay Islands	15·0	18·4	14·89	15·19	−0·30	− 2
2. Lower Burma	18·5	18·8	16·57	17·28	−0·71	− 4
3. Upper Burma	9·2	10·2	6·49	7·43	−0·94	− 13
4. Assam	12·9	13·6	10·19	12·00	−1·81	− 15
5. Bengal	12·5	12·4	11·47	11·49	−0·02	0
6. Orissa	8·2	11·9	5·81	9·79	−3·98	− 41
7. Chota Nagpur	8·7	10·4	6·50	8·24	−1·74	− 21
8. Bihar	8·9	9·4	10·28	9·42	+0·86	+ 9
9. United Provinces, East	4·3	7·3	3·28	6·79	−3·51	− 52
10. Do., West	1·5	5·9	0·84	5·86	−5·02	− 86
11. Punjab, East and North	1·4	3·2	0·80	3·06	−2·26	− 74

Sub-division.	Number of rainy days.		Rainfall.			
	Actual.	Normal.	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
			"	"	"	
12. Punjab, South-west	1·2	1·1	0·57	0·80	—0·23	— 29
13. Kashmir	1·8	2·7	0·65	1·54	—0·89	— 58
14. North-West Frontier Province	1·9	1·8	0·96	1·15	—0·19	— 17
15. Baluchistan	0·2	0·3	0·04	0·14	—0·10	— 71
16. Sind	1·4	0·7	2·28	0·45	+1·83	+407
17. Rajputana, West	2·2	2·3	1·26	2·08	—0·82	— 39
18. Do., East	2·0	4·9	0·97	3·96	—2·99	— 76
19. Gujarat	5·9	6·3	5·05	4·74	+0·31	+ 7
20. Central India, West	3·7	7·5	2·37	5·71	—3·34	— 58
21. Do., East	5·7	8·1	2·73	6·97	—4·24	— 61
22. Berar	4·9	7·9	5·37	5·87	—0·50	— 9
23. Central Provinces, West	4·1	9·5	3·15	7·96	—4·81	— 60
24. Do., East	6·6	10·3	5·54	8·40	—2·86	— 34
25. Konkan	10·9	16·0	7·30	12·60	—5·30	— 42
26. Bombay Deccan	5·2	8·6	3·49	5·63	—2·14	— 38
27. Hyderabad, North	5·0	10·5	3·20	8·24	—5·04	— 61
28. Do., South	4·6	10·3	2·35	6·80	—4·45	— 65
29. Mysore	7·3	8·0	6·04	5·20	+0·84	+ 16
30. Malabar	9·7	13·7	8·14	9·49	—1·35	— 14
31. Madras, South-east	6·0	6·1	5·00	4·51	+0·49	+ 11
32. Do., Deccan	5·6	7·6	4·74	5·40	—0·66	— 12
33. Do., Coast, North	7·5	9·1	5·07	6·84	—1·77	— 26

TABLE 15.

Division.	Rainfall.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"	
Burma	11·23	12·06	—0·83	— 7
Assam	10·19	12·00	—1·81	— 15
Bengal	11·47	11·49	—0·02	0
Bihar and Orissa	8·49	9·28	—0·79	— 9
United Provinces	2·12	6·35	—4·23	— 67
Punjab	0·75	2·59	—1·84	— 71
North-West Frontier Province	0·96	1·15	—0·19	— 17

Division.	Rainfall.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"	
Sind	2·28	0·45	+1·83	+407
Rajputana	1·06	3·45	—2·39	— 69
Bombay	4·68	6·59	—1·91	— 29
Central India	2·44	6·14	—3·70	— 60
Central Provinces	4·58	7·22	—2·64	— 37
Hyderabad	2·74	7·45	—4·71	— 63
Mysore	6·04	5·20	+0·84	+ 16
Madras	5·27	5·75	—0·48	— 8
Mean of India	5·10	6·89	—1·79	— 26

Snowfall.

I.—AFGHANISTAN.

15. No information has arrived.

II.—NORTH-WEST FRONTIER PROVINCE.

No information has been received.

III.—KASHMIR.

Gulmarg.—Snowstorms occurred on the south-western face of the Affarwata mountains on the 2nd, 13th, 14th and 26th. The storm of the 14th was severe and produced a large fall of temperature.

Srinagar.—On the higher mountains surrounding the valley there was a fall of snow on the 15th.

Skardu.—Falls of unknown depth took place on the neighbouring high hills on the 1st, 2nd, 6th and 10th.

Kargil.—On the 9th-10th about 9″ snow fell on the summit of the Nakthula and about 6″ on that of Samakalla. The depth of unmelted snow on the back of the Nakthula was estimated at 2 feet at the end of the month.

IV.—PUNJAB.

Kilba (*Simla Hills*).—On the hills surrounding Kilba snowstorms occurred on the 1st, 3rd, 8th, 14th and 25th. The snow line came down to about 9,000 or 10,000 feet, at which elevation the total of the month was estimated at 4 inches.

At the close of the month snow lay about 2 feet deep on the Rupin and Brua passes.

V.—UNITED PROVINCES.

Almora.—The aggregate snowfall of the month amounted to about 6 feet in Malla Darma, 5 feet in Byans, 3 feet in Chaudas and 1 foot in Malla Danpur and Malla Johar.

In Chaudas the snow line came down to a distance of 2 miles from the perpetual snow.

TABLE 16.

Name of pass or peak.	Depth of accumulation at the end of the month.	
	Reported.	Normal.
	Feet.	Feet.
Nuwe pass	28	19½
Untadhura pass	½	9
Ralamdhura "	¼	6
Pindari peak	9	1½
Kaphini pass	9	1½
Kuntela "	9	1½
Binkaru "	3½	12½
Lipulekh "	8	4½
Lampia "	10	5

The air was unusually damp during the month.

SUMMARY.

16. In the western Himalayas, for which alone information is available, there was about the usual amount of snowfall during the month.

HEM RAJ.

Table A.—Abstract of observations taken at 10 hrs. and 16 hrs. at 15 stations in India, etc., in September, 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.	Temperature, wet-bulb. Mean minimum.	Mean 10 hrs.	Mean 16 hrs.	Mean of three previous columns.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	III.—Bengal.																					
5	Calcutta	21	29·754	29·645	·109	29·700	+·008	29·668	89·4	79·1	10·3	93·6	76·4	17·2	85·8	85·9	84·0	+1·4	77·2	80·5	80·1	79·2
	V.—United Provinces of Agra and Oudh.																					
9	Allahabad	309	29·451	29·342	·109	29·399	+·019	29·656	95·3	75·1	20·2	101·9	68·5	33·4	88·4	93·1	84·0	+1·0	71·9	76·4	76·0	74·7
	VI.—Punjab.																					
11	Lahore	702	29·046	28·953	·093	28·992	+·020	29·644	99·1	72·0	27·1	103·1	63·5	39·6	89·3	97·7	84·6	−0·2	68·1	74·3	76·0	72·8
	IX.—Rajputana.																					
18	Jaipur	1,431	28·379	28·273	·106	28·323	+·019	29·666	97·4	74·0	23·4	103·2	68·1	35·1	88·1	94·2	84·2	+1·8	67·2	73·0	72·4	70·9
	X.—Bombay.																					
25	Bombay	37	29·871	29·776	·095	29·821	+·030	29·798	85·4	77·0	8·4	88·6	75·4	13·2	81·3	82·9	80·1	+0·7	74·1	77·4	77·4	76·3
	XIV.—Mysore.																					
29	Bangalore	3,021	26·943	26·821	·122	26·890	+·016	29·718	85·4	66·2	19·2	90·6	62·8	27·8	76·5	82·1	74·0	+2·2	64·8	68·7	70·0	67·8
	XV.—Madras.																					
31	Pudukkottai	318	29·560	29·427	·133	29·493		29·737	97·4	76·3	21·1	101·9	71·2	30·7	87·9	92·5	86·8			74·0	75·9	
	Madras	22	29·832	29·709	·123	29·779	+·002	29·733	95·0	78·2	16·8	102·1	73·0	29·1	88·5	88·3	85·6	+1·7	75·0	78·6	79·6	77·7
	Hill stations, excluding Kashmir and Baluchistan.																					
	Sarain																					
	Kalabagh		20·180	20·143	·037	20·154		20·117	54·4	43·3	11·1	57·4	38·3	18·1	50·5	52·6	48·5		...	44·2	46·7	
	Mukteswar	7,592	22·856	22·794	·062	22·817		22·775	71·0	53·0	18·0	74·3	49·9	24·4	63·6	66·7	61·6		47·2	56·1	60·1	54·5
	Katmandu	4,388	25·618	25·518	·100	25·565	+·042†	25·519	83·1	65·2	17·9	89·0	60·0	29·0	75·6	79·3	73·7	+0·5†	63·4	68·8	70·9	67·7
	Ootacamund	*7,327*																				
	Kodaikanal	7,688	22·838	22·772	·066	22·805		22·740	64·8	51·8	13·0	70·7	48·9	21·8	61·8	59·7	58·3		49·0	56·4	56·9	54·1
	Dodabetta	8,539?	22·072	22·003	·069	22·034		21·971	59·3	48·8	10·5	64·1	45·9	18·2	56·6	54·5	53·6		44·7	54·0	53·0	50·6
	Extra India.																					
	Diego Garcia																					
	Seychelles	15	30·041	29·947	·094	30·002	+·022†	29·940	81·6	76·2	5·4	83·3	72·3	11·0	79·9	80·7	77·6	−0·1†	69·7	74·3	74·4	72·8
	Mauritius	181																				

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 3,208 feet.

A.

t 15 stations in India, etc., in September, 1913.

Vapour tension in inches of mercury.					Humidity.					Cloud.				Wind direction.											Wind steadiness.		Wind velocity.		Rainfall.		Station.	Number of sub-division.
														Total number of 10 hrs. and 16 hrs. winds from																		
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.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Mean wind direction.	Normal mean wind direction of month.	Average percentage.	Normal percentage.	Mean velocity in miles per diem.	Normal.	Total rainfall for the month.	Heaviest rainfall during the month.		
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	49	50	51	52	53	54	55	56
																															III.—Bengal.	
·905	·967	·947	·945	—·007	91	79	77	83	— 3	7·8	8·2	8·0	+0·1	1	2	2	10	8	13	15	5	4	S 4° W	S 9° W	37	46	70*	71	5·67	1·16	Calcutta . .	5
																															V.—United Provinces of Agra and Oudh.	
·744	·750	·674	·740	—·141	85	57	46	67	—14	4·0	4·3	4·1	−1·4	5	6	4	5	2		3	19	16	N 54° W	N 15° W	48	13	54	104	2·91	1·37	Allahabad .	9
																															VI.—Punjab.	
·614	·646	·605	·642	—·076	81	48	35	57	— 4	0·5	1·2	0·9	−1·0	19	2	4		3	3	1	10	18	N 58° W	N 46° E	37	59	30	37	0·27	0·15	Lahore . .	11
																															IX.—Rajputana.	
·594	·628	·527	·601	—·091	70	48	34	56	—13	3·4	5·5	4·5	0	1	9	2	3	1	1	5	11	21	N 51° W (a)	N 42° W	59	43	84*	74	1·29	0·70	Jaipur . .	
																															X.—Bombay.	
·799	·888	·854	·857	—·015	86	84	77	83	— 3	6·7	6·2	6·5	−0·4		2	2	6	6	3	4	26	11	N 87° W	N 84° W	42	52	137*	189	5·75	1·67	Bombay . .	2
																															XIV.—Mysore.	
·596	·612	·590	·611	—·012	93	68	55	75	— 5	6·6	7·1	6·9		1	3		2		1	10	25	18	N 80° W	S 84° W	73	83	124	123	8·22	2·97	Bangalore . .	29
																															XV.—Madras.	
	·557	·666				50	45			1·7	4·0	2·9		22	3	2		7	3	9	4	10	S 76° W		20		183		7·69	3·30	Pudukkottai .	31
·821	·813	·880	·859	+·011	85	63	66	74	— 3	4·7	5·4	5·1	−1·2		3	2	9	13	2	11	11	9	S 34° W	S 36° W	17	53	108*	105	3·01	1·08	Madras.	
																															Hill stations, excluding Kashmir and Baluchistan.	
																															Sarain.	
	·240	·268				64	67			3·2	5·7	4·5		5	23	1	1	3	8	2	3	14	N 26° W		40		108		1·28	0·56	Kalabagh.	
·267	·375	·451	·366		67	64	69	69		3·5	5·2	4·3		11		1	2	3		1	41	1	S 88° W		62		124		1·21	1·92	Mukteswar.	
·562	·623	·657	·616	—·017	90	71	67	78	— 3	5·7	5·6	5·7	−0·6	56			2			1	1		S 19° E	N 87° W	2	11	12*	12	4·03	1·96	Katmandu.	
																															Ootacamund.	
·318	·398	·433	·383		82	72	85	80		6·4	8·6	7·5			1	5	3	15	7	2	10	17	S 68° W		12		176		6·57	1·32	Kodaikanal.	
·255	·391	·388	·337		74	85	91	83		9·1	9·5	9·3			13	3	6	6	2	1	14	15	N 35° W		38		223		5·36	1·43	Dodabetta.	
																															Extra India.	
																															Diego Garcia.	
·641	·772	·771	·735	—·032	71	75	73	75	— 5	4·1	4·1	4·1	−1·5†	1		2	5	48	4				S 48° E	S 40° E	90	87	199*	210	0·34	0·15	Seychelles.	
																															Mauritius.	

(a) Wind observations of 27 days.

* Uncorrected for scale error.
† Departure from old normal.

Table B.—Abstract of observations taken at 8 hrs. at 216 stations in India, etc., in September, 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.

	Pressure departure from normal.	Temperature of air.								Wind.		Hygrometry.				Cloud.		Rainfall.		
		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.	Absolute range during month	Departure of velocity from normal.	Departure of steadiness from normal.	Mean humidity.	Departure from normal.	Mean vapour tension.	Departure from normal.	Mean cloud amount.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.
ma	+·004	87·5	0	75·1	+0·1	81·3	+0·1	12·4	20·5	—0·4	—7	89	—1	·865	—·016	7·3	+0·3	11·23	12·06	—0·83
am	+·009	87·7	—0·4	76·0	—0·1	81·8	—0·2	11·7	21·1	—0·3	+10	91	—1	·897	—·013	6·9	—1·3	10·19	12·00	—1·81
gal	+·008	88·7	+0·7	78·0	+0·3	83·4	+0·5	10·7	18·6	—1·2	—14	88	—1	·951	—·006	6·5	—0·5	11·47	11·49	—0·02
ar and Orissa	+·014	89·8	+0·3	76·9	—0·1	83·3	+0·1	12·9	20·7	—0·3	+9	85	+1	·905	+·003	5·1	—0·9	8·49	9·28	—0·79
ited Provinces of Agra and Oudh	+·009	96·0	+4·3	75·2	—1·1	85·6	+1·6	20·8	31·5	—0·5	+8	69	—11	·770	—·098	2·4	—1·8	2·12	6·35	—4·23
njab	+·027	97·4	+0·4	72·6	—2·1	85·0	—0·9	24·8	35·5	—0·3	0	61	—7	·647	—·082	0·7	—1·2	0·75	2·59	—1·84
rth-West Frontier Province	+·013	96·9	—1·4	70·5	—1·9	83·7	—1·7	26·3	37·9	—0·6	—14	65	0	·633	—·049	0·6	—0·3	0·96	1·15	—0·19
d	+·038	94·0	—1·4	75·6	—0·3	84·8	—0·9	18·5	30·8	—2·1	—2	77	+4	·805	+·021	1·9	—0·5	2·28	0·45	+1·83
jputana	+·029	95·4	+1·0	76·0	—0·1	85·7	+0·4	19·4	30·7	+0·5	+11	64	—6	·672	—·073	3·3	—0·2	1·06	3·45	—2·39
mbay	+·027	87·5	+0·5	72·7	—0·3	80·1	+0·1	14·8	24·3	—0·9	—9	82	—1	·779	—·006	5·0	—0·8	4·68	6·59	—1·91
ntral India	+·029	90·9	+2·9	71·9	—0·8	81·4	+1·1	19·0	32·3	—1·0	+8	75	—6	·715	—·067	4·4	—0·7	2·44	6·14	—3·70
ntral Provinces	+·036	89·1	+2·1	71·9	—0·6	80·5	+0·8	17·2	28·1	+0·3	+18	76	—8	·721	—·063	4·0	—1·6	4·58	7·22	—2·64
derabad	+·021	89·7	+2·9	72·3	+1·1	81·0	+2·0	17·4	26·7	—1·5	—9	73	—7	·695	—·057	4·9	—1·4	2·74	7·45	—4·71
sore	+·019	84·8	+2·3	66·2	+0·3	75·5	+1·3	18·6	26·1	+0·2	—3	81	—2	·618	—·011	6·9	—1·0	6·04	5·20	+0·84
dras	+·017	92·1	+2·0	76·5	+0·9	84·3	+1·4	15·6	23·8	+0·5	—3	77	—2	·810	—·001	5·3	—0·9	5·27	5·75	—0·48

Table

(2) Abstract of observations taken at 8 hrs. at 216 stations

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
	I.—Burma.																						
2	Victoria Point	147	29·771		29·848	29·812	21st	29·706	6th	·136	78·2	83·2		73·8		78·5		9·4	88·6	26th	70·2	1st	18·4
	Mergui	65	29·847	+·007	29·843	29·917	19th & 28th.	29·760	1st	·157	77·2	85·1	+0·7	72·4	+0·2	78·7	+0·5	12·7	88·0	18th & 30th.	69·3	2nd	18·7
	Tavoy	19	29·886	−·008	29·838	29·962	28th	29·801	6th	·161	77·7	84·5	+0·5	74·7	+1·0	79·6	+0·7	9·8	88·0	30th	71·3	2nd	16·7
	Moulmein	94	29·797	+·018	29·829	29·878	28th	29·614	1st	·264	77·1	84·5	−0·3	74·6	+0·1	79·5	−0·1	9·9	90·0	26th	70·3	2nd	19·7
	Rangoon	18	29·853	+·007	29·809	29·961	29th	29·697	1st	·264	79·1	86·3	+0·6	75·7	−0·2	81·0	+0·2	10·6	90·5	28th	72·0	2nd	18·5
	Bassein	27?	29·825	+·009	29·783	29·930	18th	29·709	12th	·221	79·6	85·3	+0·3	76·3	+0·5	81·0	+0·4	9·5	89·2	7th	72·9	2nd	16·3
	Diamond Island	41	29·816	+·004	29·792	29·913	18th	29·722	1st	·191	80·9	85·3	+0·5	77·8	+2·0	81·6	+1·3	7·5	87·4	8th & 10th.	73·0	2nd	14·4
	Toungoo	164	29·697	+·015	29·804	29·798	29th	29·512	1st	·286	79·1	88·7	−0·3	75·3	−0·3	82·0	−0·3	13·4	93·7	6th	72·9	27th	20·8
	Kyaukpyu	18	29·799		29·757	29·838	28th	29·645	2nd	·253	78·1	87·2		75·8		81·5		11·4	90·9	29th	72·4	18th	17·6
	Akyab	20	29·808	+·010	29·769	29·928	18th	29·640	2nd	·288	80·1	86·9	+0·3	76·7	−1·3	81·8	−0·5	10·2	90·4	28th	73·0	18th	17·4
	Thayetmyo	121	29·706	−·004	29·769	29·824	29th	29·549	12th	·275	80·1	89·1	−0·8	76·1	+0·1	82·6	−0·3	13·0	92·1	6th	73·9	28th	18·2
3	Minbu	*165*	29·653	−·013	29·761	29·782	28th	29·511	12th	·271	80·6	90·7	−0·2	76·5	−0·4	83·6	−0·3	14·2	94·3	11th	73·2	28th	21·1
	Yamethin	657	29·181	−·004	29·789	29·284	29th	29·035	1st	·249	78·4	90·7	−1·0	74·3	−0·5	82·5	−0·7	16·4	96·1	1st	71·6	3rd	24·5
	Mandalay	250	29·588	+·011	29·785	29·699	29th	29·447	6th	·252	82·2	95·1	+2·3	77·2	+0·3	86·2	+1·3	17·9	100·3	6th	73·9	24th	26·4
	Monywa	*280*	29·551		29·780	29·682	27th	29·415	6th	·267	80·8	92·2		77·7		85·0		14·5	98·6	2nd	74·9	27th	23·7
	Lashio	*2,820*	27·069	−·007	27·015	27·202	28th	26·950	6th	·252	71·4	83·0	−1·8	68·1	+0·3	75·6	−0·7	14·9	88·1	4th	65·0	29th & 30th.	23·1
	Bhamo	*381*	29·447	+·011	29·762	29·586	29th	29·339	12th	·247	76·8	88·8	−1·3	74·4	−0·1	81·6	−0·7	14·4	98·4	3rd	72·0	15th & 30th.	26·4
	Myitkyina	458	29·330		29·752	29·475	27th	29·136	12th	·339	76·7	88·5		74·4		81·5		14·1	97·6	3rd	71·2	3rd	26·4
	II.—Assam.																						
	Dibrugarh	353	29·434		29·751	29·570	28th	29·343	5th	·227	76·7	85·7		74·5		80·1		11·2	93·4	4th	71·6	22nd & 29th.	21·8
	Sibsagar	333									78·3	87·1	−1·0	75·5	−0·7	81·3	−0·9	11·6	94·6	4th	73·0	29th	21·6
	Tezpur	252	29·564		29·775	29·698	27th	29·451	12th	·247	79·4	88·7		76·3		82·5		12·4	93·1	3rd & 4th	73·3	22nd	19·8
	Gauhati	195	29·602		29·753	29·724	27th	29·503	2nd	·221	80·5	89·9		75·7		82·8		14·2	94·8	4th	72·6	25th & 30th.	22·2
	Dhubri	115	29·675	+·006	29·744	29·806	28th	29·557	2nd	·249	79·5	85·7	+0·6	77·3†	+0·3†	81·5†	+0·5	8·4	90·5	4th & 5th	72·6	9th & 13th	17·9
	Silchar	104	29·714	+·011	29·771	29·831	28th	29·591	2nd	·240	79·7	89·1	−0·8	76·6	+0·2	82·8	−0·3	12·5	96·3	3rd	73·3	27th	23·0
	III.—Bengal.																						
5	Cox's Bazar	36	29·765		29·746	29·868	18th	29·603	2nd	·265	80·7	87·4		75·7		81·5		11·7	89·7	15th, 28th & 29th.	72·2	7th	17·5
	Chittagong	87	29·724	+·009	29·756	29·825	28th	29·543	2nd	·282	80·0	87·0	+0·2	76·2	−0·1	81·6	+0·1	10·8	90·5	29th	73·0	2nd	17·5
	Noakhali	43	29·762		29·752	29·885	28th	29·598	2nd	·287	80·7	86·5		77·9		82·2		8·6	91·8	3rd	74·4	30th	17·4
	Barisal	12	29·776	+·008	29·735	29·906	28th	29·643	2nd	·263	82·2	88·4	−0·1	78·1	−0·2	83·2	−0·1	10·3	91·8	6th	74·6	29th	17·2
	Narayanganj	26	29·757	+·006	29·731	29·884	28th	29·610	2nd	·274	82·9	89·5	+1·0	79·1	+0·2	84·3	+0·6	10·4	93·5	3rd	76·8	19th, 20th & 26th.	16·7
	Mymensingh	63	29·735	+·012	29·750	29·891	28th	29·582	2nd	·309	81·1	88·8	+1·7	78·0	+0·5	83·4	+1·1	10·8	93·6	3rd	73·1	22nd	20·5
	Bogra	75	29·707	+·007	29·733	29·817	28th	29·573	2nd	·274	81·8	89·6†	+1·2†	78·0	+0·5	83·8†	+0·9	11·6	94·2	3rd	73·7	29th	20·5
	Dinajpur	123	29·641	0	29·719	29·774	28th	29·532	7th	·242	81·3	89·1	+0·9	77·8	+0·4	83·4	+0·7	11·3	93·8	3rd & 6th	74·0	22nd	19·8
	Jalpaiguri	283	29·509	+·015	29·750	29·636	26th	29·406	7th	·230	79·0	88·6	+1·4	75·5	+0·2	82·0	+0·8	13·1	93·9	6th	72·9	29th	21·8
	Saugor Island	10	29·754	+·017	29·709	29·892	28th	29·658	2nd	·234	83·1	87·4	−0·8	80·3	+0·6	83·9	−0·1	7·1	92·2	13th	76·2	3rd	16·0
	Midnapore	149	29·605		29·702	29·742	28th	29·499	7th	·243	82·4	90·0		77·9		83·9		12·1	94·1	23rd	73·7	15th	20·4
	Calcutta	21	29·739	+·005	29·707	29·881	28th	29·638	7th	·243	82·2	89·4	+1·7	79·1	+1·1	84·2	+1·4	10·3	93·6	23rd	76·5	29th	17·1

N. B.—Elevations in italics indicate barometrical determinations. † Mean of 29 days.

ndia, etc., in September, 1913.

Wind direction. Number of winds from N.E. (27)	E. (28)	S.E. (29)	S. (30)	S.W. (31)	W. (32)	N.W. (33)	Resultant direction. (34)	Normal direction. (35)	Wind velocity. Mean velocity, miles per hour. (36)	Normal. (37)	Departure from normal. (38)	Wind steadiness. Actual percentage. (39)	Departure from normal. (40)	Hygrometry, 8 hrs. Mean humidity at 8 hrs. (41)	Departure from normal. (42)	Mean vapour tension at 8 hrs. in inches of mercury. (43)	Departure from normal in inches of mercury. (44)	Cloud. Mean cloud amount at 8 hrs. (45)	Departure from normal. (46)	Rainfall. Number of rainy days. (47)	Normal number of rainy days. (48)	Departure from normal. (49)	Rainfall of month. (50)	Normal rainfall of month. (51)	Departure from normal. (52)	Total rainfall from 1st May to 30th September 1913. (53)	Normal rainfall for period, 1st May to 30th September. (54)	Departure from normal of period, 1st May to 30th September 1913. (55)	Heaviest rainfall during month. (56)	Station. (57)
																														I.—Burma.
1	1	6	6	5	4	1	S 10° W		4·2*			40		88		·844		6·3		25			24·36			131·70			3·82	Victoria Point.
							a	N 76° W	2·0	1·2	+0·8	*a*		92	0	·862	+·004	7·0	—0·1	19	23·5	—4·5	20·39	27·22	— 6·83	136·81	135·13	+ 1·68	2·55	Mergui.
		2	1	1	1		S 6° W	S 64° W	1·1*	0·9	+0·2	10	—1	90	— 3	·860	—·006	6·5	—1·0	22	23·2	—1·2	28·01	31·31	— 6·20	210·14	197·18	+12·96	4·73	Tavoy.
	8	4	4	4		1	S 40° E	S 12° E	2·8	2·3	+0·5	37	0	93	+ 1	·869	—·011	8·1	+0·9	20	22·2	—2·2	37·13	28·34	+ 8·79	195·52	173·12	+22·40	10·65	Moulmein.
1	1	3	7	7	3	1	S 21° W	S 50° W	2·1	2·6	—0·5	46	—2	91	— 3	·904	—·011	9·1	+2·1	17	19·7	—2·7	14·41	15·63	— 1·22	94·54	86·03	+ 8·51	3·11	Rangoon.
2		2	2	2	2		S 10° W	S 5° W	3·0	2·9	+0·1	10	—27	92	— 1	·935	+·013	6·4	—0·5	21	20·5	+0·5	15·72	15·43	+ 0·24	88·77	96·44	— 7·67	3·69	Bassein.
1	3	3	3	9	4	1	S 28° W	S 51° W	6·8	5·8	+1·0	37	—4	85	— 1	·904	+·013	8·1	+0·7	16	17·5	—1·5	16·05	17·72	— 1·66	109·31	101·40	+8·41	3·87	Diamond Island.
1	1	8	10	3		1	S 16° E	S 32° E	1·6 F	2·3	—0·7	53	—2	89	— 2	·880	—·342	7·7	—0·5	20	17·9	+2·1	14·15	12·39	+ 1·76	72·33	70·18	+ 2·15	2·33	Toungoo.
	2		9	8	2	2	S 4° W		3·6			43		90		·876		8·1		26			21·78			155·96			2·38	Kyaukpyu.
5	9	6	1	1	1	1	S 87° E	N 87° E	2·2	2·2	0	46	—9	92	0	·934	—·025	6·4	—1·4	21	19·4	+1·6	23·88	21·71	+ 7·17	193·09	174·37	+18·72	9·42	Akyab.
1		1	18		1		S 1° E	S 20° E	2·5*	3·7	—1·2	60	—18	84	0	·859	—·017	8·2	+0·7	14	12·0	+2·0	4·93	6·19	— 1·26	27·11	30·29	— 3·18	1·27	Thayetmyo.
		28				1	S 45° E	S 42° E	2·7	6·0	—3·3	45	—22	83	— 2	·856	—·025	5·6	0	9	10·0	—1·0	6·78	6·19	+ 0·59	20·13	26·05	— 5·92	1·50	Minbu.
		10	11			1	S 21° E	S 30° E	3·0	4·0	—1·0	56	—11	84	— 3	·816	—·048	6·0	+2·0	9	10·9	—1·9	8·13	7·31	+ 0·82	23·07	28·29	— 5·22	2·10	Yamethin.
	1	10	14	3		1	S 14° E	S 3° W	2·9	3·4	—0·5	72	+17	78	— 5	·842	—·051	4·6	—1·7	4	8·9	—4·9	1·45	6·08	— 4·63	23·74	24·48	— 0·74	0·40	Mandalay.
1	3	15	3			1	S 51° E		2·0			56		87		·904		8·0		8	9·7	—1·7	6·18	7·73	— 1·55	30·01	23·21	+ 6·80	2·35	Monywa.
			1		1		S 45° W		1·0*			3		92	0	·701	—·031	8·6	+0·6	14	13·5	+0·5	12·39	7·58	+ 4·81	50·91	50·45	+ 0·46	1·78	Lashio.
3		1	1	1	1	2	N 4° W	N 72° W	0·8	1·5	—0·7	14	0	94	+ 4	·864	—·015	8·7	+2·1	18	12·5	+5·5	16·14	9·17	+ 6·97	76·86	62·10	+14·76	3·69	Bhamo.
	1	2					S 59° E		1·0			7		93		·857		7·2		11	11·9	—0·9	7·89	9·43	— 1·59	61·72	63·43	— 1·71	1·36	Myitkyina.
																														II.—Assam.
3	3						N 68° E		0·9			17		93		·855		6·9		16	14·7	+1·3	11·90	12·64	— 0·74	79·29	80·71	— 1·42	1·88	Dibrugarh.
		2	6	1			S 13° E	S 79° E	2·1	1·8	+0·3	10	— 1	92	— 3	·886	—·015	6·5	—2·2	19	14·5	+4·5	12·06	11·86	+ 0·20	67·60	71·42	— 3·82	2·00	Sibsagar.
6	6				3		N 59° E		1·2			27		90		·901		6·9		7	11·6	—4·6	3·60	7·10	— 3·50	46·10	54·70	— 8·60	0·94	Tezpur.
3		1	1	1		1	N 72° E		1·1			5		87		·902		6·4		8	10·1	—2·1	6·08	6·15	— 0·07	45·86	49·91	— 4·05	1·60	Gauhati.
8	11	3	3	2	1		S 87° E	N 82° E	2·6	3·1	—0·5	53	+31	92	0	·923	+·012	8·4	+0·9	13	12·8	+0·2	17·12	14·25	+ 2·87	77·57	82·95	— 5·38	3·25	Dhubri.
1			1				S 67° E	N 77° E	0·8	1·6	—0·8	2	— 1	90	— 1	·917	—·007	6·0	—2·7	13	15·0	+1·0	9·69	13·93	— 4·24	100·50	90·91	+ 9·59	2·49	Silchar.
																														III.—Bengal.
1	8	16	2		2	1	S 56° E		3·5*			66		92		·959		5·7		17			12·27			124·82			2·20	Cox's Bazar.
1	4	5	1				S 65° E	S 60° E	1·7	3·2	—1·5	30	—33	89	+ 1	·912	—·015	6·0	—1·3	16	12·7	+3·3	17·60	11·63	+ 5·97	108·81	80·64	+28·17	6·88	Chittagong.
1	7	11	4	2	1		S 45° E		2·7			60		90		·932		5·7		14	15·7	—1·7	12·13	15·87	— 3·74	98·79	100·17	— 1·38	4·62	Noakhali.
		2	4	1			S 7° E	S 27° E	0·2	2·0	—1·8	20	— 6	87	— 1	·951	—·026	6·9	—0·3	14	14·8	—0·8	8·07	11·31	— 3·24	96·98	64·36	+32·62	1·68	Barisal.
2	6	3	5	3	1		S 43° E	S 18° E	2·3	3·8	—1·5	30	—18	85	— 3	·955	—·016	7·7	—0·1	6	11·9	—5·9	4·55	9·37	— 4·82	57·06	55·56	+ 1·50	1·15	Narayanganj
	3	2	1				S 61° E	S 63° E	1·0	2·0	—1·0	13	—37	90	— 1	·964	—·003	7·3	+0·2	15	15·3	—0·3	15·28	14·09	+ 1·20	79·56	77·77	+ 1·79	4·55	Mymensingh.
1	2		8	2		1	S 5° E	S 49° E	0·6	2·2	—1·6	23	—33	88	— 1	·969	+·007	6·2	—0·8	12	12·9	—0·9	10·58	11·73	— 1·15	84·94	58·39	+26·55	2·33	Bogra.
2	8	6	1			1	S 77° E	S 76° E	0·9	2·6	—1·7	43	— 9	90	0	·968	+·025	6·6	—0·2	14	12·6	+1·4	10·73	12·35	— 1·62	65·19	61·77	+ 3·42	1·93	Dinajpur.
							a	N 73° E	1·1			*a*		90	— 1	·902	—·001	6·9	—0·1	17	15·4	+1·6	21·62	19·75	+ 1·87	106·69	112·15	— 5·46	3·27	Jalpaiguri.
2	3	3	7	7	1	1	S 1° W	S 2° W	5·6	8·0	—2·4	30	+ 1	86	— 2	·963	—·021	6·7	—1·5	7	13·5	—6·5	6·11	11·67	— 5·56	88·97	56·49	+32·48	1·95	Saugor Island.
4	1	2	6	2	1	2	S 18° E		1·5			10		86		·944		4·7		11	12·1	—1·1	5·26	8·76	— 3·50	59·12	48·89	+10·23	1·26	Midnapore.
	6	2	5	7	1	2	S 1° E	S 13° E	3·1*	3·0	+0·1	23	—10	89	+ 2	·974	+·017	7·5	+0·8	11	13·2	—2·2	5·67	10·35	— 4·68	73·29	52·57	+20·72	1·16	Calcutta.

F Mean of 28 days. * Uncorrected for scale error. (*a*) Indeterminate.

Table

(2) Abstract of observations taken at 8 hrs. at 216 stations

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
	III.—Bengal—*concld.*																						
	Jessore	33	29·748	+·015	29·728	29·888	28th	29·635	2nd & 7th	·253	82·5	89·6	+0·2	78·8	+0·3	84·2	+0·3	10·8	93·5	24th	75·7	30th	17·8
	Burdwan	99	29·659	—·001	29·705	29·802	28th	29·559	7th	·243	82·1	90·4	+0·7	78·7	—0·2	84·6	+0·3	11·7	94·9	23rd	74·8	14th	20·1
	Berhampore	67	29·699	+·006	29·715	29·836	28th	29·580	7th	·256	81·9	89·4	+0·5	78·8	+0·3	84·1	+0·4	10·6	92·6	6th, 23rd & 25th.	73·7	30th	18·9
	IV.—Bihar and Orissa.																						
6	Balasore	50	29·712	+·016	29·707	29·845	28th	29·612	7th	·233	81·5	89·4	+0·5	78·1	+0·3	83·8	+0·4	11·3	94·4	23rd	75·1	12th	19·3
	Hukitala (False Point)	29	29·739	+·021	29·709	29·845	28th	29·627	16th	·218													
	Cuttack	80	29·702	+·041	29·723	29·815	27th	29·589	1st	·226	82·5	90·6	+0·4	78·1	0	84·3	+0·2	12·5	94·5	23rd	75·2	27th & 30th.	19·3
	Puri	24	29·747		29·712	29·852	28th	29·629	1st	·223	82·2	90·2		79·6		84·9		10·6	95·1	13th & 29th.	76·1	17th & 30th.	19·0
	Angul	455	29·311†		29·711†	29·437	28th	29·197	1st	·240	81·3	90·5		76·5		83·5		14·0	93·6	23rd	74·0	30th	19·6
	Sambalpur	486	29·301	+·027	29·737	29·407	28th	29·147	1st	·260	80·9	89·9	+0·6	77·0	—0·3	83·4	+0·1	12·9	93·0	13th	74·2	8th	18·8
7	Chaibasa	*733*	29·021	+·017	29·705	29·154	28th	28·921	7th	·233	80·1	90·6	+0·5	75·7	—0·3	83·2	+0·1	14·9	95·1	24th	73·8	3rd, 4th & 26th.	21·3
	Ranchi	2,128	27·655	+·026	29·695	27·773	28th	27·558	7th	·215	76·1	85·1	+0·7	72·0	+0·3	78·5	+0·5	13·1	89·7	22nd	68·9	3rd	20·8
	Purulia	*816*	28·941†		29·710†	29·077	28th	28·834	7th	·243	79·2	91·3		75·6		83·5		15·7	97·5	5th & 6th	69·1	29th	28·4
	Daltonganj	*730*	29·031		29·715	29·156	28th	28·926	1st	·230	78·6	90·7		73·9		82·3		16·8	94·6	26th	69·0	27th	25·6
8	Purnea	124	29·632	—·001	29·711	29·767	28th	29·510	7th	·257	81·1	88·9†	0†	77·9	+0·5	83·4†	+0·3	11·0	97·1	24th	73·8	30th	23·3
	Monghyr	155	29·597†		29·704†	29·717	27th	29·460	7th	·257	83·1	90·3		77·9		84·1		12·4	93·7	6th & 14th	73·4	29th	20·3
	Darbhanga	165	29·587	+·001	29·706	29·721	27th	29·466	7th	·255	82·0	88·8	+0·5	78·1	—0·7	83·5	—0·1	10·7	93·1	3rd & 6th	71·7	8th & 18th	18·4
	Pusa	188	29·554		29·697	29·693	27th	29·440	7th	·253	82·2	89·9		76·7		83·3		13·2	93·9	3rd & 14th	74·1	8th	19·4
	Patna	183	29·559	—·004	29·697	29·687	28th	29·458	6th	·229	83·4	89·4	—0·5	78·9	—0·2	84·2	—0·3	10·5	93·0	13th, 14th & 26th.	75·7	29th	17·3
	Buxar	239	29·505		29·700	29·629	28th	29·406	7th	·223	80·5	90·6		77·4		84·0		13·2	95·0	14th	74·6	23rd	20·9
	Gaya	372	29·268	+·004	29·690	29·498	28th	29·261	6th	·237	82·3	90·6	—0·4	77·2	—0·6	83·9	—0·5	13·4	95·9	26th	74·2	4th	21·7
	Naya Dumka	489	29·263	+·009	29·704	29·399	28th	28·141	7th	·258	80·9	89·1	+0·9	76·8	+0·5	83·0	+0·7	12·3	92·9	14th & 23rd.	73·5	30th	19·4
	V.—United Provinces of Agra and Oudh.																						
9	Gorakhpur	257	29·481	+·004	29·696	29·608	27th	29·384	7th & 12th.	·224	81·4	91·0	+0·5	73·9	—3·8	82·5	—1·7	17·1	95·3	14th	69·6	22nd	25·7
	Benares	267	29·461	—·003	29·681	29·578	27th & 28th.	29·350	7th	·228	81·9	92·2	+1·2	75·7	—1·7	83·9	—0·3	16·5	97·3	25th	68·1	21st	29·1
	Allahabad	309	29·436	+·014	29·700	29·533	27th	29·339	2nd	·194	82·9	94·9	+3·4	75·1	—1·8	85·0	+0·8	19·8	102·1	28th	68·5	27th	33·6
	Cawnpore	416	29·330	+·020	29·701	29·434	27th	29·232	6th & 7th.	·202	82·3	96·5	+4·1	76·3	—0·3	86·4	+1·9	20·2	101·1	27th	71·5	26th & 28th.	29·9
	Lucknow	368	29·374	+·012	29·698	29·483	27th	29·261	6th	·222	83·3	95·6	+3·5	75·3	—1·2	85·5	+1·1	20·3	99·5	28th	68·1	28th	31·5
	Bahraich	401	29·317	—·009	29·675	29·436	27th	29·204	6th	·232	82·6	95·6	+4·6	76·1	—0·1	85·9	+2·3	19·5	99·1	24th & 26th.	70·0	21st	29·1
10	Jhansi	824	28·948	+·023	29·717	29·038	28th	28·810	2nd	·228	86·1	98·9	+7·2	77·1	+1·3	88·0	+4·3	21·8	105·1	28th	72·0	28th	33·9
	Agra	556	29·192	+·013	29·700	29·286	27th	29·092	6th	·194	87·2	101·2	+8·1	77·9	+1·2	89·5	+4·7	23·3	105·0	22nd	73·0	28th & 30th.	32·2
	Mainpuri	516	29·212	+·002	29·684	29·310	27th	29·109	7th	·209	82·1	98·7	+5·6	75·8‡	—0·1‡	87·4‡	+2·7	22·9	104·3	28th	70·1	27th & 28th.	34·6
	Bareilly	568	29·156	+·005	29·683	29·267	28th	29·038	7th	·229	82·3	97·3	+6·8	74·2	—1·6	85·7	+2·6	23·1	100·6	27th	67·0	26th	33·6
	Roorkee	899	28·818	+·020	29·711	28·961	27th & 28th.	28·723	7th	·238	79·8	93·9	+2·6	69·7	—3·6	81·8	—0·5	24·2	96·0	21st & 26th.	61·4	26th	34·5
	VI.—Punjab.																						
11	Delhi	718	29·031	+·026	29·708	29·133	27th	28·903	7th	·230	83·5	98·1	+5·1	77·6	+0·6	87·9	+2·9	20·5	101·0	21st	71·3	30th	28·[illegible]
	Sirsa	662	29·088	+·033	29·714	29·191	28th	28·965	6th & 7th.	·226	82·6	99·0	+0·1	74·1	—1·6	86·5	—0·7	24·9	102·8	26th	67·0	27th & 29th.	28·[illegible]

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

† Mean of 29 days.
‡ " " 27 "

—continued.

India, etc., in September, 1913—continued.

Wind direction. Number of winds from 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 from 1st May to 30th September, 1913.	Normal rainfall for period, 1st May to 30th September.	Departure from normal for period, 1st May to 30th September, 1913.	Heaviest rainfall during month.	Station.
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
																															III.—Bengal—*concld.*
	2	1	4	2	1			S 47° E	S 32° E	2·4	2·3	+0·1	23	−14	87	− 3	·962	−·039	6·2	−0·9	11	12·0	− 1·0	8·07	8·90	− 0·83	73·34	52·54	+20·80	3·67	Jessore.
1	3	1	1	2	4	3	4	N 85° W	S 18° E	1·3	2·2	−0·9	16	− 6	88	+ 3	·961	+·031	6·6	−0·4	13	11·5	+ 1·5	11·36	8·70	+ 2·66	63·16	49·09	+14·07	2·68	Burdwan.
	1	7	1	10	6	1		S 13° E	S 19° E	1·7	2·7	−1·0	46	+ 8	87	− 3	·950	−·026	6·5	−0·9	13	11·9	+ 1·1	13·05	10·08	+ 2·97	59·77	47·19	+12·58	2·77	Berhampore.
																															IV.—Bihar and Orissa.
4	2	2		3	9		2	S 59° W	S 59° W	2·5	2·6	−0·1	17	− 5	91	+ 3	·969	−·005	5·1	−1·9	11	13·3	− 2·3	6·30	12·23	− 5·93	75·99	48·96	+27·03	1·38	Balasore.
2	2		1	2	11	3	8	S 84° W	S 58° W	7·6	6·2	+1·4	46	+ 9					5·6	−1·5	7	12·4	− 5·4	5·21	10·38	− 5·17	67·60	48·08	+19·52	2·12	Hukitala (False Point).
1		1			5	8	2	S 85° W	S 81° W	1·4*	1·8	−0·4	40	+10	81	− 1	·900	+·006	4·9	−1·1	13	12·4	+ 0·6	7·14	10·09	− 2·95	48·59	49·62	− 1·03	1·73	Cuttack.
7	1	1			11	4	3	N 81° W		6·9			40		83		·943		4·9		9	11·3	− 2·3	4·10	9·37	− 5·27	47·23	40·72	+ 6·51	1·53	Puri.
1	1	1	1			4	10	N 48° W		2·6§			40		81		·871		4·8		5	10·0	− 5·0	2·56	6·76	− 4·20	36·19	38·96	− 2·77	0·74	Angul.
2	4	2	1		9	10	2	S 86° W	S	2·6	2·8	−0·2	40	+18	85	+ 3	·886	−·002	5·3	−0·7	8	11·5	− 3·5	6·11	9·02	− 2·91	47·72	60·66	−12·94	2·27	Sambalpur.
	1	1		3	8	2		S 37° W	S 53° W	1·3	1·0	+0·3	33	+10	84	0	·861	−·025	5·3	−0·5	8	11·6	− 3·6	8·00	8·82	− 0·82	53·25	44·67	+ 8·58	3·15	Chaibasa.
2		2	1	4	6	7	5	S 74° W	S 79° W	3·4	5·0	−1·6	40	+18	82	− 1	·744	−·005	5·4	−0·3	9	12·2	− 3·2	3·81	9·52	− 5·71	56·19	49·05	+ 7·14	1·55	Ranchi.
	3	1		1	2	8		S 81° W		1·6			20		87		·862		1·7		11	11·4	− 0·4	6·46	10·61	− 4·15	48·84	44·30	+ 4·54	1·42	Purulia.
1	1	3			4	3		S 63° W		2·7			7		85		·836		3·6		6	9·6	− 3·6	5·21	7·16	− 1·95	44·53	36·87	+ 7·66	2·26	Daltonganj.
1	8	14	3		1		1	N 76° E	N 88° E	1·3	2·2	−0·9	69	+31	93	+ 3	·977	+·023	5·3	−0·7	13	11·0	+ 2·0	12·49	12·72	− 0·23	55·92	56·00	− 0·08	3·00	Purnea.
		9	8		2	3	1	S 56° E		1·1			37		85		·965		5·7		8			4·76			43·64			2·44	Monghyr.
1	1	16	1					N 87° E	S 76° E	?	2·8	?	56	+ 6	85	0	·950	+·009	6·4	+1·3	8	9·0	− 1·0	8·27	8·93	− 0·66	58·40	45·25	+13·15	4·40	Darbhanga.
1	1	8	5					S 81° E		1·6			40		89		·969		4·8		10			8·17			61·67			4·75	Pusa.
1	1	12	2	1	1	6	1	S 84° E	S 74° E	3·0	2·8	+0·2	23	− 7	82	− 1	·942	+·012	4·7	−1·4	9	9·1	− 0·1	11·93	7·29	+ 4·64	64·44	41·91	+22·53	3·08	Patna.
1	1	5	3	6	3	5		S 6° E		2·3			30		86		·889		5·2		8	9·0	− 1·0	5·56	6·88	− 1·32	37·96	35·94	+ 2·02	2·05	Buxar.
2	2	1	3	3	5	8	2	S 65° W	S 37° W	1·7	2·8	−1·1	30	− 3	81	− 1	·897	+·011	4·1	−1·7	9	9·4	− 0·4	13·02	7·79	+ 5·23	68·42	41·75	+26·67	4·62	Gaya.
		5	2					S 78 E		1·5			40		88	+ 1	·926		3·4		10	12·7	− 2·7	8·99	9·49	− 0·50	56·77	48·81	+ 7·96	2·23	Naya Dumka.
																															V.—United Provinces of Agra and Oudh.
	6	9	3			3	1	N 77° E	N 63° E	1·1	1·5	−0·4	49	+14	85	+ 1	·914	+·009	1·6	−2·9	6	8·7	− 2·7	5·29	7·81	− 2·52	41·34	44·44	− 3·10	1·26	Gorakhpur.
1	1	3	4		3	6	5	N 87° W	S 31° W	2·2	2·8	−0·6	17	+ 6	85	+ 1	·917	+·008	4·1	−1·1	8	8·5	− 0·5	10·77	6·64	+ 4·13	43·12	34·85	+ 8·27	5·18	Benares.
1	2	2	1	1	2	15	2	N 87° E	N 63° W	2·3	4·3	−2·0	46	+31	69	−11	·774	−·115	4·1	−1·4	6	7·5	− 1·5	2·91	5·39	− 2·48	23·36	34·36	−11·00	1·37	Allahabad.
	1	2	2			11	5	N 75° W	S 45° W	1·7	2·6	−0·9	33	+25	67	−13	·742	−·133	0·8	−3·2	5	6·6	− 1·6	2·99	6·27	− 3·28	20·67	32·49	−11·82	1·66	Cawnpore.
		2	2	1	1	3		N 6° W	S 83° E	1·2	2·0	−0·8	10	+ 3	71	−10	·810	−·067	2·4	−2·5	6	7·3	− 1·3	4·27	5·76	− 1·49	29·03	34·41	− 5·38	1·40	Lucknow.
2	1	9	9	2	1	1	3	S 71° E	S 68° E	1·6	2·3	−0·7	43	+ 2	72	−10	·793	−·112	3·2	−0·8	5	6·4	− 1·4	2·98	7·07	− 4·09	26·12	39·98	−13·86	0·95	Bahraich.
1	2		2		9	11	5	S 84° W	N 1° E	3·7	2·4	+1·3	59	+24	50	−25	·606	−·196	5·2	+2·2	3	7·4	− 4·4	0·96	6·14	− 5·18	10·84	34·90	−24·06	0·66	Jhansi.
1		1	3	1	3	5	4	S 78° W	S 59° W	3·3	3·3	0	23	+ 1	48	−26	·617	−·190	1·5	−2·0	2	5·2	− 3·2	0·40	3·85	− 3·45	8·54	24·67	−16·13	0·26	Agra.
1	3	4		2	2	5	11	N 47° W	S 86° W	1·3	1·1	+0·2	33	+14	67	−11	·730	−·103	1·6	−2·6	2	5·5	− 3·5	0·55	2·89	− 3·34	15·13	23·37	− 8·24	0·29	Mainpuri.
		2	2			1	1	S 66° E	S 56° E	0·5	1·7	−1·2	7	−19	78	− 4	·860	+·014?	1·2	−2·6	2	6·6	− 4·6	2·02	6·90	− 4·88	17·59	40·24	−22·65	1·82	Bareilly.
			3				2	S 45° E	S 58° E	1·0	1·4	−0·4	3	−12	70	−11	·707	−·078	0·6	−3·0	1	5·4	− 4·4	1·06	5·69	− 4·63	22·02	36·61	−14·59	1·06	Roorkee.
																															VI.—Punjab.
	1	2	1		2	15	6	N 77° W	S 85° W	2·7‖	2·6	+0·1	62	+33	55	−14	·631	−·114	0·3	−2·9	2	4·4	− 2·4	0·86	4·40	− 3·54	14·56	24·07	− 9·51	0·76	Delhi.
2	2			6	13	2	1	S 43° W	S 59° W				49	+27	57	− 7	·631	−·092	0·5	−1·6	2	3·0	− 1·0	2·11	1·97	+0·14	18·36	11·76	+ 6·60	1·94	Sirsa.

* Uncorrected for scale error. ‖ Mean of 21 days. § Mean of 23 days.

Table

(2) *Abstract of observations taken at 8 hrs. at 216 stations*

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.	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.	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	16	17	18	19	20	21	22	23	24
	VI.—Punjab—*concld.*																						
	Patiala	*818*	28·921		29·702	29·044	28th	28·755	12th	·289	81·5	97·0		73·8		85·4		23·2	99·6	24th	68·0	30th	31·6
	Ambala	892	28·846	+·019	29·705	28·950	28th	28·714	7th	·236	79·6	97·4	+3·7	71·2	−2·7	84·3	+0·5	26·2	101·5	24th & 27th	62·9	28th	38·6
	Ludhiana	812	28·936	+·028	29·713	29·041	28th	28·801	6th & 7th.	·240	81·5	97·3	+2·4	73·4	−1·4	85·3	+0·5	23·9	101·3	24th	66·6	29th	34·7
	Lahore	702	29·029	+·024	29·702	29·121	27th	28·896	6th	·225	80·6	98·9	0	72·0	−0·6	85·4	−0·3	26·9	102·9	4 days	63·7	29th	39·2
	Sialkot	830	28·903	+·023	29·708	29·007	28th	28·775	6th & 7th.	·232	77·8	94·8	−0·9	70·3	−3·5	82·6	−2·2	24·5	99·1	30th	64·5	18th & 30th	34·6
	Rawalpindi	1,674	28·093*	+·025*	29·732*	28·173	28th	27·972	7th	·201	75·3	91·9	−1·7	65·7	−3·2	78·8	−2·5	26·2	94·9	14th	59·6	29th	35·3
12	Khushab	612	29·130	+·042†	29·713	29·221	28th	29·002	7th	·219	81·9	97·2†	−2·4†	72·2	−3·6	85·4†	−3·0	25·0	102·4	19th	64·9	30th	37·5
	Lyallpur		29·116		29·081‡	29·210	28th	28·984	6th	·226	80·9	97·6		71·7		84·7		25·9	102·1	20th	64·5	29th	37·6
	Montgomery	558	29·171	+·029	29·695	29·264	27th	29·034	6th	·230	83·7	99·3	−2·4	73·5	−2·6	86·4	−2·5	25·8	103·4	27th	67·8	26th	35·6
	Multan	420	29·306	+·034	29·689	29·399	27th	29·160	6th	·239	82·9	100·0	−0·3	75·4	−2·2	87·7	−1·3	24·6	104·3	13th & 27th	68·5	30th	35·[illegible]
	VII.—North-West Frontier Province.																						
14	Peshawar	1,113	28·611	+·012	29·733	28·740	26th	28·519	6th	·221	76·5	96·5	+0·5	67·6	−2·5	82·0	−1·0	28·9	101·2	6th	60·6	29th	40·[illegible]
	D. I. Khan	590	29·135	+·015	29·698	29·224	26th	29·006	6th	·218	80·0	97·2	−3·3	73·5	−1·4	85·3	−2·3	23·7	100·4	19th	65·1	28th	35·[illegible]
	VIII.—Sind.																						
16	Jacobabad	186	29·557	+·042	29·701	29·677	26th	29·410	6th	·267	84·0	103·5	0	76·2	+0·2	89·9	+0·1	27·3	109·1	21st	63·3	30th	45·[illegible]
	Hyderabad*	96	29·675	+·042	29·724	29·803	27th	29·535	7th	·268	79·2	93·4	−1·1	74·9	−1·3	84·2	−2·7	18·5	101·9	29th	71·2	26th	30·[illegible]
	Karachi	13	29·806	+·030	29·770	29·924	27th	29·667	7th	·257	78·8	85·2	−0·2	75·6	+0·1	80·4	−0·1	9·6	87·5	4 days	71·5	22nd	16·[illegible]
	IX.—Rajputana.																						
17	Bikaner	*771*	28·997	+·036	29·726	29·104	27th	28·873	6th	·231	83·2	100·1	+1·6	77·9	−1·3	89·0	+0·1	22·2	104·0	19th, 20th & 29th.	74·0	13th	30·[illegible]
	Jodhpur	780	29·018	+·025	29·757	29·112	26th	28·861	3rd	·251	79·9	93·7	−2·0	74·4	−1·7	84·1	−1·9	19·3	102·5	29th	70·4	22nd	32·[illegible]
18	Jaipur	1,431	28·362	+·015	29·736	28·447	27th	28·247	2nd	·200	81·4	97·3	+3·1	74·1	+0·5	85·7	+1·8	23·2	103·2	28th & 30th	68·1	30th	35·[illegible]
	Ajmer	1,611	28·207	+·040	29·761	28·296	26th	28·077	2nd	·219	78·3	93·7	−0·1	76·4	+2·8	83·5	+1·3	14·3	98·1	29th	73·7	14th & 29th	24·[illegible]
	Kotah	832	28·956	+·026	29·739	29·027	27th & 28th,	28·751	2nd	·276	84·0	95·2	+2·4	77·0	−0·6	86·1	+0·9	18·2	102·6	29th	70·6	12th & 29th	32·[illegible]
	X.—Bombay.																						
19	Deesa	466	29·369	+·034	29·791	29·460	19th	29·180	3rd	·280	79·1	90·4	−2·4	72·7	−1·2	81·5	−1·8	17·7	100·3	29th	67·4	17th	32·[illegible]
	Bhuj	334	29·493	+·036	29·779	29·588	19th	29·336	4th	·252	78·6	88·7	−3·4	73·5	−1·1	81·1	−2·3	15·2	99·0	30th	71·5	25th	27·[illegible]
	Jamnagar	61	29·800		29·807	29·870	26th	29·648	4th	·222	80·6	88·5		73·5		81·0		15·0	94·6	30th	71·4	24th	23·[illegible]
	Dwarka	37?	29·828	+·028	29·811	29·921	19th	29·688	3rd	·233	79·3	85·2	0	77·3*	0*	81·3*	0	7·9	87·3	8th & 24th	74·7	4th	12·[illegible]
	Rajkot	429	29·423	+·039	29·803	29·515	19th	29·259	3rd	·256	78·6	90·1	−1·3	71·2	−1·2	80·7	−1·3	18·9	97·1	30th	68·3	25th	28·[illegible]
	Veraval	*18*	29·856	+·034	29·817	29·939	19th	29·709	3rd	·230	80·1	83·9	+0·1	76·3	0	80·1	+0·1	7·6	93·1	30th	74·3	17th & 18th	16·[illegible]
	Bhavnagar Para	55	29·813	+·010	29·814	29·893	19th	29·618	3rd	·275	79·9	91·3	−1·7	73·9	−1·7	82·6	−1·7	17·4	100·0	28th & 30th	70·8	13th & 14th	29·[illegible]
	Surat	39	29·833	+·033	29·815	29·901	19th	29·627	3rd	·274	80·1	89·0	+0·5	75·4	−0·1	82·2	+0·2	13·6	97·9	29th	72·6	24th	23·[illegible]
	Ahmadabad	163	29·677	+·013	29·790	29·753	26th	29·448	3rd	·305	79·2	91·0	−1·1	75·5	−0·7	83·3	−0·9	15·5	102·1	29th	72·7	30th	29·[illegible]
25	Bombay	37	29·860	+·026	29·837	29·914	13th	29·716	2nd	·198	79·4	85·4	+0·9	77·0	+0·5	81·2	+0·7	8·4	88·4	29th	75·4	13th & 27th	13·[illegible]
	Ratnagiri	116	29·795	+·032	29·813	29·840	20th	29·672	2nd	·168	79·5	84·7	+0·5	74·9	+0·5	79·8	+0·5	9·8	87·3	29th	72·9	8th, 9th & 15th.	14·[illegible]
	Marmagao	*60*	29·850	+·005	29·845	29·899	14th	29·745	2nd	·154	78·5	83·5	0	74·9	−0·2	79·2	−0·1	8·6	86·5	20th	72·2	8th	14·[illegible]
	Karwar	44	29·884	+·023	29·863	29·935	20th	29·794	2nd	·141	76·9	82·3	+0·1	73·9	0	78·3	+0·1	8·9	85·7	20th	71·5	9th	14·[illegible]

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

* Mean of 29 days.
† „ „ 24 „

‡ Not reduced to sea level.

—continued.

India, etc., in September, 1913—continued.

Wind direction. Number of winds from N.E. (27)	E. (28)	S.E. (29)	S. (30)	S.W. (31)	W. (32)	N.W. (33)	Resultant direction. (34)	Normal direction. (35)	Wind velocity. Mean velocity, miles per hour. (36)	Normal. (37)	Departure from normal. (38)	Wind steadiness. Actual percentage. (39)	Departure from normal. (40)	Hydrometry, 8 hrs. Mean humidity at 8 hrs. (41)	Departure from normal. (42)	Mean vapour tension at 8 hrs. in inches of mercury. (43)	Departure from normal in inches of mercury. (44)	Cloud. Mean cloud amount at 8 hrs. (45)	Departure from normal. (46)	Rainfall. Number of rainy days. (47)	Normal number of rainy days. (48)	Departure from normal. (49)	Rainfall of month. (50)	Normal rainfall of month. (51)	Departure from normal. (52)	Total rainfall from 1st May to 30th September, 1913. (53)	Normal rainfall for period, 1st May to 30th September. (54)	Departure from normal of period, 1st May to 30th September, 1913 (55)	Heaviest rainfall during month. (56)	Station. (57)
																														VI.—Punjab—*concld.*
2	2	5	7	12			S 3° W		4·0			60		56		·605		1·4		0	4·2	−4·2	0·06	3·84	−3·78	14·56	20·48	−5·92	0·06	Patiala.
	6	1			5	7	N 28° W	S 39° W	3·2	1·1	+2·1	23	− 6	63	−19	·638	−·164	0·9	−1·8	0	4·5	−4·5	0·04	3·99	−3·95	33·37	24·05	+9·32	0·04	Ambala.
1					1	1	N 16° W	S 20° E	0·4	1·0	−0·6	10	− 2	57	−18	·616	−·138	0·7	−2·4	0	3·8	−3·8	0·01	3·93	−3·92	17·50	23·04	−5·54	0·01	Ludhiana.
1		2	2	2	5	3	W	S 34° E	1·2	1·5	−0·3	21	+ 6	63	− 4	·670	−·064	0·8	−0·6	2	2·5	−0·5	0·27	2·47	−2·20	21·38	15·77	+5·61	0·15	Lahore.
5	5	2	1	1	1	1	N 67° E	N 73° E	0·8	1·3	−0·5	23	−19	71	+ 1	·674	−·066	0·9	−1·3	2	3·8	−1·8	2·85	3·61	−0·76	19·18	24·52	−5·34	2·63	Sialkot.
1		1	1				N 24° E	N 56° E	1·0	1·1	−0·1	10	− 5	71	− 1	·631	−·034	1·1	−0·8	4	4·3	−0·3	3·19	3·43	−0·24	25·33	23·83	+1·50	1·52	Rawalpindi.
6	7	1	2	1	1		N 80° E	N 65° E	2·7	3·9	−1·2	33	−23	58	− 2	·629	−·050	1·6	+0·5	2	2·1	−0·1	1·20	1·36	−0·16	14·72	10·35	+4·37	1·00	Khushab.
	1	3	4	8	1	3	S 31° W		1·4*			40		64		·681		0·3		2			0·37			14·96			0·26	Lyallpur.
3	1		9	11	2	1	S 29° W	S 4° W	4·1	5·0	−0·9	49	+ 5	53	− 6	·611	−·091	0·4	−0·8	5	1·7	+3·3	2·06	1·34	+0·72	7·80	8·20	−0·40	0·96	Montgomery.
			5	3			S 23° W	S 5° W	0·9	1·9	−1·0	20	−21	67	+ 2	·742	−·007	0	−0·6	0	0·6	−0·6	0	0·36	−0·36	10·61	5·02	+5·59	0	Multan.
																														VII.—North-West Frontier Province.
1			1			1	N	N 34° W	1·1	2·0	−0·9	5	−25	64	+ 1	·579	−·054	0·4	−0·7	1	1·5	−0·5	1·09	0·75	+0·34	3·37	5·50	−2·13	1·05	Peshawar.
4	1	2			3	2	N 6° E	N 67° E	1·0	1·3	−0·3	27	− 3	67	− 1	·688	−·043	0·8	+0·2	0	0·9	−0·9	0	0·59	−0·59	4·20	6·05	−1·85	0	D. I. Khan.
																														VIII.—Sind.
3	4	3	4	2		2	S 53° E	S 48° E	2·4	2·1	+0·3	23	−25	69	0	·802	+·019	0·9	+0·3	0	0·2	−0·2	0	0·08	−0·08	2·77	2·40	+0·37	0	Jacobabad.
			14	15			S 25° W	S 39° W	5·6	9·9	−4·3	86	+12	80	+12	·796	+·079	0·9	−0·7	3	0·6	+2·4	3·47	0·48	+2·99	19·47	6·24	+13·23	2·60	Hyderabad.
				3	22	3	W	S 77° W	8·5	10·7	−2·2	87	+ 6	82	+ 1	·817	−·034	4·0	−1·0	0	0·6	−0·6	0	0·44	−0·44	12·01	6·19	+5·82	0	Karachi.
																														IX.—Rajputana.
		1	1	8	12	6	S 85° W	S 46° W	5·4	5·0	+0·4	69	+ 9	58	− 5	·650	−·089	1·5	−0·9	3	2·0	+1·0	0·77	1·26	−0·49	4·93	10·20	−5·27	0·32	Bikaner.
1	2		1	15	7	1	S 57° W		3·1			59		68	0	·696		4·2		2	2·5	−0·5	1·64	2·40	−0·76	6·85	12·40	−5·55	1·45	Jodhpur.
1	1			1	4	18	N 47° W	N 68° W	3·6*	3·1	+0·5	72	+31	61	−12	·638	−·084	3·4	−0·2	3	4·6	−1·6	1·29	3·42	−2·13	13·86	22·18	−8·32	0·70	Jaipur.
1		1		12	7	6	S 77° W	S 89° W	4·6	4·1	+0·5	59	− 8	72	− 3	·688	−·046	3·5	+0·4	3	3·9	−0·9	1·72	2·57	−0·85	13·16	19·38	−6·22	0·77	Ajmer.
	1		1	1	12	9	N 70° W		2·6			62		60	− 8	·689		3·9		3	5·6	−2·6	1·46	5·04	−3·58	18·55	26·52	−7·97	0·74	Kotah.
																														X.—Bombay.
2		1		10	3	7	N 74° W	S 79° W	5·2	6·1	−0·9	46	−13	82	+ 6	·813	+·035	5·6	+0·6	6	3·5	+2·5	2·08	3·62	−1·54	35·64	23·35	+12·29	0·50	Deesa.
				8	14	7	N 89° W	N 87° W	5·0	8·9	−3·9	82	+ 4	80	+ 5	·769	−·017	5·6	+1·2	2	2·1	−0·1	5·74	1·83	+3·91	38·37	13·37	+25·00	5·04	Bhuj.
				14	5	11	S 85° W		9·8			68		76		·800		1·8		3	1·9	+1·1	4·39	2·03	+2·36	25·32	18·85	+6·47	2·78	Jamnagar.
			1	8	12	7	S 88° W		6·9			76		84	0	·841		4·5		2	1·3	+0·7	1·61	1·01	+0·60	17·35	13·66	+3·69	1·42	Dwarka.
			2	12	9	6	S 79° W	N 87° W	7·1	6·6	+0·5	72	− 2	83	+ 1	·801	−·010	7·2	+2·4	5	4·8	+0·2	2·26	3·68	−1·42	28·55	25·62	+2·93	1·06	Rajkot.
1	1			4	11	5	N 64° W	N 86° W	7·5	5·8	+1·7	56	+ 1	83	− 2	·839	−·013	4·0	−1·7	1	3·4	−2·4	0·19	1·80	−1·61	24·55	17·11	+7·44	0·13	Veraval.
				5	10	9	N 74° W	S 53° W	4·5	7·9	−3·4	68	− 5	78	− 4	·802	−·054?	4·7	−1·0	6	5·7	+0·3	4·00	3·65	+0·35	35·95	19·73	+16·22	2·02	Bhavnagar Para.
	2	3		2	6	7	N 67° W	S 78° W	2·9	5·0	−2·1	27	−25	86	+ 3	·885	+·024	5·7	0	5	7·0	−2·0	3·82	6·05	−2·23	37·47	39·30	−1·83	1·62	Surat.
			2	10	4	12	N 89° W	N 68° W	3·3	2·8	+0·5	65	+ 8	83	+ 5	·829	+·015	4·4	−1·4	6	4·3	+1·7	7·38	3·62	+3·76	35·75	28·85	+6·90	3·93	Ahmadabad.
4	7	4	4	1	5	3	S 83° E	S 56° W	5·7*	7·9	−2·2	17	+ 2	88	+ 1	·880	0	7·3	0	10	13·0	−3·0	5·75	10·84	−5·09	68·61	69·39	−0·78	1·67	Bombay.
7	3	4	2	1	2	2	N 66° E	S 73° W	4·9	5·0	−0·1	23	+16	84	− 3	·835	−·024	7·0	+0·5	12	15·3	−3·3	3·95	11·97	−8·02	69·00	96·67	−27·67	0·75	Ratnagiri.
4	5	3	1		3	1	N 61° E	N 54° W	4·3*	5·4	−1·1	23	−30	93	+ 2	·902	+·017	6·9	+1·1	11	15·3	−4·3	7·19	8·56	−1·37	86·63	87·88	−1·25	1·54	Marmagao.
4			1	2		2	N	N 36° W	1·2	2·1	−0·9	6	−28	92	+ 2	·843	+·020	5·1	−1·0	10	15·8	−5·8	5·20	11·85	−6·65	91·04	114·31	−23·27	1·41	Karwar.

* Uncorrected for scale error.

Table

(2) *Abstract of observations taken at 8 hrs. at 216 stations*

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.	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.	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	16	17	18	19	20	21	22	23	24
	X.—Bombay *—concld.*																						
26	Malegaon	1,430	28·436	+·042	29·811	28·496	25th	28·243	2nd	·253	77·3	90·3	+2·4	69·3	−0·9	79·8	+0·7	21·0	98·4	28th & 29th.	65·1	12th & 14th.	33·3
	Ahmadnagar	2,154	27·732	+·029	29·803	27·792	19th	27·554	2nd	·238	74·9	88·3	+3·1	67·2	−0·8	77·7	+1·1	21·1	96·1	30th	61·5	14th	34·6
	Poona	1,846	28·047	+·030	29·835	28·100	13th	27·899	2nd	·201	73·6	85·9	+1·5	67·9	−0·7	76·9	+0·4	18·0	93·5	30th	62·8	14th	30·7
	Sholapur	1,590	28·280	+·019	29·803	28·336	19th	28·129	2nd	·207	77·2	92·7	+4·3	72·3	+1·9	82·5	+3·1	20·4	97·3	28th	69·1	5th	28·2
	Bijapur	*1,948*	27·943	+·028	29·816	27·989	19th	27·809	2nd	·180	75·7	90·7	+4·8	70·8	+1·2	80·7	+3·0	19·9	94·2	29th	67·3	7th	26·9
	Belgaum	2,562	27·372	+·023	29·849	27·430	20th	27·265	2nd	·165	71·0	80·1	+1·2	64·5	−0·8	72·3	+0·2	15·6	86·3	20th	61·5	11th & 12th	24·8
	XI.—Central India.																						
20	Neemuch	1,626	28·194	+·030	29·763	28·266	26th	28·024	3rd	·242	76·4	88·4	+0·5	70·1	−0·8	79·3	−0·1	18·3	98·4	29th	67·0	14th	31·4
	Indore	1,823	28·011	+·038	29·776	28·080	24th	27·774	2nd	·306	75·4	87·0	+1·6	69·6	−0·5	78·3	+0·5	17·4	97·1	29th	66·1	15th	31·0
21	Nowgong	754	29·023	+·035	29·731	29·106	28th	28·923	1st	·183	80·7	96·3	+5·9	74·3	−0·7	85·3	+2·6	22·0	102·8	25th & 27th.	66·5	28th	36·3
	Sutna	1,041	28·709	+·015	29·704	28·811	27th	28·581	2nd	·230	79·1	91·7	+3·7	73·5	−1·1	82·6	+1·3	18·2	98·5	25th	67·7	29th	30·1
	XII.—Central Provinces.																						
22	Buldana	2,132	27·731		29·787	27·802	19th	27·491	2nd	·311	74·6	84·3		69·3		76·8		15·0	93·0	30th	66·3	14th	26·7
	Akola	925	28·914	+·039	29·791	28·982	19th	28·657	2nd	·325	78·2	90·7	+1·6	71·7	−1·0	81·2	+0·3	19·0	98·2	30th	67·5	30th	30·7
	Amraoti	1,215	28·605	+·036	29·773	28·675	19th	28·328	3rd	347	77·6	89·7	+1·3	72·0	−0·1	80·9	+0·6	17·7	97·8	25th	67·8	15th	30·0
23	Khandwa	1,044	28·791	+·042	29·789	28·854	24th	28·529	2nd	·325	78·9	89·8	+1·7	72·6	−0·6	81·2	+0·5	17·2	99·7	29th	68·6	15th	31·1
	Hoshangabad	1,006	28·813	+·037	29·775	28·878	24th	28·557	2nd	·321	76·7	89·3	+1·2	71·4	−1·9	80·3	−0·3	17·9	95·6	28th	64·9	30th	30·7
	Saugor	1,807	27·987	+·025	29·726	28·069	27th	27·791	2nd	·278	77·2	90·4	+3·8	71·0	−0·5	80·7	+1·7	19·4	98·8	28th	67·1	22nd	31·1
	Jubbulpore	1,327	28·463	+·037	29·736	28·541	27th & 28th.	28·275	1st	·266	73·0	90·8	+3·4	72·3	−0·5	81·6	+1·5	18·5	96·3	20th	65·8	30th	30·0
	Seoni	2,033	27·787	+·043	29·740	27·872	26th	27·578	1st	·294	77·5	87·5	+1·9	69·6	−1·0	78·6	+0·5	17·9	94·2	20th	65·4	23rd	28·8
	Nagpur	1,017	28·785	+·038	29·748	28·859	27th	28·547	1st	·312	79·7	91·7	+2·4	73·3	−0·5	82·4	+0·9	18·4	97·6	28th & 30th.	70·3	23rd	27·3
24	Pendra	2,123?	27·756		29·713	27·854	28th	27·604	1st	·250	78·2	87·3†		71·0†		79·2†		16·3	91·3	26th	67·1	29th	24·2
	Raipur	970	28·812	+·031	29·727	28·907	28th	28·605	1st	·302	79·8	90·3	+2·1	75·4	+0·6	82·8	+1·3	14·9	93·7	26th, 27th & 28th.	71·6	14th	22·2
	Chanda	*634*	29·158†	† +·011?	29·738†	29·236	27th	28·907	1st	·329	80·5	90·8	+1·7	74·1	−0·4	82·4	+0·7	16·7	95·5	21st	70·5	29th	25·0
	Jagdalpur	1,813	28·003		29·736	28·092	19th	27·802	1st	·290	77·6	85·7		70·9		78·3		14·8	95·2	22nd	68·1	14th	27·1
	XIII.—Hyderabad.																						
27	Aurangabad	1,905	27·971	+·009?	29·805	28·023	19th	27·770	2nd	·253	76·1	86·7	+0·2	66·6	−0·1	77·7	+0·1	18·1	94·9	30th	63·0	14th	31·9
	Nizamabad	1,248	28·591		29·780	28·653	19th	28·443	1st	·210	78·3	89·9	+3·0	72·8	+0·2	81·5	+1·6	17·1	95·4	22nd	69·7	1st & 2nd	25·2
	Bidar	*2,165*									76·0	86·7		69·6		78·1		17·1	90·5	19th	67·4	5th, 7th & 9th,	23·1
28	Gulbarga	1,503	28·356	+·012	29·791	28·427	20th	28·204	2nd	·223	77·6	92·5	+5·0	73·1	+2·2	82·8	+3·6	19·4	98·3	29th	69·5	3rd & 9th.	28·8
	Raichur	*1,311*	28·567	+·032	29·815	28·644	20th	28·450	1st	·194	78·5	93·1	+5·4	73·8	+1·6	83·4	+3·5	19·3	98·5	1st	71·1	3rd & 12th.	27·4
	Hyderabad (Deccan).†	1,690	28·150	+·020	29·774	28·220	19th	28·012	1st	·208	77·4	89·2	+2·5	73·0	+2·2	81·1	+2·3	16·2	94·8	22nd	69·7	14th	25·1
	Hanamkonda	877	28·951	+·020	29·769	29·032	19th	28·774	1st	·258	80·6	89·6	+1·3	74·9	+0·3	82·2	+0·8	14·7	95·0	21st	70·4	23rd	24·6
	XIV.—Mysore.																						
29	Chitaldrug	2,405	27·516	+·021	29·835	27·590	20th	27·422	2nd	·168	72·1	86·6	+3·1	67·6	+0·1	77·1	+1·6	19·0	92·1	20th	65·8	16th	26·3
	Hassan	3,149	26·818	+·022	29·839	26·869	19th	26·732	2nd	·137	69·4	81·7	+1·9	64·5	+0·3	73·1	+1·1	17·2	86·0	20th	61·2	10th	24·5
	Bangalore	3,021	26·941	+·022	29·836	26·990	19th	26·859	2nd	·131	70·9	85·6	+3·7	66·2	+0·9	75·9	+2·3	19·4	90·8	18th	62·8	16th	21·8
	Mysore	2,518	27·429	+·013	29·852	27·479	20th	27·354	2nd	·125	72·0	85·2	+0·7	66·5	+0·1	75·9	+0·4	18·7	88·9	10th & 18th.	63·6	15th	22·3

N.B.—Elevations in italics indicate barometrical determinations. † Mean of 28 days.

-continued.

India, etc., in September, 1913—continued.

Wind direction. Number of winds from 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 from 1st May to 30th September.	Normal rainfall for period, 1st May to 30th September.	Departure from normal of period, 1st May to 30th September, 1913.	Heaviest rainfall during month.	Station.
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
																														X.—Bombay —*concld.*
1			1	5	9	4	S 86° W	N 87° W	5·4	6·6	−1·2	49	−21	74	− 3	·687	−·022	1·6	−4·0	4	7·8	−3·8	2·86	6·10	−3·24	14·56	19·76	−5·20	0·82	Malegaon.
				4	6	16	N 58° W	N 70° W	4·5	9·1	−4·6	76	−13	74	− 8	·642	−·043	4·0	−1·9	4	9·5	−4·5	2·83	6·72	−3·89	21·21	18·61	+2·60	2·07	Ahmadnagar
				1	26	1	W	N 87° W	8·2	8·1	+0·1	91	+21	84	+ 3	·690	+·011	3·6	−3·6	7	7·4	−0·4	2·18	4·71	−2·53	25·31	21·59	+3·72	0·72	Poona.
		2		1	3	18	N 46° W	N 68° W	7·5	6·1	+1·4	69	+ 2	68	−10	·630	−·045	6·0	−1·3	2	9·3	−7·3	1·28	8·40	−7·12	14·08	23·87	−9·79	0·70	Sholapur.
	1	1		5	11	8	N 76° W	N 87° W	7·2	5·3	+1·9	59	−16	73	−11	·655	−·045	5·2	−2·1	3	9·1	−6·1	2·69	6·26	−3·57	15·56	15·52	+0·04	1·03	Bijapur.
				3	8		S 78° W	N 81° W				33	−37	86	− 3	·659	+·002	5·7	−1·8	9	8·9	+0·1	4·51	4·59	−0·08	37·40	40·62	−3·22	1·25	Belgaum.
																														XI.—Central India
1	2			1	17	4	N 78° W	N 89° W	5·5	6·4	−0·9	59	+ 4	77	− 1	·681	−·060	5·1	+1·7	2	6·6	−4·6	2·11	5·07	−2·96	27·10	27·33	−0·23	1·79	Neemuch.
1					6	7	N 62° W	N 60° W	1·4	3·0	−1·6	43	− 9	81	− 5	·708	−·040	6·0	−0·3	4	8·6	−4·6	1·23	7·95	−5·82	37·99	30·67	+7·32	0·56	Indore.
1	2		2	7	15		S 71° W	N 89° W	2·1	1·7	+0·4	62	+ 3	67	−14	·701	−·120	3·7	−1·2	2	7·1	−5·1	0·40	6·06	−5·66	18·58	39·77	−21·19	0·17	Nowgong.
	3		2	1	18	1	S 83° W	N 69° W	2·7	4·5	−1·8	53	+15	77	− 3	·771	−·046	2·9	−3·0	8	8·8	−0·8	2·22	6·82	−4·60	26·80	39·21	−12·41	0·82	Sutna.
																														XII.—Central Provinces.
1	1		1	1	13	16	N 68° W		5·7	5·9	−0·2	80		77		·653		4·1		5	9·2	−4·2	5·42	7·35	−1·93	27·39	30·73	−3·34	4·15	Buldana.
1	1			3	14	10	N 73° W	N 69° W	4·8	4·7	+0·1	76	+ 2	76	− 5	·735	−·026	4·9	−0·9	7	8·4	−1·4	5·65	5·95	−0·30	26·93	28·50	−1·57	3·06	Akola.
2	2	2		2	12	10	N 62° W	S 88° W	4·4	3·9	+0·5	62	+ 3	78	− 7	·723	−·055	3·7	−2·3	7	8·2	−1·2	4·94	6·06	−1·12	35·62	29·61	+6·01	1·64	Amraoti.
				3	9	14	N 70° W	N 79° W	5·0	4·7	+0·3	72	− 6	75	− 7	·719	−·037	4·3	−0·9	3	7·5	−4·5	5·21	6·45	−1·24	39·81	27·55	+12·26	2·47	Khandwa.
	1			16	2	11	S 82° W	S 51° W	2·0	1·9	+0·1	66	+18	83	− 4	·752	−·062	6·1	0	4	10·0	−6·0	1·90	9·06	−7·16	36·92	45·86	−8·94	0·55	Hoshangabad
	2	1	1	5	5	6	S 87° W	S 80° W	6·2	3·2	+3·0	66	+22	71	−12	·643	−·120	4·7	−0·8	3	9·5	−6·5	1·37	7·32	−5·95	21·88	42·64	−29·76	0·84	Saugor.
	1	5	3	6	12	1	S 53° W	S 66° W	1·7	2·2	−0·5	53	+20	73	−11	·698	−·100	3·0	−2·5	1	10·0	−9·0	0·91	7·86	−6·95	31·00	51·02	−20·02	0·74	Jubbulpore.
10	2	1	1	2	6	7	N 38° W	N 52° W	2·9	2·8	+0·1	53	+23	68	−16	·632	−·136	3·0	−1·5	4	11·2	−7·2	2·26	9·14	−6·88	44·58	47·32	−2·74	1·07	Seoni.
5	1	1	1	1		2	18	N 36° W	N 72° W	3·9	3·9	0	69	+36	70	−10	·707	−·085	3·6	−2·8	5	11·0	−6·0	2·37	8·57	−6·20	45·75	44·17	+1·58	1·14	Nagpur.
6		1		2	3		8	N 42° W		2·9		33		72		·684		3·0		5	10·1	−5·1	2·19	5·88	−3·69	36·51	43·15	−6·64	1·03	Pendra.
1	1	2	2	10	11	3	S 68° W	S 63° W	3·5	4·3	−0·8	62	+28	82	− 2	·828	−·010	3·8	−2·7	7	10·5	−3·5	2·87	7·82	−4·85	36·63	45·15	−8·52	0·90	Raipur.
1			1	4	10	8	N 82° W	N 79° W	3·4	2·9	+0·5	59	+35	78	− 2	·810	0	4·3	−1·8	6	11·2	−5·2	10·07	9·83	+0·24	51·04	48·31	+2·73	7·07	Chanda.
3	2	1	3	3	2	6	10	N 63° W		1·9		37		84		·793		3·8		14			10·93			43·19			3·10	Jagdalpur.
																														XIII.—Hyderabad.
2	2	2		4	10	8	N 77° W		7·6			49		75	− 3	·663		4·2		5	8·9	−3·9	4·67	7·09	−2·42	22·63	24·96	−2·33	1·96	Aurangabad.
2				4	8	4	N 82° W		2·9			46		75	− 5	·727		3·2		5	9·9	−4·9	2·97	10·09	−7·12	37·23	36·35	+0·88	6·89	Nizamabad.
	2	1		4		13	N 51° W		4·0			43		77		·695		5·6		9	11·2	−2·2	7·00	9·75	−2·75	28·06	30·87	−2·81	3·15	Bidar.
5	1		1	3	7	13	N 55° W	N 54° W	6·3	7·9	−1·6	66	+ 8	67	−12	·629	−·082	4·2	−2·6	2	11·5	−9·5	0·74	8·56	−7·82	17·58	27·54	−9·96	0·31	Gulbarga.
3				10	9	8	N 86° W	S 89° W	5·6	7·1	−1·5	72	+ 3	68	−12	·665	−·060	5·8	−0·9	4	10·8	−6·8	3·44	7·62	−4·18	18·11	23·06	−4·95	1·73	Raichur.
					8		W	N 83° W	2·7	4·1	−1·4	28	−39	75	− 8	·706	−·028	5·8	−0·7	6	9·2	−3·2	1·59	6·92	−5·33	16·93	24·88	−7·95	0·32	Hyderabad (Deccan).
1	2		3	2	1	5	9	N 65° W		3·9		33		75	− 1	·780		5·6		4	9·3	−5·3	3·14	7·28	−4·14	26·72	30·11	−3·39	1·76	Hanamkonda
																														XIV.—Mysore.
				10	13	6	S 83° W	S 80° W	5·4	6·4	−1·0	79	− 7	79	− 3	·623	−·020	6·1	−2·0	5	7·4	−2·4	3·79	4·09	−0·30	13·29	16·93	−3·64	1·08	Chitaldrug.
1	1	1		7	11	7	N 84° W	N 79° W	5·7	2·6	+3·1	63	−13	84	+ 2	·603	−·002	6·5	−1·7	8	7·7	+0·3	3·54	3·95	−0·41	21·82	22·68	−0·86	0·99	Hassan.
	1			4	19	6	N 87° W	S 82° W	5·3	5·1	+0·2	82	+ 1	82	− 4	·618	−·014	7·6	−0·3	9	9·4	−0·4	8·22	6·76	+ 1·46	19·54	23·63	−4·09	2·97	Bangalore.
1				9	16	2	S 80° W	S 74° W	5·7	7·3	−1·6	79	+ 8	80	− 3	·628	−·007	7·4	−0·1	12	7·9	+4·1	7·36	4·59	+ 2·77	20·02	18·60	+1·42	1·73	Mysore.

Table

(2) *Abstract of observations taken at 8 hrs. at 216 stations*

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
	XV.—Madras.																						
30	Mangalore	65	29·872	+·006	29·869	29·904	14th	29·798	2nd	·106	78·1	84·6	+0·5	74·0	+0·4	79·3	+0·5	10·6	87·8	20th	71·9	4th	15·9
	Calicut	27	29·906	−·001	29·862	29·938	14th	29·852	27th	·086	77·6	84·1	−0·2	75·2	+0·8	79·6	+0·3	8·9	86·8	20th	72·6	30th	14·2
	Cochin	9	29·936	+·004	29·873	29·977	20th	29·889	27th	·088	79·3	86·1	+1·5	74·7	+0·2	80·4	+0·9	11·4	88·7	20th	73·2	28th & 29th.	15·5
	Trivandrum	198	29·741	+·011	29·870	29·795	20th	29·677	2nd	·118	78·4	84·3	+1·4	75·4	+2·3	79·8	+1·9	8·9	86·0	26th	73·0	28th	13·0
31	Pamban	37	29·846	−·001	29·811	29·910	20th	29·774	2nd	·136	81·2	90·1	+1·1	77·6	−0·7	83·8	+0·2	12·5	91·7	27th	76·8	14th, 20th & 28th.	14·9
	Madura	447	29·449	+·028	29·827	29·509	20th	29·374	1st	·135	82·9	97·6	+2·3	77·3	+2·0	87·4	+2·1	20·3	101·0	4th	74·1	28th	26·9
	Pudukkottai	318	29·563		29·812	29·630	20th	29·456	7th	·174	82·0	97·8		76·4		87·1		21·4	101·9	6th	71·2	22nd	30·7
	Negapatam	31	29·844	+·004	29·804	29·906	20th	29·753	2nd	·153	82·0	94·0	+1·5	77·0	+0·5	85·5	+1·0	17·0	98·7	16th & 23rd.	71·7	27th	27·0
	Trichinopoly	255	29·637	+·016	29·824	29·694	20th	29·553	1st	·141	82·6	97·5	+2·0	76·1	+0·4	86·8	+1·2	21·4	101·6	6th	71·8	26th, 27th & 28th.	29·8
	Coimbatore	1,341	28·569	+·021	29·844	28·618	20th	28·486	2nd	·132	76·5	90·4	+0·8	70·9	+0·2	80·6	+0·5	19·5	93·0	6th	68·8	8th & 9th	24·2
	Salem	913	28·990	+·022	29·804	29·036	20th	28·910	2nd	·126	79·3	94·5	+3·2	73·8	+1·9	84·2	+2·5	20·7	99·0	18th	70·8	27th	28·2
	Cuddalore	37	29·834	+·015	29·801	29·915	20th	29·737	1st	·178	81·6	93·1	+1·2	76·9	+1·2	85·0	+1·2	16·2	98·8	4th	70·2	14th	28·6
	Vellore	707	29·160		29·801	29·235	20th	29·061	1st	·174	81·2	95·9		76·2		86·0		19·7	99·2	20th	71·5	30th	27·7
	Madras	22	29·832	+·005	29·786	29·900	19th & 20th.	29·723	1st	·177	83·0	95·4	+2·4	78·0	+1·0	86·7	+1·7	17·4	102·0	2nd	73·0	25th	29·0
32	Cuddapah	433	29·435	+·012	29·804	29·510	20th	29·324	1st	·186	82·6	96·7	+4·2	77·0	+1·2	86·8	+2·7	19·7	102·0	6th	70·8	27th	31·2
	Bellary	1,475	28·401	+·016	29·809	28·487	20th	28·298	1st	·189	77·9	94·3	+3·7	73·6	+0·9	83·9	+2·3	20·7	100·0	19th	70·3	25th	29·7
	Kurnool	923	28·951	+·031	29·814	29·031	20th	28·835	1st	·196	79·5	92·6	+3·4	76·0	+2·9	84·3	+3·1	16·6	97·5	5th & 19th	72·6	3rd	24·9
33	Nellore	66	29·775	+·019	29·776	29·848	19th	29·661	1st	·187	83·3	97·3	+2·7	77·8	+0·1	87·5	+1·4	19·5	103·5	5th	72·1	28th	31·4
	Masulipatam	15	29·815	+·022	29·765	29·904	19th	29·663	1st	·241	82·7	93·3	+2·6	77·8	+0·4	85·6	+1·5	15·5	99·8	2nd	72·2	24th	27·6
	Cocanada	26	29·794	+·032	29·757	29·909	19th	29·641	1st	·268	82·7	91·9	+2·7	78·9	+0·8	85·4	+1·7	13·0	97·2	7th	75·6	24th	21·6
	Waltair (Vizagapatam).	*226*	29·579	+·038	29·744	29·677	19th	29·444	1st	·233	83·6	89·8		79·0		84·4		10·8	93·6	6th & 23rd	74·4	24th	19·2
	Calingapatam	19	29·775		29·731	29·870	19th	29·643	1st	·227	82·2	87·8		80·7		84·3		7·1	93·3	4th	78·8	17th	14·5
	Gopalpur	52	29·725	+·028	29·717	29·827	27th	29·603	1st	·224	82·2	88·5	+0·2	78·7	+0·4	83·6	+0·3	9·8	94·2	13th	73·0	15th	21·2
	Bay Islands.																						
1	P. V. Fraser	8	29·748		29·709	29·885	28th	29·603	16th	·282	83·9												
	Port Blair	58	29·827	+·005	29·815	29·917	18th	29·759	1st	·158	79·5	83·8	−1·3	76·1	−0·4	79·9	−0·9	7·7	86·7	11th	73·0	7th	13·7
	Table Island	90	29·739		29·763	29·841	18th	29·644	1st	·197	81·4	84·5		78·1		81·3		6·4	88·1	7th	74·6	23rd	13·5
	Kashmir.																						
13	Muzaffarabad		27·454			27·562	26th	27·305	7th	·257	69·5	89·6		57·5		73·5		32·1	94·5	6th	50·1	16th & 18th.	44·4
	Srinagar	5,204	24·882	+·036	24·853	24·997	26th	24·743	7th	·254	58·8	77·4	−2·0	50·6	−2·4	64·0	−2·2	26·8	83·4	6th	42·5	20th	40·9
	Gulmarg	*8,569*	21·897†	+·018†	21·865†	21·963	26th	21·782	7th	·181	50·8	60·6	−2·5	39·8	−2·9	50·2	−2·7	20·8	66·5	14th	32·7	16th	33·8
	Dras	*10,059*	20·812	+·025	20·810	20·924	18th	20·729	7th	·195	45·9	63·4		34·9		49·1		28·5	69·1	1st	29·3	29th	39·8
	Leh	*11,503*	19·747	+·017	19·715	19·842	18th	19·634	7th	·208	49·4	66·8	−2·5	39·1	−2·4	53·0	−2·9	27·7	72·9	6th	34·2	27th	38·7
	Skardu	*7,505*	22·884	+·035	22·854	23·000	27th	22·776	6th	·224	58·6	75·4	−2·5	50·1	−3·7	62·7	−3·1	25·3	82·5	6th	43·3	23rd	39·9
	Gilgit	4,890	25·136		25·109	25·271	27th	25·017	6th	·254	68·8	83·7	−2·0	59·3	−5·2	71·5	−4·1	24·4	91·2	6th	51·7	16th	39·4

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

NOTE.—The barometric readings are not reduced to sea-level in the case of hill or plate

† Mean of 29 days.

