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FOR THE YEAR

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GOVERNMENT OF INDIA.

METEOROLOGICAL DEPARTMENT.

MONTHLY WEATHER REVIEW.

PUBLISHED BY ORDER OF

THE GOVERNMENT OF INDIA.

CALCUTTA, JANUARY, 1904.

INTRODUCTION.

THE monthly review of the weather in India for the month of January, 1904, is based on observations taken daily at 8 A.M. at 233 stations and on additional observations recorded at 10 A.M. and 4 P.M. at 65 stations. In the case of the rainfall section of the review, there are utilized the data of the meteorological observatories and of the rainfall statements of the month published in the Government Gazettes by the Provincial Governments, that had been issued prior to the date of the publication of the review. A brief summary of the information relating to the weather in the Bay of Bengal and Arabian Sea, extracted from the logs of vessels entering the ports of Calcutta and Bombay, is also given. 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 of January, 1904.

Between the 1st and the 4th of January, 1904, ordinary anti-cyclonic conditions of weather prevailed over India with fine weather in all parts of India and Burma, except the extreme south, where some showers were experienced. Normal or slightly lower temperatures than usual prevailed over the greater part of the country during this period, but over the north-west of the Peninsula and the adjoining districts of the Central Provinces the mean temperature, owing mainly to very high readings at night, was in large excess. This is shown by the following comparative data for these four days :—

Date.	Station.	Departure from normal of		
		Maximum temperature of date.	Minimum temperature of date.	Mean temperature of date.
		°	°	°
1st January, 1904	Poona	+3·9	+ 9·8	+6·9
	Ahmednagar	+0·1	+12·8	+6·5
2nd January, 1904	Malegaon	+4·2	+12·0	+8·1
	Khandwa	+ 2·7	+ 9·2	+6·0
	Ahmednagar	—1·0	+12·8	+5·9
3rd "	Malegaon	+4·6	+11·5	+8·1
	Khandwa	+ 5·6	+10·6	+8·1
	Ahmednagar	+ 2·1	+11·4	+6·8
	Saugor	+5·9	+ 7·8	+6·9
	Akola	+ 4·3	+ 8·8	+6·6
4th "	Malegaon	+7·5	+16·8	+12·2
	Khandwa	+7·6	+13·4	+10·5
	Ahmednagar	+ 4·1	+13·9	+ 9·0
	Saugor	+6·4	+10·8	+ 8·6
	Indore	+6·9	+ 9·9	+ 8·4
	Seoni	+6·5	+ 9·4	+ 8·0
	Akola	+6·2	+ 9·6	+ 7·9

On the 4th and 5th conditions commenced to change. Unsettled weather appeared in the north-west with snow on the hills and scattered showers of rain on the plains. In consequence a well-developed cold wave crossed northern and central India between the 6th and the 10th. The coolest day, or the day on which the departures of the mean temperature from the normal were greatest, was the 7th, on which date the mean temperature was more than 5° below the normal at the following places :—

Station.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of 7th January, 1904.
	°
Sirsa	−7·4
Bikaner	−6·1
Sambhar	−6·0
Nowgong	−6·0
Hoshangabad	−5·9
Jubbulpore	−5·9
Agra	−5·7
Cawnpore	−5·3
Purnea	−5·6
Benares	−5·3
Sutna	−5·8
Ranchi	−5·2
Darbhanga	−5·1
Raipur	−5·1

On the 8th a sudden and rapid rise of temperature occurred over Baluchistan, a rise which was important, as it was associated with disturbed weather over the countries to the westward of India. Snow followed in Kashmir on the 9th, and snow and rain in Baluchistan and north-west India on the 10th and 11th. This precipitation was succeeded by a rapid fall of temperature, but the change and the reduction of temperature to below the normal were confined to the extreme north-west of India and never extended beyond that area. The following gives comparative temperature data for Baluchistan, the North-West Frontier Province and the Punjab for the 10th, 11th and 12th :—

Province or Division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of		
	10th January.	11th January.	12th January.
	°	°	°
Baluchistan	+2·7	−0·1	+2·4
North-West Frontier Province	+1·7	−1·4	+0·7
Punjab	−0·2	−2·4	+0·4

On the 12th fresh disturbed weather appeared in the extreme north-west and a well-marked storm was shown over the Punjab on the 13th and 14th, when rain was falling at the plains and snow at the hill stations. The precipitation was heavier than usual, and the following amounts equalling or exceeding 2·00″ in 24 hours were recorded during this disturbed period in the North-West Frontier Province, Kashmir and the Punjab :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M., of date.
Kashmir	Kolgam	13th January	2·23
Do.	Anantnag	,, ,,	2·20
Jummoo	Rampore Rajauri	,, ,,	2·20
Do.	Kotli	,, ,,	2·10
Kashmir	Uri	,, ,,	2·10
Jummoo	Punch	14th ,,	3·94
Do.	Bhimber	,, ,,	3·52
Do.	Ramnagar	,, ,,	3·14
Do.	Riasi	,, ,,	3·00
Do.	Manawar	,, ,,	2·67
Do.	Meerpore	,, ,,	2·35
Do.	Rampore Rajauri	,, ,,	2·20
Do.	Pader	,, ,,	2·03
Hazara	Oghi	,, ,,	2·12
Shahpur	Naushahra	,, ,,	2·00
Gujarat	Sadr	15th ,,	2·86
Rawalpindi	Kahuta	,, ,,	2·75
Peshawar	Katlang	,, ,,	2·54
Rawalpindi	Fatahjang	,, ,,	2·52
Gujarat	Sadr	,, ,,	2·26
Peshawar	Swabi	,, ,,	2·08
Do.	Lahor	,, ,,	2·00

This disturbed weather resulted in, and was followed by, a further fall and reduction of temperature over north-west India, but the fall never extended far to the eastward, while the departures of the mean temperature from the normal, though large in Baluchistan, were not very marked over India. The fall did not, indeed, extend in any marked manner into the Gangetic Plain and the distribution of temperature, relatively to the normal, at this time was interesting, showing the deficient temperatures over north-western and north-eastern India and Burma and the excess over the intervening region. The following gives comparative data for Baluchistan, for the different provin-

ces of northern India and for Burma between the 13th and 18th :—

DATE.	Baluchistan.	N.-W. Frontier Province.	Punjab.	Rajputana.	United Provinces.	Central India.	Chota Nagpur.	Bihar.	Bengal.	Assam.	Burma.
	°	°	°	°	°	°	°	°	°	°	°
13th . .	— 5·9	—3·5	+1·6	+2·0	+0·2	+0·8	—2·8	—1·0	—1·3	—2·1	—1·9
14th . .	— 7·1	—3·7	+1·4	+5·2	+2·0	+4·0	—1·8	—1·6	—1·8	—2·7	—2·9
15th . .	—16·2	—4·6	—3·2	+0·2	+3·1	+3·1	—0·4	—2·4	—2·1	—3·3	—3·5
16th . .	—11·0	—5·1	+3·0	—0·3	+4·0	+4·2	+3·1	+1·7	—1·7	—2·7	—3·3
17th . .	— 9·5	—3·6	—3·3	+0·2	+4·2	+3·0	+4·5	+1·5	+0·7	—2·0	—2·6
18th . .	— 9·1	—6·3	—3·4	—0·3	+2·3	+2·8	+5·4	+5·0	+2·0	—0·3	—1·6

On the 19th strongly marked anti-cyclonic conditions prevailed over India, while snow had fallen on the hills and showers of rain at some submontane stations as well as over west Bengal. Cool north-westerly and westerly winds prevailed, a large reduction of temperature followed, and another well-marked cool wave traversed northern India from west to east. The following gives comparative data for Baluchistan and the different provinces of northern India from the 19th to the 23rd :—

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF				
	19th January.	20th January.	21st January.	22nd January.	23rd January.
	°	°	°	°	°
Baluchistan . .	—13·3	— 9·5	—5·7	—1·8	—6·7
N.-W. Frontier Province.	— 7·8	— 6·9	—7·4	—6·0	—3·2
Punjab . . .	— 7·4	— 7·6	—6·4	—4·5	—2·0
Rajputana . .	— 8·8	—10·1	—7·6	—3·5	+0·4
United Provinces .	— 3·3	— 6·5	—6·9	—4·6	—0·7
Central India . .	— 0·9	— 7·4	—7·5	—2·8	+2·6
Chota Nagpur . .	+ 5·5	+ 2·3	—5·1	—4·9	—1·1
Bihar . . .	— 1·3	+ 0·1	—7·2	—5·1	—2·4
Bengal . . .	+ 3·0	+ 4·2	—2·9	—5·0	—3·4
Assam . . .	+ 0·8	+ 1·0	+0·6	—1·0	—1·4
Orissa . . .	+ 2·4	+ 2·4	+0·3	—4·7	—5·1

The reduction of temperature below the normal was more marked in the night than in the day temperatures, and the following were the lowest minimum readings recorded, and their departures from the average, during this interval :—

DATE.	Station.	MINIMUM TEMPERATURE.	
		Actual of date.	Departure from normal of date.
		°	°
19TH JANUARY, 1904	Rawalpindi . .	34·0	—4·4
	Jacobabad . .	34·0	—9·6
	Peshawar . .	34·4	—5·5
20TH Do.	D. I. Khan . .	33·5	—7·4
	Sirsa	34·5	—9·2
21ST Do.	D. I. Khan . .	32·0	—8·9
	Peshawar . . .	33·4	—6·7
22ND Do.	D. I. Khan . .	34·0	—7·0
	Rawalpindi . .	36·0	—2·7
23RD Do.	D. I. Khan . .	38·5	—2·6
	Montgomery . .	39·0	—3·9

The records of the 24th showed that light showers were still falling in Kashmir, and that some rain had been received over the Central India plateau, but that the weather generally was clearing and improving over north-western and central India at this time. This improvement in the weather was maintained until the close of the month. With the cessation of showers temperature rose and the mean temperature, though not steadily, was generally higher than usual over central and north-west India from the 25th to the 31st. The following gives data :—

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A. M. OF						
	25th January.	26th January.	27th January.	28th January.	29th January.	30th January.	31st January.
	°	°	°	°	°	°	°
United Provinces of Agra and Oudh.	+3·3	+2·8	+3·4	+2·1	—0·2	+1·7	—2·7
Punjab .	+1·3	+1·4	+3·0	+1·4	+0·2	—0·9	—2·3
North-West Frontier Province.	+1·8	+1·3	+4·3	+2·7	+4·3	+0·7	+1·9
Sind . .	+0·8	+1·8	+2·9	+8·2	+6·3	+4·2	+3·5
Rajputana .	+1·6	+4·4	+4·3	+3·6	+3·9	+0·4	—2·3
Gujarat . .	+3·6	+5·9	+6·2	+4·1	+4·9	+1·8	+0·8
Central India .	+3·0	+4·0	+2·8	+1·3	+2·8	+2·5	—2·7
Central Provinces.	+2·4	+4·1	+2·6	+0·3	—0·3	+2·1	+0·6
Berar . .	+5·0	+3·8	+4·0	+1·5	0	+1·9	+0·6

When the weather cleared in the north-west showers commenced in Assam and east Bengal and, though light, rain was of almost daily occurrence over this locality from the 25th until the close of the month.

One of the most remarkable features of the weather of the last week was, however, the continuous low temperatures over the southern half of the Peninsula. The following gives divisional departure data for this region from the 25th to the 31st:—

Province or Division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of						
	25th January.	26th January.	27th January.	28th January.	29th January.	30th January.	31st January.
	°	°	°	°	°	°	°
West Coast .	+0·9	+0·9	+0·1	−0·8	−0·4	−0·8	−1·1
Bombay Deccan	+2·4	+0·3	+0·3	+0·1	+0·1	+0·8	+1·1
Mysore . .	−3·0	−2·2	−4·2	−4·2	−2·1	−1·7	−2·1
Madras Coast	−0·5	+1·0	−0·7	−0·3	−0·6	−1·1	−0·8
Madras Deccan	−3·0	−2·0	−2·9	−2·1	−2·4	−1·1	−1·2
South India .	−2·5	−2·6	−4·2	−4·9	−3·3	−3·0	−0·8

The deficiency, though noticeable in both the day and night temperature records, was, on the whole, more strongly marked in the day, and the maximum temperatures were more than 5° below the normal at the following places on the following dates:—

Date.	Station.	Maximum temperature.		
		Actual of date.	Normal of date.	Departure from normal of date.
		°	°	°
25th January, 1904	Colombo . . .	82·0	87·4	−5·4
26th Do.	Colombo . . .	81·5	87·4	−5·9
27th Do.	Colombo . . .	78·5	87·4	−8·9
	Salem . . .	82·7	90·2	−7·5
	Tinnevelly . .	81·7	88·7	−7·0
	Bangalore . .	75·7	82·2	−6·5
	Coimbatore . .	82·4	88·6	−6·2
	Trincomalee . .	77·5	83·1	−5·6
28th Do.	Coimbatore . .	79·4	88·8	−9·4
	Salem . . .	82·2	90·5	−8·3
	Colombo . . .	79·5	87·4	−7·9
	Mysore . . .	78·5	85·6	−7·1
	Trichinopoly . .	83·6	89·4	−5·8
	Kurnool . . .	85·2	90·6	−5·4
29th Do.	Colombo . . .	75·5	87·5	−12·0
	Madura . . .	83·3	89·4	−6·1
	Kurnool . . .	85·7	90·9	−5·2
30th Do.	Colombo . . .	79·5	87·6	−8·1

Pressure.—On the mean of the month pressure exceeded the normal over the Indian land area except at a few stations in the west and south of the Peninsula and around the north-east of the Bay. On the mean of the whole area the departure from the normal was +·010″. Compared with this general condition, there was some excess over inland Burma, over north-west India and within a band stretching from north-west India south-eastward through the Central Provinces to the north Madras coast. The anomalies were generally small, but were more than 0·020″ in excess over inland Burma and locally at Montgomery, and more than 0·020″ in defect on the south-west coast of the Peninsula, over west Ceylon and locally at Salem.

The following table gives the mean pressure departures and anomalies of the month for the eleven meteorological provinces:—

Meteorological Province.	Departure from normal of mean 8 A.M. pressure of January, 1904.	Pressure anomaly, January, 1904.
	″	″
Burma Coast and Bay Islands . . .	+·005	−·005
Burma Inland	+·036	+·026
Assam	+·005	−·005
Bengal and Orissa	+·008	−·002
Gangetic Plain and Chota Nagpur . . .	+·008	−·002
Upper Sub-Himalayas	+·017	+·007
Indus Valley and North-West Rajputana .	+·022	+·012
East Rajputana, Central India and Gujarat .	+·012	+·002
Deccan	+·014	+·004
West Coast	−·005	−·015
South India	+·003	−·007

Temperature.—The maximum or day temperature on the mean of the month was lower than usual over north-west India, the Peninsula and Burma, was normal over central Bengal and the east of Central India, and about the average elsewhere. The defeciency was large in the extreme north-west (Peshawar —6°·2) and considerable over the inland districts of Madras (Salem −3°·6) and inland Burma (Bhamo—3°·7), while the excess was only moderate throughout. On the north-west Himalayas and in Baluchistan the mean maximum temperature was lower than usual.

The mean minimum or night temperature was lower than the normal over the western desert, the east of the Punjab and the west of the United Provinces, as well as over north-east India, inland Burma and the extreme south of the Peninsula, and was in excess elsewhere. The deficiency was more than 2° over the south Punjab and north-west Rajputana and locally at Purnea, Dhubri, Thayetmyo and Toungoo, while the excess was greatest (between 2° and 4°·7) over parts of Gujarat, Khandesh, the Bombay Deccan and the west coast.

The mean temperature of the month was in excess within a broad band stretching from the Bombay coast north-eastwards through the central parts of the country to the United Provinces and was generally in defect elsewhere. The following shows the principal departures from the normal:—

Station.	Positive departures.	Station.	Negative departures.
	°		°
Ahmednagar . .	+2·3	Bikaner . . .	—2·8
Malegaon . . .	+2·1	Montgomery . .	—2·6
Ahmedabad . . .	+2·1	Ludhiana . . .	—2·3

The following gives the temperature departure data of the month for the eleven meteorological provinces:—

Meteorological Province.	Departure from normal of		
	Mean maximum temperature, January, 1904.	Mean minimum temperature, January, 1904.	Mean daily temperature, January, 1904.
	°	°	°
Burma Coast and Bay Islands	—1·0	+0·3	—0·4
Burma Inland	—2·4	—0·8	—1·6
Assam	0	—1·4	—0·7
Bengal and Orissa . . .	—0·1	—0·9	—0·5
Gangetic Plain and Chota Nagpur	+0·2	—0·1	+0·1
Upper Sub-Himalayas . .	—2·2	—0·2	—1·2
Indus Valley and North-West Rajputana.	—2·5	0	—1·2
East Rajputana, Central India and Gujarat.	0	+0·6	+0·3
Deccan	—0·1	+1·3	+0·6
West Coast	—0·2	+0·9	+0·4
South India	—1·9	+0·4	—0·8

Winds.—Over the Indian seas the north-east winds were, on the whole, stronger than usual, while over the Indian land area the winds were unusually steady. North-westerly winds prevailed exceptionally steadily over north-west India, while over the south of the Peninsula and on the Madras coast the ordinary easterly and north-easterly winds were stronger and steadier than usual. In the equatorial belt the wind directions were approximately normal, but the air movement was apparently less than usual.

Humidity.—The relative humidity was below the normal, on the mean of the month, over Lower Sind and Rajputana, over Gujarat and the west of the Central Provinces, over central and west Bengal and over Lower Burma, and was higher than usual elsewhere. The excess was large over the inland parts of the Peninsula (Kurnool +18) and over the Upper Indus Valley (Dera Ismail Khan +14), but in other places the departures were slight or moderate.

The following gives mean comparative data of the month for the nine meteorological provinces:—

Meteorological Province.	Mean absolute humidity.		Mean relative humidity.	
	Average actual, January, 1904.	Departure from normal, January, 1904.	Average actual, January, 1904.	Departure from normal, January, 1904.
	"	"	%	
Burma Coast and Bay Islands.	·652	—·025	71	—3
Bengal and Orissa . .	·483	—·012	73	—2
Gangetic Plain and Chota Nagpur.	·336	—·005	64	—2
Upper Sub-Himalayas .	·281	+·001	71	+2
Indus Valley and North-West Rajputana.	·295	+·024	64	+6
East Rajputana, Central India, and Gujarat.	·231	—·021	42	—4
Deccan	·257	+·012	50	0
West Coast . .	·591	—·010	69	—4
South India . . .	·521	+·041	68	+7

Cloud.—The departures of the mean cloud amount of the month from the normal agreed generally with those of the mean relative humidity. There was some excess over the southern half of the Peninsula—more particularly over the inland districts—as well as over the Punjab, while in most other parts of the contry the sky was slightly clearer than usual. The only important instance of opposite conditions was shown over the Bombay coast, part of Gujarat and the west of the Central Provinces, where the mean relative humidity was in defect and the mean cloud amount in excess of the average.

The following gives mean comparative data of the month for the nine meteorological provinces:—

Meteorological Province.	Mean cloud amount.	
	Average actual, January, 1904.	Departure from normal, January, 1904.
Burma Coast and Bay Islands	1·9	—0·4
Bengal and Orissa	0·8	—1·0
Gangetic Plain and Chota Nagpur	0·9	—1·2
Upper Sub-Himalayas	3·2	—0·6
Indus Valley and North-West Rajputana . .	3·3	—0·1
East Rajputana, Central India and Gujarat . .	2·2	—0·5
Deccan	2·0	+0·3
West Coast	1·0	+0·1
South India	4·6	+1·8

Rainfall.—Actually or practically no rain fell during the month under review over the greater part of Gujarat, over the northern half of the Peninsula, over the inland districts of the south of the Peninsula, over Lower Bengal

and over Burma, while over northern India, the Madras and Malabar coasts, and Ceylon more or less rain was received. The weather was less disturbed than usual over northern and central India, and the rainfall of the month, on the plains, was in moderate to large defect over the greater part of that area. Two cold weather storms occurred which gave light to heavy rains to the plains districts of upper India and moderate to heavy snow to the hills. On the hills the month's rainfall was generally heavier than usual. In southern India, including the Madras and Malabar coasts and the extreme south of Madras, the month's rainfall largely exceeded the normal, and the weather during the month was unusually rainy and disturbed. The month's rainfall was heavier than usual over the greater part of Persia, Afghanistan and Baluchistan, and was also in excess at Zanzibar and the Seychelles, but was in defect at Mauritius.

The following gives comparative rainfall data of the eleven meteorological provinces:—

Meteorological Province.	Rainfall.			
	Mean actual for January, 1904.	Mean normal for January.	Departure from normal, January, 1904.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Burma Coast and Bay Islands	0·64	0·35	—0·30*	— 86
Burma Inland	0·03	0·15	—0·11*	— 73
Assam	0·67	0·89	—0·22	— 25
Bengal and Orissa	0·06	0·43	—0·37	— 86
Gangetic Plain and Chota Nagpur	0·33	0·65	—0·32	— 49
Upper Sub-Himalayas	1·32	1·67	—0·31*	— 19
Indus Valley and North-West Rajputana.	1·14	0·57	+0·57	+100
East Rajputana, Central India and Gujarat.	0·19	0·26	—0·08*	— 31
Deccan	0·05	0·23	—0·19*	— 83
West Coast	0·53	0·22	+0·31	+141
South India	1·09	0·37	+0·72	+195

* A reference to Table I will show that the means of columns 2 and 3 are derived from a smaller number of stations than the means in the first column. The sum of the figures in columns 2 and 3 will, therefore, not agree with the figures in column 1.

General Remarks for the monsoon area.—To the south of the Indian region conditions were apparently approximately normal. At the Seychelles and Zanzibar pressure, on the mean of the month, was about the average and the mean air movement was of the usual type. The only exceptional feature in this region was the large excess of rain at the Seychelles, where 30·50″ of rain was received during the month, the normal fall being 18·57″. Further to the southward at Mauritius pressure was in marked excess on the mean of the month, but in other respects conditions were fairly normal. The increased precipitation, which the returns show, occurred over Persia, Afghanistan and Baluchistan during the month would appear to show that pressure was unsteady within a broad band extending over these countries and perhaps westward into the Mediterranean region, and that along this band, during the first half of the month, a series of more or less important storms travelled from west to east. On the 12th pressure increased and was high over eastern and south-eastern Russia and apparently this change marked the closing up of the band referred to above, as from the 15th onward the weather was much less disturbed than usual over north-west India and the advance of storms from the westward abruptly ceased.

W. L. DALLAS.

Magnetic and Solar disturbances.

Kodaikanal.—During the month it was possible to examine the sun's disc on every day, except three (2nd, 11th and 12th), and it was never found to be free from spots, but most of the spots were small. The most important groups were Nos. 206, which appeared on the 4th, 209, which appeared on the 13th, 210, which appeared on the 16th, and No. 213, which was first seen on the 19th. Of these, the first two appeared on the Eastern limb as fully formed spot groups and were traced all the way across to the Western limb. No. 210 was first seen as a very small speck, some distance from the limb, and developed into an important group, but again fell off in size before it reached the Western limb. No. 213 was seen as a single dot on the 19th at a considerable distance from the limb; on the 23rd it consisted of a number of very small points, and on the following day it had developed into a large and important group, and it was still of large size when it passed round the Western limb on the 28th.

The weather during a great part of the month was unfavourable for work on the prominences, but on the days on which observations were made it was found that these were numerous and some very large ones were seen.

The large magnetic disturbances on the 22nd, 28th and 29th could not be connected with any solar phenomena. The sun's activity, as indicated by spots, prominences and faculæ continues to increase in a normal way.

C. Michie Smith, *Director*,
Kodaikanal and Madras Observatories.

Colaba, Bombay.—During the month the traces showed 11 calm days and 17 days of small, 2 days of moderate and 1 day of great disturbance, the last being noted on the 28th.

The disturbance of the 28th marked as 'Great' commenced as usual with a small abrupt rise in force at 14h. 52m. followed immediately by a fall in force reaching its minimum value at 23h. 3m. The total range of movement was equivalent to ·00142 C. G. S. units. The force then began to rise slowly and reached its normal value at about 10h. on the 30th.

The selected quiet days of the month were the 7th, 12th, 14th, 19th and 27th.

The diurnal departures were fairly well pronounced during the month, but the progressive growth, which may be normally expected in the ranges of Horizontal Force as the maximum epoch of magnetic activity is approached, appears to be distinctly retarded, the 'summed range' figure for the month being even less than that of January 1903.

The means of observed absolute values of the several elements as also the ranges and the summed ranges of the Horizontal Force and Declination for the month are as follows :—

Declination	0° 16′ 28″ E
Horizontal Force	0·37430 C. G. S. Unit.
Dip	21° 48′·1
Horizontal Force range	·00028 C. G.S.
,, ,, summed range	·00159 C. G. S.
Declination range	1′·44
,, summed range	7′·57

Only one very small seismic disturbance was recorded on the 20th.

MAGNETIC DISTURBANCES.

January, 1904.		January, 1904.		January, 1904.	
1	S.	11	S.	21	C.
2	S.	12	C.	22	S.
3	S.	13	C.	23	C.
4	S.	14	C.	24	S.
5	S.	15	S.	25	S.
6	S.	16	M.	26	S.
7	C.	17	S.	27	C.
8	C.	18	C.	28	G.
9	S.	19	C.	29	M.
10	S.	20	C.	30	S.
				31	S.

The magnitudes of the disturbances are determined from Horizontal Force traces.

C=Calm; S=Small ; M=Moderate ; G=Great and V G=Very great. Days are reckoned from midnight to midnight.

N. A. F. Moos, *Director,*
Government Observatory, Bombay.

The following gives the list of displacements recorded by the Seismograph at the Alipore Observatory from 15th to 22nd January 1904:—

Number.	Date, 1904.	P. T. Commencement. G.M.T.	L.W. Commencement.	Maxima. G. M. T.	End in.	Maximum amplitude in M. M.	Duration.
		H. M.	H. M. S.	H. M.	H. M.	M. M.	H. M.
277	January 16th	9-12·4		9-18·0	9-21·5	1·00	0-9·1
278	,, 20th	15-26·4	16-22·8	16-46·7	17-18·3	1·25	1-51·9

Sensibility 1°=4·5 M. M.

The local times of the commencement are as follows:—

Date, 1904.	H. M.
January 16	15-5·7
,, 20	21-19·7

G. W. Küchler.
Asst. Meteorological Reporter to the Govt. of India.

Atmospheric Pressure.

The barometers in use at the great majority of stations in India are mercurial barometers on Fortin's principle, and are generally Casella's small observatory standards with tubes 0·4 inch in diameter.

Casella's observatory barometers on the Kew principle (with a contracted scale to compensate for changes of level of the mercury in the cistern) are in use at the following stations :—

Aden.	Dinajpur	Mymensingh.
Akyab.	Dunga (Zanzibar).	Negrapatam.
Arrah.	Faridpur.	Noakhali.
Barisal.	Gorakhpur.	Nowgong.
Bhamo.	Hyderabad (Sind).	Perim.
Bogra.	Jacobabad.	Rangpur.
Bushire.	Jalpaiguri.	Sambhar.
Chapra.	Mangalore.	Tavoy.
Cochin.	Midnapore.	Toungoo.
Comilla.	Monywa.	Zanzibar.
Cuddapah.	Moulmein.	

The instruments at the following stations are by various makers and of various kinds, but are being gradually replaced by Casella's small observatory standard barometers :—

Dehra.	Kurnool.	Six Islands (Chagos).
Katmandu.	Patiala.	Wellington.

At Bombay and Calcutta large Newman's standards on Fortin's principle, with adjustable scales and tubes of more than 0·5″ in diameter, are in use.

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

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

The elevations of the barometers of all stations, with the exception of Monywa, Lashio, Sonemarg, Astor, Minimarg,

Skardu, Dras, Chitral, Cherat, Ootacamund, Teheran, Ispahan, Jask, Bussrah and Dunga, have been obtained as accurately as possible by actual measurement. In the great majority of cases they have been referred to datum levels determined by the Great Trigonometrical Survey of India.

The readings of the barometers are reduced to 32° F. in all cases. They are corrected to constant gravity in the cases of all stations whose elevations are below 3,200 feet and to sea-level in the cases of stations whose elevations are accurately known and are below 3,200 feet. each reading is separate by corrected and the means of the month are the means of the daily corrected readings.

Recent revision has shown that some of the gravity corrections hitherto in use and based on the method of the "Tables Météorologiques Internationales (Paris, 1890)," have not been accurately determined. The error is extremely small as a rule, but it exceeds ·010″ in the following cases where the additional correction to be applied to previous readings is appended :—

Meteorological Province or District.	Station.	Correction.
		″
Mysore	Bangalore	+·020
	Chitaldroog	+·015
	Mysore	+·018

The departures from normal are not affected in any case, for the normal values are corrected merely for temperature.

In Table I, columns 5 to 12, under the general heading "Pressure, 8 A.M., in inches," are given for each station the 8 A.M. barometric data of the month, including the mean 8 A.M. pressure reduced to 32° F., and its departure from the normal mean pressure (reduced to 32° F.) of the month, the mean 8 A.M. pressure corrected to sea-level, and to constant gravity, the highest and the lowest pressures, and their respective dates of occurrence and the total range of 8 A.M. pressure during the month.

In Table II, columns 4 to 9, under the general heading "Pressure," are given the monthly means of the two hours of observation, 10 A.M. and 4 P.M., reduced to 32° F., the mean daily range, the mean of daily mean pressures reduced to 32° F., and its departure from the normal, and the mean of daily mean pressures reduced to 32° F., and corrected to constant gravity and sea-level for all stations recording observations at 10 hours and 16 hours. The means of daily pressures have been obtained for stations by taking the means of the 10 and 16 hours' observations and applying corrections for each month, derived from the observations of the same or neighbouring stations, to give true daily means. For Kodaikanal and Periyakulam the means are taken from the traces of a Richard barogram

The distribution of the mean 8 A.M. pressure of the month is shown by means of two charts. The first chart (Plate I) shows 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 of the actual mean 8 A.M. pressure reduced to 32° F. from the normal pressure.

The normal 8 A.M. daily and monthly means of pressure utilized in the pressure section of the review have been deduced from the barometric observations of the twenty-two years' period 1878–99, the same period being selected for all stations (with ten or eleven exceptions) in order that the means may be fairly comparable.

A small chart, No. 4 of Plate III, 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 and manner as in the monthly charts 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 II.

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 II 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 the barometric depressions of the month. The data that are chiefly used in that discussion are the 8 A.M. reduced observations and the departures derived from comparison of these observations with the normal daily 8 A.M. values.

The mean 8 A.M. pressure of the whole Indian land area for the month of January 1904 was ·010″ above the normal. The excess was least in north-eastern India, Gujarat and the centre and east of the Peninsula, where it averaged 0·005 inch and was greatest in central and upper Burma, the Punjab, Rajputana, Berar and the central districts of the Central Provinces, in which area it averaged 0·026 inch.

This excess of pressure accompanied and was partly at least an effect of the deficiency of temperature.

The following pressure and temperature departure data for the larger provinces illustrate this relation :—

Province.	Departure of	
	Mean 8 A.M. pressure of the month from normal.	Mean temperature of month from normal.
	″	°
Burma	+·017	−0·9
Bengal	+·008	−0·2
United Provinces of Agra and Oudh	+·008	0
Punjab	+·024	−1·7
Rajputana	+·018	−0·3
Sind	+·020	−0·6
Central India	+·016	+0·3
Central Provinces	+·017	+0·3
Bombay	−·005	+0·4
Madras	+·003	−0·8
Mean	+·013	−0·4

The chief effect of these departures of pressure was to give a greater range of pressure and hence steeper gradients than usual, more especially over the Bay and the west of the Peninsula.

Allowing for the general excess by deducting ·010″ from the pressure departures in order to obtain the local anomalies (*i.e.*, departures from the geographical mean), it is seen that pressure was locally in defect over the greater part of north-east India, the west and south of the Peninsula, Ceylon and the coast districts of Pegu and Arakan.

The anomalies were small in amount and of little significance, except in the areas represented by the following stations:—

Station.		Departure from normal of mean 8 A.M. pressure of January, 1904.	Pressure anomaly, January, 1904.
		″	″
West and south of Peninsula.	Cochin	—·017	—·027
	Salem	—·014	—·024
	Calicut	—·013	—·023
Ceylon	Colombo	—·015	—·025

Pressure was, on the other hand, locally in excess in the interior of Burma, the greater part of north-western and Central India, the Central Provinces and parts of the Deccan. The excess was most pronounced in upper and central Burma and the central Punjab, and was greater than ·020″ at the following stations:—

Station.	Departure from normal of mean 8 A.M. pressure of January, 1904.	Pressure anomaly, January, 1904.
	″	″
Bhamo	+·042	+·032
Minbu	+·040 ?	+·030?
Yamethin	+·036	+·026
Mandalay	+·035	+·025
Montgomery	+·034	+·024
Hoshangabad	+·033	+·023 ?

The feature which was most important from the point of view of weather was a moderate to large deficiency of pressure in the Kashmir Himalayas relatively to the neighbouring plains. The following gives data for ten pairs of stations, and shows that this condition was restricted to the portion of the western Himalayas represented by Leh and Murree.

Hill Station.	Departure from normal pressure, January, 1904.	Plain Station.	Departure from normal pressure, January, 1904.	Vertical pressure anomaly (Hill—Plain).
	″		″	″
Quetta	+·045	Jacobabad	+·022	+·023
Leh	—·040	Lahore	+·020	—·060
Murree	—·014	Peshawar	+·010	—·024
Simla	+·016	Ludhiana	+·020	—·004
Chakrata	+·009	Roorkee	+·012	—·003
Ranikhet	+·014	Bareilly	+·005	+·009
Darjeeling	+·021	Dhubri	+·006	+·015
Mount Abu	+·008	Deesa	+·006	+·002
Pachmarhi	+·017	Seoni	+·017	0
Wellington	—·002	Coimbatore	+·001	—·003

The deficiency was hence more marked at Leh than at Murree, an indication that it was due to conditions and actions in the higher atmospheric strata, and possibly in the great plateau area of central Asia.

The high pressure conditions in north-western India and Baluchistan did not extend westwards into Persia and Arabia, where pressure was, on the mean of the month, below the normal.

Pressure varied irregularly from the normal in the south-east trades region, being in marked excess at Mauritius, and practically normal at the Seychelles and Zanzibar.

The following data illustrate these characteristics:—

Station.	Departure from normal of mean 8 A.M. pressure of January, 1904.
	″
Mauritius	+·063
Seychelles	+·004
Zanzibar	—·005

The most important abnormal features of the pressure distribution in the Indian area may be summed up as follows:—

(1) General excess of pressure in the Indian area.

(2) A relative deficiency of pressure in north-east India, the west and south of the Peninsula, Ceylon and the coast districts of Burma, most marked in Malabar and west Ceylon.

(3) A relative excess of pressure in north-western and Central India, the Central Provinces, parts of the Deccan

and the interior of Burma, largest in upper and central Burma.

(4) The distribution of pressure in the vertical direction was approximately normal in north-east, Central and southern India. Conditions were, on the other hand, abnormal in the Kashmir Himalayas, where pressure was in moderate to large defect relatively to the adjacent plains.

The vertical anomalies in upper India were positive and small in November and December, but changed rapidly in character towards the end of the latter month, and were during January of the type usually associated with more disturbed weather than usual in the cold weather season. The change is shown by the following data:—

Pair of Stations.	Vertical pressure anomaly.		
	November, 1903.	Dece , 1903.	January, 1904.
	"	"	"
Quetta—Jacobabad	+·016	+·043	+·023
Leh—Lahore	—·013	+·011	—·060
Murree—Peshawar	+·008	+·022	—·024
Simla—Ludhiana	+·006	+·008	—·004
Chakrata—Roorkee	—·002	+·001	—·003
Ranikhet—Bareilly	+·013	+·012	+·009

Barometric depressions and cyclonic storms of the month.

At the beginning of the month pressure was below the normal to a slight extent in the west and south of the Peninsula, and in excess of the normal over by far the greater part of northern India and Burma. Gradients were hence unusually steep over the Peninsula and the Bay of Bengal, and were producing a strong influx of north-east winds from the Bay into southern India. Skies were thickly clouded over Madras, and an exceptionally heavy burst of rain occurred in that area during the next two days.

Pressure gave way over the whole of the country with the exception of southern India during the 48 hours succeeding 8 A.M. of the 1st, and on the morning of the 3rd was in defect almost everywhere by amounts ranging from a hundredth of an inch on the Madras coast to a tenth of an inch in the upper Indus valley and a seventh of an inch in Baluchistan. As a result of these changes in the distribution of pressure the drift of moist air from the Bay across southern India ceased almost entirely, and fine weather was re-established on the 4th.

During the period, from the 1st to the 3rd, weather was quiet over north-western India, but became disturbed during the succeeding 24 hours in consequence of the passage through that area of a diffused low pressure area.

The origin of this disturbance is rather obscure. The available data, however, appear to indicate that it originated over the south of Persia and the Persian Gulf on the 2nd, and thence advanced rather rapidly into north-western India, where, on the 4th, it was shown as an elongated low pressure area extending from the north of the Central Provinces to the east Punjab. Winds were exceedingly light and irregular in the United Provinces and the east Punjab, and light rain had fallen in the west and central Punjab. The deficiency of pressure was much greater in Kashmir than in the plains of north-western India, an indication that the disturbance not only extended into Kashmir but was also more intense there than in the plains.

A brisk to rapid increase of pressure occurred in north-western and Central India during the next 24 hours, and there was no trace of the depression shown in the chart of the 5th.

Although a slight disturbance, it gave light to moderate snow in the Kashmir Himalayas and moderate rain in parts of the Punjab.

The barometric changes in the Indian land area during the next five or six days were of the usual oscillatory character, and introduced no important change in the weather which remained fine throughout the period. In Persia, on the other hand, weather was feebly disturbed between the 6th and the 8th, due to the formation of a depression in the valley of the Tigris. The disturbance was transferred eastwards on the 7th, but diminished rapidly in intensity during its advance, and failed to reach India as a definite system.

Meanwhile important changes had taken place in the Mediterranean Sea and Egypt. A depression was generated over the north-east of Spain on the 5th and was displaced slowly eastwards during the next two days. It lay in the neighbourhood of Sicily on the morning of the 8th. In the absence of information for the east of the Mediterranean Sea it is not possible to trace with certainty its further movements and character, but the changes in pressure and air movement at Malta and the Egyptian stations on the 9th and 10th seem to indicate that it was transmitted eastwards and began to affect the winds and weather in Persia on the 11th. The following table shows the character of the pressure changes, air movement and weather at Malta, Alexandria, Port Said, Suez, Baghdad and Bushire during the period, 8th to the 11th:—

Date.	Station.	Pressure.		Wind.		Cloud.	Rainfall
		8 A.M. reduced to sea-level and constant gravity.	Change in past 24 hours.	Direction at 8 A.M.	Force.		
		"	"				Inch.
8th	Malta	29·634	—·457	SE	Moderate	10	0
	Alexandria			No information.			
	Port Said						
	Suez						
	Baghdad	30·360	+·226	Calm	14*	0	0
	Bushire	30·149	+·110	NNE	5*	5	0·14

* Velocity in miles per hour.

Date.	Station.	Pressure. 8 A.M. reduced to sea-level and constant gravity.	Pressure. Change in past 24 hours.	Wind. Direction at 8 A.M.	Wind. Force.	Cloud.	Rainfall.
			"				Inch.
9th	Malta.	29·937	+·303	ENE	Strong	10	0
	Alexandria.	30·083	—·127	ESE	Very light.	10	0
	Port Said.	·024	—·134	SE	Light	10	0
	Suez.	·059	—·118	N	Very light.	5	0
	Baghdad.	·419	+·059	Calm	11*	0	0
	Bushire.	·259	+·110	NNW	11*	0	0
10th	Malta.	29·902	—·037	E	Strong	10	0
	Alexandria.	·779	—·304	WSW	Moderate	3	0·20
	Port Said.	·768	—·256	SSE	Fresh	5	0
	Suez.	·870	—·189	SE	Light	3	0
	Baghdad.	30·292	—·127	Calm	27*	8	0
	Bushire.	·209	—·950	NNE	12*	9	0
11th	Malta.	29·957	+·055	NE	Strong	7	0·24
	Alexandria.	30·012	+·233	SW	Very light.	0	0
	Port Said.	·016	+·248	SW	Fresh	3	0
	Suez.	·106	+·236	N E	Very light.	0	0
	Baghdad.	·089	—·203	Calm	46*	8	0·05
	Bushire.	·022	—·187	SSE	3*	7	0

* Velocity in miles per hour.

12th January.—Pressure had increased at Baghdad and Bushire and the winds had shifted to westerly directions in west and north Persia. Pressure had, on the other hand, given way in east Persia, Baluchistan and the whole of India, the decrease being rapid in a belt of country extending from east Persia across Baluchistan to the east Punjab. The fact that the fall of the barometer was nearly the same in amount over such a large area would appear to show that the disturbance was a very extensive one. Skies were overcast in Baluchistan and upper India and light rain had fallen in the former area. Weather was also disturbed in Kashmir, where snowstorms were in progress. The pressure distribution was abnormal over the Indian land area, pressure being in considerable excess along the base of the Himalayas and in very slight defect in the west coast of the peninsula. As usual, under this combination, moist easterly winds from the Bay obtained in south India and were giving light to moderate rain.

Cold weather disturbance of the 11th to the 15th of January in the Persian area and north-western India.

13th January.—The distribution of pressure on this day was rather complicated and indicated that two centres of disturbance had formed in the large belt or trough of low pressure. One of these lay over south-east Persia and the east of the Persian Gulf. The following gives data for this area :—

Station.	Pressure. 8 A.M. reduced to sea-level and constant gravity.	Pressure. Change in past 24 hours.	Pressure. Departure from normal.	Wind. Direction at 8 A.M.	Wind. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Remarks.
	"	"	"				Inch.	
Jask	29·899	—·133	—·212	Calm	7	0	*Nil*	Sea rough.
Muscat	·876	—·086	—·218	NNW	2	0	*Nil*	

Pressure was more than a fifth of an inch in defect in the disturbance which was hence of moderate intensity at this stage. It was, however, exercising but little influence on the weather as skies were clear both at Jask and Muscat.

The second centre covered the south Punjab and north Rajputana. This was, however, as yet ill-defined.

The following data show the position and character of this incipient disturbance :—

Station.	Pressure. 8 A.M. reduced to sea-level and constant gravity.	Pressure. Change in past 24 hours.	Pressure. Departure from normal.	Wind. Direction at 8 A.M.	Wind. Average hourly velocity in miles past 24 hours.	Cloud.	Rainfall.	Weather.
	"	"	"				Inch.	
Delhi	30·087	—·065	+·007	SE	7	8	...	
Ludhiana	·058	—·070	—·011	SE	5	8	0·10	Showery.
Lahore	·057	—·067	—·026	E	2	10	0·11	Drizzling.
Khushab	·057	—·092	—·034	NE	4	4	0·25	Showery.
Montgomery	·053	—·069	—·027	NNE	7	8	0·13	Do.
Sirsa	·046	—·081	—·032	E	7	2	...	
Bikaner	·022	—·081	—·057	Calm	6	4	...	
Murree	...	—·149	—·120	SSE	3	10	1·00	Snowstorm.
Srinagar	...	—·130	—·164	ESE	3	10	0·10	Do.
Gilgit	...	—·132		Calm	2	10	...	
Leh	..	—·060	—·149	W	2	10	...	

The barometer had fallen by larger amounts at the hill stations of Murree, Srinagar and Gilgit than in the plains, and the deficiency of pressure was five times as large at Leh and Srinagar as at Sirsa and Montgomery. Unless a disturbance came over from the Hindu Kush and caused the large falls at the hill stations, these falls would give a striking confirmation of the view that the storms of the cold weather type originate in the middle and higher atmospheric strata. The fact, however, that winds had an easterly component at most of the hill stations is opposed to the former hypothesis. Easterly winds prevailed in the United Provinces and the east and central Punjab, but were as yet feeble. Winds were, on the other hand,

unusually strong in the Punjab Himalayas, though from almost the same direction as in the plains. Light to moderate rain had fallen in the Punjab plains and moderate snow in the adjacent Himalayan districts and Baluchistan.

14th January.—The disturbance in south-east Persia had advanced eastwards during the previous 24 hours, and had at the same time diminished in intensity. It was apparently central midway between Kurrachee and Jask at 8 A.M. On the other hand, the disturbance in the Punjab had developed into a deep depression, in which pressure was a third of an inch below the normal.

The following gives the 8 A.M. observations recorded in the Punjab and Kashmir:—

Station.	Pressure.			Wind.		Cloud.	Rainfall.	Weather.
	8 A.M. reduced to sea-level and constant gravity.	Change in past 24 hours.	Departure from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	"	"	"				Inches.	
D. I. Khan	29·829	—·245	—·269	NW	2	10	1·12	Continuous rain.
Mooltan	·793	—·261	—·304	Calm	1	10	0·92	Do.
Montgomery	·786	—·277	—·290	ESE	8	10	0·68	
Lahore	·837	—·220	—·237	E	5	10	0·27	
Khushab	·784	—·273	—·298	ESE	9	10	0·60	Drizzling.
Cherat		—·200	—·241	Calm	3	10	1·16	Snowing.
Murree		—·134	—·251	SSE	10	10	0·60	Snow storm.
Srinagar		—·100	—·262	Calm	3	10	0·61	
Skardu		+·011		Calm	6	10	0·04	Snowing.
Dras		—·014		Calm	0	10	0·55	Snow storm.
Leh		—·014	—·160	SW	1	10		Threatening.

These observations indicate that the seat of the chief activity of the storm was at a much lower elevation than on the previous day, as the decrease of the pressure was unusually small at the level of Leh and Dras. East-south-east winds prevailed on the Sind coast, and were hence independent of the storm over the Punjab. Moderately strong southerly winds were, on the other hand, blowing across the Cutch coast and feeding into the more northerly disturbance. Winds were unusually strong at Murree, where they had a velocity of 48 miles per hour at 8 A.M. Skies were thickly clouded in Baluchistan and north-west India and cloud was spreading rapidly eastwards. Moderate to heavy rain had fallen in the plains of the Punjab, heavy snow in the mountains to the west of the Indus, and light to moderate snow in the valley of Kashmir.

15th January.—The barometer had risen over the whole of north-western India, Baluchistan and Persia, and both depressions had disappeared. Pressure had, on the other hand, decreased slightly to the east of a line joining Karwar and Bareilly, and was now normal or in defect in north-east India.

A slight depression lay over the central districts of the United Provinces. General rain had fallen in the plains and snow in the hills of upper India, while showers had been received in the United Provinces and Central India A further increase of pressure occurred during the day in north-west India and the plateau area to the west, and anti-cyclonic conditions were hence established in that area on the 16th.

The disturbance described above was remarkable in several respects, more especially the following:—

(*a*) Although it showed itself first in Asiatic Turkey on the 11th, it is very probable that it did not originate in that area. The charts issued by the English Meteorological office show that a depression formed over north-east Spain on the 5th, and that it was displaced eastwards, reaching Sardinia on the 6th and Sicily on the 8th. The observations taken in the delta of Egypt show that a depression passed eastwards between the 9th and the 10th, and it is hence possible that the low pressure area in Asiatic Turkey on the 11th may have been the continuation of this depression. This assumption, however, cannot be verified in the absence of information for the area between Asiatic Turkey and Sicily.

(*b*) The barometric changes in north-west India, Baluchistan and Persia appear to indicate that it was not a concentrated depression but a long belt or trough of low pressure, being deeper at the eastern and western extremities than elsewhere. A storm was developed at the eastern extremity on the 13th due to favourable local actions and formed the chief feature of the weather of the next two days.

(*c*) The decrease of pressure was most marked at the hill stations on the 13th and in the plains on the following day—features which suggest that the disturbance was propagated from above downwards.

(*d*) The precipitation accompanying the storm was heavier in the plains than in the hill districts, and in this respect the present storm differed from those of the true cold weather type.

During the 16th pressure increased slightly in upper India and fell over the remainder of the Indian area, more especially in the eastern districts of Central India, where the fall accompanied the formation of a slight depression. The disturbance thus initiated developed during the day and occasioned light rain in the United Provinces and some showers in the Central India plateau. Weather was also disturbed in the western Himalayas, where pressure was in marked defect, more especially at Leh, where the deficiency exceeded a fifth of an inch in amount. A rapid increase of pressure occurred on the 19th in north-west India and a decrease in the remainder of the country, most marked in Assam, and the disturbed conditions in northern India passed away almost entirely.

The distribution of pressure was unusual at this time, pressure being in moderate to considerable excess in north-west India and in moderate defect in north-east India and the east of the peninsula. Very steep gradients favouring cool dry westerly winds hence obtained over northern India.

The pressure changes during the next two days modified the distribution considerably, so that on the 22nd pressure was in moderate defect in the west and south of the peninsula and equally in excess in upper and north-east India. Unusually steep gradients obtained over Rajputana and Gujarat and light local thunder showers occurred in south-west Rajputana and Central India on the 23rd and 24th.

The pressure conditions were very unsteady during the remainder of the month, but had practically no effect on the weather which was fine and quiet over the whole of the Indian area with the exception of Assam and the Sikkim Himalayas, where local thunder showers occurred during the last four or five days of the month due to interaction between local southerly winds from the Bay and the north-east winds.

The distribution of pressure was very abnormal at the close of the month, pressure being in large defect throughout the country. The defect was large over the whole of northern India, and exceeded a seventh of an inch in west and central Bengal, where it was greatest.

The preceding summary of the pressure and weather changes shows that no important storms visited northern India after the 15th of the month, and that in consequence weather was much more settled during the second fortnight of the month than is ordinarily the case at the time of year.

It may be noted in this connection that pressure was high over east and south-east Russia almost uninterruptedly from the 12th to the end of the month.

Summary of the Reports of the Weather and Snowfall in the Mountain Districts to the North and North-West of India.

I.—AFGHAN MOUNTAIN DISTRICTS.

(1) *Wano.*—Snow fell down to 4,500 feet on the 12th, 13th, 14th and 25th. The total fall measured about 3 feet in depth on the Marwatti and other high peaks (elevation 11,000 feet).

(2) *Kurram.*—Snow fell on the 4th, 9th, 12th, 13th, 14th, 15th and 17th. The falls of the 13th and 14th were very heavy and descended as low as Manduri (elevation about 3,000 feet). Parachinar (elevation, 6,000 feet) received about 2 feet on these two days.

Snow lay 6 feet deep on the higher passes of the Sufed Koh at the end of the month.

The total fall of the month was heavier than that of the corresponding period of 1903.

(3) *Kohat district (Tirah).*—During the month there were in all 14 falls of snow on the border and nine falls at Fort Lockhart. The most severe storm was that of the 18th, when moderate to heavy snow fell in the Sadr Ilaqua. The total fall of the month at Fort Lockhart was a little over six feet.

(4) *Hills, west of Kohat (Samana Range).*—Snow fell on nine occasions on the Samana Range. The fall was heaviest on the 13th, on which day it measured 1½ feet in depth. The total precipitation of the month is considered to be heavier than usual by the trans-border men.

(5) *Kabul.*—Snow storms occurred on the 1st, 3rd, 6th and 8th. The total fall of the month was 14½ inches.

II.—KASHMIR AND PUNJAB HIMALAYAS.

(1) *Hazara.*—The following gives a statement of the snowfall on the Kagan and Siran ranges:—

NAME OF RANGE.	Height above sea-level.	DEPTH OF SNOWFALL ON				TOTAL.
		3rd to 5th.	9th to 12th.	14th to 16th.	22nd and 23rd.	
	Feet.	′ ″	′ ″	′ ″	′ ″	′ ″
Kagan . . .	6,700	2 0	5 10	0 6	1 2	9 6
Narang . .	8,000	3 1½	9 5	1 0	3 ½	16 7
Jachha . . .	6,500	2 3	2 6	3 0	1 0	8 9

The following gives similar data for the Dungagalli range:—

NAME OF RANGE.	Height above sea-level.	DEPTH OF SNOWFALL ON			TOTAL.
		3rd and 4th.	12th to 16th.	17th and 18th.	
	Feet.	′ ″	′ ″	′ ″	′ ″
Dungagalli . . .	7,500	1 6	6 6	0 9	8 9
Tandiani	8,000	1 6	6 0	1 6	9 0

(2) *Murree and adjacent hills.*—The following table gives the information relating to this area :—

Name of place.	Date of fall.	Depth of snowfall.
		′ ″
Murree	1st January 1904	0 1/10
	4th " "	0 5
	5th " "	0 2
	11th " "	0 4½
	13th " "	0 10
	14th " "	0 6
	15th " "	1 7
	16th " "	0 6
	19th " "	0 5
	23rd " "	0 2
	TOTAL	4 11½
Kahuta	13th " "	2 0
	14th " "	2 6
	TOTAL	4 6

The fall on the hills near Kahuta was, it may be noted, six times as large as that of January, 1903. It is almost certain that the snowfall of the month was much heavier than that of the corresponding month of many years past.

(3) *Leh.*—Very light falls of snow occurred at Leh on the 5th, 15th and 18th. The snow melted rapidly and there was hence no accumulation at the end of the month. The snowline was at a height of about 14,000 feet on the southern and about 12,000 feet on the northern face of the neighbouring hills.

(4) *Simla Hill Districts.*—Heavy snow fell on the 4th and 16th, moderate snow on the 13th, 15th, 17th and 19th and light snow on the 14th, 18th and 22nd. Over 11 feet of snow is reported to have fallen at an altitude of 11,000 feet. The depth of snow, at the end of the month, on the Rupin, Burin, Harang, Shatul, Bulder and Runang passes was between 12 and 15 feet. The snowfall of the month was greater in amount than that of the corresponding month of last year.

At Sarain (Chur range) snow fell on ten days during the month, *viz.*, on the 4th, from the 13th to the 19th and the 24th and 31st. The fall of the 13th to the 16th was heavy, amounting to nearly seven feet in depth.

The total fall registered during the month was equivalent to 12·23 inches of rain.

(5) *Chamba.*—Snow fell on no less than 15 days during the month. The falls were, on the whole, most general between the 13th and 18th, when they extended over the whole valley. The total fall during the month was about 13 feet at Kalatop (elevation, 8,000 feet), 10 feet at Barmaur, Khangu and Chatri, 9 feet at Olansa (elevation, 7,000 feet) and 9½ feet at Alwas.

At Dalhousie snow fell on six days during the month. The total fall of the month measured nearly 3 feet in depth and was somewhat greater in amount than that of the corresponding month of last year.

(6) *Kulu.*—Snow fell on the 1st, 5th and the 13th to the 19th. The fall descended to 5,200 feet on the 19th and all the passes in the sub-division were closed during the month. The following table gives the depth of snow on the chief passes at the end of the month under review and comparative data for the last day of January of 1891, 1893, 1900, 1901 and 1903, years of heavy snowfall :—

Tahsil.	Name of Pass.	Height above sea-level.	Reported depth of snow at end of January.					
			1904.	1903.	1901.	1900.	1893.	1891.
			Feet.	Feet.	Feet.	Feet.	Feet.	Feet.
Kulu	Rotang	13,000	26	8	12	23	19	10
	Hamta	14,500	22	8	10	9	16½	?
	Chandarkhani	...	10	4½	12	9	17	10
	Lohri Achri	...	9	9	9	8	10¾	3
	Sari	...	10	2	11	1	...	...
Plach	Sirikhand	15,000	11	10	18	17	13	36
	Dhundku	...	7	8	13	13	8	7
	Gargarasan	17,000	7	8	14	14	8	12
	Tirath	...	7	8	15	13	8	10

III.—United Provinces Himalayas.

(1) *Almora.*

Malla Johar.—Snow fell on two occasions during the month. The total fall measured 10 feet in depth on the peak of Utadhura.

Malla Danpur.—There were four snow storms, during which a total of 7 feet of snow is reported to have fallen on the peaks of Pindari, Kaphini and Kantela.

Malla Byans, Chandas and Darma.—Snow fell on the 3rd, 14th, 15th and 18th. The total fall was 8 feet.

The snowfall of the month was less than usual in Malla Johar and Malla Danpur and above the average in Byans, Chandas and Darma.

(2) *Garhwal.*—Frequent falls of snow occurred in this district during the second fortnight of the month. The heaviest fall was on the 19th, on which day the snowline descended to about 5,000 feet.

Summary of snowfall information.—The snowfall of the month was moderate to heavy in the mountain districts to the west of the Punjab and the western Himalayas, and at the end of the month there was an accumulation of about 25 feet on the Rotang and Hamta passes in Kulu. It was, on the other hand, unusually light in Further Kashmir and the snowline there was at a much greater elevation than usual. No information has been received for the eastern Himalayas. The data for Darjeeling indicate that the snowfall in the Sikkim Himalayas was probably not above the normal.

Summary of Special Storm Reports.

Thunderstorms and hailstorms are of occasional occurence in northern India during the passage of cold weather storms.

The month under review was even more free from disturbances of this type than usual.

The following gives the only report received during the month :—

January 4th.—Thunderstorm at Simla from 6 35 P.M. to 10 P.M. Light snow and hail fell during the storm.

EARTHQUAKES.

January 14th.—"A short sharp shock at Bangalore at 2-30 P.M. It started suddenly and lasted only four or five seconds. It was accompanied with a very distinct sound like that of heavy artillery. The shock seems to have passed in a north-to-south direction" (Madras Mail dated 16th January).

,, *24th.*—A slight shock at Srinagar at 9-15 P.M. The tremor came from the west and lasted about 2 seconds.

Brief Summary of the weather in the Arabian Sea and Bay of Bengal during the month.

Arabian Sea.—The air movement was fairly normal in character in this area, except in the neighbourhood of the Mekran and Sind coasts, where winds were exceedingly unsteady during the greater part of the month, a consequence of the great unsteadiness of the pressure conditions over the plateau area to the north.

Winds were much below their normal intensity over this area during the first two days of the month, but strengthened considerably on the 3rd, and were stronger than usual during the next eight days, throughout which period the barometric gradients were steeper than usual. Pressure tended towards approximate uniformity between the 12th and the 15th. The air motion hence decreased rapidly and was from 10 to 20 per cent. below its normal January intensity. These conditions passed away on the 16th, and on the following day another period of strong winds commenced. This lasted until the 23rd and was remarkable for the unusually strong winds (force 5 to 7), which on the 18th and 19th were nearly 40 per cent. above their normal intensity. The air movement was exceedingly unsteady during the remainder of the month, ranging between 2·9 on the 27th and 3·6 on the 30th.

On the mean of the whole month the air movement in this area was 0·1 above the normal, *viz.*, 3·3.

Weather was generally fine throughout the sea, except in the south-east, where it was feebly unsettled with occasional squalls and rain on several occasions. Light rain was experienced in the Persian Gulf on the 8th, 9th, 19th, 21st, 24th, 29th and 30th and along the Sind and Mekran coasts on the 3rd, 13th and 14th.

Bay of Bengal.—The air movement was more vigorous than usual over the greater part of this area, averaging 3·3 for the whole of the month. As the normal force of the winds over the Bay in January is 3·0, the air movement during the month under review was 10 per cent. stronger than usual. The mean daily air movement was identical with the normal on the 25th, weaker than usual on the 4th, 18th, 19th, 20th, 29th and 31st, and more or less above the normal on other days. It was, on the whole, strongest on the 7th (4·4) and lightest (2·4) on the 31st.

Winds varied considerably in direction from day to day, more especially in the vicinity of the coasts. They were much more northerly and less easterly than usual along the Madras coast throughout the month, except from the 1st to the 4th and the 11th to the 15th, when their direction was approximately normal. Abnormal southerly winds were experienced along the Orissa and Ganjam coasts towards the close of the month, due to low pressure conditions over Bengal.

Weather was squally and rainy in the vicinity of the east Ceylon coast from the 8th to the 10th and again on the 20th, 21st, 27th and 28th.

Equatorial Belt.—So far as can be judged from the available data, the air movement over this area was of the usual January type.

Temperature of the air.

The mean temperature data are given in Table I and Table II under the heading "Temperature of air." In Table I they are based upon observations of the dry bulb thermometers recorded at 8 A.M. and the maximum and minimum thermometers. The departures of the mean maximum and mean minimum temperatures from the corresponding normal means for the month are given in Table I for all stations, for which twenty-two years' trustworthy temperature observations are available. With few exceptions (chiefly in Bengal), the normal mean maximum and minimum temperatures of the month have been obtained for all stations from the observations of the same period, *viz.*, 1878 to 1899, and are hence fairly comparable with each other. The mean of daily mean temperature in this table is taken as the mean of the maximum and minimum. It differs from the ture mean of the day by small amounts which vary from month to month.

It should be noted that the mean temperature of the day in Table I really denotes the mean temperature of the 24 hours preceding 8 A.M. of the day in question, and the month for which the means are given in this table hence terminates at 8 A.M. of the last day of the month.

In Table II the mean of daily mean temperature for each month is obtained by taking the mean of the maximum and minimum temperatures and applying a correction given in Table A, pages XV to XXI, of Vol. 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 of the nearest stations of similar conditions of exposure, etc., at which the hourly observations were recorded. For the station of Madras the means are those given in the registers sent by that observatory, and for Kodaikanal and Periyakulam the means are taken from the records of a thermograph.

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 1886, page 37. All thermometers in use have been verified by comparison with Kew standard thermometers at Calcutta, and all thermometer readings are corrected to their true readings, and are hence strictly comparable.

The departures from normal of the mean of daily mean temperature of the month given in Table II have been obtained by a comparison 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 24. It should be noted that the day or 24 hours period in Table II terminates at midnight (and not at 8 A.M. as in Table I.), and hence the monthly means are for monthly periods ending at midnight of the last day of the month in question

The mean distribution of temperature in India in each month is exhibited by means of three charts, which show the departures of the mean maximum, mean minimum, and mean daily temperature from their normal values for the month. These charts are Nos. 1, 2 and 3 of Plate III. In these charts equal departures of temperature are indicated by lines, the lines being drawn for differences of 2° of departure. A continuous line indicates that the temperature was in excess by the amount indicated by the number given near the line, and a broken line that it was in defect by the amount indicated by the number placed near the line. 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.

Tables of normal mean maximum, minimum and mean of daily mean temperature for each month and for the whole year were given in the Annual Summary for 1902 based on the data for twenty-two years, 1878 to 1899.

The mean maximum or day temperature of the month of January, 1904, was more or less below the normal in Burma, upper Assam, Orissa, the greater part of north-western India and the Peninsula to the south of Lat. 19° N. and was normal or in slight excess over the remainder of India. The deficiency was more than 2° in the Punjab, upper Sind, the Carnatic and locally at a few stations in upper and central Burma. It was upwards of 4° in the north of the Punjab and the North-West Frontier Province at the stations for which data are given below:—

Station.	Mean maximum temperature.		
	Actual, January, 1904.	Normal, January.	Departure from normal, January, 1904.
	°	°	°
Peshawar	57·3	63·5	—6·2
Rawalpindi	58·0	63·1	—5·1
Lahore	64·2	69·0	—4·8
Sialkot	62·0	66·2	—4·2

The departures of the mean minimum or night temperature from the normal were even smaller than those of the mean day temperature over by far the greater part of the country. The mean minimum temperature was in defect of the normal in Ceylon, south Madras, upper and central Burma, north-eastern India, the southern half of the Punjab, Cutch, north Rajputana and the central and north-western districts of the United Provinces. The departures in the great majority of cases were less than 2°, and in no case (except perhaps Bikaner) exceeded 3°. The excess in the remainder of the country was most marked in Khandesh and the neighbouring districts and also locally at Peshawar. The following gives data for stations in these areas:—

Station.	Mean minimum temperature.		
	Actual, January, 1904.	Normal, January.	Departure from normal, January, 1904.
	°	°	°
Ahmednagar	55·4	50·7	+4·7
Surat	59·6	56·5	+3·1
Malegaon	54·5	51·9	+2·6
Khandwa	54·2	51·8	+2·4
Mormugao	71·3	68·9	+2·4
Sholapur	60·5	58·2	+2·3
Ahmedabad	59·3	57·0	+2·3
Ratnagiri	68·5	66·2	+2·3
Peshawar	42·2	39·6	+2·6

Ahmednagar was hence the centre of the greatest excess of night temperature.

The lowest night temperatures of the month were generally recorded between the 15th and 21st in Persia,

Baluchistan, Afghanistan and north-western and Central India. They were, however, with a few exceptions in no way remarkable. The following gives the most noteworthy minima recorded during the month under review and the lowest reading hitherto recorded at the same stations :—

Station.	Lowest minimum temperature recorded in January, 1904.	Date on which recorded.	Lowest minimum temperature recorded in January previous to 1904.	Year in which recorded.
	°		°	
Minimarg	—10·0	20th Jany.	—10·0	1903
Sonemarg	— 9·9	,, ,,	— 5·6	1903
Kabul	— 2·6	,, ,,	— 0·2	1897
Skardu	11·1	21st ,,	—10·0	1897
Chaman	16·6	15th ,,	15·1	1897
Murree	20·0	19th ,,	18·0	1897
Cherat	23·0	17th ,,	27·0	1900
Dera Ismail Khan	32·0	21st ,,	26·0	1876
Sirsa	34·5	7th & 20th	30·0	1878
Montgomery	35·0	19th & 20th	30·5	1902
Mooltan	36·0	14th ,,	29·0	1878
Jaipur	37·0	20th ,,	33·0	1900
Bikaner	38·1	19th ,,	35·0	1878
Teheran	7·0	9th ,,	8·8	1895
Ispahan	15·2	21st ,,	—4·2	1898
Bushire	41·3	17th ,,	32·0	1880
Jask	55·3	19th ,,	41·0	1897

Lower night temperatures were registered at Teheran, Cherat, Kabul and Sonemarg than had been previously recorded, thus showing the unusual rigour of the cold in the regions represented by these stations due to unusually heavy snowfall.

The mean temperature of the month differed little from the normal over the greater part of the country. It was above the normal over nearly the whole of the Bombay Presidency, Berar, the Central Provinces, Hyderabad, Central India (excepting Bundelkhand), the central districts of the United Provinces, the south Tenasserim coast and locally at one or two other places. The excess in these areas was less than 2° in amount, except in the region represented by the stations of Ahmednagar (+2°·3), Malegaon and Ahmedabad (each + 2°·1).

Over the remainder of India the mean temperature was more or less below the normal, more especially in the south and central Punjab and perhaps north Rajputana, where the deficiency ranged between 2° and 3°.

The departures of the mean temperature conditions of the month from the normal were the same in character at the great majority of the hill stations as in the neighbouring plains. They were small and of little significance, except at the following stations :—

Hill Station.	Mean Daily temperature. Actual, January, 1904.	Normal, January.	Departure from normal, January, 1904.
	°	°	°
Kabul	24·1	31·1	—7·0
Murree	35·5	41·0	—5·5
Cherat	40·8	43·6	—2·8
Srinagar	31·0	32·8	—1·8
Quetta	38·9	40·4	—1·5
Leh	20·1	19·3	+0·8
Gilgit	39·5	38·4	+1·1

These departures are very interesting as showing that the weather, although more disturbed than usual in the mountain region to the west and north-west of the Punjab, was milder than usual in Ladakh and Gilgit.

The low temperature conditions in Baluchistan and Afghanistan did not extend westwards into southern and central Persia as temperature was, on the mean of the month, higher than usual in that area. On the other hand, temperature was below the normal in northern Persia and Asiatic Turkey. The following gives data for four representative stations :—

Station.	Mean daily temperature. Actual, January, 1904.	Normal, January.	Departure from normal, January, 1904.
	°	°	°
Jask	68·8	67·0	+1·8
Bushire	58·6	57·9	+0·7
Teheran	29·0	34·3	—5·3
Baghdad	48·0	49·2	—1·2

The following sums up the chief features of the mean temperature conditions of the month :—

(1) Lower temperature than usual, both by day and night, over the interior of Burma, due probably to the more frequent prevalence of cool northerly winds than usual.

(2) Slight deficiency in Assam, Bengal, the eastern districts of the Central Provinces and nearly the whole of Madras. In the last-named area the deficiency was exhibited almost solely in the day temperature.

(3) Slight to moderate deficiency in north-western India, much more strongly marked in the day than in the night temperature.

(4) Slight to moderate excess in Bombay, Berar, the western half of the Central Provinces, Central India and the central districts of the Gangetic plain, where both day and night temperatures were above the normal, the latter, however, to a somewhat greater extent than the former.

(5) Temperature varied very irregularly from the normal in the hill districts, being more or less in defect in

Baluchistan, Afghanistan, and the western Himalayas and above the normal in Ladakh, Gilgit and the Sikkim Himalayas—an indication that the temperature departures were determined by local, and not general, actions.

The following table gives mean temperature data of the month for the 57 meteorological divisions of the Empire :—

Province	Division.	Actual Temperature.					Departure from normal of month of		
		Mean maximum.	Mean minimum.	Monthly mean of mean between maximum and minimum.	Mean daily range.	Absolute range.	Maximum.	Minimum.	Daily range.
		°	°	°	°	°	°	°	°
Burma	Tenasserim	87·0	70·2	78·6	16·8	25·6	−0·4	+0·7	−1.1
	Lower Burma (Deltaic)	84·1	66·2	75·2	17·9	25·5	−1·7	+0·7	−2·4
	Central do.	84·2	53·2	68·8	31·1	41·6	−1·4	−2·4	+1·0
	Upper do.	79·8	52·9	66·4	26·9	39·0	−2·7	−0·5	−2·2
	Arakan	79·6	59·8	69·8	19·8	25·3	−1·8	+0·5	−2·3
Bengal and Assam	Eastern Bengal	77·6	53·0	65·3	24·6	33·6	+0·4	−0·2	+0·6
	Assam (Surma)	78·4	51·7	65·0	26·7	33·9	+0·6	−0·6	+1·2
	Do. (Hills)	61·3	41·8	51·6	19·5	29·0	...	...	...
	Do. (Brahmaputra)	72·2	49·7	61·0	22·4	32·5	−0·3	−1·9	+1·6
	Deltaic Bengal	78·4	54·0	66·2	24·4	36·1	+0·2	−1·3	+1·5
	Central do.	76·7	52·0	64·4	24·8	34·8	−0·4	−0·6	+0·2
	North do.	74·5	50·4	62·5	24·1	34·5	+0·6	−0·5	+1·1
	Bengal Hills	47·7	29·6	38·7	18·1	27·4	+1·7	+1·1	+0·6
	Orissa	80·1	57·8	69·0	22·4	34·5	−1·2	−1·5	+0·3
	Chota Nagpur	76·8	52·0	64·5	24·7	37·0	0	+0·3	−0·3
	Bihar (South)	74·4	49·9	62·2	24·5	36·0	+0·2	−0·7	+0·9
	Do. (North)	74·2	48·6	61·4	25·6	38·1	+0·3	−1·8	+2·1
United Provinces of Agra and Oudh.	United Provinces (East)	74·4	48·1	61·3	26·4	39·5	+0·1	0	+0·1
	Oudh (South)	74·1	47·3	60·7	26·8	37·1	+0·1	+0·6	−0·5
	Do. (North)	72·9	47·7	60·3	25·2	38·0	+0·5	+0·6	−0·1
	United Provinces (Central)	74·9	48·3	61·6	26·5	39·6	+0·9	+0·2	+0·7
	Do. (West)	71·2	46·4	58·8	24·9	39·5	−0·8	−0·5	−0·3
	Do. (East Submontane).	73·0	48·9	61·0	24·1	36·3	+0·1	−0·4	+0·5
	Do. (West Submontane).	68·1	44·8	56·5	23·3	37·9	−0·7	−0·3	−0·4
	Do. (Hills)	50·1	37·4	43·8	12·8	33·8	−1·2	−0·3	−0·9
Punjab	Punjab (South-East)	69·6	46·8	58·2	22·8	37·2	−1·1	−1·1	0
	Do. (South)	67·4	42·5	55·0	25·0	37·8	−2·2	−1·8	−0·4
	Do. (Central)	64·2	41·9	53·1	22·3	38·7	−4·8	+1·2	−6·0
	Do. (Sub-montane)	61·4	42·2	51·8	19·2	32·1	−4·1	+0·5	−4·6
	Do. (Hills)	35·8	20·2	28·0	15·6	38·1	−2·3	−0·5	−1.8
	Do. (West)	65·9	42·1	54·0	23·9	38·5	−2·8	−0·5	−2·6
N.-W. F. Province	North-West Frontier Province	61·5	41·3	51·4	20·3	37·8	−4·8	+1·3	−6·1
Bombay and Malabar Coast Districts (Madras).	Malabar	86·5	70·9	78·7	15·7	23·1	−0·7	+0·1	−0·8
	Madras (South Central)	84·4	63·6	74·0	20·8	33·1	−3·2	−0·2	−3·0
	Coorg	75·2	56·5	65·9	18·7	27·9	?	?	?
	Mysore	81·0	58·0	69·5	23·0	32·1	−1·4	+0·3	−1·7
	Konkan	85·8	69·7	77·8	16·1	24·2	+0·4	+1·8	−1·4
	Bombay Deccan	84·8	58·8	71·8	26·0	38·2	−0·6	+1·7	−2·3
	Hyderabad (North)	83·3	58·8	71·1	24·6	36·9	...	...	...
	Khandesh	85·5	55·0	70·3	30·6	44·6	+0·7	+3·7	−3·0
Central Provinces and Berar.	Berar	85·8	57·4	71·6	28·5	40·6	+0·9	+1·8	−0·9
	Central Provinces (West)	83·6	54·6	69·2	29·0	43·8	+1·0	+1·0	0
	Do. (Central)	80·6	52·0	66·3	28·6	43·6	+0·7	+0·6	+0·1
	Do. (East)	80·1	53·2	66·7	26·9	39·2	−0·2	−0·9	+0·7
Bombay (North)	Gujarat	86·7	59·5	73·1	27·2	44·5	+1·2	+2·7	−1·5
	Kathiawar and Cutch	81·6	55·2	68·4	26·4	46·1	−0·1	+0·3	−0·4
	Sind	74·2	49·9	62·0	24·3	45·1	−1·6	+0·2	−1·8
	Baluchistan Hills	48·0	30·5	39·3	17·5	45·9	−4·0	+1·0	−5·0
Rajputana and Central India.	Central India (East)	76·6	49·5	63·1	27·1	43·0	0	+0·7	−0·7
	Rajputana (East), Central India (West)	76·4	48·1	62·3	28·3	43·8	+0·1	−0·3	+0·4
	Do. (West)	75·0	46·1	60·6	29·0	47·6	−0·4	−1·6	+1·2
Madras	East Coast (North)	80·0	64·3	72·2	15·7	24·9	−0·9	−0·2	−0·7
	Hyderabad (South)	84·5	61·5	73·1	23·0	33·4	−1·6	+1·4	−3·0
	Madras (Central)	86·1	61·8	74·0	24·3	33·2	−2·1	+0·6	−2·7
	East Coast (Central)	82·8	66·8	74·8	16·0	22·5	−2·0	+1·0	−3·0
	Do. (South)	82·9	68·4	75·7	14·5	24·0	−1·9	+1·2	−3·1
	Madras (South)	84·0	69·3	76·6	14·8	22·9	−2·3	−0·1	−2·2

The following is a brief account of the more important temperature changes during the month over the land area of India.

At the beginning of the month temperature was below the normal over the greater part of northern India, Burma, and the coast districts of Madras, due to the influence of the disturbed weather of the last week of December.

The deficiency was most pronounced in the Punjab and Gujarat, where it ranged between 2° and 7°. Temperature was, on the other hand, considerably higher than usual in the west, centre and south of the Peninsula. The excess was, on the whole, most marked in the Bombay Deccan, where it averaged 4°·3 and was exhibited mainly in the night temperature, the day temperature being practically normal.

The following departure data for the 24 hours ending 8 A.M. of the 1st show the temperature conditions obtaining at this time:—

Province or Division.	Departure from normal of		
	Mean maximum temperature.	Mean minimum temperature.	Mean temperature.
	°	°	°
Burma	−3·2	−0·2	−1·7
Assam	+0·4	+0·3	+0·4
Bengal	−1·0	+2·2	+0·6
Orissa	−5·4	+2·9	−1·3
Bihar	−1·7	−3·2	−2·5
Chota Nagpur	−5·5	−0·5	−3·0
United Provinces of Agra and Oudh	−1·7	−1·6	−1·7
Punjab	−6·2	−0·8	−3·5
N.-W. Frontier Province	−7·8	+3·0	−2·4
Sind	−2·3	−1·6	−2·0
Rajputana	−0·8	−0·4	−0·6
Gujarat	−2·6	−3·7	−3·2
Central India	−0·1	+0·6	+0·3
Central Provinces	−1·1	+1·8	+0·4
Berar	−1·1	+4·0	+1·5
West Coast	−0·9	+3·6	+1·4
Bombay Deccan	+0·7	+7·9	+4·3
Mysore	−5·7	+4·7	−0·5
Madras Coast	−6·3	+1·8	−2·3
Madras Deccan	−5·8	+7·0	+0·6
South India	−0·2	+4·3	+2·1

Fine weather prevailed generally during the next three days. Temperature hence increased, and on the 4th was normal or in excess all over the country with the exception of Burma, Assam and the North-West Frontier Province.

The following departure data illustrate the character of the temperature distribution on this day:—

Province or Division.	Departure from normal of		
	Mean maximum temperature.	Mean minimum temperature.	Mean temperature.
	°	°	°
Burma	−2·6	+0·1	−1·3
Assam	−0·4	−2·1	−1·3
Bengal	−0·1	−1·2	−0·7
Orissa	−0·2	−0·2	−0·2
Bihar	+1·1	−2·4	−0·7
Chota Nagpur	+2·2	+2·1	+2·2
United Provinces of Agra and Oudh	+1·4	−0·4	+0·5
Punjab	+1·8	+1·8	+1·8
N.-W. Frontier Province	−7·9	+3·9	−2·0
Sind	+1·4	+2·6	+2·0
Rajputana	+1·8	−0·4	+0·7
Gujarat	+1·9	+1·8	+1·9
Central India	+4·7	+5·8	+5·3
Central Provinces	+5·4	+7·6	+6·5
Berar	+5·2	+8·1	+6·7
West Coast	−0·4	+4·4	+2·0
Bombay Deccan	+3·4	+8·5	+6·0
Mysore	+1·1	+2·3	+1·7
Madras Coast	−1·2	+0·6	−0·3
Madras Deccan	−0·2	+1·0	+0·4
South India	−1·9	+1·6	−0·2

An important effect of this rise was to intensify the high temperature conditions in the Bombay Deccan, and neighbouring districts which now formed the focus of the area of excessive temperature.

A feeble disturbance affected the weather in Baluchistan and upper India from the 3rd to the 5th. A cool wave of slight intensity entered the North-West Frontier Province on the 4th and the Punjab on the 5th and spread rapidly across northern and Central India during the next four days.

The following departure data show the progress and intensity of this cool wave :—

Province or Division	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of					
	5th. January.	6th. January.	7th. January.	8th. January.	9th. January.	10th. January.
	°	°	°	°	°	°
Burma . . .	0	+0·4	+0·6	+0·4	−0·4	−0·3
Assam . . .	−1·5	−0·7	−1·5	−1·0	−2·0	−2·0
Bengal . . .	−0·3	−0·3	−1·0	−2·4	−1·2	−1·2
Orissa . . .	+2·0	+3·7	−0·6	−4·7	−4·7	−4·4
Bihar	+0·5	+1·1	−4·7	−4·5	−2·1	−0·5
Chota Nagpur . .	+4·4	+2·5	−4·3	−3·5	−4·8	−3·7
United Provinces of Agra and Oudh.	+3·1	−1·0	−4·3	−2·7	−1·4	−0·9
Punjab . . .	−2·7	−3·6	−3·6	−2·0	−1·5	−0·2
N.-W. Frontier Province	−2·2	−5·2	−2·5	−1·4	−2·0	+1·7
Sind	+2·4	+0·9	−1·1	+1·5	+0·4	+2·1
Rajputana . . .	−0·3	−3·7	−4·5	−2·9	−2·3	−0·9
Gujarat . . .	+1·1	−0·1	+0·6	+4·0	+2·5	+1·8
Central India . .	+4·7	−2·4	−4·8	−3·9	−4·4	−3·1
Central Provinces .	+6·3	+0·2	−4·3	−4·0	−4·1	−4·0
Berar . . .	+6·8	+2·5	−2·8	−2·6	−3·4	−2·4

Temperature varied somewhat irregularly during this period in the southern half of the Peninsula, as is shown by the following data :—

Province or Division	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of					
	5th. January.	6th. January.	7th. January.	8th. January.	9th. January.	10th January.
	°	°	°	°	°	°
West Coast . .	+0·3	−0·9	+1·0	+1·2	+1·5	+0·9
Bombay Deccan . .	+3·8	+2·2	+0·2	−2·3	−3·9	−3·3
Mysore . . .	−1·2	−0·6	−1·0	−1·0	−1·9	−0·9
Madras Coast . .	−0·8	+0·8	+1·8	+0·9	−0·6	−1·7
Madras Deccan . .	−1·2	+0·4	+0·2	−0·9	−2·8	−2·9
South India . .	−2·6	−3·5	−2·6	−1·7	+0·3	−0·5

Temperature increased generally in India on the 11th and 12th, and on the latter date differed little from the normal, except in Berar, the Central Provinces, Chota Nagpur, Orissa and Assam, where the effect of the cool wave continued to be shown.

A disturbance of an unusual character affected the weather in Baluchistan and north-west India during the next three days. Stormy weather with rain and snow set in on the 13th and lasted until the 15th. The warm wave in front of the disturbance advanced across the frontier on the 12th, and was followed on the 13th and 14th by a cool wave which extended slowly eastwards during the next seven days, displacing the warm wave. Hence from the 13th to the 21st two cool waves separated by a warm wave were advancing eastwards across northern and Central India and Burma.

The following giving the departures of the mean temperature from the normal shows the progress of these waves :—

Date.	Western cold wave.		Intermediate warm wave.		Eastern cold wave.	
	Station.	Departure from normal of mean temperature.	Station.	Departure from normal of mean temperature.	Station.	Departure from normal of mean temperature.
		°		°		
13th	Quetta . .	−6·2	Sirsa . .	+5·4	Raipur . .	−5·3
	D. I. Khan .	−4·6	Jaipur . .	+4·9	Sambalpur .	−4·3
	Peshawar .	−2·4	Neemuch .	+4·4	Cuttack .	−4·8
14th	Peshawar .	−5·4	Bikaner .	+7·5	False Point .	−5·0
	Jacobabad .	−5·0	Jaipur . .	+6·4	Balasore .	−4·9
	Kurrachee .	−5·0	Neemuch .	+7·2	Cuttack .	−4·9
15th	Jacobabad .	−6·0	Mainpuri .	+7·9	False Point .	−7·0
	Bikaner . .	−5·6	Jhansi . .	+7·1	Cuttack .	−5·1
	Sirsa . .	−4·7	Cawnpore .	+5·0	Chittagong .	−3·5
16th	Lahore . .	−5·2	Mainpuri .	+7·8	Bhamo . .	−6·4
	Ludhiana .	−3·5	Nagpur . .	+5·8	Yamethin .	−5·4
	Bikaner . .	−4·5	Hazaribagh .	+5·2	Toungoo .	−6·0
17th	Bikaner . .	−7·5	Jubbulpore .	+8·3	Bhamo . .	−5·2
	Montgomery	−5·9	Bahraich .	+7·3	Yamethin .	−6·4
	Mooltan .	−5·1	Chaibassa .	+4·6	Toungoo .	−5·1
18th	Bikaner . .	−5·9	Jubbulpore .	+9·8	Bhamo . .	−5·3
	Hyderabad .	−9·3	Patna . .	+7·1	Toungoo .	−3·6
19th	Bikaner . .	−10·6	Chaibassa .	+6·1	Yamethin .	−4·6
	Roorkee .	−11·2	Saugor Island	+5·7	Toungoo .	−4·2
	Rajkot . .	−10·3	Calcutta .	+5·5	Bhamo . .	−2·8
20th	Sambhar .	−10·9	Barisal . .	+6·5		
	Agra . .	−9·8	Calcutta .	+5·8		
	Rajkot . .	−11·5	Jessore . .	+5·3		
21st	Jubbulpore .	−9·6	Silchar . .	+3·2		
	Nowgong .	−9·0	Chittagong	+2·7		
	Gaya . .	−7·8	Minbu . .	+1·8		

The eastern cold wave passed out of Burma on the 19th, the intermediate warm wave on the 21st, and the western cold wave covered the whole of northern India on the 22nd.

The following departure data for the 22nd show the character of the temperature distribution, relatively to the normal, prevailing at the end of this period :—

Province or Division.	Departure from normal of		
	Mean maximum temperature.	Mean minimum temperature.	Mean temperature.
	°	°	°
Burma	−0·9	−0·4	−0·7
Assam	+0·2	−2·2	−1·0
Bengal	−4·6	−5·4	−5·0
Orissa	−5·8	−3·5	−4·7
Bihar	−5·5	−4·6	−5·1
Chota Nagpur	−4·4	−5·3	−4·9
United Provinces of Agra and Oudh	−5·5	−3·8	−4·6
Punjab	−6·4	−2·5	−4·5
N.-W. Frontier Province	−7·9	−4·1	−6·0
Sind	−6·2	−4·9	−5·6
Rajputana	−4·3	−2·7	−3·5
Gujarat	−0·3	+1·0	+0·4
Central India	−4·5	−1·1	−2·8
Central Provinces	−2·4	−1·3	−1·9
Berar	−0·8	+2·0	+0·6
West Coast	+1·1	+2·1	+1·6
Bombay Deccan	−0·9	+4·1	+1·6
Mysore	−1·6	−0·5	−1·1
Madras Coast	−1·5	+3·2	+0·9
Madras Deccan	−1·9	+0·5	−0·7
South India	−2·9	+2·0	−0·5

It may be noted that the unusually slow advance of the western cool wave during the first five days was related to the delay in the setting in of cool westerly winds which almost invariably follow the dispersion of a winter storm.

Throughout this period the changes of temperature were small and irregular in southern India and the Deccan, and hence independent of those in northern India.

Temperature rose steadily in northern and Central India during the next three days, and on the 25th exceeded the normal over practically the whole of that area.

The conditions prevailing on this day are represented by the following data:—

Province or Division.	Departure from normal of		
	Mean maximum temperature.	Mean minimum temperature.	Mean temperature.
	°	°	°
Burma	−1·1	+0·3	−0·4
Assam	+2·4	+0·8	+1·6
Bengal	+1·3	+0·4	+0·9
Orissa	+2·2	−2·6	−0·2
Bihar	+4·5	+4·9	+4·7
Chota Nagpur	+2·4	+2·9	+2·7
U. Provinces of Agra and Oudh	+2·8	+3·6	+3·2
Punjab	+0·8	+1·8	+1·3
N.-W. Frontier Province	−0·9	+4·4	+1·8
Sind	−1·0	+2·5	+0·8
Rajputana	+1·2	+2·0	+1·6
Gujarat	+2·3	+4·9	+3·6
Central India	+0·2	+5·8	+3·0
Central Provinces	+2·4	+2·4	+2·4
Berar	+3·2	+6·8	+5·0

Temperature had, on the other hand, decreased in the south and east of the Peninsula, and was from 2° to 4° below the normal.

The following gives data for this area :—

Province or Division.	Departure from normal of		
	Mean maximum temperature.	Mean minimum temperature.	Mean temperature.
	°	°	°
West Coast	0	+1·7	+0·9
Bombay Deccan	+1·1	+3·7	+2·4
Mysore	−2·5	−3·5	−3·0
Madras Coast	−1·3	+0·3	−0·5
Madras Deccan	−2·5	−3·4	−3·0
South India	−3·1	−1·8	−2·5

No important change occurred during the remainder of the month, except in the Punjab, Rajputana, Central India and the United Provinces, where a rapid fall occurred from the 29th onward and reduced the temperature below the normal.

The following data indicate the conditions obtaining at the end of the month :—

Province or Division.	Departure from normal of		
	Mean maximum temperature.	Mean minimum temperature.	Mean temperature.
	°	°	°
Burma	−1·3	−1·0	−1·2
Assam	+0·9	+0·6	+0·8
Bengal	+1·9	+4·9	+3·4
Orissa	+1·4	+6·7	+4·1
Bihar	+3·8	+2·3	+3·1
Chota Nagpur	+4·2	+3·1	+3·7
United Provinces of Agra and Oudh	+0·3	−5·6	−2·7
Punjab	+0·4	−4·9	−2·3
N.-W. Frontier Province	+2·5	+1·2	+1·9
Sind	+5·4	+1·5	+3·5
Rajputana	+1·1	−5·7	−2·3
Gujarat	+1·5	+0·1	+0·8
Central India	−1·0	−4·4	−2·7
Central Provinces	+2·0	−0·9	+0·6
Berar	+2·6	−1·5	+0·6
West Coast	−1·7	−0·5	−1·1
Bombay Deccan	+2·8	−0·7	+1·1
Mysore	+0·5	−4·7	−2·1
Madras Coast	−1·0	−0·6	−0·8
Madras Deccan	−0·6	−1·7	−1·2
South India	−0·4	−1·2	−0·8

The preceding discussion has shown that the warm and cool waves of the month were not so intense as frequently occur in the month of January. Two cool waves appeared on the frontier and extended eastwards across northern and Central India. They were, however, feeble and caused only a moderate reduction of temperature. As usual the effects of these cool waves did not extend southwards to the southern half of the Peninsula, where the temperature conditions were determined by different actions, and on most days varied inversely to those of northern India.

The disturbances of the month with one exception were ill-defined and diffused and affected the weather, chiefly in Baluchistan and upper India. The accompanying precipitation in the western Himalayas was restricted chiefly to the outer ranges, and temperature was hence above the normal on the interior ranges as represented by Leh and Gilgit.

Another noteworthy feature was the persistent deficiency of temperature in Burma (somewhat more marked in the day than in the night temperature) due perhaps to the more frequent prevalence of northerly winds than usual.

Winds.

The 8 A.M 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 I under the headings "Wind direction" and "Wind velocity." In these columns are shown the number of days the wind at 8 A.M. blew from each of eight points, the resultant direction of winds, and also the mean hourly air movement. 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. The mean wind directions are shown in Plate I by means of arrows in the usual manner.

The wind data for 10 and 16 hours are given in a similar form in Table II. Under the headings "Wind direction," "Wind steadiness", and "Wind velocity" are shown the number of times that each of eight wind directions was observed at the hours of record, the trigonometrical resultant of these observations computed by Lambert's formula, the mean diurnal movement of the air at each station and the average monthly values of the last two elements computed from the previous wind observations at that station.

The mean wind directions of the month for the second class stations are indicated in the small chart No. 4 of Plate III by means of arrows flying with the wind. In this chart the lengths of the arrows are drawn so 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.

Winds during January 1904 differed little from the normal either in direction or strength at Port Blair. They were somewhat below their normal intensity and more directly from the east than usual on the Pegu coast. The following data illustrate these features :—

Station.	Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual, January, 1904.	Normal, January.	Actual, January, 1904.	Normal, January.	Departure from normal, January, 1904.
	°	°			
Rangoon	N 49 E	N 27 E	45	91	−46
Diamond Island	N 20 E	N 1 W	184	190	− 6

Winds were fairly normal in strength and steadiness on the Arakan coast, but the northerly element in the prevailing north-westerly winds of the month was very strongly pronounced. This is shown below :—

Station.	Mean steadiness.			Mean wind direction			Mean wind velocity in miles per diem.		
	Actual percentage, January, 1904.	Normal percentage, January.	Departure from normal, January, 1904.	Actual, January, 1904.	Normal, January.	Northerly deflection.	Actual, January, 1904.	Normal, January.	Departure from normal, January, 1904.
				°	°	°			
Akyab .	31	44	—13	N 1 W	N 18 W	+17	53	67	—14
Chittagong.	52	48	+ 4	N 14 W	N 24 W	+10	79	74	+ 5

Winds were lighter than usual in Bihar, Orissa, and the east of the United Provinces ; of normal strength in Bengal, and slightly above their normal intensity in Chota Nagpur. Their directions varied somewhat irregularly from the normal at neighbouring stations, but were, on the whole, more westerly than usual in lower Bengal and more northerly in Orissa, Chota Nagpur, and the east of the United Provinces.

The following gives data showing these features :—

Station.	Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual, January, 1904.	Normal, January.	Actual, January, 1904.	Normal January.	Departure from normal, January, 1904.
	°	°			
Calcutta . .	N 47 W	N 30 W	47	62	—15
Saugor Island	N 18 W	N 6 W	177	173	+ 4
False Point . .	N 35 E	N 57 E	127	142	—15
Hazaribagh . .	N 29 W	N 51 W	151	139	+12
Allahabad . .	N 24 W	N 42 W	69	91	—22

The chief feature in these areas was the increased steadiness, most marked in lower Bengal, for which data are given below :—

Station.	Mean steadiness.		
	Actual percentage, January, 1904.	Normal percentage, January.	Departure from normal, January, 1904.
Calcutta	53	44	+ 9
Saugor Island	32	22	+10

Winds were remarkably steady and more westerly than usual in the Punjab and the adjacent districts of the United Provinces. They were, however, on the mean of the month fairly normal in intensity.

The following data illustrate these features :—

Station.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, January, 1904.	Normal percentage, January.	Departure from normal, January, 1904.	Actual, January, 1904.	Normal, January.	Actual, January, 1904.	Normal, January.	Departure from normal, January, 1904.
				°	°			
Dehra Dun . .	47	20	+27	S 80 W	S 66 W	25	38	—13
Roorkee . .	35	21	+14	N 38 W	N 72 W	71	50	+21
Meerut . .	47	42	+ 5	N 68 W	N 60 W	41	48	— 7
Lahore . .	39	21	+18	N 53 W	N 30 W	43	41	+ 2
Ludhiana . .	74	29	+45	N 88 W	N 54 W	39	41	— 2
Peshawar . .	19	4	+15	N 66 W	S 7 W	38	60	—22

The large westing in the wind's direction would appear to indicate a much greater influx of cold dry winds from the highlands of Afghanistan than usual.

Winds were steadier than usual in Sind and Rajputana, and contained a strong easterly component.

The following gives data in illustration :—

Station.	Mean steadiness.			Mean wind direction.	
	Actual percentage, January, 1904.	Normal percentage, January.	Departure from normal, January, 1904.	Actual, January, 1904.	Normal, January.
				°	°
Jacobabad . .	26	23	+ 3	N 33 E	N
Kurrachee . .	40	20	+20	S 84 E	N 24 E
Jaipur . . .	26	18	+ 8	N 16 E	N
Deesa . . .	40	37	+ 3	N 5 E	N 24 E

The air movement at the hill stations in Baluchistan and northern India was characterized by several features of interest. It was more or less above its normal intensity, except at Quetta, Srinagar, Ranikhet and Darjeeling. The increase was most marked at Leh and Chakrata.

Winds were much steadier than usual at Leh, Simla, Mount Abu and Pachmarhi, but were unusually unsteady at Quetta and Chikalda. The most important abnormal feature of the air movement in this area, however, was the marked southerly element in the mean wind direction at the great majority of stations, pointing to the existence of very unusual pressure conditions in the middle atmospheric

strata. The following data for typical stations illustrate these features:—

Hill Station.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, January, 1904.	Normal percentage, January.	Departure from normal, January, 1904.	Actual, January, 1904.	Normal, January.	Actual, January, 1904.	Normal, January.	Departure from normal, January, 1904.
				°	°			
Quetta . .	8	24	—16	S 48 W	N 84 W	53	70	—17
Srinagar . .	13	4	+ 9	S 2 W	S 21 E	57	74	—17
Simla . .	52	20	+32	S 1 E	S 18 E	160	120	+40
Chakrata . .	10	6	+ 4	S 37 E	S 51 W	211	137	+74
Darjeeling . .	16	20	— 4	S 78 E	N 81 W	81	89	— 8
Mount Abu . .	21	12	+ 9	S 71 W	N 61 W	141	125	+16
Pachmarhi . .	23	10	+13	S 88 W	N 75 W	107	84	+23

The following gives data of the mean air movement in northern India:—

Province or Division.	Mean steadiness.			Mean wind velocity in miles per diem.		
	Actual percentage, January, 1904.	Normal percentage, January.	Departure from normal, January, 1904.	Actual, January, 1904.	Normal, January.	Departure from normal, January, 1904.
Bay Islands . .	79	76	+ 3	162	156	+ 6
Burma . . .	48	50	— 2	94	116	—22
Bengal . . .	46	38	+ 8	101	103	— 2
Bihar . . .	27	44	—17	30	62	—32
Chota Nagpur .	58	49	+ 9	151	139	+12
Orissa . . .	27	22	+ 5	127	142	—15
United Provinces of Agra and Oudh.	40	27	+13	52	57	— 5
Punjab . .	57	25	+32	41	41	0
North-West Frontier Province.	19	4	+15	38	60	—22
Rajputana . .	33	28	+ 5	150	142	+ 8
Sind . . .	33	22	+11	92	137	—45

Winds were steadier than usual throughout the Peninsula, but their strength varied very irregularly from the normal in different parts of the area.

The following gives data showing these features:—

Province or Division.	Mean steadiness.			Mean wind velocity in miles per diem.		
	Actual percentage, January, 1904.	Normal percentage, January.	Departure from normal, January, 1904.	Actual, January, 1904.	Normal, January.	Departure from normal, January 1904.
Central Provinces .	33	27	+ 6	71	82	—11
Berar . . .	21	19	+ 2	104	113	— 9
Bombay Deccan .	69	49	+20	250	214	+36
Madras Deccan .	60	58	+ 2	83	86	— 3
West Coast . .	59	55	+ 4	143	161	—18
Mysore . . .	85	77	+ 8	174	142	+32
Madras Coast .	89	76	+13	161	137	+24
South India . .	71	65	+ 6	77	115	—38

The mean direction of the air motion in this area differed but little from the normal, except locally at Karwar and Khandwa, where it was more easterly than is usually the case in January. The following gives data for these two stations:—

Station.	Mean wind direction.	
	Actual, January, 1904.	Normal, January.
	°	°
Karwar	N 32 E	N 20 W
Khandwa	N 64 E	N 24 E

The mean wind direction of the month at Kodaikanal agreed closely with that at Salem, thus showing that the easterly drift of air across the Peninsula extended at least to a height of 8,000 feet during the month and hence to a greater elevation than usual.

Winds were neither so steady nor so strong as usual at Aden, and contained a large southerly component. They were, on the other hand, approximately normal in character at Perim. This is shown below:—

Station.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, January, 1904.	Normal percentage, January.	Departure from normal, January, 1904.	Actual, January, 1904.	Normal, January.	Actual, January, 1904.	Normal, January.	Departure from normal, January, 1904.
				°	°			
Aden	53	70	—17	S 42 E	S 89 E	267	324	—57
Perim	79	80	— 1	S 62 E	S 66 E	448	475	—27

The air movement was, on the other hand, approximately normal in character at Zanzibar, the Seychelles and Mauritius, as is shown by the following data:—

Station.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, January, 1904.	Normal percentage, January.	Departure from normal, January, 1904.	Actual, January, 1904.	Normal, January.	Actual, January, 1904.	Normal, January.	Departure from normal, January, 1904.
				°	°			
Zanzibar . .	55	70	—15	N 28 E	N 33 E	166	187	—21
Seychelles . .	71	65	+ 6	N 45 W	N 42 W	118	...	...
Mauritius . .	...	...	...	S 88 E	S 86 E	250	266	—16

The Seychelles data indicate that the belt of light variable winds, which is a characteristic feature of the air movement in equatorial regions at this time of the year, lay throughout nearly the whole of the month to the south of Latitude 4° S.

The air movement over India during the month hence presented several features of interest. The month was remarkably free from well-developed cold weather storms, and the mean air movement of the month was much more steady over the whole of the country than is ordinarily the case.

Heavy snow was received during a part of the month in the hill districts to the west and north-west of the Punjab, in consequence of which dry cold winds from the north-west were prevalent to an unusual extent in the plains of upper India.

Winds were abnormally southerly in Baluchistan and on the southern face of the Himalayas, due apparently to unusual pressure conditions in the middle atmospheric strata. Easterly winds with a slight northing obtained on the Palni hills in southern India, an indication that the lower easterly drift across the south of the peninsula from the Bay was of greater depth than usual.

Over the Indian seas the air movement was more vigorous than usual, more especially in the Bay of Bengal.

Humidity and Cloud.

The hygrometric data of the month registered at certain stations are given in Table II. In that table are columns giving the means of the wet bulb readings at 10 and 16 hours and of the minimum wet bulb readings, the mean vapour tension and humidity at the same hours, and also the mean of daily means of these elements. 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 A.M. and 4 P.M. observations, and reducing them to true means, by applying the corrections given in Table E, page XXXVIII of Vol. XVII of the "Indian Meteorological Memoirs." These corrections were determined from the hourly observation data given in Volumes V, IX, and X of the "Indian Meteorological Memoirs." The normal values, by means of which the departures have been derived, 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 III (*a*). The first chart shows the departure of 8 A.M. absolute humidity and the second that of the relative humidity from normal.

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 II are the arithmetical means of the cloud amounts at 10 and 16 hours, and the normal means, with which the actual monthly means are compared, are derived from the available cloud data for the same hours.

The mean distribution of cloud amount at 8 A.M. in each month in India is shown in Chart No. 3 of Plate III (*a*) and the discussion of this and the hygrometric futures are based on the date given in Table I.

During the month under review the air contained less aqueous vapour and was less humid than usual in lower Burma, south Tenasserim, and the Bay Islands. The deficiency in the relative humidity was most marked at Mergui (—5·1) and Moulmein (—6·6).

The departures of humidity from the normal were very irregular in Bengal, Assam, Orissa, Bihar and Chota Nagpur. They were, however, generally small in amount —an indication that the humidity conditions were, on the average of the month, approximately normal. The following examples show the extreme irregularity of the departures in these areas:—

Station.	Absolute Humidity.			Relative Humidity.		
	Actual, January, 1904.	Normal, January.	Departure from normal, January, 1904.	Actual, January, 1904.	Normal, January.	Departure from normal, January 1904.
	"	"	"	%	%	
Balasore . .	·408	·442	—·034	79·0	81·0	—2·0
Cuttack . .	·444	·455	—·011	80·0	77·6	+2·4
Mymensingh . .	·415	·420	—·005	88·0	91·4	—3·4
Narayanganj . .	·460	·449	+·011	90·0	87·2	+2·8
Ranchi . . .	·287	·300	—·013	61·0	63·4	—2·4
Chaibassa . .	·365	·378	—·013	83·0	74·1	+8·9
Patna . . .	·360	·356	+·004	84·0	77·1	+6·9
Gaya . . .	·326	·345	—·019	72·0	72·8	—0·8

The humidity was considerably in excess in the North-West Frontier Province and upper Sind and slightly in excess in the United Provinces, the Punjab and Central India, partly in virtue of low temperature and partly of the increased amount of the aqueous vapour.

The following gives comparative data for these areas :—

Province or Division.	Absolute Humidity.			Relative Humidity.		
	Actual, January, 1904.	Normal, January.	Departure from normal, January, 1904.	Actual, January, 1904.	Normal, January.	Departure from normal, January, 1904.
	"	"	"	%	%	
United Provinces .	·312	·305	+·007	81·3	78·9	+ 2·4
Punjab . . .	·254	·254	0	80·6	78·1	+ 2·5
N.-W. F. Province .	·240	·204	+·036	80·5	70·9	+ 9·6
Upper Sind . .	·247	·218	+·029	76·0	62·3	+13·7
Central India. .	·296	·285	+·011	96·0	65·4	+ 2·5

The humidity was, on the whole, in greatest excess at Dera Ismail Khan (+13°·8), Jacobabad (+13°·7) and Jhansi (+12°·2).