—continued.

India, etc., in September, 1913—continued.

Wind direction, number of winds from 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 from 1st May to 30th Sept., 1913.	Normal rainfall for period, 1st May to 30th September.	Departure from normal of period, 1st May to 30th Sept., 1913.	Heaviest rainfall during month.	Station.
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
																															XV.—Madras.
2	4	12	2	1	1	1	1	N 80° E	N 52° E	3·2	1·6	+1·6	46	+35	87	− 3	·835	−·010	6·7	−0·9	12	15·9	−3·9	10·91	10·77	+ 0·14	91·03	115·22	−24·19	1·96	Mangalore.
1	2	2	2			4	5	N 23° W	N 30° W	3·2*	5·2	−2·0	20	−13	90	+ 2	·853	+·021	5·3	−1·0	9	11·7	−2·7	14·66	7·21	+ 7·45	88·81	96·44	− 7·63	5·39	Calicut.
1	8	11	1		1		2	N 16° E	N 5° E	4·5*	3·7	+0·6	53	+12	84	− 2	·834	−·011	5·7	−0·3	13	13·9	−0·9	5·99	8·71	− 2·72	79·63	84·20	− 4·57	1·36	Cochin.
7						1	10	N 18° W	N 16° W	5·6	5·9	−0·3	86	+ 5	81	− 3	·788	−·015	7·5	+0·7	6	7·6	−1·6	2·81	3·83	− 1·02	31·28	36·72	− 5·44	0·97	Trivandrum.
	1	1	4	6	7	4	1	S 23° W	S 42° W	7·5	7·1	+0·4	43	− 9	83	+ 6	·872		3·4		0	2·0	−2·0	0·08	1·20	− 1·12	2·95	3·36	− 0·41	0·08	Pamban.
7	1					7	14	N 43° W	N 29° W	5·5	2·1	+3·4	72	− 6	63	− 5	·699	−·038	6·4	+1·2	5	6·8	−1·8	1·16	5·29	− 4·13	7·50	15·62	− 8·12	0·31	Madura.
2	1					1	6	N 36° W		5·7			30		63		·689		2·1		9	6·8	+2·2	7·69	3·83	+ 3·86	14·80	18·00	− 3·20	3·30	Pudukkottai.
					17	10	3	S 67° W	S 72° W	6·0*	4·0	+2·0	86	+12	81	+ 6	·892	+·072	5·4	−0·3	4	6·2	−2·2	4·30	3·70	+ 0·60	11·66	12·51	− 0·35	2·85	Negapatam.
1					6	17	4	S 89° W	N 87° W	5·1	4·7	+0·4	80	+10	66	− 6	·721	−·029	4·2	−1·8	8	6·0	+2·0	4·36	4·38	− 0·02	13·44	14·65	− 1·21	2·00	Trichinopoly.
		1	5	7				S 20° W	S 33° W	6·3	4·0	+2·3	43	−31	84	0	·763	+·015	3·8	−1·5	2	3·1	−1·1	0·69	1·42	− 0·73	5·13	8·05	− 2·92	0·29	Coimbatore.
1				3	7	12	2	S 73° W	S 43° W	3·0	2·5	+0·5	59	− 1	77	− 3	·767	−·004	6·2	+0·3	8	8·8	−0·8	5·60	6·54	− 0·94	20·18	25·69	− 5·51	2·57	Salem.
			2	4	13	5	1	S 44° W	S 84° W	4·8	1·9	+2·9	62	− 2	80	− 2	·862	−·0187	5·0	−1·0	8	7·1	+0·9	10·78	6·28	+ 4·50	18·49	16·85	+ 1·64	3·86	Cuddalore.
						20	2	N 86° W		3·0*†			67		76		·798		4·1		7	9·0	−2·0	5·36	7·87	− 2·51	12·02	26·36	−14·34	2·27	Vellore.
				5	15	7	2	S 54° W	S 68° W	4·6	4·4	+0·2	76	+ 6	77	− 1	·852	+·010	4·7	−2·0	6	7·4	−1·4	3·01	5·14	− 2·13	9·11	17·15	− 8·04	1·08	Madras.
2	1		2	1	2	15	7	N 79° W	N 84° W				62	−16	69	− 5	·772	+·050	5·6	−1·6	5	8·5	−3·5	3·16	6·32	− 3·16	10·10	21·17	−11·07	1·34	Cuddapah.
1					4	11	9	N 79° W	N 79° W	5·8*	6·7	−0·9	72	− 6	68	− 2	·647	−·005	5·8	−1·6	5	7·2	−2·2	3·55	4·54	− 0·99	8·93	12·69	− 3·76	1·43	Bellary.
					2	6	8	N 72° W	N 88° W	6·0*			46	− 2	70	− 8	·706	−·028	5·5	−1·4	3	9·8	−6·8	2·02	6·41	− 4·39	11·08	20·98	− 9·90	0·60	Kurnool.
2			1	5	4	5	9	S 89° W	N 68° W	4·1	4·9	−0·8	45	−14	72	− 4	·802	−·047	6·5	−0·7	5	6·3	−1·3	1·97	4·55	− 2·58	9·74	12·73	− 2·99	0·63	Nellore.
			1	2	5	6	9	W	N 68° W	4·6	4·2	+0·4	50	− 9	79	− 5	·872	−·035	5·2	−1·8	7	9·2	−2·2	6·95	5·80	+ 1·15	15·23	24·48	− 9·25	1·90	Masulipatam.
					2	10	5	N 82° W	N 87° W	3·0	4·7	−1·7	49	−16	81	+ 1	·911	+·051	6·5	−0·9	6	8·3	−2·3	5·14	5·98	− 0·84	21·80	23·14	− 1·34	1·67	Cocanada.
3	2	1	3		16	4	1	S 54° W	N 86° W	4·4			46	−21	76	− 5	·861	−·021	7·1	−0·2	4	9·1	−5·1	1·30	7·15	− 5·85	18·92	23·63	− 4·71	0·38	Waltair (Vizagapatam).
5	1	1			3	8	7	N 57° W		5·6			53		84		·909		3·8		4	7·8	−3·8	1·14	4·57	− 3·43	18·93	24·72	− 5·79	0·37	Calingapatam.
8				5	5		8	N 58° W	N 61° W	5·7	6·8	−1·1	43	+ 2	85	0	·926	−·003	4·6	−2·0	6	9·8	−3·8	2·24	7·53	− 5·29	28·15	30·13	−1·98	1·50	Gopalpur.
																															Bay Islands.
1	1	3	3	5	13	2	1	S 23° W					50		87		1·017		6·3		4			1·29			39·50			0·39	P.V. Fraser.
				2	3	9	6	W	S 61° W	6·6	6·9	−0·3	51	−15	87	− 3	·879	−·046	7·2	−0·9	21	20·4	+0·6	22·83	18·55	+ 4·28	70·36	85·18	−14·82	5·71	Port Blair.
	1	1		5	8	14		S 61° W		9·8			66		85		·906		7·7		9	16·4	−7·4	6·95	11·83	− 4·88	47·20	63·85	−16·65	1·51	Table. Island.
																															Kashmir.
1		1	3	11	12		1	S 17° W		0·5			70		67		·484		0·9		5			2·74			27·82			1·00	Muzaffarabad.
3	1	1	8	2		3	4	S 52° E	S 43° E	2·6	2·4	+0·2	3	−22	77	−10	·389	−·079	2·1	−1·2	2	3·8	−1·8	0·75	1·82	− 1·07	5·37	11·46	− 6·09	0·22	Srinagar.
	2	1	4	1	5	2		S 3° W		2·6			20		77	− 4	·288		1·9		5	5·6	−0·6	1·18	3·39	− 2·21	14·52§	16·35‡	−1·83	0·45	Gulmarg.
						1		W		4·5			3		64	+ 2	·200		1·3		3	2·1	+0·9	0·91	1·31	− 0·40	3·05	6·40	− 3·35	0·34	Dras.
			1	2				S 15° E	N 85° W	2·9	1·4	+1·5	10	−40	44	− 4	·154	−·022	3·8	+0·2	0	0·7	−0·7	0·01	0·28	− 0·27	1·57	1·65	− 0·08	0·01	Leh.
	1	6			1	4		E		4·2			7		53	− 8	·255		2·3		0	1·5	−1·5	0·17	1·08	−0·91	0·98	3·67	− 2·69	0·08	Skardu.
							3	N 45° W		0·2			10		58	+ 7	·403	+·018	2·3	−1·2	2	1·2	+0·8	0·60	0·37	+ 0·23	2·36	2·75	− 0·39	0·28	Gilgit.

ons, the elevations of which exceed 3,200 feet.

* Uncorrected for scale error.
† Mean of 29 days.

§ Rainfall since 7th June 1913.
‡ Normal rainfall since 1st June.

Tab

(2) *Abstract of observations taken at 8 hrs. at 216 stati*

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.	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.	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.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	Baluchistan.																					
15	Fort Sandeman		25·363		25·332	25·451	26th & 28th.	25·241	7th	·210	63·6	90·7		62·5		76·6		28·2	98·1	12th	54·7	30th
	Quetta	5,502	24·630	+·027	24·590	24·722	28th	24·513	7th	·209	59·0	85·4	0	48·6	−0·9	67·0	−0·5	36·8	91·5	5th	41·3	25th & 30th.
	Chaman	4,311	25·648	0	25·610	25·747	28th	25·507	7th	·240	68·6	88·1	−3·5	60·6	−4·2	74·3	−3·9	27·5	94·1	1st	52·0	24th
	Kalat	6,630	23·749		23·711	23·842	19th & 28th.	23·633	7th	·209	50·7	81·4		44·4		62·9		37·0	86·0	5th & 6th	38·7	29th & 30th.
	Dalbandin	2,779	27·072		27·035	27·162	19th	26·979	14th	·183	68·9	99·3		60·5		79·9		38·8	103·3	8th	52·2	2.st
	Pasni		29·804		29·764	29·829	27th	29·569	7th	·260	78·9	88·9		75·0		82·0		13·9	95·5	23rd	71·0	25th
	Panjgur		26·676		26·634	26·773	28th	26·561	7th	·212	60·1	94·7		61·7		78·2		33·0	98·0	6th	55·0	30th
	Robat		26·835		26·793	26·976	19th	26·698	7th	·278	73·5	98·6		68·9		83·7		29·7	104·8	12th	64·4	22nd
	Hill stations, excluding Kashmir and Baluchistan.																					
	Para Chinar	6,000	24·427		24·403	24·514	27th	24·309	7th	·205	68·1	79·3		55·3		67·3		24·0	83·0	20th	50·9	27th
	Cherat	*4,256*	25·676	+·033	25·644	25·758	26th & 27th	25·570	7th	·188	71·9	83·4	−2·4	64·2	−1·7	73·8	−2·1	19·2	87·1	19th & 21st	58·4	9th, 14th & 15th.
	Drosh		25·062			25·150	5 days	24·940	7th	·210	65·4	86·5		60·9		73·8		25·7	91·6	5th & 12th	55·1	24th
	Murree	6,333	23·853	+·023	23·821	23·926	28th	23·748	7th	·178	62·3	71·6	−2·2	58·6	−0·2	65·1	−1·2	13·0	75·0	19th	48·3	15th
	Simla	7,232	23·122	+·032	23·084	23·206	27th	23·021	7th	·185	59·6	65·9	+0·8	56·7	+0·3	61·8	+0·5	10·2	69·6	7th	54·3	12th
	Sarain		20·160		20·122	20·234	27th	20·079	7th	·155	47·7	54·5		43·3		48·9		11·2	57·4	18th	39·3	26th
	Kalabagh																					
	Chakrata	7,022	23·274	+·015	23·234	23·364	28th	23·163	6th	·201	61·9	70·3	+1·6	56·3	−0·7	63·3	+0·5	14·0	72·9	28th	51·3	26th
	Mukteswar	7,592	22·837	−·006	22·797	22·946	27th	22·746	7th	·170	59·9	70·7	+1·4	53·0	−2·5	61·8	−0·5	17·7	74·3	13th	45·9	29th
	Darjiling	7,376	23·001	−·028	22·956	23·085	27th	22·924	6th	·161	59·4	65·8	+1·7	55·8	+0·3	60·8	+1·0	10·0	74·3	3rd	52·2	26th & 30th
	Shillong	4,920	25·102		25·054	25·213	27th	25·023	6th	·190	67·3	74·3		61·3		67·8		13·0	79·9	3rd & 4th	53·7	24th
	Cherrapunji	4,309	25·744		25·695	25·896	28th	25·635	2nd & 12th	·261	63·1	73·1		63·6		68·4		9·5	80·7	3rd	59·1	24th
	Maymyo	3,545	25·398	+·006	26·343	26·514	28th	26·291	6th	·223	69·3	77·5	−0·4	65·2	+1·1	71·4	+0·3	12·3	82·3	4th	60·6	30th
	Pachmarhi	3,528	26·406	+·037	26·347	26·477	27th	26·166	2nd	·311	71·3	80·2	+3·0	65·3	−1·0	72·8	+1·0	14·9	87·0	20th & 29th	58·6	30th
	Mount Abu*	3,945	26·127	+·083	26·077	26·152	28th	26·114	29th & 30th	·038	75·3	82·4	+4·4	69·1	+3·8	75·7	+4·1	13·3	83·2	29th	68·8	29th
	Mercara	3,781	26·213	+·002	26·146	26·266	20th	26·151	2nd	·115	64·5	73·9	+1·7	61·3	−0·6	67·6	+0·5	12·6	79·5	21st	59·0	1·th & 15th
	Ootacamund	*7,327*	23·056		22·992	23·104	20th	22·990	1st & 2nd	·114	57·7	65·6		50·7		58·2		14·9	69·5	21st, 23rd & 24th.	46·7	4th
	Kodaikanal	7,688	22·828	+·002	22·763	22·871	21st	22·756	2nd	·115	57·2	64·9	+1·6	51·9	−0·3	58·4	+0·7	13·0	69·5	20th	49·0	10th.
	Extra India.																					
	Singapore (a)	10	29·957		29·888	29·998	8th	29·899	6th	·099	82·1	88·3		74·4		81·3		13·9	92·4	3rd	72·0	8th, 9th & 11th.
	Penang (a)	17	29·866		29·808	29·953	5th	29·781	1st	·172	80·4	86·5		72·7		79·7		13·9	91·0	16th & 28th	70·0	1st, 3rd & 15th.
	Trincomalee	99	29·779	+·012	29·806	29·837	19th	29·712	2nd	·125	75·1	85·3	+4·1	76·2	−0·4	85·7	+1·9	19·1	98·5	5th & 16th	73·5	20th
	Colombo	21	29·919	−·007	29·869	29·971	20th & 21st	29·864	17th	·107	76·9	86·2	+0·2	75·0	−2·0	80·6	−0·9	11·2	88·5	23rd	71·0	10th
	Hambantota		29·847		29·837	29·903	20th	29·771	2nd	·132	76·4	88·3		75·4		81·9		12·9	93·5	3rd & 8th	74·0	9th & 11th
	Minicoy	7	29·990			30·051	13th	29·925	2nd	·106												
	Amini Divi	*13*	29·932	+·006	29·873	29·974	5th	29·866	2nd	·108	81·2	87·6	+2·7	77·8	+0·5	82·7	+1·6	9·8	90·3	26th	72·3	17th
	Gyantse	13,120	18·470		18·431	18·565	30th	18·406	2nd	·159	51·7	72·9		40·8		56·8		32·1	77·0	19th	35·1	28th
	Pharijong	14,400									43·5	53·5		28·4		41·0		25·1	58·8	6th	18·0	28th
	Gangtok	5,560?	24·437		24·392	24·542	27th	24·348	12th	·194	65·0	73·6		61·1		67·4		12·5	81·1	3rd	56·8	30th
	Gartok (c)	15,100									36·9	58·6		25·3		41·9		33·3	73·3	1st	15·1	30th

N.B.—Elevations in italics indicate barometrical determinations.
(a) 9 hrs. observations.
(c) Aneroid corrected.

NOTE.—The barometric readings are not reduced to sea-level, in the case
* Mean of 3 days except rainfall.

—*continued.*

India, etc., in September, 1913—continued.

Wind direction. Number of winds from 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 from 1st May to 30th September, 1913.	Normal rainfall for period, 1st May to 30th Sept.	Departure from normal of period, 1st May to 30th September, 1913.	Heaviest rainfall during month.	Station.
25	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
																															Baluchistan.
	1	1			2	1	1	W		2·4			5		67		·469		0·4		1			0·36			7·47			0·36	Fort Sandeman.
					1			S 45° W	S 45° W	1·2	1·6	−0·4	3	+ 1	55	+ 5	·281	−·049	0·2	0	0	0·2	−0·2	0	0·08	− 0·08	0·29	1·82	− 1·53	0	Quetta.
		8	4	1	1			S 66° E	S 8° E	2·9	5·7	−2·8	37	− 1	36	+13	·248	−·021	0·2	0	0	0	0	0	0	0	0·49	0·22	+ 0·27	0	Chaman.
			2	2	1			S 10° E	S 14° W	2·9			13	−27	44		·165		0·4		0	0	0	0	0	0	0·97	1·37	− 0·40	0	Kalat.
2	3	1	1	2	2	5	5	N 60° W		4·3			23		38		·267		0		0			0			0·20			0	Dalbandin.
	1	2	1		1	14	3	N 84° W		5·6			43		93		·927		5·7		0			0			0·01			0	Pasni.
2	13	8	1		1		2	N 55° E		4·3			62		44		·289		1·0		0			0			0·38			0	Panjgur.
	1	2			1	23		W		3·0‡			70		46		·380		0·7		0			0			0			0	Robat.
																															Hill stations, excluding Kashmir and Baluchistan.
			3	1	2			S 9° E		0·9			17		46		·318		0·5		4	4·1	−0·1	1·13	1·63	− 0·50	12·59	13·00	− 0·41	0·51	Para Chinar.
8	3		2	3	2		2	N 7° E	S 32° W	5·0	5·8	−0·8	20	+15	47	−11	·366	−·102	0·7	−1·2	2	2·9	−0·9	0·71	2·16	− 1·45	10·89	13·30	− 2·41	0·35	Cherat.
		3				1		E		4·3			7		45		·284		0·4		2	2·3	−0·3	0·43	0·82	− 0·39	4·27	5·25	− 0·98	0·18	Drosh.
3	10	1	2	2	3	1		N 54° E	N 37° W	2·7	4·2	−1·5	27	+ 8	58	− 7	·325	−·056	1·8	−0·7	4	7·0	−3·0	1·14	5·91	− 4·77	39·02	38·15	+ 0·87	0·52	Murree.
															67	− 9	·339	−·058	2·1	−1·9	5	8·3	−3·3	1·84	5·71	− 3·87	38·92	50·41	−11·49	0·92	Simla.
																						7·3			8·37			39·22			Sarain.
13	1	1	1	8			4	N 3° W		4·4			26		62		·210		2·1		3	8·4	−5·4	1·00	11·11	−10·11	32·37§	53·51§	−21·14	0·56	Kalabagh.
1	1		2	1				S 72° E	N 21° E	1·7	4·4	−2·7	7	− 6	76	− 7	·419	−·031	2·6	−1·1	6	7·7	−1·7	2·97	6·35	− 3·38	50·71	56·80	− 6·09	1·17	Chakrata.
	1	1				10	2	N 78° W		5·0			33		69	−13	·358		2·9		1	8·6	−7·6	1·21	6·15	− 4·94	33·99	40·29	− 6·30	1·02	Mukteswar.
								(*a*)	S 89° E	0·3	2·7	−2·4	*a*		92	− 2	·464	−·010	8·6	+0·1	14	17·0	−3·0	12·12	18·46	− 6·34	115·86	108·94	+ 6·92	2·81	Darjiling.
			1		1	1		S 38° W		0·5			3		82		·547		6·5		17	18·8	−1·8	8·01	10·99	− 2·98	74·73	68·98	+ 5·75	1·64	Shillong.
4	4	2		3	5	5	1	N 77° W		3·9			13		93		·626		7·0		22	19·1	+2·9	40·05	35·06	+ 4·99	314·29	347·68	−33·39	3·54	Cherrapunji.
		3			6	1	1	S 40° W		2·1			13		92	+ 2	·659		7·4		15	15·5	−0·5	8·09	11·14	− 3·05	43·91	43·32	+ 0·59	1·72	Maymyo.
1			1	1	1	8	16	N 63° W	N 85° W	2·8	4·5	−1·7	69	+25	81	− 2	·609	−·018	3·8	−2·8	5	13·4	−8·4	5·62	14·82	− 9·20	75·73	70·46	+ 5·27	3·97	Pachmarhi.
1	1							N 24° E	S 70° W	4·8	5·8	−1·0	67	+23	54	−26	·475	−·076	1·7	−2·9	10	7·5	+2·5	13·12	8·92	+ 4·20	77·53	58·91	+18·62	2·80	Mount Abu.
2					2	13	9	N 72° W	N 67° W	4·7	5·3	−0·6	72	− 2	95	+ 3	·570	−·004	8·5	0	15	18·2	−3·2	7·43	10·80	− 3·37	96·58	111·00	−14·42	1·77	Mercara.
			3	5	1	7	5	S 65° W		2·3			33		81		·386		6·2		11	11·5	−0·5	4·34	5·76	− 1·42	27·75	35·39	− 7·64	0·90	Ootacamund.
		1	1	3		8	13	N 70° W		6·2†			53		78	− 2	·367		4·9		11	12·4	−1·4	6·57	6·52	+ 0·05	23·41	28·74	− 5·33	1·32	Kodaikanal.
																															Extra India.
		1	8		5		1	S 16° E		3·9†			27						7·5		15	9·7	+5·3	8·84	5·66	+ 3·18	34·12	32·80	+ 1·32	1·93	Singapore.
	24		3		1		2	N 48° E		9·9†			76								16	13·4	+2·6	22·86	13·77	+ 9·09	59·74	47·72	+12·02	4·10	Penang.
					30			S 45° W	S 43° W	7·5†	9·3	−1·8	96	+ 2	79	− 1	·770	−·095	5·9	+2·9	10	5·8	+4·2	3·42	4·63	− 1·21	10·15	14·74	− 4·59	0·85	Trincomalee.
					6	7	2	S 77° W	S 57° W	4·3†	6·7	−2·4	43	−33	89	+11	·819	−·033	8·5	+2·5	5	8·1	−3·1	2·46	4·60	− 2·14	22·61	31·58	− 8·97	1·25	Colombo.
					3	18	7	N 83° W		12·4†			82		91		·830		4·2		3			0·83			1·28‖			0·27	Hambantota.
2					2	8	18	N 59° W	N 75° W	4·9	8·5	−3·6	83	+ 3					4·1	−1·1	5	10·5	−5·5	1·52	6·86	− 5·34	32·80	38·52	+ 0·28	0·48	Minicoy.
3	1				1	9	16	N 55° W		9·1			80		79	− 3	·839	−·041	5·6	−0·7	5	11·0	−6·0	3·17	5·76	− 2·59	52·52	41·26	+12·26	1·50	Amini Divi.
		16						E		1·0			5		80		·307		1·6		1			0·13			4·56			0·13	Gyantse.
		1	2					S 59° E		8·4			7		73		·208		5·4		4			0·95			23·84			0·21	Pharijong.
	1							N 45° E		0·8			3		93		·576		2·1		21	21·6	−0·6	14·41	19·30	− 4·89	95·66	106·96	−11·30	2·12	Gangtok.
			1	10				S 5° E		5·8			37						1·5		0			0·05			2·87			0·04	Gartok.

plat-au stations, the elevations of which exceed 3,200 feet.
‡ Mean of 27 days.

(*a*) Indeterminate.
§ Actual and normal rainfall since 1st June.

† Uncorrected for scale error.
‖ Rainfall since 15th August 1913.

Table

(2) Abstract of observations taken at 8 hrs. at 216 stations

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
	Extra India—*concld.*																						
	Kashgar (*c*) . .	4,255																					
	Kabul . .		24·164			24·260	27th	24·070	7th	·190	64·9	90·1	+2·9	62·2	+11·2	76·2	+7·1	27·9	98·2	25th	56·8	27th & 29th.	41·4
	Meshed . .	3,104	26·823		29·883	27·368	20th	26·600	10th	·758	65·5	86·9		49·0	−5·2	68·0		37·9	96·6	12th	41·5	24th	55·1
	Jask . . .	13	29·773	+·025	29·739	29·949	28th	29·632	7th	·317	82·8	94·7	+1·2	81·1	+0·3	87·9	+0·7	13·6	99·3	7th, 8th & 21st.	75·8	4th	23·5
	Muscat * . .	20	29·773	+·018	29·741	29·937	28th	29·665	7th	·272	88·5	97·7	+10·5	84·7	+1·3	91·2	+5·9	13·0	107·3	9th	80·1	29th	27·2
	Bahrein . .	18	29·801		29·772	29·873	27th	29·750	5th, 9th & 11th.	·123	88·5	95·3		81·5		88·4		13·8	100·7	8th	75·5	30th	25·2
	Bushire . .	14	29·757*	+·028*	29·733*	29·910	19th	29·662	2nd	·248	85·5	93·7	−0·6	78·6	−0·5	86·2	−0·5	15·1	97·3	8th	74·5	24th	22·8
	Busrah . .	25	29·755		29·749	29·906	28th	29·593	1st	·313	83·6	105·5		75·6		91·0		28·9	112·3	9th & 10th	71·1	16th	41·2
	Kerman . .		24·609			24·820	1st	24·440	16th	·380	61·3	90·0		48·3		69·1		41·7	97·4	9th & 11th	41·9	29th	55·5
	Ispahan (*b*) .	*5,817*	24·346			24·460	28th	24·250	12th & 16th.	·210	69·4	87·3	−3·1	56·7	+1·6	72·0	−0·7	30·6	94·9	8th	50·2	25th	44·7
	Tehran (*b*) .	*4,002*																					
	Baghdad . .	127	29·671	−·002	29·773	29·837	19th	29·560	3rd	·277	79·5	105·2	+3·3	72·5	+0·8	88·8	+2·1	32·7	113·0	6th	63·6	27th	49·4
	Beirut (*a*) . .				29·881						80·3	85·5		73·3		79·4		12·2	98·1	19th	66·9	25th	31·2
	Aden . .	94	29·783	+·046	29·808	29·881	28th	29·698	3rd	·183	84·9	92·4	−1·2	82·3	+0·1	87·4	−0·5	10·1	97·1	9th & 12th	77·9	29th	19·2
	Zanzibar . .	72	30·071	+·005	30·070	30·123	15th	30·036	3rd & 11th.	·087	76·2	82·3	+0·3	73·4	0	77·9	+0·1	8·9	84·9	26th	72·7	22nd & 24th.	12·2

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*) „ corrected.

* Mean of 29 days.

—concluded.

India, etc., in September, 1913—concluded.

Wind direction. Number of winds from 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 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 from 1st May to 30th September 1913	Normal rainfall for period, 1st May to 30th September	Departure from normal of period, 1st May to 30th September 1913	Heaviest rainfall during month	Station
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
																															Extra India—*concld.*
									N 29° W		2·2											0·7			0·31			2·24			Kashgar.
		2	4	7	6	11		S 36° W	S 13° W				57	+18	73		·479		0·7	+0·6	1	0·1	+0·9	0·10	0·03	+0·07	0·87	1·50	− 0·63	0·10	Kabul.
6								N		1·0			2		44		·272		0·8	+0·2	0	0·1	−0·1	0	0·02	−0·02	0·42	1·84	− 1·42	0	Meshed.
4	9	13				1	2	N 55° E	S 81° E	7·0	9·8	−2·8	66	+ 3	75	+ 2	·811	−·084	1·6	+0·1	0	0	0	0	0	0	0	0·06	− 0·06	0	Jask.
2	2	9	2			3	8	N 23° E	N 72° E	3·7	2·8	+0·9	29	0	66	−11	·866	−·064	1·1	+0·1	0	0	0	0	0	0	0	0·17	−0·17	0	Muscat.
3	1		2	2	4	6	12	N 68° W		3·2			53	+ 1	71		·951		0·7		0	0	0	0	0	0	0·01	0·10	−0·09	0	Bahrein.
2	5	6	5	1	1		2	N 81° E	N 60° E	5·2	5·0	+0·2	37		79	+16	·971	+·145	0·1		0	0	0	0	0	0	0·02	0·03	− 0·01	0	Bushire.
	1	1	1	3		17	1	S 82° W		2·0			50		48		·554		0·2		0	0·3	−0·3	0	0·19	−0·19	0·31	0·65	− 0·31	0	Busrah.
	1		1	1	3	1	2	S 56° W		4·6			10		42		·231		1·8		0			0·03			0·03			0·02	Kerman.
3		1		1		7	1	N 67° W	N 72° W	2·0	2·5	−0·5	23	−11	47	− 1	·333	−·042	1·0	+0·7	1	0·1	+0·9	0·26	0·03	+0·23	0·37	0·33	+0·04	0·18	Ispahan.
									N 62° E		2·0											0·3			0·08			0·88			Tehran.
5	3					3	7	N 27° W	N 11° W	5·5	1·8	+3·7	47	− 5	38	−10	·378	−·129	1·0	+0·8	0	0	0	0	0	0	0·06	0·28	− 0·22	0	Baghdad.
	3	1			1	7	2	N 63° W					23		64		·669		1·6		0			0			0·16†			0	Beirut.
4	10		1					N 37° E	S 56° E	7·2	7·0	+0·2	43	+13	81	+ 6	·956	+·021	3·8	−0·1	0	0·2	−0·2	0	0·14	−0·14	0·34	0·50	− 0·16	0	Aden.
			6	11	6			S	S 5° E	3·5	4·1	−0·6	65	−21	63	0	·751	+·007	6·3	+0·4	8	5·4	+2·6	2·58	2·10	+0·48	15·02	19·81	−4·79	0·60	Zanzibar.

† Rainfall for July wanting.

Table C.—Abstract of observations taken at 8 hrs. at 63 fourth and fifth class stations in India, etc., in September 1913.

Table

Abstract of observations taken at 8 hrs.

Number of sub-division.	Station.	Temperature of air.													Wind direction.										
		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.	Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
	II.—Assam.																								
4	Balek	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Bishnath	78·4	89·5	...	75·1	...	82·3	...	14·4	95·7	4th	72·1	26th	23·6	...	...	...	...	...	...	...	...	...	...	...
	Borjuli	79·7	89·2	...	74·6	...	81·9	...	14·6	95·0	3rd	71·4	26th & 29th	23·6	...	...	...	...	...	...	...	...	...	...	...
	Chandkhira	80·3	92·7	...	74·5	...	83·6	...	18·2	98·1	2nd	70·0	27th	28·1	...	...	...	...	...	...	...	...	...	...	...
	Doom Dooma	75·1	88·0	...	74·0	...	81·0	...	14·0	97·5	4th	70·7	29th & 30th	26·8	...	...	...	...	...	...	...	...	...	...	...
	Dikom	77·6	88·6	...	74·5	...	81·5	...	14·1	98·0	4th	71·0	29th	27·0	...	...	...	...	...	...	...	...	...	...	...
	Golaghat	80·1	89·2	...	75·2	...	82·2	...	14·0	95·7	4th	71·4	27th	24·3	...	...	...	...	...	...	...	...	...	...	...
	Hailakandi	80·0	90·0	...	76·0	...	83·3	...	14·6	95·4	14th	72·6	27th	22·8	...	...	...	...	...	...		...	...	...	...
	Jorehat	80·0	89·3	...	75·5	...	82·4	...	13·8	96·5	4th	72·2	27th & 28th	24·3	...	...	...	...	...	...	...	...	...	...	...
	Lumding	78·5	90·2	...	74·2	...	82·2	...	16·0	95·7	4th	71·0	26th	24·7	...	...	...	...	...	...	...	...	...	...	...
	Messa	85·2	93·9	...	74·8	...	84·3	...	19·1	98·3	3rd	69·8	25th	28·5	...	...	...	...	...	...	...	...	...	...	...
	Panerihat	75·3	84·5	...	72·8	...	78·7	...	11·7	89·4	4th	69·5	1st	19·9	...	...	...	...	...	...	...	...	...	...	...
	Srimangal	81·3	92·1	...	75·4	...	83·7	...	16·7	95·7	8th	72·2	24th	23·5	...	...	...	...	...	...	...	...	...	...	...
	III.—Bengal.																								
5	Comilla	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Brahmanbaria	82·0	91·4	...	76·3	...	83·9	...	15·1	93·3	6th	73·1	26th	20·2	...	...	...	...	...	...	...	...	...	...	...
	Faridpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Goalundo	84·1	92·0	...	77·6	...	84·8	...	14·4	98·2	24th	74·1	30th	24·1	...	...	...	...	...	...	...	...	...	...	...
	Pabna	83·9	91·6	...	78·1	...	84·9	...	13·5	97·0	24th	75·1	20th	21·9	...	...	...	...	...	...	...	...	...	...	...
	Sirajganj	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Rampur Boalia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Malda	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Rangpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Dam Dim	77·5	93·7	...	72·1	...	82·9	...	21·6	96·9	15th	69·0	29th	27·9	...	...	...	...	...	...	...	...	...	...	...
	Kalchini	81·0	88·1	...	69·8	...	78·9	...	18·3	95·1	3rd	64·9	29th	30·2	...	...	...	...	...	...	...	...	...	...	...
	Nagrakata	78·9	88·3	...	73·1	...	80·7	...	15·2	94·1	3rd & 16th	69·0	29th & 30th.	25·1	...	...	...	...	...	...	...	...	...	...	...
	Cooch Behar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Krishnagar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Bankura	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Asansol	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

65 fourth and fifth class stations in India, etc., in September, 1913.

Wind velocity.			Wind steadiness.		Hygrometry, 8 hrs.				Cloud.		Rainfall.									Heaviest rainfall during month.	Station.
hour.	Normal.	Departure from normal.	Actual percentage.	Departure from normal.	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.	Mean cloud amount at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month	Departure from normal.	Total rainfall from 1st May to 30th September, 1913	Normal rainfall of period, 1st May to 30th September.	Departure from normal of period, 1st May to 30th September, 1913.		
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
																					II.—Assam.
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	**Balek.**
...	...	...	...	...	96	...	·933	...	...	...	14	15·2	−1·2	8·83	11·65	−2·82	58·62	71·08	−12·46	1·49	Bishnath.
...	...	...	...	...	88	...	·892	...	...	...	10	14·3	−4·3	3·83	10·40	−6·57	54·10	65·07	−10·97	0·96	Borjuli.
...	...	...	...	...	88	...	·909	...	...	...	14	16·6	−2·6	8·25	9·97	−1·72	97·66	78·71	+18·95	1·56	Chandkhira.
...	...	...	...	...	95	...	·825	...	...	...	22	13·8	+8·2	16·72	8·90	+7·82	82·96	70·40	+12·56	2·24	Doom Dooma.
...	...	...	...	...	93	...	·875	...	...	...	20	14·8	+5·2	16·28	10·51	+5·77	79·22	75·89	+3·33	2·21	Dikom.
...	...	...	...	...	89	...	·911	...	...	...	10	13·8	−3·8	6·93	7·58	−0·65	51·82	51·06	+0·76	2·58	Golaghat.
...	...	...	...	...	87	...	·859	...	...	...	14	14·8	−0·8	7·28	13·31	−6·03	99·16	88·23	+10.93	1·38	Hailakandi.
...	...	...	...	...	93	...	·954	...	...	...	16	13·3	+2·7	12·32	8·83	+3·49	50·07	58·83	−8·76	1·95	Jorehat.
...	...	...	...	...	90	...	·869	...	...	...	9	...	...	3·88	...	...	37·65	...	...	1·48	Lumding.
...	...	...	...	...	77	...	·926	...	...	...	11	14·0	−3·0	5·74	10·49	−4·75	41·35	71·48	−30·13	1·54	Messa.
...	...	...	...	...	94	...	·818	...	...	...	8	12·3	−4·3	5·43	8·69	−3·26	53·01	59·01	−6·00	1·59	Panerihat.
...	...	...	...	...	85	...	·908	...	...	...	12	15·8	−3·8	4·79	12·11	−7·32	55·78	70·63	−14·85	1.15	Srimangal.
																					III.—Bengal.
...	...	...	...	...	...	...	...	...	...	...	12	13·3	−1·3	9·69	10·99	−1·30	103·29	70·54	+32·75	3·62	Comilla.
...	...	...	...	...	85	...	·931	...	...	...	7	14·3	−7·3	9·68	10·49	−0·81	86·48	62·44	+24·04	3·15	Brahmanbaria.
...	...	...	...	...	...	...	...	...	...	...	10	12·1	−2·1	3·58	9·01	−5·43	61·80	55·27	+6·53	1·05	Faridpur.
...	...	...	...	...	84	...	·979	...	...	...	9	12·2	−3·2	1·66	9·99	−8·33	46·18	51·84	−5·66	0·32	Goalundo.
...	...	...	...	...	85	...	·983	...	...	...	15	11·5	+3·5	7·51	8·76	−1·25	46·87	48·75	−1·88	2·05	Pabna.
...	...	...	...	...	...	...	...	...	...	...	10	11·7	−1·7	8·19	10·04	−1·85	53·44	53·19	+0·25	2·83	Sirajganj.
...	...	...	...	...	...	...	...	...	...	...	18	12·1	+5·9	10·87	10·08	+0·79	54·29	46·33	+7·96	2·08	Rampur Boalia.
...	...	...	...	...	...	...	...	...	...	...	13	11·2	+1·8	9·76	10·24	−0·48	54·46	45·28	+9·18	3·66	Malda.
...	...	...	...	...	...	...	...	...	...	...	13	13·4	−0·4	14·27	14·62	−0·35	90·79	70·86	+19·93	3·75	Rangpur.
...	...	...	...	...	*	...	*	...	...	...	20	18·7	+1·3	23·80	20·79	+3·01	130·52	139·93	−9·41	5·80	Dam Dim.
...	...	...	...	...	92	...	·873	...	...	...	21	15·5	+5·5	22·17	17·71	+4·46	131·15	135·30	−4·15	5·75	Kalchini.
...	...	...	...	...	84	...	·893	...	...	...	19	19·5	−0·5	15·15	21·95	−6·80	133·96	142·88	−8·92	2·33	Nagrakata.
...	...	...	...	...	86	...	·846	...	...	...	21	15·3	+5·7	37·18	26·59	+10·59	132·27	131·74	+0·53	5·50	Cooch Behar.
...	...	...	...	...	...	...	...	...	...	...	14	10·8	+3·2	6·13	8·51	−2·38	63·37	46·45	+16·92	0·95	Krishnagar.
...	...	...	...	...	...	...	...	...	...	...	13	11·7	+1·3	8·03	8·91	−0·88	51·99	47·10	+4·89	1·60	Bankura.
...	...	...	...	...	...	...	...	...	...	...	14	11·6	+2·4	5·50	8·41	−2·9	66·90	45·75	+21·15	1·25	Asansol.

* Mean of 27 days.

Tab

Abstract of observations taken at 8 hr

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.	Wind direction. Number of winds from Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
	IV.—Bihar and Orissa.																							
7	Hazaribagh	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
8	Bhagalpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Muzaffarpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Motihari	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Chapra	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Arrah	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Dehri	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	V.—United Provinces of Agra and Oudh.																							
10	Meerut	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Dehra Dun	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	IX.—Rajputana.																							
16	Udaipur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	XII.—Central Provinces.																							
23	Chhindwara	75·9	87·3	...	68·3	...	77·8	...	19·0	93·2	21st	63·8	29th	29·4	16	...	1	...	...	...	...	2	11	N 15° W
	XV.—Madras.																							
31	Tinnevelly	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
32	Anantapur	79·0	93·9	...	74·1	...	84·1	...	19·8	99·6	6th	69·3	30th	30·3	...	...	...	...	...	...	...	...	...	...
33	Guntur	82·1	94·0	...	76·3	...	85·1	...	17·7	100·7	5th	71·8	14th	28·9	...	...	...	...	...	...	...	...	...	...
	Bay Islands.																							
1	Car Nicobar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Kashmir.																							
13	Jammu	81·2	93·1	...	72·2	...	82·7	...	20·9	97·1	21st	66·3	1st	30·8	...	18	9	1	...	1	...	1	...	N 15° E
	Sonamarg	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Kargil	58·5	77·0*	...	47·2	...	62·1*	...	29·8	87·3	14th	42·0	16th & 29th	45·3	...	20	...	4	5	...	1	...	...	N 24° E

* Mean of 29 days.

—*continued.*

65 fourth and fifth class stations in India, etc., in September, 1913—continued.

Wind velocity.			Wind steadiness.		Hygrometry, 8 hrs.				Cloud.		Rainfall.									Heaviest rainfall during month.	Station.
hour.	Normal.	Departure from normal.	Actual percentage.	Departure from normal.	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.	Mean cloud amount at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st May to 30th September, 1913.	Normal rainfall of period, 1st May to 30th September.	Departure from normal of period, 1st May to 30th September, 1913.		
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
																					IV.—Bihar and Orissa.
..	..	...	...	...	...	...	...	...	...	...	13	11·9	+1·1	9·73	9·04	+0·69	52·54	45·56	+6·98	2·35	Hazaribagh.
..	...	..	...	...	...	...	...	...	...	...	9	9·6	−0·6	5·88	9·48	−3·60	40·42	44·10	−3·68	1·83	Bhagalpur.
..	...	...	...	...	...	...	...	...	...	...	10	8·7	+1·3	9·76	7·41	+2·35	70·47	43·98	+26·49	7·05	Muzaffarpur.
..	...	...	...	...	...	...	...	...	...	...	7	8·9	−1·9	10·79	9·49	+1·30	55·20	50·80	+4·40	5·18	Motihari.
..	...	...	...	...	...	...	...	...	...	...	6	8·6	−2·6	9·58	6·93	+2·65	56·15	37·25	+18·90	3·61	Chapra.
..	...	...	...	...	...	...	...	...	...	...	10	9·0	+1·0	13·12	7·32	+5·80	57·24	39·33	+17·91	4·27	Arrah.
..	...	...	...	...	...	...	...	...	...	...	8	8·9	−0·9	8·01	7·00	+1·01	56·09	37·40	+18·69	2·00	Dehri.
																					V.—United Provinces of Agra and Oudh.
..	...	...	...	...	...	..	...	...	...	...	1	5·5	−4·0	1·25	5·72	−4·47	20·32	28·12	−7·80	1·25	Meerut.
..	...	...	...	...	...	...	...	...	...	...	2	10·3	−8·3	0·38	9·43	−9·05	47·67	76·68	−29·01	0·24	Dehra Dun.
																					IX.—Rajputana.
..	...	...	...	...	...	...	...	...	...	...	6	5·3	+0·7	2·38	4·27	−1·89	24·61	22·57	+2·04	0·64	Udaipur.
																					XII.—Central Provinces.
0	...	...	43	...	73	...	·657	...	2·6	...	7	...	...	4·08	...	...	44·78	...	...	1·41	Chhindwara.
																					XV.—Madras.
..	...	...	...	...	...	...	...	...	...	...	4	1·7	+2·3	2·54	1·24	+1·30	5·12	4·31	+0·81	1·86	Tinnevelly.
..	...	...	...	...	83	...	·822	...	8·3	...	6	...	...	11·00	...	...	17·99	...	...	5·02	Anantapur.
..	...	...	...	...	79	...	·862	...	7·0	...	8	...	...	5·48	...	...	22·47	...	...	1·62	Guntur.
																					Bay Islands.
..	...	...	...	...	...	...	...	...	...	...	2	17·3	−15·3	2·89	13·69	−10·80	42·52	58·57	−16·05	1·90	Car Nicobar.
																					Kashmir.
..	...	...	80	...	57	...	·605	...	1·0	...	4	...	...	1·57	...	...	33·99	...	...	0·77	Jammu.
..	...	...	...	...	...	...	...	...	...	...	6	8·0	−2·0	2·59	4·67	−2·08	18·38	25·71	−7·33	0·55	Sonamarg.
..	...	...	60	...	39	...	·189	...	1·2	...	0	...	...	0·06	...	...	0·91	...	...	0·03	Kargil.

Table

Abstract of observations taken at 8 hrs.

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.	Wind direction. Number of winds from Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
	Hill stations, exclusive of Kashmir.																								
	Panighatta	77·5	80·5	...	72·5	...	79·5	...	14·0	92·7	3rd	68·6	29th	24·1	...	...	...	...	...	...	...	...	...	...	
	Kurseong	67·2	72·1	...	63·2	...	67·7	...	8·9	76·3	2nd	59·9	30th	16·4	...	...	...	...	...	...	...	...	...	...	
	Gnatong	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Lachung	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Ringim	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Poo	...	73·3	...	51·9	...	62·6	...	21·4	78·3	2nd	46·1	27th	32·2	14	...	...	2	...	1	...	10	3	N 84° W	
	Kailang	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Bakloh	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Pishin	...	85·5	...	49·1	...	67·3	...	36·4	92·4	5th	41·1	25th	51·3	...	...	...	...	...	...	...	...	...	...	
	Extra India.																								
	Ahwaz	...	105·0	...	82·4	...	93·7	...	22·6	110·2	9th	76·6	13th	33·6	24	...	...	6	...	...	...	...	...	E	
	Chumbi	50·6	63·7 d	...	47·3	...	55·5 d	...	16·4	70·3	5th	37·7	28th	32·6	...	...	...	...	...	...	...	...	...	...	
	Kirmanshah	69·0	88·1	...	51·5	...	69·8	...	36·6	94·8	3 days	45·0	22nd	49·8	...	...	...	...	...	...	...	...	...	...	
	Koweit	...	104·1	...	80·8	...	92·5	...	23·3	113·9	12th	75·2	24th	38·7	...	...	...	2	...	...	1	24	3	N 88° W	
	Maidan	...	107·2	...	78·7	...	92·9	...	28·5	114·2	4th	72·2	29th & 30th.	42·0	...	...	...	...	...	...	...	...	...	...	
	Muhammerah	...	100·6	...	78·3	...	89·4	...	22·3	105·0	9th	73·4	21st	31·6	...	...	...	...	...	...	7	...	11	a N 68° W	
	Pemba	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Prison Island	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Seistan	...	94·1	...	61·6	...	77·9	...	32·5	103·0	1st	49·0	20th	54·0	4	13	...	...	...	...	...	...	13	N 22° W	

d—Mean of 29 days. a—12 variable winds.

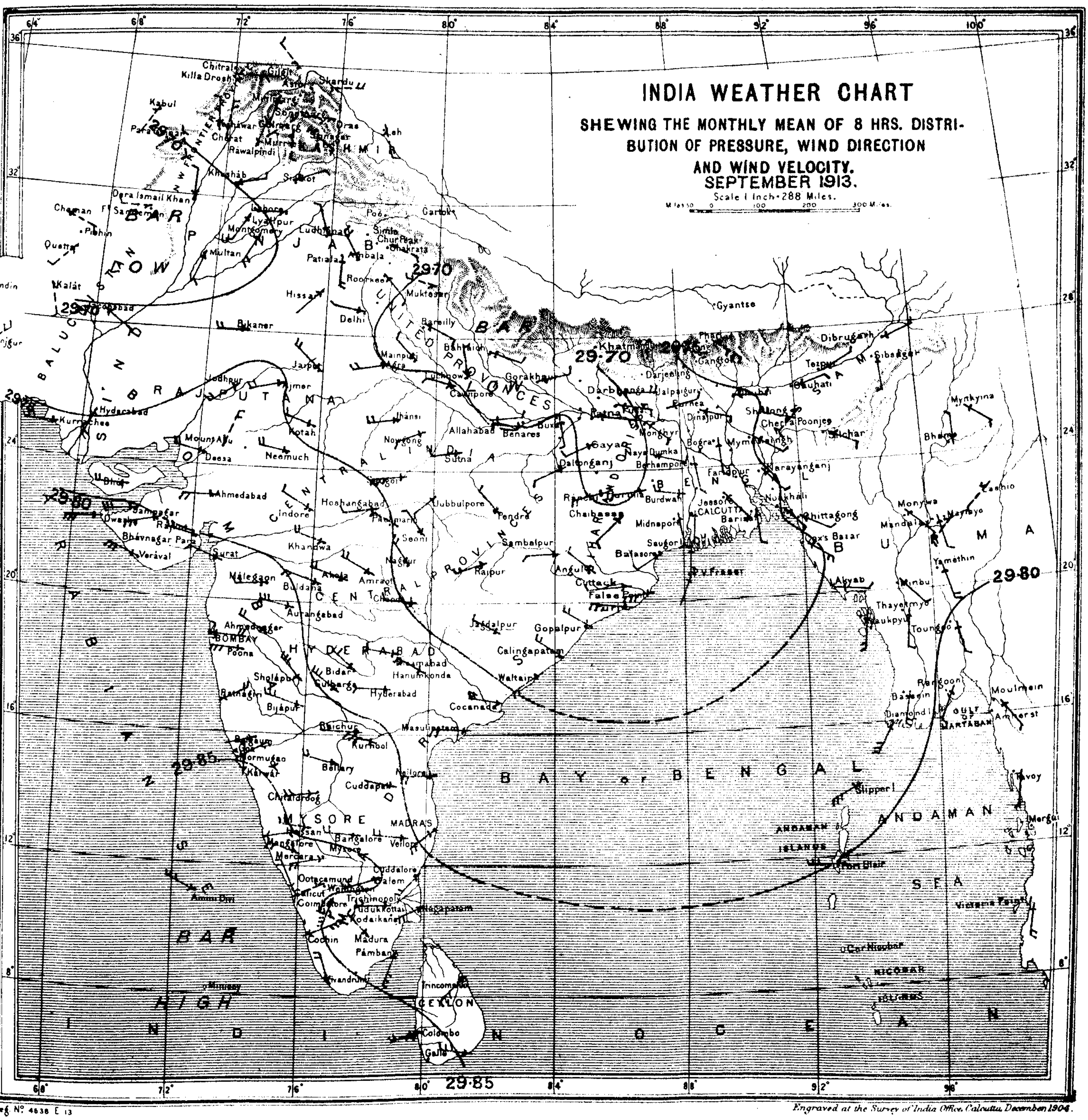
—concluded.

65 fourth and fifth class stations in India, etc., in September, 1913—concluded.

Wind velocity.			Wind steadiness.		Hygrometry, 8 hrs.				Cloud.		Rainfall.									Heaviest rainfall during month.	Station.
hour.	Normal.	Departure from normal.	Actual percentage.	Departure from normal.	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.	Mean cloud amount at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st May to 30th September, 1913.	Normal rainfall of period, 1st May to 30th September.	Departure from normal of period, 1st May to 30th September, 1913.		
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
																					Hill stations, exclusive of Kashmir.
...	...	...	...	...	85	...	·796	...	...	...	17	18·8	—1·8	19·77	22·09	—2·32	112·75	125·26	—13·51	3·00	Panighatta.
...	...	...	...	...	88	...	·583	...	...	...	19	19·8	—0·8	15·68	23·67	—7·99	112·84*	138·88	—26·04	2·40	Kurseong.
...	...	...	...	...	...	...	...	...	...	...	23	...	...	20·70	...	...	157·48	...	...	2·13	Gnatong.
...	...	...	...	...	...	...	...	...	...	...	15	...	...	5·32	...	...	25·35*	...	...	0·60	Lachung.
...	...	...	...	...	...	...	...	...	...	...	22	...	...	18·97	...	...	70·77†	...	...	3·85	Ringim.
...	...	...	33	...	...	...	...	...	3·1	...	1	1·3	—0·3	0·16	0·34	—0·18	1·28	3·12	—1·84	0·10	Poo.
...	...	...	...	...	...	...	...	...	...	...	3	2·7	+0·3	0·97	1·93	—0·96	5·29	8·51	—3·22	0·51	Kailang.
...	...	...	...	...	...	...	...	...	...	...	2	...	...	2·27	...	...	68·13	...	...	2·07	Bakloh.
...	...	...	...	...	...	...	...	...	0·2	...	0	0	0	0	0	0	0·11	0·43	—0·32	0	Pishin.
																					Extra India.
...	...	...	2	...	...	...	...	...	0·3	...	0	...	...	0	...	...	0·04	...	...	0	Ahwaz.
...	...	...	...	...	90	...	·335	...	...	...	13	...	...	4·14	...	...	25·48	...	...	0·73	Chumbi.
...	...	...	...	...	38	...	·261	...	...	...	0	...	...	0	...	...	1·13	...	...	0	Kirmanshah.
...	...	...	83	...	...	...	...	...	0	...	0	...	...	0	...	...	0·11	...	...	0	Koweit.
...	...	...	...	...	...	...	...	...	0	...	0	...	...	0	...	...	0	...	...	0	Maidan.
...	...	...	53	...	...	...	...	...	...	...	0	...	...	0	...	...	0·20	...	...	0	Muhammerah.
...	...	...	...	...	...	...	...	...	...	...	5	2·7	+2·3	1·11	1·30	—0·19	30·16	30·25	—0·09	0·29	Pemba.
...	...	...	...	...	...	...	...	...	...	...	...	5·1	...	...	1·73	...	...	21·78	...	...	Prison Island.
9·1	...	...	80	...	...	...	...	...	...	...	0	...	...	0	...	...	0	...	...	0	Seistan.

* Rainfall for August wanting.

† Rainfall for July wanting.



Ref. No 4838 E 13

Engraved at the Survey of India Office, Calcutta, December 1904.

The lines of the above chart represent isobars or lines of equal barometric pressure, the numbers attached indicating the barometric pressure in inches and being drawn for differences of pressure of ·05 inch. The isobars in the Bay of Bengal are filled in by means of the shore observations, and by comparison with the normal distribution of pressure.

The mean 8 hrs. wind directions of the month are shewn by means of arrows flying with the wind, and are calculated by means of Lambert's formula applied to the winds as given in Table B of the 8 hrs. observations. The mean wind directions for the hill stations are indicated by broken arrows to distinguish them from the wind arrows for the plain stations. The mean velocity of the winds during the month is shewn by the following notation:—

Velocity of	0 to 2 miles per hour	...	one feather added to the wind arrow.
,, ,,	2 to 5 ,, ,, ,,	...	two feathers ,, ,, ,, ,,
,, ,,	5 to 10 ,, ,, ,,	...	three ,, ,, ,, ,, ,,
,, ,,	10 to 20 ,, ,, ,,	...	four ,, ,, ,, ,, ,,
	over 20 ,, ,, ,,	...	five ,, ,, ,, ,, ,,

Wind strengths are based on factor 2·2 for the standard type of Beckley Robinson anemograph, instead of 3·0 as used for this plate up to December 1911 inclusive.

Engraved at the Survey of India Office, Calcutta, December 1913.

Reg N° 4538 E 13

The chart shows the departure from normal of the mean during the month of 8 hrs. pressure by means of lines drawn for equal amounts of departure. The numbers are given in thousandths of an inch, 20 representing ·020″ or two hundredths of an inch, &c. Continuous lines indicate that the pressure was in excess by amounts indicated by the numbers attached to the lines, and broken or dotted lines that it was in defect by amounts indicated by the numbers attached to the lines. Two parallel lines near to each other, one continuous and the other broken or dotted, represent the line of no departure, the dotted line facing the area of deficient pressure or negative departures.

CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MAXIMUM TEMPERATURE.

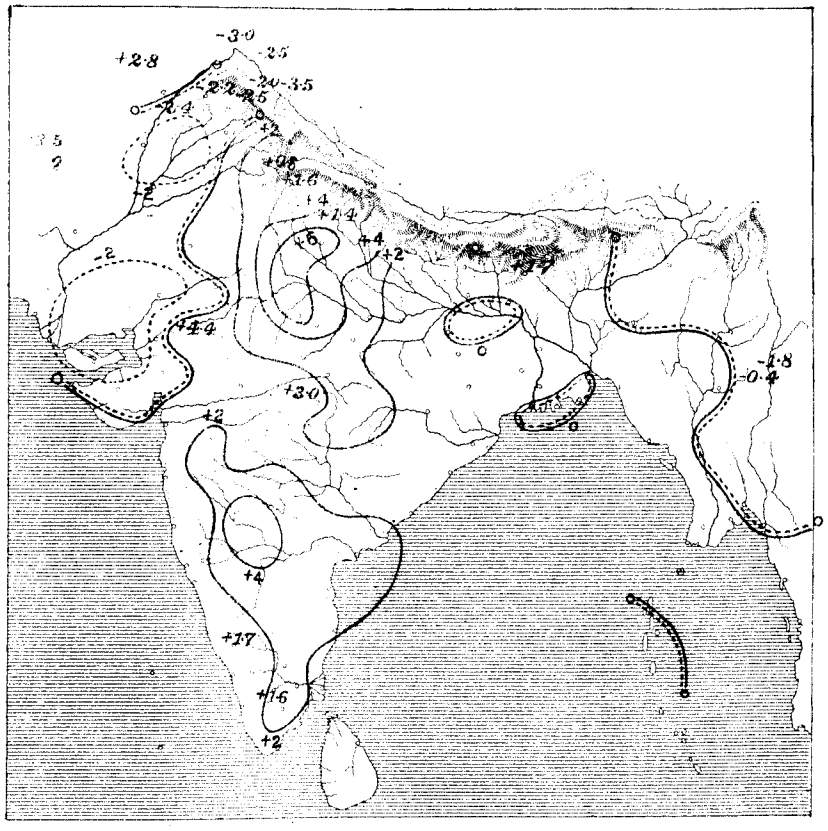


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MINIMUM TEMPERATURE.

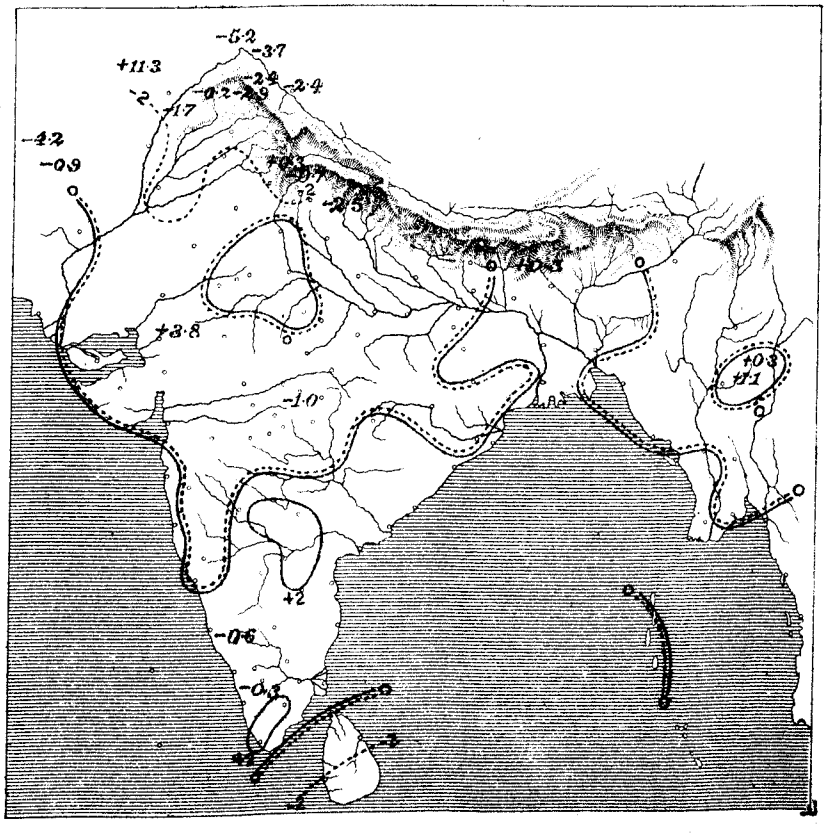


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MEAN TEMPERATURE.

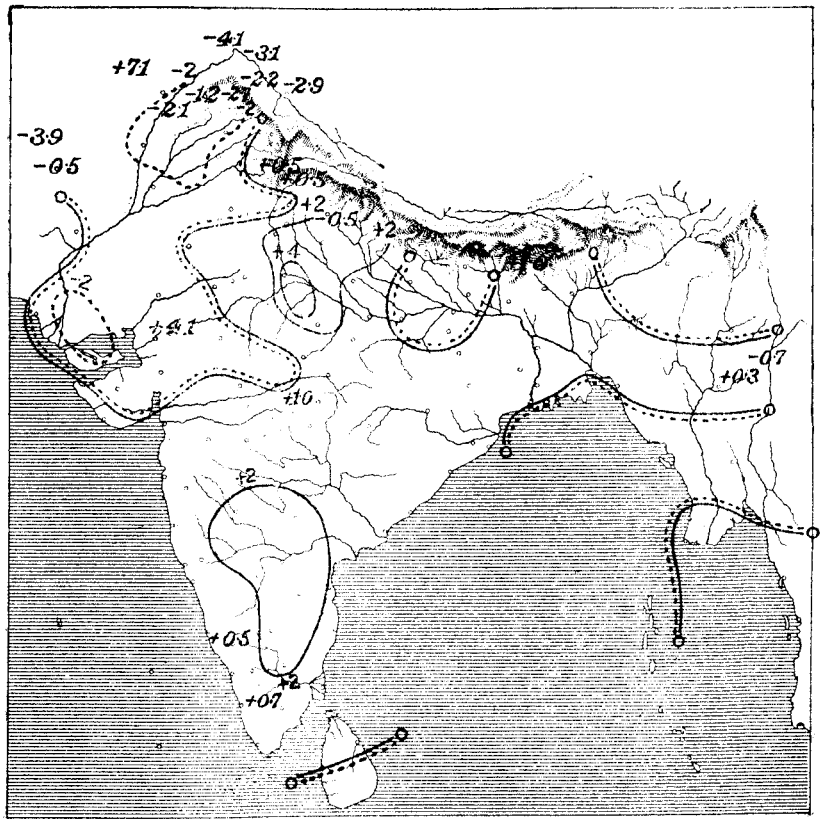


CHART SHEWING THE MONTHLY MEAN OF PRESSURE AND RESULTANT WIND DIRECTION.

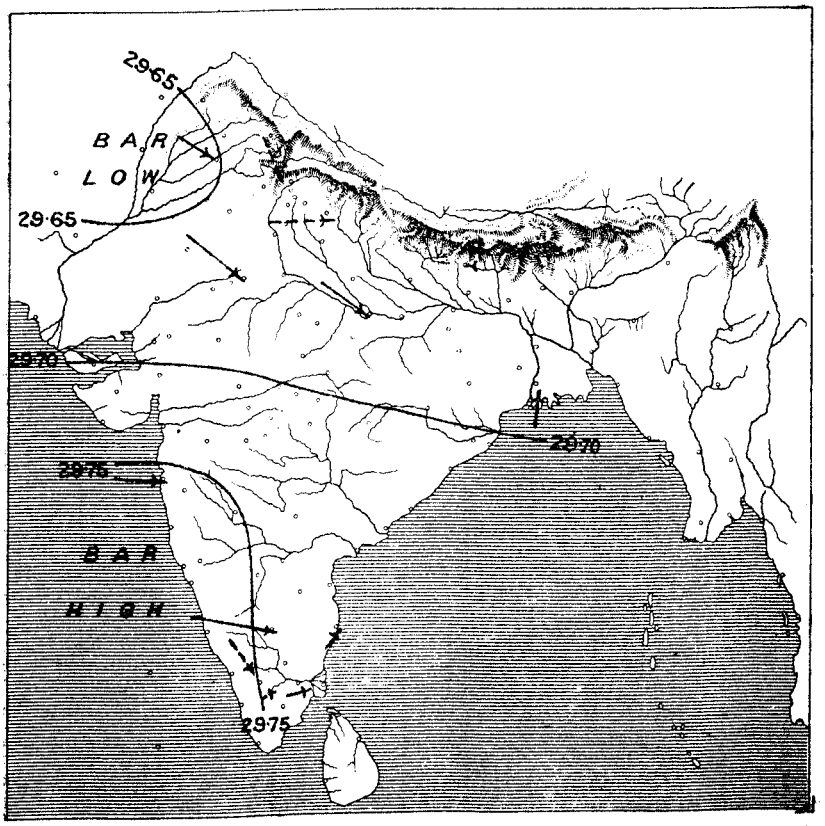


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF ABSOLUTE HUMIDITY AT 8 HRS.

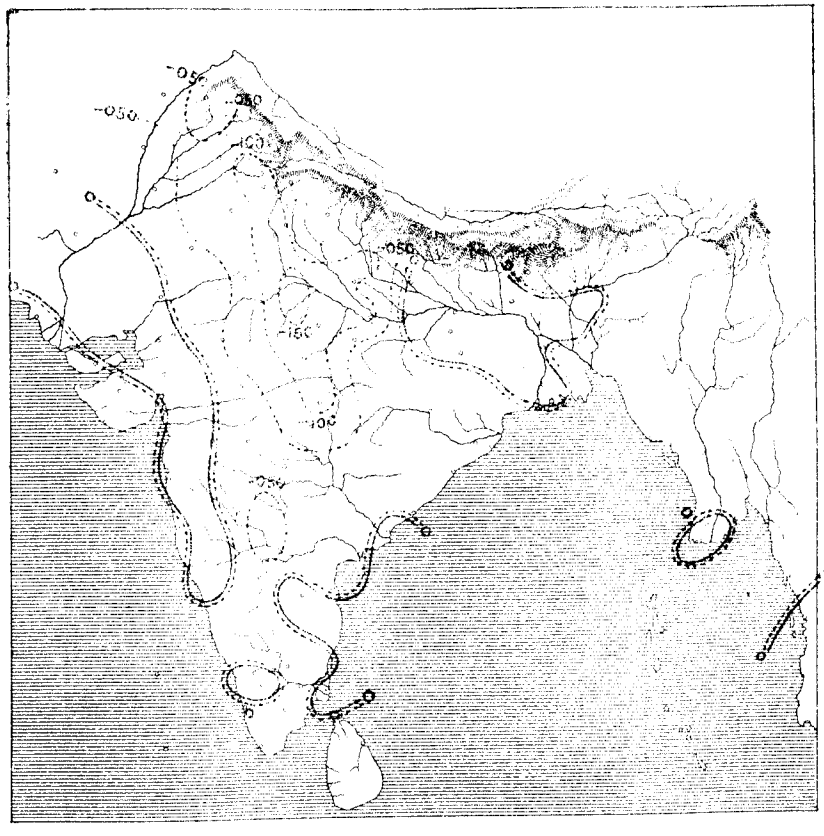


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF RELATIVE HUMIDITY AT 8 HRS.

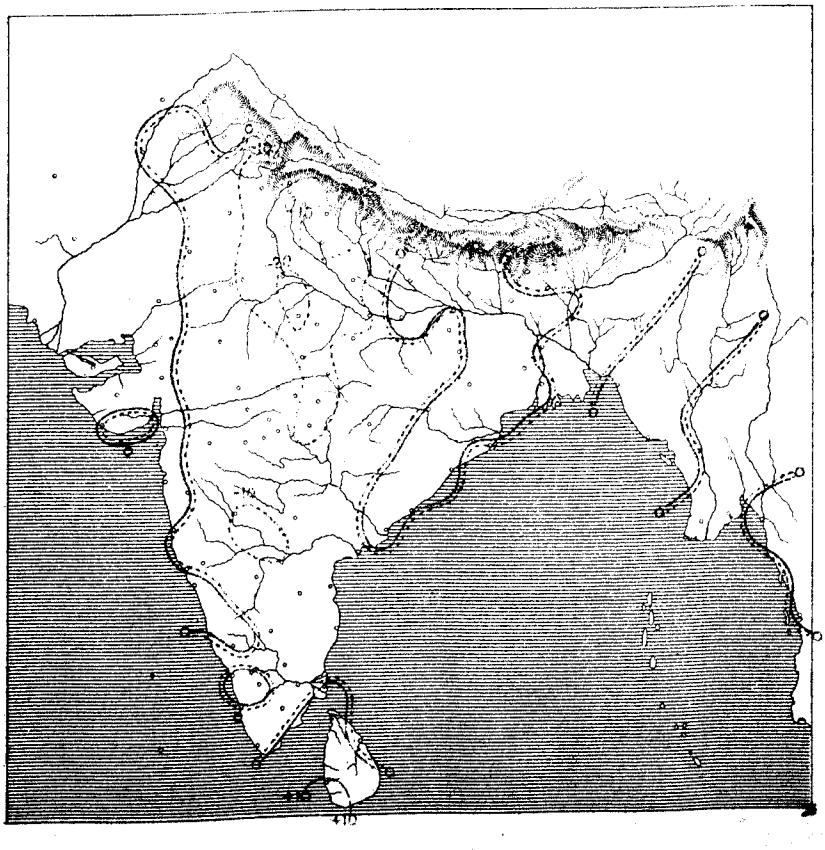


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF CLOUD AMOUNT AT 8 HRS.

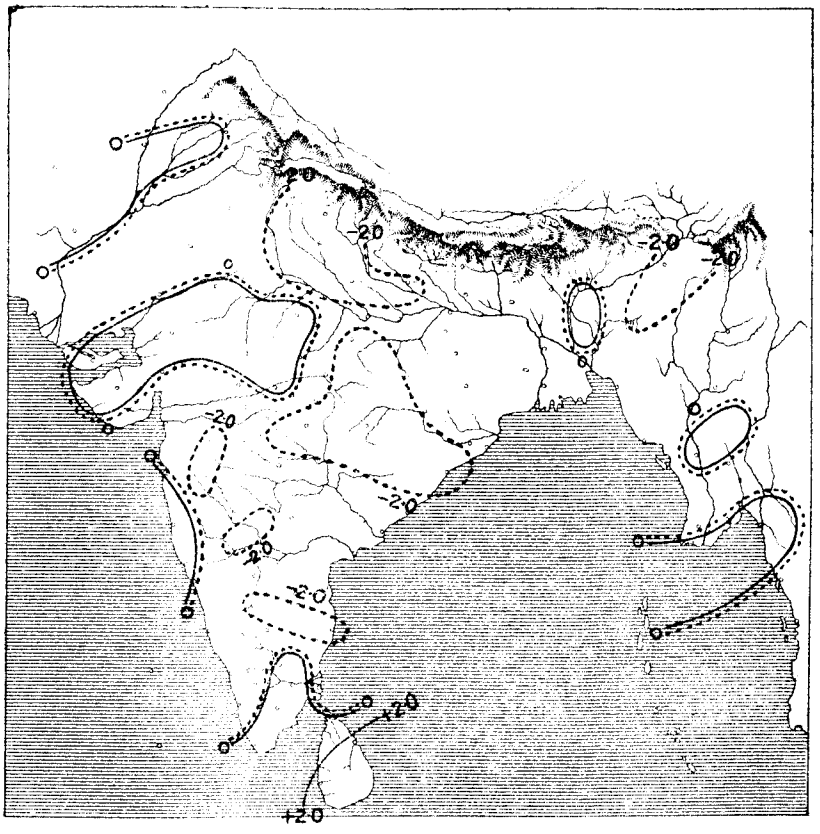
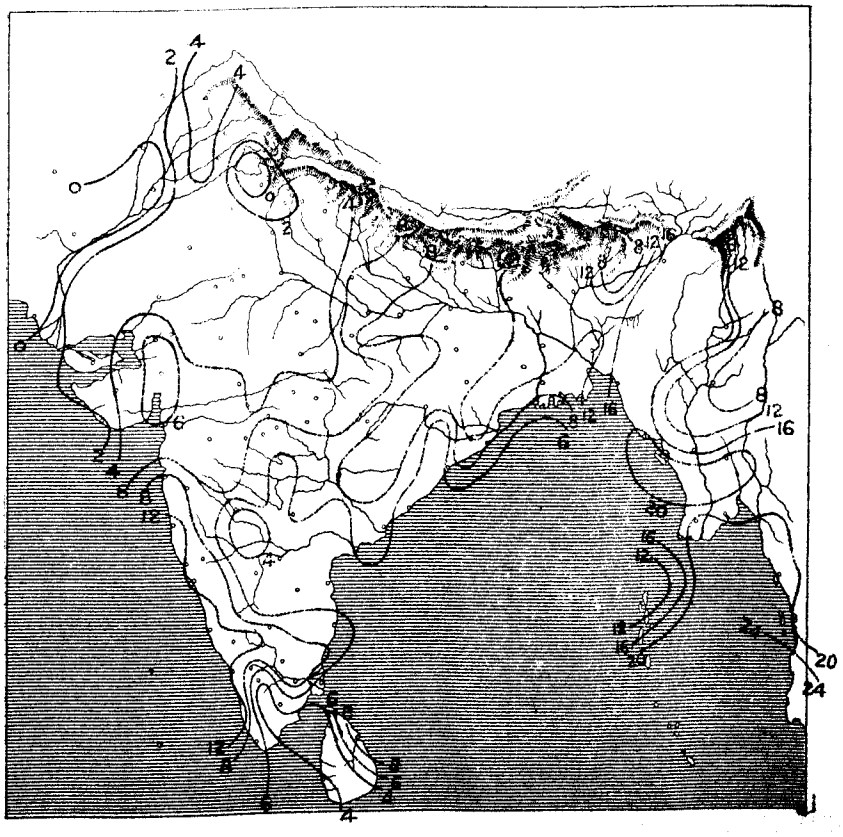


CHART SHEWING THE TOTAL NUMBER OF DAYS IN THE MONTH ON WHICH RAINFALL EQUALLED OR EXCEEDED 0·10 INCH.

(BASED ON THE RETURNS OF TABLE B.)



Reg No 4538 E 13

Engraved at the Survey of India Office Calcutta December 1904.

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
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

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GOVERNMENT OF INDIA.

METEOROLOGICAL DEPARTMENT.

MONTHLY WEATHER REVIEW

PUBLISHED BY ORDER OF

THE GOVERNMENT OF INDIA.

CALCUTTA, OCTOBER, 1913.

INTRODUCTION.

THIS review of the weather in India during the month of October, 1913, is based on observations taken daily at 8 hrs. at 216 stations, and on additional observations taken at 10 hrs. and 16 hrs. at 15 stations. In the rainfall summary have been utilized the data furnished by the meteorological observatories, and such rainfall statements of the month as had been published by the Provincial Governments up to the date of the preparation of the review. The brief notes on solar, seismic and magnetic disturbances are supplied by the chief observatories in the Indian area.

For a statement of the methods adopted in recording and tabulating the data, for each of the elements of observation, reference should be made to the introductory portion of the review for January.

Summary of the chief features of the weather in India during the month.

2. The monsoon, as measured by the total quantity of rainfall yielded by it, was quite up to its average strength, but its activity was exhibited chiefly in Bengal, Assam, the Konkan and Madras to the detriment of the United Provinces and the central parts of the country.

The first burst of heavy rainfall in Madras occurred on the 5th and 6th, which dates may be regarded as defining the setting in of the autumnal rains there. In normal years this event takes place in the second week of October.

The aggregate measurements of the precipitation of the month were well above the average in the Bay Islands, Upper Burma, Assam, Bengal, the Konkan and the whole of the Madras Presidency, and were very slightly above the average in Chota Nagpur and Baluchistan; but in the rest of the country the monthly totals were either approximately normal or short of this. The deficit amounted to about 1½″ in Central India East, the United Provinces East and the Central Provinces West, and about 1″ in Hyderabad North, Berar and the Central Provinces East.

Of climatic elements other than rainfall, humidity was very low in the United Provinces, Rajputana, Central India, the Central Provinces and Hyderabad, and was high in Sind and Baluchistan, while cloud was in marked defect in Assam, and in decided excess in Burma, the North-West Frontier Province, Gujarat and Baluchistan. Weather was slightly warmer than usual in Rajputana, Central India, and the Central Provinces, and also in Baluchistan during the greater part of the month.

Solar, seismic and magnetic disturbances.

KODAIKANAL OBSERVATORY.

3. *Solar Observations.*—The sun was examined for spots and faculæ on all the days during the month except on the 20th and 25th. Prominences could not be observed on 6 other days.

Sunspots.—Two spots were observed and both of them were small. The daily average number was 0·2 and the average life of a spot was 3·5 days. The heliographic positions of the spots were as follows :—

Numbers.	Latitude.	Longitude.
2038	+19°	271°
2039	+19°	330°

Prominences.—Two large and six eruptive prominences were recorded during the month. The highest was 120″ and was observed on the 3rd at latitude + 45° east.

Magnetic disturbances.—There was one prolonged "moderate" disturbance recorded from the 5th to 11th and a "small" one on the 16th.

J. EVERSHED,
Director,
Kodaikanal and Madras Observatories.

Seismic records.

$\phi = 10° 13' 50''$ $\lambda = 77° 28' 00''$, h = 2,343 m. Subsoil Rock.

Apparatus.—Milne's Horizontal Pendulum Seismograph.

TABLE 1.

	V	To	ϵ	$\frac{\kappa}{To^2}$
AN:				
AE:	9·76	16·6	1	$2·9 \times 10^{-4}$
AZ:				

Date.	Phase.	Time, G. M. T. h.	m.	s.	Period (sec.)	Amplitude (u) An.	Ae.	Az.	Distance Δ (Km.)	Remarks.
Oct. 11th	e P	1	45	54	...	...	...	...	...	Widening of line. Instrument examined at 3h·54m.
	F	3	12	00	...	...	...	...	...	
„ 11th	e P	4	18	12	...	...	...	...	...	
	e L	4	27	24	...	...	...	...	...	
	M	4	52	48	...	...	50	...	...	
	F		?		...	...	...	...	...	
„ 11th	P		?		...	...	...	...	...	
	L	9	29	30	...	...	...	...	...	
	M	10	03	36	...	...	50	...	...	
	F	10	49	30	...	...	...	...	...	
„ 11th	e P	11	01	18	...	...	...	...	...	Widening of line.
	F	12	21	48	...	...	...	...	...	
„ 14th	e P	7	59	42	...	...	...	...	...	
	i L	8	32	00	...	...	...	...	...	
	M	9	14	54	...	...	120	...	...	
	F	10	51	00	...	...	...	...	...	

J. EVERSHED,
Director,
Kodaikanal and Madras Observatories.

BOMBAY OBSERVATORY.

Alibag magnetic record.

4. During the month of October 1913 the traces showed 12 calm days and 19 days of small disturbance.

The days of the month selected as "quiet" for the purposes of the Magnetic Survey of India are the 2nd, 3rd, 22nd, 24th and 30th.

The following table represents the magnetic character of each day during the month.

TABLE 2.

Day.	Character.	Day.	Character.	Day.	Character.
1	C	12	C	23	C
2	C	13	S	24	C
3	C	14	S	25	C
4	S	15	S	26	S
5	S	16	S	27	S
6	S	17	C	28	C
7	S	18	S	29	S
8	S	19	S	30	C
9	S	20	S	31	S
10	S	21	C	...	...
11	S	22	C	...	...

C = calm; S = small; M = moderate; G = great; V. G. = very great.

The mean observed absolute values of the several magnetic elements reduced to the mean monthly tabulations of the magnetograms, as also the ranges and the summed ranges of the horizontal force and the declination for the month are as follows :—

Easterly declination	0° 46′ 36″
Horizontal force	0·36882 C.G.S. unit.
Vertical force	0·16492 „ „
Inclination	24° 5′·5
Inclination (observed)	24° 3′·9
Horizontal force range	0·00032 C.G.S. unit.
Horizontal summed range	0·00193 „ „
Declination range	2′·3
Declination summed range	8′·4

(NOTE.—Summed range means sum without regard to sign of the 24 ordinates of the diurnal inequality.)

Seismic records.

$\phi = 18° 53' 45''$ $\lambda = 72° 48' 56''$ h = 11m. Subsoil Trap.

Apparatus.—Milne's Horizontal Pendulum Seismograph.

TABLE 3.

	V	To	C	$\frac{r}{To^2}$
An:				
Ae:	9	19	1	...
Az:				

Date.	Phase.	Time, G. M. T.			Period (sec.)	Amplitude (u) An.	Ae.	Az.	Distance Δ (Km.)	Remarks.
1913		h.	m.	s.						
Oct. 2nd	P	5	43	0	...	...	...	...	...	Commencement doubtful.
	M	5	59	18	...	...	44	...	...	
	F	6	37	30	...	...	...	...	...	
„ 11th	P	1	56	6	...	...	...	...	...	
	M	2	26	48	...	...	44	...	...	
	F	3	17	12	...	...	...	...	...	
„ 11th	P	4	4	24	...	...	...	...	...	
	M	5	7	6	...	...	56	...	...	
	F	7	0	54	...	...	...	...	...	
„ 11th	P	9	27	18	...	...	...	...	...	
	M	9	50	18	...	...	122	...	...	
	F	10	37	36	...	...	...	...	...	
„ 14th	P	8	32	12	...	...	...	...	...	
	M	9	13	54	...	...	122	...	...	
	F	10	16	54	...	...	...	...	...	
„ 29th	P	4	44	6	...	...	...	...	...	
	M	4	51	0	...	...	78	...	...	
	F	5	23	12	...	...	...	...	...	

Thickening of line was noted on the following occasions :—

D. H. M.	D. H. M.	D. H. M.	D. H. M.
3 7 19 to 22	13 12 8	14 12 0	14 22 21 to 25
15 13 15	26 11 46	29 11 49	29 20 20
31 5 16			

Only those thickenings which can be clearly distinguished are given. Thickenings mixed in tremors are omitted from the above list.
Sensibility to tilt = 1 mm. of amplitude on the trace = 0·32″ from 1st to 6th and = 0·35″ from 7th to 31st.

N. A. F. MOOS,

Director, Bombay and Alibag Observatories.

5. CALCUTTA (ALIPORE) OBSERVATORY.

Seismic Records.

$\phi = 22° 32' 0''$ $\lambda = 88° 21' 0''$ $h = 6{\cdot}4m$. Subsoil-Rock.

Apparatus.—Milne's Horizontal Pendulum Seismograph.

TABLE 4.

	V	To	C	$\frac{r}{To^2}$
An:				
Ae:	8·688	18	1	...
Az:				

Date.	Phase.	Time, G. M. T.			Period (sec.)	Amplitude (u) An.	Ae.	Az.	Distance Δ (Km.)	Remarks.
		h.	m.	s.						
1913										
Oct. 11th	P	4	12	30	...	...	...	...	...	
	L	4	26	44	...	...	...	...	...	
	M	5	19	37	...	...	144	...	...	
	F	6	7	25	...	...	...	...	...	
„ 11th	P	9	3	57	...	...	...	...	...	
	S	9	8	43	...	...	...	...	...	
	L	9	25	50	...	...	...	...	...	
	M	9	40	35	...	...	345*	...	...	* Measured from base line.
	C	9	43	8	...	...	230*	...	...	
	F	10	35	33	...	...	...	...	...	
„ 26th	P	23	37	17	...	...	...	...	...	
	M	23	39	49	...	...	86	...	...	
	F	23	53	33	...	...	...	...	...	
„ 29th	P	4	0	39	...	...	...	...	...	
	L	4	41	19	...	...	...	...	...	
	M	4	52	30	...	...	345	...	...	
	C	4	55	33	...	...	230	...	...	
	F	6	12	50	...	...	...	...	...	

6. SIMLA OBSERVATORY.

Seismic records.

$\phi = 31° 6'$ N, $\lambda = 77° 11'$ E, h = 2433·5 m. Subsoil Rock.

Apparatus.—Two Omori Ewing Horizontal Pendulum Seismographs (mass 50 kg.).

TABLE 5.

	V	To	G	$\frac{r}{To^2}$
AN :	14	45	1	...
AE :	14	45	1	...
AZ :				

Date.	Phase.	Time, G. M. T.			Period (sec.)	Amplitude (u)			Distance Δ (Km.)	Remarks.
						An.	Ae.	Az.		
1913		h.	m.	s.						
Oct. 2nd	e	4	54	0	...	...	...	...	...	
	e F	6	29	0	...	...	...	...	...	Very slight tremors.
„ 11th	e	1	46	0	...	...	...	...	...	
	M	2	12	42	27	18	3	...	...	
	F	3	11	54	...	...	...	...	...	Slight tremors.
„ 11th	e	4	18	0	...	...	...	...	...	
	M	4	53	42	27	71	54	...	...	
	F		?		...	...	...	...	...	Ditto.
„ 11th	P	9	19	6	...	...	...	...	...	
	S	9	26	42	...	...	...	...	...	
	L	9	40	0	...	...	...	...	...	
	M	9	43	30	15	36	50	...	...	
	e F	10	28	0	...	...	...	...	...	
Oct. 12th	e	17	34	0	17	7	...	...	...	
	e F	17	50	0	...	...	...	...	...	Very slight tremors.
„ 14th	P	8	26	6	...	...	...	...	...	
	S	8	32	30	...	...	...	...	...	
	L	8	47	54	...	...	...	...	...	
	M	8	51	18	35	143	...	...	...	
	e F	10	18	0	...	...	...	...	...	
„ 26th	i	23	35	0	...	...	...	...	...	
	F	23	45	42	...	...	...	...	...	Ditto.
„ 29th	e P	4	39	0	...	...	...	...	...	
	S	4	44	42	...	...	...	...	...	
	L	4	54	18	...	...	...	...	...	
	M	4	55	0	20	21	14	...	...	
	e F	5	41	0	...	...	...	...	...	

Solar radiation.—The following figures give the intensity of solar radiation, as measured at Simla by Angstrom's pyrheliometer. The values are corrected to local noon, and expressed in grammecalories per square centimetre per minute :—

Maximum	1·41
Minimum	1·29
Mean	1·37
Number of days of observation	14

C. W. NORMAND,
Imperial Meteorologist, Simla.

ROYAL ALFRED OBSERVATORY, MAURITIUS.

7. No information has been received.

Weather in the Indian Ocean.

8. In the equatorial belt as represented by Seychelles and Zanzibar pressure was in excess, the air movement weaker than usual and the rainfall in defect except at Zanzibar where it was in slight excess.

TABLE 6.

	Mauritius.	Zanzibar.	Seychelles.
Departure from normal of mean pressure.	+·005	+·032	+·050
Actual mean wind direction	S 88° E	S 10° E	S 48° E
Normal mean wind direction	S 77° E	S 20° E	S 39° E
Actual mean wind velocity (miles per diem).	161	67	121
Normal mean wind velocity (miles per diem).	193	89	139
Rainfall departure from normal	—0·53	+0·55	—2·18

Depressions and cyclonic storms.

9. Three disturbances appeared over the Bay. The disappearance on the 1st of the disturbance which at the end of the previous month was affecting the Chittagong coast was followed rapidly by the establishment over the centre and south of the Bay of an area of relatively low pressure such as is characteristic of the pressure distribution in the latter part of October. It was within this region of low pressure that the first disturbance of the month under review appeared on the 6th. According to the available marine information for the 7th the winds over the centre and south-west of the Bay formed part of a feeble cyclonic circulation around a barometric depression off the coast between Waltair and Madras. The disturbance thus indicated apparently moved inland across the north Coromandal coast during the day and after traversing the central districts of Madras and the south of the Bombay Deccan, as a very shallow low pressure area, had passed out into the Arabian Sea by the morning of the 9th. It was apparently central in about Lat. 15½° N and Long. 70° E on the morning of the 11th. The few observations at present available for the east of the Arabian Sea show that the disturbance was dissipated slowly during the next two days without changing appreciably in position. Although feeble barometrically it initiated the retreating monsoon rains in the Peninsula.

The second disturbance of the month was presumably formed on the 10th off the north coast of Madras. It apparently followed a northerly course and crossed inland between Cuttack and Gopalpur on the evening of the 13th. The centre was near Angul on the 14th, in the vicinity of Purulia on the 15th and over central Bengal on the 16th; it had thus recurved from north to north-east after its passage inland, the recurvature probably being connected with the failure of the Arabian Sea current to feed into it. The disturbance became very diffuse during the next day, and by the morning of the 18th had ceased to exist as a distinct system. It was fairly well marked with a barometric depth of over a third of an inch on the 14th and 15th, and was the cause of widespread and in places heavy rain in north-east India and on the north Madras coast.

The third or last disturbance was first seen to the west of the Andaman on the 31st. It advanced in a northerly direction and was presumably dissipated quickly on the 1st October while crossing inland across the coast between Diamond Island and Akyab. It was, so far as can be ascertained from the available data, an area of rough squally weather rather than a storm.

Three or four periods of unsettled weather were recorded in the mountainous zone bordering upper India, but the associated depressions, which doubtless belonged to the cold weather type, were not strongly marked.

Pressure.

10. On the average of all the recording stations in the plains of India the barometer stood ·02″ higher than usual. The high pressure was not a mere temperature effect, for the mean temperature of the month was either normal or in excess.

The vertical gradient was considerably steeper than usual in southern India and north Bengal, and of about the average value elsewhere.

TABLE 7.

Division.	Departure from normal of mean 8 hrs. pressure.
	″
Burma	+·024
Assam	+·020
Bengal	+·020
Bihar and Orissa	+·016
United Provinces	+·016
Punjab	+·020
North-West Frontier Province	—·003
Sind	+·021
Rajputana	+·022
Bombay	+·021
Central India	+·020
Central Provinces	+·018
Hyderabad	+·018
Mysore	+·022
Madras	+·023

TABLE 8.

Hill station.	Departure from normal pressure. A.	Plain station.	Departure from normal pressure. B.	Departure of pressure difference. B—A.
	″		″	″
Quetta	+·004	Jacobabad	+·011	+·007
Leh	+·017	Lahore	+·011	—·006
Murree	+·016	Peshawar	+·001	—·015
Simla	+·031	Ludhiana	+·027	—·004
Chakrata	+·030	Roorkee	+·029	—·001
Darjiling	—·015	Jalpaiguri	+·019	+·034
Mount Abu	+·027	Deesa	+·034	+·007
Pachmarhi	+·031	Khandwa	+·027	—·004
Kodaikanal	+·009	Madura	+·034	+·025

Temperature.

11. Days were appreciably warmer than usual in the United Provinces West, Central India and the Central Provinces and nights in Baluchistan and Rajputana East, but elsewhere the temperature conditions of the month were very nearly normal.

TABLE 9.

Sub-division.	Actual temperature.					Departure from normal of		
	Mean maximum.	Mean minimum.	Monthly mean of mean between maximum and minimum.	Mean daily range of temperature.	Absolute range during month.	Maximum.	Minimum.	Daily range.
	°	°	°	°	°	°	°	°
1. Bay Islands	85·5	77·5	81·5	7·9	14·6	—1·5	—0·6	—0·9
2. Lower Burma	87·1	75·1	81·1	12·0	18·6	—0·4	+0·4	—0·8
3. Upper Burma	87·9	72·5	80·2	15·4	26·2	—1·7	+0·5	—2·2
4. Assam	85·3	70·7	78·0	14·7	27·1	—1·5	—0·2	—1·3
5. Bengal	86·8	73·3	80·0	13·5	24·3	—0·5	—0·4	—0·1
6. Orissa	88·6	72·4	80·5	16·3	26·1	—0·3	—1·2	+0·9
7. Chota Nagpur	87·6	67·5	77·5	20·2	33·1	+0·1	—0·1	+0·2
8. Bihar	87·9	71·1	79·5	16·8	28·2	—0·6	—0·5	—0·1
9. United Provinces, East	92·8	68·0	80·4	24·8	36·9	+2·5	+0·6	+1·9
10. Ditto, West	94·9	65·5	80·1	29·4	41·5	+3·6	+0·7	+2·9
11. Punjab, East and North	93·4	62·5	77·9	30·9	45·1	+0·7	+0·7	0
12. Do., South-west	94·9	64·2	79·5	30·7	44·8	—0·3	+2·4	—2·7
13. Kashmir	67·7	39·6	53·7	28·1	45·1	—0·1	—0·6	+0·5
14. North-West Frontier Province	90·7	61·1	76·0	29·7	42·9	—0·5	+2·2	—2·7
15. Baluchistan	84·1	54·8	69·4	29·3	48·5	+1·9	+3·6	—1·7
16. Sind	94·3	70·7	82·5	23·6	37·4	—0·2	+2·8	—3·0
17. Rajputana, West	97·9	70·0	83·9	27·9	41·9	+1·1	+0·2	+0·9
18. Do., East	96·6	70·8	83·7	25·8	39·7	+2·7	+4·9	—2·2
19. Gujarat	94·8	71·0	82·9	23·9	35·4	+1·0	—0·1	+1·1
20. Central India, West	93·5	64·8	79·1	28·7	41·5	+4·3	+0·7	+3·6
21. Do., East	95·4	65·8	80·6	29·6	41·7	+6·3	+0·4	+5·9
22. Berar	93·9	68·0	81·0	25·8	36·6	+4·5	—0·1	+4·6
23. Central Provinces, West	93·7	65·9	79·8	27·9	39·6	+5·0	—0·1	+5·1
24. Ditto, East	89·5	66·6	78·1	23·0	36·1	+3·0	—0·9	+3·9
25. Konkan	86·7	74·6	80·7	12·1	20·8	—0·1	—0·3	+0·2
26. Bombay Deccan	90·9	66·5	78·7	24·3	37·5	+2·8	+0·3	+2·5
27. Hyderabad, North	90·6	67·2	78·9	23·4	36·1	+2·1	—0·6	+2·7
28. Do., South	91·2	69·7	80·5	21·5	32·8	+2·0	—0·4	+2·4
29. Mysore	82·7	65·7	74·2	17·0	26·1	—0·1	—0·4	+0·3
30. Malabar	84·7	75·0	79·9	9·7	16·3	—0·8	+1·1	—1·9
31. Madras, South-east	88·7	74·0	81·4	14·7	25·6	—0·4	+0·1	—0·5
32. Do., Deccan	90·5	71·2	80·8	19·3	31·1	—0·3	—0·9	+0·6
33. Do. Coast, North	87·2	75·0	81·1	12·2	20·7	—0·8	—0·9	+0·1

TABLE 10.

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

Winds.

12. The more noteworthy features were:—

(*a*) The rate of air movement was greater than usual in Rajputana and Mysore, and was below the normal in Bengal, Sind, Central India and Hyderabad.

(*b*) The degree of steadiness was distinctly high in Burma, Assam, Sind and Mysore; and was low in Bengal and Central India.

(*c*) The direction of movement was very abnormal in lower Bengal and the eastern and central districts of the United Provinces.

TABLE 11.

Stations.	Wind direction.	
	Actual.	Normal.
	°	°
Barisal	S 34 E	N 20 E
Narayanganj	S 45 E	N 50 E
Berhampore	N 68 E	S 39 W
Calcutta	N 79 E	N 58 W
Benares	S 51 E	S 50 W
Allahabad	S 31 E	N 86 W
Gorakhpur	N 75 E	N 27 W
Lucknow	S 42 E	N 58 W
Bareilly	S 75 E	N 15 W

TABLE 12.

Division.	Departure from normal of	
	Hourly wind velocity.	Wind steadiness.
Burma	−0·4	+10
Assam	+0·1	+10
Bengal	−0·8	−9
Bihar and Orissa	0	+5
United Provinces	−0·1	+3
Punjab	+0·1	−3
North-West Frontier Province	0	+2
Sind	−1·1	+12
Rajputana	+0·8	−3
Bombay	−0·5	+3
Central India	−0·7	−8
Central Provinces	+0·2	+5
Hyderabad	−0·9	+1
Mysore	+1·0	+9
Madras	+0·5	+2

Humidity and cloud.

13. Humidity, both absolute and relative, was high in the North-West Frontier Province, Sind and Baluchistan, was low in the United Provinces, Rajputana, Central India, the Central Provinces and Hyderabad, and was about the average in the rest of the country.

The sky was unusually cloudy in Burma, the North-West Frontier Province, Gujarat and the west coast of the Peninsula, and was clearer than usual in Assam.

TABLE 13.

Division.	Hygrometry, 8 hrs.				Cloud.	
	Mean humidity.	Departure from normal.	Mean vapour tension in inches of mercury.	Departure from normal in inches of mercury.	Mean cloud amount at 8 hrs.	Departure from normal.
	%					
Burma	88	+ 1	·843	—·008	6·1	+ 1·0
Assam	90	— 1	·779	—·003	4·3	—1·1
Bengal	87	+ 1	·839	—·009	3·5	—0·5
Bihar and Orissa	82	+ 3	·747	+ ·003	2·5	—0·4
United Provinces	58	—11	·544	—·057	1·1	—0·2
Punjab	52	— 3	·406	—·022	0·9	+0·1
North-West Frontier Province.	63	+ 5	·435	+ ·039	1·7	+0·9
Sind	69	+12	·657	+ ·127	0·3	—0·4
Rajputana	39	— 9	·388	—·058	1·4	+0·3
Bombay	68	— 2	·657	—·024	3·1	+0·4
Central India	47	—15	·425	—·109	1·6	+0·1
Central Provinces	54	—14	·488	—·107	2·2	0
Hyderabad	59	— 9	·560	—·082	3·4	—0·5
Mysore	77	— 3	·599	—·040	6·6	0
Madras	81	0	·796	—·016	5·5	+0·1

Rainfall.

14. The total rainfall received during the month in the plains of India was in excess of the normal by 0·16″ or 6 per cent., but owing in part to the early retreat of the monsoon from the central parts of the country and partly to the paths followed by the Bay disturbances its geographical distribution was not quite satisfactory.

Thus the month's fall was in excess only in the Bay Islands, Upper Burma, Bengal, Assam, Chota Nagpur, the Konkan and Madras, while it was either normal or in defect in the remainder of the Indian plains. The deficiency in the United Provinces, Central India and the Central Provinces was fairly large in amount and accentuated the drought prevailing there already.

In Baluchistan the weather was more unsettled than usual. In this connection it is noteworthy that rainfall was unusually heavy in the Delta of Egypt.

TABLE 14.

Sub-division.	Number of rainy days.		Rainfall.			
	Actual.	Normal.	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
			″	″	″	
1. Bay Islands	14·5	12·9	11·23	8·71	+ 2·52	+ 29
2. Lower Burma	9·8	9·6	6·54	7·00	—0·46	— 7
3. Upper do.	8·5	6·2	6·55	4·41	+ 2·14	+ 49
4. Assam	7·9	6·4	8·22	5·08	+ 3·14	+ 62
5. Bengal	5·0	4·9	6·18	4·55	+ 1·63	+ 36
6. Orissa	5·8	5·8	4·58	5·37	—0·79	— 15
7. Chota Nagpur	2·9	3·7	3·16	2·77	+ 0·39	+ 14
8. Bihar	3·4	2·9	2·74	2·69	+ 0·05	+ 2

Sub-division.	Number of rainy days.		Rainfall.			
	Actual.	Normal.	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
			"	"	"	
9. United Provinces, East	0·9	1·6	0·47	1·87	—1·40	— 75
10. Do., West	0·2	0·7	0·11	0·68	—0·57	— 84
11. Punjab, East and North	0·2	0·5	0·07	0·26	—0·19	— 73
12. Punjab, South-west	0·3	0·2	0·06	0·07	—0·01	— 14
13. Kashmir	0·5	1·4	0·29	0·61	—0·32	— 52
14. North-West Frontier Province	0·4	0·6	0·14	0·28	— 0·14	— 50
15. Baluchistan	0·8	0·2	0·36	0·06	+ 0·30	+ 500
16. Sind	0·1	0	0·03	0·01	+ 0·02	+ 200
17. Rajputana, West	0·1	0·1	0·01	0·07	—0·06	— 86
18. Do., East	0·2	0·3	0·06	0·19	—0·13	— 68
19. Gujarat	0·1	1·1	0·04	0·59	—0·55	— 93
20. Central India, West	0	0·9	0	0·59	— 0·59	—100
21. Do., East	0·1	1·7	0·03	1·55	—1·52	— 98
22. Berar	0·8	2·3	0·44	1·70	—1·26	— 74
23. Central Provinces, West	0·4	2·3	0·14	1·70	—1·56	— 92
24. Do., East	1·6	2·7	0·67	1·95	—1·28	— 66
25. Konkan	5·7	6·1	5·69	3·97	+1·72	+ 43
26. Bombay, Deccan	3·4	5·1	2·30	3·06	—0·76	— 25
27. Hyderabad, North	2·2	3·7	1·54	2·59	—1·05	— 41
28. Do., South	3·6	4·6	2·40	2·98	—0·58	— 19
29. Mysore	6·8	7·9	4·84	5·29	—0·45	— 9
30. Malabar	14·0	11·4	17·05	9·05	+8·00	+ 88
31. Madras, South-east	9·9	8·9	8·65	7·31	+1·34	+ 18
32. Do., Deccan	7·3	5·8	5·31	4·20	+1·11	+ 26
33. Do. Coast, North	7·8	6·6	9·04	6·38	+2·66	+ 42

TABLE 15.

Division.	Rainfall.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"	
Burma	6·54	5·63	+0·91	+ 16
Assam	8·22	5·08	+3·14	+ 62
Bengal	6·18	4·55	+1·63	+ 36
Bihar and Orissa	3·22	3·31	—0·09	— 3
United Provinces	0·30	1·31	—1·01	— 77
Punjab	0·07	0·23	—0·16	— 70
North-West Frontier Province	0·14	0·28	—0·14	— 50
Sind	0·03	0·01	+0·02	+200

Division.	Rainfall.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"	
Rajputana	0·05	0·16	—0·11	— 69
Bombay	2·17	2·42	—0·25	— 10
Central India	0·01	0·92	—0·91	— 99
Central Provinces	0·38	1·75	—1·37	— 78
Hyderabad	1·97	2·80	—0·83	— 30
Mysore	4·84	5·29	—0·45	— 9
Madras	9·12	6·83	+2·29	+ 34
Mean of India	2·98	2·82	+0·16	+ 6

Snowfall.

I.—AFGHANISTAN.

15. No information has been received.

II.—NORTH-WEST FRONTIER PROVINCE.

There were snowstorms on the high peaks of the Sufed Koh on the 2nd, 7th, 8th, 9th, 13th, 21st, 22nd, 25th and 30th. The snowfall is said to have begun somewhat earlier than usual.

III.—KASHMIR.

No snow fell in the valley of Srinagar, but on the surrounding mountains there was a snowstorm on the 27th. In Dras only a sprinkling of snow occurred on the 27th. In Kargil there was a fall of about ten inches on the Nakthula on the 22nd and 26th and of about four inches on the summit of the Burodoo on the latter date. At the end of the month the unmelted residue on the mountains surrounding Kargil measured about 3½ feet in depth.

IV.—PUNJAB.

On the hills near Kilba snow fell on the 5th, 26th, 27th and 29th down to about 9,000 feet, at which elevation the total fall of the month was about a foot in depth. All the passes remained open.

V.—UNITED PROVINCES.

In the Almora hills the total fall was estimated at 8 feet in Malla Darma, 6 feet in Byans and Chaudas, 3 feet in Malla Danpur and 1½ feet in Malla Johar. The snow-line descended 3 miles below the perpetual snows in Malla Danpur, Chaudas and Byans and half a mile in Malla Darma.

TABLE 16.

Name of pass or peak.	Depth of accumulation at the end of the month.	
	Reported.	Normal.
	Feet.	Feet.
Nuwe Pass	33	23
Untadhura „	1½	9½
Ralamdhura „	½	6½
Milamdhura „	¼	8½
Pindari Peak	10	2
Kaphini „	10	2
Kuntela „	10	2
Lipulekh Pass	10	2½
Lampia „	12	4½
Binkaru „	15	12½

SUMMARY.

16. Snow began to fall somewhat earlier than usual 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.

HEM RAJ.

Table A.—Abstract of observations taken at 10 hrs. and 16 hrs. at 15 stations in India, etc., in October, 1913.

Tab

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

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure. Mean of 10 hrs.	Pressure. Mean of 16 hrs.	Pressure. Mean daily range.	Pressure. Mean of daily mean pressures.	Pressure. Departure from normal.	Pressure. Mean reduced to sea-level and gravity, 45° Lat.	Temperature of air. Mean maximum.	Temperature of air. Mean minimum.	Temperature of air. Mean daily range.	Temperature of air. Highest maximum.	Temperature of air. Lowest minimum.	Temperature of air. Absolute range.	Temperature of air. Mean 10 hrs.	Temperature of air. Mean 16 hrs.	Temperature of air. Mean of daily means.	Temperature of air. Departure from normal.	Temperature Wet-bulb. Mean minimum.	Temperature Wet-bulb. Mean 10 hrs.	Temperature Wet-bulb. Mean 16 hrs.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	III.—Bengal.																				
5	Calcutta	21	29·917	29·809	·108	29·859	+·019	29·827	86·8	73·6	13·2	90·8	65·8	25·0	82·8	84·5	79·7	−0·3	71·9	78·0	75·8
	V.—United Provinces of Agra and Oudh.																				
9	Allahabad	309	29·622	29·499	·123	29·553	−·003	29·813	95·0	68·5	27·5	99·5	61·0	38·5	88·5	94·1	80·7	+3·1	63·6	70·0	69·8
	VI.—Punjab.																				
11	Lahore	702	29·214	29·120	·094	29·156	+·007	29·821	94·7	61·4	33·3	102·6	55·6	47·0	83·2	92·3	76·6	+0·9	57·2	66·2	69·4
	IX.—Rajputana.																				
8	Jaipur	1,431	28·524	28·421	·103	28·467	+·038	29·814	95·9	68·1	28·8	102·9	60·2	42·7	89·0	94·3	81·2	+3·3	56·3	65·4	65·5
	X.—Bombay.																				
25	Bombay	37	29·919	29·809	·110	29·861	+·014	29·838	88·4	77·1	11·3	91·0	73·3	17·7	83·0	85·7	81·4	+0·7	73·1	77·3	78·8
	XIV.—Mysore.																				
29	Bangalore	3,021	26·982	26·873	·109	26·928	+·021	29·776	82·0	64·5	17·5	85·6	59·0	26·6	76·4	78·6	71·8	0	62·8	67·9	68·6
	XV.—Madras.																				
31	Pudukkottai	318	29·621	29·485	·136	29·553		29·801	88·9	74·4	14·5	95·8	71·2	24·6	82·9	86·1	81·7			74·9	78·7
	Madras	22	29·914	29·807	·107	29·860	+·021	29·818	88·6	74·6	14·0	95·1	69·1	26·0	83·7	84·8	80·2	−0·6	73·3	77·2	77·5
	Hill stations, excluding Kashmir and Baluchistan.																				
	Sarain																				
	Kalabagh		20·210	0·166	·141	20·181		20·144	47·5	36·1	11·4	53·0	27·7	25·3	44·5	45·3	41·8			37·0	38·6
	Mukteswar	7,592	22·941	22·872	·069	22·898		22·855	64·4	47·3	17·1	69·5	35·0	34·5	58·2	60·6	55·8		40·0	49·7	52·4
	Katmandu	4,388	25·726	25·626	·100	25·673	+·038†	25·627	78·8	56·5	22·3	83·8	44·9	38·9	76·2	74·6	67·6	+0·7†	51·6	62·9	64·8
	Ootacamund	*7,327*																			
	Kodaikanal	7,688	22·862	22·792	·070	22·827		22·782	63·1	51·5	11·6	67·7	46·1	21·6	59·8	57·7	57·3		48·9	56·2	55·4
	Dodabetta	8,539r	22·076	22·015	·061	22·044		21·981	57·4	47·6	9·8	62·9	44·2	18·7	54·9	53·1	52·5		44·1	51·9	51·6
	Extra India.																				
	Diego Garcia																				
	Seychelles	15	30·043	29·945	·098	30·005	+·050†	29·943	82·6	76·4	6·2	84·5	73·3	11·2	80·7	81·2	78·1	+0·4†	70·4	75·2	75·0
	Mauritius	181																			

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 3,500 feet.

ions in India, etc., in October, 1913.

Vapour tension, in inches of mercury.				Humidity.					Cloud.				Wind direction.											Wind steadiness.		Wind velocity.		Rainfall.		Station.	Number of sub-division.
													Total number of 10 hrs. and 16 hrs. winds from																		
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.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Mean wind direction.	Normal mean wind direction of month.	Average percentage.	Normal percentage.	Mean velocity in miles per diem.	Normal.	Total rainfall for the month.	Heaviest rainfall during the month.		
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
																														III.—Bengal.	
·809	·769	·801	—·015	92	72	65	79	— 3	4·2	4·3	4·3	—0·3	6	3	10	9	4	6	10	6	8	S 45° E	N 18° W	0	11	44*	49	6·61	2·24	Calcutta	5
																														V.—United Provinces of Agra and Oudh.	
·497	·404	·481	—·136	75	37	25	49	—17	1·1	2·0	1·5	—0·7	15	6	7	6	7	2	2	9	8	N 1° W	N 48° W	13	19	33	54	0	0	Allahabad	9
																														VI.—Punjab.	
417	·412	·422	—·023	76	37	28	51	— 1	0·9	0·8	0·9	+0·1	25	9	1	2	6	3		6	10	N 32° W	N 9° W	18	11	24	28	0·10	0·10	Lahore	11
																														IX.—Rajputana.	
·335	·270	·311	—·091	46	25	15	33	—13	1·6	2·8	2·2	+0·5	3	8	8	2	1	3	2	12	23	N 41° W	N 27° W	53	38	74*	54	0·02	0·01	Jaipur	18
																														X.—Bombay.	
·860	·893	·851	—·001	81	76	73	79	— 2	3·4	2·8*	3·1	0		3	10	13	1	2	1	7	25	N 10° W	N 9° E	40	32	127*	159	2·35	1·51	Bombay	25
																														XIV.—Mysore.	
·587	·584	·589	—·019	91	66	61	76	— 2	6·7	7·1	6·9		2	3	15	14	2		7	12	7	N 19° E	N	21	8	173	82	1·55	0·33	Bangalore	23
																														XV.—Madras.	
·754	·724				63	61			6·5	6·9	6·7		6	16	12		4	4	11	2	7	N 13° W		24		111*		10·70	2·82	Pudukkottai	31
·848	·844	·847	—·009	94	74	72	82	— 1	5·8	6·3	6·1	+0·1	1	10	14	11	5		7	8	6	N 25° E	N 54° E	28	20	87*	84	28·13	6·86	Madras	
																														Hill stations, excluding Kashmir and Baluchistan.	
																														Sarain.	
·157	·178				54	59			1·7	2·8	2·3		1	22			5	15			19	N 30° W		32		161*		‡ 1·18	0·58	Kalabagh.	
·269	·313	·250		54	56	59	57		2·5	4·2	3·3		4		1	4				53		N 89° W		77		130		0·21	0·17	Mukteswar.	
·490	·501	·464	—·012	88	66	59	72	— 3	2·6	3·7	3·1	—0·9	61			1						E	S 85° W	2	34	20*	12	2·91	0·81	Katmandu.	
																														Ootacamund.	
·415	·416	·384		84	81	87	84		7·9	8·7	8·3		1	15	8	4	4	1	1	13	14	N 23° W		45		232*		5·57	1·20	Kodaikanal.	
·358	·366	·321		76	83	90	83		9·0	9·0*	9·0			16	16	5	1	1	8	9	6	N 4° W		39		285		5·90	1·59	Dodabetta.	
																														Extra India.	
																														Diego Garcia.	
·799	·783	·762	—·032	73	76	72	76	— 5	6·1	5·7	5·9	†—0·3	11		2	8	34	5	1	1		S 48° E	S 33° E	68	51	121*	139	2·60	1·20	Seychelles.	
																														Mauritius.	

* Uncorrected for scale error. † Departure from old normal. ‡ Snow water.

Table B.—Abstract of observations taken at 8 hrs. at 218 stations in India, etc., in October, 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.

	Pressure departure from normal.	Temperature of air.								Wind.		Hygrometry.				Cloud.		Rainfall.		
		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.	Absolute range during month.	Departure of velocity from normal.	Departure of steadiness from normal.	Mean humidity.	Departure from normal.	Mean vapour tension.	Departure from normal.	Mean cloud amount.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.
Burma	+·024	87·5	−0·9	73·9	+0·5	80·7	−0·3	13·5	22·0	−0·4	+10	88	+ 1	·843	−·008	6·1	+ 1·0	6·54	5·63	+0·91
Assam	+·020	85·3	−1·5	70·7	−0·2	78·0	−0·8	14·7	27·1	+0·1	+10	90	− 1	·779	−·003	4·3	−1·1	10·19	12·00	−1·81
Bengal	+·020	86·8	−0·5	73·3	−0·4	80·0	−0·5	13·5	24·3	−0·8	− 9	87	+ 1	·839	−·009	3·5	−0·5	6·18	4·55	+1·63
Bihar and Orissa	+·016	88·1	− 0·3	70·6	−0·6	79·3	−0·5	17·4	28·7	0	+ 5	82	+ 3	·747	+·003	2·5	−0·4	3·22	3·31	−0·09
United Provinces of Agra and Oudh.	+·016	93·6	+2·9	67·0	+0·7	80·3	+1·8	26·6	38·7	−0·1	+ 3	58	−11	·544	−·057	1·1	− 0·2	0·30	1·31	−1·01
Punjab	+·020	93·8	+0·5	62·9	+1·1	78·4	+0·8	30·9	45·0	+0·1	− 3	52	− 3	·406	−·022	0·9	+0·1	0·07	0·23	−0·16
North-West Frontier Province	−·003	90·7	−0·5	61·1	+2·2	76·0	+0·9	29·7	42·9	0	+ 2	63	+ 5	·435	+·039	1·7	+0·9	0·14	0·28	−0·14
Sind	+·021	94·3	−0·2	70·7	+2·8	82·5	+1·3	23·6	37·4	−1·1	+12	69	+12	·657	+·127	0·3	−0·4	0·03	0·01	+0·02
Rajputana	+·022	97·1	+2·1	70·5	+3·0	83·8	+2·5	26·6	40·5	+0·8	− 3	39	− 9	·388	−·058	1·4	+0·3	0·05	0·16	−0·11
Bombay	+·021	91·9	+1·4	70·3	0	81·1	+0·7	21·5	33·0	−0·5	+ 3	68	− 2	·657	−·024	3·1	+0·4	2·17	2·42	−0·25
Central India	+·020	94·5	+5·3	65·3	+0·6	79·9	+2·9	29·1	41·5	−0·7	−13	47	−15	·425	−·109	1·6	+0·1	0·01	0·92	−0·91
Central Provinces	+·018	92·5	+4·5	66·6	−0·2	79·5	+2·1	25·9	37·8	+0·2	+ 5	54	−14	·488	−·107	2·2	0	0·38	1·75	−1·37
Hyderabad	+·018	90·9	+2·0	68·6	−0·5	79·8	+0·8	22·3	34·2	−0·9	+ 1	59	− 9	·560	−·082	3·4	−0·5	1·97	2·80	−0·83
Mysore	+·022	82·7	−0·1	65·7	−0·4	74·2	−0·3	17·0	26·1	+1·0	+ 9	77	− 3	·599	−·040	6·6	0	4·84	5·29	−0·45
Madras	+·023	87·8	−0·6	74·1	−0·1	81·0	−0·3	13·8	23·4	+0·5	+ 2	81	0	·796	−·016	5·5	+0·1	9·12	6·83	+2·29

Table

(2) *Abstract of observations taken at 8 hrs. at 218*

Number of sub-division.	Station.	Elevation of barometer cistern above sea-level, in feet.	Pressure, 8 hrs., in inches. 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.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean 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
	I.—Burma.																						
2	Victoria Point	147	29·815		29·892	29·871	21st	29·772	7th	·099	78·1	83·9†		73·8		78·8†		10·1	88·1	30th	71·7	4 days	16·4
	Mergui	65	29·899	+·032	29·895	29·971	22nd	29·817	15th	·154	78·0	85·4	−0·8	72·8	+0·7	79·6	−0·1	13·6	89·0	25th	69·8	23rd	19·2
	Tavoy	19	29·941	+·015	29·893	30·017	22nd	29·867	14th	·150	79·0	88·0	0	74·7	+1·4	81·4	+0·7	13·3	90·0	26th	70·8	25th	19·2
	Moulmein	94	29·875	+·040	29·907	29·977	22nd	29·787	13th	·190	78·7	89·3	+0·9	75·1	+0·4	82·2	+0·7	14·2	92·0	24th	71·3	29th & 30th.	20·7
	Rangoon	18	29·949	+·034	29·994	30·039	22nd	29·819	14th	·190	78·7	87·7	0	75·5	−0·1	81·6	−0·1	12·2	90·0	8th, 22nd & 24th.	72·5	12th	17·5
	Bassein	27?	29·920	+·027	29·884	30·025	22nd	29·823	14th	·202	79·4	86·7	−0·7	76·0	+0·8	81·3	+0·1	10·7	89·7	24th	73·9	29th, 30th & 31st.	15·8
	Diamond Island	41	29·899	+·018	29·875	30·008	22nd	29·788	13th	·220	80·8	86·4	−0·1	78·0	+1·3	82·2	+0·6	8·4	89·4	24th	73·5	18th	15·9
	Toungoo	164	29·795	+·032	29·902	29·983	22nd	29·693	14th	·190	79·2	90·0	−0·3	74·7	−0·1	82·3	−0·2	15·3	93·4	13th	71·0	27th	22·4
	Kyaukpyu	18	29·922		29·880	30·040	22nd	29·797	13th	·243	80·2	87·0		75·3		81·1		11·7	90·0	13th & 14th.	70·4	4th	19·6
	Akyab	20	29·924	+·026	29·835	30·018	22nd	29·793	14th	·225	78·4	85·9	−1·9	75·3	−1·4	80·6	−1·7	10·6	90·9	24th	71·5	31st	19·4
3	Thayetmyo	121	29·817	+·019	29·879	29·920	22nd	29·720	14th	·200	80·3	89·9	−0·5	75·0	+0·9	82·4	+0·2	14·9	92·7	8th	69·9	30th	22·8
	Minbu	165	29·769	+·002	29·877	29·853	22nd	29·668	14th	·185	79·3	89·5	−1·8	75·1	+0·1	82·3	−0·9	14·4	95·3	6th —	70·1	30th	25·2
	Yamethin	657	29·286	+·006	29·897	29·365	22nd	29·182	14th	·183	77·5	90·3	−2·2	73·6	−0·2	82·0	−1·2	16·7	95·9	3rd —	70·0	27th	25·9
	Mandalay	250	29·701	+·033	29·991	29·788	22nd	29·599	11th	·189	79·3	91·8	0	74·3	−0·5	83·1	−0·3	17·5	97·0	2nd	69·9	29th	27·1
	Monywa	280	29·680		29·912	29·779	29th	29·582	11th	·197	78·4	89·1		75·5		82·3		13·6	92·4	6th	69·3	29th	23·1
	Lashio	2,820	27·188	+·015	27·134	27·274	25th	27·088	14th	·186	68·5	79·0	−4·5	65·2	+1·7	72·1	−1·4	13·8	84·1	6th	56·5	27th	27·6
	Bhamo	361	29·581	+·038	29·903	29·698	25th	29·476	14th	·220	74·8	87·5	−1·0	70·9	+1·3	79·2	+0·1	16·6	91·9	8th	63·0	28th	28·9
	Myitkyina	458	29·477		29·902	29·585	29th	29·338	14th	·225	72·9	86·2		70·2		78·2		16·0	91·2	9th	62·0	31st	29·2
	II.—Assam.																						
4	Dibrugarh	353	29·598		29·920	29·710	26th	29·456	16th	·254	72·0	83·4		69·6		76·5		13·8	87·9	11th	62·1	31st	25·8
	Sibsagar	333									73·3	83·3	−1·5	70·4	−0·4	76·8	−0·9	12·9	88·1	12th	63·0	31st	25·1
	Tezpur	252	29·727		29·942	29·815	23th	29·589	14th	·255	74·6	86·0		70·6		78·3		15·4	90·1	11th & 12th.	62·3	31st	27·8
	Gauhati	195	29·762		29·916	29·885	25th	29·611	16th	·274	76·2	86·7		70·5		78·6		16·2	91·3	10th & 11th.	63·1	31st	28·2
	Dhubri	115	29·854¶	+·002¶	29·901¶	29·933	7th	29·756	1st	·177	77·2	83·9	−0·6	76·4¶	+1·2¶	81·3¶	+0·3	7·5	87·5	8th, 11th & 12th.	74·1	8th	13·4
	Silchar	104	29·845	+·020	29·902	29·956	25th	29·682	16th	·274	77·0	87·3	−1·4	72·3	0	79·8	−0·7	15·0	91·8	9th & 13th.	63·3	31st	28·5
	III.—Bengal.																						
5	Cox's Bazar	36	29·890		29·871	29·980	22nd	29·745	14th	·235	79·2	85·9		73·5		79·7		12·4	90·7	9th	69·7	29th	21·0
	Chittagong	87	29·850	+·024	29·883	29·955	25th	29·695	16th	·260	77·2	85·2	−1·0	72·9	−0·5	79·2	−0·7	12·6	89·0	11th & 13th.	66·0	31st	23·0
	Noakhali	43	29·899		29·869	30·008	25th	29·729	16th	·279	78·1	84·5		71·7‖		77·3‖		13·2	88·8	11th & 14th.	65·4	28th	23·4
	Barisal	12	29·924	+·024	29·883	30·036	25th	29·712	16th	·294	80·4	86·3	−1·3	73·9	−0·7	80·1	−1·0	12·4	90·3	14th	68·1	26th & 31st.	22·2
	Narayanganj	26	29·8[illegible]9	+·016	29·874	30·008	25th	29·693	16th	·315	80·0	87·[illegible]	−0·5	74·4	−0·9	80·9	−0·7	13·0	92·0	12th & 13th.	68·8	31st	23·2
	Mymensingh	63	29·8[illegible]9	+·018	29·894	29·987	22nd	29·659	16th	·328	77·9	86·9	+0·7	74·0	+0·8	80·4	+0·7	12·9	91·6	13th	68·1	30th	23·5
	Bogra	45	29·870	+·025	29·897	29·991	22nd	29·635	16th	·356	78·1	85·3	−0·9	72·6	−0·1	79·5	−0·5	13·7	90·7	12th & 14th.	65·7	30th	24·0
	Dinajpur	123	29·808	+·013	29·887	29·929	26th	29·591	16th	·338	77·5	86·7	−0·7	71·7	−0·3	79·2	−0·5	15·0	95·3	10th	64·0	30th	31·3
	Jalpaiguri	283	29·664	+·010	29·909	29·785	22nd	29·483	16th	·302	74·9	87·2	+1·4	70·7	+0·9	79·0	+1·1	16·5	90·9	13th	60·9	30th	30·0

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

‖ Mean of 8 days.
¶ „ „ 12 „
† „ „ 30 „

B.

Stations in India, etc., in October, 1913.

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 from 1st May to 31st October, 1913.	Normal rainfall for period, 1st May to 31st October.	Departure from normal of period, 1st May to 31st October, 1913.	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
																																I.—Burma.
6	6	6	2	2	4	2	1	2	N 39° E		3·3*			23		88		·838		6·3†		19			29·91			161·61			5·02	Victoria Point.
28			1	1	1				S 45° E	N 5° E	1·9	1·1	+0·8	10	− 8	90	+ 3	·857	+·002	5·9	+1·0	13	16·6	− 3·6	6·88	12·35	−5·47	143·69	147·48	−3·79	1·23	Mergui.
28			1	1	1				S 45° E	N 9° E	1·0*	0·8	+0·2	10	+ 7	87	− 1	·860	−·008	3·7	−1·1	13	12·4	+ 0·6	7·93	10·33	−2·40	218·07	207·51	+10·56	2·18	Tavoy.
5		8	14	2			2		N 77° E	S 85° E	1·8	1·6	+0·2	62	+30	88	0	·871	−·005	4·1	−0·9	10	11·3	− 1·3	7·33	8·71	−1·38	202·85	181·83	+21·02	2·30	Moulmein.
9	6	11	3		1	1			N 40° E	S 53° E	1·0	2·1	−1·1	53	+31	90	− 2	·890	−·017	8·5	+2·9	10	9·9	+ 0·1	5·54	6·75	−1·21	100·08	92·78	+ 7·30	1·23	Rangoon.
29		1	1						N 66° E	N 80° E	3·3	2·4	+0·9	7	−11	92	+ 1	·931	+·016	5·0	−0·2	12	12·3	− 0·3	4·57	8·00	−3·43	93·31	104·41	−11·10	0·88	Bassein.
3		10	5	4	4	2		3	N 85° E	N 53° E	5·7	5·5	+0·2	37	+ 5	86	+ 3	·898	−·001	6·5	+0·8	9	10·9	− 1·9	5·43	8·11	−2·68	115·24	109·51	+5·73	1·81	Diamond Island.
10	2	3	3	5	5	1		2	S 60° E	N 84° E	1·0	1·3	−0·3	27	+ 9	87	− 2	·864	−·023	6·2	+0·7	7	10·2	− 3·2	5·57	7·42	−1·85	77·90	77·60	+ 0·30	1·85	Toungoo.
4		12	7	4	3			1	N 80° E		3·1			56		87		·903		5·6		11			6·32			162·28			1·91	Kyaukpyu.
7	1	11	8	4					N 73° E	N 50° E	1·5	1·8	−0·3	66	− 9	93	+ 2	·895	−·017	5·9	0	16	8·8	+ 7·2	14·86	9·89	+4·97	207·95	184·26	+23·69	3·22	Akyab.
14	1	4		2	10				S 25° E	S 37° E	1·1*	2·6	−1·5	30	+ 8	83	− 1	·859	+·009	6·7	+1·0	6	7·2	− 1·2	3·33	4·01	−0·68	30·44	34·30	−3·86	1·63	Thayetmyo.
				29				2	S 45° E	S 10° W	2·7	4·7	−2·0	89	+75	85	+ 1	·835	−·008	6·2	+1·7	10	6·3	+ 3·7	7·27	4·51	+2·76	27·40	30·56	−3·16	3·48	Minbu.
22	2			3	3			1	S 31° E	S 45° E	1·6	2·5	−0·9	7	−30	86	0	·811	−·046	4·2	+1·1	13	7·9	+ 5·1	10·42	5·88	+4·54	33·49	34·17	−0·68	2·61	Yamethin.
2	2	3	2	13	6			3	S 51° E	S	1·8	2·3	−0·5	46	+21	83	0	·820	−·040	5·7	+1·6	8	6·4	+ 1·6	4·63	5·00	−0·37	28·37	29·48	−1·11	1·08	Mandalay.
12	6	1	1	5	1		4	1	N 19° E		1·6†			10		90		·877		8·1		5	6·5	− 1·5	1·81	4·68	−2·87	31·82	27·89	+3·93	0·50	Monywa.
31									‡		0·4§			‡		95	+ 3	·662	+·015	9·8	+2·2	19	9·2	+ 9·8	11·10	5·43	+5·67	62·01	55·88	+6·13	2·26	Lashio.
11	2	8	2	1		3		4	N 25° E	N 4° W	0·7	1·4	−0·7	27	+ 5	91	+ 4	·783	+·009	6·9	+2·8	3	6·2	− 3·2	1·23	3·94	−2·71	78·09	66·04	+12·05	0·38	Bhamo.
26		2	1	1		1			E		0·9			8		90		·725		5·0		10	8·4	+ 1·6	9·49	7·15	+2·34	71·21	70·58	+0·63	5·41	Myitkyina.
																																II.—Assam.
26		2	3						N 72° E		0·9			13		92		·719		4·8		10	7·6	+ 2·4	13·71	4·26	+9·45	93·00	84·97	+8·03	4·12	Dibrugarh.
15	10	3			3				N 13° E	N 86° E	2·0	1·4	+0·6	30	+ 5	94	− 2	·772	−·030	6·5	−0·7	10	7·5	+ 2·5	9·56	4·97	+4·59	77·16	76·39	+0·77	2·50	Sibsagar.
4	2	14	10				1		N 57° E		1·4			72		83		·749		3·3		9	5·8	+ 3·2	10·78	3·75	+7·03	56·88	58·45	−1·57	3·83	Tezpur.
31									‡		1·2			‡		88		·795		3·7		7	3·6	+ 3·4	7·21	2·46	+4·75	53·07	52·37	+0·70	3·30	Gauhati.
2	1	11	12	3	1	1			N 77° E	N 67° E	2·9	2·8	+0·1	69	+26	88	− 1	·819	+·028	3·9	+0·1	3	4·2	− 1·2	5·50	3·59	+1·91	83·07	86·54	−3·47	4·72	Dhubri.
30			1						E	N 63° E	0·7	1·2	−0·5	3	− 1	88	− 1	·822	−·006	3·5	−2·6	10	7·4	+ 2·6	4·77	6·49	−1·72	105·27	97·40	+7·87	0·81	Silchar.
																																III.—Bengal.
	4	10	4	11	2				N 86° E		1·8*	*		62		92		·906		4·5		8			9·22			134·04			5·53	Cox's Bazar.
26		1		4					S 58° E	N 67° E	1·2	2·0	−0·8	10	−37	89	− 1	·835	−·029	4·4	−0·6	7	6·9	+ 0·1	25·05	6·22	+18·83	133·86	86·86	+47·00	16·57	Chittagong.
10	2	11	3	2	1	2			N 61° E		1·7			42		89		·856		3·7		11	7·3	+ 3·7	11·94	7·96	+3·98	110·73	108·13	+2·60	4·02	Noakhali.
27		1		1	2				S 34° E	N 20° E	0·1	1·5	−1·4	7	− 4	83	− 1	·857	−·028	3·6	−0·1	5	6·3	− 1·3	3·35	5·93	−2·58	100·33	70·29	+30·04	1·33	Barisal.
20	1	1	2	2	2	1	1	1	S 45° E	N 50° E	0·9	2·0	−1·1	10	− 1	84	0	·854	+·006	4·1	−0·2	5	5·5	− 0·5	2·58	4·58	−2·00	59·64	60·14	−0·50	0·87	Narayanganj.
28	1		1	1					N 79° E	S 85° E	0·4	1·2	−0·8	5	−32	89	+ 1	·861	+·011	4·0	−0·3	4	5·5	− 1·5	4·74	5·20	−0·46	84·30	82·97	+1·33	4·06	Mymensingh.
13	3	4	3	2	2	1	1	2	N 53° E	N 86° E	0·4	1·2	−0·8	17	+ 1	86	0	·840	−·025	2·7	−0·8	4	4·9	− 0·9	8·70	4·22	+4·48	93·61	62·61	+31·03	4·64	Bogra.
25		2	3	1					N 82° E	N 53° E	1·2	1·8	−0·6	16	− 6	86	+ 1	·815	+·007	1·9	−1·2	5	3·8	+ 1·2	6·89	3·08	+3·81	72·08	64·85	+7·23	3·25	Dinajpur.
30				1					S 45° E	N 51° E	1·1			2	−41	87	− 1	·761	−·016	2·2	−1·1	7	4·4	+ 2·6	5·41	4·41	+1·00	112·15	116·55	−4·46	1·10	Jalpaiguri.

* Uncorrected for scale error. Mean of 30 days. ‡ Indeterminate. § Mean of 29 days.

Table

(2) *Abstract of observations taken at 8 hrs. at 218 stations*

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.	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.	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	16	17	18	19	20	21	22	23	24
	III.—Bengal—*concld.*																						
5	Saugor Island	25	29·911	+·016	29·866	30·040	26th	29·645	15th	·395	80·1	86·2	−0·7	75·3	−0·9	80·7	−0·8	10·9	89·2	26th	69·7	27th & 29th.	19·5
	Midnapore	149	29·762		29·861	29·893	26th	29·464	15th	·429	78·3	88·5		72·3		80·3		16·2	92·1	8th	64·7	27th & 28th.	27·4
	Calcutta	21	29·908	+·020	29·876	30·035	22nd	29·639	15th	·396	77·7	86·9	+0·2	73·5	−0·8	80·2	−0·3	13·4	90·8	8th	65·7	29th.	25·1
	Jessore	33	29·905	+·025	29·885	30·031	25th	29·677	15th	·354	78·2	86·5	−1·9	73·0	−1·6	79·8	−1·7	13·5	91·0	13th	66·2	30th	24·8
	Burdwan	99	29·831	+·017	29·878	29·955	22nd	29·560	15th	·395	78·5	88·1	−0·6	74·4	−0·2	81·3	−0·4	13·7	91·4	7th & 8th.	68·8	5 days	22·6
	Berhampore	67	29·867	+·018	29·884	29·998	22nd	29·621	15th	·377	78·0	86·6	−0·9	73·9	−0·4	80·3	−0·7	12·7	91·1	8th	69·2	20th & 29th.	21·9
	IV.—Bihar and Orissa.																						
6	Balasore	50	29·874	+·007	29·870	30·006	26th	29·579	15th	·427	76·2	88·4	+0·4	71·7	−1·4	80·0	−0·5	16·7	91·4	7th	64·6	26th & 27th.	26·8
	Hukitala (False Point).	29	29·895	+·017	29·865	30·024	22nd	29·643	15th	·381													
	Cuttack	80	29·855	+·030	29·877	29·993	22nd	29·575	14th	·418	77·9	87·9	−1·8	73·8	−0·8	80·9	−1·3	14·1	90·5	6th, 7th, & 9th.	67·2	27th	23·3
	Puri	24	29·895		29·860	30·023	22nd	29·598	14th	·425	79·9	89·4		75·6		82·5		13·8	92·6	10th	71·1	27th	21·5
	Angul	455	29·467		29·875	29·608	22nd	29·133	14th	·475	75·9	88·3		70·3		79·3		18·0	91·1	4th, 6th, & 9th.	62·0	26th & 28th.	29·1
	Sambalpur	486	29·455	+·023	29·898	29·583	22nd	29·118	14th	·468	75·5	89·2	+0·4	70·4	−1·5	79·8	−0·5	18·8	92·0	7th	62·2	31st	29·8
7	Chaibasa	*733*	29·180	+·010	29·877	29·317	26th	28·852	15th	·465	74·1	88·6	−0·2	68·8	−1·0	78·7	−0·6	19·8	93·1	7th & 9th	59·8	26th & 27th.	33·3
	Ranchi	2,128	27·798	+·014	29·865	27·917	22nd	27·519	15th	·398	72·9	83·5	+0·5	66·4	+0·8	75·0	+0·7	17·1	87·7	7th	58·9	31st.	28·8
	Purulia	*816*	29·102		29·883	29·237	26th	28·692	15th	·545	74·3	88·4		69·5		78·9		18·9	94·5	7th	61·1	21st	33·4
	Daltonganj	*730*	29·210*		29·911*	29·330	25th	28·992	15th	·338	71·0	90·0		65·1		77·6		24·9	94·1	9th	57·0	27th & 31st.	37·1
8	Purnea	124	29·805	+·014	29·886	29·932	26th	29·612	15th	·320	75·6	86·7	−0·7	70·7†	−0·5†	78·8†	−0·6	16·0	90·6	4th, 12th & 13th.	61·8	31st	28·8
	Monghyr	155	29·770		29·879	29·896	26th	29·547	15th	·349	79·7	87·9		71·7		79·8		16·2	91·7	8th & 13th	64·9	29th	26·8
	Darbhanga	165	29·769	+·019	29·891	29·895	26th	29·580	15th	·315	77·4	87·2	+0·5	71·5	−1·6	79·4	−0·5	15·7	90·6	12th	63·7	31st	26·9
	Pusa	188	29·734		29·879	29·857	22nd	29·553	15th	·304	77·4	88·1		69·9		79·0		18·2	91·9	11th & 12th.	61·2	31st	30·7
	Patna	183	29·738	+·005	29·878	29·863	26th	29·534	15th	·329	78·8	87·0	−1·2	73·4	+0·9	80·2	−0·1	13·6	90·5	9th & 11th	66·2	29th	24·3
	Buxar	239	29·687†		29·886†	29·808	30th	29·521	15th	·287	75·2	90·7		71·2		81·0		19·5	94·5	13th	64·6	29th	29·9
	Gaya	372	29·543	+·007	29·872	29·663	26th	29·327	15th	·336	76·9	89·5	−0·1	70·4	−0·6	79·9	−0·3	19·1	93·9	3rd	63·2	28th	30·7
	Naya Dumka	489	29·441	+·035	29·890	29·573	26th	29·185	15th	·288	75·6	86·1	−1·3	70·0	−0·6	78·0	−0·9	16·1	90·4	4days	63·0	18th & 25th.	27·4
	V.—United Provinces of Agra and Oudh.																						
9	Gorakhpur	257	29·658	+·014	29·877	29·776	26th	29·507	14th	·269	76·7	89·0	+0·3	67·0	−3·0	78·0	−1·3	22·0	91·9	12th	58·0	29th	33·9
	Benares	267	29·650	+·011	29·874	29·779	30th	29·481	14th	·298	78·3	92·0	+2·1	67·7	−0·6	79·9	+0·7	24·3	95·6	8th	59·2	25th	36·4
	Allahabad	309	29·611	+·014	29·879	29·740	22nd	29·432	14th	·308	79·1	96·2	+5·7	68·5	+0·9	82·3	+3·3	27·7	99·6	8th & 9th	61·0	31st	38·6
	Cawnpore	416	29·505	+·018	29·884	29·628	22nd	29·346	14th	·282	76·0	95·4	+3·9	68·8	+3·0	82·1	+3·5	26·6	99·1	9th	60·5	31st	38·6
	Lucknow	368	29·554	+·023	29·884	29·675	30th	29·387	14th	·288	78·8	92·7	+1·5	67·6	+2·1	80·1	+1·8	25·1	97·0	2nd & 19th.	59·1	29th	37·9
	Bahraich	401	29·501	+·006	29·868	29·623	26th	29·336	16th	·287	76·3	91·5	+1·4	68·5	+1·3	80·0	+1·3	23·0	95·1	13th	59·0	30th	36·1
10	Jhansi	824	29·108	+·015	29·888	29·251	22nd	28·974	15th	·277	82·1	99·0	+6·1	73·5‡	+1·6‡	87·5‡	+3·9	25·5	104·6	9th	64·5	15th	40·1
	Agra	556	29·365	+·012	29·884	29·495	22nd	29·235	15th	·260	80·3	97·9	+4·6	70·0	+2·4	84·0	+3·5	27·9	104·0	2nd & 3rd	63·5	15th	40·5
	Mainpuri	516	29·394	+·018	29·878	29·523	22nd	29·260	15th	·263	75·1	97·0	+4·1	66·6	+2·0	81·3	+3·1	30·4	102·3	7th & 9th	60·1	31st	42·2
	Bareilly	568	29·325	+·011	29·874	29·461	29th	29·165	16th	·296	70·1	94·0	+4·5	66·0	+0·7	80·0	+2·6	28·0	98·3	9th	57·0	31st	41·3
	Roorkee	899	29·021	+·029	29·907	29·119	22nd	28·866	16th	·253	71·4	90·5	+1·2	59·2	−2·1	74·8	−0·5	31·3	94·3	4th	52·4	25th	41·9

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

* Mean of 29 days.
† „ 30 „
‡ „ 15 „

—*continued.*

n India, etc., in October, 1913—continued.

Wind direction. Number of winds from 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 from 1st May to 31st October, 1913.	Normal rainfall for period, 1st May to 31st October.	Departure from normal of period, 1st May to 31st October, 1913.	Heaviest rainfall during month.	Station.
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
																															III.—Bengal—*concld.*
6	10	3		1	3	2	2	N 21° E	N14° W	3·5	5·4	−1·9	40	+18	85	−1	·869	−·019	4·4	−1·6	8	7·5	+0·5	9·15	7·91	+ 1·24	98·12	64·40	+33·72	2·24	Saugor Island.
3	3	1	3	1	1	1	1	N 45° E		1·2			13		83		·803		2·3		6	5·0	+1·0	3·87	3·29	+ 0·58	62·99	52·18	+10·81	1·10	Midnapore.
4	2	3	5	1	4	2	3	N 73° E	N 58° W	1·6§	2·0	−0·2	3	−16	90	+ 6	·855	+·012	3·6	+0·4	6	5·9	+0·1	6·64	3·91	+ 2·73	79·93	56·18	+23·45	2·24	Calcutta.
1		1	3			1		S 62° E	S 67° E	1·4	1·5	−0·1	7	−15	87	+ 1	·839	−·037	3·1	−0·8	6	5·7	+0·3	4·95	4·81	+ 0·14	78·[illegible]9	57·35	+20·94	1·56	Jessore.
2	1	1	1	1	1	2	3	N 45° W	N 28° W	1·1	1·4	−0·3	10	− 4	85	+ 5	·831	+·037	3·4	−0·3	4	4·0	0	3·51	2·91	+ 0·60	68·67	52·00	+14·67	2·11	Burdwan.
3	5	6	3		2		1	N 68° E	S 39° W	0·8	1·5	−0·7	33	+28	85	− 1	·810	−·025	3·9	+0·2	5	4·5	+0·5	6·49	3·55	+ 2·94	66·26	50·74	+15·52	3·05	Berhampore.
																															IV.—Bihar and Orissa.
3	1			1	3		7	N 49° W	N 11° W	1·3	1·9	−0·6	27	− 9	88	+ 2	·802	−·038	3·4	−1·2	4	5·6	−1·6	4·12	5·54	−1·42	80·11	54·50	+25·61	2·40	Balasore.
1	3	1	1	1	4	1	16	N 49° W	N 45° W	5·6	4·4	+0·6	49	+ 2					4·3	−0·3	7	7·4	−0·4	5·11	8·27	− 3·16	72·71	56·35	+16·36	2·09	Hukitola (False Point).
	2	2			5	6		S 71° W	N 51° W	1·4§	1·3	+0·1	23	+ 5	81	+ 2	·782	−·005	4·1	+0·5	7	5·8	+1·2	5·25	4·99	+0·26	53·84	54·61	−0·77	1·33	Cuttack.
14	5			1	2	1	5	N 6° W		5·1			4		85		·873		2·9		8	7·2	+0·8	5·78	7·09	−1·31	53·01	47·81	+5·20	1·63	Puri.
2	1		1			1	6	N 34° W		1·5			23		82		·749		3·9		4	4·8	−0·8	4·94	3·38	+1·56	41·13	42·34	−1·21	1·73	Angul.
3	19	1	2			2	2	N 37° E	N 33° E	2·5	2·1	+0·4	66	+ 9	84	+ 6	·748	−·001	2·9	+0·3	3	3·3	−0·3	1·30	1·87	−0·57	49·02	62·53	−13·51	0·75	Sambalpur.
	2			1	5	2		S 53° W	S 63° W	1·4	0·7	+0·7	17	− 5	83	+ 1	·709	−·030	2·4	−0·8	3	3·7	−0·7	5·48	2·32	+3·16	58·73	46·99	+11·74	3·58	Chaibasa.
3	1	4	1	1	2	6	4	N 55° W	N 89° W	2·9	3·3	−0·4	20	− 1	72	0	·582	−·004	2·4	−0·7	2	3·9	−1·9	1·55	2·46	−0·91	57·74	51·51	+ 6·23	1·18	Ranchi.
2	1	2				5	3	N 45° E		1·3			19		81		·694		1·3		3	3·5	−0·5	4·67	2·62	+2·05	53·51	46·92	+6·59	3·50	Purulia.
2	1	9	6			1		S 85° E		1·4			33		84		·643		1·6		3	2·9	+0·1	2·36	1·60	+0·76	46·89	38·47	+8·42	1·10	Daltonganj.
3	5	10	3	1	1			N 79° E	N 79° E	1·0	1·5	−0·5	49	+34	92	+ 4	·815	+·015	2·5	−0·1	6	3·1	+2·9	3·80	2·92	+0·88	59·72	58·92	+0·80	1·80	Purnea.
	2	7	6		3	1		S 61° E		1·4			32		75		·758		2·1		5			2·74			46·38			1·75	Monghyr.
		8	2	1		1		S 74° E	S 68° E	0·3	1·5	−1·2	27	+ 6	84	+ 1	·792	+·009	2·6	+0·6	2	3·0	−1·0	1·01	2·74	−1·73	59·41	47·99	+11·42	0·70	Darbhanga.
1	6	5	6				1	N 81° E‖		1·2			42		85		·803		1·7		3			1·07			62·74			0·71	Pusa.
1		12	4	3	3			S 62° E	S 8° W	2·5	1·6	+0·9	46	+24	78	+ 5	·773	+·012	1·4	−1·0	3	3·1	−0·1	2·83	2·76	+0·07	67·27	44·67	+22·60	1·62	Patna.
	1	9	8	2	3	2		S 51° E		1·7			45		81		·703		2·3		4	2·6	+1·4	1·42	2·70	−1·28	39·38	38·64	+0·74	0·60	Buxar.
3	1	2	1	8	1	2	2	S 9° W	S 9° W	1·6	2·0	−0·4	13	−19	77	+3	·720	+·036	1·6	−1·4	2	2·8	−0·8	3·17	2·01	+1·16	71·59	43·76	+27·83	2·41	Gaya.
		1						E		1·1			3		85	+3	·755		1·4		2	4·0	−2·0	2·29	3·21	−0·92	59·06	52·02	+7·04	1·48	Naya Dumka.
																															V.—United Provinces of Agra and Oudh.
	7	11	1			1		N 75° E	N 27° W	0·8	0·9	−0·1	53	+31	79	+ 2	·734	+·020	0·4	−1·2	2	2·5	−0·5	2·16	3·91	−1·75	43·50	48·35	−4·85	1·87	Gorakhpur.
1	2	7	5	2	4	3	1	S 51° E	S 50° W	1·6	1·8	−0·2	27	+ 9	71	− 6	·792	+·023	1·1	−1·1	0	2·4	−2·4	0·01	2·58	−2·57	43·13	37·43	+5·70	0·01	Benares.
	1	7	3	1	1	7	1	S 31° E	N 36° W	1·3	2·3	−1·0	7	−18	54	−15	·551	−·033	1·1	−0·9	0	1·9	−1·9	0	2·52	−2·52	23·36	36·88	− 13·52	0	Allahabad.
		3	1	3		5	1	S 24° W	S 76° W	1·3	1·5	−0·2	13	−16	61	− 5	·554	−·048	0·5	−0·6	0	1·4	−1·4	0	1·35	−1·35	20·67	33·84	−13·17	0	Cawnpore.
1		2	3	2	1			S 42° E	N 58° W	1·2	1·3	−0·1	17	+ 8	61	−11	·615	−·013	0·8	−0·6	0	1·6	−1·6	0	1·20	−1·20	29·03	35·61	−6·58	0	Lucknow.
	4	11	8	1		1		S 78° E	N 77° E	1·0	1·2	−0·2	59	+49	70	− 6	·634	−·057	1·8	+0·5	3	1·5	+1·5	0·91	1·69	−0·78	27·03	41·67	−14·64	0·44	Bahraich.
1	2	1			11	5	3	S 76° W	S 70° W	2·5	1·8	+0·7	40	− 3	29	−23	·320	−·177	2·5	+1·5	0	0·9	−0·9	0	0·72	−0·72	10·84	35·62	−24·78	0	Jhansi.
2	1		2	2	5	2	3	S 69° W	N 68° W	2·7	2·3	+0·4	17	−23	37	−20	·362	−·115	1·2	+0·4	0	0·7	−0·7	0	0·83	−0·83	8·54	25·50	−16·96	0	Agra.
4		5	4	1	4	6	2	S 63° W	N 83° W	0·9	0·7	+0·2	7	− 9	55	−10	·482	−·050	1·2	+0·1	0	0·8	−0·8	0	1·52	−1·52	15·13	24·89	−9·76	0	Mainpuri.
		2	1					S 75° E	N 15° W	0·3	0·9	−0·6	10	+ 4	65	−10	·562	−·043	1·1	+0·3	0	0·8	−0·8	0	1·38	−1·38	17·59	41·62	−24·03	0	Bareilly.
	1		1					E	S 58° E	0·9	0·9	0	5	− 1	57	−17	·443	−·032	0·5	−0·2	1	0·7	+0·3	0·13	0·57	−0·44	22·15	37·18	−15·03	0·11	Roorkee.

§ Uncorrected for scale error.

‖ Wind variable.

Table

(2) *Abstract of observations taken at 8 hrs. at 218 stations*

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.	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.	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	16	17	18	19	20	21	22	23	24
	VI.—Punjab.																						
11	Delhi	718	29·198	+·022	29·892	29·322	22nd	29·065	15th & 16th.	·257	75·0	94·2	+2·1	69·2	+1·3	81·7	+1·7	25·0	100·0	3rd	59·3	29th	40·7
	Sirsa	662	29·243	+·015	29·889	29·393	22nd	29·108	15th	·285	71·5	96·4	+0·3	63·5	+0·9	80·0	+0·6	32·9	104·3	10th	57·0	15th	47·2
	Patiala	*818*	29·078		29·882	29·205	22nd	28·923	24th	·282	71·8	93·1		63·9		78·5		29·2	98·4	1st & 2nd.	54·5	31st	43·9
	Ambala	892	29·020	+·029	29·902	29·137	22nd & 30th.	28·858	16th	·269	71·3	93·9	+0·7	61·1	+0·3	77·5	+0·5	32·8	98·5	2nd & 3rd.	52·9	31st	45·6
	Ludhiana	812	29·101	+·027	29·899	29·223	22nd	28·954	16th	·269	72·8	93·8	+1·9	64·2	+1·2	79·0	+1·5	29·6	100·3	2nd	55·6	28th	44·7
	Lahore	702	29·193	+·011	29·885	29·329	30th	29·044	15th	·285	70·6	95·2	+0·1	61·4	+2·3	78·3	+1·2	33·8	102·9	1st	55·7	14th & 15th.	47·2
	Sialkot	830	29·070	+·019	29·897	29·217	30th	28·910	16th	·307	68·4	92·0	−0·3	59·4	−2·5	75·7	−1·4	32·6	98·9	1st	52·7	31st	46·2
	Rawalpindi	1,674	28·242	+·009	29·925	28·368	30th	28·088	16th	·280	66·0	88·4	+0·2	57·1	+1·3	72·7	+0·7	31·3	94·4	1st & 6th.	49·6	31st	44·8
12	Khushab	612	29·305	+·032	29·902	29·469	30th	29·146	16th	·323	74·0	88·5†	−1·5†	61·9	0	73·6†	−0·7	26·6	95·2	25th	53·4	30th	41·8
	Lyallpur		29·290		29·255*	29·444	21st	29·134	1st	·310	70·3	93·1		61·1		77·1		32·0	101·1	3rd	55·0	14th	46·1
	Montgomery	558	29·346	+·018	29·883	29·499	22nd	29·199	1st	·300	76·0	95·3	−1·3	64·4	+2·2	79·8	+0·5	30·9	103·4	2nd	57·0	31st	46·4
	Multan	420	29·489	+·019	29·882	29·655	21st & 22nd.	29·332	1st	·323	75·5	96·3	+0·8	67·0	+2·6	81·7	+1·7	29·3	103·8	2nd	62·0	29th	41·7
	VII.—North-West Frontier Province.																						
14	Peshawar	1,113	28·818	+·001	29·942	28·962	21st	28·647	16th	·315	65·7	89·8‡	+1·4‡	58·5	+1·3	74·3‡	+1·3	31·3	96·2	4th	52·4	30th	43·8
	D. I. Khan	590	29·310	−·008	29·888	29·473	30th	29·154	16th	·319	70·7	91·7	−2·3	63·7	+3·1	77·7	+0·4	28·0	99·4	5th	57·4	30th	42·0
	VIII.—Sind.																						
16	Jacobabad	186	29·722	+·011	29·870	29·892	21st	29·569	15th	·323	76·8	99·0	+0·4	67·1	+4·6	83·1	+2·5	31·9	106·1	2nd	59·8	14th & 15th.	46·3
	Hyderabad	96	29·836	+·027	29·885	30·007	22nd	29·692	15th	·315	77·5	96·2	−1·8	70·9	+0·9	83·6	−0·5	25·2	100·9	15th	64·1	28th	36·8
	Karachi	13	29·945	+·025	29·909	30·125	22nd	29·807	15th	·318	79·2	87·7	+0·8	74·1	+2·8	80·9	+1·8	13·6	98·0	12th & 28th.	69·0	14th & 28th.	29·0
	IX.—Rajputana.																						
17	Bikaner	*771*	29·146	+·036	29·887	29·300	22nd	28·997	15th	·303	78·5	97·9	+2·0	71·1	−0·3	84·5	+0·9	26·8	104·0	8th	60·0	31st	44·0
	Jodhpur	780	29·169	+·032	29·916	29·306	22nd	29·034	15th	·272	77·6	97·8	+0·3	68·9	+0·7	83·3	+0·5	28·9	102·0	10th	62·3	30th	39·7
18	Jaipur	1,431	28·507	+·009	29·897	28·657	22nd	28·373	15th	·284	78·7	97·3	+3·0	68·1	+4·1	82·7	+3·5	29·2	103·2	1st	60·1	25th	43·1
	Ajmer	1,611	28·349	+·024	29·923	28·480	22nd	28·219	15th	·261	74·4	94·3	+2·3	70·6	+7·4	82·5	+4·9	23·7	99·1	7th & 8th.	61·7	15th	37·4
	Kotah	832	29·101	+·010	29·889	29·242	22nd	28·961	14th	·281	83·3	98·1	+2·8	73·7	+3·1	85·9	+2·9	24·4	103·1	7th & 8th.	64·6	30th	38·5
	X.—Bombay.																						
19	Deesa	466	29·493	+·034	29·919	29·648	22nd	29·362	14th	·286	78·2	97·3	+0·4	64·1	−2·7	80·7	−1·1	33·2	101·3	9th & 10th.	55·9	15th	45·4
	Bhuj	334	29·615	+·027	29·903	29·787	22nd	29·493	15th	·294	79·3	95·5	−0·6	69·5	−1·4	82·5	−1·0	26·0	100·0	8th & 11th.	62·0	25th	38·0
	Jamnagar	61	29·886		29·893	30·001	26th	29·804	11th	·197	83·2	95·4		70·9		83·1		24·5	101·5	11th	67·2	31st	34·3
	Dwarka	*37?*	29·936	+·027	29·919	30·111	22nd	29·824	11th	·287	80·3	86·9	+0·2	77·3¶	+1·8¶	82·1¶	+1·0	9·6	93·8	8th	73·2	29th	20·6
	Rajkot	429	29·523	+·020	29·904	29·702	22nd	29·401	14th	·301	79·9	96·4	+1·1	68·8	+0·7	82·6	+0·9	27·6	100·6	8th	61·8	23rd & 24th.	38·8
	Veraval	*18*	29·937	+·024	29·897	30·090	21st	29·803	13th	·287	80·4	90·1	+0·8	73·8	+1·5	82·0	+1·1	16·3	101·6	10th	67·8	24th	33·3
	Bhavnagar Para	55	29·911	+·005	29·912	30·073	21st	29·773	13th	·300	80·5	97·1	+1·0	70·4	−1·7	83·7	−0·3	26·7	101·5	8th	65·3	23rd	36·2
	Surat	39	29·919	+·022	29·901	30·066	22nd	29·770	13th	·296	78·4	96·7	+3·7	71·4	+0·6	84·1	+2·1	25·3	102·9	7th	67·1	26th, 27th & 28th.	35·6
	Ahmadabad	163	29·786	+·013	29·900	29·943	22nd	29·642	14th	·301	79·5	98·2	+1·5	72·5	+0·4	85·3	+0·9	25·7	103·1	6th & 9th.	67·2	15th	35·9
25	Bombay	37	29·911	+·018	29·888	30·034	22nd	29·755	13th	·279	79·8	88·3	+0·8	77·1	+0·6	82·7	+0·7	11·2	91·0	24th	73·3	28th	17·7
	Ratnagiri	110	29·825	+·021	29·874	29·937	21st	29·667	13th	·270	80·1	88·7	+0·5	73·8	−0·2	81·2	+0·1	14·9	96·3	31st	67·9	28th & 31st	28·4
	Marmagao	*60*	29·881	+·009	29·876	29·896	21st	29·705	13th	·291	77·9	84·6	−1·4	74·5	−1·1	79·5	−1·3	10·1	87·0	6th, 30th & 31st.	72·2	31st	12·8
	Karwar	44	29·910	+·024	29·888	30·018	21st	29·756	13th	·262	76·1	85·3	−0·1	73·1	−0·3	79·2	−0·2	12·2	91·2	26th & 30th.	69·0	22nd	22·2

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

* Not reduced to sea-level.
† Mean of 8 days.
‡ „ of 29 „
¶ „ of 30 „

B—*continued.*

in India, etc., in October, 1913—continued.

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 from 1st May to 31st October, 1913.	Normal rainfall of period 1st May to 31st October.	Departure from normal of period, 1st May to 31st October, 1913.	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
																																VI.—Punjab.
8	2	2	4	1	1	1	9	3	N 61° W	N 83° W	1·7	1·7	0	23	− 9	47	− 3	·402	−·020	0·5	−0·3	0	0·3	−0·3	0	0·29	−0·29	14·56	24·36	−9·80	0	Delhi.
6	3	2	3	3	3	9		2	S 11° W	S 31° W				20	− 2	48	− 2	·366	−·034	0·2	−0·5	0	0·4	−0·4	0	0·11	−0·11	18·36	11·87	+6·49	0	Sirsa.
8	1	1	7	6			7	1	S 63° E		4·0*			13		50		·396		0·3		0	0·6	−0·6	0	0·29	−0·29	14·56	20·77	−6·21	0	Patiala.
7	6		7	7			1	3	N 70° E	N 10° W	2·6	0·8	+1·8	30	+26	56	−14	·433	−·077	0·3	−0·2	1	0·4	+0·6	0·12	0·23	−0·11	33·49	24·28	+9·21	0·12	Ambala.
28		1		2					S 72° E	S 55° E	0·1	0·8	−0·7	7	− 4	50	−11	·400	−·058	0·1	−0·9	0	0·4	−0·4	0	0·28	−0·28	17·50	23·32	−5·82	0	Ludhiana.
21	4	1	1	1	2			1	N 33° E	S 83° E	1·1	1·2	−0·1	13	+ 1	56	+ 1	·436	+·003	0·5	0	1	0·4	+0·6	0·10	0·16	−0·06	21·48	15·93	+5·55	0·10	Lahore.
12	1	8	5	2			1	2	N 55° E	N 54° E	0·6	1·0	−0·4	40	+ 8	61	+ 2	·422	−·012	0·6	−0·1	0	0·6	−0·6	0	0·19	−0·19	19·18	24·71	−5·53	0	Sialkot.
24	2	1	1				1	2	N 10° W	N 5° W	1·6	1·0	+0·6	13	− 1	67	+ 5	·434	+·043	1·5	+0·5	0	1·1	−1·1	0·03	0·39	−0·36	25·36	24·22	+1·14	0·03	Rawalpindi.
15	1	4	5		2	3	1		S 87° E	N 48° E	2·9	2·8	+0·1	15	−28	42	− 3	·350	−·001	2·6	+2·3	0	0·2	−0·2	0	0·03	−0·03	14·72	10·38	+4·34	0	Khushab.
11		2	2	6	3	3		4	S 28° E		1·6*			20		58		·426		1·9		0			0·04			15·03			0·03	Lyallpur.
6	2	2		4	9	2	2	3	S 10° W†	S 41° E	2·9	3·0	−0·1	27	− 9	33	− 7	·342	−·063	0·9	+0·3	0	0	0	0	0·02	−0·02	7·80	8·22	−0·42	0	Montgomery.
26	4					1			N 12° W	S 40° E	0·9	1·1	−0·2	10	−11	53	− 3	·461	−·001	0·8	+0·4	0	0·1	−0·1	0	0·01	−0·01	10·61	5·03	+5·58	0	Multan.
																																VII.—North-West Frontier Province.
22					7	1		1	S 11° W	S 40° W	1·8	1·7	+0·1	23	+ 9	64	+ 5	·403	+·020	2·2	+1·3	0	0·4	−0·4	0·12	0·12	0	3·49	5·62	−2·13	0·09	Peshawar.
21	4	2	1		1			2	N 9° E	N 34° E	0·7	0·8	−0·1	20	− 5	62	+ 5	·466	+·059	1·1	+0·6	0	0·1	−0·1	0·08	0·04	+0·04	4·28	6·09	−1·81	0·05	D. I. Khan.
																																VIII.—Sind.
21	3	1	1	1	1	1		2	N 7° E	N 41° E	1·7	1·5	+0·2	9	− 2	59	+ 7	·550	+·112	0·5	+0·2	1	0	+1·0	0·40	0	+0·40	3·17	2·40	+0·77	0·40	Jacobabad.
	4			3	10	9	1	4	S 35° W	S 56° W	3·8	6·3	−2·5	49	+20	71	+18	·662	+·167	0	−0·6	0	0	0	0	0	0	19·47	6·24	+13·23	0	Hyderabad.
12	2		1			1	9	6	N 67° W	N 50° W	6·0	6·9	−0·9	46	+17	76	+10	·769	+·101	0·5	−0·7	0	0	0	0	0	0	12·01	6·19	+5·82	0	Karachi.
																																IX.—Rajputana.
1	1	2	3	3	4	8	7	2	S 43° W	S 48° W	4·7	3·6	+1·1	33	−11	35	−12	·341	−·105	0·8	−0·1	0	0·3	−0·3	0	0·08	−0·08	4·93	10·28	−5·35	0	Bikaner.
12		5	2	1	1	6	4		S 41° W		2·3			10		37	− 4	·366		0·5		0	0·2	−0·2	0	0·11	−0·11	6·85	12·51	−5·66	0	Jodhpur.
8	7	4	2			1	1	8	N 10° W	N 42° W	3·2*	2·3	+0·9	49	+ 2	37	−13	·360	−·085	1·8	+0·7	0	0·5	−0·5	0·02	0·26	−0·24	13·88	22·44	−8·56	0·01	Jaipur.
15		1		1	5	3	6	N 88° W	S 82° W	2·5	2·0	+0·5	32	+ 3	54	− 5	·479	+·015	1·4	+0·4	0	0·5	−0·5	0	0·22	−0·22	13·16	19·60	−6·44	0	Ajmer.
16	3		1		1	5	5	N 59° W			1·4			33		34	−13	·389		2·4		0	0·4	−0·4	0	0·31	−0·31	18·55	26·83	−8·28	0	Kotah.
																																X.—Bombay.
1	5	14	3	2	2	2	1	1	N 46° E	S 77° E	4·8	4·8	0	49	+13	57	+ 7	·554	+·067	2·3	+1·0	0	0·3	−0·3	0	0·21	−0·21	35·64	23·56	+12·08	0	Deesa.
8	2	2			1	3	8	7	N 69° W	N 62° W	2·9	5·0	−2·1	49	0	68	+ 8	·569	+·064	2·9	+1·8	0	0·4	−0·4	0	0·24	−0·24	38·37	13·61	+24·76	0	Bhuj.
1	2	5	3		1	11	5	3	S 82° W		6·0			27		64		·722		0·4		0	0	0	0	0·01	−0·01	25·32	18·86	+6·46	0	Jamnagar.
	13	1		1	3	4	3	6	N 37° W		6·2			46		80	+ 2	·825		2·5		0	0·1	−0·1	0	0·04	−0·04	17·35	13·70	+3·65	0	Dwarka.
3	8	3			3	3	2	9	N 36° W	N 5° W	4·2	4·2	0	46	+ 7	68	+ 1	·670	+·012	2·9	+1·7	0	1·0	−1·0	0·06	0·39	−0·33	28·61	26·01	+2·60	0·05	Rajkot.
8	9	2		1	3	1	1	6	N 21° W	N 2° E	5·2	4·5	+0·7	37	−28	64	− 2	·649	−·013	1·9	−0·4	0	0·5	−0·5	0	0·37	−0·37	24·55	17·48	+7·07	0	Veraval.
13	6	1			2	2	6	N 40° W	N 73° W	1·9	5·0	−3·1	40	− 5	57	− 7	·600	−·050	2·3	+0·8	0	0·4	−0·4	0	0·24	−0·24	35·95	19·97	+15·98	0	Bhavnagar Para.
8	6	4	5	4	3		1	N 69° E	N 53° E	1·8	3·2	−1·4	37	+19	69	− 4	·674	−·044	2·4	+0·4	1	1·9	−0·9	0·18	1·43	−1·25	37·55	40·73	−3·08	0·18	Surat.
9	5	8	1	1	1	1	5	N 15° E	N 8° E	2·3	2·4	+0·4	40	+ 7	55	− 1	·557	−·004	1·8	+0·1	0	0·5	−0·5	0	0·35	−0·35	35·75	29·20	+6·55	0	Ahmadabad.
	3	15	8	1	1	1	1	1	N 54° E	N 81° E	5·1*	6·6	−1·5	66	− 2	82	0	·813	−·002	4·1	+0·7	4	2·5	+1·5	2·35	1·84	+0·51	70·96	71·23	−0·27	1·51	Bombay.
8	1	5	5	11	1				S 76° E	S 68° E	4·8	4·5	+0·3	53	+13	73	− 5	·739	−·066	4·9	+1·2	5	4·7	+0·3	3·80	3·71	+0·09	72·80	100·38	−27·58	1·47	Ratnagiri.
1		3	13	8	4			2	S 72° E	S 67° E	5·6*	4·5	+1·1	66	+37	91	+ 1	·858	−·022	6·1	+2·1	9	6·0	+3·0	9·43	3·91	+5·52	96·06	91·79	+4·27	4·01	Marmagao.
15	3	8				4		1	N 18° E	N 48° E	1·5	1·8	−0·3	23	−24	91	+ 2	·814	+·001	5·0	+1·0	11	7·1	+3·9	13·90	5·64	+8·26	104·94	119·95	−15·01	4·40	Karwar.

* Uncorrected for scale error.

† Wind observations for 30 days.

Table

(2) *Abstract of observations taken at 8 hrs. at 218 stations*

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.	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.	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	16	17	18	19	20	21	22	23	24
	X.—Bombay—*concld.*																						
26	Malegaon	1,439	28·534	+·026	29·914	28·663	22nd	28·383	14th	·280	77·4	96·4	+5·8	66·1	+0·3	81·2	+3·1	30·3	99·9	5th & 7th	56·1	17th	43·8
	Ahmednagar	2,154	27·617	+·020	29·886	27·937	21st	27·660	14th	·277	76·4	90·8	+2·7	64·8	+0·2	77·8	+1·5	26·0	95·6	1st & 5th	55·0	28th & 29th.	41·6
	Poona	1,849	28·117	+·020	29·912	28·250	22nd	27·961	13th	·289	73·0	91·1	+2·6	65·2	−1·3	78·1	+0·7	25·9	97·0	5th & 6th	57·3	17th	39·7
	Sholapur	1,590	28·356	+·017	29·880	28·477	21st	28·176	14th	·301	78·1	93·4	+3·5	69·5	+1·4	81·4	+2·5	23·9	98·8	3rd, 5th & 6th	63·1	27th	35·7
	Bijapur	*1,948*	28·096	+·026	29·873	28·127	21st	27·841	14th	·285	77·2	90·1	+1·9	69·2	+1·4	79·7	+1·7	20·9	97·2	4th & 6th	61·3	25th	35·9
	Belgaum	2,562	27·417	+·026	29·886	27·527	21st	27·234	13th	·293	73·0	85·5	+0·4	64·5	−0·5	73·9	−0·1	19·0	87·5	6th, 24th & 25th	59·0	28th	28·3
	XI.—Central India.																						
20	Neemuch	1,626	28·342	+·031	29·917	28·478	22nd	28·209	14th	·269	77·2	93·9	+3·5	65·4	+0·9	79·6	+2·2	28·5	98·9	8th & 9th	56·5	15th	42·4
	Indore	1,823	28·135	+·027	29·898	28·264	22nd	28·000	14th	·264	77·4	98·1	+5·2	64·2	+0·6	78·6	+2·9	28·9	97·6	6th	57·1	12th & 16th.	40·5
21	Nowgong	754	29·179	+·020	29·899	29·318	22nd	29·035	14th	·280	76·1	97·0	+6·7	65·8	+0·7	81·4	+3·7	31·2	101·7	9th	58·0	30th	43·7
	Satna	1,641	28·869	+·002	29·875	29·001	22nd	28·696	14th	·305	75·1	95·8	+5·9	65·8	+0·1	75·8	+3·0	28·0	97·8	6th, 7th & 9th	58·2	17th	39·6
	XII.—Central Provinces.																						
22	Buldana	2,132	27·832		29·872	27·959	22nd	27·676	14th	·283	79·6	90·8		69·8		80·3		21·0	94·6	7th	64·4	27th	30·2
	Akola	925	29·027	+·024	29·908	29·144	21st	28·846	14th	·298	79·0	96·5	+5·2	65·5	−0·7	81·0	+2·3	31·0	100·2	5th, 6th & 7th.	58·0	28th	42·2
	Amraoti	1,215	28·728	+·022	29·893	28·852	22nd	28·524	14th	·328	78·8	94·3	+3·7	68·8	+0·6	81·6	+2·1	25·5	96·8	2nd	61·5	28th	37·5
23	Khandwa	1,044	28·906	+·027	29·909	29·043	22nd	28·756	14th	·287	77·4	96·4	+5·3	66·9	+0·6	81·7	+2·9	29·5	100·2	4th & 6th	55·1	15th	41·1
	Hoshangabad	1,066	28·911	+·011	29·915	29·075	22nd	28·784	14th	·291	72·7	94·1	+4·5	64·9	−2·6	79·5	+1·3	29·2	97·6	6th & 8th	58·4	26th	39·2
	Saugor	1,807	28·125	+·008	29·865	28·250	22nd	27·985	15th	·265	79·0	94·0	+6·4	68·1	+2·4	81·1	+4·4	25·9	99·2	4th	59·6	16th	39·7
	Jubbulpore	1,327	28·603	+·014	29·898	28·726	22nd	28·418	14th	·308	72·8	93·1	+5·7	65·3	−0·7	78·2	+2·5	29·8	96·3	6th, 7th & 16th.	54·8	30th	41·5
	Seoni	2,033	28·922	+·027	29·885	28·047	22nd	27·732	14th	·315	76·8	90·5	+3·9	64·7	+0·5	77·6	+2·2	25·8	94·7	2nd	57·5	16th	37·2
	Nagpur	1,017	28·923	+·029	29·897	29·048	22nd	28·713	14th	·335	76·7	94·4	+4·3	67·2	−1·2	80·8	+1·6	27·2	98·6	2nd & 4th	59·8	17th & 28th.	38·8
24	Pendra	2,123P	27·893		29·878	28·026	22nd	27·690	14th	·336	75·7	88·4		64·6		76·5		23·8	91·6	5th	58·1	30th	33·5
	Raipur	970	28·954	+·012	29·882	29·077	22nd	28·722	14th	·355	75·8	92·1	+3·9	70·3	+0·6	81·2	+2·3	21·8	98·7	9th	63·6	17th & 31st.	35·1
	Chanda	*654*	29·290	+·008	29·878	29·423	25th	29·073	14th	·350	75·8	92·2	+2·1	66·0	−2·5	79·1	−0·2	26·2	96·0	5th	57·5	27th	38·5
	Jagdalpur	1,813	28·131		29·888	28·254	25th	27·939	15th	·315	73·7	85·5		65·4		75·5		20·1	94·2	2nd	57·1	26th, 28th & 29th.	37·1
	XIII.—Hyderabad.																						
27	Aurangabad	1,905	28·068	+·005	29·891	28·195	23rd	27·906	14th	·289	79·9	92·5	+2·0	67·5	+1·3	80·0	+1·7	25·6	98·4	9th	59·0	26th	39·4
	Nizamabad	1,248	28·693		29·894	28·820	22nd	28·494	14th	·326	75·4	91·0	+2·1	65·8	−2·5	78·4	−0·2	25·2	95·4	2nd	57·7	28th	37·7
	Bidar	*2,165*									78·9	88·3†		68·2		78·3†		20·1	93·5	6th	62·4	16th, & 17th.	31·1
28	Gulbarga	1,503	28·233	+·006	29·875	28·567	21st	28·238	14th	·329	77·0	92·5	+2·5	69·1	+0·1	80·8	+1·3	23·4	99·1	4th	62·6	28th	36·5
	Raichur	*1,311*	28·638	+·037	29·892	28·748	21st	28·451	14th	·297	78·1	91·3	+2·3	71·9	−0·3	81·6	+1·0	19·4	97·5	5th	67·1	19th	30·4
	Hyderabad (Deccan)	1,738	28·203	+·022	29·875	28·313	21st	27·997	14th	·316	76·1	89·9	+2·3	68·3	+0·2	79·1	+1·3	21·6	95·8	2nd	62·2	21st	33·6
	Hanamkonda	877	28·063	+·018	29·883	29·175	25th	28·841	14th	·334	78·5	91·1	+1·0	69·6	−1·5	80·4	−0·3	21·5	94·0	5th, 6th & 23rd.	63·2	18th	30·8
	XIV.—Mysore.																						
29	Chitaldrug	2,405	27·562	+·024	29·874	27·657	21st	27·385	13th	·272	73·6	84·4	−0·2	67·4	−0·4	75·9	−0·3	17·0	88·1	6th	63·1	21st	25·0
	Hassan	3,142	26·855	+·027	29·876	26·950	22nd	26·715	13th	·235	70·2	81·1	−0·2	64·3	−0·1	72·7	−0·1	16·8	84·4	25th	58·2	22nd	26·2
	Bangalore	3,021	26·977	+·021	29·878	27·071	21st	26·851	14th	·220	70·5	82·2	+0·8	64·4	−0·8	73·3	0	17·8	85·8	18th	58·8	22nd	27·0
	Mysore	2,518	27·459	+·015	29·880	27·556	21st	27·334	13th	·222	72·6	83·1	−1·0	66·6	−0·4	74·8	−0·7	16·5	86·7	8th&25th	60·3	22nd	26·4

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

† Mean of 30 days.

—continued.

in India, etc., in October, 1913—continued.

Wind direction. Number of winds from 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 from 1st May to 31st October, 1913.	Normal rainfall for period, 1st May to 31st October.	Departure from normal of period, 1st May to 31st October, 1913.	Heaviest rainfall during month.	Station.
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
																															X.—Bombay—*concld.*
1			1	4	1	1		S 57° W	N 61° W	4·1	4·2	−0·1	13	−26	50	−13	·478	−·102	1·0	−2·1	2	2·6	−0·6	0·81	1·95	−1·14	15·37	21·71	−6·34	0·58	Malegaon.
3	1	1	2	4	1	1	14	N 49° W	N 36° E	4·0	5·8	−1·8	33	+ 1	54	−14	·485	−·115	2·5	−0·2	3	3·0	0	1·78	1·89	−0·11	22·99	20·50	+2·49	1·15	Ahmadnagar.
1				1		5	1	N 85° W	S 69° E	3·7	4·6	−0·9	16	+ 9	78	+ 7	·625	+·024	2·6	−1·3	3	5·1	−2·1	1·54	3·88	−2·34	25·85	25·47	+1·38	0·82	Poona.
8	2	11	1	2	1	4		S 81° E	N 68° E	6·4	6·0	+0·4	33	+10	51	−12	·483	−·098	3·5	−0·9	4	4·5	−0·5	1·03	3·41	−2·33	15·11	27·28	−12·17	0·44	Sholapur.
2	2	4	8	5	2	2	3	S 41° E	N 77° W	3·3	2·9	+0·4	30	+22	65†	− 9	·607†	−·053	4·1	+0·1	2	4·5	−2·5	3·03	3·04	−0·01	18·59	18·56	+0·03	2·30	Bijapur.
		8	3		1	2	1	S 73° E	N 53° E	7·5‡	7·0	+0·9	23	+ 5	77	− 3	·619	−·006	5·0	+0·5	5	7·8	−2·8	7·50	5·03	+2·47	38·90	45·65	−6·75	0·62	Belgaum.
																															XI.—Central India.
2	2	4			1	5	2	N 23° W	N 2° E	4·3	4·4	−0·1	17	− 1	39	−10	·363	−·092	1·6	+0·5	0	0·7	−0·7	0	0·32	−0·32	27·10	27·65	−0·55	0	Neemuch.
2							1	N 13° E	N 18° E	0·9	1·6	−0·7	10	−15	47	−15	·442	−·100	1·9	+0·5	0	1·9	−1·9	0·07	1·08	−1·01	38·05	31·75	+6·31	0·07	Indore.
1	1	4		1	9	3	1	S 47° W	S 67° W	1·3	1·1	+0·2	27	+ 2	44	−25	·397	−·170	1·9	+0·1	0	1·5	−1·5	0	1·11	−1·11	18·58	40·88	−22·30	0	Nowgong.
		1			1	4		S 79° W	N 27° W	0·6	2·8	−2·2	13	−36	56	−10	·498	−·072	1·1	−0·5	0	2·2	−2·2	0	2·24	−2·24	26·80	41·45	−14·65	0	Sutna.
																															XII.—Central Provinces.
4	1	1	3	8	1	5	6	S 82° W		3·8	3·8	0	23		41		·415		1·9		0	2·8	−2·8	0·02	2·25	−2·23	27·41	32·98	−5·57	0·02	Buldana.
		5	6	4	3	4	3	S 7° E	N 53° E	2·3	2·6	−0·3	27	+ 9	46	−18	·471	−·039	2·5	0	0	2·6	−2·6	0·01	2·08	−2·07	26·94	30·58	−3·64	0·01	Akola.
1	7	9	1	1	2	6	3	N 46° E	N 63° E	3·4	2·8	+0·6	27	− 5	47	−14	·458	−·104	2·8	+0·3	1	2·5	−1·5	0·21	1·93	−1·69	35·86	31·54	+4·32	0·16	Amraoti.
							1	N 45° W	N 2° E	1·8	2·3	−0·5	3	− 8	47	−15	·418	−·093	2·0	+0·1	0	1·9	−1·9	0	1·07	−1·07	39·81	28·62	+11·19	0	Khandwa.
	11	1	4		8	2	5	N 9° E	N 79° E	1·1	1·2	−0·1	9	− 9	58	−15	·468	−·121	4·6	+2·5	0	2·0	−2·0	0	1·33	−1·33	36·92	47·19	−10·27	0	Hoshangabad.
1	3	3	3	6	6	4		S 59° W	S 27° W	3·8	2·3	+1·5	23	+ 9	32	−28	·311	−·199	1·9	+0·4	0	1·8	−1·8	0	0·99	−0·99	21·88	43·63	−21·75	0	Saugor.
	1	6	14	3	5		1	S 45° E	S 27° E	1·0	1·4	−0·4	62	+26	57	−18	·466	−·140	1·5	−0·5	0	2·2	−2·2	0	1·63	−1·63	31·00	52·65	−21·65	0	Jubbulpore.
5	4	1	1	4	1	2	4	N 11° W	N 9° E	2·4	2·0	+0·4	17	− 6	42	−24	·395	−·170	1·5	−0·8	1	2·9	−1·9	0·22	1·76	−1·54	41·80	49·08	−4·28	0·22	Seoni.
6	8	4					4	N 26° E	N 7° E	2·2	2·8	−0·6	53	+24	52	−13	·482	−·113	1·6	−1·2	2	2·8	−0·8	0·47	1·92	−1·45	46·22	46·09	+0·13	0·30	Nagpur.
3	1	1	2	5	3		2	S 7° W		2·4			11		53		·474		1·5		1	2·9	−1·9	0·20	2·46	−2·26	36·71	45·61	−8·90	0·12	Pendra.
		4	4	7	5	4	2	S 10° W	N 27° E	1·8	2·8	+1·0	40	+22	70	− 2	·629	−·025	2·0	−1·4	3	3·3	−0·3	0·70	1·99	−1·29	37·33	47·14	−9·81	0·35	Raipur.
			1		1	2	2	W	N 14° E	1·4	1·7	−0·3	11	− 7	74	+ 2	·662	−·001	3·2	+0·6	2	2·6	−0·6	1·31	1·69	−0·38	52·35	50·00	+2·35	1·18	Chanda.
8	5	5	5	2		1	5	N 39° E		1·6			37		80		·667		1·2		4			3·92			47·11			1·34	Jagdalpur.
																															XIII—Hyderabad.
3	8	9	5	1	1	1		N 78° E		5·7			53		42	−14	·425		3·6		2	2·6	−0·6	0·64	1·70	−1·06	23·27	26·66	−3·39	0·36	Aurangabad.
		1	1	1	2	2	1	S 45° W		2·1			10		65	− 8	·583		2·9		3	2·5	+0·5	1·66	1·75	−0·09	38·89	38·19	+0·79	1·33	Nizamabad.
		1	11		1		2	S 45° E		4·4			32		55		·543		4·3		4	3·6	+0·4	1·79	3·07	−1·28	29·85	33·94	−4·09	0·72	Bidar.
3	5	7	4	1	3	2	2	N 76° E	N 72° E	4·9	6·1	−1·2	27	+ 4	58	−12	·526	−·117	1·8	−1·8	4	3·6	+0·4	3·15	3·06	+0·09	20·73	30·60	−9·87	1·25	Gulbarga.
3	5	3	4	5	4	2	5	S 59° E	S 79° E	4·7	5·3	−0·6	3	− 3	64	− 7	·612	−·061	3·9	+0·5	6	3·6	+2·4	1·77	3·25	−1·48	19·83	26·31	−6·43	0·44	Raichur.
1						4		N 78° W	S 68° E	1·9	2·8	−0·9	10	+ 2	67	− 8	·601	−·067	3·3	−0·3	4	4·5	−0·5	1·71	3·23	−1·52	18·64	28·11	−9·47	0·75	Hyderabad. (Deccan).
2			4	5			4	S 22° E		2·6			13		65	− 5	·631		3·7		3	3·2	−0·2	0·54	1·90	−1·36	27·26	32·01	−4·75	0·21	Hanamkonda.
																															XIV.—Mysore.
1	6	5	1	5	6	4		S 26° W	S 45° W	3·6	4·1	−0·5	20	+ 6	73	− 3	·597	−·048	5·1	−1·0	7	6·8	+0·2	2·75	4·53	−1·78	16·04	21·46	−5·42	1·18	Chitaldrug.
5	7		1	5	5	3		N 3° W	N 53° E	4·3	1·8	+2·5	6	−17	80	− 2	·589	−·037	6·2	−0·9	8	9·7	−1·7	3·32	6·99	−3·67	25·14	29·67	−4·53	0·71	Hassan.
2	9	4		5	10	1		S 13° W	N 1° E	5·2	3·4	+1·8	13	+10	79	− 4	·589	−·038	7·2	+1·1	8	9·4	−1·4	1·55	6·28	−4·73	21·09	29·91	−8·82	0·33	Bangalore.
5	5			7	8	2		W	S 72° W	5·6	5·3	+0·3	19	+ 1	78	− 5	·621	−·038	7·8	+0·8	9	9·5	−0·5	5·38	7·04	−1·66	25·40	25·64	−0·24	1·86	Mysore.

† Mean of 30 days. ‡ Mean of 15 days.

Table

(2) *Abstract of observations taken at 8 hrs. at 218 stations*

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.	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.	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	16	17	18	19	20	21	22	23	24
	XV.—Madras.																						
0	Mangalore	65	29·838	+·010	29·885	29·994	21st	29·768	14th	·226	79·2	85·6	−1·2	74·8	+0·9	80·2	−0·1	10·8	91·8	27th	72·4	4 days	19·4
	Calicut	27	29·928	+·013	29·884	30·013	20th	29·815	14th	·198	77·9	84·5	−1·7	75·1	+0·6	79·8	−0·5	9·4	87·8	28th	72·6	2nd, 8th & 12th.	15·2
	Cochin	9	29·952	+·017	29·889	30·034	20th	29·883	14th	·151	79·5	86·1	−0·1	75·1	+0·5	80·6	+0·2	11·0	89·7	26th & 27th.	71·7	7th	18·0
	Trivandrum	198	29·770	+·030	29·899	29·843	22nd	29·711	14th	·132	77·8	82·5	−0·2	75·0	+2·2	78·8	+1·0	7·5	86·0	22nd	73·5	5 days	12·5
31	Pamban	37	29·890	+·009	29·835	29·996	21st	29·800	14th	·196	80·3	88·6	+1·5	76·9	−0·4	82·7	+0·5	11·7	90·2	5 days	73·8	27th, 28th & 30th.	16·4
	Madura	447	29·498	+·034	29·877	29·608	22nd	29·397	14th	·211	81·0	92·0	+0·7	75·3	+1·3	83·6	+1·0	16·7	98·0	3rd	70·6	22nd	27·4
	Pudukkottai	318	29·623		29·874	29·723	22nd	29·518	14th	·205	79·1	89·5		74·4		81·9		14·9	95·8	3rd	71·2	18th	24·6
	Negapatam	31	29·895	+·012	29·855	30·001	21st	29·776	14th	·225	79·9	87·9	−0·5	74·8	−1·1	81·4	−0·8	13·1	94·7	3rd	70·7	10th	24·0
	Trichinopoly	255	29·690	+·026	29·879	29·796	21st	29·571	14th	·225	79·6	89·7	−1·3	74·4	+0·1	82·1	−0·6	15·3	96·1	3rd	71·3	22nd	24·8
	Coimbatore	1,341	28·610	+·025	29·889	28·712	21st	28·497	14th	·215	75·9	87·6	−1·3	71·0	+0·4	79·0	−0·5	16·0	94·0	3rd	65·3	22nd	28·7
	Salem	913	29·034	+·027	29·887	29·139	22nd	28·930	14th	·209	77·4	88·7	−0·9	72·0	+0·9	80·3	0	16·7	95·0	18th	60·8	22nd	34·2
	Cuddalore	37	29·897	+·024	29·864	30·008	22nd	29·775	14th	·233	78·8	87·0	−1·1	75·2	+0·5	81·1	−0·3	11·8	92·8	18th & 19th	72·2	27th & 28th.	20·6
	Vellore	707	29·225		29·874	29·346	22nd	29·071	14th	·275	77·2	88·2		71·8		80·0		16·4	94·7	18th	65·0	21st & 22nd.	29·7
	Madras	22	29·909	+·015	29·863	30·022	25th	29·746	14th	·276	79·8	88·6	−0·4	74·3	−0·8	81·5	−0·6	14·3	95·0	17th	69·0	31st	26·0
32	Cuddapah	433	29·504	+·022	29·878	29·612	22nd	29·296	14th	·316	78·3	90·1	−1·8	71·5	−2·7	80·8	−2·3	18·6	96·5	5th	67·3	11th	29·2
	Bellary	1,475	28·459	+·016	29·874	28·572	22nd	28·285	14th	·287	76·6	91·3	+1·6	70·8	−0·3	81·1	+0·7	20·5	97·0	5th & 6th	66·3	22nd	30·7
	Kurnool	923	29·023	+·033	29·897	29·138	21st	28·820	14th	·318	76·8	90·1	−0·8	71·2	+0·2	80·6	−0·3	18·9	98·5	6th	65·1	19th	33·4
33	Nellore	66	29·856	+·021	29·857	29·976	22nd	29·662	14th	·314	80·0	90·2	−1·0	74·4	−1·4	82·3	−1·2	15·8	97·5	17th	71·1	31st	26·4
	Masulipatam	15	29·920	+·032	29·870	30·039	22nd	29·712	14th	·327	80·0	88·3	−0·6	75·1	−0·9	81·7	−0·7	13·2	92·5	16th & 19th	72·2	17th & 20th.	20·1
	Cocanada	26	29·915	+·036	29·879	30·037	22nd	29·688	14th	·349	79·3	86·4	−1·5	74·6	−1·2	80·5	−1·3	11·8	92·7	17th	70·6	20th	22·1
	Waltair (Vizagapatam.)	*226*	29·704	+·026	29·872	29·831	22nd	29·440	14th	·391	80·5	86·7		75·5		81·1		11·2	91·6	18th	72·9	4 days	18·7
	Calingapatam	19	29·906		29·863	30·038	22nd	29·634	14th	·404	77·7	84·0		76·5		80·3		7·5	88·3	4th	72·3	20th	16·0
	Gopalpur	52	29·872	+·022	29·864	30·003	22nd	29·560	14th	·443	78·5	87·4	−0·2	73·9	−0·3	80·6	−0·3	13·5	89·7	20th & 21st	68·5	26th	21·2
	Bay Islands.																						
	P. V. Fraser	8	29·925		29·870	30·070	22nd, 23rd & 25th, 22nd	29·700	15th	·370	82·9												
	Port Blair	58	29·878	+·018	29·866	29·953	22nd	29·807	13th	·146	80·4	85·4	−1·5	76·7	−0·6	81·1	−1·1	8·7	88·2	22nd, 27th & 28th.	74·0	8th & 11th.	14·2
	Table Island	90	29·815		29·839	29·901	22nd	29·721	31st	·180	81·6	85·5		75·4		82·0		7·1	88·1	21st	73·1	31st	15·0
	Kashmir.																						
13	Muzaffarabad		27·591			27·738	30th	27·464	15th & 16th.	·274	62·1	84·2		51·2		67·7		33·0	91·7	1st & 7th	42·1	22nd	49·6
	Srinagar	5,204	24·996	+·011	24·967	25·086	27th	24·866	15th	·220	47·9	70·2	+0·5	39·3	−0·5	54·7	0	30·9	79·1	2nd	33·3	31st	45·8
	Gulmarg	*8,569*													Observatory		closed	for					
	Dras	*10,059*	20·894	+·010	20·862	20·977	24th	20·803	16th	·174	32·9	54·1		24·4		39·2		29·7	64·4	6th	17·5	31st	46·9
	Leh	*11,503*	19·797	+·017	19·765	19·889	24th	19·705	28th	·184	40·7	58·2	−0·4	30·2	+0·3	44·2	−0·1	28·0	64·8	6th	21·8	31st	43·0
	Skardu	*7,505*	22·983	+·021	22·953	23·082	24th	22·894	15th	·188	48·5	65·4	−1·0	41·3	−0·3	53·4	−0·7	24·1	74·3	6th	32·2	31st	42·1
	Gilgit	4,890	25·280		25·253	25·392	2nd	25·112	1st	·280	58·8	74·4	+0·5	51·2	−1·9	62·8	−0·7	23·2	85·7	1st	42·2	30th	43·5

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 3,000 feet.