There was less aqueous vapour than usual in the air in Rajputana and lower Sind and notwithstanding the low temperature prevailing in that region, the humidity was below the normal by amounts ranging from 1 to 8. In Berar, the western half of the Central Provinces, Khandesh and the neighbouring districts of Gujarat, on the other hand, the amount of aqueous vapour was greater than usual but as temperature was in slight to moderate excess, the relative humidity was more or less below the normal. The following gives the mean comparative data for these areas :—

Province or Division.	Absolute Humidity.			Relative Humidity.		
	Actual, January, 1904.	Normal, January.	Departure from normal, January, 1904.	Actual, January, 1904.	Normal, January.	Departure from normal, January, 1904.
	"	"	"	%	%	
Rajputana . .	·219	·245	—·026	58·0	61·4	—3·4
Lower Sind . .	·269	·294	—·025	56·5	60·8	—4·3
Berar . . .	·322	·312	+·010	52·0	53·5	—1·5
Western half of Central Provinces.	·327	·324	+·003	64·1	64·9	—0·8
Khandesh . .	·350	·324	+·026	56·8	57·8	—1·0
Gujarat . . .	·331	·323	+·008	52·0	55·7	—3·7

At the majority of the Himalayan stations both the absolute and relative humidities were below the normal. The mean relative humidity of the month was 8·3 in defect at Darjeeling, 9·5 in defect at Ranikhet, and 5·8 in defect at Leh. It was, on the other hand, in large excess in Baluchistan and at Cherat and Murree, where the air was not only cooler, but also contained more aqueous vapour than usual.

The air was unusually damp over Mysore, the interior of Madras, and the neighbouring districts of the Nizam's Dominions and the Bombay Deccan, in consequence partly of low temperature but chiefly of the increased amount of aqueous vapour.

The following gives data for these areas :—

Province or Division.	Absolute Humidity.			Relative Humidity.		
	Actual, January, 1904.	Normal, January.	Departure from normal, January, 1904.	Actual, January, 1904.	Normal, January.	Departure from normal, January, 1904.
	"	"	"	%	%	
Mysore . . .	·494	·468	+·026	77·5	70·2	+ 7·3
South India . .	·638	·633	+·005	78·3	76·0	+ 2·3
Madras Deccan .	·567	·487	+·080	80·8	67·7	+13·1
Nizam's Dominions.	·463	·415	+·048	72·0	66·1	+ 5·9
Bombay Deccan .	·394	·361	+·033	61·5	57·0	+ 4·5

The excess was absolutely greatest at Kurnool (+18·4) Bellary (+14·5) and Raichur (+13·4), *i.e.*, in the area where the amount of aqueous vapour was also in largest excess.

The air was, on the other hand, somewhat drier than usual in the coast districts from Surat to Madras.

The air was very dry during two well-defined periods, the first lasting from the 3rd to the 9th and the 2nd from the 26th to the 31st.

The following gives the lowest humidities recorded during these two periods :—

Station.	Date.	Hour.	Lowest humidity recorded during January, 1904.
			%
Chakrata	3rd . .	8 A.M.	22
Kodaikanal	5th . .	"	11
"	6th . .	"	23
Cherat	7th . .	"	22
Seoni	8th . .	"	21
Mount Abu	" . .	"	24
Cherra Poonjee	9th . .	"	12
Simla	" . .	"	14
Kodaikanal	26th . .	"	13
Ootacamund	" . .	"	16
Simla	" . .	"	18
Ranikhet	" . .	"	20
Ootacamund	27th . .	"	19
Simla	28th . .	"	17
Kodaikanal	29th . .	"	9
Simla	" . .	"	19
Cherat	" . .	"	19
Leh	30th . .	"	12
Kodaikanal	" . .	"	16
Jodhpur	" . .	"	17
Minimarg	" . .	"	18
Kodaikanal	31st . .	"	11

It may be noted that both absolute and relative humidities were in excess of the normal in the plateau area of Persia and north-east Arabia, though not to the same extent as in Baluchistan. The air was, on the other hand, somewhat drier than usual in the south of Arabia as represented by Aden.

The departures of cloud were similar in character to those of humidity (more especially the absolute humidity) at the great majority of stations.

The mean 8 A.M. cloud amount of the month was largely above the normal over the southern half of the peninsula and slightly above in the north Konkan, Baghelkhand and the upper Indus valley.

The following gives data for these areas :—

Province or Division.	Mean cloud amount.		
	Actual, January, 1904.	Normal, January.	Departure from normal, January, 1904.
Madras Deccan	2·3	1·4	+0·9
Madras Coast	3·4	2·9	+0·5
Mysore	4·4	2·4	+2·0
South India	4·5	2·6	+1·9
North Konkan	1·6	0·8	+0·8
Baghelkhand	2·1	1·8	+0·3
Upper Indus Valley	4·3	3·9	+0·4

The excess was most marked at Mercara (+5·0), Tinnevelly (+3·9), and Bellary (+3·4). The area of greatest excess of cloud thus coincided roughly with the region of greatest dampness of the air.

There was, on the other hand, less cloud than usual over nearly the whole of the region lying between the two areas of excess, including Burma, Bengal, the United Provinces, Sind, Rajputana, the eastern half of the Punjab, Bundelkhand, the Central Provinces (excepting the western districts) and the greater part of Gujarat.

Comparative data for this area of deficient cloud are given below :—

Province or Division.	Mean cloud amount.		
	Actual, January, 1904.	Normal, January.	Departure from normal, January, 1904.
Burma	0·9	1·5	—0·6
Bengal	0·7	1·2	—0·5
United Provinces	1·7	2·5	—0·8
Sind	2·1	3·1	—1·0
Rajputana	1·9	2·7	—0·8
Eastern half of the Punjab	3·0	3·9	—0·9
Bundelkhand	2·0	2·3	—0·3
Central Provinces	0·9	1·4	—0·5
Gujarat	0·9	1·3	—0·4

The deficiency was hence most pronounced in the areas in which humidity was also largely below the normal.

There was more cloud than usual at all the hill stations, with the exception of Chaman, Murree, Chakrata, Mussooree, Darjeeling, Mount Abu and Pachmarhi, where skies were somewhat less clouded than usual. The excess was most marked at Quetta (+1·1) and Wellington (+1·2).

Skies were practically free from cloud (*i.e.*, the cloud amount was 0·3 or less) at the following stations :—

Station.	Mean cloud amount, January, 1904.
Chittagong	0·3
Dinajpur	0·3
Muzaffarpur	0·3
Midnapore	0·2
Raniganj	0·2
Bahraich	0·2
Akyab	0·2
Tavoy	0·1
Toungoo	0·1
Yamethin	0·1
Purulia	0·1
Bhagalpur	0·1
Chaibassa	0

Skies were clouded to a greater extent than usual in the south-east trades region, more especially at Zanzibar, where the mean cloud amount of the month was 1·3 above the normal. They were, on the other hand, even more free from cloud than usual in Arabia, for which country data are given below :—

Station.	Mean cloud amount.		
	Actual, January, 1904.	Normal, January.	Departure from normal, January, 1904.
Perim	1·8	5·2	—3·4
Aden	4·4	6·4	—2·0
Muscat	1·0	2·5	—1·5

Rainfall.

Rainfall observations are made at upwards of 2,400 stations in India. The hour of observation is 8 A.M. The rainfall data for each province are tabulated in the office of the Meteorological Reporter, Director of Land Records, or other office in the province, and 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.

The first rainfall chart (Plate IV) shows the actual distribution of the rainfall of the month so far as it is indicated by the returns of upwards of 200 meteorological stations. The distribution of rainfall is shown on this chart by means of isohyetic lines or lines of equal amounts of rainfall, the numbers attached to each line stating the rainfall in inches. The second chart (Plate V) shows the normal average rainfall and the departure of the rainfall from the normal of the month of the 57 meteorological or rainfall divisions, over each of which the meteorological conditions (more especially the rainfall) are fairly uniform and the staple crops similar in character.

The distribution of the total number of rainy days in each month is exhibited in Chart No. 4 of Plate III(*a*). A rainy day is one on which 0·10 inch or more of rain is received within 24 hours.

Northern India usually receives light to moderate rain in the month of January from cold weather cyclonic storms. The precipitation is generally heaviest in the hill districts, and decreases in amount southwards from the foot of these hills. Rain is also occasionally received in the south Madras coast districts, usually under the same conditions as in December. This rainfall is, however, exceptional in occurrence.

Weather was less disturbed than usual over northern and Central India during January 1904, and the precipitation of the month was scanty and in moderate to large defect over the greater part of that area. Two disturbances entered India from the highlands of Persia and Baluchistan, but failed to advance into the Gangetic plain and Bengal. They, however, gave light to heavy rain in the plains of upper India and moderate to heavy snow in the hill districts.

In southern India, on the other hand, the month was unusually rainy, and the rainfall of the month was in very large excess.

The following were the chief features of the rainfall distribution of the month :—

(1) Little or no rain fell in Burma, deltaic and north Bengal, Orissa, Chota Nagpur, the Central Provinces, Gujarat, Kathiawar and Cutch, west Rajputana, Hyderabad, Bombay, Mysore and Coorg.

(2) Excessive precipitation in Sind, Baluchistan, the North-West Frontier Province, and the west, central and sub-montane Punjab over the greater part of which area it was from two to three times the normal amount.

(3) Moderate to large deficiency in Bengal, the United Provinces, the south and south-east Punjab, the Central Provinces, Central India and east Rajputana.

(4) Unusually large excess in Madras (including Malabar) some districts of which presidency obtained upwards of eight times their normal fall.

(5) Excessive precipitation in the mountain region to the west of the Indus and parts of the Punjab Himalayas.

The following table gives mean actual, mean normal and departure rainfall data for the 58 meteorological divisions into which India is divided :—

Province.	Division.	Number of rainy days.		Rainfall.		
		Average actual, January, 1904.	Average normal, January.	Average actual, January, 1904.	Average normal, January.	Departure from normal, January, 1904.
				Inch.	Inch.	Inch.
Burma	Tenasserim	0	0·3	0	0·14	−0·14
	Lower Burma (Deltaic)	0	0·1	0	0·05	−0·05
	Central do.	0	0	0	0·02	−0·02
	Upper do.	0·1	0·3	0·01	0·11	−0·10
	Arakan	0	0·1	0	0·04	−0·04
Bengal and Assam	Eastern Bengal	0·2	0·9	0·13	0·43	−0·30
	Assam (Surma)	0·9	1·2	0·66	0·45	+0·21
	Do. (Hills)	0·5	1·4	0·12	0·62	−0·50
	Do. (Brahmaputra)	1·4	2·2	0·45	0·86	−0·41
	Deltaic Bengal	0	0·7	0	0·36	−0·36
	Central do.	0·4	1·0	0·15	0·48	−0·33
	North do.	0·1	1·1	0·03	0·48	−0·45
	Bengal Hills	2·0	1·7	0·68	0·74	−0·06
	Orissa	0	0·5	0·01	0·24	−0·23
	Chota Nagpur	0·2	1·1	0·05	0·53	−0·48
	Bihar (South)	1·2	1·4	0·49	0·75	−0·26
	Do. (North)	0·7	1·3	0·18	0·68	−0·50

Province.	Division.	Number of rainy days.		Rainfall.		
		Average actual, January, 1904.	Average normal, January.	Average actual, January, 1904.	Average normal, January.	Departure from normal, January, 1904.
				Inches.	Inches.	Inches.
United Provinces of Agra and Oudh	United Provinces (East)	1·1	1·5	0·54	0·72	−0·18
	Oudh (South)	0·7	1·3	0·24	0·76	−0·52
	Do. (North)	0·1	1·6	0·20	0·80	−0·60
	United Provinces (Central)	0·7	1·4	0·19	0·62	−0·43
	Do. do. (West)	0·7	1·4	0·15	0·60	−0·45
	Do. do. (East Submontane)	1·0	1·3	0·31	0·71	−0·40
	Do. do. (West do.)	2·0	2·6	0·77	1·39	−0·62
	Do. do. (Hills)	2·6	3·8	1·42	2·27	−0·85
Punjab	Punjab (South-East)	0·9	1·7	0·23	0·77	−0·54
	Do. (South)	1·3	1·7	0·46	0·86	−0·40
	Do. (Central)	4·2	2·4	2·21	1·17	+1·04
	Do. (Submontane)	3·9	3·1	2·08	1·85	+0·23
	Do. (Hills)	6·9	4·8	3·33	3·45	−0·12
	Do. (West)	2·7	1·3	1·55	0·58	+0·97
North-West Frontier Province.	North-West Frontier Province	5·1	2·5	3·13	1·38	+1·75
Bombay and Malabar Coast Districts (Madras).	Malabar	0·8	0	0·48	0·17	+0·31
	Travancore	1·4	...	1·44	...	...
	Madras (South Central)	1·4	0·1	0·79	0·13	+0·66
	Coorg	0·1	...	0·05	...	...
	Mysore	0·2	0·1	0·06	0·07	−0·01
	Konkan	0	0·2	0	0·13	−0·13
	Bombay Deccan	0	0·2	0·01	0·08	−0·07
	Hyderabad (North)	0	0·2	0	0·08	−0·08
	Khandesh	0	0·3	0·01	0·13	−0·12
Central Provinces and Berar.	Berar	0·5	0·6	0·22	0·29	−0·07
	Central Provinces (West)	0·3	0·8	0·07	0·50	−0·43
	Do. (Central)	0·2	1·1	0·05	0·54	−0·49
	Do. (East)	0	0·9	0	0·38	−0·38
Bombay (North)	Gujarat	0	0·1	0	0·04	−0·04
	Kathiawar and Cutch	0·1	0·1	0·03	0·04	−0·01
	Sind	1·1	0·8	0·47	0·28	+0·19
	Baluchistan Hills	5·6	2·9	2·69	1·30	+1·39
Rajputana and Central India.	Central India (East)	0·5	1·0	0·13	0·46	−0·33
	Rajputana (East), Central India (West)	0·5	1·0	0·14	0·39	−0·25
	Do. (West)	0·3	0·5	0·09	0·16	−0·07
Madras	East Coast (North)	0·1	0·1	0·26	0·16	+0·10
	Hyderabad (South)	0	0·2	0·01	0·07	−0·06
	Madras (Central)	0·8	0	0·26	0·07	+0·19
	East Coast (Central)	2·4	0·7	4·05	0·38	+3·67
	Do. (South)	2·7	0·9	1·98	0·45	+1·53
	Madras (South)	2·5	1·1	1·28	0·56	+0·72

Weather was even finer than usual in Burma, no rain having fallen during the month beyond a few local showers of little agricultural value in the Bhamo and Myitkyina districts.

The Brahmaputra valley received fairly general rain from the 28th to the 30th and showers from the 19th to the 21st, the 25th to the 27th and on the 31st. The falls were generally very light, in no case exceeding an inch in amount in 24 hours. In the Surma valley and the Khasi and Jaintia hills there was light rain towards the close of the month and in the Naga Hills from the 27th to the 29th. The total fall of the month exceeded the normal in the Surma division but was less than the average in the Brahmaputra valley and the Hill districts. The deficiency was most marked in the hills where it averaged half an inch or 81 per cent.

The month was practically rainless at Cherra Poonjee thus illustrating the fact that its topographical features which determine excessive rain during the summer months are inoperative in the cold season.

In the plains of Bengal the only rainfall of importance was received on the 18th, 19th and 31st. The fall during the first period was caused by a feeble depression and was restricted chiefly to Bihar and Chota Nagpur. On the 31st the rainfall was confined to north, central and east Bengal and was associated with low pressure conditions over the presidency.

Weather was feebly unsettled and light rain fell in the Sikkim Himalayas from the 27th to the 29th.

Deltaic and north Bengal, Orissa and Chota Nagpur received actually or practically no rain during the month.

The average fall of the month was largely in defect over the whole of the province except the hill districts where it was approximately normal in amount.

In the United Provinces rain was received during four periods, *viz.*, the 4th and 5th, the 13th to the 17th, the 18th and 19th and the 24th. The rainfall was general during the third period and light and irregularly and partially distributed during the first, second and fourth periods.

The total rainfall of the month was below the normal throughout the province. The defect, although not large in actual amount, was serious relatively to the normal. It was greatest (0·60 inch or 75 per cent) in north Oudh and least (25 per cent) in the eastern districts.

Rain fell in the Punjab during three well-defined periods. During the first period, which extended from the 3rd to the 5th, light rain occurred over the whole province excepting the southern and south-eastern districts and was related to the first disturbance of the month. The second period extended from the 13th to the 16th and hence synchronized with the second disturbance of the month. This burst was general over the whole province and was, on the whole, heaviest over the submontane, western and central districts. Daily falls exceeding one inch in amount were recorded at a large number of stations, the most noteworthy being the following:—

District	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Gujrat . .	Sadr . .	15th Jany..	2·86
Rawalpindi .	Kahuta . .	Ditto .	2·75
Do. . .	Fatahjang .	Ditto .	2·52
Gujrat . .	Kharian . .	Ditto .	2·26

The third period was from the 17th to the 19th when the rainfall was general in the Simla and Kangra hill districts and scattered in the plains.

The following statement shows the distribution of the precipitation of the month in this province:—

Division.	Rainfall.			
	Average actual, January, 1904.	Average normal, January.	Departure from normal, January, 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
South-east Punjab .	0·23	0·77	−0·54	−70
South Punjab . .	0·46	0·86	−0·40	−47
Central Punjab . .	2·21	1·17	+1·04	+89
Punjab Submontane .	2·08	1·85	+0·23	+12
Punjab Hills . . .	3·33	3·45	−0·12	− 3
West Punjab . .	1·55	0·58	+0·97	+167

The data indicate that the rainfall of the month was practically normal in the hill districts; below the normal in the southern and south-eastern districts and more or less in excess over the remainder of the province. The excess was greatest in actual amount in the central Punjab where it averaged a little over an inch. The deficiency was largest (both relatively and absolutely) in the south-east Punjab which received only 30 per cent. of the normal amount.

The precipitation of the month was very heavy in the North-West Frontier Province which obtained an average total amount of 3·13 inches, the normal fall being 1·38 inches.

There were three periods of disturbance and precipitation in Baluchistan, *viz.*, the 2nd to the 4th, the 9th to the 14th and the 21st to the 26th. The falls were generally light to moderate, only three out of 54 raingauge stations reporting amounts exceeding 2 inches in 24 hours. The total precipitation of the month was largely in excess of the normal over the whole of the province with the exception of the Kachhi Plain (between Sibi and Jacobabad) over the greater part of which tract little or no rain fell throughout the period.

The extraordinary character of the precipitation in this area is shown by the following data:—

Station.	Actual.	Normal.	Percentage ratio of actual to normal.
	"	"	
Saranan . . .	4·39	1·36	+323
Killa Abdulla . .	5·70	1·80	+317
Sanzal . . .	7·39	1·98	+373
Kachh . . .	6·73	2·14	+314
Mangi . . .	3·45	1·07	+322

The chief periods of precipitation in Kashmir were from the 3rd to the 5th, the 12th to the 15th, and the 22nd to the 25th. The precipitation was heavy during the second period when the following large amounts were registered:—

State.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Jummoo . .	Punch . . .	14th January .	3·94
	Bhimber . . .	" " .	3·52
	Ramnagar . .	" " .	3·14

The total precipitation of the month was probably in excess in the Jummoo state and in defect in Gilgit, Little

Tibet and Ladakh, as the following data for the stations for which normals are available would seem to indicate :—

STATION.	RAINFALL.			
	Average actual, January, 1904.	Average normal, January.	Departure from normal, January, 1904.	Percentage departur from normal.
	Inches.	Inches.	Inches.	
Jummoo	2·62	3·94	—1·32	— 34
Ramban	8·22	7·55	+0·67	+ 9
Kishtwar	3·40	4·14	—0·74	— 18
Punch	7·29	6·23	+1·06	+ 17
Srinagar	3·77	3·36	+0·41	+ 12
Uomel	9·36	5·78	+3·58	+ 62
Dras	2·86	3·98	—1·12	— 28
Anantnag	4·06	3·22	+0·84	+ 26
Skardu	0·32	1·71	—1·39	— 81
Gilgit	0·06	0·18	—0·12	— 67
Leh	0·08	0·32	—0·24	— 75
Kargil	0·77	1·59	—0·82	— 52

The preceding data show a remarkable falling off in the amount of the precipitation beyond the main valley of Kashmir, the causes of which, in the absence of information, can only be conjectured.

The eastern States of Rajputana received some local showers between the 14th and the 18th and again on the 22nd and 23rd, and fairly general rain on the 24th. The falls were light, nowhere exceeding one inch in amount. The month was practically rainless in the western states. The total rainfall of the month was more or less in defect of the normal over the whole province, as is shown by the following data :—

DIVISION.	RAINFALL.			
	Average actual, January, 1904.	Average normal, January.	Departure from normal, January, 1904.	Percentage departure from normal.
	Inch.	Inch.	Inch.	
East Rajputana	0·14	0·39	—0·25	—64
West Rajputana	0·09	0·16	—0·07	—44

Central India obtained showers during the same periods as east Rajputana. The total fall of the month was 72 per cent. below the normal.

Local showers were received in the Central Provinces on the 15th, 16th and 18th. They were, however, exceedingly light and the rainfall of the month was, relatively to the normal, in large defect throughout these provinces.

Sind obtained more than the normal rainfall due to numerous showers on the 13th and 14th.

The month was even drier than usual over the remainder of the Bombay Presidency.

The rainfall was unusually frequent and heavy over the greater part of the Madras Presidency. A moderate to heavy burst occurred between the 1st and the 3rd due to a strong influx of north-east winds across the Peninsula. Rainfall was exceptionally heavy in Travancore, Tanjore, and the Nellore districts in which the following large falls in 24 hours were registered :—

DISTRICT.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
TRAVANCORE	Mavelkara	1st January	4·16
	Chengannur	2nd „	6·33
TANJORE	Negapatam	„ „	5·12
NELLORE	Iskapalle	4th „	5·75
	Kistnapatam	„ „	5·01
	Kavali	„ „	4·21
	Dugarazpatnam	13th „	4·70

Light to moderate rain was also received between the 10th and 14th in the southern and central coast districts and south Madras. The coast districts of Ganjam, Vizagapatam, Godavari and Kistna, however, did not share in these bursts.

The following table gives comparative data of the rainfall of the month for each of the collectorates of the presidency :—

COLLECTORATE.	RAINFALL.			
	Average actual, January, 1904.	Average normal, January.	Departure from normal, January, 1904.	Percentage departure from normal.
	Inches.	Inch.	Inches.	
Ganjam	0·01	0·18	—0·17	— 94
Vizagapatam	0·01	0·20	—0·19	— 95
Godavari	0·03	0·11	—0·08	— 73
Kistna	0·12	0·22	—0·10	— 45
Nellore	4·05	0·38	+3·67	+966
Chingleput	1·70	0·42	+1·28	+305
Madras	2·10	0·86	+1·24	+144
North Arcot	0·68	0·25	+0·43	+172
South Arcot	1·45	0·46	+0·99	+215

COLLECTORATE.	RAINFALL. Average actual, January, 1904.	Average normal, January.	Departure from normal, January, 1904.	Percentage departure from normal.
	Inches.	Inch.	Inches.	
Tanjore	3·97	0·72	+3·25	+451
Trichinopoly	2·09	0·24	+1·85	+771
Madura	1·02	0·42	+0·60	+143
Tinnevelly	1·64	0·76	+0·88	+116
Malabar	0·54	0·18	+0·36	+200
South Canara	0·18	0·15	+0·03	+ 20
Salem	0·85	0·15	+0·70	+467
Coimbatore	0·97	0·11	+0·86	+782
Nilgiris	1·91	0 37	+1·54	+416
Cuddapah	0·49	0·14	+0·35	+250
Anantapur	0·08	0·03	+0·05	+167
Bellary	0·07	0·04	+0·03	+ 75
Kurnool	0·32	0·07	+0·25	+357

The data show that over a large part of the Presidency the rainfall was more than three times its normal amount. It was heaviest in the Nellore district, which received ten times the normal amount, and lightest in the Ganjam and Vizagapatam districts where it was 95 per cent. below the normal.

The following gives data of the extra Indian stations:—

STATION.	RAINFALL. Average actual, January, 1904.	Average normal, January.	Departure from normal, January, 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Trincomalee	11·96	5·38	+6·58	+122
Colombo	5·44	3·20	+2·24	+ 70
Minicoy	0	2·09	−2·09	−100
Amini Divi	0·29	0·19	+0·10	+ 53
Kabul	1·45	1·24	+0·21	+ 17
Kashgar	0·08	0·27	−0·19	− 70
Meshed	0·77	0·41	+0·36	+ 88
Teheran	7·48	1·29	+6·19	+480
Ispahan	1·16	0 26	+0·90	+346
Bushire	0·84	3·12	−2·28	− 73
Jask	0·89	0·87	+0·02	+ 2
Muscat	0	1·28	−1·28	−100
Baghdad	0·98	1·38	−0·40	− 29
Aden	0	0·32	−0·32	−100
Perim	0·62	0·34	+0·28	+ 82
Zanzibar	5·25	3·37	+1·88	+ 56
Seychelles	30·50	18·57	+11·93	+ 64
Mauritius	3·49	7·64	−4·15	− 54

Crop Report.

Madras.—The irrigation supplies were sufficient and ploughing, sowing and transplanting continued throughout the month. The standing crops were generally good.

Bombay.—The rainfall was generally sufficient except in parts of Khandesh, Nasik and Poona. At the close of the month the standing crops were generally in good condition but had been damaged by locusts in parts of Colaba, Ratnagiri, Khandesh, Poona, Satara, and Belgaum; by rats in parts of Khandesh, Nasik, Ahmednagar, Sholapur and Bijapur; by frost in parts of Ahmedabad, Kurrachee, Larkana, upper Sind frontier, and Thur and Parkar; by blight in parts of the Carnatic and by insufficient moisture in parts of Poona and Sholapur. The water supply was generally adequate.

Bengal.—At the end of the month rain was very much needed in Burdwan, Murshidabad, Champaran, Malda, Hazaribagh, Palamau and Singhbhum. Some damage was caused to the spring crops by insects in Burdwan and by hail in Malda. The water supply was inadequate in parts of Malda. Prospects were otherwise good.

United Provinces.—Favourable rain occurred during the last three weeks greatly benefiting the standing crops which, at the close of the month, were in good condition. The poppy crop flourished except in Fyzabad where it had been attacked by grubs.

Punjab.—The condition of the irrigated crops was generally satisfactory; unirrigated crops were withering for want of rain in Delhi, Hissar and Ferozepore. Frost did some damage in Sialkot and caterpillars in parts of Ferozepore.

North-West Frontier Province.—Unusually heavy rain fell in the plains and much snow on the hills during the week ending 16th. The standing crops were doing well at the end of the month.

Burma.—No rain fell beyond a few local showers in Bhamo. The outturn of the wet weather paddy in upper Burma was good except in Mandalay, parts of Katha, the Ruby Mines and Yamethin districts. In lower Burma a normal outturn was anticipated.

Central Provinces.—The standing crops were generally in good condition, though some rain was still needed, especially on light soils. Slight damage was caused by frost in Jubbulpore, by hail in Hoshangabad and by insects and cloudy weather in the Raipur, Jubbulpore, Bilaspur and Chanda districts.

Assam.—The harvesting of winter rice and pulse was practically completed during the month and yielded a good outturn. The water supply was inadequate in the hills.

Mysore.—The general prospects of the season were good.

Coorg.—Water and fodder were sufficient.

Hyderabad.—At the end of the month the standing crops were in good condition and the harvest was in progress.

Rajputana.—The agricultural operations progressed satisfactorily and the condition of the standing crops and cattle was good.

Central India.—The crops were generally in good condition but had been damaged slightly by excessive cold in parts of Bhopawar, Malwa and Bhopal.

Kashmir.—The weather was throughout snowy, frosty and extremely cold.

Jummoo.—The standing crops were satisfactory.

Nepal.—Weather was cold and rain was very much needed for the standing crops.

HEM RAJ.

TABLE I.—Abstract of Observations taken at 8 A.M. at 233 Stations in India, Burma, etc., in January, 1904.

Table

Abstract of Observations taken at 8 A.M. at 233

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 A.M., in inches.								Temperature of Air.												
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
	I.—Burma Coast and Bay Islands.				+·005								85·1	−1·0	66·4	+0·2	75·8	−0·4	18·7					27·0
1	Tenasserim and Bay Islands.	Car Nicobar .	25	29·926		29·878	30·033	30th	29·856	1st	·177	79·6	84·2		76·5		80·4		7·7	86·0	4th	68·2	2nd	17·8
		Port Blair .	61	29·934	−·003	29·926	30·040	10th	29·887	17th & 24th.	·153	78·5	85·3	−1·2	76·5	+0·9	80·9	−0·2	8·8	88·2	29th	71·4	2nd	16·8
		Mergui . .	96	29·920	+·013	29·950	30·027	10th	29·842	19th	·185	74·1	88·5	+0·4	68·6	+1·7	78·5	+1·1	19·9	91·6	16 th	63·3	23rd	28·3
		Tavoy . .	26	29·997	+·002	29·954	30·100	10th	29·923	19th	·177	68·9	88·7	−0·8	65·5	+1·3	77·2	+0·3	23·2	92·2	29th	57·5	17th	34·7
		Moulmein .	94	29·936	+·003	29·971	30·055	10th	29·859	17th	·196	67·2	88·4	0	64·0	−1·2	76·2	−0·6	24·4	91·5	27th	60·9	24th	0·6
2	Lower Burma .	Rangoon .	57	29·982	+·005	29·979	30·097	10th	29·903	19th	·194	66·5	85·8	?	64·4	+0·2	75·1	?	21·4	89·1	31st	59·8	16th	29·3
		Bassein . .	27	30·019	+·017	29·986	30·130	7th	29·937	17th & 31st.	·193	66·1	84·3	−1·4	62·7	+1·0	73·6	−0·2	21·6	88·2	27th	56·8	15th	31·4
		Diamond Island	41	29·990	+·003	29·966	30·104	10th	29·922	19th	·182	74·8	82·1	−1·9	71·4	+0·4	76·8	−0·8	10·7	84·4	3 days	68·7	16th	15·7
5	Arakan . .	Akyab . .	20	30·033	−·001	29·997	30·164	10th	29·934	31st	·230	63·0	79·6	−1·8	59·8	+0·5	69·8	−0·7	19·8	81·9	22nd & 26th.	56·6	15th	25·3
3	Central Burma .	Toungoo .	183	29·874?	?	30·071?	30·006	10th	29·801	31st	·205	63·5	83·9	−1·4	51·8	−2·8	69·4	−2·1	29·1	88·3	26th & 30th.	48·6	15th	39·7
	II.—Burma Inland . .				+·036								80·5	−2·4	52·7	−0·8	66·6	−1·6	27·8					
3	Central Burma .	Thayetmyo .	130	29·941	+·030	30·019	30·086	10th	29·850	31st	·236	61·6	84·5	−1·4	51·5	−2·0	68·1	−1·7	33·0	89·5	26th	46·0	17th	‡
4	Upper Burma .	Minbu . .	165	29·927?	+·040?	30·041?	30·080	10th	29·819	28th	·261	63·2	82·8	−2·9	56·4	+0·3	69·7	−1·3	26·4	89·7	28th	50·0	15th	39·7
		Yamethin .	657	29·398	+·036	30·036	29·558	10th	29·286	28th	·272	60·3	84·3	−2·9	54·9	+0·3	69·6	−1·3	29·4	90·3	24th & 26th.	48·1	15th	42·2
		Monywa .	280	29·816		30·035	29·997	10th	29·679	28th	·318	60·0	81·1		55·4‡		68·3‡		25·7	85·3	22nd & 26th.	49·7	15th	35·6
		Mandalay .	250	29·818	+·035	30·031	29·994	10th	29·698	27th	·296	60·6	82·8	−1·3	54·6	−1·4	68·7	−1·4	28·2	87·5	28th	48·5	14th	39·0
		Myitkyina* .	458	29·628		30·075	29·822	10th	29·475	28th	·347	56·3	74·1		48·6		61·4		25·5	79·1	21st	40·1	17th	39·0
		Bhamo . .	*381*	29·702	+·042	30·064	29·884	10th	29·565	27th	·319	52·0	73·5	−3·7	47·2	−1·3	60·4	−2·5	26·3	79·0	26th	40·7	10th	38·3
4(a)	Burma Hill Stations.	Maymyo .	3,545	26·201			26·632	10th	26·409	28th	·223	48·8	71·4		38·4		54·9		33·0	74·3	24th & 25th.	31·6	14th & 15th.	42·7
		Lashio . .	2,751									50·8	75·0	−0·1	43·9	−1·1	59·5	−0·6	31·1	78·6	25th	36·1	13th	42·5
					+·005								73·2	0	50·1	−1·4	61·6	−0·7	23·2					32·7
7	**III.—Assam** Surma .	Silchar . .	104	29·988	+·008	30·052	30·139	8th	29·850	31st	·289	55·9	78·4	+0·6	51·7	−0·6	65·0	0	26·7	80·4	9th	46·5	9th	33·9
9	Brahmaputra .	Sibsagar .	333	29·770	+·001	30·086	29·953	8th	29·618	28th	·335	51·7	69·0	−1·1	48·0	−1·5	58·5	−1·3	21·0	74·3	25th	42·0	12th & 14th.	32·3
		Dhubri . .	115	29·970	+·006	30·049	30·128	7th	29·801	28th	·327	55·3	74·5	+0·5	50·9	−2·2	62·7	−0·9	23·6	78·1	26th	45·8	12th & 15th.	32·3
		Gauhati .	195	29·903		30·067	30·073	8th	29·742	28th	·331	54·2	73·9		50·4		62·2		23·5	77·6	25th & 26th.	44·1	15th & 15th.	33·5
		Tezpur . .	252	29·842		30·071	30·022	8th	29·694	28th	·328	53·3	72·9		51·3		62·1		21·6	77·0	25th	46·9	11th & 16th.	31·0
		Dibrugarh .	353	29·751		30·090	29·923	8th	29·606	31st	·317	52·1	70·5		48·0		59·3		22·5	75·1	25th	41·9	3 days	33·2
					+·008								77·3	−0·1	53·0	−0·9	65·1	−0·5	24·4					34·8
9	**IV.—Bengal and Orissa** East Bengal .	Chittagong .	87	29·971	−·005	30·011	30·109	10th	29·857	28th	·252	59·4	78·8	(+0·5	53·8	−1·5	66·3	−0·5	25·0	82·4	20th	49·1	22nd	33·3
		Noakhali .	43	30·022		30·014	30·156	10th	29·883	28th	·273	60·6	78·2		51·4		64·9		26·8	81·6	20th	45·3	22nd	36·3
		Comilla . .	36	30·044		30·029	30·174	7th	29·905	28th	·269	59·7	79·1		52·1		65·6		27·0	82·3	31st	45·1	22nd	37·2
		Sirajganj .	49	30·044		30·045	30·194	8th	29·872	28th	·322	55·7	76·1		52·3		64·2		23·8	80·1	19th	46·8	21st	33·3
		Narayanganj .	26	30·057	+·015	30·032	30·204	8th	29·905	28th	·299	59·3	77·3	−0·6	55·3	+0·1	66·3	−0·3	22·0	80·6	20th	49·3	26nd	31·3
		Barisal .	13	30·056	−·001	30·015	30·194	8th	29·916	28th & 31st.	·278	60·4	78·1	+0·5	54·0	−0·4	66·1	+0·1	24·1	83·3	20th	49·2	22nd	34·1
		Mymensingh .	59	30·028	+·010	30·045	30·172	8th	29·868	28th	·304	57·3	76·1†	+1·1	53·6	+1·1	64·7†	+1·1	22·5	78·3	31st	49·5	21st	28·8
		Faridpur .	46	30·038		30·036	30·185	8th	29·880	28th	·305	57·2	77·1		51·4		64·2		25·7	81·6	19th	47·2	22nd	34·4
10	Deltaic Bengal .	Jessore . .	33	30·060	+·015	30·041	30·212	8th	29·880	31st	·332	58·4	77·1	−0·8	51·2	−1·8	64·2	−1·3	25·9	81·6	19th	46·6	15th & 22nd.	35·0
		Calcutta . .	21	30·075	+·010	30·042	30·234	8th	29·889	31st	·345	58·7	78·0	+0·9	54·2	−1·1	66·1	−0·1	23·8	83·4	19th	48·4	8th	35·0
		Saugor Island .	25	30·067	+·012	30·038	30·220	8th	29·893	31st	·327	61·7	77·1	+0·5	58·3	−0·9	67·7	−0·2	18·8	82·0	26th	52·4	7th & 11th.	29·6
		Krishnagar .	47	30·060?		30·059?	30·222	8th	29·857	31st	·365	61·1	78·5		51·1		64·8		27·4	90·5	18th	45·7	22nd	44·8
		Midnapore .	149	29·938		30·042	30·094	8th	29·765	31st	·329	59·9	81·1		55·1		68·1		26·1	86·8	19th	50·6	9th & 14th.	36·2

N.B.—Elevations in italics indicate barometrical determinations.
* Wind Observations of 30 days.
† Mean of 17 days.
‡ Mean of 26 days.

Note 1.—When a query is inserted against any reading or in returns of any station, the data for that
Note 2.—The data from which divisional means of the figure columns Nos. 41, 43, and 45 are derived

I.

Stations in India, Burma, etc., in January, 1904.

Wind Direction. Number of winds from Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	Wind Velocity. Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	Hygrometry, 8 A.M. Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Cloud. Mean cloud amount at 8 A.M.	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. 1903 to 31st January 1904.	Normal rainfall for period, 1st Dec. to 31st January.	Departure from normal of period, 1st Dec. 1903 to 31st January 1904.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
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	58
														82	−1·5	·609	−·026	1·5	−0·4				0·64	0·35	−0·30					I.—Burma Coast and Bay Islands.		
	10	15	3	1	2				N 38° E	7·5			7·5	78		·792		0·9		7			6·02			22·78			2·46	Car Nicobar	Tenasserim and Bay Islands.	1
	11	16	2	2					N 36° E	6·2	7·0	−11	6·9	79	−1·9	·778	−·003	5·3	+1·2	2			0·37	1·02	− 0·65	9·23	7·61	+ 1·59	0·21	Port Blair.		
19	5							1	N 30° W	2·7	2·0	+35	2·2	76	−5·1	·635	−·075	3·2	+0·2	0	1·40	−1·40	0	0·91	− 0·91	0·07	1·29	− 1·22	0	Mergui.		
30	1								N	1·1				90	+3·4	·644	−·001	0·1	−1·9	0	0·20	−0·20	0	0·21	− 0·21	1·60	0·27	+ 1·33	0	Tavoy.		
22		5	2	1	1				N 74° E	1·9	2·4	−21	2·1	78	−6·6	·521	−·081	1·2	−0·1	0	0·40	−0·40	0	0·36	− 0·36	0	0·41	− 0·41	0	Moulmein.		
6	13	12							N 21° E	4·4	4·3	+ 2	3·7	82	−0·5	·533	−·035	1·7	+0·2	0	0·20	−0·20	0	0·12	− 0·12	0	0·21	− 0·21	0	Rangoon .	Lower Burma .	2
	13	7	1			1		9	N 2° W	8·8	2·9	+204		85	−2·1	·547	−·030	0·8	−1·0	0	0·10	−0·10	0	0·14	− 0·14	0	0·27	− 0·27	0	Bassein.		
	7	21	3						N 40° E	7·6	6·6	+15		70	−3·2?	·613	−·040	1·5	−0·8	0	0·44	−0·44	0	0·21	− 0·21	0	0·91	− 0·91	0	Diamond Island.		
	20	11							N 16° E	2·1	2·6	−19	2·0	91	+4·5	·525	+·031	0·2	−0·5	0	0·10	−0·10	0	0·06	− 0·06	0	0·76	− 0·76	0	Akyab .	Arakan .	5
24		2	1			1		3	N 9° W	1·3	1·9	−32	1·3	86	−2·0	·505	+·004	0·1	−1·0	0	0·20	−0·20	0	0·08	− 0·08	0	0·25	− 0·25	0	Toungoo .	Central Burma.	3
														84	+1·9	·425	+·003	0·6	−0·6				0·03	0·15	−0·11					II.—Burma Inland.		
	6	10	8		1	1	2	3	N 38° E	3·7	2·4	+54		77	+2·9	·424	+·007	0·7	+0·1	0	0·10	−0·10	0	0·02	− 0·02	0	0·17	− 0·17	0	Thayetmyo .	Central Burma.	3
7				1				23	N 45° W	3·0			3·6	73	−0·5	·430	+·005	0·4	−0·3	0	0·10	−0·10	0	0	0	0	0·63	− 0·63	0	Minbu .	Upper Burma .	4
10	8			3	3		1	6	N 24° W	11·8			12·4	79	+2·0	·430	+·001	0·1	−0·4	0	0·20	−0·20	0	0·08	− 0·08	0	0·57	− 0·57	0	Yamethin.		
8	10			1			3	9	N 29° W	3·0				87		·453		0·5		0	0	0	0	0	0	0	0·15	− 0·15	0	Monywa.		
19	6			1	2			3	N 15° W	1·8			1·8	85	+2·4	·449	−·010?	0·8	−0·3	0	0·10	−0·10	0	0·05	− 0·05	0	0·31	− 0·34	0	Mandalay.		
19	1	4	5		1				N 69° E	0·8			0·8	88		·406		0·9		0			0			0·09			0	Myitkyina.		
24	2	3	2						N 45° E	1·7			2·0	96	+2·9	·381	−·002	0·9	−2·2	1	1·20	−0·20	0·21	0·72	− 0·51	0·21	1·14	− 0·93	0·21	Bhamo.		
23		1				3	2	2	W	2·0‖				88		·307		1·6		0	0·20	−0·20	0	0·06	− 0·06	0	0·51	− 0·51	0	Maymyo .	Burma Hill Stations.	4(a)
		10	5	5	4	1	4	2	N 89° E	2·5				92	+1·8	·342	+·004	1·4	−3·1	0			0	0·39	− 0·39	0	1·05	− 1·05	0	Lashio.		
														94	0	395	−·016	3·8	−1·3				0·67	0·89	−0·22					III.—Assam.		
25		1	2	3					S 73° E	0·7	2·0	−65	1·2	88	−3·0	·399	−·032	1·7	−1·8	1	1·90	−0·90	0·53	0·72	− 0·19	0·53	1·18	− 0·65	0·53	Silchar .	Surma.	7
27	2	1						1	N	1·5	1·8	−17	1·4	99		·387	−·017	3·9	−1·5	3	3·70	−0·70	0·95	1·31	− 0·36	1·16	1·88	− 0·72	0·37	Sibsagar .	Brahmaputra .	9
3	4	6	14	1		2		1	N 68° E	4·0	3·9	+ 3	4·7	94	+2·9	·411	+·002	1·3	−0·6	0	0·90	−0·90	0	0·43	− 0·43	0	0·50	− 0·50	0	Dhubri.		
21	2	6		1	1				N 47° E	1·5			1·7	97		·415		9·3		0	1·70	−1·70	0·03	0·64	− 0·61	0·03	0·88	− 0·85	0 02	Gauhati.		
6		12	11	2					N 72° E	3·3			3·5	93		·388		3·2		1	1·80	−0·80	0·32	0·65	− 0·33	0·45	1·08	− 0·63	0·20	Tezpur.		
4	10	10	2	1				4	N 28° E	0·5			0·5	94		·371		3·2		5	4·00	+1·00	2·16	1·57	+ 0·59	2·23	2·33	− 0·10	0 68	Dibrugarh.		
														85	+0·4	·420	−·010	0·8	−0·5				0·06	0·43	−0·37					IV.—Bengal and Orissa.		
	7	21	2	1					N 41° E	2·6	3·7	−30	2·6	91	+3·2	·460	0	0·3‖	−0·8	0	0·68	−0·68	0	0·30	− 0·30	0	1·15	− 1·15	0	Chittagong .	East Bengal .	6
	19	3	4	1	1	2		1	N 15° E	1·8			1·9	89		·473		0·6‖		0	0·97	−0·97	0	0·44	− 0·44	0	0·82	− 0·82	0	Noakhali.		
20	5			2	2			2	N	1·3			1·1	87		·444		0·4*		0	1·29	−1·29	0·01	0·54	− 0·53	0·01	0·76	− 0·75	0·01	Comilla.		
20	2		1	1	1		2	4	N 45° W	1·0			1·1	90		·402		1·0†		1	1·07	−0·07	0·50	0·47	+ 0·03	0·50	0·58	− 0·08	0·42	Sirajganj.		
7	5	4	1			4	2	8	N 33° W	1·4	2·1	−33	1·2	90	+2·8	·460	+·011	2·4‡	P	0	1·00	−1·00	0	0·38	− 0·38	0	0·54	− 0·54	0	Narayanganj.		
15	6	3			1	2	1	3	N 14° W	1·4				88	+1·5	·465	−·004	0·4	−0·4	0	1·00	−1·00	0	0·67	− 0·67	0	1·27	− 1·27	0	Barisal.		
18		1	6	2				9	N 68° E	0·8			0·7	88	−3·4	·415	−·005	P	P	1	1·00	0	0·68	0·50	+ 0·18	0·68	0·55	+ 0·13	0·67	Mymensingh.		
13	8			1		2		7	N 29° W	1·9			1·6	89		·422		0·8‖		0	0·97	−0·97	0	0·49	− 0·49	0	0·57	− 0·57	0	Faridpur.		
24	6	1							N 8° E	1·2	1·6	−25		83	−4·2	·406	−·029	0·4‖	−0·8	0	0·90	−0·90	0	0·46	− 0·46	0	0·64	− 0·64	0	Jessore .	Deltaic Bengal.	1
16	3	4	1			2		5	N 7° W	1·5	3·0	−50		85	+0·9	·426	−·012	0·8‖	−0·3	0	0·78	−0·78	0	0·32	− 0·32	0	0·54	− 0·54	0	Calcutta.		
3	9	13	1		1	2	1	1	N 22° E	5·6	6·3	−11		90	+0·5	·499	−·027	0·8§	−0·7	0	0·74	−0·74	0	0·21	− 0·21	0	0·54	− 0·54	0	Saugor Island.		
9	4		3	1	2		4	8	N 41° W	1·3			1·4	77		·417		0·7		0	0·81	−0·81	0	0·43	− 0·43	0	0·53	− 0·53	0	Krishnagar.		
5	15		1		3		1	6	N 14° W	2·0			1·8	73		·381		0·2		0	0·94	−0·94	0	0·55	− 0·55	0	0·75	− 0·75	0	Midnapore.		

station are not utilized in calculating the provincial departures from normal, are somewhat incomplete.

* Mean of 29 days.
† Mean of 28 days.
‡ Mean of 21 days.
§ Mean of 26 days.
‖ Mean of 30 days.

Table

Abstract of Observations taken at 8 A.M. at 233

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level, in feet	Pressure, 8 A.M., in inches.								Temperature of air.												
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
11	Central Bengal	Bankura	298	29·769?		30·038?	29·925	8th	29·581	31st	·344	59·2	78·6		53·5		66·1		25·1	84·1	17th	48·8	22nd	35·3
		Raniganj	334	29·757		30·069	29·924	7th	29·565	31st	·359	55·4	78·7		52·1		65·4		26·6	83·1	18th	47·5	8th	35·6
		Burdwan	99	29·989	0	30·043	30·149	7th	29·802	31st	·347	58·2	78·9	+0·1	54·3	-0·6	66·6	—0·3	24·6	84·1	19th	49·8	8th	34·3
		Naya Dumka	489	29·584		30·067	29·750	8th	29·398	31st	·352	56·9	75·7		50·0		62·8		25·7	80·8	18th	43·7	8th	37·1
		Berhampore	67	30·026	+·008	30·046	30·183	8th	29·844	31st	·339	57·2	75·9	—0·9	53·1	-0·3	64·5	-0·6	22·8	81·2	26th	48·1	22nd	33·1
		Rampur Boalia.	70	30·022		30·045	30·186	8th	29·839	31st	·347	56·8	75·7		51·6		63·7		24·1	79·9	31st	46·1	21st	33·8
		Malda	72	29·994?		30·023?	30·156	7th	29·808	31st	·348	56·4	74·5		50·3		62·4		24·2	78·1	18th & 26th,	43·5	7th	34·6
		Bogra	61	30·013	+·020	30·031	30·166	10th	29·842	28th	·324	54·4	75·8	-0·3	50·9	-1·0	63·4	—0·7	24·9	80·3	26th	45·8	21st	34·5
12	North Bengal	Dinajpur	123	29·967	+·017	30·055	30·124	8th	29·777	28th	·347	55·3	75·5	-0·2	48·4	-1·0	61·8	—0·6	27·1	79·6	26th	42·9	21st	36·7
		Rangpur	123	29·967		30·058	30·131	8th	29·793	28th	·338	55·1	74·6		50·3		62·5		24·3	79·6	26th	42·8	21st	36·8
		Jalpaiguri	284	29·794	+·005	30·052	29·951	8th	29·632	28th	·322	56·2	73·4	+1·4	50·8	0	62·2	+0·7	22·6	76·0	26th	43·5	21st	32·5
		Cooch Behar	156	29·935		30·059	30·095	7th	29·776	31st	·319	55·2	74·6		52·2		63·4		22·4	77·5	22nd	45·5	21st	32·0
17	North Bihar	Purnea	125	29·967	+·013	30·058	30·141	8th	29·781	28th	·360	50·3	74·6	-0·1	46·2	-2·1	60·4	-1·1	28·4	79·0	17th	39·0	7th	40·0
14	Orissa	Balasore	50	30·036	?	30·032	30·197	7th & 8th.	29·857	31st	·340	59·6	80·5	—0·8	53·9	-1·8	67·3	—1·3	26·6	86·4	19th & 20th,	48·4	14th	38·0
		False Point	21	30·068	+·007	30·032	30·211	8th	29·904	31st	·307	63·2	78·4	-0·7	56·6	—1·7	67·5	—1·2	21·8	85·4	27th & 28th.	48·5	15th	36·9
		Cuttack	80	30·012	+·010	30·039	30·166	8th	29·843	31st	·323	61·5	82·5	-2·0	58·8	—1·0	70·7	—1·5	23·7	88·4	26th	54·1	12th	34·3
		Puri	24	30·068		30·031	30·229	8th	29·921	31st	·308	65·5	78·9		61·7		70·3		17·2	85·7	27th	56·6	8th & 9th.	29·1
	V.—Gangetic Plain and Chota Nagpur.				+·008								74·6	+0·2	49·4	—0·1	62·0	+0·1	25·2					37·9
15	Chota Nagpur	Hazaribagh	2,007	28·013	+·004	30·068	28·159	8th	27·848	28th	·311	57·2	74·2	+1·1	51·3	+0·8	62·7	+1·0	22·9	80·0	31st	43·6	7th	36·4
		Ranchi	2,128	27·893	+·010	30·073	28·038	8th	27·743	28th	·295	56·7	74·5	+0·1	51·4	+0·5	63·0	+0·3	23·1	80·5	19th	44·2	9th	36·3
18	South Bihar	Daltonganj	*730?*	29·367?		30·105?	29·546	8th	29·205	31st	·341	55·0	77·7		46·2?		62·0?		31·5?	84·8	24th	38·9	8th	45·9
15	Chota Nagpur	Purulia	*816*	29·245		30·057	29·406	8th	29·064	31st	·342	57·8	78·4		52·7		65·8		25·7	83·6	17th & 18th.	47·5	8th & 22nd.	36·1
		Chaibassa	*760*	29·302	+·010	30·063	29·451	8th	29·131	31st	·320	55·1	79·9	-1·2	52·7	—0·3	66·3	—0·8	27·2	85·8	19th	47·8	9th	35·0
16	South Bihar	Gaya	375	29·719	+·012	30·074	29·895	8th	29·550	28th	·345	55·9	75·8	—0·1	50·4	—1·2	63·1	—0·7	25·4	81·3	31st	44·0	8th	37·3
		Dehri	351	29·732		30·063	29·911	8th	29·557	28th	·354	57·2	75·8		53·0		64·4		22·8	81·5	31st	47·1	21st	34·4
		Patna	183	29·917	+·004	30·067	30·101	8th	29·733	28th	·368	54·4	73·4	+0·4	50·0	—0·2	61·7	+0·1	23·4	79·9	18th	43·6	21st	36·3
		Arrah	190	29·907		30·065	30·086	8th	29·728	28th	·358	52·6	73·1		46·2†		59·6†		26·9	78·4	18th	43·2	7th & 11th.	35·2
		Buxar*	239	29·870		30·084	30·035	8th	29·714	27th	·321	54·8	74·0		49·9		62·0		24·1	80·0	17th	43·3	7th	36·7
17	North Bihar	Bhagalpur	160	29·930		30·052	30·112	8th	29·742	31st	·370	56·5	75·2		49·5		62·4		25·7	80·3	18th & 31st.	41·6	7th	38·
		Darbhanga	166	29·920	+·007	30·054	30·100	8th	29·731	31st	·369	54·0	73·4	+0·7	50·6	—1·5	62·0	—0·4	22·8	78·7	17th	44·3	7th	34·4
		Muzaffarpur	178	29·913		30·060	30·101	8th	29·740	28th	·361	53·5	73·4		47·8		60·6		25·6	79·7	17th	39·8	7th	39·9
		Motihari	224	29·880		30·078	30·062	8th	29·701	28th	·361	57·8	73·7		?		?		?	79·8	17th	?		?
		Chapra	181	29·896?		30·047?	30·074	8th	29·718	28th	·356	52·1	74·2		48·8		61·5		25·4	80·5	18th	42·8	7th	37·7
18	United Provinces (East).	Benares	267	29·824	+·010	30·069	30·010	8th	29·656	28th	·354	53·8	74·3	0	47·1	—1·1	60·7	—0·6	27·2	80·5	17th	40·6	7th	39·9
		Allahabad	309	29·782	+·009	30·069	29·970	8th	29·631	28th	·339	54·1	74·5	+0·1	49·0	+1·1	61·8	+0·6	25·5	80·7	17th	41·6	7th	39·1
23	United Provinces (East Sub-montane).	Gorakhpur	257	29·809	0	30·043	29·983	8th	29·627	28th	·356	53·8	73·0	+0·1	48·9	—0·4	61·0	—0·2	24·1	78·4	17th & 25th.	42·1	21st	36·3
19	South Oudh	Lucknow	368	29·710	+·011	30·066	29·896	8th	29·533	28th	·363	52·1	74·1	+0·1	47·3	+0·6	60·7	+0·4	26·8	78·7	17th & 26th.	41·6	10th & 23rd,	37·1
20	North Oudh	Bahraich	401	29·657	+ 005	30·054	29·843	8th	29·465	28th	·378	52·7	72·9	+0·5	47·7	+0·6	60·3	+0·6	25·2	79·1	17th	41·1	20th	38·0
21	United Provinces (Central).	Cawnpore	416	29·661	+·013	30·065	29·847	8th	29·501	28th	·346	52·3	74·4	+0·5	46·8	—0·3	60·6	+0·1	27·6	80·2	17th	39·0	21st	41·2
		Mainpuri	516	29·580	?	30·094	29·762	8th	29·377	28th	·385	50·1	73·6	+1·9	46·0	—0·2	55·8	+0·9	27·6	79·3	30th	38·6	31st	40·7

* Observations for 27 days.

† Mean of 21 days.

N. B.—Elevation in italics indicates barometrical determinations.

Note 1.—When a query is inserted against any reading

Note 2.—The data from which divisional means of the

I—*continued.*

Stations in India, Burma, etc., in January, 1904—continued.

Wind Direction. Number of winds from: Calm	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	Wind Velocity. Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	Hygrometry, 8 A.M. Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Cloud. Mean cloud amount at 8 A.M.	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. 1903 to 31st January, 1904.	Normal rainfall for period 1st Dec. to 31st January.	Departure from normal of period, 1st Dec., 1903 to 31st Jan. 1904.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
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	58
							2	2	N 72° W	1·1			1·3	67		·342		0·4		0	1·06	−1·06	0	0·34	−0·34	0	0·47	−0·47	0	Bankura.	Central Bengal.	11
	27																															
	30						1		N 45° W	1·1				73		·329		0·2		0	0·97	−0·97	0	0·43	−0·43	0	0·51	−0·51	0	Raniganj.		
	29	1					1		N 27° W	0·6	1·8	−67		79	+7·2	·387	+·018	0·5**	−1·0	0	0·81	−0·81	0	0·29	−0·29	0	0·40	−0·40	0	Burdwan.		
	28					1	2		N 63° W	1·4			1·5	73		·340		0·7		0	1·17	−1·17	0	0·59	−0·59	0	0·75	−0·75	0	Naya Dumka		
	22					2	7		N 54° W	0·8	1·8	−56	0·8	84	−3·9	·398	−·017	1·2	−0·2	0	1·06	−1·06	0	0·41	−0·41	0	0·52	−0·52	0	Berhampore.		
	26	2	2				1		N 14° E	0·7				85		·397		0·8		0	0·85	−0·85	0	0·35	−0·35	0	0·41	−0·41	0	Rampur Boalia.		
		7	4	3		2	3	2	N 21° W	3·8			3·5	87		·400		0·7§		1	0·97	+0·03	0·25	0·68	−0·43	0·25	0·92	−0·67	0·25	Malda.		
	20	1	1			1		2	6	N 50° W	1·5			1·3	85	−0·2	·367	−·029	0·9†	−0·3	1	1·06	−0·06	0·24	0·57	−0·33	0·24	0·59	−0·35	0·18	Bogra.		
		3	6	2		1	5	7	7	N 48° W	1·1			1·0	88	+1·1	·384	+·007	0·3§	−0·8	0	0·84	−0·84	0·02	0·51	−0·49	0·02	0·55	−0·53	0·02	Dinajpur.	North Bengal.	12
	26		1			2	2		S 18° W	0·9			0·9	93		·408		0·5‡		0	0·90	−0·90	0·02	0·49	−0·47	0·02	0·58	−0·56	0·02	Rangpur.		
		10	7	2	2		1	2	7	N 3° E	0·4			0·5	89	−1·9	·406	+·010	1·5‡	+0·4	0	0·97	−0·97	0	0·50	−0·50	0	0·54	−0·54	0	Jalpaiguri.		
	23	1	1	4	1		1			N 86° E	0·9			0·9	92		·404		1·4**		0	0·90	−0·90	0·04	0·43	−0·39	0·04	0·51	−0·47	0·04	Cooch Behar.		
	24	1						5	1	N 72° W	1·5	1·7	−12	1·3	91	+0·5	·335	−·015	0·4*	−0·8	1	0·90	+0·10	0·10	0·47	−0·37	0·10	0·57	−0·47	0·10	Purnea.	North Bihar.	17
	10	6	1				5	2	7	N 51° W	1·8			1·3	79	−2·0	·408	−0·34	0·4§	−1·1	0	0·61	−0·61	0·07	0·27	−0·20	0·07	0·45	−0·38	0·07	Balasore.	Orissa.	14
	6	8				2	1	14	N 35° W	4·9	6·0	−18	5·1	89	+1·5	·522	−·017	1·5†	0	0	0·71	−0·71	0	0·46	−0·46	0	1·15	−1·15	0	False Point.		
	24		1	1		3	1	1	S 63° W	1·5	1·4	+ 7		80	+2·4	·444	−·011	1·1§	−0·4	0	0·55	−0·55	0	0·16	−0·16	0·03	0·43	−0·40	0	Cuttack.		
	7	10	3			2	1	8	N 21° W	9·8‖			9·2‖	86		·549		0·9**		0	0·43	−0·43	0	0·26	−0·26	0·22	0·91	−0·69	0	Puri.		
														79	+1·6	·338	−·001	0·7	−0·9				0·33	0·65	−0·32					V.—Gangetic Plain and Chota Nagpur.		
	3	3			1	2	4	7	11	N 74° W	7·0	4·9	+43	6·3	56	−7·9	·264	−·036	0·6	−1·3	1	1·45	−0·45	0·11	0·48	−0·37	0·11	0·68	−0·57	0·11	Hazaribagh	Chota Nagpur.	15
	6	1	1				3	6	14	N 60° W	4·3			5·1	61	−2·4	·287	−·013	0·6	−1·0	0	1·35	−1·35	0	0·29	−0·29	0	0·38	−0·38	0	Ranchi.		
	23	3		2		1	1	1		N 7° W	3·2			2·6	69		·303		0·4		0	1·63	−1·63	0·07	0·76	−0·69	0·07	1·05	−0·98	0·07	Daltonganj.	South Bihar.	16
	3	1	1				15	11		N 66° W	2·5			3·1	67		·324		0·1§		0	1·35	−1·35	0	0·44	−0·44	0	0·62	−0·62	0	Purulia.	Chota Nagpur.	15
	23					3	4	1		S 82° W	0·9			0·8	83	+8·9	·365	−·013	0	−1·4	0	1·23	−1·23	0	0·14	−0·14	0	0·24	−0·24	0	Chaibassa.		
	8	1	1		3	9	5	4		S 21° W	3·6	1·6	+125	2·8	72	−0·8	·326	−·019	1·0	−0·7	2	1·32	+0·68	0·51	0·59	−0·08	0·51	0·76	−0·25	0·41	Gaya.	South Bihar.	16
	4				1	10	12	3	1	S 32° W	4·0			3·5	71		·334		0·5††		0	1·35	−1·35	0·06	0·59	−0·53	0·06	0·91	−0·85	0·03	Dehri.		
	3		1	2	1	2	11	10	1	S 59° W	2·6	2·0	+30	3·0	84	+6·9	·360	+·004	0·7*	−1·0	2	1·32	+0·68	0·37	0·56	−0·19	0·37	0·66	−0·29	0·22	Patna.		
	14		1		1	1	13		1	N 42° W	1·8				85		·339		0·1§		2	1·58	+0·42	1·06	0·88	+0·18	1·06	1·01	+ 0·05	0·70	Arrah.		
		1		4	1	4	10	7		S 39° W	5·1			4·8	78		·341		1·4‖		2	1·65	+0·35	1·51	0·78	+0·73	1·51	0·98	+ 0·53	1·38	Buxar.		
	20				2	3	6			S 63° W	2·1			2·0	76		·349		0·1¶		1	1·32	−0·32	0·30	0·55	−0·25	0·30	0·62	−0·32	0·28	Bhagalpur.	North Bihar.	17
	28						2	1		N 72° W	1·0	2·3	−57		89	+2·8	·374	−·006	0·7§	−0·6	0	1·30	−1·30	0·03	0·62	−0·59	0·03	0·69	−0·66	0·03	Darbhanga.		
	20	1				2	5	3		N 77° W	1·6				88		·357		0·3**		1	1·33	−0·33	0·10	0·79	−0·69	0·10	0·86	−0·76	0·10	Muzaffarpur.		
	14	1		3		1	1	5	6	N 60° W	2·9			2·8	86		·414		0·6		1	1·32	−0·32	0·22	0·59	−0·37	0·22	0·73	−0·51	0·21	Motihari.		
	9			1	5	5	10	1		S 14° W	2·2			1·9	89		·349		0·5†		2	1·48	+0·52	0·51	0·74	−0·23	0·51	0·83	−0·32	0·40	Chapra.		
	21	1		2			6	1		S 45° W	1·8	2·9	−38	2·1	85	+0·9	·359	+·018	1·4	−0·5	1	1·40	−0·40	0·82	0·67	+0·15	0·82	0·88	−0·06	0·80	Benares.	United Provinces (East).	18
	10	4		4	2		2	6	3	N 51° W	3·4	3·4	0	2·8	83	+4·4	·348	+·015	1·5	−0·4	1	1·60	−0·60	0·30	0·76	−0·46	0·30	1·00	−0·70	0·30	Allahabad.		
	10	3	1			4	4	6	3	S 84° W	0·8	1·7	−53		81	−1·1	·355	+·005	2·0	+0·2	1	1·50	−0·50	0·22	0·76	−0·54	0·22	0·90	−0·68	0·20	Gorakhpur.	United Provinces (East Submontane).	23
	23	1						4	2	N 66° W	0·7	2·1	−71	0·8	79	−2·9	·308	−·012	0·9	−1·6	1	1·90	−0·90	0·20	0·96	−0·76	0·20	1·34	−1·14	0·12	Lucknow.	South Oudh.	19
	5	2	1	5			2	9	7	N 59° W	1·2			1·1	94	+7·3	·378	+·040	0·2	−1·2	1	1·90	−0·90	0·69	0·92	−0·23	0·69	1·26	−0·57	0·69	Bahraich.	North Oudh.	20
	11	2	3	1	1		3	6	4	N 59° W	3·0				81	+2·4	·322	+·002	1·7	−0·2	0	1·60	−1·60	0·15	0·68	−0·53	0·15	0·85	−0·70	0·08	Cawnpore.	United Provinces (Central).	21
	14	1		3			2	7	4	N 73° W	3·6			3·6	78	+1·7	·287	+·002	0·8	−1·8	0	1·50	−1·50	0·05	0·73	−0·68	0·05	1·07	−1·02	0·04	Mainpuri.		

or in returns of any station, the data for that station are not utilized in calculating the provincial departures from normal. figure columns Nos. 41, 43 and 45 are derived are somewhat in complete.

* Mean of 28 days.
† Mean of 24 days.
‡ ,, ,, 17 ,,
§ Mean of 30 days.
‖ Mean of 26 days.
¶ ,, ,, 19 ,,
** Mean of 29 days.
†† ,, ,, 22 ,,

Table

Abstract of Observations taken at 8 A.M. at 233

Number of District.	Meteorological Province or District.	Station.	Elevation of barometer above sea-level, in feet.	Pressure, 8 A.M., in inches.								Temperature of Air.												
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
	VI.—Upper Sub-Himalayas.				+·017								66·2	−2·2	43·5	−0·2	54·9	−1·2	22·6					36·3
24	United Provinces (West Submontane).	Bareilly	568	29·482	+·005	30·062	29·672	8th	29·283	28th	·389	49·6	71·0	+0·4	46·5	+0·4	58·8	+0·4	24·5	76·8	26th	38·6	20th	38·2
		Dehra Dun	2,233	27·769	+·007	30·104	27·956	8th	27·556	8th	·400	46·5	65·3	−0·9	44·1	−0·7	54·7	−0·8	21·2	73·0	26th	37·0	20th	36·0
		Roorkee	899	29·140	+·012	30·084	29·337	8th	28·935	28th	·402	46·5	68·1	−1·5	43·8	−0·6	56·0	−1·1	24·3	74·8	24th	35·3	31st	39·5
22	United Provinces (West).	Meerut	738	29·313	+·005	30·082	29·511	8th	29·122	28th	·389	46·4	70·7	+0·3	44·2	−0·8	57·5	−0·3	26·5	76·5	5th	35·2	31st	41·3
26	South-East Punjab.	Delhi	718	29·346	+·010	30·086	29·550	8th	29·169	28th	·381	49·9	69·6	−1·1	45·8	−1·1	58·2	−1·1	22·8	77·2	5th	40·0	20th	37·2
28	Central Punjab.	Lahore	702	29·369	+·020	30·110	29·562	8th	29·119	14th	·443	43·4	61·2	−4·8	41·9	+1·2	53·1	−1·8	22·3	73·3	4th	34·6	31st	38·7
27	South Punjab	Sirsa	662	29·421	+·027	30·114	29·622	8th	29·185	14th	·437	45·6	68·8	−2·2	41·3	−1·8	55·1	−2·0	27·5	74·2	28th & 29th.	34·5	7th & 20th.	39·7
		Patiala	*818*	29·235		30·092	29·443	8th	29·054	28th	·389	47·0	66·0		43·6		54·8		22·4	71·8	26th	36·0	7th & 30th.	35·8
29	Punjab (Sub-montane).	Ludhiana	812	29·246	+·020	30·100	29·440	8th	29·064	28th	·376	45·6	64·2	−3·0	42·7	−1·6	53·5	−2·3	21·5	69·1	24th	36·0	31st	39·1
		Sialkot	830	29·232	+·029	30·107	29·424	8th	29·020	14th	·404	46·6	62·0	−4·2	44·2	+1·4	53·1	−1·4	17·8	69·0	4th & 28th.	38·3	6th	30·7
		Umballa	892	29·163	+·036	30·096	29·356	8th	28·958	28th	·398	47·7	67·6	−0·2						75·5	26th			
		Rawalpindi	1,674	28·365	+·019	30·155	28·544	8th	28·125	14th	·419	43·1	58·0	−5·1	39·6	+1·7	48·8	−1·7	18·4	65·9	4th	33·5	31st	32·4
	VII.—Indus Valley and North-West Rajputana.				+·022								69·9	−2·5	45·1	0	57·5	−1·2	24·8					42·6
32	North-West Frontier Province.	Peshawar	1,110	28·987	+·010	30·175	29·146	8th	28·767	14th	·379	45·1	57·3	−6·2	42·2	+2·5	49·8	−1·8	15·1	66·7	29th	33·4	21st	33·3
		D. I. Khan	590	29·533	+·024	30·131	29·718	8th	29·244	14th	·474	44·4	65·7	−3·4	40·3	−0·1	53·0	−1·8	25·4	74·3	29th	32·0	21st	42·3
31	West Punjab	Khushab	612	29·479	+·034	30·121	29·680	8th	29·161	14th	·519	46·0	64·6	−3·0	42·1	+1·1	53·5	−1·0	22·2	73·3	27th & 28th.	36·9	6th	36·4
		Montgomery	558	29·542	?	30·122	29·732	8th	29·224	14th	·508	44·8	65·7	−2·8	39·9	−2·3	52·8	−2·6	25·8	73·8	28th	35·0	19th & 20th.	38·8
		Mooltan	420	29·693	+·022	30·119	29·868	8th	29·376	14th	·492	47·1	67·5	−2·7	43·9	+0·6	55·7	−1·1	23·6	76·3	28th	36·0	19th	40·3
47	Sind	Jacobabad	186	29·940	+·015	30·106	30·126	8th	29·690	14th	·436	47·0	71·7	−1·9	44·3	+1·0	58·0	−0·5	27·4	84·5	28th	34·0	19th	50·5
		Hyderabad	96	30·028	+·024	30·085	30·179	8th	29·842	31st	·337	55·2	74·2	−2·6	50·4	−0·7	62·3	−1·7	23·8	85·1	28th	40·0	19th	45·1
		Kurrachee	30	30·105	+·022	30·087	30·287	8th	29·945	31st	·292	58·7	76·7	−0·2	54·9	+0·4	65·8	+0·1	21·8	85·9	29th	46·2	19th	39·7
51	West Rajputana	Bikaner	771	29·310	?	30·114	29·497	8th	29·055	14th	·442	48·7	70·4	−1·4	45·2	−4·2*	57·8	−2·8*	25·2	84·2	14th	38·1	19th	46·1
		Pachpadra	*380*	29·719		30·091	29·907	8th	29·557	14th	·350	49·2	78·0	−0·4	43·5	−1·6	60·8	−1·0	31·5	84·6	29th	36·0	19th	48·6
		Jodhpur	782	29·298		30·119	29·507	8th	29·117	14th	·390	53·4	76·7		49·5		63·1		27·2	84·1	26th	36·1	19th	48·0
	VIII.—East Rajputana, Central India and Gujarat.				+·012								79·0	0	52·0	+0·6	65·5	+0·3	27·1					43·2
50	East Rajputana	Jaipur	1,431	28·636	+·021	30·124	28·819	8th	28·496	14th	·323	52·7	74·3	−0·3	47·8	−0·2	61·1	−0·3	26·5	81·2	26th	37·0	20th	41·2
		Bharatpur	585	29·519		30·112	29·691	8th	29·337	28th	·354	51·0	72·7							79·2	14th			
		Kotah	819	29·254		30·128	29·435	8th	29·114	14th	·321	55·5	76·6		51·3		64·0		25·3	84·0	14th & 15th.	42·0	21st	42·0
		Sambhar	1,254	28·838	+·021	30·124	28·992	8th	28·633	14th	·359	48·1	73·6	0	43·8	−1·6	58·7	−0·8	29·8	79·3	14th	36·0	7th	43·3
		Ajmer	1,611	28·453	?	30·142	28·631	8th	28·285	14th	·346	48·8	73·3	−0·8	46·5	+1·0	59·9	+0·1	26·8	79·9	29th	39·4	9th & 20th.	40·5
		Udaipur	1,925	28·137		30·120	28·304	8th	28·009	14th	·295	55·5	76·1		47·7*		61·8*		28·4	83·5	29th	39·2	7th	44·3
		Deesa	466	29·602	+·006	30·053	29·746	9th	29·482	14th	·264	58·2	84·5	+1·4	51·5	0	68·0	+0·7	33·0	91·1	26th	42·5	19th	48·6
46	Kathiawar and Cutch.	Bhuj	395	29·693	+·016	30·063	29·821	8th	29·560	14th	·261	60·7	79·4	−1·0	53·9	−0·5	66·7	−0·8	25·5	88·8	29th	46·0	22nd	42·8
		Jamnagar	61	30·036		30·042	30·162	9th	29·914	31st	·248	59·3	80·1		52·8		66·5		27·3	87·0	27th	43·7	19th	43·3
		Rajkot	429	29·635	+·005	30·040	29·757	9th	29·535	31st	·222	59·2	83·7	−0·3‡	51·5	+0·4	67·6	+0·1	32·2	91·9	26th	40·6	29th	51·3
		Veraval	*18*	30·043	+·002	30·003	30·156	9th	29·962	21st & 31st.	·194	65·1	82·4*	+0·9*	59·7	+0·9	71·1*	+0·9	22·7	93·1	27th	51·3	1st & 19th.	41·8
		Dwarka	37	30·049		30·033	30·163	9th	29·937	14th	·226	65·4	78·9		58·6		68·8		20·3	89·4	7th	50·6	19th	38·8
		Bhavnagar Para.	55	30·029	?	30·028	30·167	9th	29·944	22nd	·223	61·2	85·1	?	54·5	?	69·8	?	30·6	91·6	27th	45·0	20th	46·6
49	Central India	Nowgong	757	29·316	?	30·090	29·503	8th	29·174	18th	·329	51·6	73·6	−1·5	47·4	+0·4	60·5	−0·6	26·2	81·0	5th	39·0	8th	42·0
		Indore	1,823	28·221	+·015	30·086	28·376	8th	28·127	31st	·249	58·3	80·7	+1·3	51·1	+1·3	65·9	+1·3	29·6	87·1	26th	41·1	20th	46·0
		Neemuch	1,630	28·435	+·025	30·118	28·622	8th	28·315	14th	·307	55·2	77·7	+0·1	49·2	+0·5	63·5	+0·3	28·5	84·0	4th	41·3	9th	42·7

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

* Mean of 30 days.

Note 1.—When a query is inserted against any reading or

Note 2.—The data from which divisional means of the figure

I—*continued.*

Stations in India, Burma, etc., in January, 1904—continued.

Wind Direction. Number of winds from: Calm	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	Wind Velocity. Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	Hygrometry, 8 A.M. Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Cloud. Mean cloud amount at 8 A.M.	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 December, 1903 to 31st January, 1904.	Normal rainfall for period, 1st December to 31st January.	Departure from normal of period, 1st December, 1903 to 31st January, 1904.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
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	58
														82	+1·9	·204	−·002	3·1	−0·6				1·32	1·67	−0·31					VI.—Upper Sub-Himalayas.		
19			1	1	1	2	6	1	S 70° W	1·7	2·8	− 39	1·6	84	+ 1·4	·301	+ ·004	2·2	−0·5	1	2·36	− 1·36	0·25	1·05	−0·80	0·25	1·38	−1·13	0·11	Bareilly	United Provinces (West Sub-montane).	24
5			1	1			2	2	N 66° W	1·1	1·8	− 39		80	+ 1·3	·261	− ·002	3·5	−1·2	3	3·50	− 0·50	1·55	2·38	−0·83	2·53	3·18	− 0·65	0·79	Dehra Dun.		
18				1			1	11	N 49° W	3·1	2·2	+ 41		87	+ 1·7	·275	− ·002	2·5	−0·5	3	2·80	+0·20	0·82	1·68	−0·86	0·99	2·29	− 1·30	0·34	Roorkee.		
14	1	1	2				10	3	N 68° W	1·6	2·1	− 24	1·6	78	+ 1·4	·252	− ·011	2·7	−0·4	1	2·30	− 1·30	0·26	1·35	−1·09	0·26	1·83	− 1·57	0·15	Meerut.	United Provinces (West).	22
5	4		1	2			10	9	N 57° W	4·5	3·0	+ 50	4·0	68	−0·1	·248	− ·011	2·7	−0·9	1	2·40	− 1·40	0·14	1·23	−1·09	0·14	1·76	−1·62	0·14	Delhi .	South-East Punjab.	26
27			2				2		Calm	1·8	1·9	− 5		91	+ 9·5	·262	+ ·007	3·8	−0·2	4	1·90	+ 2·10	1·39	1·12	+0·27	1·71	1·50	+ 0·20	0·76	Lahore .	Central Punjab	28
9	4	5	4	2			2	5	N 20° E	3·2	2·6	+23	2·9	76	− 0·2	·237	− ·014	2·2	−2·0	1	1·50	−0·50	0·10	0·84	−0·74	0·10	1·15	−1·05	0·10	Sirsa .	South Punjab .	27
1	9	3	2	5				11	N 1° W	5·3			5·4	83		·274		3·1		1			0·85			1·25			0·76	Patiala.		
20	1			3			4	3	N 76° W	1·8	1·1	+ 64	1·6	84	+2·1	·260	− ·013	2·9	−1·6	3	2·60	+ 0·40	1·17	1·84	−0·67	1·83	2·62	− 0·79	0·69	Ludhiana .	Punjab (Sub-montane).	23
20		1	1	1	1	1	4	2	S 85° W	1·0	1·4	− 29		83	+ 1·0	·266	− ·003	2·9	−0·5	5	3·40	+ 1·60	3·35	2·51	+0·84	3·63	3·03	+ 0·60	1·54	Sialkot.		
23				2			1	5	N 56° W	5·6				87	+ 0·3	·293	+ ·009	3·4	0	3	2·80	+ 0·20	1·25	1·62	−0·37	1·60	2·44	− 0·84	0·83	Umballa.		
24	1		2	1			1	2	N 11° E	4·2	1·9	+121	3·9	86	+ 2·4	·239	+ ·009	5·5	+0·8	5	4·20	+0·80	4·70	2·74	+1·96	5·75	3·48	+ 2·27	1·51	Rawalpindi.		
														67	+2·9	·234	−·001	30	−0·3				1·14	0·57	+0·57					VII.—Indus Valley and North-West Rajputana.		
27					2		1	1	S 51° W	1·3	2·5	− 48	1·4	78	+5·4	·236	+ ·032	6·0	+1·3	7	2·90	+ 4·10	3·30	1·60	+1·70	4·33	1·93	+ 2·40	1·10	Peshawar .	North-West Frontier Province.	32
22	2	1						6	N 27° W	1·4	1·4	0	1·5	83	+13·8	·244	+ ·039	3·5	+0·2	2	1·40	+ 0·60	1·28	0·44	+0·84	1·42	0·65	+ 0·77	1·12	D. I. Khan.		
9	3	9	3	1	1	4	3	3	N 23° W	4·7			4·0	74	+4·1	·231	+ ·018	3·6	+ 0·4	5	1·50	+ 3·50	2·72	0·82	+1·90	3·05	1·36	+ 1·69	0·89	Khushab .	West Punjab .	31
6	4	3	3	2			4	7	N 2° W	4·4			4·1	78	+3·0	·237	− ·009	3·4	−0·4	4	1·30	+ 2·70	1·26	0·84	+0·42	1·26	1·26	0	0·69	Montgomery.		
21	1	3		1		1		4	N 9° W	1·0	1·7	− 41	1·2	77	+5·6	·250	+ ·006	3·4	+0·2	1	1·10	− 0·10	1·07	0·45	+0·62	1·18	0·64	+ 0·54	0·92	Mooltan.		
25	2	2	2						N 45° E	0·9	2·1	− 57	0·9	76	+13·7	·247	+ ·029	2·7	−0·8	2	1·00	+ 1·00	0·68	0·27	+0·41	0·68	0·36	+ 0·32	0·44	Jacobabad .	Sind . .	47
3	3	1						24	N 37° W	7·9	7·2	+10	8·8	53	−4·7	·231	− ·027	2·0	−1·2	1	0·70	+0·30	0·50	0·24	+0·26	0·50	0·29	+0·21	0·50	Hyderabad.		
8	1	14	4	3				1	N 59° E	5·1	10·0	− 49	6·4	60	−3·9	·307	− ·022	1·6	−0·9	2	1·10	+0·90	1·46	0·66	+0·80	1·46	0·79	+ 0·67	1·10	Kurrachee.		
7	1	4	7	4	4	5	1		S 61° E	3·8	2·9	+ 31		56	−1·3	·196	− ·033	2·1	−1·2	1	1·10	− 0·10	0·30	0·39	−0·09	0·39	0·56	− 0·17	0·25	Bikaner .	West Rajputana	51
1	7	10	7	2				4	N 38° E	5·1	2·8	+ 82	4·5	54	−6·7	·194	− ·044	2·1	−0·9	0	1·00	− 1·00	0·02	0·38	−0·36	0·02	0·50	− 0·48	0·02	Pachpadra.		
2	11	9	7			1	1		N 35° E	5·5			5·0	48		·196		2·6		0	0·90	− 0·90	0	0·23	−0·23	0	0·38	− 0·38	0	Jodhpur.		
														61	+0·5	·292	0	1·5	−0·3				0·19	0·26	−0·08					VIII.—East Rajputana Central India and Gujara		
7	3	6	5	2		1	1	6	N 27° E	3·8	3·8	− 3		57	− 8·5	·229	− ·036	2·4	−0·7	0	1·50	− 1·50	0·06	0·60	−0·54	0·06	0·79	− 0·73	0·04	Jaipur .	East Rajputana	50
8			1			1	8	3	N 84° W	2·5			2·3	73		·278		2·2		2			0·22			0·22			0·12	Bharatpur .		
14	2		1			3	9	2	N 87° W	2·8			2·2	63		·278		1·4		1	0·70	+ 0·30	0·61	0·15	+0·46	0·61	0·44	+ 0·17	0·61	Kotah.		
20	4	4	3						N 41° E	4·0	4·5	− 11		64	−2·0	·216	(−·027	1·9	−0·8	1	1·10	− 0·10	0·24	0·39	−0·15	0·24	0·74	−0·50	0·24	Sambhar.		
21	1	3		1	2	1		2	N 33° E	2·7	1·9	+ 42	2·4	70	−2·8	·241	− ·020	1·8	−0·7	1	1·30	− 0·30	0·20	0·44	−0·24	0·20	0·71	− 0·51	0·20	Ajmer.		
27	2							2	N 23° W	2·2			1·9	53		·239		1·4		2	0·30	+ 1·70	0·34			6·34			0·20	Udaipur.		
		3	18	8	2				N 58° E	8·7	8·6	+ 1		47	+1·0	·234	+ ·007	0·9	−0·7	1	0·36	+ 0·64	0·29	0·15	+0·14	0·29	0·21	+ 0·08	0·20	Deesa.		
		3	2	4	5	1	10	2	4	S 35° W	8·1	6·0	+ 35	6·8	64	+9·3	·354	+ ·089	1·2	−0·1	1	0·10	+ 0·90	0·14	0·07	+0·07	0·14	0·14	0	0·14	Bhuj . .	Kathiawar and Cutch.	46
		3	12	6	4	4	2		N 78° E	8·2			9·9	59		·310		1·2		1			0·18			0·18			0·18	Jamnagar .		
	9	3	5	10	1	2		1	N 74° E	5·0	5·2	− 4	5·0	50	−2·7	·264	− ·026	0·5	−0·5	0	0·20	− 0·20	0	0·04	− 0·04	0	0·08	− 0·08	0	Rajkot.		
		11	14	1	1			4	N 21° E	7·4	5·1	+45		52	+0·1	·327	+ ·065	0·9	−0·4	0	0	0	0	0	0	0·09	− 0·09	0	Veraval.		
		10	12	5	1		1	2	N 33° E	11·3				71		·454		1·4		0			0·11			0·11			0·05	Dwarka.		
	4	1				1	4	4	17	N 54° W	4·3			5·1	47	?	·259	?	1·3	+0·2	0	0·10	− 0·10	0	0·07	− 0·07	0	0·14	− 0·14	0	Bhavnagar Para.		
6	7	1	5			1	7	4	N 28° W	1·5	1·4	+ 7	1·5	80	+ 4·4	·314	+ ·006?	2·0	−0·3	0	1·70	− 1·70	0·22	0·71	−0·49	0·22	1·26	− 1·04	0·09	Nowgong .	Central India .	49
6	2	8	3	6	1	2		3	N 72° E	3·3	2·5	+32	2·7	62	− 0·4	·305	+ ·007	1·7	+0·3	0	0·40	− 0·40	0·01	0·13	−0·12	0·01	0·33	−0·32	0·01	Indore.		
6	8	11	1			1	2	2	N 15° E	5·9	8·1	−27	5·3	60	+ 2·6	·272	+ ·008	1·6	0	1	0·10	+ 0·60	0·24	0·21	+0·03	0·24	0·49	− 0·25	0·24	Neemuch.		

In returns of any station, the data for that station are not utilized in calculating the provincial departures from normal.
Columns Nos. 41, 43 and 45 are derived are somewhat incomplete.

Table

Abstract of Observations taken at 8 A.M. at 233

Number of District.	Meteorological Province or District.	Station.	Elevation of barometer above sea-level, in feet.	Pressure, 8 A.M., in inches.								Temperature of air.											
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
5	Gujarat	Surat	39	30·019	+·007	30·004	30·150	8th	29·936	31st	·214	65·8	87·5	+0·6	59·6	+3·1	73·6	+1·9	27·9	95·2	27th	49·7	19th	45·5
		Ahmedabad	163	29·912	+·004	30·033	30·059	8th	29·810	31st	·249	64·7	85·8	+1·8	59·3	+2·3	72·6	+2·1	26·5	92·7	27th	49·3	19th	43·4
22	United Provinces (West).	Agra	555	29·528	P	30·091	29·717	8th	29·363	28th	·354	50·2	71·7	−1·8	48·5	−0·1	60·1	−1·0	23·2	77·5	14th	39·9	20th	37·6
21	United Provinces (Central).	Jhansi	858	29·229	+·015	30·103	29·421	8th	29·098	18th	·323	56·2	76·6	+0·2	52·2	+1·1	64·4	+0·7	24·4	83·2	15th	46·2	9th, 20th & 21st.	37·0
	IX.—Deccan				+·014								83·0	−0·1	56·3	+1·3	69·7	+0·6	26·7					39·7
38	Bombay (Deccan)	Belgaum	2,539	27·481	+·006	30·004	27·571	8th	27·410	31st	·161	66·7	82·4	−1·1	59·2	+1·7	70·8	+0·3	23·2	89·3	31st	55·9	10th & 18th.	33·4
		Sholapur	1,590	28·451	+·005	30·036	28·585	8th	28·345	31st	·240	68·4	86·3	−1·4	60·5	+2·3	73·4	+0·5	25·8	92·3	31st	53·6	9th	38·7
		Poona†	1,840	28·209	+·007	30·072	28·312	9th	28·135	17th	·179	61·6	85·9	+0·6	55·6	+1·5	70·8	+1·1	30·3	89·5	4th	47·5	9th	42·0
		Bijapur	*1,948*	28·084	+·008	30·029	28·210	8th	27·981	31st	·229	66·6	84·6	−0·6	59·8	+1·2	72·2	+0·3	24·8	90·4	31st	51·6	9th	38·8
40	Khandesh	Malegaon	1,430	28·615	0	30·061	28·759	8th	28·511	31st	·248	62·2	87·2	+1·6	54·5	+2·6	70·9	+2·1	32·7	92·9	30th	45·2	9th	47·7
		Ahmednagar	2,152	27·902	+·023	30·068	28·030	8th	27·791	31st	·239	64·1	83·8	−0·2	55·4	+4·7	69·6	+2·3	28·4	87·9	30th, & 31st.	46·4	9th	41·5
41	Berar	Akola	930	29·139	+·020	30·063	29·301	8th	29·001	31st	·300	63·4	86·7	+1·5	55·3	+1·9	71·0	+1·7	31·4	90·9	30th	44·4	9th	46·5
		Amraoti	1,215	28·844	+·022	30·059	28·997	8th	28·717	31st	·280	65·2	84·9	+0·3	59·4	+1·6	72·2	+1·0	25·5	89·2	27th 30th & 31st.	54·5	7th & 13th.	34·7
42	Central Provinces (West).	Khandwa	1,044	29·011	+·010	30·066	29·178	8th	28·902	31st	·276	60·5	86·3	P	54·2	+2·4	70·3	P	32·1	92·2	26th & 27th.	44·1	8th	48·1
		Hoshangabad	1,006	29·084	+·033	30·108	29·256	8th	28·947	31st	·309	59·0	80·1	−0·2?	53·1	+0·8	66·6	+0·3?	27·0	85·7	4th	44·2	7th & 9th.	41·5
		Nagpur	1,025	29·040	+·019	30·071	29·200	8th	28·902	31st	·298	61·9	84·5	+1·0	56·6	+1·0	70·6	+1·0	27·9	90·1	31st	48·2	7th	41·9
43	Central Provinces (Central)	Chanda	*634*	29·446	+·024	30·057	29·669	8th	29·311	31st	·298	61·3	85·7	+0·3	55·0	+0·9	70·4	+0·6	30·7	90·7	31st	44·6	9th	46·1
		Seoni	2,033	26·019	+·017	30·092	28·159	8th	27·882	31st	·277	58·6	80·2	+1·0	51·9	+0·6	66·1	+0·8	26·3	86·3	31st	45·0	7th	41·3
		Jubbulpore	1,327	28·724	+·007	30·092	28·895	8th	28·593	18th	·302	53·7	78·5	+0·9	48·2	+0·2	63·4	+0·6	30·3	84·3	18th	39·4	8th	45·5
		Saugor	1,807	28·253	+·023	30·103	28·425	8th	28·126	18th	·299	57·7	77·9	+1·0?	52·9	+1·1	65·4	+1·1?	25·0	83·9	30th	43·1	20th	40·8
49	Central India	Sutna	1,040	29·021	+·009	30·093	29·198	8th	28·879	18th	·319	53·7	74·2	−0·9	50·2	+2·6?	62·3	+0·9?	24·0	82·9	5th	41·7	7th	41·2
44	Central Provinces (East).	Raipur	970	29·089	+·009	30·059	29·230	8th	28·937	31st	·293	61·5	81·1	−0·5	54·5	−0·9	67·8	−0·7	26·6	85·9	5th	48·4	7th	37·5
		Pendra	2,123?	27·999?		30·083?	28·149	8th	27·855	31st	·294	56·2	76·9		51·0		64·0		25·9	83·3	5th	42·0	7th	41·3
		Sambalpur	486	29·596	+·068	30·058	29·755	8th	29·417	31st	·338	60·4	82·3	+0·1	54·0	−0·8	68·2	−0·4	28·3	86·6	26th & 31st.	47·7	10th	38·9
39	Hyderabad (North).	Aurangabad	1,905	28·142		30·040	28·265	7th	28·019	31st	·246	67·6	84·3		58·3		71·3		26·0	86·8	28th & 30th.	48·2	9th	40·6
		Indur	1,260	28·684		29·929	28·788	19th	28·583	2 days	·205	69·1	83·5		55·1		69·3		28·4	86·3	17th	46·1	29th & 30th.	40·2
		Bidar	*2,165*	27·887		30·042	28·002	9th	27·794	31st	·208	68·9	82·2		62·9		72·6		19·3	88·0	30th	58·0	8th	30·0
53	Hyderabad (South).	Gulbarga	1,503	28·545	+·015	30·043	28·677	8th	28·431	31st	·246	67·8	85·8	−0·9	60·2	+1·7	73·1	+0·4	25·6	89·7	30th	54·0	9th	35·7
		Raichur	1,326	28·711	+·014	30·022	28·321	8th	28·611	31st	·210	69·5	84·1	−2·6	64·1	+0·7	74·1	−1·0	20·0	89·1	31st	59·7	5th	29·4
		Hyderabad (Dn.)	1,690	28·355	+·009	30·055	28·490	8th	28·255	31st	·235	64·0	83·3	−1·2	59·8	+1·7	71·6	+0·3	23·5	88·4	30th, & 31st.	53·3	9th	35·1
		Hanumkonda	871	29·193		30·032	29·320	8th	29·049	31st	·271	67·7	84·9		62·1		73·5		22·8	89·0	30th	55·7	9th	33·2
	X.—West Coast				−·005								86·	−0·2	70·2	+0·9	78·2	+0·4	15·9					23·7
37	Konkan	Bombay	37	30·005	−·006	29·983	30·126	8th	29·925	21st	·201	71·7	83·7	+1·1	69·3	+1·4	76·5	+1·3	14·4	88·0	8th	62·5	19th	25·5
		Ratnagiri	110	29·916	+·007	29·968	30·038	8th	29·843	21st	·195	74·1	87·5	−0·2	68·5	+2·3	78·0	+1·1	19·0	93·3	26th & 27th, 8 days.	63·9	6th	29·9
		Mormugao	*60*	29·968	+·009	29·963	30·061	8th	29·898	20th	·163	73·3	85·8	0	71·3	+2·4	78·6	+1·2	14·5	87·0	7th	68·3	13th & 27th.	18·7
		Goa	199	29·831	−·007	29·972	29·939	8th	29·754	20th	·185	75·3	84·2	P	72·9	P	78·6	P	11·3	87·0	7th	70·0	18th & 19th.	17·0
		Karwar	44	29·972	−·007	29·951	30·054	8th	29·907	20th	·147	69·8	87·7	+0·8	66·5	+1·0	77·1	+0·9	21·2	91·8	26th	62·0	27th	29·8
33	Malabar	Cochin	10	29·974	−·017	29·913	30·045	8th	29·921	20th	·124	74·7	88·2	−0·9	71·3	−0·2	79·8	−0·6	16·9	92·3	14th	67·8	4 days	24·5
		Calicut	27	29·971	−·013	29·928	30·044	8th	29·912	20th & 21st, 20th	·132	73·8	86·4	−1·2	69·9*	+0·3*	78·2*	−0·5	16·5	88·3	24th	63·2	28th	25·1
		Mangalore	65	29·944	−·010	29·942	30·032	7th	29·832		·150	74·7	87·8	−0·7	70·0	+0·5	78·9	−0·1	17·8	91·7	22nd	66·5	6th, & 28th.	25·2
		Trivandrum	198	29·771	−·001	29·903	29·825	9th	29·710	22nd	·115	75·4	83·6	+0·2	72·2	−0·2	77·9	0	11·4	85·5	13th	68·0	18th	17·5

* Mean of 30 days.
† „ „ 19 „

NOTE 1.—When a query is inserted against any reading or in returns of any station
NOTE 2.—The data from which divisional means of the figure columns Nos. 4, 13,

NB.—Elevations in italics indicate barometrical determinations.

I—*continued.*

***Stations in India, Burma, etc., in January, 1904*—continued.**

Wind Direction. Number of winds from Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	Wind Velocity. Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	Hygrometry, 8 A.M. Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Cloud. Mean cloud amount at 8 A.M.	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., 1903 to 31st January, 1904.	Normal rainfall for period, 1st Dec. to 31st January.	Departure from norma. of period, 1st Dec. 1903 to 31st January 1904.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
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	58
5	10	4	8	2	1	1			N 51° E	4·2	5·2	—19	3·9	58	—6·1	·375	—·001	2·9	+2·2	0	0·20	—0·20	0	0·05	—0·05	0	0·06	—0·06	0	Surat	Gujarat	15
1	4	12	8	1	1			4	N 47° E	3·0			4·9	46	—1·3	·287	+·017	1·0	—0·7	0	0·10	—0·10	0	0·03	—0·03	0	0·10	—0·10	0	Ahmedabad.		
5		3		4		16		3	S 48° W	4·2	3·5	+20	5·0	73	+0·8	·269	—·012	1·9	—0·7	1	1·20	—0·20	0·36	0·53	—0·17	0·36	0·82	—0·46	0·18	Agra	United Provinces (West).	22
8		2		2	3	8	2	6	S 64° W	3·5	2·2	+59	4·3	74	+12·2	·335	+·041	0·6	—1·2	2	1·20	+0·80	0·57	0·62	—0·05	0·57	0·86	—0·29	0·43	Jhansi.	United Provinces (Central).	21
														64	+2·1	·378	+·022	1·2	—0·1				0·05	0·23	—0·19					IX.—Deccan.		
7			11	11	2				S 63° E	10·4	10·9	— 4		64	+8·5	·417	+·061	2·3	+1·4	0	0·20	—0·20	0	0·04	—0·04	0·17	0·16	+ 0·01	0	Belgaum	Bombay (Deccan)	38
2		4	7	16		1		1	S 67° E	8·7	7·1	+23	10·5	48	+0·5	·338	+·013	1·0	0	0	0·20	—0·20	0	0·07	—0·07	0·59	0·50	+ 0·09	0	Sholapur.		
	2	1	5	2	1		2	6	N 11° E	6·9	5·7	+21		60	+3·2	·338	+·030	1·0	+0·2	0	0·20	—0·20	0	0·04	—0·04	0	0·23	—0·23	0	Poona.		
5	1	3	3	9	9	1			S 40° E	4·7			4·6	74	+5·6	·484	+·029	1·1	—0·1	0	0·20	—0·20	0	0	0	0·43	0·03	+0·40	0	Bijapur.		
2	2	1				2	10	14	N 61° W	4·7	3·9	+21	5·4	55	—3·4	·320	+·013	0·8	—0·5	0	0·10	—0·10	0	0·11	—0·11	0	0·37	— 0·37	0	Malegaon	Khandesh	40
6		2		10	2	4	1	6	S 4° E	4·1			5·0	68	+7·0	·417	+·074	0·9	0	0	0·20	—0·20	0·08	0·01	+0·07	0·35	0·51	— 0·16	0·08	Ahmednagar.		
13	1	8	4	2	1	1	1		N 69° W	3·6	3·4	+ 6	3·5	53	—1·6	·316	+·018	1·5	+0·3	0	0·70	—0·70	0·02	0·33	—0·31	0·02	1·08	— 1·06	0·01	Akola	Berar	41
	4	10	10	2	2	2		1	N 67° E	5·2	3·2	+ 63	4·6	51	—1·3	·328	+·001	0·8	—0·4	1	0·90	+0·10	0·15	0·35	—0·20	0·15	0·92	—0·77	0·15	Amraoti.		
	1	12	4	8		1	1	4	N 66° E	3·2	2·8	+14		55	—0·5	·295	+·020	1·5	+0·5	0	0·50	—0·50	0	0·26	—0·26	0	0·69	— 0·69	0	Khandwa	Central Provinces (West).	42
		30							N 45° E	1·2	2·5	—52	1·2	65	—1·7	·335	+·022?	0·5	—0·9	1	0·80	+0·20	0·20	0·26	—0·06	0·20	0·79	— 0·59	0·20	Hoshangabad		
11	16	1	1		1			1	N 4° E	3·2	3·9	—18	2·5	58	—2·9	·334	—·014	0·9	—0·4	0	1·00	—1·00	0·07	0·43	—0·36	0·07	0·91	—0·84	0·07	Nagpur.		
28	1	1						1	N	0·5	2·1	—76	0·4	73	+1·7	·408	+·011	0·8	—0·3	0	0·60	—0·60	0	0·30	—0·30	0·02	0·64	— 0·62	0	Chanda	Central Provinces (Central).	43
	6	8	1	4	4	4	2	2	N 43° E	4·4	2·7	+63	3·7	61	—6·0	·307	—·032	0·5	—1·1	0	1·20	—1·20	0	0·53	—0·53	0	1·05	—1·05	0	Seoni.		
7	1	1	2	10	9	1			S 31° E	2·1	2·2	— 5	1·8	81	+6·5	·341	+·020	0·7	—1·0	1	1·40	—0·40	0·17	0·72	—0·55	0·17	1·05	— 0·88	0·13	Jubbulpore.		
	3	3	6	7	5	5	1	1	S 46° E	5·7	2·8	+104	5·1	56	—2·6	·272	—·008	1·7	+0·4	0	1·50	—1·50	0·01	0·64	—0·63	0·01	1·34	—1·33	0·01	Saugor.		
9		1	5	2		1	7	6	N 59° W	2·3	4·0	—43	2·1	74	+3·9	·311	+·019	2·1	+0·9	1	1·80	—0·80	0·42	0·92	—0·50	0·42	1·35	—0·93	0·42	Sutna	Central India.	49
12	3	8	2	1		4	1		N 42° E	2·0	2·6	—23	2·4	64	+2·5	·356	+·009	0·6	—0·8	0	0·80	—0·80	0	0·20	—0·20	0	0·45	—0·45	0	Raipur	Central Provinces (East).	44
14	5	1		2	2	1		6	N 27° W	3·4			2	65		·304		0·8		0			0			0			0	Pendra.		
	1	8	2	12	4	4			S 57° E	3·7	1·6	+131	3·6	73	—0·3	·390	—·015	0·5	—0·8	0	1·00	—1·00	0	0·28	—0·28	0	0·52	—0·52	0	Sambalpur		
7	1	10	9	3		1			N 74° E	6·7			6·6	50		·350		1*		0	0·20	—0·20	0	0·12	—0·12	0	0·73	—0·73	0	Aurangabad.	Hyderabad (North).	39
24		2	2					3	N 14° E	4·3			3·6	55		·398		1·0		0	0·20	—0·20	0	0·05	—0·05	0·41	0·38	+0·03	0	Indur.		
	1	2	6	5	8	4	4	1	S 15° E	2·5			2·0	65		·463		2·7		0	0·10	—0·10	0	0·02	—0·02	1·10	0·54	+0·56	0	Bidar.		
16		1	11	1	2				81° E	6·0			6·8	66	+8·6	·451	—·075	1·0	—0·1	0	0·20	—0·20	0	0·07	—0·07	0·68	0·07	+0·61	0	Gulbarga	Hyderabad (South).	53
5			10	11	1	2	1		S 60° E	6·9			6·6	76	+13·4	·551	+·102	0·9	—0·6	0	0·10	—0·10	0·08	0	+0·08	2·13	0	+2·13	0·08	Raichur.		
28			1	2					S 59° E	3·0			2·9	78	+3·1	·474	+·020	2·1	+0·7	0			0	0·06	—0·06	0·14	0·23	—0·09	0	Hyderabad (Dn.).		
6	2	1		8	8	4		2	S 10 E	4·4			3·7	77		·527		2·1		0	0·20	—0·20	0			0			0	Hanumkonda		
														71	—2·5	·601	0	1·8	+0·6				0·53	0·22	+0·31					X.—West Coast.		
1	9	13	7	1					N 44° E	8·8	10·1	—13		69	—3·2	·555	+·006	1·4	+0·5	0	0·10	—0·10	0	0·10	—0·10	0	0·16	—0·16	0	Bombay	Konkan	37
7	1	5	15	3					N 83° E	9·0	9·8	— 8	8·9	60	+0·5?	·525	+·046	0·5	—0·3	0	0·20	—0·20	0	0·15	—0·15	0	0·20	—0·20	0	Ratnagiri.		
1	1	2	14	11	2				S 72° E	8·3*				78	—3·3?	·639	+·006	1·1	+0·7	0			0		0	0·20	0	+0·20	0	Mormugao.		
		5	25	1					N 84° E	7·6				72	?	·629	?	1·2	+0·8	0			0	0·19	—0·19	0	0·25	—0·25	0	Goa.		
6	6	12	7						N 47° E	3·0				76	—2·5	·550	+·017	0·6	+0·2	0	0·10	—0·10	0	0·09	—0·09	0	0·16	—0·16	0	Karwar.		
3		22	6						N 54° E	4·1				72	+0·3	·626	—·015	2·1	+0·7	2	1·00	+1·00	1·44	0·54	+0·90	4·69	2·20	+ 2·49	1·30	Cochin	Malabar	33
		10	19	2					N 78° E	7·2			7·1	76	—1·2	·642	—·019	2·3	+0·9	2	0·30	+1·70	1·83	0·19	+1·64	3·32	1·16	+ 2·16	1·42	Calicut.		
12			18	1					S 88° E	2·4	3·9	—38		71	—0·2	·619	+·018	2·7	+1·1	1	0·10	+0·90	0·91	0·05	+0·86	0·99	0·50	+ 0·49	0·91	Mangalore.		
5	6	10	9				1		N 49° E	4·4				69	—8·1	·620	—·057	4·1	+1·2	1	1·30	—0·30	0·55	0·63	—0·08	1·86	2·87	—1·01	0·51	Trivandrum.		

the data for that station are not utilized in calculating the provincial departures from normal and 45 are derived are somewhat incomplete.

* Mean of 30 days.

Table

Abstract of Observations taken at 8 A.M. at 233

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 A.M., in inches.								Temperature of air.											
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
					+·003								82·9	−1·9	64·8	+0·4	73·9	−0·8	18·1				27·2
	XI.—South India.																							
7	Madras (South)	Pamban	37	29·991		29·955	30·054	8th	29·934	18th	·120	76·3	81·6		74·5		78·1		7·1	85·3	1st	71·7	31st	13·6
		Tinnevelly	168	29·871	0	29·971	29·946	8th	29·813	1st	·133	75·4	85·9	−1·8	71·4	−0·2	78·7	−1·0	14·5	91·2	30th & 31st.	68·9	7th, 16th & 17th.	22·2
		Madura	447	29·582	−·002	29·976	29·650	8th	29·521	20th	·129	74·1	84·8	−2·7	66·6	0	76·7	−1·4	16·2	88·9	30th	65·1	30th	23·8
		Periyakulam	945	29·078			29·149	8th	29·015	19th	·134	68·0	83·8		62·5		72·9		21·3	89·0	31st	57·0	30th	32·0
34	Madras (South-Central).	Salem	940	29·112	−·014	30·018	29·197	8th	29·048	31st	·149	70·8	84·7	−2·6	63·8	+0·1	74·3	−1·8	20·9	90·2	31st	58·3	28th	31·9
		Coimbatore	1,348	28·684	+·001	30·013	28·764	8th	28·623	1st	·141	69·0	84·0	−2·8	63·4	−0·5	73·7	−1·7	20·6	89·9	31st	55·6	30th	34·3
35	Coorg.	Mercara	3,781	26·298	+·005		26·369	9th	26·247	17th	·122	59·6	75·2	?	56·5	−0·1	65·9	?	18·7	80·0	31st	52·1	26th	27·9
36	Mysore	Chitaldroog	2,405	27·619	0	30·005	27·720	9th	27·542	18th	·178	67·6	82·1	−1·7	60·7	?	71·4	?	21·4	86·1	31st	56·9	9th & 25th.	29·2
		Bangalore	3,021	27·031	−·007	30·036	27·118	8th	26·967	31st	·151	63·0	79·0	−1·2	57·1	+0·3	68·1	−0·5	21·9	84·8	31st	52·9	27th & 28th.	31·9
		Hassan	3,091	26·961	+·005	30·028	27·057	8th	26·911	20th	·146	64·6	80·4	−1·1	55·2	+1·1	67·8	0	25·2	84·4	31st	50·1	28th	34·3
		Mysore	2,518	27·520	−·002	30·022	27·598	8th	27·463	31st	·133	66·6	82·3†	−1·8†	58·8	−0·5	70·6†	−1·2	23·5	86·4	31st	53·4	28th	33·0
56	Madras, East Coast, South.	Negapatam	31	29·993	−·009	29·953	30·066	9th	29·941	19th	·125	77·0	82·0	+0·2†	73·3	?	77·7	?	8·7	84·3	29th	68·5	28th	15·8
		Cuddalore*	12	30·040	+·008	29·982	30·116	8th	29·981	20th	·135	73·0	81·9	−1·4	69·3	+2·0	75·6	+0·3	12·6	83·6	8th	63·2	28th	20·4
		Trichinopoly	255	29·788	0	29·982	29·860	8th	29·719	19th	·141	72·6	84·7	−2·7	67·1	−0·1	75·9	−1·4	17·6	88·5	31st	61·9	29th	26·6
		Madras	22	30·035	−·006	29·988	30·124	9th	29·968	31st	·156	74·5	83·2	−1·5	69·2	+1·8	76·2	+0·2	14·0	85·0	28th	62·0	31st	23·0
		Vellore	707	29·344		30·015	29·433	8th	29·272	31st	·161	69·4	82·9		63·3		73·1		19·6	88·4	17th	54·4	29th	34·0
55	Madras, East Coast, Central.	Nellore	71	29·997	+·011	30·003	30·118	9th	29·908	31st	·210	71·1	83·3	−2·7	67·5	+1·2	75·4	−0·8	15·8	86·8	29th & 31st.	64·1	30th	22·7
		Masulipatam	15	30·072	+·015	30·022	30·196	9th	29·971	31st	·225	70·8	82·2	−1·3	66·0	+0·7	74·1	−0·3	16·2	85·0	27th & 28th.	62·7	9th	22·3
54	Madras, Central	Cuddapah	433	29·624	+·006	30·009	29·742	9th	29·542	28th	·200	70·6	85·7	−2·7	64·6	+0·2	75·2	−1·3	21·1	89·7	29th & 31st.	60·4	26th	29·3
		Kurnool	945	29·105	+·009	30·027	29·227	9th	29·006	31st	·221	67·3	86·3	−2·4	59·3	+0·6	72·8	−0·9	27·0	89·7	21st & 31st.	53·2	25th	36·5
		Bellary	1,475	28·556	+·001	30·025	28·667	8th	28·458	31st	·209	66·8	86·4	−1·2	61·6	+1·1	74·0	−0·1	24·8	91·0	31st	57·1	25th	33·9
52	Madras, East Coast, North.	Cocanada	26	30·059	+·010	30·021	30·181	8th	29·942	31st	·239	70·4	80·7	−0·3	65·4	+0·1	73·1	−0·1	15·3	87·6	28th	62·0	9th, 10th & 24th.	25·6
		Waltair (Vizag.)	226	29·858	+·007	30·031	29·984	8h	29·725	31st	·259	72·4	80·4	?	67·1	?	73·8	?	13·3	83·3	26th	64·4	15th	18·9
		Gopalpur	21	30·075	+·025	30·037	30·228	8th	29·920	31st	·308	66·3	78·9	−1·4	60·5	−0·7	69·7	−1·1	18·4	86·2	28th	56·0	15th	30·2
	XII.—Hill Stations.																							
48	Baluchistan	Pishin											47·3		25·5		36·4		21·8	60·2	9th	13·0	15th	47·2
		Quetta	5,502	24·732	+·045		24·867	27th	24·561	14th	·306	32·6	46·9	−4·4	30·8	+1·5	38·9	−1·5	16·1	59·7	3rd	18·3	15th	41·4
		Kalat	...																					
		Chaman	4,311	25·785	+·013		25·918	27th	25·607	13th	·311	38·9	49·8	−3·6	25·1	+0·4	42·5	−1·6	14·7	65·8	9th	16·6	15th	49·2
		Leh	11,503	19·621	−·040		19·864	8th	19·440	18th	·424	13·5	29·9	+0·1	10·5	+1·7	20·2	+0·9	19·4	39·0	29th	0·9	31st	38·1
30	Punjab	Srinagar	5,204	24·998	+·001		25·236	8th	24·740	14th	·496	28·4	35·9	−3·1	26·1	−0·3	31·0	−1·7	9·8	41·4	17th	17·6	1st	23·8
		Sonemarg	*8,764*	21·822			22·023	9th	21·615	14th	·408	18·1	30·4		11·2		20·8		19·2	39·0	9th	−9·9	20th	48·9
		Astor (Kashmir).	7,955	22·528			22·707	8th	22·317	14th	·390	22·3	34·6		17·7		26·2		16·9	40·5	28th	1·5	31st	39·0
		Minimarg	*9,359*	21·306			21·507	8th	21·113	14th	·394	15·4	31·6		11·0		21·3		20·6	41·3	9th	−10·0	20th	51·3
		Skardu	*7,505*	22·900			23·136	8th	22·688	4th	·448	23·6	35·8		20·8		28·3		15·0	47·0	6th	11·1	21st	35·9
		Dras	*10,059*	20·745			20·968	8th	20·544	14th	·424	6·1	21·3		−4·2		8·6		25·5	33·3	10th	−31·9	31st	65·2
		Gilgit	4,890	25·242			25·470	8th	24·964	4th	·506	26·8	45·3	+0·1	33·7	+2·1	39·5	+1·1	11·6	54·2	28th	24·6	31st	29·6
		Chitral	*5,486*	24·493			24·725‡	30th	24·250	9th & 15th.	·475‡	31·3	40·1							47·1	11th			
		Killa Drosh										31·5	40·6		30·2†		35·7†		10·4	47·3	27th	22·9	31st	23·4
		Murree	6,333	23·850	−·014		24·030	8th	23·619	14th	·411	35·7	41·3	−5·9	30·2*	−5·0*	35·5*	−5·5	11·1	51·2	4th	20·0	19th	31·2

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

* Mean of 30 days.
† Mean of 27 days.
‡ Mean of 24 days.

Note 1.—When a query is inserted against any reading or in returns of any station,
Note 2.—The data from which divisional means of the figure columns Nos. 41,

I—*continued.*

Stations in India, Burma, etc., in January, 1904—continued.

Wind Direction. Number of winds from Calm	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	Wind Velocity. Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	Hygrometry, 8 A.M. Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Cloud. Mean cloud amount at 8 A.M.	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., 1903 to 31st Jan. 1904.	Normal rainfall for period, 1st Dec., to 31st Jan.	Departure from normal of period, 1st Dec., 1903 to 31st Jan., 1904.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
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	58
														82	+5·1	·616	+·028	3·8	+1·3				1·09	0·37	+0·72					**XI.—South India.**		
1	8	15						7	N 14° E	16·6			17·6	91		·830		4·3		5	2·20	+2·80	1·23	1·33	−0·10	9·48	11·64	−2·16	0·40	Pamban	Madras (South)	57
	16	1					1	13	N 20° W	5·2			5·0	71	−7·4	·629	−·069	6·4	+3·9	2	1·50	+0·50	0·94	1·02	−0·08	6·04	4·77	+1·27	0·56	Tinnevelly.		
	10	16	1					4	N 22° E	6·8	5·4	+26	7·8	76	+1·8	·648	+·016	4·6	+1·8	2	0·80	+1·20	0·89	0·24	+0·65	8·17	2·11	+6·06	0·70	Madura.		
																				3	0·90	+2·10	1·09	0·63	+0·46	5·62	2·19	+3·43	0·50	Periyakulam.		
23	2	1				2	1	2	N 45° W	2·0			2·2	84		·577		4·3														
18	1	3	7	1			1		N 74° E	3·6	5·0	−28	3·2	81	+6·5	·616	+·031	3·7	+1·3	1	0·30	+0·70	0·38	0·23	+0·15	1·54	1·49	+0·05	0·29	Salem	Madras (South Central).	34
3		7	20	1					N 81° E	5·2	3·1	+68	4·6	86	+1·7?	·620	+·002	4·0	+1·5	4	0·50	+3·50	1·59	0·16	+1·43	2·38	1·29	+1·09	0·96	Coimbatore.		
		27	4						N 50° E	7·3	4·3	+ 70	6·8	86	+11·5	·450	+·032	3·1	+5·0	0	0·20	−0·20	0	0·02	−0·02	3·76	0·53	+3·23	0	Mercara	Coorg	35
2		2	16	11					S 75° E	8·0			7·0	70	+11·7	·482	+·060?	3·4	+1·9	0	0·30	−0·30	0·02	0·01	+0·01	0·60	0·10	+0·50	0·01	Chitaldroog	Mysore	36
		7	22	2					N 83° E	9·7	3·8	+155	8·4	83	+4·7	·487	+·029	3·2	+0·2	0	0·10	−0·10	0·02	0·14	−0·12	1·18	0·62	+0·56	0·02	Bangalore.		
2		7	16	6					N 88° E	3·5			3·0	78	+6·4	·378	+·018	5·5	+2·8	0	0·10	−0·10	0·02	0	+0·02	1·70	0·18	+1·52	0·02	Hassan.		
		13	15	3					N 75° E	9·8			10·6	79	+6·3	·516	+·032	5·5	+3·0	0	0·10	−0·10	0·02	0	+0·02	0·76	0·17	+0·59	0·02	Mysore.		
6	2	16	1				2	4	N 25° E	15·0	5·4	+178	13·2	78	−4·3	·735	+·021	6·0	+0·5	5	1·90	+3·10	7·40	1·37	+6·03	25·73	14·16	+11·57	5·12	Negapatam	Madras East Coast, South.	59
28	1	1							N 77° E	2·8			3·5	89	+1·0	·732	+·022	6·4	+2·2	3	1·20	+1·80	0·92	0·80	+0·12	8·53	8·99	−0·46	0·60	Cuddalore.		
25		4		1				1	N 45° E	2·7	4·7	−43		85	+8·4	·676	+·044	3·8	+0·8	3	0·60	+2·40	2·14	0·27	+1·87	8·57	3·03	+5·54	1·85	Trichinopoly.		
	8	21	2						N 37° E	6·7	6·1	+10		82	−0·3	·717	+·028	3·7	+0·3	3	2·10	+0·90	2·10	0·52	+1·58	20·65	6·54	+14·11	1·24	Madras.		
25		5					1		N 37° E	4·0			4·0	87		·630		2·7		3	0·70	+2·30	0 84	0·49	+0·35	14·25	3·37	+10·88	0·32	Vellore.		
2	3			4				22	N 39° W	3·4				91	+4·7	·695	+·020	4·2	+0·5	3	0·50	+2·50	4·81	0·55	+4·26	10·07	2·19	+7·88	3·32	Nellore	Madras East Coast, Central.	52
9	10	11	1						N 26° E	4·3	5·2	−17	4·1	90	+3·6	·678	+·035	1·5	−0·3	0	0·30	−0·30	0·08	0·07	+0·01	1·67	0·85	+0·82	0·08	Masulipatam.		
	1	3	3	17	3	3		1	S 47° E					81	+6·2	·610	+·029	3·5	+2·0	2	0·20	+1·80	0·29	0·16	+0·13	1·46	1·30	+0·16	0·16	Cuddapah	Madras Central.	54
16		4	3	6		2			S 71° E	4·3				86	+18·4	·578	+·116	1·4	+0·2	0	0·20	−0·20	0·04	0·07	−0·03	0·21	0·19	+0·02	0·04	Kurnool.		
3		1	7	13	6			1	S 50° E	3·9	3·3	+18	4·1	80	+14·5	·529	+·074	5·0	+3·4	0	0·10	−0·10	0·10	0·09	+0·01	0·28	0·20	+0·08	0·06	Bellary.		
12	8	6						5	N 3° E	7·7			6·5	83	+10·0	·624	+·032	1·7	0	0	0·40	−0·40	0·04	0·11	−0·07	0·09	0·91	+0·82	0·04	Cocanada	Madras, East Coast, North.	52
2	5	12	5	2		3	2		N 48° E	9·5				66	−0·1	·524	−·028	3·0	+1·6	0	0·60	−0·60	0·05	0·16	−0·11	0·12	1·96	−1·84	0·05	Waltair (Vizag.).		
	9					2		20	N 35° W	9·4	6·5	+45	9·2	84	?	·548	?	0·6	−0·8	0	0·40	−0·40	0·03	0·12	−0·09	3·26	0·87	+2·39	0·03	Gopalpur.		
																														XII.—Hill Stations.		
																				11	4·30	+6 70	5·39	2·16	+3·23	5·69	3·36	+2·33	0·85	Pishin	Baluchistan	48
23			1	5	1		1		S 38° E	2·1	3·8	−45	2·2	90	+11·3	·169	+·021	4·8	+1·1	8	4·80	+3·20	4·42	2·03	+2·39	4·67	2·84	+1·83	0·80	Quetta.		
																					3·70			0·79			1·44			Kalat.		
	2	2	4	9	6	2	3	3	S 32° E	6·2			6·8	79	+10·6	·191	+·026	3·6	−0·8	7	3·40	+3·60	1·93	1·30	+0·63	2·08	2·22	−0·14	0·72	Chaman.		
			1	1	11	9	9		S 38° W	1·4				47	− 5·8	·043	+·007	6·8	+0·1	0	0·80	−0·80	0·08	0·31	−0·23	0·08	0·50	−0·42	0·03	Leh	Punjab	30
14	1		3	8	4			1	S 58° E	2·6			2·4	93	+2·4	·141	−·008	8·7	+0·8	10	6·40	+3·60	3·77	3·49	+0·28	6·10	4·40	+1·70	1·47	Srinagar.		
23		1	1	1	1		2	2	N 68° W	1·3			1·2	96		·096		6·9		17			10·30			12·51			1·85	Sonemarg.		
13					8	10			S 25° W	5·0			4·6	76		·098		7·2		6			1·91			2·13			0·71	Astor (Kashmir).		
2		9	14	1			4	1	N 69° E					79		·074		7·1		20			8·27			9·44			1·35	Minimarg.		
28		1	2		1	1	2		S	2·3			2·3?	84		·111		7·6		1	3·00	−2·00	0·30	1·71	−1·41	0·31	2·42	−2·11	0·17	Skardu.		
30	1								N	0·5			0·4	96		·065		6·6		9	8·70	+0·30	2·86	3·98	−1·12	3·54	6·17	−2·63	0·55	Drae.		
21		1					5	4	S 66° W	4·2			3·7	63	−3·8	·137	−·006	7·9	+1·0	0	0·30	−0·30	0·06	0·2	−0·15	0·06	0·30	− 0·24	0·04	Gilgit.		
29					1				S 45° W					93		·167		7·1		5			0·71			1·35			0·17	Chitral.		
17		3	9	2	2	1	1	1	S 79° E					91§		·167§		6·1‖		3			1·23			1·57			0·44	Killa Drosh.		
6	1	2		12	9	1			S 30° E	5·0	8·1	+38	5·4	71	+ 8·9	·147	+·011	5·0	−0·3	9	2·80	+6·20	6·05	3·67	+2·38	6·22	4·81	+1·41	1·99	Murree.		

e data for that station are not utilized in calculating the provincial departures from normal.
and 45 are derived are somewhat incomplete.

§ Mean of 25 days.
‖ ,, ,, 21 ,,

Table

Abstract of Observations taken at 8 A.M. at 233

Number of District.	Meteorological Province or District.	Station.	Elevation of barometern above sea-level, in feet.	Pressure, 8 A.M., in inches.								Temperature of air.											
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
30	Punjab—*concld.*	Kailang	*10,087*	20·922			21·161	8th	20·668	18th	·493	16·2	29·5	−4·8	12·8*	−1·7	21·3*	−3·3	16·7	38·4	4th & 9th	−3·0	21st	41·4
		Poo											37·0		21·8		29·4		15·2	48·5	29th	12·0	20th	36·5
		Simla	7,224	23·128	+·016		23·306	8th	22·915	31st	·391	38·1	44·2	−0·3	31·8	+0·4	39·6	+0·1	9·3	53·3	9th	20·2	19th	33·1
		Sarain		23·176			23·341	8th	22·981	31st	·360	28·9	43·2		26·3		34·8		16·9	53·1	27th	16·6	19th	36·5
	North-West Frontier Provinces.	Para Chinar	6,000	24·504			24·674	8th	24·218	14th	·456													
		Cherat	*4,256*	25·778	+·009		25·906	8th	25·534	14th	·372	39·1	45·1	−4·1	36·5	−1·4	40·8	−2·8	8·6	53·3	10th	23·0	17th	30·3
25	United Provinces.	Chakrata	7,022	23·308	+·009		23·476	8th	23·105	31st	·371	38·5	48·9	−1·7	35·4	−0·8	42·2	−1·3	13·5	60·5	27th	23·4	19th	37·1
		Mussooree	6,705	23·672	−·005		23·835	8th	23·484	31st	·351	39·7	47·5	−1·4	36·6	−1·0	42·0	−1·2	10·9	57·2	27th & 28th.	25·0	19th	32·2
		Ranikhet	6,069	24·147	+·014		24·303	8th	23·947	31st	·356	43·5	54·1	−0·4	40·9	+0·9	47·5	+0·3	13·2	62·2	27th	30·0	19th	32·2
		Muktesar	7,600									40·9	50·0		36·6		43·3		13·4	58·9	27th	25·1	19th	33·8
13	Bengal	Yatung	10,480										46·9		23·3		35·1		23·6	53·1	16th & 25th.	19·9	4 days	33·2
		Darjeeling	7,376	23·040	+·021		23·177	3 days	22·901	31st	·276	39·7	48·5	+1·7	35·9	+1·1	42·2	+1·4	12·6	55·4	15th	33·9	6th	21·5
8	Assam Hill Tracts	Shillong	4,920	25·171			25·325	10th	25·016	28th	·319	45·2	62·2		38·2		50·2		24·0	67·6	11th	33·0	14th	34·6
		CherraPoonjee	4,309	25·774			25·907	8th	25·647	28th	·260	51·9	60·3		45·4		52·9		14·9	65·8	10th	42·4	23rd	23·4
	Central India	Mount Abu	3,945	26·145	+·008		26·286	8th	26·021	14th	·265	57·2	65·1	−1·5	51·7	+0·5	58·4	−0·5	13·4	70·6	28th	37·5	19th	33·1
		Pachmarhi	3,528	26·574	+·017		26·704	8th	26·443	31st	·261	57·7	73·1	+1·8	48·0	+0·5	60·6	+1·2	25·1	78·1	25th	36·8	7th	41·3
	South India	Wellington	6,200	24·300	−·002		24·362	9th	24·246	17th	·116	54·5	67·3	−0·3	45·3	+0·1	56·3	−0·1	22·0	74·7	31st	34·7	27th	40·0
		Kodaikanal	7,688	22·855			22·909	9th	22·814	17th	·095	52·8	61·7		46·2		52·3		15·5	69·6	31st	39·9	7th	29·7
		Ootacamund	7,322	23·088			23·143	9th	23·048	17th	·095	53·1	63·8		45·6		53·7		20·2	70·5	31st	38·2	7th, 28th & 29th.	32·3
	XIII.—Extra India.																							
	Ceylon	Trincomalee	12	29·987	+·001	29·925	30·048	11th	29·935	21st	·113	76·7	81·5	−1·8	73·6	−1·0	77·6	−1·4	7·9	85·5	1st	71·0	19th & 29th.	14·5
		Colombo	40	29·935	−·015	29·901	29·990	10th	29·870	20th	·120	76·7	85·7	−1·8	71·9	−0·2	78·8	−1·0	13·8	91·0	8th	68·5	31st	22·5
	Persia	Meshed	3,104									26·5			16·4*	−5·8						0·3	14th	
		Teheran	*4,002*	26·079 (a)			26·370	18th	25·800	1st & 3rd	·570	25·6	37·5	−4·8	20·4	−5·8	29·0	−5·3	17·1	50·7	2nd	7·0	9th	43·7
		Ispahan	*5,817*	24·242 (a)			24·400	17th	24·130	6th, 7th & 14th.	·270	29·6	46·8	+0·2	25·4	+2·3	36·1	+1·3	21·4	61·3	31st	15·2	21st	46·1
		Bushire	14	30·109	−·025	30·082	30·286	9th	29·939	30th	·347	55·5	65·1	+1·0	52·1	+0·4	58·6	+0·7	13·0	78·6	31st	41·3	17th	37·3
		Bahrein†	30	30·094			30·267	9th	29·937	30th	·330	62·3	68·8		57·1		63·0		11·7	80·1	31st	49·8	6th	30·3
		Jask	*13*	30·089	−·038	30·059	30·258	18th	29·915	24th	·343	65·8	74·8	+1·0	62·8	+2·5	68·8	+1·8	12·0	77·3	1st, 26th & 31st.	55·3	19th	22·0
	Arabia	Muscat	20	30·048	−·073	30·016	30·190	13th	29·908	13th	·282	71·2	73·3	+1·1	69·6	+2·4	71·5	+1·8	3·7	80·4	25th	62·1	17th	18·3
		Baghdad	220	30·007	−·019	30·220	30·210	9th	29·804	6th	·406	41·4	58·3	−1·8	37·6*	−0·6	48·0*	−1·2	20·7	65·7	2nd	25·8	9th	39·9
		Busrah		30·099			30·229	3rd	29·828	30th	·401		61·4		43·7		52·6		17·7	66·2	12th & 13th.	34·0	17th	32·2
		Aden	94	29·974	−·008	30·001	30·020	16th	29·882	14th	·138	74·5	80·0	−0·6	72·2‡	−0·6	76·1	−0·6	7·8	82·3	16th & 18th.	67·4	16th	14·9
		Perim	201	29·836	+·006	29·974	29·891	9th	29·784	22nd	·107	75·7	82·2	−0·5	72·7‡	−0·8	77·5‡	−0·7	9·5	83·5	8th	17·6	4 days	11·9
	Afghanistan	Kabul										20·6	38·5	−6·4	10·1	−7·7	24·4	−7·1	28·4	46·2	4th	−2·6	20th	48·8
	Central Asia	Kashgar	4,255	25·720			26·030	18 & 20th	25·520	26th	·500	16·3	34·6	+2·5	12·1	−0·4	23·5	+1·1	22·8	49·5	31st	−1·2	19th & 21st.	50·7
	Arabian Sea Islands.	Amini Divi	*13*	29·991	−·014	29·932	30·059	8th	29·938	21st	·121	81·1	86·5	+2·2	73·4	−0·5	80·0	+0·9	13·1	88·4	14th	67·3	29th	21·1
		Minicoy‡	7	29·975		29·908	30·026	10th & 11th.	29·920	21st	·106	1·1	85·4	−0·3						88·8	10th			
	Africa	Zanzibar	73	29·907	−·003	29·907	29·978	11th	29·863	24th	·115	81·2	85·9	−0·1	78·9	−0·7	82·4	−0·4	7·0	88·6	31st	72·7	25th	15·9
		Do. Dunga	*154*	29·841		29·923	29·909	11th	29·782	29th	·127	80·1	89·7		75·2		82·5		14·5	93·5	13th	71·9	25th	21·6
	Straits Settlements.	Penang §	20	29·916		29·861	29·963	7th	29·834	23rd	·129	79·9	88·4		73·6		81·0		14·8	90·0	4 days	72·0	28th	18·0
		Singapore §	10	29·940		29·871	30·017	8th	29·870	20th	·147	78·5	82·8		72·1		77·5		10·7	88·0	12th	68·0	16th	20·0

(a) Aneroid uncorrected. * Mean of 30 days. ‡ Mean of 22 days. *N.B.*—Elevations in italics indicate barometrical determinations.
† „ „ 27 „
Mean of 29 days. § 9-hour observations.

I—*concluded.*

Stations in India, Burma, etc., in January, 1904—concluded.

Wind Direction. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	Wind Velocity. Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	Hygrometry, 8 A.M. Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Cloud. Mean cloud amount at 8 A.M.	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., 1903 to 31st Jan., 1904.	Normal rainfall for period, 1st Dec. to 31st January.	Departure from normal of period, 1st Dec., 1903 to 31st Jan., 1904.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
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	58
—	1	2	2	3	2	8	9	4	S 67° W	0·3				78*		·080*		6·4		7			3·56	2·92	+0·54	3·85	4·00	−0·15	1·65	Kailang	Punjab—*concld.*	30
24	—	2	4		1				N 85° E									6·3		10			3·02	3·20	−0·18	3·48	4·25	−0·77	0·65	Poo.		
9	4			8	9				S 27° E	7·0	2·0	+250	6·7	51	− 2·1	·109	−·013	5·3	+0·6	7	3·60	+3·40	1·89	2·71	−0·82	3·88	3·94	− 0·06	0·54	Simla.		
3	1		3		12	8	4		S 22° W	2·1			2·0	91		·146		4·4		9			12·15			16·10			3·50	Sarain.		
26	1	2	1					1	N 34° E	2·5			2·3					6·1		9	1·00	+8·00	3·36	0·63	+2·73	3·77	1·42	+ 2·35	0·80	Para Chinar	North-West Frontier Province.	
4	15	1		1	1		1	8	N 15° W	10·3			9·6	62	+ 9·0	·159	+·008	5·3	+0·5	6			3·45	2·07	+1·38	4·49	3·07	+ 1·42	1·16	Cherat.		
9	17	2			2			1	N 2° E	7·3	4·8	+52	8·8	55	− 3·4	·121	−·010	3·1	−1·0	7	5·00	+2·00	5·48	3·73	+1·75	7·92	4·89	+ 3·03	1·72	Chakrata	United Provinces.	25
	3	2	12	3		1	4	6	N 48° E					59	− 2·2	·141	−·013	3·8	−0·1	7	4·20	+2·80	2·85	3·32	−0·47	3·98	4·73	− 0·75	1·14	Mussooree.		
23			2	1		3	1	1	S 27° W	1·6	1·4	+14	1·8	53	− 9·5	·138	−·038	3·6	+0·1	2	4·30	−2·30	1·63	2·79	−1·16	2·08	3·50	− 1·42	1·16	Ranikhet.		
1	1	3	3	6	3	4	7	3	S 31° W	8·3			7·7	45		·106		3·8*		2			0·99			1·14			0·48	Muktesar.		
																				3	2·50	+0·50	0·69	0·89	−0·20	0·69	1·07	− 0·38	0·25	Yatung	Bengal	13
11			5	5	4		2	3	1	E	2·8	2·6	+ 8	2·6	74	− 8·3	·183	−·007	2·9†	−1·3	3	1·71	+1·29	0·72	0·71	+0·01	0·72	0·94	− 0·22	0·16	Darjeeling.		
28			1			2			S 18° W	1·2			1·4	69		·212		1·1		0	1·50	−1·50	0	0·53	−0·53	0	0·81	− 0·81	0	Shillong	Assam Hill Tracts	8
13	2	9	1			3	3		N 19° E	1·0			1·2	69		·265		1·6		0	1·70	−1·70	0·04	0·83	−0·79	0·04	1·04	− 1·00	0·04	Cherra Poonjee		
4	6	9		1	2	6	2	1	N 1° E	5·9	4·8	+23	6·0	44	− 0·4	·205	0	1·3	−0·4	2	0·70	+1·30	0·31	0·33	−0·02	0·31	0·54	− 0·23	0·20	Mount Abu	Central India.	
12		3		1	1	11	2	1	S 49° W	4·3	3·1	+39	4·4	63	+ 5·4	·306	+·018	1·4	−0·5	0	1·50	−1·50	0·01	0·65	−0·64	0·01	1·12	− 1·11	0·01	Pachmarhi.		
20	3	1	3	2		1		1	N 58° E	2·0	2·4	−17		63	− 0·6	·272	−·003	3·0	+1·2	4	1·70	+2·30	3·03	0·83	+2·20	6·06	4·74	+ 1·32	2·05	Wellington	South India.	
	5	5	11	8	1			1	N 81° E	13·4				54		·211		3·3		4	1·40	+2·60	3·39	1·17	+2·22	15·45	6·74	+ 8·71	2·33	Kodaikanal.		
20		2	7	2					E	5·0			5·0	55		·220		2·0		2	0·60	+1·40	0·82	0·35	+0·47	3·92	2·00	+ 1·92	0·69	Ootacamund.		
																														XIII.—Extra India.		
1		19						11	N 15° E					87	+ 8·0	·804	+·027	4·9	+0·9	12			11·96	5·38	+6·58	23·09	21·28	+ 1·81	3·90	Trincomalee.	Ceylon.	
	23	5	1	2					N 14° E	11·3	8·4	+35		83	+ 9·5	·764	−·005	5·3	+1·7	8			5·44	3·20	+2·24	7·66	9·99	− 2·33	1·60	Colombo.		
														95		·143		3·1	−2·2	2			0·77	0·41	+0·36	1·52	1·11	+0·41	0·42	Meshed	Persia.	
11	4	10		1	1		2	2	N 20° E	0·6			0·8	73¶	?	·118¶	?	5·4	+1·6	11			7·48	1·29	+6·19	8·14	2·66	+5·48	2·45	Teheran.		
17	3			1		4	4	2	N 33° W	2·4			3·1	79	−3·2	·136	−·003	4·5	+1·0	3			1·16	0·26	+0·90	1·20	0·80	+0·40	0·63	Ispahan.		
	8	8	4	3	2		1	5	N 29° E	7·6			9·0	83	+ 5·1	·375	+·026	4·1	+0·8	3			0·84	3·12	−2·28	3·46	6·36	− 2·90	0·38	Bushire.		
	11	1	1	1	5			7	N 15° W					87		·489				1			0·25			0·40			0·25	Bahrein.		
3	5	12	8					3	N 43° E	10·6			8·8	76	+ 3·2	·488	+·042	2·1	+0·2	2			0·89	0·87	+0·02	1·66	1·65	+ 0·01	0·53	Jask.		
9	1			6	1			14	N 45° W	3·6			3·7	70	+ 1·7	·546	+·069	1·0	−1·5	0			0	1·28	−1·28	0·13	1·54	− 1·41	0	Muscat	Arabia.	
18	6		1				4	2	N 30° W	1·9	2·7	−30	2·5	77	− 3·0	·208	−·036	4·3	+1·7	2			0·98	1·38	−0·40	1·19	3·02	−1·83	0·43	Baghdad.		
																				5			2·39			3·20			0·95	Busrah.		
1	1	19	4	9	1	1		4	N 79° E	13·7*	12·0	+14	11·1*	73	− 2·0	·620	−·032	4·4	−2·0	0			0	0·32	−0·32	0·52	0·69	− 0·17	0	Aden.		
		8	4	18		1			S 70° E	18·6			18·8	76	+ 0·4	·675	−·009	1·8	−3·4	1			0·62	0·34	+0·28	0·71	0·42	+0·29	0·56	Perim.		
†	5	3		3	7	2	6	5	N 89° W					85		·103		6·3	?	0			1·45	1·24	+0·21	2·30	1·53	+ 0·77	0·68	Kabul	Afghanistan.	
27									Calm	2·4			2·2					3·9	−2·3	0			0·03	0·27	−0·19	0·08	0·27	−0·19	0·05	Kashgar	Central Asia.	
	9	3	17	2					N 43° E					72	− 2·2	·773	−·021	5·9	+1·6	1			0·29	0·19	+0·10	2·64	0·51	+2·13	0·19	Amini Divi.	Arabian Sea Islands.	
		6	14	2					N 37° E	4·3			4·6	72	− 6·7	·778	−·015	4·3	+1·1	0			0	2·09	−2·09	0	2·09	−2·09	0	Minicoy.		
		14	10	1		1	2	2	1	N 12° E	7·3			6·3	84	+ 3·7	·893	+·026	7·8	+1·6	7			5·25	3·37	+1·88	12·75	6·14	+6·61	2·22	Zanzibar	Africa.	
										8·3			8·1	87		·889		5·4		5			6·71			9·17			2·35	Do. Dunga.		
																		1·3		10			9·76			14·07			2·26	Penang	Straits Settlements.	
2	21							1	N 9° E	5·1								6·8		19			20·36			26·58			7·27	Singapore.		
1	8	13	1					8	N 12° E	3·3†																						

* Mean of 30 days.
† " " 27 "
‡ " " 21 "

** Rainfall from 1st January 1904.

TABLE II.—Abstract of Observations recorded at 10 A.M. and 4 P.M. at 65 Stations in India, Burma, etc., in January, 1904.

Table

Abstract of Observations recorded at 10 A.M. and 4 P.M. at

Meteorological Province.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure.						Temperature of air.										Temperature, Wet-bulb.			
			Mean of 10 hours.	Mean of 16 hours.	Mean daily range.	Mean of daily mean pressures.	Departure from normal.	Mean reduced to S. L. and gravity 45° Lat.	Mean maximum.	Mean minimum.	Mean daily range.	Highest maximum.	Lowest minimum.	Absolute range.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	Mean minimum.	Mean 10 hours.	Mean 16 hours.	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
Burma Coast and Bay Islands.	Port Blair	61	29·950	29·844	·106	29·898	0	29·889	85·3	76·5	8·8	88·2	71·4	16·8	82·2	83·3	80·2	0	72·1	76·1	75·7	74·6
	Rangoon	57	·989	·867	·122	·927	0	·922	87·1	64·4	22·7	89·5	59·9	29·6	78·8	85·0	73·8	−0·9	61·6	68·0	69·7	66·4
	Diamond Island	41	30·008	·892	·116	·951	−·003	·827	82·1	71·6	10·5	84·6	68·7	15·9	77·8	80·2	76·0	−0·6	66·2	69·6	70·0	68·6
	Cocos Island	119	29·909	·803	·106	·857		·910	82·5	74·3	8·2	84·4	71·6	12·8	80·1	78·7	77·7		67·2			
	Akyab	20	30·057	·938	·119	·991	−·002	·954	79·7	59·9	19·8	82·0	56·6	25·4	70·3	76·9	68·9	−0·6		65·2	67·7	
Bengal and Orissa.	Chittagong	87	29·997	·874	·123	·931	−·009	·969	78·8	53·9	24·9	82·4	49·2	33·2	69·3	75·6	66·2	−0·4	53·4	63·9	65·7	61·0
	Calcutta (Alipore)	21	30·102	·969	·133	30·026	+·008	·993	78·3	54·3	24·0	83·4	48·6	34·8	70·4	77·2	65·3	+0·1	53·0	61·7	63·2	59·3
	Saugor Island	25	·092	·964	·128	·017	+·011	·987	77·3	58·3	19·0	82·2	52·4	29·8	70·6	74·5	66·6	−0·1	56·5	63·7	64·9	61·7
	False Point	21	·090	·973	·117	·021	+·004	·984	78·6	56·6	22·0	85·4	48·6	36·8	73·2	75·5	66·4	−1·1	56·0	66·0	66·9	63·0
Gangetic Plain and Chota Nagpur.	Hazaribagh	2,007	28·040	27·934	·106	27·978	+·004	·983	74·3	51·3	23·0	80·0	43·6	36·4	66·1	71·9	61·9	+1·0	46·4	53·2	55·3	51·6
	Darbhanga	166	29·953	29·818	·135	29·878	+·001	30·006	73·5	50·6	22·9	78·7	44·3	34·4	64·9	72·1	61·3	−0·3	49·3	59·0	61·0	56·4
	Allahabad	309	·814	·695	·119	·741	+·015	·017	74·6	49·0	25·6	80·9	41·5	39·4	64·9	73·5	60·1	+0·6	46·8	57·3	60·8	55·0
Upper Sub-Himalayas.	Dehra Dun	2,233	27·812	27·731	·081	27·761	+·021	·047	65·4	44·1	21·3	73·2	37·1	36·1	55·6	62·6	53·9	−0·7	41·9	49·6	52·6	48·0
	Roorkee	899	29·178	29·084	·094	29·120	+·017	·035	68·2	43·7	24·5	75·0	35·3	39·7	55·5	65·5	54·3	−1·0	42·8	51·1	54·1	49·3
	Meerut	738	·352	·255	·097	·293	+·013	·034	70·9	44·2	26·7	76·7	35·1	41·6	57·2	67·8	55·9	−0·1	42·5	50·3	54·1	49·0
	Lahore	702	·405	·325	·080	·356	+·030	·072	64·4	41·9	22·5	73·4	34·5	38·9	53·6	62·9	51·3	−1·7	40·9	49·7	54·5	48·3
	Ludhiana	812	·274	·186	·088	·221	+·015	·051†	64·4	42·7	21·7	69·2	36·2	33·0	53·4†	61·8	51·8	−2·2	42·1	48·9†	52·9	48·0
Indus Valley and N.-W. Rajputana.	Peshawar	1,110	·024	28·951	·073	28·979	+·030	·145	57·6	42·2	15·4	69·2	33·3	35·9	51·9	55·7	48·1	−1·6	39·8	46·9	48·9	45·2
	Jacobabad	186	·977	29·860	·117	29·910	+·032	·056	72·0	44·4	27·6	84·3	34·0	50·3	60·2	69·6	57·0	−0·3	41·3	51·9	56·3	49·8
	Kurrachee	30	30·129	30·016	·113	30·064	+·032	·046	76·9	54·9	22·0	86·1	46·4	39·7	68·2	74·5	65·5	+0·2	51·3	56·8	81·7	56·6
E. Rajputana, Central India, and Gujarat.	Jaipur	1,431	28·667	28·565	·102	28·607	+·023	·044	74·4	48·0	26·4	81·2	36·8	44·4	64·8	72·5	59·8	−0·1	42·9	52·0	55·4	50·1
	Udaipur	1,925	·153	·039	·114	·087		·009	76·2	47·7†	28·5	83·7	39·0	44·7	66·9	74·1	61·7†		44·1	53·1	55·9	51·0
	Deesa	466	29·627	29·508	·119	29·558	+·014	29·987	84·5	51·5	33·0	91·0	42·7	48·3	73·6	82·4	67·8	+0·7	45·0	57·4	59·8	54·1
	Jamnagar	61	30·050	·931	·119	·982		·988	80·4	52·8	27·6	87·0	45·0	42·0	70·6	78·1	65·7		47·1	57·2	60·6	55·0
Deccan.	Belgaum	2,539	27·491	27·371	·120	27·428	+·007	·888	82·7	59·1	23·6	89·2	55·7	33·5	75·2	81·2	70·2	+0·4	55·4	61·8	61·7	59·6
	Sholapur	1,590	28·466	28·324	·142	28·392	+·005	·935	86·5	60·7	25·8	92·7	53·6	39·1	76·5	85·0	73·3	+0·6	53·7	62·1	64·1	60·0
	Akola	930	29·154	29·010	·144	29·074	+·020	·968	86·7	55·4	31·3	96·9	44·3	46·6	75·3	85·4	70·2	+1·7	50·0	61·2	64·9	58·7
	Buldana	2,132	27·930	27·807	·123	27·860	−·020	·949	81·9	59·7	22·2	86·6	53·0	33·6	74·0	80·3	70·2	+0·9	51·3	58·5	60·6	56·8
	Khandwa	1,044	29·025	28·888	·137	28·949	+·013	·962†	86·3	54·0	32·3	92·2	44·1	48·1	74·1	84·9	69·7	+2·3	48·6	60·1	64·6	57·8
	Nagpur	1,025	·062	·927	·135	·987	+·028	·983	84·7	56·6	28·1	90·1	48·4	41·7	72·8	83·4	69·9	+1·1	51·5	59·5	63·4	58·1
	Do. (Sanitary Commr.'s Office)	1,013	·087	·953	·134	29·012		30·002	84·9	55·5	29·4	89·5	47·3	42·2	73·4	83·1	69·4		51·0	59·9	64·2	58·4
	Hyderabad (Deccan)	1,690	28·374	·251	·123	28·307	+·016	29·957	83·7	59·7	24·0	88·9	53·1	35·8	75·0	81·2	70·9	+0·5	57·7	64·9	66·2	62·9
West Coast.	Bombay	37	30·023	29·902	·121	29·956	+·001	·933	83·7	69·1	14·6	87·9	62·3	25·6	75·7	79·8	75·6	+1·1	62·8	67·7	71·0	67·2
	Karwar	44	29·985	·856	·129	·918	−·004	·896	87·7	66·6	21·1	91·2	61·9	29·3	78·8	85·9	76·3	+0·9	63·6	68·9	71·8	68·1

† Mean of 30 days. ‡ Mean of 29 days.

II.

65 Stations in India, Burma, etc., in January, 1904.

Vapour Tension.					Humidity.					Cloud.				Wind Direction. Total number of 10 hours and 16 hours winds from										Wind Steadiness.		Wind Velocity.		Rainfall.		Station.	Meteorological Province.
From minimum.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	From minimum.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	Mean 10 hours.	Mean 16 hours.	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.	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
																									%	%						
·736	·825	·789	·801	—·006	80	75	69	78	− 1	5·2	3·9	4·6	+1·0		19	34	3	3	1		1	1	N 34° E	N 39° E	79	76	162*	156	0·37	0·21	Port Blair.	Burma Coast and Bay Islands.
·514	·542	·527	·545	−·023	85	55	44	68	− 2	1·5	2·9	2·2	+0·2	3	13	25	2	12	1	3	1	2	N 49° E	N 27° E	50	36	45*	91	0	0	Rangoon.	
·573	·617	·598	·610	−·045	74	64	58	68	− 5	1·1	1·7	1·4	−1·0		8	26	7	2		1	1	17	N 20° E	N 1° W	63	69	184*	190	0	0	Diamond Island, Cocos Island.	
·578					67					0·8	1·3	1·1	−1·1		31	31							N 22° E	N 15° E	92	83			0	0		
	·558	·558				75	60			0·3	0·2	0·3	−1·1			14	17				18	13	N 1° W	N 18° W	31	44	53*	67	0	0	Akyab.	
·405	·525	·504	·488	+·009	97	73	57	77	+ 3	0·3	0·1	0·2	−1·3		5	20	1	2	2	2	6	24	N 14° W	N 24° W	52	48	79*	74	0	0	Chittagong.	Bengal and Orissa.
·390	·441	·397	·426	−·005	91	59	42	66	− 4	0·8	0·5	0·7	−0·8	8	10	2	2	1	1	8	4	26	N 47° W	N 30° W	53	44	47	62	0	0	Calcutta (Alipore), Saugor Island, False Point.	
·411	·506	·494	·491	—·021	89	67	57	72	− 4	0·6	0·5	0·6	−1·4		26	9		1	9	9	4	4	N 18° W	N 6° W	32	22	177	173	0	0		
·417	·549	·546	·524	−·027	96	66	61	75	− 2	1·6	1·7	1·7	−0·5		18	9	9	7	6	4	5	4	N 35° E	N 57° E	27	22	127*	142	0	0		
·261	·250	·236	·259	−·023	68	39	30	50	− 5	0·7	0·8	0·8	−1·6	3	15	5	2	1	4	1	5	26	N 29° W	N 51° W	58	49	151*	139	0·11	0·11	Hazaribagh.	Gangetic Plain and Chota Nagpur.
·338	·425	·392	·395	−·011	91	69	50	74	− 1	0·5	0·4	0·5	−1·0	37	1		1	2		2	13	6	N 82° W	S 81° W	27	44	30	62	0·03	0·03	Darbhanga.	
·297	373	·368	·384	+·020	85	60	45	68	0	1·4	1·3	1·4	−1·0	1	5	7	11	4	2	1	13	18	N 24° W	N 42° W	30	26	69*	91	0·30	0·30	Allahabad.	
·243	·286	·278	·273	+·003	83	64	49	67	0	3·1	4·7	3·9	−0·4	11	4		2	2	5	9	19	6	S 80° W	S 66° W	47	20	251	38	1·55	0·79	Dehra Dun.	Upper Sub-Himalayas.
·268	·321	·273	·291	+·003	93	72	44	72	+ 3	2·6	3·0	2·8	−0·7	12	3	2	4	8		2	3	28	N 38° W	N 72° W	35	21	71	50	0·82	0·34	Roorkee.	
·255	·276	·243	·262	−·024	87	59	36	63	− 3	2·2	2·9	2·6	−0·5	16	3	1	3	2		2	21	11	N 68° W	N 60° W	47	42	41*	48	0·26	0·15	Meerut.	
·247	·309	·315	·294	+·025	91	75	56	77	+ 7	4·2	4·0	4·1	+0·4	17	3	1	4	3	2		11	21	N 53° W	N 30° W	39	21	43	41	1·39	0·76	Lahore.	
·262	·291†	·288	·284	—·002	92	71†	53	75	+ 5	2·5	2·5	2·5	−1·8	3	1			6			45	7	N 88° W	N 54° W	74	29	39*	41	1·17	0·69	Ludhiana.	
·219	·262	·265	·253	+·029	81	69	62	74	+10	5·8	6·5	6·2	+1·5	30	4	4	2	1	2	4	10	5	N 66° W	S 7° W	19	4	38*	60	3·30	1·10	Peshawar.	
·222	·282	·282	·266	+·039	75	54	39	59	+ 8	2·5	2·1	2·3	−0·7	36	9	6	6	1	1			3	N 33° E	N	26	23	28*	53	0·68	0·44	Jacobabad.	Indus Valley and N.-W. Rajputana.
·310	·317	·389	·337	+·003	76	46	45	60	+ 1	1·6	1·1	1·4	−1·0	2	1	12	17	12	2	9	5	2	S 84° E	N 24° E	40	20	156*	221	1·46	1·10	Kurrachee.	
·217	·234	·230	·233	—·035	61	38	29	48	− 8	2·6	3·4	3·0	−0·3	2	4	15	9	6	2	3	8	13	N 16° E	N	26	18	90	79	0·06	0·04	Jaipur.	
·251†	·237	·227	·232		74†	36	27	46		1·4	1·9	1·7		24	2	6	12	3	1	6	4	4	N 78° E		13		45*		0·34	0·20	Udaipur.	E. Rajputana, C. India and Gujrat.
·221	·263	·217	·228	−·006	56	32	20	36	0	1·2	1·6	1·4	−0·7		14	16	11	1	2	4	7	7	N 5° E	N 24° E	40	37	210	204	0·29	0·20	Deesa.	
·258	·302	·303	·305		62	40	32	48		1·1	1·7	1·4		5	20	22	3		1	2	4	5	N 13° E		61		238*		0·18	0·18	Jamnagar	
·397	·387	·312	·369	+·024	79	45	29	53	+ 4	2·3	2·8	2·6	+1·1			6	26	22	4	2	2		S 68° E	S 75° E	73	42	247	240	0	0	Belgaum.	Deccan.
·333	·383	·314	·350	+·016	62	42	29	44	+ 2	1·2	2·9	2·1	+0·3	2	1	10	9	33	2	3		2	S 63° E	S 60° E	65	56	252*	187	0	0	Sholapur.	
·298	·366	·345	·338	+·010	66	41	28	47	− 2	1·4	1·9	1·7	+0·2	23	2	12	11	2		2	2	8	N 41° E	N 48° E	29	26	83*	89	0·02	0·01	Akola.	
·279	·302	·288	·297	−·003	53	36	28	47	− 2	1·4	1·5	1·5	−0·5	1	9	7	7	10	12	5	3	8	S 66° E	N 68° E	12	12	125*	137	0	0	Buldana.	
·282	·350	·358	·335	+·015	66	41	30	48	− 2	0·9	1·8	1·4	−0·1		1	21	4	12	6	4	2	12	N 64° E	N 24° E	26	23	78	79	0	0	Khandwa.	
·325	·350	·338	·343	−·020	69	42	29	49	− 5	0·9	2·3	1·6	−0·4	8	9	10	17	7	4	3	3	1	N 76° E	N 72° E	39	30	63*	84	0·07	0·07	Nagpur.	
·323	·358	·370	·355		72	42	32	51		0·6	1·9	1·3		13		18		12		5		14	N 37° E		21		27*		0	0	Do. (Sanitary Commr.'s Office).	
·458	·491	·460	·468	+·045	88	56	43	63	+ 6	2·1	4·3	3·2	+1·6	26		2	14	18	1	1			S 64° E	S 54° E	48	55	68*	86	0	0	Hyderabad (Deccan).	
·491	·575	·651	·590	−·001	69	64	63	69	− 3	1·3	1·1	1·2	+0·1		6	16	9	1			8	22	N 4° W	N 6° E	52	58	213	238	0	0	Bombay.	West Coast.
·553	·575	·591	·591	−·018	85	58	49	68	− 5	0·5	1·0	·8	+0·1	2	8	9	3			1	10	29	N 32° E	N 20° W	65	52	72	84	0	0	Karwar.	

* Corrected.

Table

Abstract of Observations recorded at 10 A.M. and 4 P.M. at

Meteorological Province.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure. Mean of 10 hours.	Mean of 16 hours.	Mean daily range.	Mean of daily mean pressures.	Departure from normal.	Mean reduced to S. L. and gravity 45° Lat.	Temperature of Air. Mean maximum.	Mean minimum.	Mean daily range.	Highest maximum.	Lowest minimum.	Absolute range.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	Temperature, Wet-bulb. Mean minimum.	Mean 10 hours.	Mean 16 hours.	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
South India.	Periyakulam	945	29·086	28·956	·130	29·029			84·0	62·5	21·5	89·1	57·0	32·1	75·8	82·5	73·0		60·9	68·2	69·9	66·5
	Salem	940	·113	·992	·121	·056	+·006	29·943	85·2	63·8	21·4	90·4	58·3	32·1	76·9	82·5	73·5	−1·5	62·6	69·6	72·7	68·3
	Chitaldroog	2,405	27·636	27·516	·120	27·573	+·008	·910	82·5	60·8	21·7	87·1	56·7	30·4	74·3	80·5	70·6	−0·9	57·4	63·7	64·1	61·7
	Bangalore	3,021	·043	26·934	·109	26·987	+·001	·922	79·5	57·2	22·3	85·6	52·8	32·8	71·1	76·9	67·4	−0·1	56·3	61·6	63·1	60·3
	Hassan	3,091	26·972	·858	·114	·913	+·005	·966	80·7	55·2	25·5	85·0	50·1	34·9	72·1	78·3	67·0	+0·2	54·1	61·1	61·6	58·9
	Mysore	2,518	27·529	27·404	·125	27·465	−·006	·911	82·6‡	58·7	23·9	86·5	53·2	33·3	73·6	80·0	69·8‡	−0·9	58·2	63·8	65·3	62·4
	Madras	22	30·050	29·944	·111	29·993	−·003	·946	83·0	68·8	14·2	84·8	61·1	23·7	79·9	79·7	75·5	+0·2		72·5	72·2	71·1
	Bellary	1,475	28·574	28·435	·139	28·502	−·001	·931	86·8	61·5	25·3	93·8	57·3	36·5	76·0	83·5	73·3	+0·1	58·9	67·9	70·3	65·7
	Waltair	*226*	29·873	29·754	·119	29·804	+·008	·975	80·6	67·1	13·5	85·5	64·2	19·3	77·8	77·8	73·1	−0·4	62·1	66·3	67·7	65·5
Hill Station, Baluchistan.	Quetta	5,502	24·751	24·680	·071	24·706	+·043		47·1	30·8	16·3	60·3	18·2	42·1	40·3	45·6	38·3	−1·3	30·2	37·0	39·1	35·4
Hill Stations, Northern India.	Leh	11,503	19·637	19·554§	·083	19·588§	−·033		29·9	10·5	19·4	39·0	0·9	38·1	26·8	27·8§	18·2	+0·9	7·1	12·1	14·7§	11·3
	Srinagar	5,204	25·031	24·969	·062	24·991	0		36·2	26·0	10·2	41·4	17·4	24·0	30·3	35·8	29·1	−1·6	25·2	29·3	32·0	28·8
	Saran		23·205	23·148	·057	23·177			43·3	26·3	17·0	53·1	16·6	36·5	34·8	37·3	31·8			31·8	33·9	
	Simla (Ridge)	7,224	·158	·105	·053	·122	+·017		44·3	34·8	9·5	52·3	20·2	33·1	41·1	41·0	38·8	0	30·3	33·5	35·5	33·1
	Chakrata	7,022	·342	·286	·056	·301	+·012		49·0	35·4	13·6	60·5	23·4	37·1	41·8	43·6	41·5	−1·2	30·9	34·9	37·1	34·3
	Ranikhet	6,069	24·184	24·114	·070	24·139	+·024		54·1	40·9	13·2	62·2	30·0	32·2	48·2	49·7	46·8	+0·2	35·7	41·0	42·0	39·6
	Muktesar	7,600			Not recorded.				49·3	36·6	13·2	58·7	25·1	33·6	44·3	46·1	42·6		29·9	35·5	37·8	34·4
	Katmandu	4,388	25·798	25·680	·118	25·733			65·2	35·6	29·6	69·9	29·8	40·1	49·2	62·3	49·8		34·2	44·5	50·3	43·0
	Darjeeling	7,376	23·044	23·004	·040	23·018	+·007		48·3	35·9	12·4	55·4	33·9	21·5	43·2	45·8	41·4	+1·3	33·9	39·6	42·3	38·6
Hill Stations, Central India.	Mount Abu	3,945	26·171	26·097	·074	26·126	+·011		65·2	51·7	13·5	70·6	37·7	32·9	61·4	62·4	57·7	−0·5	43·5	48·6	49·4	47·1
	Pachmarhi	3,528	·599	·514	·085	·549	+·022		73·0	48·0	25·0	77·9	36·7	41·2	67·7	70·5	59·8	+1·1	44·6	54·0	56·1	51·6
	Chikalda	3,612	·473	·376	·097	·416	−·021		74·6	56·3	18·3	78·4	49·8	28·6	67·5	72·0	64·7	+0·7	49·6	55·6	57·7	54·3
Hill Stations, S. India.	Kodaikanal	7,088	22·868	22·797	·071	22·829			62·1	46·2	15·9	72·1	39·9	32·2	57·7	57·2	52·4		38·7	48·0	50·5	45·3
	Ootacamund	*7,332*	23·106	23·032	·074	23·063			63·9	43·6	20·3	70·5	38·2	32·3	60·1	58·3	53·1		38·2	48·7	50·7	45·9
	Dodabetta	*8,639*	22·048	21·984	·064	22·016			56·3	42·9	13·4	63·2	35·6	27·6	53·3	51·9	48·5		37·5†	44·8	45·6	42·1†
Extra India.	Aden	94	29·986	29·871	·115	29·923	−·011	·950	80·0	72·3	7·7	82·5	67·5	15·0	76·9	78·5	75·2	−0·5		69·7	68·4	
	Perim	201	·844	·733	·111	·783	0	·921	82·2	72·7‖	9·5	83·5	71·6	11·9	79·0	79·7	76·5‖	−0·6	67·9	71·3	71·7	70·3
	Minicoy‡‡	7	·983	·916	·067	·953		·885	85·3			86·5			83·3	82·7				75·5	75·4	
	Zanzibar	73	·899	·790	·109	·848	−·005	·847	86·0	78·9	7·1	88·6	72·7	15·9	82·5	85·6	81·5	−0·4	75·0	77·6	78·0	76·9
	Port Victoria (Seychelles)	15	·964	·872	·092	·929	+·004	·858	81·9	72·4	9·5	84·3	70·1	14·2	79·3	80·4	75·9		72·1	75·2	75·9	74·4
	Mauritius (Pamplemousses)	181				·824	+·063	·95				89·3	67·6	21·7			77·6	−1·3				72·4

‡ Mean of 28 days.
† " " 23 "
§ Mean of 30 days.
‖ Mean of 29 days.
‡‡ Observation of 22 days.

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

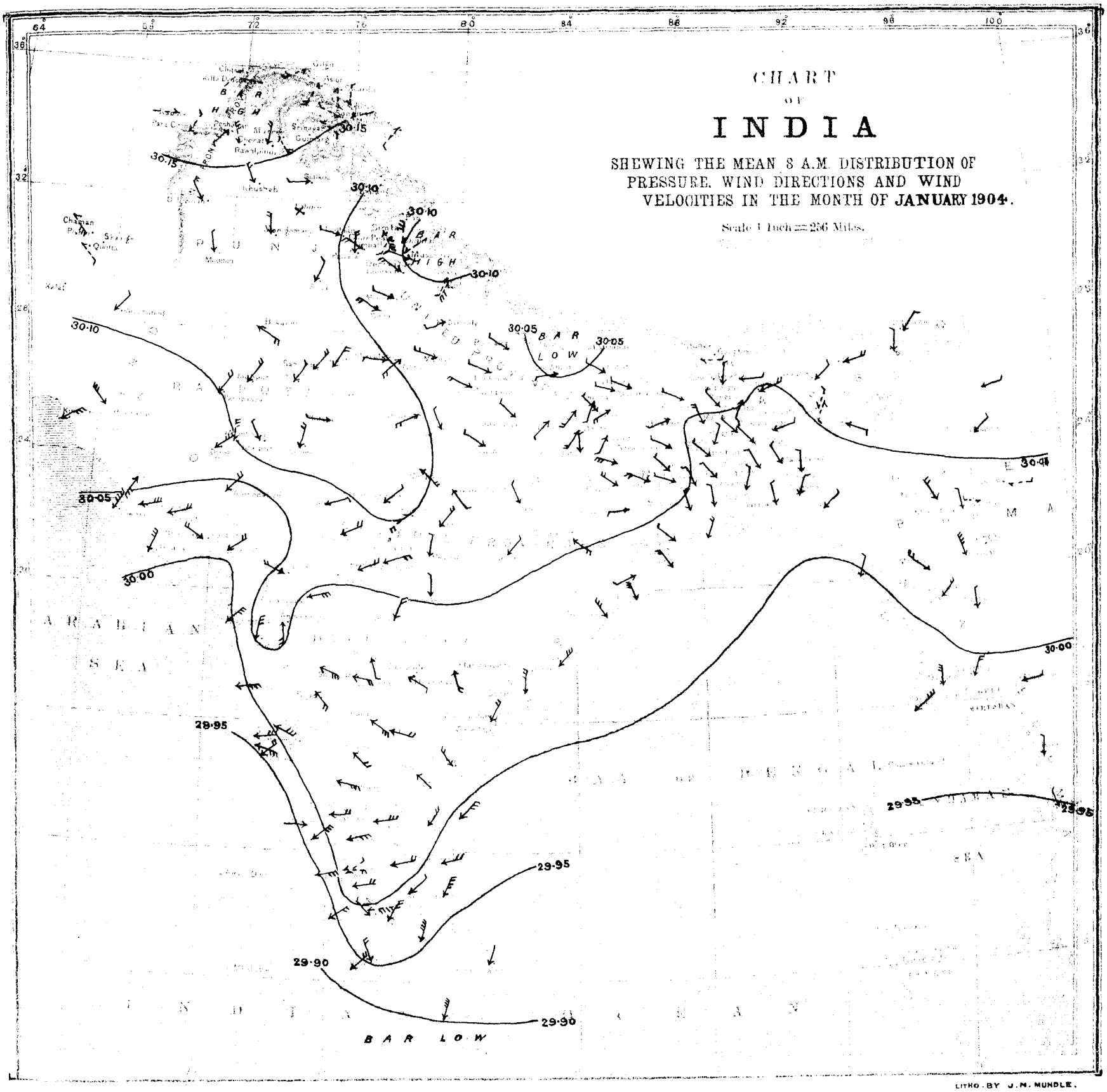
II—*concluded.*

65 Stations in India, Burma, etc., in January, 1904—concluded.

Vapour Tension.					Humidity.					Cloud.				Wind Direction.										Wind Steadiness.		Wind Velocity.		Rainfall.		Station.	Meteorological Province.
From minimum.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	From minimum.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	Mean 10 hours.	Mean 16 hours.	Mean of two previous columns.	Departure from normal.	Total number of 10 hours and 16 hours winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Mean wind direction.	Normal mean wind direction.	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
																									%	%						
·530	·591	·566	·566		92	66	51	70		4·8	4·5	4·7		5	5	8	10	12	9	3	4	6	S 73° E		24		52*		1·09	0·50	Periyakulam	South India.
·556	·635	·684	·641	+·057	93	68	61	78	+ 9	4·5	5·4	5·0	+1·9	6	1	14	36	1			3	1	N 76° E	N 81° E	71	65	77*	115	0·33	0·29	Salem	
·436	·458	·396	·434	+·058	82	54	38	60	+12	3·8	2·6	3·2	+1·3	1		12	32	16			1		S 87° E	S 88° E	82	72	101*	161	0·02	0·01	Chitaldroog	
·445	·440	·421	·439	+·031	94	58	46	68	+ 6	2·9	3·2	3·1				22	36	4					N 77° E	N 88° E	90	78	204*	127	0·02	0·02	Bangalore	
·412	·420	·359	·401	+·023	91	53	37	63	+ 5	4·9	4·7	4·8	+1·8			23	29	10					N 80° E	N 87° E	85	77	73*	70	0·02	0·02	Hassan	
·483	·474	·443	·471	+·048	96	57	43	67	+ 9	6·7	6·0	6·4	+3·4	1		12	31	17	1				S 85° E	N 83° E	84	81	253*	211	0·02	0·02	Mysore	
	·701	·693	·705	+·020		69	63	80	+ 1	4·6	4·5	4·6	+0·5		8	49	13	1					N 50° E	N 51° E	89	76	161	137	2·10	1·24	Madras	
·470	·587	·579	·537	+·131	85	65	51	66	+16	5·1	5·3	5·2	+2·8	1		8	24	17	10	1	1		S 67°E	S 69° E	71	61	98*	36	0·10	0·06	Bellary	
·496	·513	·548	·537	−·040	74	54	57	65	− 3	3·1	2·6	2·9	+1·1			30	13	6	3	10			N 78° E	S 80° E	52	30	117		0·05	0·05	Waltair	
·164	·192	·199	·193	+·029	95	77	71	85	+15	4·0	5·0	4·5	+0·1	28	3	1	2	7	7	1	5	8	S 48° W	N 84° W	8	24	53*	70	4·42	0·30	Quetta	Hill Station, Baluchistan.
·036	·023	·022§	027	−·037	47	20	15§	28	−34	6·2	7·3§	6·8	0			1	1	2	17	27	11	2	S 39° W	S 13° W	72	32	42	24	0·08	0·03	Leh	Hill Stations, Northern India.
·129	·153	·164	·149	−·009	90	90	84	88	+ 4	8·7	8·3	8·5	+1·3	18	4		3	11	6	4	4	9	S 2° W	S 21° E	13	4	57*	74	3·77	1·47	Srinagar	
	·151	·159				77	74			5·1	5·2	5·2		18			4	1	16	15	7	1	S 27° W		48		49*		12·15	3·50	Sarain	
·125	·117	·153	·140	−·011	65	48	61	62	+ 1	5·8	6·8	6·3	+1·7	8	10			3	39	1	1		S 1° E	S 18° E	52	20	160*	120	1·89	0·54	Simla (Ridge)	
·129	·136	·158	·149	−·013	65	54	57	63	− 3	3·5	5·1	4·3	−0·3	12	16	3		7	19	1	1	3	S 37° E	S 51° W	10	6	211*	137	5·48	1·72	Chakrata	
·160	·184	·191	·186	−·015	64	56	55	62	− 5	3·4	4·5	4·0	−0·1	36	1	4	2	2		9	6	2	S 72° W	S 60° W	13	17	42*	50	1·63	1·16	Ranikhet	
·102	·119	·144	·130		50	44	48	51		4·3	5·7	5·0		2	1	1	7	13	7	14	16	1	S 22° W		42		184*		0·99	0·48	Muktesar	
·185	·243	·238	·227	−·026	86	66	41	69	− 8	1·7	1·6	1·7	−1·7	3	6	4	2	3	2		25	17	N 61° W	N 78° W	55	46	28		0	0	Katmandu	Hill Stations, Northern India.
·175	·207	·236	·214	+·004	83	75	77	82	− 3	3·9‖	4·8‖	4·4‖	−1·3	17	1	8	7	13	1	4	5	6	S 78° E	N 81° W	16	20	61*	89	0·72	0·46	Darjeeling	
·193	·200	·207	·207	0	49	37	36	49	0	1·7	2·1	2·1	−0·3		7	9	3	4	6	17	6	10	S 71° W	N 61° W	21	12	141*	125	0·31	0·20	Mount Abu	Hill Stations, Central India.
·264	·266	·289	·280	−·013	76	39	38	59	− 4	1·7	1·8	1·8	−0·6	1	5	12		6	2	22	3	11	S 88° W	N 75° W	23	10	107*	84	0·01	0·01	Pachmarhi	
·281	·308	·316	·309	−·005	61	46	40	57	− 1	1·4	1·8	1·6	−0·4	51	4	2		2		3			N 48° E	S 44° W	3	21	149*	132	0·52	0·52	Chikalda	
·171	·243	·304	·237		53	53	66	61		4·9	5·9	5·4			6	13	22	13	4			3	N 84° E		63		317		3·39	2·33	Kodaikanal**	Hill Stations, S. India.
·181	·229	·297	·215		63	44	61	57		2·6	4·7	3·7		25	3	8	17	4	4	1			N 87° E		40		102*		0·82	0·69	Ootacamund	
·168†	·214	·244	·191†		60†	53	63	53†		2·9	4·5	3·7		1		19	2	17	32				S 30° E		63		331		0·96	0·95	Dodabetta	
	·628	·561				68	57			3·6	0·9	2·3	−1·7			8	13	21	4	16			S 42° E	S 89° E	53	70	267* ¶	324	0	0	Aden	Extra India.
·615‖	·668	·674	·662	−·031	76†	67	66	71	− 2	1·4	0·2	0·8	−1·6		1	11	5	14		1			S 62° E	S 66° E	79	80	148* ††	175	0·62	0·56	Perim	
	·783	·786				68	70			3·9	4·0	4·0			11	31	1	1					N 36° E		83		110*		0	0	Minicoy	
·821	·880	·860	·864	−·006	83	79	70	78	+ 1	7·0	5·4	6·2	+1·5		24	15	10	3	2	2	4	2	N 28° E	N 33° E	55	70	166*	187	5·25	2·22	Zanzibar	
·788	·826	·840	·836	+·003	99	82	80	90	+ 6	7·7	7·9	7·8	+0·8	15	5						5	37	N 45° W	N 42° W	71	65	118		30·50	4·88	Port Victoria (Seychelles).	
			·705	−·031				75	0			6·8	+0·4										S 88° E	S 86° E			250	266	3·49	0·70	Mauritius (Pamplemouses)	

¶ Mean of 29½ days. †† Mean of 21½ days. ** Wind variable 1. * Corrected.

G. I. C. P. O.—No. 847 Meteor.—21-7-1904—385.

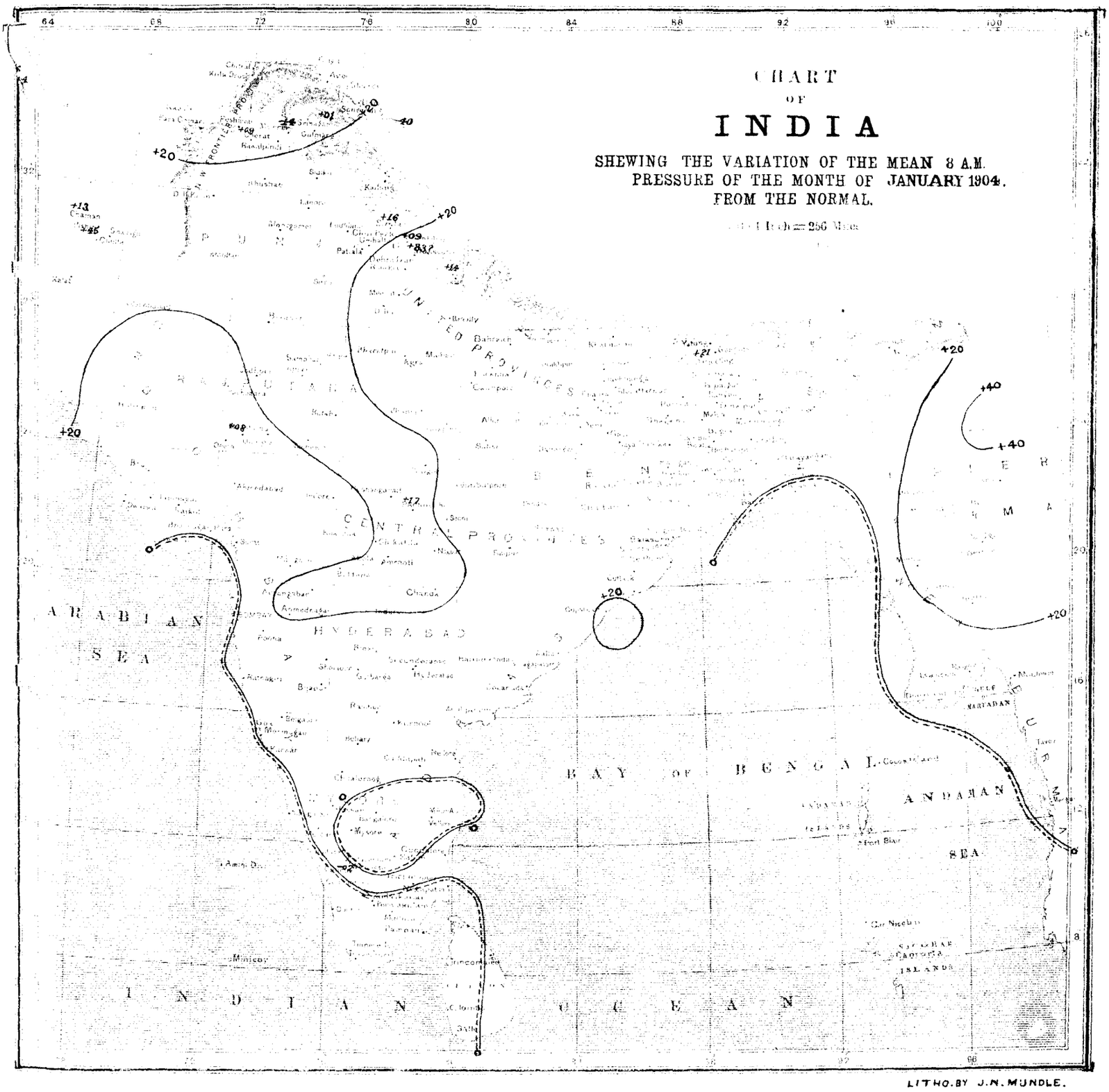


Explanation.

The lines of the above Chart represent isobars or lines of equal barometric pressure, and the numbers attached indicate the barometric pressure in inches and are 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 ordinary or normal distribution of pressure as given in the Charts of the Bay of Bengal prepared by Mr. Dallas, 1st Assistant Meteorological Reporter to the Government of India, and published by the Meteorological Department. Hence they have not the same validity as the isobars in the land area of India itself, but it is probable they deviate very little from the actual.

The mean 8 a.m. 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 I of the 8 a.m. 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	,,	,,	,,	,,	,,	



LITHO. BY J.N. MUNDLE.

Explanation.

The Chart shows the variation of the mean 8 a.m. pressure of the month from the normal by means of lines drawn for equal amounts of variation (of two hundredths of an inch or ·020″). 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 variation, the dotted line facing the area of deficient pressure or negative variations.

CHART SHEWING THE VARIATION OF THE MEAN MAXIMUM TEMPERATURE OF THE MONTH FROM THE NORMAL.

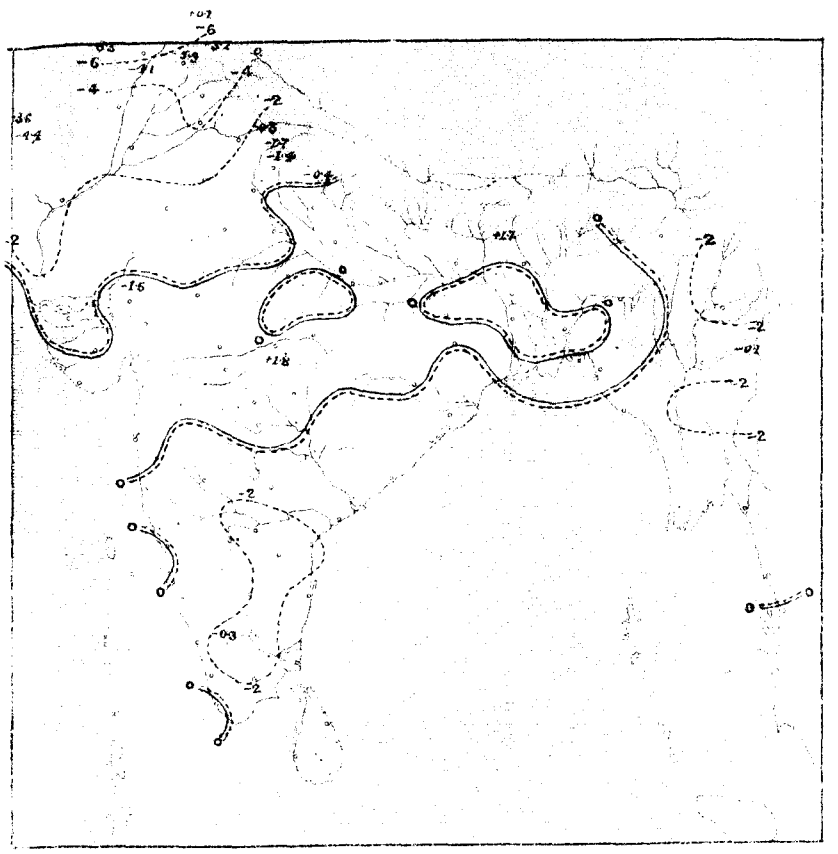
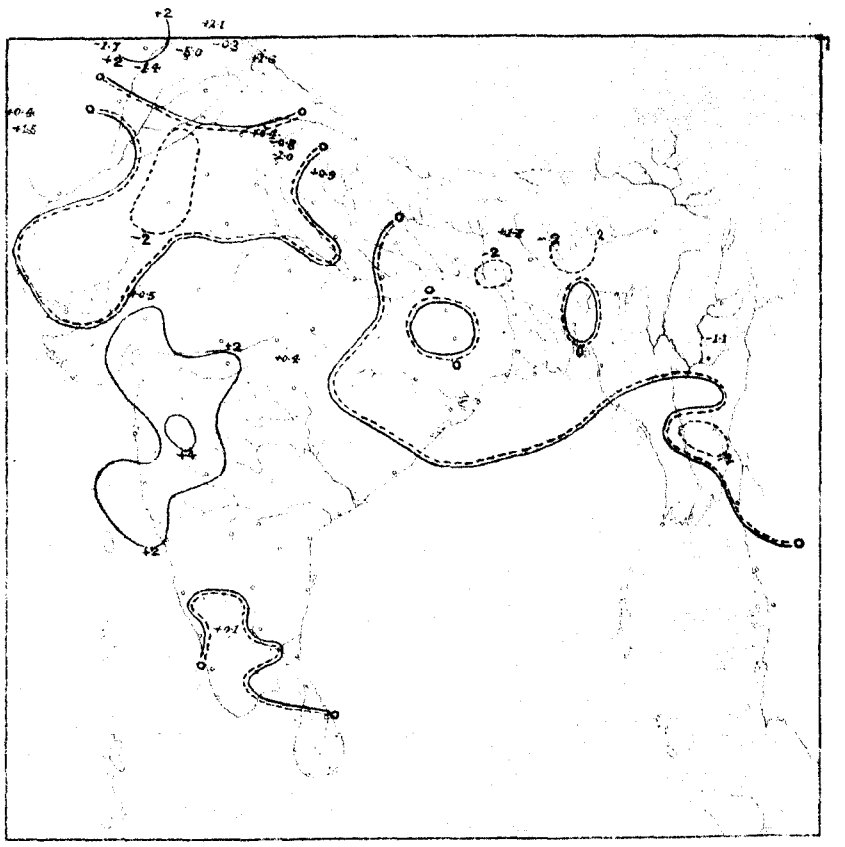


CHART SHEWING THE VARIATION OF THE MEAN MINIMUM TEMPERATURE OF THE MONTH FROM THE NORMAL.



Explanation.

Continuous lines indicate that the mean maximum of month was in excess by amounts indicated by the attached numbers; broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no variation, the broken line facing the area of deficient temperature.

Continuous lines indicate that the *mean minimum of month* was in excess by amounts indicated by the attached numbers; broken or dotted lines that it was in defect by amounts indicated by the attached *numbers*. Double lines are the lines of no variation, the broken line facing the area of deficient temperature.

CHART SHEWING THE VARIATION OF THE MEAN DAILY TEMPERATURE OF THE MONTH FROM THE NORMAL.

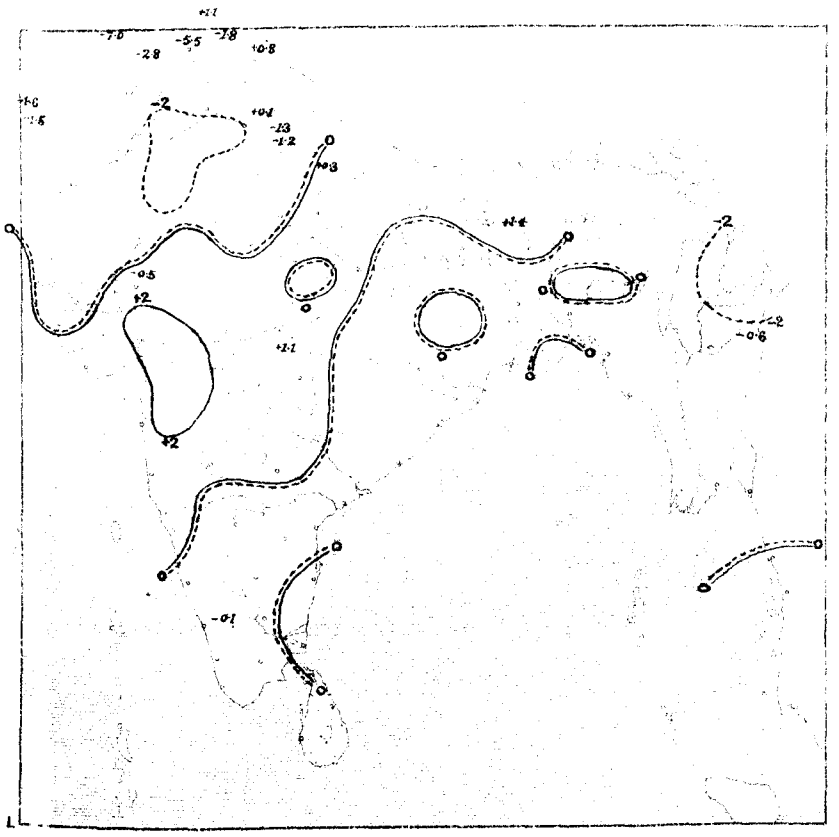
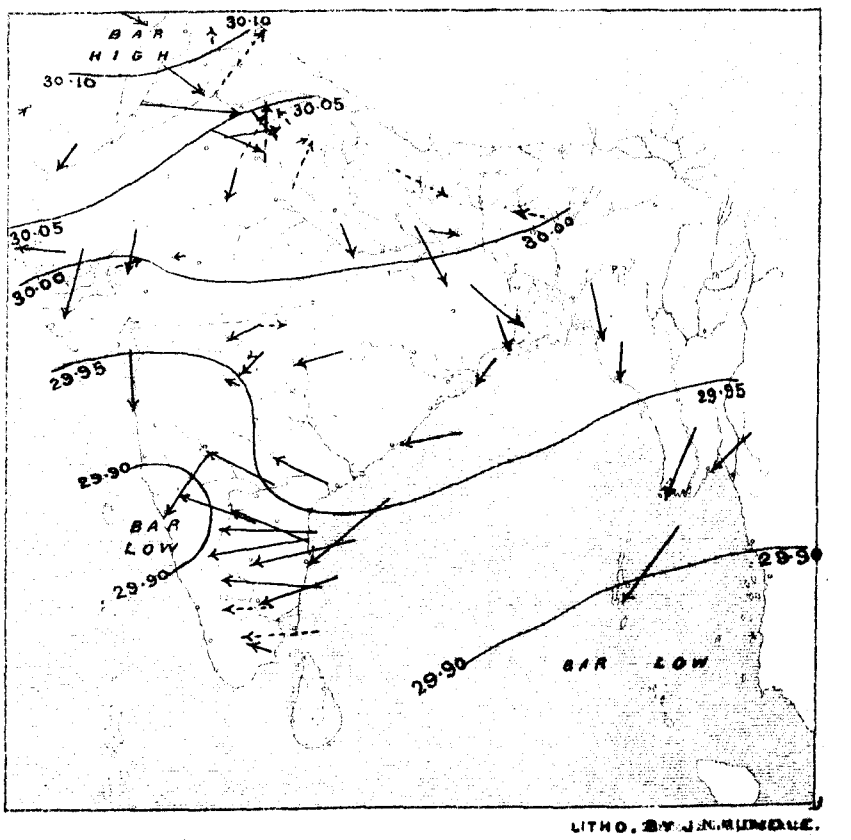


CHART SHEWING THE MEAN DISTRIBUTION OF PRESSURE AND THE RESULTANT WIND DIRECTIONS IN THE MONTH OF JANUARY 1904.



LITHO. BY J.N. MUNDLE.

Explanation.

Continuous lines indicate that the mean daily temperature of month was in excess by amounts indicated by the attached numbers; broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no variation, the broken line facing the area of deficient temperature.

The Chart is prepared in the *same manner* as the Monthly Charts which previously to 1890 appeared in the Annual Reports, the only alteration made being that pressures are reduced to *constant gravity* (45°). The isobars are given for each twentieth of an inch. The arrows show the directions of the resultants of the wind reported at 10 and 16 hours, and by their lengths the percentage of the observations expressing the numerical value of the resultant; a length of $\frac{1}{8}$th of an inch being equal to 100 per cent.

CHART SHEWING THE VARIATION AT 8 A. M. OF THE MEAN ABSOLUTE HUMIDITY OF THE MONTH FROM THE NORMAL.

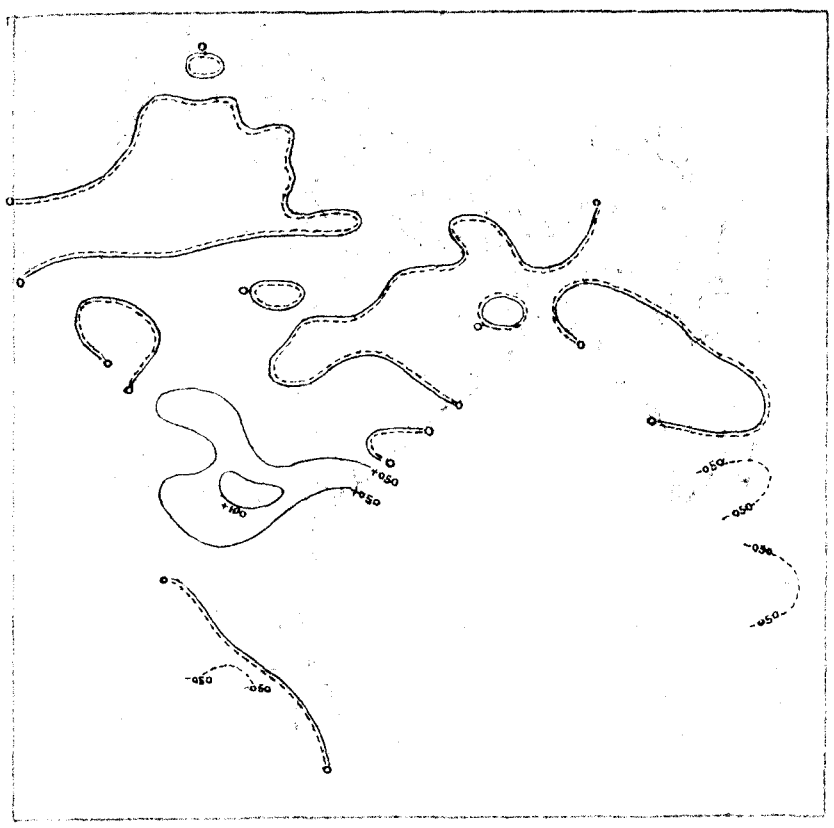
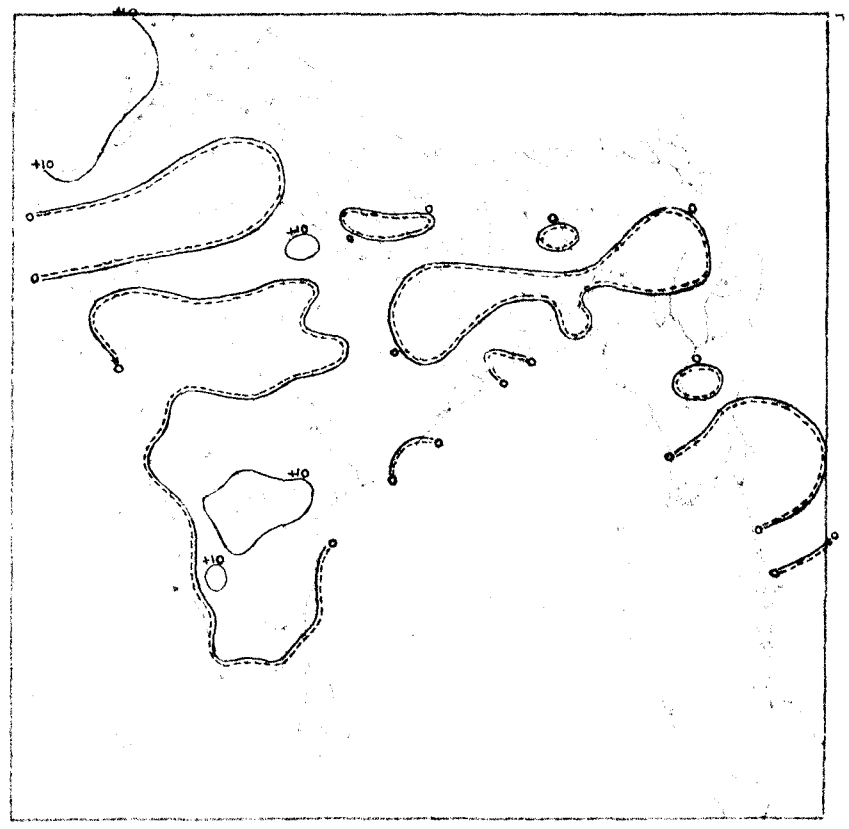


CHART SHEWING THE VARIATION AT 8 A. M. OF THE MEAN RELATIVE HUMIDITY OF THE MONTH FROM THE NORMAL.



Explanation.

Continuous lines indicate that the mean absolute humidity of month was in excess by amounts indicated by the attached numbers, broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no variation, the broken line facing the area of deficient humidity.

Continuous lines indicate that the mean relative humidity of month was in excess by amounts indicated by the attached numbers, broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no variation, the broken line facing the area of deficient humidity.

CHART SHEWING THE VARIATION AT 8 A. M. OF THE MEAN CLOUD AMOUNT OF THE MONTH FROM THE NORMAL

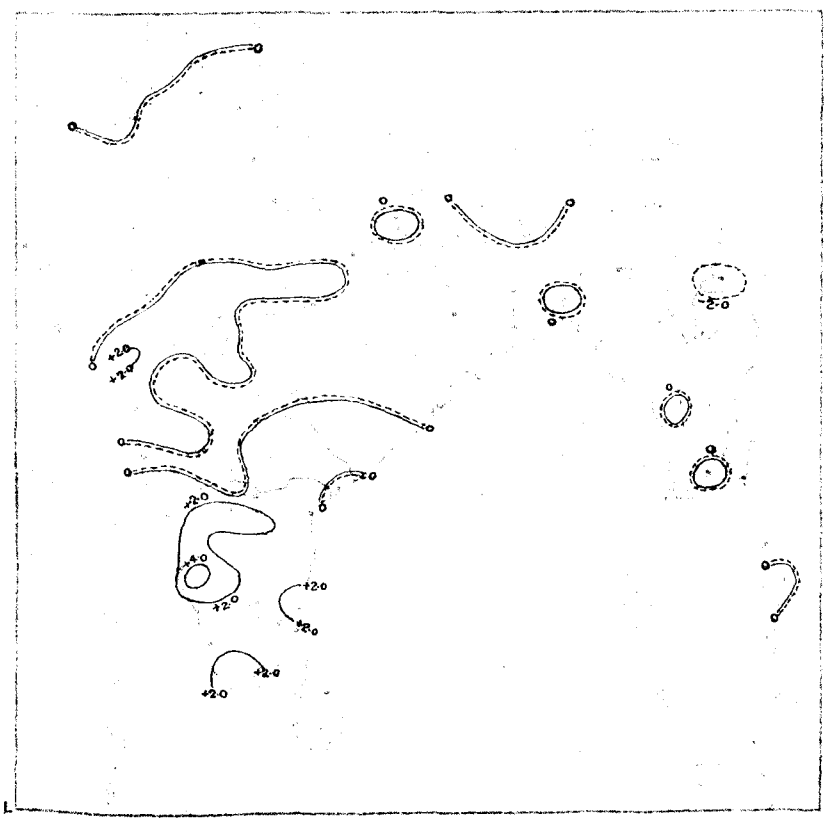
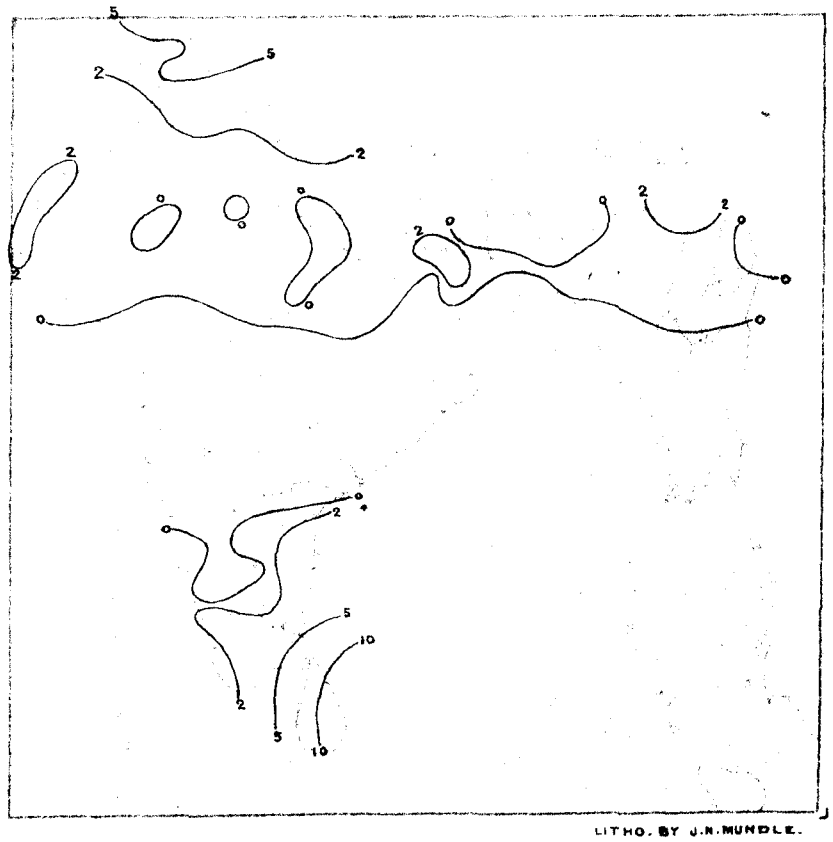


CHART SHEWING THE TOTAL NUMBER OF RAINY DAYS IN THE MONTH OF JANUARY 1904.



LITHO. BY J.N.MUNDLE.

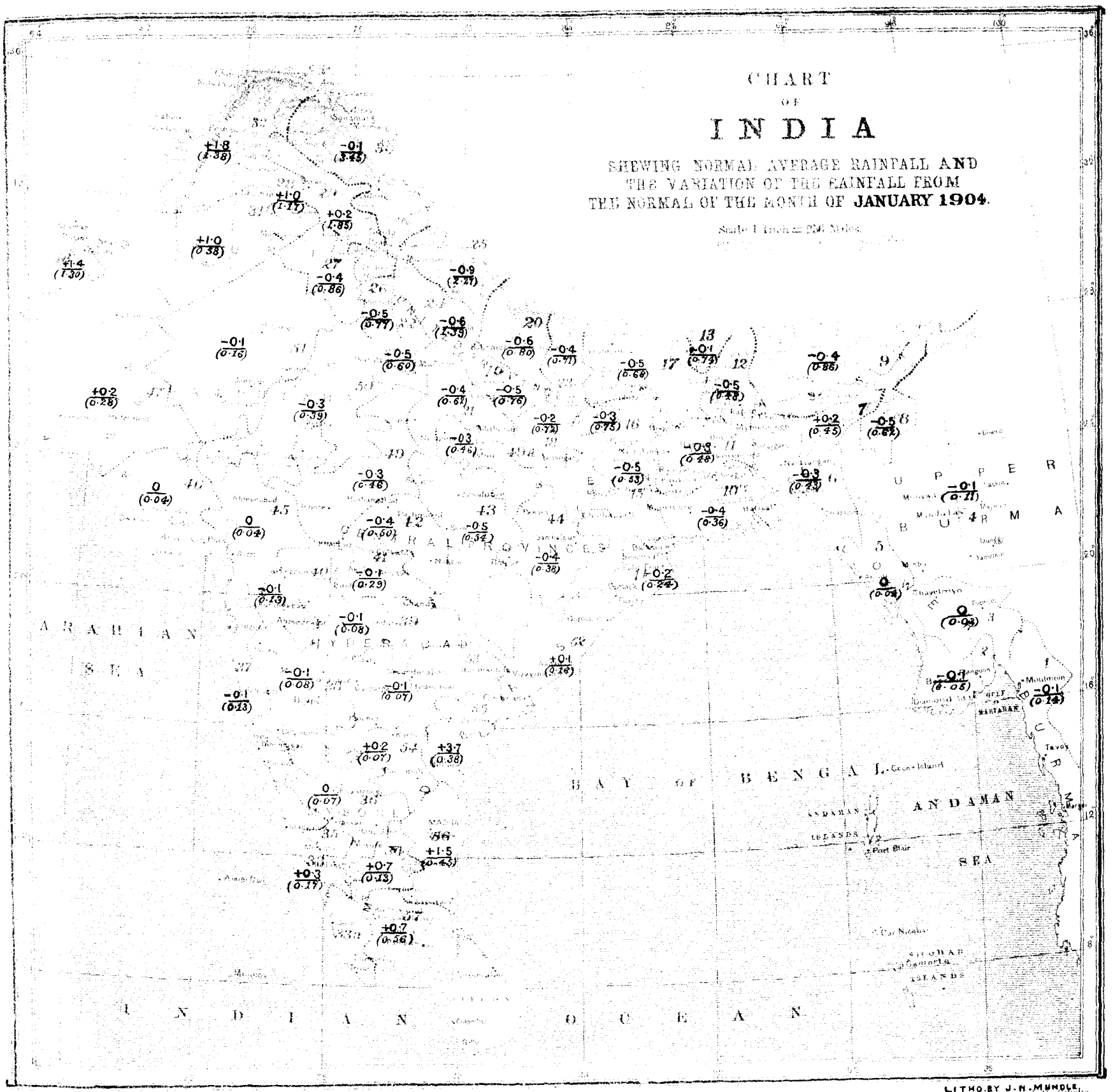
Explanation.

Continuous lines indicate that the mean cloud amount of month was in excess by amounts indicated by the attached numbers; broken or dotted lines that it was in *defect* by amounts indicated by the attached numbers. Double lines are the lines of no variation, the broken line facing the area of deficient cloud.

A rainy day is one on which 0·10 inch or more of rain is received within 24 hours.

Explanation.

The Chart shows the distribution of the rainfall of the month by means of isohyetic lines or lines of equal amounts of rain. The data used in the preparation of this Chart are the rainfall returns of all the observatories in India except those at the Hill Stations over 3,500 feet in elevation (177 in number). The double line or line of no rainfall separates areas in which the rainfall exceeded a tenth of an inch from those where it was actually or practically *nil* (*i.e.* less than a tenth of an inch). The dotted line faces the area of no rainfall.



LITHO. BY J. N. MUNDLE, Calcutta

Explanation

The Chart gives the variations of the rainfall of the month (to tenths of an inch) from the normal over the whole of India and Burma. The country is divided into 57 areas, over each of which the meteorological conditions are fairly uniform, and the staple crops similar in character; and the means (both actual and normal for the month) have been calculated, and the numbers given in the centre of each division (usually with a + or − sign attached) give the difference between the actual and normal mean rainfall of the district of the month. A plus sign indicates that the rainfall was in excess, and a negative sign that it was in defect by the amounts indicated by the numbers to which the signs are attached. The normal average rainfall is also given below in smaller figures enclosed within brackets so that the percentage variation can be at once estimated. The name of the district can be at once ascertained by referring in the following list to the number given near the right hand boundary of each district in small slanting red figures.

1. Tenasserim
2. Lower Burma Deltaic
3. Central do.
4. Upper do.
5. Arakan
6. East Bengal
7. Assam, Surma
8. Do., Hills
9. Do., Brahmaputra
10. Deltaic Bengal
11. Central do.
12. North do.
13. Bengal Hills
14. Orissa
15. Chota Nagpur
16. South Bihar
17. North Bihar
18. United Provinces, East
19. South Oudh
20. North do.
21. United Provinces, Central
22. Do. do., West
23. Do. do., East Submontane
24. Do. do., West do.
25. Do. do., Hills
26. South East Punjab
27. South do.
28. Central do.
29. Punjab, Submontane
30. Do., Hills
31. West Punjab
32. North West Frontier Province
33. Malabar
33a Travancore
34. Madras, South Central
35. Coorg
36. Mysore
37. Konkan
38. Bombay Deccan
39. Hyderabad, North
40. Khandesh
41. Berar
42. Central Provinces, West
43. Do., Central
44. Do., East
45. Gujarat
46. Kathiawar and Cutch
47. Sind
48. Baluchistan Hills
49. Central India, East
49a Do. do.
50. Rajputana East, Central India West
51. West Rajputana
52. Madras, East Coast, North
53. Hyderabad, South
54. Madras, Central
55. Madras, East Coast, Central
56. Do. East Coast, South
57. Madras, South

GOVERNMENT OF INDIA.

METEOROLOGICAL DEPARTMENT.

MONTHLY WEATHER REVIEW

PUBLISHED BY ORDER OF

THE GOVERNMENT OF INDIA.

CALCUTTA, FEBRUARY, 1904.

INTRODUCTION.

THIS review of the weather in India during the month of February 1904 is based on observations taken daily at 8 A.M. at 233 stations, and on additional observations taken at 10 A.M. and 4 P.M. at 65 stations. In the rainfall summary the rainfall data of the meteorological observatories, and the rainfall statements of the month published by the Provincial Governments that had been received up to the date of the preparation of the review are utilized. A summary of the weather in the Bay of Bengal and the Arabian Sea, derived from information extracted from the logs of vessels entering the ports of Calcutta and Bombay, is also given.

Summary of the chief features of the weather in India during the month of February, 1904.