3—continued.

n India, etc., in October, 1913—continued.

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 from 1st May to 31st October, 1913.	Normal rainfall for period, 1st May to 31st October.	Departure from normal of period, 1st May to 31st October, 1913.	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
																																XV.—Madras.
2	1	1	13	8	2	1	2	1	S 69° E	S 89° E	4·2	1·6	+2·6	56	+16	82	− 5	·825	−·019	6·5	+0·6	8	9·8	− 1·8	17·50	6·91	+10·59	108·53	122·13	−13·60	7·15	Mangalore.
13		1	5	6	1	3		2	S 51° E	N 76° E	3·5	5·4	−1·9	27	−20	90	+ 4	·854	+·018	6·7	+1·0	18	10·9	+ 7·1	19·01	9·70	+ 9·31	107·82	106·14	+ 1·68	4·20	Calicut.
3		7	8	5		5	2	1	S 82° E	N 34° E	4·1*	3·2	+0·9	33	−21	83	− 2	·828	−·023	6·3	+0·6	13	14·0	− 1·0	9·93	13·06	− 3·13	89·56	97·26	− 7·70	2·16	Cochin.
12	8	3					3	5	N 18° W	N 14° W	3·3*	3·7	−0·4	49	+ 1	85	+ 1	·807	−·003	8·5	+1·7	16	11·9	+ 4·1	16·07	10·49	+ 5·58	47·35	47·21	+ 0·14	4·82	Trivandrum.
5	5	3	1		5	7	3	2	S 78° W	S 68° W	7·7	6·3	+1·4	20	− 2	84	+ 4	·863		4·2		7	9·7	− 2·7	13·33	9·65	+ 3·68	16·28	13·01	+ 3·27	5·03	Pamban.
1	6	5	1			3	7	8	N 38° W	N 14° W	6·0	1·8	+4·2	53	− 8	74	0	·769	+·013	7·3	+1·5	8	10·8	− 2·8	4·06	8·51	− 4·45	11·56	24·13	−12·57	0·87	Madura.
6	10	4			2	2	1	5	N 16° W		4·7			48		79		·784		7·3		14	9·0	+ 5·0	10·70	5·60	+ 5·10	25·50	23·60	+ 1·90	2·82	Pudukkottai.
	5	2				9	11	4	N 81° W	N 85° W	5·9	3·4	+2·5	62	+22	85	+ 4	·862	0	6·9	+0·5	14	10·1	+ 3·9	20·06	10·84	+ 9·22	31·72	23·35	+ 8·37	5·26	Negapatam.
4	2	3			1	5	11	5	N 79° W	N 77° W	2·3*	2·8	−0·5	53	+17	78	− 2	·783	−·020	5·5	−0·8	14	9·5	+ 4·5	9·12	7·15	+ 1·97	22·56	21·80	+ 0·76	1·92	Trichinopoly.
21	1	1			4	3	1		S 29° W	S 4° E	4·3	2·0	+2·3	17	− 8	85	− 2	·757	−·017	5·0	−0·7	9	9·9	− 0·9	4·11	6·62	− 2·52	9·24	14·68	− 5·44	1·19	Coimbatore.
18					4	1	8		S 62° W	S 40° W	2·0	1·8	+0·2	33	+22	79	− 2	·746	−·035	7·4	+1·5	10	10·2	− 0·2	6·82	6·66	+ 0·16	27·00	32·35	− 5·35	2·32	Salem.
8	3	1			1	6	6	6	N 79° W	N 69° W	3·1	1·6	+1·5	46	− 1	86	− 2	·811	−·068	6·5	+0·5	14	10·7	+ 3·3	23·59	11·62	+11·97	42·08	28·47	+13·61	5·73	Cuddalore.
21						4	5	1	S 76° W		1·3			28		83		·778		4·0		8	7·5	+ 0·5	4·55	6·98	− 2·43	16·57	33·34	−16·77	1·31	Vellore.
	6	1			3	7	7	7	N 77° W	N 83° W	3·6*	3·5	+0·1	53	+21	86	+ 3	·856	−·007	5·5	−0·2	14	10·6	+ 3·4	28·13	11·27	+16·86	37·24	28·42	+ 8·82	6·86	Madras.
3	2	4	1	5	3	3	7	3	S 64° W	N 72° E				13	− 9	77	+ 2	·751	−·027	4·5	−0·4	11	6·4	+ 4·6	10·56	5·08	+ 5·48	20·66	26·25	− 5·59	2·80	Cuddapah.
10	2	1	2	3	4	2	4	3	S 45° W	N 62° W	2·6	3·1	−0·5	13	+ 6	72	+ 4	·665	+·030	4·0	−1·7	7	6·4	+ 0·6	5·31	3·98	+ 1·33	14·24	16·67	− 2·43	1·85	Bellary.
25	1	1					3	1	N 52° W	N 66° W	2·6*			10	+ 3	73	0	·690	−·017	3·5	−0·6	8	4·9	+ 3·1	6·42	3·30	+ 3·12	17·50	24·28	− 6·78	1·95	Kurnool.
7	3	1	1		3	3	3	10	N 62° W	N 68° W	2·3*	3·2	−0·9	40	+22	80	− 1	·818	−·062	5·9	+0·4	7	8·1	− 1·1	12·14	8·32	+ 3·82	21·88	21·05	+ 0·83	5·59	Nellore.
6	7	7	1		1		3	6	N 5° W	N 1° E	3·5	3·4	+0·1	49	+ 9	80	− 4	·816	−·066	3·9	−1·3	11	8·4	+ 2·6	16·25	7·96	+ 8·29	31·48	32·44	− 0·96	4·70	Masulipatam.
14	5	7					4	1	N 1° E	N 11° W	2·9	5·5	−2·6	34	−27	80	+ 3	·806	+·006	4·9	+0·1	9	8·2	+ 0·8	14·85	7·99	+ 6·86	36·45	31·13	+ 5·32	3·42	Cocanada.
	3	13				6	8	1	N 24° W	N 74° W	3·6			33	−12	75	0	·775	−·035	5·4	+0·6	8	6·7	+ 1·3	13·88	6·45	+ 7·43	32·80	30·08	+ 2·72	6·24	Waltair (Vizag.).
	8	2	1			2	5	13	N 37° W		5·1			69		87		·825		3·0		7	4·8	+ 2·2	7·88	4·43	+ 3·45	26·81	29·15	− 2·34	2·45	Calingapatam.
	14		1		1	2		13	N 25° W	N 23° W	5·5	5·8	−0·3	76	+ 1	82	0	·796	−·023	3·7	−0·8	7	6·9	+ 0·1	9·02	8·29	+ 0·73	37·17	38·42	− 1·25	3·27	Gopalpur.
																																Bay Islands.
2	5	7	3	1	3	8	2		N 45° E					3		85		·957		3·9		4			3·31			42·81			1·80	P. V. Fraser.
12			5	3	3		6	2	S 5° W	S 68° W	5·9	4·6	+1·3	12	− 6	85	− 4	·892	−·043	5·2	−1·2	20	15·4	+ 4·6	11·38	10·89	+ 0·49	81·74	96·07	−14·33	1·97	Port Blair.
5		2	7	3	4	6	3	1	S 18° E		5·9			27		83		·887		6·9		9	10·3	− 1·3	11·09	6·53	+ 4·56	58·29	70·38	−12·09	4·46	Table Island.
																																Kashmir.
	3	2	1	3	13	6	2	1	S 8° W		0·5			45		59		·332		0·9		0			0·07			27·89			0·05	Muzaffarabad.
9	2	2		7	7	2		2	S 23° E	S 51° E	2·6	2·2	+0·4	30	+ 8	74	−14	·246	−·036	1·5	−0·9	1	2·5	− 1·5	0·47	1·08	− 0·61	5·84	12·54	− 6·70	0·43	Srinagar.
				wi	nt	er			months.																							Gulmarg.
28						1	1	1	W		4·0			8		69‖	0	·151‖		1·5		0	1·4	− 1·4	0·01	0·42	− 0·41	3·06	6·82	− 3·76	0·01	Dras.
27					3	1			S 11° W	S 83° W	2·3	1·5	+0·8	13	−30	39	−14	·095	−·027	1·8	−0·6	0	0·1	− 0·1	0	0·17	− 0·17	1·57	1·82	− 0·25	0	Leh.
20		4	4			1	2		N 62° E		3·7			13		54	−15	·184		2·4		0	0·1	− 0·1	0·03	0·06	− 0·03	1·01	3·73	− 2·72	0·03	Skardu.
30			1						E		0·2			3		58	+11	·287	+·059	3·8	+0·4	1	0·6	+ 0·4	0·24	0·25	− 0·01	2·60	3·00	− 0·40	0·24	Gilgit.

* Uncorrected for scale error.

‖ Mean of 16 days.

Table

(2) *Abstract of observations taken at 8hrs. at 218 stations*

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.	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.	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	16	17	18	19	20	21	22	23	24
	Baluchistan.																						
15	Fort Sandeman		25·483		25·452	25·605	22nd	25·369	16th	·236	58·2	81·1		53·2		67·1		27·9	91·1	6th	45·6	30th	45·5
	Quetta	5,502	24·732	+·004	24·692	24·841	22nd	24·638	15th	·203	49·0	76·8	+2·2	42·7	+4·4	59·8	+3·3	34·1	87·1	5th	33·5	13th	53·6
	Chaman	4,311	25·765	—·034	25·727	25·881	25th	25·644	7th	·237	61·6	80·4	+1·6	55·7	+2·8	68·0	+2·2	24·7	91·6	5th & 6th	47·0	31st	44·6
	Kalat	6,630	23·835		23·797	23·931	22nd & 25th.	23·739	15th	·192	43·9	72·8		39·3		56·1		33·5	84·0	6th	29·7	13th	54·3
	Dalbandin	2,779	27·181		27·144	27·311	26th	27·041	6th	·270	61·6	91·4		54·9		73·2		36·5	103·3	5th	43·7	8th	59·6
	Pasni		29·932		29·892	30·112	22nd	29·812	16th	·300	76·0	89·7		71·1		80·4		18·6	97·5	14th	66·0	14th	31·5
	Panjgur		26·511		26·769	26·920	22nd	26·705	6th	·215	61·1	88·2		57·5		72·9		30·7	98·8	5th	49·0	12th & 16th.	49·8
	Robat		26·938		26·896	27·033	25th	26·790	19th	·293	67·1	92·1		63·7		77·9		28·4	105·2	3rd	56·6	30th	49·4
	Hill Stations excluding Kashmir and Baluchistan.																						
	Para Chinar	6,000	24·525		24·501	24·619	21st & 22nd.	24·412	15th & 16th.	·207	59·3	72·6		48·0		60·3		24·6	82·6	5th	40·7	30th	41·9
	Cherat	*4,956*	25·796	+·043	25·764	25·897	21st	25·649	16th	·248	64·1	75·7	—2·9	58·6	+1·4	67·2	—0·7	17·1	84·3	6th	49·8	30th	34·5
	Drosh		(c) 25·217			25·360	24th	25·100	1, 15 & 16th	·260	53·2	72·4		50·1		61·2		22·3	89·2	5th	44·3	13th	44·9
	Murree	6,333	23·935	+·016	23·903	24·017	22nd	23·807	16th	·210	57·2	66·5	—2·8	54·4	+1·1	60·5	—0·9	12·1	72·2	1st	42·3	13th	29·9
	Simla	7,232	23·201	+·031	23·163	23·277	21st	23·068	16th	·209	55·7	63·2	+0·8	51·5	+0·5	57·4	+0·7	11·7	67·8	11th	41·7	30th	26·1
	Sarain																						
	Kalabagh		20·187		20·149	20·263	9th	20·050	16th	·180	41·5	48·0		36·1		42·1		11·9	53·0	11th	27·7	31st	25·3
	Chakrata	7,022	23·370	+·030	23·330	23·445	21st	23·233	16th	·212	55·4	69·8¶	+3·6¶	50·0	—0·9	60·5¶	+1·3	19·8	71·7	10th	39·9	28th	31·8
	Mukteswar	7,592	22·922	+·002	22·881	22·996	26th	22·738	16th	·268	54·9	64·7	—1·5	47·3	—2·7	56·0	—2·1	17·4	69·5	1st & 2nd	35·0	28th	34·5
	Darjiling	7,376	23·076	—·015	23·031	23·165	26th	22·925	16th	·240	55·3	62·2	+1·7	50·2	+0·4	56·2	+1·1	12·0	69·3	11th	40·2	31st	29·1
	Shillong	4,920	25·200		25·152	25·293	26th	25·041	16th	·252	62·1	71·1		54·6		62·9		16·5	74·9	10th	45·7	31st	29·2
	Cherrapunji	4,309	25·830		25·771	25·888	22nd	25·687	16th	·201	65·4	70·6		60·3		65·5		10·3	76·7	10th	52·1	31st	24·6
	Maymyo	3,546	26·491	+·025	26·436	26·576	22nd	26·417	14th	·159	67·3	75·5	—1·4	62·1	+2·6	68·8	+0·6	13·4	79·0	8th	57·1	27th	21·9
	Pachmarhi	3,528	26·523	+·031	26·470	26·643	22nd	26·367	14th	·276	72·1	83·2	+5·1	58·9	—0·8	71·1	+2·1	24·3	88·0	8th	52·6	30th	35·4
	Mount Abu	3,945	26·139	+·027	26·089	26·253	22nd	26·025	15th	·228	73·6	80·1	+1·3	64·9	+0·6	72·5	+0·9	15·2	85·2	10th	60·9	19th	24·3
	Mercara	3,781	26·236	+·002	26·171	26·323	22nd	26·127	13th	·196	65·3	75·4	—0·4	62·0	—0·2	68·7	—0·3	13·4	79·5	25th	60·0	21st & 22nd.	19·5
	Dotacamund	*7,327*	23·082		23·018	23·146	21st & 22nd.	22·976	14th	·170	57·3	64·5		50·9		57·7		13·6	70·0	4th	43·2	21st & 22nd.	26·8
	Kodaikanal	7,688	22·852	+·009	22·787	22·914	22nd	22·774	11th	·140	56·0	63·1	+0·4	51·4	+0·1	57·3	+0·3	11·7	67·5	5th	46·0	22nd	21·5
	Extra India.																						
	Singapore (a)	10																					
	Penang (a)	17	29·895		29·837	29·960	22nd	29·825	2nd	·135	79·1	86·3		72·7		79·5		13·6	92·0	1st & 31st	71·0	4 days	21·0
	Trincomalee	99	29·832	?	29·860	29·924	21st	29·756	14th	·168	77·4	90·7	+2·3	75·0 **	—0·5 **	82·8 **	+0·9	15·7	98·0	4th	72·0	27th	26·0
	Colombo	24	29·933	+·006	29·888	30·002	20th	29·869	29th	·133	76·7	85·6	—0·1	74·9	—0·5	80·3	—0·3	10·7	88·0	24th	71·5	23rd	16·5
	Hambantota		29·877		29·867	29·948	21st	29·820	1st	·128	76·5	87·2		75·3		81·3		11·9	93·0	1st & 3rd	71·5	6th	21·5
	Minicoy	7	29·987			30·065	20th	29·910	6th	·155													
	Amini Divi	*13*	29·939	+·009	29·880	30·097	21st	29·849	11th	·198	81·6	87·5	+2·3	77·1	+0·6	82·3	+1·5	10·4	91·4	25th	71·7	20th	19·7
	Gyantse	13,120																					
	Pharijong	14,400									33·3	49·4		14·1		31·7		35·3	56·8	13th	1·4	31st	55·4
	Gangtok	5,6602	24·487		24·442	24·518	13th	24·444	2nd	·074	61·2	71·1		55·7		63·4		15·4	75·7	2nd & 11th	47·2	30th	28·5
	Gartok §§	15,100	(c) 17·619			17·800	30th	17·100	2nd	·400	23·1	43·0		12·7		27·8		30·3	58·4	14th	6·1	24th	52·3

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.

(c) Aneroid corrected and not reduced to sea-level.

** Mean of 30 days.

¶ " " 27 "

§ " " 26 "

B—*continued.*

in India, etc., in October, 1913—continued.

Wind direction. Number of winds from Calm. (25)	N. (26)	N.E. (27)	E. (28)	S.E. (29)	S. (30)	S.W. (31)	W. (32)	N.W. (33)	Resultant direction. (34)	Normal direction. (35)	Wind velocity. Mean velocity, miles per hour. (36)	Normal. (37)	Departure from normal. (38)	Wind steadiness. Actual percentage. (39)	Departure from normal. (40)	Hygrometry, 8 hrs. Mean humidity at 8 hrs. (41)	Departure from normal. (42)	Mean vapour tension at 8 hrs. in inches of mercury. (43)	Departure from normal in inches of mercury. (44)	Cloud. Mean cloud amount at 8 hrs. (45)	Departure from normal. (46)	Rainfall. Number of rainy days. (47)	Normal number of rainy days. (48)	Departure from normal. (49)	Rainfall of month. (50)	Normal rainfall of month. (51)	Departure from normal. (52)	Total rainfall from 1st May to 31st October, 1913. (53)	Normal rainfall for period, 1st May to 31st October. (54)	Departure from normal of period, 1st May to 31st October, 1913. (55)	Heaviest rainfall during month. (56)	Station. (57)
																																Baluchistan.
19		1	4	1	1	3	2		S 22° E		2·5			10		59		·288		0·8		1			0·91			8·38			0·86	Fort Sandeman.
29						1	1		S 66° W	N 59° W	1·8	1·4	+0·4	7	+ 4	64	+20	·227	+·036	1·3	+0·9	1	0·2	+0·8	0·19	0·09	+0·10	0·48	1·91	—1·43	0·10	Quetta.
17			5	8	1				S 58° E	S 45° E	3·1‖	5·8		43	—11	41	+18	·232	+·051	0·9	+0·3	0	0·2	—0·2	0	0·07	—0·07	0·49	0·29	+0·20	0	Chaman.
14				2	12	3			S 3° W	S 11° E	3·8			49	+ 3	55		·159		1·5		2	0·2	+1·8	0·22	0·04	+0·18	1·19	1·41	—0·22	0·12	Kalat.
11	1	1	1	2		1	6	8	N 60° W		4·2			33		38		·209		0·8		0			0·02			0·22			0·02	Dalbandin.
16			3	1		2	6	3	W		3·4			19		85		·760		3·1		0			0			0·01			0	Pasni.
4		17	8	1			1		N 60° E		3·9			72		69		·374		0·4		0			0			0·38			0	Panjgur.
3			1				26	1	N 88° W		3·4			86		42		·283		0·2		0			0			0			0	Robat.
																																Hill Stations excluding Kashmir and Baluchistan.
28		1					1	1	N 38° W		0·9			3		50		·243		1·5		4	2·0	+2·0	1·44	0·78	+ 0·66	14·03	13·78	+0·25	0·40	Para Chinar.
	13	3		1	4	3	2	5	N 22° W	N 11° W	7·8	7·4	+0·4	43	— 8	41	+ 5	·242	+·018	2·5	+1·6	0	0·9	—0·9	0·03	0·29	— 0·26	10·92	13·59	—2·67	0·02	Cherat.
									S 15° E		2·3			23		60		·235		3·2		6	2·3	+3·7	2·73	1·25	+ 1·48	7·00	6·50	+0·50	0·74	Drosh.
26		1	1	3	3	3			N 51° E	N 27° W	3·1	4·5	—1·4	23	+ 4	44	+ 2	·207	+·003	1·9	+0·6	2	2·3	—0·3	0·54	1·27	— 0·73	39·56	39·42	+0·14	0·36	Murree.
14	3	7	1	1	3	1		1								44	— 5	·192	—·016	0·4	—0·4	1	1·3	—0·3	0·37	0·87	— 0·50	39·29	51·28	—11·99	0·26	Simla.
																							1·4			1·12			40·34			Sarain.
									N 23° W		5·5			26		56		·144		0·2		4	1·0	+3·0	1·18†	1·49	— 0·31	33·55‡	55·00§	—21·45	0·58	Kalabagh.
2	12	1			10			6	N 27° E	N 39° E	2·0	4·5	—2·5	30	— 2	59	— 1	·258	—·026	1·0	0	2	1·2	+0·8	0·51	0·82	— 0·31	51·22	57·62	—6·40	0·24	Chakrata.
18	7	3	2		1				N 53° W		5·5			20		60	+ 4	·258		1·6		1	1·4	—0·4	0·21	1·70	— 1·49	34·20	41·99	—7·79	0·17	Mukteswar.
13	2	2	2	2			8	2	E	N 73° E	0·5	2·4	—1·9	5	—27	90	+ 1	·392	+·012	5·0	—0·7	5	4·3	+0·7	2·72	4·49	— 0·77	119·58	113·43	+ 6·15	1·63	Darjiling.
29		1		1					E		0·3			3		84		·478		4·2		10	9·8	+0·2	7·79	6·07	+ 1·72	82·52	75·05	+ 7·47	2·51	Shillong.
30			1																													
2		9	11	3	1	3	2		N 86° E		2·8			49		87		·547		3·7		8	8·7	—0·7	33·94	14·52	+19·42	348·23	362·20	—13·97	10·26	Cherrapunji.
22		1		2		6			S 23° W		1·3			20		95	+ 6	·635		7·5		24	12·0	+12·0	14·65	7·15	+ 7·50	58·56	50·47	+8·09	1·18	Maymyo.
19	3			1		1		7	N 37° W	N 34° E	0·6	2·3	—1·7	30	+19	51	— 4	·401	—·023	0·8	—1·8	0	3·0	—3·0	0	1·91	— 1·91	75·73	72·37	+3·36	0	Pachmarhi.
9	4	5			3	7	1	2	N 75° W	N 27° W	3·5	3·6	—0·1	13	— 5	41	— 3	·338	+·001	1·0	—0·1	1	0·6	+0·4	0·10	0·59	— 0·49	77·63	59·50	+18·13	0·10	Mount Abu.
4	1	7	5		6	1	4	3	N 68° E	N 27° E	4·0	3·1	+0·9	10	—15	91	+ 3	·557	—·026	7·3	+0·7	12	13·3	—1·3	10·23	8·62	+ 1·61	106·81	119·62	—12·81	1·90	Mercara.
4			7	9	3	4	4		S 28° E		3·1			46		81		·379		7·8		14	14·6	—0·6	7·46	8·71	— 1·25	35·21	44·10	- 8·89	2·69	Ootacamund.
1	4	5	2	2			8	9	N 31° W		8·2*			46		87	+ 3	·391		7·1		12	15·8	—3·8	5·57	10·93	— 5·36	28·98	39·67	—10·69	1·20	Kodaikanal.
																																Extra India.
																							11·8			7·32			40·12			Singapore.
		20		5		1		5	N 45° E		10·2*			59								21	18·1	+2·9	16·88	16·93	— 0·05	76·62	64·55	+12·07	2·10	Penang.
1						27	2	1	S 50° W	S 45° W	5·8*	6·2	—0·4	92	+17	88 **	+ 4	·822 **	—·061	6·4	+3·0	15	10·8	+4·2	9·85	7·61	+ 2·24	20·00	22·35	—2·35	2·02	Trincomalee.
11		7	1			4	4	4	N 37° W	S 41° W	3·3*	5·4	—2·1	23	—19	90	+10	·820	—·035	8·7	+2·5	15	15·9	—0·9	5·10	14·94	— 9·84	27·71 ††	46·52	—18·81	0·75	Colombo.
	4	4					8	15	N 42° W		8·8*			72		90		·822		5·2		7			8·89			10·17			3·85	Hambantota.
	4	2			1	7	8	9	N 72° W	N 78° W	7·2	5·4	+1·8	61	+ 4					4·5	—0·9	12	11·3	+0·7	6·07	8·22	— 2·15	44·87	46·74	—1·87	1·66	Minicoy.
2	4	5	3	3		4	5	5	N 27° W		6·0			23		80	— 2	·862	—·024	6·1	0	8	9·1	—1·1	5·52	5·98	— 0·46	59·04	47·24	+11·80	2·44	Amini Divi.
																																Gyantse.
26				5					S 45° E		7·2			13		70		·135		2·3		0			0·12			23·96			0·03	Phariong.
28		3							N 45° E		1·1 ‡‡			10		89		·481		0·7		8	9·1	—1·1	6·64	5·34	+1·30	103·30	112·30	—9·00	1·84	Gangtok.
13			2	4	6				S 34° E		4·9			42						1·2		0			0			2·87			0	Gartok.

* Uncorrected for scale error.
‖ Mean of 10 days.
† Snow water.
†† Rainfall since 15th August, 1913.
‡ Rainfall since 7th June, 1913.
‡‡ Mean of 25 days.
§ Normal rainfall since 1st June.

Table

(2) *Abstract of observations taken at 8 hrs. at 218*

Station.	Elevation of barometer 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.
2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Extra India—*concld.*																						
Kashgar (c) (d)	4,255	25·683			25·830	27th	25·589	17th	·241	45·1	70·8	+5·5	40·0	+1·6	55·4	+3·5	30·8	75·9	19th	34·3	30th & 31st.	41·6
Kabul§		24·247			24·310	4th	24·210	2nd, 8th & 15th.	·100	55·6	80·8	—8·0	54·1	+1·5	67·4	—3·3	26·7	93·2	6th	46·6	12th	46·6
Meshed	3,104	26·890		30·043	27·093	25th	26·728	18th	·365	53·4	71·4		44·7	+0·1	58·1		26·7	90·6	3rd	36·9	21st & 23rd.	53·7
Jask	13	29·927	—·009	29·892	30·082	22nd	29·796	6th	·286	79·5	92·1	+1·4	77·1	+1·6	84·6	+1·5	15·0	98·8	11th	73·3	13th	25·5
Muscat	20	29·932	—·018	29·900	30·056	26th	29·785	3rd	·271	85·6	96·3	+10·5	81·1	0	88·7	+5·3	15·2	101·3	1st, 3rd & 6th.	77·1	4 days	24·2
Bahrein	18									82·2*	89·5		76·1		82·8		13·4	99·7	2nd	68·5	30th	31·2
Bushire	14	29·936	—·009	29·912	30·059	25th	29·795	1st	·264	76·7	88·6	+0·8	71·3	+0·1	80·0	+0·5	17·3	95·3	26th	66·0	30th	29·3
Busrah	25	29·948‡ (c)		29·942‡	30·047	25th	29·806	1st	·241	76·1	93·8*		69·6		81·7*		24·2	105·3	1st	64·1	6th	41·2
Kerman		24·520 (b)			24·720	27th	24·370	6th & 18th	·350	54·3	83·6		43·3		63·5		40·3	93·6	3rd	37·5	12th	56·1
Ispahan	5,817	24·363 (b)			24·560	10th	24·210	19th	·350	58·3	77·7	+0·3	48·7	+4·3	63·2	+2·3	29·0	88·4	1st & 2nd	40·2	24th	48·2
Tehran	4,002	25·811			25·975	10th	25·653	18th	·325	60·2	73·5	—4·0	53·5	—0·6	63·5	—2·3	20·0	88·0	3rd	46·5	20th & 24th.	41·5
Baghdad*	127	29·840	+·016	29·946	29·958	24th	29·663	1st	·295	68·4	92·1	—0·7	64·1	+1·9	78·1	+0·6	28·0	100·5	2nd	56·0	5th	44·5
Beirut (a)				29·963						74·9	80·3		69·5		74·9		10·8	91·6	10th	61·9	29th	29·7
Aden	94	29·925	+·052	29·951	30·029	22nd	29·799	11st	·230	80·9	87·8	—2·4	76·8	—0·9	82·3	—1·7	11·0	93·6	13th & 16th.	71·9	28th & 31st.	21·7
Zanzibar	72	30·047	+·032	30·045	30·104	17th	29·997	30th	·107	76·3	83·3	+0·2	75·0	—0·3	79·2	—0·1	8·3	88·9	17th	73·2	2nd	13·7

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) 8½ hrs. observations.
(b) Aneroid uncorrected.
(c) Aneroid corrected and reduced to sea level.

* Mean of 30 days.
§ " 20 "
(d) " 18 "

B—*concluded.*

stations in India, etc., in October, 1913—concluded.

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 from 1st May to 31st Oct., 1913.	Normal rainfall for period, 1st May to 31st Oct.	Departure from normal of period, 1st May to 31st Oct. 1913.	Heaviest rainfall during month.	S
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	
																																Ex
16	1				1				*a*	N 38° W	6·3 *k*	1·2	+5·1	*a*		61	+ 2	·183	—·017	3·6	+0·6	0	0·1	—0·1	0	0·02	—0·02	0 *x*	2·26	—2·26	0	Kar
	1	1	1	3	8	2	4		S 11° W	S 10° E				50	+38	82		·366		2·5	+2·0	3	0·7	+2·3	1·20	0·36	+0·84	2·07	1·86	+0·21	1·00	Kab
26	3				2				N		1·1			3		79		·318		4·1	+2·2	4	1·0	+3·0	1·84	0·39	+1·45	2·26	2·23	+0·03	0·60	Mer
1	7	1	14		1			7	N 40° E	N 56° E	6·2	7·7	—1·5	53	+20	70	+ 5	·699	—·040	0·5	0	0	0·2	—0·2	0	0·04	—0·04	0	0·10	—0·10	0	Jas
5	2	1	2	1			2	18	N 37° W	N 76° W	3·5	2·7	+0·8	62	+34	58	— 8	·710	—·045	1·4	+1·1	0	0·1	—0·1	0	0·07	—0·07	0	0·24	—0·24	0	Mu
	4		1	1		4	10	11	N 67° W		4·0			68		73†		·802†		1·1		0	0·1	—0·1	0	0·01	—0·01	0·01	0·11	—0·10	0	Bal
11	6	5	4	1	1			3	N 32° E	N 67° E	4·7	4·5	+0·2	40	—18	72	+10	·676	+·053	1·2	+0·2	0	0·2	—0·2	0	0·10	—0·10	0·02	0·13	—0·11	0	Bu
1	5		4	2	7	3	8	1	S 45° W		2·2			26		64		·577		3·2		0	0·2	—0·2	0·11	0·08	+0·03	0·45	0·73	—0·28	0·09	Bu
28	1					2			S 74° W		4·3*			4		46		·189		0·1		1			0·15			0·18			0·15	Ker
23							7	1	N 83° W	N 74° W	2·3	2·1	+0·2	26	+ 2	57	+ 2	·278	+·012	1·3	—0·2	0	0·4	—0·4	0	0·17	—0·17	0·37	0·50	—0·13	0	Isp
20		5	1	1		1	2		N 56° E	N 18° E	1·3†	2·1	—0·8	10	—13	61	+19	·306	+·066	1·8†	+1·2	4	1·0	+3·0	1·38	0·30	+1·09	2·25	1·18	+1·07	0·40	Tel
8	8	4		1		1	2	6	N 12° W	N 6° W	5·2†	2·0	+3·2	47	+14	51	— 4	·355	—·048	1·8	+1·2	0	0·3	—0·3	0	0·08	—0·08	0·08	0·36	—0·30	0	Bag
22		2	3			2	2		E					3		63		·545		3·7		2			1·32			1·42 *d*			0·86	Bel
8	5	16	2						N 39° E	N 78° E	8·6	9·3	—0·7	66	— 2	72	+ 4	·755	+·014	2·1	0	0	0·1	—0·1	0	0·08	—0·08	0·34	0·58	—0·24	0	Ado
10				8	9	4			S 10° E	S 20° E	2·8	3·7	—0·9	55	—17	82	0	·791	—·093	6·0	0	8	5·6	+2·4	4·22	3·67	+0·55	19·24	23·48	—4·24	1·57	Zan

† Mean of 29 days.
‡ " 28 "
a Indeterminate.
k Mean of 15 days.
x Rainfall for May, June, July and August wanting.
d Rainfall for July wanting.

Table C.—Abstract of observations taken at 8 hrs. at 63 fourth and fifth class stations in India, etc., in October, 1913.

Tab

Abstract of observations taken at 8 h

Number of sub-division.	Station.	Temperature of air.													Wind direction.									
		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.	Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
	II.—Assam.																							
4	Balek	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Bishnath	73·6	85·9	...	68·1	...	77·0	...	17·8	92·3	12th	58·7	31st	33·6	...	...	...	...	...	...	...	...	...	...
	Borjuli	76·6	87·3	...	68·0	...	77·7	...	19·3	92·7	10th	60·4	30th & 31st.	32·3	...	...	...	...	...	...	...	...	...	...
	Chandkhira	76·4	90·6	...	68·6	...	79·6	...	22·0	97·1	8th	61·0	31st	36·1	...	...	...	...	...	...	...	...	...	...
	Doom Dooma	69·2	86·1	...	68·0	...	77·1	...	18·1	92·3	12th	58·2	31st	34·1	...	...	...	...	...	...	...	...	...	...
	Dikom	73·1	86·1	...	67·8	...	76·9	...	18·3	92·6	12th	58·2	31st	34·4	...	...	...	...	...	...	...	...	...	...
	Golaghat	74·4	84·8	...	69·6	...	77·0	...	14·8	89·3	10th	62·4	31st	26·9	...	...	...	...	...	...	...	...	...	...
	Hailakandi	74·9	88·3	...	71·7	...	80·0	...	16·6	93·2	9th	64·0	31st	29·2	...	...	...	...	...	...	...	...	...	...
	Jorehat	74·0	85·2	...	70·0	...	77·6	...	15·2	90·9	11th & 12th	63·8	31st	27·1	...	...	...	...	...	...	...	...	...	...
	Lumding	73·1	85·9	...	69·4	...	77·6	...	16·5	90·9	12th	62·0	29th & 31st.	28·9	...	...	...	...	...	...	...	...	...	...
	Messa	79·6	89·5	...	68·7	...	79·1	...	20·8	94·6	12th	60·0	30th	34·6	...	...	...	...	...	...	...	...	...	...
	Panerihat	69·1	82·2	...	66·0	...	74·1	...	16·2	86·4	12th	60·0	28th & 31st.	26·4	...	...	...	...	...	...	...	...	...	...
	Srimangal	77·4	89·4	...	69·6	...	79·5	...	19·8	94·9	13th	61·2	20th	33·7	...	...	...	...	...	...	...	...	...	...
	III.—Bengal.																							
5	Comilla	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...
	Brahmanbaria	82·3	89·3	...	74·4	...	81·9	...	14·9	92·2	14th	68·3	28th	23·9	...	...	...	...	...	...	...	...	...	...
	Faridpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Goalundo	81·2	89·5	...	71·2	...	80·3	...	18·3	96·2	8th	62·1	24th	34·1	...	...	...	...	...	...	...	...	...	...
	Pabna	80·9	89·8	...	74·4	...	82·1	...	15·4	94·5	14th	69·2	30th	25·3	...	...	...	...	...	...	...	...	...	...
	Sirajganj	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Rampur Boalia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Malda	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...	...	...
	Rangpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...	...
	Dam Dim	73·5	95·3	...	67·4	...	81·3	...	27·9	98·9	4 days	52·8	30th	46·1	...	...	...	...	...	...	...	...	...	...
	Kalchini	80·0	87·0	...	64·0	...	75·5	...	23·0	93·1	10th	54·4	31st	38·7	...	...	...	...	...	...	...	...	...	...
	Nagrakata	78·4	88·2*	...	67·7†	...	77·9*	...	20·5	91·1	10th, 11th & 13th.	57·0	30th	34·1	...	...	...	...	...	...	...	...	...	...
	Cooch Behar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Krishnagar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Bankura	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Asansol	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

* Mean of 29 days.
† " 30 "

63 fourth and fifth class stations in India, etc., in October, 1913.

'IND VELOCITY.			WIND STEADINESS.		HYGROMETRY, 8 HRS.				CLOUD.		RAINFALL.									Heaviest rainfall during month.	STATION.
per hour.	Normal.	Departure from normal.	Actual percentage.	Departure from normal.	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.	Mean cloud amount at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st May to 31st Oct., 1913	Normal rainfall of period, 1st May to 31st Oct.	Departure from normal of period, 1st May to 31st Oct., 1913.		
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
																					II.—Assam.
..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Balek.
..	...	...	...	...	92	...	·769	...	...	...	9	7·0	+2·0	12·48	5·29	+7·19	71·10	76·37	—5·27	4·54	Bishnath.
..	...	...	...	...	80	...	·737	...	...	...	9	7·2	+1·8	12·80	3·55	+9·25	66·90	68·62	—1·72	4·25	Borjuli.
..	...	...	...	...	92	...	·835	...	...	...	10	8·0	+2·0	5·67	8·32	—2·65	103·33	87·03	+16·30	1·20	Chandkhira.
..	...	...	...	...	96	...	·688	...	...	...	9	6·8	+2·2	5·25	4·72	+0·53	88·21	75·12	+13·09	1·75	Doom Dooma.
..	...	...	...	...	88	...	·719	...	...	..	11	7·5	+3·5	8·18	5·49	+2·69	87·40	81·38	+6·02	2·26	Dikom.
..	...	...	...	...	91	...	·772	...	...	...	6	6·3	—0·3	8·35	2·79	+5·56	60·17	53·85	+6·32	2·53	Golaghat.
..	...	...	...	...	92	...	·797	...	...	...	10	9·0	+1·0	4·93	9·49	—4·56	104·09	97·72	+6·37	1·05	Hailakandi.
...	...	...	...	...	91	...	·771	...	...	...	9	7·0	+2·0	8·11	3·91	+4·20	58·18	62·74	—4·56	2·74	Jorehat.
...	...	...	...	...	95	...	·764	...	...	...	5	...	...	3·56	...	...	41·21	...	...	2·04	Lumding.
...	...	...	...	...	77	...	·783	...	...	...	10	6·0	+4·0	17·27	3·09	+14·18	58·62	74·57	—15·95	6·40	Messa.
...	...	...	...	...	92	...	·662	...	...	...	5	5·5	—0·5	7·98	3·65	+4·33	60·99	62·66	—1·67	2·95	Panerihat.
...	...	...	...	...	86	...	·808	...	...	...	9	8·3	+0·7	4·40	7·88	—3·48	60·18	78·51	—18·33	0·97	Srimangal.
																					III.—Bengal.
..	...	...	...	...	...	...	...	...	...	...	8	6·1	+1·9	9·34	6·04	+3·30	112·63	76·58	+36·05	5·90	Comilla.
...	...	...	...	...	78	...	·858	...	...	...	7	7·7	—0·7	4·29	5·42	—1·13	90·77	67·86	+22·91	1·67	Brahmanbaria.
...	...	...	...	...	...	...	...	...	...	...	5	5·4	—0·4	4·45	4·55	—0·10	66·25	59·82	+ 6·43	1·80	Faridpur.
...	...	...	...	...	80	...	·843	...	...	...	5	7·0	—2·0	4·46	6·06	—1·60	50·64	57·90	—7·26	2·25	Goalundo.
...	...	...	...	...	82	...	·858	...	...	...	5	4·8	+0·2	5·65	4·82	+0·83	52·52	53·57	—1·05	3·27	Pabna.
...	...	...	...	...	...	...	...	...	...	...	5	4·6	+0·4	8·22	4·69	+3·53	61·66	57·88	+3·78	4·41	Sirajganj.
...	...	...	...	...	...	...	...	...	...	...	5	4·1	+0·9	8·98	3·14	+5·84	63·27	49·47	+13·80	4·48	Rampur Boalia.
...	...	...	...	...	...	...	...	...	...	...	2	3·9	—1·9	5·34	3·85	+1·49	59·80	49·13	+10·67	3·27	Malda.
...	...	...	...	...	...	...	...	...	...	...	5	3·6	+1·4	7·55	4·19	+3·36	98·34	75·05	+23·29	4·92	Rangpur.
...	...	...	...	...	86	...	·719	...	...	...	12	6·5	+5·5	7·27	5·07	+2·20	137·79	145·00	—7·21	2·38	Dam Dim.
...	...	...	...	...	77	...	·799	...	...	...	9	6·3	+2·7	7·15	5·86	+1·29	138·30	141·16	— 2·86	1·60	Kalchini.
...	...	...	...	...	75	...	·721	...	...	...	10	7·3	+2·7	8·80	7·46	+1·34	142·76	150·34	—7·58	2·05	Nagrakata.
...	...	...	...	...	...	...	...	...	...	...	4	4·8	—0·8	6·53	6·03	+0·50	138·80	137·77	+1·03	4·36	Cooch Behar.
...	...	...	...	...	...	...	...	...	...	...	5	4·5	+0·5	6·54	3·94	+2·60	69·91	50·39	+19·52	2·85	Krishnagar.
...	...	...	...	...	...	...	...	...	...	...	4	4·0	0	2·40	2·73	—0·33	54·39	49·83	+4·56	1·50	Bankura.
...	...	...	...	...	...	...	...	...	...	...	4	3·6	+0·4	3·93	2·31	+1·62	70·83	48·06	+22·77	1·39	Asansol.

Tabl

Abstract of observations taken at 8 hr

Number of sub-division.	Station.	Temperature of air.													Wind direction.										
		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.	Number of winds from: Calm.	N.	N.E.	E	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
	IV.—Bihar and Orissa.																								
7	Hazaribagh	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...		...
8	Bhagalpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...
	Muzaffarpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...
	Motihari	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...
	Chapra	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...
	Arrah	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...
	Dehri	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...
	V.—United Provinces of Agra and Oudh.																								
10	Meerut	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...
	Dehra Dun	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...
	IX.—Rajputana.																								
18	Udaipur	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	..	...	...	...	...		..
	XII.—Central Provinces.																								
23	Chhindwara	74·7	90·6	...	61·9	...	76·3	...	28·7	94·6	3rd	55·4	31st	3[illegible]·2	25	1	2	...	...	...	...	1	2	N 14° W	..
	XIII.—Hyderabad.																								
27	Parbhani	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		.
	XV.—Madras.																								
31	Tinnevelly	...	...	...	...	..	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...		.
32	Anantapur	78·3	89·6	...	70·9	...	80·2	...	18·7	94·8	5th	65·6	21st	29·2	...	...	...	...	...	...	...	...	...		.
33	Guntur	78·4	90·4	...	72·8	...	81·6	...	17·6	93·7	25th	66·5	17th & 18th	27·2	...	...	...	...	...	...	...	...	...		.
	Bay Islands.																								
1	Car Nicobar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		..	...		.
	Kashmir.																								
13	Jammu	74·9	89·4	...	66·4	...	77·9	...	23·0	95·6	1st	58·8	30th	36·8	...	12	16	1	...	2	...	...	...	N 30° E	
	Sonamarg	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
	Kargil	48·8	68·8	...	37·8	...	53·3	...	31·0	76·3	1st	29·0	30th & 31st	47·3	...	18	...	5	5	...	2	...	1	N 23° E	
	Astor	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		

C—*continued.*

at 63 fourth and fifth class stations in India, etc., in October, 1913—continued.

Wind velocity.			Wind steadiness		Hygrometry, 8 hrs.				Cloud.		Rainfall.										
Mean velocity, miles per hour.	Normal.	Departure from normal.	Actual percentage.	Departure from normal.	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.	Mean cloud amount at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st May to 31st October, 1913.	Normal rainfall of period, 1st May to 31st October.	Departure from normal of period, 1st May to 31st October, 1913.	Heaviest rainfall during month.	Station.
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
																					IV.—Bihar and Orissa.
...	...	...	..	...	...	...	...	...	...	...	5	4·0	+1·0	3·59	2·83	+0·76	56·13	48·39	+7·74	1·59	Hazaribagh.
...	...	...	...	...	...	...	...	...	...	...	2	2·6	—0·6	1·45	2·05	—0·60	41·87	46·15	—4·28	0·90	Bhagalpur.
...	...	...	...	...	...	...	...	...	...	...	2	2·6	—0·6	1·68	2·88	—1·20	72·15	46·86	+25·29	1·52	Muzaffarpur.
...	...	...	...	...	...	...	...	...	...	...	3	2·6	+0·4	3·53	2·67	+0·86	58·73	53·47	+5·26	2·62	Motihari.
...	...	...	...	...	...	...	...	...	...	...	5	2·4	+2·6	4·00	2·27	+1·73	60·15	39·52	+20·63	2·33	Chapra.
...	...	...	...	...	...	...	...	...	...	...	3	3·0	0	4·10	2·40	+1·70	61·34	41·73	+19·61	2·90	Arrah.
...	...	...	...	...	...	...	...	...	...	...	4	2·6	+1·4	2·20	2·11	+0·09	58·29	39·51	+18·78	1·28	Dehri.
																					V.—United Provinces of Agra and Oudh.
...	...	...	...	...	...	...	...	...	...	...	0	0·5	—0·5	0·01	0·56	—0·55	20·33	28·68	—8·35	0·01	Meerut.
...	...	...	...	...	...	...	...	...	...	...	3	1·2	+1·8	1·39	0·89	+0·50	49·06	77·57	—28·51	1·18	Dehra Dun.
																					IX.—Rajputana.
...	...	—	...	...	...	...	...	...	...	...	0	0·2	—0·2	0·03	0·14	—0·11	24·64	22·71	+1·93	0·03	Udaipur.
																					XII.—Central Provinces.
1·3	...	...	13	...	55	...	·478	...	1·0	...	1	...	...	0·13	...	...	44·91	...	...	0·13	Chhindwara.
																					XIII.—Hyderabad.
...	...	...	...	...	...	...	...	...	...	...	1	...	...	0·36	...	...	32·48*	...	...	0·31	Parbhani.
																					XV.—Madras.
...	...	...	...	...	...	...	...	...	...	...	8	8·9	—0·9	9·59	6·65	+2·94	14·71	10·96	+3·75	4·40	Tinnevelly.
...	...	...	...	...	75	...	·722	...	7·4	...	8	...	...	4·70	...	...	22·69	...	...	1·97	Anantapur.
...	...	...	...	...	83	...	·808	...	4·3	...	7	...	...	4·44	...	...	26·91	..	...	1·63	Guntur.
																					Bay Islands.
...	...	...	...	...	...	...	...	...	...	...	9	15·7	—6·7	9·07	11·16	—2·09	51·59	69·73	—18·14	2·99	Car Nicobar.
																					Kashmir.
...	...	...	78	...	42	...	·366	...	0	...	0	...	...	0	...	...	33·99	...	...	0	Jammu.
...	...	...	...	...	...	...	...	...	..	...	3	4·6	—1·6	1·26	1·76	—0·50	19·64	22·80	—3·16	0·80	Sonamarg.
...	...	...	48	...	38	...	·133	...	1·2	...	0	...	...	0	...	...	0·91	...	...	0	Kargil.
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Astor.

* Since 16th May 1913.

Tab

Abstract of observations taken at 8 h

Number of sub-division.	Station.	Temperature of air.													Wind direction.										
															Number of winds from										
		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.	Calm.	N.	N.E.	E.	S.E.	S	S.W.	W.	N.W.	Resultant direction.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	2
	Hill stations, exclusive of Kasnmir.																								
	Panighatta	76·1	84·3	...	67·6	...	75·9	...	16·7	88·1	9th, 10th & 11th.	60·0	30th	28·1	...	...	...	...	...	...	...	...	...	...	
	Kurseong	63·0	67·6	...	58·5	...	63·1	...	9·1	72·3	4th	51·9	30th & 31st.	20·4	...	...	...	...	...	...	...	...	...	...	
	Gnatong	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Lachung	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Ringim	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Poo	...	66·3	...	42·5	...	54·4	...	23·8	72·1	9th	34·0	29th	38·1	8	...	...	7	2	1	1	12	...	S 53° W	
	Kailang	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Bakloh	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Pishin	...	77·2	...	44·2	...	60·7	...	33·0	87·4	4th & 5th	36·0	13th	51·4	...	...	...	...	...	...	...	...	...	...	
	Extra India.																								
	Ahwaz	...	92·0	...	72·6	...	82·3	...	19·4	103·0	1st	64·8	6th	38·2	...	2	...	4	...	...	...	...	...	N 63° E†	
	Chumbi	39·1	59·5	...	36·2*	...	48·0	...	23·3	64·5	2nd	27·8	31st	36·7	...	...	...	...	...	...	...	...	...	...	
	Kirmanshah	58·2	73·8	...	45·4	...	59·6	...	28·4	86·8	1st	35·5	5th	51·3	...	...	...	...	...	...	...	...	...	...	
	Koweit	...	91·5	...	72·6	...	82·0	...	18·9	105·4	1st	65·8	29th	39·6	2	3	...	6	...	...	...	17	3	N 69° W	
	Maidan	...	...	...	...	...	...	...	...	...	...	—	...	...	...	...	...	...	...	...	...	...	...	...	
	Muhammerah	...	91·6	...	69·6	...	80·6	...	22·0	100·4	1st	66·4	7th & 24th.	34·0	...	...	2	1	3	...	12	...	13	W	
	Abadan	...	94·0	...	67·4	...	80·7	...	26·6	102·6	3rd	61·8	4 days	40·8	...	...	...	...	...	...	...	...	...	...	
	Pemba	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Prison Island	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Seistan	...	85·9	...	56·0*	...	70·8*	...	29·9	103·0	4th	47·0	13th	56·0	...	13	...	3	...	2	...	8	5	N 31° W	

* Mean of 30 days.
† Wind observations for 6 days.

;—*concluded.*

t 63 fourth and fifth class stations in India, etc., in October, 1913—concluded.

Wind velocity.			Wind steadiness.		Hygrometry, 8 hrs.				Cloud.		Rainfall.									Heaviest rainfall during month.	Station.
Mean velocity, miles per hour.	Normal.	Departure from normal.	Actual percentage.	Departure from normal.	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.	Mean cloud amount at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st May to 31st October, 1913.	Normal rainfall of period, 1st May to 31st October.	Departure from normal of period, 1st May to 31st October, 1913.		
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
																					Hill Stations, exclusive of Kashmir.
...	...	...	...	...	70	...	·633	...	...	...	9	4·8	+4·2	7·19	5·14	+ 2·05	119·94	130·40	−10·46	1·89	Panighatta.
...	...	...	...	...	87	...	·500	...	...	...	8	5·3	+2·7	8·66	5·69	+ 2·97	121·50†	144·57	−23·07	3·49	Kurseong.
...	...	...	...	...	...	...	...	...	...	...	5	...	...	4·37	...	...	161·85	...	...	1·34	Gnatong.
...	...	...	...	...	...	...	...	...	...	...	7	...	...	4·34	...	...	29·69†	...	...	1·17	Lachung.
...	...	...	...	...	...	...	...	...	...	...	7	...	...	4·40	...	...	75·17‡	...	...	1·05	Ringim.
...	...	...	16	...	...	...	...	...	1·7	...	0	0·8	−0·8	0	0·39	−0·39	1·28	3·51	−2·23	0	Poo.
...	...	...	...	...	...	...	...	...	...	...	1	1·2	−0·2	0·35	0·52	−0·17	5·64	9·03	−3·39	0·31	Kailang.
...	...	...	...	...	...	...	...	...	...	...	2	...	...	1·32	...	...	69·45	...	...	1·15	Bakloh.
...	...	...	...	...	...	...	...	...	0·5	...	2	0·2	+1·8	0·50	0·07	+0·43	0·61	0·50	+0·11	0·27	Pishin.
																					Extra India.
...	...	...	67	...	...	...	...	...	1·9	...	2	...	...	0·27	...	...	0·31	...	...	0·17	Ahwaz.
...	...	...	...	...	89	...	·216	...	0·8	...	4	...	...	2·01	...	...	27·49	...	...	0·85	Chumbi.
...	...	...	...	...	46	...	·223	...	...	...	1	...	...	0·38	...	...	1·51§	...	...	0·13	Kirmanshah.
...	...	...	45	...	...	...	...	...	1·2	...	0	...	...	0	...	...	0·11	...	...	0	Koweit.
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Maidan.
...	...	...	4	...	...	...	...	...	...	...	0	...	...	0	...	...	0·20	...	...	0	Muhammerah.
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Abadan.
...	...	...	...	...	...	...	...	...	..	...	2	4·8	−2·8	1·84	2·80	−0·96	32·00	33·05	−1·05	1·32	Pemba.
...	...	...	...	...	...	...	...	...	...	...	...	5·6	...	...	4·29	...	...	26·07	...	...	Prison Island.
5·3*	...	...	58	...	...	...	...	...	...	...	0	...	...	0	...	...	0	...	...	0	Seistan.

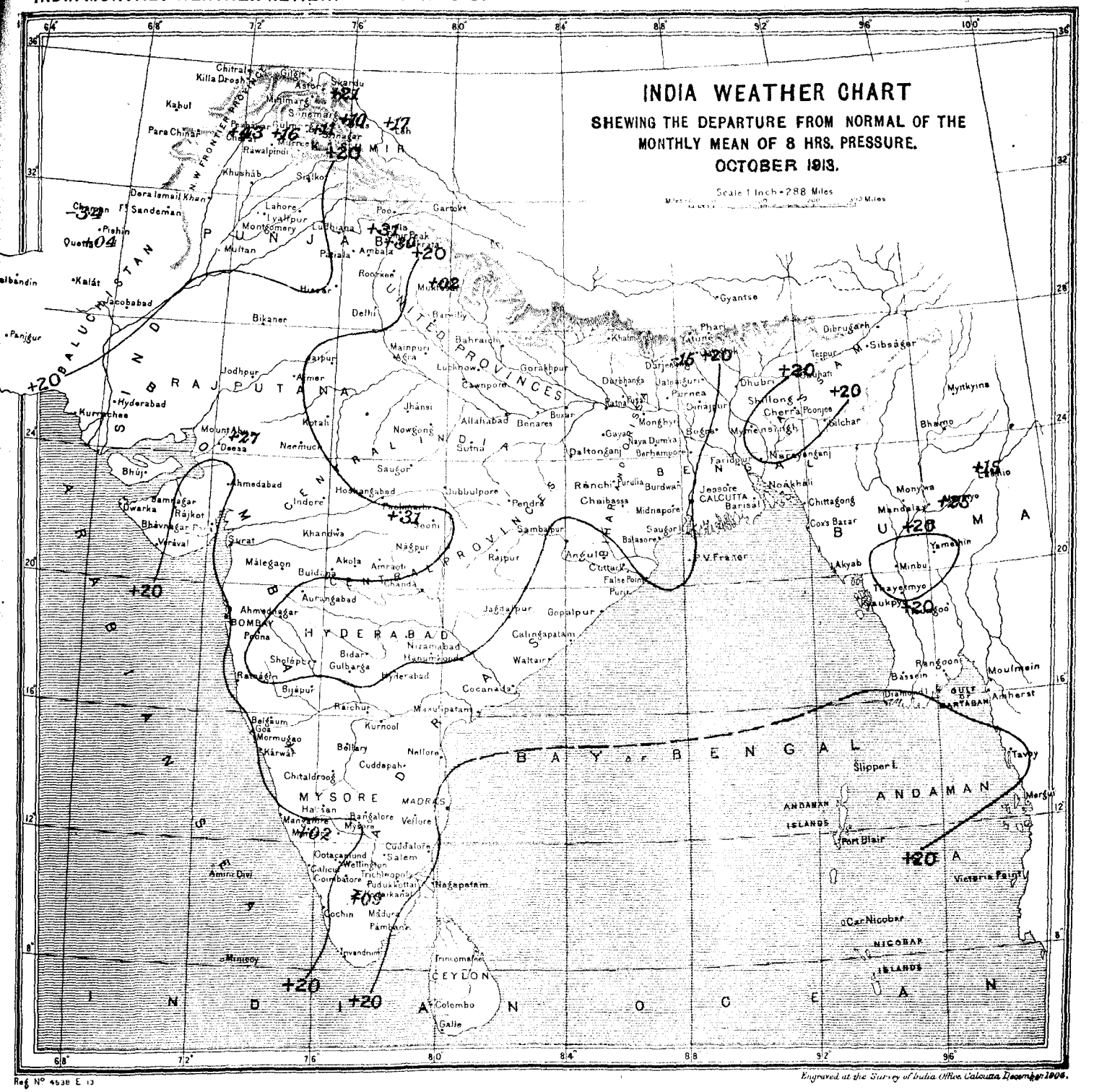
* Mean of 30 days.
† Rainfall for August wanting.
‡ " " July "
§ " " September "

The lines of the above chart represent isobars or lines of equal barometric pressure, the numbers attached indicating the barometric pressure in inches and being drawn for differences of pressure of ·05 inch. The isobars in the Bay of Bengal are filled in by means of the shore observations, and by comparison with the normal distribution of pressure.

The mean 8 hrs. wind directions of the month are shewn by means of arrows flying with the wind, and are calculated by means of Lambert's formula applied to the winds as given in Table B of the 8 hrs. observations. The mean wind directions for the hill stations are indicated by broken arrows to distinguish them from the wind arrows for the plain stations. The mean velocity of the winds during the month is shewn by the following notation:—

Velocity of	0 to 2	miles per hour	...	one	feather added to the wind arrow.
,, ,,	2 to 5	,, ,, ,,	...	two	feathers ,, ,, ,, ,,
,, ,,	5 to 10	,, ,, ,,	...	three	,, ,, ,, ,, ,,
,, ,,	10 to 20	,, ,, ,,	...	four	,, ,, ,, ,, ,,
	over 20	,, ,, ,,	...	five	,, ,, ,, ,, ,,

Wind strengths are based on factor 2·2 for the standard type of Beckley Robinson anemograph, instead of 3·0 as used for this plate up to December 1911 inclusive.



Engraved at the Survey of India Office Calcutta December 1906.

Reg No 4538 E 13

The chart shows the departure from normal of the mean during the month of 8 hrs. pressure by means of lines drawn for equal amounts of departure. The numbers are given in thousandths of an inch, 20 representing ·020″ or two hundredths of an inch, &c. Continuous lines indicate that the pressure was in excess by amounts indicated by the numbers attached to the lines, and broken or dotted lines that it was in defect by amounts indicated by the numbers attached to the lines. Two parallel lines near to each other, one continuous and the other broken or dotted, represent the line of no departure, the dotted line facing the area of deficient pressure or negative departures.

CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MAXIMUM TEMPERATURE.

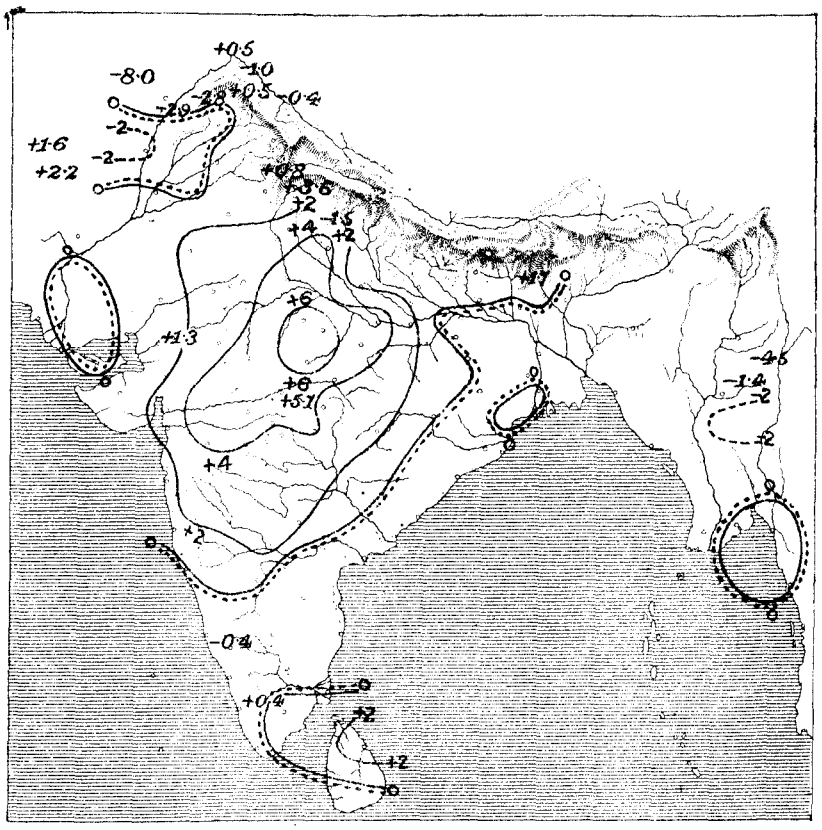


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MINIMUM TEMPERATURE.

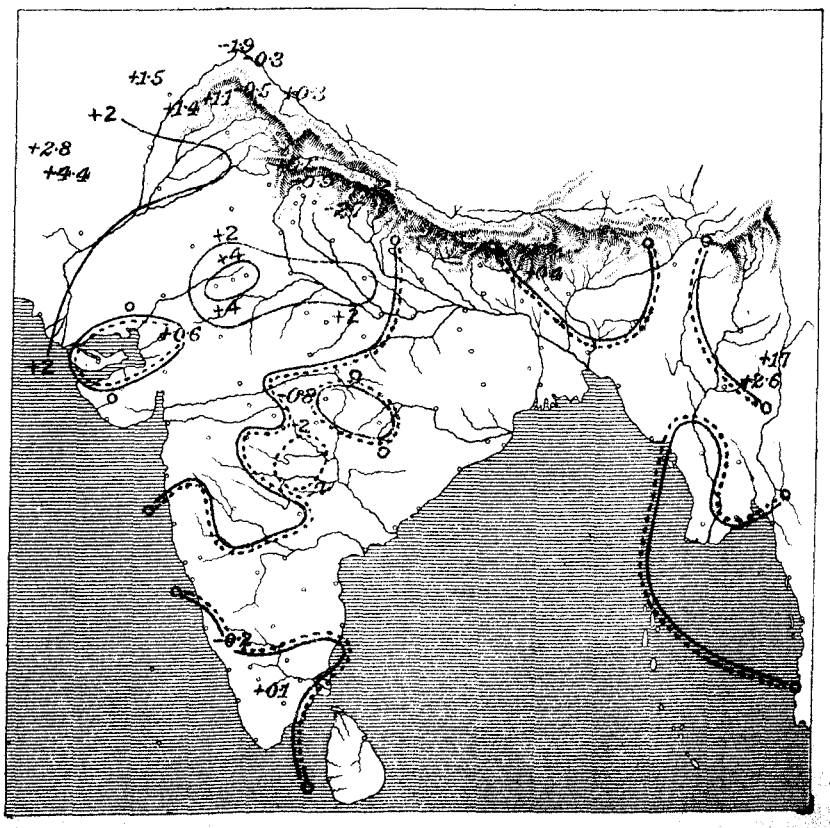


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MEAN TEMPERATURE.

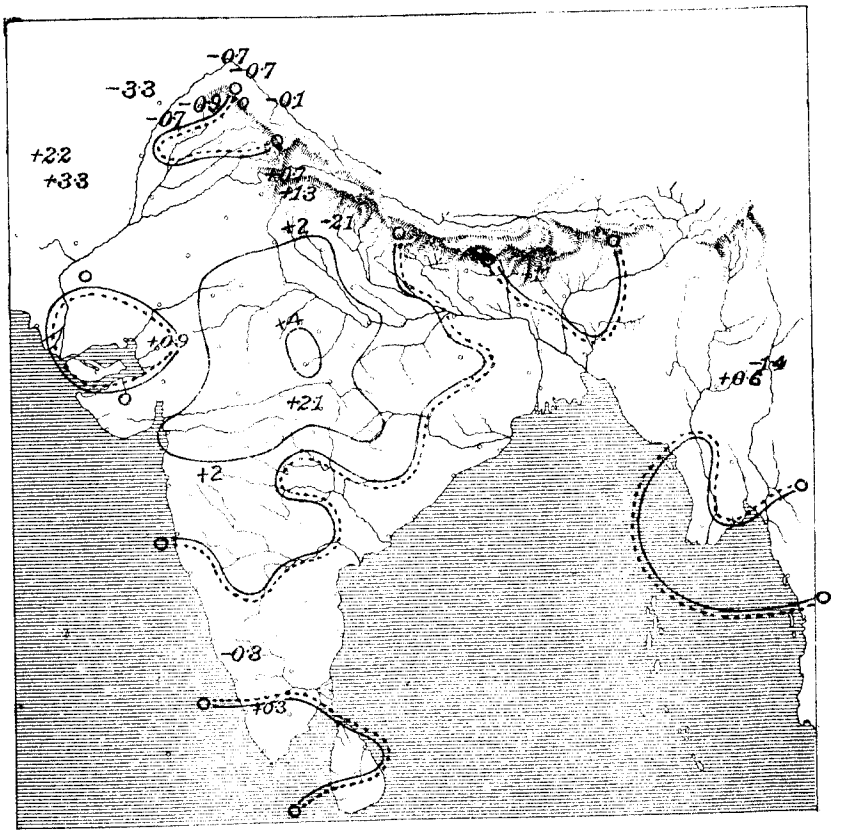
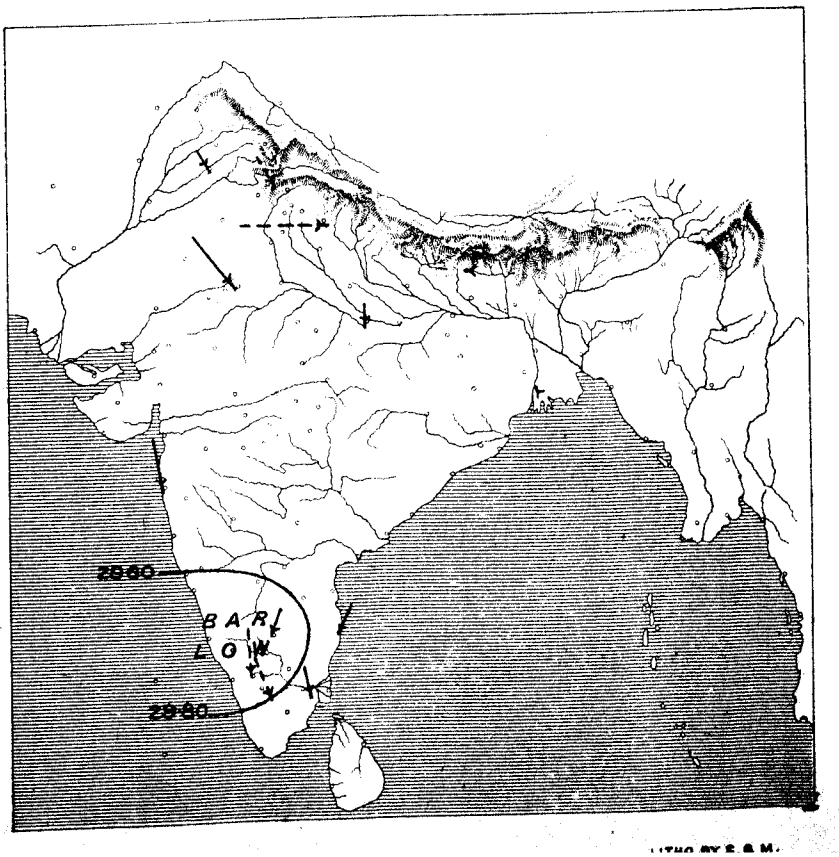


CHART SHEWING THE MONTHLY MEAN OF PRESSURE AND RESULTANT WIND DIRECTION.



LITHO BY S. & M.

CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF ABSOLUTE HUMIDITY AT 8 HRS.

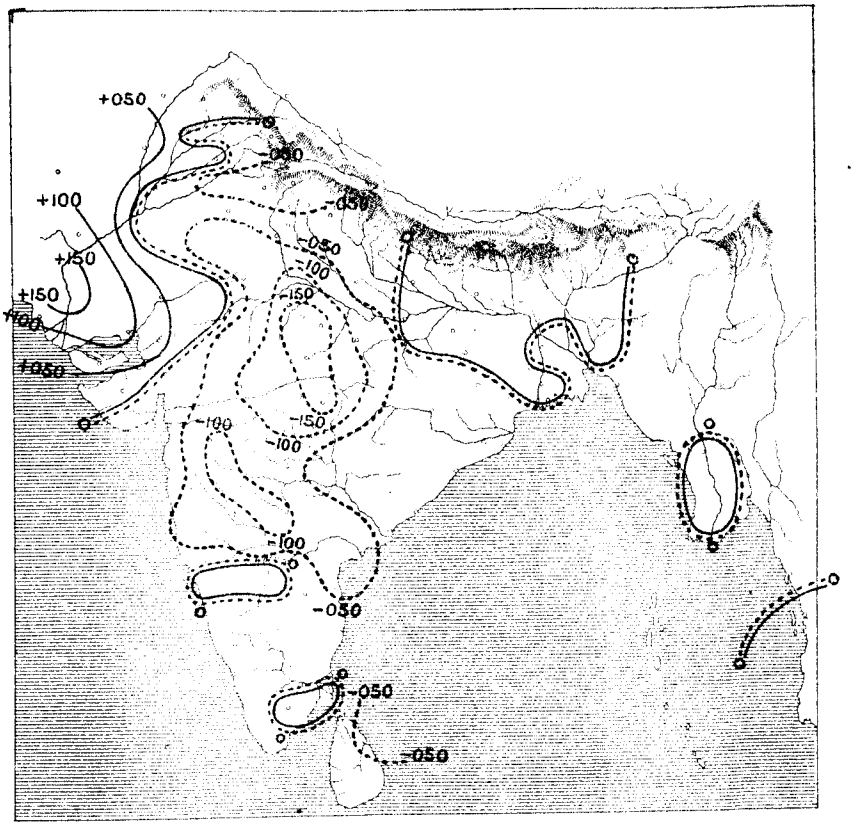


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF RELATIVE HUMIDITY AT 8 HRS.

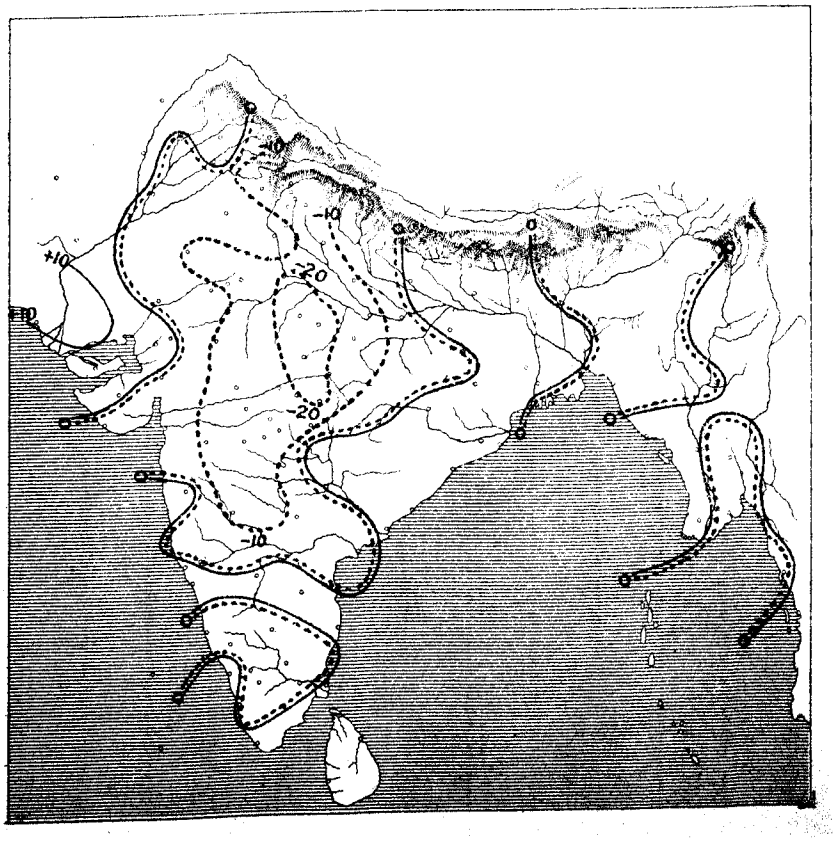


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF CLOUD AMOUNT AT 8 HRS.

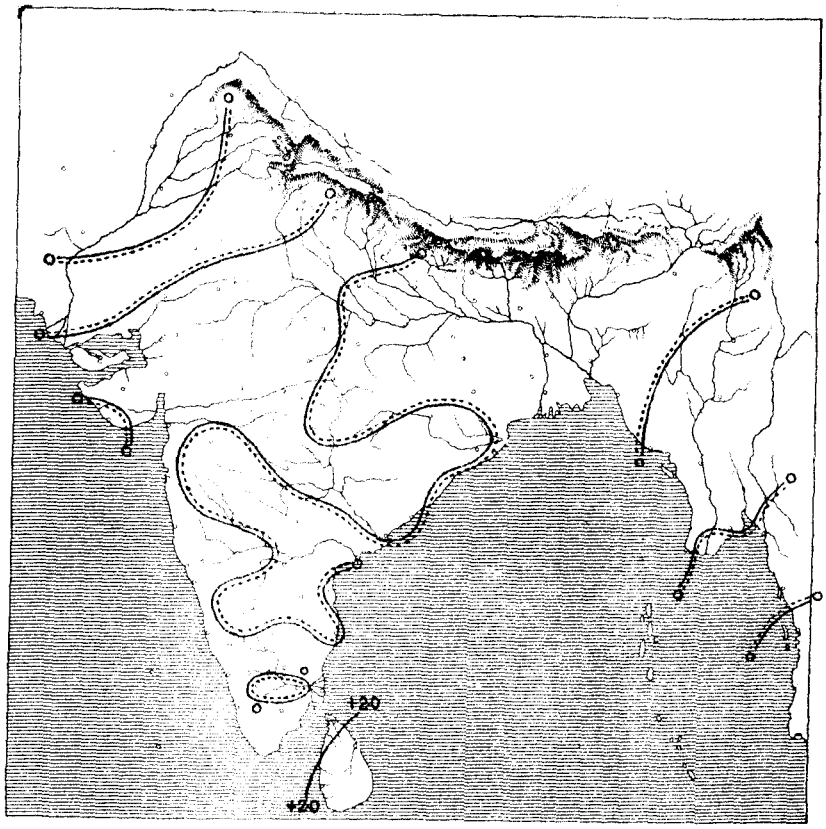
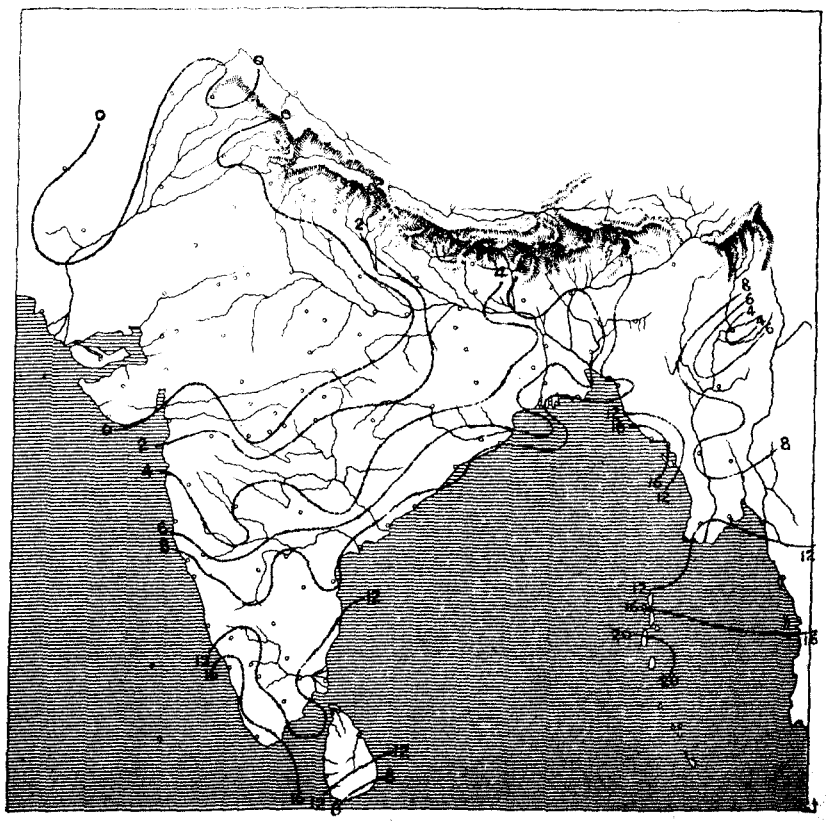
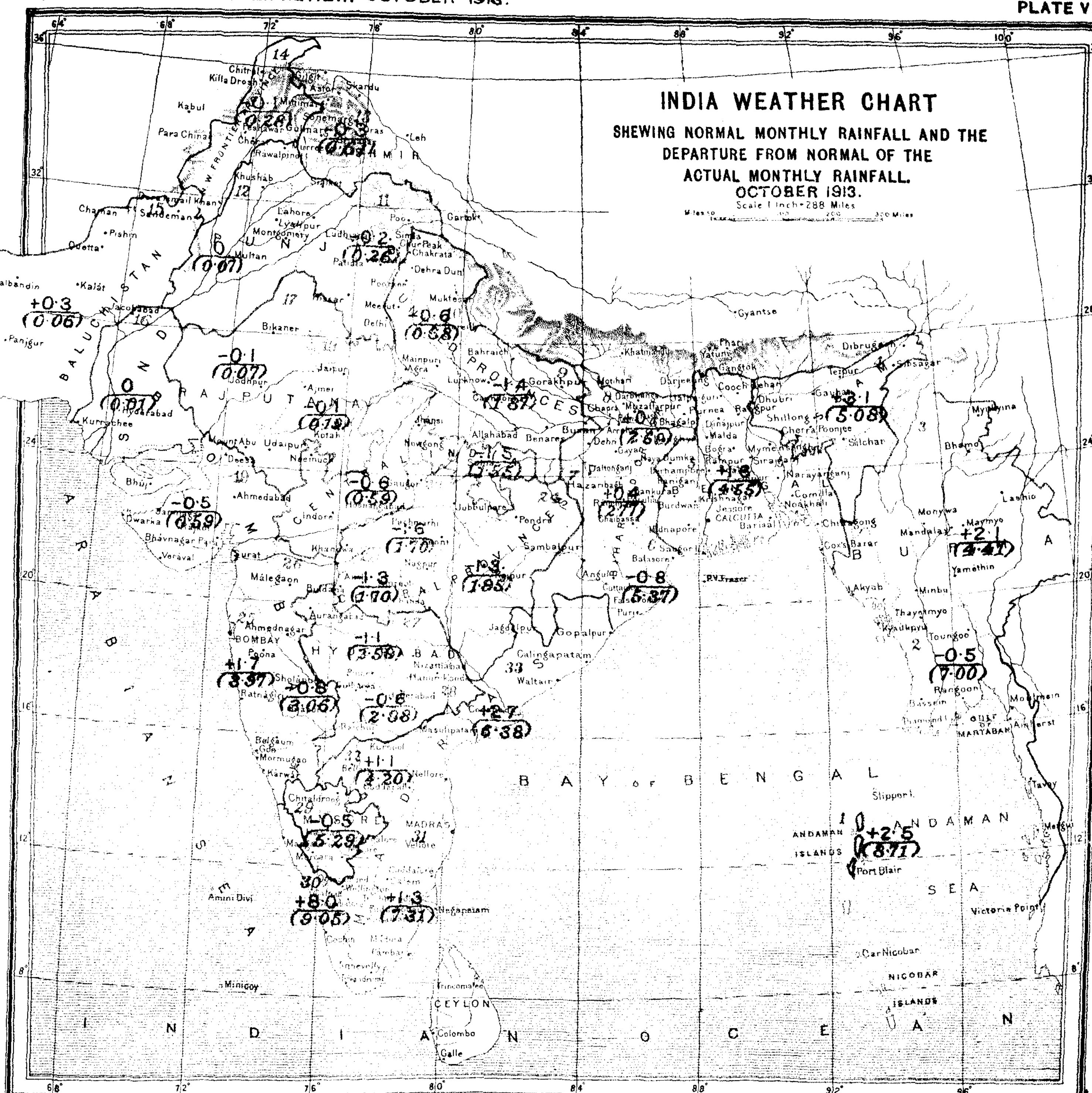


CHART SHEWING THE TOTAL NUMBER OF DAYS IN THE MONTH ON WHICH RAINFALL EQUALLED OR EXCEEDED 0·10 INCH.

(BASED ON THE RETURNS OF TABLE B.)





Reg. No. 4538 E. 13

Engraved at the Survey of India Office Calcutta December 1904.

LITHO BY S.E. MUMBLE.

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
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

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GOVERNMENT OF INDIA

METEOROLOGICAL DEPARTMENT.

MONTHLY WEATHER REVIEW

PUBLISHED BY ORDER OF

THE GOVERNMENT OF INDIA.

CALCUTTA, NOVEMBER, 1913.

INTRODUCTION.

THIS review of the weather in India during the month of November, 1913, is based on observations taken daily at 8 hrs. at 218 stations, and on additional observations taken at 10 hrs. and 16 hrs. at 14 stations. In the rainfall summary the data furnished by the meteorological observatories, and such rainfall statements of the month as had been published by the Provincial Governments up to the date of the preparation of the review, have been utilized.

The brief notes on solar, seismic and magnetic disturbances have been supplied by the chief observatories.

For a statement of the methods adopted in recording and tabulating the data, for each of the elements of observation, reference should be made to the introductory portion of the review for January.

Summary of the chief features of the weather in India during the month.

2. On the whole the monsoon current was more active than usual, but owing to peculiarities in the distribution of pressure it was directed chiefly to Burma and the south-east of the Peninsula; the remainder of the Peninsula was accordingly deprived of its proper share of rainfall.

Three disturbances were recorded over the Bay but none of them developed into a storm of any severity.

Three depressions of the cold weather type affected northwest India, but they were all feebly marked and gave but little precipitation outside of Baluchistan, the western Himalayas and the adjoining plains. There were signs that the winter conditions were setting in earlier than usual in the northwest.

The total precipitation of the month was more or less above the normal in the Bay Islands, Burma, Bengal, Chota Nagpur, Kashmir, Baluchistan and Madras South-east, the excess being as much as 6″ in amount in Lower Burma. Over the rest of the country either there was no rain or there was less than the usual quantity. The deficiency amounted to 2″ in Mysore and Madras excluding the south-eastern districts, 1″ in Hyderabad and over half an inch in the Konkan, the Bombay Deccan and Berar.

Of the other climatic elements cloud proportion was decidedly low in Assam, Sind, Central India and Mysore, and very high in Burma; and the relative humidity was in excess in Baluchistan, Sind and the North-West Frontier Province, and was in appreciable defect in the United Provinces, Kashmir, Rajputana, Central India, the Central Provinces, Hyderabad and Mysore. Temperature was within $2\frac{1}{2}°$ of the normal in all the plains divisions, but was $3\frac{1}{2}°$ in defect in Kashmir.

Barometric pressure averaged over the plains of India was ·038″ higher than usual.

Solar, seismic and magnetic disturbances.

KODAIKANAL OBSERVATORY.

3. *Solar Observations.*—The weather was unfavourable for any observations of the sun on eight days during the month and on three other days prominences could not be observed.

Sunspots.—There was only one small spot seen for the whole month. It was visible on the 25th at latitude—27° and longitude 66°.

Prominences.—Twenty-five prominences attaining 60″ or more in height were observed. The highest was photographed on the 14th at latitude—42° west; this attained an altitude of 4 minutes above the sun's limb. Seven prominences showing displacements of the hydrogen lines were recorded.

Magnetic disturbances.—Only "small" disturbances were recorded on the 7th, 28th and 29th of the month.

Seismic records.

$\phi = 10° 13' 50''$; $\lambda = 77° 28' 00''$; $h = 2{,}343$ m. Subsoil Rock.

Apparatus.—Milne's Horizontal Pendulum Seismograph.

TABLE 1.

	V	To	ϵ	$\frac{r}{To^2}$
AN:				
AE:	9·76	16·5	1	2·9
AZ:				

Date.	Phase.	Time, G. M. T.	Period (sec).	Amplitude (u) An.	Ae.	Az.	Distance Δ (Km.)	Remarks.
		h. m. s.						
1913 November 6th-7th.	e P	21 36 12	...	...	...	...	...	Widening of line.
	F	0 02 00	...	...	...	...	...	
Nov. 14th	P	.....	...	...	...	...	...	
	i L	20 56 54	...	...	...	...	...	
	M	20 59 00	...	...	180	...	...	
	F	21 24 24	...	...	...	...	...	
„ 15th	e P	6 22 06	...	...	...	...	...	Widening of line.
	F	6 48 24	...	...	...	...	...	
„ 19th	e P	3 29 12	...	...	...	...	...	
	L	3 40 12	...	...	...	...	...	
	M	3 52 30	...	...	200	...	...	
	M 1	0 55 18	...	...	200	...	...	
	F	4 35 36	...	...	...	...	...	
„ 23rd	e P	22 02 48	...	...	...	...	...	
	F	22 24 24	...	...	...	...	...	

T. ROYDS,

Director,

Kodaikanal and Madras Observatories.

BOMBAY OBSERVATORY.

Alibag magnetic record.

4. During the month of November 1913 the traces showed 16 calm days and 14 days of small disturbance.

The days of the month selected as "quiet" for the purposes of the Magnetic Survey of India are the 5th, 10th, 16th, 20th and 23rd.

The following table represents the magnetic character of each day during the month.

TABLE 2.

Day.	Character.	Day.	Character.	Day.	Character.
1	S	12	C	23	C
2	S	13	S	24	C
3	S	14	C	25	C
4	C	15	C	26	S
5	C	16	C	27	S
6	C	17	C	28	S
7	S	18	S	29	S
8	S	19	C	30	C
9	S	20	C	...	...
10	C	21	C	...	...
11	S	22	S	...	...

C = calm; S = small; M = moderate; G = great; V. G. = very great.

The mean observed absolute values of the several magnetic elements reduced to the mean monthly tabulations of the magnetograms, as also the ranges and the summed ranges of the horizontal force and declination for the month are as follows:—

Easterly declination	0° 46′ 22″
Horizontal force	0·36887 C.G.S. unit.
Vertical force	0·16494 „ „
Inclination	24° 5′·5
Inclination (observed)	24° 4′·9
Horizontal force range	0·00034 C.G.S. unit.
Horizontal force summed range	0·00218 „ „
Declination range	1′·0
Declination summed range	5′·9

(NOTE.—Summed range means sum without regard to sign of the 24 ordinates of the diurnal inequality.)

Seismic records.

$\phi = 18° 53' 45''$; $\lambda = 72° 48' 55''$; h = 11 m. Subsoil Trap.

Apparatus.—Milne's Horizontal Pendulum Seismograph.

TABLE 3.

	V	To	ϵ	$\frac{r}{To^2}$
AN :				
AE :	9	19	1	
AZ :				

Date.	Phase.	Time, G. M. T.			Period (sec)	Amplitude (u) An.	Ae.	Az.	Distance Δ (Km.)	Remarks.
1913.		h.	m.	s.						
Nov. 10th	P		?		...	...	...	...	...	Beginning mixed in tremors.
	M	22	14	42	...	...	67	...	...	
	F		?		...	...	...	...	...	End mixed in tremors.
„ 14th	P	20	57	42	...	...	...	...	...	
	M	21	2	18	...	...	22	...	...	
	F	21	4	42	...	...	...	..	...	
„ 19th	P	3	30	18	...	...	...	...	...	
	M	3	57	6	...	...	122	...	...	
	F	4	30	36	...	...	...	...	...	
„ 23rd	P	21	59	24	...	...	...	...	...	
	M	22	8	18	...	...	111	...	...	
	F	22	23	36	...	...	...	...	...	

Thickening of line was noted on the following occasions :—

d. h. m.	d. h. m. m.	d. h. m.	d. h. m.
1 5 14	2 15 2 to 6	4 11 27 to 32	7 5 9
7 13 17	18 18 24	24 11 5	25 7 33
27 6 22	27 18 19 to 21	29 2 42 to 47	

Only those thickenings which can be clearly distinguished are given; thickenings mixed in tremors are omitted from the above list.

Sensibility to tilt: 1 m.m. of amplitude on the trace = 0·35" from 1st to 16th and 0·"41 from 17th to 30th.

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5. CALCUTTA (ALIPORE) OBSERVATORY.

Seismic records.

$\phi = 22° 32' 0''$; $\lambda = 88° 21' 0''$; h = 6·4 m. Subsoil.

Apparatus.—Milne's Horizontal Pendulum Seismograph.

TABLE 4.

	V	To	ϵ	$\frac{r}{To^2}$
AN :				
AE :	8·688	18	1	
AZ :				

Date.	Phase.	Time, G. M. T.			Period (sec)	Amplitude (u) An.	Ae.	Az.	Distance Δ (Km.)	Remarks.
1913.		h.	m.	s.						
Nov. 3rd	P	15	5	38	...	...	...	...	...	Thickening of line.
	F	16	19	55	...	...	...	...	...	
„ 4th	P	11	28	29	...	...	...	...	...	
	F	12	7	7	...	...	...	...	...	
„ 10th	P	21	23	57	...	...	...	...	...	
	S	21	34	37	...	...	...	...	...	
	M	22	4	6	...	...	57	...	...	
	C	22	26	29	...	...	57	...	...	
	F	23	3	36	...	...	...	...	...	
„ 14th	P	21	0	5	...	...	...	...	...	
	L	21	6	42	...	...	...	...	...	
	M	21	9	14	...	...	57	...	...	
	F	12	25	1	...	...	...	...	...	
„ 19th	P		?		...	...	...	...	...	Begins with morning air tremor.
	S		?		...	...	...	...	...	
	L		?		...	...	...	...	...	
	M	3	54	9	...	...	403*	...	...	* Messured from base line.
	C	3	57	42	...	...	230*	...	...	
	F	5	7	23	...	...	...	...	...	
„ 23rd	P	21	43	17	...	...	...	...	...	
	L	21	53	58	..	..	...	...	...	
	M	21	57	31	...	...	57	...	...	
	F	22	25	31	...	...	...	...	...	

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6. SIMLA OBSERVATORY.

Seismic records.

$\phi = 31^\circ\ 6'\ 00''$; $\lambda = 77^\circ\ 11'\ 00''$; h = 2433·5 m. Subsoil Rock.

Apparatus.—Two Omori-Ewing Horizontal Pendulum Seismographs (Masses 50 Kg.)

TABLE 5.

	V	To	G	$\frac{r}{To^2}$
AN :	14	45	1	
AE :	14	45	1	
AZ :				

Date.	Phase.	Time, G. M. T.			Period (sec.)	Amplitude (u). An.	Ae.	Az.	Distance Δ (Km.)	REMARKS.
1913.		h.	m.	s.						
Nov. 4th	e	11	20	00	...	...	...	...	...	
	e F	11	46	00	...	...	...	...	...	Very slight tremors.
„ 7th	P	5	4	48	...	...	...	...	...	
	F	5	7	30	Very rapid.	...	...	...	...	Very slight local shock.
„ 10th	e P	21	30	18	...	...	...	...	...	
	e F	23	37	00	...	...	...	...	...	Slight tremors.
„ 14th	P	21	1	48	...	...	...	...	...	
	S	21	5	6	...	...	...	...	...	
	L	21	7	42	...	...	...	...	...	
	M	21	10	6	10	18	25	...	...	
	F	21	39	00	...	...	...	...	...	
„ 15th	e	5	42	00	...	...	...	...	...	
	e F	6	50	00	...	...	...	...	...	Very slight tremors.
„ 19th	P	3	30	00	...	...	...	...	...	
	S	3	37	30	...	...	...	...	...	
	L	3	42	00	...	...	...	...	...	
	M	3	52	54	26	103	36	...	...	
	e F	4	29	42	...	...	...	...	...	
„ 20th	P	17	20	54	...	...	...	...	...	
	e F	17	35	42	...	...	...	...	...	Very slight tremors.
„ 22nd	P	11	18	12	...	...	...	...	...	
	e F	11	21	48	...	...	...	...	...	Very slight local shock.
„ 22nd	e P	20	50	00	...	...	...	...	...	
	M	20	56	00	...	10	18	...	...	
	e F	21	22	00	...	...	...	...	...	Slight tremors.
Nov. 27th	e P	6	22	00	...	...	...	...	...	
	e F	6	32	00	...	...	...	...	...	Very slight tremors.
„ 29th	P	2	34	6	...	...	...	...	...	
	e F	3	2	00	...	...	...	...	...	Very slight tremors.
„ 30th	P	17	28	54	...	...	...	...	...	
	S	17	30	12	...	...	...	...	...	
	L	17	30	54	...	...	...	...	...	
	M	17	31	12	6	18	7	...	...	
	e F	17	44	00	...	...	...	...	...	

Solar radiation.—The following figures give the intensity of solar radiation, as measured at Simla by Angstrom's pyrheliometer. The values are corrected to local noon, and expressed in grammecalories per square centimetre per minute :—

Maximum	1·47
Minimum	1·33
Mean	1·40
Number of days of observation .	13

Following table contains a list of earthquakes that were reported :—

TABLE 6.

Place at which felt.	Date.	G. M. T. of earthquake.		Duration.	Intensity Rossi-Forel scale.	No. of shocks.	REMARKS.
	Nov.	h.	m.	sec.			
Drosh . . .	1st	7	45	6	5	1	
„ . . .	1st	23	33	4	4	1	
„ . . .	7th	5	6	60	5	2	
„ . . .	7th	17	46	50	5	1	
„ . . .	10th	2	27	10	5	1	
„ . . .	25th	19	5	50	5	2	
Salonah (Nowgong Assam).	26th	7	54	7	3	*	*A few small tremblings separately indistinguishable.

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7. No information has been received.

Weather in the Indian Ocean.

8. In the equatorial belt as represented by Seychelles and Zanzibar barometric pressure exceeded the normal, and rainfall was in defect at all three stations. The air movement was weaker than usual, and at Seychelles the mean direction of wind was almost due east instead of south-east which is ordinarily the case.

TABLE 7.

——	Mauritius.	Zanzibar.	Seychelles.
Departure from normal of mean pressure.	—·002	+·015	+·025
Actual mean wind direction .	S 84° E	N 50° E	S 85° E
Normal mean wind direction .	S 84° E	S 45° E	S 56° E
Actual mean wind velocity (miles per diem).	180	68	82
Normal mean wind velocity (miles per diem).	187	82	93
Rainfall departure from normal.	—0·94	—5·44	—2·07

Depressions and cyclonic storms.

9. Three disturbances appeared over the Bay in the course of the month, but none of them succeeded in crossing inland. The marine information received up to the present is very meagre and does not enable their real character to be determined with accuracy. The account given below is based chiefly on the indications afforded by the coast observatories.

Disturbance of the 9th to the 11th.—Presumably this originated during the 6th to the east of Ceylon and thence travelled slowly in a northwesterly direction towards the south Coromandel coast. On the morning of the 10th the centre lay apparently within 60 or 70 miles of Cuddalore. According to the coast observations it was dissipated over the sea during the next thirty-six hours while recurving to north. Judged by the depression of the barometer at the coast stations its depth was not great, but it was the cause of some heavy downpours in the Tanjore, Trichinopoly and South Arcot districts which breached the railway line between Coleroon and Cuddalore.

TABLE 8.

DISTRICT.	STATION.	AMOUNT OF RAINFALL RECORDED DURING 24 HRS. PRECEDING 8 HRS. OF		
		9th	10th	Total.
		"	"	"
TANJORE	Shiyali	11·89	6·95	18·84
	Neidavasal	12·05	1·37	13·42
	Tranquebar	10·00	1·94	11·94
TRICHINOPOLY	Jayankondasolapuram	3·40	16·35	19·75
	Ariyalur	2·29	11·18	13·47
	Parambalur	1·71	8·93	10·64
SOUTH ARCOT	Cuddalore	10·00	12·20	22·20
	Srimushnam	4·45	14·96	19·41
	Chidambaram	8·34	10·40	18·74
	Kurinjipadi	7·35	9·50	16·85

The disappearance of the above disturbance was followed by the formation of another depression to the west of the Andamans.

Depression of the 13th to the 18th.—This was seen first on the morning of the 13th when Table Island reported an easterly wind with a moderate sea and over four inches of rain. The observations recorded on the 14th show that the disturbance was off the Arakan coast and was advancing towards Akyab. The subsequent career of the disturbance is uncertain. Unsettled weather continued over the Bay during the next three days, but there were no signs of any definite disturbance. On the morning of the 18th however a small depression was shown in the vicinity of Gopalpur where over 9 inches of rain had fallen and the sea had become rough. So far as can be inferred from the conditions obtaining on the coasts of the Bay it seems probable that this depression was the residue of the disturbance which was nearing Akyab on the 14th; but up to the present there is no direct evidence forthcoming in support of this inference.

The depression disappeared over the head of the Bay on the 19th after giving general rain over the southern half of north-east India.

The third disturbance was formed over the north of Ceylon on the 28th and filled up *in situ* after an existence of two days. It gave some heavy rain on the coast between Pamban and Negapatam.

In addition to the sea-formed disturbances described above three disturbances of the cold weather type were recorded during the month. The first from the 1st to the 3rd, the second on the 15th and 16th and the third from the 27th to the 30th. All the three were transmitted from Persia, but were very ill-defined and their influence on Indian weather was exerted mainly in Baluchistan, the North-West Frontier Province and the Western Himalayas.

Pressure.

10. On the mean of the month atmospheric pressure everywhere in the plains exceeded the average; the excess ranged from ·01″ at Pamban to ·07″ at Bhamo and Dhubri, and averaged ·038″ over the plains as a whole.

In north-west India, Burma and the south of the Peninsula the excess of pressure was due in great part and in north-east India entirely to the high density of the lower atmospheric stratum.

TABLE 9.

DIVISION.	Departure from normal of mean 8 hrs. pressure.
	″
Burma	+·042
Assam	+·058
Bengal	+·046
Bihar and Orissa	+·048
United Provinces	+·049
Punjab	+·043
North-West Frontier Province	+·022
Sind	+·032
Rajputana	+·028
Bombay	+·030
Central India	+·036
Central Provinces	+·035
Hyderabad	+·022
Mysore	+·034
Madras	+·033

The unusual steepness of the vertical gradients in northern India was, it may be noted, associated with the early commencement of the winter conditions.

TABLE 10.

HILL STATION.	Departure from normal pressure. A	PLAIN STATION.	Departure from normal pressure. B	Departure of pressure difference B—A.
			″	″
Quetta	+·003	Jacobabad	+·029	+·026
Leh	+·025	Lahore	+·040	+·015
Murree	+·025	Peshawar	+·031	+·006
Simla	+·034	Ludhiana	+·058	+·024
Chakrata	+·043	Roorkee	+·066	+·023
Darjiling	—·001	Jalpaiguri	+·050	+·051
Mount Abu	+·029	Deesa	+·031	+·002
Pachmarhi	+·045	Khandwa	+·030	—·015
Kodaikanal	+·008	Madura	+·047	+·039

Temperature.

11. The mean maximum temperature of the month was in appreciable defect of the normal in the western Himalayas and the interior of Burma, was between 2° and 5° in excess in the region comprising the Bombay Deccan, Mysore, Hyderabad, Central India and the Central Provinces, and was about normal elsewhere.

Night temperature in general coincided with the normal within 2° except in the Mid-Indus valley as defined by Jacobabad, Multan and Dera Ismail Khan where it was about 4° in excess, and in north Kashmir and along the Himalayas from Sibsagar to Mukteswar where it was nearly 4° in defect.

The mean of maximum and minimum temperatures of the month lay within 2° of the average in all the sub-divisions with the exception of Upper Burma, Assam, Kashmir and Berar.

TABLE 11.

SUB-DIVISION.	ACTUAL TEMPERATURE.					DEPARTURE FROM NORMAL OF		
	Mean maximum.	Mean minimum.	Monthly mean of mean between maximum and minimum.	Mean daily range of temperature.	Absolute range during month.	Maximum.	Minimum.	Daily range.
	°	°	°	°	°	°	°	°
1. Bay Islands	84·9	77·5	81·2	7·5	13·3	—1·2	+0·1	—1·3
2. Lower Burma	84·9	72·1	78·5	12·8	21·0	—2·4	+0·1	—2·5

Sub-division.	Actual temperature.					Departure from normal of		
	Mean maximum.	Mean minimum.	Monthly mean of mean between maximum and minimum.	Mean daily range of temperature.	Absolute range during month.	Maximum.	Minimum.	Daily range.
	°	°	°	°	°	°	°	°
3. Upper Burma	80·6	63·2	71·9	17·4	30·1	—4·7	—0·2	—4·5
4. Assam	79·5	58·2	68·7	21·2	29·9	—1·8	—2·3	+0·5
5. Bengal	81·5	62·8	72·2	18·7	28·8	—1·2	—1·7	+0·5
6. Orissa	83·1	62·3	72·7	20·8	33·4	—1·7	—2·1	+0·4
7. Chota Nagpur	80·2	56·1	68·2	24·1	38·4	—2·1	—1·9	—0·2
8. Bihar	81·6	58·0	69·8	23·6	35·8	—0·9	—2·1	+1·2
9. United Provinces, East	83·6	53·1	68·5	30·6	43·3	+0·8	—2·7	+3·5
10. Do. do., West	8[illegible]·8	52·9	68·4	31·0	44·4	+0·7	—1·4	+2·1
11. Punjab, East and North	80·8	49·9	65·3	31·0	45·0	—0·9	+0·1	—1·0
12. Do., South-west	82·3	51·8	67·0	30·5	45·1	—1·1	+1·6	—2·7
13. Kashmir	52·1	27·3	39·7	24·9	41·2	—4·0	—2·9	—1·1
14. North-West Frontier Province	77·5	48·0	62·8	29·5	47·1	—3·1	+1·9	—4·0
15. Baluchistan	73·6	44·9	59·2	28·7	46·3	—0·1	0	—0·1
16. Sind	86·6	60·8	73·7	25·8	42·1	+0·4	+1·9	—1·5
17. Rajputana, West	87·7	58·1	72·9	29·6	45·9	—1·0	+0·2	—1·2
18. Do., East	86·5	56·8	71·7	29·6	44·8	+0·4	+1·3	—0·9
19. Gujarat	90·6	62·5	76·5	28·2	41·5	+1·1	—1·1	+2·2
20. Central India, West	86·3	54·7	70·5	31·6	43·5	+2·4	+0·1	+2·3
21. Do., East	84·2	52·6	68·4	31·6	47·8	+2·5	—0·9	+3·4
22. Berar	88·5	61·3	74·9	27·2	36·3	+3·3	+0·9	+2·4
23. Central Provinces, West	86·3	56·5	71·4	29·7	41·8	+2·7	0	+2·7
24. Do., East	83·4	58·0	70·7	25·4	36·1	+1·9	—1·9	+3·8
25. Konkan	88·1	70·2	79·1	17·9	26·4	0	—1·2	+1·2
26. Bombay Deccan	88·3	59·7	74·0	28·6	38·0	+2·7	+0·2	+2·5
27. Hyderabad, North	87·2	60·9	74·0	26·3	34·1	+1·7	+0·1	+1·6
28. Do., South	88·4	63·9	76·1	24·5	34·5	+2·7	—0·2	+2·9
29. Mysore	83·1	61·9	72·5	21·2	32·5	+2·1	—0·6	+2·7
30. Malabar	87·0	74·1	80·6	12·9	20·4	+0·3	+0·6	—0·3
31. Madras, South-east	84·3	71·3	77·8	13·0	24·0	—1·4	—0·3	—1·1
32. Do., Deccan	89·6	66·2	77·9	23·4	35·1	+1·8	—0·1	+1·9
33. Do., Coast, North	83·8	69·9	76·9	13·9	23·3	+0·4	—0·8	+1·2

TABLE 12.

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

Winds.

12. (*a*) The air movement was lighter even than usual in Bengal, the United Provinces, the North-West Frontier Province, Sind, Central India and Hyderabad, and was above its normal strength in Assam, Mysore and Madras.

(*b*) The degree of steadiness was high in the Punjab and the Central Provinces; while in Bengal, Rajputana and Central India the direction of wind was even more variable than usual.

(*c*) At the foot of the Himalayas from Darbhanga to Bahraich the mean wind direction of the month contained an undue easterly element, while at Darjiling the opposite was the case, the actual direction being N23°W as compared with N87°E the normal for the month.

TABLE 13.

Division.	Departure from normal of	
	Hourly wind velocity.	Wind steadiness.
Burma	+0·1	+ 1
Assam	+0·3	− 3
Bengal	−0·5	− 9
Bihar and Orissa	−0·1	− 2
United Provinces	−0·3	− 1
Punjab	0	+ 8
North-West Frontier Province	−0·5	− 1
Sind	−0·4	− 1
Rajputana	+0·2	− 4
Bombay	−0·4	+ 3
Central India	−0·8	−17
Central Provinces	+0·2	+ 6
Hyderabad	−0·7	+ 2
Mysore	+0·5	0
Madras	+0·7	+ 4

Humidity and cloud.

13. Humidity both absolute and relative, was decidedly low in the United Provinces, Central India, Rajputana, the Central Provinces and the Bombay Deccan in which areas the south-west monsoon rains had been very weak, while in the North-West Frontier Province, Sind and Buluchistan which were affected chiefly by the winter depressions of the month the air was very damp, in the first two areas according to both estimations and in Baluchistan only in point of relative humidity.

It is noteworthy that the effect of the early winter actions was not apparent in Kashmir where the air was drier than usual.

Over the rest of the country the hygrometric conditions of the month did not depart to any significant extent from the normal.

The distribution of cloud was rather different from that of humidity. There was on the whole considerably more cloud than usual in Burma and the Peninsula excluding Mysore, the Madras-Deccan and Khandesh, the excess in the central parts of Burma amounting to as much as 2·5.

In the remaining parts of India the estimated proportion of cloud was either about normal or in defect.

TABLE 14.

Division.	Hygrometry, 8 hrs.				Cloud.	
	Mean humidity.	Departure from normal.	Mean vapour tension in inches of mercury.	Departure from normal in inches of mercury.	Mean cloud amount at 8 hrs.	Departure from normal.
	%					
Burma	87	+ 4	·697	+·005	5·1	+1·4
Assam	88	− 4	·523	−·052	2·3	−1·4
Bengal	83	− 1	·589	−·047	2·2	0
Bihar and Orissa	79	+ 2	·491	−·032	1·7	+0·1
United Provinces	59	−12	·341	−·077	0·7	−0·3
Punjab	61	− 1	·285	−·012	1·8	+0·1
North-West Frontier Province.	75	+ 9	·304	+·034	1·9	−0·2
Sind	60	+ 7	·427	+·065	0·8	−0·8
Rajputana	38	−12	·234	−·082	1·0	−0·4
Bombay	56	− 7	·448	−·054	1·7	+0·2
Central India	48	−11	·295	−·083	0·5	−0·7
Central Provinces	50	−14	·336	−·089	1·7	+0·2
Hyderabad	54	− 9	·437	−·072	3·5	+0·4
Mysore	67	− 8	·507	−·050	3·5	−1·3
Madras	78	− 3	·699	−·032	4·7	+0·4

Rainfall.

14. The total precipitation of the month fell short of the normal over a large part of the country, the only areas which received more than their average quantity being the Bay Islands, Burma, Bengal, Chota Nagpur, Kashmir, Baluchistan and Madras South-east. The defect averaged about 2″ in amount in Mysore, Malabar, the Madras-Deccan and the Madras Coast North in which areas between two and four inches are recorded under ordinary conditions. In the Konkan, the Bombay Deccan, Hyderabad and the Central Provinces including Berar where the normal fall equals or exceeds half an inch only a few cents occurred during the month under review.

TABLE 15.

Sub-division.	Number of rainy days.		Rainfall.			
	Actual.	Normal.	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
			″	″	″	
1. Bay Islands	9·0	9·3	8·47	7·75	+0·72	+ 9
2. Lower Burma	6·3	2·5	7·78	1·66	+6·12	+369
3. Upper Burma	3·4	2·1	2·06	1·21	+0·85	+ 70
4. Assam	1·2	1·5	0·48	0·90	−0·42	− 47
5. Bengal	1·2	0·8	0·80	0·67	+0·13	+ 19
6. Orissa	1·7	1·5	1·10	1·34	−0·24	− 18
7. Chota Nagpur	1·0	0·6	0·80	0·35	+0·45	+ 129
8. Bihar	0·2	0·3	0·15	0·18	−0·03	− 17
9. United Provinces, East	0	0·2	0	0·15	−0·15	−100
10. Do., West	0·2	0·3	0·06	0·12	−0·06	− 50
11. Punjab, East and North	0·2	0·2	0·08	0·12	−0·04	− 33

Sub-division.	Number of rainy days.		Rainfall.			
	Actual.	Normal.	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
			"	"	"	
12. Punjab, South-west	0·3	0·2	0·08	0·10	—0·02	— 20
13. Kashmir	1·6	1·0	0·82	0·41	+0·41	+100
14. North-West Frontier Province	1·1	0·6	0·37	0·47	—0·10	— 21
15. Baluchistan	1·3	1·1	0·61	0·50	+0·11	+ 22
16. Sind	0	0·2	0·01	0·07	—0·06	— 86
17. Rajputana, West	0	0·3	0	0·19	—0·19	—100
18. Do., East	0·1	0·4	0·02	0·19	—0·17	— 89
19. Gujarat	0	0·4	0	0·18	—0·18	—100
20. Central India, West	0	0·4	0·02	0·21	—0·19	— 90
21. Do., East	0	0·6	0	0·29	—0·29	—100
22. Berar	0	0·9	0·01	0·58	—0·57	— 98
23. Central Provinces, West	0·1	0·6	0·03	0·36	—0·33	— 92
24. Do., East	0·4	0·8	0·14	0·54	—0·40	— 74
25. Konkan	0·1	1·4	0·04	0·78	—0·74	— 95
26. Bombay Deccan	0·2	1·5	0·05	0·77	—0·72	— 94
27. Hyderabad, North	0	1·5	0	0·90	—0·90	—100
28. Do., South	0	2·1	0·01	1·14	—1·13	— 99
29. Mysore	0·2	3·2	0·05	2·11	—2·06	— 98
30. Malabar	2·0	5·2	1·47	3·87	—2·40	— 62
31. Madras, South-east	7·5	7·6	8·32	6·43	+1·89	+ 29
32. Do., Deccan	0·1	2·9	0·01	1·88	—1·87	— 99
33. Do., Coast, North	0·8	3·2	0·79	3·22	—2·43	— 75

TABLE 16.

Division.	Rainfall.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"	
Burma	4·75	1·42	+3·33	+235
Assam	0·48	0·90	—0·42	— 47
Bengal	0·80	0·67	+0·13	+ 19
Bihar and Orissa	0·52	0·48	+0·04	+ 8
United Provinces	0·03	0·13	—0·10	— 77
Punjab	0·08	0·12	—0·04	— 33
North-West Frontier Province	0·37	0·47	—0·10	— 21

Division.	Rainfall.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"	
Sind	0·01	0·07	—0·06	— 86
Rajputana	0·01	0·19	—0·18	— 95
Bombay	0·03	0·58	—0·55	— 95
Central India	0·01	0·24	—0·23	— 96
Central Provinces	0·04	0·49	—0·45	— 92
Hyderabad	0	1·03	—1·03	—100
Mysore	0·05	2·11	—2·06	— 98
Madras	4·49	4·71	—0·22	— 5
Mean of India	1·09	0·98	+0·11	+ 11

Snowfall.

I.—PERSIA.

15. In Meshed the weather was unsettled but no snowfall resulted.

II.—AFGHANISTAN.

A snowstorm occurred on the 16th giving about 2 inches of snow in the plain of Kabul and considerably greater amounts on the surrounding hills.

III.—NORTH-WEST FRONTIER PROVINCE.

(*a*) *Wano.*—No snow fell in this district.

(*b*) *Tochi* (*North Waziristan.*)—On the 30th slight snow fell on the hills.

(*c*) *Kurram.*—Snow fell on the 2nd, 3rd, 11th, 17th and 30th on the Sufed Koh down to the level of the lower peaks.

(*d*) *Drosh.*—Snow to a total depth of 9 inches occurred on the surrounding hills on the 2nd, 17th and 30th. The cold season is said to have begun about the 7th October, nearly three weeks before the average date.

IV.—KASHMIR.

The statement below shows the character of the snowfall in this area.

TABLE 17.

Locality.	Date of occurrence.	Amount.	REMARKS.
Mountains around Srinagar.	First week .	Not known .	
Dras and the neighbouring mountains.	3rd, 6th, 11th and 30th.	In Dras altogether about 8 inches.	The fall of the 3rd was heavy on the Zojila.
Kargil . . .	3rd and 6th .	Slight . .	
Hills around Kargil	3rd and 6th .	The total quantity varied between 6 inches and 2 feet.	At the end of the month the unmelted residue measured 5 feet in depth.

Snow is reported to have fallen also on the mountains around Leh.

V.—PUNJAB.

(*a*) *Kangra.*—There were two severe snowstorms in Kulu and Saraj. The first took place during the 2nd and 3rd when the snowline descended as low as 6,500 feet. The fall was reported to be 3 feet in thickness at 12,000 feet in the Parbatti Nullah. The second storm was on the 30th November and the 1st December. On this occasion snow fell to a depth of about 8″ at Naggar (6,000 feet high). This storm closed the Rohtang pass for the winter.

(*b*) *Kilba* (*Simla Hills*).—In Kanawar the first fall of the season occurred as early as the 3rd of November and descended to a level of about 8,500 feet. A second but heavier fall took place on the 30th when the snowline came down to 7,500 feet. The depth of snow measured at a height of 8,500 feet amounted to about 2″ on the 3rd and to about a foot on the second occasion.

On the ranges near Kilba there were three falls, *viz.*, on the 2nd, 3rd and 30th. The lowest level reached on the first two occasions was 9,000 feet and on the 30th 7,000 feet. During the storms of the 2nd and 3rd snow to a total depth of about 6 feet fell at an elevation of 15,500 feet.

At the close of the month about 12 feet of snow lay on the Rupin pass.

VI.—UNITED PROVINCES.

(*a*) *Garhwal.*—Snowstorms occurred on 3rd, 20th, 23rd and 30th on the higher peaks to the north.

(*b*) *Almora.*—The aggregate fall of the month was estimated at 7½ feet in Malla Darma, 6½ feet in Byans, 4½ feet in Chaudas, 3 feet in Malla Danpur and 2 feet in Malla Johar. In Malla Johar the snowline came down to a distance of about 25 miles from Untadhura.

TABLE 18.

Name of pass or peak.	Depth of accumulation at the end of the month.		
	Reported.		Normal.
	Feet.	Inches.	Feet.
Nuwe pass	37	0	19½
Untadhura	1	0	8
Ralamdhura	0	6	6½
Milamdhura	0	3	8½
Pindari peak	10	0	1½
Kaphini "	10	0	2
Kuntela "	10	0	1½
Binkaru pass	25	0	16
Lipulekh "	12	0	4
Lampia "	14	0	7

VII.—SIKKIM.

At Yatung there was a sprinkling of snow on the 23rd.

SUMMARY.

16. So far as can be judged from the information available at the present time the snowfall began earlier than usual in the western Himalayas and Afghanistan and in some places occurred down to very low levels.

HEM RAJ

Table A.—Abstract of observations taken at 10 hrs. and 16 hrs. at 14 stations in India, etc., in November, 1913.

Table

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

Number of subdivision.	Station.	Elevation of barometer 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.	Temperature, wet-bulb. Mean minimum.	Mean 10 hrs.	Mean 16 hrs.	Mean of three previous columns.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	III.—Bengal.																					
5	Calcutta . .	21	30·038	29·944	·114	29·997	+·033	29·965	80·8	63·4	17·4	85·6	53·1	27·5	75·8	78·7	71·5	−0·9	61·5	67·5	67·2	65·4
	V.—United Provinces of Agra and Oudh.																					
9	Allahabad . .	309	29·792	29·675	·117	29·724	+·013	29·991	85·4	53·1	32·3	92·0	44·1	47·9	77·2	83·5	67·7	+0·2	49·9	60·1	60·6	56·9
	VI.—Punjab.																					
11	Lahore . .	702	29·375	29·289	·086	29·324	+·038	30·014	81·6	49·3	32·3	87·3	42·7	44·6	69·8	78·6	63·5	+0·3	46·8	57·8	62·3	55·[illegible]
	IX.—Rajputana.																					
18	Jaipur . .	1,431	28·653	28·548	·105	28·591	+·029	29·978	86·0	55·9	30·1	93·3	46·0	47·3	78·1	83·8	69·3	+0·4	47·2	58·2	60·0	55·[illegible]
	X.—Bombay.																					
25	Bombay . .	37	29·993	29·885	·108	29·935	+·022	29·912	86·9	73·1	13·8	90·2	70·1	20·1	79·7	83·6	79·2	−0·1	67·5	71·7	74·6	71·3
	XIV.—Mysore.																					
29	Bangalore . .	3,021	27·038	26·930	·108	26·983	+·036	29·844	81·8	60·9	20·9	86·5	52·9	33·6	75·4	77·9	70·3	+0·7	59·2	64·4	64·6	62·7
	XV.—Madras.																					
31	Pudukkottai .	318	29·689	29·561	·128	29·625		29·877	83·2	71·4	11·8	85·5	66·9	22·6	79·2	80·2	77·3			72·7	72·9	
	Madras . .	22	29·997	29·903	·094	29·952	+·026	29·903	84·0	73·4	10·6	87·6	67·3	20·3	80·6	80·7	77·9	0	71·7	75·3	74·7	73·9
	Hill stations excluding Kashmir and Baluchistan.																					
	Sarain* . .		23·282	23·223	·059	23·243		23·205	54·8	31·0	23·8	61·9	27·9	34·0	46·1	44·2	42·8			38·2	38·1	
	Kalabagh . .																					
	Mukteswar . .	7,592	22·963	22·898	·065	22·921		22·878	55·3	38·5	16·8	62·5	30·0	32·5	50·3	52·2	46·4		31·0	41·2	43·6	38·6
	Katmandu . .	4,388	25·815	25·704	·111	25·756	+·058	25·710	70·8	42·2	28·6	76·2	37·4	38·8	56·3	66·0	56·0	−1·8	40·5	51·4	55·2	49·0
	Kodaikanal . .	7,688	22·878	22·810	·068	22·844		22·779	60·3	49·4	10·9	68·5	43·0	25·5	57·0	55·7	54·9		47·3	53·3	52·8	51·5
	Dodabetta . .	8,539	22·106	22·043	·063	22·072		22·009	56·1	46·2	9·9	61·4	40·9	20·5	53·5	51·9	50·7		41·0	49·7	49·5	46·7
	Extra India.																					
	Diego Garcia .																					
	Seychelles . .	15	30·001	29·907	·094	29·967	+·025†	29·905	83·7	76·4	7·3	85·6	78·5	12·1	81·8	82·2	78·7	+1·1†	71·1	76·5	76·0	74·5
	Mauritius . .	181																				

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 5,000 feet.

*Mean of 21 days except minimu.

stations in India, etc., in November 1913.

Vapour tension in inches of mercury.					Humidity.					Cloud.				Wind direction.											Wind steadiness.		Wind velocity.		Rainfall.		Station.	Number of sub-division.
														Total number of 10 hrs. and 16 hrs. winds from																		
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.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Mean wind direction.	Normal mean wind direction of month.	Average percentage.	Normal percentage.	Mean velocity in miles per diem.	Normal.	Total rainfall for the month.	Heaviest rainfall during the month.		
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	49	50	51	52	53	54	55	56
																															III.—Bengal.	
·526	·565	·514	·559	—·028	90	63	53	72	− 2	2·8	2·8	2·8	+0·3	4	9	8	1	1		2	1	34	N 28° W	N 12° W	68	58	* 57	41	0·54	0·52	Calcutta.	5
																															V.—United Provinces of Agra and Oudh.	
·322	·237	·227	·283	—·111	79	32	20	59	−14	0·1	0·2	0·1	−1·2	22	4	7	6	3	3	2	9	4	N 2° W	N 51° W	9	24	15	40	0	0	Allahabad.	9
																															VI.—Punjab.	
·289	·323	·345	·315	−·001	82	44	36	58	+ 1	1·6	1·7	1·7	+0·2	48	1	1		2	1		4	3	N 70° W	N 42° W	7	18	11	23	0	0	Lahore.	11
																															IX.—Rajputana.	
·223	·239	·225	·230	—·067	50	24	19	36	−11	0·9	1·0	0·9	−0·6	3	4	8	6	8	4	8	7	12	N 56° W	N 24° W	8	35	* 58	47	0	0	Jaipur.	18
																															X.—Bombay.	
·594	·671	·732	·691	—·025	73	63	64	72	− 1	1·6	1·2	1·4	−0·3		1	9	18	2			9	21	N 5° E	N 18° E	35	51	* 127	168	0	0	Bombay.	25
																															XIV.—Mysore.	
·489	·478	·455	·487	−·052	91	55	49	68	− 7	3·1	5·3	4·2			3	27	23	6	1				N 70° E	N 60° E	82	68	129	88	0·11	0·08	Bangalore.	29
																															XV.—Madras.	
	·719	·703				73	67			5·8	7·0	6·4		6	24	22	1				2	5	N 14° E		73		141		6·13	1·36	Pudukkottai.	31
·755	·801	·779	·799	+·003	90	77	75	84	0	6·7	6·7	6·7	+0·8		32	22	4	2					N 24° E	N 27° E	85	62	* 132	114	16·60	5·78	Madras.	
																															Hill stations excluding Kashmir and Baluchistan.	
	·153	·170				50	58			2·4†	2·8†	2·6†																	1·62	0·90	Sarain.	
																															Kalabagh.	
·103	·164	·195	·154		46	47	51	52		2·5	3·0	2·7		4		1	6	5	6	1	33	4	S 76° W		46		109*		0·39	0·39	Mukteswar.	
·234	·325	·312	·290	—·046	87	73	49	74	− 1	1·0	1·0	1·0	−1·6	56			2				2		a	N 81° W	a	42	* 20	10	0·45	0·41	Katmandu.	
·307	·371	·394	·357		86	81	89	85		7·3	8·0	7·7		1	10	11	2	8	1		6	21	N 12° W		45		256		9·04	1·38	Kodaikanal.	
·207	·323	·330	·287		66	80	86	77		7·7	8·9	8·3		6	16	16	13	6	1			2	N 49° E		60		243		4·31	1·31	Dodabetta.	
																															Extra India.	
																															Diego Garcia.	
·691	·842	·815	·808	—·028	76	77	74	79	− 4	5·8	6·2	5·0	−0·9	9	3	3	13	12	5	1	3	11	S 85° E	S 56° E	20	14	* 82	93	8·34	3·53	Seychelles.	
																															Mauritius.	

* Uncorrected for scale error. † ean of 22 days. ‡ Departure from old normal. a Indeterminate.

Table B.—Abstract of observations taken at 8 hrs. at 218 stations in India, etc., in November, 1913.

(1) Provincial means.

(2) Data of stations.

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.

	Pressure departure from normal.	Temperature of air.								Wind.		Hygrometry.				Cloud.		Rainfall.		
		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.	Absolute range during month.	Departure of velocity from normal.	Departure of steadiness from normal.	Mean humidity.	Departure from normal.	Mean vapour tension.	Departure from normal.	Mean cloud amount.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.
. . . . .	+·042	83·0	−3·5	68·2	0	75·6	−1·7	14·8	25·0	+0·1	+1	87	+4	·697	+·005	5·1	+1·4	4·75	1·42	+3·33
. . . . .	+·058	79·5	−1·8	58·2	−2·3	68·7	−2·1	21·2	29·9	+0·3	−3	88	−4	·523	−·052	2·3	−1·4	0·48	0·90	−0·42
l	+·046	81·5	−1·2	62·8	−1·7	72·2	−1·4	18·7	28·8	−0·5	−9	83	−1	·589	−·047	2·2	0	0·80	0·67	+0·13
and Orissa	+·048	81·7	−1·4	58·8	−2·0	70·3	−1·7	22·9	35·7	−0·1	−2	79	+2	·491	−·032	1·7	+0·1	0·52	0·48	+0·04
l Provinces of Agra and h.	+·049	83·7	+0·8	53·0	−2·1	68·5	−0·7	30·7	43·8	−0·3	−1	59	−12	·341	−·077	0·7	−0·3	0·03	0·13	−0·10
. . . . .	+·043	81·3	−0·9	50·5	+0·5	65·9	−0·2	30·8	45·0	0	+8	61	−1	·285	−·012	1·8	+0·1	0·08	0·12	−0·04
West Frontier Province .	+·022	77·5	−2·1	48·0	+1·9	62·8	−0·1	29·5	47·1	−0·5	−1	75	+9	·304	+·034	1·9	−0·2	0·37	0·47	−0·10
. . . . .	+·032	86·6	+0·4	60·8	+1·9	73·7	+1·1	25·8	42·1	−0·4	−1	60	+7	·427	+·065	0·8	−0·8	0·01	0·07	−0·06
ana	+·028	86·9	+0·1	57·3	+1·0	72·1	+0·5	29·6	45·2	+0·2	−4	38	−12	·234	−·082	1·0	−0·4	0·01	0·19	−0·18
y	+·030	89·4	+1·3	63·2	−0·7	76·3	+0·3	26·1	37·2	−0·4	+3	56	−7	·448	−·054	1·7	+0·2	0·03	0·58	−0·55
l India	+·036	85·2	+2·5	53·6	−0·4	69·4	+1·0	31·6	45·6	−0·8	−17	48	−11	·295	−·083	0·5	−0·7	0·01	0·24	−0·23
l Provinces . . .	+·035	85·9	+2·7	58·1	0	72·0	+1·3	27·8	38·7	+0·2	+6	50	−14	·336	−·089	1·7	+0·2	0·04	0·49	−0·45
abad	+·022	87·9	+2·4	62·6	−0·1	75·2	+1·1	25·3	34·3	−0·7	+2	54	−9	·437	−·072	3·5	+0·4	0	1·03	−1·03
. . . . .	+·034	83·1	+2·1	61·9	−0·6	72·5	+0·8	21·2	32·5	+0·5	0	67	−8	·507	−·050	3·5	−1·3	0·05	2·11	−2·06
. . . . .	+·033	85·3	−0·1	70·8	−0·2	78·0	−0·2	14·6	24·6	+0·7	+4	78	−3	·699	−·032	4·7	+0·4	4·49	4·71	−0·22

Table

(2) Abstract of observations taken at 8 hrs. at 218

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
	I.—Burma.																						
2	Victoria Point	147	29·842		29·919	29·921	16th	29·742	12th	·179	78·8	85·5		74·2		79·8		11·3	88·1	16th	72·7	7th	15·4
	Mergui	65	29·942	+·049	29·933	30·031	16th	29·836	12th	·195	77·7	86·1	−1·3	70·2	+0·5	78·1	−0·4	15·9	89·0	25th	65·8	30th	23·2
	Tavoy	19	29·991	+·020	29·943	30·092	16th	29·875	12th	·217	78·1	83·5	+0·6	72·0	+3·5†	80·3	+2·1†	10·5	90·5	4 days	63·8	30th	26·7
	Moulmein	94	29·938	+·052	29·971	30·037	16th	29·831	12th	·236	75·7	87·3	−1·1	72·6	+1·5	79·9	+0·2	14·7	90·5	8th	67·3	17th & 30th.	23·2
	Rangoon	18	30·014	+·046	29·978	30·146	16th	29·911	12th	·235	74·3	81·5	−3·1	72·0	−0·3	78·2	−1·7	12·5	88·5	7th	68·0	15th & 30th.	20·5
	Bassein	27?	29·961	+·041	29·955	30·093	16th	29·825	1st	·267	75·0	82·3	−3·8	71·9	+0·4	77·1	−1·7	10·4	85·2	7 days	67·4	15th	17·8
	Diamond Island	41	29·959	+·027	29·935	30·047	17th	29·836	1st	·211	77·9	81·0	−1·5	75·7	+0·5	79·0	−0·5	8·3	87·4	6th	71·0	16th	16·4
	Toungoo	164	29·870†	+·047†	29·860†	29·990	16th	29·717	2nd	·273	71·4	82·3	−4·5	68·6	−1·4	75·7	−2·9	11·2	87·2	15th	62·8	18th	24·4
	Kyaukpyu	18	30·003		29·961	30·114	16th	29·908	13th	·205	77·3	84·4		73·0		78·7		11·4	85·0	13th	67·4	30th	20·6
	Akyab	10	30·008	+·038	29·969	30·105	20th	29·890	12th	·215	74·1	83·7	−1·4	71·1	−0·3	77·4	−0·9	12·6	86·5	4th	65·5	25th	21·4
3	Thayetmyo	121	29·924	+·051	29·969	30·035	16th	29·813	15th	·222	72·5	82·1	−5·9	67·0	−0·3	74·6	−3·1	15·1	85·9	13th	55·4	30th	28·5
	Minbu	*165*	29·888	+·021	30·000	30·02	16th	29·765	12th	·258	72·2	81·8	−6·3	67·9	−0·3	71·8	−3·5	13·9	85·7	7th & 12th.	61·0	30th	24·7
	Yamethin	657	29·381	+·025	30·008	29·489	16th	29·264	12th	·225	69·5	81·9	−6·9	66·5	−0·5	74·2	−3·7	15·4	87·1	12th	60·0	18th & 30th.	27·1
	Mandalay	250	29·819	+·063	30·025	29·955	16th	29·703	12th	·252	69·6	84·2	−2·5	65·6	−1·6	74·9	−2·1	18·6	91·9	15th	56·7	30th	35·2
	Monywa	*280*	29·807		30·044	29·911	16th	29·683	12th	·253	69·2	82·5		65·4		73·9		17·1	86·5	5th	57·8	30th	28·7
	Lashio	*2,820*	27·269	+·032	27·215	27·439	16th	27·178	11th	·261	60·3	73·0	−4·1	56·6	+2·3	64·8	−0·9	16·4	81·6	11th	48·5	16th, 17th & 18th.	33·1
	Bhamo	*381*	29·724	+·073	30·054	29·841	16th	29·612	12th	·229	63·4	79·8	−2·0	58·6	−0·6	69·2	−1·3	21·2	83·6	4 days	51·2	30th	32·4
	Myitkyina	458	29·618		30·055	29·740	16th	29·509	12th	·231	62·6	79·3		58·0		68·6		21·3	82·2	4th	51·4	30th	30·8
	II.—Assam.																						
4	Dibrugarh	353	29·738		30·072	29·849	16th	29·632	12th	·217	59·7	79·0		56·1		67·5		22·9	81·9	5 days	51·1	28th & 29th.	30·8
	Sibsagar	333									61·3	75·7	−2·6	55·8	−3·8	65·7	−3·2	19·9	78·6	15th & 16th.	50·0	28th	28·6
	Tezpur	252	29·860		30·083	29·980	16th	29·758	12th	·222	62·1	79·8		57·9		68·8		21·9	82·6	5th & 6th	52·3	28th	29·8
	Gauhati	195	29·908		30·067	29·992	16th	29·793	12th	·199	65·0	80·5		57·8		69·2		22·7	83·3	6th	52·1	29th	31·2
	Dhubri	115	30·009§	+·068§	30·083§	30·079	16th	29·948	27th	·131	66·7	77·7	−2·1	59·9§	−1·5§	68·0§	−1·8	17·8	80·5	4th	58·3	5 days	22·2
	Silchar	104	29·967	+·048	30·026	30·075	16th	29·843	12th	·232	68·2	84·1	−0·7	61·9	−1·7	73·0	−1·2	22·2	88·3	14th	51·3	27th	37·0
	III.—Bengal.																						
5	Cox's Bazar	36	29·983		29·965	30·066	21st	29·877	12th	·189	73·1	83·1		67·5		75·3		15·6	87·2	5th	59·2	28th	28·0
	Chittagong	87	29·952	+·036	29·988	30·036	25th	29·838	12th	·198	70·5	82·0	−1·0	65·3	−0·5	73·7	−0·7	16·7	86·0	6th & 18th.	56·5	27th	29·5
	Noakhali	43	30·013		30·004	30·103	25th	29·908	14th	·195	69·6	81·4		63·6		72·5		17·8	85·8	17th	56·8	27th & 28th.	29·0
	Barisal	12	30·037	+·047	29·996	30·139	25th	29·934	12th	·205	71·5	81·1	−1·7	63·0	−2·0	72·1	−1·9	18·1	85·8	17th	57·6	27th & 28th.	28·2
	Narayanganj	26	30·022	+·040	29·998	30·116	25th	29·913	12th	·203	69·7	82·2	−1·3	63·7	−2·3	73·0	−1·8	18·5	86·0	15th & 17th.	58·8	27th & 28th.	27·2

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

† Mean of 26 days.
§ " " 15 "

B.

stations in India, etc., in November, 1913.

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 from 1st May to 30th November, 1913.	Normal rainfall for period, 1st May to 30th November.	Departure from normal of period, 1st May to 30th November, 1913.	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
																																I.—Burma.
4	7	10	5	2			1	1	N 41° E		3·8*			53		83		·811		5·1		12			5·61			167·22			1·48	Victoria Point.
27			2	1					S 75° E	N 29° E	2·2	1·2	+1·0	10	−42	83	+ 5	·705	+·035	3·5	− 0·3	7	6·0	+1·0	7·26	3·46	+ 3·80	150·95	150·94	+ 0·01	2·48	Mergui.
27		1	2						N 75° E	N 29° E	1·0*	0·9	+0·1	10	+ 2	82	+ 1	·791	+·055	2·2	−1·3	4	4·3	0	1·30	2·63	− 1·33	219·37	210·14	+ 9·23	0·58	Tavoy.
2		4	23	3		1			E	N 4° E	4·7	1·3	+2·4	81	+59	89	+ 6	·797	+·047	5·2	+1·5	8	2·7	+5·3	5·77	2·19	+ 3·58	208·62	184·02	+24·60	1·75	Moulmein.
3	8	15	2	1	1				N 28° E	N 68° E	1·5	2·6	−1·1	69	+ 9	89	+ 2	·774	+·005	7·5	+4·3	7	3·1	+3·9	15·90	2·38	+14·52	116·93	95·16	+21·82	5·94	Rangoon.
13	2	12	3						N 48° E	N 57° E	4·2	2·6	+1·6	49	−10	87	+ 1	·782	−·002	4·4	+1·6	6	4·1	+1·9	10·61	3·14	+ 7·47	103·95	107·58	− 3·63	3·23	Bassein.
		16	10		1	3			N 67° E	N 53° E	8·0	6·7	+1·3	69	− 4	81	+ 6	·809	+·019	5·5	+1·4	7	5·2	+1·8	14·61	4·71	+ 9·93	129·88	114·22	+15·66	5·23	Diamond Island.
5	12	4	1				1	7	N 6° W	N 12° W	1·4	1·2	+0·2	66	+14	83	+ 4	·725	−·018	5·9	+1·4	3	2·6	+5·4	7·28	1·74	+ 5·54	85·18	79·34	+ 5·84	2·10	Toungoo.
	5	12	10	3					N 61° E		3·3			75		81		·765		5·9		3			6·94			163·22			0·38	Kyaukpyu.
4	9	9	4	2				2	N 34° E	N 26° E	1·4	1·7	−0·3	59	−25	90	+ 1	·747	+·092	3·6	−0·1	5	3·5	+1·5	5·52	3·98	+ 1·54	213·47	138·24	+25·23	2·82	Akyab.
16		11					1		N 41° E	N 4° E	1·4*	2·6	−1·2	33	−22	83	+ 5	·609	+·001	6·0	+3·4	5	2·7	+2·3	3·27	1·67	+ 1·60	33·71	35·97	− 2·26	1·37	Thayetmyo.
				2				28	N 45° W	N 48° W	2·7	5·2	−2·5	82	+ 6	83	+ 7	·646	−·107	5·3	+3·2	4	2·4	+1·6	3·00	1·81	+ 1·19	30·40	32·37	− 1·97	0·92	Minbu.
9	10	1						10	N 19° W	N 18° W	2·1	2·2	−0·1	62	+14	89	+ 5	·645	−·030	4·6	+2·5	6	2·6	+3·4	4·08	1·57	+ 2·51	37·57	35·74	+ 1·83	1·73	Yamethin.
23	3	3						1	N 14° E	N 11° E	1·3	1·5	−0·2	20	0	87	+ 2	·629	−·053	5·6	+1·8	2	3·2	−1·2	2·05	1·72	+ 0·34	30·43	31·20	− 0·77	1·43	Mandalay.
4	27							5	N 8° W		1·9			32		87		·623		5·5		2	2·7	−0·7	1·71	2·41	− 0·70	33·53	30·30	+ 3·23	0·94	Monywa.
30									(a)		0·3*			a		95	+ 4	·501	+·018	7·8	+0·9	9	4·2	+4·8	6·46	2·42	+ 4·04	68·47	58·30	+10·17	2·87	Lashio.
12	5	9	1					3	N 21° E	N 23° E	0·9	1·2	−0·3	46	+ 7	93	+ 3	·548	−·020	5·5	+1·3	5	2·7	+2·3	2·13	1·64	+ 0·54	80·27	67·68	+12·59	1·48	Bhamo.
24		2	3	1					N 32° E		1·0			17		89		·504		3·0		0	2·4	−2·4	0·13	1·25	− 1·12	71·34	71·83	− 0·49	0·09	Myitkyina.
																																II.—Assam.
23		4	2				1		N 53° E		0·9			17		92		·470		1·3		1	2·4	−1·4	0·21	1·31	− 1·10	93·21	86·28	+ 6·93	0·10	Dibrugarh.
28	1							1	N 24° W	N 60° E	1·5	1·1	+0·4	7	−20	95	− 3	·515	−·061	4·1	−1·1	1	2·1	−1·1	0·80	1·07	− 0·27	77·96	77·46	+ 0·50	0·67	Sibsagar.
3	2	23	2						N 45° E		1·4			82		86		·476		1·2		1	1·7	−0·7	0·12	0·96	− 0·84	57·00	59·41	− 2·41	0·12	Tezpur.
27		1	1	1					E		1·1			8		90		·554		3·7		0	1·0	−1·0	0·06	0·31	− 0·25	53·13	52·68	+ 0·45	0·06	Gauhati.
		14	15	1					N 70° E	N 65° E	4·6	3·7	+0·9	86	+ 9	83	− 5	·541	−·051	1·9	0	0	0·5	−0·5	0·07	0·26	− 0·19	83·14	86·80	− 3·66	0·07	Dhubri.
27			3						E	N 79° E	0·8	1·2	−0·4	10	+ 2	84	− 3	·584	−·045	1·6	−3·1	3	1·8	+1·2	1·19	1·40	− 0·21	106·46	98·80	+ 7·66	0·72	Silchar.
																																III.—Bengal.
2	7	12	5	2				2	N 41° E		1·2*			66		91		·743		3·8		6			9·39			143·43			3·57	Cox's Bazar.
18	2	9						1	N 32° E	N 43° E	0·9	2·0	−1·1	37	−36	88	− 1	·653	−·028	3·6	+0·1	3	1·7	+1·3	2·77	1·82	+ 0·95	136·63	88·68	+47·95	1·26	Chittagong.
4	12	9		1				4	N 11° E		1·2			73		87		·631		1·9		2	1·6	+0·4	0·73	1·85	− 1·12	111·46	109·98	+ 1·48	0·60	Noakhali.
29	1								N	N 18° E	0·2	1·2	−1·0	3	−22	83	0	·637	−·041	2·0	+0·1	2	1·5	+0·5	1·43	1·30	+ 0·13	101·76	71·59	+30·17	0·89	Barisal.
21	2	1	2					4	N 1° W	N 13° E	0·4	1·5	−1·1	18	−25	84	− 1	·609	−·050	3·0	+0·6	2	1·1	+0·9	1·16	0·96	+ 0·20	60·80	61·10	− 0·30	0·66	Narayanganj.

* Uncorrected for scale error.

(a) Indeterminate.

Table

(2) Abstract of observations taken at 8 hrs. at 218

Number of sub-division.	Station.	Elevation of barometer above sea-level, in feet.	Pressure, 8 hrs., in inches. 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.	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	16	17	18	19	20	21	22	23	24
	III.—Bengal—*concld.*																						
	Mymensingh	63	30·001	+·044	30·017	30·087	16th	29·899	12th	·197	68·3	82·7	+1·2?	63·8	+0·1?	73·3	+0·7?	18·9	86·1	4th	58·1	26th	28·0
	Bogra	75	29·998	+·052	30·027	30·035	16th	29·893	12th	·202	67·5	80·5	−1·5	61·5	−0·9	71·0	−1·2	19·0	83·7	6 days	56·2	28th	27·5
	Dinajpur	123	29·946	+·044	30·028	30·037	16th	29·842	12th	·195	65·9	80·8	−1·6	59·3	−1·7	70·0	−1·7	21·5	83·3	5th	54·0	27th	29·3
	Jalpaiguri	283	29·801	+·050	30·055	29·899	16th	29·690	12th	·209	63·1	82·1	+0·8	57·9	−2·8	70·0	−1·0	24·2	85·4	15th	53·9	16th	31·5
	Saugor Island	25	30·054	+·044	30·010	30·148	25th	29·953	12th	·195	71·4	80·9	−0·8	65·1	−2·0	73·0	−1·4	15·8	86·2	8th & 17th	59·2	27th	27·0
	Midnapore	149	29·905‡		30·008‡	30·002	25th	29·813	12th	·189	63·0	82·4		61·4‡		71·5‡		21·0	87·6	7th, 8th & 13th.	55·2	29th	32·4
	Calcutta	21	30·048	+·044	30·016	30·152	25th	29·948	12th	·204	63·1	81·1	−0·3	63·3	−1·2	72·2	−0·7	17·8	85·6	8th	57·5	28th	28·1
	Jessore	33	30·044	+·059	30·025	30·147	25th	29·927	12th	·220	63·7	81·2	−1·9	61·3	−2·7	71·2	−2·3	19·9	85·0	16th & 17th	54·7	25th	30·3
	Burdwan	99	29·977	+·047	30·027	30·076	25th	29·880	12th & 14th.	·196	67·9	81·5	−1·7	62·3	−2·0	71·9	−1·9	19·2	85·6	7th	56·5	28th	29·1
	Berhampore	67	30·008	+·045	30·026	30·106	25th	29·905	12th	·201	65·7	80·1	−1·8	63·2	−0·8	71·6	−1·3	16·9	84·6	1st	57·2	27th	27·4
	IV.—Bihar and Orissa.																						
6	Balasore	50	30·025	+·043	30·021	30·119	25th	29·934	12th	·185	66·3	82·5	−1·1	61·1	−1·9	72·8	−1·5	21·4	87·4	1st & 8th	53·1	28th	34·3
	Hukitala (False Point).	29	30·036	+·044	30·006	30·122	25th	29·943	12th	·179													
	Cuttack	80	30·001	+·059	30·024	30·080	20th & 24th.	29·911	12th	·169	69·0	82·3	−2·8	64·5	−1·6	73·4	−2·2	17·6	86·5	1st, 8th & 22nd.	56·2	29th	30·3
	Puri	24	30·037		30·002	30·121	25th	29·949	12th	·172	71·0	85·7		66·8		76·3		18·9	90·6	1st	59·6	29th	31·0
	Angul	455	29·609		30·027	29·687	24th	29·518	12th	·169	67·4	82·4		59·7		71·1		22·7	87·1	2nd	51·5	28th	35·6
	Sambalpur	486	29·598	+·050	30·055	29·674	20th & 21st.	29·521	12th	·153	65·4	82·5	−1·3	59·5	−2·3	71·0	−2·1	23·0	87·0	2nd & 7th	51·2	28th	35·8
7	Chaibasa	*733*	29·323	+·049	30·044	29·404	25th	29·232	12th	·172	62·0	80·7	−2·6	57·2	−2·3	69·0	−2·5	23·5	87·1	7th & 8th	48·8	28th	38·3
	Ranchi	2,128	27·913	+·047	30·033	27·987	16th	27·828	12th	·159	63·3	76·3	−1·5	56·1	−1·5	65·2	−1·5	20·2	82·2	7th	48·4	28th	33·8
	Purulia	*816*	29·247†		30·050†	29·323	16th	29·164	12th	·159	64·5	81·8		59·0		70·4		22·8	88·0	6th & 7th	52·1	27th & 28th.	35·9
	Daltonganj	*730*	29·359		30·086	29·455	25th	29·256	12th	·199	57·7	82·0		54·1		67·1		23·9	88·1	6th	42·5	28th	45·6
8	Purnea	134	29·953	+·043	30·038	30·039	16th	29·842	12th	·197	62·1	81·1	−0·8	58·8	−2·4	68·9	−1·6	21·3	84·6	16th	49·3	27th	35·3
	Monghyr	155	29·943‡		30·056	30·039	25th	29·844	12th	·195	69·5	81·6		59·8		70·7		21·8	83·2	6th	52·9	27th	33·3
	Darbhanga	165	29·920	+·047	30·047	30·033	16th	29·807	12th	·226	65·3	81·4	+0·1	57·6	−1·4	69·5	−2·1	23·8	85·6	17th	49·7	28th	35·9
	Pusa	188	29·892		30·044	29·998	16th	29·785	12th	·213	63·6	82·2		55·7		68·9		26·5	85·5	7th	48·2	28th	37·3
	Patna	183	29·904	+·039	30·049	29·938	16th	29·730	12th	·208	68·0	80·4	−1·3	60·3	−0·2	70·4	−0·7	20·1	84·5	7th	52·2	28th	32·3
	Buxar	239	29·850		30·057	29·952	16th	29·730	12th	·222	62·8	84·3		58·0		71·2		26·3	91·0	7th	50·1	26th & 27th.	40·9
	Gaya	372	29·704	+·036	30·045	29·794	16th	29·597	12th	·197	65·0	82·1	−1·1	57·8	−1·9	69·9	−1·5	24·3	87·9	7th	49·7	27th & 28th.	38·2
	Naya Dumka	489	29·585	+·066	30·050	29·677	25th	29·489	12th	·188	64·0	80·0	−1·4	58·1	−1·4	69·0	−1·4	21·9	84·4	7th & 16th	51·5	27th & 28th.	32·9
	V.—United Provinces of Agra and Oudh.																						
9	Gorakhpur	257	29·811	+·041	30·039	29·914	16th	29·695	12th	·219	62·9	80·6	−1·0	52·2	−6·1¶	66·4	−3·5	28·4	85·3	5th	45·1	26th & 27th.	40·2
	Benares	267	29·823	+·053	30·056	29·915	16th	29·697	12th	·218	65·7	83·5	+1·4	54·2¶	−2·3	70·3¶	−0·5	28·7	89·0	1st & 7th	51·2	9th	37·8
	Allahabad	309	29·774	+·046	30·053	29·870	16th	29·655	12th	·215	64·3	85·8	+2·7	53·1	−2·0	69·4	+0·3	32·7	92·1	1st & 6th	44·0	28th	48·1
	Cawnpore	416	29·668	+·056	30·063	29·774	16th	29·535	12th	·239	61·9	84·3	+0·2	53·5	−1·5	68·9	−0·7	30·8	90·1	1st & 4th	45·0	30th	45·1

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

† Mean of 28 days.
‡ " " 29 "
¶ " " 24 "

B—*continued.*

stations in India, etc., in November, 1913—continued.

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 from 1st May to 30th November, 1913.	Normal rainfall for period, 1st May to 30th Nov.	Departure from normal of period, 1st May to 30th November, 1913.	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
																																III.—Bengal —*concld.*
30									(a)	N 58° E	0·2	0·8	−0·6	(a)		88	− 1	·613	−·026	2·7	+0·1	1	0·9	+0·1	0·16	0·73	− 0·57	84·46	83·70	+ 0·76	0·12	Mymensingh
8	9	6	2					5	N 10° E	N 27° E	0·7	1·0	−0·3	56	+18	85	0	·575	−·033	1·2	+0·1	1	0·5	+0·5	0·26	0·65	− 0·39	93·90	63·26	+30·64	0·26	Bogra.
13	5	10	1					1	N 30° E	N 21° E	0·9	1·6	−0·7	49	− 6	83	− 1	·532	−·044	1·3	+0·1	0	0·4	− 0·4	0	0·12	− 0·12	72·08	64·97	+ 7·11	0	Dinajpur.
29			1						E	N 20° E	1·1			3	−52	81	− 3	·470	−·092	0·4	−0·8	1	0·4	+0·6	0·73	0·10	+ 0·63	112·83	116·66	− 3·83	0·73	Jalpaiguri.
2	17	10					1		N 14° E	N 10° E	4·2	5·1	−0·9	82	+ 9	84	− 3	·642	−·046	3·2	+0·1	2	1·4	+ 0·6	0·86	1·37	− 0·51	98·98	65·77	+33·21	0·63	Saugor Island.
6	11	3						10	N 14° W		0·8			70		75		·518		1·8		1	0·9	+ 0·1	0·54	0·69	− 0·15	63·53	52·87	+10·66	0·52	Midnapore.
5	6	4	1	1				13	N 15° W	N	2·4*	1·8	+0·6	59	+14	83	+ 1	·573	−·038	2·5	+0·7	1	0·9	+ 0·1	0·54	0·56	− 0·02	80·47	57·04	+23·43	0·52	Calcutta.
26		3						1	N 27° E	N 6° W	1·0	1·2	−0·2	10	−16	82	− 4	·577	−·070	1·0	−1·0	1	1·1	− 0·1	1·15	1·12	+ 0·03	79·44	58·47	+20·97	1·15	Jessore.
11	4	4	1					10	N 13° W	N 5° W	1·1	1·2	−0·1	46	+ 6	76	+ 1	·525	−·034	2·2	+0·2	1	0·9	+ 0·1	0·30	0·66	− 0·36	66·27	52·66	+14·31	0·28	Burdwan.
14	8	1			1		1	5	N 19° W	N 13° W	0·7	1·1	−0·4	40	+10	82	− 3	·541	−·064	1·7	−0·2	1	0·6	+ 0·4	1·08	0·52	+ 0·56	67·34	51·26	+16·08	1·08	Berhampore.
																																IV.—Bihar and Orissa.
4	10	1						15	N 24° W	N 21° W	1·0	1·5	−0·5	76	+ 9	84	0	·543	−·057	3·0	+0·2	2	1·2	+ 0·8	1·06	0·94	+ 0·12	81·17	55·44	+25·73	0·72	Balasore.
1	8	2						19	N 28° W	N 19° W	5·6	4·4	+1·2	86	+ 6					2·6	−0·7	2	2·2	− 0·2	4·37	2·54	+ 1·83	77·08	58·89	+18·19	3·15	Hukitala (false point).
21	1	5	1			1	1		N 37° E	N 45° W	1·2*	1·2	0	17	0	78	+ 2	·560	−·021	3·5	+1·1	2	1·7	+ 0·3	0·75	1·28	− 0·53	54·59	55·89	− 1·30	0·40	Cuttack.
	20	6						4	N 2° E		4·7			90		79		·604		2·9		2	1·8	+ 0·2	1·68	2·91	− 1·23	54·69	50·72	+ 3·97	0·86	Puri.
19				1			1	9	N 49° W		1·4			30		77		·524		3·2		1	0·4	+ 0·6	0·54	0·13	+ 0·41	41·67	42·47	− 0·80	0·45	Angul.
	10	16	2					2	N 28° E	N 21° E	3·0	2·0	+1·0	86	+11	82	+ 6	·519	−·032	3·4	+1·6	1	0·9	+ 0·1	0·93	0·93	0	49·95	63·46	−13·51	0·90	Sambalpur.
22	1	2			2	1	2		S 75° W	S 77° W	1·1	0·7	+0·4	4	−29	85	+ 4	·478	−·043	2·4	+0·5	1	0·9	+ 0·1	0·88	0·52	+ 0·36	59·61	47·51	+12·10	0·88	Chaibassa.
15	1	2	1		2	1	6	2	N 73° W	N 63° W	2·1	2·7	−0·6	20	+ 2	65	− 1	·382	−·043	1·7	+0·2	1	0·6	+ 0·4	1·33	0·22	+ 1·11	59·07	51·73	+ 7·34	1·33	Ranchi.
7	2					2	14	5	N 78° W		1·6			63		74		·453		0·8		1	0·7	+ 0·3	0·68	0·23	+ 0·45	54·19	47·15	+ 7·04	0·68	Purulia.
23		1	3	2				1	E		1·1			13		87		·422		1·1		1	0·4	+ 0·6	0·27	0·21	+ 0·06	47·16	38·68	+ 8·48	0·27	Daltonganj.
8	1	7	6			3	4	1	N 43° E	N 50° E	0·7†	1·1	−0·4	23	+12	95	+ 6	·534	−·021	0·7	−0·3	0	0·2	− 0·2	0	0·10	− 0·10	59·72	59·02	+ 0·70	0	Purnea.
17	2	1	2		1	1	2	3	N 45° W		1·0			13		64		·470		0·8		0			0			46·38			0	Monghyr.
29			1						E	N 48° W	0	1·2	−1·2	3	− 7	84	+ 2	·525	−·027	0·3	−0·4	0	0·3	− 0·3	0	0·10	− 0·10	59·41	48·09	+11·32	0	Darbhanga.
25	2		1				1	1	N 18° W		0·8			10		87		·513		0·7		0			0			62·74			0	Pusa.
13			3	2	3	5	4		S 22° W	S 60° W	1·3	1·3	0	27	0	72	+ 1	·497	−·010	0·5	−0·8	0	0·4	− 0·4	0	0·17	− 0·17	67·27	44·64	+22·43	0	Patna.
11	1		1	3	5	4	4	1	S 27° W		0·9			30		73		·415		1·3		0	0·4	− 0·4	0	0·41	− 0·41	39·38	39·05	+ 0·33	0	Buxar.
14	2	2			6	3		3	S 47° W	S 7° E	0·9	1·7	−0·8	13	−20	71	0	·441	−·034	1·0	−0·6	0	0·6	− 0·6	0	0·42	− 0·42	71·59	44·18	+27·41	0	Gaya.
29								1	N 45° W		1·0			3		80	0	·474		0·5		1	0·6	+ 0·4	0·98	0·32	+ 0·66	60·04	52·34	+ 7·70	0·96	Naya Dumka.
																																V.—United Provinces of Agra and Oudh.
22		3	5						N 72° E	N 67° W	0·3	0·7	−0·4	23	− 7	79	+ 3	·456	−·043	0·2	−0·7	0	0·3	−0·3	0	0·15	−0·15	43·50	48·50	− 5·00	0	Gorakhpur.
21	1			1	1	2	4		S 66° W	S 53° W	0·8	1·4	−0·6	17	− 5	68	−12	·430	−·049	0·1	−1·3	0	0·6	−0·6	0	0·30	−0·30	43·13	37·73	+ 5·40	0	Benares.
21				1	3		4	1	S 53° W	N 82° W	0·9	1·7	−0·8	17	− 8	57	−15	·341	−·116	0·4	−0·9	0	0·5	−0·5	0	0·31	−0·31	23·36	37·19	−13·83	0	Allahabad.
27					2	1			S 15° W	N 68° W	0·8	1·4	−0·6	10	− 9	65	− 1	·367	−·044	0·2	−0·7	0	0·3	−0·3	0	0·29	−0·29	20·67	34·13	−13·46	0	Cawnpore.

* Uncorrected for scale error. † Mean of 29 days. (a) Indeterminate.

Table

(2) Abstract of observations taken at 8 hrs. at 218

Number of sub-division.	Station.	Elevation of barometer above sea-level, in feet.	Pressure, 8 hrs., in inches. 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.	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	16	17	18	19	20	21	22	23	24
	V.—United Provinces of Agra and Oudh—*concld.*																						
	Lucknow	368	29·718	+·056	30·060	29·829	16th	29·584	12th	·245	66·1	84·7	+1·4	51·9	−0·9	68·3	+0·3	32·8	90·0	4th, 6th & 7th.	44·1	28th & 29th.	45·9
	Bahraich	401	29·653	+·028	30·035	29·759	16th	29·537	12th	·222	62·1	82·9	+0·1	52·9	−3·7	67·9	−1·8	30·0	87·6	6th	45·0	26th	42·6
10	Jhansi	824	29·258	+·046	30·070	29·351	24th	29·131	12th	·220	66·6	86·4	+1·1	55·8†	−2·8†	71·1†	−0·9	30·6	94·6	4th & 5th.	47·0	27th	47·6
	Agra	556	29·528	+·045	30·068	29·633	24th	29·401	12th	·222	65·1	85·6	+1·2	56·8	+0·9	71·2	+1·1	28·8	52·5	4th	49·0	28th	43·5
	Mainpuri	516	29·555	+·049	30·058	29·647	24th	29·433	12th	·214	60·2	85·1	+0·9	52·3	−1·9	68·7	−0·5	32·8	90·8	3rd & 4th.	45·1	28th	45·7
	Bareilly	568	29·492	+·048	30·050	29·589	16th	29·378	12th	·211	62·1	82·7	+1·6	51·6	−1·2	67·2	+0·2	31·1	87·3	6th	44·5	27th	42·8
	Roorkee	899	29·172	+·066	30·089	29·273	16th	29·067	12th	·206	58·2	79·4	−1·1	47·9	−1·9	63·6	−1·5	31·5	83·3	5th	40·9	26th	42·4
	VI.—Punjab.																						
11	Delhi	718	29·346	+·050	30·067	29·442	25th	29·238	12th	·204	62·2	82·0	−0·9	56·6	+0·4	69·3	−0·3	25·4	83·0	3rd	48·8	29th	40·2
	Sirsa	662	29·395	+·038	30·065	29·510	25th	29·241	3rd	·269	57·5	83·6	−1·3	51·1	+1·0	67·3	+0·1	32·5	93·3	3rd	41·0	4 days	49·3
	Patiala	*818*	29·228		30·063	29·335	16th & 24th.	29·111	12th	·224	56·7	80·5		50·5		65·5		30·0	86·5	3rd	43·4	17th	43·1
	Ambala	892	29·169	+·056	30·086	29·267	16th	29·058	3rd	·209	56·1	81·9	−0·4	47·4	−3·5	64·7	−1·9	34·5	87·5	3rd	39·9	24th	47·6
	Ludhiana	812	29·252	+·058	30·077	29·351	20th	29·123	3rd	·228	59·3	80·5	−0·1	52·1	+1·2	66·3	+0·5	28·4	86·9	3rd	45·6	29th	41·3
	Lahore	702	29·354	+·040	30·075	29·472	17th	29·201	3rd	·271	54·4	82·3	−1·3	49·1	+2·3	65·7	+0·5	33·2	87·4	2nd	42·7	24th	44·7
	Sialkot	830	29·220	+·044	30·077	29·349	17th	29·094	3rd	·255	54·4	79·8	−1·1	47·6	−2·3	63·7	−1·7	32·2	85·0	11th	38·7	26th	46·3
	Rawalpindi	1,674	28·373	+·032	30·122	28·522	17th	28·274	12th	·248	50·5	76·1	−1·1	44·4	+1·1	60·2	0	31·7	83·9	14th	36·6	25th	47·3
12	Khushab	612	29·466	+·050	30·088	29·574	17th	29·346	12th	·228	53·8	81·5	−1·3	49·1	−0·6	65·3	−0·9	32·4	83·0	14th	39·9	20th	49·1
	Lyallpur		29·456		29·421*	29·575	17th	29·332	3rd	·243	55·8	80·9		49·5		65·2		31·4	86·1	2nd, 13th & 14th.	41·0	21th	45·1
	Montgomery	558	29·509	+·035	30·067	29·622	25th	29·358	2nd	·264	61·2	82·5	−1·7	53·1	+2·2	67·8	+0·3	29·4	90·0	2nd	45·8	21st & 25th.	44·2
	Multan	420	29·657	+·032	30·064	29·798	17th	29·498	2nd	·300	62·9	84·1	−0·3	55·5	+3·1	69·8	+1·4	28·6	90·3	2nd	43·5	23rd & 27th.	41·8
	VII.—North-West Frontier Province.																						
14	Peshawar	1,113	28·970	+·031	30·142	29·200	17th	28·857	12th	·343	49·8	75·7	−1·4	45·1	0	60·4	−0·7	30·6	85.9	13th	37·9	22nd	48·0
	D. I. Khan	590	29·478	+·013	30·079	29·655	17th	29·334	2nd	·321	55·8	79·4	−2·7	50·9	+3·9	65·2	+0·6	28·5	85·4	13th	42·1	25th	46·3
	VIII.—Sind.																						
16	Jacobabad	186	29·890	+·029	30·044	30·031	17th & 25th.	29·717	2nd	·314	65·5	86·9	+0·1	55·1	+4·3	71·0	+2·2	31·8	97·6	3rd	43·8	27th	53·8
	Hyderabad	96	29·980	+·032	30·031	30·084	25th	29·848	3rd	·236	66·7	88·1	+0·1	59·8	−0·2	73·9	−0·1	28·3	96·2	1st	52·2	19th	44·0
	Karachi	13	30·075	+·034	30·038	30·161	17th	29·960	3rd	·201	71·7	84·8	+1·1	67·4	+1·6	76·1	+1·3	17·4	89·5	7th	61·0	24th	28·5
	IX.—Rajputana.																						
17	Bikaner	*771*	29·279	+·033	30·046	29·396	25th	29·138	3rd	·258	63·7	89·3	+1·6	56·5	−2·9†	71·4	−0·7†	29·8	95·0	3rd	46·0	27th	50·0
	Jodhpur	780	29·273	+·021	30·040	29·363	25th	29·179		·184	67·3	89·0	−1·0	59·6	+0·2	74·3	−0·4	29·4	95·0	3rd	53·3	19th	41·7
18	Jaipur	1,431	28·630	+·029	30·063	28·730	25th	28·516	3rd	·214	66·6	86·7	+0·9	55·9	+0·7	71·3	+0·8	30·8	93·2	4th	46·1	28th	47·1
	Ajmer	1,611	28·460	+·031	30·098	28·556	25th	28·360	3rd	·196	58·7	84·7	+0·8	55·4	+4·4	70·1	+2·6	29·3	91·6	3rd	47·7	27th	43·9
	Kotah	819?	29·236	+·025	30·052	29·337	25th	29·137	12th	·200	68·9	88·0	−0·4	59·2	−1·2	73·6	−0·8	28·8	95·6	4th	52·1	27th & 28th.	43·5

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

* Not reduced to sea-level.

† Mean of 29 days.

B—*continued.*

stations in India, etc., in November, 1913—continued.

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 from 1st May to 30th November, 1913.	Normal rainfall for period, 1st May to 30th November.	Departure from normal of period, 1st May to 30th November, 1913.	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
																																V.—United Provinces of Agra and Oudh—*concld.*
25							1		W	N 72° W	1·0	1·0	0	3	−10	53	−23	·343	−·101	0·6	−0·4	0	0·3	−0·3	0	0·10	−0·10	29·03	35·71	− 6·68	0	Lucknow.
15	1	4	4	2	1	1	1	2	N 62° E	N 2° W	0·9	1·3	−0·4	13	0	63	−14	·350	−·132	0·9	+0·3	0	0·5	−0·5	0	0·21	−0·21	27·03	41·88	−14·85	0	Bahraich.
9	1			1	1	1	3	3	S 62° W	S 81° W	2·3	1·3	+1·0	46	+23	35	−14	·237	−·109	1·4	+0·5	0	0·3	−0·3	0	0·11	−0·11	10·84	35·73	−24·89	0	Jhansi.
20			1	2	2	5	2		S 18° W	N 56° W	1·8	2·0	−0·2	20	−17	40	−19	·200	−·084	0·6	−0·4	0	0·2	−0·2	0	0·07	−0·07	8·54	25·57	−17·03	0	Agra.
9	4		2	1			4	10	N 39° W	N 65° W	0·9	0·6	+0·3	43	+24	56	−13	·294	−·080	0·7	−0·7	0	0·3	−0·3	0	0·15	−0·15	15·13	25·04	− 9·91	0	Mainpuri.
30									(a)	N 7° E	0·1	0·9	−0·8	(a)		66	−11	·371	−·038	1·2	+0·4	0	0·3	−0·3	0	0·23	−0·23	17·59	41·85	−24·26	0	Bareilly.
29				1					S 45° E	S 81° E	0·2	0·8	−0·6	3	+ 1	62	−15	·303	−·055	1·3	+0·2	0	0·5	−0·5	0·02	0·22	−0·20	22·17	37·40	−15·23	0·02	Roorkee.
																																VI.—Punjab.
10			2	2		1	15		S 80° W	N 83° W	1·5	1·5	0	40	+ 2	50	− 2	·279	−·002	1·3	−0·1	0	0·3	−0·3	0	0·10	−0·10	14·56	24·46	− 9·90	0	Delhi.
3	9	2	7	1	3	2		3	N 37° E	S 13° W				30	+19	57	− 2	·271	−·017	1·1	−0·7	0	0	0	0	0·01	−0·01	18·33	11·85	+ 6·48	0	Sirsa.
9	3	1	1	5		1	1	9	N 18° W		3·0*			20		62		·285		1·8		0	0·2	−0·2	0	0·03	−0·08	14·56	20·85	− 6·29	0	Patiala.
11	7		5	4	1			1	N 47° E	N 34° W	1·3	1·0	+0·3	27	+19	62	−13	·230	−·075	2·1	+1·0	0	0·3	−0·3	0·08	0·25	−0·17	33·57	24·53	+ 9·04	0·05	Ambala.
30									(a)	S 27° W	0	0·7	−0·7	(a)		61	− 3	·309	−·001	0·8	−1·3	1	0·2	+0·8	0·22	0·08	+0·14	17·72	23·40	− 5·68	0·22	Ludhiana.
29				1					S	N 5° W	0·5	0·9	−0·4	3	+ 2	72	+ 5	·308	−·005	1·4	−0·1	0	0·1	−0·1	0	0·05	−0·05	21·48	15·98	+ 5·50	0	Lahore.
20	5	2	2	1					N 36° E	N 42° E	0·3	0·6	−0·3	25	+ 8	71†	+ 6†	·297†	−·007	1·5	0	0	0·2	−0·2	0	0·03	−0·08	19·18	24·79	− 5·61	0	Sialkot.
18	2	2	1			1	4	2	N 42° W	N 53° W	1·4	0·9	+0·5	30	+ 9	75	+ 8	·273	+·015	2·2	+0·1	0	0·4	−0·4	0·11	0·23	−0·12	25·47	21·45	+ 1·02	0·09	Rawalpindi.
16		5	5	2	1		1		N 83° E	N 38° E	1·9	2·0	−0·1	50	+ 3	46	0	·243	+·017	3·4	+2·1	0	0·1	−0·1	0	0·05	−0·05	14·72	10·43	+ 4·29	0	Khushab.
12	1	2	2	4	4	3	2	2	S 13° E		1·3*			10		69		·312		3·1		0			0			15·00			0	Lyallpur.
10	1	3	4	6	3			3	S 76° E	S 72° E	2·6†	2·1	+0·5	27	+ 5	47	− 6	·258	−·028	1·7	−0·1	1	0·1	+0·9	0·23	0·03	+0·17	8·03	8·28	− 0·25	0·23	Montgomery.
21	2	4	1	1	1				N 55° E	N 72° E	1·1	0·9	+0·2	20	− 3	54	− 8	·311	−·013	1·3	+0·1	0	0·1	−0·1	0·08	0·03	0	10·69	5·11	+ 5·58	0·08	Multan.
																																VII.—North-West Frontier Province.
24		1			4	1			S	S 31° W	0·9	1·5	−0·6	13	− 7	79	+14	·289	+·028	2·6	−0·1	1	0·5	+0·5	0·28	0·32	− 0·04	3·77	5·94	− 2·17	0·24	Peshawar.
24	1	1	1				1	2	N 13° W	N 9° E	0·3	0·6	−0·3	10	+ 6	70	+ 5	·319	+·010	1·2	−0·3	0	0·3	−0·3	0	0·12	− 0·12	4·28	6·21	− 1·93	0	D. I. Khan.
																																VIII.—Sind.
23	6							1	N 6° W	N 18° E	1·5	1·2	+0·3	23	+11	58	+ 4	·367	+·070	0·5	−1·2	0	0·1	−0·1	0	0·08	−0·08	3·17	2·18	+ 0·69	0	Jacobabad.
3	13		2		4	3	3	2	N 29° W	N 10° W	2·3	4·6	−1·8	33	− 8	53	+ 9	·393	+·053	0·9	−0·6	0	0·1	−0·1	0	0·08	−0·08	19·47	6·32	+13·15	0	Hyderabad.
5	7	15	1				2		N 29° E	N 49° E	5·7	5·5	+0·2	62	− 5	64	+ 8	·521	+·073	1·0	−0·3	0	0·1	−0·1	0	0·05	−0·05	12·01	6·24	+ 5·77	0	Karachi.
																																IX.—Rajputana.
19	1	2	3	6	5	2	1		S 37° E	N 76° W	2·6	2·4	+0·2	33	+14	31	−17	·179	−·118	1·3	−0·2	1	0·1	+0·9	0·17	0·05	+0·12	5·10	10·33	− 5·23	0·13	Bikaner.
12	3	14	1						N 41° E		2·0			56		27	−10	·177		0·9		0	0·2	−0·2	0	0·10	−0·10	6·85	12·61	− 5·76	0	Jodhpur.
12	2	6	5	1		1	2	1	N 49° E	N 1° W	2·3*	2·0	+0·3	27	+ 2	39	−15	·253	−·077	1·1	−0·5	0	0·2	−0·2	0	0·15	−0·15	13·38	22·59	− 8·71	0	Jaipur.
25		1		1			1	2	N 38° W	N 2° W	1·3	1·2	+0·1	3	−27	56	− 9	·279	−·050	0·7	−0·6	0	0·3	−0·3	0	0·16	−0·16	13·16	19·76	− 6·60	0	Ajmer.
21	1	1	1	2			1	3	N		0·9			8		37	−10	·280		1·2		0	0·1	−0·1	0	0·02	−0·02	18·55	26·85	− 8·30	0	Kotah.

* Mean of 29 days.

* Uncorrected for scale error.

Table

(2) Abstract of observations taken at 8 hrs. at 218

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.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° l.at.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	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	16	17	18	19	20	21	22	23	24
	X.—Bombay.																						
19	Deesa	466	29·593	+·031	30·029	29·665	25th	29·523	1st & 28th.	·142	69·3	92·6	+1·1	54·7	−3·0	73·6	−0·9	37·9	97·8	1st	48·9	22nd	48·9
	Bhuj	395	29·718	+·030	30·012	29·804	20th	29·638	3rd	·166	71·7	89·5	+0·3	59·7	−3·0	74·6	−1·3	29·8	97·0	1st	50·5	25th	46·5
	Jamnagar	61	29·995		30·003	30·078	20th	29·900	28th	·178	73·8	89·4		62·7		76·0		26·7	96·3	2nd	51·7	25th	44·6
	Dwarka	37?	30·033	+·024	30·016	30·109	20th	29·943	23th	·166	75·9	85·6	−1·0	70·4*	+2·1*	77·8*	+0·5	15·2	91·3	27th	61·7	24th	29·6
	Rajkot	429	29·613	+·028	30·002	29·683	20th	29·529	28th	·154	72·1	91·3	+0·9	59·1†	−0·2†	75·2†	+0·3	32·2	96·6	1st	51·3	24th	45·3
	Veraval	*18*	30·021	+·028	29·981	30·086	20th	29·945	28th	·141	74·9	88·6	+0·3	68·9	−0·8	77·8	−0·3	21·7	92·1	2nd & 9th.	59·3	23rd	32·8
	Bhavnagar Para	55	30·006	+·011	30·008	30·069	20th	29·947	29th	·122	69·9	91·6	+1·7	60·7	−3·5	76·1	−0·9	30·9	96·0	1st & 2nd	51·8	24th	44·2
	Surat	39	30·005	+·029	29·987	30·069	20th	29·929	28th	·140	72·5	94·1	+3·5	63·8	+1·0	78·9	+2·3	30·3	98·4	1st	56·1	23rd	42·3
	Ahmadabad	163	29·905	+·040	30·017	29·970	20th	29·842	3rd	·128	71·4	93·0	+1·6	64·2	−1·5	78·6	+0·1	28·8	98·1	1st	59·2	23rd	38·9
25	Bombay	37	29·986	+·024	29·964	30·037	20th	29·917	28th	·120	75·4	87·0	+0·1	73·0	−0·3	80·0	−0·1	14·0	90·2	2nd & 22nd.	70·1	14th, 19th & 24th.	20·1
	Ratnagiri	110	29·894	+·036	29·944	29·949	15th	29·836	1st	·113	77·9	91·6	+1·1	68·5	−1·5	80·1	−0·2	23·1	96·3	2nd	63·4	13th & 19th	32·9
	Marmagao	*60*	29·949	+·024	29·944	29·996	15th	29·872	1st	·124	74·6	85·6	−2·0	71·2	−1·6	78·1	−1·8	14·4	88·0	22nd	66·2	16th	21·8
	Karwar	44	29·973	+·047	29·952	30·021	20th	29·901	1st	·120	70·9	88·1	+0·7	68·1	−1·3	78·1	−0·3	20·0	91·7	2nd & 26th	61·0	17th	30·7
26	Malegaon	1,420	28·619	+·033	30·029	28·683	20th	28·560	28th	·123	69·5	91·6	+4·5	57·9	+0·8	74·7	+2·7	33·7	95·4	1st & 3rd	51·1	23rd	44·3
	Ahmadnagar	2,154	27·891	+·025	29·998	27·944	21st	27·838	28th	·106	69·5	87·3	+2·0	57·2	+1·0	72·3	+1·5	30·1	89·6	5 days.	50·5	12th	39·1
	Poona	1,846	28·193	+·030	30·016	28·266	20th	28·120	28th	·146	67·5	88·7	+2·4	57·3	−2·0	73·0	+0·2	31·4	91·5	4th	51·8	17th	29·
	Sholapur	1,590	28·444	+·038	29·991	28·490	16th	28·389	1st	·101	72·7	89·4	+1·9	63·1	+0·8	76·3	+1·3	26·3	92·8	2nd	57·1	13th	35·7
	Bijapur	*1,948*	28·073	+·019	29·967	28·121	20th	28·032	1st	·089	72·6	88·3	+2·7	62·9	+1·9	75·6	+2·3	25·4	91·2	20th & 24th.	55·3	11th	35·9
	Belgaum	2,562	27·480	+·041	29·963	27·520	16th	27·428	1st	·092	71·5	84·6	+2·5	59·8	−1·3	72·2	+0·6	24·8	87·8	21st	54·5	10th, 15th & 17th.	33·3
	XI.—Central India.																						
20	Neemuch	1,624	28·436	+·032	30·050	28·512	25th	28·362	3rd	·150	68·0	85·5	+1·0	53·5	−1·4	69·5	−0·2	32·0	91·4	4th	46·0	28th	45·4
	Indore	1,823	28·221	+·032	30·028	28·286	20th	28·165	12th	·121	68·9	87·0	+3·8	55·8	+1·7	71·4	+2·7	31·2	91·6	1st	50·1	23rd	41·5
21	Nowgong	754	29·328	+·048	30·075	29·415	16th	29·213	12th	·202	61·4	84·9	+2·6	51·9	−1·3	68·4	+0·7	33·0	92·0	1st	43·0	27th & 28th.	49·0
	Sutna	1,041	29·014	+·033	30·059	29·106	25th	28·909	12th	·197	61·7	83·5	+2·4	53·3	−0·6	68·4	+0·9	30·2	89·8	1st & 7th.	43·2	28th	46·6
	XII.—Central Provinces.																						
22	Buldana	2,132	27·913		29·986	27·970	21st	27·865	1st	·105	73·9	85·7		63·2		74·4		22·5	89·6	1st	60·0	17th	29·6
	Akola	925	29·129	+·034	30·027	29·202	20th	29·061	1st	·141	70·5	91·3	+4·3	57·7	+0·3	74·5	+2·3	33·6	95·7	30th	51·5	12th & 13th.	44·2
	Amraoti	1,215	28·833	+·033	30·019	28·899	21st	28·765	12th	·134	72·5	88·6	+2·3	63·0	+1·4	75·8	+1·9	25·6	92·3	1st	57·3	30th	35·0
23	Khandwa	1,044	29·005	+·030	30·036	29·068	21st	28·941	12th	·127	66·5	90·8	+4·0	57·7	+1·5	74·3	+2·7	33·1	95·7	1st	50·6	16th	45·1
	Hoshangabad	1,006	29·058	+·029	30·051	29·131	20th & 25th.	28·976	13th	·155	64·7	86·7	+2·4	55·8	−1·5	71·3	+0·5	30·9	91·1	1st & 5th.	49·9	20th	41·2
	Saugor	1,807	28·237	+·028	30·025	28·307	25th	28·155	12th	·152	68·3	84·6	+2·6	58·9	+1·7	71·8	+2·1	25·7	91·3	4th	52·1	29th	39·2
	Jubbulpore	1,327	28·725	+·034	30·061	28·800	20th	28·646	12th	·154	60·7	84·7	+2·8	52·1	−1·0	68·4	+0·9	32·6	90·3	1st	44·3	28th	46·0
	Seoni	2,033	28·032	+·049	30·052	28·093	16th	27·966	1st	·127	66·5	83·0	+1·7	55·2	−0·2	69·1	+0·7	27·8	89·8	1st	49·5	21st	40·3
	Nagpur	1,017	29·038	+·042	30·034	29·096	21st	28·976	12th	·120	68·8	87·7	+2·7	59·6	−0·7	73·6	+1·0	28·1	97·6	2nd	53·8	30th	38·8
24	Pendra	2,123?	28·014		30·049	28·180	16th & 21st.	27·925	12th	·155	65·3	80·7		55·6		68·2		25·1	88·0	2nd	46·9	28th	39·1

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

* Mean of 27 days.

† Mean of 29 days.

B—*continued.*

stations in India, etc., in November, 1913—continued.

Wind direction. Number of winds from: Calm. (25)	N. (26)	N.E. (27)	E. (28)	S.E. (29)	S. (30)	S.W. (31)	W. (32)	N.W. (33)	Resultant direction. (34)	Normal direction. (35)	Wind velocity. Mean velocity, miles per hour. (36)	Normal. (37)	Departure from normal. (38)	Wind steadiness. Actual percentage. (39)	Departure from normal. (40)	Hygrometry, 8 hrs. Mean humidity at 8 hrs. (41)	Departure from normal. (42)	Mean vapour tension at 8 hrs. In inches of mercury. (43)	Departure from normal in inches of mercury. (44)	Cloud. Mean cloud amount at 8 hrs. (45)	Departure from normal. (46)	Rainfall. Number of rainy days. (47)	Normal number of rainy days. (48)	Departure from normal. (49)	Rainfall of month. (50)	Normal rainfall of month. (51)	Departure from normal. (52)	Total rainfall from 1st May to 30th November, 1913. (53)	Normal rainfall for period, 1st May to 30th Nov. (54)	Departure from normal of period, 1st May to 30th November, 1913. (55)	Heaviest rainfall during month. (56)	Station. (57)
																																X.—Bombay.
1	1	17	10	1					N 61° E	N 81° E	5·7	5·3	+0·4	82	+19	43	+ 2	·310	+·010	0·5	—0·7	0	0·2	—0·2	0·01	0·12	— 0·11	35·65	23·68	+11·97	0·01	Deesa.
12	4	3		1			5	5	N 33° W	N 34° W	2·6	4·0	—1·4	37	+.2	61	+ 2	·479	+·027	1·1	+0·1	0	0·2	—0·2	0	0·10	— 0·10	38·37	13·71	+24·66	0	Bhuj.
7		8	10	2		1	2		N 76° E		3·6			46		54		·468		0·1		0	0	0	0	0	0	25·32	18·86	+ 6·46	0	Jamnagar.
	11	9	5				1	4	N 20° E		7·0			69		69	— 2	·626		0·9		0	0	0	0	0	0	17·35	13·70	+ 3·65	0	Dwarka.
9	6	10	3	1				1	N 38° E	N 48° E	3·0	3·7	—0·7	53	+ 6	48	— 7	·382	—·055	1·4	+0·4	0	0·3	—0·3	0	0·23	— 0·23	28·61	26·24	+ 2·37	0	Rajkot.
5	14	8						3	N 9° E	N 22° E	4·5	4·2	+0·3	72	+ 2	51	— 4	·436	—·042	0·9	—0·7	0	0·1	—0·1	0	0·28	— 0·28	24·55	17·76	+ 6·79	0	Veraval.
7	1	8	9	2		1	2		N 64° E	N 60° W	1·4	4·7	—3·3	49	— 4	45	—21	·337	—·149	1·3	+0·1	0	0·2	—0·2	0	0·19	— 0·19	35·95	20·16	+15·79	0	Bhavnagar.
10	2	9	7	2					N 64° E	N 55° E	3·0‖	3·4	—0·4	53	0	61	— 3	·486	—·022	0·9	—0·4	0	0·3	—0·3	0	0·12	— 0·12	37·65	40·85	— 3·20	0	Para. Surat.
2	2	17	5	4					N 61° E	N 55° E	3·4	3·1	+0·3	72	+12	39	—11	·306	—·098	0·7	—1·1	0	0·3	—0·3	0	0·15	— 0·15	35·75	29·35	+ 6·40	0	Ahmadabad.
	1	12	15	2					N 72° E	N 73° E	5·4*	7·0	—1·6	86	+ 8	75	+ 1	·658	—·021	1·3	+0·3	0	0·7	—0·7	0	0·38	— 0·38	70·96	71·61	— 0·65	0	Bombay.
		3	8	18		1			S 63° E	S 78° E	5·6	5·5	+0·1	79	+16	53	— 6	·496	—·077?	2·3	+0·9	0	0·9	—0·9	0	0·46	— 0·46	72·80	100·84	—28·04	0	Ratnagiri.
1	1	7	17	4					N 83° E	S 81° E	5·2*	5·3	—0·1	82	+ 4	80	— 1	·688	—·041	4·1	+2·7	0	1·7	—1·7	0	0·96	— 0·96	96·06	92·75	+ 3·31	0	Marmagao.
8	4	16	2						N 41° E	N 65° E	1·5	2·0	—0·5	66	— 4	85	+ 3	·641	—·015	3·1	+1·6	0	2·5	—2·5	0	1·67	— 1·67	104·94	121·62	—16·68	0	Karwar.
20					1	4	5		S 63° W	N 74° W	2·8	3·5	—0·7	30	—22	43	—13	·314	—·092	0·6	—1·1	0	0·9	—0·9	0	0·41	— 0·41	15·37	22·12	— 6·75	0	Malegaon.
2	2	1	2	2	10	2		9	S 43° W	N 76° E	3·8	4·8	—1·0	20	+ 5	42	—22	·305	—·165	1·6	—0·1	0	0·9	—0·9	0	0·50	— 0·50	22·99	21·00	+ 1·99	0	Ahmadnagar
17	2	1	2				5	3	N 43° W	S 76° E	4·2	4·6	—0·4	23	— 4	63	+ 2	·420	—·008	0·9	—0·8	0	1·6	—1·6	0	0·82	— 0·82	26·85	26·29	+ 0·56	0	Poona.
5		3	4	15				3	S 66° E	S 87° E	6·9	6·1	+0·8	53	—11	42	—11	·337	—·092	3·4	+1·0	0	1·3	—1·3	0·01	0·89	— 0·88	15·12	28·17	—13·05	0·01	Sholapur.
	1	5	8	9	5	1		1	S 67° E	S 76° E	3·2	2·6	+0·6	56	+ 2	51	—19	·411	—·124?	3·6	+1·1	1	1·6	—0·6	0·14	0·89	— 0·75	18·73	19·45	— 0·72	0·12	Bijapur.
5		1	18	6					S 82° E	S 87° E	8·6	7·9	+0·7	76	+18	54	—10	·418	—·042	3·1	+0·8	1	2·0	—1·0	0·82	1·47	— 0·65	39·72	47·12	— 7·40	0·80	Belgaum.
																																XI.—Central India.
23		2	5						N 78° E	N 51° E	3·0	3·9	—0·9	20	—28	34	—13	·225	—·093	0·1	—0·8	0	0·2	—0·2	0·04	0·15	— 0·11	27·14	27·80	—0·66	0·04	Neemuch.
29		1							N 45° E	N 45° E	0·8	1·4	—0·6	3	—15	47	—10	·335	—·045?	0·9	—0·2	0	0·5	—0·5	0	0·30	— 0·30	38·06	32·05	+ 6·01	0	Indore.
9		1	8	2	1		7	2	S 79° E	N 53° W	1·0	0·7	+0·3	6	— 7	56	—14	·311	—·089	0·5	—0·9	0	0·6	—0·6	0	0·33	— 0·33	18·58	41·21	—22·63	0	Nowgong.
30									(a)	N 13° W	0·4	2·3	—1·9	(a)		56	— 7	·311	—·066	0·3	—0·8	0	0·7	—0·7	0	0·33	— 0·33	26·80	41·78	—14·98	0	Sutna.
																																XII.—Central Provinces.
	1	4	5	6	9	3	1	1	S 36° E		3·7	3·7	0	47		35		·293		1·3		0	0·9	—0·9	0	0·56	— 0·56	27·41	33·54	— 6·13	0	Buldana.
10		1	6	6	3	1	3		S 45° E	N 89° E	2·2	2·6	—0·4	33	— 7	42	—17	·318	—·089	2·8	+1·3	0	0·7	—0·7	0·01	0·43	— 0·42	26·95	31·01	— 4·06	0·01	Akola.
3	1	11	14		1				N 70° E	N 67° E	4·1	2·8	+1·3	76	+25	42	—11	·331	—·081	2·1	+0·6	0	0·9	—0·9	0	0·51	— 0·51	35·86	32·05	+3·81	0	Amraoti.
30									(a)	N 74° E	1·3	2·0	—0·7	(a)		46	—11	·298	—·072	1·6	+0·5	0	0·8	—0·8	0	0·39	— 0·39	39·81	29·01	+10·80	0	Khandwa.
	2	15	4	7		2			N 71° E	N 66° E	1·5	1·5	0	62	+ 2	48	—20	·293	—·113?	1·8	+0·5	0	0·7	—0·7	0	0·43	— 0·43	36·92	47·62	—10·70	0	Hoshangabad.
6	2	4	5	8	3	1	1		S 69° E	S 73° E	4·2	2·0	+2·2	43	+19	29	—25	·202	—·152	0·8	—0·3	0	0·6	—0·6	0	0·40	— 0·40	21·88	44·03	—22·15	0	Saugor.
13	2		5	8	2				S 62° E	S 37° E	0·9	1·2	—0·3	43	+ 2	57	—16	·333	—·078	0·5	—0·7	0	0·8	—0·8	0·01	0·43	— 0·42	31·01	53·08	—22·07	0·01	Jubbulpore.
11	6	7	3			1	1	1	N 26° E	N 36° E	2·2	1·7	+0·5	40	— 3	45	—18	·287	—·125	1·0	—0·3	1	0·8	+0·2	0·14	0·53	— 0·39	44·94	49·61	— 4·67	0·14	Seoni.
5	13	3	6				1	2	N 19° E	N 21° E	2·2	2·7	—0·5	59	+29	49	—13	·347	—·092	2·8	+0·9	0	1·0	—1·0	0	0·68	— 0·68	46·22	46·77	— 0·55	0	Nagpur.
21	3				2	1		3	N 49° W		2·0			10		51		·319		1·9		0	0·5	—0·5	0·13	0·20	— 0·07	36·84	45·81	— 8·97	0·09	Pendra.