At the commencement of the month barometric pressure was lower than usual over practically the whole of the Indian area. A small and unimportant depression existed at the head of the Bay and showers had been received over parts of Bengal and Assam while at the same time the barometer was beginning to fall over Baluchistan under the influence of a depression which was advancing from the westward. Over India, however, the barometer was rising everywhere and under the influence of this increase the Bengal depression filled up while that which was advancing from the Persian area, when it appeared in north-west India, became of very little importance. The latter storm entered north-west India on the 3rd and filled up over the United Provinces on the 4th. During these four days the mean temperature was generally high over north-west India and generally low elsewhere. The following statement gives data for Sind, Gujarat and Rajputana, where the excess was most pronounced and for Orissa, the Central Provinces and the Madras coast where the mean temperature showed the greatest deficiency —

Province or Division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of			
	1st Feb	2nd Feb.	3rd Feb.	4th Feb.
	°	°	°	°
Sind	+4·6	+4·0	+6·9	+4·4
Gujarat	+0·8	+2·2	+3·6	+5·3
Rajputana	−2·3	−0·8	+3·3	+5·2
Orissa	+1·2	−6·3	−8·5	−7·1
Central Provinces	−3·5	−6·6	−5·2	−2·3
Madras Coast	−2·3	−0·4	−1·3	−1·8

On the 5th anticyclonic conditions were re-established over India and though trifling depressions entered north-west India from the westward on the 8th and 12th high

pressure conditions were generally maintained until the 13th. During this period dry land winds prevailed over the country and both the cloud amount and relative humidity were low. No rain fell during this time and, though temperature was unsteady, the mean temperature was generally higher than usual over the western and lower than usual over the eastern half of India. The following gives comparative data of temperature for all provinces for each alternate day from the 5th to the 13th:—

Province or Division.	Departure from Normal of Mean Temperature of 24 hours preceding 8 A. M. of				
	5th Feb.	7th Feb.	9th Feb.	11th Feb.	13th Feb.
	°	°	°	°	°
Burma	−3·6	−2·8	−2·2	−1·2	−1·6
Assam	−2·5	−1·9	−0·1	+1·9	+1·3
Bengal	−2·2	−2·6	−0·9	+0·6	−0·3
Orissa	−4·3	−4·8	−6·2	−4·2	−4·4
Bihar	−1·3	−2·4	−0·4	+3·0	+0·6
Chota Nagpur	+0·2	−3·3	−2·9	+0·7	−1·5
United Provinces	+0·2	−1·4	+0·7	+1·4	−0·5
Punjab	+0·5	+1·2	+4·5	+2·6	+4·0
North-West Frontier Province	+0·7	+3·3	+3·7	+2·9	+4·9
Sind	+1·1	+4·5	+2·6	+2·9	+4·1
Rajputana	−2·2	−0·3	+4·0	+2·8	+0·7
Gujarat	+1·4	+1·1	+2·6	+7·2	+6·1
Central India	−1·8	−4·1	+0·6	+1·0	−0·6
Central Provinces	−2·5	−5·6	−3·3	−1·3	−1·5
Berar	−1·3	−3·0	−1·6	−0·4	+1·0
West Coast	−0·5	+0·1	0	+1·4	+2·5
Bombay Deccan	−1·0	−1·5	−2·3	−1·4	+0·5
Mysore	−2·4	−3·2	−6·1	−3·2	+0·1
Madras Coast	−3·1	−2·8	−2·7	−2·6	−2·2
Madras Deccan	−2·7	−3·2	−5·6	−4·5	−4·2
South India	−2·0	−2·6	−4·7	+0·5	+0·5

The effect of an advancing depression and of its accompanying slight cloud canopy on temperature was well illustrated at Jacobabad on the 8th. The depression of that date passed over the station during the night of the 7th–8th, and the actual maximum and minimum temperatures and their departures from the normal for the 7th, 8th and 9th were as follows:—

Date.	Station.	Actual maximum.	Departure.	Actual minimum.	Departure.	Cloud amount, 8 A.M.
		°	°	°	°	·
7th	Jacobabad	82·5	+8·0	49·5	+3·9	3·0
8th		83·3	+8·5	59·9	+14·0	1·0
9th		81·4	+6·3	47·1	+0·9	0

Between the 14th and the 22nd pressure was generally uniform, though somewhat lower, over the central parts of the country than in the north-west and north-east, where slight high pressure areas were shown. The winds were light and variable. Within the area of relatively low pressure slight, feeble barometric depressions were developed and rain fell over central and north-east India—more particularly in the latter area. The most disturbed days were the 17th to the 20th, and during this period falls of hail and rain exceeding 2″ in 24 hours were recorded at the following places on the following dates:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M of date.
			Inches.
Rangpur	Rangpur	18th February	3·65
Goalpara	Dhubri	19th "	2·36
Kamrup	Barduar	" "	2·35
	Boko	" "	2·30
Goalpara	Goalpara	" "	2·30
Backergunge	Patuakhali	" "	2·09
24-Parganas	Budge Budge	19th "	3·00
Singhbhum	Seraikilla	" "	2·40
24-Parganas	Alipore Obsy.	" "	2·39
Howrah	Ulubaria	" "	2·34
	Howrah	" "	2·23
Cachar	Kukicherra	" "	2·22
Howrah	Mohesreka	" "	2·21
	Amta	" "	2·17

Temperature was somewhat unsteady during this period but generally rose between the 14th and 18th, and on the latter day the mean temperature was excessive over the greater part of northern India and lower than usual over the Peninsula. With the occurrence of rain in the north-east temperature fell over that area and the following data for all provinces for the 20th illustrate the general conditions of temperature pevailing at the close of this showery period:—

Province or Division.	Departure from Normal of		
	Mean maximum temperature, 20th February.	Mean minimum temperature, 20th February.	Mean daily temperature, 20th February.
	°	°	°
Burma	− 2·8	+ 0·5	− 1·2
Assam	− 9·8	+ 1·7	− 4·1
Bengal	− 3·4	+ 2·0	− 0·7
Orissa	− 3·2	− 2·6	− 2·5

Province or Division.	Departure from normal of Mean maximum temperature, 20th February.	Mean minimum temperature, 20th February.	Mean daily temperature, 20th February.
	°	°	°
Bihar	+ 0·1	— 0·4	— 0·3
Chota Nagpur	— 2·5	— 0·4	— 1·5
United Provinces of Agra and Oudh.	+ 4·1	+ 3·8	+ 4·0
Punjab	+ 0·5	+ 5·5	+ 3·0
North-West Frontier Province.	+ 1·6	+ 1·1	+ 1·4
Sind	— 1·1	+ 2·4	+ 0·7
Rajputana	+ 3·9	+ 0·2	+ 2·1
Gujarat	— 2·2	+ 2·3	+ 0·1
Central India	+ 1·6	+ 4·4	+ 3·0
Central Provinces	— 0·2	+ 0·5	+ 0·2
Berar	— 0·3	— 0·1	— 0·2
West Coast	— 1·4	0	— 0·7
Bombay Deccan	— 0·6	— 2·7	— 1·7
Mysore	+ 1·8	— 0·5	+ 0·7
Madras Coast	— 1·6	— 1·2	— 1·4
Madras Deccan	— 0·5	— 2·3	— 1·4
South India	+ 0·1	0	+ 0·1

On the 22nd and 23rd rain and snow occurred over the north-west Himalayas and their neighbourhood. Following this the barometer rose rapidly over north-west India and well marked anticyclonic conditions re-appeared over India and were maintained till the 28th. During these seven days frequent hailstorms were experienced over the central parts of the country, falls of hail and rain exceeding 1″ in 24 hours having been recorded at the following places on the following dates:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Gwalior	Manpur	25th February	1·28
Hoshangabad	Hoshangabad	28th „	1·20
Dholpur	Bari	29th „	1·32

Temperature considerably exceeded the normal over the central districts on the 24th, but the hail and rain occasioned a brisk fall and from the 25th to the close of the month the mean temperature was largely below the average over this area. The following gives comparative data:—

Province or Division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of 25th February.	26th February.	27th February.	28th February.	29th February.
	°	°	°	°	°
Rajputana	+0·7	—1·3	—1·1	+1·0	+4·1
Bombay Deccan	—1·9	—3·6	—2·6	—1·5	—1·5
Central India	—3·7	—7·4	—5·6	—2·3	—1·9
Central Provinces	—4·5	—4·0	—3·0	—1·1	—2·5

On the 29th a shallow but well-marked depression entered India from the countries to the westward, and the mean temperature was in large excess over north-west India. This is shown below:—

Province or Division.	Departure from normal of Mean maximum temperature, 29th February.	Mean minimum temperature, 25th February.	Mean daily temperature, 29th February.
	°	°	°
United Provinces of Agra and Oudh	+1·3	+6·1	+3·7
Punjab	+4·9	+1·7	+3·3
North-West Frontier Province	+5·6	+2·4	+4·0
Sind	+0·7	+3·7	+2·2
Rajputana	+1·0	+7·2	+4·1
Gujarat	—2·8	+2·1	—0·4

Pressure.—The mean pressure of the Indian land area as determined from the 8 A.M. observations, was 0·008″ in excess of the normal. This departure was small, compared with that of the corresponding month in 1903 and 1902, when the mean departures were +·068″ and +·088,″ respectively. Excess was also shown at the hill stations and to a greater extent than on the plains. Compared with the general condition pressure was in excess over centra and upper Burma, Hyderabad, the Central Provinces, Central India, Rajputana and the Punjab, and in defect over the remaining provinces. The departures were generally small and unimportant. The vertical pressure anomalies were, unlike those of January, generally positive, and increased in amount with elevation, having been greatest between Lahore and Leh. These conditions were associated with finer and quieter weather than usual over north-west India:—

The following gives the mean pressure departures and

anomalies of the month for the eleven meteorological provinces :—

METEOROLOGICAL PROVINCE.	Departure from normal of mean 8 A.M. pressure of February 1904.	Pressure anomaly, February 1904.
	"	"
Burma Coast and Bay Islands	—·002	—·010
Burma Inland	+·029	+·021
Assam	+·007	—·001
Bengal and Orissa	+·005	—·003
Gangetic Plain and Chota Nagpur	+·010	+·002
Upper Sub-Himalayas	+·015	+·007
Indus Valley and North-West Rajputana	+·008	0
East Rajputana, Central India and Gujarat	+·005	—·003
Deccan	+·012	+·004
West Coast	—·002	—·010
South India	+·007	—·001

Temperature.—The mean maximum or day temperature of the month was in excess over the Bombay Coast, north-west India, nearly the whole of the United Provinces, Bihar, north Bengal and upper Assam. The excess was more than 5° at several stations in the Punjab and upper Sind. Over the remainder of the country the mean day temperature was generally in defect, but the deficiency was small, except over upper Burma and parts of Madras and Bengal, where it varied between 2° and 4°.

The departures of the mean minimum or night temperature from the normal were generally similar. They exhibited an excess on the Bombay coast, over north-west India, the submontane tracts of northern India, central Bengal and Cachar. The excess was greatest over north Bombay. The mean night temperature was in defect over the remainder of the Indian area. The deficiency was greatest and more than 4° over parts of central Burma and of Madras,

The mean temperature of the month was in excess of the normal to the north and west and in defect to the south and east of a line running from Goa northward to Cawnpore and thence eastward to Mymensingh. The excess was greatest over the western desert, the North-West Frontier Province and the west Punjab (Khushab +4°·5), while the deficiency was greatest over the east and centre of the Peninsula (Cuddapah −3°·4). Over Burma the mean temperature was deficient except over Tenasserim.

Both the day and night temperatures and consequently also the mean temperature were in excess over Baluchistan and at the Himalayan hill stations, while at Pachmarhi and Wellington the mean temperature was lower than usual. The mean daily range of temperature generally exceeded the average.

The following gives temperature departure data for the eleven meteorological provinces :—

METEOROLOGICAL PROVINCE.	DEPARTURE FROM NORMAL OF		
	Mean maximum temperature, February 1904.	Mean minimum temperature, February 1904.	Mean daily temperature, February 1904.
	°	°	°
Burma Coast and Bay Islands	—0·5	—0·5	—0·5
Burma Inland	—2·7	—2·0	—2·3
Assam	0	—0·7	—0·3
Bengal and Orissa	—0·2	—1·3	—0·7
Gangetic Plain and Chota Nagpur	+0·9	—0·7	+0·1
Upper Sub-Himalayas	+3·7	+0·2	+2·0
Indus Valley and North-West Rajputana	+4·6	+1·0	+·8
East Rajputana, Central India and Gujarat	+1·4	+0·9	+1·2
Deccan	—1·3	—1·3	—1·3
West Coast	—0·1	—0·2	—0·1
South India	—2·1	—2·0	—2·1

Winds.—The winds were about normal in direction and stronger than usual at the Bay Islands but over Burma and over the whole of northern India the air movement was generally lighter than the average. The winds were more westerly than usual over upper India and Bengal but on the Sind coast winds of indraught set in before the usual date, and in Gujarat and the Indus Valley the direction was more easterly than the average. The winds, though steady, were feebler than usual over the Peninsula, and in the more northern districts the directions were abnormally easterly.

Winds were irregular and light at the hill stations.

Humidity.—The mean humidity was generally below the average over the greater part of north-western and central India, the Malabar coast, west Bengal and lower Burma. The deficiency in the mean humidity was greatest in the north-west where it amounted to over 15 at Montgomery (−18), Rawalpindi (−16), Peshawar (−16) and Khushab (−15). This deficiency was due in part to the abnormal dryness of the air and in part to the excessive temperature. The mean relative humidity was generally in excess in other parts of the country, particularly so over the Deccan, where Bijapur exhibited an excess of 11, Raichur of 14 and Kurnool of over 15. At most of the Himalayan hill stations the mean relative humidity was in defect, while in Baluchistan it was in excess.

The following gives mean comparative data of the nine meteorological provinces:—

Meteorological Province.	Mean absolute humidity.		Mean relative humidity.	
	Average actual, February 1904.	Departure from normal, February 1904.	Average actual, February 1904.	Departure from normal, February 1904.
	Inch.	Inch.	%	
Burma Coast and Bay Islands	·673	—·043	71	—4
Bengal and Orissa	·531	—·040	70	—3
Gangetic Plain and Chota Nagpur.	·350	+·020	56	0
Upper Sub-Himalayas	·275	—·020	56	—6
Indus Valley and North-West Rajputana.	·349	+·040	56	0
East Rajputana, Central India and Gujarat.	·226	—·017	34	—5
Deccan	·300	—·030	39	—2
West Coast	·630	—·014	71	—3
South India	·475	—·020	58	+1

Cloud.—The mean cloud amount of the month was in excess within a broad band stretching from the Bombay coast to Bihar. It was also in excess over the south of the Peninsula. Elsewhere the sky was clearer than usual, more particularly over part of the Gangetic plain and the east and south of the Punjab. The greatest deficiency was reported from Ludhiana where the actual mean cloud amount of the month was 1·7, while the normal is 4·5. The sky was clearer than usual at the Baluchistan and Himalayan hill stations, but was more cloudy than the average over the central and southern hills.

The following gives mean comparative data of the cloud amount for the nine meteorological provinces:—

Meteorological Province.	Mean cloud amount.	
	Average actual, February 1904.	Departure from normal, February 1904.
Burma Coast and Bay Islands	1·3	—0·7
Bengal and Orissa	1·3	—1·3
Gangetic Plain and Chota Nagpur	2·0	—0·2
Upper Sub-Himalayas	2·5	—1·3
Indus Valley and North-West Rajputana	2·0	—1·3
East Rajputana, Central India and Gujarat	2·5	—0·2
Deccan	2·1	+0·4
West Coast	1·2	+0·3
South India	2·0	—0·6

Rainfall.—More or less rain fell within a broad band which stretched across northern and central India. The rainfall band included Assam, Bengal, the Central Provinces, Central India, Khandesh, Gujarat, Rajputana and Sind. To the north and south of this band, with the exception of Ceylon and Tenasserim in the south and of the hill stations in the north, the rainfall was light and unimportant, or altogether absent while within the band the month's rainfall varied from 4·38″ at Silchar to 0·13″ at Sutna and Jodhpur and to 0·11″ at Jacobabad. The month's rainfall exceeded the normal over Assam and Bengal (except the western districts). It was also in excess over north Bombay, the Central Provinces, Central India and Khandesh. In both areas the heavy rain appears to have been due to the unusual prevalence of thunderstorms. Elsewhere the month's rainfall was short of the normal, and over Madras, the greater part of Bombay of the Malabar Coast districts, of the Punjab and of the United Provinces the total amount was small and unimportant. At the extra-Indian stations the departures of rainfall from the normal were irregular, the more important features having been the deficiency of rain over the Persian area and Afghanistan and the excess in east Africa and at the Seychelles.

The following gives comparative rainfall data of the eleven meteorological provinces:—

Meteorological Province.	Rainfall.			
	Mean actual for February 1904.	Mean normal for February.	Mean of departure from normal, February 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Burma Coast and Bay Islands	0·56	0·44	0*	0
Burma Inland	0·15	0·15	—0·08*	— 53
Assam	2·50	1·49	+1·01	+ 68
Bengal and Orissa	1·16	0·90	+0·26	+ 29
Gangetic Plain and Chota Nagpur	0·25	0·67	—0·41	— 61
Upper Sub-Himalayas	0·03	1·37	—1·34	— 98
Indus Valley and North-West Rajputana.	0·17	0·46	—0·29	— 63
East Rajputana, Central India and Gujarat.	0·20	0·18	+0·04*	+ 22
Deccan	0·33	0·28	+0·05	+ 18
West Coast	0	0·21	—0·21	—100
South India	0	0·38	—0·38	—100

*A reference to Table I will show that the means of columns 2 and 3 are derived from a smaller number of stations than the means in the first column. The sum of the figures in columns 2 and 3 will, therefore, not agree with the figures in column 1.

General remarks for the monsoon area.—Large changes of pressure occurred over western Siberia and in Kashgaria and further Kashmir during the month of February. The largest and most general falls of the barometer occurred on the 2nd and 3rd and the 7th, and the largest and most general rises on the 4th and 5th and the 13th. Pressure was, on the whole, below the normal over this

area. Most of the slight depressions of the month, which entered north-west India from the westward, appear to have been developed over Mesopotamia and west Persia as though at times pressure was unsteady over south-east Europe, the daily charts of the Mediterranean region and the Egyptian reports do not indicate the advance of any definite depression eastward into Asia Minor or Syria.

In the south-east trades region the air movement was of the usual character, but the rainfall was irregular. At Mauritius about two-thirds of the ordinary amount fell while both at the Seychelles and Zanzibar the month's rainfall was heavier than usual.

W. L. Dallas.

Magnetic and Solar disturbances.

Kodaikanal.—During the month the sun was visible every day and it was never free from spots.

The first important group, No. 221, appeared round the eastern limb on the 5th, having been preceded by a large patch of faculæ in the same region on the 4th. It developed into a fine and very active group in which many changes were observed. On several occasions the hydrogen lines showed bright in or near the spot and considerable motion in the line of sight, chiefly away from the observer, was shown by displacements of the C. and F. lines. The next important group was No. 227 which came into sight on the 19th and gradually developed into a large and active group which underwent many changes in shape before it was lost to sight round the western limb. On the 25th the C. line was reversed in one part and displaced towards the red in another part.

The number of prominences visible varied greatly. Twentyone were visible on the 15th, while only 4 were visible on the 22nd, and 3 on the 27th. The highest prominence seen was one on the 19th, the apparent height of which was about 77,000 miles. Most of the prominences observed were of the quiescent type.

The following gives a daily record of spots, prominences, faculæ and magnetic disturbances during February 1904:—

Date.	Spots.		Prominences.		Faculæ (groups).	Magnetic disturbances.	Remarks.
	Large.	Small.	Large.	Small.			
1	...	1	4	2	1 M; 2 S	Small	
2	...	5	4	1	2 M	Small	
3	...	4	W.	U.	2 M	Moderate.	
4	...	2	2	6	2 M	Moderate small.	
5	1	5	2	2	1 L	...	C line broken in the spectrum of the big spot.
6	1	6	6	8	1 L; 1 M; 1S	...	
7	1	6	No	obsn.	1 M; 1 S	Moderate small.	
8	1	8	5	2	1 M	...	
9	1	many	10	8	1 M; 1 S	Small.	
10	3	„	W.	U.	1 M; 1 S	...	
11	4	„	W.	U.	—	...	
12	4	6	W.	U.	1 L	Small	
13	3	many	8	6	2 L	Moderate	
14	...	5	6	12	3 L	Small.	
15	1	8	6	15	1 M; 1 S	Moderate.	
16	1	1	11	4	1 L; 1 M	Small	C displaced towards red near but outside spot spectrum.
17	...	1	14	4	2 L; 1 M	Moderate, Small	
18	1	...	6	10	3 M	...	
19	...	3	3	5	1 L; 1 M; 1S	...	
20	1	6	1	7	3 M	...	C reversed near spot spectrum.
21	2	many	3	7	2 M	...	
22	1	„	1	3	2 L; 1 M	Small	
23	2	„	3	5	1 L; 1 M	Small	
24	1	„	3	2	1 M	Small	
25	1	7	6	4	2 S	Small	C reversed in one part of spot spectrum and displaced towards red in another.
26	1	many	4	11	3 S	Small	
27	1	4	3	—	1 M	...	
28	1	5	2	6	1 M	...	
29	1	4	7	5	1 M	...	

Note.—W. U. stands for weather unfavourable and L., M., S., for large, moderate, small, respectively.

The apparent large increase in the number of prominences is due to the fact that since the 13th, an attempt has been made to sweep round the whole limb instead of as formerly, to observe at only a certain number of points.

C. Michie Smith,

Director of Kodaikanal and Madras Observatories.

Colaba, Bombay.—During the month the traces showed 14 calm days and 15 days of small disturbances.

The selected quiet days of the month were the 3rd, 10th, 14th, 18th and 27th.

The mean observed absolute values of the several elements as also the ranges and "Summed" ranges of the Horizontal Force and Declination for the month are as follows:—

Declination	0° 15′ 47″
Horizontal Force	0·37411 C. G. S. unit.
Dip	20° 48′·7
Horizontal Force Range	·00035 C. G. S. unit.
„ „ Summed Range	·00221 C. G. S. unit.
Declination range	1′·14
„ Summed range	5′·08

The month, as will be seen from the list of disturbed days, has been unusually quiet. The "Summed range" figure—·00221 c. g. s. unit—for the month compared with ·00224

c. g. s. unit of the previous February shows a small progressive change, though it must be remembered that the monthly irregularities, which are sometimes much greater than the fluctuations of the annual departure, may possibly have masked the actual growth.

The average annual departure, as derived from the period 1847-1903, indicates a double wave, the principal and well defined maximum of which occurs in April, while the principal minimum falls in January. The month of February lies almost in the zero line of the departure and is little affected by it. If, therefore, no irregularity has masked the real phenomenon, the month shows a markedly large defect in the growth.

No seismic disturbance was recorded during the month.

MAGNETIC DISTURBANCES.
FEBRUARY 1904.

February, 1904.		February, 1904.		February, 1904.	
1	S	11	C	21	C
2	S	12	C	22	C
3	C	13	S	23	S
4	C	14	C	24	S
5	S	15	S	25	S
6	S	16	S	26	S
7	S	17	S	27	C
8	S	18	C	28	C
9	S	19	C	29	C
10	C	20	C		

The magnitudes of the disturbances are determined from Horizontal Force traces.

C = calm; S = small; M = moderate; G = Great and VG = very great.

Days are reckoned from midnight to midnight.

N. A. F. MOOS, *Director*,
Govt. Observatory, Bombay.

The following gives the list of displacement recorded by the Seismograph at the Alipore Observatory from 16th to 19th February 1904 :—

Number.	Date 1904.	P. T. Commencement. G.M.T.	Duration first P. T.	Maxima. G. M. T.	End in.	Amplitude in seconds.	Duration.	REMARKS.
	Feb. 18.	H. M. 18-17·6	H. M. S. ...	H. M. S. ...	H. M. 19-10·5	...	H. M. 0-52·9	Thickening of line.

The local time of the commencement is as follows :—

Date 1904.	H. M.
February 19th.	0-10·9.

G. W. KÜCHLER,
Asst. Meteor. Reporter to the Govt. of India.

Atmospheric Pressure.

The mean pressure of the whole of India as determined from the 8 A. M. observations was ·008″ in excess of the normal. It hence differed to a much less extent from the normal than in the corresponding months of 1903 and 1902 when the mean departure was +·068″ and +·088,″ respectively.

The increased pressure accompanied decreased temperature over the whole Indian area except the Punjab, Rajputana, the Gangetic plain and Baluchistan where both pressure and temperature were in excess of the normal.

The following average data of these two elements for the larger provinces illustrate these features :—

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF	
	Mean 8 A.M. pressure of month.	Mean temperature of month.
	″	°
Burma	+·009	—1·3
Assam	+·007	—0·3
Bengal	+·004	—0·3
Orissa	+·002	—2·7
Bihar	+·010	+0·4
Chota Nagpur.	+·011	—0·8
United Provinces of Agra and Oudh . . .	+·011	+0·8
Punjab	+·016	+2·6
Rajputana	+·012	+1·8
Central India	+·016	—0·7

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL.	
	Mean 8 A.M. pressure of month.	Mean temperature of month.
	″	°
Central Provinces	+·015	—1·5
Berar	+·021	—0·3
Bombay	—·004	+0·9
Madras	+·006	—1·9
Mean	+·010	—0·2
„ hill stations of northern India and Baluchistan.	+·055	+3·6

The data show that the excess in both elements was much more marked at the hill stations up to the level of Leh than at the plains stations. It is hence certain that the departures of pressure in north-west India and Baluchistan were not the product of the temperature conditions but were due to a general increase or accumulation of air, more especially in the middle and perhaps upper atmospheric strata.

Relatively to the geographical mean, pressure was in excess in central and upper Burma, the Punjab, Rajputana, Central India, the Central Provinces, Hyderabad and locally at a few stations in south and east Madras and north Bengal: it was in defect over the remainder of the country. The anomalies were generally small in amount but exceeded ·02″ at the stations for which data are given below :—

Station.	Pressure anomaly.
	″
Bhamo	+·029
Minbu	+·025
Yamethin	+·024
Khushab	+ 023
Bombay	−·026
Hyderabad Sind	−·023
Diamond Island	−·021

It may be noted that the chief features of the pressure conditions in February at the level of the plains were very similar to those of the previous month.

Pressure was more largely in excess at the hill stations than at the adjacent plains stations indicating an increase of pressure in the middle and perhaps the higher atmospheric strata over northern India.

This is shown below :—

Hill Station.	Departure from normal pressure.	Plain Station.	Departure from normal pressure.	Vertical pressure anomaly (Hill—Plain).
	″		″	″
Leh	+·120	Lahore	+·008	+·112
Quetta	+·075	Jacobabad	0	+·075
Murree	+·056	Peshawar	+·008	+·048
Simla	+·058	Ludhiana	+·017	+·041
Chakrata	+·039	Roorkee	+·014	+·025
Ranikhet	+·032	Bareilly	+·006	+·026
Darjeeling	+·038	Dhubri	+·015	+·023
Mount Abu	+·012	Deesa	−·010	+·022

The data indicate that the vertical anomalies were positive in all cases and that they increased in amount with elevation, being greatest for Leh and Lahore.

The vertical anomalies in central and southern India were, on the other hand, the reverse of those in northern India: in other words, pressure was in defect at the level of Wellington and Pachmarhi relatively to the neighbouring plains.

The following gives data for these stations :—

Hill Station.	Departure from normal pressure.	Plain Station.	Departure from normal pressure.	Vertical pressure anomaly (Hill—Plain).
	″		″	″
Pachmarhi	+·019	Hoshangabad	+·023	−·004
Wellington	−·008	Coimbatore	+·001	−·009

An almost equally large excess of pressure in the middle atmospheric strata over northern India obtained in February of the years 1881, 1892, 1895, 1899 and 1902.

The following gives data for these years:—

Pair of Stations.	Vertical pressure anomaly (Hill—Plain).					
	1881.	1892.	1895.	1899.	1902.	1904.
	″	″	″	″	″	″
Leh and Lahore	+·088	+·100	+·116	+·118	+·065	+·112
Quetta and Jacobabad	...	+·093	+·068	+·057	+·060	+·075
Murree and Peshawar	+·030	+·049	+·057	+·020	+·058	+·048
Simla and Ludhiana	+·090	+·042	+·025	+·046	+·034	+·041
Chakrata and Roorkee	+·011	+·099	+·039	+·048	+·012	+·025
Ranikhet and Bareilly	+·017	+·053	+·023	+·035	+·016	+·026
Darjeeling and Dhubri	...	+·053	+·011	+·021	−·005	+·023
Mount Abu and Deesa	+·026	+·025	−·004	+·004	+·026	+·022

It may be noted that the vertical anomalies in upper India were negative during the greater part of January, but changed rapidly in character towards the end of that month and were during February of the type associated with quieter and drier weather than usual in north-west India during the cold weather.

The following data illustrate this transition :—

Pair of Stations.	Vertical pressure anomaly in	
	January.	February.
	″	″
Leh and Lahore	−·060	+·112
Quetta and Jacobabad	+·023	+·075
Murree and Peshawar	−·024	+·048
Simla and Ludhiana	−·004	+·041
Chakrata and Roorkee	−·003	+·025
Ranikhet and Bareilly	+·009	+·026

The following summarizes the chief abnormal features of the pressure distribution of the month in the Indian area :—

(1) Slight excess on the mean of the whole Indian area.

(2) Slight relative defect in the coast districts of Burma, north-eastern India, the south and west of the peninsula, Gujarat and the Indus valley.

(3) Slight relative excess in upper and central Burma, as well as in a belt extending south-south-eastwards from the Punjab to Hyderabad and the Madras coast, greatest in upper Burma.

(4) A moderate to large excess of pressure at the hill stations as compared with the plains stations in Baluchistan and northern India. The excess increased with elevation and was greatest at Leh, where it was over a tenth of an inch in amount. This was in fact the only important feature of the pressure distribution of the month and was associated with the prevalence of much finer and drier weather than usual.

It is noteworthy that pressure was in moderate excess in Persia, as is shown by the following data for Bushire and Baghdad:—

STATION.	Departure from normal of pressure.
	"
Bushire	+·021
Baghdad	+·037

Pressure was, on the other hand, practically normal at Aden (—·009") and in slight defect at Zanzibar, the Seychelles and Mauritius.

Barometric depressions and cyclonic storms of the month.

At the beginning of the month the barometer was rising in India and falling in Baluchistan. The only feature of importance in the pressure distribution over the Indian land area was a small depression in south-east Bengal. Skies were thickly clouded over the whole of Bengal proper and Assam and a series of thunderstorms had occurred during the previous 24 hours giving moderate to heavy rain. A rapid increase of pressure occurred during the day in north-east India filling up the depression. Weather, however, continued feebly unsettled in Assam until the 3rd.

The depression was of a somewhat unusual character, more especially in the following respects:—

(1) It originated over north-east India during a period of excessive temperature and large contrasts of temperature.

(2) It did not affect to any appreciable extent the pressure and winds at the level of Darjeeling, differing in this respect from storms of the cold weather type. It was probably a disturbance in the lower atmospheric strata initiated by thermal actions.

(3) Although feeble as measured by the departures of pressure at the earth's surface it occasioned a general and moderately heavy burst of rain over Bengal and Assam, several stations obtaining amounts ranging between 2 and 4 inches in 24 hours.

Slight disturbance of the 30th January to the 6th February.

The fall of the barometer in Baluchistan on the 1st was related to actions in the Persian Gulf and in the plateau to the north through which region a disturbance was advancing. The available observations indicate that this depression originated in Mesopotamia and west Persia during a period of unsteady pressure conditions in south-eastern Europe. Pressure was lowest at Bushire and Bahrein on the 30th of January and over the east of the Persian Gulf on the 1st February. The winds at Bushire shifted from south-east on the 30th to north-west on the 31st indicating the eastward movement of low pressure conditions. The depression passed through south Baluchistan on the 2nd, the south Punjab and upper Sind on the 3rd, the United Provinces on the 4th and broke up during the next 48 hours. It was throughout a diffused, irregular disturbance but gave light to moderate precipitation to the western Himalayas and showers in the submontane districts of the Punjab.

Feeble disturbance of the 4th to the 8th February.

Whilst the previous depression was filling up a fresh depression was in process of formation in the west of Persia. This depression advanced eastwards across the Persian Gulf and Baluchistan on the 5th and 6th into Sind on the 7th and disappeared during the next 24 hours. The disturbance was even less important than its predecessor and affected the weather only in Baluchistan and Kashmir which areas received light showers.

Very strongly marked anticyclonic conditions prevailed over the Persian area on the 7th and 8th and the highest pressures of the month were registered during this period.

The following data illustrate these features:—

STATION.	Highest pressure recorded during month.	Departure from normal.	Date on which recorded.
	"	"	
Baghdad	30·467	+·292	8th
Bushire	30·239	+·162	7th

These high pressure conditions did not extend eastwards into north-west India where pressure agreed closely with the normal at this time.

Shallow depression of the 9th to the 14th February.

A very rapid fall of the barometer, nearly four-tenths of an inch in amount, took place at Baghdad during the interval between 8 A. M. of the 8th and the same hour of the 9th. A shallow low pressure area covered west Persia on the latter day. The daily charts issued by the English Meteorological office and the Egyptian reports do not show the advance of any definite depression eastwards into Asia Minor or Syria. They, however, indicate the passage of a wave of low and decreasing pressure across southern and south-eastern Europe on the 7th and 8th. Whatever its origin the disturbance passed rapidly eastwards through the highlands of Persia and Baluchistan on the 10th and 11th and entered Sind and the south-west Punjab on the 12th as a somewhat shallow depression. It continued to advance during the day in the same general direction as hitherto and on the morning of the 13th lay over north Bihar but was even feebler than on the previous day. A slight to brisk increase of pressure occurred on the 14th and the depression disappeared completely.

The disturbance was throughout very ill-defined and

exercised no appreciable influence on the weather in northern India.

Disturbed conditions in north-east and Central India from the 16th to the 20th.

During the 15th pressure began to fall over the greater part of India and on the following morning two shallow depressions were shown, one over the Central India plateau and the other over the west Satpuras, areas characterized by a large excess of temperature for some days previously. The depressions intensified slightly during the day without however changing in position. At the same time local actions gave rise to another depression over Orissa. Pressure increased over the west Satpuras during the 17th and fell over the east Satpuras and north-east India.

An important result of these changes was to produce a large belt of low pressure over the region between Hyderabad and the north of the United Provinces. Accompanying this distribution moist southerly winds from the Bay obtained over the Bengal coast and the interaction of these with the dry north-east winds blowing down the valley of the Brahmaputra, occasioned series of thunderstorms (in some cases with hail) chiefly in Assam and north Bengal. This distribution was maintained on the 19th and in a slightly modified form also on the 20th and was accompanied with general rain over Bengal and Assam.

Slight disturbance of the 16th to the 23rd February.

There was a steady fall of the barometer in the western half of Persia between the 12th and the 16th which resulted in the formation of a shallow depression on the latter day. The disturbance thus formed advanced eastwards as a trough or belt of low pressure during the next two days and on the 18th lay over the area between south-west Rajputana and the entrance to the Persian Gulf. It was thence transferred to Rajputana and the south Punjab on the 19th and to the Gangetic plain on the 20th. Here its progress was arrested and during the next three days it lay along the foot of the central Himalayas where, judging from the temperature conditions in the east submontane districts of the United Provinces, very unsettled weather was experienced during this period. The disturbance like its predecessors was a mere wave of low pressure and gave but little rain in northern India and only slight showers in Baluchistan and Kashmir.

A rapid increase of pressure over the Central India plateau and Satpuras on the 24th and 25th accompanied a large defect of temperature through a depth of at least 4,000 to 5,000 feet of the atmosphere. Temperature was, on the other hand, very high to the east and west of the area of high pressure and, as usual, these contrasts of temperature gave rise in Central India, the Central Provinces and Gujarat to a series of hailstorms and thunderstorms which in some places did much injury to the standing crops.

A large downward movement of the barometer occurred on the 26th and 27th over the whole Indian area and Persia. An important effect of this fall was to reduce the intensity of the high pressure area over the Central India plateau and to displace it slightly eastwards. Notwithstanding these changes it continued to dominate the weather in the central districts until quite the end of the month.

At the close of the month a somewhat deep depression lay over Sind. The observations recorded at the Persian stations show that it almost certainly formed over west Persia during the period of falling barometer on the 26th and 27th and thence passed eastwards across the Persian Gulf on the 28th into Baluchistan and Sind on the 29th. Its complete history will be given in the March Review.

It will be seen from the preceding discussion that six depressions in all affected the weather in northern and Central India during the month. Of these four originated in Persia and were without exception mere waves of low pressure. The other two had their origin in India itself during periods of excessive temperature and large contrasts of temperature and were hence of the class known as thermal depressions. Southerly winds from the head of the Bay prevailed across the Bengal coast during their existence and the interaction between these damp winds and the dry northerly winds blowing down the Brahmaputra valley, resulted in widespread thundershowers in north-east India.

A most noteworthy feature of the pressure distribution during the last five days of the month was an area of high pressure over the Central India plateau and the Central Provinces. Temperature was unusually low in its central area and high to its east and west—contrasts of temperature which gave rise to hailstorms and thunderstorms in the central districts.

Summary of the Reports of the Weather and Snowfall in the Mountain Districts to the North and North-West of India.

I—AFGHAN MOUNTAIN DISTRICTS.

(1) *Wana.*—No snow fell during the month.

(2) *Kurram.*—Slight snow fell on the Sufed Koh on the 22nd and 28th. The passes remained closed throughout the month.

(3) *Kohat.*—No snow fell on the Kohat border during the month.

(4) *Kabul.*—There were light falls of snow on the 2nd, 3rd, 7th and 21st. The depth of snow at the end of the month on the surrounding hills was between 1½ and 4 inches.

The total fall of the season up to date was somewhat greater in amount than in the corresponding period of 1902-03.

II.—KASHMIR AND PUNJAB HIMALAYAS.

(1) *Kashmir.*—The following statement shows the depth of snow round the observatories in Kashmir, week by week, during the month:—

STATION.	DEPTH OF SNOW ON							
	2nd.		9th.		16th.		23rd.	
	Ft.	In.	Ft.	In.	Ft.	In.	Ft.	In.
Drosh	1	6	1	2	0	2	*Nil*	
Minimarg	4	0	5	4	4	4	5	1
Sonemarg	3	4	3	0	2	9	3	3
Dras	..		2	4	2	1½	3	2½

(2) *Murree.*—There was a light fall on the 23rd.

(3) *Leh.*—Very slight snow fell at Leh about the middle of the month but melted as it fell.

There were occasional falls on the surrounding hills but they were not heavy and there was no great depth of snow on the Kardong pass at the end of the month. Towards the close of the month snowstorms of slight intensity occurred on the higher peaks of the ranges on the south of the Indus.

The snowline was at an elevation of about 15,000 feet on the northern ranges at the end of the month.

(4) *Simla.*—A light fall of snow occurred on the 27th above 10,500 feet. At the end of the month there was an accumulation of about 12 feet on the Rupin, Bruin and Bulder passes, of about 10 feet on the Shatul pass and of 9 feet on the Runang pass.

The total fall of the season up to the end of February was considered to be heavier than that of the corresponding period of last year.

(5) *Sarain* (Chur Peak Range).—Snowstorms occurred on the 3rd, 4th, 17th, 20th and 21st. The total fall was equivalent to 2·50 inches of rain.

(6) *Dalhousie.*—A slight fall was reported on the 4th.

The total fall of the season was somewhat heavier than that of the corresponding period of the previous year.

(7) *Kangra.*—Rain fell on the 4th, 18th, 20th and 21st throughout the sub-division. On these occasions light snow was received on the peaks above 5,000 feet in elevation. All the passes were closed during the month.

The following table shows the reported depth of snow on the higher peaks and passes at the end of the month and also on the same date of the previous four years for comparison :—

Pass.	Elevation.	Depth of snow at end of February in				
		1904.	1903.	1902.	1901.	1900.
	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.
Rotang	13,000	19	13	10	16	29
Hamta	14,500	15	12	7	11	12
Chandarkhani	...	8	6	7	16	10
Sairi	...	9	9	4½	14	...
Lohri Achri	...	7	11	1½	8	9
Srikhand	15,000	12	14	7	25	20
Gargarasan	17,000	7	11	2	17	3
Bashleo	11,000	4	8	1	14	10
Jalori	10,500	3	8	1	14	10

The total fall of the month was considered to be lighter than usual.

III.—United Provinces Himalayas.

(1) *Almora.*—The following is a statement of the snowfall in this district.

Name of Malla.	Period of occurrence.	Amount of fall.
		Ft.
Malla Johar	1st to 8th and 20th to 28th.	8
Malla Darma	15th, 25th and 26th.	4
Malla Danpur	18th, 19th and 27th.	1

The depth of snow accumulation on the Lipu, Limba and Nirwe passes was estimated at between 6 and 9 feet.

The total fall of the month was below the average.

(2) *Garhwal.*—There were occasional light falls in the region of the perpetual snows.

IV.—Assam Himalayas.

Hills north and east of Sadiya.—The Assistant Political officer writes as follows :—

"We have again had an unusually sharp cold weather and it was colder this year from the middle of January to the middle of February than I have ever known it. The snowfall has, I should say, been abnormally heavy this year, judging from what can be seen from Sadiya.

I had not had any opportunity of talking with any of the Abors or Mishmis residing high up the Dibong and Dihong so can not say what the weather has been like inside these gorges."

Summary of snowfall information.—There were frequent falls of snow in the Punjab Himalayas and the Afghan mountain districts during the last ten days of December and in January and there was hence an excess of snow in these areas at the beginning of February. Weather was, on the other hand, free from cold weather storms in February. The snow hence melted faster than usual with the result that the snowline was at a greater elevation than usual at the end of February. It is almost certain that there was no abnormal accumulation of snow in the mountain region to the north and west of the Punjab at the end of February, an inference which, it may be noted, is fully borne out by the temperature conditions of the period.

Weather was abnormally fine and dry in the upper Indus valley and the snowline on the hills surrounding Leh was at an elevation of 15,000 feet at the end of February.

Weather was probably more disturbed than usual in the Assam Himalayas.

Summary of Special Storm Reports.

An occasional feature of cold weather disturbances in northern India is the occurrence of hail storms and thunderstorms. These storms also occur during disturbances of the hot weather type when temperature increases more rapidly than usual and is considerably above the normal. Severe local storms appear to be more frequent under the latter conditions than during the cold weather disturbances.

During the month under review the number of storms of this class was much greater than usual. Hailstorms appear to have been unusually frequent in Central India and did much damage to the opium crop in the Indore state.

The following gives a statement of the more important ocal storms reported by observers in the Indian area :—

February, 1st.—Thunderstorm and hailstorm at Saugor Island at 7 P.M.

" *16th.*—Duststorm with rain at Nagpur at 6 P.M.

" *17th.*—Thunderstorm with hail at Simla from 2·30 to 3-30 P.M. It came from the north.

" *21st.*—Thunderstorm at Nagpur at 9-30 P.M.

" *22nd.*—Duststorm at Nagpur at 6 P. M.

" *25th.*—Thunderstorm at Veraval at 10 P. M. The accompanying winds were very strong.

" *27th.*—Duststorm at Jaipur from 9-40 to 10-5 P.M. The strongest winds during the storm blew with a velocity of 26 miles per hour.

" " Thunderstorm with rain at Nagpur at 11-45 P. M.

" *28th.*—Thunderstorm at Pachmarhi at 1 A. M. It was followed by a second storm at 8 P. M.

The following reports of hailstorms have been received from district officers :—

February, 17th.—Slight hailstorm at Cherra and the neighbouring villages. It came from the west and lasted one hour. The largest stones measured about an inch in diameter.

" " Severe hailstorm from the north-west at Jowai in the Khasi and Jaintia Hills. The largest stones were three-quarters of an inch in diameter.

" *19th.*—Hailstorm of slight intensity at Cherra and the neighbouring villages. It lasted half an hour and came from the west. The largest stones were an inch in diameter.

February, 27th.—Hailstorm at Bagli-Thakurat in Central India. The storm commenced at 8-30 P. M. and lasted 10 minutes. The largest stones measured 1½ inches in diameter.

" " Hailstorm in 16 villages of the Dipalpur parganah, six villages of the Hatod parganah, seventeen villages of the Tarana parganah and seven villages of the Sendhwa parganah of the Indore State. The largest stones were of the size of a lemon and inflicted much damage on the opium crop.

" *28th.*—Hailstorm in eight villages of the Sawer parganah of the Indore state. The storm came from the south and lasted four minutes. The stones were of the size of a plum and did some injury to the opium crop.

" *29th.*—Hailstorm in some villages of the Alipura Jagir in Bundelkhand. The storm damaged the rabi crop to the extent of 2 to 8 annas in the rupee.

" " Severe hailstorm in two villages of the Rath parganah of the Hamirpur district (United Provinces). The storm came from the west and lasted about 15 minutes. The largest stones were half a pound in weight.

" " Hailstorm in the five villages of the Alampur parganah of the Indore state. It came from the west and lasted about 6 minutes. The largest stones were of the size of a plum and inflicted some damage on the barley and mustard crops.

" " Slight hailstorm in the Narwar district of the Gwalior state.

" " Hailstorm in seven villages of the Banda tahsil. The stones were of the size of a sparrow's egg.

The following reports of earthquakes during the month have been received :—

February, 9th.—Earthquake at Srinagar at 0-10 A. M. The tremor came from the west and lasted 3 seconds.

" *15th.*—A short but sharp shock at Darjeeling at 7-25 A. M. (Pioneer).

" *22nd.*—Slight shock at Srinagar at 5-25 P. M. (Madras Time) lasting 2 seconds. The wave apparently advanced from east to west.

Brief Summary of the weather in the Arabian Sea and Bay of Bengal during the month.

Arabian Sea.—Ordinary north-east winds of the winter monsoon obtained steadily during the month throughout this area except in the extreme south-east where the northerly element in the wind's direction was stronger than usual. The mean daily air movement was stronger than usual from the 3rd to the 5th, the 7th to the 13th and

again on the 25th and 26th; of normal intensity on the 22nd and 24th and more or less below its normal strength on all other days of the month. The departures from day to day were somewhat larger than usual (the mean daily force ranging between 3·9 and 1·9) and were directly related to the changes in the pressure conditions over the plateau area to the north and in north-western India.

The mean strength of the air motion for the whole month was identical with the normal.

Weather was even finer than usual over the whole of this area except in the extreme north where it was squally and rainy on the last two days of the month.

Bay of Bengal.—The air movement was somewhat more vigorous than usual over this area, averaging 2·7 on the mean of the whole month or 0·2 above the normal. It was strongest on the 3rd when its intensity, as deduced from the data of 20 vessels, was 3·9 and lightest on the 5th and 16th when it averaged only 1·9 in force.

Except for a short period from the 15th to the 19th, when south-westerly winds were experienced along the Orissa and Ganjam coasts, northerly winds prevailed steadily throughout the month. In years of ordinary conditions local sea winds set in over the head of the Bay in the second or third week of the month whereas in the month under review land winds held in that area throughout the month. Weather was settled over the whole region except in the extreme north where squalls and showers were experienced on the 1st, 18th and 19th.

Equatorial Belt.—The air movement over this area was of the usual February type except during the third week of the month when north to north-east winds extended much further south than usual over the central portion of the belt. Weather was rainy and squally over the western half of the belt during the first seventeen days and fine during the remainder of the month.

Temperature of the air.

The mean maximum or day temperature of the month was more or less in excess in the Punjab, Sind, Rajputana, Gujarat, the north Konkan, nearly the whole of the United Provinces, Bihar, north Bengal and upper Assam. The excess was more than 2° in amount over practically the whole of north-western India and exceeded 5° at Khushab (+7·9°), Rawalpindi (+6·2°), Umballa (+6·1°), Sialkot (+5·7°), Mooltan (+5·3°) and Peshawar and Jacobabad (each +5·2°). The mean day temperature was, on the other hand, generally in defect in Burma, east and west Bengal, Bundelkhand, Baghelkhand and the peninsula with the exception of the north Konkan. The deficiency in this area was small except in upper Burma, east and central Madras and parts of Bengal where it ranged between 2° and 4°.

Very high day temperatures were registered in northern India during the last four days of the month. They were, however, not so high as are occasionally observed in the month of February during dry cold weather seasons.

The following data illustrate this feature :—

STATION.	Highest maximum temperature recorded in February, 1904.	Date on which recorded.	Highest maximum temperature recorded in February previous to 1904.	Year in which recorded.
	°		°	
Jacobabad	88·5	28th	100·7	1887
Mainpuri	88·3	29th	92·8	1897
Kurrachee	87·9	26th	93·5	1895
Meerut	86·5	29th	92·0	1870 and 1873.
Agra	86·5	29th	96·0	1897

STATION.	Highest maximum temperature recorded in February, 1904.	Date on which recorded.	Highest maximum temperature recorded in February previous to 1901.	Year in which recorded.
	°		°	
Cawnpore	86·3	29th	95·3	1896
Gorakhpur	85·9	28th	95·4	1896
Bharatpur	85·5	29th	96·0	1887
Sambhar	85·4	29th	95·3	1887
Montgomery	84·8	29th	88·7	1887
Bareilly	84·4	29th	91·2	1884
Bikaner	84·2	29th	96·0	1887
Mooltan	83·8	28th	90·6	1887
Delhi	83·7	29th	90·9	1887

The departures of the mean night temperature were similar in character to those of the day temperature over the greater part of the country.

The mean minimum temperature was above the normal in Sind, Rajputana, Gujarat, the Konkan, the west of the United Provinces, central Bengal, Cachar and along the base of the Himalayas from Peshawar to Jalpaiguri. The excess was largest at Hyderabad (+2·6°), Surat (+2·4°), and Kurrachee and Veraval (each +2·3°) which hence define the region of greatest excess of night temperature.

The night temperature was in slight to considerable defect over the remainder of the Indian area. The deficiency was more than 2° in central Burma and the east

and centre of the peninsula and was absolutely greatest at the stations for which data are given below:—

Station.	Mean minimum temperature.		
	Actual, February, 1904.	Normal, February.	Departure from normal, February, 1904.
	°	°	°
False Point	59·6	64·8	−5·2
Gopalpur	63·1	67·9	−4·8
Toungoo	57·0	61·1	−4·1

With a few exceptions, the lowest temperatures of the month throughout the country were recorded during the first ten days of the month; at the great majority of stations between the 1st and the 4th. Unusually low temperatures were recorded in the region of the maximum deficiency of night temperature in the peninsula and Ceylon.

The following were the most noteworthy:—

Station.	Lowest minimum temperature recorded in February, 1904.	Date on which recorded.	Lowest minimum temperature recorded in February, previous to 1904.	Year in which recorded.
	°		°	
Balasore	49·4	3rd	48·3	1887
Saugor Island	49·9	2nd	48·6	1886
False Point	49·5	3rd	49·9	1890
Cuttack	51·6	3rd	50·9	1875
Gopalpur	55·5	4th, 8th, 9th and 10th.	55·0	1884
Cocanada	60·5	10th	60·7	1890
Sambalpur	45·2	2nd and 9th.	44·0	1876
Colombo	65·0	3rd and 4th.	65·8	1893

The data are interesting as showing that the absolute minima of the month at False Point, Cocanada and Colombo were slightly lower than any previously on record at those stations in the month of February.

The mean temperature of the month was in excess to the north and west of a line running from Goa through Poona, Indore, Cawnpore, Gaya, and Burdwan to Dhubri and also in Tenasserim. The excess was most marked over the greater part of the Punjab, Sind, and west Rajputana where it ranged between 2° and 4½°. The mean temperature was, on the other hand, more or less in defect to the south and east of the line defined above. The deficiency was generally small in amount but was more than 2½° in the areas represented by the stations for which data are given below:—

Station.	Mean daily temperature.		
	Actual, February, 1904.	Normal, February.	Departure from normal, February, 1904.
	°	°	°
Cuddapah	78·7	82·1	−3·4
Kurnool	76·6	79·7	−3·1
Gopalpur	72·6	75·7	−3·1
False Point	70·8	73·9	−3·1
Cuttack	75·0	78·0	−3·0
Nellore	77·0	79·9	−2·9
Chitaldroog	74·7	77·6	−2·9
Chaibassa	67·4	70·2	−2·8
Sambalpur	71·3	74·0	−2·7
Raipur	71·3	74·0	−2·7
Cocanada	75·1	77·7	−2·6
Masulipatam	75·0	77·6	−2·6
Toungoo	73·4	76·0	−2·6
Bhamo	65·1	67·7	−2·6

The temperature conditions at the hill stations were similar in character to those which prevailed at the adjacent plains stations. Both day and night temperatures were above the normal in Baluchistan and the Himalayan area, the former to a somewhat greater extent than the latter. In Afghanistan, as represented by Kabul, the day temperature was apparently considerably above and the night temperature largely below the normal.

The following data for ten representative stations show these features:—

Hill Station.	Departure from normal of		
	Mean maximum temperature, February, 1904.	Mean minimum temperature, February, 1904.	Mean temperature, February, 1904.
	°	°	°
Quetta	+5·5	+ 1·5	+ 3·5
Kabul	+3·7	−10·0	− 3·2
Murree	+5·1	+ 2·7	+ 3·9
Gilgit	+3·6	+ 2·6	+ 3·1
Leh	+6·5	+ 1·1	+ 3·8
Simla	+6·7	+ 4·5	+ 5·1
Ranikhet	+4·0	+ 3·8	+ 3·9
Darjeeling	+2·5	+ 1·5	+ 2·0
Pachmarhi	−0·3	− 2·0	− 1·2
Wellington	+0·8	− 1·9	−0·6

The high temperature conditions in Baluchistan extended westwards into Persia where the mean daily temperature was 1° to 3° above the normal.

The following sums up the chief abnormal features of the temperature conditions of the month:—

(1) Higher temperatures than usual over north-western India and Baluchistan. The excess was most marked in the Indus valley and Baluchistan and was exhibited much more largely in the day than in the night temperature.

(2) Lower temperature in the peninsula and the interior of Burma, the deficiency being on the whole greatest in Orissa and north and central Madras. Both day and night temperatures were in defect in this area, the latter, however, to a slightly greater extent than the former.

(3) Slight and irregular departures in north-east India.

(4) The temperature conditions at the hill stations approximated closely in character to those in the adjacent plains.

(5) Temperature was as largely in excess in Persia as in Baluchistan.

The main features of the temperature conditions, *viz.*, the excess in north-west India and the deficiency in the peninsula and the interior of Burma were persistent throughout nearly the whole of the month.

The following table gives comparative data of the mean temperature conditions of the month in 57 meteorological divisions of India:—

Province.	Division.	Actual temperature.					Departures from normal of month of		
		Mean maximum.	Mean minimum.	Monthly mean of mean between maximum and minimum.	Mean daily range.	Absolute range.	Maximum.	Minimum.	Daily range.
		°	°	°	°	°	°	°	°
Burma	Tenasserim	89·0	72·0	80·5	17·0	26·1	+0·2	−0·2	+0·4
	Lower Burma (Deltaic)	87·5	68·1	77·8	19·3	28·5	−0·7	+0·8	−1·5
	Central do.	90·3	55·6	73·0	34·8	46·9	−1·5	−3·5	+2·0
	Upper do.	85·0	57·0	71·0	28·0	43·7	−2·9	−1·8	−1·1
	Arakan	83·4	61·1	72·3	22·3	32·3	−1·4	−0·4	−1·0
Bengal and Assam	Eastern Bengal	81·0	57·1	69·1	23·9	38·8	−0·6	−0·7	+0·1
	Assam (Surma)	80·0	56·1	68·1	23·9	36·9	−0·7	+0·5	−1·2
	Do. Hills	62·6	45·6	54·1	17·1	34·0	...	...	...
	Do. (Brahmaputra)	76·2	53·8	65·0	22·4	39·6	+0·4	−1·3	+1·7
	Deltaic Bengal	83·0	58·8	70·9	24·2	43·7	−0·3	−1·5	+1·2
	Central do.	82·1	56·1	69·1	26·0	42·9	+0·1	+0·1	0
	North do.	78·7	53·9	65·3	24·8	40·9	+1·0	+0·3	+0·7
	Bengal Hills	48·1	31·6	39·9	16·6	35·2	+2·5	+1·5	+1·0
	Orissa	83·8	61·8	72·9	22·0	39·0	−1·5	−3·8	+2·3
	Chota Nagpur	80·6	54·4	67·6	25·2	42·5	−0·8	−0·9	+0·1
	South Bihar	81·1	53·0	67·1	28·1	43·6	+1·2	−0·7	+1·9
	North do.	80·1	52·0	66·1	28·2	43·1	+2·1	−1·2	+3·3
United Provinces of Agra and Oudh.	United Provinces (East)	80·2	50·4	65·3	29·9	47·5	−0·1	−1·6	+1·5
	Oudh (South)	82·5	50·4	66·5	32·1	47·1	+3·7	−0·5	+4·2
	Do. (North)	78·0	51·1	64·6	26·9	44·5	+1·3	+0·4	+0·9
	United Provinces (Central)	80·6	52·3	65·5	28·3	44·5	+1·7	−0·1	+1·8
	Do. (West)	79·0	50·4	64·8	28·6	45·5	+2·5	+0·1	+2·4
	Do. (Submontane, East)	78·6	52·8	65·7	25·8	40·8	+0·6	+0·2	+0·4
	Do. (Submontane, West)	75·6	48·0	61·8	27·6	43·4	+3·2	−0·2	+3·4
	Do. (Hills)	56·8	41·2	49·0	15·5	32·3	+4·6	+3·3	+1·3
Punjab	Punjab (South-East)	77·2	51·9	64·6	25·3	39·8	+2·4	+0·1	+2·3
	Do. (South)	70·7	46·4	61·6	30·4	45·9	+2·9	−1·1	+4·0
	Do. (Central)	75·4	45·4	60·4	30·0	47·7	+2·7	+1·3	+1·4
	Do. (Submontane)	73·7	46·0	59·8	27·7	43·0	+5·1	+1·0	+4·1
	Do. (Hills)	42·5	21·7	32·1	20·8	41·3	+3·9	+2·3	+1·6
	Do. (West)	77·4	47·5	62·5	30·0	43·9	+5·7	+0·8	+4·9
N.-W. F. Province	N.-W. F. Province	74·1	44·1	59·1	30·0	43·0	+5·1	+0·3	+4·8

Province.	Division.	Actual temperature. Mean maximum.	Mean minimum.	Monthly mean of mean between maximum and minimum.	Mean daily range.	Absolute range.	Depart re from normal of month of Maximum.	Minimum.	Daily range.
		°	°	°	°	°	°	°	°
Bombay and Malabar Coast Districts (Madras).	Malabar	87·3	72·2	79·8	15·1	22·6	−0·6	−0·9	+0·3
	Madras (South Central)	90·3	64·6	77·5	25·7	35·8	−2·6	−0·0	−1·7
	Coorg	80·8	57·2	69·0	23·6	33·9	−0·4	−1·6	+1·2
	Mysore	86·2	59·4	72·8	26·8	36·8	−1·4	−2·2	+0·8
	Konkan	85·4	70·1	77·8	15·3	24·7	+0·7	+0·8	−0·1
	Bombay Deccan	90·1	59·6	74·8	30·5	41·6	−1·1	−1·3	+0·2
	Hyderabad (North)	87·9	59·8	73·8	28·0	41·1	...	...	...
	Khandesh	88·6	55·1	71·9	33·5	49·3	−0·5	−0·2	−0·3
Central Provinces and Berar.	Berar	89·8	59·8	74·9	30·0	47·1	−0·6	+0·2	−0·8
	Central Provinces (West)	87·5	55·9	71·7	31·5	48·2	−0·2	−0·8	+0·6
	Do. (Central)	83·4	54·2	68·8	29·2	46·4	−1·5	−1·4	−0·1
	Do. (East)	83·6	55·5	69·6	28·1	42·9	−1·9	−3·5	+1·6
Bombay (North).	Gujarat	90·1	61·8	75·9	28·3	40·9	+1·5	+2·1	−0·6
	Kathiawar and Cutch	85·2	60·0	72·6	25·3	39·9	+1·5	+1·7	−0·2
	Sind	83·8	55·7	69·8	28·1	40·2	+4·4	+2·0	+2·4
	Baluchistan Hills	59·6	33·8	46·7	25·9	40·1	+4·7	+2·5	+2·2
Rajputana and Central India.	Central India (East)	80·1	51·6	65·9	28·6	45·0	−1·0	−0·3	−0·7
	Rajputana (East), Central India (West)	82·7	52·7	67·7	30·0	44·4	+3·2	+0·7	+2·5
	Do. (West)	83·2	52·4	67·8	30·8	45·5	+3·3	−0·3	+3·6
Madras	East Coast (North)	82·9	65·9	74·4	17·1	28·1	−1·6	−4·1	+2·5
	Hyderabad (South)	89·7	63·2	76·5	26·5	35·7	−2·3	−2·4	+0·1
	Madras (Central)	92·0	63·2	77·6	28·8	40·3	−2·6	−3·2	+0·6
	East Coast (Central)	85·4	66·7	76·0	18·7	25·3	−3·4	−2·1	−1·3
	Do. (South)	85·6	67·4	76·5	18·2	27·1	−2·0	−1·0	−1·0
	Madras (South)	88·5	69·1	78·8	19·4	27·1	−1·8	−1·2	−0·6

The following is a brief statement of the more important daily changes of temperature during the month over the land area of India.

At the beginning of the month, temperature differed but little from the normal in Burma, Assam and the south and centre of the peninsula. The temperature conditions were, on the other hand, very abnormal in extra-tropical India, temperature being in considerable to large excess in Bengal on the one hand and in Baluchistan and the Indus valley on the other, while it was largely below the normal in the intervening region.

The following gives data for the 1st showing these features :—

Province or Division.	Departure from normal of Mean maximum temperature, 1st February.	Mean minimum temperature, 1st February.	Mean temperature, 1st February.
	°	°	°
Burma	−0·4	+0·3	−0·1
Assam	−4·2	+2·6	−0·8
Bengal	+1·0	+5·0	+3·0
Orissa	+1·4	+0·9	+1·2
Bihar	+0·2	−5·2	−2·5
Chota Nagpur	+0·2	−3·3	−1·6
United Provinces of Agra and Oudh	−2·9	−6·8	−4·9

Province or Division.	Departure from normal of Mean maximum temperature, 1st February.	Mean minimum temperature, 1st February.	Mean temperature, 1st February.
	°	°	°
Punjab	+1·3	−5·4	−2·1
North-West Frontier Province	+6·1	−1·7	+2·2
Baluchistan	+9·3	+9·1	+9·2
Sind	+6·7	+2·4	+4·6
Rajputana	+1·4	−5·9	−2·3
Gujarat	+1·4	+0·1	+0·8
Central India	−3·8	−6·1	−5·0
Central Provinces	−2·2	−4·8	−3·5
Berar	−1·4	−3·3	−2·4
West Coast	−2·1	−0·2	−1·2
Bombay Deccan	+1·3	−2·2	−0·5
Mysore	+0·8	+0·4	+0·6
Madras Coast	−2·4	−2·2	−2·3
Madras Deccan	+0·8	−0·8	0
South India	−0·2	−2·2	−1·2

The excess in Bengal disappeared during the day and was replaced by a large deficiency. Temperature, on the

other hand, increased in Baluchistan and on the 2nd averaged 14½° above the normal.

The low temperature conditions in north-eastern India extended to Burma during the succeeding 24 hours and on the 3rd the mean temperature was more or less below the normal over practically the whole of the country to the east of the meridian of 75° or 76° E. The abnormal depression was most marked in Orissa and the east of the Central Provinces where it averaged 8° in amount and was exhibited somewhat more largely in the night than in the day temperature.

The excess in north-western India and Baluchistan ranged between 2° and 13° and was as marked at the level of Leh as on the plains of the Punjab.

The following departure data for the various divisions of India indicate fully the anomalous character of the temperature distribution obtaining at this time :—

Province or Division.	Departure from normal of		
	Mean maximum temperature, 3rd February.	Mean minimum temperature, 3rd February.	Mean temperature, 3rd February.
	°	°	°
Burma	— 3·2	— 1·0	— 2·1
Assam	— 4·6	— 5·4	— 5·0
Bengal	— 5·1	— 4·7	— 4·9
Orissa	— 6·3	—10·6	— 8·5
Bihar	— 1·0	— 4·0	— 2·5
Chota Nagpur	— 3·8	— 6·0	— 4·9
United Provinces of Agra and Oudh	+ 1·0	— 3·6	— 1·3
Punjab	+ 3·7	+ 1·9	+ 2·8
North-West Frontier Province	+ 4·3	+ 6·5	+ 5·4
Baluchistan	+14·0	+10·0	+12·0
Sind	+ 6·1	+ 7·7	+ 6·9
Rajputana	+ 6·9	— 0·3	+ 3·3
Gujarat	+ 5·9	+ 1·2	+ 3·6
Central India	— 0·6	— 1·8	— 1·2
Central Provinces	— 3·9	— 6·5	— 5·2
Berar	— 3·7	— 3·1	— 3·4
West Coast	— 1·3	— 0·1	— 0·7
Bombay Deccan	— 0·5	— 4·0	— 2·3
Mysore	+ 0·7	— 0·5	+ 0·1
Madras Coast	— 1·8	— 0·7	— 1·3
Madras Deccan	— 0·8	+ 0·5	— 0·2
South India	+ 0·3	+ 0·4	+ 0·4

During the next four days the changes in the Indian area were such as tended to maintain these abnormal features of the distribution of temperature.

A rise of temperature set in over the greater part of the country on the 8th and continuing somewhat irregularly during the succeeding eight days produced a considerable alteration in the temperature distribution so that on the 17th temperature was above the normal in all divisions with the exception of Mysore, the Madras coast and the Deccan, South India and Burma.

The following data for the 9th and 17th show the character and extent of these changes :—

Province or Division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of	
	9th February.	17th February.
	°	°
Burma	—2·2	—0·1
Assam	—0·1	+1·5
Bengal	—0·9	+2·1
Orissa	—6·2	+0·4
Bihar	—0·4	+3·4
Chota Nagpur	—2·9	+3·9
United Provinces of Agra and Oudh	+0·7	+2·3
Punjab	+4·5	+3·0
North-West Frontier Province	+3·7	+3·3
Sind	+2·6	+2·8
Rajputana	+4·0	+2·8
Gujarat	+2·6	+2·6
Central India	+0·6	+3·3
Central Provinces	—3·3	+3·8
Berar	—1·6	+4·9
West Coast	0	+0·9
Bombay Deccan	—2·3	+3·1
Mysore	—6·1	—0·5
Madras Coast	—2·7	—3·0
Madras Deccan	—5·6	—1·2
South India	—4·7	—2·1

No important change occurred during the next two days except in Assam where thundershowers caused a rapid decrease of temperature on the 19th. The fall extended to Bengal and upper Burma during the following day, causing a large depression of temperature, more especially in the latter area.

On the 21st temperature was nearly normal over the peninsula but was from 3° to 5° in excess over the greater part of northern India and in moderate defect in Burma and upper Assam. This distribution held with slight modifications during the next three days. A marked

change set in over the peninsula on the 24th. Temperature decreased rapidly on that day over southern India and on the following day in Berar, Central Provinces and Central India. This re-established low temperature conditions over extra-tropical India.

The following data for the 23rd and 25th show the magnitude of this change :—

Province or Division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of	
	23rd February.	25th February.
	°	°
Central India	+1·6	—3·7
Central Provinces	+1·8	—4·5
Berar	—0·1	—3·2
West Coast	—1·0	—0·8
Bombay Deccan	—0·9	—1·9
Mysore	—0·8	—2·6
Madras Coast	—1·7	—1·7
Madras Deccan	—1·0	—3·3
South India	—1·4	—3·7

The changes during the remainder of the month were not sufficiently large to alter the general character of the distribution, the main features of which continued to be excessive temperature in northern India and deficient temperature in the peninsula.

The departures were, it may be noted, as marked at the hill stations as at the neighbouring plains.

The following data for representative stations illustrate this feature :—

Hill Station.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of
	29th February.
	°
Leh	+5·6
Srinagar	+7·3
Cherat	+6·2
Chakrata	+5·4
Darjeeling	+4·2
Pachmarhi	—2·9

Winds.

Winds were approximately normal in direction in the Bay Islands but were stronger than usual. They were, on the other hand, more northerly and weaker than usual in the coast districts of Burma.

The following data illustrate these features :—

Station.	Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual, February, 1904.	Normal February.	Actual, February, 1904.	Normal February.	Departure from normal, February, 1904.
	°	°			
Port Blair	N 44 E	N 42 E	138	120	+18
Cocos Island	N 11 E	N 6 E	...	...	...
Rangoon	N 50 E	S 42 W	47	91	—44
Diamond Island	N 19 W	N 33 W	203	211	— 8
Akyab	N 5 E	N 21 W	56	84	—28

The air movement was, on the whole, weaker than usual in lower Bengal and Orissa. Land winds prevailed steadily throughout the month at the head of the Bay and the mean wind direction at Saugor Island was hence westerly instead of south-westerly which is the case in normal years.

The northerly winds in the east Punjab, Rajputana and the United Provinces had an unusually strong westerly component, evidently due to the prevalence of excessive temperature and pressure in upper India. This was especially the case at the following stations :—

Station.	Mean wind direction.	
	Actual, February, 1904.	Normal, February.
	°	°
Allahabad	N 74 W	N 63 W
Lahore	N 56 W	N 30 W
Ludhiana	N 79 W	N 51 W
Jaipur	N 67 W	N 20 W

As usually happens when cold weather storms are feebler than usual the winds were more easterly than usual in the Indus valley and Gujarat.

The following gives data for three stations in these areas :—

Station.	Mean wind direction. Actual, February 1904.	Mean wind direction. Normal, February.
	°	°
Peshawar	N 25 E	N 12 W
Jacobabad	N 35 E	N 21 E
Deesa	N 13 E	N 2 W

Sea winds set in earlier than usual during the month on the Sind coast due to the unusually high temperature of the month in upper India.

The following data for Kurrachee exhibit this feature:—

Station.	Mean wind direction. Actual, February 1904.	Mean wind direction. Normal, February.
	°	°
Kurrachee	S 37 W	N 80 W

The air movement was feebler than usual throughout northern India, evidently a result of the absence of cold weather storms in that region.

The following gives steadiness and velocity data for the various divisions of this area and for Burma and the Bay Islands :—

Province or Division.	Mean steadiness. Actual percentage, February, 1904.	Mean steadiness. Normal percentage, February.	Mean steadiness. Departure from normal, February 1904.	Mean wind velocity in miles per diem. Actual, February, 1904.	Mean wind velocity in miles per diem. Normal, February.	Mean wind velocity in miles per diem. Departure from normal, February, 1904.
Bay Islands	65	71	— 6	138	120	+18
Burma	39	48	— 9	102	129	—27
Bengal	39	24	+15	117	127	—10
Bihar	23	47	—24	42	89	—47
Chota Nagpur	62	54	+ 8	157	173	—16
Orissa	5	17	—12	165	187	—22
United Provinces of Agra and Oudh.	51	35	+16	50	70	—20
Punjab	66	34	+32	39	50	—11
North-West Frontier Province.	9	9	0	34	77	—43
Rajputana	20	32	—12	138	149	—11
Sind	27	23	+ 4	99	154	—55

Winds were, on the mean of the month, feebler than usual over the whole of tropical India. They were, however, very steady, more especially in the Central Provinces, the Bombay Deccan and the Madras coast.

The following data illustrate these features :—

Station.	Mean steadiness. Actual percentage, February, 1904.	Mean steadiness. Normal, percentage February.	Mean steadiness. Departure from normal, February, 1904.
Central Provinces	46	25	+21
Bombay Deccan	30	17	+13
Madras Coast	80	72	+ 8

The direction was approximately normal over the south of this area, but contained an unusually strong easterly element in Berar, the Central Provinces and the west Deccan, and a southerly element in the central Deccan.

The following gives examples showing these deflections :—

Station.	Mean wind direction. Actual, February, 1904.	Mean wind direction. Normal February.
	°	°
Sholapur	S 77 E	S 42 E
Akola	N 49 E	N 12 W
Nagpur	N 80 E	N 42 E
Hyderabad (D)	S 42 E	S 51 E
Bellary	S 40 E	S 57 E

There was an unusual preponderance of winds from between north and east at Madras, where the mean wind direction of the month was N 85° E, the normal being S 84° E.

Winds were feebler than usual at the great majority of the hill stations in consequence chiefly of the absence of cold weather storms and, as usual under such conditions, the mean wind directions varied very irregularly from the normal.

The following gives data for six stations in illustration :—

Hill station.	Mean wind direction. Actual February, 1904.	Mean wind direction. Normal, February.	Mean wind velocity in miles per diem. Actual, February, 1904.	Mean wind velocity in miles per diem. Normal, February.	Mean wind velocity in miles per diem. Departure from normal, February, 1904.
	°	°			
Quetta	S 57 W	N 84 W	50	84	—34
Leh	S 52 W	S 9 W	57	31	+26
Srinagar	S 38 W	S 9 W	57	84	—27
Chakrata	S 24 E	S 6 W	217	151	+66
Darjeeling	N 49 W	S 83 W	95	132	—37
Mount Abu	N 41 W	N 66 W	125	146	—21

The prevalence of south-westerly winds at Quetta would appear to show that there was but little outflow of air from the plateau area of Baluchistan into upper India.

The following gives a brief summary of the chief abnormal features of the air movement of the month in the Indian land area:—

(1) Winds were feebler than usual throughout India, the feebleness being, on the whole, most marked in north-west India, where weather was much less disturbed than usual.

(2) Land winds prevailed steadily during the month at the head of the Bay, where the mean direction of the month was west-north-west instead of south-west.

(3) Winds were more westerly than usual in the east Punjab, Rajputana and the United Provinces.

(4) Sea breezes commenced earlier than usual on the Sind coast and the mean winds in that area were hence from south-west instead of from west by north.

(5) The westerly element in the southerly winds at the Kashmir stations was much more pronounced than usual.

(6) South-westerly winds preponderated in Baluchistan (as represented by Quetta), an indication that the outflow of air from that area into upper India was feebler than usual.

Humidity and cloud.

The air was drier than usual over the greater part of north-west India, Khandesh, Berar, north and west Bengal, the northern and southern coast districts of Madras, Malabar and lower and central Burma. The dryness was, on the whole, most pronounced in upper India, where it was due as much to an actual deficiency of moisture as to increased temperature.

The following gives data of the most noteworthy departures:—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, February, 1904.	Normal, February.	Departure from normal, February, 1904.	Actual, February, 1904.	Normal, February.	Departure from normal, February 1904.
	"	"	"	%	%	
Montgomery . .	·213	·275	—·062	51·0	69·0	—18·0
Rawalpindi . .	·229	·263	—·034	66·0	82·2	—16·2
Peshawar . .	·217	·252	—·035	60·0	76·0	—16·0
Khushab . .	·226	·232	—·006	54·0	69·7	—15·7
Pachpadra . .	·189	·237	—·048	39·0	52·7	—13·7
Bikaner . .	·183	·248	—·065	39·0	52·6	—13·6

The air was, on the other hand, damper than usual in Assam, upper Burma, Arakan, east and central Bengal, Central India, Hyderabad, Mysore, the greater part of Madras, the Konkan and Ceylon. The departures were, however, small in amount at the great majority of stations.

The following gives comparative data for the stations where the humidity percentage was upwards of 10 above the normal:—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, February, 1904.	Normal, February.	Departure from normal, February, 1904.	Actual, February, 1904.	Normal, February.	Departure from normal, February, 1904.
	"	"	"	%	%	
Kurnool . .	·568	·478	+·090	74·0	58·1	+15·9
Raichur . .	·522	·438	+·084	66·0	51·9	+14·1
Bijapur . .	·497	·437	+·060?	67·0	55·9	+11·1
Jhansi . . .	·375	·296	+·079	67·0	52·6	+14·4
Neemuch . .	·307	·263	+·044	59·0	48·4	+10·6

The data indicate that the excess was, on the whole, most pronounced in the central Deccan, the region where temperature was in marked defect.

The departures of humidity from the normal at the hill stations were generally the same in character as at the neighbouring plains stations, but were larger in amount. Thus at Chaman in Baluchistan the absolute humidity was ·048″, and the relative humidity 12·0, above the normal. The mean relative humidity of the month was, on the other hand, generally in defect at Cherat (—23·4), Gilgit (—21·6), Murree (—18·1), Chakrata (—16·9) and Darjeeling (—9·0).

Remarkably low humidities were registered in the hill districts between the 6th and the 16th.

The following gives the most noteworthy examples:—

Station.	Date.	Lowest humidity recorded at 8 A.M. during February 1904.
		%
Gilgit	6th Feb.	8
Muktesar	7th „	10
Leh	„ „	10
Mussooree	„ „	12
Simla	„ „	12
Kodaikanal	8th „	8
Do.	9th „	4
Muktesar	11th „	12
Mussooree	„ „	13
Simla	„ „	14
Cherat	14th „	13
Kodaikanal	15th „	8
Ootacamund	„ „	10
Gilgit	„ „	14
Kodaikanal	16th „	6

The mean humidity percentage was lowest (30 per cent.) at Sholapur, which was hence, on the mean of the whole month, the driest station in India.

It may be noted that humidity was as largely in excess in Persia as in Baluchistan.

The chief features of the hygrometric conditions of the month were—

(1) abnormal dryness of the air in upper India, a result partly of deficient moisture in the air and partly of increased temperature.

(2) great dampness in the central Deccan where the amount of vapour in the air was largely above and temperature considerably below the normal.

The mean cloud amount of the month was in excess of the normal in Gujarat, Bombay, Central India, the east of the United Provinces, Berar, the Central Provinces (excepting the eastern districts) and south India. The excess was less than 1·0 in amount, except at the following stations:—

Station.	Mean cloud amount.		
	Actual, February, 1904.	Normal, February.	Departure from normal, February, 1904.
Mercara	7·1	3·0	+4·1
Indore	3·3	1·3	+2·0
Khandwa	3·1	1·2	+1·9
Sutna	3·5	1·7	+1·8
Bhavnagar Para	2·7	1·1	+1·6
Gorakhpur	3·4	1·9	+1·5
Saugor	2·6	1·4	+1·2
Veraval	2·4	1·2	+1·2
Neemuch	2·5	1·3	+1·2
Poona	1·8	0·8	+1·0
Mysore	3·2	2·2	+1·0

Cloud was, on the other hand, more or less in defect over the remainder of the country. The deficiency was, on the whole, most marked in the Punjab and the neighbouring districts of the United Provinces, areas in which humidity was also much below the normal. The following gives data for the region of largest deficiency of cloud:—

Station.	Mean cloud amount.		
	Actual, February, 1904.	Normal, February.	Departure from normal, February, 1904.
Bahraich	0·4	3·0	—2·6
Mainpuri	1·4	3·8	—2·4
Ludhiana	1·7	4·5	—2·8
Sirsa	1·7	4·1	—2·4
Sialkot	1·2	3·2	—2·0

The departures of cloud at the hill stations were generally similar to those of the adjacent plains, there being less cloud than usual at the Himalayan stations and in Baluchistan and more cloud at Pachmarhi in the Central Provinces.

The following gives data for the stations at which the deficiency was most marked:—

Hill Station.	Mean cloud amount.		
	Actual, February, 1904.	Normal, February.	Departure from normal, February, 1904.
Murree	1·9	4·8	—2·9
Darjeeling	2·2	4·8	—2·6
Chaman	1·7	4·1	—2·4
Cherat	2·4	4·4	—2·0
Leh	4·0	6·0	—2·0
Simla	3·0	4·5	—1·5

Skies were practically free from cloud (*i. e.*, the mean cloud amount was 0·5 or less) in upper and central Burma, north Bihar, and the central Deccan.

Skies were clouded to a greater extent than usual in Afghanistan as represented by Kabul, where the mean cloud amount of the month was 1·0 above the normal. There was, on the other hand, less cloud than usual in Persia and Arabia.

The following gives data for representative stations in these areas:—

Station.	Mean cloud amount.		
	Actual, February, 1904.	Normal, February.	Departure from normal, February, 1904.
Jask	0·9	2·5	—1·6
Muscat	1·2	2·4	—1·2
Baghdad	2·4	2·6	—0·2
Aden	5·6	6·4	—0·8
Perim	1·3	5·6	—4·3

The chief abnormal features of the cloud distribution of the month were as follows:—

(1) Excess in Gujarat, Bombay, Central India, the east of the United Provinces, the greater part of the Central Provinces, Berar and south India, most marked at Indore (+2·0), Khandwa (+1·9) and Sutna (+1·8).

(2) Deficiency over the rest of the country, largest in amount in the east Punjab, the Punjab Himalayas, Ladakh and locally at Bahraich and Mainpuri.

(3) Skies were practically clear throughout the month in upper and central Burma, north Bihar and the central Deccan.

(4) Considerable excess at Kabul and defect in Persia and Arabia.

Rainfall.

Rainfall in February in northern India usually occurs under the same conditions as in January, that is, during the passage of storms of the cold weather type, and is generally heaviest in the Punjab and along the foot of the hills. The central districts, west Bengal, lower Burma and Malabar are occasionally visited by thunderstorms, but, as a rule, the conditions for these local thermal disturbances do not occur before March.

The month under review was singularly free from cold weather storms, and the precipitation, due to this cause, was scanty and below the normal. On the other hand, conditions were peculiarly favourable for the occurrence of thunderstorms and hailstorms in Bengal, Assam, Central India, the Central Provinces, Khandesh, Gujarat, Kathiawar and Sind, and these areas hence obtained more rain than usual.

The rainfall in north-east India occurred mainly on the 1st and 2nd and between the 17th and the 21st; in the central districts it occurred during the last week and in north-west India and Baluchistan between the 18th and 22nd.

The following table gives mean actual, mean normal and departure rainfall data of the 56 meteorological divisions of the Empire:—

Province.	Division.	Number of rainy days.		Rainfall.		
		Average actual, February, 1904.	Average normal, February.	Average actual, February, 1904.	Average normal, February.	Departure from normal, February, 1904.
				Inches.	Inches.	Inches.
Burma	Tenasserim	0·7	0·8	0·46	0·49	—0·03
	Lower Burma (Deltaic)	0	0·2	0·03	0·16	—0·13
	Central do.	0	0·1	0	0·05	—0·05
	Upper do.	0·3	0·4	0·14	0·19	—0·05
	Arakan	0·2	0·2	0·05	0·16	—0·11
Bengal and Assam	Eastern Bengal	2·0	1·6	1·42	0·99	+0·43
	Assam (Surma)	4·5	3·1	3·36	1·83	+1·53
	Do. (Hills)	4·1	2·9	2·41	1·35	+1·06
	Do. (Brahmaputra)	3·9	3·4	1·76	1·34	+0·42
	Deltaic Bengal	1·4	1·6	1·09	1·07	+0·02
	Central do.	0·9	1·4	0·38	0·72	—0·34
	North do.	2·3	1·2	1·26	0·54	+0·72
	Bengal Hills	2·3	2·0	0·93	0·89	+0·04
	Orissa	1·3	1·3	0·49	0·75	—0·26
	Chota Nagpur	1·5	1·6	0·71	0·80	—0·09
	Bihar (South)	0·2	1·5	0·08	0·66	—0·58
	Do. (North)	0·3	1·1	0·09	0·45	—0·36
United Provinces of Agra and Oudh.	United Provinces (East)	0	1·1	0·04	0·48	—0·44
	Oudh (South)	0	0·9	0·01	0·39	—0·38
	Do. (North)	0	1·2	0·01	0·51	—0·50
	United Provinces (Central)	0·3	0·8	0·11	0·37	—0·26
	Do. do. (West)	0	1·0	0·01	0·50	—0·49
	Do. do. (East Submontane)	0·3	1·2	0·18	0·51	—0·33
	Do. do. (West do.)	0·1	2·2	0·04	1·26	—1·22
	Do. do. (Hills)	0·1	4·1	0·06	2·46	—2·40

Province.	Division.	Number of rainy days.		Rainfall.		
		Average actual, February, 1904.	Average normal, February.	Average actual, February, 1904.	Average normal, February.	Departure from normal, February, 1904.
				Inches.	Inches.	Inches.
Punjab	Punjab (South-East)	0·2	1·3	0·05	0·54	—0·49
	Do. (South)	0	1·5	0·01	0·60	—0·59
	Do. (Central)	0·2	2·3	0·04	1·08	—1·04
	Do. (Submontane)	0·4	2·8	0·12	1·63	—1·51
	Do. (Hills)	2·1	4·9	0·97	3·44	—2·47
	Do. (West)	0	1·4	0·01	0·57	—0·56
N.-W. F. Province	North-West Frontier Province	0·2	3·0	0·06	1·46	—1·40
Bombay and Malabar Coast Districts (Madras).	Malabar	0	0·3	0	0·21	—0·21
	Travancore	0·6	...	0·23	...	...
	Madras (South Central)	0	0·6	0	0·34	—0·34
	Coorg	0·2	...	0·20	...	...
	Mysore	0	0·1	0·01	0·04	—0·03
	Konkan	0	0·1	0·01	0·05	—0·04
	Bombay Deccan	0·1	0·2	0·03	0·09	—0·06
	Hyderabad, North	...	...	...	...	...
	Khandesh	1·0	0·2	0·36	0·11	+0·25
Central Provinces and Berar.	Berar	0·3	0·6	0·07	0·23	—0·16
	Central Provinces (West)	1·9	0·6	0·84	0·28	+0·56
	Do. (Central)	1·7	0·8	0·61	0·47	+0·14
	Do. (East)	1·4	0·9	0·57	0·48	+0·09
Bombay (North)	Gujarat	1·3	0·2	0·55	0·11	+0·44
	Kathiawar and Cutch	1·0	0·2	0·41	0·11	+0·30
	Sind	0·9	0·7	0·29	0·25	+0·04
	Baluchistan Hills	1·7	3·8	0·49	1·60	—1·11
Rajputana and Central India.	Central India (East)	1·6	0·8	0·48	0·42	+0·06
	Rajputana (East), Central India (West)	0·6	0·6	0·18	0·26	—0·08
	Rajputana (West)	0·3	0·3	0·12	0·13	—0·01
Madras	East Coast (North)	0·2	0·6	0·09	0·34	—0·25
	Hyderabad (South)	...	...	...	...	...
	Madras (Central)	0	0	0	0·05	—0·05
	East Coast (Central)	0	0·1	0	0·19	—0·19
	Do. (South)	0	0·5	0	0·45	—0·45
	Madras (South)	0	1·2	0	0·84	—0·84

The data show that actually or practically no rain fell during the month in lower and central Burma, Arakan, Bihar, Berar, the United Provinces (excepting the east submontane and central districts), the Punjab, with the exception of the submontane and hill districts, the Konkan, the Bombay Deccan and the whole of Madras. As the normal rainfall of February is small over the greater part of the plains of India, the actual deficiency was not large in amount. It was, however, serious in the Gangetic plain, where it prolonged a feature which had prevailed during the previous three months, and hence intensified the prevailing drought.

The data also indicate that the rainfall of the month was unusually abundant in Assam, north and east Bengal, the Central Provinces, Khandesh, Gujarat and Kathiawar; in some parts of these areas it was from two to four times the normal amount.

It is noteworthy that the weather was unusually fine and dry in Persia, Arabia and Afghanistan. The month was, on the other hand, unusually rainy in east Africa as represented by Zanzibar and at Port Victoria.

The month was practically rainless in lower and central Burma and Arakan. Some local thundershowers occurred in Tenasserim between the 24th and the 28th and in upper Burma from the 1st to the 3rd and again between the 17th and the 21st. The total rainfall of the month was less than the small normal of the period over the whole of the province.

The month was unusually wet over Assam. Rain fell in that area chiefly on the 1st and 2nd and between the 17th and the 21st. Falls exceeding 1·50 inches in 24 hours were recorded at a large number of stations, the most noteworthy being the following:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Goalpara	Dhubri	18th February	2·36
Kamrup	Barduar	" "	2·35
	Boko	" "	2·30
Goalpara	Goalpara	" "	2·30
Cachar	Kukicherra	19th "	2·22

The following statement shows the distribution of the rainfall of the month in this province :—

Division.	Rainfall.			
	Average actual, February, 1904.	Average normal, February.	Departure from normal, February, 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Assam, Surma	3·36	1·83	+1·53	+84
Assam, Hills	2·41	1·35	+1·06	+79
Assam, Brahmaputra	1·76	1·34	+0·42	+31

The data indicate that the rainfall of the month was considerably above the normal throughout the province. The excess was greatest, both absolutely and relatively to the normal, in the Surma division.

There were two well-defined periods of disturbance and precipitation in Bengal.

1st.—The 1st and 2nd. During this period the rainfall was confined to Bengal proper and was light to moderate in amount.

2nd.—The 17th to the 21st. Moderate rain fell during this period in Bengal, Orissa and Chota Nagpur and light rain in Bihar.

The total fall of the month was less than usual in Bihar, Chota Nagpur, Orissa and central Bengal and above the normal over the remainder of the presidency. The deficiency was greatest in Bihar which obtained only 15 per cent. of the normal fall.

The following gives data for the region of greatest deficiency :—

District.	Rainfall.			
	Average actual, February, 1904.	Average normal, February.	Departure from normal, February, 1904.	Percentage departure from normal.
	Inch.	Inch.	Inch.	
Patna	0·14	0·62	−0·48	−77
Gaya	0·05	0·61	−0·56	−92
Shahabad	0·01	0·72	−0·71	−99
Saran	0·30	0·44	−0·14	−32
Champaran	0	0·43	−0·43	−100
Muzaffarpur	0·09	0·47	−0·38	−81
Darbhanga	0·01	0·42	−0·41	−98
Monghyr	0·17	0·65	−0·48	−74
Bhagalpur	0·08	0·51	−0·43	−84
Purnea	0·04	0·41	−0·37	−90
Malda	0·26	0·68	−0·42	−62
Sonthal Parganas	0·22	0·50	−0·28	−56

The rainfall of the month was, on the other hand, in marked excess in north Bengal where it averaged 1·26 inches as compared with 0·54 inch, the normal for the period.

The month was much drier than usual over the United Provinces and Oudh. Light rain fell in the east submontane districts on the 19th, in the central districts on the 29th and some local showers in the west submontane districts, chiefly on the 4th, 20th and 21st. The total rainfall of the month averaged less than a tenth of an inch over the whole of the province with the exception of the central and east submontane divisions.

The following is a comparative statement of the rainfall of the month in this province :—

Division.	Rainfall.			
	Average actual, February, 1904.	Average normal, February.	Departure from normal, February, 1904.	Percentage departure from normal.
	Inch.	Inches.	Inches.	
United Provinces East	0·04	0·48	−0·44	−92
South Oudh	0·01	0·39	−0·38	−97
North do.	0·01	0·51	−0·50	−98
United Provinces Central	0·11	0·37	−0·26	−70
Do. do. West	0·01	0·50	−0·49	−98
Do. do. East Submontane.	0·18	0·51	−0·33	−65
Do. do. West Submontane.	0·04	1·26	−1·22	−97
Do. do. Hills	0·06	2·46	−2·40	−98

The rainfall of the month was hence scanty and below the normal, more especially in the west submontane and hill divisions.

The following gives data for the districts representing the area of serious deficiency :—

Division.	District.	Rainfall.			
		Average actual, February, 1904.	Average normal, February.	Departure from normal, February, 1904.	Percentage departure from normal.
		Inch.	Inches.	Inches.	
United Provinces, West Submontane.	Pilibhit	0	0·82	−0·82	−100
	Shahjahanpur	0	0·65	−0·65	−100
	Budaun	0	0·61	−0·61	−100
	Bareilly	0	0·88	−0·88	−100
	Moradabad	0	1·10	−1·10	−100
	Muzaffarnagar	0	0·89	−0·89	−100
	Saharanpur	0	1·27	−1·27	−100
	Dehra Dun	0·28	2·67	−2·39	−90
United Provinces Hills.	Almora	0·04	2·67	−2·63	−99
	Garhwal	0·16	3·08	−2·92	−95
	Naini Tal	0	1·75	−1·75	−100

The submontane and hill districts of the Punjab received showers on the 3rd, 4th, 20th, 21st and 29th, heaviest and most general in the Kangra district. The month was practically rainless over the remainder of the province. The total rainfall of the month was more or less in defect over the whole province, the deficiency averaging 72 per cent. in the hills and 95 per cent. in other divisions.

Baluchistan obtained a light burst of rain from the 18th to the 22nd. Some local showers also occurred during the first and last weeks but they were generally of little agricultural value. The rainfall of the month was barely a third of the normal amount.

There were three periods of slightly unsettled weather in Kashmir, *viz.*, from the 1st to the 5th, the 7th to the 9th, and the 20th to the 23rd. Numerous showers were received on these occasions but they were generally light and the total precipitation of the month was in very large defect. Practically no rain fell during the month at Gilgit and Leh.

The Hazara district of the North-West Frontier Province received light local showers on the 3rd, 4th and 23rd which gave a mean total of less than a tenth of an inch for the whole province.

The rainfall of the month was almost identical with the normal in Rajputana and occurred mainly during the last six days of the month.

A series of thunderstorms and hailstorms visited Central India during the last week of the month and gave numerous showers, heaviest and most general in the Gwalior and Indore states.

The following gives data for the various states in this area and shows that the rainfall of the month was 14 per cent. above the normal on the mean of the whole province.

State.	Rainfall.			
	Average actual, February, 1904.	Average normal, February.	Departure from normal, February, 1904.	Percentage departure from normal.
	Inches.	Inch.	Inch.	
Indore	1·13	0·24	+0·89	+371
Rutlam	0·40	0·18	+0·22	+122
Bhopal Agency	0·38	0·29	+0·09	+ 31
Gwalior	0·69	0·29	+0·40	+138
Nagode	0·11	0·46	−0·35	− 76
Maihar	0·30	0·59	−0·29	− 49
Rewah	0·30	0·65	−0·35	− 54
Bundelkhand	0·17	0·38	−0·21	− 55

No rain fell over by far the greater part of the Madras presidency during the month. The Ganjam and Vizagapatam districts received light local showers from the 15th to the 24th. The rainfall of the month was in defect of the normal in all divisions. The deficiency was greatest in actual amount in south Madras where it averaged 0·84 inch.

Khandesh, Gujarat, Kathiawar and Sind obtained more rain than usual, due to numerous thunderstorms during the last six days of the month. Practically no rain fell over the remainder of the Bombay presidency. The following gives comparative data for the six divisions of the presidency:—

Division.	Rainfall.			
	Average actual, February, 1904.	Average normal, February.	Departure from normal, February, 1904.	Percentage departure from normal.
	Inch.	Inch.	Inch.	
Konkan	0·01	0·05	−0·04	− 80
Bombay Deccan	0·03	0·09	−0·06	− 67
Khandesh	0·36	0·11	+0·25	+227
Guzarat	0·55	0·11	+0·44	+400
Kathiawar and Cutch	0·41	0·11	+0·30	+273
Sind	0·29	0·25	+0·04	+ 16

No rain fell in Berar beyond some local thundershowers between the 24th and the 29th. The total fall of the month was hence in defect in that area. The deficiency was, however, small in actual amount, as the normal quantity during the month is less than a quarter of an inch.

Numerous thundershowers occurred in the eastern districts of the Central Provinces from the 16th to the 23rd and in the central and western districts during the last week of the month. The total fall of the month exceeded the normal throughout the province, the excess being most marked in the western division, which obtained three times its normal amount.

The following gives data for the extra-Indian stations and shows that the drought was as marked in Arabia, Persia and Afghanistan as in north-west India and Baluchistan. The month was, on the other hand, wetter than usual over east Africa and the Equatorial region represented by the Seychelles.

Station.	Rainfall.			
	Average actual, February, 1904.	Average normal, February.	Departure from normal, February, 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Trincomalee	1·70	1·98	−0·28	− 14
Colombo	1·69	2·29	−0·60	− 26
Minicoy	0	0·35	−0·35	−100
Amini Divi	0	0	0	0
Kashgar	0	0·12	−0·12	−100
Kabul	0	0·98	−0·98	−100
Meshed	3·26	1·03	+2·23	+217
Teheran	0·33	0·82	−0·49	− 60
Ispahan	0·05	0·17	−0·12	− 71
Bushire	0·33	2·35	−2·02	− 86
Jask	0·94	0·97	−0·03	− 3
Muscat	0·10	0·78	−0·68	− 87
Baghdad	0·15	2·17	−2·02	− 93
Aden	0	0·29	−0·29	−100
Perim	0·08	0·26	−0·18	− 69
Zanzibar	2·35	1·38	+0·97	+ 70
Seychelles	14·18	12·11	+2·07	+ 17
Mauritius	5·06	7·94	−2·88	− 36

Crop Report.

Madras.—The month was practically rainless. Irrigation supplies were, however, generally sufficient. The condition of the standing crops was good at the beginning and fair at the end of the month.

Bombay.—The rainfall did some damage to the crops in parts of Ahmedabad, Kaira, the Panch Mahals and Surat and frost in parts of Kurrachee, but in general the condition of the crops was good. The only areas in which rain was wanted at the end of the month were parts of Khandesh and Nasik.

Bengal—At the end of the month the standing crops were generally in good condition but had been damaged by hail in Jalpaiguri and Palamau and by insects in Burdwan. Fodder and water were generally sufficient. The wheat and oilseed crops were harvested and the outturn was estimated at 94 per cent. of a normal crop.

United Provinces.—The condition of spring crops was satisfactory at the end of the month.

Punjab.—At the close of the month the condition of the crops on irrigated lands was good to fair, while that of unirrigated crops was unsatisfactory in Hissar and Delhi and average in Jullunder. Rain was needed in Umballa and Ferozepore.

North-West Frontier Province.—The condition of the crops was good but more rain was wanted on unirrigated lands.

Burma.—The prospects were generally good.

Central Provinces.—Light to moderate rain fell throughout the province during the last ten days of the month and caused slight injury to cut crops and to crops in flower. The harvesting of spring crops was in progress and a normal outturn was expected.

Assam.—The water supply was insufficient in the hills. The outturn of mustard and sugarcane was fair to good.

Mysore.—The seasonal prospects were good.

Coorg.—Water and fodder were generally sufficient.

Hyderabad.—The spring crops were generally satisfactory.

Rajputana.—The condition of the standing crops was generally good.

Central India.—At the end of the month crops were fair in Bhopal and good elsewhere.

Kashmir.—The condition of the crops at the end of the month was fair.

HEM RAJ.

Table I.—Abstract of Observations taken at 8 A.M. at 233 Stations in India, Burma, etc., in February, 1904.

Table

Abstract of Observations taken at 8 A.M. at 233

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 A.M., in inches.								Temperature of air.												
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
	I.—Burma Coast and Bay Islands.				−·002								88·0	−0·5	67·8	−0·5	77·9	−0·5	20·1					29·8
1	Tenasserim and Bay Islands.	Car-Nicobar.	25	29·930**		29·882**	29·973	25th	29·871	27th	·102	80·2**	86·0**		76·7**		81·4**		9·3	88·2	20th	69·7	23rd	18·5
		Port Blair	61	29·931	+·004	29·923	29·969	19th	29·885	1st	·084	77·2	87·5	−0·7	74·5	−0·5	81·0	−0·6	13·0	89·8	19th	69·6	5th	20·2
		Mergui	96	29·892	+·005	29·922	29·942	25th	29·833	27th	·109	73·9	90·1	+0·5	69·6	+0·5	79·9	+0·5	20·5	93·1	18th	63·3	13th	29·8
		Tavoy	26	29·973	−·005	29·930	30·019	12th	29·912	27th	·107	68·9	91·3	+0·2	?	?	?	?	?	94·2	27th	?	?	?
		Moulmein	94	29·888	−·005	29·922	29·947	25th	29·835	21st	·112	70·4	92·4	+0·9	67·2	−0·5	79·8	+0·2	25·2	97·4	27th	61·4	8th	36·0
2	Lower Burma	Rangoon	57	29·936	−·005	29·932	29·986	25th	29·859	27th	·127	67·8	89·6	?	65·7	−0·2	77·7	?	23·9	97·6	27th	61·8	8th	35·8
		Bassein	27	29·964	+·002	29·929	30·023	25th	29·882	27th	·141	69·5	89·3	−0·7	65·6	+0·7	77·5	0	23·7	94·7	26th	61·3	1st	33·4
		Diamond Island.	41	29·947	−·013	29·923	30·007	25th	29·860	27th	·147	76·4	83·5	−0·7	73·1	+0·8	78·3	+0·1	10·4	87·4	23rd & 25th.	71·2	1st & 3rd	16·2
5	Arakan	Akyab	20	29·982	−·012	29·946	30·039	25th	29·884	28th	·155	65·7	83·4	−1·4	61·1	−0·4	72·3	−0·9	22·5	88·9	22nd	56·6	6th	32·3
3	Central Burma.	Toungoo	183	29·811	+·011	29·942	29·877	25th	29·705	28th	·172	65·8	89·8	−1·1	57·0	−4·1	73·4	−2·6	32·8	97·4	29th	51·6	7th & 11th	45·8
	II.—Burma, Inland.				+·029								85·8	−2·7	56·7	−2·0	71·3	−2·3	29·1					44·1
3	Central Burma.	Thayetmyo	130	29·871	+·018	29·947	29·945	25th	29·765	28th	·180	66·1	90·8	−1·8	54·1	−2·8	72·5	−2·3	36·7	98·0	28th & 29th	50·0	8th	48·0
4	Upper Burma	Minbu	*165*	29·847	+·033	29·962	29·940	3rd	29·728	28th	·212	67·1	88·5	−3·1	59·9	−1·3	74·2	−2·2	28·6	95·2	28th & 29th.	53·5	5th	41·7
		Yamethin	657	28·334	+·032	29·967	29·415	3rd	29·220	28th	·195	65·8	89·6	−2·9	58·5	−2·1	74·1	−2·5	31·1	95·8	28th	51·2	5th	44·6
		Monywa	*280*	29·750		29·969	29·845	3rd	29·633	28th	·212	64·9	87·1		60·0		73·6		27·1	95·3	28th & 29th	51·6	4th	43·7
		Mandalay	250	29·746	+·023	29·956	29·841	3rd	29·630	28th	·211	65·6	87·5	−2·4	58·3	−1·8	72·9	−2·1	29·2	94·5	29th	49·5	4th	45·0
		Myitkyina	458	29·562		30·003	29·660	3rd	29·413	29th	·217	60·2	78·3		54·6		66·5		23·7	87·3	29th	46·1	5th	41·2
		Bhamo†	*381*	29·631	+·037	29·989	29·743	3rd	29·514	29th	·229	58·1	76·9	−3·3	51·3	−1·8	65·1	−2·6	27·6	88·5	28th	43·7	4th	44·8
4(a)	Burma Hill Stations.	Maymyo	3,545	26·490**			26·574	25th	26·379	20th	·195	52·2	74·4*		42·8		58·6		31·6	82·2	28th	35·4	4th	46·8
		Lashio	*2,751*									54·3	79·0	0	47·5	−1·2	63·3	−0·6	31·5	86·5	29th	40·1	3rd	46·4
	III.—Assam.				+·007								76·8	0	54·2	−0·7	65·5	−0·3	22·7					39·2
7	Surma	Silchar	104	29·935	+·002	29·998	30·025	2nd	29·824	28th	·201	61·0	80·0	−0·7	56·1	+0·5	68·1	−0·1	23·9	85·4	29th	48·5	3rd	36·9
9	Brahmaputra	Sibsagar	333	29·713	+·004	30·023	29·856	3rd	29·556	28th	·300	56·4	73·9	+0·8	51·9	−1·4	62·9	−0·3	22·0	82·3	29th	42·9	4th & 5th	39·4
		Dhubri	115	29·909	+·015	29·988	30·026	3rd	29·772	28th	·254	59·0	78·0	0	54·9	−1·2	66·6	−0·6	23·1	85·1	29th	45·8	4th	39·3
		Gauhati	195	29·846		30·008	29·995	3rd	29·684	28th	·311	58·7	78·0		53·5		65·8		24·5	85·5	29th	42·1	4th	43·4
		Tezpur	252	29·734		30·010	29·913	3rd	29·624	28th	·319	58·2	76·5		55·4		65·9		21·1	83·6	26th	45·0	3rd	38·6
		Dibrugarh	353	29·700		30·031	29·836	3rd	29·534	28th	·302	57·5	74·5		53·3		63·9		21·2	81·1	25th & 27th.	43·9	4th	37·2
	IV.—Bengal and Orissa.				+·005								81·7	−0·2	57·1	−1·3	69·4	−0·7	24·6					41·2
6	East Bengal	Chittagong	87	29·921	−·009	29·931	29·997	25th	29·830	28th	·167	63·8	82·1	−0·2	57·8	−1·2	70·0	−0·7	24·3	88·5	29th	52·1	3rd	36·4
		Noakhali	43	29·965		29·957	30·047	25th	29·868	28th	·179	64·7	80·9		56·2		68·6		24·5	87·7	29th	49·1	2nd	38·6
		Comilla	36	29·977		29·962	30·059	7th	29·879	28th	·180	62·5	81·5		57·1		69·4		24·4	89·5	29th	52·2	3rd & 7th	37·3
		Sirajganj	49	29·980		29·981	30·076	2nd	29·875	28th	·201	59·5	80·4		55·0		67·7		25·4	88·5	28th	46·0	2nd	42·5
		Narayanganj	26	29·993	+·005	29·969	30·083		29·893	28th	·190	63·9	80·5	−1·7	59·1	+0·5	69·8	−0·6	21·4	89·1	29th	52·3	2nd & 3rd	36·8
		Barisal	13	29·997	−·003	29·956	30·082	7th	29·923	19th	·159	65·1	81·9	+0·2	58·4	−1·3	70·2	−0·6	23·5	89·8	29th	49·2	2nd	40·6
		Mymensingh	59	29·969	+·013	29·986	30·068	2nd	29·860	28th	·208	62·3	79·2	+0·8	57·8	?	68·5	?	21·4	84·7	29th	49·8	3rd & 4th	34·9
		Faridpur	46	29·977		29·975	30·069	7th	29·884	28th	·185	61·4	81·2		55·1		68·2		26·1	89·3	29th	46·2	2nd	43·1
10	Deltaic Bengal	Jessore	33	29·991	+·006	29·972	30·089	7th	29·878	28th	·211	63·2	81·8	−1·3	55·9	−1·4	68·9	−1·4	25·9	89·5	29th	44·6	2nd	44·9
		Calcutta	21	30·007	+·004	29·975	30·107	2nd	29·895	19th	·212	64·0	82·7	+0·7	59·1	−1·3	70·9	−0·3	23·6	90·4	29th	46·9	2nd	43·5
		Saugor Island	25	30·000	+·009	29·970	30·106	3rd	29·890	19th	·216	67·4	80·9	−0·3	63·8	−1·7	72·4	−1·0	17·1	88·4	26th	49·9	2nd	38·5
		Krishnagar	47	29·991		29·989	30·091	2nd	29·886	19th	·205	65·9	83·8		55·1		69·4		28·7	91·0	29th	43·5	2nd	47·5
		Midnapore	149	29·873		29·975	29·978	2nd	29·772	18th	·206	66·7	85·9		60·1		73·0		25·8	92·8	29th	48·6	2nd	44·2

* Uncorrected. ¶ Mean of 23 days. † Mean of 28 days.

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

Note 1.—When a query is inserted against any reading or in the returns

Note 2.—The data from which divisional means of the figure columns

I.

Stations in India, Burma, etc., in February, 1904.

Wind Direction. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	Wind Velocity. Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	Hygrometry, 8 A.M. Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Cloud. Mean cloud amount at 8 A.M.	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., 1903, to 29th Feb., 1904.	Normal rainfall for period, 1st Dec. to 29th Feb.	Departure from normal of period, 1st Dec., 1903, to 29th Feb., 1904.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
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	58
														£2	−1·6	·640	−·047	1·9	−0·9				0·56	0·44	0					I.—Burma Coast and Bay Islands.		
4	8	11	4	2					N 43° E	5·1			5·1	77**		·788**		8·3		2			1·63			24·41			1·37	Car-Nicobar .	Tenasserim and Bay Islands.	1
	9	10	3	3			2	2	N 31° E	5·2	5·1	+2	5·8	84	+0·3	·782	−·032	2·6	−0·8	1			0·58	0·40	+0·18	9·81	8·04	+1·77	0·58	Port Blair.		
21	3	1	1						N 4° W	2·9	2·0	+45	2·6	82	−0·5	·685	−·072	1·8	−1·8	3	2·80	+0·20	3·34	1·73	+1·61	3·41	3·02	+0·39	2·91	Mergui.		
29									Calm	1·2				91	?	·646	−·048	0·8	−1·6	0	0·80	−0·80	0·01	0·65	−0·64	1·61	0·92	+0·69	0·01	Tavoy.		
28		1							N 45° E	1·7	2·4	−29	1·9	79	−5·3	·590	−·086	1·4	+0·1	0	0·50	−0·50	0	0·25	−0·25	0	0·66	−0·66	0	Moulmein.		
12	3	8	1				2	3	N 13° E	4·4	3·9	+13	3·7	81	−4·3	·552	−·081	1·9	+0·7	0	0·40	−0·40	0	0·31	−0·31	0	0·52	−0·52	0	Rangoon .	Lower Burma .	2
	7	3				2	5	12	N 38° W	5·5	3·8	+45		85	−1·7	·620	−·049	0·2	−1·8	0	0·30	−0·30	0	0·29	−0·29	0	0·56	−0·56	0	Bassein.		
	14	11						4	N 12° E	8·4	7·2	+17	8·4	74	−1·3?	·676	−·023	1·0	−1·3	0	0·40	−0·40	0	0·07	−0·07	0	0·98	−0·98	0	Diamond Island.		
	12	17							N 26° E	2·3	3·4	−32	2·2	85	+2·7	·542	+·002	0·7	−0·5	0	0·30	−0·30	0·08	0·12	−0·04	0·08	0·88	−0·80	0·08	Akyab .	Arakan . .	5
18	1			1		1	1	7	N 53° W	3·7	1·9	+95	3·7	81	−2·5	·521	−·034	0·4	−0·9	0	0·30	−0·30	0	0·15	−0·15	0	0·40	−0·40	0	Toungoo .	Central Burma.	3
														73	−0·7	·434	−·022	0·6	−0·7				0·15	0·15	−0·08					II.—Burma Inland.		
	6	5	3	2	4	3	4	2	N 7° E	3·8	4·2	−10		64	−1·9	·415	−·031	0·4	−0·2	0	0·10	−0·10	0	0·04	−0·04	0	0·21	−0·21	0	Thayetmyo .	Central Burma	3
9	1			2		5		12	N 66° W	4·6			5·5	61	−3·0	·411	−·033	0·4	−0·4	0	0·10	−0·10	0	0·03	−0·03	0	0·66	−0·66	0	Minbu .	Upper Burma .	4
9	7			4	5			4	N	1·0			1·1	66	−3·5	·426	−·041	0	−0·7	0	0·30	−0·30	0	0·38	−0·38	0	0·95	−0·95	0	Yamethin.		
11	7				2		1	8	N 32° W	2·6			2·7	74		·458		0·7		0	0	0	0·02	0	+0·02	0·02	0·15	−0·13	0·02	Monywa.		
18	2	1		3	3	1		1	S 31° E	2·5			2·5	70	+1·5	·345	−·010	0·1	−1·0	0	0·30	−0·30	0	0·05	−0·05	0	0·39	−0·39	0	Mandalay.		
20		3	4	2					N 83° E	1·3			1·3	85		·449		1·4		1			0·66			0·75			0·65	Myitkyina.		
22	1	2	1			2			N 45° E	2·2				90	+3·5	·437	+·003	1·4	−1·4	1	1·10	−0·10	0·39	0·39	0	0·60	1·53	−0·93	0·25	Bhamo.		
23					1	2	1	2	S 76° W	3·7				85		·335		0·3		0	0·30	−0·30	0	0·30	−0·30	0	0·81	−0·81	0	Maymyo .	Burma Hill Stations.	4(a)
		5	3	9	4	5	1	2	N 38° E	3·1				84	+2·3	·356	+·004	1·4	−3·0	0			0·09	0·29	−0·20	0·09	1·34	−1·25	0·09	Lashio.		
														91	+1·3	·450	−·001	3·8	−1·2				2·50	1·49	+1·01					III.—Assam.		
25			2	2					S 67° E	0·7	2·8	−75	1·2	87	0	·473	−·019	2·1	−1·6	6	3·70	+2·30	4·38	2·31	+2·07	4·91	3·49	+1·42	1·31	Silchar .	Surma . .	7
21	2	5		1					N 41° E	2·0	2·2	−9	1·8	98	+0·5	·459	+·001	4·1	−1·8	5	4·90	+0·10	1·56	1·98	−0·42	2·72	3·86	−1·14	0·62	Sibsagar .	Brahmaputra .	8
1		6	15	3	2	2			S 69° E	4·7	4·0	+18	5·5	87	+3·3	·441	+·014	1·9	−0·3	4	1·20	+2·80	3·89	0·48	+3·41	3·89	0·98	+2·91	2·36	Dhubri.		
16	3	3	2	3	1	1			N 77° E	2·1			2·4	92		·454		6·7		3	1·80	+1·20	1·78	0·73	+1·05	1·81	1·61	+0·20	1·00	Gauhati.		
5		10	9	3	1	1			N 80° E	3·6			3·8	89		·442		3·2		3	2·60	+0·40	1·51	0·87	+0·64	1·96	1·95	+0·01	0·73	Tezpur.		
7	7	8	4	2	1				N 47° E	1·1			1·0	93		·430		4·6		5	6·70	−1·70	1·88	2·56	−0·68	4·11	4·89	−0·78	0·76	Dibrugarh.		
														79	0	·477	−·017	1·0	−0·8				1·16	0·90	+0·26					IV.—Bengal and Orissa .		
	7	18	1	2	1				N 41° E	3·6	4·4	−18	3·5	86	+1·7	·511	−·012	1·3	−1·0	3	1·29	+1·61	1·55	0·98	+0·57	1·55	2·13	−0·58	0·86	Chittagong .	East Bengal .	6
	8	5	6	1	1	2	3	3	N 2° E	2·1			2·3	87		·541		1·7**		1	1·81	−0·81	0·67	1·00	−0·33	0·67	1·82	−1·15	0·60	Noakhali.		
18	2		2	2	4	1			S 37° E	1·8			1·5	87		·497		1·4†		3	2·18	+0·82	3·70	0·97	+2·73	3·71	1·73	+1·98	1·65	Comilla.		
22	1			1	1		2	2	N 72° W	1·1			1·1	89		·461		0·2‡		0	1·57	−1·57	0·14	0·91	−0·77	0·64	1·49	−0·85	0·09	Sirajganj.		
12	2	6	1	1	1	1	2	3	N 9° E	2·0	2·6	−23	1·8	88	+4·4	·524	+·013	2·6§	−0·4	2	2·12	−0·12	2·90	1·28	+1·62	2·90	1·82	+1·08	2·78	Narayanganj.		
13	3	2		1	2	2	1	5	N 45° W	1·9				85	+0·2	·529	−·030	1·1†	−1·3	3	1·77	+1·23	1·09	1·04	+0·05	1·09	2·31	−1·22	0·59	Barisal.		
12		1	10	6					S 75° E	1·8			1·6	86	+1·1	·483	+·026	?	?	3	1·48	+1·52	2·04	1·03	+1·01	2·72	1·58	+1·14	0·99	Mymensingh.		
17	3		1		2			6	N 31° W	2·0			1·8	87		·477		1·3‖		3	2·00	+1·00	1·13	1·32	−0·19	1·13	1·89	−0·76	0·86	Faridpur.		
16	3	1	1		5			3	N 26° W	1·6	2·0	−20		80	−2·9	·472	−·030	1·7§	−0·6	2	1·77	+0·28	1·57	1·16	+0·41	1·57	1·80	−0·23	0·89	Jessore .	Deltaic Bengal.	10
8	4	1		1	2	2	2	9	N 49° W	3·0	3·8	−21		81	0	·492	−·025	2·2**	0	2	1·61	+0·39	2·58	1·00	+1·58	2·58	1·54	+1·04	2·39	Calcutta.		
2	9	7	1		1	5	1	3	N 5° W	8·3	7·9	+5		96	+0·4	·587	−·055	2·0‖	−1·2	2	1·74	+0·26	0·97	1·12	−0·15	0·97	1·66	−0·69	0·52	Saugor Island		
6	3	1	2	2	2	1	5	7	N 54° W	1·7			1·9	68		·441		1·4		1	1·58	−0·58	0·53	1·10	−0·57	0·53	1·13	−1·10	0·50	Krishnagar.		
7	10			2	2	2		6	N 24° W	2·5			2·3	64		·448		1·8**		1	1·77	−0·77	0·67	1·09	−0·42	0·67	1·84	−1·17	0·60	Midnapore.		

of any station, the data for that station are not utilized in calculating the provincial departures from normal.

Nos. 41, 43, and 45 are derived are incomplete.

‖ Mean of 25 days. ** Mean of 27 days. ‡ Mean of 26 days. § Mean of 24 days.

Table

Abstract of Observations taken at 8 A.M. at 233 Stations

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 A.M., in inches.								Temperature of air.												
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
11	Central Bengal.	Bankura	298	29·702?		29·966?	29·805	3rd	29·598	19th	·207	63·7	83·7		58·1		70·9		25·6	91·5	29th	47·6	2nd	43·9
		Raniganj	334	29·686		29·994	29·797	3rd	29·576	19th	·221	60·4	84·0		56·5		70·3		27·5	91·2	29th	47·2	2nd	44·0
		Burdwan	99	29·918	−·005	29·972	30·021	3rd	29·813	19th	·208	62·9	83·7	−0·1	58·7	+0·1	71·2	0	25·0	92·2	29th	48·6	2nd	43·6
		Naya Dumka	489	29·515		29·990	29·624	3rd	29·406	19th	·218	62·8	81·9		54·5		68·2		27·4	89·9	29th	44·5	2nd	45·4
		Berhampore	67	29·956	+·002	29·975	30·058	7th	29·856	28th	·202	61·3	81·7	−0·3	56·6	+0·1	69·2	−0·1	25·1	89·8	28th	47·9	2nd	41·9
		Rampur Boalia	70	29·951		29·974	30·057	7th	29·845	28th	·212	61·5	81·4		55·6		68·5		25·8	88·3	29th	47·1	2nd	41·2
		Malda	72	29·931?		29·958?	30·061	2nd	29·806	28th	·255	62·2	79·6		54·2		66·9		25·4	85·6	25th & 27th.	44·8	2nd	40·8
		Bogra	61	29·945	+·014	29·962	30·053	2nd	29·830	28th	·223	57·8	80·9	+0·7	54·5	0	67·7	+0·4	26·4	88·2	29th	45·7	2nd	42·5
12	North Bengal	Dinajpur	123	29·898	+·013	29·984	30·013	3rd	29·774	28th	·239	60·8	80·6	+1·2	52·7	−0·4	66·7	+0·4	27·9	88·3	29th	42·9	2nd	45·4
		Rangpur	123	29·907		29·992	30·018	3rd	29·776	28th	·242	59·6	79·0		53·9		66·5		25·1	86·3	29th	43·6	2nd	42·7
		Jalpaiguri	284	29·731	+·006	29·988	29·863	3rd	29·584	28th	·279	60·3	77·2	+0·7	53·7	+0·9	65·5	+0·8	23·5	83·6	29th	45·5	4th	38·1
		Cooch Behar	156	29·865		29·986	29·995	3rd	29·709	28th	·286	58·6	77·8		55·2		66·5		22·6	84·2	29th	46·7	4th	37·5
17	North Bihar	Purnea	125	29·898	+·016	29·986	30·031	3rd	29·769	28th	·262	56·1	81·1	+2·0	49·7	−1·7	65·4	+0·2	31·4	87·5	29th	43·1	1st & 2nd.	44·4
14	Orissa	Balasore	50	29·970	−·011	29·965	30·090	2nd	29·867	19th	·223	64·9	84·4	−1·0	59·0	−2·9	71·7	−2·0	25·4	92·4	29th	49·4	3rd	43·0
		False Point	21	30·007	+·006	29·970	30·095	25th	29·904	19th	·191	68·6	81·9	−0·9	59·6	−5·2	70·8	−3·1	22·3	88·5	28th	49·5	3rd	39·0
		Cuttack	80	29·947	+·010	29·974	30·055	3rd	29·846	19th	·209	65·8	87·5	−2·6	62·4‡	−3·3	75·0	−3·0	25·1	95·4	29th	51·6	3rd	43·8
		Puri	24	30·004		29·967	30·109	3rd	29·916	19th	·193	70·3	81·4		66·3		73·9		15·1	85·7	26th	55·6	3rd	30·1
	V.—Gangetic Plain and Chota Nagpur.				+·010								80·4	+0·9	52·6	−0·7	66·4	+0·1	27·8					44·0
15	Chota Nagpur	Hazaribagh	2,007	27·961	+·004	29·999	28·084	25th	27·858	18th & 19th.	·226	61·3	78·8	+0·8	51·0	−0·5	66·4	+0·2	24·8	85·2	17th	44·2	2nd	41·0
		Ranchi	2,128	27·850	+·013	30·010	27·955	25th	27·757	18th & 19th.	·198	60·3	78·1	+0·2	54·7	−0·1	66·6	+0·1	23·7	85 1	18th	45·1	2nd	40·0
16	South Bihar	Daltonganj	*730*	29·304		30·032	29·417	25th	29·180	18th	·237	60·1	82·2		48·1		65·2		34·1	88·0	21st	37·3	2nd	50·7
15	Chota Nagpur	Purulia	*816*	29·182		29·983	29·256	3rd	29·080	19th	·216	63·0	83·3		56·6		69·9		26·7	91·5	29th	46·9	2nd	44·6
		Chaibassa	*760*	29·247	+·016	29·999	29·346	3rd	29·144	19th	·202	59·9	81·8*	−3·4	56·2	−2·1	67·4*	−2·8	25·6	88·7	17th	44·1	2nd	44·3
16	South Bihar	Gaya	375	29·649	+·007	30·000	29·767	3rd	29·543	18th	·224	60·8	82·0	+0·7	54·4	−1·8	68·2	−0·6	27·6	88·2	21st	44·5	2nd	43·7
		Dehri	351	29·665		29·992	29·782	3rd	29·539	18th	·243	60·4	81·5		56·5		69·0		25·0	88·2	21st	47·4	3rd	40·8
		Patna	183	29·846	+·010	29·993	29·982	3rd	29·738	28th	·244	59·4	79·9	+1·7	54·0	+0·4	67·0	+1·1	25·9	85·1	23rd	45·4	2nd	39·7
		Arrah	190	29·838		29·994	29·968	3rd	29·727	19th	·241	57·6	80·7		52·0‡		66·6‡		28·7	87·5	21st	44·3	4th & 8th.	43·2
		Buxar	239	29·780		29·990	29·907	3rd	29·670	18th	·237	59·5	80·1		53·1		66·6		27·0	87·9	21st	44·4	1st	43·5
17	North Bihar	Bhagalpur	160	29·851		29·974	29·987	3rd	29·737	28th	·250	62·5	81·5		54·0		67·7		27·5	88·2	26th	44·6	2nd	43·6
		Darbhanga	166	29·848	+·005	29·979	29·995	3rd	29·723	28th	·272	58·7	79·0	+2·2	53·7	−0·7	66·3	+0·8	25·3	83·7	28th	46·3	1st	37·4
		Muzaffarpur	178	29·840		29·985	29·986	3rd	29·724	28th	·262	58·4	79·6		51·4		65·5		28·2	85·4	28th	42·3	1st	43·1
		Motihari	224	29·805?		30·000?	29·966	3rd	29·691	20th	·275	61·9	79·3		50·5		65·0		28·8	85·4	28th	39·1	1st	46·3
		Chapra	181	29·829		29·977	29·961	3rd	29·718	19th	·244	57·2	80·3		52·4		66·4		27·9	86·7	28th	42·8	1st	43·9
18	United Provinces (East).	Benares	267	29·755	+·007	29·995	29·868	25th	29·642	18th	·226	58·5	80·1	0	49·5	−2·5	65·0	−1·3	30·9	89·6	21st	40·6	1st	49·0
		Allahabad	309	29·715	+·008	29·998	29·819	25th	29·599	20th	·220	58·4	80·0	−0·2	51·2	−0·6	65·6	−0·4	28·8	86·6	21st	40·6	1st	46·0
23	United Provinces (East Submontane.)	Gorakhpur	257	29·743	+·004	29·972	29·887	3rd	29·646	19th	·241	59·5	78·6	+0·6	52·8	+0·2	65·7	+0·4	25·8	85·9	28th	45·1	1st & 3rd.	40·8
19	South Oudh	Lucknow	368	29·647	+·011	29·998	29·776	3rd	29·528	20th	·248	57·1	82·5	+3·7	50·4	−0·5	66·5	+1·6	32·1	89·3	27th, 28th & 29th.	42·2	1st & 3rd.	47·1
20	North Oudh	Bahraich	401	29·586	+·004	29·973	29·721	3rd	29·474	20th	·247	57·7	78·0	+1·3	51·1	+0·4	64·6	+0·9	26·9	85·1	27th	40·6	1st	44·5
21	United Provinces (Central).	Cawnpore	416	29·600	+·021	29·998	29·722	25th	29·476	20th	·246	57·0	79·8	+1·0	50·1	−1·2	65·0	−0·1	29·7	86·3	29th	40·5	1st	45·8
		Mainpuri	516	29·498	+·025	30·008	29·621	25th	29·396	18th	·225	55·6	80·1	+3·3	49·7	−0·7	64·9	+1·3	30·4	88·3	29th	39·5	1st	48·8

‡ Mean of 27 days.

* Mean of 20 days.

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

Note 1.—When a query is inserted against any reading or in the returns of any

Note 2.—The data from which divisional means of the figure columns Nos. 41,

I—*continued.*

in India, Burma, etc., in February, 1904—continued.

Wind Direction. Number of winds from Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	Wind Velocity. Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	Hygrometry, 8 A.M. Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Cloud. Mean cloud amount at 8 A.M.	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. 1903 to 29th February, 1904.	Normal rainfall for period, 1st Dec. to 29th February.	Departure from normal of period, 1st Dec. 1903 to 29th February, 1904.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
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	58
			1						E	1·4			1·6	60		·377		0·5		1	1·88	− 0·88	0·81	1·03	− 0·22	0·81	1·50	− 0·69	0·78	Bankura	Central Bengal	11
28																																
15	3					1	3	7	N 52° W	1·9				62		·335		0·7		1	1·52	− 0·52	0·37	1·05	− 0·68	0·37	1·56	− 1·19	0·37	Raniganj.		
20	3					1	2	3	N 51° W	1·6	2·3	− 30		72	+4·5	·419	+·003	1·5†	−1·0	1	1·58	− 0·58	0·64	0·92	− 0·28	0·64	1·32	− 0·68	0·60	Burdwan.		
24	1				1	1		2	S 63° W	1·8			2·1	59		·692		1·7		0	1·62	− 1·62	0·11	0·70	− 0·59	0·11	1·45	− 1·34	0·09	Naya Dumka.		
20	2					1	2	4	N 56° W	1·1	2·4	− 54	1·0	79	−1·1	·430	−·015	1·5	−0·7	2	1·65	+ 0·35	1·19	0·97	+ 0·22	1·19	1·49	− 0·30	1·01	Berhampore.		
26	1	1				1			N	0·8				78		·433		0·2		1	1·35	− 0·35	0·18	0·84	− 0·66	0·18	1·25	− 1·07	0·11	Rampur Boalia.		
	8	5	1	2	4	3	2	4	N 8° W	4·3			4·0	75		·428		0		1	1·23	− 0·23	0·60	0·75	− 0·15	0·85	1·67	− 0·82	0·60	Malda.		
20	1	3	2		2	1			N 82° E	1·5			1·3	84	+4·6	·412	−·009	1·2‖	−0·6	1	1·52	− 0·52	0·66	0·85	− 0·19	0·90	1·44	− 0·54	0·58	Bogra.		
	6	4	4		1	4	6	4	N 32° W	2·2			2·0	78	−1·8	·416	+·023	1·8†	+0·3	1	1·39	− 0·39	0·18	0·37	− 0·19	0·20	0·92	− 0·72	0·11	Dinajpur	North Bengal	12
16		6	3			2	2		N 53° E	1·1			1·2	87		·416		0·9†		3	1·13	+ 1·67	3·94	0·43	+ 3·51	3·96	1·01	+ 2·95	3·65	Rangpur.		
	11	7	3	2			1	5	N 16° E	0·7			0·8	84	−1·5	·445	+·063	1·5§	0	3	1·03	+ 1·97	2·80	0·45	+ 2·35	2·80	0·99†	+ 1·81	1·68	Jalpaiguri.		
16	2	3	7	1					N 73° E	1·2			1·2	90		·447		1·7†		4	1·21	+ 2·79	1·69	0·42	+ 1·27	1·73	0·93	+ 0·80	0·78	Cooch Behar.		
13	2	3					7	4	N 49° W	2·7	2·5	+ 8	2·3	81	−3·3	·371	−·022	0·3	−1·2	0	1·13	− 1·13	0	0·56	− 0·56	0·10	1·13	− 1·03	0	Purnea	North Bihar	17
9	6				1	5	1	7	N 59° W	3·0			2·2	71	−6·6	·451	−·075	0·9†	−2·1	2	2·16	− 0·16	1·48	1·20	+ 0·28	1·55	1·65	− 0·10	0·91	Balasore	Orissa	14
1	4					1	8	15	N 54° W	6·5	7·5	− 13	6·8	85	−1·9	·598	−·069	2·1†	−1·0	1	1·29	− 0·29	0·48	0·95	− 0·47	0·48	2·10	− 1·62	0·44	False Point.		
23		2	1			1	2		N 20° W	1·7	2·2	− 23		79	+1·5	·511	−·051	1·6†	−0·8	1	1·16	− 0·16	0·18	0·46	− 0·28	0·21	0·89	− 0·68	0·15	Cuttack.		
10	6	1				2	2	8	N 39° W	13·1			11·9	82		·624		1·3		0	1·08	− 1·08	0·03	0·99	− 0·96	0·25	1·90	− 1·65	0·03	Puri.		
														67	−0·6	·347	−·010	1·6	−0·5				0·25	0·67	−0·41					V.—Gangetic Plain and Chota Nagpur.		
7	1		1		2	5	6	7	N 88° W	7·3	6·5	+ 12	6·5	51	−6·0	·284	−·020	1·8	−0·8	2	1·84	+ 0·16	·44	0·76	− 0·32	0·55	1·44	− 0·89	0·31	Hazaribagh.	Chota Nagpur	15
6	1				3	2	4	13	N 68° W	4·8			5·7	52	−7·3	·274	−·052	1·6	−0·5	1	2·10	− 1·10	0·46	1·36	− 0·90	0·46	1·74	− 1·28	0·32	Ranchi.		
20	1	1	3	1			2	1	N 45° E	4·3			3·5	56		·304		0·6		1	1·30	− 0·30	0·38	0·53	− 0·15	0·45	1·58	− 1·13	0·38	Daltonganj	South Bihar	16
2							17	10	N 74° W	5·6			6·9	57		·337		1·2		2	1·97	+ 0·03	0·68	1·02	− 0·34	0·68	1·64	− 0·96	0·56	Purulia	Chota Nagpur	15
18						6	5		S 66° W	1·2			1·0	71	+2·4	·373	−·050	1·3	−0·8	2	1·61	+ 0·39	1·73	1·26	+ 0·47	1·73	1·50	+ 0·23	1·63	Chaibassa.		
14		1			7	3	4		S 32° W	5·5	2·6	+112	4·3	57	?	·314	?	2·0	−0·3	0	1·39	− 1·39	0·09	0·63	− 0·54	0·60	1·39	− 0·79	0·05	Gaya	South Bihar	16
3					11	13	1	1	S 29° W	4·4			3·9	63		·338		1·7¶		0	1·29	− 1·29	0·07	0·52	− 0·45	0·13	1·43	− 1·30	0·07	Tehri.		
1		2		4	8	5	9		S 32° W	5·3	2·9	+ 83	5·3	71	+3·5	·370	−·001	2·2	−0·2	1	1·16	− 0·16	0·52	0·60	− 0·08	0·89	1·26	− 0·37	0·52	Patna.		
10				5	1	12	1		S 25° W	2·4			2·3	67		·325		0·3		0	1·10	− 1·10	0	0·61	− 0·61	1·06	1·62	− 0·56	0	Arrah.		
3			1	2	3	15	5		S 41° W	5·8			5·4	63		·331		2·7		0	1·39	− 1·39	0	0·52	− 0·52	1·51	1·50	+ 0·01	0	Buxar.		
17			1		1	4	6		S 63° W	2·5			2·3	61		·350		0·5†		1	1·52	− 0·52	0·29	0·68	− 0·39	0·59	1·30	− 0·71	0·29	Bhagalpur	North Bihar	17
22				1		1	3	2	W	1·7	3·3	− 48		82	+4·7	·407	+·015	0·1	−1·5	0	1·23	− 1·23	0	0·51	− 0·51	0·03	1·20	− 1·17	0	Darbhanga.		
17		2	1			2	1	3	N 68° W	1·8				80		·393		0·4		0	1·27	− 1·27	0	0·47	− 0·47	0·10	1·33	− 1·23	0	Muzaffarpur.		
6		3	6	2		5	7		S 18° W	3·3			3·2	74		·413		0·8		0	1·00	− 1·00	0	0·37	− 0·37	0·22	1·10	− 0·88	0	Motihari.		
8		2	2		6	8	3		S 27° W	2·4			2·1	75		·358		3·1**		1	1·13	− 0·30	0·30	0·49	− 0·19	0·81	1·32	− 0·51	0·30	Chapra.		
16					1	8	4		S 55° W	2·0	4·1	− 54	2·3	74	−2·4	·373	−·005	2·6	+0·4	0	1·20	− 1·20	0	0·46	− 0·46	0·82	1·31	− 0·52	0	Benares	United Provinces (East).	18
10	2	1	1	1	1	4	5	4	N 83° W	3·6	4·2	− 14	3·0	72	+2·9	·361	0	3·0	+0·5	0	1·00	− 1·00	0	0·47	− 0·47	0·30	1·47	− 1·17	0	Allahabad.		
9	1	4		1	2	6	5	1	S 69° W	1·4	2·3	− 39		68	−4·5	·365	+·001	3·4	+1·5	0	1·30	− 1·30	0	0·49	− 0·49	0·22	1·39	− 1·17	0	Gorakhpur	United Provinces (East Submontane)	23
21	3				1	2	2		N 48° W	1·1	3·3	− 67	1·2	67	−4·9	·312	−·032	2·0	−0·8	0	1·20	− 1·20	0	0·44	− 0·44	0·20	1·78	− 1·58	0	Lucknow	South Oudh	19
16	1	1		1		1	3	6	N 55° W	1·8			1·7	85	+7·0	·405	+·037	0·4	−2·6	0	1·60	− 1·60	0	1·01	− 1·01	0·69	2·27	− 1·58	0	Bahraich	North Oudh	20
9	1	2	1		2	8	6		S 60° W	3·4				72	+4·8	·348	+·014	2·7	+0·8	0	1·00	− 1·00	0·05	0·48	− 0·43	0·20	1·33	− 1·13	0·05	Cawnpore	United Provinces (Central)	21
7	1	2	2	2		2	9	4	N 74° W	3·2			3·2	65	−7·4	·297	−·030	1·4	−2·4	1	0·70	+ 0·30	0·54	0·96	− 0·42	0·59	2·03	− 1·44	0·51	Mainpuri.		

station, the data for that station are not utilized in calculating the provincial departures from normal.

43 and 45 are derived are incomplete.

† Mean of 28 days. ‖ Mean of 25 days. ** Mean of 23 days.

¶ Mean of 26 days. § Mean of 24 days.

Table

Abstract of Observations taken at 8 A.M. at 233 Stations

Number of District.	Meteorological Province or District.	Station.	Elevation of barometer above sea-level, in feet.	Pressure, 8 A.M., in inches.								Temperature of air.												
				Mean: 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
	VI.—Upper Sub-Himalayas.				+·015								75·7	+ 3·7	47·2	+ 0·2	61·5	+ 2·0	28·5					44·2
24	United Provinces (West Submontane).	Bareilly .	568	29·419	+·006	29·990	29·534	25th	29·330	19th	·204	54·5	77·5	+ 2·5	49·6	−0·1	63·6	+1·2	27·9	84·4	29th	39·1	1st	45·3
		Dehra Dun .	2,233	27·727	+·015	30·029	27·856	25th	27·646	19th	·210	52·2	72·7	+ 3·5	47·7	+0·7	60·2	+2·1	25·0	78·0	28th & 29th.	39·0	1st	39·0
		Roorkee .	899	29·082	+·014	30·015	29·203	25th	28·983	20th	·220	51·1	76·6	+ 3·5	46·6	−1·1	61·6	+1·2	30·0	82·3	29th	36·3	1st	46·0
22	United Provinces, West.	Meerut . .	738	29·248	+·003	30·006	29·376	25th	29·135	20th	·241	51·7	78·8	+ 4·3	47·5	−0·9	63·2	+1·7	31·3	86·5	29th	38·2	1st	48·3
26	South-East Punjab.	Delhi . .	718	29·292	+·017	30·016	29·396	25th	29·156	20th	·240	55·4	77·2	+ 2·4	51·9	+0·1	64·6	+1·3	25·3	83·7	29th	43·9	1st	39·8
28	Central Punjab.	Lahore . .	702	29·305	+·008	30·035	29·463	25th	29·184	19th	·279	49·5	75·4	+ 2·7	45·4	+1·3	60·4	+2·0	30·0	82·8	27th	35·1	1st	47·7
27	South Punjab .	Sirsa . .	662	29·358	+·021	30·039	29·487	25th	29·225	19th	·262	51·2	78·1	+ 2·9	45·7	−1·1	61·9	+0·9	32·4	82·8	29th	34·0	1st	48·8
		Patiala . .	*818*	29·176		30·020	29·306	25th	29·073	19th	·233	52·6	75·3		47·0		61·2		28·3	81·9	29th	39·0	1st	42·9
29	Punjab Submontane.	Ludhiana .	812	29·183	+·017	30·025	29·319	25th	29·078	19th	·241	50·8	74·7	+ 3·5	46·9	−0·6	60·8	+1·5	27·8	81·6	29th	39·1	1st & 2nd.	42·5
		Sialkot . .	830	29·171	+·023	30·034	29·332	25th	29·062	19th	·270	52·2	75·3	+ 5·7	48·3	+2·2	61·8	+4·0	27·0	82·6	27th & 29th.	40·1	1st	42·5
		Umballa .	892	29·094	?	30·019	29·226	25th	29·002	19th	·224	52·3	77·6	+ 6·1						83·5	29th			
		Rawalpindi	1,674	28·325	+·025	30·092	28·490	25th	28·216	19th	·274	48·1	71·0	+ 6·2	42·7	+1·3	56·9	+3·8	28·3	78·9	29th	35·0	1st	43·9
	VII.—Indus Valley and North-West Rajputana.				+·008								80·1	+ 4·7	50·4	+ 1·0	65·3	+ 2·8	29·7					43·1
32	N.-W. Frontier Province.	Peshawar .	1,110	28·937	+·008	30·112	29·092	25th	28·822	19th	·270	49·4	71·3	+ 5·2	43·9	+1·3	57·6	+3·3	27·4	79·6	28th	37·9	5th	41·7
		D. I. Khan .	590	29·461	+·004	30·053	29·613	25th	29·343	19th	·270	49·5	76·8	+ 4·9	44·2	−0·7	60·5	+2·1	32·6	83·3	27th	39·1	1st	44·2
31	West Punjab .	Khushab .	612	29·428	+·031	30·056	29·595	25th	29·303	29th	·292	53·9	76·6	+ 7·9	47·2	+1·1	61·9	+4·5	29·4	82·3	13th & 27th.	39·9	1st	42·4
		Montgomery .	558	29·473	+·027	30·043	29·614	25th	29·355	19th	·259	53·6	76·7	+ 3·9	46·1	−0·3	61·4	+1·8	30·6	84·8	29th	35·5	1st	49·3
		Mooltan .	420	29·617	−·003	30·034	29·762	25th	29·485	19th	·277	54·7	79·0	+ 5·3	49·1	+1·6	64·1	+3·5	29·9	83·6	28th	43·9	2nd	39·9
47	Sind . . .	Jacobabad .	186	29·860	0	30·022	29·980	10th	29·728	28th	·252	55·5	83·0	+ 5·1	49·7	+1·2	66·4	+3·2	33·3	88·5	28th.	42·1	4th	46·4
		Hyderabad .	96	29·944	−·015	29·997	30·072	11th	29·807	18th	·265	62·8	85·3	+ 4·5	57·0	+2·6	71·2	+3·6	28·3	89·6	15th & 18th.	50·0	5th	39·6
		Kurrachee .	30	30·021	−·007	30·004	30·153	11th	29·906	18th	·247	64·3	82·6	+ 2·9	60·3	+2·3	71·5	+2·6	22·3	87·4	12th & 24th.	53·2	14th	34·2
51	West Rajputana	Bikaner .	*771*	29·243	+·019	30·031	29·363	25th	29·058	19th	·305	56·6	79·4	+ 3·5	51·8	−1·7	65·6	+0·9	27·6	84·2	29th	43·1	1st	41·1
		Pachpadra .	*380*	29·680	+·013	30·014	29·773	11th	29·492	19th	·281	56·3	86·2	+ 3·0	50·1	+1·2	68·2	+2·1	36·1	90·9	16th	39·0	6th	51·9
		Jodhpur .	782	29·236		30·043	29·346	6th	29·074	19th	·272	60·5	83·9		55·2		69·6		28·7	89·1	16th	45·7	5th	43·4
	VIII.—East Rajputana, Central India and Gujarat.				+·005								83·8	+ 1·4	56·0	+ 0·9	69·9	+ 1·2	27·8					42·5
50	East Rajputana	Jaipur . .	1,431	28·585	+·019	30·051	28·708	25th	28·461	19th	·247	59·4	81·2	+ 2·6	52·2	+0·3	66·7	+1·5	29·0	85·2	19th	38·0	1st	47·2
		Bharatpur .	585	29·440		30·025	29·553	25th	29·320	20th	·233	55·6	80·5							85·5	29th			
		Kotah . .	819	29·197		30·060	29·332	25th	29·062	19th	·270	60·5	82·3		55·9		69·1		26·4	89·0	20th	49·0	6th & 7th.	40·0
		Sambhar .	1,254	28·756	+·022	30·053	28·867	25th	28·627	19th	·240	53·8	80·7	+ 3·3	48·6	−1·1	64·7	+1·1	32·1	85·4	20th & 29th.	39·0	1st	46·4
		Ajmer . .	1,611	28·406	+·011	30·062	28·517	25th	28·254	19th	·263	56·8	80·5	+ 2·7	51·6	+2·2	66·1	+2·5	28·9	83·9	4th	41·9	12th	42·0
		Udaipur .	1,925	28·090		30·051	28·220	25th	27·969	19th	·251	60·2	81·2		51·5		66·3		29·7	86·5	14th	42·2	5th & 6th.	44·3
		Deesa . .	466	29·543	−·010	29·986	29·686	25th	29·433	17th	·253	63·9	90·5	+ 4·0	56·5	+1·4	73·5	+2·7	34·0	96·1	16th	49·6	6th & 13th.	46·5
46	Kathiawar and Cutch.	Bhuj . .	395	29·629	−·003	29·993	29·717	4th & 6th.	29·542	18th	·175	67·0	85·8	+ 1·5	58·8	+0·7	72·3	+1·1	27·0	91·8	16th	53·0	7th	38·8
		Jamnagar .	61	29·970		29·976	30·065	4th	29·873	28th	·192	64·4	85·4		58·5		71·9		26·9	91·0	12th	51·8	7th	39·2
		Rajkot . .	429	29·587	−·009	29·986	29·668	4th	29·480	28th	·188	64·7	87·8*	+ 0·6*	56·5	+ 2·0	72·2*	+1·3	31·3	94·9	16th	50·0	8th & 9th.	44·9
		Veraval .	*18*	29·994	−·009	29·954	30·071	25th	29·918	28th	·153	68·3	84·0	+ 2·5	63·0	+ 2·3	73·5	+2·4	21·0	95·6	13th	55·3	3rd & 16th.	37·3
		Dwarka .	37	29·993		29·978	30·078	6th	29·910	28th	·168	70·3	79·5		63·6		71·6		15·9	89·4	12th	57·1	7th	32·3
		Bhavnagar Para.	55	29·974	?	29·974	30·094	25th	29·866	28th	·228	65·8	88·9	+ 3·0	59·5	?	74·2	?	29·4	95·6	16th & 17th.	48·5	5th	47·1
43	Central India	Nowgong .	757	29·255	?	30·021	29·399	25th	29·125	20th	·274	55·2	78·7	−1·6	50·0	−1·1	64·4	−1·4	28·7	85·0	21st	39·5	1st	45·5
		Indore .	1,823	28·180	+·012	30·031	28·337	25th	28·065	17th	·272	61·0	82·3	− 1·0	52·0	−0·1	67·2	−0·6	30·3	91·6	16th & 17th.	44·1	7th	47·5

* Mean of 28 days.

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

Note 1.—When a query is inserted against any reading or in the returns

Note 2.—The data from which divisional means of the figure columns

I—*continued.*

in India, Burma, etc., in February, 1904—continued.

Wind Direction. Number of winds from Calm	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	Wind Velocity. Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	Hygrometry, 8 A.M. Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Cloud. Mean cloud amount at 8 A.M.	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. 1903, to 29th Feb., 1904.	Normal rainfall for period, 1st Dec. to 29th Feb.	Departure from normal of period, 1st Dec., 1903, to 29th Feb., 1904.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
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	58
														68	−9·0	·264	−·037	2·3	−1·4				0·03	1·37	−1·34					VI.—Upper Sub-Himalayas.		
16		1	1	1		1	2	5	2	S 81° W	1·3*	4·0	−68	1·2*	68	−7·9	·292	−·032	2·1	−1·0	0	1·18	−1·18	0·01	0·74	−0·73	0·26	2·12	−1·86	0·01	Bareilly	United Provinces (West Submontane).	24
19	1				1	3		4	1	S 63° W	1·2	2·0	−40		67	−7·1	·261	−·017	3·5	−0·3	0	4·10	−4·10	0·06	2·21	−2·15	2·59	5·39	−2·80	0·06	Dehra Dun.		
16	2		2				1	2	6	N 42° W	3·0	2·8	+ 7		73	−6·5	·275	−·033	1·8	−1·5	0	2·90	−2·90	0	1·32	−1·32	0·99	3·61	−2·62	0	Roorkee.		
18	2			1			1	6	1	N 79° W	1·7	2·6	−35	1·7	62	−10·5	·244	−·059	1·9	−1·2	0	1·50	−1·50	0	0·90	−0·90	0·26	2·73	−2·47	0	Meerut .	United Provinces, West.	22
7	1		1	2	1	1	12	4		N 87° W	3·8	3·6	+ 6	3·4	52	−12·7	·234	−·048	2·9	−0·8	0	1·40	−1·40	0	0·71	−0·71	0·14	2·47	−2·33	0	Delhi .	South-East Punjab.	26
19	1			1	1		2	6		N 59° W	1·9	2·4	−21		80	+1·7	·286	−·009	2·3	−1·3	0	2·20	−2·20	0	1·10	−1·10	1·70	2·60	−0·90	0	Lahore .	Central Punjab	28
9	1	3	4	4		2	3	3		N 69° E	2·8	3·4	−18	2·5	60	−12·6	·229	−·059	1·7	−2·4	0	1·10	−1·10	0	0·33	−0·33	0·10	1·48	−1·38	0	Sirsa .	South Punjab .	27
3	4	3	2	1	1	2	5	8		N 38° W	4·4			4·4	75		·285		2·7		0			0·08			1·33		0·08	Patiala.		
17		2					3	7		N 46° W	2·6	1·6	+63	2·3	69	−8·9	·258	−·050	1·7	−2·8	0	2·40	−2·40	0	1·30	−1·30	1·83	3·92	−2·09	0	Ludhiana .	Punjab Submontane,	29
19		2	4			1	1	2		N 46° E	1·0	1·7	−41		71	−8·0	·276	−·031	1·2	−2·0	0	3·50	−3·50	0	1·80	−1·80	3·63	4·83	−1·20	0	Sialkot.		
23		1						5		N 34° W	5·1				74	−10·1	·291	−·033	2·7	−0·7	1	2·30	−1·30	0·19	2·41	−2·22	1·79	4·85	−3·06	0·19	Umballa.		
23	1				1	1	1	2		N 77° W	2·8	2·4	+17	2·6	66	−16·2	·229	−·034	2·7	−1·6	0	4·40	−4·40	0·04	2·24	−2·20	5·79	5·72	+ 0·07	0·03	Rawalpindi.		
														52	−10·8	·238	−·029	2·1	−1·2				0·17	0·46	−0·29					VII.—Indus Valley and North-West Rajputana.		
13	1				9	4	2			S 24° W	1·4	3·3	−58	1·5	60	−16·0	·217	−·035	3·1	−1·4	0	2·90	−2·90	0·03	1·22	−1·19	4·36	3·15	+ 1·21	0·03	Peshawar .	N.-W. Frontier Province.	32
24	1	1					1	2		N 31° W	0·7	2·0	−65	0·7	62	−9·1	·223	−·037	2·4	−0·9	0	2·00	−2·00	0	0·77	−0·77	1·42	1·44	−0·02	0	D.I. Khan.		
7	3	6	3	2	3	2	1	2		N 59° E	4·3			4·1	54	−15·7	·226	−·006	2·6	−0·7	0	1·80	−1·80	0·03	0·69	−0·66	3·08	2·05	+ 1·03	0·03	Khushab .	West Punjab .	
4	7	5	2	5		1	1	4		N 26° E	4·2			3·9	51	−18·0	·213	−·062	2·1	−1·6	0	1·30	−1·30	0·07	0·67	−0·60	1·33	1·93	−0·60	0·04	Montgomery.		
22		3		4						S 82° E	1·1	2·4	−54	1·4	55	−13·0	·233	−·071?	1·7	−1·6	0	1·20	−1·20	0·01	0·43	−0·42	1·19	1·07	+ 0·12	0·01	Mooltan.		
21	1		3	1			2	1		N 45° E	1·0	3·0	−67	1·0	57	+0·5	·260	+·011	2·1	−1·3	0	0·90	−0·90	0·11	0·34	−0·23	0·79	0·70	+ 0·09	0·06	Jacobabad .	Sind . . .	47
3	4			2		2		18		N 43° W	6·3	7·0	−10	6·6	45	−12·3	·255	−·047	1·3	−1·4	1	0·60	+0·40	0·25	0·22	+ 0·03	0·75	0·51	+ 0·24	0·17	Hyderabad.		
9		7	7	4		1	1			N 84° E	5·3	10·5	−50	6·6	72	+2·8	·436	+·030	1·1	−1·0	2	0·80	+1·20	0·90	0·31	+ 0·59	2·36	1·10	+ 1·26	0·76	Kurrachee.		
8		4	5	7	4	1				S 56° E	3·2	3·7	−14		39	−13·6	·183	−·065	2·6	−0·7	0	0·80	−0·80	0	0·26	−0·26	0·39	0·82	−0·43	0	Bikaner .	West Rajputana	51
	1	14	9	3		1	1			N 67° E	5·0	3·3	+52	4·3	39	−13·7	·189	−·048	1·6	−1·2	1	0·30	+0·70	0·36	0·08	+ 0·28	0·38	0·58	- 0·20	0·36	Pachpadra.		
2	7	14	2			1	2	1		N 26° E	3·9			3·5	34		·181		2·8		0	0·50	−0·50	0·12	0·11	+ 0·01	0·12	0·49	− 0·37	0·07	Jodhpur.		
														58	−1·3	·334	−·004	2·2	+0·5				0·20	0·18	+0·04					VIII.—East Rajputana, Central India and Gujarat.		
10	3	6	1	1	1	1	3	3		N 1° E	3·2	4·4	−27		45	−11·8	·233	−·044	2·8	−0·1	1	0·50	+0·50	0·10	0·17	− 0·07	0·16	0·96	− 0·80	0·10	Jaipur .	East Rajputana	50
16						2	9	2		W	2·7			2·4	69		·313		2·1		1			0·15			0·37			0·12	Bharatpur.		
19	1	1	2	1	1	1	2	1		Calm	2·5			2·0	51		·276		2·1		0	0·50	−0·50	0·05	0·25	− 0·20	0·66	0·69	− 0·03	0·05	Kotah.		
19	3	2	2		1		2			N 23° E	3·2	5·3	−40		55	−3·9	·238	−·022	2·7	+0·2	0	0·50	−0·50	0·08	0·18	− 0·10	0·32	0·92	− 0·60	0·08	Sambhar.		
20	4	2		1			1	1		N 5° E	2·9	2·5	+16	2·6	60	−3·5?	·278	−·006	2·7	+0·4	0	0·70	−0·70	0	0·24	− 0·24	0·20	0·95	− 0·75	0	Ajmer.		
27				1				1		Calm	2·0			1·8	48		·257		1·8		0	0·30	−0·30	0·13			0·47			0·09	Udaipur.		
			17	8	2	1		1		N 64° E	8·3	9·0	− 8		36	−6·6	·225	−·022	1·9	−0·1	0	0·27	−0·27	0·01	0·07	− 0·06	0·30	0·28	+ 0·02	0·01	Deesa.		
		5	2	3	1	5	6	7		N 75° W	6·9	6·7	+ 3	5·8	63	+3·7	·420	+·042	1·2	−0·1	0	0·30	−0·30	0·04	0·09	− 0·05	0·18	0·23	− 0·05	0·04	Bhuj .	Kathiawar and Cutch.	46
	1	5	5	3	6	4	4	1		S 28° E	9·6			11·6	71		·437		2·1		0			0·01			0·19			0·01	Jamnagar.		
5	2	3	10	2	1		5	1		N 73° E	5·0	6·2	−19	5·0	59	+0·2	·370	+·002	1·6	+0·6	1	0·30	+0·70	0·46	0·09	+ 0·37	0·46	0·17	+ 0·29	0·46	Rajkot.		
1	12	10	1	1				4		N 16° E	8·1	5·8	+40	8·1	58	−1·0	·402	+·001	2·4	+1·2	0	0·10	−0·10	0·04	0·01	+ 0·03	0·04	0·10	− 0·06	0·02	Veraval.		
	9	6	2	1		2	2	7		N 5° W	11·6				78		·583		2·7		0			0·11			0·22			0·09	Dwarka.		
				3		6	4	16		N 74° W	4·6			5·5	53	−9·1	·347	−·048	2·7	+1·6	1	0·20	+0·80	0·52	0·07	+ 0·45	0·52	0·21	+ 0·31	0·52	Bhavnagar Para.		
8	5	2	2		2	6	3	1		N 79° W	1·7	1·7	0	1·7	70	+3·5?	·321	−·014	3·3	+0·8	0	1·00	−1·00	0·04	0·48	− 0·44	0·26	1·74	− 1·48	0·02	Nowgong .	Central India	49
9	2	6	7	3	2		1			N 85° E	3·5	3.0	+17	2·8	56	+4·1	·300	+·006	3·3	+2·0	4	0·50	+3·50	1·13	0·18	+ 0·95	1·14	0·51	+ 0·63	0·40	Indore.		

of any station, the data for that station are not utilized in calculating the provincial departures from normal.

Nos. 41, 43 and 45 are derived are incomplete.

Table

Abstract of Observations taken at 8 A.M. at 233 Stations

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 A.M., in inches.								Temperature of air.											
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8A.M. 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 A.M. 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	25
49	Central India	Neemuch	1,630	28·387	+·021	30·056	28·529	25th	28·284	19th	·245	59·0	81·6	+0·4	51·8	−0·3	66·7	+0·1	29·8	88·0	16th	42·3	6th	45·7
45	Gujarat	Surat	39	29·985	−·004	29·969	30·101	25th	29·893	27th	·208	68·1	90·6	+0·9	61·4	+2·4	76·0	+1·7	29·2	96·7	13th	55·0	1st	41·7
		Ahmedabad	163	29·854	−·001	29·972	29·955	25th	29·751	28th	·204	67·8	89·5	+2·0	62·1	+1·8	75·8	+1·9	27·4	96·2	16th	56·2	5th & 7th.	40·0
32	United Provinces, West.	Agra	555	29·458	?	30·014	29·545	24th	29·340	20th	·205	56·7	79·2	+0·6	53·3	+1·0	66·3	+0·8	25·9	86·5	29th	43·9	1st	42·6
21	United Provinces, Central.	Jhansi	858	29·172	+·012	30·032	29·299	25th	29·044	20th	·255	62·1	82·0	+0·8	57·0	+1·6	69·5	+1·2	25·0	87·2	20th, 21st† & 22nd.	48·2	1st	39·0
	IX.—Deccan.				+·012								87·1	−1·3	57·9	−1·3	72·5	−1·3	29·2					43·3
38	Bombay Deccan.	Belgaum	2,539	27·448	−·002	29·955	27·511	3rd	27·391	27th	·120	69·1	87·4	−1·2	58·7	−0·9	73·1	−1·1	28·7	91·3	16th & 17th.	54·9	5th	36·4
		Sholapur	1,590	28·402	−·005	29·979	28·488	3rd	28·345	28th	·143	70·2	91·7	−2·0	61·3	−0·9	76·5	−1·5	30·4	97·8	17th	51·6	2nd, 3rd & 4th.	43·2
		Poona*	1,840	28·156	−·007	30·014	28·257	25th	28·093	27th	·164	62·0	90·9	−0·8	57·3	−0·1	74·1	−0·5	33·6	97·0	16th	52·4	6th	44·6
		Bijapur	*1,948*	28·037	+·009	29·968	28·121	25th	27·977	28th	·144	69·9	90·2	−0·2	61·0	−3·2	75·6	−1·7	29·2	94·4	17th	52·1	3rd	42·3
40	Khandesh	Malegaon	1,430	28·568	−·004	30·003	28·713	25th	28·479	17th & 18th	·234	63·1	89·3	−0·6	55·1	−0·3	72·2	−0·5	34·2	97·9	16th	46·2	2nd	51·7
		Ahmednagar	2,152	27·856	+·018	30·013	27·949	25th	27·788	20th	·161	65·5	87·8	−0·3	55·1	0	71·5	−0·2	32·7	94·4	17th	47·5	1st	46·9
41	Berar	Akola	930	29·080	+·015	29·998	29·216	25th	28·977	16th	·239	65·6	90·6	−0·1	57·1	−0·4	73·9	−0·3	33·5	98·8	16th	45·9	2nd	52·9
		Amraoti	1,215	28·792	+·026	29·997	28·924	25th	28·683	18th	·241	68·5	89·0	−1·1	62·5	+0·8	75·8	−0·2	26·5	96·2	16th	55·0	7th	41·2
42	Central Provinces, West.	Khandwa	1,044	28·961	+·006	30·010	29·147	25th	28·841	17th	·306	62·2	89·2	+0·4	55·5	−0·4	72·4	0	33·7	97·7	15th & 16th.	45·1	6th & 7th.	52·6
		Hoshangabad	1,006	29·025	+·023	30·043	29·197	25th	28·892	17th	·305	60·6	84·7	−0·7	53·4	?	69·1	?	31·3	89·7	22nd	44·2	2nd	45·5
		Nagpur	1,025	28·985	+·020	30·007	29·097	25th	28·859	18th	·238	64·9	88·5	−0·8	58·9	−1·1	73·7	−1·0	29·6	94·1	17th	47·7	2nd	46·4
43	Central Provinces, Central.	Chanda	*634*	29·387	+·023	29·995	29·501	25th	29·276	18th	·225	65·2	90·1	−1·7	56·9	−2·3	73·5	−2·0	33·2	94·7	17th	45·1	8th	49·6
		Seoni	2,033	27·965	+·008	30·018	28·082	25th	27·842	18th	·240	62·6	82·5	−1·3	54·2	−1·2	68·4	−1·3	28·3	89·3	15th	43·5	2nd	45·8
		Jubbulpore	1,327	28·674	+·010	30·034	28·833	25th	28·548	18th	·285	55·6	80·8	−1·6	49·5	−2·9	65·2	−2·3	31·3	89·9	24th	39·4	2nd	50·5
		Saugor	1,807	28·261	+·026	30·035	28·361	25th	28·050	18th	·311	61·4	80·1	−1·2	56·3	+0·9	68·2	−0·2	23·8	87·9	17th	48·1	1st	39·8
49	Central India	Sutna(a)	1,040	28·970	+·015	30·034	29·066	25th	28·853	18th	·213	56·4	77·9	−1·7	52·5	+0·2	65·2	−0·8	25·4	84·9	21st	43·7	2nd	41·2
44	Central Provinces, East.	Raipur	970	29·035	+·010	29·995	29·138	25th	28·927	18th	·211	65·3	85·3	−2·1	57·2	−3·3	71·3	−2·7	28·1	90·6	28th	47·9	2nd	42·7
		Pendra	–	27·952?		30·017?	28·057	25th	27·841	18th	·213	59·4	79·1		53·1		66·1		26·0	83·8	16th	44·6	2nd & 3rd.	39·2
		Sambalpur	486	29·534	+·006	29·992	29·641	7th	29·432	18th	·209	64·2	86·3	−1·7	56·2	−3·7	71·3	−2·7	30·1	92·1	28th & 29th	45·2	2nd & 9th.	46·9
39	Hyderabad (North).	Aurangabad	1,905	28·093		29·983	28·185	25th	28·023	16th	·162	69·3	87·7		58·1		72·9		29·6	94·9	16th	49·2	3rd	45·7
		Indur	1,260	28·698?		29·938?	28·773	18th	28·610	8th	·163	71·1	88·3		54·9		71·6		33·4	94·3	23rd	46·1	4th & 9th.	48·2
		Bidar	*2,165*	27·845		29·982	27·943	25th	27·781	20th	·159	72·5	87·6		66·5		77·0		21·1	92·0	16th	62·5	3rd	29·5
53	Hyderabad (South).	Gulbarga	1,503	28·495	+·015	29·981	28·582	25th	28·441	20th	·141	70·5	91·3	−1·4	61·0	−3·3	76·2	−2·4	30·3	94·7	23rd	55·6	4th	39·1
		Raichur	1,326	28·665	?	29·967	28·710	3rd & 12th.	28·503	27th	·137	72·2	89·9	−2·9	66·7	−1·5	78·3	−2·2	23·2	95·1	18th	61·2	12th	33·9
		Hyderabad (Deccan).	1,696	28·305	+·018	29·993	28·388	25th	28·233	18th	·155	66·4	88·7	−2·6	61·1	−2·3	74·9	−2·5	27·6	92·4	17th, 23rd & 25th.	56·3	7th	36·1
		Hanumkonda	871	29·128		29·972	29·217	25th	29·040	18th	·177	69·3	88·7		64·0		76·4		24·7	92·0	4 days	58·2	2nd	33·8
	X.—West Coast.				−·002								86·2	−0·1	71·0	−0·2	78·7	−0·1	15·2					23·7
37	Konkan	Bombay	37	29·963	−·018	29·940	30·036	3rd	29·879	27th	·157	73·2	84·9	+2·3	70·7	+2·0	77·8	+2·2	14·2	91·0	12th & 14th.	67·0	6th	24·0
		Ratnagiri	110	29·879	−·003	29·931	29·935	3rd	29·809	27th	·126	73·7	86·5	+0·1	68·7	+1·4	77·6	+0·8	17·8	95·8	13th	63·9	1st, 2nd & 5th.	31·9
		Mormugao	*60*	29·940	?	29·990	30·011	7th	29·869	27th	·142	73·7	86·1	?	71·6	+0·4	78·9	?	14·5	90·0	13th	68·8	3rd, 9th & 10th	21·2
		Goa	199	29·808	−·004	29·949	29·872	7th	29·754	14th	·118	75·2	83·5	?	73·1	?	78·3	?	10·4	87·0	13th	71·0	1st, 6th & 7th.	16·0
		Karwar	44	29·956	−·002	29·935	30·019	7th	29·887	27th	·132	69·5	86·0	−0·3	66·3	−1·0	76·2	−0·7	19·7	91·8	12th	61·5	10th	30·3
33	Malabar	Cochin	10	29·977	−·004	29·915	30·033	3rd	29·918	14th	·115	75·8	89·4	−0·5	73·2	−0·5	81·3	−0·5	16·2	91·3	14th	67·8	9th	23·5
		Calicut	27	29·970	+·001	29·927	30·028	3rd	29·914	14th	·114	76·1	87·9	−0·8	71·5†	−1·1†	79·7†	−1·0	16·4	90·3	13th	67·2	9th & 10th.	23·1
		Mangalore	65	29·936	−·001	29·934	29·984	3rd	29·874	27th	·110	77·1	87·0	−1·1	71·6	−0·7	79·3	−0·9	15·4	92·7	26th	67·0	9th	25·7
		Trivandrum	198	29·781	+·017	29·913	29·836	8th	29·714	27th	·122	75·8	84·9	−0·1	72·6	−1·4	78·8	−0·8	12·3	87·5	15th	63·5	6th	18·0

Note 1.—When a query is inserted against any reading or in the returns

Note 2.—The data from which divisional means of the figure columns

* Mean of 26 days.

† Mean of 28 days.

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

(a) Thermometers temporarily removed to a verandah.

I—*continued.*

in India, Burma, etc., in February, 1904—continued.

Wind Direction. Number of winds from Calm.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Wind resultant.	Wind Velocity. Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	Hygrometry, 8 A.M. Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Cloud. Mean cloud amount at 8 A.M.	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., 1903, to 29th Feb., 1904.	Normal rainfall for period, 1st Dec. to 29th Feb.	Departure from normal of period, 1st Dec., 1903, to 29th Feb., 1904.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
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	58
6	6	12	1	3		1			N 43° E	5·6	9·1	—38	4·7	59	+10·6	·307	+·044	2·5	+1·2	1	0·50	+ 0·50	0·22	0·17	+ 0·05	0·46	0·66	— 0·20	0·12	Neemuch	Central India	49
1	4	9	7	1	3	2		2	N 63° E	5·1	5·4	— 6	4·8	60	—4·9	·410	—·027	2·0	+0·9	1	0·10	+ 0·90	0·50	0·08	+ 0·42	0·50	0·14	+ 0·36	0·42	Surat	Gujarat	45
		1	12	9	1	1		1	4 N 54° E	2·3			3·8	45	—4·9	·307	—·014	1·7	+0·3	2	0·30	+ 1·70	0·40	0·14	+ 0·26	0·40	0·24	+ 0·16	0·26	Ahmedabad.		
4			1		3		17		4 S 48° W	3·9	4·0	— 3	4·6	58	—7·1	·276	—·034	2·2	—0·2	0	0·60	— 0·60	0	0·29	— 0·29	0·36	1·11	— 0·75	0	Agra	United Provinces, West.	22
6	1	2		1	2	9	3	5	S 74° W	3·8	2·7	+41	4·6	67	+14·4	·375	+·079	0·9	—0·8	0	0·80	— 0·80	0·03	0·41	— 0·38	0·60	1·27	— 0·67	0·03	Jhansi	United Provinces, Central.	21
																							0·33	0·28	+0·05					IX.—Deccan.		
														54	—0·7	·353	—·024	1·7	+0·3													
17	1	2	5	3				1	N 83° E	7·8	10·0	—22		48	—0·2	·339	—·007	1·8	+0·9	0	0·10	— 0·10	0·01	0·03	— 0·02	0·18	0·19	— 0·01	0·01	Belgaum	Bombay Deccan.	38
2		3	6	11		1	1	5	S 74° E	7·7	6·5	+18	9·3	30	—9·5	·227	—·083	1·2	+0·3	0	0·10	—0·10	0	0·03	— 0·03	0·59	0·53	+ 0·06	0	Sholapur.		
1	2	5	4		1	2	6	5	N 27° W	7·5	6·3	+19		55	+3·5	·312	—·005	1·8	+1·0	0	0·10	— 0·10	0·07	0·06	+ 0·01	0·07	0·29	— 0·22	0·07	Poona.		
2	2	1	2	8	5	2	2	5	S 14° E	5·5			5·4	67	+11·1	·497	+·060?	0·6	—0·4	0	0·20	— 0·20	0	0·07	— 0·07	0·43	0·10	+ 0·33	0	Bijapur.		
1	1	3			1	1	15	7	N 71° W	5·6	5·0	+12	6·4	47	—9·5	·284	—·069	1·7	+0·4	1	0·10	+ 0·90	0·34	0·03	+ 0·31	0·34	0·40	— 0·06	0·22	Malegaon	Khandesh	40
1	2	1		1		1		3	N 23° W	3·7			4·5	59	+0·2	·379	—·003	1·8	+0·9	0	0·30	— 0·30	0	0·40	— 0·40	0·35	0·91	— 0·56	0	Ahmednagar.		
14	1	1	7	1			4	1	N 64° E	3·8	3·8	0	3·7	40	—4·5	·265	—·024	1·8	+0·3	0	0·30	— 0·30	0·01	0·17	— 0·16	0·03	1·25	— 1·22	0·01	Akola	Berar	41
	2	10	7	4	2	2	1	1	N 76° E	5·6	3·7	+51	5·0	45	—4·1	·325	—·024	1·6	+0·3	0	0·60	— 0·60	0·08	0·21	— 0·13	0·23	1·13	— 0·90	0·04	Amraoti.		
	3	8	2	8	1	1		6	N 56° E	4·3	3·6	+19		49	+3·3	·278	+·009	3·1	+1·9	3	0·30	+ 2·70	1·66	0·05	+ 1·61	1·66	0·74	+ 0·92	0·97	Khandwa	Central Provinces, West.	4
		28				1			N 45° E	1·1	2·9	—62	1·1	48	—9·6	·260	—·063	2·3	+0·9	4	0·50	+ 3·50	1·98	0·27	+ 1·71	2·18	1·06	+ 1·12	1·20	Hoshangabad.		
4	18	2	2	2				1	N 13° E	4·0	5·1	—22	3·2	48	—4·2	·310	?	2·1	+0·3	1	0·90	+ 0·10	0·19	0·38	— 0·19	0·26	1·29	— 1·03	0·19	Nagpur.		
24			4	1					S 81° E	0·6	2·7	—78	0·5	60	0	·394	—·025	1·1	—0·2	1	0·60	+ 0·40	0·36	0·49	— 0·13	0·38	1·13	— 0·75	0·31	Chanda	Central Provinces, Central.	43
	6	10	4	3	2	2		2	N 49° E	5·3	2·9	+83	4·5	58	—3·5	·336	—·031?	2·3	+0·1	1	1·50	— 0·50	0·73	0·88	— 0·15	0·73	1·93	— 1·20	0·68	Seoni.		
1	1		4	11	8	1	1	2	S 32° E	2·3	2·5	— 8	2·0	72	+6·4	·331	—·016	2·1	0	3	1·10	+ 1·90	0·69	0·56	+ 0·13	0·86	1·61	— 0·75	0·31	Jubbulpore.		
	1	5	9	4	5	2	2	1	S 70° E	5·9	2·8	+111	5·3	42	—9·5	·232	—·048	2·6	+1·2	2	0·80	+ 1·20	0·55	0·41	+ 0·14	0·56	1·75	— 1·19	0·35	Saugor.		
10	2		1	1		2	8	5	N 73° W	2·7	4·7	—43	2·4	64	+4·6	·299	—·009	3·5	+1·8	1	1·50	— 0·50	0·13	0·65	— 0·52	0·55	2·00	— 1·45	0·13	Sutna	Central India	49
10	3	6	6	2		1	1		N 63° E	2·9	3·7	—22	3·5	53	+0·5	·341	—·014	1·7	—0·4	0	0·70	— 0·70	0·06	0·35	— 0·29	0·06	0·80	— 0·74	0·04	Raipur	Central Provinces, East.	44
																							0·83			0·83			0·33	Pendra.		
17	3				3	2		4	N 71° W	3·5			3·0	53		·282		0·7		3											
	2	10	5	7	2	1	1	1	N 82° E	4·4	1·7	+159	4·3	61	—6·3	·380	—·078	1·3	—0·7	2	1·00	+ 1·00	0·91	0·51	+ 0·40	0·91	1·03	— 0·12	0·53	Sambalpur.		
11	3	5	7	1			2		N 56° E	7·8			7·7	54		·392		2·2		0	0·20	— 0·20	0·04	0·11	— 0·07	0·04	0·84	— 0·80	0·04	Aurangabad	Hyderabad (North).	39
25		1						3	N 18° W	4·7			3·9	51		·393		1·9		0	0·40	— 0·40	0	0·13	— 0·13	0·41	0·51	— 0·10	0	Indur.		
	1	3	4	4	5	7	5		S 6° W	5·2			4·3	54		·441		2·7		0	0·40	— 0·40	0	0·18	— 0·18	1·10	0·72	+ 0·38	0	Bidar.		
9		6	7	3	2	1		1	N 89° E	6·4			6·2	52	+2·6	·398	+·005	0·4	—0·5	0	0·40	— 0·40	0	0·29	— 0·29	0·68	0·36	+ 0·32	0	Gulbarga	Hyderabad (South).	53
3		1	2	13		7	2	1	S 18° E	6·2			5·9	66	+14·1	·522	+·084	0·3	—0·7	0	0·20	— 0·20	0	0·24	— 0·24	2·13	0·24	+ 1·89	0	Raichur.		
26		1		2					S 72° E	3·0			2·9	67	0	·439	—·056	1·1	—0·3	0			0	0·15	— 0·15	0·14	0·38	— 0·24	0	Hyderabad (Deccan).		
4	2			13	10				S 28° E	6·4			5·4	73		·528		1·6		0	0·60	— 0·60	0			0			0	Hanumkonda.		
																														X.—West Coast.		
														75	—1·5	·644	—·019	1·4	+0·1				0	0·21	—0·21							
	4	15	8	1					N 52° E	8·4	10·7	—21		72	+1·0	·597	+·018	1·8	+0·6	0	0·10	— 0·10	0	0·02	— 0·02	0	0·18	— 0·18	0	Bombay	Konkan	37
1	2	6	17	3					N 80° E	8·4	9·8	—14	8·3	65	+0·2	·536	—·003	1·3	+0·6	0	0·10	— 0·10	0	0·03	— 0·03	0	0·23	— 0·23	0	Ratnagiri.		
	4	2	6	16	1				S 70° E	7·7				83	+0·8	·690	+·004	1·1	+0·5	0			0	0·05	— 0·05	0·20	0·05	+ 0·15	0	Mormugao.		
		3	20	6					S 86° E	8·2				75	+1·0	·657	+·016	0·9	+0·3	0			0	0·06	— 0·06	0	0·31	— 0·31	0	Goa.		
4	1	9	15						N 71° E	4·0				80	—4·4	·577	—·036	1·0	+0·5	0	0	0	0	0·02	— 0·02	0	0·18	— 0·18	0	Karwar.		
		21	8						N 57° E	5·3				74	—1·3	·679	—·062	1·9	+0·3	0	1·70	— 1·70	0	0·87	— 0·87	4·69	3·07	+ 1·62	0	Cochin	Malabar	33
		14	13	2					N 71° E	8·6			8·5	77	—1·2	·704	—·031	1·4	—0·6	0	0·40	— 0·40		0·15	— 0·15	3·32	1·31	+ 2·01	0	Calicut.		
		3	11	2					N 87° E	2·4	3·5	— 31		75	—2·0	·705	0	1·4	—0·3	0	0·10	— 0·10	0	0·03	— 0·03	0·99	0·53	+ 0·46	0	Mangalore.		
13																																
3	6	11	7	1				1	N 47° E	5·3				71	—7·3	·645	—·078	1·7	—0·9	0	1·10	— 1·10	0	0·64	—0·64	1·86	3·51	— 1·65	0	Trivandrum.		

of any station, the data for that station are not utilized in calculating the provincial departures from normal.
Nos. 41, 43, and 45 are derived are incomplete.

Table

Abstract of Observations taken at 8 A.M. at 233 Stations

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 A.M., in inches.								Temperature of Air.												
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
	XI.—South India.				+·007								87·1	-2·1	65·2	-2·0	76·2	-2·1	21·8					31·2
57	Madras (South) .	Pamban . .	37	29·988		29·952	30·053	3rd	29·923	27th	·130	77·7	83·7		73·4		78·6		10·3	87·3	26th	70·2	19th	17·1
		Tinnevelly .	168	29·860	+·026	29·960	29·924	3rd	29·801	27th	·123	76·2	91·4	-0·6	71·1	-1·8	81·3	-1·1	20·3	94·7	23rd	67·9	6th, 8th & 9th.	26·8
		Madura . .	447	29·569	+·005	29·961	29·621	3rd & 25th	29·510	27th	·111	75·0	89·0	-3·0	68·7	-0·8	78·9	-1·9	20·3	91·9	20th, 21st & 22nd.	64·2	6th	27·7
		Periyakulam	945	29·069			29·126	7th & 25th	29·015	27th	·111	71·0	89·8		63·0		76·4		26·8	93·1	20th	56·5	8th	36·6
34	Madras (South Central).	Salem . .	940	29·092	—·010	29·996	29·164	7th	29·029	19th	·135	71·9	90·2	-3·4	64·8	-0·7	77·5	-2·1	25·4	94·2	20th	59·3	6th	34·9
		Coimbatore .	1,348	28·664	+·001	29·987	28·721	7th	28·601	19th	·120	70·8	90·3	-1·7	64·4	-1·1	77·4	-1·4	25·9	95·1	21st	58·7	7th	36·7
35	Coorg . .	Mercara . .	3,781	26·294	+·010		26·341	3rd & 12th	26·248	14th	·093	62·7	80·8	-0·4	57·2	-1·6	69·0	-1·0	23·6	86·0	1st	52·1	8th, 9th & 10th.	33·9
38	Mysore . .	Chitaldroog .	2,405	27·593	+·003	29·957	27·660	3rd	27·527	27th	·133	71·8	87·4	-1·9	62·2	-3·7	74·8	-2·8	25·2	91·1	17th	57·9	4 days	33·2
		Bangalore .	3,021	27·008	—·008	29·994	27·061	3rd	26·945	27th	·116	65·8	84·7	-1·1	58·5	-1·1	71·6	-1·1	26·2	89·3	19th	52·9	9th	36·4
		Hassan . .	3,091	26·948	+·007	29·995	27·000	3rd	26·893	27th	·107	67·0	85·2	-1·2	56·1	-1·6	70·7	-1·4	29·1	89·6	19th	50·5	8th	39·1
		Mysore . .	2,518	27·500	+·008	29·990	27·551	3rd & 7th	27·441	27th	·110	68·8	87·3	-1·5	60·7	-2·2	74·0	-1·9	26·6	93·4	20th	54·9	8th	38·5
56	Madras, East Coast, South.	Negapatam .	31	29·982	+·001	29·942	30·037	3rd	29·923	27th	·114	77·5	83·8	-0·6	72·0	-0·1	77·9	-0·4	11·8	88·3	24th	65·5	1st	22·8
		Cuddalore .	12	30·018	+·017	29·959	30·076	3rd	29·960	27th	·116	74·4	83·5	-1·9	67·7	-1·2	75·6	-1·6	15·8	85·6	13th	61·7	8th	23·9
		Trichinopoly .	255	29·771	+·002	29·965	29·821	7th	29·712	27th	·109	74·2	89·8	-2·5	67·2	-1·2	78·5	-1·9	22·6	93·5	21st	62·4	6th	31·1
		Madras . .	22	30·010	+·005	29·963	30·080	7th	29·944	27th	·136	74·4	84·1	-2·8	66·7	-1·3	75·4	-2·1	17·4	86·5	25th & 27th, 3 days	61·0	1st	25·5
		Vellore . .	707	29·315		29·284	29·397	7th	29·245	19th	·152	70·0	86·8		63·4		75·1		23·4	90·4	21st	58·4	13th	32·0
55	Madras, East Coast, Central.	Nellore . .	71	29·957	†	29·963	30·032	7th	29·881	19th	·151	72·3	86·9	-3·7	67·1	-2·0	77·0	-2·9	19·8	90·3	21st	64·1	8th, 9th & 13th.	26·2
		Masulipatam .	15	30·026	+·017	29·976	30·102	7th	29·955	19th	·147	72·8	83·8	-3·1	66·2	-2·1	75·0	-2·6	17·6	86·5	25th	62·2	9th & 10th	24·3
54	Madras, Central	Cuddapah .	433	29·576	+·013	29·958	29·645	3rd	29·503	19th	·142	73·6	91·9	-3·2	65·5	-3·6	78·7	-3·4	26·4	98·2	20th	59·3	13th	38·9
		Kurnool .	945	29·056	+·014	29·968	29·127	3rd	29·996	27th	·131	71·4	91·8	-2·7	61·4	-3·4	76·6	-3·1	30·4	96·2	16th	54·2	12th	42·0
		Bellary . .	1,475	28·511	—·004	29·966	28·586	3rd	28·449	27th	·137	70·1	92·3	-1·9	62·8	-2·6	77·6	-2·3	29·5	97·5	22nd	57·6	9th & 12th	39·9
52	Madras, East Coast, North.	Cocanada .	26	30·012	+·015	29·974	30·089	7th	29·942	19th	·147	72·3	84·0	-1·8	66·2	-3·4	75·1	-2·6	17·8	89·6	29th	60·5	10th	29·1
		Waltair(Vizag.)	*226*	29·804	+·006	29·977	29·879	7th	29·729	19th	·150	73·7	82·7	?	68·3	?	75·5	?	14·4	87·9	29th	63·9	9th & 10th.	24·0
		Gopalpur .	21	30·012	?	29·974	30·121	3rd	29·926	19th	·195	70·1	82·1	-1·4	63·1	-4·8	72·6	-3·1	19·0	86·7	28th & 29th.	55·5	4 days	31·2
	XII.—Hill Stations.												59·4		27·9		43·7		31·5	65·3	2nd	21·0	5th, 10th & 13th.	44·3
48	Baluchistan .	Pishin . .																						
		Quetta . .	5,502	24·735	+·075		24·850	25th	24·586	19th	·264	37·9	58·6	+5·5	33·2	+1·5	45·9	+3·5	25·4	67·7	2nd	25·8	10th	41·9
		Kalat . .																						
		Chaman . .	4,311	25·772	+·048		25·904	4th	25·628	19th & 29th	·276	45·0	60·9†	+3·9†	40·1	+3·4	50·6†	+3·7	20·8	67·3	2nd	33·1	9th	34·2
30	Punjab . .	Leh . .	11,503	19·731	+·120		19·968	11th	19·579	20th	·389	16·0	37·9	+6·5	10·9	+1·1	24·4	+3·8	27·0	45·1	14th	3·9	6th	41·2
		Srinagar .	5,204	25·045	+·091		25·265	11th	24·901	20th	·364	33·1	44·0	+1·7	30·8	+3·5	37·4	+2·6	13·2	58·0	29th	17·1	1st	40·9
		Sonemarg .	*8,764*	21·897			22·075	11th	21·763	20th	·312	19·3	36·6		11·2		23·9		25·4	46·2	14th	—5·9	5th	52·1
		Astor(Kashmir)	7,955	22·648			22·927	11th	22·403	22nd	·524	21·2	39·8		17·2		28·5		22·6	49·0	13th	2·5	1st	45·5
		Minimarg .	*9,359*	21·403			21·613	11th	21·247	20th & 22nd	·366	17·8	36·4		10·5		23·5		25·9	48·8	16th	—3·0	5th	51·8
		Skardu . .	*7,505*	23·021			23·327	11th	22·778	22nd	·549	25·2	40·6		21·6		31·1		19·0	56·0	29th	8·6	1st	47·4
		Dras . .	*10,059*	20·881			21·143	11th	20·691	22nd	·452	—5·0	17·9		—17·9		0		35·8	27·8	10th	—33·4	1st	61·2
		Gilgit . .	4,890	25·340			25·668	11th	25·069	22nd	·599	42·9	54·9	+3·6	39·0	+2·6	46·5	+3·1	15·9	63·2	27th	27·1	1st	36·1
		Chitral . .	*5,486*	22·725*			22·850	12th	22·550	24th	·300	34·9	52·8							63·1	28th			
		Killa Drosh .										36·6	53·4		33·8		43·6		19·6	63·9	29th	28·3	1st & 2nd	35·6
		Murree . .	6,333	23·884	+·056		24·041	25th	23·799	20th	·242	44·3	58·1	+5·1	37·2	+2·7	45·2	+3·9	15·9	61·2	12th	29·0	3rd	32·2

† Mean of 28 days.

* Mean of 18 days.

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

Note 1.—When a query is inserted against any reading or in the returns.
Note 2.—The data from which divisional means of the figure columns.

I—*continued.*

in India, Burma, etc., in February, 1904—continued.

Wind Direction. Number of winds from: Calm.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Wind resultant.	Wind Velocity. Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	Hygrometry, 8 A.M. Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Cloud. Mean cloud amount at 8 A.M.	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. 1903 to 29th Feb. 1904.	Normal rainfall for period, 1st Dec. to 29th Feb.	Departure from normal of period, 1st Dec. 1903 to 29th Feb. 1904.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
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	58
														76	+1·5	·608	—·018	2·0	—0·4				0	0·38	—0·38					**XI.—South India.**		
2	4	15	5	2				1	N 49° E	13·2			12·9	82		·781		2·9		0	0·50	— 0·50	0·05	0·73	— 0·68	9·53	12·37	— 2·84	0·04	Pamban	Madras (South)	57
	13	3	1	1			1	10	N 11° W	4·7			4·5	71	—6·1	·646	—·066	2·9	+0·6	0	1·80	— 1·80	0·02	1·48	— 1·46	6·06	6·25	— 0·19	0·02	Tinnevelly.		
5	9	11	1					3	N 20° E	5·1	5·0	+ 2	5·9	76	+1·3	·672	—·015	2·4	+0·4	0	0·90	— 0·90	0	0·51	— 0·51	8·17	2·62	+ 5·55	0	Madura.		
20	1	2	1	3	1	1			S 76° E	2·3			2·5	74		·568		2·4		0	1·40	— 1·40	0	0·97	— 0·97	5·62	3·16	+ 2·46	0	Periyakulam.		
11		2	13	1			2		N 87° E	4·6	5·6	— 18	4·1	78	+4·4	·617	—·017	1·6	0	0	0·50	— 0·50	0	0·33	— 0·33	1·54	1·82	— 0·28	0	Salem	Madras (South Central).	34
6	3	9	11						N 62° E	3·5	3·2	+ 9	3·1	87	+4·0	·664	+·002	3·2	+0·7	0	0·80	— 0·80	0	0·46	— 0·46	2·38	1·75	+ 0·63	0	Coimbatore.		
7	3	13	5			1			N 50° E	5·4	4·0	+ 35	5·0	75	+5·4	·436	—·012	7·1	+4·1	0	0·30	— 0·30	0	0·14	— 0·14	3·76	0·67	+ 3·09	0	Mercara	Coorg	35
6	1		6	7	2	2	4	1	S 36° E	4·9			4·3	52	+0·7	·399	—·025	0·6	—0·9	0	0·10	— 0·10	0	0·07	— 0·07	0·60	0·17	+ 0·43	0	Chitaldroog	Mysore	36
2		1	15	5	2	4			S 65° E	8·1	3·6	+125	7·0	72	+2·5	·463	—·015	0·7	—1·0	0	0·20	— 0·20	0	0·09	— 0·09	1·18	0·71	+ 0·47	0	Bangalore.		
		7	11	5		1	3	2	N 82° E	2·7			2·3	70	+2·6	·465	—·014	1·6	—0·8	0	0·10	— 0·10	0	0·06	— 0·06	1·70	0·24	+ 1·46	0	Hassan.		
		5	9	4	2	3	4	2	S 76° E	7·0			7·6	70	+2·5	·486	—·022	3·2	+1·0	0	0·30	— 0·30	0	0·22	— 0·22	0·76	0·39	+ 0·37	0	Mysore.		
11	1	7	2	1			1	6	N 14° E	12·2	3·6	+239	10·7	74	—5·5	·711	—·043	4·5	+0·1	0	0·80	— 0·80	0	0·58	— 0·58	25·73	14·74	+10·99	0	Negapatam	Madras, East Coast, South.	56
28	1								N	2·4			3·0	85	—4·0	·730	—·050?	3·6	+0·1	0	0·70	— 0·70	0	0·71	— 0·71	8·53	9·70	— 1·17	0	Cuddalore.		
19	4	6							N 27° E	3·1	4·1	— 24		78	+0·4	·664	—·021	2·1	—0·6	0	0·50	— 0·50	0	0·79	— 0·79	3·57	3·82	+ 4·75	0	Trichinopoly.		
	5	8	10	1	5				N 74° E	4·8	5·0	— 4		82	0	·704	—·038	2·2	—0·5	0	0·60	— 0·60	0	0·23	— 0·23	20·65	6·77	+13·88	0	Madras.		
20				3	1	1	3	1	S 34° W	3·0			3·0	84		·619		1·9		0	0·50	— 0·50	0	0·13	— 0·13	14·25	3·50	+10·75	0	Vellore.		
4				8	1	1		15	N 60° W	4·4				86	+1·1	·687	—·055	1·6	—0·9	0	0·30	— 0·30	0	0·10	— 0·10	10·07	2·29	+ 7·78	0	Nellore	Madras, East Coast, Central.	55
21	2	3	1	2					N 58° E	3·3	5·1	— 35	3·2	93	+7·4	·751	+·033	1·4	—1·2‖	0	0·30	— 0·30	0	0·22	— 0·22	1·67	1·07	+ 0·60	0	Masulipatam		
		5	6	11	2	4		1	S 58° E					71	+4·6	·586	—·028	0·8	—0·1	0	0·20	— 0·20	0	0·07	— 0·07	1·46	1·37	+ 0·09	0	Cuddapah	Madras, Central	54
17			2	5		4		1	S 20° E	4·4				74	+15·9	·568	+·090	0·3	—0·5	0	0·10	— 0·10	0	0·02	— 0·02	0·21	0·21	0	0	Kurnool.		
5	1	1	2	9	7	2	1	1	S 26° E	4·0	4·0	0	4·2	62	+ 6·1	·462	—·006	1·0	—0·5	0	0·10	— 0·10	0	0·02	— 0·02	0·28	0·22	+ 0·06	0	Bellary.		
16	4	1						8	N 26° W	5·6			4·7	83	+ 8·7	·666	+·028	1·4	—0·8	0	0·50	— 0·50	0	0·37	— 0·37	0·09	1·28	— 1·19	0	Cocanada	Madras, East Coast, North.	52
		3	4	3	4	12	3		S 14° W	8·4				66	— 4·8	·542	?	2·3	?	0	0·50	— 0·50	0	0·17	— 0·17	0·12	2·13	— 2·01	0	Waltair (Vizag).		
3	7					1		18	N 35° W	10·3	9·6	+ 7	10·1	72	— 6·4	·537	—·080	0·6	—1·8		0·90	— 0·90	0·01	0·48	— 0·47	3·27	1·35	+ 1·92	0·01	Gopalpur.		
																														XII.—Hill Stations.		
																				1	6·40	— 5·40	0·39	2·86	— 2·47	6·08	6·22	— 0·14	0·17	Pishin	Baluchistan	48
24				4	1				S 37° E	1·9	4·4	— 57	2·0	75	+1·5	·171	+·005	2·7	—1·1	1	6·40	— 5·40	0·60	2·21	— 1·61	5·27	5·05	+ 0·22	0·36	Quetta.		
																					5·20			1·26			2·70			Kalat.		
	1	6	8	7	5	2			S 68° E	5·7			6·3	76	+12·0	·230	+·048	1·7	—2·4	3	4·30	— 1·30	0·92	1·75	— 0·83	3·00	3·97	— 0·97	0·17	Chaman.		
					6	11	12		S 55° W	2·2				42	-5·2	·039	+·003	4·0	—2·0	0	1·00	— 1·00	0	0·35	— 0·35	0·08	0·85	— 0·77	0	Leh	Punjab	30
5	2	1		7	6	2	1	5	S 3° W	3·2			3·0	90	+0·7	·173	+·015	7·3	—0·3	2	6·40	— 4·40	0·52	2·80	— 2·28	6·62	7·20	— 0·58	0·20	Srinagar.		
																		4·1		9			2·73			15·24			0·50	Sonemarg.		
18	1	2	2	4	1		1		S 78° E	3·1			2·8	98		·105							0 69			2·82			0·36	Astor (Kashmir).		
8					10	11			S 23° W	4·7			4·3	67		·080		4·6		3			3·00			12·44			0·66	Minimarg.		
1		8	14	5				1	N 83° E	9·4‡			10·0‡	61		·063		4·6		6												
22						4	3		S 64° W	2·3			2·3	85		·116		4·4		1	2·60	— 1·60	0·18	1·15	— 0·97	0·49	3·57	— 3·08	0·13	Skardu.		
27			1		1				S 45° E	0·1			0·1	95		·037		3·7		6	8·20	— 2·20	1·28	2·57	— 1·29	4·82	6·74	— 3·92	0·37	Dras.		
10						5	14		S 79° W	6·9			6·1	34	—21·6	·084	—·052	6·6	+0·1	0	0·90	— 0·90	0·03	0·16	— 0·13	0·09	0·46	— 0·37	0·03	Gilgit.		
25									Calm	0·5†			0·5†	75		·153		2·5		1			0·23			1·58			0·23	Chitral.		
12		2	13	2					E					70		·153		4·8		1			0·16			1·73			0·16	Killa Drosh.		
17			3	5	3			1	S 45° E	6·9	8·2	— 16	7·5	46	—18·1	·135	—·009	1·9	—2·9	1	2·70	— 1·70	0·20	3·84	— 3·64	6·42	8·65	— 2·23	0·20	Murree.		

of any station, the data for that station are not utilized in calculating the provincial departures from normal Nos. 41, 43, and 45 are derived are incomplete.

† Winds for 25 days.

‡ Mean of 20 days.

Table

Abstract of Observations taken at 8 A.M. at 233 Stations

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 A.M., in inches.								Temperature of Air.												
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
33	Punjab—*contd.*	Kailang	*10,087*	20·997			21·176	11th	20·828	20th	·348	17·8	34·5	+0·9	13·4	−0·4	24·0	+0·3	21·1	40·6	27th	2·5	6th	38·1
		Poo											44·0		26·6		35·4		17·4	53·8	28th	19·1	5th	34·7
		Simla	7,224	23·136	+·058		23·283	25th	23·061	19th	·222	43·8	51·6	+5·7	40·1	+4·5	45·9	+5·1	11·5	59·0	13th	32·1	4th	26·9
		Sarain		23·184			23·313	25th	23·095	18th	·218	33·2	50·0		29·5		39·8		20·5	57·1	8th	23·2	1st	33·9
	North-West Frontier Provinces.	Para Chinar	6,000	24·523			24·689	25th	24·436	19th	·253													
		Cherat	*4,256*	25·785	+·055		25·947	25th	25·695	19th	·252	48·1	57·2	+5·1	45·0	+4·9	51·1	+5·0	12·2	68·3	29th	39·0	4th	29·3
25	United Provinces.	Chakrata	7,022	23·307	+·039		23·450	25th	23·232	19th	·218	43·7	56·9	+5·7	39·9	+3·8	48·4	+4·8	17·0	66·0	12th	31·4	1st	34·6
		Mussoorie*	6,705	23·672	+·032		23·815	25th	23·605	19th	·210	44·4	54·2	+4·1	40·1	+2·4	47·2	+3·3	14·1	62·2	13th	33·0	1st	23·2
		Ranikhet	6,069	24·132	+·032		24·248	25th	24·051	19th	·197	47·8	59·6	+4·0	44·6	+3·8	52·1	+3·9	15·0	66·1	12th	34·0	1st	32·1
		Muktesar	7,600	22·861			22·987	25th	22·774	19th	·213	44·7	56·2		40·2		48·2		16·0	64·0	13th	30·7	1st	33·3
	Sikkim	Taugu																						
13	Bengal	Yatung	10,480										45·8		26·0		35·9		19·8	58·1	10th	18·9	1st	39·2
		Darjeeling	7,376	23·023	+·038		23·127	25th	22·915	19th	·212	42·1	59·4	+2·5	37·1	+1·5	43·8	+2·0	13·3	57·3	13th	26·2	1st	31·1
8	Assam Hill Tracts	Shillong	4,920	25·143			25·248	3rd	25·039	1st	·209	49·9	63·3		42·8		53·1		20·5	71·6	29th	32·0	2nd	39·6
		Cherra Poonjee	4,309	25·749			25·840	25th	25·663	1st	·177	54·5	61·3		48·3		54·8		13·0	66·7	13th	39·0	2nd	27·7
	Central India	Mount Abu	3,945	26·123	+·012		26·229	25th	26·019	19th	·210	61·8	70·3	+1·5	55·9	+2·3	63·1	+1·9	14·4	75·1	16th	49·5	5th	25·6
		Pachmarhi	3,528	26·539	+·019		26·675	25th	26·426	17th	·249	60·5	75·2	−0·3	49·5	−2·0	62·4	−1·2	25·7	83·1	17th	36·8	6th	46·3
	South India	Wellington	6,200	24·293	−·008		24·331	12th	24·230	27th	·101	58·0	71·6	+0·8	45·2	−1·9	58·4	−0·6	26·4	75·2	16th	35·7	8th	39·5
		Kodaikanal	7,688	22·852			22·893	12th	22·782	9th	·111	53·9	65·0		46·6		54·0		18·4	72·1	1st	42·6	27th	29·5
		Ootacamund	*7,322*	23·082			23·117	3rd & 22nd.	23·018	9th	·099	54·8	65·7		44·2		54·9		21·5	69·0	1st & 12th.	38·2	4 days	30·8
	XIII.—Extra India.																							
	Ceylon	Trincomalee	12	29·988	+·014	29·926	30·046	3rd	29·929	27th	·117	76·3	83·2	−1·8	73·0	−2·1	78·1	−2·0	10·2	85·5	25th	66·5	2nd	19·0
		Colombo	40	29·947	−·001	29·913	29·998	7th	29·884	27th	·114	76·7	87·8	−0·5	70·9	−2·0	79·4	−1·3	16·9	92·5	26th	65·0	3rd & 4th,	27·5
	Persia	Meshed	3,104									41·8			34·3	+5·7						29·0	8th & 10th	
		Teheran	*4,002*	26·025‡ (a)			26·200	4th & 8th.	25·850	18th	·350	40·01	55·1†	+3·0†	34·7†	+1·8†	44·9†	+2·4†	20·4	65·5	26th	25·0	2nd	40·5
		Ispahan	*5,817*	24·313 (a)			24·470	12th	24·200	1st	·270	37·5	57·0	+2·8	31·7†	+2·6†	44·3†	+2·7	25·3	64·3	27th	24·7	7th	39·6
		Bushire	14	30·097	+·021	30·070	30·266	7th	29·941	27th	·325	57·8	65·9	+0·2	53·9	+1·1	60·0	+0·7	12·0	79·6	27th	45·8	4th	33·8
		Bahrein§	30	30·006			30·200	2nd & 3rd.	29·938	27th	·262	62·2	68·8		56·2		62·5		12·6	75·1	28th	19·3	4th	25·8
		Jask	*13*	30·055	+·003	30·025	30·210	8th	29·902	28th	·308	66·7	76·6	+1·7	62·9	+1·1	69·8	+1·4	13·7	80·8	18th	58·3	29th	22·5
	Arabia	Muscat	20	30·017	−·037	29·986	30·164	11th	29·839	18th	·325	70·9	73·0	+0·2	65·9	+1·1	71·0	+0·7	4·1	74·9	1st, 2nd & 18th,	66·1	10th	8·8
		Baghdad	220	29·998	+·037	30·209	30·252	8th	29·828	29th	·424	49·2	67·9	+3·2	45·0	+3·2	56·5	+3·2	22·9	76·2	27th	34·5	1st	41·7
		Busrah		30·105			30·255	7th	29·935	29th	·320		67·3		49·0		58·2		18·3	74·2	25th	40·0	4th	34·2
		Aden	94	29·938	−·009	29·965	30·067	8th	29·783	28th	·284	75·2	80·7	−1·0	72·6	−0·8	76·7	−0·9	8·1	83·3	18th	68·9	14th	14·4
		Perim	201	29·803	+·015	29·941	29·872	8th	29·728	28th	·144	76·1	83·3	−0·2	72·5	−0·7	78·4	−0·5	9·8	84·9	22nd	71·8	2nd	13·1
	Afghanistan	Kabul										23·0	52·2	+3·7	13·3	−10·0	32·8	−3·2	38·9	64·2	26th & 27th.	4·1	1st	59·8
	Central Asia	Kashgar	4,255	25·684			26·030	6th & 7th	25·470	3rd	·560	27·9	53·3	+8·2	22·1	−0·3	37·7	+4·0	31·2	67·3	29th	14·8	1st	52·5
	Arabian Sea Islands.	Amini Divi	*13*	29·991	+·008	29·932	30·043	22nd	29·930	14th	·113	82·0	86·3	+1·5	73·8	−2·4	80·3	−0·5	13·0	89·1	10th	68·2	2nd	20·9
		Minicoy	7	29·983		29·916	30·038	3rd	29·921	9th & 27th	·117	81·6	85·7	−0·7						87·6	11th			
	Africa	Zanzibar	73	29·888	−·019	29·888	29·976	3rd	29·794	28th	·182	81·5	87·2	+0·1	79·3	−1·0	83·3	−0·5	7·9	89·2	4th	75·2	15th	14·0
		Do. Dunga	*154*	29·835		29·916	29·915	3rd	29·737	28th	·178	81·0	91·7		75·6		83·7		16·1	94·5	9th & 23rd.	73·4	5 days	21·1
	Straits Settlements.	Penang(b)	20	29·898		29·843	29·947	13th	29·857	10th	·090	79·9	88·9		73·8		81·4		15·1	91·0	11th & 22nd.	72·0	5 days	19·0
		Singapore(b)	10	29·941		29·872	29·993	23rd	29·902	5th	·091	80·2	86·5		70·9		78·7		15·6	90·0	23rd	68·9	23rd	21·1

* Mean of 25 days. § Mean of 26 days. ‡ Mean of 27 days. † Mean of 28 days.

(a) Aneroid uncorrected.
(b) 9 hours observations.

N. B.—Elevations in italics indicate barometrical determinations

I—*concluded.*

in India, Burma, etc., in February, 1904—concluded.

Wind Direction. Number of winds from: Calm	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Wind resultant.	Wind Velocity. Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal (uncorrected.)	Percentage departure from normal.	Mean velocity corrected (where possible).	Hygrometry 8 A.M. Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Cloud. Mean cloud amount at 8 A.M.	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. 1903 to 29th Feb. 1904.	Normal rainfall for period, 1st Dec. to 29th Feb.	Departure from normal of period, 1st Dec. 1903 to 29th Feb. 1904.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
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	58
					2	12	11	4	S 70° W	0·7†				71‖		0·82‖		4·5		3			0·95	3·02	−2·07	4·80	7·02	− 2·22	0·48	Kallang	Punjab—*concld.*	
									S 56° E									4·2		2			0·54	3·93	−3·39	4·02	8·18	− 4·16	0·44	Poo.		
11		1	6	7	4				S 47° E	4·8	2·5	+92	4·6	41	−14·6	·110	−·021	3·0	−1·5	3	4·00	−1·00	0·60	3·00	− 2·40	4·48 (d)	6·94	− 2·46	0·22	Simla.		
3	8	1		8	8		1		S 18° W	2·9			2·8	83		·158		2·7		3			2·50			18·60			0 95	Sarain		
3					17	6	3		S 27° E	5·7			5·2					3·6		0	4·80	−4·80	0·15	1·93	− 1·78	3·92	3·35	+ 0·57	0·07	Para Chinar	North-West Frontier Province.	
16	1	1	2	3	3	1	2		S 27° E	5·7			5·2					3·6		0	4·80	−4·80	0·15	1·93	− 1·78	3·92	3·35	+ 0·57	0·07	Para Chinar	North-West Frontier Province.	
3	16				1			9	N 16° W	10·6			9·9	37	−23·4	·117	−·049	2·4	−2·0	0			0·03	3·31	− 3·28	4·52	6·38	− 1·86	0·03	Cherat.		
8	16	2						3	N 2° W	7·6	5·4	+41	9·1	47	−16·9	·134	−·015	2·7	−0·9	2	5·60	−3·60	0·99	4·20	− 3·21	8·91	9·09	− 0·18	0·63	Chakrata	United Provinces.	25
	3	3	6	2		1	4	6	N 5° E					52	−13·1	·152	−·015	2·6	−1·1	1	4·10	−3·10	0·19	4·57	− 4·38	4·17	9·30	− 5·13	0·13	Mussooree.		
27			1		1				S 23° E	1·6	2·0	−20	1·8	51	−14·7	·168	−·027	2·9	−1·0	0	4·50	−4·50	0·05	2·16	− 2·11	2·13	5·66	− 3·53	0·03	Ranikhet.		
6	2		5	2	1	1	10	2	N 87° W	6·9			6·3	43		·124		3·6		1			0·20			1·34			0·19	Muktesar.		
																														Tangu	Sikkim.	
																				4	2·17	+1·83	1·00	0·62	+ 0·38	1·69	1·69	0	0·50	Yatung	Bengal	13
15		4	4	3	1	1	1		S 82° E	4·3	5·1	−15	4·0	75	− 9·0	·206	−·005	2·2*	−2·6	2	2·52	−0·52	1·60	1·01	+ 0·59	2·32	1·95	+ 0·37	1·38	Darjeeling.		
22						6		1	S 54° W	1·1			1·2	71		·258		1·8		4	1·90	+2·10	2·48	0·79	+ 1·69	2·48	1·60	+ 0·88	1·32	Shillong	Assam Hill Tracts.	8
														66		·290		2·6		4	3·10	+0·90	4·69	2·08	+ 2·61	4·73	3·12	+ 1·61	1·44	Cherra Poonjee.		
7	4	5	3	1		3	4	2	N 3° W	2·4			2·8																			
11		9	1	1		1	3	3	N 17° E	5·2	5·6	− 7	5·3	36	− 5·8	·197	−·009	2·1	+0·1	1	0·50	+0·50	0·24	0·29	− 0·05	0·55	0·83	− 0·28	0·24	Mount Abu	Central India.	
12		2		6		4	1	4	S 18° W	4·1	3·8	+ 8	4·2	53	+ 2·3	·281	−·014	3·3	+1·1	4	1·00	+3·00	2·74	0·47	+ 2·27	2·75	1·59	+ 1·16	0 89	Pachmarhi.		
20	3	5	1						N 35° E	2·5	2·7	− 7		60	− 3·9	·292	−·022	1·1	− 0·8	0	1·90	−1·90	0	1·52	− 1·52	6·06	6·26	− 0·20	0	Wellington	South India.	
	5	6	11	4				3	N 61° E	13·6				45		·182		2·0		0	2·30	−2·30	0·15	1·48	− 1·33	15·60	8·22	+ 7·38	0·07	Kodaikanal.		
13		3	8	5					S 86° E	4·0			4·0	47		·200		1·3		0	1·20	−1·20	0	0·38	− 0·38	3·92	2·38	+ 1·54	0	Ootacamund.		
																														XIII.—Extra India.		
5		5				6		13	N 49° W					87	+6·4	·802	−·009	2·6	−0·5	3			1·70	1·98	− 0·28	24·79	23·26	+ 1·53	0·68	Trincomalee	Ceylon.	
	9	13	4	1	1		1		N 38° E	8·5	6·2	+37		80	+7·7	·746	−·042	3·0	+0·6	3			1·69	2·29	− 0·60	9·35	12·28	− 2·93	0·70	Colombo.		
														93		·247		4·0		5			3·26	1·03	+ 2·23	4·78	2·14	+ 2·64	1·40	Meshed	Persia.	
3	5	13	1	2	1		1	1	N 38° E	2·0			2·6	62‡		·153‡		2·6‡		1			0·33	0·82	− 0·49	8·47	3·48	+ 4·99	0·29	Teheran.		
21	1					2	4	1	N 87° W	2·8			3·6	74†		·171†		3·1		0			0·05	0·17	− 0·12	1·25	0·97	+ 0·28	0·05	Ispahan.		
2	8	6	3	3				7	N 16° E	8·2			9·8	86	+10·2	·415	+·052	2·8		2			0·33	2·35	− 2·02	3·79	8·71	− 4·92	0·13	Bushire.		
2	10	3	1	1			1	8	N 10° W					82		·458				1			0·16			0·56			0·16	Bahrein.		
1	11	6	2				1	8	N 1° W	12·6			10·5	67	−9·4	·441	−·056	0·9	−1·6	3			0·94	0·97	− 0·03	2·60	2·62	− 0·02	0·44	Jask.		
7				3				19	N 45° W	4·3			4·5	72	+1·4	·548	+·037	1·2	−1·2	0			0·10	0·78	− 0·68	0·23	2·32	− 2·09	0·06	Muscat	Arabia.	
26					1		1	1	S 82° W	1·0	4·3	−77	1·3	75	+5·1	·263	+·002	2·4	−0·2	1			0·15	2·17	− 2·02	1·34	5·19	− 3·85	0·11	Baghdad		
																				2			0·70			3·90			0·53	Busrah.		
1		11	9	5	1	1	1		N 82° E	11·9	12·9	− 8	9·6	82	+5·9	·706	+·031	5·6	−0·8	0			0	0·29	− 0·29	0·52	0·98	− 0·46	0	Aden.		
		1	14	10		2		2	S 72° E	19·3			19·5	79	+1·0	·720	+·004	1·3	−4·3	0			0·08	0·26	− 0·18	0·79	0·68	+ 0·11	0·08	Perim.		
	4			2	9	6	7	1	S 48° W					88		·113		3·8	+1·0	0			0	0·98	− 0·98	2·30 (d)	2·51 (d)	− 0·21	0	Kabul	Afghanistan.	
																				0			0	0·12	− 0·12	0·08	0·39	− 0·31	0	Kashgar	Central Asia.	
28									Calm	2·3†			2·1					0·6		0			0	0	0	2·64	0·51 (d)	+ 2·13	0	Amini Divi.	Arabian Sea Islands.	
5	3	18	1					2	N 35° E					73		·797		3·2		0			0	0·35	− 0·35	0(d)	2 44	− 2·44	0	Minicoy.		
	14	6	7	1			1		N 31° E	3·4			3·6	70	−6·9	·761	−·035	2·8	−0·3												
	13	14		1		1			N 24° E	8·2			7·7	82		·875		7·6†		3			2·35	1·38	+ 0·97	15·10	7·52	+ 7·58	0·99	Zanzibar	Africa.	
		24		5					N 58° E	6·8			6·6	80		·845		4·8§		1			0·27			9·44			0·26	Do. Dunga.		
3	17	8						1	N 12° E	3·4								0		2			2·02			16·09			1·03	Penang	Straits Settlements.	
	7	16	2				1	1	N 32° E	6·5								4·9		8			7·01			33·59			2·32	Singapore.		

(d) Total rainfall since 1st January 1904.

§ Mean of 24 days.

Teheran wind direction of 27 days.

Kashgar wind direction of 28 days.

Table II.—Abstract of Observations recorded at 10 A.M. and 4 P.M. at 65 Stations in India, Burma, etc., in February 1904.