‖ Mean of 23 days. (a) Indeterminate. * Uncorrected for scale error.

Table

(2) *Abstract of observations taken at 8 hrs. at 218*

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.	Mean 8 hrs. pressure reduced and 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.	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	16	17	18	19	20	21	22	23	24
	XII.—Central Provinces *—concld.*																						
	Raipur	970	29·090	+·046	30·040	29·168	25th	29·008	12th	·160	67·4	83·9	+0·7	63·0	+2·3	73·5	+1·5	20·9	89·7	2nd	58·6	15th, 29th & 30th.	31·1
	Chanda	*634*	29·404	+·022	30·008	29·472	21st	29·335	1st	·137	67·1	87·1	+1·9	57·4	—1·3	72·3	0	29·7	90·5	1st & 2nd.	51·5	15th & 16th.	39·0
	Jagdalpur	1,813	28·230		30·031	28·304	20th	28·130	11th	·174	64·1	82·0		56·0		69·0		26·0	85·2	2nd & 3rd.	50·1	12th	35·1
	XIII.—Hyderabad.																						
27	Aurangabad	1,905	28·152	+·001	30·010	28·209	20th	28·109	1st	·100	72·9	87·5	+0·5	60·1	+1·2	73·8	+0·9	27·4	90·9	3rd	55·0	11th & 18th.	35·9
	Nizamabad	1,248	28·788		30·011	28·840	20th	28·697	12th	·143	69·2	87·9	+3·0	58·5	—1·1	73·2	+0·9	29·4	90·9	1st	52·7	12th & 15th.	38·2
	Bidar	*2,165*									76·7	86·2		64·0		75·1		22·2	88·5	3rd & 4th.	60·4	3th	28·1
28	Gulbarga	1,503	28·525	+·019	29·585	28·577	25th	28·477	1st	·100	72·5	89·0	+2·0	62·1	—0·5	75·5	+0·7	26·9	93·0	2nd	55·5	11th	37·5
	Raichur	*1,311*	28·726	+·044	29·993	28·780	25th	28·670	12th	·110	74·5	89·7	+3·6	67·3	0	78·5	+1·8	22·4	93·0	20th	60·6	12th	32·4
	Hyderabad (Deccan)	1,690	28·255	+·026	29·993	28·349	21st	28·241	1st	·108	70·6	86·7	+2·9	62·2	+0·1	74·5	+1·5	24·5	89·8	3rd & 20th.	56·2	12th	33·6
	Hanamkonda	877	29·168	+·020	30·004	29·229	25th	29·108	12th	·121	74·0	88·2	+2·2	64·0	—0·4	76·1	+0·9	24·2	92·2	1st	57·8	15th	34·4
	XIV.—Mysore.																						
29	Chitaldrug	2,405	27·623	+·028	29·945	27·669	16th	27·571	1st	·098	72·7	85·1	+3·0	64·0	0	74·6	+1·5	21·1	88·9	22nd	60·1	15th	28·8
	Hassan	3,149	26·910	+·037	29·943	26·956	20th	26·856	1st	·100	69·5	82·5	+2·7	59·1	—0·4	70·9	+1·1	23·1	86·1	22nd	49·7	16th	36·4
	Bangalore	3,021	27·033	+·042	29·917	27·083	21st	26·978	1st	·105	68·9	81·6	+2·3	60·9	—1·0	71·2	+0·7	20·7	86·3	21st	52·8	16th	33·5
	Mysore	2,518	27·514	+·028	29·946	27·555	15th	27·461	1st	·094	71·6	83·1	+0·6	63·1	—1·0	73·1	—0·2	20·0	86·7	20th	55·6	16th	31·1
	XV.—Madras.																						
30	Mangalore	65	29·930	+·028	29·927	29·991	15th	29·865	1st	·126	80·3	90·0	+0·5	73·0	+0·9	81·5	+0·7	17·0	94·3	26th	65·9	14th	27·4
	Calicut	27	29·955	+·021	29·911	30·016	15th	29·887	1st	·129	77·7	86·6	—0·8	74·4†	+1·3†	80·5†	+0·3	12·2	88·8	22nd & 2,th.	68·6	15th	20·2
	Cochin	9	29·971	+·021	29·906	30·040	20th	29·914	9th	·126	79·8	88·4	+0·9	74·8	+0·4	81·6	+0·7	13·6	92·7		72·7	16th	20·0
	Trivandrum	198	29·782	+·027	29·911	29·844	20th	29·728	27th	·116	77·6	83·1	+0·5	74·2	—0·2	78·7	+0·1	8·9	86·0	23rd	72·0	7th & 14th.	14·0
31	Pamban	37	29·935	+·007	29·900	30·018	20th	29·841	29th	·177	73·1	83·6	—0·7	74·2	—1·9	78·9	—1·3	9·4	85·7	21st	71·8	12th, 28th & 29th.	13·9
	Madura	447	29·557	+·047	29·941	29·637	20th	29·474	9th	·163	78·0	85·8	—0·5	73·1	+0·6	79·9	+0·1	13·7	92·0	12th	68·6	14th	23·4
	Pudukkottai	318	29·679		29·933	29·746	21st	29·588	9th	·160	76·0	83·2		71·4		77·3		11·8	89·5	20th	66·9	15th	22·6
	Negapatam	31	29·944	+·016	29·903	30·015	21st	29·793	9th	·222	76·9	82·3	—1·8	72·3	—1·8	77·3	—1·8	10·0	89·2	22nd	68·7	3rd	20·5
	Trichinopoly	255	29·750	+·037	29·942	29·824	20th	29·662	9th	·162	77·2	84·1	—3·0	71·2	—0·8	77·7	—1·9	12·9	88·6	20th & 21st.	64·3	15th	24·3
	Coimbatore	1,341	28·668	+·044	29·954	28·728	20th	28·615	12th	·113	74·2	86·3	+0·1	68·4	—0·5	77·4	—0·2	17·0	92·0	20th	57·8	15th	34·2
	Salem	940	29·089	+·041	29·948	29·162	21st	29·021	9th	·141	75·2	86·5	—0·8	68·9	+0·4	77·7	—0·2	17·6	91·0	5th & 15th.	58·8	15th	32·2
	Cuddalore	37	29·964	+·025	29·931	30·063	21st	29·816	9th	·250	75·3	81·6	—3·2	72·6	+1·0	77·1	—1·1	9·0	85·8	20th & 21st.	68·2	15th	17·6
	Vellore	707	29·306		29·964	29·378	21st	29·229	11th	·149	73·0	84·3		67·8		76·0		16·5	89·7	20th	58·5	15th	31·2
	Madras	22	29·988	+·031	29·939	30·051	22nd	29·910	10th	·171	78·0	81·1	—1·0	73·1	+0·8	78·5	—0·1	11·0	87·5	21st, 22nd & 24th.	67·0	14th & 15th.	20·5
32	Cuddapah	433	29·595	+·031	29·973	29·649	16th	29·524	1st	·125	75·9	88·9	+0·4	68·8	—0·5	78·9	—0·1	20·1	93·0	20th	60·8	15th & 16th.	32·2

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

* Mean of 28 days.
† „ „ 29 „

B.—*continued.*

stations in India, etc., in November, 1913—continued.

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 from 1st May to 30th November, 1913.	Normal rainfall for period, 1st May to 30th November.	Departure from normal of period, 1st May to 30th November, 1913.	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
																																XII.—Central Provinces—*concld.*
4	4	5	6	4	4			2	N 77° E	N 40° E	2·1	2·3	−0·2	40	+17	60	− 6	·402	−·063	0·7	−1·3	1	1·0	0	0·20	0·42	−0·22	37·53	47·56	−10·03	0·20	Raipur.
18		2	3	2		3	1	1	S 56° E	N 35° E	1·1	1·2	−0·1	7	−22	71	− 2	·473	−·049	3·1	+1·1	0	1·5	−1·5	0	0·77	−0·77	52·35	50·77	+1·58	0	Chanda.
	11	3	3	3		1		9	N 1° E		1·0			55		76		·475		1·3		1			0·04			47·15			0·04	Jagdalpur.
																																XIII.—Hyderabad.
1		6	13	7		1	1	1	N 89° E		5·1			66		38	−11	·308		2·9		0	0·6	−0·6	0	0·47	−0·47	23·27	27·13	−3·86	0	Aurangabad.
17		2		5		4		2	S 11° E		2·3			10		61	− 9	·457		3·4		0	0·9	−0·9	0	0·62	−0·62	38·89	38·72	+0·17	0	Nizamabad.
8		3	9	3	3	3	1		S 63° E		5·3			37		48		·415		5·9		0	1·5	−1·5	0	1·00	−1·00	29·85	34·94	−5·09	0	Bidar.
1		10	14	2	3				N 83° E	N 81° E	5·0	5·8	−0·8	72	+23	54	−10	·423	−·077	1·7	−0·7	1	1·1	−0·1	0·10	0·61	−0·51	20·83	31·21	−10·38	0·10	Gulbarga.
		11	5	12	1	1			S 83° E	N 86° E	4·7†	5·3	−0·6	65	+ 2	56	−12	·406	−·082	3·1	+0·6	0	1·6	−1·6	0	0·72	−0·72	19·88	27·03	−7·15	0	Raichur.
29			1						E	S 72° E	1·9	2·6	−0·7	3	−20	66	− 7	·482	−·057	3·9	+1·2	0	2·0	−2·0	0	0·88	−0·88	18·64	28·99	−10·35	0	Hyderabad (Deccan).
8	7	1		5	8	1			S 38° E		3·0			20		57	− 8	·476		5·7		0	1·1	−1·1	0	0·65	−0·65	27·26	32·66	−5·40	0	Hanamkonda.
																																XIV.—Mysore.
6		2	13	9					S 76° E	S 84° E	3·9	4·5	−0·6	69	+ 4	58	−13	·465	−·092	2·5	−1·9	0	3·1	−3·1	0	1·83	−1·83	16·04	23·29	−7·25	0	Chitaldrug.
3		7	13	7					E	N 77° E	3·5	2·2	+1·3	77	+ 2	66	− 9	·476	−·069	3·3	−2·0	0	4·0	−4·0	0	2·65	−2·65	25·14	32·32	−7·18	0	Hassan.
	2	11	13	4					N 74° E	N 71° E	5·3	3·7	+1·6	79	+ 5	72	− 6	·520	−·023	3·6	−0·6	0	4·5	−4·5	0·11	2·83	−2·72	21·20	32·74	−11·54	0·08	Bangalore.
4	2	10	9	3		2			N 72° E	N 67° E	5·8	6·3	−0·5	56	−11	73	− 3	·587	−·015	4·7	−0·6	0	3·2	−3·2	0·05	2·07	−2·02	25·15	27·71	−2·26	0·05	Mysore.
																																XV.—Madras.
		8	21	1					N 80° E	S 82° E	3·4	1·9	+1·5	89	+12	66	−11	·684	−·051	2·6	−0·4	0	4·1	−4·1	0·03	2·79	−2·76	108·56	124·92	−16·36	0·03	Mangalore.
12	1	2	7	7	1				S 75° E	N 87° E	2·0	4·8	−2·8	43	−31	85	+ 4	·801	+·016	4·1	+0·7	4	5·9	−1·9	3·57	4·75	−1·18	111·39	110·89	+0·50	1·63	Calicut.
3	1	10	15	1					N 72° E	N 39° E	3·3*	3·0	+0·3	79	+12	79	− 2	·799	0	3·6	−0·2	5	8·4	−3·4	3·57	6·29	−2·72	93·13	103·55	−10·42	1·95	Cochin.
9	3	2	4					2	N 35° E	N 5° W	2·3*	2·6	−0·3	23	− 3	85	0	·800	−·001	6·5	+1·1	12	9·1	+2·9	5·43	6·23	−0·80	52·78	53·44	−0·66	1·35	Trivandrum.
5	15	3	1				1	5	N 4° W	N 21° E	6·6	7·4	+1·2	69	+17	87	+ 2	·840		5·3		11	12·4	−1·4	17·25	11·18	+6·17	33·63	24·19	+9·44	3·82	Pamban.
4	9	12	3				1	1	N 28° E	N 3° E	5·2	4·8	+0·4	69	− 1	79	+ 3	·749	+·018	7·2	+2·7	5	7·3	−2·3	1·99	4·64	−2·65	13·55	28·77	−15·22	1·00	Madura.
4	14	7						5	N 2° E		5·8			77		82		·733		6·2		10	8·2	+1·8	6·13	5·30	−0·83	31·63	28·90	+2·73	1·36	Pudukkottai.
	4	9					2	15	N 17° W	N 30° W	9·8	4·2	+5·6	72	+24	87	+ 3	·807	−·011	7·6	+0·8	14	12·0	+2·0	37·78	15·38	+22·40	69·50	38·73	+30·77	10·74	Negapatam.
5	10	4		1			3	7	N 14° W	N 13° E	2·7*	2·8	−0·1	59	+22	79	0	·738	−·012	5·6	+1·0	11	7·8	+3·2	6·65	4·89	+1·76	29·21	26·69	+2·52	3·30	Trichinopoly.
9	2	7	2						N 45° E	N 81° E	2·3	1·8	+0·5	33	−15	78	− 7	·655	−·068	4·2	−1·4	6	6·5	−0·5	1·52	3·19	−1·67	10·76	17·87	−7·11	0·39	Coimbatore.
6	1	1	7				5		N 57° E	N 50° E	1·9	2·3	−0·4	10	−17	75	− 3	·653	−·049	5·7	+1·0	1	5·8	−4·8	2·62	3·54	−0·92	29·62	35·89	−6·27	2·54	Salem.
2	11	1	1				1	14	N 23° W	N 25° W	5·8	1·6	+4·2	76	+ 6	89	− 1	·776	−·060	7·0	+1·0	17	10·3	+6·7	37·09	12·03	+25·06	79·17	40·50	+38·67	12·20	Cuddalore.
6								4	N 45° W		1·0			10		87		·712		4·0		4	7·6	−3·6	2·18	5·23	−3·05	18·75	38·57	−19·82	1·12	Vellore.
	10	5	1			2	3	9	N 19° W	N 1° E	5·6*	4·7	+0·9	62	− 1	83	0	·789	−·007	6·2	+0·7	9	11·0	−2·0	16·60	12·78	+3·82	53·84	41·20	+12·64	5·78	Madras.
1	2	4	3	8	3	3	5	3	S 19° E	N 89° E				7	−34	71	− 5	·647	−·048	2·8	−1·1	0	5·2	−5·2	0	3·26	−3·26	29·66	29·51	−8·85	0	Cuddapah.

* Uncorrected for scale error.
† Mean of 21 days.

Table

(2) *Abstract of observations taken at 8 hrs. at 218*

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.	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.	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	16	17	18	19	20	21	22	23	24
	XV.—Madras— *concld.*																						
	Bellary	1,475	29·542	+·032	29·973	28·596	25th	28·487	1st	·109	73·2	90·7	+4·0	65·3	—0·3	78·0	+1·9	25·4	94·0	21st	58·3	16th	35·7
	Kurnool	923	29·117	+·045	29·998	29·174	16th	29·055	1st	·119	72·5	89·1	+1·0	64·4	+0·4	76·7	+0·7	24·7	92·0	20th	54·6	16th	37·4
33	Nellore	66	29·954	+·030	29·955	30·025	21st	29·884	11th	·141	76·9	85·8	—0·9	71·0	—0·6	78·4	—0·7	14·8	91·0	21st	65·1	14th, 15th & 16th.	25·9
	Masulipatam	15	30·030	+·050	29·979	30·097	21st	29·948	12th	·149	75·8	87·0	+1·9	69·8	—1·5	78·4	+0·2	17·2	89·3	19th	64·7	15th	24·6
	Cocanada	26	30·028	+·048	29·991	30·103	21st	29·938	12th	·165	75·8	84·3	+0·8	69·6	—0·9	76·9	—0·1	14·7	87·7	4th & 20th	64·6	13th	23·1
	Waltair (Vizagapatam).	*226*	29·823	+·047	29·994	29·901	21st	29·727	12th	·174	76·7	84·2		72·0		78·1		12·2	88·1	4th	66·9	14th	21·2
	Calingapatam	19	30·039		29·996	30·122	24th	29·951	12th	·171	71·4	78·2		70·5		74·4		7·7	82·8	1st	65·3	15th	17·5
	Gopalpur	72	30·010	+·042	30·004	30·101	25th	29·917	12th	·184	71·5	83·2	—0·2	66·6	—0·2	74·9	—0·2	16·6	87·2	8th	60·0	29th	27·2
	Bay Islands.																						
1	P. V. Fraser	8	30·065		30·001	30·150	21st	29·980	12th	·170	77·1												
	Port Blair	58	29·916	+·029	29·904	30·013	20th	29·806	13th	·207	80·6	85·6	—1·2	77·3	+0·1	81·5	—0·5	8·3	88·2	9th	74·5	3rd	13·7
	Table Island	90	29·888		29·912	29·985	20th	29·659	13th	·326	80·8	84·2		77·6		80·9		6·6	86·6	4th & 27th	73·6	13th	13·0
	Kashmir.																						
33	Muzaffarabad	?	27·720			27·853	17th	27·587	1st	·266	52·1	71·7		43·4		57·5		28·3	79·8	1st & 13th	35·3	27th	44·0
	Srinagar	5,204	25·065	+·031	25·035	25·205	17th	24·929	28th	·276	35·8	55·7	—4·6	31·7	+0·1	43·7	—2·3	24·0	62·5	1st	23·9	25th	38·6
	Gulmarg	*8,569*																					
	Dras	*10,059*	20·915	+·007	20·883	21·093	15th	20·732	3rd	·361	10·5	32·1		6·1		19·1		26·0	46·3	1st	—4·5	4th	50·8
	Leh	*11,503*	19·803	+·025	19·771	19·984	15th	19·620	3rd	·364	25·1	42·7	—4·9	18·1	—2·4	30·4	—3·7	24·6	49·3	2nd	12·0	26th	37·4
	Skardu	*7,505*	23·036	+·003	23·006	23·244	14th	22·841	3rd	·403	32·3	50·2	—4·8	25·4	—5·3	37·8	—5·1	24·8	58·1	4th	17·0	23rd	41·1
	Gilgit	4,890	25·394		25·367	25·593	14th	25·170	2nd	·423	45·2	60·4	—1·6	39·0	—3·8	49·7	—2·7	21·4	67·2	1st	31·7	23rd & 25th.	35·5
	Baluchistan.																						
15	Fort Sandeman		25·543		25·512	25·696	17th	25·442	2nd	·254	45·6	71·0		41·3		56·1		29·7	78·0	9th & 11th.	34·2	18th	43·8
	Quetta	5,502	24·772	+·003	24·732	24·895	17th	24·647	28th	·248	36·2	65·8	+1·0	33·8	+1·7	49·8	+1·3	32·0	75·5	2nd	27·1	25th	48·4
	Chaman	4,311	25·839	+·001	25·804	26·002	17th	25·732	27th	·270	49·4	68·1	—1·3	44·7	—1·7	56·4	—1·5	23·4	79·6	2nd	36·5	18th	43·1
	Kalat	6,630	23·860		23·822	23·946	17th	23·708	28th	·238	33·3	63·5		30·3		46·9		33·2	73·2	2nd	21·4	20th	51·8
	Dalbandin	2,779	27·290†		27·253†	27·483	17th	27·161	1st	·322	50·3	81·5		46·2		63·8		35·3	90·2	2nd & 9th	37·2	30th	53·0
	Pasni		30·065		30·025	30·170	17th	29·961	3rd	·209	68·8	82·6		64·7		74·2		18·9	92·5	6th	57·0	21st	35·5
	Panjgur		26·888		26·846	27·035	17th	26·781	28th	·254	49·6	76·4		46·9		61·7		29·5	86·0	1st	39·0	18th	47·0
	Robat		27·011		26·969	27·241	17th	26·846	28th	·395	54·7	78·7		51·3		65·0		27·4	90·2	2nd	42·8	30th	47·4
	Hill stations excluding Kashmir and Baluchistan.																						
	Para Chinar	6,000	24·572		24·548	24·736	17th	24·476	28th	·260	48·3	61·9		38·4		50·2		23·5	69·6	15th	32·5	25th	37·1
	Cherat	*4,956*	25·866	+·051	25·834	26·028	17th	25·775	3rd	·253	52·5	62·8	—4·4	46·4	—2·7	54·6	—3·5	16·4	69·6	16th	30·4	18th	39·2
	Drosh		25·284‡			25·440	17th	25·140	2nd	·300	44·1	61·5		40·6		51·1		20·9	70·4	1st	35·3	23rd	35·1
	Murree	6,323	23·963	+·025	23·931	24·101	17th	23·881	28th	·220	47·5	56·1	—4·8	44·8	—0·8	50·4	—2·8	11·3	64·6	15th	35·3	30th	29·3

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

† Mean of 22 days.
§ " " 24 "

NOTE.—The barometric readings are not reduced to sea-level, in the case

‡ Aneroid corrected.

B—*continued.*

stations in India, etc., in November, 1913—continued.

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 from 1st May to 30th November, 1913.	Normal rainfall for period, 1st May to 30th November.	Departure from normal of period, 1st May to 30th November, 1913.	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
																																XV.—Madras— *concld.*
6	3	4	4	8	3	1		1	S 76° E	S 85° E	2·3	2·3	0	37	+ 4	62	− 5	·506	−·039	2·1	−1·9	0	3·1	−3·1	0	1·96	−1·96	14·21	18·63	− 4·39	0	Bellary.
16	2	7	4	1					N 57° E	N 34° W	2·4*			40	+39	64	− 7	·530	−·052	2·8	+0·2	0	2·1	−2·1	0	1·08	−1·08	17·50	25·36	− 7·86	0	Kurnool.
1	10	3	2			1	1	12	N 17° W	N 44° W	3·3*	3·4	−0·1	69	+14	80	− 3	·739	−·047	5·8	+1·0	3	7·5	−4·5	0·63	8·74	−8·11	22·51	29·79	− 7·28	0·23	Nellore.
1	17	10	2						N 21° E	N 14° E	4·5	3·9	+0·6	86	+ 8	74	− 8	·652	−·091	3·2	−0·4	0	4·3	−4·3	0	5·01	−5·01	31·48	37·45	− 5·97	0	Masulipatam.
1	9	16					1	3	N 20° E	N 12° E	6·6	7·3	−0·7	79	− 4	69	− 4	·630	−·020	4·3	+0·9	0	4·3	−4·3	0	5·04	−5·04	36·45	36·17	+ 0·28	0	Cocanada.
2	8	16					2	2	N 21° E	N 15° W	5·4			72	+29	63	− 5	·577	−·073	4·7	+1·3	2	3·1	−1·1	1·75	3·19	−1·44	34·55	33·27	+ 1·28	1·54	Waltair (Vizagapatam).
2	7	2	1				4	14	N 32° W		6·4			69		86		·657		2·3		2	0·6	+1·4	2·59	1·40	+1·19	29·40	30·55	− 1·15	2·35	Calingapatam.
	15			1				14	N 21° W	N 25° W	5·6	6·1	−0·5	85	− 1	79	− 1	·609	−·016	3·7	+0·5	3	2·8	+0·2	10·07	3·42	+6·65	47·24	41·84	+ 5·40	9·62	Gopalpur.
																																Bay Islands.
	14	12	1	1				2	N 22° E					80		67		·622		3·4		3			1·27			44·08			0·63	P. V. Fraser.
8		2	13	2	3		1	1	S 81° E	N 72° E	5·9	4·9	+1·0	46	+26	83	−2	·869	−·014	6·2	+0·5	10	12·2	−2·2	5·24	9·94	−4·70	86·98	106·01	−19·03	1·10	Port Blair.
1		6	17	1	1	2	1	1	N 85° E		6·4			62		82		·849		5·9		8	6·5	+1·5	11·71	5·55	+6·16	70·00	75·93	− 5·93	4·25	Table Island.
																																Kashmir.
2	5	3	1	1	7	4	6	1	S 63° W		0·2			23		64		·249		1·4		3			1·56			29·45			1·36	Muzaffarabad.
5	1	2	2	8	5	1	2	4	S 30° E	S 53° E	2·3	1·9	+0·4	23	0	82	− 6	·177	−·014	4·1	+1·2	2	1·1	+0·9	1·07	0·35	+0·72	6·91	12·89	−5·98	0·81	Srinagar.
																																Gulmarg.
28							1	1	N 66° W		0·4			7		?		?		3·0		2	1·0	+1·0	0·82	0·30	+0·52	3·88	7·12	−3·24	0·63	Dras.
29				1					S 45° E	S 46° W	2·1	1·5	+0·6	3	−11	45	−22	·062	−·041	3·8	−0·3	0	0·2	−0·2	0·03	0·04	−0·01	1·60	1·86	−0·26	0·02	Leh.
23				1	1	1	3	1	S 64° W		2·7			13		68†	−13	·137†		3·6		0	0·1	−0·1	0	0·04	−0·04	1·01	3·77	−2·76	0	Skardu.
29							1		W		0			3		47	− 5	·146	−·019	3·8	−0·2	0	0·1	−0·1	0	0·04	−0·04	2·60	3·04	−0·44	0	Gilgit.
																																Baluchistan.
19			5	1		4	1		S 30° E		1·8			13		59		·182		2·5		1			0·23			6·61			0·16	Fort Sandeman.
28				1				1	(a)	S 18° W	1·8	1·5	+0·3	(a)		76	+24	·160	+·007	1·8	−0·2	4	0·8	+3·2	0·95	0·29	+0·66	1·43	2·20	−0·77	0·37	Quetta.
5			14	9	1		1		S 69° E	S 61° E	4·2	4·7	−0·5	66	+ 3	56	+21	·190	−·011	2·2	−0·5	2	0·7	+1·3	0·51	0·22	+0·29	1·00	0·51	+0·49	0·20	Chaman.
4				1	15	9		1	S 16° W	S 20° W	3·6			72	+22	68‡		·132‡		1·9		3	0·8	+2·2	0·70	0·26	+0·44	1·89	1·67	+0·22	0·37	Kalat.
7	3	5	2		1		2	4	N 5° E		4·4			33		55		·197		0·3		1			0·50			0·72			0·50	Dalbandin.
7	4	1			1	1	8	8	N 57° W		3·9			53		63		·593		1·6		0			0·05			0·06			0·05	Pasni.
	2	22	6						N 51° E		4·6			89		71		·255		1·5		0			0			0·38			0	Panjgur.
2			2				26		W		3·4			80		47		·200		1·9		0			0			0			0	Robat.
																																Hill stations excluding Kashmir and Baluchistan.
26	1	1	1			1			N 45° E		0·8			3		59		·198		2·6		3	1·3	+1·7	1·17	0·48	+0·69	15·20	14·26	+0·94	0·75	Para Chinar.
3	16	2			2			6	N 6° W	N 13° W	6·1	8·5	−2·4	66	− 1	47	+ 8	·184	+·013	2·5	+0·1	3	0·3	+2·7	0·66	0·08	+0·58	11·58	13·67	−2·09	0·31	Cherat.
18	1	3	1	4	3				S 65° E		1·9			23		50		·145		3·6		2	1·1	+0·9	0·47	0·33	+0·14	7·47	6·83	+0·64	0·18	Drosh.
17	3	2	2	2	4				S 79° E	N 75° E	3·0	4·2	−1·2	17	+10	48	+12	·152	+·023	3·1	+0·3	3	1·0	+2·0	1·18	0·70	+0·48	40·74	40·12	+0·62	0·46	Murree.

of hill or plateau stations, the elevations of which exceed 3,500 feet.

* Uncorrected for scale error.
† Mean of 20 days.

(a) Indeterminate.
‡ Mean o 29 days.

Table

(2) Abstract of observations taken at 8 hrs. at 218

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.	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.	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	16	17	18	19	20	21	22	23	24
	Hill stations, excluding Kashmir and Baluchistan —*concld.*																						
	Simla	7,232	23·213	+·034	23·175	23·319	16th	23·144	28th	·175	46·9	54·8	−1·3	43·0	−2·0	48·9	−1·7	11·8	63·4	16th	38·1	25th	25·3
	Sarain†		23·269		23·222	23·373	16th	23·179	12th	·194	34·9	54·0		32·0		43·0		22·0	61·9	16th	27·8	23rd & 27th.	34·0
	Kalabagh																						
	Chakrata	7,022	23·397	+·043	23·357	23·546	16th	23·278	28th	·268	53·6	56·0‡	−0·5‡	42·3	−1·6	51·4‡	−1·1	16·7	64·5	19th	35·1	4th	29·4
	Mukteswar	7,592	22·940	+·011	22·899	23·060	16th	22·867	12th	·193	46·3	55·5	−4·7	38·5	−5·0	47·0	−4·8	17·0	62·5	18th	30·0	23rd	32·5
	Darjiling	7,376	23·099	−·001	23·054	23·242	16th	23·004	12th	·238	46·9	55·5	+1·3	40·9	−1·5	48·2	−0·1	14·6	62·3	17th.	35·7	24th	26·6
	Shillong	4,920	25·257		25·209	25·383	16th	25·157	12th	·226	55·5	65·8		44·7		55·3		21·1	69·9	18th	37·7	12th	32·2
	Cherrapunji	4,309	25·841		25·792	25·947	16th	25·752	13th	·195	59·7	66·8		52·7		59·8		14·1	71·7	17th	47·1	26th	24·6
	Maymyo	3,545	26·558	+·032	26·503	26·654	16th	26·457	12th	·197	58·3	69·9	−3·9	52·0	+0·6	61·0	−1·7	17·9	74·8	9th & 11th.	40·9	30th	33·9
	Pachmarhi	3,528	26·598	+·045	26·545	26·655	16th & 25th.	26·537	12th	·118	68·8	76·5	+3·2	49·9	−1·4	63·2	+0·9	26·6	80·5	1st, 2nd & 4th.	45·1	28th	35·4
	Mount Abu	3,945	26·192	+·029	26·142	26·241	17th	26·128	30th	·113	66·8	73·7	+0·2	57·9	0	65·8	+0·1	15·8	77·2	5 days	52·4	30th	24·8
	Mescara	3,781	26·286	+·029	26·219	26·339	20th	26·222	9th	·117	64·7	77·1	+1·2	59·3	−0·8	68·2	+0·2	17·8	81·5	21st & 22nd.	54·0	16th	27·5
	Ootacamund	*7,327*	23·105		23·041	23·162	20th & 21st.	26·062	9th	·100	56·1	63·8		46·9		55·4		16·9	68·0	18th	37·2	15th	30·8
	Kodaikanal	7,688	22·670	+·008	22·805	22·926	21st	22·826	9th	·100	53·9	60·6	−0·8	49·4	+0·3	55·0	−0·3	11·2	68·5	18th	43·0	14th	25·5
	Extra India.																						
	Singapore (*a*)	10	29·977		29·908	30·035	18th	29·890	5th	·145	83·6	88·3		73·8		81·1		14·5	91·2	28th	71·0	17th	20·2
	Penang (*a*)	17	29·896		29·838	29·973	18th	29·756	1st	·217	81·1	87·6		72·7		80·1		14·9	90·0	23rd & 30th.	70·0	21st & 29th.	20·0
	Trincomalee	99	29·854	P	29·882	29·941	19th	29·757	8th	·184	76·5	83·9	−1·4	74·6	−0·1	79·3	−0·7	9·3	91·5	20th	72·5	7th & 17th	19·0
	Colombo †	24	29·941	+·008	29·891	30·020	20th	29·856	29th	·164	74·9	85·9	−0·5	73·1	−1·0	79·5	−0·7	12·8	90·5	27th	70·0	17th	20·5
	Hambantota		29·890		29·880	29·983	19th	29·804	8th	·179	75·4	86·1		74·3		80·2		11·8	91·0	22nd	73·0	4 days	18·0
	Minicoy	7	29·983			30·029	16th	29·903	21th	·136													
	Amini Divi	*13*	29·977	+·016	29·918	30·036	20th	29·905	1st	·130	81·7	87·9	+2·9	75·6	+0·2	81·8	+1·5	12·3	91·4	23rd	69·3	16th	22·1
	Gyantse	13,120																					
	Phari jong	14,400									23·9	39·9		4·0		21·9		36·0	51·6	3rd	0	2nd	51·6
	Gangtok	5,660?	24·466		24·421	24·530	26th	24·446	24th & 27th.	·084	49·6	64·1		45·0		54·5		19·1	66·0	3rd	40·1	26th	25·9
	Gartok (*c*)†	15,100									7·0	32·9		2·5		17·7		30·4	42·9	17th	−9·9	23rd	52·8
	Kashgar (*c*)	4,255	25·771			26·060	20th	25·490	2nd & 3rd.	·570	30·3	51·5	−0·5	26·1†	−2·8†	38·7†	−1·7	25·4	70·6	11th	18·3	29th	52·3
	Kabul (*c*)‖		24·345			24·400	17th, 20th & 25th.	24·240	28th	·160	34·8	73·6*	+6·8*	32·8	−0·2	51·7*	+3·3	40·8	76·8	26th, 27th & 30th.	25·8	17th & 18th.	51·0
	Meshed	3,104	26·831		30·158	27·112	23rd	26·696	26th	·416	43·6	61·0		37·9	+1·8	49·5		23·1	76·8	8th	29·5	17th	47·3
	Jask	13	30·076	+·003	30·041	30·231	17th	29·949	28th	·282	71·7	85·0	+1·8	68·6	−0·1	76·8	+0·9	16·4	93·3	19th	62·3	20th	31·0
	Muscat	20	30·086	+·018	30·055	30·172	18th	29·992	26th	·180	76·5	86·7	+6·7	73·3	−2·0	80·0	+2·3	13·4	94·3	1st & 3rd.	67·1	30th	27·2
	Bahrein	18									73·1	79·8		69·2		74·5		10·6	90·7	4th	61·5	30th	29·2
	Bushire	14	30·060	−·014	30·036	30·206	17th	29·958	13th	·248	64·9	78·3	+0·2	62·0	−0·3	70·2	−0·1	16·3	92·3	7th	53·0	17th	39·3
	Busrah	25	30·099		30·094	30·252	15th	29·936	25th	·316	65·7	73·3		58·7		66·0		14·6	90·3	4th	50·1	29th	40·2
	Kerman		24·574			24·820	5 days	24·140	11th & 12th.	·680	44·0	74·0		35·7		54·8		38·3	85·6	7th	29·5	29th	56·1
	Ispahan (*b*)	*5,817*	24·320			24·480	20th	24·130	26th	·350	40·3	82·9	+0·9	38·2	+2·3	50·5	+1·6	24·7	74·4	5th	30·2	29th & 30th.	44·2
	Tehran (*b*)	*4,002*	25·838			26·000	17th	25·650	26th, 27th & 28th.	·350	46·2	59·5	−1·9	43·8	+1·6	51·6	+0·1	15·2	69·4	24th	35·1	29th	34·3
	Baghdad (*b*)	127	29·980	+·006	30·090	30·143	15th	29·825	24th	·318	55·0	73·8	−0·9	52·5§	+2·7§	63·1§	+0·9	21·3	86·9	1st	38·8	28th	48·1
	Beirut (*d*)																						
	Aden	94	29·963	+·032	30·010	30·065	17th	29·879	2nd	·186	76·9	81·4	−3·5	73·5	−1·2	77·5	−2·3	7·9	90·6	1st	68·4	1st	22·2
	Zanzibar	72	29·978	+·015	29·976	30·062	15th	29·906	29th	·156	80·7	85·3	+1·5	78·1	+1·0	81·7	+1·3	7·2	87·1	14th	72·9	16th	14·2

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 3,000 feet.

(*a*) 9 hrs. observations.
(*b*) Aneroid uncorrected.
(*c*) Aneroid corrected.
(*d*) 8½ hrs. observations.
(*e*) 7 hrs. observations.

* Mean of 5 days.
† " " 29 "
‡ " " 27 "
‖ Mean of 28 "
§ " " 14 "

B—*concluded.*

***stations in India, etc., in November, 1913*—concluded.**

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 from 1st May to 30th November, 1913.	Normal rainfall for period, 1st May to 30th November.	Departure from normal of period, 1st May to 30th November, 1913.	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
																																Hill stations, excluding Kashmir and Baluchistan—*concld.*
																41	−1	·128	−·013	2·5	+0·7	2	0·9	+1·1	0·33	0·45	−0·12	39·62	51·73	−12·11	0·21	Simla.
																70		·143		3·2		3	0·7	+2·3	1·62	0·36	+1·26		40·70		0·90	Sarain.
																																Kalabagh.
11	14	3	1					1	N 9° E	N 34° E	(g) 3·1	3·9	−0·8	56	+19	52	−1	·152	−·033	1·9	+0·5	2	0·7	+1·3	0·86	0·43	+0·45	52·10	58·05	−5·95	0·76	Chakrata.
13		1	5	3	2	2	3	1	S 34° E		4·6			17		51	+4	·154		2·4		1	0·2	+0·8	0·39	0·21	+0·18	34·59	42·20	−7·61	0·39	Mukteswar.
28		1					1		N 23° W	N 87° E	0·2	2·0	−1·8	2	−38	70	−9	·223	−·039	1·5	−1·9	2	0·8	+1·2	0·70	0·29	+0·41	120·28	113·72	+6·56	0·36	Darjiling.
28			1		1				S 45° E		1·8			3		72		·314		2·2		1	2·8	−1·8	0·35	1·46	−1·11	82·87	76·51	+6·36	0·30	Shillong.
3	2	11	12	1			1		N 65° E		2·4			69		68		·310		1·4		2	1·7	+0·3	0·31	2·61	−2·30	348·54	364·81	−16·27	0·20	Cherrapunji.
26		4							N 45° E		2·3			13		97	+10	·475		5·2		6	5·1	+0·9	3·95	3·04	+0·91	62·51	53·51	+9·00	1·73	Maymyo.
25		1	3		1				S 85° E	N 82° E	0·3	2·0	−1·7	12	−6	47	−7	·306	−·037	0·5	−1·1	0	0·9	−0·9	0	0·52	−0·52	75·73	72·89	+2·84	0	Pachmarhi.
18		6	1	1		3	1		N 63° E	N 27° E	2·8	3·2	−0·4	10	−17	38	−4	·252	−·014	0·8	−1·0	1	0·3	+0·7	0·11	0·22	−0·11	77·74	59·72	+18·02	0·11	Mount Abu.
1	1	13	15						N 67° E	N 71° E	5·1	3·8	+1·3	86	+16	77	−4	·460	−·043	4·7	−0·5	1	5·0	−4·0	0·14	2·73	−2·59	106·95	122·35	−15·40	0·10	Mercara.
5	1	3	5	10	4			2	S 63° E		2·3			46		76		·337		5·2		7	8·0	−1·0	4·88	3·79	+1·09	40·09	47·89	−7·80	1·86	Cotacamund.
2	5	4	4	4			1	10	N 7° E		9·6*			40		85	+5	·352		5·9		12	10·2	+1·8	9·04	6·50	+2·54	38·02	46·17	−8·15	1·38	Kodaikanal.
																																Extra India.
15	1	3		2		3		6	N 37° W		2·8*			17						6·6		19	13·3	+5·7	16·37	8·42	+7·95	50·49§	48·54	+1·95	3·13	Singapore.
		25		1		1		3	N 40° E		9·2*			76								18	15·4	+2·6	18·56	13·06	+5·50	95·18	77·71	+17·47	3·21	Penang.
1		4	5		2	13	1	4	S 43° W	S 57° W	5·3*	3·9	+1·4	27	+5	91	+5	·826	−·036	7·2	+3·7	16	13·5	+2·5	20·82	14·41	+6·41	40·82	36·76	+4·06	7·12	Trincomalee.
19	2	4					2	2	N 6° W	N 46° E	2·8*	4·5	−1·7	21	−9	91	+13	·783	−·055	8·7	+3·9	13	12·8	+0·2	12·66	12·32	+0·34	40·56	58·84	−18·28	3·33	Colombo.
1	5	14		1			4	5	N 9° E		7·3*			59		92		·805		5·7		7			2·95			(l) 13·12			0·75	Hambantota.
10	4	4	2	2	2	1	3	2	N 14° W	N 7° W	3·6	4·5	−0·9	13	−21					4·4	+0·3	6	6·8	−0·8	4·38	5·27	−0·89	49·25	52·01	−2·76	1·29	Minicoy.
3	12	9	4					2	N 24° E		3·0			73		77	−1	·831	−·027	4·0	−0·6	2	3·3	−1·3	0·90	1·66	−0·76	59·94	48·90	+11·04	0·66	Amini Divi.
																																Gyantse.
31	2	4		2					N 45° E		7·4			20		61		·080		0		0			0·04			24·00			0·03	Pharijong.
26		3						1	N 18° E		2·0			10		90		·323		0		1	3·6	−2·6	0·19	1·83	−1·64	103·49	114·13	−10·64	0·14	Gangtok.
8	2	1	1	3	13		1		S 14° E		(f) 5·3			41						0·7		0			0			2·87			0	Gartok.
28	2								N	N 5° W	0·5	0·7	−0·2	7	−4	71	+18	·116	?	3·3	−0·3	0	0	0	0	0·01	−0·01		2·27		0	Kashgar.
		2	3	5	3			1	S 63° E	S 45° W				57	+45					1·3	−0·6	0	1·7	−1·7	0	0·68	−0·68	2·07	2·54	−0·47	0	Kabul.
21	3		2	1	3				S 72° E			0·9		10		36		·246		3·8	−0·8	0	1·5	−1·5	0·18	0·58	−0·40	2·44	2·81	−0·37	0·09	Meshed.
	14	5	4	1				6	N 11° E	N 27° E	5·3	7·1	−1·8	72	+15	68	+1	·527	−·052	1·1	−0·7	1	0·6	+0·4	0·77	0·32	+0·45	0·77	0·42	+0·35	0·77	Jask.
8	1		5	1			4	11	N 37° W	S 74° W	3·7	2·5	+1·2	32	0	60	−8	·547	−·104	1·0	−0·5	0	0·8	−0·8	0	0·35	−0·35	0	0·59	−0·59	0	Muscat.
	6	2	1	1	2	4	6	8	N 58° W		5·8			43		73		·603		2·7		0	0·3	−0·3	0	0·04	−0·04	0·01	0·15	−0·14	0	Bahrein.
3	8	9	3		1		1	5	N 16° E	N 61° E	5·9	4·5	+1·4	59	−11	77	+10	·472	+·014	4·0	+0·9	4	2·4	+1·6	2·01	1·56	+0·45	2·03	1·69	+0·34	0·82	Bushire.
1	2	1	1	5	6	2	7	5	S 54° W		1·8			27		77		·486		5·4		2	1·8	+0·2	1·44	0·89	+0·55	1·89	1·62	+0·27	1·12	Busrah.
28	1					3			S 45° W		4·0			10		58		·163		1·1		2			0·99			1·17			0·78	Kerman.
26	1			1			2		N 75° W	N 62° W	1·3	1·8	−0·5	4	−10	77	+2	·197	−·019	3·3	−0·1	1	1·6	−0·6	0·43	0·72	−0·29	0·80	1·22	−0·42	0·40	Ispahan.
8	2	19				1			N 41° E	N 11° E	1·5	1·6	−0·1	67	+39	73	+14	·230	+·031	3·7	+0·1	2	3·2	−1·2	0·82	1·05	−0·23	3·07	2·23	+0·84	0·45	Tehran.
8	3	5	2	2	1	1	3	5	N 2° W	N 5° W	4·6	1·7	+2·9	24	0	77	+13	·337	+·050	3·4	+2·1	1	1·5	−0·5	0·65	0·79	−0·14	0·71	1·15	−0·44	0·61	Baghdad.
																																Beirut.
7	10	13							N 25° E	N 76° E	8·1	9·4	−1·3	69	−11	73	+1	·670	−·016	3·7	−0·1	0	0·3	−0·3	0	0·16	−0·16	0·34	0·74	−0·40	0	Aden.
10	6	6		5	1	1	1		N 50° E	S 45° E	2·8	3·4	−0·6	27	−15	81	−2	·839	+·001	5·9	−0·1	7	11·4	−4·4	3·20	8·64	−5·44	22·44	32·12	−9·68	1·01	Zanzibar.

* Uncorrected for scale error.
§ Rainfall for October wanting.

(g) Mean of 27 days.
(f) " " 28 "
(l) Rainfall since 15th August 1913.

Table C.—Abstract of observations taken at 8 hrs. at 64 fourth and fifth class stations in India, etc., in November, 1913.

Table

Abstract of observations taken at 8 hrs. at 64 fourth

Number of sub-division.	Station.	Temperature of air.													Wind direction.										
		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.	Number of winds from: Calm.	N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.	Resultant direction.	Normal direction.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
	II.—Assam.																								
4	Balek	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Bishnath	62·0	79·2	...	53·0	...	66·1	...	26·2	82·2	6th	47·6	28th	34·6	...	...	...	...	...	...	...	...	...	...	...
	Borjuli	66·7	80·9	...	52·5	...	66·7	...	28·4	85·0	6th	47·4	28th	37·6	...	...	...	...	...	...	...	...	...	...	...
	Chandkhira	66·2	85·3	...	58·5	...	71·9	...	26·8	91·6	4th	52·0	27th	39·6	...	...	...	...	...	...	...	...	...	...	...
	Doom Dooma	55·9	80·6	...	53·2	...	66·9	...	27·4	84·1	2nd	46·0	29th	38·1	...	...	...	...	...	...	...	...	...	...	...
	Dikom	61·1	80·0	...	51·0	...	65·5	...	29·0	85·4	8th	45·4	28th & 30th	40·0	...	...	...	...	...	...	...	...	...	...	...
	Golaghat	62·8	78·5	...	55·1	...	66·8	...	23·4	81·7	15th	48·6	29th	33·1	...	...	...	...	...	...	...	...	...	...	...
	Hailakandi	67·2	84·2	...	61·7	...	72·9	...	22·5	88·0	3rd	55·2	17th	32·8	...	...	...	...	...	...	...	...	...	...	...
	Jorehat	60·9	80·8	...	56·4	...	68·6	...	24·4	83·9	4th	50·8	29th	33·1	...	...	...	...	...	...	...	...	...	...	...
	Lumding	61·9	79·3	...	56·6	...	67·9	...	22·6	82·9	6th	49·8	29th	33·1	...	...	...	...	...	...	...	...	...	...	...
	Messa	71·2	84·5	...	53·8	...	69·1	...	30·7	87·1	14th	48·0	29th	39·1	...	...	...	...	...	...	...	...	...	...	...
	Panerihat	55·1	75·9	...	51·8	...	63·9	...	24·1	78·9	7th	47·2	20th	31·7	...	...	...	...	...	...	...	...	...	...	...
	Srimangal	65·2	86·4	...	58·6	...	72·5	...	27·8	89·5	5th	53·8	27th	35·7	...	...	...	...	...	...	...	...	...	...	...
	III.—Bengal.																								
5	Comilla	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Brahmanbaria	74·5	85·4	...	62·8	...	74·1	...	22·6	89·9	4th	57·4	29th	32·5	...	...	...	...	...	...	...	...	...	...	...
	Faridpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Goalundo	72·0	84·3	...	60·5	...	72·4	...	23·8	90·2	9th	54·1	30th	36·1	...	...	...	...	...	...	...	...	...	...	...
	Pabna	70·7	83·8	...	63·9	...	73·9	...	19·9	88·9	6th	58·6	28th	30·3	...	...	...	...	...	...	...	...	...	...	...
	Sirajganj	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Rampur Boalia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Malda	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Rangpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Dam Dim	58·0	92·4	...	48·6	...	70·5	...	43·8	97·9	4th & 5th	39·8	18th	58·1	...	...	...	...	...	...	...	...	...	...	...
	Kalchini	71·5	83·2	...	49·7	...	66·5	...	33·5	87·1	16th	42·9	17th	44·2	...	...	...	...	...	...	...	...	...	...	...
	Nagrakata	71·7	83·5	...	55·0	...	69·3	...	28·5	88·1	15th	49·0	16th	39·1	...	...	...	...	...	...	...	...	...	...	...
	Cooch Behar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Krishnagar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Bankura	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Asansol	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

C.

and fifth class stations in India, etc., in November, 1913.

Wind velocity.			Wind steadiness.		Hygrometry, 8 hrs.				Cloud.		Rainfall.									Heaviest rainfall during month.	Station.
Mean velocity, miles per hour.	Normal.	Departure from normal.	Actual percentage.	Departure from normal.	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.	Mean cloud amount at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st May to 30th November, 1913.	Normal rainfall of period, 1st May to 30th November.	Departure from normal of period, 1st May to 30th November 1913.		
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
																					II.—Assam.
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Balek.
...	...	...	...	...	89	...	·500	...	...	...	0	1·5	—1·5	0·05	0·52	—0·47	71·15	76·89	—5·74	0·03	Bishnath.
...	...	...	...	...	72	...	·471	...	...	...	1	2·0	—1·0	1·05	0·67	+0·38	67·95	69·29	—1·34	1·05	Borjuli.
...	...	...	...	...	98	...	·632	...	...	...	1	1·3	—0·3	0·44	1·42	—0·98	103·77	88·45	+15·32	0·38	Chandkhira.
...	...	...	...	...	96	...	·427	...	...	...	0	1·0	—1·0	0·17	0·46	—0·29	88·38	75·58	+12·80	0·08	Doom Dooma.
...	...	...	...	...	83	...	·450	...	...	...	0	1·0	—1·0	0·12	0·46	—0·34	87·52	81·84	+5·68	0·09	Dikom.
...	...	...	...	...	89	...	·508	...	...	...	1	0·8	+0·2	0·20	0·35	—0·15	60·37	54·20	+6·17	0·12	Golaghat.
...	...	...	...	...	88	...	·585	...	...	...	2	1·2	+0·8	0·65	1·21	—0·56	104·74	98·93	+5·81	0·40	Hailakandi.
...	...	...	...	...	94	...	·504	...	...	...	1	1·2	—0·2	0·22	0·42	—0·20	58·40	63·16	—4·76	0·17	Jorehat.
...	...	...	...	...	97	...	·534	...	...	...	1	...	...	0·55	...	...	41·76	...	...	0·37	Lumding.
...	...	...	...	...	75	...	·558	...	...	...	1	1·0	0	0·32	0·32	0	58·94	74·89	—15·95	0·32	Messa.
...	...	...	...	...	88	...	·382	...	...	...	1	1·5	—0·5	0·35	0·48	—0·13	61·34	63·14	—1·80	0·32	Panerihat.
...	...	...	...	...	92	...	·574	...	...	...	1	0·8	+0·2	0·79	1·25	—0·46	60·97	79·76	—18·79	0·72	Srimangal.
																					III.—Bengal.
...	...	...	...	...	...	...	...	...	...	...	2	1·4	+0·6	0·59	1·15	—0·56	113·22	77·73	+35·49	0·48	Comilla.
...	...	...	...	...	79	...	·671	...	...	...	2	0·7	+1·3	1·13	0·56	+0·57	91·90	68·42	+23·48	0·95	Brahmanbaria.
...	...	...	...	...	...	...	...	...	...	...	2	1·3	+0·7	1·54	1·23	+0·31	67·79	61·05	+6·74	1·12	Faridpur.
...	...	...	...	...	78	...	·612	...	...	...	1	0·3	+0·7	1·25	0·51	+0·74	51·89	58·41	—6·52	1·20	Goalundo.
...	...	...	...	...	80	...	·597	...	...	...	1	0·5	+0·5	0·84	0·49	+0·35	53·36	54·06	—0·70	0·84	Pabna.
...	...	...	...	...	...	...	...	...	...	...	1	0·6	+0·4	0·20	0·50	—0·30	61·86	58·38	+3·48	0·18	Sirajganj.
...	...	...	...	...	...	...	...	...	...	...	1	0·6	+0·4	0·45	0·45	0	63·72	49·92	+13·80	0·45	Rampur Boalia.
...	...	...	...	...	...	...	...	...	...	...	1	0·5	+0·5	0·12	0·24	—0·12	59·92	49·37	+10·55	0·12	Malda.
...	...	...	...	...	...	...	...	...	...	...	0	0·2	—0·2	0	0·11	—0·11	98·34	75·16	+23·18	0	Rangpur.
...	...	...	...	...	90	...	·442	...	...	...	2	0·5	+1·5	1·51	0·09	+1·42	139·30	145·09	—5·79	1·14	Dam Dim.
...	...	...	...	...	70	...	·554	...	...	...	0	1·0	—1·0	0	0·34	—0·34	138·30	141·50	—3·20	0	Kalchini.
...	...	...	...	...	60	...	·461	...	...	...	2	1·2	+0·8	0·79	0·27	+0·52	143·55	150·61	—7·06	0·61	Nagrakata.
...	...	...	...	...	...	...	...	...	...	...	0	0·3	—0·3	0·03	0·08	—0·05	138·83	137·85	+0·98	0·03	Cooch Behar.
...	...	...	...	...	...	...	...	...	...	...	1	1·1	—0·1	0·60	1·02	—0·42	70·51	51·41	+19·10	0·60	Krishnagar.
...	...	...	...	...	...	...	...	...	...	...	1	1·0	0	0·25	0·51	—0·26	54·64	50·34	+4·30	0·25	Bankura.
...	...	...	...	...	...	...	...	...	...	...	1	0·6	+0·4	0·90	0·46	+0·44	71·74	48·52	+23·21	0·90	Asansol.

Table

Abstract of observations taken at 8 hrs. at 64 fourth

Number of sub-division.	Station.	Temperature of air.													Wind direction.										
		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.	Number of winds from: Calm.	N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.	Resultant direction.	Normal direction.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
	IV.—Bihar and Orissa.																								
7	Hazaribagh	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
8	Bhagalpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...
	Muzaffarpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Motihari	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Chapra	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Arrah	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.	...	...	...	...	...
	Dehri	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...
	V.—United Provinces of Agra and Oudh.																								
10	Meerut	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Dehra Dun	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...
	IX.—Rajputana.																								
18	Udaipur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...
	XII.—Central Provinces.																								
23	Chhindwara	65·0	83·8	...	53·2	...	68·5	...	30·6	87·7	1st & 2nd	48·4	29th	39·3	24	1	3	2	...	...	...	...	...	N 53° E	...
	XIII.—Hyderabad.																								
27	Parbhani	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	XV.—Madras.																								
31	Tinnevelly	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...
32	Anantapur	74·7	88·6	...	65·7	...	77·1	...	22·9	93·0	20th	54·6	16th	38·4	...	...	...	...	...	...	...	...	...	...	...
33	Guntur	74·8	90·6	...	67·6	...	79·1	...	23·0	93·2	20th	60·5	15th	32·7	...	...	...	...	...	...	...	...	...	...	...
	Bay Islands.																								
1	Car Nicobar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...
	Kashmir.																								
13	Jammu	61·4	77·8	...	51·6	...	66·2	...	23·2	82·1	1st & 14th	49·3	25th	32·8	...	16	12	2	...	...	...	..	...	N 24° E	...
	Sonamarg	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Kargil	30·6	49·3	...	22·8	...	36·1	...	26·5	59·3	1st	16·6	26th	42·7	...	25	1	1	2	...	1	...	...	N 5° E	...
	Astor	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

C—*continued.*

and fifth class stations in India, etc., in November, 1913—continued.

Wind velocity.			Wind steadiness.		Hygrometry, 8 hrs.				Cloud.		Rainfall.									Heaviest rainfall during month.	Station.
Mean velocity, miles per hour.	Normal.	Departure from normal.	Actual percentage.	Departure from normal.	Mean humidity, 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Mean cloud amount at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st May to 30th Nov., 1913.	Normal rainfall of period, 1st May to 30th Nov.	Departure from normal of period, 1st May to 30th Nov., 1913.		
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
																					IV.—Bihar and Orissa.
...	...	...	...	...	...	...	...	...	...	...	1	0·7	+0·3	0·65	0·25	+0·40	56·78	48·64	+8·14	0·65	Hazaribagh.
...	...	...	...	...	...	...	...	...	...	...	0	0·3	—0·3	0·02	0·12	—0·10	41·89	46·27	—4·38	0·02	Bhagalpur.
...	...	...	...	...	...	...	...	...	...	...	0	0·3	—0·3	0	0·16	—0·16	72·15	47·02	+25·13	0	Muzaffarpur.
...	...	...	...	...	...	...	...	...	...	...	0	0·2	—0·2	0	0·20	—0·20	58·73	53·67	+5·06	0	Motihari.
...	...	...	...	...	...	...	...	...	...	...	0	0·4	—0·4	0	0·23	—0·23	60·15	39·75	+20·40	0	Chapra.
...	...	...	...	...	...	...	...	...	...	...	0	0·4	—0·4	0	0·16	—0·16	61·34	41·89	+19·45	0	Arrah.
...	...	...	...	...	...	...	...	...	...	...	0	0·5	—0·5	0	0·35	—0·35	58·29	39·86	+18·43	0	Dehri.
																					V.—United Provinces of Agra and Oudh.
...	...	...	...	...	...	...	...	...	...	...	1	0·3	+0·7	0·32	0·12	+0·20	20·65	28·80	—8·15	0·32	Meerut.
...	...	...	...	...	...	...	...	...	...	...	1	0·7	+0·3	0·17	0·30	—0·13	49·23	77·87	—28·64	0·13	Dehra Dun.
																					IX.—Rajputana.
...	...	...	...	...	...	...	...	...	...	...	0	0·1	—0·1	0·08	0·02	+0·06	24·72	22·73	+1·99	0·08	Udaipur.
																					XII.—Central Provinces.
1·3	...	...	17	...	62	...	·388	...	0·6	...	0	...	...	0	...	...	44·91	...	...	0	Chhindwara.
																					XIII.—Hyderabad.
...	...	...	...	...	...	...	...	...	...	...	0	...	...	0	...	...	32·48†	...	...	0	Parbhani.
																					XV.—Madras.
...	...	...	...	...	...	...	...	...	...	...	13	9·1	+3·9	10·40	6·73	+3·67	25·11	17·69	+7·42	3·55	Tinnevelly.
...	...	...	...	...	71	...	613	...	5·1	...	0	...	...	0	...	...	22·69	...	...	0	Anantapur.
...	...	...	...	...	84	...	·725	...	1·6	...	0	...	...	0	...	...	26·91	...	...	0	Guntur.
																					Bay Islands.
...	...	...	...	...	...	...	...	...	...	...	10	13·1	—3·1	8·62	11·83	—3·21	60·21	81·56	—21·35	2·40	Car Nicobar.
																					Kashmir.
...	...	...	93	...	43	...	·236	...	1·3	...	0	...	...	0	...	...	33·99	...	...	0	Jammu.
...	...	...	...	...	...	...	...	...	...	...	3	1·8	+1·2	2·42	1·18	+1·24	22·06	23·98	—1·92	1·80	Sonamarg.
...	...	...	80	...	57	...	·096	...	3·8	...	1	...	...	0·26	...	...	1·17	...	...	0·25	Kargil.
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Astor.

† Rainfall since 10th May, 1913.

Table

Abstract of observations taken at 8 hrs. at 64 fourth and

Number of sub-division.	Station.	Temperature of air.													Wind direction.										
		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.	Number of winds from: Calm.	N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.	Resultant direction.	Normal direction.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
	Hill stations, exclusive of Kashmir.																								
	Panighatta	68·2	79·5	...	58·8	...	69·1	...	20·7	83·9	16th	55·4	28th	28·5	...	...	...	...	...	...	...	...	...	...	...
	Kurseong	55·6	64·4	...	48·9	...	56·7	...	15·5	73·3	20th	40·9	13th	32·4	...	...	...	...	...	...	...	...	...	...	...
	Gnatong	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Lachung	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Ringim	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Poo	...	54·5	...	32·7	...	43·6	...	21·8	61·0	17th	28·0	24th	33·0	9	...	...	9	3	7	...	2	...	S 45° E	...
	Kailang	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Bakloh	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Pishin	...	66·4	...	34·5	...	50·4	...	31·9	76·3	2nd	27·0	20th & 25th.	49·3	...	...	...	...	...	...	...	...	...	...	...
	Extra India.																								
	Ahwaz	...	75·1	...	60·6	...	67·8	...	14·5	91·4	4th	51·4	29th	40·0	...	...	...	...	...	...	...	...	...	...	...
	Chumbi	27·0	52·7	...	24·5	...	38·6	...	28·2	61·1	17th	20·0	25th	41·1	...	...	...	...	...	...	...	...	...	...	...
	Kirmanshah	46·9	58·8	...	36·7	...	47.8	...	22·1	75·0	1st	27·5	15th	47·5	...	...	...	...	...	...	...	...	...	...	...
	Koweit	...	76·1	...	62·1	...	69·1	...	14·0	92·4	1st	53·6	27th	38·8	2	4	1	5	...	2	3	11	2	N 77° W	...
	Maidan	...	77·9	...	53·6	...	65·7	...	24·3	89·7	1st & 4th	44·7	15th	...	...	...	...	...	...	...	...	...	...	...	...
	Muhammerah	...	79·6	...	60·8	...	70·2	...	18·8	89·8	1st	51·2	29th	38·6	...	...	...	...	3	...	5	...	11	§ N 77° W	...
	Abadan	...	75·5	...	58·4	...	67·0	...	17·1	86·5	1st, 3rd & 4th.	47·8	28th	38·8	...	...	...	...	...	...	...	...	...	...	...
	Pemba	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Prison Island	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Seistan	...	73·4	...	45·1	...	59·2	...	28·3	84·0	2nd & 9th	31·0	18th	53·0	...	20	...	1	...	3	...	4	2	N 13° W	...

§ 11 variable winds.

C—*concluded.*

fifth class stations in India, etc., in November, 1913—concluded.

Wind velocity.			Wind steadiness.		Hygrometry, 8 hrs.				Cloud.		Rainfall.									Heaviest rainfall during month.	Station.
Mean velocity, miles per hour.	Normal.	Departure from normal.	Actual percentage.	Departure from normal.	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.	Mean cloud amount at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st May to 30th November, 1913.	Normal rainfall of period, 1st May to 30th November.	Departure from normal of period, 1st May to 30th November, 1913.		
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
																					Hill stations, exclusive of Kashmir.
...	...	...	...	...	56	...	·387	...	...	...	2	0·3	+1·7	0·47	0·07	+0·40	120·41 †	130·47	−10·06	0·35	Panighatta.
...	...	...	...	...	69	...	·305	...	...	...	1	0·2	+0·8	0·15	0·07	+0·08	121·65	144·64	−22·99	0·15	Kurseong.
...	...	...	...	...	...	...	...	...	...	...	3	...	...	0·89	...	...	162·74	...	...	0·38	Gnatong.
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	Lachung.
...	...	...	...	...	...	...	...	...	...	...	3	...	...	0·84	...	...	76·01 ‡	...	...	0·34	Ringim.
...	...	...	43	...	...	...	...	...	3·5	...	1	0·7	+0·3	0·46	0·21	+0·25	1·74	3·72	−1·98	0·37	Poo.
...	...	...	...	...	...	...	...	...	...	...	...	0·9	...	...	0·37	...	...	9·40	...	...	Kailang.
...	...	...	...	...	...	...	...	...	...	...	2	...	...	0·84	...	...	70·29	...	...	0·48	Bakloh.
...	...	...	...	...	...	...	...	...	0·5	...	2	0·4	+1·6	0·33	0·11	+0·22	0·94	0·61	+0·33	0·18	Pishin.
																					Extra India.
...	...	...	...	...	...	...	...	...	4·2	...	5	...	...	2·78	...	...	3·09	...	...	0·88	Ahwaz.
...	...	...	...	...	81	...	·120	...	0·8	...	0	...	...	0·01*	...	...	27·50	...	...	0·01	Chumbi.
...	...	...	...	...	71	...	·230	...	...	...	7	...	...	2·34	...	...	3·85 ‖	...	...	0·70	Kirmanshah.
...	...	...	30	...	...	...	...	...	3·7	...	1	...	...	0·21	...	...	0·32	...	...	0·13	Koweit.
...	...	...	...	...	...	...	...	...	...	...	4	...	...	2·44	...	...	2·44	...	...	1·10	Maidan.
...	...	...	30	...	...	...	...	...	...	...	2	...	...	1·15	...	...	1·35	...	...	0·90	Muhammerah.
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Abadan.
...	...	...	...	...	...	...	...	...	...	...	9	11·9	−2·9	4·47	8·73	−4·26	36·47	41·78	−5·31	0·91	Pemba.
...	...	...	...	...	...	...	...	...	...	...	...	9·2	...	...	7·32	...	...	33·39	...	...	Prison Island.
3·3	...	...	63	...	...	...	...	...	...	...	0	...	...	0·04	...	...	0·04	...	...	0·04	Seistan.

* Snow water.

† Rainfall for August, 1913 wanting.
‖ „ „ September „ „
‡ „ „ July „ „

The lines of the above chart represent isobars or lines of equal barometric pressure, the numbers attached indicating the barometric pressure in inches and being drawn for differences of pressure of ·05 inch. The isobars in the Bay of Bengal are filled in by means of the shore observations, and by comparison with the normal distribution of pressure.

The mean 8 hrs. wind directions of the month are shewn by means of arrows flying with the wind, and are calculated by means of Lambert's formula applied to the winds as given in Table B of the 8 hrs. observations. The mean wind directions for the hill stations are indicated by broken arrows to distinguish them from the wind arrows for the plain stations. The mean velocity of the winds during the month is shewn by the following notation:—

Velocity of	0 to 2 miles per hour	...	one feather added to the wind arrow.
,, ,,	2 to 5 ,, ,, ,,	...	two feathers ,, ,, ,, ,,
,, ,,	5 to 10 ,, ,, ,,	...	three ,, ,, ,, ,, ,,
,, ,,	10 to 20 ,, ,, ,,	...	four ,, ,, ,, ,, ,,
	over 20 ,, ,, ,,	...	five ,, ,, ,, ,, ,,

Wind strengths are based on factor 2·2 for the standard type of Beckley Robinson anemograph, instead of 3·0 as used for this plate up to December 1911 inclusive.

Reg. No. 4538 E 13

Engraved at the Survey of India Office, Calcutta, December 1904.

LITHO. BY S. S. MUNDLE.

The chart shows the departure from normal of the mean during the month of 8 hrs. pressure by means of lines drawn for equal amounts of departure. The numbers are given in thousandths of an inch, 20 representing ·020″ or two hundredths of an inch, &c. Continuous lines indicate that the pressure was in excess by amounts indicated by the numbers attached to the lines, and broken or dotted lines that it was in defect by amounts indicated by the numbers attached to the lines. Two parallel lines near to each other, one continuous and the other broken or dotted, represent the line of no departure, the dotted line facing the area of deficient pressure or negative departures.

CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MAXIMUM TEMPERATURE.

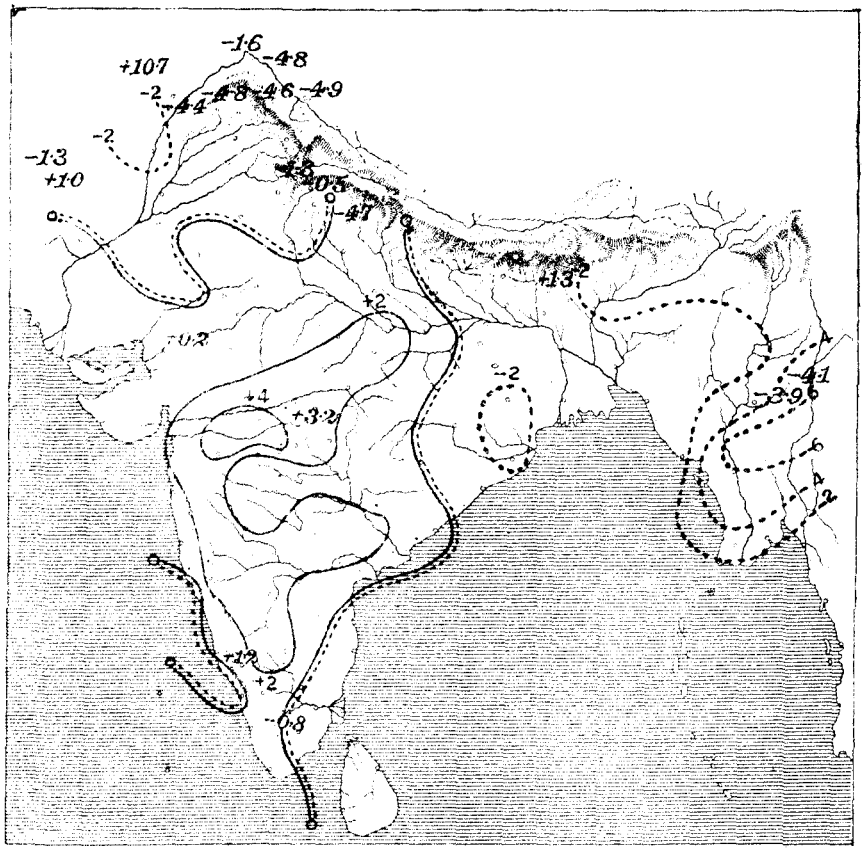


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MINIMUM TEMPERATURE.

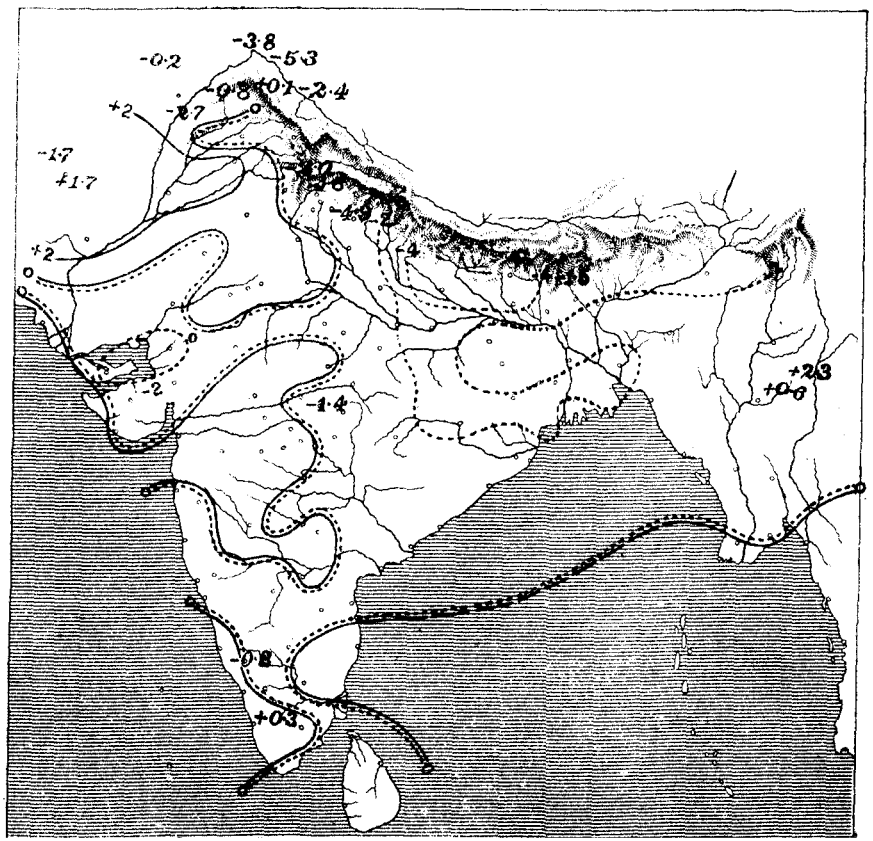


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MEAN TEMPERATURE.

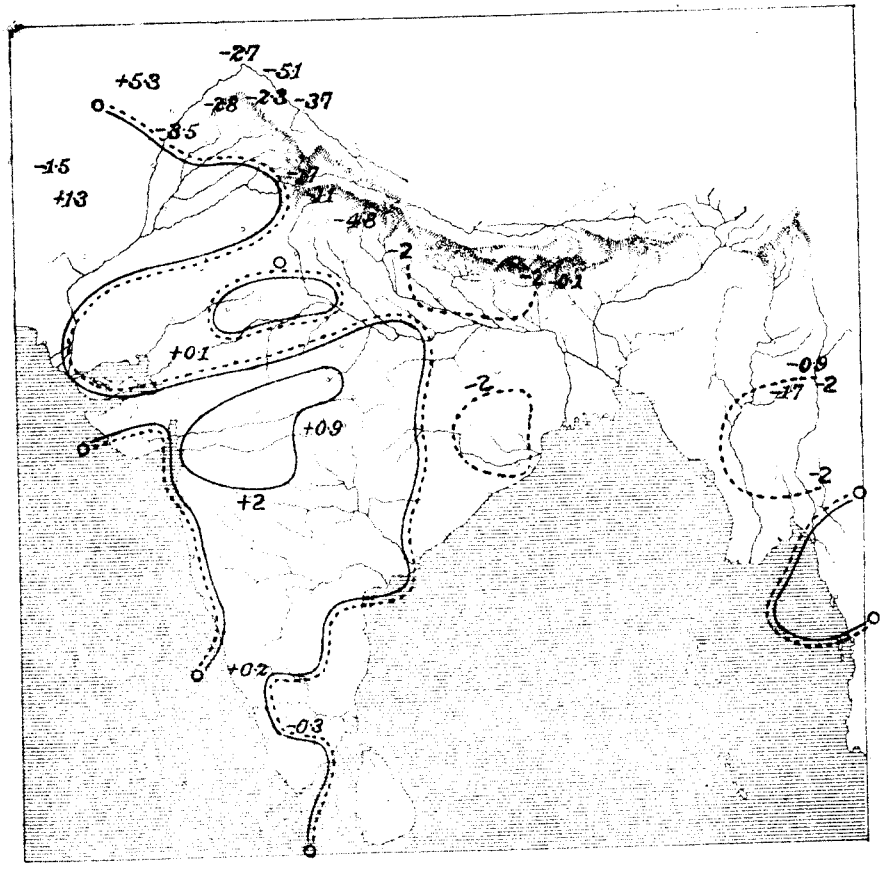


CHART SHEWING THE MONTHLY MEAN OF PRESSURE AND RESULTANT WIND DIRECTION.

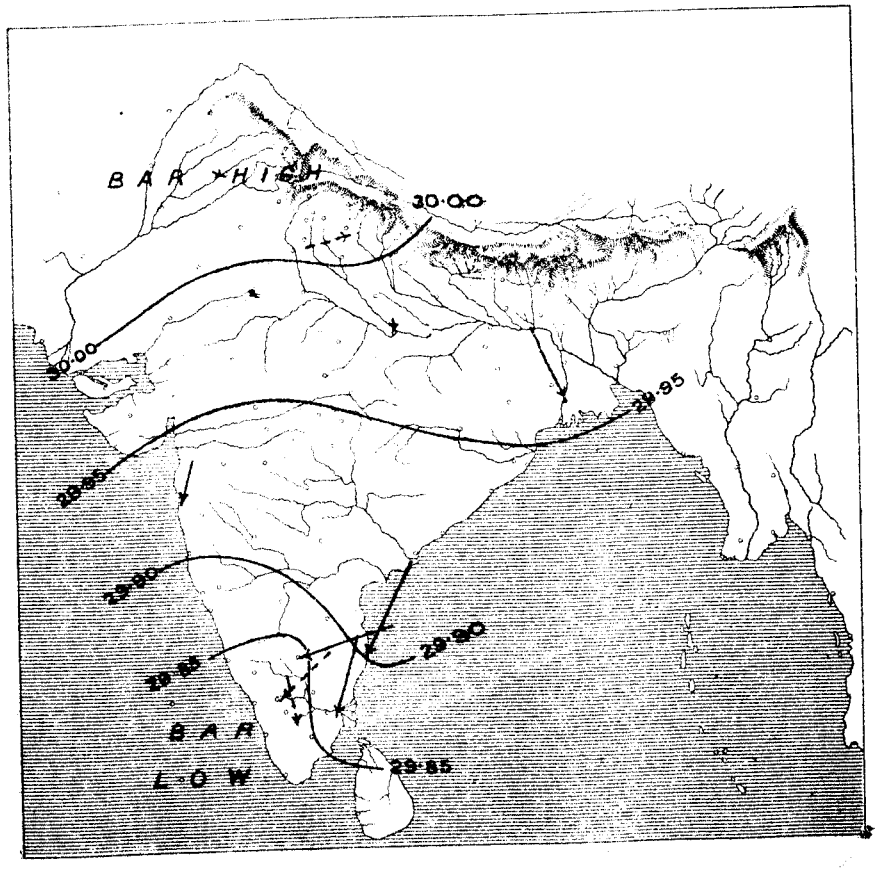


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF ABSOLUTE HUMIDITY AT 8 HRS.

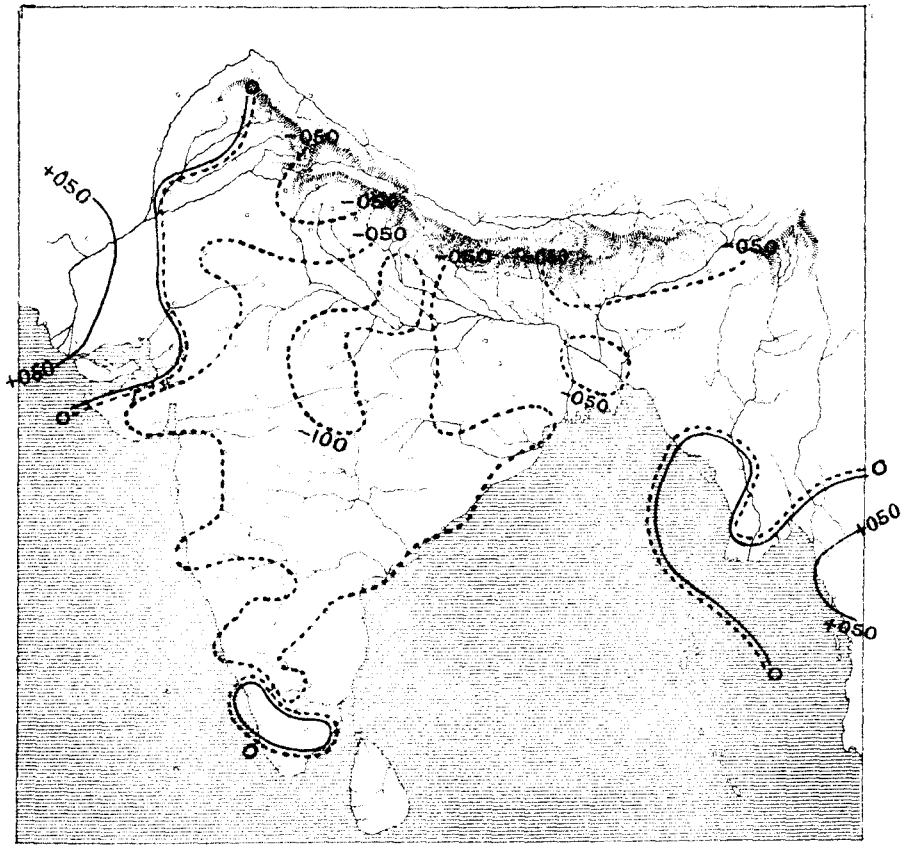


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF RELATIVE HUMIDITY AT 8 HRS.

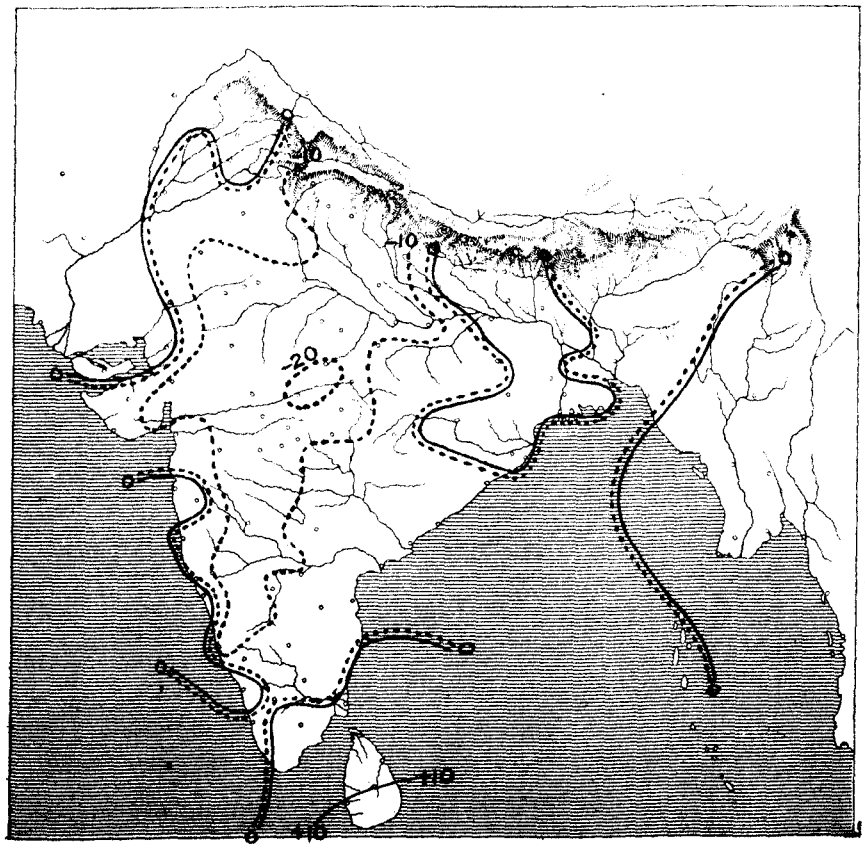


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF CLOUD AMOUNT AT 8 HRS.

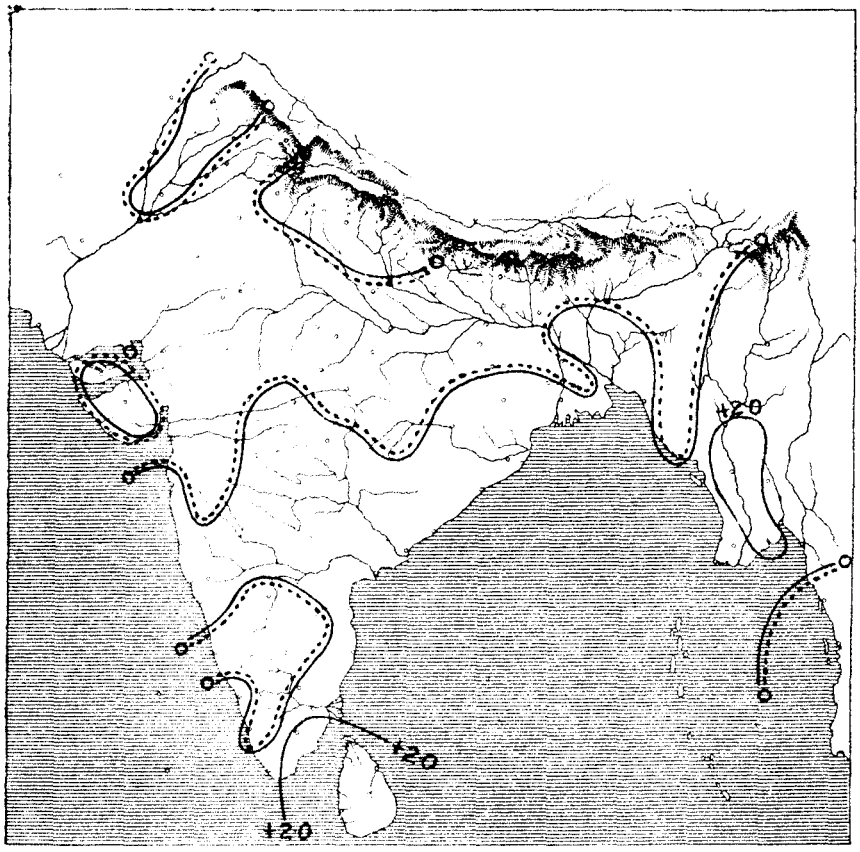
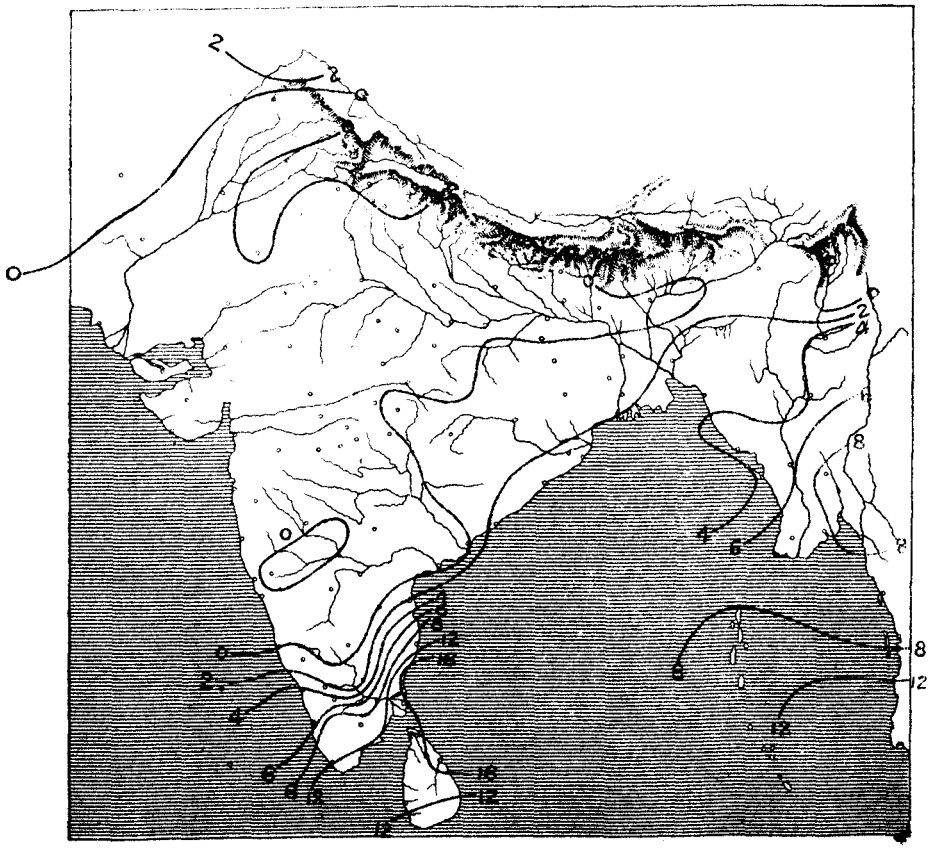
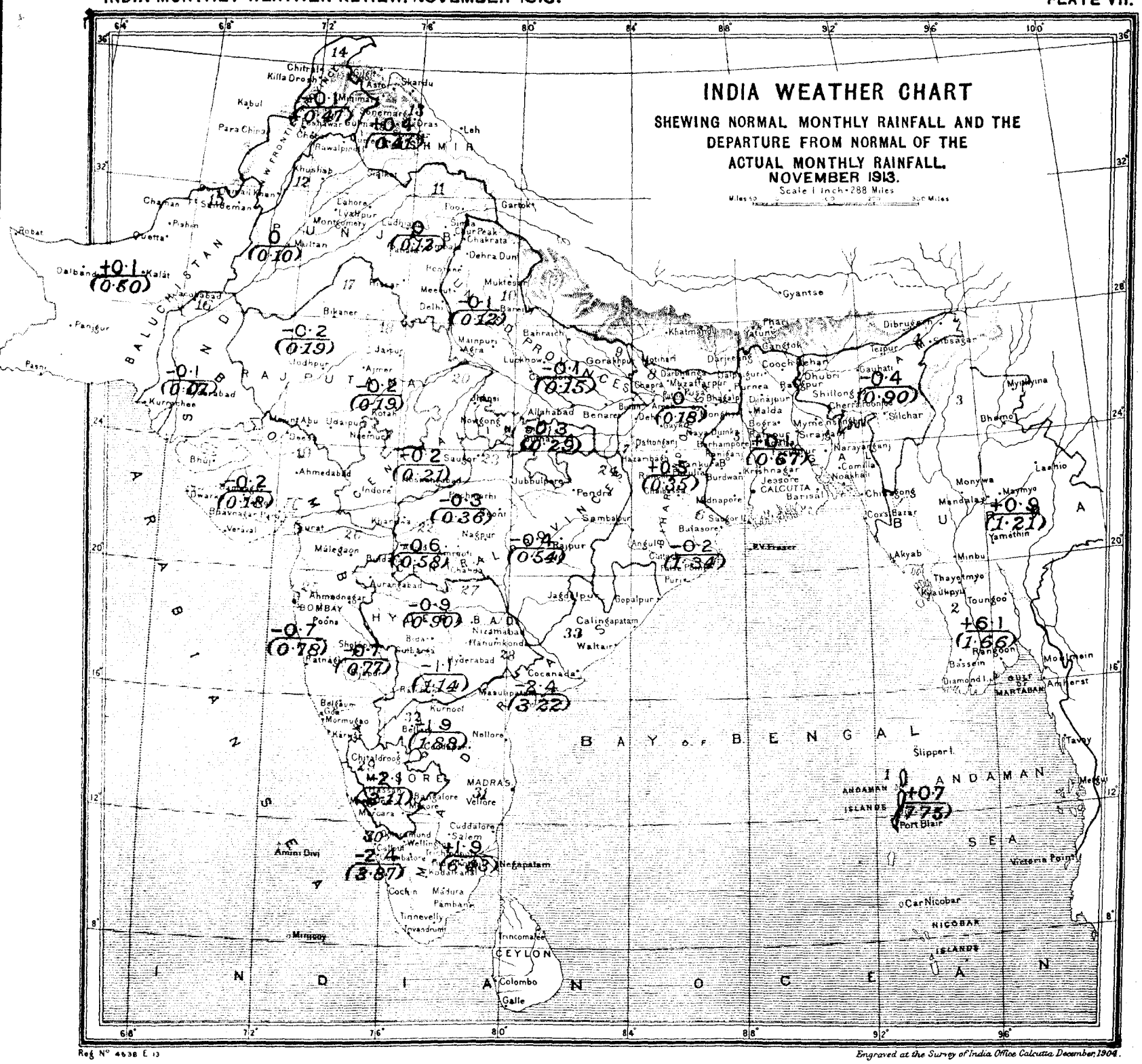


CHART SHEWING THE TOTAL NUMBER OF DAYS IN THE MONTH ON WHICH RAINFALL EQUALLED OR EXCEEDED 0·10 INCH.