Table

Abstract of Observations recorded at 10 A.M. and 4 P.M. at 65

Meteorological Province.	Station.	Elevation of barometer cistern above sea-level in feet.	Pressure.						Temperature of Air.										Temperature, Wet-bulb.			
			Mean of 10 hours.	Mean of 16 hours.	Mean daily range.	Mean of daily mean pressures.	Departure from normal.	Mean reduced to S. L. and gravity 45° Lat.	Mean maximum.	Mean minimum.	Mean daily range.	Highest maximum.	Lowest minimum.	Absolute range.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	Mean minimum.	Mean 10 hours.	Mean 16 hours.	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
Burma Coast and Bay Islands.	Port Blair	61	29·948	29·826	·122	29·885	—·007	29·877	87·6	74·5‡	13·1	89·8	69·6	20·2	82·7	85·3	80·3‡	- 0·3	71·7	76·4	76·7	74·9
	Rangoon	57	·948	·816	·132	·878	−·014	·873	89·3	65·7	23·6	97·7	61·9	35·8	80·1	87·2	75·4	- 1·9	62·6	68·4	70·3	67·1
	Diamond Island	41	·969	·854	·115	·910	—·021	·886	83·6	73·2	10·4	87·4	71·2	16·2	80·1	81·1	78·0	+ 0·1	67·6	71·6	71·2	70·1
	Cocos Island	119	·886	·779	·107	·831		·883	84·7	74·6	10·1	88·2	71·6	16·6	81·2	81·0	78·8		68·4			
	Akyab	20	30·007	·889	·118	·939	−·014	·902	83·7	61·2	22·5	88·9	56·4	32·5	74·3	80·0	72·1	- 0·7		67·0	69·0	
Bengal and Orissa.	Chittagong	87	29·942	·821	·121	·876	−·023	·913	82·4	57·9	24·5	89·5	52·0	37·5	73·0	79·1	69·8	- 0·6	56·9	66·1	67·5	63·5
	Calcutta (Alipore)	21	30·035	·904	·131	·962	+·005	·929	82·9	59·1	23·8	90·4	47·0	43·4	74·6	82·3	70·2	− 0·1	56·8	64·3	65·1	62·0
	Saugor Island	25	·026	·906	·120	·952	+·006	·922	81·1	63·8	17·3	88·4	49·9	38·5	74·1	78·4	71·2	− 0·9	61·3	63·4	63·1	64·3
	False Point	21	·031	·915	·116	·959	—·001	·922	82·1	59·6	22·5	88·5	49·6	38·9	77·5	78·8	69·5	− 3·0	58·9	67·9	69·0	65·3
Gangetic Plain and Chota Nagpur.	Hazaribagh	2,007	27·989	27·887	·102	27·930	−·002	·914	79·2	54·0	25·2	86·2	44·2	42·0	70·5	76·7	66·1	+ 0·3	47·8	56·1	58·5	54·1
	Darbhanga	166	29·880	29·746	·134	29·807	−·001	·933	79·4	53·7	25·7	87·0	46·3	40·7	70·6	78·4	66·0	+ 1·0	51·7	62·0	64·4	59·4
	Allahabad	309	·744	·628	·116	·675	+·007	·946	80·0	51·2	28·8	86·8	40·7	46·1	70·6	79·7	64·5	- 0·4	48·3	59·6	62·4	56·8
Upper Sub-Himalayas.	Dehra Dun	2,233	27·755	27·675	·080	27·708	+·005	·958	72·9	47·7	25·2	78·1	38·9	39·2	62·3	70·1	59·8	+ 2·2	44·1	52·9	54·7	50·6
	Roorkee	899	29·111	29·012	·099	29·055	+·004	·950	76·9	46·6	30·3	82·3	36·3	46·0	64·0	74·1	60·4	+ 1·4	44·1	54·5	56·6	51·7
	Meerut	738	·280	·185	·095	·226	−·004	·952	79·0	47·5	31·5	86·5	38·2	48·3	65·0	76·2	61·9	+ 1·8	43·8	53·5	56·8	51·4
	Lahore	702	·333	·242	·091	·278	−·003	·975	76·0	45·4	30·6	83·1	35·1	48·0	63·8	74·7	59·6	+ 2·3	43·5	55·2	60·0	52·9
	Ludhiana	812	·208	·132	·076	·161	+·005	·976	75·0	47·1	27·9	80·7	39·1	41·6	60·4	72·8	59·8	+ 1·7	46·2	51·6	55·4	51·1
Indus Valley and N.-W. Rajputana.	Peshawar	1,110	28·963	28·865	·098	28·905	+·003	30·040	71·6	43·9	27·7	79·6	37·9	41·7	62·9	70·2	56·7	+ 3·4	39·3	51·9	54·7	48·6
	Jacobabad	186	29·889	29·767	·122	29·821	—·002	29·971	83·0	49·7	33·3	88·3	42·1	46·2	70·0	80·4	65·5	+ 3·1	44·5	58·0	62·9	55·1
	Kurrachee	30	30·041	·933	·108	·980	−·014	·961	82·8	60·4	22·4	87·3	53·2	34·1	74·5	79·5	71·1	+ 2·7	56·3	63·6	67·5	62·5
East Rajputana, Central India and Gujarat.	Jaipur	1,431	28·614	28·507	·107	28·549	+·011	·965	81·5	52·2	29·3	85·2	38·0	47·2	71·6	79·5	65·8	+ 1·6	44·6	55·1	58·2	52·6
	Udaipur	1,925	·107	27·988	·119	·043		·941	81·5	51·5†	30·0	86·5	42·2	44·3	72·4	79·6	66·8†		46·7	55·7	58·0	53·5
	Deesa	466	29·566	29·447	·119	29·501	−·010	·923	90·6	56·5	34·1	95·9	49·4	46·5	79·4	88·7	73·6	+ 2·7	46·9	59·3	62·2	56·2
	Jamnagar	61	·990	·866	·124	·921		·927	85·4	58·4	27·0	91·0	51·5	39·5	75·2	83·3	70·9		53·5	63·1	64·0	60·2
Deccan.	Belgaum	2,539	27·463	27·337	·126	27·396	—·003	·834	87·4	58·7	28·7	91·3	54·9	36·4	79·0	85·5	71·9	− 1·1	53·9	59·7	60·8	58·1
	Sholapur	1,580	28·420	28·271	·149	28·340	−·009	·867	91·7	61·3	30·4	97·9	54· 1	43·5	80·1	90·3	76·2	− 1·5	50·6	60·6	63·0	58·1
	Akola	930	29·099	·949	·150	29·016	+·006	·901	90·9	57·1	33·8	98·9	45·9	53·0	78·8	89·4	73·6	- 0·1	49·3	60·1	64·0	57·8
	Buldana	2,132	27·886	27·765	·121	27·816	−·028	·889	85·5	61·6	23·9	94·4	55·7	38·7	76·7	83·8	73·1	- 0·7	50·1	56·6	59·1	55·3
	Khandwa	1,044	28·982	28·836	·146	28·901	+·007	·908	89·4	55·5	33·9	97·8	45·1	52·	76·4	87·7	72·3	+ 0·1	48·2	60·1	64·8	57·7
	Nagpur	1,025	29·005	·873	·132	·931	+·021	·919	88·8	58·9	29·9	94·1	47·7	46·4	76·2	87·2	73·5	- 0·8	51·5	60·5	64·1	58·7
	Nagpur (Sanitary Commr.'s Office)	1,013	·027	·886	·141	·949		·927	89·0	57·8	31·2	93·6	48·3	45·3	77·3	87·5	73·0		50·8	60·8	65·9	59·2
	Hyderabad (Deccan).	1,690	28·325	·199	·126	·255	+·001	·887	89·0	61·1	27·9	92·9	56·3	36·6	78·8	87·1	74·8	− 2·3	57·1	64·6	65·7	62·5
West Coast.	Bombay	37	29·983	29·863	·120	29·917	−·016	·894	85·3	70·5	14·8	91·2	66·8	24·4	77·5	81·5	77·0	+ 2·2	64·4	69·1	72·6	68·7
	Karwar	44	·966	·842	·124	·902	−·013	·880	86·0	66·3	19·7	92·1	61·8	30·3	79·7	84·6	75·3	- 0·6	63·8	69·6	73·3	68·9

† Mean of 28 days.

‡ Mean of 23 days.

II.

Stations in India, Burma, etc., in February, 1904.

Vapour Tension.					Humidity.					Cloud.				Wind Direction.										Wind steadiness.		Wind velocity.		Rainfall.		Station.	Meteorological Province.
														Total number of 10 hours and 16 hours winds from																	
From minimum.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	From minimum.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	Mean 10 hours.	Mean 16 hours.	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
																									%	%						
·740‡	·828	·807	·815	−·022	86‡	74	66	78	−1	2·3	2·5	2·4	−0·7		17	21	8	7	2		1	2	N. 44° E.	N. 42° E.	65	71	138*	120	0·58	0·58	Port Blair	Burma Coast and Bay Islands.
·533	·539	·520	·554	−·051	84	53	40	65	−4	1·7	3·3	2·5	+0·7	1	9	23	7	9	1	2	1	5	N. 50° E.	S. 42° W.	53	16	47*	91	0	0	Rangoon	
·600	·667	·630	·652	−·055	74	64	59	69	−6	1·1	0·9	1·0	−1·2		8	14		2	1	1	2	30	N. 19° W.	N. 33° W.	66	85	203*	211	0	0	Diamond Island.	
·619					72					0·3	0	0·2	−1·7		39	13	3					3	N. 11° E.	N. 6° E.	89	86			0	0	Cocos Island,	
	·568	·567				67	55			0·7	0·4	0·6	−0·7			10	16	3		4	12	13	N. 5° E.	N. 21° W.	19	43	56*	84	0·08	0·08	Akyab	
·455	·553	·524	·527	−·004	94	68	53	74	+2	1·3	0·5	0·9	−1·2		2	20	3	4	2	6	9	12	N. 6° W.	N. 42° W.	28	27	85*	94	1·55	0·86	Chittagong	Bengal and Orissa.
·440	·474	·396	·463	−·022	86	55	36	62	−4	1·1	0·9	1·0	−1·2		7	1	1	2	1	10	13	23	N. 66° W.	N. 73° W.	62	25	70	79	2·58	2·39	Calcutta (Alipore).	
·521	·573	·564	·569	−·047	86	67	57	72	−4	1·3	1·1	1·2	−1·6		19	3	1		12	13	5	5	N. 76° W.	S. 54° W.	27	19	198	209	0·97	0·52	Saugor Island,	
·500	·562	·587	·566	−·086	96	59	59	73	−7	2·2	1·8	2·0	−1·1	1	7	6	9	5	11	5	9	5	S. 14° E.	S. 11° E.	5	17	165*	187	0·48	0·44	False Point	
·262	·278	·272	·282	+·009	61	36	29	44	0	2·1	3·0	2·6	+0·1	2	13	2	2	2	1	4	7	25	N. 41° W.	N. 60° W.	62	54	157*	173	0·44	0·31	Hazaribagh	Gangetic Plain and Chota Nagpur.
·364	·445	·423	·414	+·025	87	59	43	64	−1	0·2	0·2	0·2	−1·3	31			3	3		4	12	5	S. 84° W	S. 78° W.	23	47	42	89	0	0	Darbhanga.	
·310	·370	·340	·354	+·027	80	49	33	59	+1	2·9	3·2	3·1	+0·7	2	6	2	3	6	5	3	17	14	N. 74° W.	N. 63° W.	73	34	72*	108	0	0	Allahabad	
·249	·298	·241	·269	−·013	75	51	33	55	−7	3·3	3·8	3·6	−0·8	9	1			4	16	9	16	3	S. 45° W.	S. 85° W.	54	29	30	41	0·06	0·06	Dehra Dun	Upper Sub-Himalayas.
·261	·302	·228	·274	−·023	82	51	27	55	−6	1·8	2·5	2·2	−1·2	9	3	2		10	3	4	5	22	N. 64° W	N. 60° W.	28	31	61	67	0	0	Roorkee	
·215	·263	·208	·249	−·052	74	42	23	48	−11	2·1	2·2	2·2	−0·9	17	2		2	2	1	2	14	18	N. 67° W.	N. 61° W.	47	47	36*	62	0	0	Meerut	
·262	·325	·328	·313	+·026	85	55	39	63	+1	2·1	2·9	2·5	−1·4	6	4	3	3	3	1	3	14	21	N. 56° W.	N. 30° W.	51	30	44	53	0	0	Lahore	
·305	·271	·214	·272	−·036	94	51	26	60	−5	1·5	2·0	1·8	−2·4	4		3					41	10	N. 79° W.	N. 51° W.	81	38	33*	46	0	0	Ludhiana	
·186	·257	·243	·237	−·007	64	45	33	50	−10	2·8	3·6	3·2	−1·1	20	3	7	6	5	2	3	6	6	N. 25° E.	N. 12° W.	9	9	34*	77	0·03	0·03	Peshawar	Indus Valley and N.-W. Rajputana.
·232	·326	·349	·310	+·071	64	45	34	50	+6	2·0	2·0	2·0	−1·2	28	10	4	6	3	2	1		4	N. 35° E.	N. 21° E.	22	23	35*	72	0·11	0·06	Jacobabad	
·405	·459	·521	·500	+·055	77	53	53	67	+4	1·1	0·7	0·9	−1·7	2		9	7	3	3	24	9	1	S. 37° W.	N. 80° W.	32	22	163*	235	0·90	0·76	Kurrachee	
·212	·236	·224	·231	−·031	52	30	22	39	−8	2·8	3·4	3·1	0	4	1	9	5	3	7	6	9	14	N. 67° W.	N. 20° W.	17	33	77	91	0·10	0·10	Jaipur	East Rajputana, Central India and Gujarat.
·270†	·240	·216	·244		69†	30	22	40		1·9	2·6	2·3		26	2	5	9	7	2	1	4	2	S. 86° E.		19		46*		0·13	0·09	Udaipur	
·203	·241	·209	·221	−·002	43	25	16	28	−2	1·6	2·2	1·9	−0·3		7	12	9	5	3	4	9	§	N. 13° E.	N. 2° W	22	30	198	206	0·01	0·01	Deesa	
·356	·423	·343	·405		71	48	31	55		2·1	2·3	2·2			13	13	4	1	1	9	8	4	N. 11° W.		30		280*		0·01	0·01	Jamnagar§.	
·359	·275	·231	·316	−·038	73	28	19	46	0	1·0	2·0	1·5	+0·3	1	5	6	13	15	4	5	6	3	S. 67° E.	S. 63° E.	30	11	185	233	0·01	0·01	Belgaum	Deccan.
·236	·293	·238	·267	−·057	43	28	16	29	−5	1·0	2·2	1·6	+0·1	2	5	6	6	24	1	3	1	10	S. 77° E.	S. 42° E.	30	23	225*	180	0	0	Sholapur	
·258	·278	·262	·268	−·022	53	28	19	34	−3	1·9	2·6	2·3	+0·8	17	4	9	13	4		1	3	7	N. 49° E.	N. 12° W.	31	26	90*	103	0·01	0·01	Akola	
·225	·214	·187	·216	−·045	41	24	17	31	−4	2·1	2·6	2·4	+0·7		12	6	4	6	6	3	6	15	N. 23° W.	N. 22° W.	27	27	120*	154	0·16	0·16	Buldana	
·259	·322	·329	·305	+·011	56	36	26	40	+2	2·7	3·0	2·9	+1·5		6	26	2	7	1	1		15	N. 26° E.	N. 15° W.	53	31	84	98	1·36	0·97	Khandwa	
·303	·339	·317	·322	−·022	58	36	24	40	−3	1·5	2·8	2·2	0	7	5	16	11	6	7	3	2	1	N. 80° E.	N. 42° E.	38	19	75*	106	0·19	0·19	Nagpur	
·298	339	·378	·340		59	35	28	42		1·8	2·8	2·3		11		12		12		7		16	N. 7° E.		11		41*		0·14	0·14	Do. (Sanitary Commr.'s Office).	
·321	·436	·369	·407	−·035	78	44	29	51	+1	0·7	2·6	1·7	−0·3	36		1	3	13	2	1	2		S. 42° E.	S. 51° E.	26	27	70*	98	0	0	Hyderabad (Deccan)	
·526	·605	·689	·630	+·011	70	64	63	70	−1	2·0	1·8	1·9	+0·7		2	12	11	2			12	19	N. 11° W.	N. 1° W.	40	57	202	250	0	0	Bombay	West Coast.
·563	·588	·670	·630	−·039	87	59	56	71	−4	0·3	0·7	0·5	−0·1	1	9	4	8				21	15	N. 43° W.	N. 53° W.	53	73	99	98	0	0	Karwar	

§ Wind variable 5.

* Corrected.

Table

Abstract of Observations recorded at 10 A.M. and 4 P.M. at 65

Meteorological Province.	Station.	Elevation of barometer cistern above sea-level, in feet.	Pressure. Mean of 10 hours.	Mean of 16 hours.	Mean daily range.	Mean of daily mean pressures.	Departure from normal.	Mean reduced to S. L., and gravity 45° Lat.	Temperature of Air. Mean maximum.	Mean minimum.	Mean daily range.	Highest maximum.	Lowest minimum.	Absolute range.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	Temperature, Wet-bulb. Mean minimum.	Mean 10 hours.	Mean 16 hours.	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
South India.	Periyakulam	945	29·077	28·926	·151	29·005		29·899	89·9	63·0	26·9	93·1	56·5	36·6	79·5	88·0	76·6		60·7	69·1	70·5	67·1
	Salem	940	·098	·946	·152	·026	−·014	·905	90·4	64·8	25·6	94·7	59·3	35·4	79·1	88·6	76·6	−1·9	63·1	70·5	74·4	69·3
	Chitaldroog	2,405	27·610	27·482	·128	27·542	+·005	·854	87·4	62·0	25·4	91·2	56·9	34·3	78·7	86·0	74·1	−2·8	55·4	62·5	62·3	60·1
	Bangalore	3,021	·026	26·903	·123	26·962	−·007	·866	84·8	58·5	26·3	89·2	53·1	36·1	75·1	82·7	70·9	−1·1	55·6	61·9	62·0	59·8
	Hassan	3,091	26·952	·835	·117	·891	0	·853	85·3	56·1	29·2	89·6	50·5	39·1	76·9	82·7	70·0	−1·4	54·0	61·2	60·3	58·5
	Mysore	2,518	27·513	27·370	·143	27·439	−·003	·862	87·5	60·7	26·8	93·2	54·9	38·3	76·7	85·8	73·5	−1·7	57·8	64·2	64·0	62·0
	Madras	22	30·029	29·915	·116	29·963	+·002	·920	84·4	66·9	17·5	87·0	62·7	24·3	80·4	81·3	75·4	−1·2		71·8	72·1	70·5
	Bellary	1,475	28·533	28·385	·148	28·454	−·012	·866	92·3	62·8	29·5	97·5	57·6	39·9	80·5	89·4	77·4	−2·2	56·5	66·8	69·1	64·1
	Waltair	*226*	29·828	29·711	·117	29·760	+·009	·929	82·8	68·3	14·5	87·7	63·9	23·8	79·7	79·7	74·7	−2·5	63·2	67·9	68·4	66·5
Hill Stations, Baluchistan.	Quetta	5,502	24·751	24·669	·082	24·703	+·056		58·4	33·0	25·4	67·6	25·6	42·0	49·4	55·1	45·5	+3·3	31·5	41·2	43·2	38·6
Hill Stations, Northern India.	Leh	11,503	19·744	19·640	·104	19·692	+·099		38·4	10·9	27·5	45·1	3·9	41·2	26·0	26·1	22·9	+4·1	7·5	13·9	16·3	12·6
	Srinagar	5,204	25·067	24·987	·080	25·023	+·086		44·8	30·7	14·1	59·0	16·9	42·1	36·0	43·0	36·0	+3·0	29·4	34·7	40·5	34·9
	Sarain		23·203	23·143	·060	23·173			50·3	29·5	20·8	57·1	23·2	33·9	44·2	41·4	39·9			38·0	37·1	
	Simla (Ridge)	7,224	·166	·109	·057	·131	+·053		51·9	39·9	12·0	59·0	32·1	26·9	47·2	48·5	45·7	+5·1	33·9	37·4	40·0	37·1
	Chakrata	7,022	·335	·282	·053	·293	+·038		57·3	39·9	17·4	66·0	31·4	34·6	48·5	50·3	48·5	+5·0	38·9	39·4	41·0	38·1
	Ranikhet	6,069	24·162	24·094	·068	24·122	+·027		60·2	44·6	15·6	66·1	33·8	32·3	54·4	56·3	52·2	+4·2	38·5	44·2	44·5	42·4
	Muktesar	7,600	22·894	22·830	·064	22·856			56·7	40·2	16·5	64·0	30·7	33·3	49·0	52·5	48·3		32·7	38·9	42·0	37·9
	Katmandu	4,388	25·752	25·647	·105	25·697			69·8	39·0	30·8	77·1	30·8	46·3	55·2	66·8	54·2		37·7	48·9	53·0	46·5
	Darjeeling	7,376	23·026	22·986	·040	23·003	+·014		50·8	37·1	13·7	57·3	26·2	31·1	45·9	48·2	43·8	+2·2	35·1	42·3	44·5	40·6
Hill Stations, Central India.	Mount Abu	3,945	26·148	26·074	·074	26·102	+·008		70·4	56·0	14·4	75·3	49·3	26·0	66·1	67·6	63·0	+2·0	46·4	50·8	51·7	49·7
	Pachmarhi	3,528	·574	·477	·097	·517	+·018		75·5	49·5	26·0	83·1	37·5	45·6	68·0	72·7	62·3	−1·0	44·5	53·8	55·7	51·3
	Chikalda	3,642	·436	·336	·100	·377	−·025		78·0	57·4	20·6	86·2	52·1	34·1	69·3	75·4	67·5	−1·0	48·2	53·9	57·0	53·0
Hill Stations, S. India.	Kodaikanal	7,688	22·871	22·802	·069	22·829			64·7	46·6	18·1	71·1	42·6	28·5	60·2	59·3	53·9		38·4	47·2	51·1	45·1
	Ootacamund	7,322	23·106	23·034	·072	23·060			65·6	43·8	21·8	68·8	38·0	30·8	61·6	60·9	54·5		39·2	48·2	50·8	46·1
	Dodabetta	8,539	22·066	22·007	·059	22·037			57·7	43·7	14·0	62·0	39·3	22·7	54·8	55·1	50·1		39·1	44·1	46·7	43·3
Extra India.	Aden	94	29·949	29·832	·117	29·885	−·021	·912	80·6	72·6	8·0	83·1	69·1	14·0	77·4	79·2	75·6	−1·9	68·7	72·7	71·2	70·9
	Perim	201	·824?	·710?	·114?	·761?	+·023?	·899?	83·3	73·5	9·8	84·9	71·8	13·1	79·1	80·3	77·5	−0·4	69·0	72·6	72·8	71·5
	Minicoy	7	·998*	·924*	·074	·763		·895*	85·8			87·6			83 7	83·4				74·8	74·9	
	Zanzibar	73	·888	·767	·121	·830	−·015	·829	87·2	79·3	7·9	89·2	75·2	14·0	82·9	86·6	82·3	−0·4		77·7	78·1	
	Port Victoria (Seychelles).	15	·958	·862	·096	·918		·858	83·7	73·8	9·9	86·4	71·6	14·8	81·4	82·5	77·7		73·2	76·3	76·6	75·4
	Mauritius (Pamplemousses).	181				·727	−·015	·853				89·9	70·4	19·5			78·7	+0·2				74·3

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

* Mean of 28 days.

II—*concluded.*

Stations in India, Burma, etc., for February, 1904—concluded.

Vapour Tension.					Humidity.					Cloud.				Wind direction.										Wind steadiness.		Wind velocity.		Rainfall.		Station.	Meteorological Province.
From minimum.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	From minimum.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	Mean 10 hours.	Mean 16 hours.	Mean of two previous columns.	Departure from normal.	Total number of 10 hours and 16 hours winds from								Mean wind direction.	Normal mean wind direction of month.	Average percentage.	Normal percentage.	Mean velocity in miles per diem.		Total rainfall for the month.	Heaviest rainfall during the month.		
														Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.									
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
																									%	%						
·506	·576	·515	·541		87	57	39	59		2·3	3·4	2·9		4	2	3	14	19	12	1	2	1	S. 51° E.		59		61‡		0	0	Periyakulam	South India.
·558	·637	·668	·636	+·044	90	64	49	72	+ 9	1·5	2·6	2·3	0	13	3	9	25	2	1	2	2	1	N. 78° E.	S. 88° E.	50	51	101‡	127	0	0	Salem.	
·360	·366	·270	·337	—·034	65	37	22	43	+ 1	1·1	0·5	0·8	—1·3	3	2	5	22	12	1	1	6	6	S. 89° E.	N. 89° E.	40	35	104‡	151	0	0	Chitaldroog.	
·411	·404	·321	·384	—·023	84	46	29	55	+ 1	0·3	0·7	0·5			2	6	25	14	3	4	2	2	S. 76° E.	S. 69° E.	59	59	170‡	120	0	0	Bangalore.	
·399	·365	·271	·350	—·043	67	39	24	52	— 3	1·7	2·7	2·2	—1·5	1	1	17	22	11	1	1	2	2	N. 83° E.	S. 84° E.	66	58	56‡	67	0	0	Hassan.	
·448	·451	·330	·415	—·022	83	46	27	54	+ 1	2·2	2·4	2·3	—0·8	1	2	13	21	12	1	3	2	3	N. 87° E.	N. 87° E.	55	56	181‡	190	0	0	Mysore.	
	·666	·666	·681	—·034		64	62	77	— 1	3·3	1·8	2·6	—0·6			21	23	11	3				N. 85° E.	S. 84° E.	80	72	114	120	0	0	Madras.	
·383	·490	·467	·441	+·051	67	47	33	49	+ 8	1·1	1·8	1·5	—0·5	3	1	2	12	17	13	2	3	5	S. 40° E.	S. 57° E.	47	43	106‡	96	0	0	Bellary.	
·518	·533	·550	·557	—·098	74	52	54	63	— 5	2·1	2·3	2·2	+0·4			5	13	8	7	24	1		S. 9° E.	S	45	43	97		0	0	Waltair.	
·165	·180	·159	·178	+·007	87	52	38	62	— 5	2·9	3·3	3·1	—1·1	13	5		2	11	8	1	8	10	S. 57° W.	N. 84° W.	14	30	50‡	84	0·60	0·36	Quetta.	Hill Station, Baluchistan.
·036	·006	·001	·013	—·054	49	4	0	21	—43	2·9	4·4	3·7	—3·1						14	23	19	2	S. 52° W.	S. 9° W.	81	25	57	31	0	0	Leh.	Hill Stations, Northern India.
·150	·189	·234	·187	+·013	86	88	81	85	+ 1	7·3	6·9	7·1	+0·5	15	2	4		8	10	5	6	8	S. 38° W.	S. 9° W.	19	8	57‡	84	0·52	0·20	Srinagar.	
	·170	·178				59	68			3·0	5·1	4·1		14	1	2	5	1	19	10	6		S. 13° W.		43		65		2·50	0·95	Sarain.	
·135	·125	·161	·131	—·028	56	40	48	51	—10	3·6	5·5	4·6	—1·1	5	17			7	28	1			S. 14° E.	S. 11° E.	29	25	112‡	120	0·60	0·22	Simla (Ridge),	
·136	·151	·163	·160	—·013	55	45	45	51	—15	2·5	3·7	3·1	—1·8	10	10	4		8	25			1	S. 24° E.	S. 6° W.	33	4	217‡	151	0·99	0·63	Chakrata.	
·173	·188	·174	·188	—·016	59	45	39	51	—13	2·4	3·4	2·9	—1·6	26	2	1	2			12	14	1	S. 76° W.	S. 57° W.	36	18	44‡	62	0·05	0·03	Ranikhet.	
·112	·136	·161	·146		46	39	41	45		3·7	5·0	4·4		5		2	2	3	2	19	23	2	S. 66° W.		57		151‡		0·20	0·19	Muktesar.	
·216	·278	·248	·257	—·003	88	63	37	66	— 3	2·8	3·9	3·4	—0·1	5	4	4	4	2	3	10	12	14	N. 76° W.	N. 87° W.	36	47	34		0·42	0·42	Katmandu.	
·188	·238	·256	·237	+·014	83	76	76	81	— 2	4·2	5·4	4·8	—1·2	12	1	6	8	4		8	7	12	N. 49° W.	S. 83° W.	14	31	95‡	132	1·60	1·38	Darjeeling.	
·209	·194	·204	·207	+·019	47	30	31	40	+ 6	2·0	3·1	2·6	+0·2		4	13	3	4	3	4	15	12	N. 41° W.	N. 66° W.	30	28	125‡	146	0·24	0·24	Mount Abu.	Hill Stations, Central India.
·245	·258	·253	·256	—·004	66	39	33	50	+ 1	3·2	3·8	3·5	+1·2	2	8	10	3	4	2	9	5	15	N. 32° W.	N. 69° W.	29	25	101‡	106	2·74	0·89	Pachmarhi.	
·237	·242	·254	·248	—·025	50	34	29	41	— 2	2·2	2·7	2·5	+0·7	29	8	2		2	1	14		2	S. 80° W.	N. 81° W.	15	24	167‡	156	0·20	0·12	Chikalda.	
·159	·198	·298	·218		50	40	60	53		1·4	5·1	3·3			8	9	9	11	7			5	N. 81° E.		34		329		0·15	0·07	Kodaikanal†	Hill Stations, S. India.
·195	·206	·270	·239		68	37	51	55		1·2	3·7	2·5		18	4	9	15	4	4		2	2	N. 77° E.		36		86‡		0	0	Ootacamund	
·194	·182	·236	·204		68	42	54	55		1·5	4·1	2·8			13	19	17	9					N. 61° E.		73		294		0	0	Dodabetta.	
·649	·742	·659	·700	+·036	81	79	66	77	+ 4	3·9	1·7	2·8	—1·2		1	11	5	16	5	16	2	2	S. 28° E.	N. 89° E.	35	72	234‡	367	0	0	Aden.	Extra India.
·652	·722	·710	·712	—·009	79	72	68	75	— 1	0·7	0·1	0·4			1	1	21	32		2		1	S. 63° E.	S. 63° E.	81	67	471‡	461	0·08	0·08	Perim.	
	·747	·754				64	66			2·4	2·6	2·5			26	26	6						N. 29° E.		88		86‡		0	0	Minicoy.	
	·884	·852				78	67			7·4	5·1	6·3	+1·7	1	24	16	14	2				1	N. 37° E.	N. 33° E.	75	55	182‡	161	2·35	0·99	Zanzibar.	
·817	·838	·843	·856	+·014	97	78	75	86	+ 3	7·0	6·6	6·8		11	11	10	3	1			1	21	N. 9° W.	N. 21° W.	57	53	124		14·18	3·50	Port Victoria (Seychelles).	
			·766	+·010				78	0			7·5	+1·1										N. 78° E.	S. 81° E.			228	264	5·06	1·07	Mauritius (Pamplemousses).	

† Wind variable 9. ‡ Corrected.

G. I. C P. O.—No. 9 Meteo.—5·8·04.—385.—W. H. D'R.

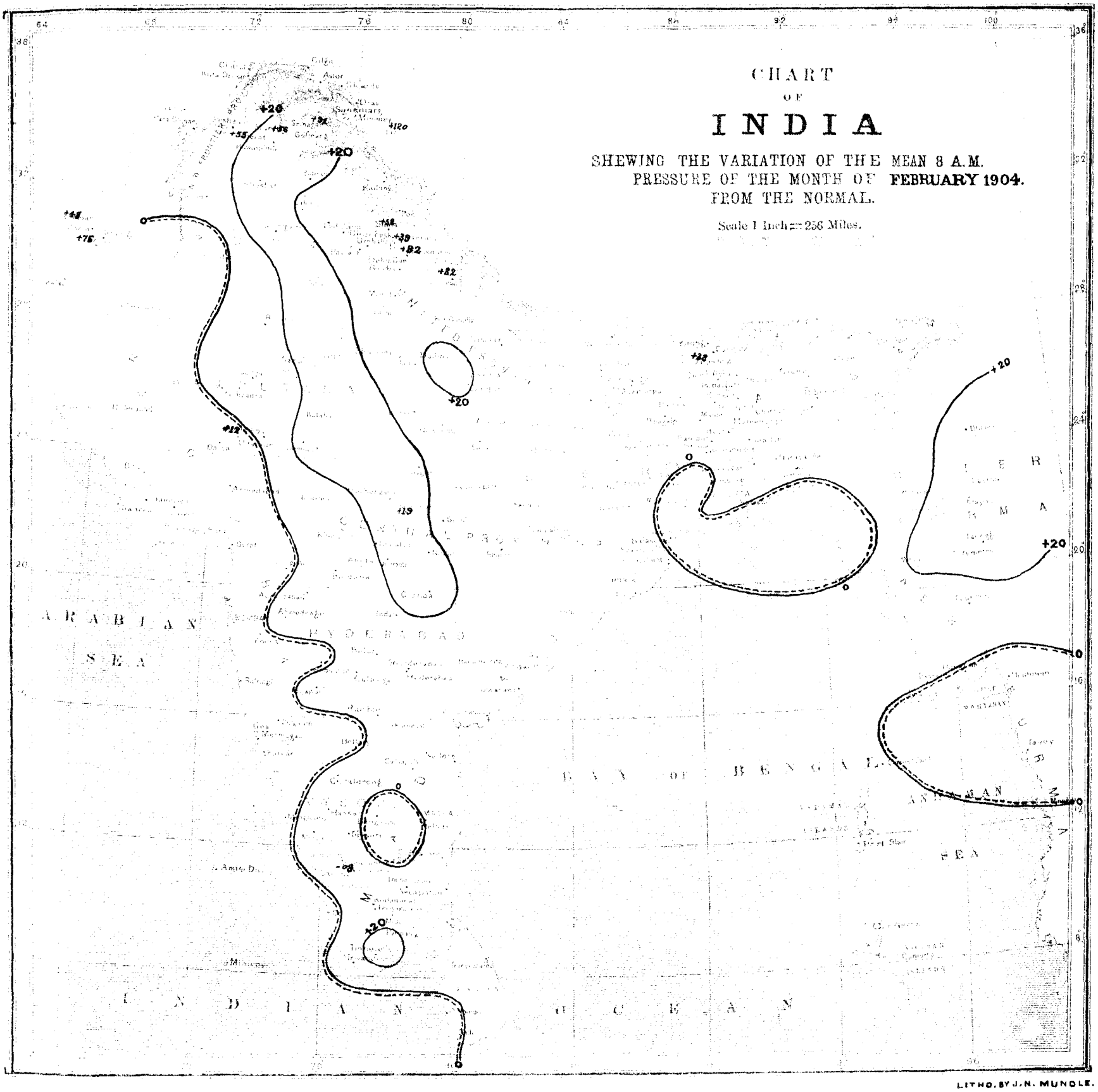
LITHO. BY J.N. MUNDLE.

Explanation.

The lines of the above Chart represent isobars or lines of equal barometric pressure, and the numbers attached indicate the barometric pressure in inches and are 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 ordinary or normal distribution of pressure as given in the Charts of the Bay of Bengal prepared by Mr. Dallas, 1st Assistant Meteorological Reporter to the Government of India, and published by the Meteorological Department. Hence they have not the same validity as the isobars in the land area of India itself, but it is probable they deviate very little from the actual.

The mean 8 a.m. 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 I of the 8 a.m. 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	,,	,,	,,	,,	,,			



LITHO. BY J.N. MUNDLE.

Explanation.

The Chart shows the variation of the mean 8 a.m. pressure of the month from the normal by means of lines drawn for equal amounts of variation (of two hundredths of an inch or ·020″). 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 variation, the dotted line facing the area of deficient pressure or negative variations.

CHART SHEWING THE VARIATION OF THE MEAN MAXIMUM TEMPERATURE OF THE MONTH FROM THE NORMAL.

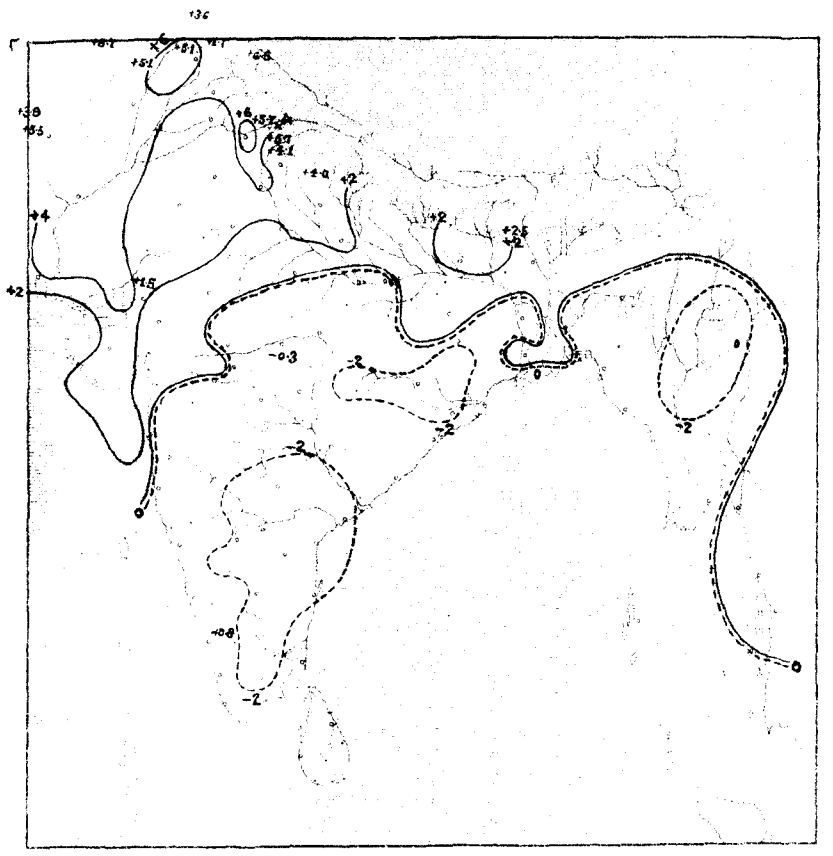
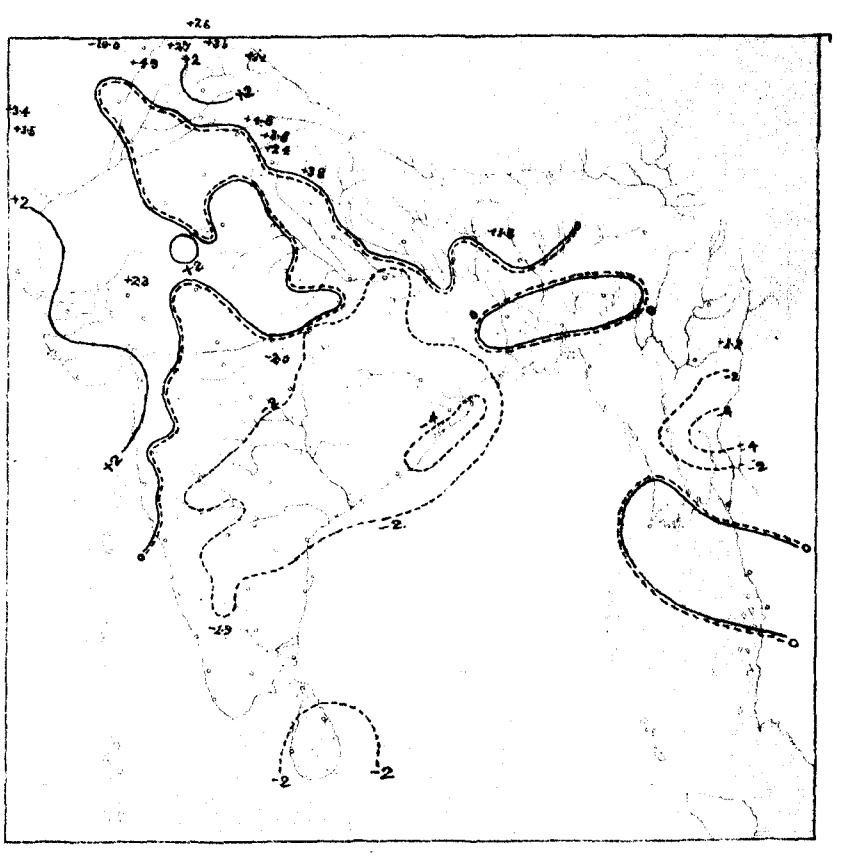


CHART SHEWING THE VARIATION OF THE MEAN MINIMUM TEMPERATURE OF THE MONTH FROM THE NORMAL.



Explanation.

Continuous lines indicate that the mean maximum of month was in excess by amounts indicated by the attached numbers; broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no variation, the broken line facing the area of deficient temperature.

Continuous lines indicate that the mean minimum of month was in excess by amounts indicated by the attached numbers; broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no variation, the broken line facing the area of deficient temperature.

CHART SHEWING THE VARIATION OF THE MEAN DAILY TEMPERATURE OF THE MONTH FROM THE NORMAL.

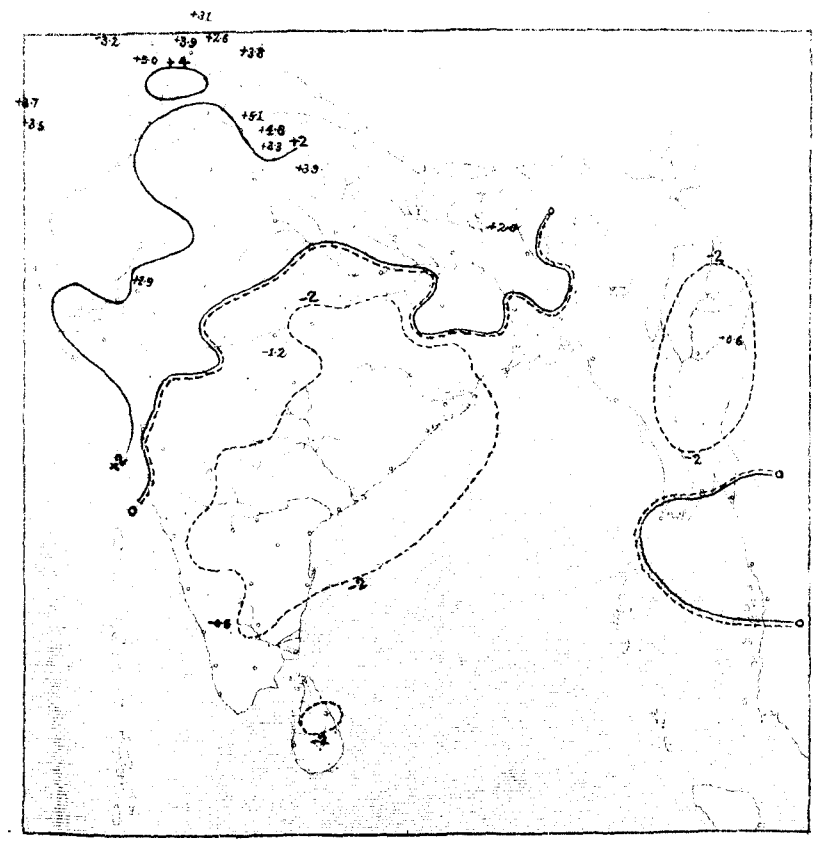
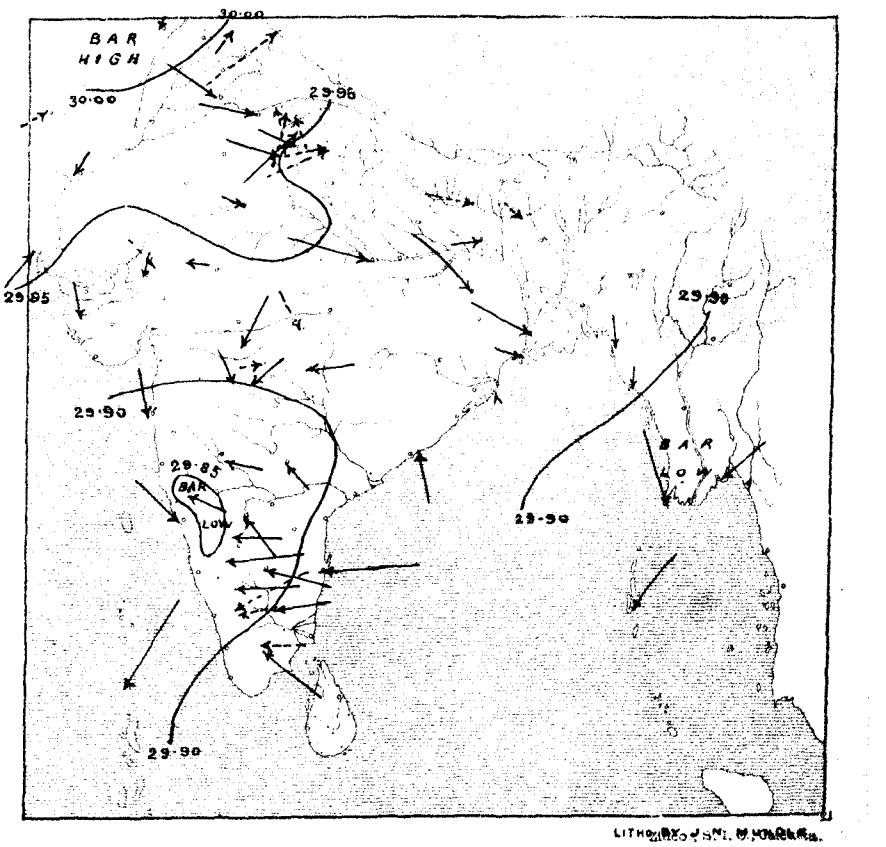


CHART SHEWING THE MEAN DISTRIBUTION OF PRESSURE AND THE RESULTANT WIND DIRECTIONS IN THE MONTH OF FEBRUARY 1904.



No. 164, Wr., India.—July 03.—5,000.

LITHO. BY J. N. MUKERJEE, Calcutta.

Explanation.

Continuous lines indicate that the mean daily temperature of month was in excess by amounts indicated by the attached numbers: broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no variation, the broken line facing the area of deficient temperature.

The Chart is prepared in the same manner as the Monthly Charts which previously to 1890 appeared in the Annual Reports, the only alteration made being that pressures are reduced to constant gravity (45°). The isobars are given for each twentieth of an inch. The arrows show the directions of the resultants of the wind recorded at 10 and 16 hours, and by their lengths the percentage of the observations expressing the numerical value of the resultant; a length of ⅝th of an inch being equal to 100 per cent.

CHART SHEWING THE VARIATION AT 8 A. M. OF THE MEAN RELATIVE HUMIDITY OF THE MONTH FROM THE NORMAL.

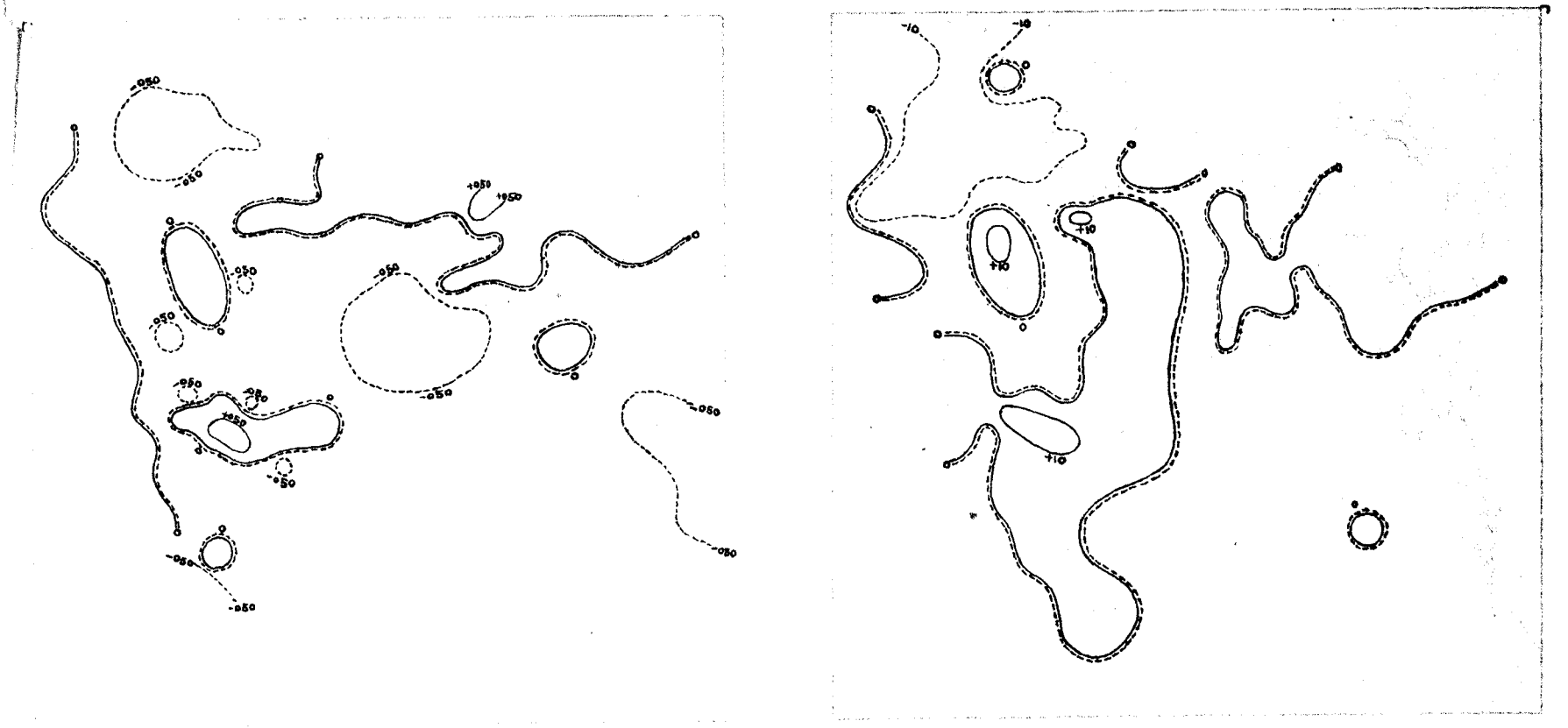
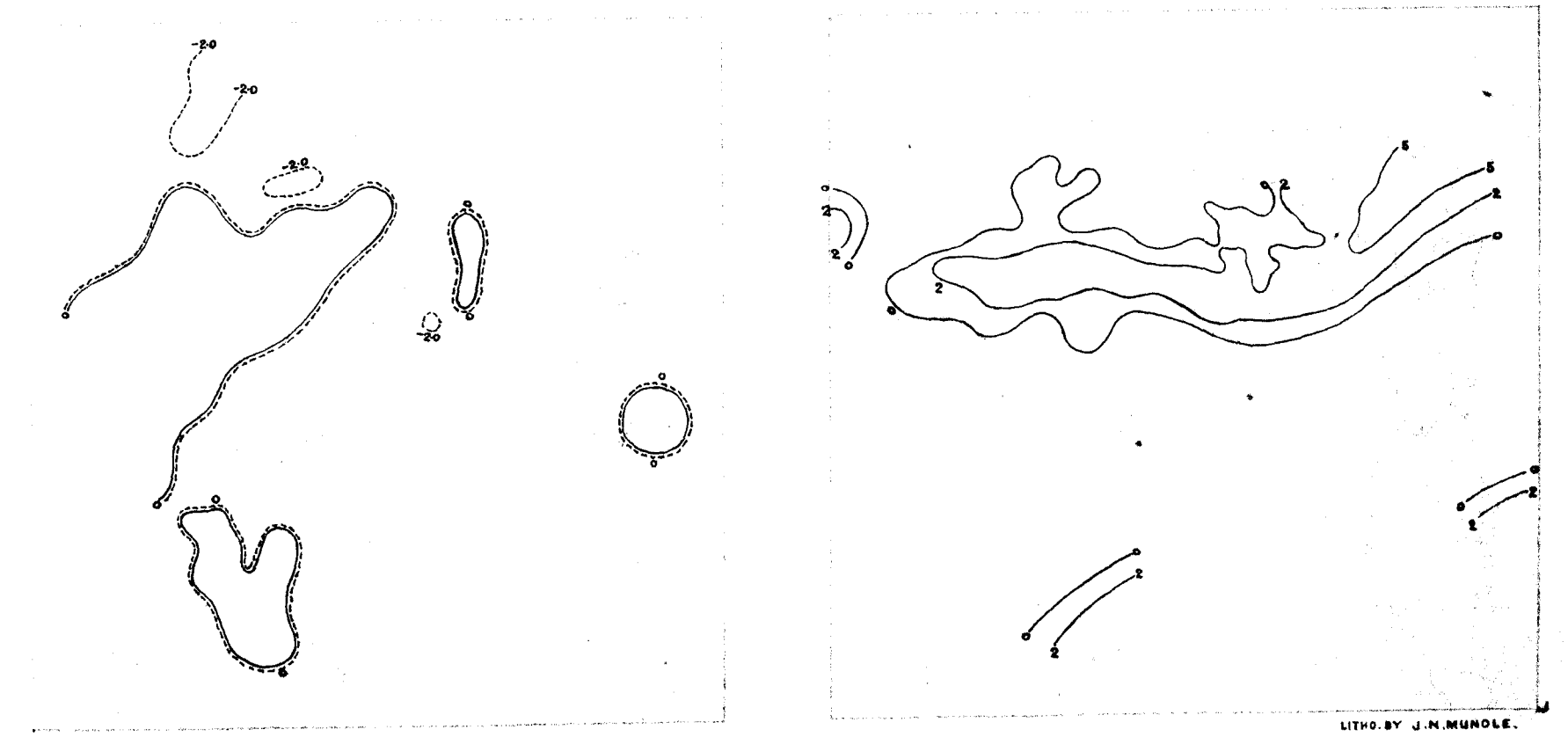


CHART SHEWING THE TOTAL NUMBER OF RAINY DAYS IN THE MONTH OF FEBRUARY 1904.



LITHO. BY J.N.MUNOLE.

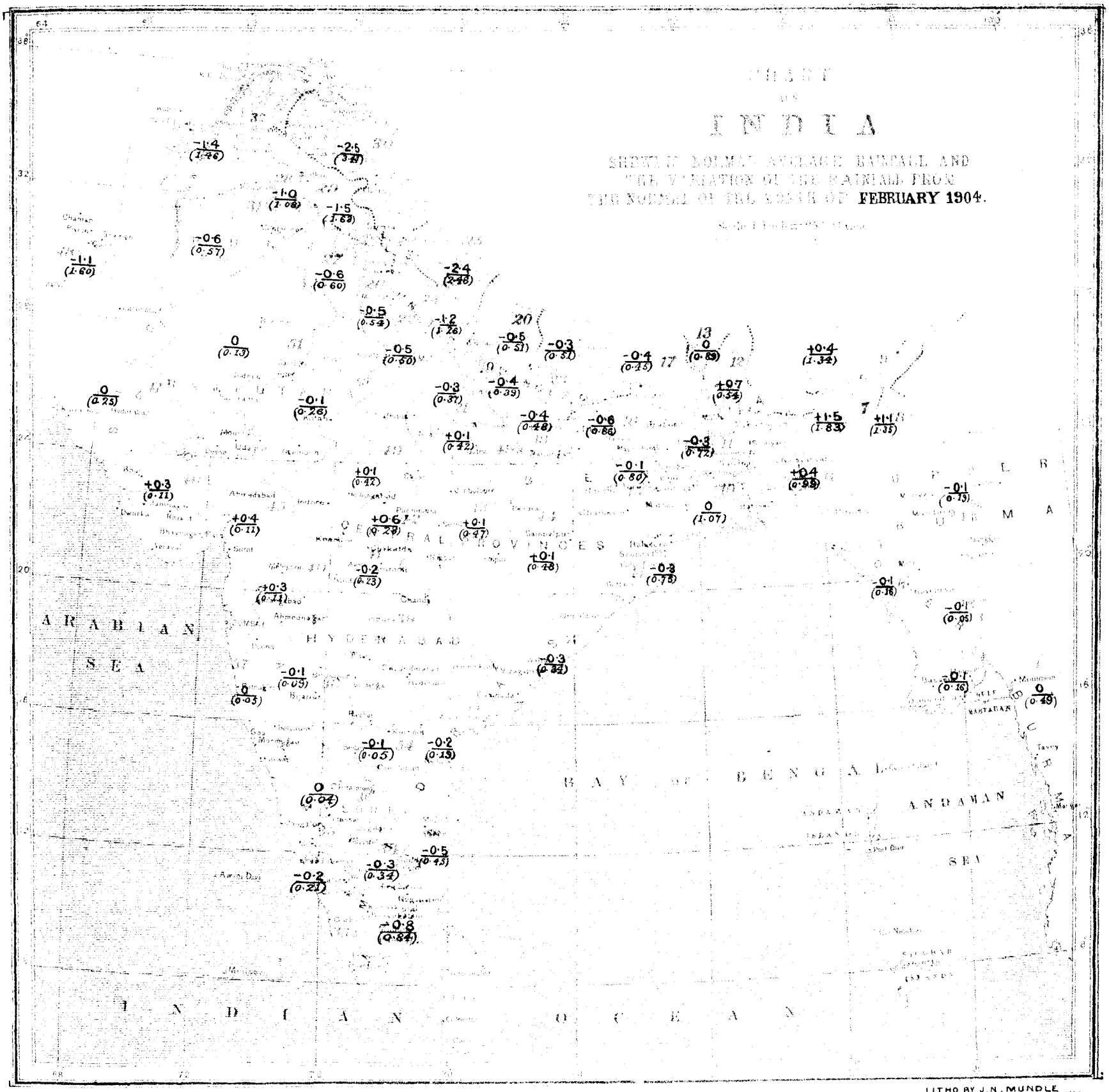
Explanation.

Continuous lines indicate that the mean cloud amount of month was in excess by amounts indicated by the attached numbers; broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no variation, the broken line facing the area of deficient cloud.

A rainy day is one on which 0·10 inch or more of rain is received within 24 hours.

Explanation.

The Chart shows the distribution of the rainfall of the month by means of isolyetic lines or lines of equal amounts of rain. The data used in the preparation of this Chart are the rainfall returns of all the observatories in India except those at the Hill Stations over 3,500 feet in elevation (177 in number). The double line or line of no rainfall separates areas in which the rainfall exceeded a tenth of an inch from those where it was actually or practically *nil* (*i.e.* less than a tenth of an inch). The dotted line faces the area of no rainfall.



LITHO. BY J.N. MUNDLE.

Explanation.

The Chart gives the variations of the rainfall of the month (to tenths of an inch) from the normal over the whole of India and Burma. The country is divided into 57 areas, over each of which the meteorological conditions are fairly uniform, and the staple crops similar in character; and the means (both actual and normal for the month) have been calculated, and the numbers given in the centre of each division (usually with a + or − sign attached) give the difference between the actual and normal mean rainfall of the district of the month. A plus sign indicates that the rainfall was in excess, and a negative sign that it was in defect by the amounts indicated by the numbers to which the signs are attached. The normal average rainfall is also given below in smaller figures enclosed within brackets so that the percentage variation can be at once estimated. The name of the district can be at once ascertained by referring in the following list to the number given near the right hand boundary of each district in small slanting red figures.

1. Tenasserim
2. Lower Burma Deltaic
3. Central do.
4. Upper do.
5. Arakan
6. East Bengal
7. Assam, Surma
8. Do., Hills
9. Do., Brahmaputra
10. Deltaic Bengal
11. Central do.
12. North do.
13. Bengal Hills
14. Orissa
15. Chota Nagpur
16. South Bihar
17. North Bihar
18. United Provinces, East
19. South Oudh
20. North do.
21. United Provinces, Central
22. Do. do., West
23. Do. do., East Submontane
24. Do. do., West do.
25. Do. do., Hills
26. South East Punjab
27. South do.
28. Central do.
29. Punjab, Submontane
30. Do., Hills
31. West Punjab
32. North West Frontier Province
33. Malabar
33a. Travancore
34. Madras, South Central
35. Coorg
36. Mysore
37. Konkan
38. Bombay Deccan
39. Hyderabad, North
40. Khandesh
41. Berar
42. Central Provinces, West
43. Do., Central
44. Do., East
45. Gujarat
46. Kathiawar and Cutch
47. Sind
48. Baluchistan Hills
49. Central India, East
49a. Do. do.
50. Rajputana East, Central India West
51. West Rajputana
52. Madras, East Coast, North
53. Hyderabad, South
54. Madras, Central
55. Madras, East Coast, Central
56. Do. East Coast, South
57. Madras, South

GOVERNMENT OF INDIA.

METEOROLOGICAL DEPARTMENT.

MONTHLY WEATHER REVIEW

PUBLISHED BY ORDER OF

THE GOVERNMENT OF INDIA.

CALCUTTA, MARCH, 1904.

INTRODUCTION.

THIS review of the weather in India during the month of March 1904 is based on observations taken daily at 8 A.M. at 232 stations, and on additional observations taken at 10 A.M. and 4 P.M. at 65 stations. In the rainfall summary the rainfall data of the meteorological observatories and the rainfall statements of the month published by the Provincial Governments that had been received up to the date of the preparation of the review are utilized. A summary of the weather in the Bay of Bengal and the Arabian Sea, derived from information extracted from the logs of vessels entering the ports of Calcutta and Bombay, is also given.

Summary of the chief features of the weather in India during the month of March 1904.

Weather conditions were very unsettled over northern and central India during the first nine days of the month of March.

Snow fell over Kashmir and thunderstorms occurred over north-west India, Baluchistan, the Central Provinces and Assam and the mean temperature was lower than usual within these disturbed areas. The following comparative data show the extent of the temperature depression at some central stations:—

Station.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of								
	1st Mar.	2nd Mar.	3rd Mar.	4th Mar.	5th Mar.	6th Mar.	7th Mar.	8th Mar.	9th Mar.
	°	°	°	°	°	°	°	°	°
Saugor . . .	—2·5	—12·1	—7·3	—5·3	— 5·6	—5·6	—1·1	—3·1	—4·9
Nowgong . . .	0	— 6·4	—7·4	—3·0	— 2·8	—3·2	—2·3	—1·3	—3·2
Hoshangabad . .	—2·2	— 7·7	—9·1	—8·3	—10·0?	—6·5?	- 0·1	—3·1	—5·1
Jubbulpore . . .	—2·7	— 4·5	—2·0	—1·5	— 1·7	—2·2	+1·4	+0·3	—0·7

Pressure was lower than usual over practically the whole country during the first two days. On the 2nd the greatest abnormal departures of pressure were reported from the Sind coast and a storm, which had been developed over the north of the Arabian Sea, was advancing north-north-eastward towards the mouth of the Indus. This storm passed over Kurrachee on the night of the 2nd—3rd and the centre was shown between Jacobabad and Mooltan at 8 A.M. on the 3rd and within the central area of depression the barometer read more than 0·35″ lower than usual. The storm advanced into the south Punjab, but filled up considerably during the 3rd and 4th and had practically disappeared by the morning of the 5th. The storm occasioned a flow of moist air from the Arabian Sea into central and northern India and general rain fell over those areas, the fall continuing till the evening of the 5th. The following were some of the largest amounts in 24 hours recorded:—

Province or Division.	District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
				Inches.
Sind . .	Upper Sind Frontier.	Jacobabad .	2nd March	1·27
	Sukkur . .	Rohri . .	3rd „	1·30
	Larkana . .	Mehar .	„ „	1·15
Central Provinces.	Saugor . .	Banda . .	2nd „	2·07
	Narsinghpur .	Narsinghpur .	3rd „	2·01

Province or Division.	District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
				Inches.
N.-W. Frontier Province.	Dera Ismail Khan	Wano	3rd March	2·36
	Do.	Do.	4th ,,	2·35
	Peshawar	Landi Kotal	,, ,,	2·33
	Kohat	Kohat	,, ,,	2·15
	Dera Ismail Khan	Wano	5th ,,	3·20
Punjab	Karnal	Gulah	3rd ,,	2·22
	Lahore	Meean Meer	,, ,,	2·20
	Jhelum	Jhelum	4th ,,	3·19
	Gujranwala	Gujranwala	,, ,,	3·03
	Gujrat	Kharian	,, ,,	2·98
	Do.	Gujrat	,, ,,	2·85
	Gujranwala	Wazirabad	,, ,,	2·80
	Ludhiana	Samrala	,, ,,	2·67
	Jullundur	Jullundur	,, ,,	2·65
	Lahore	Kasur	5th ,,	2·51
	Ferozepore	Ferozepore	,, ,,	2·20
United Provinces.	Saharanpur	Kalsia	4th ,,	3·49
	Do.	Kuanthera	,, ,,	3·45
	Do.	Naiashahr	,, ,,	3·30
	Do.	Saharanpur	,, ,,	3·04
	Do.	Deoband	,, ,,	3·00
	Do.	Salimpur	,, ,,	3·00

This general rainfall occasioned a marked reduction of temperature which during the 3rd, 4th and 5th was below the normal except in north-east India and Burma. This is shown below :—

Province or division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of		
	3rd March.	4th March.	5th March.
	°	°	°
Burma	+ 0·5	+0·8	+1·1
Assam	+ 1·4	+2·2	+2·4
Bengal	+ 2·2	+0·5	+1·8
Orissa	− 0·4	−0·2	−0·1
Bihar	+ 1·2	+0·8	+0·9
Chota Nagpur	− 0·3	−3·0	−3·8
United Provinces of Agra and Oudh	− 1·5	−2·1	−2·2
Punjab	+ 1·3	−6·0	−4·9

Province or division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of		
	3rd March.	4th March.	5th March.
	°	°	°
North-West Frontier Province	+ 2·0	−5·0	−5·0
Sind	−12·0	−8·1	−5·1
Rajputana	− 1·9	−5·9	−5·2
Gujarat	− 4·3	−5·7	−4·4
Central India	− 3·7	−3·5	−4·0
Central Provinces	− 2·9	−3·2	−3·5
Berar	− 3·8	−3·2	−1·7
West Coast	0	+0·1	−0·2
Bombay Deccan	− 2·0	−2·6	−2·4
Mysore	− 1·0	−0·5	+0·7
Madras coast	− 1·0	+0·1	−1·0
Madras Deccan	− 0·1	+0·5	−0·2
South India	− 0·2	+0·5	−0·9

The depression of temperature was most marked in the day time and the maximum temperatures were very low at many stations, the departures from the normal exceeding 15° at the following places on the following dates :—

Date.	Station.	Departure from normal of maximum temperature of date.
		°
3rd March	Jacobabad	−23·7
	Hyderabad (Sind)	−19·2
	Jhansi	−17·9
	Nowgong	−17·3
4th ,,	Chaman	−15·2
	Lahore	−17·9
	Sialkot	−17·3
	Neemuch	−16·8
	Ahmedabad	−15·8
	Quetta	−15·7
	Ludhiana	−15·6
	Rawalpindi	−15·4
	Rajkot	−15·4
	Jacobabad	−15·1
5th ,,	Lahore	−18·7

A second storm was apparently formed over the north of the Arabian Sea at this time. The centre appeared over the Sind coast on the morning of the 6th. This storm like its predecessor passed north-eastward across

the north-west dry area to the south Punjab which it reached on the morning of the 7th. It was not so intense as the storm of the 3rd and the accompanying rainfall, though extensive, was less general and less heavy. This rainfall occasioned a fresh decrease of temperature in the north-west and a cold wave appeared in that locality and travelling eastward and southward over India, formed the principal feature of the temperature conditions from the 7th to the 13th. The following gives, for each day, comparative data for the two stations at which the temperature depression was greatest and exhibits the march of the cold wave across the country:—

Date.	Station.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of date.
		°
7th March	Hyderabad	—11·1
	Jacobabad	— 9·6
8th „	Dera Ismail Khan	— 9·6
	Peshawar	— 8·6
9th „	Mooltan	—11·8
	Dera Ismail Khan	—11·1
10th „	Jaipur	—13·0
	Neemuch	—10·8
11th „	Nowgong	— 9·1
	Jubbulpore	— 9·1
12th	Jessore	— 7·1
	Gaya	— 6·5
13th	Raipur	— 4·5
	Nowgong	— 4·4

Showers continued over parts of north-west India until the 10th and over parts of north-east India till some days later, but in general the weather was fine from the 8th to the 15th with mean temperatures lower than usual except in the north-west. During the 15th and 16th a fresh but shallow storm crossed Baluchistan and north-west India and reached the east Punjab on the latter date. Rain consequently fell over north-west India and snow in Kashmir and a fresh cold wave appeared over the Indus valley. This wave extended all over northern India by the 19th. The following gives, for each day from the 16th to the 19th, the two stations reporting the greatest deficiency of temperature:—

Date.	Station.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of date.
		°
16th March	Chaman	—8·6
	Dera Ismail Khan	—6·8
17th „	Quetta	—7·7
	Montgomery	—6.5
18th March	Sirsa	—4·5
	Delhi	—4·5
19th „	Nowgong	—6·2
	Allahabad	—4·9

On the 20th, 21st and 22nd the departures of the mean temperature from the normal were irregular and the weather generally fine.

On the 23rd a fresh though slight depression or storm appeared over the western desert and the weather was disturbed and showery in the north-west until the 27th. The mean temperature during this period was low over the extreme north-west of India and over the Peninsula, but was higher than usual over Rajputana and the greater part of the Gangetic plain and of north-eastern India. The following gives comparative data of temperature for all provinces for these five days:—

Province or division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of				
	23rd March.	24th March.	25th March.	26th March.	27th March.
	°	°	°	°	°
Burma	—0·9	—0·3	+0·1	+ 0·2	+0·3
Assam	+0·1	+0·8	+1·1	+ 2·2	+1·8
Bengal	+1·6	+2·2	+0·7	+ 1·2	+1·2
Orissa	+0·8	+1·0	—1·1	— 1·0	—0·5
Bihar	+0·4	+2·7	+2·7	+ 1·4	+3·2
Chota Nagpur	+4·6	+0·4	—1·5	+ 0·3	+1·4
United Provinces of Agra and Oudh.	+1·4	+0·1	+0·4	+ 0·4	+2·2
Punjab	+1·1	—5·0	—1·8	— 5·3	—3·8
North-West Frontier Province.	—2·8	—8·4	—6·0	—10·3	—7·8
Sind	—1·5	—1·6	—0·6	+ 0·3	—2·2
Rajputana	+1·0	—0·8	—0·8	+ 1·4	+2·1
Gujarat	—1·5	—1·7	—2·5	+ 0·2	+2·0
Central India	+0·1	—1·2	—2·2	— 0·7	+0·2
Central Provinces	—1·0	—3·8	—5·4	— 2·7	—1·6
Berar	+1·3	—5·4	—3·9	— 1·7	—1·1
West Coast	—0·5	—1·1	—2·0	— 1·5	—1·2
Bombay Deccan	—3·2	—4·5	—4·3	— 2·2	—0·9
Mysore	—2·2	—2·0	—3·7	— 2·6	—2·9
Madras Coast	—0·2	—0·7	—1·5	— 2·6	—2·5
Madras Deccan	—3·2	—4·0	—4·4	— 4·5	—3·5
South India	—3·0	—3·2	—2·8	— 2·1	—3·2

From the 28th to the end of the month the weather was fine and quiet over the greater part of the Indian and area though showers occurred at times over the north-west Himalayas and the submontane districts on the 30th. The mean temperature, throughout this period, was higher than usual over both north-west and north-east India, but was lower than usual in the intervening region. The excess was considerable to large in the north-east, but was most marked in Gujarat where the following were the daily departures from the average :—

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF			
	28th March.	29th March.	30th March.	31st March.
	°	°	°	°
Gujarat	+2·9	+5·4	+5·1	+6·2

Pressure :—The pressure, on the mean of the month, was lower than the average at all stations except a few in the central parts of the country, on the Kathiawar coast and in the extreme south of the Peninsula and east Ceylon. At these stations the mean pressure was about normal or in trifling excess, the largest departures having been +·011″ at Ahmednagar and +·012″ at Trincomalee. At all other places, as mentioned above, the mean pressure was lower than usual, the deficiency being generally greater on the hills than on the neighbouring plains. The departure from normal of the mean of the whole country was —·012″. Pressure was below this geographical mean over the north Gangetic plain, north-east India, the greater part of Burma, the west coast and the Indus valley and was above the average elsewhere.

The following table gives the mean pressure departures and anomalies of the month for the eleven meteorological provinces of India :—

METEOROLOGICAL PROVINCE.	Departure from normal of mean 8 A.M. pressure of March 1904.	Pressure anomaly, March 1904.
	″	″
Burma Coast and Bay Islands . . .	—·024	—·012
Burma Inland	—·010	+·002
Assam	—·032	—·020
Bengal and Orissa	—·022	—·010
Gangetic Plain and Chota Nagpur . .	—·012	0
Upper Sub-Himalayas	—·013	—·001
ndus Valley and North-West Rajputana .	—·013	—·001
East Rajputana, Central India and Gujarat	—·008	+·004
Deccan	—·004	+·008
West Coast	—·012	0
South India	—·008	+·004

Temperature :—The month was generally cooler than usual except in the north-east.

The mean maximum or day temperature of the month exceeded the normal over north-east India and a considerable part of Burma, as well as at a few stations in Tenasserim and in the south of the Peninsula and locally at Bombay and Amini Divi. The excess was most marked in north and east Bengal, where it amounted to 3°·0 at Mymensingh, to 2°·8 at Bogra and to 2°·4 at Dinajpur. Over the whole of the remainder of the country the mean day temperature was below the normal. The deficiency was strongly marked over the central parts of the country where Nowgong reported a departure of —5°·9 and Saugor of —5°·0 and was very strongly marked in the north-west where Lahore reported a departure of —8°·4 and Dera Ismail Khan of —7°·7. At the hill stations on the outer Himalayas, as well as in Baluchistan and at the central hill stations, the day temperature was in defect.

The mean night or minimum temperature was in defect of the normal over the greater part of the Peninsula, of the Central Provinces, of Gujarat and of Sind and at a few places in north and west Bengal and central Burma but was generally in excess elsewhere. The departures from the normal were generally moderate or small but there was an excess of 3°·2 at Lahore and Ajmer, of 2°·8 at Pachpadra and of 2°·5 at Silchar and Bassein and a deficiency of 2°·5 at Cuddalore, of 2°·4 at Trichinopoly and of 2°·2 at Madras.

The mean temperature of the month was higher than usual over north-east India and the Burma coast, the excess amounting to 2°·1 at Mymensingh, to 1°·8 at Silchar and to 1°·3 at Bassein. In all other parts of the country the mean temperature was in defect, the departures from the normal amounting to—2°·0 or more over the Madras coast, the Central Provinces and a large part of north-west India.

The following table gives comparative temperature data for the eleven meteorological provinces of India :—

METEOROLOGICAL PROVINCE.	DEPARTURE FROM NORMAL OF		
	Mean maximum temperature, March 1904.	Mean minimum temperature, March 1904.	Mean temperature, March 1904.
	°	°	°
Burma Coast and Bay Islands . .	—0·5	+0·6	+0·1
Burma Inland	—1·0	+1·2	+0·1
Assam	+0·3	+0·3	+0·3
Bengal and Orissa	+1·2	0	+0·6
Gangetic Plain and Chota Nagpur .	—0·8	+0·6	—0·1
Upper Sub-Himalayas . . .	—4·5	+0·6	—1·9
Indus Valley and North-West Rajputana.	—4·7	+0·7	—2·0
East Rajputana, Central India and Gujarat.	—3·5	+0·3	—1·6
Deccan	—1·9	—0·6	—1·3
West Coast	—0·6	—0·5	—0·6
South India	—1·1	—1·1	—1·1

Winds:—The month of March is ordinarily one of change from the cold to the hot weather conditions of pressure and the winds are frequently very irregular. During the month under review the chief abnormal feature in the direction of the winds was the increased westing over a considerable part of northern India and around the head of the Bay. On the other hand, over the Peninsula the winds were, on the whole, more easterly than the normal. Over a large part of the country the winds were steadier than the average but the velocity was much less generally in excess. Over the sea area, on the contrary, the winds were somewhat stronger than usual. In the south-east trades region the winds varied irregularly from the normal and at Zanzibar the wind was exceedingly unsteady.

Humidity:—The mean relative humidity was in defect of the normal over Assam, Bengal and Orissa, over inland Burma, over the south of the Peninsula and over parts of the Deccan and of the west coast. The deficiency was generally moderate or small except over central Bengal where it varied between 5 and 10. Over the whole of the remainder of the Indian area the mean relative humidity was in excess and over central and north-west India and Mysore the excess was considerable to very large. At Jhansi it amounted to 25, at Lahore, Montgomery and Jacobabad to 21, and at Neemuch and Dera Ismail Khan to 20. In Baluchistan and at most of the hill stations in the north-west the excess was also large. In the south-east trades region the humidity was about normal.

The following gives mean comparative data of the nine meteorological provinces:—

Meteorological Province.	Mean absolute humidity.		Mean relative humidity.	
	Average actual, March 1904.	Departure from normal, March 1904.	Average actual, March 1904.	Departure from normal, March 1904.
	"	"	%	
Burma Coast and Bay Islands.	·789	—·001	76	+1
Bengal and Orissa .	·742	—·002	74	—2
Gangetic Plain and Chota Nagpur.	·400	+·036	48	+5
Upper Sub-Himalayas .	·414	+·075	63	+13
Indus Valley and North-West Rajputana.	·495	+·066	69	+13
East Rajputana, Central India and Gujarat.	·305	+·014	39	+6
Deccan	·353	+·006	38	+3
West Coast . . .	·721	—·038	73	—3
South India . . .	·568	+·028	58	+5

Cloud:—The sky was, on the mean of the month, generally clearer than usual of cloud except over the Punjab and North-west Frontier Province, over parts of the Gangetic plain and the Central India plateau and of upper Assam and upper Burma. The mean excess was greatest and more than 2·0 at Rawalpindi, Dera Ismail Khan, Mooltan and Montgomery. Over the remainder of the country the mean cloud amount was normal or in defect—more particularly in north-east India and in parts of Madras. In southern Arabia the mean cloud amount was low and somewhat less than usual while in the south-east trades region it was slightly more than usual.

The following gives departure data of the mean cloud amount of the nine meteorological provinces.

Meteorological Province.	Mean Cloud Amount.	
	Average actual, March 1904.	Departure from normal, March 1904.
Burma Coast and Bay Islands . . .	1·6	—0·6
Bengal and Orissa	2·6	—0·5
Gangetic Plain and Chota Nagpur . .	2·0	+0·1
Upper Sub-Himalayas	3·4	—0·2
Indus valley and North West Rajputana .	3·3	—0·2
East Rajputana, Central India and Gujarat	2·4	—0·3
Deccan	1·9	0
West Coast	1·0	—0·4
South India	2·2	—0·1

Rainfall:—During the month of March the rainfall was very light over Burma (except Tenasserim) and the Madras coast and was comparatively light over north-east India and the Peninsular districts of Bombay. Elsewhere the rainfall was generally excessive and over north-west and central India this excess was relatively large. The rainfall in north-east India occurred mainly during a period of thunderstorms which passed from west to east across this part of the country, the showers commencing in Chota Nagpur on the 3rd and ceasing in east Bengal on the 19th. Over north-west and central India the disturbed weather and rainfall were due to a succession of storms, some of which passed from the north of the Arabian Sea and others from the Persian-Baluchistan region into north-west India. The most unsettled period in this region lasted from the 1st to the 9th and between those dates the rainfall over north-western and central India was exceptionally heavy and extensive. The rainfall of the month, on the mean of all divisions, was 0·51″ above the normal.

The following table gives comparative rainfall data of the eleven meteorological provinces:—

Meteorological Province.	Rainfall.			
	Mean actual for March 1904.	Mean normal for March.	Mean of departure from normal, March 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Burma Coast and Bay Islands .	0·48	0·69	—0·16*	— 23
Burma Inland	0·11	0·22	—0·21*	— 95
Assam	3·01	4·41	—1·40	— 32
Bengal and Orissa . . .	0·69	1·48	—0·79	— 53
Gangetic Plain and Chota Nagpur	0·56	0·51	+0·05	+ 10
Upper Sub-Himalayas . .	3·42	0·79	+2·38*	+301
Indus Valley and North-West Rajputana.	2·70	0·51	+2·19	+429
East Rajputana, Central India and Gujarat.	0·92	0·12	+0·8.*	+683
Deccan	0·67	0·43	+0·20*	+ 47
West Coast	0·72	0·51	+0·21	+ 41
South India	0·07	0·45	—0·38	— 84

* A reference to table I will show that the means of columns 2 and 3 are derived from a smaller number of stations than the means in the first column. The sum of the figures in columns 2 and 3 will, therefore, not agree with the figures in column 1.

General Remarks for the monsoon area:—The month of March is a month of transition during which conditions change from those, characteristic of the cold weather, to those characteristic of the hot weather. It is hence a period of fairly uniform pressure and temperature, of light winds and of ordinarily quiet weather. There is very little activity in the cold weather storms, the conditions favourable for which are decaying, while there is very little energy in the hot weather conditions which are indeed only coming into existence. Consequently over the monsoon area, as a whole, moderate changes only are the rule during March.

The barometric changes in Siberia were generally slighter than in the two preceding months except between the 27th and the 30th during which period a very rapid fall and recovery of pressure were reported. Pressure was higher than usual almost uninterruptedly over this region during the month—more especially towards the close of the month when the excess was very pronounced. Pressure conditions over western Siberia had hence very little, if any, connexion with those prevailing over the Indian monsoon area where, though there was some excess of pressure between the 8th and the 10th and again at the close of the month, the mean pressure on most days was below the normal.

The following gives the daily departures of pressure from the normal for representative stations in the monsoon area:—

DEPARTURE FROM NORMAL OF

Date.	Calcutta.	Madras.	Colombo.	Bombay.	Lahore.	Bushire.	Aden.	Zanzibar.	Seychelles.	Whole.
	"	"	"	"	"	"	"	"	"	"
1	—·020	—·019	—·027	—·021	—·032	—·111	—·142	—·084	—·040	—·055
2	—·058	—·052	—·058	—·083	—·110	—·169	—·139	—·095	—·047	—·080
3	—·070	—·088	—·104	—·116	—·232	—·232	—·242	—·044	—·039	—·136
4	—·047	—·056	—·066	—·067	—·129	—·234	—·158	—·084	—·041	—·098
5	—·046	—·046	—·036	—·044	—·024	—·162	—·163	—·073	—·041	—·071
6	—·053	—·061	—·049	—·035	—·083	—·060	—·139	—·033	—·024	—·060
7	+·037	—·008	—·036	+·014	—·149	—·027	—·058	—·014	—·013	—·028
8	+·068	+·050	+·009	+·068	—·021	+·064	—·008	+·016	+·018	+·029
9	+·027	+·042	+·047	+·060	+·069	+·090	—·018	+·037	+·080	+·048
10	—·009	—·026	+·024	+·020	—·024	+·090	—·025	+·034	+·047	+·015
11	+·004	—·031	—·032	+·005	—·054	—·017	—·047	+·062	+·026	—·009
12	+·025	—·034	—·036	0	+·042	—·078	+·002	+·002	+·012	—·007
13	—·018	—·011	—·016	—·006	+·016	+·055	—·015	—·003	+·024	+·004
14	+·024	—·005	—·005	—·016	+·050	+·111	+·109	+·035	+·062	+·041
15	—·025	—·020	—·024	—·023	—·050	+·122	+·080	+·045	+·059	+·018
16	—·052	—·049	—·048	—·031	—·098	+·040	—·008	+·004	+·009	—·026
17	—·100	—·047	—·069	—·071	+·012	—·099	+·013	—·021	—·023	—·035
18	—·079	+·008	—·021	—·071	+·002	—·092	0	—·043	+·006	—·032
19	—·044	+·013	+·002	—·015	—·010	—·007	+·006	—·033	—·002	—·010
20	—·038	—·015	—·024	—·013	—·078	—·025	+·004	—·055	—·014	—·029
21	—·007	—·033	—·048	—·037	—·037	—·052	+·026	—·085	—·048	—·036
22	+·014	+·043	+·014	+·017	+·031	—·109	+·030	—·027	—·019	—·001
23	—·012	+·032	—·012	+·025	+·048	—·133	+·011	—·011	+·006	—·005
24	+·002	+·028	—·001	+·032	+·035	—·195	+·015	—·017	—·010	—·012
25	+·036	+·036	+·023	+·061	+·106	+·043	+·006	—·028	+·034	+·035
26	+·050	+·033	+·035	+·045	+·141	+·040	+·030	+·011	+·025	+·046
27	—·017	—·004	—·003	—·026	+·089	—·084	—·112	—·022	—·020	—·022
28	—·035	—·013	—·031	—·052	+·021	—·126	—·104	—·058	—·014	—·046
29	+·019	+·022	—·008	+·008	+·038	+·114	—·005	—·052	—·025	+·012
30	+·010	—·008	—·040	—·044	+·053	+·158	+·011	+·007	—·007	+·016
31	—·012	—·025	—·018	—·081	—·007	+·128	+·021	+·004	+·025	+·004

The preceding statement shows that pressure was below the normal from the 1st to the 7th, normal or above the normal from the 8th to the 15th; below the normal from the 16th to the 24th; above on the 25th and 26th, below on the 27th and 28th and above from the 29th to the end of the month. Comparing these general results with the daily departures at Omsk (western Siberia) the following statement is obtained:—

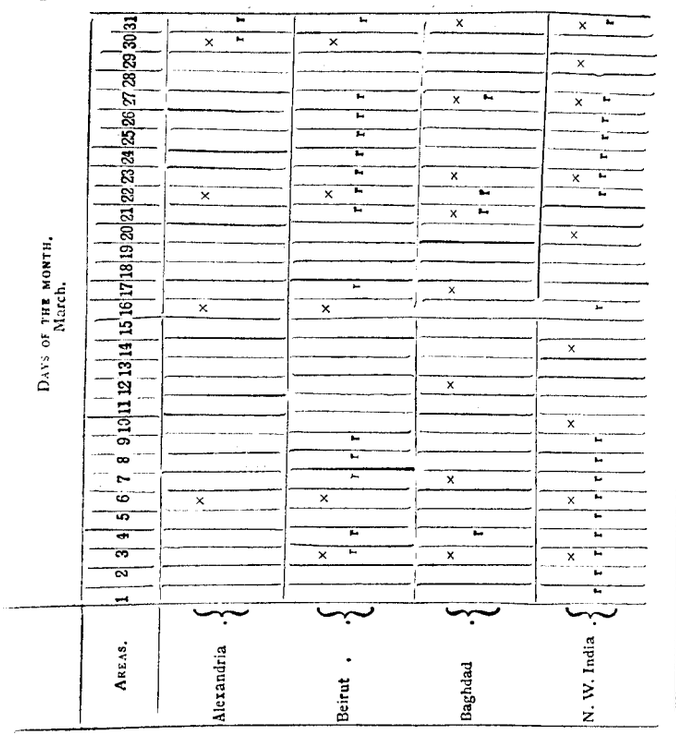
Date March.	Departures monsoon area.	Departure Omsk.	Date March.	Departure monsoon area.	Departure Omsk.	Date March	Departure monsoon area.	Departure Omsk.
	"	"		"	"		"	"
1	—·055	+·556	12	—·007	+·192	22	—·001	+·448
2	—·080	+·644	13	+·004	+·320	23	—·005	+·524
3	—·136	+·724	14	+·041	+·316	24	—·012	+·420
4	—·098	+·692	15	+·018	+·296	25	+·035	+·220
5	—·071	+·736	16	—·026	+·340	26	+·046	+·496
6	—·060	+·628	17	—·035	+·424	27	—·022	+·148
7	—·028	+·520	18	—·032	+·720	28	—·046	—·364
8	+·029	+·348	19	—·010	+·436	29	+·012	+·444
9	+·048	+·448	20	—·029	+·440	30	+·016	+·868
10	+·015	+·436	21	—·036	+·352	31	+·004	+·762
11	—·009	+·476	...	...	...	...	...	...

The comparison shows that, except perhaps during the last week, no relation can be traced between the departures of pressure over Siberia and those over the monsoon area.

The European charts show that from the 1st to the 5th pressure was very high (30·90″ to 31·10″) over Finland and northern Russia and a series of depressions travelled eastward along the Mediterranean. After the 6th pressure fell in north Russia and the depressions crossing Europe travelled through France and Germany. These conditions lasted till the 11th when depressions again appeared over the Mediterranean whence they advanced into the Black Sea region until the close of the month.

In Egypt the mean pressure of the month was below the normal. Depressions occurred on the 7th, 21st and 30th, the first and last passing eastward into Syria while that of the 21st travelled south-eastward into the Red Sea. The following table shows the dates of barometric minima

(X) and of rainfall (r) at the following stations and regions:—



So far as can be judged the preceding data appear to point to the simultaneous production, over the whole area extending from the Levant to north-west India, of conditions favourable to the development of depressions, but do not give evidence of the transmission of a definite disturbance along the whole extent of the area.

The first barometric minimum occurred on the 3rd and was recorded simultaneously at Beirut, Baghdad and in north-west India. The second occurred at Alexandria, Beirut, and in north-west India on the 6th and one day later at Baghdad; the third was reported from north-west India on the 10th; the fourth, from Baghdad only, on the 12th, the fifth from north-west India on the 14th, the sixth from Alexandria and Beirut on the 16th and from Baghdad on the 17th, the seventh from north-west India alone on the 20th, the eighth from Baghdad alone on the 21st, the ninth from Alexandria and Beirut on the 22nd, and from Baghdad and north-west India on the 23rd, the tenth from Baghdad and north-west India on the 27th, the eleventh from north-west India alone on the 29th and the twelfth and last from Alexandria and Beirut on the 30th and from Baghdad and north-west India on the 31st.

Magnetic and Solar Disturbances.

The following notes have been received from the Kodaikanal, Alipore and Colaba observatories regarding the solar, seismic and magnetic disturbances observed during the month.

Kodaikanal.

Solar Observations, March 1904.

The weather throughout the month was favourable and observations of the sun were made on every day.

Spots:—The solar activity, as shown by spots, was large during the month and was greater in the second half than in the first half of the month. The visible disk was never free from spots, and on only nine days—all in the first half of the month—were there less than three groups visible at once. Spots were most numerous in the northern hemisphere, the most active one being at about 15° north latitude. A number of groups formed on the visible disk appearing first as small scattered spots which afterwards collected into larger spots of regular shape. Several short-lived spots were observed and in one case a group, which had vanished, re-appeared two days later in its proper place, showing that it had only been covered with a veil of photospheric matter. Several of the spots showed large disturbances in the C line—both displacements and reversals. The greatest disturbances of this kind were observed on the 19th, 22nd and 24th. On the 20th, 21st and 26th D^3 (helium), or a line very close to it, appeared dark, both in a spot and for a considerable distance beyond it. This has been observed before, but it is not usual, D^3 being rarely seen in the sun except as a bright line. No very large spot appeared during the month.

Faculæ and prominences:—These were also abundant during almost the whole month. Bright "eruptive" prominences were observed on a number of days, chiefly in the neighbourhood of disturbed spots when they were near the limbs. Observations were made on several days of points outside, but near, spots in which the C line was reversed and these points would doubtless have been seen as large prominences had they been on the limb. Several of the prominences gave spectra full of bright lines, especially near the base, and some of the lines indicated rapid motion. Two prominences were measured which exceeded 35,000 miles in height and there were several between 25,000 and 30,000.

There were large magnetic disturbances on the 4th and the 26th. On the former of these dates a large group of spots had passed the central meridian about 25°. It showed no signs of disturbance on the 4th, but there was a disturbed region near it on the 3rd. On the 27th a large group of small spots was crossing the central meridian. This was one of the groups referred to above in which D^3 appeared dark on the 26th, while on the 28th the C line was reversed and displaced both towards the red and towards the violet.

C. MICHIE SMITH, *Director,*

Kodaikanal and Madras Observatories.

Colaba Magnetic Record, March 1904.

During the month the traces showed 16 calm days and 13 days of small and 2 days of moderate disturbances.

The selected quiet days of the month were the 6th, 9th, 16th, 22nd and 24th.

The mean observed absolute values of the several elements as also the ranges and summed ranges of the Horizontal Force and Declination for the month were as follows :—

Declination	0° 15′ 49″
Horizontal Force	0·37422 C. G. S. unit
Dip	21° 43′·0
H. Force range	0·00053 C. G. S. unit
„ „ summed range	0·00340 „ „
Declination range	2′·24
„ summed range	9′·95

The Horizontal Force summed range figure for the month shows a fairly well pronounced annual inequality, though the condition of the progressive growth, which was noted previously as being in defect, apparently seems to remain unaltered.

Three small seismic disturbances were recorded during the month, one on the 15th and the other two on the 31st.

MAGNETIC DISTURBANCES.

March 1904.		March 1904.		March 1904.	
1	C.	11	S.	21	S.
2	S.	12	S.	22	C.
3	S.	13	C.	23	C.
4	M.	14	C.	24	C.
5	S.	15	C.	25	S.
6	C.	16	C.	26	M.
7	C.	17	C.	27	S.
8	C.	18	C.	28	S.
9	C.	19	C.	29	S.
10	C.	20	S.	30	S.
				31	S.

The magnitudes of the disturbances are determined from Horizontal Force traces.

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

Days are reckoned from midnight to midnight.

N. A. F. MOOS, *Director,*

Government Observatory, Bombay.

Alipore :—List of displacements recorded by the Seismograph at the Alipore Observatory during March 1904 :—

Number.	Date 1904.	P. T. Commencement. G.M.T.	L.W. Commencement.	Maxima G.M.T.	End.	Maximum amplitude in M. M.	Duration.	Remarks.
		H. M.	H. M.	H. M.	H. M.		H. M.	
279	March 7th.	11-5·5		11-9·0	12-4·5	0·50	0-59·0	Doubtful. Sensibility 1 m. m. = 0″·48 of till.
280	„ 31st.	2-20·6		2-22·1	3-28·8	(a)16·50	1-8·2	Sensibility. 1 m. m. =0″·42 of till.
281	„ „	5-52·1		5-53·2	6-24·7	1·00	0-32·6	

(a) As the boom moved through the entire width of the trace the maximum amplitude has been measured from the base line.

The local times of the commencement are as follow :—

Date. 1904	H.	M.
March 7th	16	58·8
„ 31st	8	13·9
„ „	11	45·4

G. W. KÜCHLER,

Asst. Meteorological Reporter to the Govt. of India.

Royal Alfred Observatory, Mauritius :—The weather was cloudy and unfavourable for observations of the sun on the 6th, 13th, 20th, 21st, 25th, 26th, 27th and 30th, but on all the remaining days sun spots either singly or in groups were observed. Faculæ were also recorded on all observing days.

Magnetic disturbances were recorded between 0 and 14 hours on the 4th and between 4 hours and 20 hours on the 26th.

Atmospheric Pressure.

The mean 8 A. M. pressure of the whole Indian land area for the month of March 1904 was 0·012″ below the normal. The departure was thus the same as that for the same month last year.

The chart of actual barometric pressure Pl. I. shows that pressure was highest over the North-west Frontier Province, relatively high over north Bombay, Rajputana, Central India and the adjacent parts of the Central Provinces, over the upper Assam valley and over Mysore and the adjacent districts, while it was low over north Bihar, the greater part of Bengal and the Mandalay district of upper Burma.

Pressure was lower than usual except at a few central stations. Relatively to the geographical mean, *viz.*,—0·012″ pressure was low over the Burma coast, Bengal, the Gangetic plain, the greater part of the south and west of the Peninsula and the Indus valley and was high in most other places. The departures were generally slight or small and exceeded 0·020″ only at the following stations :—

Stations.	Positive anomalies.	Stations.	Negative anomalies.
Ahmednagar	+″·023	Akyab	−″·027
Amraoti	+·021	Diamond Island	−·025
Tinnevelly	+·021	Moulmein	−·023
		Sibsagar	−·027
		Jalpaiguri	−·024

The mean pressure of the month was below the normal at all the hill stations except Pachmarhi—more particularly

in Kashmir. The following gives comparative data for the hill stations.

Hill Stations.	Departure from normal of mean 8 A.M. pressure of March 1904.
	"
Leh	−·047
Srinagar	−·033
Murree	−·033
Cherat	−·016
Chakrata	−·028
Ranikhet	−·020
Simla	−·017
Darjeeling	−·023
Mount Abu	−·026
Pachmarhi	+·001
Wellington	−·015
Chaman	−·032
Quetta	−·007

At the majority of the hill stations the negative departures were greater than those at the neighbouring plains stations, hence the vertical pressure anomalies were in many cases negative. The following data for ten pairs of stations illustrate this condition :—

Hill Station.	Departure from normal pressure, March, 1904.	Plain station.	Departure from normal pressure, March, 1904.	Vertical pressure anomaly (Hill–Plain.)
	"		"	"
Quetta	−·007	Jacobabad	−·015	+·003
Leh	−·047	Lahore	−·012	−·035
Murree	−·033	Peshawar	−·018	−·015
Simla	−·017	Ludhiana	−·006	−·011
Chakrata	−·028	Roorkee	−·015	−·013
Ranikhet	−·020	Bareilly	−·022	+·002
Darjeeling	−·023	Dhubri	−·026	+·003
Mount Abu	−·026	Deesa	−·009	−·017
Pachmarhi	+·001	Khandwa	−·007	+·008
Wellington	−·015	Coimbatore	−·018	+·003

The preceding table shows that negative vertical pressure anomalies were mainly confined to the north-west Himalayan region and that they were largest over the Lahore-Leh area. In the Baluchistan-Sind area, part of the Kumaun area, the Sikkim and the Central Provinces area and the Nilgiris the vertical pressure anomalies were slightly positive.

The departures of pressure, on the mean of the month, at the extra-Indian stations are shown in the following statement :—

Station.	Departure from normal of mean 8 A. M. pressure of March 1904.
	"
Trincomalee	+·012
Colombo	−·021
Amin-i-Divi	−·010
Bushire	−·028
Jask	−·036
Muscat	−·014
Baghdad	−·105
Aden	−·032
Perim	+·047?
Zanzibar	−·017
Mauritius	−·049

The preceding data show that the mean pressure of the month was generally lower than usual. The departure was considerable at Baghdad and moderate at Mauritius.

The following summarises the chief features of the mean pressure conditions of the month :—

1. The mean pressure of the whole Indian land area was ·012″ in defect of the normal.

2. Pressure was in slight local defect over the Indus valley, the west and south of the Peninsula, the Burma coast, north-east India and the Gangetic plain and was in slight local excess elsewhere.

3. The local departures from the normal were generally small in both directions but the positive departures exceeded 0·020″ over the south of the Central Provinces and locally at Tinnevelly while the negative departures exceeded 0·020″ on the Burma coast, in Assam and in north Bengal.

4. The vertical pressure anomalies were negative over north-west India.

Barometric depressions and cyclonic storms of the month.

As was the case in the months of March 1902 and 1903 the weather during the month under review was more disturbed than usual over the north-west and centre of India where the rainfall of the month was in excess of the average.

The following gives a brief history of the more important disturbances or storms of the month :—

Storm of the 2nd to the 4th March.—The barometer was falling rapidly over Baluchistan, Sind and Gujarat on the 2nd and a moderate depression was advancing from the

north of the Arabian Sea towards the Sind coast. The following gives marine data for the north of the Arabian Sea for this date :—

Name of Vessel.	8 A.M. Position. Lat. N.	Long. E.	Barometer as corrected by Bombay office.	Wind. Direction.	Force.	Weather.
	° ′	° ′	″			
S.S. *Sultan* .	14 20	70 51	29·731	NW	2	Fine and clear.
S.S. *Sicilia*. .	15 46	59 10	·854	SSW	4	Moderate south sea and fine.
S.S. *Langdale* .	16 30	72 51	...	NNW	3	Fine.
S.S. *City of Bombay.*	16 32	60 41	·843	SSE	2 to 4	Slight sea, midnight, lightning towards north.
S.S. *Haidari* .	16 46	63 10	·855	SW	4	Moderate sea, midnight, lightning towards north.
H.M.S. *Merlin* .	18 06	67 00	·810	SW	2 to 3	Smooth sea and fine, midnight lightning.
S.S. *Nadir* .	Bombay.		·994	NW	2	Fine.
S.S. *Henzada* .	Vera	val.	·685	E	2	Fine.
S.S. *Goalpara* .	24 16	61 07*	·705	NW	2	Occasional rain showers.
S.S. *Katoria* .	Kurra	chee.	·806	NE	4	More or less rainy, 4 P.M. moderate rain squalls.
S.S. *Kerbela* .	25 14	57 30*	·738	WNW	6	High sea and passing rain squalls.

* Noon position.

The preceding data show that though there were no vessels which reported stormy weather over the north of the Arabian Sea there was yet a fairly complete cyclonic circulation of the winds over that region while the *Goalpara* reported occasional rain showers and the *Kerbela* passing squalls.

The following gives 8 A.M. data for the stations on the Sind and Kathiawar coasts :—

Station.	Pressure. 8 A.M. reduced to sea level and constant gravity at Lat 45°.	Change in past 24 hours.	Departure from normal.	Wind. Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Remarks.
							Inches	
Kurrachee .	29·793	—·124	—·176	N	5	10	0·42	Raining.
Bhuj. .	·811	—·121	—·147	SSE	6	8		Thunder.
Jamnagar .	·805	—·125	...	SSE	25	6	1·52	Gale.
Dwarka .	·792	—·116	...	ENE	7	8	0·17	Sea slight.
Rajkot .	·818	—·125	—·144	Calm	6	10	0·54	Thunder storm.
Veraval .	·790	—·125	—·143	SE	8	4		Sea smooth.
Bhavnagar Para.	·812	—·098	—·142	SW	4	7		
Surat . .	·835	—·083	—·113	SW	3	3		

The barometer had fallen over one-tenth of an inch and rain was reported from Kurrachee, Dwarka, Jamnagar and Rajkot while the wind was south-easterly at Veraval, east-north-easterly at Dwarka and northerly at Kurrachee.

March 3rd :—The storm had advanced north-north-eastward and the centre lay over the Indus valley between Jacobabad and Mooltan. The following gives 8 A.M. data for the storm area :—

Station.	Pressure. 8 A.M. reduced to sea level and constant gravity at Lat 45°.	Change in past 24 hours.	Departure from normal.	Wind. Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Remarks.
	″	″	″				Inches	
Hyderabad .	29·658	—·131	—·295	S W	6	0	0·48	Showery.
Jacobabad .	·620	—·189	—·338	W	6	10	1·27	Do.
Mooltan .	·623	—·264	—·358	S E	3	8	1·22	
Dara Ismail Khan.	·669	—·247	—·318	NNE	3	10	0·65	Drizzling.
Peshawar .	·805	—·205	—·232	S	1	10	0·20	Showery.
Khushab .	·718	—·198	—·248	N E	12	10	0·16	Raining.
Montgomery	·683	—·197	—·272	E N E	8	10	0·32	Showery.
Bikaner .	·709	—·129	—·241	S S W	8	8	0·83	

The barometer had fallen briskly to very rapidly over the whole of north-western India, the change amounting to over 0·20″ at Peshawar, Dera Ismail Khan and Mooltan. Wide-spread rain had occurred and falls of over 1·00″ were reported from some central and north-west stations.

March 4th :—A rapid rise of the barometer had occurred over north-west India and the depression had almost filled up though there were still signs of a centre lying over the district represented by the stations of Bikaner, Sirsa, Montgomery and Mooltan. Further extensive and heavy rain had been received over north-west India.

March 5th :—The barometer was still rising and the depression had filled up considerably.

It is a very unusual circumstance for a storm to form over the Arabian Sea at this season of the year, but the ships' observations, though there were none in the immediate neighbourhood of the centre of the disturbance, exhibited a well-defined cyclonic circulation around a centre over the north of the sea while in addition, while the coast stations showed fairly clearly that the storm approached from the southward, the observatories in Persia, etc., showed equally clearly that the disturbance did not pass over that area.

Storm of the 6th to the 8th :—This storm was similar in character to, but slighter than, the preceding storm. It appeared on the Sind coast on the morning of the 6th where the barometer had fallen ·123″ at Kurrachee. An equally rapid fall of the barometer had, at the same time, taken place over Baluchistan and the North-west Frontier Province. The latter fall was apparently a continuation of a rapid fall which had taken place over Asiatic Turkey and Persia on the 3rd and had thence progressed eastward to the Indian

frontier while the storm off the Sind coast was apparently a disturbance which had been developed over the north of the Arabian Sea and like its predecessor had advanced north-north-eastward to the Sind coast.

March 7th :—The Sind depression had advanced at the rate of about 20 miles per hour north-north-eastward and the centre lay between Montgomery and Mooltan where pressure was over 0·20″ below the normal. The winds were strong and cyclonic around the storm and rain had fallen over north-west India.

March 8th :—The barometer had risen very rapidly in the north-west and the storm had practically filled up though the weather remained very unsettled and heavy rain had fallen.

A rapid fall of the barometer occurred at Baghdad on the 7th with a southerly wind and on the 10th a feeble depression appeared over the Indus valley. This depression passed eastward into northern India but was at no time of any importance. On the 14th a similarly slight depression appeared over the western desert. The weather had been unsettled in Persia on the two preceding days and the disturbance apparently advanced to the Indus valley through Persia and Baluchistan. The depression advanced eastward through the Punjab to the Himalayas and thence rolled eastward along the hills and apparently filled up in the north-east.

On the 17th conditions again became unsettled over Persia, etc. The barometer fell very rapidly at Baghdad and on the following day rain was reported from Teheran and Ispahan. On the 19th the barometer was falling in north-west India and on the 20th a well-marked depression appeared over the Indus valley and pressure was ·128″ below the normal at Jacobabad. The depression passed eastward across northern India but was at no time of much importance. Still another depression appeared over the western desert on the 24th and as rain had been experienced over Asiatic Turkey and Persia on the 22nd, it would appear that this depression also had advanced to India from the countries to the westward. The storm occasioned snow over Kashmir and rain over the north-west of India but quickly filled up.