(BASED ON THE RETURNS OF TABLE B.)





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
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

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GOVERNMENT OF INDIA.

METEOROLOGICAL DEPARTMENT.

MONTHLY WEATHER REVIEW

PUBLISHED BY ORDER OF

THE GOVERNMENT OF INDIA.

CALCUTTA, DECEMBER, 1913.

INTRODUCTION.

THIS review of the weather in India during the month of December, 1913, is based on observations taken daily at 8 hrs. at 216 stations, and on additional observations taken at 10 hrs. and 16 hrs. at 14 stations. In the rainfall summary have been utilized the data furnished by the meteorological observatories, and such rainfall statements of the month as had been published by the Provincial Governments up to the date of the preparation of the review. The brief notes on solar, seismic and magnetic disturbances are supplied by the chief observatories in the Indian area.

For a statement of the methods adopted in recording and tabulating the data, for each of the elements of observation, reference should be made to the introductory portion of the review for January.

Summary of the chief features of the weather in India during the month.

2. The most striking feature of the month was the unusually early commencement of the winter rains in northern and central India. Four cold weather disturbances entered India from the west in the course of the month, the first two being especially fruitful in precipitation. Weather was dry throughout in Lower Burma and also in the Peninsula, except in the south, where frequent rain occurred during the first three weeks, owing in part at least to the prevalence of a strong north-east monsoon over the adjacent sea area.

Rainfall was remarkably heavy for the time of year in Assam (+400 per cent.), Bengal (+387 per cent.), Chota Nagpur (+155 per cent.), Bihar (+1067 per cent.), Sind (+813 per cent.) and the Central Provinces (+241 per cent.).

Of climatic elements other than rainfall, both cloud proportion and barometric pressure were more or less in excess of the normal in most parts of the country.

Between the 24th and the 30th, when unusually dry weather prevailed, temperature was appreciably lower than usual in Burma and the greater part of northern India; and on one or two occasions the temperature at night sank below the freezing point at several places in the plains of the Punjab and of the North-West Frontier Province.

Solar, seismic and magnetic disturbances.

KODAIKANAL OBSERVATORY.

3. *Solar Observations.*—The sun was examined for spots and faculæ on 26 days; for prominences on 24, the record being incomplete on four of these days.

Sunspots.—Four new spot groups were recorded during the month, the daily average number being 0·5. The spots were all of them small. All the groups formed themselves

on the visible disc and all but one of them were in high latitudes. Their positions were :—

Latitude.	Longitude.
24° south	157°
5° south	129°
24° south	131°
21° north	236°

Prominences.—Twenty-one prominences over 60″ in height were recorded. The highest was a detached prominence 180″ high, photographed on the 20th at 32° west. Displacements of the C line were observed in five prominences—in four of them to the violet and in the other to the red. No metallic prominences were recorded.

Magnetic disturbances.—There was a "moderate" magnetic disturbance on the 4th and 5th.

Seismic records.

$\phi = 10° 13' 50''$; $\lambda = 77° 28' 00''$; h=2343m. Subsoil Rock.

Apparatus.—Milne's Horizontal Pendulum Seismograph.

TABLE 1.

	V	To	C	$\frac{r}{To^2}$
AN:				
AE:	9·76	16·2	1	$3·0 \times 10^{-4}$
AZ:				

Date.	Phase.	Time, G. M. T.			Period (sec.)	Amplitude (u)			Distance Δ (Km.)	Remarks.
						An.	Ae.	Az.		
1913		h.	m.	s.						
Dec. 2nd	i P	20	06	36	...	...	...	...	...	
	i L	20	07	36	...	...	...	...	...	
	M	20	08	36	...	...	60	...	...	
	F	20	18	54	...	...	...	...	...	
„ 10th	e P	6	33	30	...	...	...	...	...	Widening of line.
	F	7	41	54	...	...	...	...	...	
„ 21st	e P	15	46	30	...	...	...	...	...	
	i L	15	48	18	...	...	...	...	...	
	M	15	58	18	...	...	300	...	...	
	F	17	33	42	...	...	...	...	...	

T. ROYDS,

Offg. Director,

Kodaikanal and Madras Observatories.

BOMBAY OBSERVATORY.

Alibag magnetic record.

4. During the month of December 1913 the traces showed 20 calm days and 11 days of smal. disturbance.

The days of the month selected as quiet for the purposes of the Magnetic Survey of India are the 1st, 6th, 17th, 23rd and 31st.

The following table represents the magnetic character of each day during the month.

TABLE 2.

Day.	Character.	Day.	Character.	Day.	Character.	Day.	Character.
1	C	9	S	17	C	25	S
2	S	10	C	18	C	26	S
3	C	11	C	19	S	27	S
4	S	12	C	20	C	28	C
5	S	13	C	21	C	29	C
6	C	14	C	22	C	30	C
7	S	15	C	23	C	31	C
8	S	16	C	24	S		

C=calm ; S=small ; M=moderate ; G=great ; V. G.=very great.

The mean observed absolute values of the several magnetic elements reduced to the mean monthly tabulations of the magnetograms, as also the ranges and the summed ranges of the horizontal force and the declination for the month are as follows :—

Easterly declination	0° 46′ 2″
Horizontal force	0·36886 C. G. S. unit.
Vertical force	0·16523 C. G. S. unit.
Inclination	24° 7′·8.
Inclination (observed)	24° 7′·3.
Horizontal force range	0·00027 C. G. S. unit.
Horizontal force summed range	0·00187 C. G. S. unit.
Declination range	1′·6.
Declination summed range	8′·6.

(NOTE.—Summed range means sum without regard to sign of the 24 ordinates of the diurnal inequality).

Seismic records.

$\phi = 18^\circ\ 53'\ 45''$; $\lambda = 72^\circ\ 48'\ 56$; $h = 11$ m. Subsoil Trap.

Apparatus.—Milne's Horizontal Pendulum Seismograph.

TABLE 3.

	V	To	ε	$\frac{r}{To^2}$
AN:				
AE:	9	19	1	
AZ:				

Date.	Phase.	Time, G. M. T.			Period (sec.)	Amplitude (μ) An.	Ae.	Az.	Distance Δ (Km.)	Remarks.
1913		h.	m.	s.						
Dec. 2nd	P	20	7	36	...	...	...	...	...	
	M	20	9	00	...	...	22	...	...	
	F	20	13	30	...	...	...	...	...	
„ 10th	P	7	4	36	...	...	...	...	...	
	M	7	9	06	...	...	11	...	...	
	F	7	38	54	...	...	...	...	...	
„ 18th	P	7	28	48	...	...	...	...	...	
	M	7	34	00	...	...	33	...	...	
	F	7	39	24	...	...	...	...	...	
„ 21st	P	15	49	18	...	...	...	...	...	
	M	15	56	48	...	...	278	...	...	
	F	17	35	24	...	...	...	...	...	

Thickening of line was noted on the following occasions :—

D. H. M. 2 20 17; D. H. M. 7 5 53; D. H. M. 29 0 11; D. H. M. M. 29 10 26 to 29

Only those thickenings which can be clearly distinguished are given. Thickenings mixed in tremors are omitted from the above list.
Sensibility to tilt = 1·0 mm. of amplitude on the trace = 0·41

N. A. F. MOOS,

Director,

Bombay and Alibag Observatories.

5. CALCUTTA (ALIPORE) OBSERVATORY.

Seismic records.

$\phi = 22^\circ\ 32'\ 0''$; $\lambda = 88^\circ\ 21'\ 0''$; h = 6·4m. Subsoil.

Apparatus.—Milne's Horizontal Pendulum Seismograph.

TABLE 4.

	V	To	ε	$\frac{r}{To^2}$
AN:				
AE:	8 688	18	1	...
AZ:				

Date.	Phase.	Time, G. M. T.			Period (sec.)	Amplitude (μ) An.	Ae.	Az.	Distance Δ (Km.)	Remarks.
		h.	m.	s.						
1913										
Dec. 2nd	P	20	14	11	...	...	...	...	...	Thickening of line.
	F	20	22	19	...	...	...	...	...	
„ 3rd	P	8	17	36	...	...	...	...	...	
	L	8	22	41	...	...	...	...	...	
	M	8	24	13	...	...	86	...	...	
	F	8	32	21	...	...	...	...	...	
„ 15th	P	17	58	16	...	...	...	...	...	
	L	18	2	20	...	...	...	...	...	
	M	18	3	52	...	...	86	...	...	
	F	18	19	8	...	...	...	...	...	
„ 21st	P	15	39	34	...	...	...	...	...	
	L	15	44	8	...	...	...	...	...	
	M	15	46	41	...	...	?*	...	...	* As the boom moved throughout the trace max. amplitude cannot be measured. Time of max. approximately given.
	F	17	32	41	...	...	...	...	...	
„ 28th	P	17	48	20	...	...	...	...	...	
	L	17	50	22	...	...	...	...	...	
	M	17	51	53	...	...	115	...	...	
	F	18	3	35	...	...	...	...	...	

E. P. HARRISON,

Meteorologist, Calcutta

6. SIMLA OBSERVATORY.

Seismic records.

$\phi = 31° 6' 00''$; $\lambda = 77° 11' 00''$; h = 2433·5 m. Subsoil Rock.

Apparatus.—Two Omori Ewing Horizontal Pendulum Seismograph (masses 50 kg.).

TABLE 5.

	V	To	G	$\frac{1}{To^2}$
AN:	14	40	1	...
AE:	14	40	1	...
AZ:				

Date.	Phase.	Time, G. M. T.			Period (sec.)	Amplitude (u)			Distance Δ (Km.)	Remarks.
						An.	Ae.	Az.		
1913		h.	m.	s.						
Dec. 2nd	e P	20	15	00	...	...	...	...	...	
	e F	20	21	00	...	...	...	...	...	Very slight tremors.
„ 3rd	e P	8	25	00	...	...	...	...	...	
	e F	8	37	00	...	...	...	...	...	Very slight tremors.
„ 5th	P	15	5	12	...	...	...	...	...	
	e F	15	5	00	Very rapid	...	...	...	...	Very slight local shock.
„ 9th	e P	5	26	00	...	...	...	...	...	
	e F	5	42	00	...	...	...	...	...	Very slight tremors.
„ 10th	e P	7	12	00	...	...	...	...	...	
	e F	7	20	00	...	...	...	...	...	Very slight tremors.
„ 15th	e P	18	6	00	...	...	...	...	...	
	e F	18	16	00	...	...	...	...	...	Very slight tremors.
15th	P	20	16	30	...	...	...	...	...	
	e F	20	35	00	Very rapid	...	...	...	...	Slight local shock.
18th	e P	7	31	00	...	...	...	...	...	
	e F	7	51	00	...	...	...	...	...	Very slight tremors.
„ 20th	P	17	14	24	...	...	...	...	...	
	e F	17	16	00	Very rapid	...	...	...	...	Slight local shock.
1913		h.	m.	s.						
Dec. 21st	P	15	42	24	...	...	...	...	...	
	S	15	46	42	...	...	...	...	...	
	L	15	49	54	...	...	...	...	...	
	M	15	50	42	13	429	71	...	...	
	e F	17	4	00	...	...	...	...	...	
„ 30th	e P	20	32	00	...	...	...	...	...	
	e F	20	40	00	...	...	...	...	...	Very slight tremors.

Following table contains a list of earthquakes that were reported :—

TABLE 6.

Place at which felt.	Date.	G. M. T. of earthquake.		Duration.	Intensity Rossi Forel scale.	No. of shocks.
	Dec.	h.	m.	sec.		
Shillong	11th	11	20	1	2	1
„	13th	1	50	1	2	1
Bangalore	17th	9	43	3	3	1
Jodhpur	27th	17	7	80	4	2

Solar radiation.—The following figures give the intensity of solar radiation, as measured at Simla by Angstrom's pyrheliometer. The values are corrected to local noon, and expressed in grammecalories per square centimetre per minute :—

Maximum	1·46
Minimum	1·26
Mean	1·40
Number of days of observation	8

C. W. NORMAND,
Imperial Meteorologist, Simla.

ROYAL ALFRED OBSERVATORY, MAURITIUS.

7. No information has been received.

Weather in the Indian Ocean.

8. The excess of pressure in India was accompanied by high pressure over the equatorial belt, the barometer at Seychelles standing about ·04 above its normal height. The air motion was normal in strength, but at Zanzibar the mean direction was more northerly than usual.

Rainfall was approximately normal at Seychelles and Mauritius, but was in very large defect at Zanzibar.

TABLE 7.

—	Mauritius.	Zanzibar.	Seychelles.
Departure from normal of mean pressure.	+·013	+·021	+·038
Actual mean wind direction	N 84° E	N 18° E	N 39° W
Normal mean wind direction	S 88° E	N 85° E	N 44° W
Actual mean wind velocity (miles per diem).	196	103	96
Normal mean wind velocity (miles per diem).	166	110	109
Rainfall departure from normal	+0·40	−4·23	−0·73

Depressions and cyclonic storms.

9. In all four cold weather disturbances entered northern India from the Persian area. The first began to give rain in Baluchistan on the 2nd. It passed eastwards on the following days and was dissipated over Bihar and Orissa on the 6th, after having caused more than the normal rainfall of the month in Sind, Rajputana, the Central Provinces and Berar.

Following upon a period of unsettled weather in Persia, light precipitation commenced simultaneously over north-west India on the 10th and a slight depression was evident over the north of Rajputana on the morning of the 11th. The depression then proceeded eastwards parallel to the Himalayas and had disappeared before the morning of the 14th in north-east India. On the 12th and 13th it caused unusually heavy rainfall for this period of the year over Bihar, Chota Nagpur, Assam and Bengal.

The subsequent disturbances did not appreciably affect the barometer. The first of these occasioned light precipitation in the Punjab and the hills of the extreme north on the 19th, 20th and 21st, and was possibly also the cause of light rain in Assam on the 22nd and 23rd. The second gave widespread rain in the Punjab and neighbouring districts on the 30th, 31st December and 1st January, while it continued to give light falls of snow in Kashmir for two or three days more.

The centre of a cyclonic storm passed over the south of Ceylon on the 16th. The first indications of a storm forming in the south of the Bay were the falling barometer and the gradual changing of the wind direction from north-north-east to south-east at Table Island on the 12th and 13th. The position of the centre seems to have been approximately 7°N, 86°E on the morning of the 14th and 8°N, 83½°E on the 15th. Reports have been received from the commanders of the S. S. *Ozarda* and S. S. *Santhia*, both of which passed near the storm centre and experienced high seas and winds, sometimes of whole gale force. The storm crossed the east coast of Ceylon on the morning of the 16th and by the 17th it had passed into the Indian Ocean, the centre at 8 A.M. being probably about 5°N, 77½°E. Heavy rain occurred in Ceylon previous to, and during, the passage of the storm and numerous landslides and telegraphic breakdowns are reported. In south-east Madras moderate rainfall occurred as the storm centre passed to the south of Cape Comorin.

Pressure.

10. Atmospheric pressure was above the average almost everywhere in the plains of India. The excess was most marked (between ·020″ and ·045″) in the east Punjab, the south of the Peninsula, and generally in the area east of longitude 80° E.

TABLE 8.

DIVISION.	Departure from normal of mean 8 hrs. pressure.
	″
Burma	+·024
Assam	+·026
Bengal	+·025
Bihar and Orissa	+·028
United Provinces	+·021
Punjab	+·023
North-West Frontier Province	+·005
Sind	+·014
Rajputana	+·006
Bombay	+·017
Central India	+·013
Central Provinces	+·016
Hyderabad	+·009
Mysore	+·029
Madras	+·025

The vertical gradient was steeper than usual in the east of the Punjab and north-east India, but was approximately normal elsewhere.

TABLE 9.

HILL STATION.	Departure from normal pressure. A.	PLAIN STATION.	Departure from normal pressure. B.	Departure of pressure difference. B−A.
	"		"	"
Quetta	−·001	Jacobabad	+·020	+·021
Leh	+·011	Lahore	+·023	·012
Murree	+·007	Peshawar	+·012	+·005

HILL STATION.	Departure from normal pressure. A.	PLAIN STATION.	Departure from normal pressure. B.	Departure of pressure difference. B−A.
	"		"	"
Simla	+·003	Ludhiana	+·039	+·036
Chakrata	+·004	Roorkee	+·038	+·034
Darjiling	−·023	Dhubri	+·020	+·043
Mount Abu	+·002	Deesa	+·011	+·009
Pachmarhi	+·017	Khandwa	+·017	0
Kodaikanal	+·028	Madura	+·040	+·012

Temperature.

11. The mean maximum temperature of the month was in defect in Assam and over the whole of north-west India, was in excess in Hyderabad and Mysore, and differed little from the normal elsewhere.

The mean minimum temperature was slightly above the average in the Peninsula, the excess being about 3° in Berar, the Bombay Deccan, Hyderabad, the Madras Deccan and Mysore. Over the rest of the country minimum temperature was nearly normal.

TABLE 10.

SUB-DIVISION.	ACTUAL TEMPERATURE.					DEPARTURE FROM NORMAL OF		
	Mean maximum.	Mean minimum.	Monthly mean of mean between maximum and minimum.	Mean daily range of temperature.	Absolute range during month.	Maximum.	Minimum.	Daily range.
	°	°	°	°	°	°	°	°
1. Bay Islands	84·1	76·3	80·2	7·7	16·1	+0·1	−0·4	+0·5
2. Lower Burma	84·4	67·3	75·8	17·1	29·3	−0·7	+0·5	−1·2
3. Upper Burma	78·7	56·2	67·5	22·4	37·2	−1·7	+1·0	−2·7
4. Assam	71·8	53·3	62·5	18·5	33·2	−3·1	+0·3	−3·4
5. Bengal	75·6	55·5	65·6	20·1	33·7	−1·8	−0·1	−1·7
6. Orissa	79·6	57·5	68·5	22·1	36·5	−1·6	+0·7	−2·3
7. Chota Nagpur	75·3	51·0	63·2	24·5	43·5	−1·8	+0·9	−2·7
8. Bihar	73·0	51·6	62·3	21·4	38·1	−2·4	0	−2·4
9. United Provinces, East	74·1	48·1	61·0	26·1	45·9	−1·2	+0·1	−1·3
10. Ditto, West	73·7	48·0	60·9	25·7	44·9	−1·2	+0·5	−1·7
11. Punjab, East and North	68·8	43·9	56·4	24·9	44·6	−3·0	+0·9	−3·9
12. Do., South-west	70·4	43·2	56·7	27·2	45·7	−2·0	+1·0	−3·0
13. Kashmir	40·8	20·3	30·5	20·5	42·0	−2·2	−1·7	−0·5
14. North-West Frontier Province	67·3	41·5	54·3	25·7	44·2	−2·7	+2·0	−4·7
15. Baluchistan	62·3	37·9	50·1	24·4	42·1	−2·3	−1·4	−0·9
16. Sind	75·1	53·4	64·3	21·7	38·1	−3·0	+1·3	−4·3
17. Rajputana, West	74·9	51·2	63·1	23·7	42·5	−2·9	−1·1	−1·8

Sub-division.	Actual temperature.					Departure from normal of		
	Mean maximum.	Mean minimum.	Monthly mean of mean between maximum and minimum.	Mean daily range of temperature.	Absolute range during month.	Maximum.	Minimum.	Daily range.
	°	°	°	°	°	°	°	°
18. Rajputana, East	74·7	51·3	63·0	23·4	40·0	−3·1	+1·7	−4·8
19. Gujarat	82·8	57·1	69·9	25·6	39·7	−1·5	+0·3	−1·8
20. Central India, West	78·7	50·7	64·7	28·1	47·2	−0·1	+1·3	−1·4
21. Do., East	75·1	48·5	61·9	26·6	47·1	0	+1·8	−1·8
22. Berar	82·9	57·9	70·4	25·0	40·8	+1·1	+3·1	−2·0
23. Central Provinces, West	79·5	52·5	66·0	27·2	43·9	+0·5	+1·8	−1·3
24. Ditto, East	80·1	53·2	66·7	26·9	42·9	+0·4	+1·8	−1·4
25. Konkan	85·1	69·0	77·1	16·2	27·5	−1·9	+0·6	−2·5
26. Bombay Deccan	86·1	58·3	72·2	27·9	39·4	+2·2	+2·9	−0·7
27. Hyderabad, North	84·8	58·2	71·5	26·7	40·9	+3·3	+2·8	+0·5
28. Do., South	86·5	62·5	74·5	23·9	36·6	+2·5	+2·7	−0·2
29. Mysore	83·3	61·6	72·4	21·7	32·1	+3·2	+2·9	+0·3
30. Malabar	87·7	73·1	80·4	14·6	22·0	+0·3	+2·1	−1·8
31. Madras, South-east	83·6	69·7	76·6	13·9	23·0	−0·3	+0·5	−0·8
32. Do., Deccan	87·6	64·6	76·1	23·0	35·5	+1·2	+2·9	−1·7
33. Do. Coast, North	81·7	67·2	74·5	14·5	25·6	−0·1	+1·5	−1·6

TABLE II.

Division.	Departure from normal of		
	Mean maximum temperature.	Mean minimum temperature.	Mean temperature.
	°	°	°
Burma	−1·1	+0·7	−0·2
Assam	−3·1	+0·3	−1·4
Bengal	−1·8	−0·1	−0·9
Bihar and Orissa	−2·0	+0·4	−0·8
United Provinces	−1·2	+0·3	−0·5
Punjab	−2·7	+0·9	−0·9
North-West Frontier Province	−2·7	+2·0	−0·3

Division.	Departure from normal of		
	Mean maximum temperature.	Mean minimum temperature.	Mean temperature.
	°	°	°
Sind	−3·0	+1·3	−0·9
Rajputana	−3·0	+0·6	−1·2
Bombay	−0·4	+1·2	+0·4
Central India	−0·1	+1·5	+0·7
Central Provinces	+0·6	+2·1	+1·3
Hyderabad	+2·6	+2·7	+2·7
Mysore	+3·2	+2·9	+3·0
Madras	+0·1	+1·4	+0·8

Winds.

12. The mean wind velocity was lighter than usual in the North-West Frontier Province and Hyderabad. The unusually strong air movement in Rajputana and the abnormal unsteadiness of the wind in Bengal were probably due to the cold weather disturbances, which affected northern India during the month. The same cause was probably responsible for the large departures of the wind direction from normal shown at many stations in north-west India and the central parts of the country.

TABLE 12.

Division.	Departure from normal of	
	Hourly wind velocity.	Wind steadiness.
Burma	−0·2	−10
Assam	−0·3	−7
Bengal	−0·4	−25
Bihar and Orissa	+0·3	−6
United Provinces	0	−6
Punjab	+0·3	+1
North-West Frontier Province	−0·5	+3
Sind	+0·3	+8
Rajputana	+0·9	+11
Bombay	−0·4	−7
Central India	−0·3	−17
Central Provinces	+0·4	+4
Hyderabad	−1·3	−4
Mysore	+0·1	−15
Madras	+0·7	−6

Humidity and cloud.

13. Humidity, both relative and absolute, was above the average in the extreme north and along the western boundaries of India, but was in appreciable defect in the narrow tract of country from Lucknow southwards to Hoshangabad.

The cloud proportion was generally above the normal, the excess being greatest in Upper Burma and upper Assam.

TABLE 13.

Division.	Hygrometry, 8 hrs.				Cloud.	
	Mean humidity.	Departure from normal.	Mean vapour tension in inches of mercury.	Departure from normal in inches of mercury.	Mean cloud amount at 8 hrs.	Departure from normal.
	%					
Burma	84	+1	·572	+·013	3·7	+0·8
Assam	95	0	·436	+·001	4·9	+1·1
Bengal	87	+2	·459	−·005	2·4	+1·0
Bihar and Orissa	81	+4	·404	+·016	2·2	+0·7
United Provinces	74	−3	·319	−·004	2·1	+0·7
Punjab	78	+6	·263	+·021	3·2	+0·2
North-West Frontier Province.	79	+8	·239	+·028	3·5	+0·3
Sind	68	+9	·333	+·054	1·7	−0·8
Rajputana	60	+1	·278	+·010	2·1	−0·3
Bombay	65	+7	·438	+·047	1·9	+0·5
Central India	63	−1	·301	+·005	1·9	+0·6
Central Provinces	61	−2	·333	−·008	1·8	+0·4
Hyderabad	62	0	·443	+·038	3·7	+1·2
Mysore	73	0	·504	+·023	4·7	+1·1
Madras	80	+2	·669	+·030	4·5	+0·9

Rainfall.

14. The aggregate rainfall of the month in the plains of India was 67 per cent. in excess of the normal. This excess was not entirely general but was principally due to the abnormally heavy rainfall in Assam, Bengal, Chota Nagpur, Bihar, Sind, Rajputana and the Central Provinces.

TABLE 14.

Sub-division.	Number of rainy days.		Rainfall.			
	Actual.	Normal.	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
			"	"	"	
1. Bay Islands	6·0	4·5	5·72	4·27	+1·45	+ 34
2. Lower Burma	0·2	0·3	0·06	0·17	−0·11	− 65
3. Upper do.	0·5	0·7	0·21	0·36	−0·15	− 42
4. Assam	4·0	0·8	1·75	0·35	+1·40	+400
5. Bengal	1·2	0·3	0·73	0·15	+0·58	+387
6. Orissa	0·3	0·4	0·06	0·23	−0·17	− 74
7. Chota Nagpur	1·2	0·3	0·51	0·20	+0·31	+155
8. Bihar	2·1	0·3	1·40	0·12	+1·28	+1067
9. United Provinces, East	1·4	0·6	0·46	0·29	+0·17	+ 59
10. Do. West	1·0	0·9	0·39	0·45	−0·06	− 13
11. Punjab, East and North	1·5	0·9	0·59	0·52	+0·07	+ 13
12. Punjab, South-west	0·9	0·5	0·24	0·22	+0·02	+ 9
13. Kashmir	3·5	2·8	1·38	1·34	+0·04	+ 3
14. North-West Frontier Province	1·6	0·9	0·60	0·48	+0·12	+ 25
15. Baluchistan	2·6	2·2	1·06	0·96	+0·10	+ 10
16. Sind	1·3	0·3	0·73	0·08	+0·65	+813
17. Rajputana, West	0·5	0·4	0·33	0·15	+0·18	+120
18. Do. East	1·4	0·9	0·75	0·40	+0·35	+ 87
19. Gujarat	0	0·1	0·01	0·06	−0·05	− 83
20. Central India, West	1·0	1·0	0·48	0·38	+0·10	+ 26
21. Do. East	1·5	0·8	0·38	0·45	−0·07	− 16
22. Berar	1·7	0·4	1·27	0·27	+1·00	+370
23. Central Provinces, West	1·8	0·6	0·86	0·36	+0·50	+139
24. Do. East	1·5	0·4	0·71	0·23	+0·48	+209
25. Konkan	0	0·2	0	0·15	−0·15	−100
26. Bombay Deccan	0·3	0·4	0·17	0·31	−0·14	− 45
27. Hyderabad, North	0·5	0·7	0·44	0·41	+0·03	+ 7
28. Do. South	0	0·3	0	0·18	−0·18	−100
29. Mysore	0·4	0·7	0·15	0·37	−0·22	− 59
30. Malabar	1·1	1·4	0·83	1·04	−0·21	− 20
31. Madras, South-east	6·8	4·2	5·45	3·55	+1·90	+ 54
32. Do. Deccan	1·3	0·8	0·78	0·51	+0·27	+ 53
33. Do. Coast, North	1·0	1·1	1·04	1·09	−0·05	− 5

Table A.—Abstract of observations taken at 10 hrs. and 16 hrs. at 14 stations in India, etc., in December, 1913.

Tab

Abstract of observations taken at 10 hrs. and 16 h

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.	Temperature, wet-bulb. Mean minimum.	Mean 10 hrs.	Mean 16 hrs.	Mean of three
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
	III.—Bengal.																					
5	Calcutta	21	30·124	30·000	·124	30·056	+·028	30·024	76·0	56·8	19·2	81·1	48·3	32·8	69·2	74·0	65·4	+0·1	55·1	61·7	62·6	5
	V.—United Provinces of Agra and Oudh.																					
9	Allahabad	309	29·841	29·723	·118	29·770	+·021	30·045	75·6	49·5	26·1	85·8	36·5	49·3	65·9	73·6	60·6	+0·8	47·5	55·8	58·0	5
	VI.—Punjab.																					
11	Lahore	702	29·423	29·336	·085	29·371	+·016	30·081	69·5	43·5	26·0	79·1	32·8	46·3	57·4	66·3	54·3	−0·3	41·9	51·2	55·9	4
	IX.—Rajputana.																					
18	Jaipur	1,431	28·678	28·581	·097	28·618	+·008	30·044	74·1	51·0	23·1	80·2	40·6	39·6	66·6	71·9	60·7	−0·8	46·2	54·1	56·5	5
	X.—Bombay.																					
25	Bombay	37	30·035	29·927	·108	29·976	+·023	29·953	83·5	69·8	13·7	87·2	63·7	24·0	76·2	80·0	75·8	−0·6	64·3	69·0	71·5	6
	XIV.—Mysore.																					
29	Bangalore	3,021	26·079	26·966	·108	27·026	+·038	29·890	81·3	60·1	21·2	87·0	54·8	32·2	79·9	77·9	69·8	+2·3	58·4	63·5	63·9	6
	XV.—Madras.																					
31	Pudukkottai	318	29·740	29·605	·135	29·673		29·925	82·9	70·2	12·7	86·2	64·9	21·2	77·7	80·9	76·6	+0·9		71·0	70·7	
	Madras	22	30·058	29·956	·102	30·006	+·026	29·959	83·1	71·1	12·0	85·6	66·1	19·5	79·8	80·0	76·3		69·7	74·6	73·8	7
	Hill stations, excluding Kashmir and Baluchistan.																					
	Sarain		23·242*	23·186*	·056	23·203*		23·165*	47·4*	26·4	21·0	56·2	16·5	39·7	39·8*	38·3*	35·8*			35·8*	34·7*	
	Kalabagh																					
	Mukteswar	7,592	22·901	22·844	·057	22·861		22·819	49·3	33·5	15·8	56·0	25·4	30·6	44·0	45·7	40·5		37·6	37·5	38·7	3
	Katmandu	4,338	25·796	25·689	·107	25·740	+·030†	25·693	62·6	39·1	23·5	69·6	32·8	36·8	48·0	59·3	49·9	−2·7†	37·3	45·4	50·1	4
	Kodaikanal	7,688	22·900	22·835	·065	22·867		22·803	61·9	48·3	13·6	69·6	39·9	29·7	57·8	57·3	55·1		44·2	52·2	53·3	4
	Dodabetta	8,539†	22·133	22·065	·068	22·095		22·032	56·5	46·2	10·3	59·4	40·0	19·4	54·2	52·6	50·4		38·8	48·3	47·5	4
	Extra India.																					
	Diego Garcia																					
	Seychelles	15	30·009	29·919	·090	29·974	+·038†	29·912	83·3	76·9	6·4	85·6	74·7	10·9	81·0	81·8	79·0	+1·1†	71·8	76·5	76·6	7
	Mauritius	181																				

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.

* Mean of 29 days.

14 stations in India, etc., in December, 1913.

Vapour tension in inches of mercury.					Humidity.					Cloud.				Wind direction.											Wind steadiness.		Wind velocity.		Rainfall.		Station.	Number of sub-division.
														Total number of 10 hrs. and 16 hrs. winds from																		
	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.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Mean wind direction.	Normal mean wind direction of month.	Average percentage.	Normal percentage.	Mean velocity in miles per diem.	Normal.	Total rainfall for the month.	Heaviest rainfall during the month.		
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	49	50	51	52	53	54	55	56
																															III.—Bengal.	
18	·454	·417	·438	0	89	63	49	69	− 2	1·9	2·3	2·1	+0·3	3	9	6	4	1		6	7	26	N 38° W	N 13° W	55	63	60†	44	0·14	0·14	Calcutta . .	5
																															V.—United Provinces of Agra and Oudh.	
15	·316	·281	·311	−·020	86	48	34	61	− 6	2·5	2·4	2·5	+1·0	14	5	4	7	2	1	2	17	10	N 52° W	N 48° W	29	27	35	53	0·68	0·45	Allahabad .	9
																															VI.—Punjab.	
248	·298	·309	·283	+·012	86	63	49	68	+ 5	3·7	3·9	3·8	+1·0	35	6	2			2		2	15	N 35° W	N 36° W	32	21	17	23	0·50	0·18	Lahore . .	11
																															IX.—Rajputana.	
290	·272	·271	·268	+·001	69	41	35	53	0	1·8	3·0	2·4	−0·1	4	2	9	15	5	2	4	8	13	N 28° E	N 27° W	16	27	81‡	51	0·86	0·85	Jaipur . .	18
																															X.—Bombay.	
533	·614	·659	·627	−·012	73	68	64	71	− 1	1·1	1·3	1·2	−0·7		4	14	12	1		1	5	25	N 2° W	N 15° E	48	55	146‡	170	0	0	Bombay . .	25
																															XIV.—Mysore.	
473	·469	·436	·473	+·007	91	57	47	67	− 3	4·4	5·1	4·7		1	1	17	31	9	3				N 86° E	N 72° E	81	81	136	96	0·19	0·09	Bangalore . .	29
																															XV.—Madras.	
	·677	·656				71	63			6·1	6·5	6·3		2	19	37	3					1	N 32° E		87		154‡		5·59	1·35	Pudukkottai .	31
·707	·786	·753	·768	+·039	93	78	74	83	+ 1	5·8	5·3	5·5	0		17	31	7	5	2				N 44° E	N 24° E	75	81	114	128	11·07	3·71	Madras.	
																															Hill stations, excluding Kashmir and Baluchistan.	
	·172*	·169*				7.*	74*			4·3	4·4	4·3																	2·22§	2·16	Sarain.	
																															Kalabagh.	
·097	·160	·165	·146		52	56	55	57		4·0	5·3	4·7		16		1	3	4	1	4	32	1	S 80° W		48		116		2·08	1·61	Mukteswar.	
·207	·274	·255	·250	−·018	86	82	51	76	+ 1	2·9	2·9	2·9	+0·3	48			8				6		E	N 72° W	3	43	22‡	16	1·11	0·92	Katmandu.	
·259	·240	·368	·322		75	73	79	76		6·0	6·6	6·3			7	9	17	14	2		2	9	N 73° E‖		42		265		7·44	1·24	Kodaikanal.	
·170	·282	·280	·248		52	68	71	64		6·5	7·7	7·1		20	8	11	16	6				1	N 66° E		49		241		1·77	0·59	Dodabetta.	
																															Extra India.	
																															Diego Garcia.	
·715	·856	819	·832	0	77	81	78	81	− 2	7·3	6·7	7·0	−0·2†	11	8	2	2	1			7	31	N 39° W	N 44° W	63	55	96‡	109	13·71	3·30	Seychelles.	
																															Mauritius.	

† Departure from old normal.
§ Snow water.

‡ Uncorrected for scale error.
‖ Two variable winds.

Table B.—Abstract of observations taken at 8 hrs. at 219 stations in India, etc., in December, 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.

	Pressure departure from normal.	Temperature of air.								Wind.		Hygrometry.				Cloud.		Rainfall.		
		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.	Absolute range during month	Departure of velocity from normal.	Departure of steadiness from normal.	Mean humidity.	Departure from normal.	Mean vapour tension.	Departure from normal.	Mean cloud amount.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.
Burma	+·024	81·9	−1·1	62·4	+0·7	72·1	−0·2	19·5	32·8	−0·2	−10	84	+ 1	·572	+·013	3·7	+0·8	0·14	0·27	−0·13
Assam	+·026	71·8	−3·1	53·3	+0·3	62·5	−1·4	18·5	33·2	−0·3	− 7	95	0	·436	+·001	4·9	+1·1	1·75	0·35	+1·40
Bengal	+·025	75·6	−1·8	55·5	−0·1	65·6	−0·9	20·1	33·7	−0·4	−25	87	+ 2	·459	−·005	2·4	+1·0	0·73	0·15	+0·58
Bihar and Orissa	+·028	75·5	−2·0	53·2	+0·4	64·3	−0·8	22·4	38·9	+0·3	− 6	81	+ 4	·404	+·016	2·2	+0·7	0·96	0·16	+0·80
United Provinces of Agra and Oudh	+·021	74·0	−1·2	48·0	+0·3	60·9	−0·5	25·9	45·5	0	− 6	74	− 3	·319	−·004	2·1	+0·7	0·43	0·37	+0·06
Punjab	+·023	69·3	−2·7	43·7	+0·9	56·5	−0·9	25·7	45·0	+0·3	+ 1	78	+ 6	·263	+·021	3·2	+0·2	0·51	0·46	+0·05
North-West Frontier Province	+·005	67·3	−2·7	41·5	+2·0	54·3	−0·3	25·7	44·2	−0·5	+ 3	79	+ 8	·239	+·028	3·5	+0·3	0·60	0·48	+0·12
Sind	+·014	75·1	−3·0	53·4	+1·3	64·3	−0·9	21·7	38·1	+0·3	+ 8	68	+ 9	·333	+·054	1·7	−0·8	0·73	0·08	+0·65
Rajputana	+·006	74·8	−3·0	51·3	+0·6	63·1	−1·2	23·5	41·0	+0·9	+11	60	+ 1	·278	+·010	2·1	−0·3	0·63	0·33	+0·30
Bombay	+·017	84·3	−0·4	60·0	+1·2	72·1	+0·4	24·3	37·0	−0·4	− 7	65	+ 7	·438	+·047	1·9	+0·5	0·08	0·20	−0·12
Central India	+·013	76·9	−0·1	49·0	+1·5	63·3	+0·7	27·3	47·1	−0·3	−17	63	− 1	·301	+·005	1·9	+0·6	0·45	0·40	+0·05
Central Provinces	+·016	80·5	+0·6	53·9	+2·1	67·2	+1·3	26·6	42·9	+0·4	+ 4	61	− 2	·333	−·008	1·8	+0·4	0·99	0·29	+0·70
Hyderabad	+·009	85·8	+2·6	60·6	+2·7	73·2	+2·7	25·1	38·4	−1·3	− 4	62	0	·443	+·038	3·7	+1·2	0·20	0·29	−0·09
Mysore	+·029	83·3	+3·2	61·6	+2·9	72·4	+3·0	21·7	32·1	+0·1	−15	73	0	·504	+·023	4·7	+1·1	0·15	0·37	−0·22
Madras	+·025	84·5	+0·1	69·1	+1·4	76·8	+0·8	15·4	25·1	+0·7	− 6	80	+ 2	·669	+·030	4·5	+0·9	3·17	2·23	+0·94

Table

(2) Abstract of observations taken at 8 hrs. at 219

Number of sub-division.	Station.	Elevation of barometer above sea-level, in feet.	Pressure, 8 hrs., in inches. 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.	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	16	17	18	19	20	21	22	23	24
	I.—Burma.																						
2	Victoria Point	147	29·861		29·939	30·007	31st	29·768	14th	·239	77·6	85·7		73·4		79·5		12·3	90·1	18th	68·2	27th	21·9
	Mergui	65	29·974	+·041	29·970	30·190	31st	29·875	14th & 15th.	·315	76·5	86·7	—0·6	67·8	+1·1	77·2	+0·3	18·9	91·0	18th	57·8	31st	33·2
	Tavoy	19	30·026	+·020	29·978	30·245	31st	29·912	14th	·333	73·6	88·4	+0·7	67·7	+2·9	78·0	+1·8	20·7	93·0	15th	60·3	26th	32·7
	Moulmein	94	29·972	+·030	30·005	30·199	31st	29·856	15th	·343	72·3	87·7	+0·5	68·2	+1·3	77·9	+0·9	19·5	92·5	18th	60·8	27th	31·7
	Rangoon	18	30·052	+·032	30·008	30·291	31st	29·939	15th	·355	75·5	86·3	—1·0	66·7	—0·6	76·5	—0·8	19·6	90·0	19th & 20th.	60·0	24th & 27th.	30·0
	Bassein	27?	30·034	+·027	29·998	30·277	31st	29·919	15th	·358	69·7	83·5	—0·9	66·1	+1·0	74·8	+0·1	17·4	87·2	4 days.	57·9	28th	29·3
	Diamond Island	41	30·008	+·022	29·985	30·230	31st	29·890	15th	·340	76·7	83·8	+0·9	74·0	+1·8	79·4	+1·3	10·8	87·4	4 days.	70·0	31st	17·4
	Toungoo	164	29·919	+·040	30·031	30·165	31st	29·834	9th	·331	65·9	81·7	—2·3	61·5	—0·6	71·6	—1·5	20·2	87·8	21st	52·0	29th	35·8
	Kyaukpyu	18	30·045		30·043	30·294	30th	29·932	15th	·362	72·4	80·5		66·2		73·3		14·3	87·5	2nd	55·4	27th	31·6
	Akyab	20	30·065	+·034	30·026	30·296	31st	29·953	15th	·343	64·9	78·7	—3·0	61·4	—2·6	70·1	—2·8	17·2	81·9	1st	52·0	26th & 27th.	29·9
3	Thayetmyo	124	29·963	+·027	30·030	30·213	30th	29·888	14th	·325	66·8	83·2	—1·4	58·4	+0·1	70·8	—0·7	24·8	89·9	21st	47·4	28th	42·5
	Minbu	*165*	29·913	—·005	30·028	30·186	30th	29·815	9th	·371	65·5	82·0	—2·0	60·5	+0·5	71·2	—0·7	21·5	88·7	21st	50·0	28th	38·7
	Yamethin	657	29·405	+·007	30·038	29·660	31st	29·326	9th	·334	64·3	82·2	—2·8	59·5	+2·3	70·8	—0·3	22·7	86·9	19th & 20th.	50·6	29th	36·3
	Mandalay	250	29·846	+·027	30·056	30·126	30th	29·758	9th	·368	63·4	83·3	+1·0	58·2	—1·1	70·8	—0·1	25·1	86·9	19th	47·3	28th & 29th.	39·6
	Monywa	*480*	29·824		30·066	30·080	30th	29·746	15th	·334	62·9	80·3		58·7		69·5		21·6	83·0	21st	50·1	28th	32·9
	Lashio	*2,890*	27·265	+·010	27·211	27·523	31st	27·182	22nd	·341	53·3	70·1	—3·6	50·1	+2·2	60·1	—0·7	20·0	76·6	6th	40·5	28th	36·1
	Bhamo	*361*	29·740	+·030	30·077	30·038	31st	29·648	13th	·390	56·0	74·9	—1·4	52·7	+2·0	63·8	+0·3	22·2	79·4	15th	42·0	29th	37·4
	Myitkyina	458	29·636		30·080	29·930	30th	29·540	23rd	·390	55·6	75·3		51·8		62·6		21·5	77·4	18th	43·4	29th	34·0
	II.—Assam.																						
4	Dibrugarh	358	29·761		30·100	30·040	31st	29·637	9th	·403	53·5	69·9		51·7		60·8		18·2	76·9	2nd & 5th.	45·6	31st	31·3
	Sibsagar	333									55·3	68·2	—3·2	51·4	+0·7	59·8	—1·3	16·8	73·6	5 days	44·0	30th	29·8
	Tezpur	252	29·886		30·113	30·175	31st	29·747	9th	·428	55·6	72·2		53·3		62·7		18·9	78·1	4th & 5th	42·8	31st	35·3
	Gauhati	195	29·944		30·107	30·213	31st	29·817	9th & 23rd.	·396	57·5	72·4		53·0		62·7		19·4	78·3	5th	44·1	31st	34·2
	Dhubri	115	30·002	+·020	30·078	30·260	31st	29·852	13th	·408	58·9	71·6	—2·7	55·7	+0·6	63·7	—1·1	15·9	77·5	4th	48·3	28th	29·2
	Silchar	104	30·013	+·032	30·076	30·285	31st	29·890	13th	·395	58·3	76·3	—3·4	54·7	—0·3	65·5	—1·9	21·6	82·8	1st	43·3	31st	39·5
	III.—Bengal.																						
6	Cox's Bazar	36	30·041		30·023	30·263	31st	29·932	13th	·331	63·2	76·9		57·8		67·4		19·1	82·2	1st	48·7	26th	33·5
	Chittagong	89	30·011	+·035	30·048	30·246	31st	29·878	13th	·368	60·2	76·3	—1·8	55·5	—2·5	65·9	—2·1	20·8	82·0	1st	48·0	26th & 27th.	34·0
	Noakhali	49	30·066		30·057	30·295	31st	29·941	13th	·354	60·7	75·5		54·8		65·2		20·7	79·8	1st	46·8	26th & 27th.	33·0
	Barisal	12	30·084	+·020	30·043	30·314	31st	29·953	13th	·361	62·2	75·7	—1·9	55·6	—0·5	65·6	—1·2	20·1	81·3	10th & 24th.	44·6	28th	36·7
	Narayanganj	26	30·072	+·026	30·048?	30·313	31st	29·934	13th	·379	60·7	75·4	—2·6	56·4	—0·9	65·9	—1·7	19·0	79·5	3rd, 5th & 10th.	48·8	26th & 27th.	30·7
	Mymensingh	63	30·049	+·023	30·067	30·294	31st	29·907	13th	·387	59·3	75·6	—0·6	55·6	+1·0	65·6	+0·2	20·0	80·1	4 days	48·1	27th	32·0
	Bogra	75	30·037	+·024	30·070	30·268	30th	29·864	13th	·404	57·7	74·1	—2·8	53·7	—0·3	63·9	—1·5	20·4	78·7	11th	46·2	26th	28·5
	Dinajpur	123	29·884	+·015	30·069	30·226	30th	29·835	23rd	·391	57·4	73·8	—3·1	52·7	+1·3	63·2	—0·9	21·1	79·8	3rd	44·5	26th	35·3
	Jalpaiguri	223	29·828	+·013	30·087	30·090	31st	29·688	23rd	·402	56·1	74·1	—1·1	53·4	+0·5	63·8	—0·3	20·7	80·9	1st	47·4	28th	33·5
	Saugor Island	10	30·111	+·030	30·067	30·340	31st	29·950	13th	·390	64·2	76·0	—0·3	58·8	—0·3	67·4	—0·3	17·2	80·7	12th	48·7	29th	32·0
	Midnapore†	149	29·960		30·065	30·177	30th	29·797	13th	·380	61·5	79·0		56·2		67·6		22·7	85·6	24th	45·7	29th	39·9
	Calcutta	21	30·101	+·028	30·069	30·329	30th	29·930	13th	·399	60·0	76·11	—0·4†	56·81	+0·8†	66·5†	+0·2†	19·3	81·1	11th	48·3	28th & 29th.	32·8

N. B.—Elevations in italics indicate barometrical determinations. † Mean of 30 days.

B.

stations in India, etc., in December, 1913.

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 from 1st to 31st December, 1913.	Normal rainfall for period, 1st to 31st December.	Departure from normal of period, 1st to 31st December, 1913.	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
																																I.—Burma.
4	9	13	2	2				1	N 34° E		5·1*			69		78		·737		5·0		5			1·29			1·29			0·42	Victoria Point.
27		2	2						N 67° E	N 14° E	2·4	1·3	+1·1	10	−55	80	+ 6	·730	+·064	2·1	−1·3	0	1·1	−1·1	0·07	0·37	− 0·30	0·07	0·37	− 0·30	0·04	Mergui.
30			1						E	N 30° E	1·1*	0·9	+0·2	3	− 8	84	+ 1	·689	+·040	1·5	−1·2	0	0·3	−0·3	0	0·21	− 0·21	0	0·21	− 0·21	0	Tavoy.
		5	23	2	1				N 88° E	N 50° E	4·7	2·0	+2·7	92	+35	84	+ 1	·673	+·028	1·8	−0·7	0	0·2	−0·2	0	0·07	− 0·07	0	0·07	− 0·07	0	Moulmein.
7	5	13	4					2	N 37° E	N 44° E	1·5	3·3	−1·8	62	−10	82	− 1	·624	+·005	4·2	+1·9	1	0·4	+0·6	0·11	0·15	− 0·04	0·11	0·15	− 0·04	0·11	Rangoon.
26		4					1		N 34° E	N 10° E	3·7†	2·6	+1·1	10	−55	85	0	·630	+·025	2·3	−0·6	1	0·5	+0·5	0·20	0·29	− 0·09	0·20	0·29	− 0·09	0·19	Bassein.
1	4	20	5					1	N 44° E	N 42° E	6·2	6·5	−0·3	86	0	76	+ 2	·708	+·041	4·1	+0·7	0	0·8	−0·8	0	0·75	− 0·75	0	0·75	−0·75	0	Diamond Island.
5	12	4	1		1	1		7	N 5° W	N 10° W	1·1	1·5	−0·4	59	−13	89	0	·571	+·006	1·9	−0·4	0	0·4	−0·4	0·03	0·24	− 0·21	0·03	0·24	− 0·21	0·01	Toungoo.
1	1	25	2	1				1	N 46° E		3·8			89		80		·645		2·8		0			0			0			0	Kyaukpyu.
	9	8	1	2				11	N 1° E	N 18° E	1·7	1·8	−0·1	67	−15	87	− 2	·533	−·039	2·2	−0·1	0	0·8	−0·8	0	0·73	− 0·73	0	0·73	− 0·73	0	Akyab.
22	1	8							N 41° E	N 16° E	1·0*	2·6	−1·6	20	−24	78	+ 1	·520	+·026	3·5	+1·8	0	0·4	−0·4	0	0·20	− 0·20	0	0·20	− 0·20	0	Thayetmyo.
1				3		1		26	N 48° W	N 50° W	2·8	5·0	−2·2	76	+ 2	76	− 1	·480	−·014	4·5	+2·4	0	0·6	−0·6	0	0·46	− 0·46	0	0·46	− 0·46	0	Minbu.
15	8				1			9	N 22° W	N 13° W	1·9	2·5	−0·6	43	+ 2	83	− 1	·501	−·006	2·0	+0·9	1	0·7	+0·3	0·56	0·35	+ 0·21	0·56	0·35	+ 0·21	0·55	Yamethin.
27	1			1	1			1	a	N 4° W	0·6	1·4	−0·8	a		86	− 1	·507	−·027	4·5	+2·1	1	0·7	+0·3	0·23	0·33	− 0·10	0·23	0·33	− 0·10	0·19	Mandalay.
4	19	3						5	N 3° W		1·9			82		87		·502		4·7		0	1·0	−1·0	0	0·37	− 0·37	0	0·37	− 0·37	0	Mongwa.
28							1	2	N 59° W		1·0			7		96	+ 3	·398	+·015	7·7	+1·4	1	1·2	+2·8	1·91	0·76	+ 1·15	1·91	0·76	+ ·15	0·80	Lashio.
12	1	13	1	1			1	1	N 42° E	N 1° E	1·2	1·2	0	46	+17	96	+ 3	·435	+·013	7·7	+4·0	1	1·1	−0·1	0·70	0·56	+ 0·14	0·70	0·56	+ 0·14	0·65	Bhamo.
21		4	3	1	1		1		N 79° E		1·1			17		90		·412		4·5		2	1·6	+0·4	0·36	0·51	− 0·15	0·36	0·51	− 0·15	0·16	Myitkyina.
																																II.—Assam.
28			1		1	1			S 38° W		0·9			3		99		·409		3·5		5	1·0	+4·0	1·82	0·36	+ 1·46	1·82	0·36	+ 1·46	0·66	Dibrugarh.
20	3	3		1	1		1	2	N 5° E	N 63° E	1·0	1·2	−0·2	15	−14	96	− 3	·423	+·005	7·3	+2·0	5	1·6	+3·4	3·36	0·49	+ 2·87	3·36	0·49	+ 2·87	0·81	Sibsagar.
12	1	17	1						N 45° E		1·7			58		94		·415		4·1		4	0·5	+3·5	1·13	0·25	+ 0·88	1·13	0·25	+ 0·88	0·38	Tezpur.
24	1	1	1	4					S 76° E		1·1			17		95		·449		7·6		5	0·3	+4·7	1·94	0·09	+ 1·85	1·94	0·09	+ 1·85	0·67	Gauhati.
3	1	14	11		1	1			N 66° E	N 54° E	3·1	3·4	−0·3	72	0	90	− 1	·451	+·004	2·6	+1·0	2	0·1	+1·9	0·97	0·05	+ 0·92	0·97	0·05	+ 0·92	0·63	Dhubri.
31									a	S 81° E	0·8	1·1	−0·3	a		95	+ 5	·467	−·005	4·2	+0·2	3	0·7	+2·3	0·64	0·43	+ 0·21	0·64	0·43	+ 0·21	0·26	Silchar.
																																III.—Bengal.
8	3	15	3	2					N 51° E		1·3*			62		93		·542		2·7		3			1·20			1·20			0·72	Cox's Bazar.
20		10	1						N 49° E	N 32° E	0·9	2·0	−1·1	33	−41	91	+ 1	·483	−·060	2·3	−0·2	1	0·9	+0·1	0·14	0·79	− 0·65	0·14	0·79	− 0·65	0·11	Chittagong.
5	12	10	1	1				2	N 19° E		1·4			68		90		·484		2·2		1	0·3	+0·7	0·22	0·31	− 0·09	0·22	0·31	− 0·09	0·22	Noakhali.
21									a	N 11° E	0·2	1·2	−1·0	a		89	+ 2	·494	−·012	1·5	+0·3	1	0·7	+0·3	0·39	0·47	− 0·08	0·39	0·47	− 0·08	0·38	Barisal.
21	2		1		1		1	4	N 31° W	N 5° W	0·9	1·5	−0·6	20	−27	88	+ 1	·468	−·018	2·9	+0·6	1	0·5	+0·5	0·63	0·17	+ 0·46	0·63	0·17	+ 0·46	0·63	Narayanganj
29			1					1	N 22° E	N 38° E	0·3	0·7	−0·4	2	−20	89	− 2	·455	−·014	3·2	+1·7	1	0·3	+0·7	0·27	0·07	+ 0·20	0·27	0·07	+ 0·20	0·18	Mymensingh.
24	2	5						2	N 7° E	N 1° W	1·0	1·0	0	17	−28	88	+ 3	·427	−·004	2·5	+2·3	1	0·2	+0·8	1·09	0·03	+ 1·06	1·09	0·03	+ 1·06	1·07	Bogra.
10	2	5	2	1		2	8	1	N 44° W	N 12° W	1·0	1·4	−0·4	20	−24	89	+ 3	·427	+·017	1·9	+1·2	1	0·1	+0·9	1·22	0·03	+ 1·19	1·22	0·03	+ 1·19	1·22	Dinajpur.
31									a	N 12° E	1·1			a		91	+ 2	·417	−·015	2·0	+1·0	2	0·3	+2·7	2·09	0·08	+ 2·01	2·09	0·08	+ 2·01	0·92	Jalpaiguri.
2	14	8	1			1	2	3	N 5° E	N 15° E	4·6	5·2	−0·6	69	−13	86	− 2	·524	−·002	3·0	+0·5	0	0·6	−0·6	0	0·33	− 0·33	0	0·33	− 0·33	0	Saugor Island.
10	8	1		2				9	N 16° W		1·1			50		77		·427		1·4		0	0·3	−0·3	0·05	0·25	− 0·20	0·05	0·25	− 0·20	0·05	Midnapore.
6	5	2	1	2	1	1	1	12	N 28° W	N 4° W	2·5*	1·8	+0·7	46	− 4	67	+ 6	·458	+·016	2·0	+0·9	1	0·4	+0·6	0·14	0·21	− 0·07	0·14	0·21	− 0·07	0·14	Calcutta.

† Mean of 30 days. * Uncorrected for scale error. a Indeterminate.

Table

(2) *Abstract of observations taken at 8 hrs. at 219 stations*

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.	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.	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	16	17	18	19	20	21	22	23	24
	III.—Bengal—*concld.*																						
	Jessore	33	30·090	+·040	30·072	30·308	31st	29·949	13th	·359	59·4	75·0	−2·6	54·6	−0·2	64·8	−1·5	20·4	80·0	5th	45·7	27th & 28th.	34·3
	Burdwan	99	30·026	+·026	30·079	30·263	30th	29·870	13th	·393	59·8	76·6	−1·6	55·5	−0·5	66·1	−1·1	21·1	82·6	24th	48·0	29th	34·6
	Berhampore	67	30·056	+·026	30·076	30·291	31st	29·906	13th	·385	58·5	74·1	−2·4	55·7	+0·4	64·9	−1·0	18·4	78·6	24th	48·2	28th	31·4
	IV.—Bihar and Orissa.																						
6	Balasore	50	30·078	+·021	30·075	30·315	31st	29·893	13th	·422	60·7	79·4	−0·6	56·5	+1·5	67·9	+0·5	22·9	86·4	24th	47·1	29th & 30th.	39·3
	Hukitala (False Point)	29	30·100	+·036	30·070	30·337	31st	29·938	13th	·399													
	Cuttack	80	30·056	+·044	30·081	30·296	30th	29·888	13th	·408	64·0	78·3	−3·3	59·8	+1·1	69·3	−1·1	19·0	83·0	10th	50·2	30th	32·8
	Puri	24	30·094		30·059	30·330	31st	29·924	13th	·406	66·7	80·7		62·1		71·4		18·6	84·1	5th & 8th.	53·6	31st	30·5
	Angul	455	29·658		30·083	29·897	30th	29·496	13th	·401	62·0	80·1		55·3		67·7		24·8	84·6	11th	45·5	31st	39·1
	Sambalpur	486	29·640	+·030	30·103	29·886	31st	29·471	13th	·415	59·5	78·8	−1·0	53·6	−0·4	66·2	−0·7	25·2	84·0	5th	43·2	31st	40·8
7	Chaibasa	*733*	29·368	+·030	30·098	29·599	30th	29·212	13th	·387	56·3	77·3	−2·0	52·0	+0·8	64·6	−0·6	25·3	84·1	13th	40·8	30th	43·3
	Ranchi	2,128	27·936	+·028	30·089	28·149	31st	27·800	13th	·349	56·3	72·1	−1·6	51·6	+1·0	61·8	−0·3	20·5	79·2	4th	43·4	30th	35·8
	Purulia	*816*	29·236‡		30·110? ‡	29·515	30th	29·166	9th & 23rd.	·349	58·9	77·5		53·6		65·5		23·9	89·5	23rd	44·1	30th	45·4
	Daltonganj	*730*	29·393		30·131?	29·651	31st	29·226	12th	·425	50·9	75·3		46·8		61·0		28·5	84·1	5th	34·5	30th	49·6
8	Purnea	124	29·999	+·025	30·086	30·263	31st	29·850	9th	·413	56·0	73·0	−2·8	51·3	+1·6	62·1	−0·6	21·7	79·6	2nd	43·3	27th	36·3
	Monghyr	155	29·986‡		30·103? ‡	30·258	31st	29·830	23rd	·428	59·4	72·1		53·2		62·7		18·9	80·2	4th	45·9	29th	24·3
	Darbhanga	165	29·959	+·027	30·089	30·226	31st	29·785	23rd	·441	56·6	72·8	−1·7	50·9	−2·8	61·8	−2·3	21·9	79·6	1st	42·7	27th	36·9
	Pusa	188	29·929		30·084	30·198	31st	29·754	23rd	·444	55·3	73·4		50·0		61·7		23·4	81·0	2nd	41·2	30th	39·8
	Patna	183	29·942	+·010	30·092	30·212	31st	29·778	23rd	·434	56·8	71·7	−2·5	52·5	+0·9	62·1	−0·8	19·2	80·0	5th	44·2	27th & 30th.	35·8
	Buxar	239	29·894		30·106	30·166	31st	29·721	12th	·445	55·0	74·0		51·4		62·7		22·6	85·0	5th	41·6	29th & 30th.	43·4
	Gaya	372	29·742	+·012	30·091	29·999	31st	29·602	9th	·397	57·0	73·6	−2·6	51·6	+0·1	62·6	−1·3	22·0	83·9	5th	42·2	30th	41·7
	Naya Dumka	489	29·621	+·043	30·095	29·847	30th	29·481	9th	·366	57·0	73·4	−2·3	51·7	+0·4	62·6	−0·9	21·7	78·4	5th	42·5	29th	36·9
	V.—United Provinces of Agra and Oudh.																						
9	Gorakhpur	257	29·844	+·014	30·077	30·120	31st	29·683	12th	·437	53·7	72·4	−1·8	46·9	−3·5	59·6	−2·7	25·5	78·6	4th	36·6	29th	42·0
	Benares	267	29·857	+·023	30·097	30·128	31st	29·704	12th	·424	54·3	74·7	−0·3	46·8§	−0·8§	60·2§	−0·5	27·9	84·7	5th	36·3	30th	48·4
	Allahabad	309	29·815	+·021	30·101	30·083	31st	29·567	12th	·516	55·6	75·7	0	49·4	+1·6	62·6	+0·8	26·3	85·6	5th	36·5	30th	49·1
	Cawnpore	416	29·705	+·027	30·108	29·965	31st	29·485	12th	·480	53·5	74·3	−2·0	48·9	+1·3	61·6	−0·3	25·4	80·6	5th, 12th & 23rd.	36·5	30th	44·1
	Lucknow	368	29·751	+·029	30·102	30·020	31st	29·551	12th	·469	56·1	74·7	−1·0	48·3	+2·1	61·5	+0·5	26·4	82·5	5th	36·1	30th	46·4
	Bahraich	407	29·681	+·010	30·078	29·975	31st	29·480	12th	·495	53·0	73·1	−1·9	48·0	0	60·6	−0·9	25·1	81·1	4th	35·5	29th	45·6
10	Jhansi	824	29·290	+·018	30·119	29·530	30th	29·058	12th	·472	57·8	76·9	−2·4	51·4	−0·5	63·7	−1·5	24·6	84·6	12th & 22nd.	42·0	29th	42·6
	Agra	556	29·561	+·018	30·113	29·810	30th	29·318	12th	·492	56·3	75·4	−0·7	50·1	+1·3	62·8	+0·3	25·3	84·5	12th	40·0	30th	44·5
	Mainpuri	516	29·587	+·017	30·100	29·650	31st	29·333	12th	·517	52·7	75·0	−0·1	48·1	+0·8	61·5	+0·3	26·9	83·3	5th	36·1	30th	47·2
	Bareilly	568	29·520	+·019	30·088	29·806	31st	29·300	12th	·506	54·5	72·7	−0·1	47·1	+1·1	59·9	+0·5	25·6	80·3	5th	35·0	28th	45·3
	Roorkee	899	29·189	+·038	30·125	29·469	31st	28·995	12th	·474	49·2	69·6	−2·8	43·3	−0·2	56·4	−1·5	26·3	78·0	6th	33·2	28th	44·8
	VI.—Punjab.																						
11	Delhi	718	29·374	+·017	30·109	29·634	31st	29·157	12th	·477	52·4	71·0	−2·7	48·4	−0·5	59·7	−1·6	22·6	79·0	22nd	36·8	30th	42·2
	Sirsa	662	29·439	+·021	30·121	29·650	30th	29·232	11th	·418	48·2	71·1	−3·8	43·7	+1·0	57·4	−1·4	27·4	76·3	10th, 11th & 22nd.	32·0	28th	44·3

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

‡ Mean of 29 days.
§ " " 25 "

3—*continued.*

n India, etc., in December, 1913—continued.

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 from 1st to 31st December, 1913.	Normal rainfall for period, 1st to 31st December.	Departure from normal of period, 1st to 31st December, 1913.	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
																																III.—Bengal—*concld.*
30	1								N	N 11° W	1·0	1·1	—0·1	3	—36	83	— 3	·428	—·030	2·9	+1·7	2	0·5	+ 1·5	0·25	0·19	+ 0·06	0·25	0·19	+ 0·06	0·14	Jessore.
10	4	2	1				10	4	N 52° W	N 22° W	1·3	1·2	+0·1	43	+ 4	80	+ 9	·418	+·033	2·9	+1·5	1	0·3	+ 0·7	0·36	0·16	+ 0·20	0·36	0·16	+ 0·20	0·36	Burdwan.
25	2	1			1	1	1		N 67° W	N 41° W	0·5	1·0	—0·5	2	—38	86	0	·430	—·006	1·9	+0·5	1	0·3	+ 0·7	1·32	0·11	+ 1·21	1·32	0·11	+ 1·21	1·32	Berhampore.
																																IV.—Bihar and Orissa.
8	7	1			1	1		13	N 31° W	N 25° W	1·0	1·5	—0·5	59	—13	83	+ 1	·452	+·005	2·6	+0·5	0	0·5	— 0·5	0·02	0·26	— 0·24	0·02	0·26	— 0·24	0·02	Balasore.
1	10	3				2	2	13	N 28° W	N 17° W	5·4	4·2	+1·2	72	—14					2·8	+0·3	0	0·9	— 0·9	0·03	0·77	— 0·74	0·03	0·77	— 0·74	0·03	Hukitala (False Point).
19		5	2			2	3		N 28° E	N 48° W	1·2*	0·9	+0·3	7	— 7	76	+ 1	·451	+·014	2·2	+0·3	0	0·6	— 0·6	0·06	0·35	— 0·29	0·06	0·35	— 0·29	0·06	Cuttack.
	19	8				1		6	N 2° W		5·2			84		79		·523		2·0		0	0·6	— 0·6	0	0·43	— 0·43	0	0·43	— 0·43	0	Puri.
17					1		2	11	N 55° W		1·8			39		74		·426		3·1		0	1·2	— 1·2	0·07	0·53	— 0·46	0·07	0·53	— 0·46	0·01	Angul.
	16	14						1	N 19° E	N 16° E	3·0	1·8	+1·2	96	+15	84	+ 7	·420	+·014	1·6	—0·1	1	0·4	+ 0·6	0·17	0·28	— 0·11	0·17	0·28	— 0·11	0·10	Sambalpur.
12		1				15	2	1	S 54° W	S 63° W	1·0	0·7	+0·3	53	+13	85	+ 5	·400	+·025	2·0	+0·6	1	0·6	+ 0·4	0·28	0·24	+ 0·04	0·28	0·24	+ 0·04	0·28	Chaibasa.
10	1	1	1	1		1	8	8	N 62° W	N 68° W	3·8	3·1	+0·7	43	+ 4	68	+ 3	·321	+·012	1·7	+0·5	2	0·6	+ 1·4	0·58	0·22	+ 0·36	0·58	0·22	+ 0·36	0·35	Ranchi.
7	1			1			13	9	N 70° W		1·4			65		74		·375		1·1		1	0·6	+ 0·4	0·22	0·17	+ 0·05	0·22	0·17	+ 0·05	0·22	Purulia.
21		1	5	2			1	1	E		1·2			16		93		·353		2·2		1	0·6	+ 0·4	0·67	0·24	+ 0·43	0·67	0·24	+ 0·43	0·47	Daltonganj.
5	3	2	4			7	8	2	N 84° W	S 88° W	1·1	1·1	0	30	+11	93	+ 2	·424	+·041	1·9	+1·0	1	0·2	+ 0·8	2·15	0·10	+ 2·05	2·15	0·10	+ 2·05	2·10	Purnea.
2		1	6			7	13	2	S 77° W		2·3			42		77		·353		2·5		2			3·59			3·59			2·89	Monghyr.
27			2				1	1	N 23° E	N 86° W	0·5	1·5	—1·0	2	—28	90	+ 4	·421	+·012	1·5	+1·0	3	0·1	+ 2·9	1·15	0·06	+ 1·10	1·15	0·06	+ 1·10	0·78	Darbhanga.
16	1	1	1	2	2	4	2	2	S 45° W		1·4			13		92		·406		2·7		2			1·13			1·13			0·87	Pusa.
14	2		1		2	5	5	2	S 75° W	S 78° W	2·4	1·4	+1·0	30	—24	81	+ 6	·360	+·008	2·7	+1·8	2	0·3	+ 1·7	0·83	0·09	+ 0·74	0·83	0·09	+ 0·74	0·43	Patna.
10	1	1	1	3	3	6	4		S 31° W		2·2			36		82		·352		3·2		3	0·5	+ 2·5	0·87	0·21	+ 0·66	0·87	0·21	+ 0·66	0·45	Buxar.
11	1	5			6	1	6	1	S 68° W	S 10° W	1·3	1·8	—0·5	13	—19	74	+ 3	·354	+·012	2·3	+0·8	2	0·2	+ 1·8	0·93	0·11	+ 0·84	0·93	0·11	+ 0·84	0·70	Gaya.
29	1							1	N 24° W		1·2			7		82	+ 4	·385		0·8		1	0·3	+ 0·7	1·40	0·08	+ 1·32	1·40	0·08	+ 1·32	1·40	Naya Dumka.
																																V.—United Provinces of Agra and Oudh.
23		1	2			1	4		W	N 69° W	0·6	0·8	—0·2	6	—26	85	+ 4	·357	—·017	0·4	—0·6	2	0·4	+ 1·6	0·55	0·15	+ 0·40	0·55	0·15	+ 0·40	0·38	Gorakhpur.
15	1	1	2	2		6	3	1	S 50° W	S 56° W	1·5	1·7	—0·2	17	—13	86	+ 2	·373	+·018	2·5	+1·2	2	0·5	+ 1·5	0·44	0·25	+ 0·19	0·44	0·25	+ 0·19	0·26	Benares.
12	2		1	1	2	1	9	3	N 86° W	N 76° W	1·7†	2·2	—0·5	33	+ 4	70	— 7	·326	—·027	3·2	+1·9	2	0·5	+ 1·5	0·68	0·27	+ 0·41	0·68	0·27	+ 0·41	0·45	Allahabad.
19	1	1	1			1	7	1	N 75° W	N 82° W	1·3	1·8	—0·5	23	— 6	76	— 1	·325	+·001	1·2	—0·1	0	0·7	— 0·7	0·02	0·24	— 0·22	0·02	0·24	— 0·22	0·02	Cawnpore.
25						2	4		S 75° W	N 76° W	1·1	1·2	—0·1	17	—12	67	—15	·309	—·025	2·2	+0·6	0	0·8	— 0·8	0·12	0·35	— 0·23	0·12	0·35	— 0·23	0·07	Lucknow.
7	1	2	2	2	1	5	7	4	S 86° W	N 51° W	1·3	1·1	+0·2	30	+ 6	76	— 6	·311	—·010	2·3	+1·5	2	0·7	+ 1·3	0·79	0·32	+ 0·47	0·79	0·32	+ 0·47	0·60	Bahraich.
13		2	4		1	9	1	1	S 27° W	N 79° W	2·1	1·5	+0·5	20	+ 2	69	+ 3	·300	+·007	3·4	+2·3	1	0·7	+ 0·3	0·37	0·27	+ 0·10	0·37	0·27	+ 0·10	0·37	Jhansi.
12	3	3	1	3	2	2	2	3	N 11° W	N 61° W	2·6	2·1	+0·5	5	—31	60	— 8	·282	—·003	1·8	+0·3	0	0·3	— 0·8	0·09	0·33	— 0·24	0·09	0·33	— 0·24	0·06	Agra.
11	2	1		2	2	1	7	5	N 77° W	N 66° W	1·1	0·8	+0·3	30	+ 6	74	+ 1	·304	+·013	1·6	—0·7	1	1·1	— 0·1	0·26	0·46	— 0·20	0·26	0·46	— 0·20	0·24	Mainpuri.
29							1	1	N 66° W	N 44° W	0·3	1·2	—0·9	7	— 7	77	— 4	·333	+·027	2·8	+1·4	0	1·0	— 1·0	0	0·38	— 0·38	0	0·38	— 0·38	0	Bareilly.
27								4	N 45° W	N 39° W	1·3	1·0	+0·3	13	+ 6	81	— 3	·236	+·007	2·1	0	1	1·3	— 0·3	0·35	0·63	— 0·28	0·35	0·63	— 0·28	0·28	Roorkee.
																																VI.—Punjab.
10	1	1	1	2		3	10	3	N 88° W	N 87° W	2·0	1·8	+0·2	36	— 8	71	+10	·283	+·033	3·3	+0·9	2	1·1	+ 0·9	0·52	0·48	+ 0·01	0·52	0·48	+ 0·01	0·30	Delhi.
2	10		1	2	4	4	2	1	N 4° E	N 84° W				19	+12	74	+ 5	·257	+·020	2·9	—0·1	2	0·8	+ 1·2	0·79	0·31	+ 0·48	0·79	0·31	+ 0·48	0·58	Sirsa.

* Uncorrected for scale error.

† Mean of 30 days.

Tabl

(2) Abstract of observations taken at 8 hrs. at 219 station

Number of sub-division.	Station.	Elevation of bar-eter above sea-level, in feet.	Pressure, 8 hrs., in inches. 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.	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	16	17	18	19	20	21	22	23	24
	VI.—Punjab—*concld.*																						
	Patiala	*818*	29·261		30·113	29·560	31st	29·060	12th	·500	48·4	68·8		46·3		57·5		22·5	79·4	6th	34·9	27th	44·5
	Ambala	892	29·195	+·035	30·127	29·494	31st	29·005	12th	·489	48·9	70·6	−1·5	43·9	+0·4	57·3	−0·5	26·7	81·5	6th	30·9	27th	50·6
	Ludhiana	812	29·284	+·039	30·130	29·581	31st	29·086	12th	·495	48·9	68·2	−2·8	45·6	+1·6	56·9	−0·6	22·6	78·9	6th	35·6	27th	43·3
	Lahore	702	29·396	+·023	30·133	29·654	31st	29·205	12th	·449	45·4	69·7	−3·5	42·9	+2·6	56·3	−0·5	26·8	78·9	10th	32·7	29th	46·2
	Sialkot	830	29·261	+·034	30·136	29·585	31st	29·070	12th	515	46·6	67·2	−2·9	42·0	−0·5	54·6	−1·7	25·2	76·2	6th	31·7	29th	44·5
	Rawalpindi	1,674	28·395	+·009	30·174	28·673	31st	28·200	12th	·473	43·0	63·8	−3·8	38·7	+1·6	51·2	−1·1	25·1	73·9	7th	32·6	29th	41·3
12	Khushab	612	29·508	+·021	30·146	29·853	31st	29·330	9th	·523	47·3	70·2	−1·5	40·8	−1·1	55·5	−1·3	29·4	80·0	10th	30·3	28th	49·7
	Lyallpur		29·500			29·784	31st	29·319	12th	·465	44·9	69·1‡		40·4		54·6‡		28·7	77·6	10th	30·0	27th & 29th	47·6
	Montgomery	558	29·555	+·015	30·130	29·786	31st	29·376	12th	·410	48·7	69·9	−3·0	44·4	+1·4	57·1	−0·8	25·5	77·6	6th	33·7	28th	43·9
	Multan	420	29·717	+·020	30·136	29·968	31st	29·524	10th	·464	52·1	72·5	−1·4	47·2	+2·8	59·8	+0·7	25·3	80·3	10th	38·5	27th	41·8
	VII.—North-West Frontier Province.																						
14	Peshawar	1,113	29·006	+·012	30·195	29·287	31st	28·800	12th	·487	43·1	65·4	−2·1	39·9	+0·9	52·6	−0·6	25·5	74·0	5th	30·2	28th	43·8
	D. I. Khan	590	29·531	−·001	30·145	29·851	31st	29·341	10th	·513	46·7	69·1	−3·4	43·2	+3·1	56·1	−0·1	25·9	77·1	9th & 10th	32·8	27th	44·6
	VIII.—Sind.																						
16	Jacobabad	186	29·957	+·020	30·117	30·140	30th	29·754	10th	·386	52·4	72·0	−1·7	47·2	+3·2	59·6	−0·7	24·8	79·6	15th	35·8	29th & 30th	43·8
	Hyderabad	96	30·035	+·004	30·089	30·172	31st	29·840	13th	·332	57·2	76·1	−3·0	53·2	+0·9	64·6	−1·1	22·9	84·8	11th	44·8	29th	40·0
	Karachi	13	30·128	+·017	30·091	30·255	31st	29·932	13th	·323	63·2	77·3	−1·4	59·9	−0·3	68·6	−0·9	17·4	84·0	9th	53·5	28th & 29th	30·5
	IX.—Rajputana.																						
17	Bikaner	*771*	29·323	+·004	30·108	29·555	31st	29·121	11th	·434	54·0	72·2	−3·1	49·5	−1·8	60·9	−2·5	22·7	82·0	11th	39·0	29th	43·0
	Jodhpur	780	29·306	+·011	30·090	29·450	31st	29·153	12th	·297	57·5	77·6	−2·6	52·9	−0·3	65·3	−1·5	24·7	84·8	11th	42·7	27th	42·1
18	Jaipur	1,431	28·647	−·001	30·112	28·869	31st	28·428	12th	·441	56·8	73·9	−3·8	50·7	+1·6	62·3	−1·1	23·2	80·2	22nd	40·6	29th	39·6
	Ajmer	1,611	28·474	+·003	30·138	28·682	31st	28·292	12th	·390	53·1	72·5	−3·8	49·2	+3·6	60·9	−0·1	23·3	83·1	3rd	41·7	24th, 25th & 29th.	41·4
	Kotah	832	29·265	+·014	30·098	29·483	31st	29·064	12th	·419	60·1	77·7	−1·8	54·0	−0·2	65·9	−1·0	23·7	86·6	11th	47·6	18th, 27th & 28th.	39·0
	X.—Bombay.																						
19	Deesa	466	29·623	+·011	30·068	29·782	31st	29·497	3rd	·285	60·7	83·8	−1·6	50·9	−1·8	67·3	−1·7	32·9	89·8	10th	41·4	25th	48·4
	Bhuj	334	29·756	+·011	30·057	29·892	31st	29·621	13th	·271	62·1	78·8	−2·4	53·0	−3·1?	68·4	−2·7?	26·8	88·0	10th	44·0	28th	44·0
	Jamnagar	61	30·050		30·059	30·217	31st	29·929	3rd	·288	63·4	80·2		57·3		68·7		22·9	86·4	10th	50·5	21st	35·9
	Dwarka	37?	30·077	+·026	30·060	30·230	31st	29·957	3rd	·273	67·9	79·5	−1·7	62·8*	+1·9*	71·1*	+0·1	16·7	84·3	9th	56·7	18th & 28th	27·6
	Rajkot	429	29·647	+·009	30·046	29·808	31st	29·531	3rd	·277	63·0	83·3	−2·1	53·3	+0·4	68·3	−0·9	30·0	90·6	9th & 10th	44·8	24th	45·8
	Veraval	*18*	30·068	+·022	30·029	30·240	31st	29·955	3rd	·285	67·0	82·2	−1·9	62·0	0	72·1	−0·9	20·2	88·6	2nd	55·8	24th & 26th	32·8
	Bhavnagar Para	55	30·044	−·003?	30·047	30·181	31st	29·932	3rd	·249	63·5	84·4	−0·7	56·1	−2·2?	70·2	−1·5?	28·3	89·5	10th	46·8	18th	42·7
	Surat	39	30·052	+·025	30·035	30·233	31st	29·943	3rd	·290	66·7	87·0	−0·4	60·2	+2·5	73·6	+1·1	26·8	92·4	30th	51·1	26th	41·3
	Ahmadabad	163	29·940	+·021	30·059	30·056	31st	29·821	12th	·235	64·3	84·7	−1·2	58·7	−1·4	71·7	−1·3	26·0	90·1	10th	51·7	26th	38·4
25	Bombay	37	30·025	+·014	30·003	30·222	31st	29·916	3rd	·316	72·2	83·5	−1·0	69·6	−0·2	76·6	−0·6	13·9	87·7	17th	63·7	26th	24·0
	Ratnagiri	116	29·928	+·022	29·979	30·137	31st	29·822	15th	·315	74·0	86·7	−2·3	67·5	+0·3	77·1	−1·3	19·2	93·8	21st	58·9	27th	34·9
	Marmagao	*60*	29·981	+·013	29·977	30·182	31st	29·876	15th	·306	73·3	83·3	−3·0	71·0	+0·7	77·1	−1·1	12·3	87·0	21st	65·7	28th	21·3
	Karwar	44	30·003	+·032	29·983	30·202	31st	29·907	15th	·295	70·6	87·1	−0·6	67·8	+1·6	77·5	+0·5	19·3	91·2	21st	61·5	28th	29·7

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

* Mean of 30 days.

‡ „ „ 25 „

B—*continued.*

in India, etc., in December, 1913—continued.

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 from 1st to 31st December, 1913.	Normal rainfall for period, 1st to 31st December.	Departure from normal of period, 1st to 31st December, 1913.	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
																																VI.—Punjab—*concld.*
10	4	3	3	1			1	9	N 5° W		3·4			39		80		·274		3·1		2	1·3	+0·7	0·65	0·40	+0·25	0·65	0·40	+0·25	0·55	Patiala.
13	4	1	3	3				7	N 6° E	N 44° W	2·1	1·1	+1·0	23	+ 3	79	− 3	·274	−·003	3·9	+0·6	2	1·6	+0·4	0·72	0·69	+0·03	0·72	0·69	+0·03	0·60	Ambala.
27		1						3	N 27° W	N 47° W	0·3	0·9	−0·6	10	− 7	82	+ 6	·285	+·025	1·9	−1·9	1	1·4	−0·4	1·15	0·75	+0·40	1·15	0·75	+0·40	1·07	Ludhiana.
26		2	1	1				1	N 59° E	N 88° W	0·9	0·9	0	7	0	81	+ 6	·264	+·012	3·4	+0·5	3	0·9	+2·1	0·50	0·40	+0·10	0·50	0·40	+0·10	0·18	Lahore.
20	3	1	4				1	2	N 24° E	N 63° E	0·3	0·7	−0·4	20	+13	88	+14	·283	+·036	3·2	+0·6	2	1·1	+0·9	0·84	0·69	+0·15	0·84	0·69	+0·15	0·61	Sialkot.
25	1		1			2	1	1	N 81° W	N 41° W	1·3	0·9	+0·4	7	− 7	65	+11	·240	+·030	3·5	−0·1	2	1·7	+0·3	1·74	0·97	+0·77	1·74	0·97	+0·77	1·13	Rawalpindi.
16	1	3	3		3	3	2		S 27° E	N 27° E	2·3	1·5	+0·8	7	− 7	65	+ 5	·218	+·019	3·7	+1·0	1	0·6	+0·4	0·36	0·43	−0·07	0·36	0·43	−0·07	0·18	Khushab.
8	3	5	2	2	1	6	2	2	N 30° W		1·6†			3		82		·250		4·6		0			0·11			0·11			0·04	Lyallpur.
10	3	8	3	2	1		1	3	N 40° E	N 68° E	2·5	1·9	+0·6	33	+15	71	+ 6	·247	+·017	3·0	+0·3	2	1·1	+0·9	0·44	0·38	+0·06	0·44	0·38	+0·06	0·18	Montgomery.
23	5	1		2					N 26° E	N 53° E	1·1	0·8	+0·3	17	− 1	71	+ 1	·277	+·015	2·5	0	0	0·7	−0·7	0·08	0·25	−0·17	0·08	0·25	−0·17	0·06	Multan.
																																VII.—North-West Frontier Province.
16	1		1	2	10	1			S 8° E	S 16° W	0·9	1·7	−0·8	37	+ 8	79	+ 9	·226	+·021	4·5	+0·7	3	1·1	+1·9	0·69	0·49	+0·20	0·69	0·49	+0·20	0·27	Peshawar.
28	2	1							N 15° E	N 32° W	0·3*	0·6	−0·3	10	− 1	78	+ 7	·252	+·035	2·5	−0·1	0	0·7	−0·7	0·10	0·21	−0·11	0·10	0·21	−0·11	0·05	D. I. Khan.
																																VIII.—Sind.
5								6	N 45° W	N 7° E	1·6	1·2	+0·4	20	+ 6	78	+15	·315	+·074	2·3	−0·5	2	0·4	+1·6	1·30	0·11	+1·19	1·30	0·11	+1·19	0·75	Jacobabad.
1	19		2		1	1		7	N 9° W	N 2° E	4·1	5·1	−1·0	76	+20	65	+11	·312	+·046	1·0	−1·3	1	0·2	+0·8	0·24	0·06	+0·18	0·24	0·06	+0·18	0·20	Hyderabad.
2	8	17	3				1		N 35° E	N 54° E	7·6	6·1	+1·5	79	− 3	62	+ 1	·371	+·042	1·7	−0·5	1	0·4	+0·6	0·17	0·13	+0·04	0·17	0·13	+0·04	0·10	Karachi.
																																IX.—Rajputana.
3		6	6	2	1	1	1	1	N 78° E	N 4° W	2·9	2·4	+0·5	30	+ 8	57	+ 1	·249	+·008	2·4	−0·2	3	0·4	+2·6	1·38	0·19	+1·19	1·38	0·19	+1·19	0·70	Bikaner.
9	3	17	1			1			N 41° E		3·0			59		52	+ 9	·256		2·1		3	0·5	+2·5	0·42	0·14	+0·28	0·42	0·14	+0·28	0·16	Jodhpur.
7	2	7	9			2	1	3	N 51° E	N 2° W	3·3†	2·1	+1·2	40	+18	53	− 4	·269	0	2·3	+0·1	1	0·6	+0·4	0·86	0·22	+0·64	0·86	0·22	+0·64	0·85	Jaipur.
2		3	2	1	1	2			S 74° E	N 24° E	2·3	1·2	+1·1	10	+ 6	72	− 2	·295	+·021	1·4	−0·7	2	0·5	+1·5	2·34	0·28	+2·06	2·34	0·28	+2·06	2·23	Ajmer.
5		4		3		1	2	1	N 63° E		1·2			3		60	+ 2	·319		2·1		3	0·6	+2·4	1·03	0·29	+0·74	1·03	0·29	+0·74	0·52	Kotah.
																																X.—Bombay.
2	1	16	9	1	2				N 65° E	N 72° E	6·0	5·8	+0·2	76	+ 4	56	+ 9	·302	+·044	1·5	−0·3	0	0·2	−0·2	0	0·06	−0·06	0	0·06	−0·06	0	Deesa.
	4	3	1			1	3	5	N 25° W	N 15° W	2·9	4·2	−1·3	33	+26	69	+14	·383	+·047	2·6	+1·0	0	0·1	−0·1	0·03	0·05	−0·02	0·03	0·05	−0·02	0·03	Bhuj.
	1	5	9		2	2		1	N 80° E		3·0			34		65		·338		0·3		0	0·3	−0·3	0	0·07	−0·07	0	0·07	−0·07	0	Jamnagar.
	3	12	6				1	3	N 31° E		6·7			69		73	+ 6	·499		1·9		0	0·3	−0·3	0	0·06	−0·06	0	0·06	−0·06	0	Dwarsa.
	3	8	2	3		1	1		N 54° E	N 69° E	3·5	3·4	+0·1	33	−17	62	+ 9	·302	+·038	1·7	+0·7	0	0·2	−0·2	0	0·05	−0·05	0	0·05	−0·05	0	Rajkot.
	17	9	1					2	N 12° E	N 27° E	4·8	4·2	+0·6	82	+ 7	62	+11	·409	+·047	0·6	−1·4	0	0·3	−0·3	0	0·12	−0·12	0	0·12	−0·12	0	Veraval.
		2			2	5	11		N 59° W	N 77° W	1·3	4·6	−2·8	48	−10	52	0?	·377	+·005?	1·4	0	0	0·2	−0·2	0	0·10	−0·10	0	0·10	−0·10	0	Bhavnagar Para.
	6	7	10	2	1	1			N 63° E	N 48° E	0·95§	3·2	−2·3	59	+ 1	72	+10	·483	+·081	0·8	−0·5	0	0·2	−0·2	0	0·05	−0·05	0	0·05	−0·05	0	Surat.
	2	11	9	1				2	N 57° E	N 62° E	3·2	3·4	−0·2	62	−13	54	+ 5	·336	+·024	1·3	−0·2	0	0·1	−0·1	0	0·04	−0·04	0	0·04	−0·04	0	Ahmadabad.
	6	13	11	1					N 55° E	N 70° E	6·1†	7·1	−1·0	82	− 4	76	+ 4	·602	+·014	1·8	+0·1	0	0·2	−0·2	0	0·07	−0·07	0	0·07	−0·07	0	Bombay.
	1	12	7	9	1				N 85° E	S 74° E	6·5	5·8	+0·7	72	+ 7	62	+ 9	·509	+·041?	2·0	+0·6	0	0·3	−0·3	0	0·09	−0·09	0	0·09	−0·09	0	Ratnagiri.
	7	11	12	1					N 55° E	S 77° E	5·7†	5·8	−0·1	79	− 1	84	+ 8	·683	+·062?	3·9	+3·0	0	0·3	−0·3	0	0·18	−0·18	0	0·18	−0·18	0	Marmagao.
	3	13						4	N 23° E	N 67° E	1·9	2·2	−0·3	53	−27	86	+11	·639	+·099	2·0	+0·9	0	0·3	−0·3	0	0·18	−0·18	0	0·18	−0·18	0	Karwar.