On the 23rd the barometer had fallen 0·270″ at Baghdad with a southerly wind and on the following day this fall had extended to Persia. This disturbance, never, apparently, reached India though the weather was unsettled, with snow on the hills and rain on the plains of north-west India, on the 26th and 27th. On the latter date and on the 28th there was another rapid fall of the barometer in the Persian area accompanied with gales and rain, and, on the 29th a small and shallow depression entered north-west India. This storm quickly filled up and the weather in India was at no time much disturbed.

Summary of the Reports of the Weather and Snowfall in the Mountain Districts to the North and North-West of India.

The following are the snowfall returns for the month of March 1904. The snowfall of the month was heavier than usual in Afghanistan, over the frontier districts, in parts of Kashmir and on the Simla hills but was less than usual over the United Provinces Himalayas and the eastern Himalayas.

I.—AFGHAN MOUNTAIN DISTRICTS.

(1) *Kabul* :—Snow fell lightly at Kabul on the 4th, 5th and 7th of March.

The accumulated snow on the higher hills around Kabul, at the close of the month, was as follows:—

Latta Band	½ inch
Koh Kalukh	2 inch
Pagman	2 inch
Daman Koh	1 inch
Bala Koh	1 inch

The snowfall was very much more than in the corresponding month of the last few years.

(2) *Kurram* :—Throughout March 1904, snow fell on almost every day on the Sufed-*i*-Koh and the surrounding hills. The fall on the 8th extended to Parachinar but soon melted. The accumulated snow on the higher summits of the Sufed-*i*-Koh is estimated to be about 5 feet and the passes were, at the end of the month, still closed.

(3) *Wano* :—Snow fell on the 3rd and 5th of March as follows:—

Marwattai, Bosh, Dre Nashtar	11,000 feet, about 1 foot.
Kundighar, Janimela	8,000 feet, about 3 inches.

At the close of the month snow was lying to a depth of about 3 inches on the highest points and in sheltered ravines on the north face.

The snowfall of the month under review is reported by the inhabitants to be heavier than in March 1903.

(4) *Kohat* :—On the Samana Range snow fell on the 7th of March to a depth of 1 foot and 3 inches.

II.—KASHMIR AND PUNJAB HIMALAYAS.

The following were the depths of snow recorded at the observatories in Further Kashmir, week by week, throughout the month :—

STATIONS.	1st March.	8th March.	15th March.	22nd March.	29th March.
	ft. ins.	ft. ins.	ft. ins.	ft. ins.	ft. ins.
Dras	2 2½	2 4	2 4	2 6	2 4½
Minimarg	4 2	4 0	3 6	4 6	4
Sonemarg	2 8	3 6	3 0	2 9	2 6

(2) *Drosh* :—On the 2nd the observer telegraphed that snow had been falling since noon on 1st on all surrounding mountains.

(3) *Srinagar* :—There occurred a fall of 9 inches of snow on the 8th March. The total fall of snow during the winter 1903-04, was over 7 feet. There was much more snow in the Jhelum valley than last year.

(4) *Leh* :—Snow fell as follows :—

March 7th-8th=about ¼ inch.
„ 16th=a sprinkle.

The snowline, at the close of the month, was about 15,000 ft.

The snowfall was much less than usual in Ladak. On the passes between Kashmir and Leh, especially the Zoji-la there seems to have been much snow for the mail was much more irregular than usual at this time of year, but no details were to hand.

(5) *Murree* :—No snow fell on the Murree hills during March 1904.

(6) *Hazara* :—Snow fell as follows :—

		Ft.	ins.
March, 1st	Dunga Galli	2	6
„ 7th	do.	0	6
„ 23rd	do.	0	9
„ 3rd	Khandiani	1	6
„ 7th	do.	1	0
„ 23rd	do.	1	6

(7) *Kangra* :—Snow fell on the higher peaks on the 2nd, 4th, 5th, 7th to 9th, 12th, 16th, 17th, and 23rd to 25th March, the snow descending to an elevation of 5,000 ft. There was a slight fall of snow on March 8th on the higher peaks and passes in the Plach tehsil when the snow descended to an elevation of 5,200 ft.

The following table gives the depth of snow on the various passes of the sub-divisions :—

Kulu tehsil.		Plach tehsil.	
Pass.	Feet.	Pass.	Feet.
Rohtang	17	Srikhand	14
Hamta	17	Chul	4
Chandarkhani	7	Hingan	4
Barsai	6	Dundku	5
Bujadhar	4½	Tikkar	4
Lohri Achri	6	Tuhnu	1
Bhuboo	3½	Jalori	4
Munjhag	½	Bhimri	3
Bastari	2½	Skiran	4
Sairi	12	Gargarasan	6
		Supakun	4
		Bashleo	4
		Plach	5
		Tirath	6
		Ragnopur	3

The snowfall during the month under review was about equal to that of March 1903.

(8) *Dalhousie* :—Snow fell on the 2nd, 4th, 8th, 9th, 13th and 24th.

The snowfall this year was a month earlier than usual and is reported by the people to be heavier than it was last year.

(9) *Bashahr hills, Simla* :—The following shows the snowfall of the month :—

Date.	Snowfall descended to.	Amount of snow measured.
	Feet.	Inches.
March 1st	8,500	4
„ 2nd	8,500	4
„ 4th	5,750	1
„ 5th	9,000	1
„ 7th	8,000	4
„ 8th	5,750	1
„ 9th	7,000	6
„ 16th	10,000	1
„ 17th	10,000	½
„ 23rd	9,500	2
„ 24th	5,750	½
„ 25th	9,000	1

The accumulated snow on the principal passes was as follows :—

	Ft.
Rupin Pass (16,000 ft.)	18
Bruin „ (16,000 ft.)	18
Hurang „ (12,000 ft.)	10
Shatul „ (10,000 ft.)	16
Buldar „ (16,000 ft.)	18
Runang „ (14,000 ft.)	12

The snowfall was heavier than in the corresponding month of the previous year.

III.—United Provinces Himalayas.

(1) *Almora* :—Snow fell as follows in this district :—

Malla Johar.

	Ft.
March 1st to 8th	5
„ 20th	3
Total	8

Malla Danpur.

	Ft.	ins.
March 1st to 4th	2	0
„ 7th to 9th	1	0
„ 25th and 26th	0	6
Total	3	6

Darma and Byans.

	Ft.	ins.
March 3rd	2	0
„ 4th	1	0
„ 6th	0	6
„ 7th	1	0
„ 8th	1	6
„ 9th	1	6
„ 10th	0	6
„ 11th	0	6
„ 30th	0	6
TOTAL	9	0

The accumulated snow on the following ranges and passes is reported to be :—

	Ft.	ins.
Uta Dhura range	7	6
Ralam „	6	
Milam „	4	6
Boydwer „	1	6
Lipu Pass	6	
Limpu	6	6
Nirme	9	

The snow fall during the month under review is reported to be less than in March 1903.

(2) *Garhwal* :—There were light falls of snow on the perpetual snows during the first fortnight of March.

IV.—ASSAM HIMALAYAS.

(1) *Darrang* :—At the beginning of February the snowfall in the Bhutan hills was at a much lower elevation than usual.

(2) *North Lakhimpur* :—The snowfall during the winter of 1903-04 on the hills north of Lakhimpur is said to have been below the normal.

(3) *Lakhimpur* :—Heavy snow fell from the middle of January to the middle of February 1904. The snowfall during the year from 1st April 1903 to 31st March 1904 was abnormally heavy.

Summary of Special Storm Reports.

The following is a statement of the more important dust storms, thunderstorms and hail storms reported during March.

March 1st.—A thunderstorm passed over Nagpur at 10 P.M. lasting one hour.

A slight thunderstorm occurred at Simla at 6-30 P.M. with light rain and hail.

A storm with rain occurred at Srinagar between 10 A.M. and noon.

2nd.—Thunderstorms with hail and rain were experienced at Chikalda between 4 and 4-10 A.M. and between 8 and 8-15 P.M.

A severe thunderstorm occurred at Hoshangabad between 7 and 7-30 P.M. the hailstones being of the size of guavas.

A storm passed over Nagpur at 11-40 P.M. with rain, thunder and lightning.

A thunderstorm occurred at Pachmarhi at 5 P.M. lasting ten minutes.

A thunderstorm occurred at Simla between 4-6 P.M. and 6 P.M. and rain and hail fell.

3rd.—A slight storm passed over Srinagar with light rain after 2 P.M.

7th.—A severe nor-wester was experienced at Burdwan at 3-40 P.M. lasting 15 minutes.

8th.—A thunderstorm commenced at Simla at 0 A.M. and continued till 9 A.M. Heavy hail occurred and temperature fell to 34°·4.

11th.—A thunderstorm occurred at Srinagar between 2 P.M. and 5-30 P.M.

12th.—A thunderstorm commenced at Simla at 5 P.M. and continued till 6-20 P.M. The hail and rain were light.

A slight duststorm was experienced at Srinagar at 1 P.M.

16th.—A slight thunderstorm commenced at Simla at 1 P.M. and continued for one hour. A nor-wester with drizzling rain passed over Srinagar between 1 A.M. and 6 A.M.

21st.—A slight nor-wester was experienced at Srinagar between 4 P.M. and 8 P.M.

22nd.—A thunderstorm occurred at Nagpur at 11 P.M. with rain.

A thunderstorm occurred at Simla between 4-50 and 6 P.M.

A nor-wester passed over Srinagar between 1 P.M. and 5 P.M.

23rd.—A duststorm was experienced at Hoshangabad.

24th.—A thunderstorm occurred at Simla between 2-30 A.M. and 7-45 A.M.

A nor-wester with rain occurred at Srinagar.

29th.—A storm with rain passed over Cherat between 4-50 P.M. and 6-0 P.M.

31st.—A duststorm with rain, thunder and lightning passed over Pachmarhi in the evening lasting 1 hour.

Thunderstorms with hail occurred in the Belgaum district.

Earthquake reports.—At 7-45 A.M. on the 29th March an earthquake was felt at False Point Light house. The motion continued 45 seconds. There was no perceptible damage to the tower building.

At Gopalpur a short earthquake shock was felt at 7-38. A.M. The shock lasted about 5 or 6 seconds.

Hail storms.—On the 22nd February 1904, a hail storm visited portions of the Chhindwara district. The storm rose in the neighbourhood of the Kaugla (Pachmarhi), and

travelled in a south-easterly direction passing over an area of 182 square miles. The storm visited 87 villages, of which 36 villages suffered considerably. It lasted about 3 hours. The hail stones varied in size from a cotton seed to a mango.

On the 1st March a hail storm broke over Kosmi near Amarwara, proceeded eastward and damaged the Rabi crops of 16 villages.

On the 1st and 2nd March very severe hailstorms passed over the Kota state causing great damage to crops. Hundred and sixty-five villages were affected by the storms.

Between the 1st and 3rd March there occurred numerous hail storms of slight to moderate intensity in the Bhopawar Agency. The hail stones varied in size from wild berries to lemons.

Numerous hail storms occurred over the Indore state between the 27th of February and the 5th of March. The duration of the storms varied from one minute to one hour and the size of the stones varied from that of a plum to that of a lemon. Considerable damage was done to the crops, more particularly to the poppy crops.

In the Malwa district of the Gwalior state numerous hail storms occurred between February 27th and March 3rd. Considerable injury to the poppy crop was done in the Tonk Pargana and to other crops in the Shajapur, Tonk and Bhandere Parganas.

A hail storm occurred in the Hoshangabad district on the 2nd March. The storm came from west and travelled in an easterly direction following the Nerbudda river as far as Sohagpur. It then turned to south-east, again passing into the Narsinghpur district. At Hoshangabad the storm lasted for about twenty minutes. The hail stones were large, being about the size of an Indian hen's egg. The storm occurred at night.

The following is the account of the same storm from the Narsinghpur district. The storm began about 7 P. M. on the 2nd and reached the eastern edge of the district about midnight. It entered the district close to the Bombay road and passed along, parallel to the railway line, causing very serious damage just south of the Kareli station. The stones measured about 2 inches in diameter.

Another smaller storm entered the Narsinghpur tehsil from the Chhindwara district commencing at 7-30 P. M. and passing out of the tehsil at 9 P. M. At two points its intensity increased and it caused serious damage.

A hail storm occurred in the western Nara district (Indus) at 9 P. M. on the 2nd March.

Hail storms occurred on the 3rd and 4th March in the Jubbulpore district. That of the 3rd occurred at 11 P. M. and that of the 4th at 4-30 P. M. The storms were very local, lasted from 10 minutes to one hour and the weight of the stones varied from one to four chataks. Serious damage was caused in 62 villages. In Bhopal hail storms occurred on the 1st, 2nd and 3rd March in the Kurwai state. The stones in some places were as large as mangoes and the crops in two villages were severely damaged. In the Thal pargana the stones were the size of gooseberries but no damage was done. In some villages of the Nawab Basoda and Mahomedgarh states the crops are reported to be entirely destroyed.

At Sibsagar (Assam) a hail storm occurred on March 5th. The storm lasted 20 minutes and the stones were from ½ to 1 inch in diameter. On the 12th a hail storm occurred in the Darrang district (Assam). The storm lasted about half an hour and the stones were the size of marbles.

A hail storm was experienced over the south of the Dharwar division at 3 P. M. on the 31st March. The hail stones were about ¼ inch in diameter.

On the 29th February a slight hail storm was experienced over the Bhind and Tomarghar districts of the Gwalior state.

On the 1st, 2nd, 3rd, 29th and 30th March hail storms were experienced in some parts of the Ujain and Neemuch districts of the Gwalior state. The damage inflicted upon the crops was slight.

On the 1st March a hail storm visited the Moradabad district.

Between the 1st and 3rd March there occurred a series of hail storms in the Bulandshahr district.

On the 8th March a hail storm passed over the Gonda and Bahraich districts.

On the 7th March a hail storm visited 9 villages of the Karwi tehsil, district Banda. The stones were of the size of a sparrow's egg.

On the 4th March a hail storm occurred in the Gurgaon district.

On the 8th March a hail storm was experienced in the villages of Bhaini Mirza Khan and Ibrahimpur (Hoshiarpur district).

On the 23rd March and 20th April severe hail storms were experienced in the Kohat dstrict.

Brief Summary of the weather in the Arabian Sea and Bay of Bengal during the month.

Arabian Sea:—The winds were unsteady and unusually southerly over the Arabian Sea between the 1st and the 6th. On the 7th ordinary north-east winds set in and continued till the 21st when the directions became variable. On the 22nd easterly winds were reported over the north of the sea and on the following day light south-west winds were experienced in Latitude 20° N. and Long. 63° E. Variable winds continued to be reported over the north of the sea until the close of the month. These conditions were due to the large and frequent pressure changes which were in progress over the land area to the north of the sea.

The mean force of the wind for the month was 2·9, the normal force being 2·7. The strength of the wind exceeded the normal on most days,—more particularly on the 8th (4·1), but was lighter than usual on the 3rd (2·6), the 6th (2·5), the 14th (2·6), and from the 19th to the 27th. The winds were weakest on the 21st when the mean force,

as determined from the data of twenty-two vessels, was only 2·0.

Bay of Bengal.—The wind was north-easterly in the south of the Bay and southerly in the north from the 1st to the 3rd. Southerly winds then extended over the greater part of the Bay and continued till the 6th. On the 7th and 8th the directions were very variable but on the 9th north-easterly and northerly winds set in, which, however, only held during that and the following day. South-westerly winds appeared in the north on the 10th and southerly winds in the north and centre and north-easterly winds in the south continued till the 17th. On the 18th southerly winds again extended to the south of the Bay and winds from this direction continued over the greater part of the Bay (except the north-east) till the 23rd. On the 24th variable winds were reported and continued till the 26th after which date strongish south-westerly and westerly winds set in over the north of the Bay and held for two days. From the 29th to the close of the month very variable winds prevailed except close to the coasts.

The mean force of the wind for the month was 2·5, the normal force being 2·4, so that, as over the Arabian Sea, the general force for the month slightly exceeded the average. The winds were strongest on the 12th, 19th and 23rd, when their average strength, determined from the data of about 20 vessels, was 3·1, 3·0 and 3·2, respectively. The wind was lightest on the 30th when the mean force was only 1·9.

Equatorial Belt.—Fairly normal winds prevailed over the west of the equatorial belt between the 1st and the 8th. On the 9th southerly and variable winds appeared (except on the African coast) and continued till the 15th, when the ordinary north-east and north-west winds set in and blew until the 20th. On the 21st the wind shifted towards the eastward and blew from between north-east and south-east till the close of the month.

Temperature of the air.

The weather during March 1904 was cooler than usual, except over north-east India and the Burma coast. In this respect the weather was similar to that of March 1903, and in both months conditions were unusually rainy and unsettled over north-west India and in the mountain area around the frontier.

The mean day or maximum temperature of the month exceeded the normal over north-east India, the Burma coast, at a few places in the south of the Peninsula, Tenasserim, and locally at Bombay and Amini Divi. The excess was generally moderate or small and was more than 2°·0 only at the stations for which comparative data are given below :—

Station.	Mean maximum temperature.		
	Actual, March, 1904.	Normal, March.	Departure from normal, March, 1904.
	°	°	°
Mymensingh	89·9	86·9	+3·0
Bogra	93·0	90·2	+2·8
Dinajpur	91·5	89·1	+2·4

Over the whole of the remainder of India the mean maximum temperature ranged below the normal. The deficiency was considerable to large over the whole of north-western and central India, and was considerable at some stations in the east and west of the Peninsula. It was greatest and 5°·0 or more at the following stations in the north-west and centre :—

Area.	Station.	Mean maximum temperature.		
		Actual, March, 1904.	Normal, March.	Departure from normal, March, 1904.
		°	°	°
North-West India.	Lahore . . .	76·7	85·1	−8·4
	Dera Ismail Khan .	75·8	83·5	−7·7
	Sirsa . . .	82·8	88·6	−5·8
	Ludhiana . . .	78·8	84·4	−5·6
	Montgomery . .	80·3	85·7	−5·4
	Rawalpindi . .	71·1	76·5	−5·4
Central parts of India.	Nowgong . . .	86·5	92·4	−5·9
	Saugor . . .	87·1	92·1	−5·0

The following gives the highest maximum temperatures

recorded in each division of India during the month together with the highest temperatures recorded previously:—

PROVINCE.	STATION.	Highest maximum temperature recorded in March, 1904.	Date on which recorded.	Highest maximum temperature recorded in March previous to 1904.	Year in which recorded.
		°		°	
BURMA .	Monywa .	105·2	31st	101·3	1903
ASSAM . .	Gauhati .	99·5	27th	88·0	1903
BENGAL .	Midnapore .	103·9	31st	107·9	1896 and 1902.
ORISSA . .	Cuttack .	103·4	29th	108·5	1902
BIHAR . .	Bhagalpur .	103·3	31st	104·8	1896
CHOTA NAGPUR.	Purulia .	102·2	31st	105·7	1902
UNITED PROVINCES.	Jhansi . .	102·3	31st	110·0	1892
PUNJAB .	Sirsa . .	98·3	30th	111·4	1892
N.-W.F. PROVINCE.	Dera Ismail Khan .	87·8	30th	106·5	1892
BALUCHISTAN	Chaman .	77·3	29th	85·3	1899 and 1900.
SIND . .	Hyderabad .	102·1	30th	112·2	1892
RAJPUTANA .	Deesa . .	108·1	31st	114·5	1892
GUJARAT .	Ahmedabad .	107·8	31st	109·3	1902
CENTRAL INDIA.	Neemuch .	101·5	31st	107·5	1892
CENTRAL PROVINCES.	Khandwa .	107·2	31st	109·7	1892
BERAR . .	Akola . .	105·7	31st	111·6	1892
WEST COAST.	Bombay .	94·5	31st	96·5	1901
BOMBAY DECCAN.	Sholapur .	102·8	18th	110·7	1892
MYSORE .	Chitaldroog .	96·7	31st	100·2	1899 and 1900.
MADRAS COAST.	Nellore .	99·3	25th	110·8	1892
MADRAS DECCAN.	Cuddapah .	104·7	30th	110·3	1892 and 1903.
SOUTH INDIA	Tinnevelly .	100·3	29th	104·5	1892 and 1900.

The preceding data show that Burma and Assam were the only provinces where higher temperatures than any previously recorded, were registered.

At the hill stations the departures of the maximum temperatures from the normal were irregular. Over the outer Himalayas in the north-west, as also in Baluchistan, the mean day temperatures were, as on the neighbouring plains, below the average, the deficiency amounting to 4°·1 at Chakrata, to 6°·9 at Murree and to 3°·8 at Quetta, but over the Kashmir Himalayas, as well as in Afghanistan, the mean maximum temperatures were more or less excessive, the principal departures having been +3°·6 at Leh and +5°·3 at Kabul. At Darjeeling and Wellington the mean maximum temperature was slightly higher than usual, while at both Pachmarhi and Mount Abu it was in defect.

The departures of the mean minimum or night temperatures from the normal were smaller and more irregular than those of the mean maximum temperature. Owing to the increased cloudiness of the sky over northern India the mean minimum temperatures were generally in slight excess in that area, but in Burma and the Deccan, where the mean cloud amount was normal or in slight defect, the mean night temperatures were also in excess. The departures from the normal exhibited a general, slight excess over northern India and Burma and a general, slight defect over the Peninsula, except the Deccan. The following shows the departures exceeding 2° on the mean of the month:—

STATION.	Positive departures.	STATION.	Negative departures.
	°		°
Bassein	+2·5	Cuddalore . . .	−2·5
Yamethin . . .	+2·4	Trichinopoly . .	−2·4
Minbu	+2·3	Madras . . .	−2·2
Silchar	+2·5	Trincomalee . .	−2·1
Ajmer	+3·2		
Pachpadra . . .	+2·8		
Lahore	+3·2		
Sialkot	+2·2		

The mean night temperatures were generally lower than usual at the hill stations on the outer ranges of the north-west Himalayas and in Afghanistan, and generally higher than usual on the Kashmir Himalayas and in Baluchistan. This is shown below:—

HILL STATION.	Positive departures.	HILL STATION.	Negative departures.
	°		°
Chaman . . .	+3·4	Kabul . . .	−3·2
Quetta . . .	+0·6	Murree . . .	−4·7
Srinagar . . .	+2·9	Simla . . .	−3·2
Gilgit . . .	+1·4	Chakrata . . .	−1·9
Leh	+0·3	Cherat . . .	−1·4
		Kailang . . .	−0·7
		Ranikhet . . .	−0·6

At Darjeeling the mean night temperature was in trifling excess, while at the central and southern hill stations it was in defect of the normal. The following gives data:—

HILL STATION.	MEAN MINIMUM TEMPERATURE.		
	Actual, March, 1904.	Normal, March.	Departure from normal, March, 1904.
	°	°	°
Darjeeling	42·9	42·3	+ 0·6
Mount Abu	59·7	61·5	− 1·8
Pachmarhi	58·6	60·4	− 1·8
Wellington	49·6	52·2	− 2·6

The departures of the mean temperature from the normal showed that, on the mean of the month, the weather was slightly warmer than usual over north-east India, the Burma coast and Tenasserim and locally at Bombay and

Amini Divi. The departures were generally small and exceeded 1°·0 only at the following stations :—

Station.	Mean temperature. Actual, March 1904.	Normal, March.	Departure from normal, March 1904.
	°	°	°
Mymensingh	77·8	75·7	+2·1
Silchar	76·4	74·6	+1·8
Narayanganj	80·6	79·1	+1·5
Chittagong	78·5	77·2	+1·3
Barisal	80·5	79·2	+1·3
Bassein	83·8	82·5	+1·3

Over the whole of the remainder of India the temperature, on the mean of the month, was lower than the average. The deficiency was moderate and exceeded 2°·0 on the Madras coast, at some central stations and over the greater part of north-west India. The following gives data :—

Area.	Station.	Mean temperature. Actual, March 1904.	Normal, March.	Departure from normal, March 1904.
		°	°	°
Madras Coast	Trichinopoly	83·0	85·4	—2·4
	Cuddalore	78·6	80·8	—2·2
	Madras	79·1	81·2	—2·1
Central parts of India.	Nowgong	73·7	76·7	—3·0
	Saugor	75·6	78·3	—2·7
	Jubbulpore	74·2	76·9	—2·7
	Raipur	80·1	82·6	—2·5
	Indore	74·1	76·5	—2·4
	Neemuch	74·3	76·5	—2·2
North-West India.	Dera Ismail Khan	66·3	69·6	—3·3
	Ludhiana	67·8	71·0	—3·2
	Bikaner	74·1	77·0	—2·9
	Lahore	67·1	69·7	—2·6
	Sirsa	70·5	73·0	—2·5
	Hyderabad	76·5	79·0	—2·5
	Jacobabad	73·1	75·4	—2·3
	Delhi	72·5	74·8	—2·3
	Rajkot	76·7	79·0	—2·3
	Bhuj	77·5	79·7	—2·2
	Rawalpindi	61·5	63·6	—2·1

At the hill stations on the outer ranges of the Himalayas and at Quetta the mean temperature of the month was lower, and at the Kashmir stations and in Afghanistan was higher than the average. The defect was more than 5°·0 at Murree. At the central hill stations of Pachmarhi (—2°·3) and Mount Abu (—3°·4) the mean temperature was in defect.

The chief abnormal features of the mean temperature conditions of the month were as follows:—

(1) Both the day and night temperatures and consequently also the mean temperature were in excess over north-east India and the Burma coast.

(2) The mean day temperature was in considerable to large defect, the mean night temperature normal or in slight excess and the mean temperature in moderate defect over north-west India.

(3) The temperature, both by day and night, was generally slightly lower than the average over the Peninsula.

(4) The temperature was lower than usual, both by day and night, at the hill stations on the outer ranges of the Himalayas, but was higher than usual, both by day and night, in the Kashmir Himalayas.

(5) In Baluchistan the day temperatures were lower and the night temperatures higher than the average.

The following gives the departures of the mean temperature of the month from the average at the extra-Indian stations :—

Station.	Mean temperature. Actual, March 1904.	Normal, March.	Departure from normal, March 1904.
	°	°	°
Trincomalee	80·8	82·1	—1·3
Colombo	81·2	82·2	—1·0
Amini Divi	83·5	83·1	+0·4
Kashgar	48·6	46·2	+2·4
Kabul	47·4	46·3	+1·1
Teheran	49·8	47·8	+2·0
Ispahan	49·2	48·5	+0·7
Bushire	66·3	65·5	+0·8
Jask	72·6	72·4	+0·2
Muscat	74·3	74·4	—0·1
Baghdad	62·5	60·3	+2·2
Aden	79·5	79·8	—0·3
Perim	80·7	80·6	+0·1
Zanzibar	82·8	82·9	—0·1
Seychelles	78·2	...	...
Mauritius	76·9	77·3	—0·4

The above data show that over Ceylon, south Arabia and the south-east trades region the mean temperature was normal or in slight defect while in Kashgaria, Afghanistan, Persia and Asiatic Turkey it was in excess.

The following table gives comparative temperature data of the month for the 57 meteorological divisions of the empire :—

Province.	Division.	Actual temperature.					Departure from normal of month of		
		Mean maximum.	Mean minimum.	Monthly mean of mean between maximum and minimum.	Mean daily range of temperature.	Absolute range.	Maximum.	Minimum.	Daily range.
		°	°	°	°	°	°	°	°
Burma	Tenasserim	91·0	74·2	82·6	16·9	24·7	—0·3	—0·1	— 0·2
	Lower Burma (Deltaic)	90·9	73·7	82·3	17·1	25·7	—1·3	+ 1·5	— 2·8
	Central do.	99·1	66·8	83·0	32·3	43·4	+ 0·3	—0·7	+ 1·0
	Upper do.	93·6	67·3	80·5	26·3	41·7	—1·3	+ 1·6	— 2·9
	Arakan	89·3	70·3	79·9	19·0	27·7	+ 0·2	+ 1·4	— 1·2
Bengal and Assam.	Eastern Bengal	90·6	67·8	79·2	22·9	38·7	+ 2·0	+ 1·2	+ 0·8
	Assam (Surma)	87·0	65·7	76·4	21·3	36·2	+ 1·0	+ 2·5	— 1·5
	Do. (Hills)	70·7	54·3	62·5	16·4	35·0	...	...	...
	Do. (Brahmaputra)	82·8	61·0	71·9	21·8	39·6	—0·1	—0·8	+ 0·7
	Deltaic Bengal	92·1	69·8	81·0	22·4	37·9	+ 0·7	—0·3	+ 1·0
	Central do.	93·1	65·6	79·4	27·5	43·1	+ 1·2	—0·4	+ 1·6
	North do.	88·0	60·5	74·3	27·6	44·1	+ 1·6	—0·7	+ 2·3
	Bengal Hills	53·3	36·3	44·8	17·0	36·2	+ 0·3	+ 0·6	— 0·3
	Orissa	90·9	72·3	81·6	18·6	29·5	+ 0·3	—0·4	+ 0·7
	Chota Nagpur	89·3	64·8	77·1	24·5	40·8	—0·9	+ 0·6	— 1·5
	South Bihar	91·3	65·1	78·2	26·2	43·9	—0·3	+ 0·2	— 0·5
	North do.	90·7	61·7	76·3	29·0	45·5	+ 1·6	—0·2	+ 1·8
United Provinces of Agra and Oudh.	United Provinces (East)	91·0	62·3	76·7	28·7	44·8	—1·9	+ 0·4	— 2·3
	Oudh (South)	90·9	61·1	76·0	29·8	46·6	—0·6	+ 0·8	— 1·4
	Do. (North)	88·0	59·3	73·7	28·7	46·1	—1·0	+ 0·5	— 1·5
	United Provinces (Central)	89·2	62·7	76·0	26·5	45·8	—2·0	+ 0·9	— 2·9
	Do. do. (West)	85·7	60·7	73·2	25·0	46·3	—3·2	+ 0·5	— 3·7
	Do. do. (East Submontane).	90·6	62·9	76·8	27·7	44·5	+ 0·1	+ 0·4	— 0·3
	Do. do. (West Submontane)	81·6	56·5	69·1	25·1	45·2	—2·6	—0·2	— 2·4
	Do. do. (Hills)	60·0	45·0	52·5	15·0	42·2	—3·0	—1·3	— 1·7
Punjab	Punjab (South-East)	82·8	62·3	72·5	20·6	44·3	—4·6	0	— 4·6
	Do. (South)	81·2	57·8	69·5	23·4	45·8	—5·8	+ 0·9	— 6·7
	Do. (Central)	76·7	57·4	67·1	19·3	38·3	—8·4	+ 3·2	—11·6
	Do. (Submontane)	75·8	55·5	65·7	20·4	39·4	—5·0	+ 0·9	— 5·9
	Do. (Hills)	50·5	30·7	40·6	19·9	42·9	—0·6	—0·8	+ 0·2
	Do. (West)	79·6	58·6	69·1	21·0	44·5	—5·2	+ 1·8	— 7·0
N.-W. F. Province	North-West Frontier Province	73·7	55·0	64·4	18·7	39·2	—6·2	+ 1·3	— 7·5
Bombay and Malabar Coast Districts (Madras).	Malabar	88·6	76·0	82·3	12·6	18·6	—0·9	—0·5	— 0·4
	Madras (South Central)	96·8	69·0	82·9	27·9	34·0	—0·7	—1·4	+ 0·7
	Coorg	84·2	60·6	72·5	23·6	31·9	—0·4	—1·2	+ 0·8
	Mysore	91·8	65·6	78·7	26·2	33·1	—0·6	—0·5	— 0·1
	Konkan	86·4	73·7	80·1	12·6	22·4	—0·2	—0·5	+ 0·3
	Bombay Deccan	95·6	65·9	80·8	29·7	41·1	—1·5	—1·1	— 0·4
	Hyderabad (North)	95·3	67·5	81·4	27·8	40·0	...	...	...
	Khandesh	95·0	62·5	78·8	32·6	50·1	—0·6	—0·6	0
Central Provinces and Berar.	Berar	97·1	67·4	82·2	29·7	47·6	—1·6	—0·3	— 1·3
	Central Provinces (West)	94·5	64·4	79·4	30·1	49·8	—1·8	—0·9	— 0·9
	Do. do. (Central)	91·1	63·5	77·4	27·6	45·0	—3·3	—0·4	— 2·9
	Do. do. (East)	91·7	65·3	78·5	26·3	42·2	—2·3	—1·1	— 1·2
Bombay (North)	Gujarat	93·7	67·4	80·6	26·3	48·4	—3·1	+ 0·5	— 3·6
	Kathiawar and Cutch	88·0	65·7	76·8	22·3	44·1	—3·3	0	— 3·3
	Sind	86·2	63·1	74·7	23·1	46·8	—3·9	—0·2	— 3·7
	Baluchistan Hills	62·2	41·5	51·9	20·7	45·8	—3·5	+ 2·0	— 5·5
Rajputana and Central India.	Central India (East)	87·8	61·0	74·4	26·8	47·3	—4·0	—1·0	— 3·0
	Rajputana (East), Central India (West)	88·0	61·9	75·0	26·0	49·3	—3·5	+ 1·7	— 5·2
	Do. (West)	88·0	62·4	75·2	25·6	51·1	—4·0	+ 0·4	— 4·4
Madras	East Coast (North)	88·5	73·0	80·8	15·5	24·6	—0·4	—0·9	+ 0·5
	Hyderabad (South)	97·0	71·5	84·3	25·4	35·5	—1·5	+ 0·1	— 1·6
	Madras (Central)	100·1	72·7	86·4	27·4	35·8	—0·9	—0·2	— 0·7
	East Coast (Central)	91·8	71·0	81·4	20·8	29·1	—2·0	—1·4	— 0·6
	Do. (South)	90·7	70·4	80·6	20·3	27·4	—2·0	—2·4	+ 0·4
	Madras (South)	93·9	71·4	82·8	22·4	30·2	—1·0	—1·5	+ 0·5

The preceding data show that the hottest area, outlined by the isotherm of 86°, included central Madras, while the coolest area was the North-West Frontier Province where the mean temperature was 64°. In central Madras the mean maximum temperature was 100°·1 which was slightly lower than usual. The mean daily range of temperature was much less than the average in the north-west and centre.

The following gives a brief account of the more important changes of temperature during the month.

Temperature throughout the month was unsteady and exhibited large departures from the normal, a result largely due to the occurrence of rain and snow in the north-west accompanying the depressions which at different times appeared over that area.

On the 1st March temperature was generally in excess over a large part of northern India but was in defect over the Peninsula and the Central Provinces. The weather was slightly disturbed and thundershowers were reported from several stations. These disturbed conditions intensified on the following day and at Nowgong and Saugor the day temperature was more than 18° below the average on the 2nd. On the 3rd a storm appeared over the western desert occasioning rain over Baluchistan and north-west and central India and a strongly marked wave of cold spread over the country from the north-westward. The following gives comparative data for all districts from the 3rd to the 6th :—

Province or Division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of			
	3rd March.	4th March.	5th March.	6th March.
	°	°	°	°
Burma	+0·5	+0·8	+1·1	+1·2
Assam	+1·4	+2·2	+2·4	+2·7
Bengal	+2·2	+0·5	+1·8	+1·7
Orissa	−0·4	−0·2	−0·1	+1·4
Bihar	+1·2	+0·8	+0·9	+1·2
Chota Nagpur	−0·3	−3·0	−3·8	−1·7
United Provinces of Agra and Oudh	−1·5	−2·1	−2·2	−2·5
Punjab	+1·3	−6·0	−4·9	−2·7
North-West Frontier Province	+2·0	−5·0	−5·0	−1·3
Sind	−12·0	−8·1	−5·1	−5·5
Baluchistan	−3·5	−8·0	−2·8	+1·0
Rajputana	−1·9	−5·9	−5·2	−4·0
Gujarat	−4·3	−5·7	−4·4	−2·2
Central India	−3·7	−3·5	−4·0	−3·4
Central Provinces	−2·9	−3·2	−3·5	−2·0
Berar	−3·8	−3·2	−1·7	−1·6
West Coast	0	+0·1	−0·2	−0·3
Bombay Deccan	−2·0	−2·6	−2·4	−1·4
Mysore	−1·0	−0·5	+0·7	−0·6
Madras Coast	−1·0	+0·1	−1·0	−1·2
Madras Deccan	−0·1	+0·5	−0·2	+0·6
South India	−0·2	+0·5	−0·9	−1·8

The preceding data show that the mean temperature was steadily below the normal in all parts of the country except the north-east. As is usual under these conditions, when cloudy weather and rain prevail, the defect of temperature was shown altogether in the day temperatures, the nights having been generally warmer than usual. The following gives departure data of the maximum and minimum temperatures for stations where, between the 3rd and the 6th, the day temperature was 15° or more below the average :—

Date.	Station.	Departure from normal of	
		Maximum of date.	Minimum of date.
		°	°
3rd March	Jacobabad	−23·7	+0·1
	Hyderabad	−19·2	−4·2
	Jhansi	−17·9	−0·6
	Nowgong	−17·3	+3·0
4th „	Chaman	−18·2	+0·9
	Lahore	−17·9	+5·3
	Sialkot	−17·3	+2·7
	Neemuch	−16·8	+0·6
	Quetta	−15·7	+1·3
	Ludhiana	−15·6	−4·6
	Rawalpindi	−15·4	+4·2
	Jacobabad	−15·1	+0·2
	Peshawar	−15·0	+3·5
5th „	Lahore	−18·7	+2·9

On the morning of the 6th a fresh storm appeared over Sind and from that day until the 10th the weather was unsettled and rainy over a considerable part of northern India while snow fell on the hills. These unsettled conditions resulted in the appearance of a well-marked cold wave on the north-west frontier. This cold wave reached Rajputana by the 10th, the Central Provinces and Central India by the 11th and Chota Nagpur by the 12th. The following gives comparative data for all divisions for each day from the 6th to the 12th :—

Province or Division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of						
	6th Mar.	7th Mar.	8th Mar.	9th Mar.	10th Mar.	11th Mar.	12th Mar.
	°	°	°	°	°	°	°
Burma	+1·2	+0·8	+1·2	+2·1	+1·4	−0·5	−0·8
Assam	+2·7	+0·1	+1·3	+2·8	+2·1	−3·6	−2·8
Bengal	+1·7	+1·7	+0·8	+2·3	−0·5	−3·5	−4·2
Orissa	+1·4	+0·9	+0·4	−1·7	−1·4	−2·4	−2·9
Bihar	+1·2	+1·2	+1·0	+2·7	+1·3	−5·5	−4·2

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF						
	6th Mar.	7th Mar.	8th Mar.	9th Mar.	10th Mar.	11th Mar.	12th Mar.
	°	°		°	°	°	°
Chota Nagpur	−1·7	+0·2	−2·2	+0·7	−3·5	−7·6	−5·9
United Provinces of Agra and Oudh.	−2·5	−2·0	+1·2	−0·8	−4·0	−5·1	−4·3
Punjab	−2·7	−4·1	−5·6	−7·3	−6·1	−4·2	−2·5
North-West Frontier Province.	−1·3	−1·2	−9·1	−8·3	−4·0	−0·4	−3·0
Sind	−5·5	−8·6	−6·3	−7·5	−5·3	−1·8	−1·3
Rajputana	−4·0	−6·4	−5·6	−7·1	−10·3	−5·3	−1·6
Gujarat	−2·2	−4·3	−5·5	−7·2	−6·7	−5·6	−2·6
Central India	−3·4	−0·9	−3·0	−4·3	−7·9	−8·1	−4·0
Central Provinces	−2·0	+1·4	−1·5	−1·7	−5·5	−8·1	−4·5
Berar	−1·6	+1·5	+0·3	−2·1	−6·6	−7·3	−3·6
West Coast	−0·3	−0·5	+0·7	+0·1	−1·1	−1·6	−1·9
Bombay Deccan	−1·4	+0·3	−1·6	−1·2	−4·1	−3·7	−2·0
Mysore	−0·6	+0·9	+0·5	−0·2	0	+0·6	+0·3
Madras Coast	−1·2	−1·1	−1·6	−1·8	−1·8	−0·3	+1·3
Madras Deccan	+0·6	+1·3	+0·6	−0·2	+0·7	−0·5	−0·1
South India	−1·8	−0·6	−1·4	−2·0	−1·3	+0·5	+1·7

The preceding data show that temperature at times slightly exceeded the normal over north-east India, Burma and part of the Peninsula, but was steadily low elsewhere. The coolest days were the 9th and 10th when the mean temperature was more than 10° below the average at the stations for which comparative data are given below:—

DATE.	Station.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of
		°
9th March	Quetta	−12·8
	Mooltan	−11·8
	Dera Ismail Khan	−11·1
	Montgomery	−10·7
	Chaman	−10·4
	Bikaner	−10·2
10th „	Jaipur	−13·0
	Neemuch	−10·8
	Bikaner	−10·4
	Indore	−10·3
	Sambhar	−10·2

On the 13th, 14th and 15th a general recovery took place which was most marked in the north-west where temperature rose to above the normal. The following gives data for Baluchistan and for north-west India for these three days:—

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M OF		
	13th March.	14th March.	15th March.
	°	°	°
Baluchistan	+1·1	−1·8	+5·0
Punjab	−2·2	−1·7	+0·1
North-West Frontier Province	−1·0	−1·8	+2·3
Sind	+0·7	+2·9	+4·7
Rajputana	−1·3	−2·1	+2·0
Gujarat	−1·5	+0·2	+2·4

On the 16th fresh snow fell on the Kashmir Himalayas and rain in Baluchistan and at the hill and submontane stations of north-west India. The result was the appearance of a fresh area of low temperature in the north-west. These low temperatures spread eastward and had extended right across the country by the 19th. The following gives data for the different districts of northern India from the 16th to the 19th:—

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF			
	16th March.	17th March.	18th March.	19th March.
	°	°	°	°
Baluchistan	−7·7	−7·5	−1·1	−3·1
Sind	+3·2	−2·8	−2·4	−2·2
North-West Frontier Province.	−5·3	−3·8	−2·4	−0·8
Punjab	−0·7	−3·2	−2·7	−1·6
United Provinces of Agra and Oudh.	−0·7	+81·9	−0·6	+3·1
Rajputana	+4·0	+0·5	−2·8	−3·8
Gujarat	+0·9	−0·7	−0·4	−0·2
Central India	+2·3	+3·0	−2·2	−3·8

Between the 20th and the 23rd the changes of temperature were irregular, but on the last day the mean temperature was generally excessive over northern India and generally in defect over the Peninsula. The following gives data for all districts for the 23rd:—

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF		
	Mean maximum temperature, 23rd March.	Mean minimum temperature, 23rd March.	Mean temperature, 23rd March.
	°	°	°
Burma	−1·6	−0·1	−0·9
Assam	−0·8	+0·9	+0·1
Bengal	+2·1	+1·1	+1·6
Orissa	−0·8	+2·3	+0·8
Bihar	+3·9	−3·2	+0·4
Chota Nagpur	+3·2	+5·9	+4·6

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF		
	Mean maximum temperature, 23rd March.	Mean minimum temperature, 23rd March.	Mean temperature, 23rd March.
	°	°	°
United Provinces of Agra and Oudh .	+2·1	+0·7	+1·4
Punjab	−0·6	+2·7	+1·1
North-West Frontier Province . .	−6·6	+1·1	−2·8
Sind	−2·7	−0·2	−1·5
Rajputana	+0·6	+1·3	+1·0
Gujarat	−1·9	−1·0	−1·5
Central India	−0·8	+0·9	+0·1
Central Provinces	−4·2	+2·2	−1·0
Berar	−1·6	+4·1	+1·3
West Coast	−0·4	−0·5	−0·5
Bombay Deccan	−3·6	−2·8	−3·2
Mysore	−1·6	−2·7	−2·2
Madras Coast	−0·1	−0·3	−0·2
Madras Deccan	−2·7	−3·7	−3·2
South India	−2·4	−3·6	−3·0

Between the 23rd and the 27th the weather was exceedingly unsettled in the north-west, snow falling in Kashmir and rain on the north-west Himalayas and the plains of the Punjab and of the North-West Frontier Province. Temperature fell very rapidly in the north-west both on the 24th and 26th, but the low temperatures were more or less confined to that region and did not extend eastward across northern India in the same manner as did the two previous cold waves. This is shown in the following statement which gives comparative temperature data for the different districts of northern India from the 24th to the 27th:—

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF			
	24th March.	25th March.	26th March.	27th March.
	°	°	°	°
Sind	−1·6	−0·6	+0·3	−2·2
North-West Frontier Province .	−8·4	−6·0	−10·3	−7·8
Punjab	−5·0	−1·8	−5·3	−3·8
United Provinces of Agra and Oudh.	+0·1	+0·4	+0·4	+2·2
Rajputana	−0·8	−0·8	+1·4	+2·1
Gujarat	−1·7	−2·5	+0·2	+2·0
Central India	−1·2	−2·2	−0·7	+0·2
Central Provinces . . .	−3·8	−5·4	−2·7	−1·6
Orissa	+1·0	−1·1	−1·0	−0·5
Chota Nagpur	+0·4	−1·5	+0·3	+1·4
Bihar	+2·7	+2·7	+1·4	+3·2
Bengal	+2·2	+0·7	+1·2	+1·2

During these four days the temperature was generally below the normal, both by day and night, but the deficiency was most marked by day and at the following stations the maximum temperature was more than 15° below the normal on the following days:—

DATE.	STATION.	Departure from normal of maximum temperature of date.
		°
24th March . . .	Rawalpindi	−19·5
	Murree	−18·2
26th „ . . .	Dera Ismail Khan . .	−23·1
	Lahore	−18·9
	Rawalpindi	−18·9
	Peshawar	−15·8
	Sialkot	−15·7
	Murree	−15·6
	Montgomery	−15·6

As mentioned above the mean temperature was generally lower than usual over the Peninsula on the 23rd and this depression of temperature was maintained while the above described changes were taking place over northern India and continued over the centre and east of the Peninsula till the close of the month. The following gives comparative data for the centre and east of the Peninsula for each alternate day from the 23rd to the end of the month:—

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF				
	23rd March.	25th March.	27th March.	29th March.	31st March.
	°	°	°	°	°
Bombay Deccan . .	−3·2	−4·3	−0·9	0	−0·4
Mysore . . .	−2·2	−3·7	−2·9	−1·1	−0·2
Madras Coast . .	−0·2	−1·5	−2·5	−2·7	−3·1
Madras Deccan . .	−3·2	−4·4	−3·5	−2·1	−2·8

In Gujarat a brisk increase of temperature commenced on the 27th and spread to the Bombay coast on the 28th. This region thus became the seat of an area of high temperature which lasted until the close of the month. The

following gives comparative data for Gujarat and the west coast from the 27th to the 31st:—

Province or Division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of				
	27th March.	28th March.	29th March.	30th March.	31st March.
	°	°	°	°	°
Gujarat	+2·0	+2·9	+5·4	+5·1	+4·5
West Coast	−1·2	−0·4	+0·4	+0·6	+1·9

The hottest places within the Indian area at this period were Ahmedabad and Deesa where maximum temperatures of 108° were recorded on the 31st.

Over north-east India and Burma the mean temperature ranged generally above the normal at this time, the excess having been greatest over Assam and Bihar. The following gives comparative data from the 26th to the 31st:—

Province or Division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of					
	26th March.	27th March.	28th March.	29th March.	30th March.	31st March.
	°	°	°	°	°	°
Burma	+0·2	+0·3	+0·5	+1·2	+1·9	+1·9
Assam	+2·2	+1·8	+2·6	+3·3	+3·4	+4·3
Bengal	+1·2	+1·2	+2·3	+2·8	+2·3	+3·0
Orissa	−1·0	−0·5	+0·2	+0·2	+1·2	+0·6
Bihar	+1·4	+3·2	+4·3	+1·7	+0·7	+2·4
Chota Nagpur	+0·3	+1·4	+0·9	−0·5	−1·0	+2·2

Winds.

The wind was more northerly and less easterly than usual at Port Blair and both the steadiness and velocity were in excess of the average. This is shown below:—

Station.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, March 1904.	Normal percentage, March.	Departure from March normal, 1904.	March Actual, 1904.	March Normal, March.	March Actual, 1904.	March Normal, March.	Departure from March normal, 1904.
				°	°			
Port Blair	71	66	+5	N 49 E	N 63 E	127	101	+26

On the Burma coast, on the contrary, the mean wind direction was somewhat more westerly than the normal while at Diamond Island the velocity was considerably in excess of the average. At Rangoon the position of the wind instruments has been changed and the actual observations are not comparable with the normals. At Akyab there was a very unsteady and light south-westerly wind instead of the usual north-west wind. The following gives data:—

Station.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, March 1904.	Normal percentage, March.	Departure from March normal, 1904.	March Actual, 1904.	March Normal.	March Actual, 1904.	March Normal, March.	Departure from March normal, 1904.
				°	°			
Cocos Island	92	72	+20	N 16 W	N 12 W	...	...	...
Diamond Island	84	85	−1	N 48 W	N 42 W	346	223	+123
Akyab	14	21	−7	S 45 W	N 51 W	68	89	−21

On the Bengal coast, as on the Burma coast, there was increased westing in the wind's direction and the steadiness was generally greater than usual though the velocity was low. The following gives data:—

Station.	Mean steadiness.			Mean wind direction.			Mean wind velocity in miles per diem.		
	Actual percentage, March 1904.	Normal percentage, March.	Departure from March normal, 1904.	March Actual, 1904.	March Normal, March.	Westerly deflection.	March Actual, 1904.	March Normal, March.	Departure from normal, March 1904.
				°	°				
Chittagong	40	21	+19	S 52 W	S 36 W	+16	126	132	−6
Calcutta	58	44	+14	S 74 W	S 60 W	+14	79	118	−39
Saugor Island	53	60	−7	S 33 W	S 25 W	+8	292	314	−22

On the Orissa coast the wind was abnormally southerly and steady but had less than the usual velocity. The following gives data for False Point:—

Station.	Mean steadiness.			Mean wind direction.			Mean wind velocity in miles per diem.		
	Actual percentage, March 1904.	Normal percentage, March.	Departure from March normal, 1904.	March Actual, 1904.	March Normal, March.	Southerly deflection.	March Actual, 1904.	March Normal, March.	Departure from March normal, 1904.
				°	°				
False Point	69	34	+35	S 30 W	S 54 W	+24	231	259	−28

Over the Gangetic plain and upper India the wind's direction varied between north-west and west-south-west and in most places was more westerly than usual. The

steadiness was everywhere in excess of the average but the velocity varied irregularly from the normal.

In the Indus valley the winds were very irregular, but, except at Kurrachee, the small normal percentage of steadiness was exceeded. This is shown below:—

Station.	Mean steadiness.			Mean wind direction.	
	Actual percentage, March 1904.	Normal percentage, March.	Departure from normal, March 1904.	Actual, March 1904.	Normal, March.
Peshawar	19	16	+3	N 19° W	N 12° E
Jacobabad	21	14	+7	S 86 E	E
Kurrachee	54	60	−6	S 81 W	S 78 W

In northern Rajputana the wind was more and in southern Rajputana less westerly than usual. The following gives data for Jaipur and Deesa:—

Station.	Mean wind Direction.		
	Actual, March 1904.	Normal, March.	Westerly deflection.
	°	°	
Jaipur	N 88 W	N 46 W	+42
Deesa	N 55 W	N 64 W	− 9

The following gives comparative data of the mean air movement of the month over northern India, Burma and the Bay Islands:—

Province or Division.	Mean steadiness.			Mean wind velocity in miles per diem.		
	Actual percentage, March 1904.	Normal percentage, March.	Departure from normal, March 1904.	Actual, March 1904.	Normal, March.	Departure from normal, March 1904.
Bay Islands	82	69	+13	127	101	+26
Burma	52	54	− 2	153	140	+13
Bengal	50	42	+ 8	166	188	−22
Bihar	44	29	+15	99	108	− 9
Chota Nagpur	74	53	+21	214	194	+20
Orissa	69	34	+35	231	259	−28
United Provinces of Agra and Oudh.	48	34	+14	70	53	+17
Punjab	47	33	+14	70	62	+ 8
North-west Frontier Province.	19	16	+ 3	40	86	−46
Rajputana	43	32	+11	152	157	− 5
Sind	38	37	+ 1	155	184	−29

The winds varied between north-west and north-east over the Deccan and were lighter and less steady than usual. Along the west coast the winds were approximately normal though at Bombay the steadiness was somewhat greater than usual.

In south India the wind was nearly easterly at the inland stations and varied between south-east and south-west on the coast. The winds were, except at Bellary, steadier than usual but the velocity was low at most stations. The following gives data:—

Station.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, March 1904.	Normal percentage, March.	Departure from normal, March 1904.	Actual, March 1904.	Normal, March.	Actual, March 1904.	Normal, March.	Departure from normal, March 1904.
Salem	66	39	+27	N 89° E	S 69° E	104	127	−23
Chitaldroog	35	17	+18	N 74 E	N 87 E	100	154	−54
Bangalore	48	46	+ 2	N 75 E	S 36 E	163	118	+45
Hassan	52	48	+ 4	N 84 E	S 81 E	55	72	−17
Mysore	40	37	+ 3	S 78 E	N 88 E	174	192	−18
Madras	87	81	+ 6	S 32 E	S 44 E	129	149	−20
Bellary	8	20	−12	S 80 W	S 39 E	107	110	− 3

The following gives data of the mean air movement of the month in different parts of the Peninsula:—

Province or Division.	Mean steadiness.			Mean wind velocity in miles per diem.		
	Actual percentage, March 1904.	Normal percentage, March	Departure from normal, March 1904.	Actual, March 1904.	Normal, March.	Departure from normal, March 1904.
Central Provinces	22	26	− 4	86	119	−33
Berar	38	43	− 5	114	147	−33
Bombay Deccan	16	11	+ 5	208	231	−23
Madras Deccan	8	22	−14	92	106	−14
West Coast	69	64	+ 5	188	186	+ 2
Mysore	44	37	+ 7	123	134	−11
Madras Coast	87	81	+ 6	129	149	−20
South India	66	39	+27	104	127	−23

The wind varied between south-south-east and west-south-west at the Himalayan stations with the exception of Srinagar where the direction was north-westerly. The steadiness exceeded the average while the velocity varied irregularly from the normal. This is shown below:—

Hill Station.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, March 1904.	Normal percentage, March.	Departure from normal, 1904.	Actual, 1904.	Normal, March.	Actual, 1904.	Normal, March.	Departure from normal, 1904.
Leh	85	23	+62	S 75° W	S 45° W	73	48	+25
Srinagar	27	16	+11	N 44 W	N 24 W	82	115	−33
Sarain	2	...	...	S 41 W	...	63	...	...
Simla	21	4	+17	S 17 E	S 33 W	145	137	+ 8
Chakrata	26	13	+13	S 45 E	S 39 W	282	170	+112
Ranikhet	43	28	+15	S 65 W	S 60 W	59	84	− 25
Darjeeling	52	42	+10	S 84 W	S 78 W	150	180	− 30

At the central hill stations the direction varied between west and north-west while at the southern hill stations it was nearly easterly.

In the Gulf of Aden south-easterly and east-south-easterly winds prevailed, as is shown below:—

STATION.	MEAN WIND DIRECTION.		MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual, March 1904.	Normal, March.	Actual, March 1904.	Normal, March.	Departure from normal, March 1904.
	°	°			
Aden	S 48 E	N 87 E	350	379	—29
Perim	S 65 E	S 63 E	460	463	— 3

In the south-east trades region the winds varied considerably from the average. At Zanzibar a very variable north-north-west wind prevailed instead of the usual south-east wind; at the Seychelles the wind was north-north-east instead of north-north-west and at Mauritius the mean direction was east-north-east instead of east-south-east. The following gives comparative data for the stations in this area:—

STATION.	MEAN STEADINESS.			MEAN WIND DIRECTION.		MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, March 1904.	Normal percentage, March.	Departure from March normal, 1904.	March Actual, 1904.	March Normal,	March Actual, 1904.	March Normal, March.	Departure from March normal, 1904.
				°	°			
Zanzibar	5	13	— 8	N 22 W	S 44 E	126	130	— 4
Seychelles	43	38	+ 5	N 25 E	N 21 W	81	...	...
Mauritius	...	...	...	N 89 E	S 78 E	266	251	+15

Humidity and Cloud.

The air was damper than usual, *i.e.*, the mean absolute humidity was in excess of the average, over the whole of north-western and central India; a large part of the Deccan, Mysore, Assam, east Bengal and the Burma coast while it was drier than usual elsewhere. The excess was greatest over parts of north-west India, and the deficiency over the Bombay Deccan and parts of Madras. The following gives data:—

STATIONS.	Area of greatest excess.	STATIONS.	Area of greatest defect.
Dera Ismail Khan	+·120	Malegaon	—·106
Montgomery	+·115	Ahmednagar	—·052
Bikaner	+·102	Sholapur	—·068
Jacobabad	+·128	Raichur	—·068
		Cuddapah	—·095

The mean relative humidity conditions of the month, compared with the normal, were generally similar to those of the mean absolute humidity. An area of high relative humidity was shown over part of the north-west dry area. The following gives data for those stations at which the excess was more than 15:—

STATION.	RELATIVE HUMIDITY.		
	Actual, March 1904.	Normal, March.	Departure from normal, March 1904.
	%	%	
Jacobabad	63·0	41·2	+21·8
Lahore	86·0	64·6	+21·4
Montgomery	73·0	51·7	+21·3
Dera Ismail Khan	86·0	65·2	+20·8
Bikaner	57·0	40·2	+16·8
Mooltan	75·0	58·7	+16·3
Sirsa	73·0	57·3	+15·7

A second area of high relative humidity was shown over the Central India plateau and neighbouring regions. The excess was more than 15 at the following places:—

STATION.	RELATIVE HUMIDITY.		
	Actual, March 1904.	Normal, March.	Departure from normal, March 1904.
	%	%	
Jhansi	63·0	37·5	+25·5
Neemuch	57·0	36·6	+20·4
Sutna	59·0	39·9	+19·1
Bhuj	74·0	56·7	+17·3
Cawnpore	63·0	46·3	+16·7

Small areas of high relative humidity were shown over the Madras Deccan, Mysore and Ceylon, and at the following places the excess was more than 5:—

Station.	Relative Humidity.		
	Actual, March 1904.	Normal, March.	Departure from normal, March 1904.
	%	%	
Mysore	80·0	68·0	+12·0
Bellary	61·0	50·3	+10·7
Kurnool	62·0	52·5	+ 9·5
Trincomalee	88·0	80·8	+ 7·2
Colombo	80·0	73·6	+ 6·4

The mean relative humidity was in defect of the normal over parts of the Deccan and of the west coast, over the extreme south of the Peninsula, over Assam, Bengal and Orissa and over inland Burma. The deficiency exceeded 5 at the stations for which comparative data are given below:—

Area.	Station.	Relative humidity.		
		Actual, March 1904.	Normal, March.	Departure from normal, March 1904.
		%	%	
Deccan	Cuddapah	51·0	57·8	− 6·8
	Raichur	43·0	49·3	− 6·3
	Sholapur	29·0	35·2	− 6·2
Extreme south of the Peninsula.	Tinnevelly	67·0	73·0	− 6·0
Bengal	Purnea	58·0	68·3	−10·5
	Dinajpur	58·0	66·5	− 8·3
	Berhampore	64·0	71·5	− 7·5
Orissa	Balasore	73·0	79·2	− 6·2
Burma	Toungoo	68·0	74·3	− 6·3
	Moulmein	74·0	80·3	− 6·3

At Gilgit and Leh in Kashmir, at Lashio in upper Burma, and at Wellington in south India the relative humidity was lower than usual, but at all the remaining hill stations it was more or less in excess. The departures from the normal exceeded 5 at the following places:—

Hill Stations.	Positive departures.	Hill Stations.	Negative departures.
Quetta	+14·3	Gilgit	−8·5
Chaman	+13·7	Wellington	−5·6
Cherat	+13·7	Lashio	−9·6
Chakrata	+12·1		
Murree	+ 8·8		
Simla	+ 7·3		
Ranikhet	+ 5·5		
Mount Abu	+12·6		
Pachmarhi	+ 7·6		

At Aden and Perim both the absolute and relative humidities exceeded the average. This is shown below:—

Station.	Absolute Humidity.			Relative Humidity.		
	Actual, March 1904.	Normal, March.	Departure from normal, March 1904.	Actual, March 1904.	Normal, March.	Departure from normal, March 1904.
	"	"	"	%	%	
Aden	·738	·726	+·012	76·0	75·9	+0·1
Perim	·786	·766	+·020	80·0	77·8	+2·2

In the south-east trades region the departures of both the absolute and relative humidities from the normal were small and unimportant. The following gives data for the stations in this area:—

Station.	Absolute Humidity.			Relative Humidity.		
	Actual, March 1904.	Normal, March.	Departure from normal, March 1904.	Actual, March 1904.	Normal, March.	Departure from normal, March 1904.
	"	"	"	%	%	
Zanzibar	·881	·894	−·013	83·0	82·9	+0·1
Seychelles	·838	·861	−·023	84·0	83·0	+1·0
Mauritius	·739	·746	−·007	80·0	80·0	0

The sky was clearer than usual over the greater part of the country. There were, however, areas of increased cloudiness covering the greater part of the Punjab and the North-west Frontier Province, parts of the Gangetic

plain and of the Central India plateau and upper Assam and upper Burma. The excess, on the mean of the month, was more than 1·0 at the following stations within hese areas :—

AREA.	STATION.	MEAN CLOUD AMOUNT. Actual, March 1904.	Normal, March.	Departure from normal, March 1904.
Punjab and N.-W. F. Province.	Mooltan	4·4	1·8	+2·6
	Montgomery	4·7	2·4	+2·3
	Dera Ismail Khan	5·5	3·2	+2·3
	Rawalpindi	6·2	4·1	+2·1
	Khushab	4·5	2·8	+1·7
	Lahore	4·6	3·4	+1·2
Central India	Sutna	3·1	1·3	+1·8
Upper Assam	Sibsagar	7·4	6·2	+1·2
Upper Burma	Bhamo	3·8	2·2	+1·6

Over the remainder of the country the mean cloud amount was about normal or in defect. The deficiency equalled 1·0 or more at the following places :—

STATION.	MEAN CLOUD AMOUNT. Actual, March 1904.	Normal, March.	Departure from normal, March 1904.
Nellore	0·2	2·6	— 2·4
Madras	0·9	2·5	— 1·6
Bangalore	0·1	1·6	— 1·5
Trichinopoly	1·4	2·8	— 1·4
Salem	0·4	1·7	— 1·3
Barisal	1·9	3·9	— 2·0
Balasore	1·8	3·6	— 1·8
essore	2·2	3·8	— 1·6
Bogra	0·8	2·4	— 1·6
Dhubri	1·0	2·6	— 1·6
Silchar	3·5	4·9	— 1·4
Jalpaiguri	0·5	1·9	— 1·4
Purnea	0·4	1·4	—1·0
Bassein	0·1	2·0	— 1·9
Tavoy	0·7	2·4	— 1·7
Mergui	2·0	3·4	— 1·4
Akyab	1·4	2·4	—1·0
Bahraich	0·3	2·0	— 1·7
Mainpuri	1·2	2·5	— 1·3
Pachpadra	1·2	2·4	— 1·2
Hyderabad (Sind)	1·4	2·4	—1·0

At the hill stations, with a few exceptions, the sky was cloudier than usual. This is shown below :—

HILL STATION.	MEAN CLOUD AMOUNT. Actual, March 1904.	Normal, March.	Departure from normal, March 1904.
Quetta	4·9	3·0	+1·9
Chaman	3·6	3·7	—0·1
Gilgit	7·8	6·2	+1·6
Leh	7·0	6·1	+0·9
Srinagar	6·7	5·9	+0·8
Murree	5·6	4·9	+0·7
Simla	5·2	3·8	+1·4
Ranikhet	3·1	2·8	+0·3
Mount Abu	2·3	2·0	+0·3
Pachmarhi	2·2	2·1	+0·1
Cherat	4·8	4·9	—0·1
Darjeeling	1·7	3·7	—2.0
Wellington	0·6	1·5	—0·9

The maximum cloud amount on the mean of the month was reported from the stations in Assam and parts of the Punjab and North-west Frontier Province and the minimum cloud amount from parts of Burma and Madras. The following gives data :—

STATIONS.	MAXIMUM CLOUD AMOUNT. Actual.	Normal.	Departure from normal.	STATIONS.	MINIMUM CLOUD AMOUNT. Actual.	Normal.	Departure from normal.
Sibsagar	7·4	6·2	+1·2	Minbu	0·2	0·5	—0·3
Dibrugarh	6·4	...	...	Rangpur	0·2	...	...
Rawalpindi	6·2	4·1	+2·1	Nellore	0·2	2·6	—2·4
Peshawar	5·8	4·8	+1·0	Bassein	0·1	2·0	—1·9
Dera Ismail Khan	5·5	3·2	+2·3	Yamethin	0·1	0·7	—0·6
				Bangalore	0·1	1·6	—1·5
				Thayetmyo	0	0·6	—0·6

The preceding data show that the mean cloud amount was over 5 at the stations in Assam and parts of the Punjab and North-west Frontier Province whence the amount decreased eastward and southward and was least over parts of Burma and Madras.

The cloud amount was small and less than usual over southern Arabia. The following gives data for Aden and Perim :—

Station.	Mean cloud amount.		
	Actual, March 1904.	Normal, March.	Departure from normal, March 1904.
Aden	4·9	5·2	—0·3
Perim	1·0	5·3	—4·3

In the south-east trades region, on the contrary, the mean cloud amount was 5·0 or more and was slightly greater than usual. This is shown below :—

Station.	Mean cloud amount.		
	Actual, March 1904.	Normal, March.	Departure from normal, March 1904.
Zanzibar	6·1	5·3	+0·8
Seychelles	5·0	...	...
Mauritius	7·1	6·5	+0·6

Rainfall.

The rainfall of the month was lighter than usual over Burma, north-east India and the greater part of the Peninsula and was much heavier than usual over north-western and central India.

The rainfall in north-east India was occasioned by thunderstorms and nor'-westers while that over north-western and central India was due to a series of storms, some of the cold weather type advancing from Persia, etc., and others advancing from the north of the Arabian Sea. The chart giving the actual rainfall of the month, as measured at the meteorological observatories (Plate IV), shows that actually or practically no rain was received over Burma (except Tenasserim), the Madras coast and Deccan, the Bombay coast and Deccan and north Bengal and Bihar, but that in all other parts of the country rain was recorded. The rainfall was heaviest and more than 7″ in total amount over the North-west Frontier Province and was more than 6″ in total amount at Patiala, Silchar, Dibrugarh, and Colombo.

The chief periods of rainfall were—

(1) The 3rd to the 9th, when general rain fell over north-western and central India.

(2) The 15th to the 17th, when rain fell over the north-west and north-east of India.

(3) The 23rd to the 27th, when showers occurred in the north-west.

The weather was very disturbed during the month over the mountain area to the north-west of India and apparently over Afghanistan. Rain fell on 10 days at Kabul, on 9 days at Kailang, on 10 days at Minimarg, on 7 days at Sonemarg, on 7 days at Srinagar, on 11 days at Murree and on 12 days at Cherat.

The following table gives comparative rainfall data for the 57 rainfall divisions of India :—

Province.	Division.	Number of rainy days.		Rainfall.		
		Average actual, March 1904.	Average normal, March.	Average actual, March 1904.	Average normal, March.	Departure from normal, March 1904.
				Inches.	Inches.	Inches.
Burma	Tenasserim	0·8	1·4	1·48	0·83	+0·65
	Lower Burma (Deltaic)	0·1	0·3	0·03	0·18	—0·15
	Central do.	0	0·1	•	0·02	—0·02
	Upper do.	0·3	0·8	0·08	0·28	—0·20
	Arakan	0·3	0·4	0·10	0·28	—0·18
Bengal and Assam	Eastern Bengal	2·3	3·0	1·14	2·31	—1·17
	Assam (Surma)	5·2	8·9	3·53	7·49	—3·96
	Do. (Hills)	4·2	6·0	1·78	4·15	—2·37
	Do. (Brahmaputra)	4·5	6·5	1·75	3·56	—1·81
	Deltaic Bengal	2·6	2·3	1·68	1·40	+0·28
	Central do.	0·9	1·4	0·45	0·77	—0·32
	North do.	0·1	1·9	0·01	1·26	—1·25
	Bengal Hills	0·5	3·4	0·26	1·76	—1·50
	Orissa	2·3	1·9	0·86	1·12	—0·26
	Chota Nagpur	4·0	1·5	1·68	0·74	+0·94
	Bihar (South)	0·6	0·7	0·20	0·34	—0·14
	Do. (North)	0·1	0·8	0·03	0·38	—0·35

Province.	Division.	Number of rainy days.		Rainfall.		
		Average actual, March 1904.	Average normal, March.	Average actual, March 1904.	Average normal, March.	Departure from normal, March 1904.
United Provinces of Agra and Oudh.	United Provinces (East)	1·4	0·6	0·43	0·26	+0·17
	Oudh (South)	1·1	0·6	0·29	0·27	+0·02
	Do. (North)	0·4	0·8	0·22	0·40	−0·18
	United Provinces (Central)	2·1	0·6	0·70	0·26	+0·44
	Do. (West)	2·7	0·9	1·36	0·35	+1·01
	Do. (Submontane, East)	0·2	0·7	0·04	0·30	−0·26
	Do. (Do. West)	3·0	1·5	2·03	0·70	+1·33
	Do. (Hills)	4·8	2·5	2·32	1·35	+0·97
Punjab	Punjab (South-East)	3·4	0·9	1·87	0·36	+1·51
	Do. (South)	3·8	0·9	2·42	0·41	+2·01
	Do. (Central)	7·0	1·8	4·17	0·83	+3·34
	Do. (Submontane)	7·4	2·1	4·58	1·09	+3·49
	Do. (Hills)	9·7	4·3	5·57	2·76	+2·81
	Do. (West)	5·9	1·3	3·14	0·51	+2·63
North-West Frontier Province.	North-West Frontier Province	9·5	3·8	6·21	2·06	+4·15
Bombay and Malabar Coast Districts (Madras).	Malabar	1·1	1·0	0·68	0·54	+0·14
	Travancore	2·6	...	1·39	...	...
	Madras (South Central)	0	0·9	0	0·53	−0·53
	Coorg	1·3	...	0·60	...	...
	Mysore	0·5	0·7	0·19	0·32	−0·13
	Konkan	0·5	0·1	0·25	0·06	+0·19
	Bombay Deccan	0·4	0·5	0·19	0·26	−0·07
	Khandesh	0·2	0·2	0·05	0·07	−0·02
Central Provinces and Berar.	Berar	1·2	0·7	0·39	0·32	+0·07
	Central Provinces (West)	1·9	0·7	0·74	0·34	+0·40
	Do. do. (Central)	3·6	1·1	1·87	0·53	+1·34
	Do. do. (East)	3·1	1·4	1·19	0·64	+0·55
Bombay (North)	Gujarat	1·6	0	0·78	0·01	+0·77
	Kathiawar and Cutch	1·7	0·1	0·77	0·02	+0·75
	Sind	2·4	0·4	1·12	0·16	+0·96
	Baluchistan Hills	6·3	3·2	3·35	1·16	+2·19
Rajputana and Central India.	Central India (East)	2·2	0·4	0·99	0·18	+0·81
	Rajputana (East), Central India (West)	2·5	0·5	0·92	0·19	+0·73
	Rajputana (West)	1·3	0·2	0·50	0·07	+0·43
Madras	East Coast (North)	0·7	1·2	0·28	0·60	−0·32
	Madras (Central)	0·3	0·5	0·11	0·19	−0·08
	East Coast (Central)	0	0·1	0·02	0·17	−0·15
	East Coast (South)	0	0·4	0	0·30	−0·30
	Madras (South)	0·2	1·4	0·06	0·99	−0·93

The total rainfall of the month was less than 0·10″ in eleven divisions, *viz.*, lower Burma, central Burma, upper Burma, north Bengal, north Bihar, United Provinces east submontane, Madras (south—central), Khandesh, east coast (central), east coast (south) and Madras (south).

From these areas of light rainfall the amount increased and reached 6·21″ in the North-west Frontier Province, 5·57″ in the Punjab hills, 4·58″ in the submontane Punjab, 4·17″ in the central Punjab; 3·14″ in the west Punjab; 3·53″ in the Surma division of Assam, and 3·35″ in Baluchistan.

The total rainfall of the month was more than 100% greater than the average in twenty one divisions, *viz.*, Chota Nagpur (+127%), United Provinces, central (+169%), United Provinces, west (+289%), United Provinces, west submontane (+190%), south-east Punjab (+419%), south Punjab (+490%), central Punjab (+402%), Punjab submontane (+320%), Punjab hills (+102%), west Punjab (+516%), North-west Frontier Province (+201%), Konkan (+317%), Central Provinces, west (+109%) Central Provinces, central (+253%), Gujarat (+7,700%), Kathiawar and Cutch (+3,750%), Sind (+600%), Baluchistan (+189%), Central India, east (+450%), Rajputana, east, Central India, west (+384%), and west Rajputana (+614%). The above shows that, relatively to the average, the month's rainfall was heaviest over north Bombay.

The mean departure of the rainfall of the whole country (excluding the hill divisions) derived from the fifth column of the above table, was +0·51″.

Modrate rain fell in Tenasserim on the two last days of the month, the principal falls having been 3·85″ at Launglon, 2·37″ at Thayetchaung and 2·35″ at Mergui, and the total fall of the month was considerably heavier than usual. The greater part of the remainder of Burma was rainless throughout the month, but light scattered showers fell over parts of upper Burma between the 2nd and 19th. Except in Tenasserim, the total average fall for the month did not exceed 0·10″ in any division.

In Assam the total rainfall of the month was only about half the normal amount. In the Surma valley scattered showers occurred up to the 24th, the rainfall being most general on the 11th and from the 18th to the 20th. The principal falls exceeding 2″ in 24 hours were as follows:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Cachar	Koyah	11th March	3·05
Sylhet	Adamtila	,, ,,	2·44
Cachar	Badarpur	18th ,,	3·14
Do.	Silchar	,, ,,	2·48
Do.	Barkhola	,, ,,	2·38

After the 24th the weather was rainless.

In the Brahmaputra valley the rainfall increased eastward. It was very light in the Goalpara and Kamrup districts, but both the amount and number of rainy days increased on ascending the valley, and in Lakhimpur almost daily rain was received from the 1st to the 24th. From the latter date to the end of the month the weather was fine. The following gives comparative data for the districts in this division:—

District.	Rainfall.			
	Average actual, March 1904.	Average normal, March.	Departure from normal, March 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Goalpara	0·04	2·06	—2·02	—98
Kamrup	0·46	2·51	—2·05	—82
Darrang	0·86	2·94	—2·08	—71
Nowgong	1·31	2·64	—1·33	—50
Sibsagar	2·54	4·71	—2·17	—46
Lakimpur	4·63	5·63	—1·00	—18

The rainfall was very light, except on the 24th, on the Khasi and Jaintia, and Garo hills, but light, fairly constant showers were received on the Naga, Manipur and Lushai hills up to the 25th. At Cherrapoonjee there were only 4 rainy days, and the total fall of the month was 4·72″ instead of the normal 11·08″.

In Bengal the rainfall of the month was generally lighter than usual. During the first half of the month the weather was feebly unsettled. Chota Nagpur was the first area to be influenced by the unsettled weather, and general showers were received from the 3rd to the 10th. After the latter date the weather, with the exception of a few showers on the 24th and 25th, was fine till the close of the month. There were no heavy falls during the unsettled period, but the total rainfall of the month exceeded the normal. The following gives data for the contained districts:—

District.	Rainfall.			
	Average actual, March 1904.	Average normal, March.	Departure from normal, March 1904.	Percentage departure from normal.
	Inches.	Inch.	Inches.	
Hazaribagh	1·45	0·70	+0·75	+107
Ranchi	2·27	0·66	+1·61	+244
Palamau	1·58	0·51	+1·07	+210
Manbhum	1·29	0·82	+0·47	+ 57
Singhbhum	1·69	0·76	+0·93	+122

Bihar received showers on the 3rd and 4th and between the 8th and 10th, but the rainfall was lighter and less general than in Chota Nagpur, and the average actual fall for the province was only 0·12″, or one-third of the normal. From the 10th onward to the close of the month the weather was rainless. Rain fell in south-west Bengal between the 6th and the 11th, and was moderately heavy and general on the 9th and 10th; the heaviest fall in 24 hours having been 2·06″ reported from Ranaghat (Nadia) on the 10th. After the 11th the weather was fine till the close of the month. The total average rainfall of the division for the month was 1·32″ which was 0·16″ above the normal.

North Bengal was practically rainless. In east Bengal rain commenced on the 6th, and continued till the 19th. There were, however, no heavy falls and the total of the month was less than half the normal. Light showers were received in Orissa between the 5th and the 14th and the 23rd and 25th and the rainfall was less than usual. On the mean of the month the rainfall was in slight excess in Chota Nagpur, normal in south-west Bengal, in slight defect in Orissa and Bihar and in considerable defect in north and east Bengal.

General showers fell over the United Provinces at the beginning of the month. In the submontane division the showers continued till the 10th and in Oudh till the 9th, but in the remaining divisions the rainfall was practically finished by the 4th after which fine weather set in and lasted till the end of the month. The only heavy falls reported occurred in the submontane divisions where on

the following dates and at the following places falls of over 2″ in 24 hours were registered .—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Dehra Dun	Chakrata Tahsil	3rd March	2.02
Saharanpur	Kalsia	4th „	3·49
Do.	Kuankhera	„ „	3·45
Do.	Naiashahr	„ „	3·30
Do.	Saharanpur	„ „	3·04
Do.	Deoband	„ „	3·00
Do.	Salimpur	„ „	3·00
Do.	Jaranda	„ „	2·50
Muzaffarnagar	Muzaffarnagar	„ „	2·41
Saharanpur	Roorkee	„ „	2·34
Dehra Dun	Chakrata Observatory	„ „	2·07

The total rainfall was light and in defect of the average over north Oudh and the east submontane divisions, but was in excess elsewhere, more particularly on and near the hills.

Over the Punjab there were three rainy periods during the month. During the first, which lasted from the 1st to the 9th, the rainfall was heavy and general, the following falls exceeding 2·50″ in 24 hours being registered :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Jhelum	Jhelum Sadr	4th March	3·19
Gujranwala	Gujranwala Sadr	„ „	3·03
Gujrat	Kharian	„ „	2·98
Do.	Gujrat Sadr	„ „	2·85
Gujranwala	Wazirabad	„ „	2·80
Ludhiana	Samrala	„ „	2·67
Jullundur	Jullundur	„ „	2·65
Lahore	Kasur	5th „	2·51
Rawalpindi	Attock	8th „	4·70

The second rainy period occurred on the 16th and 17th, but the rainfall on this occasion was generally light and partial. The third rainy period lasted from the 23rd to the 27th and, though not comparable with the first period in extent or amount of rain, affected most parts of the province and in the west and north-west the rainfall was moderately heavy for the time of year. The following is a record of the falls exceeding 1·00″ in 24 hours which occurred during this period :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Rawalpindi	Murree	24th March	1·80
Kangra	Nagar	„ „	1·56
Do.	Kulu	„ „	1·37
Rawalpindi	Rawalpindi	„ „	1·21

The total rainfall of the month was twice as heavy as usual over the hills division, and was six times as heavy over the west and south Punjab.

There were six periods of disturbed and rainy weather over the North-west Frontier Province during the month, the dates being as follows :—first period from the 2nd to the 5th ; second period the 7th and 8th ; third period, the 11th and 12th ; fourth period, the 16th ; fifth period, the 22nd to the 26th and the sixth period, the 30th. Of these the more important were the first and fifth when the rainfall was very general, but the largest falls of rain were generally recorded on the 7th and 8th or during the second period. The following amounts exceeding 2·00″ in 24 hours were registered during the month :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Wano	Wano	3rd March	2·36
Wano	Do.	4th „	2·35
Khyber	Landikotal	„ „	2·33
Kohat	Kohat	„ „	2·15
Wano	Wano	5th „	3·20
Wano	Do.	6th „	2·20
Malakand	Malakand	7th „	2·28
Kohat	Kohat	8th „	3·17
Peshawar	Mardan	„ „	2·88
Khyber	Landikotal	„ „	2·56
Peshawar	Nowshera	„ „	2·47
Peshawar	Nahakki	„ „	2·30
Dera Ismail Khan	Sheikh Budin	„ „	2·20
Kohat	Hangu	„ „	2·12
Peshawar	Abazai	„ „	2·05
Wano	Wano	25th „	2·75
Wano	Do.	27th „	2·50

The total rainfall of the month for the whole province was three times as heavy as usual.

In Baluchistan rain occurred on the 2nd and 3rd; the 6th and 7th; the 14th to 16th; and the 22nd to 28th. The only heavy falls were recorded during the first and second periods when the following amounts exceeding 2·00″ in 24 hours were registered:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Zhob	Loralai Hospital	2nd March	2·46
Thal Chotiali	Duki	" "	2·18
	Spinpangi	" "	2·12
	Nasak	6th "	2·60
	Harnai	" "	2·55
	Babar Kach	7th "	2·25

The total rainfall of the month was three times as heavy as usual.

Kashmir had showery weather throughout the month, the principal periods of rainfall having been between the 1st and the 4th; on the 7th and 8th; on the 15th and 16th; and between the 23rd and 27th. The following falls exceeding 2·00″ in 24 hours were registered on the following dates:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Jummoo	Manawar	3rd March	4·03
	Gulabgarh	" "	3·00
	Bhimber	" "	2·90
	Sambha	" "	2·39
	Meerpore	" "	2·02
	Riasi	7th "	3·05
Kashmir	Sri Protap Singh Pora	" "	3·05
Jummoo	Udumpur	" "	2·84
	Ramnagar	" "	2·77
	Akhnur	" "	2·48
	Jasmairgarh	" "	2·29
	Sri Ranbir Singh Pora	8th "	2·80
	Jummoo	" "	2·42
Kashmir	Puri	15th "	2·46
	Karnah	23rd "	2·22

So far as can be judged from the limited data available, the month's fall was considerably heavier than usual.

Rajputana received general showers during the first week. These showers were moderately heavy in some districts and the total average rainfall of the month very largely exceeded the small normal amount. After the 7th the weather was uninterruptedly fine over this region.

In Central India similar conditions prevailed. Showers fell generally during the first five or six days after which the weather cleared and was fine till the end of the month. The total average rainfall of the month in Central India was as heavy, relatively to the normal, as that over Rajputana.

The rainfall was very light over the Peninsular divisions of the Bombay presidency, but showers were received over parts of the Konkan between the 3rd and the 5th and the 23rd and 25th; over the Karnatak between the 22nd and 25th; and over the Deccan between the 3rd and the 5th and the 26th and the 30th. In a few cases these showers were heavy, as is shown below:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Thana	Bhiwndi	4th March	1·05
	Thana	5th "	2·08
Kolhapur, etc.	Jamkhandi	23rd "	4·05

The total rainfall of the month in these divisions was below the normal except in the Konkan.

Over Gujarat and Sind there occurred remarkably heavy and general rain between the 1st and 7th from the first two storms of the month. Practically every station in these two divisions received rain during this period, and, as is shown by the following statement, the rainfall was very heavy over a large part of the area:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Kathiawar	Navanagar	2nd March	1·52
Upper Sind Frontier	Jacobabad	" "	1·27
Kathiawar	Vankaner	" "	1·04
	Bhavnagar	3rd "	1·31
Sukkur	Rohri	" "	1·30
Kathiawar	Dhoraji	" "	1·25
	Vankaner	" "	1·19
Larkana	Mehar	" "	1·15
Kathiawar	Songad	" "	1·10
	Porbandar	" "	1·05
Broach	A'mod	4th "	2·25
Surat	Valod	" "	1·81
	Bulsar	" "	1·64
Rewa Kantha	Chhota Udepur	" "	1·47
Broach	Jambusar	" "	1·27
Kaira	Dakor	" "	1·15
	Thasra	" "	1·12
Kathiawar	Jasdan	" "	1·05

The small normal rainfall of the month was very largely exceeded.

In parts of Mysore showers occurred between the 5th and the 7th and between the 23rd and 25th, but the rainfall was light and the total average fall of the month little more than half the normal.

In the Central Provinces showers were received between the 1st and the 9th and again between the 22nd and 25th. The showers were not heavy but they were general, particularly during the first period, and the total average rainfall of the month exceeded the normal.

With the exception of the divisions of the east coast (north), and Malabar, the Madras presidency was practically rainless throughout the month. Showers occurred in Malabar and were heavier than usual, exceeding 1·00 in 24 hours at the following places on the following dates :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Malabar	Cochin	2nd March	1·90
Travancore State	Pattanapuram	3rd ,,	1·53
	Padmanabhapuram	4th ,,	1·07
	Changanacherry	10th ,,	1·36
	Neduvengad	,, ,,	1·16
	Vaikam	11th ,,	1·63
	Kottarakaray	12th ,,	1·07
Malabar	Ponnane	13th ,,	3·10
Travancore State	Changanacherry	,, ,,	2·21
Malabar	Cochin	,, ,,	1·88
Travancore State	Neduvengad	,, ,,	1·54
	Alleppey	,, ,,	1·39
	Meenachil	,, ,,	1·07
Vizagapatam	Srungavarapukota	25th ,,	2·25
Malabar	Mankara	,, ,,	1·33
	Trikkur	,, ,,	1·32
Travancore State	Peermade	,, ,,	1·05
	Pattanapuram	26th ,,	1·52
	Meenachil	27th ,,	1·01

The general lightness of the rainfall over the remainder of Madras is shown by the following comparative data of the rainfall of the collectorates.

Collectorate.	Rainfall. Average actual, March 1904.	Average normal, March.	Departure from normal, March 1904.	Percentage departure from normal.
	Inch.	Inches.	Inches.	
Ganjam	0·53	0·73	—0·20	— 27
Vizagapatam	0·38	0·72	—0·34	— 47
Godavari	0·06	0·37	—0·31	— 84
Kistna	0·01	0·43	—0·42	— 98
Nellore	0·02	0·17	—0·15	—88
Chingleput	0	0·16	—0·16	—100
Madras	0	0·36	—0·36	—100
North Arcot	0	0·26	—0·26	—100
South Arcot	0	0·25	—0·25	—100
Tanjore	0	0·41	—0·41	—100
Trichinopoly	0	0·40	—0·40	—100
Madura	0·01	0·70	—0·69	— 99
Tinnevelly	0·10	1·32	—1·22	— 92
Malabar	0·88	0·77	+0·11	+ 14
South Canara	0·09	0·13	—0·04	— 31
Salem	0	0·45	—0·45	—100
Coimbatore	0	0·59	—0·59	—100
Nilgiri	0·54	1·52	—0·98	— 64
Cuddapah	*	0·18	—0·18	—100
Anantapur	0·05	0·15	—0·10	— 67
Bellary	0·26	0·20	+0·06	+ 30
Kurnool	0·13	0·21	—0·08	— 38

The following gives the rainfall of the month of March 1904, for the extra Indian stations :—

Station.	Rainfall. Average actual, March 1904.	Average normal, March.	Departure from normal, March 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Trincomalee	0	1·45	—1·45	—100
Colombo	6·70	4·45	+2·25	+51
Minicoy	0·53	0·98	—0·45	—46
Amini Divi	0	0	0	0
Kashgar	0	0·20	—0·20	—100
Kabul	3·80	4·90	—1·10	—22
Meshed	3·45	2·43	+1·02	+42
Teheran	1·57	2·80	—1·23	—44
Ispahan	1·39	0·99	+0·40	+40
Bushire	0·75	1·00	—0·25	—25
Jask	1·40	1·15	+0·25	+22

STATION.	RAINFALL.			
	Average actual, March 1904.	Average normal, March.	Departure from normal, March 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Muscat	0	1·05	—1·05	—100
Baghdad	0·82	1·60	—0·78	—49
Aden	0	0·87	—0·87	—100
Perim	0·09	0·27	—0·18	—67
Seychelles	0·56	13·01	—12·45	—96
Zanzibar	5·68	6·50	—0·82	—13
Mauritius	12·99	9·36	+3·63	+39

The preceding data show that the rainfall, compared with the normal, varied largely at the different stations. In Afghanistan, Persia and Asiatic Turkey there was generally less rainfall than usual except at the stations of Meshed, Ispahan and Jask, where there was some excess. In west Ceylon the month's rainfall was heavier and in east Ceylon lighter than usual, while in southern Arabia practically no rain fell during the month. In the south-east trades region there occurred a steady decrease in the amount of rain on proceeding northward. At Mauritius the month's rainfall amounted to 12·99″ (+3·63″); at Zanzibar to 5·68″ (—0·82″) and at the Seychelles to only 0·56″ (—12·45″).

Crop Report.

Madras.—The rainfall was light during the month and irrigation supplies insufficient in parts of the Deccan and in Tinnevelly. The standing crops were fair at the close of the month and the condition of cattle good, but pasture was becoming scanty in parts of the Circars, the Deccan and south Canara.

Bombay.—The rainfall was slight during the month. The standing crops had been damaged by locusts in parts of Ratnagiri, Poona and Satara and by blight or insects in parts of the upper Sind frontier, Thar and Parkar, and Dharwar but were in generally good condition elsewhere. Fodder and water were sufficient.

Bengal.—Prospects, at the close of the month, were generally good, but rain was needed in Rajshahi, Pabna and Mymensingh. Fodder and water were generally sufficient.

United Provinces.—Rain was wanted in Garhwal and Almora and some damage by hail was reported. Fodder was said to be scarce in parts of Budaun.

Punjab.—The condition of the standing crops was reported good in all districts except Delhi. The outturn of all spring crops and of unirrigated crops in Hissar was below the average. Some damage had been done by hail. Fodder was sufficient in all districts except Delhi.

North-west Frontier Province.—Prospects were generally excellent at the close of the month though some damage had been done by hail and westerly winds.

Burma.—The standing crops were in good condition.

Central Provinces.—The harvesting of spring crops was approaching completion at the close of the month, and the estimated outturns were generally normal.

Assam.—More rain was wanted in Kamrup and Manipur and water was insufficient in the hills. The prospects of tea were good.

Mysore.—The standing crops were in good condition.

Hyderabad.—The standing crops were good.

Rajputana.—The condition of the standing crops and of cattle was generally good.

Central India.—Crops were good in Gwalior, Baghelkhand, and Bhopawar and fair elsewhere. Opium was fair in Gwalior, Indore, Bhopal, Malwa and Bhopawar.

W. L. DALLAS.

TABLE I.—Abstract of Observations taken at 8 A.M. at 232 Stations in India, Burma, etc., in March, 1904.

Table

Abstract of Observations taken at 8 A.M. at 232 Stations

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure, 8 A.M., in inches.								Temperature of air.												
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
	I.—Burma Coast and Bay Islands.				−·024								91·6	−0·5	72·8	+0·6	82·2	+0·1	18·8					2·3
1	TENASSERIM AND BAY ISLANDS.	Car Nicobar†	25	29·892		29·844	29·960	19th	29·842	17th	·118	81·5	88·6		75·7		82·2		12·9	90·3	25th	68·4	5th	21·9
		Port Blair	61	29·893	−·009	29·885	29·951	9th	29·835	17th	·116	77·9	90·0	−1·1	75·1	−1·5‡	82·6	−1·3	14·9	91·8	25th	72·3	2nd	19·5
		Mergui	96	29·856	−·005	29·885	29·911	8th	29·806	3rd	·105	79·2	90·8	−0·4	73·0	+1·1	81·9	+0·4	17·8	95·6	31st	65·4	2nd	27·2
		Tavoy	26	29·931	−·016	29·838	29·981	8th	29·887	17th	·094	74·3	93·5	+0·2	?	?	?	?	?	97·2	9th	?	?	?
		Moulmein	94	29·825	−·035	29·858	29·885	9th	29·759	17th	·126	78·3	94·6	+0·5	72·8	+0·1	83·7	+0·3	21·8	98·9	13th	68·8	13th	30·1
2	LOWER BURMA	Rangoon	57	29·876	−·027	29·872	29·931	8th	29·809	3rd	·122	74·3	94·7	−1·9	71·6	+0·5	83·2	−0·7	23·1	98·6	13th & 27th.	66·3	1st	32·3
		Bassein	27	29·896	−·026	29·861	29·956	8th	29·835	28th	·121	77·4	94·5	+0·1	73·0	+2·5	83·8	+1·3	21·5	99·2	31st	70·7	4 days	28·5
		Diamond Island	41	29·887	−·037	29·863	29·938	9th	29·824	3rd	·114	79·6	83·4	−2·2	76·7	+1·7	80·1	−0·3	6·8	88·4	9th	72·2	13th	16·2
5	ARAKAN	Akyab	20	29·906	−·039	29·869	29·971	9th	29·834	28th	·137	75·7	89·3	+0·2	70·3	+1·4	79·9	+0·8	19·0	92·9	30th	65·2	3rd	27·7
3	CENTRAL BURMA	Toungoo	183	29·733	−·020	29·859	29·780	9th & 14th.	29·671	3rd	·109	78·1	93·3	+0·5	67·3	−1·2	82·8	−0·4	31·0	103·4	14th	61·1	12th	42·3
	II.—Burma Inland				−·010								94·5	−1·0	67·2	+1·2	80·8	+0·1	27·3					42·1
3	CENTRAL BURMA.	Thayetmyo	130	29·786	−·012	29·858	29·843	14th	29·729	28th	·114	79·0	99·8	0	66·3	−0·2	83·1	−0·1	33·5	104·5	31st	60·0	1st	44·5
4	UPPER BURMA	Minbu	*165*	29·742	−·012	29·853	29·798	7th & 8th.	29·692	17th & 28th.	·106	78·7	98·5	−0·8	71·6	+2·3	85·0	+0·8	26·9	101·7	31st	66·1	2nd	38·6
		Yamethin	657	29·250	−·006	29·864	29·310	8th	29·187	17th	·123	78·1	96·4	−2·7	70·5	+2·4	83·5	−0·2	25·9	103·3	30th & 31st.	61·2	12th	39·1
		Monywa	*280*	29·646		29·865	29·734	14th	29·575	6th	·159	76·7	97·2		69·2		83·2		28·0	105·2	31st	61·2	11th	44·0
		Mandalay	250	29·642	−·019	29·814	29·715	14th	29·579	6th	·126	78·1	97·6	−0·1	69·2	+1·3	83·4	+0·6	28·4	104·6	31st	62·1	2nd	42·5
		Myitkyiana	458	29·476		29·903	29·796	11th	29·370	17th	·426	69·1	84·2		63·0		73·6		21·2	94·7	31st	52·7	13th	42·0
		Bhamo	381	29·533	−·003	29·882	29·624	7th	29·442	17th	·182	67·6	87·6	−1·4	60·3	+0·2	71·0	−0·6	27·3	97·5	31st	53·7	16th	43·8
4(a)	BURMA HILL STATIONS.	Maymyo	3,545	26·447			26·506	8th & 9th.	26·366	17th	·140	66·0	82·1		52·6		67·3		29·5	90·9	30th	47·8	12th	43·1
		Lashio	*2,751*									65·4	86·5	+0·3	55·2	−0·5	70·9	−0·1	31·3	95·5	31st	51·0	16th	44·5
	III.—Assam				−·032								83·5	+0·3	61·8	+0·3	72·7	+0·3	21·7					39·0
7	SURMA	Silchar	104	29·825	−·032	29·885	29·906	8th	29·741	17th	·165	71·2	87·0	+1·0	65·7	+2·5	76·4	+1·8	21·3	96·6	31st	60·4	11th	36·2
9	BRAHMAPUTRA	Sibsagar	333	29·587	−·039	29·889	29·691	8th	29·504	17th	·187	64·3	77·5	−1·6	59·5	−0·5	68·6	−1·1	18·0	88·2	21st	53·4	11th	34·8
		Dhubri	115	29·774	−·026	29·849	29·879	8th	29·677	17th	·202	69·3	88·0	+1·5	62·3	−1·1	75·2	+0·2	25·7	97·7	31st	56·8	13th	40·9
		Gauhati	195	29·708		29·865	29·810	8th	29·595	17th	·215	66·8	87·4		60·4		73·9		27·0	99·5	27th	55·6	13th	43·9
		Tezpur	252	29·650		29·869	29·744	8th	29·543	17th	·201	66·6	83·9		62·3		73·1		21·6	95·6	31st	55·0	11th	40·6
		Dibrugarh	353	29·576		29·903	29·687	8th	29·471	17th	·216	64·7	77·1		60·6		68·9		16·5	91·2	31st	53·4	13th	37·8
	IV.—Bengal and Orissa				−·022								91·3	+1·2	66·9	0	79·1	+0·6	24·4					39·6
6	EAST BENGAL	Chittagong	87	29·834	−·031	29·871	29·915	9th	29·766	17th	·149	74·4	88·3†	+1·6	68·6	+1·0	78·5†	+1·3	19·7	98·0	31st	63·1	10th	34·9
		Noakhali	43	29·871		29·861	29·969	8th	29·789	17th	·180	77·4	87·7		69·5		78·6		18·2	97·9	31st	62·2	10th	35·7
		Comilla	36	29·879		29·864	30·025	8th	29·779	17th	·246	74·0	91·3		68·4		79·8		22·9	100·3	31st	61·9	12th	38·4
		Sirajganj	49	29·848		29·848	29·959	8th	29·747	17th	·212	71·8	93·2		64·0		78·6		29·2	103·1	31st	57·3	12th	45·8
		Narayanganj	26	29·880	−·021	29·855	29·980	8th	29·776	17th	·204	74·8	91·6	+1·6	69·6	+1·4	80·6	+1·5	22·0	100·6	30th & 31st.	62·3	12th	38·3
		Barisal	13	29·895	−·022	29·859	30·009	8th	29·817	17th	·192	76·2	90·9	+1·6	70·2	+1·0	80·5	+1·3	20·7	98·8	29th	62·1	10th	36·7
		Mymensingh	63	29·845	−·024	29·860	29·951	8th	29·743	17th	·208	72·3	89·9	+3·0	65·6	+1·2	77·8	+2·1	24·3	98·5	31st	59·6	11th	38·9
		Faridpur	46	29·863		29·860	29·982	8th	29·762	17th	·220	74·4	92·2		66·1		79·1		26·1	100·0	31st.	59·0	12th	41·0
10	DELTAIC BENGAL	Jessore	33	29·868	−·023	29·848	29·991	8th	29·775	17th	·216	74·9	92·4	0	67·4	−0·8	79·9	−0·4	25·0	101·5	31st	60·1	12th	41·4
		Calcutta	21	29·892	−·013	29·859	30·004	8th	29·804	17th	·200	75·4	91·7	+0·9	69·4	−0·1	80·6	+0·4	22·3	100·0	29th	61·9	12th	38·1
		Saugor Island	25	29·885	−·017	29·855	30·002	8th	29·813	18th	·189	78·6	88·3	+1·1	75·0	0	81·7	+0·6	13·3	94·4	19th	66·0	10th	28·4
		Krishnagar	47	29·861		29·858	29·971	8th	29·763	17th	·208	77·9	93·5		66·4		80·0		27·1	101·9	31st	60·4	12th	41·5
		Midnapore	149	29·759		29·858	29·877	9th	29·666	17th	·211	76·6	94·8		70·7		82·8		24·1	103·9	31st	63·7	10th	40·2

‡ Mean of 23 days. † Mean of 30 days.

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

NOTE 1.—When a query is inserted against any reading or in the returns of any

NOTE 2.—The dat[illegible] from which divisional means of the figure columns Nos. 41, 43 and 45

I.

in India, Burma, etc., in March, 1904.