† Uncorrected for scale error.
§ Mean of 3 days.
* " " 70 "

Table

(2) Abstract of observations taken at 8 hrs. at 219 stations

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.	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.	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	16	17	18	19	20	21	22	23	24
	X.—Bombay *—concld.*																						
26	Malegaon	1,430	28·646	+·016	30·076	28·828	31st	28·542	13th	·286	63·5	86·9	+2·7	55·0	+3·7	70·9	+3·2	31·9	92·4	11th	41·1	18th & 19th.	48·3
	Ahmadnagar	2,154	27·909	+·006?	30·045?	28·100	31st	27·806	13th	·294	65·8	84·6	+1·6	54·6	+3·1	69·6	+2·3	30·0	88·1	6 days	41·5	20th	43·6
	Poona	1,846	28·210	+·006	30·052	28·355	30th	28·111	15th	·244	62·6	86·6	+2·3	56·8	+3·0	71·7	+2·7	29·8	90·5	10th	50·8	29th	39·7
	Sholapur	1,590	28·466	+·010	30·028	28·665	31st	28·348	15th	·317	69·2	87·6	+2·1	61·2	+3·7	74·4	+2·9	26·4	90·8	25th & 27th.	55·6	2nd	35·2
	Bijapur	*1,948*	28·096	0	30·008	28·250	30th	28·001	13 & 15th	·249	68·7	87·2	+3·2	62·7	+6·7?	75·0	+4·9?	24·5	90·7	26th & 27th.	56·3	24th	34·4
	Belgaum	2,562	27·501	+·026	30·003	27·671	31st	27·393	15th	·278	68·5	83·8	+2·2	59·2	+1·1	71·5	+1·7	24·6	87·8	25th	52·5	28th	35·3
	XI.—Central India.																						
20	Neemuch	1,626	28·449	+·005	30·099	28·657	31st	28·292	12th	·365	58·2	77·4	−1·0	48·9	−0·6	63·1	−0·8	28·5	88·9	11th	38·5	18th	50·4
	Indore	1,823	28·246	+·020	30·080	28·442	31st	28·119	12th	·323	61·8	80·0	+0·7	52·4	+3·1	66·2	+1·9	27·6	86·1	11th	42·1	18th & 19th.	44·0
21	Nowgong	754	29·361	+·020	30·121	29·605	31st	29·142	12th	·463	54·7	75·1	−0·1	48·4	+2·0	61·8	+0·9	26·7	85·3	5th	39·7	25th	45·6
	Sutna	1,041	29·045	+·009	30·111	29·281	31st	28·822	12th	·459	53·1	75·2	+0·1	48·7	+1·6	62·0	+0·9	26·5	85·3	5th	36·7	30th	48·6
	XII.—Central Provinces.																						
22	Buldana	2,132	27·933		30·041	28·129	31st	27·824	13th	·305	66·5	80·2		55·2		69·7		21·0	85·6	4th	52·0	19th	33·6
	Akola	925	29·163	+·016	30·077	29·371	31st	29·030	12th	·341	63·5	84·9	+1·3	54·9	+3·5	69·9	+2·4	30·0	91·2	12th	43·5	19th	47·7
	Amraoti	1,215	28·851	+·013	30·070	29·060	31st	28·741	13th	·319	64·6	83·6	+0·9	59·6	+2·8	71·6	+1·9	24·0	93·3	9th	52·3	19th & 20th.	41·0
23	Khandwa	1,044	29·038	+·017	30·085	29·222	31st	28·926	12th	·296	60·8	84·4	+1·4	53·5	+3·3	68·9	+2·3	30·9	90·7	4th	40·6	18th	50·1
	Hoshangabad	1,006	29·091	+·012	30·103	29·313	31st	28·943	12th	·370	58·4	80·2	+0·9	51·7	0	65·9	+0·5	28·5	83·1	4th	42·9	13th & 24th.	45·2
	Saugor	1,807	28·259	+·006	30·087?	28·469	31st	28·097	12th	·372	53·7	76·1	−0·6	53·7	+1·8	64·9	+0·6	22·4	85·8	4th	47·6	27th	39·2
	Jubbulpore	1,327	28·752	+·010	30·109	28·977	31st	28·585	12th	·392	54·5	77·5	+0·6	49·1	+3·1	63·3	+1·9	28·4	85·8	4th	33·3	18th & 19th.	46·5
	Seoni	2,033	28·052	+·027	30·102	28·252	31st	27·913	12th & 15th.	339	60·1	77·4	−0·3	51·3	+1·5	64·4	+0·6	26·1	82·5	2nd	40·4	18th	42·1
	Nagpur	1,017	29·073	+·023	30·083	29·292	31st	28·931	12th	·361	62·7	82·1	+0·8	55·4	+1·1	68·8	+0·9	26·7	87·6	3rd	46·3	19th	41·3
24	Pendra	2,040	28·039		30·112	28·254	31st	27·880	12th	·374	58·0	76·5		51·3		63·9		25·2	85·6	4th	42·2	18th	43·4
	Raipur	970	29·124	+·023	30·092	29·359	31st	28·969	12th	·390	59·9	79·0	−0·2	55·0	+0·9	67·0	+0·3	24·0	84·7	3rd & 5th	46·6	19th & 31st.	38·1
	Chanda	*634*	29·441	−·001?	30·050?	29·656	31st	29·284	13th	·372	63·3	83·5	+1·0	54·5	+2·7	69·0	+1·9	29·0	88·0	3rd	42·5	20th	45·5
	Jagdalpur	1,813	28·263		30·078	28·454	30th & 31st.	28·136	13th	·318	61·4	81·4		52·1		66·8		29·3	85·7	22nd	41·1	31st	44·6
	XIII.—Hyderabad.																						
27	Aurangabad	1,905	28·173	−·011	30·060	28·365	31st	28·073	13th	·292	66·7	84·1	0?	56·9	+2·3	70·5	+1·1?	27·2	88·4	12th	45·0	19th	43·4
	Nizamabad	1,248	28·824		30·058	29·028	31st	28·684	13th	·344	64·8	86·2	+3·3	56·7	+2·8	71·5	+3·1	29·5	89·9	11th & 28th.	43·7	20th	46·2
	Bidar	*2,165*									72·5	84·2		60·9		72·5		23·3	89·5	27th & 28th.	50·4	18th, 19th & 20th.	34·1
28	Gulbarga	1,503	28·551	−·010	30·027	28·754	31st	28·426	13th	·328	68·6	87·4	+2·4	60·5	+2·7	74·0	+2·5	26·9	91·7	27th	52·3	21st	39·4
	Raichur	*1,311*	28·756	+·029	30·032	28·961	31st	28·638	13th	·323	71·8	88·2	+3·3	65·8	+2·5	77·0	+2·9	22·4	95·0	26th	59·6	25th	35·4
	Hyderabad (Deccan).	1,738	28·324	+·005	30·035	28·523	31st	28·190	13th	·333	67·6	84·5	+2·1	61·6	+4·3	73·1	+3·2	22·9	90·8	27th	54·7	22nd	36·1
	Hanamkonda	877	29·210	+·030	30·055	29·399	31st	29·081	14th	·318	70·1	85·7	+2·0	62·1	+1·2	73·9	+1·6	23·6	89·2	24th	53·7	20th	35·5
	XIV.—Mysore.																						
29	Chitaldrug	2,405	27·645	+·018	29·981	27·820	30th	27·546	15th	·274	70·3	84·8	+3·5	63·9	+3·1	74·3	+3·3	20·9	90·1	25th	59·3	1st	30·3
	Hassan	3,199	26·939	+·038	29·991	27·107	31st	26·843	15th	·264	67·1	83·3	+3·8	59·4	+3·9	71·4	+3·9	23·9	86·4	24th & 26th.	52·3	13th	34·1
	Bangalore	3,021	27·064	+·034	29·996	27·233	31st	26·965	13th	·268	66·6	81·5	+3·5	60·0	+1·3	70·8	+2·4	21·5	87·0	27th	54·8	31st	32·2
	Mysore	2,518	27·546	+·026	29·990	27·720	31st	27·451	15th	·269	69·9	83·5	+1·9	63·0	+3·2	73·2	+2·5	20·5	87·1	24th & 26th.	55·3	13th	31·8

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

B—*continued.*

in India, etc., in December, 1913—continued.

Wind direction. Number of winds from Calm. (25)	N. (26)	N.E. (27)	E. (28)	S.E. (29)	S. (30)	S.W. (31)	W. (32)	N.W. (33)	Resultant direction. (34)	Normal direction. (35)	Wind velocity. Mean velocity, miles per hour. (36)	Normal. (37)	Departure from normal. (38)	Wind steadiness. Actual percentage. (39)	Departure from normal. (40)	Hygrometry, 8 hrs. Mean humidity at 8 hrs. (41)	Departure from normal. (42)	Mean vapour tension at 8 hrs. in inches of mercury. (43)	Departure from normal in inches of mercury. (44)	Cloud. Mean cloud amount at 8 hrs. (45)	Departure from normal. (46)	Rainfall. Number of rainy days. (47)	Normal number of rainy days. (48)	Departure from normal. (49)	Rainfall of month. (50)	Normal rainfall of month. (51)	Departure from normal. (52)	Total rainfall from 1st to 31st December, 1913. (53)	Normal rainfall for period, 1st to 31st December. (54)	Departure from normal of period, 1st to 31st December, 1913. (55)	Heaviest rainfall during month. (56)	Station. (57)
																																X.—Bombay —*concld.*
12	1	1	1			3	10		S 72° W	N 69° W	3·1	3·1	0	33	−28	55	−3	·340	+·009	0·9	−1·1	0	0·4	−0·4	0·08	0·22	−0·14	0·08	0·22	−0·14	0·08	Malegaon.
5	1	1	1	4	4	3	1	11	N 85° W	N 81° E	4·0	3·9	+0·1	20	+15	55	−7	·314	−·034?	2·2	+0·7	0	0·7	−0·7	0·16	0·45	−0·29	0·16	0·45	−0·29	0·09	Ahmadnagar
16			5	1			8	1	W	N 88° E	4·3	4·4	−0·1	10	−12	73	+17?	·423	+·092?	1·8	−0·1	0	0·5	−0·5	0	0·19	−0·19	0	0·19	−0·19	0	Poona.
2	2	5	4	17				1	S 73° E	S 74° E	6·2	5·8	+0·4	66	−2	55	+6	·395	+·049	2·8	+0·8	0	0·6	−0·6	0	0·46	−0·46	0	0·46	−0·46	0	Sholapur.
	4	3	5	7	5	1		6	S 88° E	S 67° E	3·1	2·8	+0·3	23	−46	56	−15?	·402	−·075?	3·5	+1·9	1	0·6	+0·4	0·10	0·30	−0·20	0·10	0·30	−0·20	0·10	Bijapur.
10		3	8	9	2				S 71° E	S 81° E	7·6	8·8	−1·2	53	−23	63	+6	·410	+·057	3·4	+1·8	0	0·5	−0·5	0	0·34	−0·34	0	0·34	−0·34	0	Belgaum.
																																XI.—Central India.
18		1	11					1	N 83° E	N 53° E	4·1	4·2	−0·1	57	−28	50	−3	·248	−·019	1·3	−0·1	0	0·6	−0·6	0·08	0·21	−0·13	0·08	0·21	−0·13	0·08	Neemuch.
22		2		6			1		S 58° E	N 68° E	1·2	1·3	−0·1	20	+2	57	−2	·325	+·015	1·8	+0·4	1	0·6	+0·4	0·20	0·25	−0·05	0·20	0·25	−0·05	0·17	Indore.
13	1	1	6	1	4	2	3		S 35° E	N 76° W	1·2	0·3	+0·4	17	+3	66	−8	·309	−·003	1·9	+0·7	2	0·7	+1·3	0·51	0·50	+0·01	0·51	0·50	+0·01	0·31	Nowgong.
28	1			1			1		N 45° W	N 21° W	1·1	2·5	−1·4	1	−43	77	+10	·324	+·031	2·4	+1·4	3	0·8	+2·2	0·44	0·43	+0·01	0·44	0·43	+0·01	0·19	Sutna.
																																XII.—Central Provinces.
	2	1	6	9	4	1	5	3	S 40° W		2·8	4·0	−1·2	26		52		·336		1·7		1	1·1	−0·1	0·80	0·59	+0·21	0·80	0·59	+0·21	0·80	Buldana.
4	1	3	12	3	3	3	1	1	S 75° E	S 85° E	2·8	2·3	+0·5	40	−4	54	−2	·326	+·011	2·9	+1·1	2	1·1	+0·9	0·48	0·71	−0·23	0·48	0·71	−0·23	0·37	Akola.
		11	14	4			1	1	N 77° E	N 72° E	4·5	2·9	+1·6	78	+7	55	+5	·339	+·012	2·1	+0·4	2	0·8	+1·2	1·31	0·57	+0·74	1·31	0·57	+0·74	0·97	Amraoti.
31									a	N 63° E	1·7	2·0	−0·3	a		60	+3	·327	+·027	1·5	+0·2	1	0·4	+0·6	0·70	0·31	+0·39	0·70	0·31	+0·39	0·70	Khandwa.
	1	19	5	3				3	N 52° E	N 63° E	1·7	1·9	−0·2	72	+7	63	−6	·318	−·011	3·2	+1·6	2	0·8	+1·2	0·77	0·51	+0·26	0·77	0·51	+0·26	0·41	Hoshangabad
4		2	9	6	6	1	3		S 49° E	S 77° E	4·4	2·0	+2·4	46	+14	49	−9	·246	−·018	2·0	+0·9	1	0·6	+0·4	0·81	0·53	+0·28	0·81	0·53	+0·28	0·74	Saugor.
11	1	1	5	8	4			1	S 55° E	S 41° E	1·0	1·2	−0·2	43	+7	70	−4	·309	−·014	1·6	0	2	0·6	+1·4	0·93	0·31	+0·62	0·93	0·31	+0·62	0·62	Jubbulpore.
9	6	4	4	1	4	1	3	1	N 27° E	N 30° E	2·5	1·6	+0·9	23	−19	55	−12	·288	−·056	1·6	−0·3	2	0·8	+1·2	0·35	0·55	+0·40	0·95	0·55	+0·40	0·80	Seoni.
3	12	5	6	2			1	2	N 29° E	N 7° E	2·7	2·2	+0·5	59	+30	56	−4	·326	−·027	1·6	−0·4	2	0·9	+1·1	0·85	0·56	+0·29	0·85	0·56	+0·29	0·59	Nagpur.
22	2	1			2	2		2	N 72° W		2·0			7		60		·293		1·7		1	0·7	+0·3	0·25	0·38	−0·12	0·26	0·38	−0·12	0·22	Pendra.
4	1	6	7	1	5	4	1	2	S 71° E	N 14° E	1·7	1·8	−0·1	23	+7	70	+8	·368	+·024	0·7	−1·3	1	0·5	+0·5	1·06	0·26	+0·80	1·06	0·26	+0·80	1·00	Raipur.
17	2	6	2	2		2			N 61° E	N 39° E	1·4	1·2	+0·2	23	−9	73	+1	·428	+·030	2·9	+1·5	2	0·8	+1·2	0·37	0·28	+0·09	0·37	0·28	+0·09	0·23	Chanda.
1	11	2	4	4		1	1	7	N 7° E		1·7			45		78		·426		0·5		0			0			0			0	Jagdalpur.
																																XIII.—Hyderabad.
2	1	6	13	8			1		S 89° E		5·6			70		50	+1	·329		2·8		0	0·7	−0·7	0	0·31	−0·31	0	0·31	−0·31	0	Aurangabad.
18	2	2	1	3	3	1		1	S 61° E		†1·7			10		66	−2	·403		2·5		0	0·4	−0·4	0·02	0·11	−0·09	0·02	0·11	−0·09	0·02	Nizamabad.
14		3	8	3		2		1	S 86° E		3·0			32		53		·426		3·3		0	0·7	−0·7	0	0·30	−0·30	0	0·30	−0·30	0	Bidar.
4	1	9	8	6	1		2		N 83° E	N 76° E	3·3	5·3	−1·7	56	+9	61	+2	·428	+·035	2·0	+0·2	0	0·3	−0·3	0	0·22	−0·22	0	0·22	−0·22	0	Gulbarga.
	1	9	7	9	2	1	1	1	S 87° E	S 77° E	*3·9	5·4	−1·5	56	−10	67	+1	·532	+·046	3·1	+1·6	0	0·2	−0·2	0	0·15	−0·15	0	0·15	−0·15	0	Raichur.
30			1						E	S 63° E	1·6	2·3	−0·7	2	−11	71	−2	·485	+·033	3·6	+1·9	0	0·4	−0·4	0	0·17	−0·17	0	0·17	−0·17	0	Hyderabad (Deccan).
7	3	1		16	3			1	S 49° E		2·8			49		66	−1	·391		3·5		0	0·5	−0·5	0	0·22	−0·22	0	0·22	−0·22	0	Hanamkonda.
																																XIV.—Mysore.
8		2	13	8					S 78° E	S 77° E	4·4	5·7	−1·3	66	−22	66	+1	·487	+·027	4·0	+1·0	0	0·7	−0·7	0	0·42	−0·42	0	0·42	−0·42	0	Chitaldrug.
3	2	5	12	9					S 87° E	N 82° E	3·3	2·5	+0·8	71	−14	73	0	·487	+·010	4·5	+0·9	0	0·9	−0·9	0	0·85	−0·85	0	0·85	−0·85	0	Hassan.
		7	17	4	2	1			S 89° E	N 67° E	†5·8	4·0	+1·8	79	−7	77	−1	·497	+·014	4·9	+1·1	0	1·4	−1·4	0·19	0·49	−0·30	0·19	0·49	−0·30	0·09	Bangalore.
	1	14	9	3	1	1	1		N 70° E	N 68° E	6·4	7·5	−1·1	66	−17	74	0	·544	+·041	5·4	+1·6	0	1·1	−1·1	0	0·43	−0·43	0	0·43	−0·43	0	Mysore.

* Mean of 8 days.
† „

a Indeterminate.

Tabl

(2) Abstract of observations taken at 8 hrs. at 219 station

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.	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.	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	16	17	18	19	20	21	22	23	24
	XV.—Madras.																						
30	Mangalore	65	29·965	+·024	29·961	30·168	31st	29·880	19th	·288	78·9	89·5	−1·0	72·4	+3·3	80·9	+1·1	17·1	94·3	21st	68·4	13th & 30th	25·
	Calicut	27	29·988	+·019	29·943	30·167	31st	29·891	17th	·276	76·7	87·5	−0·1	73·6‡	+3·1‡	80·6‡	+1·5	13·9	88·8	4 days.	68·1	12th & 13th	20·
	Cochin	9	30·002	+·027	29·938	30·180	31st	29·897	17th	·283	78·1	90·2	+1·7	73·0	+0·1	81·6	+0·9	17·2	92·7	9th	68·7	16th & 28th.	24·
	Trivandrum	198	29·802	+·027	29·932	29·973	30th & 31st.	29·669	17th	·304	76·1	83·7	+0·7	73·4	+1·7	78·6	+1·2	10·3	87·0	23rd	69·5	28th	17·
31	Pamban	37	29·977	+·005	29·941	30·139	30th	29·849	16th	·290	77·5	83·0	+1·4	73·4	−1·2	78·2	+0·1	9·6	84·7	4 days.	71·8	18th & 21st	12·
	Madura	447	29·599	+·040	29·935	29·788	31st	29·483	15th	·305	75·7	85·3	−0·7	71·2	+0·7	73·3	0	14·1	89·5	2nd	65·1	27th	24·
	Pudukkottai	318	29·736		29·892	29·917	30th & 31st.	29·607	17th	·310	74·2	82·9		70·2		76·5		12·7	86·2	7th	64·9	27th	21·
	Negapatam	31	29·998	+·021	29·958	30·177	31st	29·871	15th	·306	76·8	81·5	0	72·7	+0·6	77·1	+0·3	8·8	84·7	5th	68·3	25th	16·
	Trichinopoly	255	29·801	+·035	29·994	29·938	31st	29·692	15th	·305	74·6	83·8	−1·4	69·3	−0·1	76·5	−0·7	14·5	86·6	15th, 25th & 30th.	63·3	27th	23·
	Coimbatore	1,341	28·706	+·035	30·002	28·887	31st	28·606	15th	·281	71·2	84·5	−0·6	65·7	−0·4	75·1	−0·5	18·8	90·0	3rd	58·3	15th	31·
	Salem	913	29·139	+·035	30·002	29·327	30th	29·025	15th	·302	73·5	87·3	+0·9	66·7	+1·4	77·0	+1·1	20·6	92·0	26th	59·8	14th	32·
	Cuddalore	37	30·024	+·027	29·991	30·209	31st	29·905	15th	·304	74·1	81·2	−2·0	71·0	+1·9	76·1	−0·1	10·2	83·8	16th	66·2	27th	17·
	Vellore	707	29·352		30·015	29·511	31st	29·240	15th	·293	70·4	83·3		65·6		74·3		17·7	89·7	25th & 26th	59·5	25th	30·
	Madras	22	30·044	+·026	29·997	30·239	31st	29·931	15th	·308	75·6	83·1	−0·2	71·0	+1·3	77·1	+0·5	12·1	85·5	5th & 10th	65·9	25th	19·
32	Cuddapah	433	29·636	+·010	30·017	29·844	31st	29·517	14th	·327	73·4	86·0	−0·8	65·8	+0·4	75·9	−0·2	20·2	93·6	26th	60·0	22nd	33·
	Bellary	1,475	28·570	+·010	30·013	28·765	31st	28·454	14th & 15th.	·311	69·8	89·7	+4·1	61·3	+3·4	77·0	+3·7	25·4	96·2	26th	58·5	25th	37·
	Kurnool	923	29·148	+·018	30·038	29·360	31st	29·022	13th	·338	69·5	87·2	+0·3	63·8	+4·9	75·5	+2·6	23·4	91·5	26th & 27th	56·1	24th & 25th	35·
33	Nellore	66	30·007	+·016	30·008	30·218	31st	29·889	14th	·329	74·2	83·7	−1·1	69·0	+0·8	76·4	−0·1	14·7	88·5	26th	65·1	22nd, 23rd & 31st.	23·
	Masulipatam	15	30·082	+·032	30·031	30·311	31st	29·953	14th	·358	73·4	83·0	+0·9	67·8	+1·2	75·8	+1·1	16·1	86·0	16th	61·2	21st	24·
	Cocanada	26	30·085	+·035	30·047	30·320	31st	29·956	13th	·364	73·0	81·2	+0·5	67·6	+1·9	71·4	+1·2	13·6	88·7	25th	59·6	21st	29·
	Waltair (Vizagapatam).	*226*	29·884	+·028	30·057	30·122	31st	29·759	13th	·363	73·0	80·1		68·7		71·4		11·4	82·1	5th	61·9	21st	20·
	Calingapatam	19	30·100		30·057	30·342	31st	29·954	13th	·388	68·2†	?		?		?		?	?		?		?
	Gopalpur	52	30·067	+·029	30·061	30·319	31st	29·894	13th	·425	67·4	79·5	−0·8	62·9	+2·1	71·3	+0·7	16·6	81·2	11th	53·9	31st	30·
	Bay Islands.																						
	P. V. Fraser	8	30·078		30·060	30·303	31st	29·920	13th	·374	72·4												
	Port Blair	58	29·957	+·033	29·946	30·127	31st	29·819	14th	·308	79·3	85·8	+0·1	76·3	−0·4	81·1	−0·1	9·5	88·2	3rd & 4th	69·0	26th	19·
	Table Island	90	29·939		29·964	30·121	31st	29·813	15th	·308	79·1	82·3		76·3		79·3		6·0	85·6	20th	72·6	27th & 29th	13·
	Kashmir.																						
13	Muzaffarabad	?	27·704			27·826	7th	27·540	12th	·286	43·0	61·2		36·5		48·8		24·7	70·1	9th	30·1	27th, 28th & 31st.	40·
	Srinagar	5,204	25·050	+·006	25·022	25·327	30th	24·759	12th	·568	32·2	47·9	−0·8	29·5	+1·0	38·3	+0·1	17·5	54·7	9th	21·5	29th	33·
	Gulmarg	*8,569*																					
	Dras	*10,059*	20·883	+·036	20·851	21·207	30th	20·563	12th	·644	−1·6	19·0		−6·9		6·0		25·9	32·2	9th	−31·2	28th	63·
	Leh	*11,503*	19·747	+·011	19·715	20·049	30th	19·445	12th	·604	16·7	31·6	−3·1	9·1	−4·1	20·3	−3·6	22·5	40·1	10th	−4·0	27th	44·
	Skardu	*7,505*	23·072	+·060	23·042	23·456	30th	22·718	12th	·738	24·6	37·3	−4·5	20·2	−2·5	28·7	−3·5	17·1	46·4	1st	7·1	29th	39·
	Gilgit	4,890	25·425		25·398	25·733	30th	25·070	12th	·663	37·0	48·9	−0·3	33·5	−1·0	41·2	−0·7	15·4	51·7	4th	22·7	27th & 28th	32·

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

‡ Mean of 2 days.

† " " 30 "

B—*continued.*

in India, etc., in December, 1913—continued.

Wind direction. Number of winds from Calm. (25)	N. (26)	N. E. (27)	E. (28)	S. E. (29)	S. (30)	S. W. (31)	W. (32)	N. W. (33)	Resultant direction. (34)	Normal direction. (35)	Wind velocity. Mean velocity, miles per hour. (36)	Normal. (37)	Departure from normal. (38)	Wind steadiness. Actual percentage. (39)	Departure from normal. (40)	Hygrometry, 8 hrs. Mean humidity at 8 hrs. (41)	Departure from normal. (42)	Mean vapour tension at 8 hrs. in inches of mercury. (43)	Departure from normal in inches of mercury. (44)	Cloud. Mean cloud amount at 8 hrs. (45)	Departure from normal. (46)	Rainfall. Number of rainy days. (47)	Normal number of rainy days. (48)	Departure from normal. (49)	Rainfall of month. (50)	Normal rainfall of month. (51)	Departure from normal. (52)	Total rainfall from 1st to 31st Dec., 1913. (53)	Normal rainfall for period, 1st to 31st December. (54)	Departure from normal of period, 1st to 31st Dec., 1913. (55)	Heaviest rainfall during month. (56)	Station. (57)
																																XV.—Madras.
	1	5	23	1	1				N 84° E	S 86° E	4·6	2·1	+1·9	89	+ 3	68	0	·670	+·069	2·9	+0·6	1	0·7	+0·3	0·90	0·48	+ 0·42	0·90	0·48	+ 0·42	0·90	Mangalore.
6		6	14	4	1				N 89° E	N 85° E	2·4	5·1	−2·7	68	−15	82	+ 5	·759	+·076	3·4	+1·3	1	1·8	−0·8	1·10	1·10	0	1·10	1·10	0	1·06	Calicut.
	1	14	15	1					N 68° E	N 36° E	4·3*	3·1	+1·2	89	+10	72	− 3	·697	+·001	2·9	+0·5	2	2·4	−0·4	0·97	1·61	− 0·64	0·97	1·61	− 0·64	0·48	Cochin.
8	2	11	10						N 61° E	N 49° E	2·5	2·7	−0·2	66	+36	81	+ 1	·735	+·011	5·5	+1·2	5	3·5	+1·5	5·85	2·20	+ 3·65	5·85	2·20	+ 3·65	3·52	Trivandrum.
4	12	10	1					1	N 14° E	N 13° E	8·5	9·6	−1·1	76	− 7	89	+ 1	·838		4·9		10	9·1	+0·9	4·67	7·55	− 2·88	4·67	7·55	− 2·88	1·20	Pamban.
	14	14	1					2	N 21° E	N 5° E	7·4	3·4	+4·0	89	+ 6	80	+ 6	·708	+·049	6·9	+2·4	3	3·3	−0·3	1·73	1·78	− 0·05	1·73	1·78	− 0·05	0·55	Madura.
2	16	10						3	N 12° E		6·3†			81		81		·689		7·2		8	2·0	+6·0	5·59	1·05	+ 4·54	5·59	1·05	+ 4·54	1·35	Pudukkottai.
	3	16	2					10	N 16° E	N 6° W	10·6†	6·6	+4·0	12	−71	83	0	·774	+·020	6·3	−0·4	13	9·4	+3·6	15·34	11·28	+ 4·06	15·34	11·28	+ 4·06	6·05	Negapatam.
4	8	8			1		3	7	N 7° W	N 16° E	3·0†	3·3	+0·3	56	+ 6	84	+ 7	·715	+·048	5·0	+0·1	7	4·5	+2·5	3·65	2·68	+ 0·97	3·65	2·68	+ 0·97	1·14	Trichinopoly.
14	5	9	3						N 39° E	N 77° E	3·2†	2·2	+1·0	46	−37	83	− 1	·646	−·011	4·3	−0·6	3	2·6	+0·4	3·37	1·15	+ 2·22	3·37	1·15	+ 2·22	2·36	Coimbatore.
16	3	1	7				3	1	N 43° E	N 40° E	3·0	2·8	+0·2	20	− 9	76	0	·626	0	5·1	+1·5	1	2·4	−1·4	0·46	1·10	− 0·64	0·46	1·10	− 0·64	0·37	Salem.
3	11	1					1	15	N 26° W	N 10° W	5·6*	2·0	+3·6	82	+ 3	89	− 1	·749	−·017	5·9	−0·1	13	6·0	+7·0	17·03	7·21	+ 9·82	17·03	7·21	+ 9·82	4·69	Cuddalore.
27					1	2		1	S 51° W		1·5*			9		82		·661		4·0		7	3·7	+3·3	2·61	3·52	− 0·91	2·61	3·52	− 0·91	0·60	Vellore.
2	12	6				2	1	8	N 10° W	N 8° E	4·7	5·3	−0·6	69	−14	88	+ 5	·776	+·046	5·3	+0·2	7	5·3	+1·7	11·07	6·24	+ 4·83	11·07	6·24	+ 4·83	3·71	Madras.
7	3	5	2	6	2	2	1	3	N 79° E	S 75° E	†			17	−26	80	+ 2	·671	+·051	4·0	+0·6	3	1·6	+1·4	3·09	1·04	+ 2·05	3·09	1·04	+ 2·05	1·91	Cuddapah.
11		2	3	10	4	1			S 46° E	S 59° E	2·5*	2·4	+0·1	49	+ 6	68	+ 1	·503	+·018	4·0	+0·7	0	0·3	−0·3	0·04	0·12	− 0·08	0·04	0·12	− 0·08	0·04	Bellary.
19		4	4	2			1	1	N 72° E	S 80° E	2·5*			23	+22	71	+ 1	·524	+·031	4·8	+3·1	1	0·5	+0·5	0·29	0·30	− 0·01	0·29	0·30	− 0·01	0·21	Kurnool.
8	5	4	1		2	1		10	N 17° W	N 51° W	3·1†	3·1	0	43	−29	87	+ 2	·735	+·019	5·5	+1·5	7	3·0	+4·0	7·79	3·07	+ 4·72	7·79	3·07	+ 4·72	3·17	Nellore.
5	14	8	3						N 25° E	N 15° E	4·6	3·8	+0·8	72	−14	78	− 3	·633	−·004	3·5	+0·9	0	1·2	−1·2	0	1·04	− 1·04	0	1·04	− 1·04	0	Masulipatam.
2	9	16	2					2	N 29° E	N 5° E	6·8†	6·6	+0·2	82	− 8	74	+ 4	·615	+·074	3·7	+1·2	0	1·0	−1·0	0	1·08	− 1·08	0	1·08	− 1·08	0	Cocanada.
	1	21	1				7	1	N 26° E	N 31° W	5·0†			59	+10	70	+11	·574	+·054	4·7	+2·2	2	1·1	+0·9	0·58	1·05	− 0·47	0·58	1·05	− 0·47	0·29	Waltair (Vizagapatam)
4	3	5	1				6	12	N 34° W		6·3†			59		82†		·570†		2·3		0	1·4	−1·4	0	2·78	− 2·78	0	2·78	− 2·78	0	Calingapatam.
	15						1	15	N 25° W	N 23° W	5·4†	6·0	−0·6	92	+17	79	+ 2	·531	+·036	2·3	+0·2	0	1·1	−1·1	0	0·97	− 0·97	0	0·97	−0·97	0	Gopalpur.
																																Bay Islands.
2	10	11	2	1		2	2	1	N 21° E					55		67		·539		5·3		1			0·94			0·94			0·94	P.V.Fraser.
9	1	8	11	1				1	N 68° E	N 55° E	5·9	5·3	+0·6	59	+ 1	79	− 2	·792	−·027	3·7	−1·6	7	7·3	−0·3	2·66	6·81	− 4·15	2·66	6·81	−4·15	1·12	Port Blair.
	9	8	14						N 53° E		6·8			82		72		·720		4·5		5	1·6	+3·4	8·78	1·72	+ 7·06	8·78	1·72	+7·06	6·50	Table Island.
																																Kashmir.
2	6	2			8	4	3	6	N 84° W		0·3			29		83		·239		2·6		6			3·67			3·67			1·40	Muzaffarabad.
	2	2		4	4	5	2	8	S 79° W	S 42° E	2·3	1·9	+0·4	23	+ 4	82	− 7	·151	−·009	5·6	−0·4	4	3·5	+0·5	1·01	1·41	− 0·40	1·01	1·41	− 0·40	0·34	Srinagar.
									a		0			*a*		?		?		5·2		3	6·1	−3·1	0·75	1·71	− 0·96	0·75	1·71	− 0·96	0·22	Dras.
		1							N 45° E	S 22° W	1·6	0·9	+0·7	2	−15	57	− 1	·051	0	5·9	0	0	0·6	−0·6	0·25	0·17	+ 0·08	0·25	0·17	+ 0·08	0·09	Leh.
	1	2			1	2	7	1	S 85° E		1·6			25		?		?		6·0		0	1·0	−1·0	0·29	0·32	− 0·03	0·29	0·32	− 0·03	0·07	Skardu.
	1					3		1	S 81° W		0			8		65	+ 4	·144	+·010	6·3	−0·1	0	0·3	−0·3	0	0·11	− 0·11	0	0·11	− 0·11	0	Gilgit.

stations, the elevations of which exceed 3,000 feet.

* Uncorrected for scale error.
† Mean of 30 days.

a Indeterminate.

Table

(2) Abstract of observations taken at 8 hrs. at 219 station

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.	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.	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	16	17	18	19	20	21	22	23	24
	Baluchistan.																						
15	Fort Sandeman		25·533		25·502	25·714	31st	25·356	13th	·388	36·9	62·4		33·7		48·0		28·7	65·7	7th	25·8	28th	40·9
	Quetta	5,502	24·745	—·001	24·705	24·876	31st	24·628	13th	·248	32·2	54·0	—2·6	28·8	—0·9	41·4	—1·7	25·2	62·7	11th	19·3	27th	43·4
	Chaman	4,311	25·852	+·007	25·792	25·952	25th	25·684	10th	·268	41·3	56·7	—1·9	37·7	—1·9	47·2	—1·9	19·0	65·5	18th	28·2	27th	37·4
	Kalat	6,630	23·798		23·766	23·902	31st	23·689	21st	·213	29·3	52·6		25·7		39·2		26·9	69·8	18th	11·7	27th	46·1
	Dalbandin	2,772									46·0	64·7		36·3		50·5		28·4	75·3	19th	23·7	28th	51·6
	Pasni		30·119		30·079	30·262	5th	29·937	13th	·325	62·3	75·2		59·9		67·5		15·3	84·0	12th	52·0	27th & 31st.	32·0
	Panjgur		26·875		26·833	26·958	25th	26·730	13th	·258	42·0	67·2		38·8		53·0		28·4	75·0	11th & 14th	28·4	28th	46·6
	Robat		26·958		26·916	27·176	25th	26·813	9th	·363	44·6	65·6		42·6		54·1		23·0	75·4	20th	34·8	2[illegible]th & 29th.	38·[illegible]
	Hill stations, excluding Kashmir and Baluchistan.																						
	Para Chinar	6,000	24·550		24·526	24·781	31st	24·344	12th	·437	38·3	52·9		32·2		42·5		20·7	61·4	7th	25·1	23rd	36·3
	Cherat	*4,256*	25·849	+·025	25·817	26·169	31st	25·652	12th	·457	45·2	51·6	—3·9	40·1	—2·5	45·8	—3·2	11·5	59·0	10th	32·3	29th	27·6
	Drosh (c)		25·291			25·510	30th	25·080	12th	·430	38·4	50·9		34·7		42·8		16·2	58·4	10th	27·5	25th	33·[illegible]
	Murree	6,333	23·924	+·007	23·892	24·184	31st	23·713	12th	·471	40·8	47·3	—5·5	37·6	—1·4	42·5	—3·5	9·7	59·5	6th	30·5	22nd	29·0
	Simla	7,232	23·161	+·003	23·123	23·444	31st	22·950	12th	·493	40·5	46·7	—2·7	37·1	—2·0	41·9	—2·3	9·6	54·0	6th	23·1	19th	25·[illegible]
	Sarain		23·222		23·184	23·438	31st	23·114	25th	·374	31·3	48·1		26·2		37·1		21·9	56·2	1st & 4th	15·5	16th	39·[illegible]
	Kalabagh																						
	Chakrata	7,022	23·342	+·004	23·302	23·589	31st	23·189	13th & 25th.	·400	40·9	52·1	—2·8	37·8	—1·5	45·0	—2·1	14·3	60·5	6th	29·7	16th	30·[illegible]
	Mukteswar	7,592	22·871	—·019	22·833	23·001	4th	22·689	12th	·312	40·6	49·2	—4·8	33·6	—5·0	41·4	—4·9	15·6	59·0	10th	25·4	16th	30·[illegible]
	Darjiling	7,376	23·052	—·023	23·007	23·284	31st	22·886	23rd	·398	39·9	46·4	—2·3	35·7	—0·9	41·0	—1·6	10·7	56·8	31st	30·2	27th	26·[illegible]
	Shillong	4,920	25·227		25·170	25·463	31st	25·115	23rd	·348	48·3	58·9		33·5		49·2		19·4	64·9	4 days	32·7	25th & 26th.	32·[illegible]
	Cherrapunji	4,309	25·820		25·771	26·038	31st	25·731	24th	·307	51·8	59·1		46·2		52·7		12·9	66·7	5th	37·6	26th	29·[illegible]
	Maymyo	3,546	26·550	+·043	26·495	26·781	31st	26·475	11th	·309	51·9	65·3	—0·2	44·5	+2·2	56·9	+1·0	24·8	83·3	27th	30·6	29th	52·[illegible]
	Pachmarhi	3,528	26·596	+·017	26·543	26·797	31st	26·461	16th	·336	50·6	71·2	+0·9	47·6	+1·3	59·4	+1·4	23·6	76·0	3rd	36·1	26th	39·[illegible]
	Mount Abu	3,945	26·170	+·002	26·120	26·339	31st	26·066	12th	·273	58·5	66·1	—2·5	52·1	—0·8	59·1	—1·7	14·0	70·8	31st	43·4	17th	27·[illegible]
	Mercara	3,781	26·312	+·026	26·245	26·462	30th	26·213	15th	·249	62·9	78·2	+3·0	53·5	+0·7	68·3	+1·9	19·7	83·0	23rd	53·0	30th	30·[illegible]
	Ootacamund	*7,397*	23·126		23·062	23·216	30th	23·040	15th	·176	54·4	64·7		44·4		54·6		20·3	68·5	29th	34·2	30th	34·[illegible]
	Kodaikanal	7,698	22·890	+·028	22·825	22·954	31st	22·830	15th	·124	53·1	61·5	—0·4	47·9	+0·2	54·7	—0·1	13·6	69·5	27th	39·5	30th	30·[illegible]
	Extra India.																						
	Singapore (a)	10	29·975		29·906	30·072	31st	29·866	21st	·206	82·5	87·7		73·4		80·5		14·3	91·5	13th	71·8	4th	19·[illegible]
	Penang (a)	17	29·898		29·840	29·982	22nd	29·802	12th	·180	80·8	87·6		73·2		80·4		14·4	90·5	16th	71·0	11th, 26th & 31st.	19·[illegible]
	Trincomalee	99	29·892	?	29·920	30·071	31st	29·707	16th	·364	77·1	83·4	+0·9	74·7	+0·2	79·1	+0·5	8·7	87·5	5th	71·0	20th	16·[illegible]
	Colombo	24	29·963	+·014	29·912	30·134	31st	29·784	16th	·350	74·0	85·0	—1·9	72·3	—0·7	78·7	—1·3	12·7	89·0	26th & 29th.	65·5	27th	23·[illegible]
	Hambantota		29·921		29·912	30·081	30th	29·716	16th	·364	73·3	82·9		72·5		77·7		10·4	86·0	3rd	65·5	28th	20·[illegible]
	Minicoy	7	30·015			30·180	31st	29·925	19th	·255													
	Amini Divi	*13*	30·010	+·014	29·951	30·193	31st	29·919	19th	·274	82·0	87·8	+2·9	77·1 *	+3·3	82·4 *	+3·1	10·7	83·7	3rd	70·3	12th	19·[illegible]
	Gyantse	13,120	18·452		18·413	18·700	30th	18·205	25th	·515	13·7	38·9		—5·8		16·7		44·7	55·0	5th	—20·0	29th & 30th.	75·[illegible]
	Pharijong	14,400									12·2	33·3		—8·2		12·6		41·5	44·0	5th	—23·8	27th	67·[illegible]
	Gangtok	5,900?	24·545		24·500	24·746	30th	24·427	24th	·319	45·1	56·0		40·7		48·3		15·3	67·5	4th	35·4	14th	32·[illegible]
	Gartok (c)	15,100									—2·3	22·7		—11·0		5·8		33·7	34·1	8th	—27·1	17th	61·[illegible]

N.B.—Elevations in italics indicate barometrical determinations.
(a) 9 hrs. observations. (c) Aneroid corrected.

NOTE.—The barometric readings are not reduced to sea-level, in the case of
* Mean of 17 days.

—*continued.*

India, etc., in December, 1913—continued.

Wind direction. Number of winds from N. (25)	N.E. (27)	E. (28)	S.E. (29)	S. (30)	S.W. (31)	W. (32)	N.W. (33)	Resultant direction. (34)	Normal direction. (35)	Wind velocity. Mean velocity, miles per hour. (36)	Normal. (37)	Departure from normal. (38)	Wind steadiness. Actual percentage. (39)	Departure from normal. (40)	Hygrometry, 8 hrs. Mean humidity at 8 hrs. (41)	Departure from normal. (42)	Mean vapour tension at 8 hrs. in inches of mercury. (43)	Departure from normal in inches of mercury. (44)	Cloud. Mean cloud amount at 8 hrs. (45)	Departure from normal. (46)	Rainfall. Number of rainy days. (47)	Normal number of rainy days. (48)	Departure from normal. (49)	Rainfall of month. (50)	Normal rainfall of month. (51)	Departure from normal. (52)	Total rainfall from 1st to 31st December, 1913. (53)	Normal rainfall for period, 1st to 31st December. (54)	Departure from normal of period, 1st to 31st December, 1913. (55)	Heaviest rainfall during month. (56)	Station. (57)
																															Baluchistan.
5		9	2	3	2			S 57° E		1·7			37		74		·166		2·7		3			0·92			0·92			0·62	Fort Sandeman.
7		1	3					S 56° E	S 7° E	1·3	1·7	−0·4	10	+ 1	84	+10	·156	+·001	3·3	+0·1	3	2·2	+0·8	0·90	0·94	− 0·04	0·90	0·94	− 0·04	0·32	Quetta.
5	1	14	10		1			S 72° E	S 52° E	3·2	4·9	−1·7	72	0	71	+16	·188	+·013	3·5	0	3	2·8	+0·2	0·99	1·12	−0·13	0·99	1·12	− 0·13	0·45	Chaman.
1			1	5	4			S 14°W	S 24° W	3·5			27	−20	85°		·140°		3·5		2	2·6	−0·6	0·94	1·18	−0·24	0·94	1·18	− 0·24	0·82	Kalat.
2	5	9	3		1		1	N 35° E		2·3			46		71		·185		1·9		1			0·40			0·40			0·30	Dalbandin.
1	2	1	1			5	8	N 52° W		3·5			37		90		·509		2·2		3			0·91			0·91			0·50	Pasni.
7	17	6					1	N 54° E		4·7			69		72		·199		2·1		1			0·10			0·10			0·10	Panjgur.
1		1				29		W		3·2			90		57		·174		1·8		1			0·62			0·62			0·60	Robat.
																															Hill stations, excluding Kashmir and Baluchistan.
7	2	1				1		N 7° W		0·8			9		72‡		·166‡		3·4		2	3·3	−1·3	0·99	1·25	− 0·26	0·99	1·25	− 0·26	0·60	Para Chinar.
2	18	5		1	1		4	N 3° E	N 13° W	8·0	9·6	−1·6	76	+ 1	52	+ 7	·154	+·012	4·3	+0·6	2	1·7	+0·3	1·12	1·49	− 0·37	1·12	1·49	− 0·37	0·78	Cherat.
4	1	2	5	5	3	1		S 65° E		3·0			33		60†		·137†		5·2		3	2·9	+0·1	0·92	1·02	− 0·10	0·92	1·02	− 0·10	0·60	Drosh.
0	4	3	4	8	2			S 82° E	S 84° E	4·7	5·2	−0·5	40	+11	56	+10	·135	+·014	4·4	+0·3	4	2·6	+1·4	2·25	1·45	+ 0·80	2·25	1·45	+ 0·80	0·98	Murree.
															45	+ 5	·111	+·005	3·1	−0·8	4	2·1	+1·9	2·07	1·24	+ 0·83	2·07	1·24	+ 0·83	1·02	Simla.
															81		·143		3·9		1	2·3	−1·3	2·22	2·10	+ 0·12	2·22	2·10	+ 0·12	2·16	Sarain.
																															Kalabagh.
0	12	2		3	2	1	1	N 13° E	N 28° E	3·3	3·7	−0·4	30	− 7	54	+ 5	·135	0	2·1	−0·9	3	2·3	+0·7	1·36	1·39	− 0·03	1·36	1·39	− 0·03	1·09	Chakrata.
8	2	1	7	2		1	6	N 7° W		4·7			11		55	+13	·136		3·3		2	1·8	+0·2	2·08	0·83	+ 1·25	2·08	0·83	+ 1·25	1·61	Mukteswar.
0						1		W	S 89° E	0·4	2·1	−1·7	3	−38	73	− 5	·190	−·007	4·2	+1·1	4	0·7	+3·3	2·52	0·22	+ 2·30	2·52	0·22	+ 2·30	1·15	Darjiling.
6	1	2	1			1		E		1·5			8		74		·251		1·6		3	0·6	+2·4	1·08	0·19	+ 0·89	1·08	0·19	+ 0·89	0·50	Shillong.
7	2	6	9	1	2	3	1	N 83° E		2·7			37		73		·279		1·8		3	0·8	+2·2	1·20	0·24	+ 0·96	1·20	0·24	+ 0·96	0·88	Cherrapunji.
9						2		S 45° W		1·4			3		95	+ 7	·376		4·1		1	0·7	+0·3	0·12	0·46	− 0·34	0·12	0·46	− 0·34	0·11	Maymyo.
2		3	3	8	6	6	1	2	S 18° E	S 52° E	3·4	2·0	+1·4	43	+33	58	− 1	·295	−·010	1·2	−0·7	2	0·8	+1·2	0·46	0·56	− 0·10	0·46	0·56	− 0·10	0·33	Pachmarhi.
2	6	3	1	3		4	2		N 7° E	N 8° E	4·1	3·0	+1·1	10	− 4	50	+ 6	·248	+·023	1·5	−0·2	0	0·4	−0·4	0	0·16	− 0·16	0	0·16	− 0·16	0	Mount Abu.
1	1	14	14	1					N 67° E	N 72° E	3·9	4·7	−0·8	84	+ 1	85	+ 5	·180	+·033	5·2	+0·4	0	1·2	−1·2	0	0·85	− 0·85	0	0·85	− 0·85	0	Mercara.
3			4	8	6				S 40° E		2·4			53		68		·290		5·6		6	4·1	+1·9	1·83	2·28	− 0·45	1·83	2·28	− 0·45	0·50	Ootacamund.
	3	7	9	5			1	6	N 55° E		10·0*			49		77	+13	·312		5·7		13	5·9	+7·1	7·44	4·09	+ 3·35	7·44	4·09	+ 3·35	1·34	Kodaikanal.
																															Extra India.
6	1	8				1	5		N 6° E		2·3			33						6·7		17	14·2	+2·8	11·73	10·69	+ 1·04	11·73	10·69	+ 1·04	4·39	Singapore.
	3	25		1				2	N 38° E		6·9			86								9	10·6	−1·6	4·62	7·15	− 2·53	4·62	7·15	− 2·53	1·00	Penang.
	1	17	2	3		5	1	2	N 49° E	N 23° E	6·6*	5·3	+1·3	46	+ 7	89	+ 3	·831	0	6·8	+1·9	19	14·0	+5·0	16·71	14·25	+ 2·46	16·71	14·25	+ 2·46	2·94	Trincomalee.
7	2	16	1				1		N 37° E	N 33° E	3·0*	6·1	−3·1	40	−38	91	+14	·764	−·037	7·2	+2·8	15	7·1	+7·9	12·12	5·42	+ 6·70	12·12	5·42	+ 6·70	2·56	Colombo.
	5	19					7		N 20° E		8·2*			82		93		·762		6·3		12			8·63			8·63			3·11	Hambantota.
5	5	3					1		N 7° E	N 42° E	3·0	4·5	−1·5	26	−34					3·8	+0·5	6	3·5	+2·5	3·34	3·06	+ 0·28	3·34	3·06	+ 0·28	0·88	Minicoy.
	14	12	1				4		N 16° E		5·0			84		74	+ 1	·810	+·002	5·4	+1·8	2	1·7	+0·3	1·20	0·84	+ 0·36	1·20	0·84	+ 0·36	0·67	Amini Divi.
4			2	11	4				S 40° E		5·5†			52		85‖		·061‖		0·2		0			0			0			0	Gyantse.
2	4	1		3		1			N 45° E		6·6			10		83§		·070§		1·4		1			0·33			0·33			0·30	Phari Jong.
8	2	2					1		N 7° E		1·3			10		86		·256		3·3		9	1·9	+7·1	6·45	0·89	+ 5·56	6·45	0·89	+5·56	2·46	Gangtok.
1			6	1			3		S 34° E		3·8			13						2·2		0			0			0			0	Gartok.

r plateau stations, the elevations of which exceed 3,200 feet.
† Mean of 30 days.
§ „ 26 „
‡ Mean of 29 days.
‖ „ 17 „
* „ 21 „
* Uncorrected for scale error.

Table

(2) Abstract of observations taken at 8 hrs. at 219 stations

Number of sub-division.	Station.	Elevation of barometers 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
	Extra India—*concld.*																						
	Kashgar (*d*)	4,255	25·789			26·020	30th	25·545	11th	·475	17·8	37·6	+1·3	15·2	−1·2	26·5	+0·1	22·6	42·0	1st	10·3	27th & 28th	31·7
	Kabul (*s*)		24·295			24·460	5th	24·130	13th	·330	33·0	75·0	?	31·6	+2·0	53·3	?	43·4	76·2	6 days	24·6	15th	51·6
	Meshed	3,101	26·851		30·136	27·128	30th	26·662	23rd	·466	35·9	54·0		34·3	+3·6	44·2		19·7	61·0	18th	24·1	31st	36·9
	Jask	13	30·124	0	30·090	30·259	31st	29·971	13th	·288	65·9	77·2	−0·8	63·5	−0·3	70·3	−0·5	13·7	82·8	13th	57·8	22nd & 28th.	25·0
	Muscat	20	30·150	+·033	30·118	30·344	31st	30·022	12th	·322	70·9	78·7	+3·3	68·7	−2·0	73·7	+0·7	10·0	83·8	14th	60·1	31st	23·7
	Bahrein	18	30·064		30·035	30·229	11th	29·895	1st, 2nd & 6th.	·334	65·9	70·6		62·1		66·4		8·5	80·7	2nd	52·5	26th	28·2
	Bushire	14	30·151	+·017	30·127	30·414	26th	29·942	8th	·472	58·6	66·1	−3·1	55·5	+0·1	60·8	−1·5	10·6	78·3	2nd	47·8	28th	30·5
	Busrah	25	30·146		30·142	30·461	31st	29·982	16th	·479	53·5	60·5		47·9		54·2		12·6	72·9	1st	40·1	30th	32·8
	Kerman (*d*)		24·438			24·620	31st	24·340	6 days	·280	35·5	57·1		30·2		43·7		26·9	70·3	5th	21·5	26th	48·8
	Ispahan (*b*)	*5,817*	24·279			24·470	25th & 31st.	24·160	8th	·310	31·6	48·5	−3·7	28·7	−0·5	38·6	−2·1	19·8	61·4	2nd	21·7	27th	39·7
	Tehran (*b*) (*c*)	*4,002*	25·795			25·980	30th	25·650	1st & 8th.	·330	36·1	47·9	−3·2	33·2	−0·5	40·5	−1·9	14·7	55·4	31st	27·5	24th	27·9
	Baghdad (*c*)	127	30·079	+·069	30·193	30·414	24th	29·903	28th	·511	45·0	61·4	−1·9	41·6§	−1·2§	51·5§	−1·5	19·8	67·2	3rd	34·8	21st	38·4
	Beirut (*a*)																						
	Aden	94	30·032	+·037	30·059	30·159	31st	29·923	9th	·236	76·2	80·8	−1·0	73·6	+0·6	77·2	−0·2	7·2	83·6	20th	70·4	16th	13·2
	Zanzibar	72	29·951	+·021	29·949	30·060	31st	29·878	15th	·182	82·0	87·1	+1·3	79·6	+0·1	83·3	+0·7	7·5	90·5	14th	74·1	22nd	16·4

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*) 7 hrs. observations.
(*d*) Aneroid corrected.

§ Mean of 26 days.
(*s*) „ 15 „

B—*concluded.*

in India, etc., in December, 1913—concluded.

Wind direction. Number of winds from: Calm. (25)	N. (26)	N.E. (27)	E. (28)	S.E. (29)	S. (30)	S.W. (31)	W. (32)	N.W. (33)	Resultant direction (34)	Normal direction (35)	Wind velocity. Mean velocity, miles per hour (36)	Normal (37)	Departure from normal (38)	Wind steadiness. Actual percentage (39)	Departure from normal (40)	Hygrometry, 8 hrs. Mean humidity at 8 hrs. (41)	Departure from normal (42)	Mean vapour tension at 8 hrs. in inches of mercury (43)	Departure from normal in inches of mercury (44)	Cloud. Mean cloud amount at 8 hrs. (45)	Departure from normal (46)	Rainfall. Number of rainy days (47)	Normal number of rainy days (48)	Departure from normal (49)	Rainfall of month (50)	Normal rainfall of month (51)	Departure from normal (52)	Total rainfall from 1st to 31st December, 1913 (53)	Normal rainfall for period, 1st to 31st December (54)	Departure from normal of period, 1st to 31st December, 1913 (55)	Heaviest rainfall during month (56)	Station (57)
																																Extra India—*concld.*
31									*a*	N 8° W	0	0·7	−0·7	*a*		85	P	·086	P	3·1	−1·7	0	0·2	−0·2	0	0·09	−0·09	0	0·09	−0·09	0	Kashgar.
		1	3	2	2	1	3	2	S§	S 56° W				15	+ 5	93		·185		0	−3·2	0	1·5	−1·5	0	0·51	−0·51	0	0·51	−0·51	0	Kabul.
23	8			1					N 11° E		1·0			16		77		·166		3·9	−1·6	0	2·1	−2·1	0·01	0·78	−0·77	0·01	0·78	−0·77	0·01	Meshed.
	11	8	9					3	N 34° E	N 23° E	7·0	7·5	−0·5	76	+ 3	69	− 1	·445	−·043	2·8	+0·4	2	2·1	−0·1	0·91	1·27	−0·36	0·91	1·27	−0·36	0·65	Jask.
11			3	4			6	7	N 67° W	S 74° W	6·8	2·9	+3·9	17	−20	65	− 3	·492	−·057	2·6	+0·6	1	1·3	−0·3	0·54	0·62	−0·08	0·54	0·62	−0·08	0·42	Muscat.
	8	3	1	1	2	2	4	10	N 35° W		7·6			52		74		·186		3·6		1	1·7	−0·7	0·54	0·81	−0·27	0·54	0·81	−0·27	0·50	Bahrein.
7	10	2	1	2	3	1		5	N 2° W	N 63° E	6·8	4·7	+2·1	29	−29	82	+ 8	·402	+·022	5·0	+2·7	7	4·1	+2·9	4·48	3·25	+1·23	4·48	3·25	+1·23	1·89	Bushire.
7	4	1	1	3		3	6	6	N 61° W		2·4			32		83		·341		4·7*		5	2·5	+2·5	4·15	0·82	+3·33	4·15	0·82	+3·33	1·78	Busrah.
20	2			1	3	2	1	2	S 56° W		3·7			10		69		·141		5·5		6			1·54			1·54			0·34	Kerman.
26	1					1	3		N 85° W	S 85° W	1·5	1·9	−0·4	12	−29	83	+ 2	·153	−·012	3·4	−0·4	5	1·7	+3·3	2·03	0·79	+1·24	2·03	0·79	+1·24	0·58	Ispahan.
10	6	12	1						N 34° E	N 11° E	1·9‡	2·0	−0·1	62	+28	75†	+11	164†	+·007	3·8	+0·2	4	3·8	+0·2	0·89	1·28	−0·39	0·89	1·28	−0·39	0·30	Tehran.
13	1			1	2	1	3	10	N 63° W	N 3° W	5·2	2·2	+3·0	36	+16	81	+ 3	·244	−·024	2·9	+0·9	3	3·1	−0·1	1·08	1·17	−0·09	1·08	1·17	−0·09	0·75	Baghdad.
																																Beirut.
10	2	17	2						N 45° E	N 76° E	6·8	9·4	−2·6	66	− 6	76	+ 2	·678	+·023	4·5	−0·7	0	0·5	−0·6	0	0·27	−0·27	0	0·27	−0·27	0	Aden.
4	12	12	1				2		N 18° E	N 85° E	4·3	4·6	−0·3	71	+30	80	− 1	·865	−·007	7·0	+1·6	4	8·5	−4·5	1·31	5·54	−4·23	1·31	5·54	−4·23	0·42	Zanzibar.

* Mean of 30 days.
† " " 28 "
‡ " " 27 "
§ One wind less.

a Indeterminate.

Table C.—Abstract of observations taken at 8 hrs. at 65 fourth and fifth class stations in India, etc., in December, 1913.

Table

Abstract of observations taken at 8 hrs.

Number of sub-division.	Station.	Temperature of air.													Wind direction.										
		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.	Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
	II.—Assam.																								
4	Balek	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Bishnath	55·3	71·9	...	49·3	...	60·6	...	22·6	78·4	3rd	41·5	31st	36·9	...	...	...	...	...	...	...	...	...	...	...
	Borjuli	59·6	74·0	...	48·9	...	61·5	...	25·1	80·0	5th	41·4	31st	38·6	...	...	...	...	...	...	...	...	...	...	...
	Chandkhira	56·0	78·1	...	49·2	...	63·7	...	28·9	85·8	1st	40·0	27th	45·8	...	...	...	...	...	...	...	...	...	...	...
	Doom Dooma	51·4	71·2	...	48·5	...	59·9	...	22·7	79·5	6th	40·2	30th	39·3	...	...	...	...	...	...	...	...	...	...	...
	Dikom	53·7	71·7	...	48·0	...	59·9	...	23·7	79·8	2nd	38·6	31st	41·2	...	...	...	...	...	...	...	...	...	...	...
	Golaghat	57·2	70·6	...	50·9	...	60·7	...	19·7	77·3	1st	42·4	31st	34·9	...	...	...	...	...	...	...	...	...	...	...
	Hailakandi	57·9	77·0	...	53·5	...	65·3	...	23·5	82·0	1st & 7th.	44·8	27th	37·2	...	...	...	...	...	...	...	...	...	...	...
	Jorehat	55·2	71·5	...	52·2	...	61·9	...	19·3	78·9	1st	42·0	29th	36·9	...	...	...	...	...	...	...	...	...	...	...
	Lumding	55·0	71·8	...	50·7	...	61·3	...	21·1	78·3	1st	42·0	30th	36·3	...	...	...	...	...	...	...	...	...	...	...
	Messa	61·9	76·0	...	49·7	...	62·9	...	26·3	82·7	5th	40·6	31st	42·1	...	...	...	...	...	...	...	...	...	...	...
	Panerihat	50·8	68·8	...	47·9	...	58·3	...	20·9	74·1	5th	38·3	31st	35·8	...	...	...	...	...	...	...	...	...	...	...
	Srimangal	55·6	78·5	...	49·2	...	63·9	...	29·3	84·7	1st	40·2	30th	44·5	...	...	...	...	...	...	...	...	...	...	...
	III.—Bengal.																								
5	Comilla	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Brahmanbaria	66·6	78·2	...	54·0	...	66·1	...	24·2	82·2	2nd	45·9	26th	36·3	...	...	...	...	...	...	...	...	...	...	...
	Faridpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Goalundo	61·0	77·6	...	51·6	...	64·6	...	26·0	83·2	24th	42·1	26th & 27th.	41·1	...	...	...	...	...	...	...	...	...	...	...
	Pabna	61·4	77·5	...	56·6	...	67·1	...	20·9	83·0	3rd	48·0	27th	35·0	...	...	...	...	...	...	...	...	...	...	...
	Sirajganj	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Rampur Boalia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Malda	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Rangpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Dam Dim	52·5	90·7	...	46·8	...	68·7	...	43·9	92·9	2nd	39·8	7 days	53·1	...	...	...	...	...	...	...	...	...	...	...
	Kalchini	64·3	75·6	...	44·2	...	59·9	...	31·4	83·1	2nd & 3rd.	38·9	27th, 28th & 31st.	44·2	...	...	...	...	...	...	...	...	...	...	...
	Nagrakata	63·2	75·4	...	51·0	...	63·2	...	24·4	82·1	1st	42·0	17th & 18th.	40·1	...	...	...	...	...	...	...	...	...	...	...
	Cooch Behar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Krishnagar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Bankura	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Asansol	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

C.

at 65 fourth and fifth class stations in India, etc., in December, 1913.

Wind velocity.			Wind steadiness.		Hygrometry, 8 hrs.				Cloud.		Rainfall.									Heaviest rainfall during month.	Station.
Mean velocity, miles per hour.	Normal.	Departure from normal.	Actual percentage.	Departure from normal.	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.	Mean cloud amount at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st to 31st December, 1913.	Normal rainfall of period, 1st to 31st December.	Departure from normal of period, 1st to 31st December, 1913.		
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
																					II.—Assam.
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Balek.
...	...	...	...	...	93	...	·410	...	...	...	6	1·2	+4·8	2·51	0·25	+2·26	2·51	0·25	+2·26	0·57	Bishnath.
...	...	...	...	...	85	...	·435	...	...	...	5	0	+5·0	1·33	0·06	+1·27	1·33	0·06	+1·27	0·32	Borjuli.
...	...	...	...	...	100	...	·452	...	...	...	2	1·0	+1·0	0·55	0·54	+0·01	0·55	0·54	+0·01	0·30	Chandkhira.
...	...	...	...	...	94	...	·360	...	...	...	4	2·0	+2·0	2·20	0·41	+1·7	2·20	0·41	+1·79	0·73	Doom Dooma.
...	...	...	...	...	92	...	·385	...	...	...	4	1·7	+2·3	1·83	0·55	+1·28	1·83	0·55	+1·28	0·60	Dikom.
...	...	...	...	...	92	...	·432	...	...	...	5	0·7	+4·3	2·33	0·39	+1·94	2·33	0·39	+1·94	0·86	Golaghat.
...	...	...	...	...	92	...	·445	...	...	...	3	1·5	+1·5	0·82	0·51	+0·31	0·82	0·51	+0.31	0·41	Hailakandi.
...	...	...	...	...	97	...	·426	...	...	...	6	1·5	+4·5	3·53	0·42	+3·11	3·53	0·42	+3·11	1·40	Jorehat.
...	...	...	...	...	?	...	?	...	...	...	4	...	...	1·92	...	...	1·92	...	...	1·06	Lumding.
...	...	...	...	...	79	...	·439	...	...	...	5	1·2	+3·8	1·75	0·33	+1·42	1·75	0·33	+1·42	0·60	Messa.
...	...	...	...	...	92	...	·347	...	...	...	5	0·7	+4·3	1·62	0·26	+1·36	1·62	0·26	+1·36	0·70	Panerihat.
...	...	...	...	...	93	...	·415	...	...	...	1	1·0	0	0·18	0·35	—0·17	0·18	0·35	—0·17	0·16	Srimangal.
																					III.—Bengal.
...	...	...	...	...	...	...	...	...	...	...	1	0·3	+0·7	0·21	0·22	—0·01	0·21	0·22	—0·01	0·11	Comilla.
...	...	...	...	...	75	...	·489	...	...	...	1	1·2	—0·2	0·40	0·50	—0·10	0·40	0·50	—0·10	0·40	Brahmanbaria.
...	...	...	...	...	...	...	...	...	...	...	1	0·3	+0·7	0·75	0·08	+0·67	0·75	0·08	+0·67	0·66	Faridpur.
...	...	...	...	...	85	...	·456	...	...	...	1	0·7	+0·3	0·95	0·23	+0·72	0·95	0·23	+0·72	0·95	Goalundo.
...	...	...	...	...	84	...	·459	...	...	...	1	0·8	+0·2	1·31	0·19	+1·12	1·31	0·19	+1·12	1·31	Pabna.
...	...	...	...	...	...	...	...	...	...	...	1	0·3	+0·7	0·90	0·09	+0·81	0·90	0·09	+0·81	0·86	Sirajganj.
...	...	...	...	...	...	...	...	...	...	...	1	0·1	+0·9	1·29	0·03	+1·26	1·29	0·03	+1·26	1·29	Rampur Boalia.
...	...	...	...	...	...	...	...	...	...	...	1	0	+1·0	1·29	0·02	+1·27	1·29	0·02	+1·27	1·29	Malda.
...	...	...	...	...	...	...	...	...	...	...	1	0·2	+0·8	0·58	0·04	+0·54	0·58	0·04	+0·54	0·58	Rangpur.
...	...	...	...	...	96	...	·385	...	...	...	4	0·5	+3·5	1·08	0·19	+0·89	1·08	0·19	+0·89	0·58	Dam Dim.
...	...	...	...	...	75	...	·462	...	...	...	3	0·8	+2·2	2·11	0·33	+1·78	2·11	0·33	+1·78	0·86	Kalchini.
...	...	...	...	...	70	...	·401	...	...	...	6	0·8	+5·2	1·74	0·38	+1·36	1·74	0·38	+1·36	0·60	Nagrakata.
...	...	...	...	...	...	...	...	...	...	...	2	0·3	+1·7	1·32	0·07	+1·25	1·32	0·07	+1·25	0·66	Cooch Behar.
...	...	...	...	...	...	...	...	...	...	...	1	0·2	+0·8	0·63	0·06	+0·57	0·63	0·06	+0·57	0·63	Krishnagar.
...	...	...	...	...	...	...	...	...	...	...	1	0·2	+0·8	0·32	0·09	+0·23	0·32	0·09	+0·23	0·32	Bankura.
...	...	...	...	...	...	...	...	...	...	...	1	0·3	+0·7	1·31	0·09	+1·22	1·31	0·09	+1·22	1·31	Asansol.

Table

Abstract of observations taken at 8 hrs.

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.	Wind direction. Number of winds from Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
	IV.—Bihar and Orissa.																								
7	Hazaribagh	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
8	Bhagalpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Muzaffarpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Motihari	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Chapra	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Arrah	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Dehri	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	V.—United Provinces of Agra and Oudh.																								
10	Meerut	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Dehra Dun	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Mussooree	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	IX.—Rajputana.																								
18	Udaipur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	XII.—Central Provinces.																								
23	Chhindwara	56·6	77·3	...	50·2	...	63·7	...	27·1	81·5	3rd	39·8	19th	41·7	30	...	1	...	...	...	...	...	...	N 45° E	...
	XIII.—Hyderabad.																								
27	Parbhani	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	XV.—Madras.																								
31	Tinnevelly	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
32	Anantapur	71·7	87·2	...	64·2	...	75·7	...	23·0	94·3	26th	57·4	24th	36·9	...	...	...	...	...	...	...	...	...	...	...
33	Guntur	71·8	88·4	...	66·3	...	77·4	...	22·1	92·2	3rd & 25th.	60·5	22nd	31·7	...	...	...	...	...	...	...	...	...	...	...
	Bay Islands.																								
1	Car Nicobar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Kashmir.																								
13	Jammu	52·1	65·5	...	47·3	...	56·4	...	18·2	79·1	6th	39·8	28th	39·3	...	14	15	1	...	1	...	...	...	N 27° W	...
	Sonamarg	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Kargil	18·4	35·0	...	12·1	...	23·6	...	22·9	46·3	8th & 10th	−5·0	28th&29th	51·3	...	12	1	5	5	3	3	...	2	N 50° E	...
	Astor	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

C—*continued.*

at 65 fourth and fifth class stations in India, etc., in December, 1913—continued.

Wind velocity.			Wind steadiness.		Hygrometry, 8 hrs.				Cloud.		Rainfall.									Heaviest rainfall during month.	Station.
Mean velocity, miles per hour.	Normal.	Departure from normal.	Actual percentage.	Departure from normal.	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.	Mean cloud amount at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st to 31st December, 1913.	Normal rainfall of period, 1st to 31st December.	Departure from normal of period, 1st to 31st December, 1913.		
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
																					IV.—Bihar and Orissa.
...	...	...	...	...	...	...	...	...	...	...	1	0·4	+0·6	0·66	0·22	+0·44	0·66	0·22	+0·44	0·60	Hazaribagh.
...	...	...	...	...	...	...	...	...	...	...	1	0·1	+0·9	1·93	0·04	+1·89	1·93	0·04	+1·89	1·90	Bhagalpur.
...	...	...	...	...	...	...	...	...	...	...	2	0·1	+1·9	0·96	0·05	+0·91	0·96	0·05	+0·91	0·77	Muzaffarpur.
...	...	...	...	...	...	...	...	...	...	...	2	0·4	+1·6	0·95	0·16	+0·79	0·95	0·16	+0·79	0·75	Motihari.
...	...	...	...	...	...	...	...	...	...	...	2	0·3	+1·7	0·79	0·13	+0·66	0·79	0·13	+0·66	0·40	Chapra.
...	...	...	...	...	...	...	...	...	...	...	3	0·4	+2·6	0·77	0·17	+0·60	0·77	0·17	+0·60	0·36	Arrah.
...	...	...	...	...	...	...	...	...	...	...	4	0·4	+3·6	1·88	0·23	+1·65	1·88	0·23	+1·65	0·70	Dehri.
																					V.—United Provinces of Agra and Oudh.
...	...	...	...	...	...	...	...	...	...	...	1	1·3	—0.3	0·45	0·49	—0·04	0·45	0·49	—0·04	0·36	Meerut.
...	...	...	...	...	...	...	...	...	...	...	2	1·6	+0·4	1·67	0·87	+0·80	1·67	0·87	+0·80	1·07	Dehra Dun.
											4	1·9	+2·1	4·74	1·00	+3·74	4·74	1·00	+3·74	2·79	Mussooree.
																					IX.—Rajputana.
...	...	...	...	...	...	...	...	...	...	...	1	0·4	+0·6	0·33	0·11	+0·22	0·33	0·11	+0·22	0·33	Udaipur.
																					XII.—Central Provinces.
1·1	...	...	3	...	67	...	·314	...	1·1	...	2	...	...	0·97	...	...	0·97	...	...	0·57	Chhindwara.
																					XIII.—Hyderabad.
											2	...	...	1·51	0·24	+1·27	1·51	0·24	+1·27	1·15	Parbhani.
																					XV.—Madras.
...	...	...	...	...	...	...	...	...	...	...	10	5·1	+4·9	9·05	3·33	+5·72	9·05	3·33	+5·72	2·90	Tinnevelly.
...	...	...	...	...	79	...	·613	...	6·7	...	9	...	...	0·14	...	...	0·14	...	...	0·08	Anantapur.
...	...	...	...	...	88	...	·685	...	2·3	...	0	...	...	0	...	...	0	...	...	0	Guntur.
																					Bay Islands.
...	...	...	...	...	...	...	...	...	...	...	2	7·9	—5·9	8·07	6·91	+1·16	8·07	6·91	+1·16	6·00	Car Nicobar.
																					Kashmir.
...	...	...	87	...	69	...	·267	...	3·5	...	5	...	...	0·96	...	...	0·96	...	...	0·30	Jammu.
...	...	...	...	...	...	...	...	...	...	...	6	6·8	—0·8	3·20	5·87	—2·67	3·20	5·87	—2·67	1·06	Sonamarg.
...	...	...	26	...	81	...	·085	...	6·3	...	1	...	...	0·46*	...	...	0·46	...	...	0·25*	Kargil.
...	...	...	...	...	...	...	...	...	...	...	...	3·3	...	...	1·05	...	...	1·05	...	...	Astor.

* Snow water.

Table

Abstract of observations taken at 8 hrs.

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.	Wind direction. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
	Hill stations, exclusive of Kashmir.																								
	Panighatta	58·1	71·4	...	54·0	...	62·7	...	17·4	78·5	1st	49·0	26th & 27th.	29·5	...	...	...	...	...	...	...	...	...	...	...
	Kurseong	48·6	55·9	...	45·9	...	50·9	...	1[illegible]·0	64·3	6th	38·9	26th	25·4	...	...	...	...	...	...	...	...	...	...	...
	Gnatong	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Lachung	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Ringim	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Poo	...	41·0	...	23·6	...	32·3	...	17·4	52·3	10th	17·0	28th	35·3	12	2	1	7	3	...	...	3	3	N 59° E	...
	Kailang	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Bakloh	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Pishin	...	56·3	...	30·5	...	43·4	...	25·8	64·3	8th	18·0	28th	46·3	...	...	...	...	...	...	...	...	...	...	...
	Extra India.																								
	Ahwaz	...	60·8	...	49·9	...	55·4	...	10·9	67·8	1st	44·2	31st	23·6	...	...	...	...	...	...	...	...	...	...	...
	Chumbi	24·8	43·2	...	21·8	...	32·5	...	21·4	52·7	1st	15·4	15th	37·3	...	...	...	...	...	...	...	...	...	...	...
	Kirmanshah	38·3	46·8	...	28·6	...	37·7	...	18·2	54·2	16th	17·0	23rd	37·2	...	...	...	...	...	...	...	...	...	...	...
	Koweit	...	64·0	...	51·7	...	57·8	...	12·3	76·4	1st	44·6	22nd	31·8	...	2	2	7	...	..	...	20	...	N 76° W	...
	Maidan	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Muhammerah	...	66·2	...	50·0	...	58·1	...	16·2	72·4	18th	41·6	25th	30·8	...	...	...	...	1	...	2	...	18	* N 50° W	...
	Abadan	...	64·7	...	46·4	...	55·6	...	18·3	80·6	15th	39·8	24th&25th	40·8	...	13	1	...	...	8	4	1	4	N 45° W	...
	Pemba	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Prison Island	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Seistan	...	63·1	...	37·1	...	50·1	...	26·0	72·0	20th & 21st.	25·0	27th	47·0	20	9	...	...	...	1	...	1	...	N 7° W	...

* 10 variable winds.

The lines of the above chart represent isobars or lines of equal barometric pressure, the numbers attached indicating the barometric pressure in inches and being drawn for differences of pressure of ·05 inch. The isobars in the Bay of Bengal are filled in by means of the shore observations, and by comparison with the normal distribution of pressure.

The mean 8 hrs. wind directions of the month are shewn by means of arrows flying with the wind, and are calculated by means of Lambert's formula applied to the winds as given in Table B of the 8 hrs. observations. The mean wind directions for the hill stations are indicated by broken arrows to distinguish them from the wind arrows for the plain stations. The mean velocity of the winds during the month is shewn by the following notation:—

Velocity of	0 to 2 miles per hour	...	one	feather	added to the wind arrow.
,, ,,	2 to 5 ,, ,, ,,	...	two	feathers	,, ,, ,, ,,
,, ,,	5 to 10 ,, ,, ,,	...	three	,,	,, ,, ,, ,,
,, ,,	10 to 20 ,, ,, ,,	...	four	,,	,, ,, ,, ,,
	over 20 ,, ,, ,,	...	five	,,	,, ,, ,, ,,

Wind strengths are based on factor 2·2 for the standard type of Beckley Robinson anemograph, instead of 3·0 as used for this plate up to December 1911 inclusive.

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The chart shows the departure from normal of the mean during the month of 8 hrs. pressure by means of lines drawn for equal mounts of departure. The numbers are given in thousandths of an inch, 20 representing ·020″ or two hundredths of an inch, &c. ontinuous lines indicate that the pressure was in excess by amounts indicated by the numbers attached to the lines, and broken or dotted nes that it was in defect by amounts indicated by the numbers attached to the lines. Two parallel lines near to each other, one continu- us and the other broken or dotted, represent the line of no departure, the dotted line facing the area of deficient pressure or negative epartures.

CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MAXIMUM TEMPERATURE.

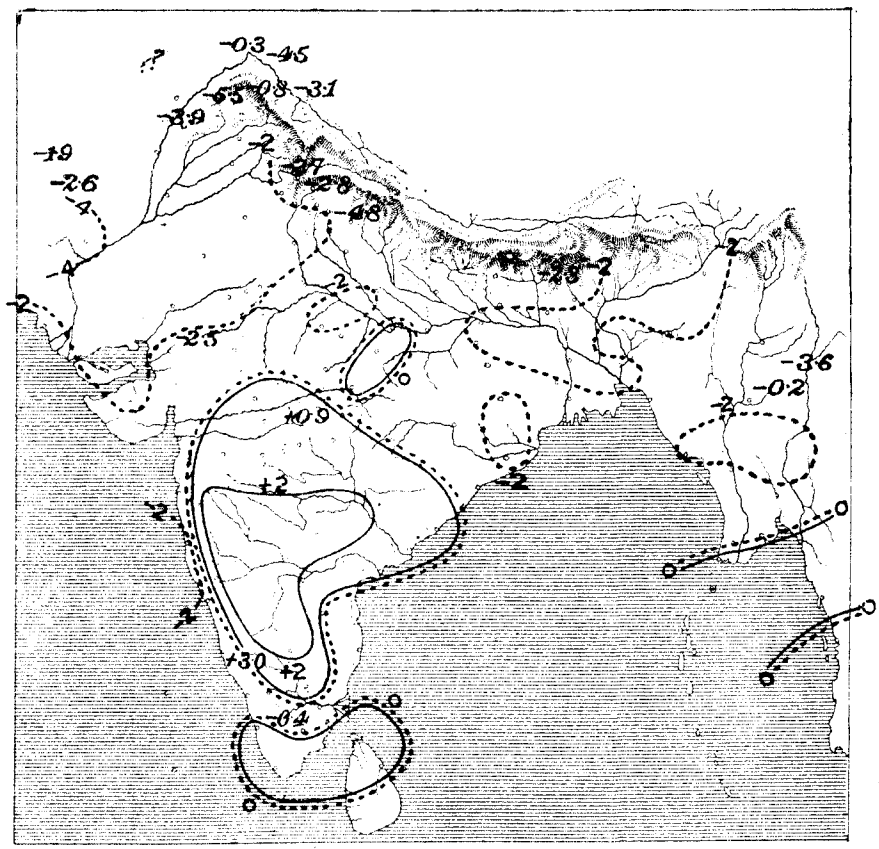


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MINIMUM TEMPERATURE.

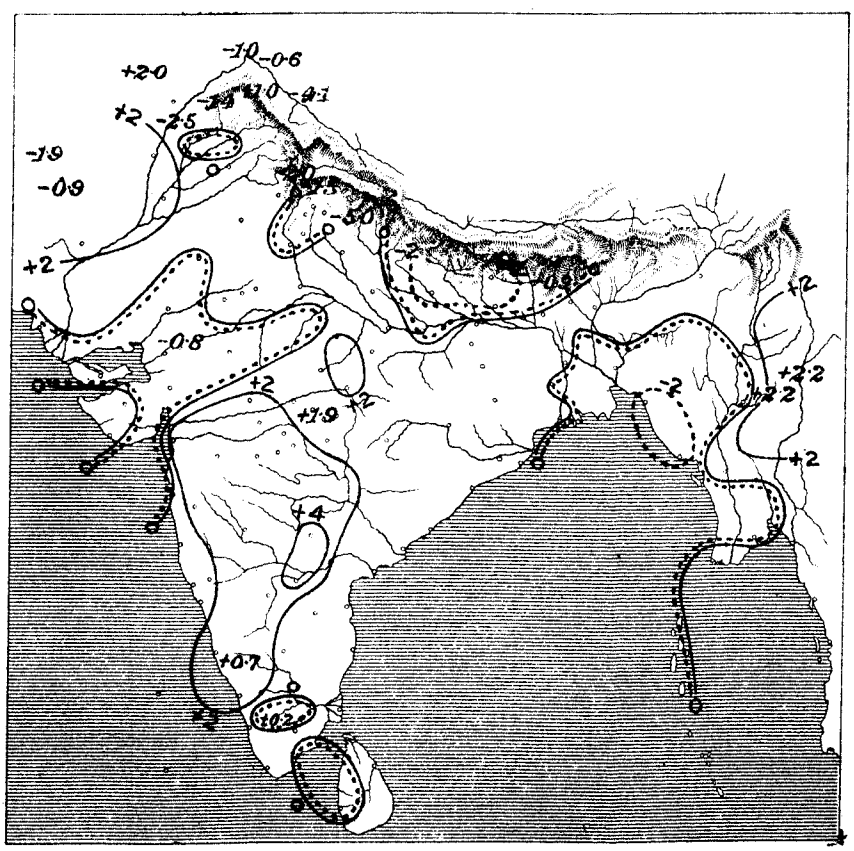


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MEAN TEMPERATURE.

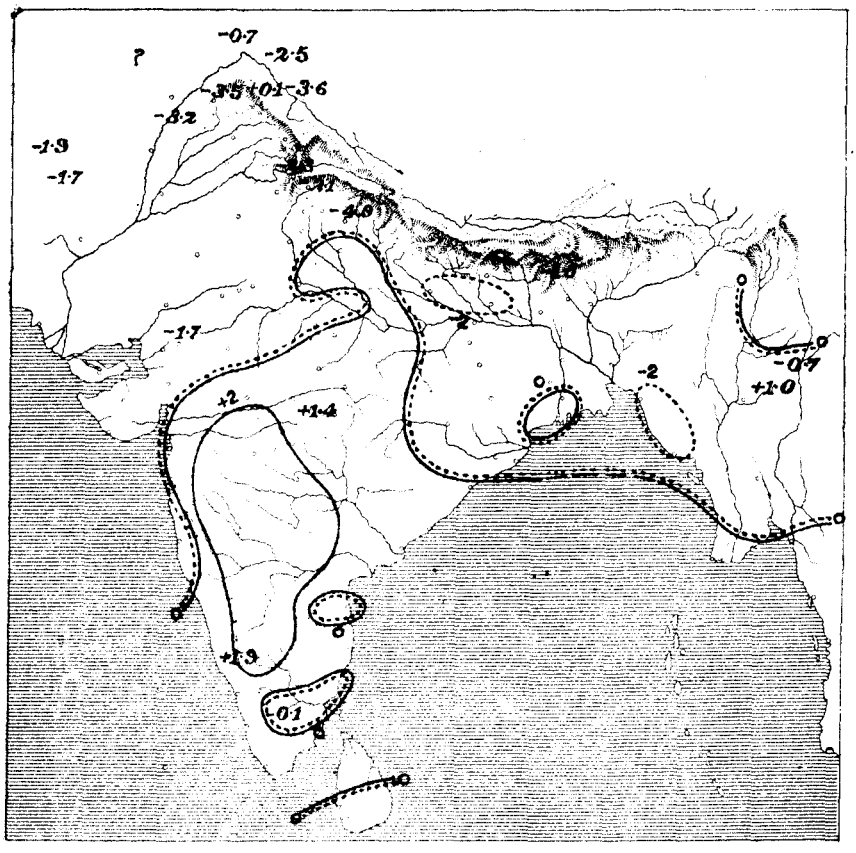


CHART SHEWING THE MONTHLY MEAN OF PRESSURE AND RESULTANT WIND DIRECTION.

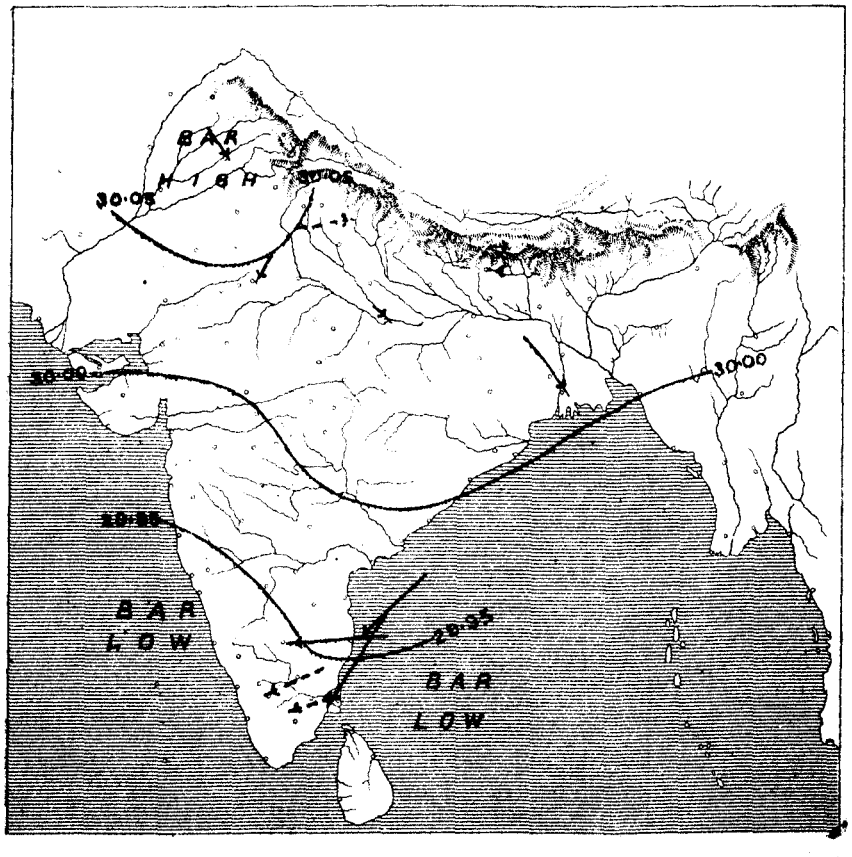


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF ABSOLUTE HUMIDITY AT 8 HRS.

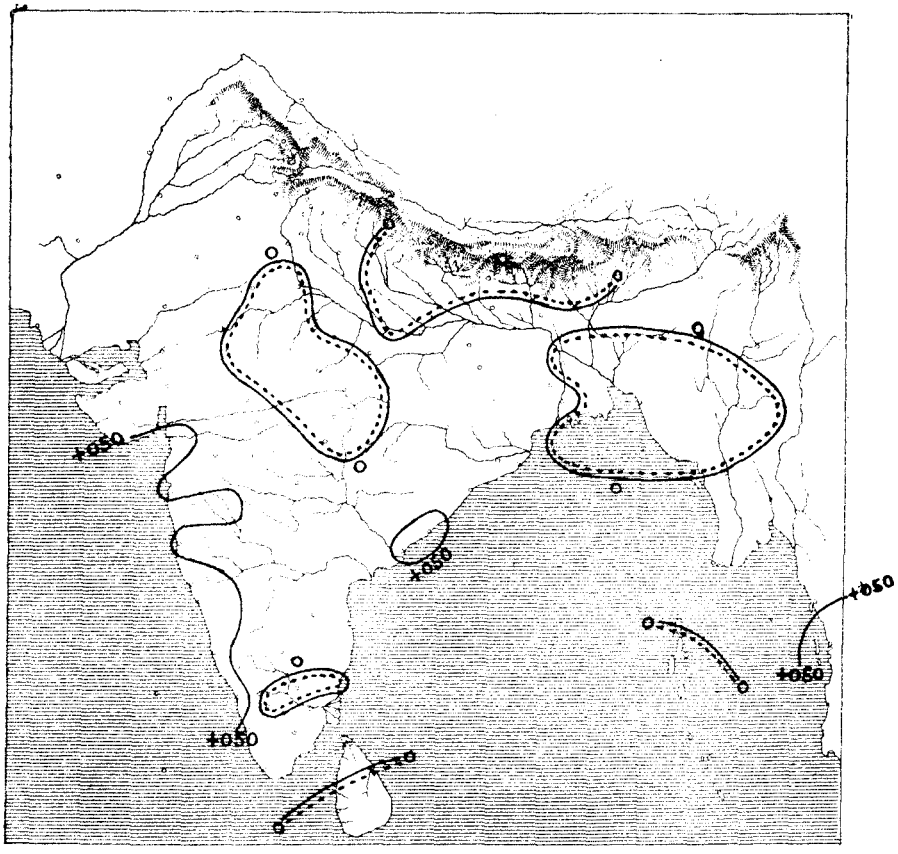


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF RELATIVE HUMIDITY AT 8 HRS.

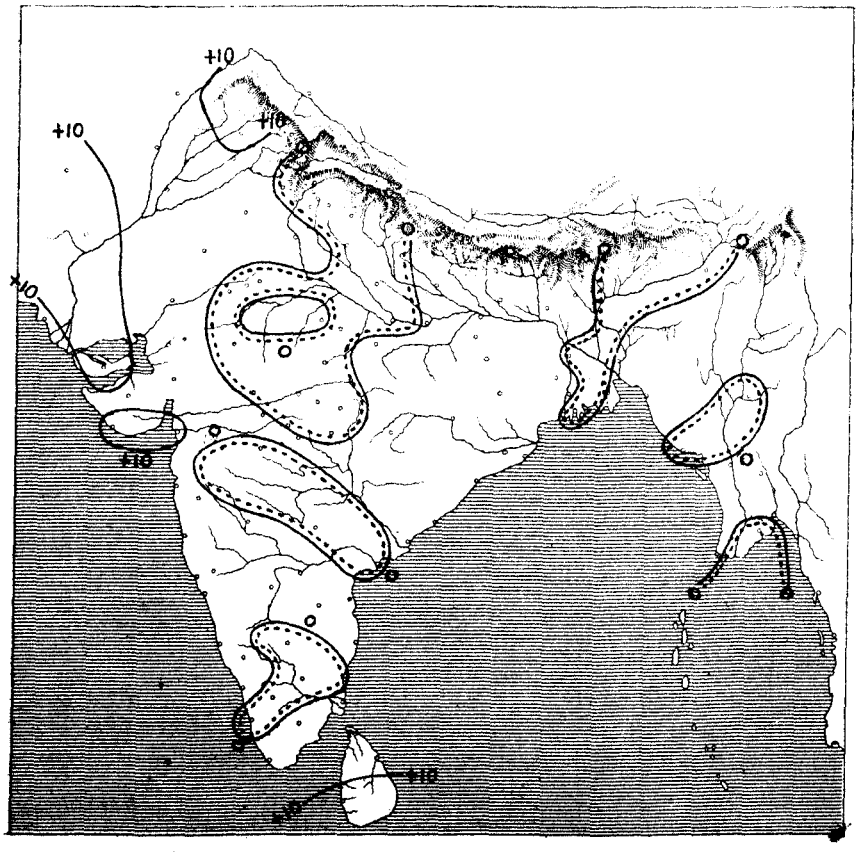


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF CLOUD AMOUNT AT 8 HRS.

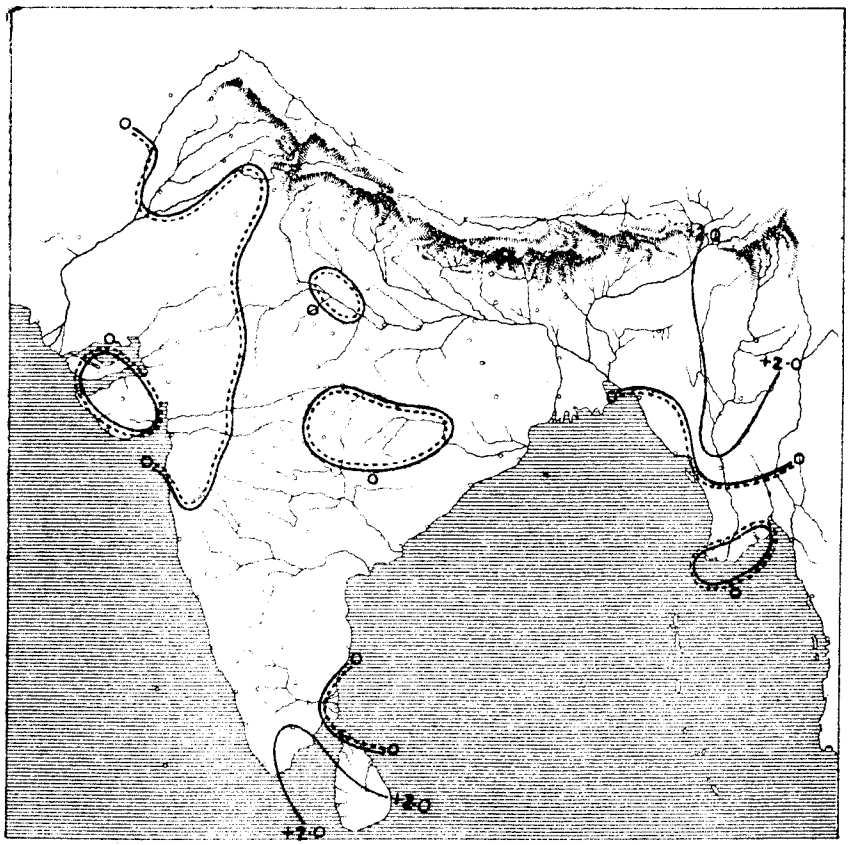
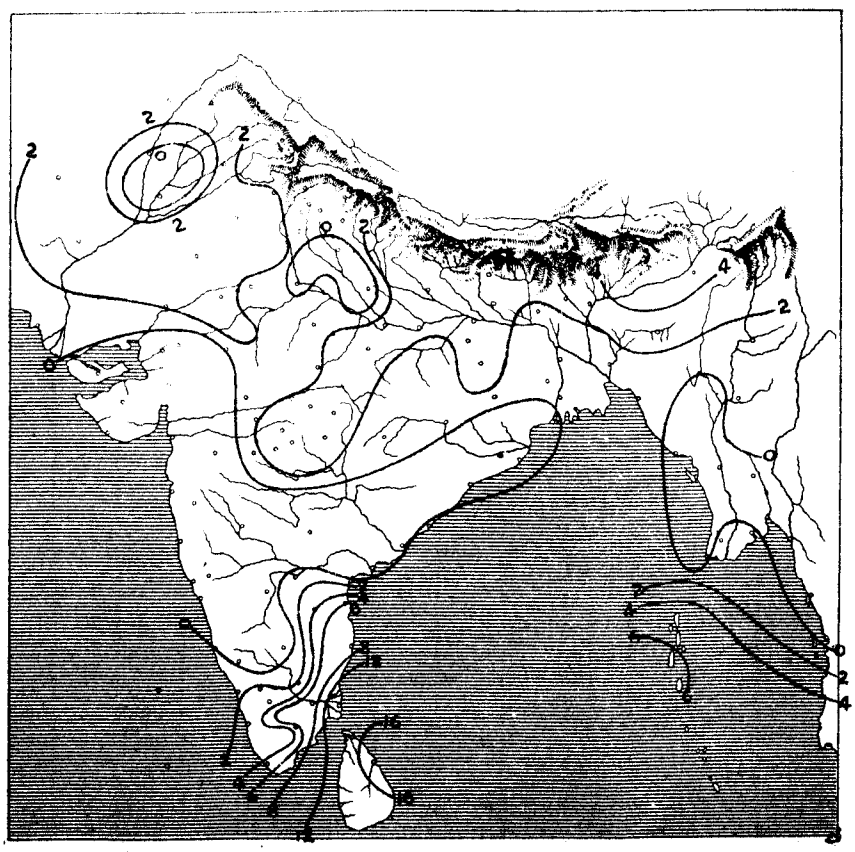


CHART SHEWING THE TOTAL NUMBER OF DAYS IN THE MONTH ON WHICH RAINFALL EQUALLED OR EXCEEDED 0·10 INCH.

(BASED ON THE RETURNS OF TABLE B.)



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
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