WIND DIRECTION. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	WIND VELOCITY. Mean daily velocity in miles per hour instrumental errors uncorrected.	Normal (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	HYGROMETRY, 8 A.M. Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	CLOUD. Mean cloud amount at 8 A.M.	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. 1903 to 31st March 1904.	Normal rainfall for period, 1st Dec. to 31st March.	Departure from normal of period, 1st Dec. 1903 to 31st March 1904.	Heaviest rainfall during month.	STATION.	METEOROLOGICAL PROVINCE OR DISTRICT.	Number of District.
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	58
														81	+0·4	·769	−·002	2·3	−0·8				0·48	0·69	−0·16					I.—Burma Coast and Bay Islands.		
3	6	17	1	1	1			2	N 32° E	3·5*			3·5*	7·4		·796		8·4		1			0·10			24·51			0·10	Car Nicobar.	TENASSERIM AND BAY ISLANDS.	1
	7	16	2	4	1		1		N 45° E	4·7	4·4	+ 7	5·3	85	+2·0	·819	−·044	2·7	−0·1	0			0	0·40	− 0·40	9·81	8·44	+ 1·37	0	Port Blair.		
18	3		1		1			8	N 32° W	3·8	2·0	+ 90	3·4	83	+2·2	·812	−·023	2·0	−1·4	1	4·70	−3·70	2·39	3·28	− 0·89	5·80	6·30	− 0·50	2·35	Mergui.		
28							2	1	N 75° W	1·5				89	+4·5	·764	−·007	0·7	−1·7	1	1·60	−0·60	1·65	1·24	+ 0·41	3·26	2·16	+ 1·10	1·65	Tavoy.		
25				3		3			S	3·0	3·0	0	3·3	74	−6·3	·745	−·041	1·5	−0·4	1	0·60	+0·40	0·68	0·36	+ 0·32	0·68	1·02	− 0·34	0·68	Moulmein.		
15		3	2	2	2	1	3	3	N 72° W	5·7	5·0	+ 14	4·8	88	+3·1	·752	+·016	2·9	+0·9	0	0·50	−0·50	0	0·20	− 0·20	0	0·72	− 0·72	0	Rangoon .	LOWER BURMA.	2
	2	1				1	12	15	N 60° W	6·7	4·9	+ 37		86	−1·6	·809	+·031	0·1	−1·9	0	0	0	0	0·01	− 0·01	0	0·57	− 0·57	0	Bassein.		
1	6	2					3	19	N 36° W	14·6	7·9	+ 85	14·6	77	+1·1†	·784	+·024	2·1	−0·7	0	0	0	0	0·05	− 0·05	0	1·03	− 1·03	0	Diamond Island.		
1	16	13							N 21° E	2·8	3·7	− 24	2·7	84	+2·5	·754	+·052	1·4	−1·0	0	0·60	−0·60	0	0·52	− 0·52	0·08	1·40	− 1·32	0	Akyab .	ARAKAN.	5
14		2		6		7	2		S 9° W	7·4	2·8	+164	7·3	68	−6·3	·655	−·322	1·6	−0·5	0	0·30	−0·30	0	0·11	− 0·11	0	0·51	− 0·51	0	Toungoo .	CENTRAL BURMA.	3
														63	+0·1	·544	+ 029	1·1	−0·1				0·11	0·22	−0·21					II.—Burma Inland.		
		1	1	2	5	6	12	4	S 66° W	3·6	5·2	−31		63	+3·8	·632	+·081	0	−0·6	0	0·10	−0·10	0	0·03	− 0·03	0	0·24	− 0·24	0	Thayetmyo.	CENTRAL BURMA.	3
2				16	3	2	2	6	S 17° E	5·9			7·0	54	−3·9	·533	+·006	0·2	−0·3	0	0·10	−0·10	0	0·04	− 0·04	0	0·70	− 0·70	0	Minbu .	UPPER BURMA.	4
3	1			8	16	1		2	S 6° E	10·2			10·7	60	+1·4	·584	+·048	0·1	−0·6	0	0·30	−0·30	0	0·21	− 0·21	0	1·16	− 1·16	0	Yamethin.		
6	12		1	1	1		1	9	N 16° W	2·5			2·6	51		·465		1·5		0	0·50	−0·50	0	0·23	− 0·23	0·02	0·39	− 0·37	0	Monywa.		
10	6	2		1	12				S 22° E	3·6			3·6	52	−2·2	·495	−·013	0·8	−0·5	0	0·40	−0·40	0	0·16	− 0·16	0	0·55	− 0·55	0	Mandalay.		
10	4	8	6	3					N 60° E	2·5			2·5	78		·558		1·1		4			0·70			1·45			0·26	Myitkyina.		
22	2	4	1					2	N 21° E	2·9			3·4	80	+1·4	·541	+·021	3·8	+1·6	0	1·90	−1·90	0·07	0·66	− 0·59	0·67	2·19	− 1·52	0·05	Bhamo.		
9						15	4	3	S 62° W	3·7				62		·395		1·7		0	0·90	−0·90	0	0·34	− 0·34	0	1·15	− 1·15	0	Maymyo .	BURMA HILL STATIONS.	4 (a)
	2	17	4	4		2		2	N 56° E	3·6				62	−9·7	·386	−·034	1·1	−3·6	0			0·03	0·58	− 0·55	0·12	1·92	− 1·80	0·02	Lashio.		
														82	−1·3	·547	+ ·016	3·9	−0·6				3·01	4·41	−1·40					III.—Assam.		
24			3	4					S 61° E	1·2	3·3	− 64	2·1	80	−2·1	·617	+·030	3·5	−1·4	9	10·80	−1·80	6·62	8·61	− 1·99	11·53	12·10	− 0·57	2·48	Silchar .	SURMA .	
6		23		2					N 50° E	2·8	2·8	0	2·5	93	−0·3	·566	+·010	7·4	+1·2	10	9·80	+0·20	3·89	5·11	− 1·22	6·61	8·97	− 2·36	0·77	Sibsagar .	BRAHMAPUTRA .	9
		1	20	2	2	4	1	1	S 75° E	5·5	6·3	− 13	6·5	73	−1·5	·532	+·008	1·0	−1·6	0	2·40	−2·40	0·03	1·88	− 1·85	3·92	2·86	+1·06	0·03	Dhubri.		
13	3	9		2	2	1		1	N 47° E	2·7			3·0	81		·537		3·0		1	5·40	−4·40	0·41	2·82	− 2·41	2·22	4·43	− 2·21	0·21	Gauhati.		
1		14	15			1			N 69° E	6·7			7·1	80		·522		2·2		5	5·50	−0·50	1·00	2·68	− 1·68	2·96	4·63	− 1·67	0·25	Tezpur.		
7	1	15	8						N 58° E	1·6			1·5	83		·599		6·4		12	10·00	+2·00	6·10	5·34	+ 0·76	10·21	10·23	− 0·02	1·52	Dibrugarh.		
														71	−3·6	·600	− ·019	1·9	−0·8				0·69	1·48	−0·79					IV.—Bengal and Orissa.		
	2	9	3	10	6	1			S 73° E	5·1	5·8	− 12	5·1	86	+3·3	736	+·045	3·3†	+0·1	5	2·77	+2·23	2·37	2·74	− 0·37	3·92	4·87	− 0·95	1·07	Chittagong.	EAST BENGAL .	6
	1		2	3	5	10	9	1	S 45° W	3·5			3·8	81		·762		2·7†		3	3·26	−0·26	1·33	2·75	− 1·42	2·00	4·57	− 2·57	0·81	Noakhali.		
7				5	19				S 10° E	4·4			3·7	86		·722		2·0†		2	3·93	−1·93	0·59	2·74	− 2·15	4·30	4·47	− 0·17	0·30	Comilla.		
18	1	1	1	1	1	3	3	2	S 76° W	2·0			2·0	75		·582		0·5		0	2·20	−2·20	0	1·26	− 1·26	0·64	2·75	− 2·11	0	Sirajganj		
5		2		2	3	12	4	3	S 53° W	4·3	4·7	− 9	3·6	81	−1·7	·699	+·002	4·1	−0·1	1	3·18	−2·18	0·38	2·75	− 2·37	3·28	4·57	− 1·29	0·38	Narayanganj		
5		2	1	2	4	12	2	3	S 42° W	3·7				85	+0·2	·769	+·015	1·9†	−2·0	3	3·03	−0·03	1·40	1·96	− 0·56	2·49	4·27	− 1·78	0·78	Barisal.		
9			8	10	1	2		1	S 58° E	2·3			2·1	78	−3·1	·618	+·008	3·5	−0·1	0	3·52	−3·52	0	2·03	− 2·03	2·72	3·61	− 0·89	0	Mymensingh		
6	1			1	9	8	4	2	S 38° W	3·5			3·0	71		·600		1·5		1	3·50	−2·50	0·44	2·30	− 1·86	1·57	4·19	− 2·62	0·41	Faridpur .		
17	1	1			2	10			S 41° W	2·4	3·2	− 25	2·3	75	−5·0	·659	−·042	2·2†	−1·6	1	3·13	−2·13	1·64	1·93	− 0·29	3·21	3·73	− 0·52	1·64	Jessore .	DELTAIC BENGAL	10
12					3	12	2	2	S 50° W	3·3	5·5	− 40		79	−1·9	·704	−·002	2·3	−0·6	4	2·00	+2·00	2·62	1·19	+ 1·43	5·20	2·73	+ 2·47	1·50	Calcutta.		
	3	1	1	2	5	14	1	4	S 48° W	12·1	12·3	− 2		81	−2·4	·795	−·016	3·5	−0·8	3	1·81	+1·19	0·83	1·33	− 0·50	1·80	2·99	− 1·19	0·30	Sangor Island.		
4		1	1		1	9	9	6	S 84° W	2·8			3·1	58		·550		1·8		1	1·97	−0·97	0·94	1·11	− 0·17	1·47	2·74	− 1·27	0·90	Krishnagar.		
7	9			1	6	4	1	2	N 63° W	3·3			3·0	64		·579		1·2§		3	2·59	+0·41	1·18	1·67	− 0·49	1·85	3·51	− 1·66	0·70	Midnapore.		

station, the data for that station are not utilized in calculating the provincial departures from normal, are derived are incomplete.

§ Mean of 28 days.

* Mean of 29 days.

Table

Abstract of Observations taken at 8 A.M. at 232 Stations

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-ometer above sea-level in feet.	Pressure, 8 A.M., in inches.								Temperature of air.											
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
11	Central Bengal	Bankura	293	29·585?		29·839?	29·683	8th	29·481	17th	·202	75·1	93·3		68·1		80·9		24·9	102·7	31st	61·3	11th	41·4
		Raniganj	334	29·564		29·050	29·668	8th	29·464	17th	·204	72·7	94·1		65·8		80·5		27·3	103·2	31st	59·1	11th	44·1
		Burdwan	99	29·799?	—·022?	29·849?	29·895	7th	29·703	17th	·192	74·8	94·5	+0·8	68·4	0	81·4	+0·4	26·1	102·2	28th	63·1	11th	39·1
		Naya Dumka	499	29·391		29·850	29·491	7th	29·294	17th	·197	75·9	92·9		65·7		79·3		27·2	101·9	31st	59·0	11th & 12th.	42·9
		Berhampore	67	29·825	—·022	29·842	29·930	8th	29·720	17th	·210	73·1	92·7	0	65·9	+0·2	79·3	+0·1	26·8	101·8	31st	60·4	11th	41·4
		Rampur Hāt.	70	29·815		29·886	29·927	8th	29·715	17th	·212	73·6	92·2		64·5		78·4		27·7	101·5	31st	58·6	12th	43·9
		Māldā	72	29·791		29·816	29·894	8th	29·697	17th	·207	74·7	92·0		62·4		77·2		29·6	101·5	31st	55·5	12th	46·0
		Bogra	61	29·807	—·022	29·822	29·912	8th	29·705	17th	·207	66·5	93·0	+2·8	52·6	—1·3	77·8	+0·8	30·4	103·6	31st	57·0	11th	46·6
12	North Bengal	Dinajpur	123	29·758	—·020	29·839	29·864	8th	29·663	17th	·201	71·4	91·5	+2·4	53·8	—1·5	75·7	+0·5	31·7	100·8	29th	51·9	11th	38·9
		Rangpur	123	29·771		29·852	29·876	8th	29·679	17th	·197	69·6	89·0‡		60·1		74·6‡		28·9	98·2	30th	53·8	11th & 13th.	44·4
		Jalpaiguri	284	29·581	—·036	29·811	29·894	8th	29·494	19th	·200	68·7	85·5	+0·7	59·9	+0·2	72·8	+0·5	25·6	93·4	20th & 31st.	51·9	11th	41·5
		Cooch Behar	156	29·731		29·813	29·330	8th	29·629	17th	·201	68·7	86·1		62·1		74·1		24·0	94·9	31st	52·2	11th	41·7
17	North Bihar	Purnea	125	29·753	—·025	29·837	29·859	8th	29·637	17th	·212	70·1	91·6	+1·7	59·7	—0·7	75·7	+0·5	31·9	101·3	29th & 31st.	52·1	11th	49·2
14	Orissa	Balasore	50	29·859	—·023	29·853	29·984	8th	29·773	17th	·211	75·8	93·1	+0·4	69·2	—0·4	81·2	0	23·9	101·5	31st	64·2	21st	37·3
		False Point	21	29·900	—·016	29·863	30·008	9th	29·836	17th	·172	78·9	87·3	0	71·8	—0·4	79·6	—0·2	15·5	91·5	21st	65·0	1st & 9th	26·5
		Cuttack	80	29·825	—·017	29·860	29·959	9th	29·748	17th	·211	76·8	97·6	+0·6	72·2	—0·3	84·9	+0·2	25·4	103·4	29th	68·2	1st, 2nd & 9th.	35·2
		Puri	24	29·902		29·865	30·027	9th	29·831	17th	·196	79·1	85·4		75·3		80·7		9·5	87·2	29th	68·1	9th	19·1
	V.—Gangetic Plain and Chota Nagpur.				—·012							**	90·3 **	—0·8	63·2 **	+0·6	76·8 **	—0·1	27·1					44·1
15	Chota Nagpur	Hazaribagh(a)	2,007	27·894	—·001	29·884	27·989	4th	27·808	17th	·181	68·0	83·5	—5·1?	61·1	—2·7?	72·3	—3·9?	22·4	92·1	18th	54·7	11th	37·4
		Ranchi	2,128	27·775	—·001	29·883	27·862	8th	27·686	17th	·176	71·0	85·9	—1·7	64·2	+0·9	75·1	—0·4	21·7	96·0	31st	51·8	11th	41·2
16	South Bihar	Dāltonganj	*730*	29·163		29·838	29·253	8th	29·071	17th	·182	71·6	91·0		61·6		76·3		29·4	101·9	31st	54·5	11th	47·4
15	Chota Nagpur	Purulia	*816*	29·080		29·357	29·167	8th	28·986	17th	·201	75·0	93·0		66·8		79·9		26·2	102·2	31st	59·1	11th	43·1
		Chaibāsa	*760*	29·137	—·007	29·366	29·261	8th	29·051	17th	·210	72·2	94·7‖	—0·1	67·2	+0·2	81·2‖	+0·1	27·5	101·8	31st	60·2	11th	41·6
16	South Bihar	Gaya	375	29·529	—·010	29·866	29·621	3rd	29·421	17th	·200	74·9	92·3	—1·0	67·3	—1·2	73·8	—1·1	25·0	103·2	31st	58·7	12th	44·5
		Dehri	351	29·540		29·851	29·622	8th	29·441	17th	·181	73·7	91·3		68·3		79·8		23·0	101·4	31st	61·3	5th	40·1
		Patna	183	29·708	—·016	29·849	29·810	8th	29·603	17th	·207	73·2	91·4	+0·5	65·5	+1·5	78·5	+1·0	25·9	100·3	31st	57·3	11th	43·0
		Arrah	190	29·705		29·853	29·797	8th	29·609	17th	·188	72·6	91·2		62·7		76·9		28·5	101·5	31st	55·4	3rd	46·1
		Buxar	239	29·650		29·852	29·738	8th	29·550	17th	·188	72·8	90·4		65·0		77·7		25·4	101·2	31st	59·2	12th	42·0
17	North Bihar	Bhagalpur	160	29·712		29·827	29·799	8th	29·598	17th	·201	75·3	92·6		61·9		78·8		27·7	103·3	31st	57·6	12th	45·7
		Darbhanga	166	29·710	—·022	29·836	29·817	8th	29·623	17th	·194	71·0	89·4	+1·5	63·2	+0·3	76·3	+0·9	26·2	98·8	31st	56·3	11th	42·5
		Muzaffarpur	178	29·700		29·839	29·787	9th	29·602	17th	·181	71·8	90·3		61·1		75·8		29·2	99·7	28th	53·5	11th	46·2
		Motihari	224	29·656		29·845	29·77[illegible]	8th	29·573	19th	·200	72·5	89·3		58·5 ‡		73·9 ‡		30·8	97·4	28th	51·2	13th	46·2
		Chapra	181	29·697		29·838	29·782	8th	29·597	17th	·185	71·1	91·1		62·9		77·1		28·2	100·4	31st	57·5	11th & 12th.	42·9
18	United Provinces (East).	Benares	267	29·621	—·019	29·854	29·691	8th	29·524	17th	·167	72·6	91·4	—1·4	61·7	—0·1	76·6	—0·8	29·7	100·1	28th	55·6	12th & 14th.	44·5
		Allahabad	309	29·592	—·013	29·864	29·680	8th	29·499	17th	·161	72·2	90·6	—2·4	62·9	+0·8	76·8	—0·8	27·7	101·1	31st	58·1	11th	45·0
23	United Provinces (East Sub-montane).	Gorakhpur	257	29·607	—·020	29·828	29·709	8th	29·514	17th	·195	72·5	90·6	+0·1	62·9	+0·4	76·8	+0·3	27·7	99·6	31st	55·1	12th	44·5
19	South Oudh	Lucknow	368	29·519	—·010	29·858	29·587	8th	29·455	17th	·132	70·6	90·9	—0·6	61·1	+0·8	76·0	+0·1	29·8	100·8	31st	54·2	12th	46·6
20	North Oudh	Bahraich	401	29·455	—·021	29·831	29·541	8th	29·363	20th	·178	70·0	88·0	—1·0	59·3	+0·5	73·7	—0·3	28·7	98·6	31st	52·5	7th	46·1
21	United Provinces (Central).	Cawnpore	416	29·477	—·001	29·859	29·557	9th	29·394	17th	·163	71·1	89·2	—1·6	61·6	+1·2	75·4	—0·2	27·6	101·9	31st	54·8	12th	47·1
		Mainpuri	516	29·380	?	29·873	29·452	9th	29·326	16th	·126	68·3	88·4	—1·3	60·1	+1·4	74·3	+0·1	28·3	101·3	31st	55·2	6th & 12th.	46·1

(a) Thermometers removed to verandah from 22nd to end of March. ‖ Mean of 25 days. ‡ Mean of 30 days.

** Mean of 21 days.

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

Note 1.— When a query is inserted against any reading or in the returns of any

Note 2.—The data from which divisional means of the figure columns Nos. 41, 43 and 45

I—*continued.*

in India, Burma, etc., in March, 1904—continued.

WIND DIRECTION. Number of winds from									Wind resultant.	WIND VELOCITY.				HYGROMETRY, 8 A.M.				CLOUD.		RAINFALL.								Heaviest rainfall during month.	STATION.	METEOROLOGICAL PROVINCE OR DISTRICT.	Number of District.
Calm	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.		Mean daily velocity in miles per hour instrumental errors uncorrected.	Normal (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Mean cloud amount at 8 A.M.	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 1903 to 31st March 1904.	Normal rainfall for period, 1st December to 31st March.	Departure from normal of period, 1st Dec. 1903 to 31st March 1904.				
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	58
							5		W	2·2			2·5	55		·472		1·4		2	1·76	+ 0·24	1·47	1·30	+ 0·17	2·28	2·80	— 0·52	1·04	Bankura	CENTRAL BENGAL	11
	23	1			1	1	3	2	N 81° W	2·5				53		·417		2·0		1	1·48	— 0·48	0·42	0·76	— 0·34	0·79	2·32	— 1·53	0·34	Raniganj.		
	16	2				3	1	9	N 89° W	2·7	3·4	—21	2·6	60	—4·2	·555	+·002	2·4	—0·4	2	2·16	— 0·16	1·69	1·34	+ 0·35	2·33	2·66	— 0·33	1·48	Burdwan.		
	19	1				3	4	4	N 77° W	2·7			3·0	43		·380		1·8		1	1·41	— 0·41	0·42	0·81	— 0·39	0·53	2·26	— 1·73	0·42	Naya Dumka.		
	20					3	4	4	N 84° W	1·6	3·4	—53	1·5	64	—7·5	·514	—·052	2·2‡	—0·5	1	1·73	— 0·73	0·51	0·97	— 0·46	1·70	2·46	— 0·76	0·51	Berhampore.		
	25					4	1	1	S 68° W	2·4			2·5	64		·520		0·7‡		1	1·68	— 0·68	0·20	1·15	— 0·95	0·38	2·40	— 2·02	0·20	Rampur Boalia.		
		2	1	1	5	5	10	4	3	S 26° W	6·0			5·5	56		·474		0		0	1·10	— 1·10	0	0·82	— 0·82	0·85	2·49	— 1·64	0	Malda.		
	15		1	2		7	6		S 10° W	2·8			2·3	73	—0·9	·481	—·081	0·8*	—1·6	0	1·74	— 1·74	0	1·33	— 1·33	0·90	2·77	— 1·87	0	Bogra.		
		1	6	6	1	2	10	4	1	S 14° W	4·2			4·0	58	—8·3	·447	—·029	1·3	—0·6	0	1·19	— 1·19	0	0·67	— 0·67	0·23	1·59	— 1·39	0	Dinajpur	NORTH BENGAL	12
	15		4	5		1	4	2		S 72° E	3·0			3·2	71		·519		0·2		0	1·68	— 1·68	0	1·16	— 1·16	3·96	2·17	+ 1·79	0	Rangpur.		
		3	6	13	2	2	1		4	S 68° E	1·2			1·5	72	—3·0	·503	0	0·5	—1·4	0	2·10	— 2·10	0	1·23	— 1·23	2·80	2·22	+ 0·58	0	Jalpaiguri.		
			2	21	3	3	2			S 78° E	3·0			3·0	78		·547		1·0		0	2·41	— 2·41	0	1·66	— 1·66	1·73	2·59	— 0·86	0	Cooch Behar.		
	4	2	7	3	1		1	8	5	N 24° W	6·0	3·4	+76	5·3	58	—10·5	·424	—·043	0·4	—1·0	0	0·83	— 0·83	0	0·41	— 0·41	0·10	1·57	— 1·47	0	Purnea	NORTH BIHAR	17
	11	3	2			1	11	2	1	S 66° W	4·1			3·0	73	—6·2	·644	—·066	1·8*	—1·8	5	2·87	+ 2·13	1·58	1·82	— 0·24	3·13	3·47	— 0·34	0·76	Balasore	ORISSA	14
				1		2	12	12	4	S 70° W	9·3	10·9	—15	9·6	81	—4·5	·801	—·027	3·7*	—0·5	0	1·48	— 1·48	0·21	1·15	— 0·94	0·69	3·25	— 2·56	0·07	False Point.		
	22		1	1		1	3	3		S 56° W	2·6	3·5	—26		76	—1·5	·697	—·017	2·7‡	—0·2	1	1·77	— 0·77	0·23	1·23	— 1·00	0·44	2·12	— 1·68	0·15	Cuttack.		
	8						18	3	2	S 57° W	15·6			15·3	83		·833		2·5		1	1·05	— 0·05	0·12	0·65	— 0·53	0·37	2·55	— 2·18	0·12	Puri.		
																							0·56	0·51	+ 0·05					V.—Gangetic Plain and Chota Nagpur.		
														58	+5·7	·436	+ ·042	1·6	—0·1												
					2	7	12	10	N 89° W	10·0	7·4	+35	8·9	54	?	·360	+·046	2·6	+0·3	4	1·81	+ 2·19	2·36	0·80	+ 1·56	2·91	2·24	+ 0·67	1·27	Hazaribagh	CHOTA NAGPUR	15
	4		1		1	5	5	15	N 69° W	6·3			7·1	50	+4·7	·366	+·050	2·3	+0·7	6	2·58	+ 3·42	2·98	1·37	+ 1·61	3·44	3·11	+ 0·33	1·43	Ranchi.		
	20	2	1			2	2	3	1	W	4·3			3·5	54		·393		1·4		5	1·67	+ 3·33	1·72	0·63	+ 1·09	2·17	2·21	— 0·04	0·59	Daltonganj.	SOUTH BIHAR	16
	6	1				2	15	7	N 77° W	3·3			4·1	51		·430		1·5		2	2·17	— 0·17	1·20	1·01	+ 0·19	1·88	2·65	— 0·77	0·69	Purulia	CHOTA NAGPUR	15
	20		1			4	6		S 76° W	1·7			1·5	64	+7·5	·503	+·042	1·5	—0·4	5	2·19	+ 2·81	1·67	1·05	+ 0·62	3·40	2·55	+ 0·85	0·72	Chaibasa.		
	5				8	6	12		S 53° W	5·5	3·3	+67	4·4	53	0	·460	+·022	2·2	+0·1	2	1·03	+ 0·97	0·35	0·55	— 0·20	0·95	1·94	— 0·99	0·17	Gaya	SOUTH BIHAR	16
	2				10	11	5		S 37° W	7·0			6·2	51		·437		2·5		1	1·00	0	0·31	0·55	— 0·23	0·13	1·96	— 1·53	0·20	Dehri.		
	1		1	2	1	5	4	16	1	S 66° W	6·0	3·4	+76	6·8	52	+2·5	·413	+·016	1·8	0	0	0·74	— 0·74	0·06	0·39	— 0·33	0·95	1·65	— 0·70	0·06	Patna.		
	6				6	14	3	2	S 38° W	4·3			4·3	81		·368		0·5		0	0·81	— 0·81	0·03	0·17	— 0·14	1·09	2·09	— 1·00	0·03	Arrah.		
		1			2	3	15	10		S 54° W	10·5			9·9	50		·396		2·0		0	0·87	— 0·87	0·09	0·28	— 0·19	1·60	1·78	— 0·18	0·07	Buxar.		
	13		1			1	4	12		S 78° W	5·2			4·8	44		·382		0·9		1	0·84	+ 0·16	0·25	0·44	— 0·19	0·84	1·74	— 0·90	0·25	Bhagalpur	NORTH BIHAR	17
	17				1	2	2	6	3	S 77° W	4·2	4·5	— 7		61	—0·2	·463	+·024	0·5	—0·8	0	0·63	— 0·83	0	0·46	— 0·46	0·03	1·66	— 1·63	0	Darbhanga.		
	8			1	1		4	12	5	W	4·3				61		·430		0·1		0	0·97	— 0·97	0	0·43	— 0·43	0·10	1·76	— 1·66	0	Muzaffarpur.		
	8			2			4	14	3	S 87° W	6·7			6·4	58		·459		0·3		0	0·77	— 0·77	0	0·49	— 0·49	0·22	1·59	— 1·37	0	Motihari.		
	1			3		7	16	4		S 31° W	4·5			4·0	58		·456		2·1		1	0·71	+ 0·29	0·16	0·38	— 0·20	0·99	1·70	— 0·71	0·18	Chapra.		
	2				16	3	2	2	6	N 49° W	3·4	4·8	—29	3·9	62	+4·3	·496	+·074	2·0	0	1	0·80	+ 0·20	0·25	0·25	+ 0·03	1·10	1·59	— 0·49	0·19	Benares	UNITED PROVINCES (EAST).	18
	7			2	2		4	12	4	S 81° W	5·5	4·6	+20	4·6	59	+12·5	·452	+·083	2·5	+0·5	2	0·60	+ 1·40	0·31	0·25	+ 0·05	0·61	1·73	— 1·12	0·14	Allahabad.		
	1	3	2	2	1	3	7	8	4	S 83° W	3·5	3·6	— 3	3·2	57	+0·2	·443	+·031	2·6	+1·0	0	0·70	— 0·70	0	0·33	— 0·33	0·22	1·72	— 1·50	0	Gorakhpur	UNITED PROVINCES (EAST SUB-MONTANE).	23
	13	3		1			4	5	5	N 70° W	3·3	4·0	—18	3·6	55	?	·402	+·016	1·8	—0·3	2	0·90	+ 1·10	0·24	0·33	— 0·09	0·44	2·11	— 1·67	0·14	Lucknow	SOUTH OUDH	19
	10	1	1				3	7	9	N 69° W	3·1			2·9	74	?	·549	?	0·3	—1·7	0	1·00	— 1·00	0·03	0·57	— 0·54	0·72	2·84	— 2·12	0·03	Bahraich	NORTH OUDH	20
	7	4	1		1	2	3	10	3	N 81° W	4·4				63	+16·7	·475	?	1·5	+0·2	1	0·70	+ 0·30	0·18	0·26	— 0·08	0·38	1·59	— 1·21	0·15	Cawnpore	UNITED PROVINCES (CENTRAL).	21
	1	3	2		2	3	6	10	4	S 84° W	5·2			5·3	60	+8·6	·406	+·054	1·2	—1·3	1	0·50	+ 0·50	0·25	0·04	+ 0·21	0·84	2·07	— 1·23	0·21	Mainpuri.		

station, the data for that station are not utilized in calculating the provincial departures from normal.
are derived are incomplete.

* Mean of 29 days.

Table

Abstract of Observations taken at 8 A.M. at 232 Stations

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure, 8 A.M., in inches.								Temperature of air.											
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
	VI.—Upper Sub-Himalayas.				−·013								79·8	−4·5	57·2	+6·6	68·5	−1·9	22·6					43·2
24	United Provinces (West Sub-montane).	Bareilly	568	29·292	−·022	29·816	29·367	8th	29·216	20th	·151	66·6	86·0	−1·5	59·1	+0·1	72·6	−0·7	26·9	98·9	31st	52·6	10th	46·3
		Dehra Dun	2,233	27·633	−·018	29·888	27·714	25th	27·570	20th	·144	60·1	77·3	−2·4	54·0	−1·0	65·7	−1·7	23·3	90·5	31st	45·5	9th	45·0
		Roorkee	899	28·963	−·015	29·869	29·053	9th	28·883	20th	·170	62·7	81·5	−3·9	56·4	+0·3	69·0	−1·8	25·1	94·2	31st	49·8	10th	44·4
22	United Provinces (West)	Meerut	738	29·130	−·020	29·863	29·213	9th	29·067	3rd	·146	64·5	83·8	−2·8	58·0	+0·3	70·9	−1·3	25·8	99·7	31st	52·3	9th	47·4
26	South-East Punjab.	Delhi	718	29·162	−·018	29·871	29·245	9th	29·078	3rd & 16th.	·167	66·6	82·8	−4·6	62·2	0	72·5	−2·3	20·6	97·7	31st	53·4	9th	44·3
28	Central Punjab.	Lahore	702	29·185	−·012	29·892	29·299	9th	29·024	3rd	·275	61·5	76·7	−8·4	57·4	+3·2	67·1	−2·6	19·3	90·4	30th	52·1	9th & 19th.	38·3
27	South Punjab	Sirsa	662	29·233	−·007	29·889	29·339	9th	29·057	3rd	·282	65·1	82·8	−5·8	58·1	+0·9	70·5	−2·5	24·7	98·3	30th	49·6	1st	48·7
		Patiala	*818*	29·055		29·874	29·157	9th	28·933	3rd	·224	64·3	79·5		57·4		68·5		22·1	94·0	31st	51·2	9th	42·8
29	Punjab (Sub-montane)	Ludhiana	812	29·069	−·006	29·887	29·183	26th	28·965	3rd	·218	62·7	78·8	−5·6	56·7	−0·8	67·8	−3·2	22·1	92·1	30th & 31st.	48·6	4th	43·5
		Sialkot	830	29·057	−·004	29·899	29·172	9th	28·927	3rd	·245	61·5	77·6	−4·1	57·8	+2·2	67·7	−1·0	19·8	90·6	30th	52·7	10th	37·9
		Umballa	892	28·972	−·009	29·871	29·064	9th	28·882	3rd	·182	63·9	82·0	−1·9						96·5	31st			
		Rawalpindi	1,674	28·219	−·008	29·945	28·348	9th	28·044	3rd	·304	57·9	71·1	−5·4	51·9	+1·2	61·5	−2·1	19·2	82·9	30th	46·1	10th	36·8
	VII.—Indus Valley and North-West Rajputana.				−·013								82·6	−4·7	60·2	+0·7	71·4	−2·0	22·4					46·0
32	North-West Frontier Province.	Peshawar	1,110	28·827	−·018	29·974	29·013	25th	28·657	3rd	·356	59·4	71·5	−4·6	53·2	+1·3	62·4	−1·7	18·3	84·1	30th	45·4	9th	38·7
		D. I. Khan	590	29·337	−·020	29·907	29·485	25th	29·099	3rd	·386	61·9	75·8	−7·7	56·7	+1·2	66·3	−3·3	19·1	87·8	30th	48·1	9th	39·7
31	West Punjab	Khushab	612	29·305	?	29·917	29·440	9th	29·102	3rd	·338	63·7	76·8	−3·8	57·9	+1·1	67·4	−1·4	18·9	89·9	30th	51·5	9th	38·4
		Montgomery	558	29·341	−·001	29·895	29·185	9th	29·131	3rd	·354	64·7	80·3	−5·4	57·7	+1·8	69·0	−1·8	22·6	97·3	30th	48·5	10th	48·8
		Mooltan	420	29·484	−·024	29·889	29·630	26th	29·210	3rd	·420	64·3	81·6	−4·9	60·2	+1·8	70·9	−1·6	21·4	96·3	30th	49·9	9th	46·4
47	Sind	Jacobabad	186	29·725	−·015	29·880	29·890	9th	29·471	3rd	·416	67·5	87·0	−4·1	59·4	−0·2	73·2	−2·2	27·6	101·5	30th & 31st.	52·0	8th & 9th	49·5
		Hyderabad	96	29·836	−·011	29·889	30·010	9th	29·604	3rd	·406	70·6	83·7	−4·4	63·7	−0·5	76·2	−2·5	25·0	102·1	30th	53·5	9th	48·6
		Kurrachee	30	29·924	−·012	29·905	30·095	9th	29·708	3rd	·387	71·0	83·0	−3·1	66·3	+0·2	74·7	−1·5	16·7	92·9	29th	50·7	6th	42·2
51	West Rajputana	Bikaner	*771*	29·122	−·010	29·887	29·248	9th	28·940	3rd	·308	68·2	85·4	−3·8	62·7	−2·0	74·1	−2·9	22·7	102·1	30th	52·6	9th	49·5
		Pachpadra	*380*	29·550	−·005	29·901	29·708	9th	29·351	3rd	·357	70·3	90·6	−4·1	61·2	+2·3	75·9	−0·7	29·4	103·0	30th	52·6	9th	54·4
		Jodhpur	782	29·131		29·919	29·283	9th	28·963	3rd	·320	69·1	88·0		63·4		75·7		24·6	103·2	30th & 31st.	53·7	4th	49·5
	VIII.—East Rajputana, Central India and Gujarat.				−·008								88·6	−3·5	63·6	+0·3	76·1	−1·6	25·0					47·2
50	East Rajputana	Jaipur	1,431	28·486	−·008	29·914	29·572	9th	28·373	3rd	·199	70·3	86·3	−3·4	61·1	+0·3	73·7	−1·6	25·2	100·7	31st	48·0	10th	52·7
		Bharatpur	585	29·316		29·883	29·402	9th	29·221	3rd	·181	67·3	87·4		60·4		73·9		27·0	97·4	31st	54·2	7th & 9th	43·2
		Kotah	819	29·093		29·930	29·216	9th	28·984	3rd	·232	73·7	89·9		65·5		77·7		24·4	102·5	31st	57·5	10th & 11th.	45·0
		Sambhar	1,254	28·654	−·005	29·913	28·752	9th	28·530	3rd	·222	67·3	85·7	−3·0	60·3	+1·5	73·0	−0·8	25·4	100·5	31st	49·9	10th	50·6
		Ajmer	1,611	28·316	−·012	29·928	28·410	9th	28·169	3rd	·241	69·3	85·0	−4·1	62·9	+3·2	74·0	−0·5	22·1	98·9	30th & 31st.	53·3	10th	45·6
		Udaipur*	1,925	28·014		29·920	28·120	9th	27·847	3rd	·273	71·3	87·2		60·3†		73·9†		26·9	101·0	31st	48·2	10th	52·8
		Deesa	466	29·471	−·009	29·902	29·600	9th	29·314	3rd	·286	74·0	91·2	−1·9	63·0	−0·8	76·6	−1·4	31·2	108·1	31st	52·6	10th	55·5
46	Kathiawar and Cutch.	Bhuj	395	29·555	+·001	29·912	29·676	9th	29·371	3rd	·305	73·4	90·0	−3·9	65·0	−0·4	77·5	−2·2	25·0	102·3	29th	56·0	9th	46·3
		Jamnagar	61	29·896		29·962	30·038	9th	29·718	3rd	·320	72·4	88·6		64·5		76·5		24·1	100·1	29th & 30th.	57·8	9th & 10th.	42·3
		Rajkot	429	29·521	−·007	29·913	29·643	9th	29·370	3rd	·273	70·9	91·1	−4·5	62·3	−0·1	76·7	−2·3	28·8	104·9	30th	53·0	10th	51·9
		Veraval	*18*	29·939	+·004	29·899	30·059	9th	29·802	3rd	·267	72·8	84·8	−1·5	65·5	+0·6	75·2	−0·5	19·3	104·7	30th	57·3	10th	47·4
		Dwarka	37	29·924		29·908	30·055	9th	29·737	3rd	·316	75·3	80·5		70·3		75·4		10·2	83·4	29th & 30th.	54·6	4th	28·8
		Bhavnagar Para	55	29·911	−·016	29·910	30·034	9th	29·773	3rd	·261	74·0	92·8	−0·9	66·3*	−0·6	79·7*	−0·8	26·5	104·6	31st	56·5	10th	48·1
49	Central India	Nowgong	757	29·148	−·018	29·839	29·216	9th	29·083	17th & 31st.	·133	68·1	86·5	−5·9	60·8	0	73·7	−3·0	25·7	98·5	31st	54·5	11th	44·0
		Indore	1,823	28·113	+·002	29·923	28·209	9th	28·018	3rd	·191	71·0	89·4	−3·1	58·7	−1·7	74·1	−2·4	30·7	100·6	31st	48·6	10th	52·0
		Neemuch	1,630	28·305	0	29·931	28·411	9th	28·180	3rd	·231	70·1	88·3	−3·1	60·2	−1·3	74·3	−2·2	28·1	101·5	31st	48·8	10th	52·7
45	Gujarat	Surat	39	29·924	−·008	29·908	30·056	8th	29·8.2	31st	·254	75·2	93·4	−3·2	66·7	+0·7	80·1	−1·3	26·7	106·1	30th	57·0	10th	49·1
		Ahmedabad	163	29·763	−·009	29·898	29·901	9th	29·676	31st	·225	75·7	91·0	−3·0	68·1	+0·3	81·1	−1·4	25·9	107·8	31st	60·2	9th	47·6

* Mean of 30 days. † Mean of 29 days.

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

Note 1.—When a query is inserted against any reading or in the returns of any

Note 2.—The data from which divisional means of the figure columns Nos. 41, 43 and 45

I—*continued.*

in India, Burma, etc., in March, 1904—continued.

WIND DIRECTION. Number of Winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	WIND VELOCITY. Mean daily velocity in miles per hour, instrumental errors uncorrected	Normal. (Uncorrected.)	Percentage departure from normal.	Mean velocity corrected (where possible).	HYGROMETRY, 8 A.M. Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	CLOUD. Mean cloud amount at 8 A.M.	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 December, 1903, to 31st March 1904.	Normal rainfall for period, 1st December to 31st March.	Departure from normal of period, 1st Dec. 1903 to 31st March 1904.	Heaviest rainfall during month.	STATION.	METEOROLOGICAL PROVINCE OR DISTRICT.	Meteorological Province.
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	58
														73	+11·7	·418	+·060	3·3	+0·4				3·42	0·79	+2·38							
16	1	1				1		10	2	N 80° W	3·7	4·3	−14	3·5	64	+ 5·6	·411	+·038	2·2	0	1	1·82	−0·82	0·47	0·76	−0·29	0·73	2·88	−2·15	0·43	Bareilly	VI.—Upper (West Sub-montane)	Sub-Himalayas	24
23		1		2				4	1	W	1·4	2·3	−39		67	+ 9·6	·360	+·042	3·3	+0·7	6	2·60	+3·40	3·44	0·91	+2·50	6·03	6·33	−0·30	1·29	Dehra Dun.			
15				2	1			1	12	N 53° W	4·3	2·9	+48		71	+ 9·3	·406	+·054	2·6	+0·2	3	1·90	+1·10	3·71	0·69	+3·02	4·70	4·30	+0·40	2·31	Roorkee.			
10	2	1		1	1	3	7	6	N 76° W	1·9	2·7	−30	1·9	66	+10·3	·401	+·054	2·3	0	5	1·40	+3·60	1·81	0·63	+1·18	2·07	3·36	−1·29	0·94	Meerut	United Provinces (West).		22
3	1	1	1	1	3	1	13	7	N 83° W	5·3	3·9	+36	4·7	62	+13·3	·395	+·072	3·3	+0·3	4	1·50	+2·50	1·31	0·50	+0·84	1·48	2·97	−1·49	0·50	Delhi	South-East Punjab.		26
5	3	4	3	3	1		3	9	N 0° W	5·5	3·1	+13		86	+21·4	·473	+·099	4·6	+1·2	8	1·70	+6·30	5·37	0·65	+4·72	7·07	3·25	+3·82	2·33	Lahore	Central Punjab		28
3	4	4	1	5	3	2	2	7	N 15° W	4·7	3·8	+24	4·3	73	+15·7	·449	+·095	2·4	−0·8	3	1·10	+1·90	1·54	0·32	+1·22	1·64	1·80	−0·16	0·74	Sirsa	South Punjab.		27
3	6	4	3	3			3	9	N 4° W	6·5			6·5	73		·438		3·6		5			6·14			7·47			2·14	Patiala.			
10	3	5		3			3	7	N 14° W	2·5	1·8	+39	2·2	76	+13·3	·437	+·066	3·3	−0·5	5	1·70	+3·30	3·75	0·79	+2·96	5·58	4·71	+0·87	1·26	Ludhiana	Punjab (Sub-montane).		29
10	5	3	3	1			5	4	N 13° W	1·4	1·9	−26		78	+10·7	·422	+·039	3·3	+0·5	8	2·90	+5·10	5·73	1·14	+4·59	9·36	5·97	+3·39	1·71	Sialkot.			
13		1	1	2			1	13	N 40° W	6·7				74	+10·9	·434	+·047	2·9	+0·9	4	1·40	+2·60	2·84	0·37	+2·47	4·63	5·22	−0·59	1·82	Umballa.			
22	1	3			1	1	1	2	N 20° W	3·5	2·6	+35	3·2	80	+ 8·1	·389	+·050	6·2	+2·1	7	4·20	+2·80	4·87	1·89	+2·98	10·66	7·61	+3·05	1·30	Rawalpindi.			
														68	+14·9	·432	+·082	3·4	+0·6				2·70	0·51	+2·19						VII.—Indus Valley and North-West Rajputana.		
22		1			3	2	3		S 45° W	1·6	3·7	−57	1·7	80	+ 8·2	·403	+·041	5·8	+1·0	11	3·90	+7·10	7·27	2·04	+5·23	11·63	5·19	+6·44	1·77	Peshawar	North-West Frontier Province.		32
14	4	5		1				7	N 3° W	1·5	2·1	−29	1·6	86	+20·8	·482	+·120	5·5	+2·3	14	2·50	+11·50	7·46	0·89	+6·57	8·88	2·33	+6·55	1·54	D. I. Khan.			
8	6	8	2				1	6	N 7° E	6·9			6·6	73	+15·0	·429	+·092	4·5	+1·7	8	1·70	+6·30	4·11	1·13	+2·98	7·19	3·18	+4·01	1·19	Khushab	West Punjab.		31
4	8	4	2	7	1	1	1	3	N 37° E	6·9			6·4	73	+21·3	·442	+·115	4·7	+2·3	6	1·20	+4·80	1·91	0·35	+1·56	3·24	2·28	+0·96	0·60	Montgomery			
10	8	4		4	2	1		2	N 30° E	1·2	2·1	−43	1·5	75	+16·3	·447	+·078	4·4	+2·6	3	1·20	+1·80	2·06	0·39	+1·67	3·25	1·46	+1·79	1·22	Mooltan.			
10	4	2	9	2			2	2	N 58° E	3·8	3·9	− 3	4·0	63	+21·8	·421	+·128	2·0	−0·8	2	0·70	+1·30	1·57	0·15	+1·42	2·36	0·85	+1·51	1·27	Jacobabad.	Sind.		47
4	4	2		2		12	3	4	S 80° W	6·1	8·3	−23	6·7	58	+ 8·7	·421	+·038	1·4	−1·0	2	0·30	+1·70	0·60	0·16	+0·44	1·35	0·67	+0·68	0·48	Hyderabad.			
6	4	2	3	1		3	9	3	N 58° W	9·8	11·8	−17	8·6	79	+ 5·5	·599	+·019	2·0	−0·3	3	0·50	+2·50	2·26	0·19	+2·07	4·62	1·29	+3·33	1·11	Kurrachee.			
2		2	4	7	6	8	1	1	S 12° E	6·0	4·3			57	+16·8	·391	+·102	2·8	−0·2	3	0·50	+2·50	1·39	0·19	+1·20	1·78	1·01	+0·77	0·83	Bikaner	West Rajputana		51
1	1	5	6	5	3	7	2	1	S 40° E	6·8	4·1	+66	5·9	53	?	·387	?	1·2	−1·2	2	0·30	+1·70	0·49	0·11	+0·38	0·87	0·69	+0·18	0·28	Pachpadra.			
9	3	6		1	2	7	2	1	N 83° W	3·9			3·5	48		·328		3·1		1	0·20	+0·80	0·59	0·01	+0·58	0·71	0·50	+0·21	0·38	Jodhpur.			
														60	+11·8	·465	+·060	20	0				0·92	0·12	+0·82						VIII.—East Rajputana, Central India and Gujarat.		
5	4	9	2	1	1	2	1	6	N 12° E	4·0	5·7	−30		51	+ 6·8	·361	+·034	3·4	+0·8	2	0·70	+1·30	1·05	0·34	+0·71	1·21	1·30	−0·09	0·61	Jaipur	East Rajputana		50
12				1	1	3	11	3	S 82° W	3·4			3·1	69		·459		2·1		2			0·36			0·73				0·24	Bharatpur.			
9	3	1	1	2	1	2	4	8	N 55° W	3·9			3·1	44		·342		1·5		3	0·40	+2·60	0·89	0·07	+0·82	1·55	0·76	+0·79	0·37	Kotah.			
15	5	1	2	1	2		4	1	N 20° W	4·9	6·2	−21		59	+14·2	·391	+·091	2·8	+0·4	3	0·80	+2·20	1·61	0·28	+1·33	1·93	1·20	+0·73	0·66	Sambhar.			
11	1	5		3	1	8	1	1	S 27° W	5·0	3·6	+39	4·5	58	+ 9·7	·406	+·069	2·8	+0·7	4	0·60	+3·40	1·13	0·16	+0·97	1·33	1·11	+0·22	0·50	Ajmer.			
25	1					1	2	1	N 71° W	3·3†			2·9	49		·375		1·8		2	0·30	+1·70	0·62			1·09				0·40	Udaipur.			
	8	6	2	1	2	3	5	4	N 17° W	8·7	8·9	− 2		47	+ 9·8	·381	+·069	1·6	−0·5	0	0·18	−0·18	0·04	0·05	−0·01	0·34	0·33	+0·01	0·03	Deesa.		6
	4	1		1	2	6	4	13	N 66° W	9·9	8·3	+19	8·3	74	+17·3	·608	?	2·1	+0·1	1	0·10	+0·90	0·63	9·06	+0·62	0·86	0·29	+0·57	0·67	Bhuj	Kathiawar and Cutch.		
	1	1	2	5	6	8	6	1	S 29° W	11·9			14·4	75		·602		2·1		2			1·85			2·04			1·52	Jamnagar.			
7	5			1	5	1	6	6	N 74° W	6·9	8·1	−15	6·8	73	+ 9·5	·552	+·038	1·6	−0·5	3	0	+3·00	1·35	0	+1·35	1·81	0·17	+1·64	0·70	Rajkot.			
	18	4		1		1		7	N 5° W	10·6	6·6	+61	10·6	67	+ 5·4	·533	+·021	1·3	−0·5	1	0	+1·00	0·24	0	+0·24	0·28	0·10	+0·18	0·23	Veraval.			
	6	2	2			2	7	1	N 43° W	13·7				80		·716		2·5		2			0·48			0·70			0·22	Dwarka.			
	4	1				6	1	19	N 53° W	5·0			6·0	53	?	·437	?	4·4	?	2	0·10	+1·90	1·37	0·08	+1·29	1·89	0·29	+1·60	1·12	Bhavnagar Para.			
8	1		1		3	4	11	3	S 79° W	2·2	2·3	− 4	2·2	62	+12·5	·423	+·063	2·1	+0·6	4	0·70	+3·30	2·86	0·22	+2·64	3·12	1·96	+1·16	1·02	Nowgong	Central India		49
8	4	7	6	1	1	1	1	2	N 47° E	3·8	3·7	+ 3	3·1	53	+12·9	·397	+·077	1·5	+0·2	0	0·10	−0·10	0·07	0·04	+0·03	1·21	0·55	+0·66	0·05	Indore.			
1	12	10	1	1	1	2	2	1	N 15° E	7·5	9·1	−18	6·3	57	+20·4	·414	?	1·8	0	2	0·10	+1·90	0·74	0·04	+0·70	1·20	0·70	+0·50	0·50	Neemuch.			
5	11	3	2	2	2	1	3	2	N 2° E	4·8	6·5	−26	4·5	63	+ 0·2	·545	−·011	1·1	−0·1	1	0	+1·00	0·31	0	+0·31	0·81	0·14	+0·67	0·23	Surat.	Gujarat.		45
	8	8	3			2		10	N 1° E	2·8			4·6	54	+11·3	·467	+·091	1·6	−0·4	2	0	+2·00	0·65	0·06	+0·59	1·05	0·30	+0·75	0·40	Ahmedabad			

station, the data for that station are not utilized in calculating the provincial departures from normal.
are derived are incomplete.

Table

Abstract of Observations taken at 8 A.M. at 232 Stations

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 A.M., in inches.								Temperature of air.												
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
22	United Provinces (West).	Agra	555	29·348	−·022	29·883	29·430	9th	29·270	3rd	·160	68·8	87·5	−3·6	63·3	+0·6	75·4	−1·5	24·2	100·5	31st	55·4	10th	45·1
21	United Provinces (Central).	Jhansi	858	29·065	−·012	29·902	29·141	9th	28·975	3rd	·166	72·8	89·9	−3·2	66·4	+0·1	78·2	−1·6	23·5	102·3	31st	58·1	10th	44·2
	IX.—Deccan				−·004								94·2	−1·9	66·1	−0·6	80·2	−1·3	28·1					42·7
8	Bombay Deccan	Belgaum	2,539	27·402	−·014	29·882	27·472	9th	27·344	3rd	·128	73·8	91·7	−2·2	63·2	−1·0	77·5	−1·6	28·5	96·3	31st	58·9	4th	37·4
		Sholapur	1,590	28·337	−·013	29·886	28·413	8th	28·273	17th	·140	78·3	98·6	−1·8	69·3	0	84·0	−0·9	29·3	102·8	18th	62·1	10th	40·7
		Poona	1,840	28·107	−·012	29·935	28·189	9th	28·032	3rd	·157	69·0	96·3	−1·4	62·0	−1·9	79·2	−1·7	34·3	102·5	31st	52·4	10th & 11th,	50·1
		Bijapur	*1,948*	27·982	−·005	29·879	28·051	8th	27·908	31st	·143	77·5	95·8	−0·6	69·1	−1·5	82·5	−1·1	26·7	99·4	4 days	63·2	11th	36·2
40	Khandesh	Malegaon	1,430	28·499	−·021	29·903	28·597	9th	28·391	3rd	·206	74·7	96·3	−1·0	62·7	−0·9	79·5	−1·0	33·6	104·4	31st	50·7	10th	53·7
		Ahmednagar	2,152	27·805	+·011	29·918	27·891	9th	27·725	3rd	·166	74·8	93·7	−0·1	62·2	−0·3	78·0	−0·2	31·5	98·9	29th & 31st.	52·5	11th	46·4
41	Berar	Akola	930	29·003	+·003	29·895	29·092	9th	28·919	31st	·173	77·2	97·8	−1·4	65·4	−0·6	81·6	−1·0	32·4	105·7	31st	54·4	11th	51·3
		Amraoti	1,215	28·716	+·009	29·897	28·788	9th	28·647	31st	·141	77·6	96·3	−1·8	69·3	+0·1	82·8	−0·9	27·0	104·3	31st	60·5	10th	43·8
42	Central Provinces, (West).	Khandwa	1,044	28·883	−·007	29·906	29·988	9th	28·786	31st	·202	73·4	96·2	−1·4	63·9	−1·0	80·1	−1·2	32·3	107·2	31st	53·1	10th	54·1
		Hoshangabad	1,006	28·934	+·002	29·927	29·031	9th	28·844	31st	·187	70·6	91·1	−4·6	62·1	−2·5?	76·6	−3·6?	29·0	101·8	31st	51·3	3rd & 5th,	50·5
		Nagpur	1,025	28·902	+·006	29·901	28·971	10th	28·833	17th	·138	75·1	96·1	−2·2	67·1	−0·7	81·6	−1·5	29·0	103·1	29th	58·2	10th & 11th.	44·9
43	Central Provinces, Central.	Chanda	*634*	29·296	+·008	29·884	29·373	10th	29·226	10th	·147	78·2	98·2	−1·5	67·7	+0·7	83·0	−0·4	30·5	103·7	29th & 31st,	59·1	10th & 11th.	44·6
		Seoni	2,033	27·897	−·005	29·900	27·954	8th	27·842	3rd	·112	72·4	90·6	−2·6	62·7	−0·8	76·7	−1·7	27·9	98·8	31st	54·0	11th	44·8
		Jubbulpore	1,327	28·585	−·010	29·906	28·610	10th	28·509	17th	·131	68·4	88·6	−4·2	59·7	−1·1	74·2	−2·7	28·9	98·5	31st	51·9	11th	46·6
		Saugor	1,807	28·719	+·001	29·912	28·195	9th	28·061	16th	·131	71·5	87·1	−5·0	64·1	−0·4	75·6	−2·7	23·0	98·9	31st	55·1	2nd & 10th,	43·8
49	Central India	Sutna (*a*)	1,040	28·867	−·009	29·899	28·940	1st	28·804	31st	·136	69·9	87·0	−4·3	64·2	+3·0?	75·6	−0·7?	22·8	97·5	31st	57·2	11th	40·3
44	Central Provinces, (East).	Raipur	970	28·948	−·002	29·881	29·024	8th	28·851	17th	·173	76·7	93·3	−3·2	69·9	−1·7	80·1	−2·5	26·4	100·2	31st	57·9	11th	42·3
		Pendra	2,123?	27·871?		29·893?	27·942	1st	27·758	27th	·184	70·2	86·4		62·2		74·3		24·2	95·3	31st	53·1	11th	42·2
		Sambalpur	486	29·432	−·010	29·876	29·519	9th	29·343	17th	·176	75·8	95·3	−1·4	66·9	−0·4	81·1	−0·9	28·4	103·1	31st	58·7	12th	44·4
39	Hyderabad (North).	Aurangabad	1,905	28·035		29·869	28·109	9th	27·958	3rd	·151	78·0	94·1		65·2		79·6		28·9	100·4	31st	54·2	11th	46·2
		Indur	1,260	28·729?		29·252?	28·803	7th	28·689	25th	·114	78·9	97·6		66·1		81·4		32·5	102·2	18th	60·1	1st	42·1
		Bidar	*2,165*	27·782		29·889	27·871	25th	27·688	16th	·183	78·6	94·1		72·2		83·2		21·9	98·0	17th	66·3	6th	31·7
53	Hyderabad (South).	Gulbarga	1,503	28·422	−·007	29·879	28·481	23rd	28·372	16th	·109	79·4	98·2	−0·9	70·4	−0·3	84·3	−0·6	27·8	101·4	16th	62·3	11th	39·1
		Raichur	1,326	28·592	?	29·871	28·653	9th & 23rd.	28·537	17th	·116	79·8	97·3	−1·5	74·1	+0·1	85·7	−0·7	23·2	100·1	16th & 31st.	70·6	10th & 12th.	29·5
		Hyderabad (Deccan).	1,690	28·237	−·001	29·888	28·308	8th	28·174	17th	·134	76·0	95·9	−2·0	70·0	+0·4	82·0	−0·8	25·9	99·9	29th	63·2	2nd	36·7
		Hanumkonda	871	29·047		29·876	29·135	8th	28·987	17th	·148	76·4	96·4		71·6		84·0		24·8	101·3	31st	64·7	2nd	36·6
	X.—West Coast				−·012								87·4	−0·6	74·7	−0·5	81·1	−0·6	12·6					20·7
37	Konkan	Bombay	37	29·915	−·016	29·892	30·019	8th	29·813	31st	·206	76·7	86·6	+0·9	73·6	+0·2	80·1	+0·6	13·0	94·5	31st	69·5	11th	25·0
		Ratnagiri	110	29·831	−·009	29·881	29·891	8th & 9th.	29·752	30th	·139	77·5	86·7	−1·1	72·0	−0·4	79·4	−0·8	14·7	93·3	31st	66·9	11th	26·4
		Mormugao	*60*	28·991	?	29·886	29·972	9th	29·828	17th	·144	79·2	87·1	+0·2?	75·1	−0·4	81·1	−0·1?	12·0	91·0	31st	71·9	11th, 12th & 13th.	19·1
		Goa	199	29·753	−·014	29·893	29·813	9th	29·689	21st	·124	78·8	84·2	−3·1	76·4	+2·2?	80·3	−0·5?	7·8	88·0	31st	72·0	12th	16·0
		Karwar	44	29·906	−·009	29·881	29·976	9th	29·846	21st	·130	75·4	87·3	−0·5	71·6	−1·4	79·5	−1·0	15·7	91·3	8th	66·0	12th	25·3
33	Malabar	Cochin	10	29·932	−·019	29·870	30·016	9th	29·887	17th & 31st,	·129	80·2	89·5	−1·7	76·4	−0·6	83·0	−1·2	13·1	91·3	12th, & 31st.	72·7	13th	18·6
		Calicut	27	29·918	−·017	29·874	30·003	9th	29·866	17th	·137	80·9	89·6	−0·7	76·2*	+0·2*	82·9*	−0·3	13·4	91·8	25th & 26th.	72·2	6th	19·6
		Mangalore	65	29·889	−·012	29·836	29·964	9th	29·824	17th	·140	81·3	88·3	−1·1	75·4	−0·6	81·9	−0·9	12·9	90·7	19th	71·4	25th	19·3
		Trivandrum	198	29·736	−·001	29·866	29·821	9th	29·684	3rd	·140	79·4	86·9	−0·2	75·8	−0·9	81·4	−0·6	11·1	89·0	30th & 31st.	72·0	18th	17·0
	XI.—South India				−·008								93·0	−1·1	70·3	−1·1	81·7	−1·1	22·7					30·3
57	Madras (South)	Pamban	37	29·929		29·893	30·018	9th	29·873	31st	·145	81·8	88·5		74·0		81·3		14·5	93·3	25th	71·2	5th	23·1
		Tinnevelly	168	29·793	+·009	29·892	29·882	9th	29·742	3rd	·140	80·5	96·8	+0·3	74·2	−1·4	85·5	−0·6	22·6	103·3	29th	69·4	1	30·9
		Madura	447	29·510	−·008	29·896	29·581	9th	29·458	17th	·123	79·2†	94·5	−2·2	71·2	−1·6	82·9	−1·9	23·3	97·5	21st, 29th & 30th.	68·1	20th	29·4
		Periyakulam	945	29·010			29·089	9th	28·964	3rd	·125	75·9	95·6		66·3		81·3		29·3	98·7	21st	60·5	9th	38·2

(*a*) Thermometers temporarily removed to a verandah up to 30th.

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

* Mean of 29 days.

† Mean of 27 days.

NOTE 1.—When a query is inserted against any reading or in the returns of any

NOTE 2.—The data from which divisional means of the figure columns Nos. 41, 43 and 45

1—*continued.*

in India, Burma, etc., in March, 1904—continued.

WIND DIRECTION. Number of winds from Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	WIND VELOCITY. Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal, (uncorrected.)	Percentage departure from normal.	Mean velocity corrected (where possible).	HYGROMETRY, 8 A.M. Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	CLOUD. Mean cloud amount at 8 A.M.	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. 1903 to 31st Mar. 1904.	Normal rainfall for period, 1st December, to 31st March.	Departure from normal of period, 1st Dec. 1903 to 31st March 1904.	Heaviest rainfall during month.	STATION.	METEOROLOGICAL PROVINCE OR DISTRICT.	Number of District.
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	58
3				4		18		6	S 52° W	5·3	4·5	+18	6·3	58	+9·9	·395	+·053	2·0	−0·2	1	0·80	+0·20	0·39	0·26	+ 0·13	0·75	1·37	− 0·62	0·29	Agra	UNITED PROVINCES (WEST)	22
4	1	1		1	4	9	3	8	S 75° W	4·8	3·4	+41	5·9	63	+2·5	·500	?	0·8	−0·5	4	0·50	+3·50	1·67	0·26	+ 1·41	2·27	1·53	+ 0·74	0·92	Jhansi	UNITED PROVINCES (CENTRAL).	21
														50	+4·0	·427	+·003	1·5	−0·2				0·67	0·43	+0·20					IX.—Deccan.		
14	3	3	1	2	3	1	3	1	N 8° E	8·6	11·6	−26		47	−0·5	·579	−·017	0·9	0	0	0·90	−0·90	0·11	0·43	− 0·32	0·29	0·62	— 0·33	0·08	Belgaum	BOMBAY DECCAN	38
1	4	4		7		2	3	10	N 27° W	7·1	7·4	— 4	8·6	29	−6·2	·279	−·068	1·3	0	0	0·60	−0·60	0	0·26	− 0·26	0·59	0·79	− 0·20	0	Sholapur.		
		1	2	2	3	9	8	6	S 68° W	9·2*	8·3	+11		48	+7·2	·335	−·002	0·8	−0·4	0	0·30	−0·30	0	0·04	− 0·04	0·07	0·33	− 0·26	0	Poona.		
	7	4	1	3	4	2	1	9	N 19° W	6·3			6·2	52	−2·6?	·493	−·040?	1·0	−0·1	2	0·70	+1·30	0·57	0·49	+ 0·18	1·10	0·59	+ 0·51	0·47	Bijapur.		
		1			2	4	16	8	N 86° W	6·9	6·4	+ 8	7·9	42	−10·6	·361	−·105	0·9	−0·8	3	0·10	−0·10	0	0·04	− 0·04	0·34	0·44	− 0·10	0	Malegaon	KHANDESH	48
7	8	5	1	1				9	N 3° W	5·3			6·5	51	−1·9?	·459	−·052?	0·8	−0·3	0	0·30	−0·30	0·03	0·32	− 0·29	0·38	1·23	−0·85	0·03	Ahmednagar.		
7	1	3	1	3	1	1	6	8	N 55° W	4·1	4·4	− 7	4·0	36	+1·3	·322	+·011	0·6	−1·1	0	0·90	−0·90	0·07	0·43	− 0·36	0·10	1·68	— 1·58	0·04	Akola	BERAR	51
	6	12	2		1	1	3	4	N 21° E	5·9	4·0	+48	5·3	63	?	·593	?	1·3	−0·1	1	0·80	+0·20	0·97	0·32	+ 0·65	1·20	1·45	− 0·25	0·84	Amraoti.		
	1	6	2	5	3	3	2	9	N 14° W	3·9	5·6	−15		43	+8·4	·341	+·051	1·4	+0·3	0	0·30	−0·30	0·07	0·12	− 0·05	1·73	0·86	+ 0·87	0·07	Khandwa	CENTRAL PROVINCES, (WEST).	42
7		21				3			N 45° E	1·4	2·6	−46	1·4	51	+4·8?	·381	+·043	1·2	−0·5	2	0·40	+1·60	1·38	0·18	+ 1·20	3·56	1·24	+ 2·32	1·08	Hoshangabad.		
6	14	5	1	2				3	N 12° E	4·1	5·5	−25	3·2	46	+4·7	·390	+·011	1·4	−0·5	3	1·10	+1·90	1·11	0·48	+ 0·63	1·37	1·77	− 0·40	0·65	Nagpur.		
24	1	1	3	1	1				E	1·4	3·2	−56	1·2	49	+1·7	·478	+·044	1·4	−0·1	1	1·40	−0·40	0·37	1·19	− 0·82	0·75	2·32	— 1·57	0·18	Chanda	CENTRAL PROVINCES (CENTRAL).	43
	5	6	4	4	2	2	3	5	N 26° E	5·3	3·1	+56	4·5	52	+5·3	·396	+·014	1·5	−0·4	6	1·70	+4·30	1·98	0·59	+ 1·39	2·71	2·52	+ 0·19	0·51	Seoni.		
1	1	4	1	8	9	1	3	3	S 21° E	2·7	3·0	−10	2·4	61	+13·0	·418	+·061	1·3	−0·5	3	1·20	+1·80	1·35	0·43	+ 0·92	2·21	2·04	+ 0·17	0·65	Jubbulpore.		
	1	6	4	5	4	6	1	4	S 45° E	5·9	3·2	+84	5·3	47	+8·0	·354	+·047	1·6	+0·1	3	0·60	+2·40	2·19	0·29	+ 1·90	2·75	2·04	+ 0·71	1·37	Saugor.		
8				1	2	3	12	5	S 86° W	3·2	5·5	−42	2·9	59	+19·1	·414	?	3·1	+1·8	4	1·00	+3·00	1·45	0·43	+ 1·02	2·00	2·43	— 0·43	0·70	Sutna	CENTRAL INDIA	49
9	3	7	7		1	2	2		N 57° E	3·4	4·7	−28	4·1	47	+5·4	·409	+·040	2·2	0	2	1·80	+0·20	0·80	0·65	+ 0·15	0·86	1·45	— 0·59	0·39	Raipur	CENTRAL PROVINCES, (EAST)	44
13	5	1	1	3	3	1		4	N 7° E	4·2			3·6	52		·367		2·0		6			1·88			2·71			0·68	Chanda		
	3	4	7	8	3	4	1	1	S 22° E	4·5	2·0	+125	4·4	52	−3·4	·467	−·015	1·8	0	0	1·80	−1·80	0·25	1·07	− 0·82	1·16	2·10	−0·91	0·08	Sambalpur.		
7	4	8	5	4		2	1	4	N 45° E	9·1			9·0	35		·337		0·8		2	0·50	+1·50	0·40	0·14	+ 0·26	0·44	0·98	− 0·54	0·20	Aurangabad	HYDERABAD (NORTH).	39
22				1				8	N 45° W	4·8			4·0	43		·480		2·0		1	0·80	+0·20	0·32	0·48	− 0·16	0·73	0·99	− 0·26	0·20	Indur		
	7	4	3		5	8	3	1	S 89° W	5·5			4·6	51		·502		2·9		3	1·40	+1·60	0·81	0·50	+ 0·31	1·91	1·22	+ 0·69	0·47	Bidar.		
7		8	3	6	1	4	1	1	S 76° E	6·8			6·5	56	?	·564	?	1·0	0	2	0·80	+1·20	0·40	0·52	− 0·12	1·08	0·88	+ 0·20	0·25	Gulbarga	HYDERABAD (SOUTH).	53
1	1	1	1	7		9	1	10	S 72° W	6·8			6·5	43	−6·3	·442	−·068	0·5	−0·9	0	0·70	−0·70	0	0·44	− 0·44	2·13	0·68	+ 1·45	0	Raichur.		
23		2		2			1	3	N 9° W	3·2			3·1	59	+2·4	·524	+·002	1·5	+0·3	1			0·50	0·58	− 0·08	0·64	0·96	− 0·32	0·46	Hyderabad (Deccan)		
1	1		1	17	9	1	1		S 29° E	2·2			1·9	67		·615		2·5		1	0·70	+0·30	0·33			0·33			0·25	Hanumkonda		
																														X.—West Coast.		
1	10	9	3	2	3		1	2	N 32° E	10·6	11·5	− 8		76	−0·6	·754	−·017	1·4	−0·6				0·72	0·51	+0·21							
8	8	5	8	2					N 52° E	11·0	9·9	+11	10·9	74	−0·5	·696	−·006	1·3	−0·5	0	0	0	0·07	0·02	+0·05	0·07	0·20	− 0·13	0·07	Bombay	KONKAN	37
3	4	4	7	4	7	1	1		S 72° E	9·0				70	+1·1	·662	−·016	0·9	−0·5	0	0·10	−0·10	0·03	0·01	+ 0·02	0·03	0·24	− 0·21	0·03	Ratnagiri.		
2	4	4	11	2	5	2		1	S 89° E	9·4				76	−2·9	·765	−·036	1·1	−1·1	0			0	0	0	0·20	0·05	+ 0·15	0	Mormugao.		
3	5	6	14	1			2		N 61° E	4·9				76	+0·4	·753	−·012	1·7	−0·3	0			0	0	0	0	0·31	− 0·31	0	Goa.		
4		20	7						N 56° E	5·7				80	−1·6	·705	−·021	1·5	0	0	0	0	0	0	0	0	0·18	− 0·18	0	Karwar.		
2	5	9	9	3				2	N 57° E	9·6			9·5	78	+1·4	·821	−·027	1·8	−0·3	7	2·60	+4·40	4·93	2·15	+ 2·78	9·62	5·22	+ 4·40	1·90	Cochin	MALABAR	33
11	3	5	11		1				N 69° E	3·8	3·4	+12		77	+1·5	·819	+·007	1·7	−0·3	2	0·90	+1·10	0·76	0·53	+ 0·18	4·38	1·89	+ 2·19	0·55	Calicut.		
5	6	8	8	1				3	N 43° E	5·4				75	−2·6	·802	−·006	0·9	−1·5	0	0·20	−0·2	0	0·07	−0·07	0·99	0·60	+0·39	0	Mangalore.		
														75	−2·4	·759	−·036	1·5	−0·9	2	2·60	−0·60	0·69	1·78	− 1·09	2·55	5·29	− 2·74	0·38	Trivandrum.		
																														XI.—South India.		
11		2	13	5					S 84° E	7·3			6·9	72	+1·5	·702	−·015	1·6	−0·7				0·07	0·45	−0·38					Pamban	MADRAS (SOUTH).	57
	15	5					5	7	N 16° W	4·3			4·1	79		·858		2·8		0	0·90	−0·90	0	0·72	− 0·72	9·53	13·09	− 3·56	0	Tinnevelly.		
9	4	14	3						N 43° E	3·0	4·1	−27	3·5	67	−6·0	·704	−·061	2·4	+0·1	0	2·30	−2·30	0·03	1·03	− 1·00	6·09	7·28	− 1·19	0·02	Madura.		
16	1	1	3	5	1	2		2	S 53° E	2·8			3·0	71†	+0·8	·750†	−·016	2·3	+0·1	0	1·00	−1·00	0	0·47	− 0·47	8·17	3·09	+ 5·08	0	Manamadura.		
														67		·599		1·2		1	2·30	−1·30	0·20	1·73	−1·53	5·82	4·89	+ 0·93	0·17	Periyakulam.		

station, the data for that station are not utilized in calculating the provincial departures from normal.

are derived are incomplete.

* Mean of 30 days.

Table

Abstract of Observations taken at 8 A.M. at 232 Stations

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 A.M., in inches.								Temperature of air.											
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
34	Madras (South Central).	Salem	940	29·033	−·021	29·924	29·117	9th	28·981	3rd	·136	77·4	97·1	−1·5	69·1	−1·7	83·1	−1·6	28·0	100·2	21st	65·4	21st	34·8
		Coimbatore	1,348	28·604	−·018	29·912	28·688	9th	28·553	3rd	·135	75·8	96·5	+0·2	68·8	−1·0	82·7	−0·4	27·7	98·9	21st, 30th & 31st.	65·8	20th, & 29th.	33·1
5	Coorg	Mercara	3,781	26·269	+·003		26·340	9th	26·225	3rd	·115	68·4	84·2	−0·4	60·6	−1·2	72·5	−0·8	23·6	89·0	30th & 31st.	57·1	27th	31·9
36	Mysore	Chitaldroog	2,405	27·546	−·010	29·878	27·621	9th	27·496	17th	·125	77·9	98·3	−1·1	69·4	−0·8	81·4	−1·0	23·9	96·7	31st	64·9	25th	31·8
		Bangalore	3,021	26·969	−·017	29·905	27·031	9th	26·926	3rd	·105	73·4	91·1	+0·4	64·1	−0·6	77·6	−0·1	27·0	94·3	30th & 31st.	60·9	1st & 8th	33·4
		Hassan	3,091	26·908	−·005	29·916	26·982	9th	26·862	17th	·120	72·6	90·1	−0·9	62·3	+0·1	76·2	−0·4	27·8	93·2	30th	59·5	21st	33·7
		Mysore	2,518	27·458	−·005	29·919	27·535	9th	27·408	17th	·127	73·9	92·8	−0·7	66·6	−0·6	79·7	−0·7	26·2	96·4	31st	63·0	21st	33·4
56	Madras, East Coast (South).	Negapatam	31	29·922	−·016	29·882	30·005	9th	29·859	3rd	·146	81·2	88·8	+0·1P	74·8	−0·7	81·8	−0·3P	14·0	91·3	12th	71·0	6th	20·3
		Cuddalore	12	29·954	P	29·895	30·036	9th	29·898	31st	·138	78·6	87·4	−1·9	69·7	−2·5	78·6	−2·2	17·7	90·4	23rd	67·7	7 days	22·7
		Trichinopoly	255	29·713	−·006	29·903	29·794	9th	29·667	31st	·127	78·9	95·6	−2·3	70·4	−2·4	83·0	−2·4	25·2	99·1	21st	66·9	9th & 18th	32·2
		Madras	22	29·941	−·011	29·894	30·024	8th	29·886	31st	·138	78·8	88·1	−1·9	70·0	−2·2	79·1	−2·1	18·1	93·5	21st	67·5	10th	26·0
		Vellore	707	29·246		29·907	29·334	8th	29·193	31st	·141	74·3	93·8		67·1		80·5		26·7	98·9	22nd	62·9	21st	36·0
55	Madras, East Coast (Central).	Nellore	71	29·873	P	29·878	29·966	8th	29·823	17th	·143	77·4	94·0	−2·2	71·0	−1·4	82·5	−1·8	23·0	99·3	25th	69·1	1st & 26th	30·2
		Masulipatam	15	29·944	−·003	29·894	30·026	8th	29·885	17th	·141	79·5	89·6	−1·8	71·0	−1·3	80·3	−1·6	18·6	95·6	20th & 24th	67·7	8th & 10th.	27·9
54	Madras, (Central).	Cuddapah	433	29·492	−·005	29·864	29·577	9th	29·434	17th	·143	82·3	101·4	−0·3	73·3	−1·7	87·4	−1·0	28·1	104·7	30th	70·1	30th	34·6
		Kurnool	945	28·977	−·001	29·866	29·047	9th & 24th,	28·911	17th	·136	81·3	99·3	−1·6	72·1	+0·6	85·7	−0·5	27·2	102·7	29th	65·0	26th	37·7
		Bellary	1,475	28·446	−·014	29·867	28·507	8th	28·382	17th	·125	80·4	99·5	−0·8	72·6	+0·5	86·1	−0·2	26·9	103·0	31st	68·0	2nd	35·0
52	Madras, East Coast (North).	Cocanada	26	29·931	−·003	29·893	30·019	8th	29·885	3rd & 17th	·134	79·1	92·9	+1·2P	73·1	−0·4	83·0	+0·4P	19·8	98·6	21st	69·0	1st	29·6
		Waltair (Vizag.)	*226*	29·715	−·016	29·884	29·806	8th	29·666	28th	·140	78·6	86·5	P	73·6	P	80·1	P	12·9	91·4	20th	70·4	1st	21·0
		Gopalpur	21	29·908	+·002	29·870	30·051	9th	29·833	17th	·218	79·0	86·2	−0·4	72·3	−0·9	79·3	−0·7	13·9	88·7	7th & 25th,	65·5	1st	23·2
	XII.—Hill Stations.																							
48	Baluchistan	Pishin											617		36·3		49·0		25·4	76·3	29th	26·0	9th	50·3
		Quetta	5,502	24·646	−·007		24·804	30th	24·348	3rd	·456	47·5	60·7	−3·8	40·6	+0·6	50·7	−1·6	20·1	76·2	29th	30·3	9th	45·9
		Chaman	4,311	25·684	−·032		25·855	9th	25·437	3rd	·418	52·8	64·2	−3·1	47·5	+3·4	55·9	+0·2	16·7	77·3	29th	36·1	7th & 8th	41·2
30	Punjab	Leh	11,503	19·645	−·047		19·857	29th	19·435	16th	·422	29·3	46·7	+3·6	20·8	−0·3	33·8	+1·5	25·9	61·6	30th	1·4	10th	60·2
		Srinagar	5,204	24·897	−·033		25·039	25th	24·739	16th	·300	43·4	56·5	+1·1	40·0	+2·9	48·3	+2·0	16·5	72·1	31st	32·6	8th	39·5
		Sonemarg	*8764*	21·822			21·977	29th	21·633	16th	·344	26·2	46·5		20·3		33·4		26·2	58·8	31st	7·1	10th	51·7
		Astor (Kashmir).	*7955*	22·524			22·663	28th	22·287	16th	·376	34·8	48·1		30·2		39·2		17·9	62·9	30th & 31st	21·5	13th	41·4
		Minimarg	*9359*	21·315			21·483	29th	21·115	16th	·368	28·3	47·3		18·9		33·1		28·4	60·4	27th	9·5	13th	50·9
		Skardu	*7405*	22·853			23·011	29th	22·641	16th	·370	38·2	53·0		34·1		43·6		18·9	67·4	30th	28·1	17th	39·3
		Dras	*10,059*	20·766			20·973	29th	20·509	16th	·464	15·6	33·3		5·8		19·6		27·5	44·8	28th	−11·9	10th	56·7
		Gilgit	4,890	25·136			25·263	25th	24·899	16th	·364	51·3	64·6	+2·9	46·7	+1·4	55·7	+2·2	17·9	77·2	30th	43·0	9th	34·2
		Chitral	*5486*	P			P		P		P	45·5	61·7							74·1	29th			
		Killa Drosh										46·2	61·3		42·3		51·8		19·0	73·7	29th	37·5	8th	36·2
		Murree	6,333	23·814	−·033		23·917	25th	23·622	3rd	·295	45·9	52·4	−6·9	38·6	−4·7	45·5	−5·8	13·8	66·2	30th	31·0	4th & 5th,	35·2
		Kailang	*10,087*	20·940			21·131	29th	20·785	4th	·346	26·4	39·6	−1·8	20·9	−0·7	30·3	−1·3	18·7	50·2	31st	10·7	10th	39·5
		Poo											51·2*		33·4*		42·4*		17·8	67·0	30th	28·6	10th	38·4
		Simla	7,224	23·088	−·017		23·207	26th	22·963	3rd	·244	47·3	54·0	−2·4	42·8	−3·2	48·4	−2·8	11·2	66·5	31st	31·2	4th	35·3
		Sarain		23·135			23·249	26th	23·035	3rd	·214	39·5	53·1		24·6		43·9		18·5	69·3	30th	28·0	13th	41·9
	North-West Frontier Province.	Para Chinar	6,000	24·434			24·547	30th	24·220	3rd	·327													
		Cherat	*4256*	25·698	−·016		25·833	25th	25·477	3rd	·356	49·7	58·1	−3·4	43·5	−1·4	52·3	−2·4	11·6	73·2	30th	40·0	9th	33·3

* Mean of 30 days.

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

Note 1.—When a query is inserted against any reading, or in the returns of any station,

Note 2.—The data from which divisional means of the figure columns Nos. 41, 43 and 45 are

I—*continued.*

in India, Burma, etc., in March, 1904—continued.

WIND DIRECTION. NUMBER OF WINDS FROM										WIND VELOCITY.				HYGROMETRY, 8 A.M.				CLOUD.		RAINFALL.							Heaviest rainfall during month.	STATION.	METEOROLOGICAL PROVINCE OR DISTRICT.	Number of District.
Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal, (un-corrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Mean cloud amount at 8 A.M.	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. 1903 to 31st March 1904.	Normal rainfall for period, 1st Dec. to 31st March 1904.	Departure from normal of period, 1st Dec. 1903, to 31st Mar. 1904.				
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	58
13		6	11					1	N 74° E	4·9	5·5	−11	4·4	75	+4·2	·715	+·004	0·4	−1·3	0	1·20	−1·20	0	0·71	− 0·71	1·54	2·53	−0·99	0	Salem .	MADRAS (SOUTH CENTRAL).	34
1	3	8	16			1	2		N 67° E	3·5	3·3	+ 6	3·1	81	+1·2	·731	+·001	2·3	−0·2	0	1·10	−1·10	0	0·50	− 0·50	2·38	2·25	+ 0·13	0	Coimbatore.		
5	17	7	2						N 18° E	5·1	3·4	+50	4·7	75	+7·5	·526	+·033	2·7	−0·2	0	2·00	−2·00	0·24	0·81	− 0·57	4·00	1·48	+ 2·52	0·08	Mercara .	COORG . .	35
4	1	1	4	3	3	5	6	4	S 53° W	4·8			4·2	50	−0·9	·476	−·014	0·4	−0·7	1	0·50	+0·50	0·19	0·34	− 0·15	0·79	0·51	+ 0·28	0·11	Chitaldroog.	MYSORE . .	
			4	6	5	12	3	1	S 48° W	7·8	3·6	+117	6·8	61	−4·8	·504	−·039	0·1	−1·5	0	1·00	−1·00	0	0·48	− 0·48	1·18	1·19	−0·01	0	Bangalore.		36
2	1	5	4	4	1	6	5	3	S 45° W	2·6			2·3	69	+2·0	·547	−·001	2·1	+0·1	1	0·90	+0·10	0·44	0·38	+ 0·06	2·14	0·62	+ 1·52	0·36	Hassan.		
	1	1	2	4	5	9	7	2	S 40° W	6·4			6·9	80	+12·0	·661	+·083	4·5	?	0	1·00	−1·00	0·01	0·23	− 0·22	0·77	0·62	+ 0·15	0·01	Mysore.		
13		2	4	6			5	1	S 63° E	10·7	3·6	+197	9·4	72	−4·5	·773	−·054	3·6	−0·6	0	0·50	−0·50	0	0·52	− 0·52	25·73	15·26	+10·47	0	Negapatam.	MADRAS EAST COAST (SOUTH).	56
31									Calm	2·7			3·3	84	−0·5	·833	−·032?	2·6	−0·6	0	0·40	−0·40	0	0·30	− 0·30	8·53	10·00	− 1·47	0	Cuddalore.		
28		2	1						N 59° E	3·3	3·8	−13		76	+3·3	·751	+·004	1·4	−1·4	0	0·50	−0·50	0	0·41	− 0·41	8·57	4·23	+ 4·34	0	Trichinopoly.		
				8	22	1			S 10° E	5·3	6·4	−17		79	+1·5	·791	−·019	0·9	−1·6	0	0·80	−0·80	0	0·21	− 0·21	20·65	6·98	+13·67	0	Madras.		
8	2	1			1	12	6	1	S 68° W	4·0			4·0	79		·672		1·6		0	0·30	−0·30	0	0·19	− 0·19	14·25	3·69	+10·56	0	Vellore.		
				3	27			1	S 85° W	6·3				81	6	·767	−·056	0·2	−2·4	0	0·30	−0·30	0	0·08	− 0·08	10·07	2·37	+ 7·70	0	Nellore .	MADRAS EAST COAST (CENTRAL)	55
17	1	1		2	9	1			S 78° W	3·6	6·8	−47	3·5	88	+4·9	·832	+·035?	2·9	+0·2	0	0·40	−0·40	0	0·12	− 0·12	1·67	1·19	+ 0·48	0	Masulipatam.		
		7	3	12		5	2	2	S 59° E					51	−6·8	·559	−·095	0·6	−0·6	0	0·20	−0·20	0	0·04	− 0·04	1·46	1·41	+ 0·05	0	Cuddapah.	MADRAS (CENTRAL)	54
12		2		8	2	4		3	S 17° E	4·5				62	+9·5	·672	?	0·6	−0·6	0	0·60	−0·60	0	0·41	− 0·41	0·21	0·62	− 0·41	0	Kurnool.		
9	1			3	2	5	7	4	S 71° W	4·2	4·6	− 9	4·5	61	+10·7	·639	?	0·8	−0·6	2	0·50	+1·50	0·37	0·14	+ 0·23	0·65	0·36	+ 0·29	0·20	Bellary.		
17					5	7	2		S 81° W	6·0			5·0	82	+6·9	·823	+·072	2·3	−0·2	1	0·70	+0·30	0·32	0·47	− 0·15	0·41	1·75	− 1·34	0·32	Cocanada .	MADRAS EAST COAST (NORTH).	52
			1	1	20	9			S 55° W	12·9				73	+1·1	·713	−·029	2·6	−0·1	0	0·60	−0·60	0·01	0·32	− 0·31	0·13	2·45	− 2·32	0·01	Waltair (Vizag.).		
10	5	1			2	10	1	2	S 77° W	13·5	11·8	+14	13·2	74	−4·2	·724	−·016	0·4	?	0	1·00	−1·00	0·08	0·65	− 0·57	3·35	2·00	+ 1·35	0·04	Gopalpur.		
																														XII.—Hill	Stations.	
																				8	5·00	+3·00	3·30	1·83	+ 1·47	9·38	8·05	+ 1·33	1·00	Pishin.	BALUCHISTAN .	48
17		1		6	4	1	1	1	S 19° E	3·1	4·8	−35	3·3	76	+14·3	·248	+·037	4·9	+1·9	8	4·00	+4·00	2·46	1·84	+ 0·62	7·73	6·89	+ 0·84	0·91	Quetta.		
		1	6	7	4	4	4	5	S 10° E	7·9			8·7	73	+13·7	·297	+·038	3·6	−0·1	10	4·70	+5·30	2·40	1·31	+1·09	5·40	5·28	+ 0·12	0·36	Chaman.		
					3	10	18		S 68° W	3·1				48	−2·4	·079	+·002	7·0	+0·9	0	1·00	−1·00	0·03	0·22	− 0·19	0·11	1·07	− 0·96	0·02	Leh .	PUNJAB . .	30
5	3	2	2	9	2	1	3	4	S 69° E	3·7			3·4	89	+ 0·5	·245	+·008	6·7	+0·8	7	6·60	+0·40	4·42	3·14	+ 1·28	11·04	10·34	+ 0·70	1·83	Srinagar.		
26	1	2	1					1	N 30° E	1·5			1·4	97		·138		6·2		7			4·94			20·18			1·20	Sonemarg.		
12				2	9	8			S 15° W	5·2			4·7	67		·138		6·6		4			1·41			4·23			0·53	Astor (Kashmir).		
8	1	10	8	2			1	1	N 65° E	3·6†			3·8†	69		·108		7·5		10			5·50			17·94			1·02	Minimarg.		
17	1	1	4	1	2	2	2	1	S 42° E	5·1			5·2	69		·158		6·3		4	2·70	+1·30	1·20	1·20	0	1·69	4·77	− 3·08	0·45	Skardu.		
25		1	2			1	2		Calm	1·1			0·9	87		·085		6·1		7	10·80	−3·80	2·07	4·39	− 2·32	6·89	13·13	− 6·24	0·60	Dras.		
23						2	5		S 80° W	3·7			3·3	42	−8·5	·157	−·022	7·8	+1·6	1	1·40	−0·40	0·13	0·59	− 0·46	0·22	1·05	− 0·83	0·10	Gilgit.		
28						1			S 45° W	1·5*			1·5*	79		·238		4·8		4			1·07			2·65			0·35	Chitral.		
11	2	2	5	3	3	2	3		S 53° E					75		·233		6·8		7			2·25			3·98			0·57	Killa Drosh.		
15	1			8	5	1		1	S 24° E	7·0	9·4	−26	7·6	63	+8·8	·193	+·016	5·6	+0·7	11	4·90	+6·10	7·17	4·05	+ 3·12	13·59	12·70	+0·89	1·80	Murree.		
	1			1	3	8	13	5	S 77°W	0·5				74		·110		6·8		9			5·06	3·58	+1·48	9·86	10·60	−0·74	1·34	Kailang		
17		1	2	6	2	1			S 40° E									5·8*		7			2·33	4·11	−1·78	6·35	12·29	−5·94	0·75	Poo.		
91	9	1		3	5				N 47° E	6·5	2·8	+132	6·2	51	+7·3	·160	+·014	5·2	+1·4	8	4·30	+3·70	5·08	2·07	+3·01	9·56	9·01	+ 0·55	1·58	Simla.		
7			1		11	9	2	1	S 25° W	2·8			2·6	78		·187		4·7		14			8·09			26·69			2·76	Sarain.		
26			1		1		3		S 63° W	4·3			3·9					5·0		15	9·00	+6·00	5·04	4·76	+ 0·28	8·96	8·11	+ 0·85	0·86	Para Chinar	NORTH-WEST FRONTIER PROVINCE.	
3	11	1		1	6		2	7	N 31° W	8·4			7·8	70	+13·7	·245	+·028	4·8	−0·1	12			12·30	3·79	+ 8·51	16·82	10·17	+ 6·65	4·00	Cherat .		

* The data for that station are not utilized in calculating the provincial departures from normal.
† Mean of 26 days.
‡ 4 Winds variable.
Chitral wind observations of 29 days.
Poo " " " 30
derived are incomplete.

Table

Abstract of Observations taken at 8 A.M. at 232 Stations

Number of District	Meteorological Province or District.	Station.	Elevation of barometer above sea-level, in feet	Pressure, 8 A.M., in inches.								Temperature of air.												
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
25	United Provinces	Chakrata .	7,022	23·265	—·028		23·362	26th	23·187	10th	·175	46·4	57·6	−4·1	42·4	−1·9	50·0	−3·0	15·2	71·0	30th	29·4	9th	41·6
		Ranikhet .	6,069	24·087	—·020		24·174	25th	24·021	15th	·153	52·7	63·4	−1·9	43·5	−0·6	56·0	−1·3	14·9	76·5	30th	34·5	10th	42·0
		Muktesar .	7,600	22·831			22·927	26th	22·749	10th	·178	48·8	59·0		44·0		51·5		15·0	73·8	30th	30·7	10th	43·1
	Sikkim . .	Tangu .																						
13	Bengal . .	Yatung .	10,480										49·8		29·7		39·7		20·1	58·1	30th	17·9	10th	40·2
		Darjeeling .	7,376	22·982	—·023		23·093	29th & 30th.	22·875	17th	·218	49·0	56·8	+0·3	42·9	+0·6	49·9	+0·5	13·9	66·2	31st	34·1	11th	32·1
8	Assam Hill Tracts.	Shillong .	4,900	25·102			25·223	30th	24·945	6th	·278	62·5	73·0		53·3		63·2		19·7	81·7	29th	43·0	11th	38·7
		Cherra Poonjee	4,309	25·697			25·769	8th	25·698	17th	·161	61·5	68·3		55·2		61·8		13·1	79·2	31st	48·0	11th	31·2
	Central India .	Mount Abu .	3,945	26·166	—·026		26·150	29th	25·892	3rd	·258	64·5	72·8	−4·9	59·7	−1·8	66·3	−3·4	13·1	87·2	31st	47·0	9th	40·2
		Pachmarhi .	3,528	26·496	+·001		26·551	25th	26·427	3rd	·124	69·5	81·6	−2·8	58·6	−1·8	70·1	−2·3	23·0	90·7	31st	48·3	11th	42·4
	South India .	Wellington .	6,200	24·280	−·015		24·337	9th	24·231	3rd	·106	63·3	74·9	+0·8	49·6	−2·6	62·3	−0·9	25·3	77·7	30th	46·7	10th	31·0
		Kodaikanal .	7,688	22·850			22·893	9th	22·803	3rd	·090	58·7	69·5		50·4		57·1		19·1	73·6	31st	47·2	1st	26·4
		Ootacamund .	*7,322*	23·078			23·109	8th, 9th & 14th.	23·025	3rd	·084	60·2	69·3		47·7*		58·5*		21·6	72·5	8th	43·7	4 days	28·8
	XIII.—Extra India.																							
	Ceylon . .	Trincomalee .	12	29·945	+·012	29·883	29·995	8th	29·889	3rd	·106	77·7	87·6	−0·4	73·9	−2·1	80·8	−1·3	13·7	90·0	31st	70·0	28th	20·0
		Colombo .	40	29·905	−·021	29·871	29·985	9th	29·838	3rd	·147	79·9	88·3	−1·1	74·1	−0·8	81·2	−1·0	14·2	91·0	6th	71·5	11th	19·5
																						29·8	3rd	
	Persia . .	Meshed . .	*3,104*									47·2			40·4	+2·1								
		Teheran(*b*) .	*4,002*	25·911			26·100	30th	25·640	24th	·460	47·7	59·2	+2·0	40·3	+1·9	49·8	+2·0	18·9	70·5	31st	32·0	15th	38·5
		Ispahan (*b*) .	*5,817*	24·236			24·500	30th	24·000	4th & 29th, 24th	·500	44·9	60·5	−0·5	38·1	+1·9	49·2	+0·7	22·4	72·1	31st	28·7	3rd	43·4
		Bushire . .	14	29·959	−·028	29·932	30·112	15th	29·770		·342	64·0	72·6	+0·3	60·0	+1·2	66·3	+0·8	12·6	91·1	24th	53·3	1st	37·8
		Bahrein . .	30	29·932			30·136	8th	29·688	21st	·450	68·2	74·2		61·6		67·9		12·6	90·0	23rd	54·8	7th	35·2
		Jask * . .	...	29·952	−·036	29·922	30·147	9th	29·764	5th	·383	71·0	78·3	−0·4	66·9	+0·8	72·6	+0·2	11·4	88·3	27th	57·8	2nd	30·5
	Arabia .	Muscat . .	20	29·957	−·014	29·925	30·137	9th	29·781	5th	·356	74·2	76·2	−0·1	72·3	+0·3	74·3	−0·1	3·9	84·9	27th	67·1	8th	17·8
		Baghdad .	220	29·829	−·106	30·035	30·148	14th	29·494	23rd	·654	57·9	74·5	+2·2	50·5	+2·2	62·5	+2·2	24·0	82·7	21st	41·8	14th	40·9
		Busrah . .	...	29·939			30·158	14th	29·647	23rd	·511		76·0		55·4		65·7		20·6	85·8	12th & 13th.	48·5	25th & 26th.	37·3
		Aden . .	94	29·865	−·032	29·892	30·009	14th	29·683	3rd	·326	78·7	83·3	−1·1	75·7	+0·5	79·5	−0·3	7·6	86·3	5th & 27th.	71·9	26th & 21st.	14·4
		Dthala . .	...																					
		Perim . .	201	29·783	+·047	29·920	29·872	10th	29·641	3rd	·231	78·6	85·5	+0·2	75·7*	−0·1*	80·7*	+0·1	9·8	88·3	29th	74·0	6th	14·3
	Afghanistan .	Kabul . .	...									40·5	62·4	+5·3	32·4	−3·2	47·4	+1·1	30·0	78·2	29th	23·0	8th	49·3
	Central Asia .	Kashgar. .	4,255	25·544			25·830	4th	25·350	24th	·450	41·9	60·9	+4·7	36·2	+0·1	48·6	+2·4	24·7	75·1	31st	29·8	6th	45·3
	Arabian Sea Islands.	Amini Divi .	*13*	29·946	−·010	29·887	30·030	9th	29·891	17th	·139	83·6	89·2	+1·2	77·7	−0·4	83·5	+0·4	11·5	93·4	29th & 31st	73·0	3rd	20·4
		Minicoy .	7	29·946		29·879	30·014	10th	29·898	21st	·116	83·2	87·2	−0·7						89·8	29th			
	Africa .	Zanzibar .	73	29·888	−·017	29·888	29·969	11th	29·818	21st	·151	81·3	86·5	+0·1	79·0	−0·3	82·8	−0·1	7·5	90·8	19th	74·0	30th	15·9
		Do. Dunga	*154*	29·759		29·841	29·842	11th	29·605	21st	·237	80·0	89·9		78·6†		83·5†		11·3	96·3	19th	72·2	23rd	24·1
	Straits Settlements.	Penang (*a*) .	20	29·892	.	29·837	29·946	9th	29·849	18th	·097	81·3	91·0		74·5		82·8		16·5	93·0	23rd	72·0	24th	21·0
		Singapore (*a*).	10	29·931		29·862	29·978	29th	29·869	17th	·109	82·5	88·1		72·4		80·3		15·7	90·2	23d	70·1	5th & 11th	20·1

* Mean of 30 days.
† Mean of 20 days.
N.B.—Elevations in italics indicate barometrical determinations.

(*a*) 9 hours observations.
(*b*) Aneroid uncorrected.

I—*concluded.*

in India, Burma, etc., in March 1904—concluded.

WIND DIRECTION. Number of winds from									Wind resultant.	WIND VELOCITY.				HYGROMETRY, 8 A.M.				CLOUD.		RAINFALL.							Heaviest rainfall during month.	STATION.	METEOROLOGICAL PROVINCE OR DISTRICT.	Number of District.
Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.		Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal (Uncorrected).	Percentage departure from normal	Mean velocity corrected (where possible).	Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Mean cloud amount at 8 A.M.	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, 1903 to 31st March 1904.	Normal rainfall for period 1st December to 31st March.	Departure from normal of period, 1st Dec., 1903 to 31st March 1904.				
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	58
6	19	3				1		2	N	6·5	5·9	+10	7·8	63	+12·1	·193	+ 017	2·5	—0·3	8	4·50	+3·50	6·74	2·30	+ 4·44	15·65	11·39	+ 4·26	2·07	Chakrata .	UNITED PROVINCES	25
23		1	3			3		1	S 52° E	2·2	2·6	−15	2·5	60	+ 5·5	·244	+·020	3·1	+0·3	5	3·40	+1·60	2·46	1·95	+ 0·51	4·57	7·61	− 3·04	1·01	Ranikhet.		
7	2	2	4	3	2		9	2	N 72° W	8·8			8·1	55		·186		4·1		5			2·92			4·26			1·10	Muktesar.		
																														Taugu .	Sikkim.	
																				9	6·83	+2·17	3·49	2·33	+ 1·16	5·18	4·02	+ 1·16	0·80	Yatung .	BENGAL . .	13
14		7		4		5	1		S 72° E	6·8	6·6	+ 3	6·3	78	+3·5	·273	+·022	1·7*	—2·0	1	3·35	−2·35	0·16	1·55	− 1·39	2·48	3·50	— 1·02	0·12	Darjeeling.		
2					2	24	3		S 46° W	6·0			6·8	50		·290		1·0		0	4·40	−4·40	0	1·82	− 1·82	2·48	3·42	— 0·94	0	Shillong .	ASSAM HILL TRACTS.	8
8		1	1		1	11	9		S 62° W	4·7			5·4	70		·378		2·7		4	9·00	−5·00	4·64	13·83	− 9·19	9·37	16·95	− 7·58	3·32	Cherra Poonjee.		
1	2	7	2	4		7	4	4	N 45° W	9·2	6·7	+37	9·3	48	+12·6	·273	+·011	2·3	+0·3	2	0·50	+1·50	1·06	0·13	+ 0·93	1·61	0·96	+ 0·65	0·67	Mount Abu	CENTRAL INDIA.	
14	3	3	5	2		1	2	3	N 8° E	5·0	4·6	+ 9	5·2	43	+7·6	·303	+·027	2·2	+0·1	1	0·90	+0·10	0·85	0·33	+ 0·52	3·60	1·92	+ 1·68	0·55	Pachmarhi.		
18		9	4						N 59° E	2·2	2·8	−21		52	−5·6	·299	−·042	0·6	−0·9	2	3·00	−1·00	0·44	2·41	− 1·97	6·50	8·67	— 2·17	0·20	Wellington	SOUTH INDIA.	
	6	13	9	2			1		N 52° E	15·3				32		·156		0·9		0	3·20	−3·20	0·04	3·59	− 3·55	15·64	11·81	+ 3·83	0·04	Kodaikanal.		
5		4	16	6					S 88° E	3·0			3·0	42		·217		1·0		0	1·80	−1·80	0·07	1·00	− 0·93	3·99	3·38	+ 0·61	0·05	Ootacamund.		
																														XIII.—Extra India.		
13		3				15			S 45° W					88	+7·2	·844	−·034	1·7	−0·7	0			0	1·45	− 1·45	21·79	21·71	+0·08	0	Trincomalee	CEYLON.	
	1	3	19	6	1	1			S 83° E	6·1	5·0	+22		80	+6·4	·825	−·020	3·2	+0·3	5			6·70	4·45	+ 2·25	16·05	16·73	−0·68	3·04	Colombo.		
														77		·257		5·6	+0·1	12			4·44	2·43	+ 2·01	9·22	4·57	+4·65	0·75	Meshed .	PERSIA.	
10	2	12	1	1		3	1	1	N 37° E	1·6			2·1	63	?	·299	?	3·8	−0·4	6			1·57	2·80	−1·23	10·04	6·28	+3·76	0·33	Teheran.		
20	3				1	5	2		N 66° W	3·5			4·5	69	−6·8	·267	−·031	4·7	+1·1	4			1·39	0·99	+0·40	2·64	1·96	+0·68	0·70	Ispahan.		
1	2	7	3	8	1		1	8	N 49° E	10·5	8·9	+18	11·6	78	+8·5	·465	+·033	4·5	+1·6	3			0·75	1·00	− 0·25	4·54	9·71	−5·17	0·28	Bushire.		
1	5	3	1	1	9	8		6	S 81° W					79		·545				2			0·86			1·42			0·50	Bahrein.		
1	8	5	5	2	1		4	4	N 14° E	12·1			10·0	73	−0·9	·559	−·007	2·9	+0·6	2			1·40	1·15	+ 0·25	4·00	3·77	+0·23	1·07	Jask.		
6	2			3		1	1	18	N 46° W	4·8			5·0	73	+4·7	·623	+·047	1·7	−0·5	0			0	1·05	− 0·94	0·34	3·37	−3·03	0	Muscat .	ARABIA.	
14	4			1	9		1	2	S 18° W	2·9	5·5	−47	3·8	61	−9·0	·301	−·038	3·2	+0·9	2			0·82	1·60	−0·78	2·26	6·79	−4·53	0·48	Baghdad .		
																				2			0·40			4·30			0·14	Busrah.		
	1	9	11	9		1			N 89° E	16·7	14·9	+12	13·5	76	+0·1	·738	+·012	4·9	−0·3	0			0	0·87	− 0·87	0·52	1·85	−1·33	0	Aden.		
																														Dthala.		
		5	14	8	1	1	1	1	S 82° E	18·9			19·1	80	+2·2	·786	+·020	1·0	−4·3	0			0·09	0·27	−0·18	0·88	0·95	−0·07	0·06	Perim.		
	3	4	1	2	1	5	8	6	N 68° W					86		·221		5·1	+1·5	10			3·80	4·90	− 1·10	6·10 (d)	7·41 (d)	−1·31 (d)	0·05	Kabul .	AFGHANISTAN.	
26	3		1				1		N	2·3*			2·1*	47‡	?	·133‡	?	1·2	−4·6	0			0	0·20	−0·20	0·08	0·59	−0·51	0	Kashgar .	CENTRAL ASIA.	
5	3	13					10		N 6° E					74	?	·859	?	4·5	?	0			0	0	0	2·61 (d)	0·51 (d)	+2·13 (d)	0	Amini Divi.	ARABIAN SEA ISLANDS.	
	13	8	4				1	5	N 13° E	4·1			4·4	70	−5·9	·799	−·041	2·7	−0·3	2			0·53	0·98	−0·45	0·53	3·42	−2·89	0·35	Minicoy.		
	4	8	4	1	4	8	1	1	E	5·7			5·3	83	+0·1	·881	−·013	6·3	+0·8	9			5·68	6·50	−0·82	20·78	14·02	+6·76	2·02	Zanzibar .	AFRICA.	
	6	10	1		1	12		1	N 14° W					83		·854		5·8		10			10·45			19·89			2·14	Do. Dunga		
																				4			3·88			19·97			2·72	Penang .	STRAITS SETTLEMENTS.	
8	11	14		2	1				N 32° E	2·2								0													
	5	13	6	4	1	1	1		N 59° E	7·1								3·9		6			5·35			38·94			2·90	Singapore		

‡ Mean of 23 days.

(*d*) Since 1st January 1904.

TABLE II.—Abstract of Observations recorded at 10 A.M. and 4 P.M. at 65 Stations in India, Burma, etc., in March, 1904.

Table

Abstract of Observations recorded at 10 A.M. and 4 P.M.

Meteorological Province.	Station.	Elevation of barometer above sea-level in feet.	Pressure.						Temperature of Air.										Temperature, Wet-bulb.			
			Mean of 10 hours.	Mean of 16 hours.	Mean daily range.	Mean of daily mean pressures.	Departure from normal.	Mean reduced to sea-level and for gravity, 45° Lat.	Mean maximum.	Mean minimum.	Mean daily range.	Highest maximum.	Lowest minimum.	Absolute range.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	Mean minimum.	Mean 10 hours.	Mean 16 hours.	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
Burma Coast and Bay Islands.	Port Blair	61	29·912	29·797	·115	29·854	−·010	29·845	90·0	76·5	13·5	91·8	72·3	19·5	84·5	88·1	81·7	−0·6	72·4	77·5	78·7	76·2
	Rangoon	57	·888	·743	·145	·815	−·026	·809	95·0	71·6	23·4	98·9	66·4	32·5	84·6	91·2	80·6	−0·6	69·5	74·8	76·1	73·5
	Diamond Island	41	·907	·790	·117	·848	−·039	·824	83·5	76·7	6·8	88·4	75·0	13·4	81·9	81·9	80·3	−0·2	72·0	75·2	75·4	74·2
	Cocos Island†	119	·841	·733	·108	·786		·837	88·0	76·1	11·9	90·8	74·3	16·5	83·5	84·8	80·5		71·7			
	Akyab	20	·927	·804	·123	·861	−·040	·823	89·4	70·4	19·0	92·8	65·4	27·4	83·2	85·4	80·1	+0·9		75·0	76·1	
Bengal and Orissa.	Chittagong	87	·850	·725	·125	·779	−·042	·814	88·1	68·6	19·5	97·8	63·3	34·5	82·0	84·4	78·4	+1·2	67·6	74·5	75·3	72·5
	Calcutta (Alipore)	21	·911	·773	·138	·836	−·020	·802	92·1	69·4	22·7	100·0	61·9	38·1	83·6	91·1	79·9	+0·6	65·4	71·6	71·5	69·5
	Sangor Island	25	·911	·782	·129	·839	−·020	·807	83·4	75·1	13·3	94·3	66·0	28·3	82·3	85·7	79·8	+0·7	71·0‡	75·5‡	77·6§	74·7
	False Point	21	·918	·793	·125	·848	−·025	·810	87·4	71·8	15·6	91·5	64·8	26·7	81·5	83·9	77·7	−0·1	70·5	75·7	76·8	74·3
Gangetic Plain and Central Provinces.	Hazaribagh	2,007	27·910	27·799	·111	27·849	−·009	·797	83·7‖	61·1‖	22·6	92·1	54·7	37·4	75·3‖	80·2‖	72·0‖	−3·8	54·5‖	59·6‖	60·4‖	58·2
	Darbhanga	166	29·733	29·600	·133	29·663	−·026	·785	89·9	63·2	26·7	100·8	56·3	44·5	81·4	88·7	76·0	+1·2	57·7	67·3	69·0	64·7
	Allahabad	309	·613	·481	·132	·538	−·010	·801	90·6	63·0	27·6	101·2	56·1	45·1	81·4	89·7	76·0	−0·8	57·0	66·6	68·9	64·2
Upper Sub-Himalayas.	Dehra Dun	2,233	27·664	27·577	·087	27·613	−·015	·830	77·8	54·0	23·8	90·3	45·8	44·5	68·8	74·6	65·6	−1·4	50·5	58·2	59·4	56·0
	Roorkee	899	28·992	28·889	·103	28·933	−·017	·812	82·1	56·4	25·7	94·5	49·6	44·9	71·7	79·8	68·2	−1·5	53·4	61·5	62·6	59·2
	Meerut	738	29·160	29·060	·100	29·102	−·015	·814	84·6	58·0	26·6	99·7	52·5	47·2	74·2	82·8	70·2	−0·9	55·1	61·7	62·9	59·9
	Lahore	702	·211	·128	·083	·164	−·003	·853	76·9	57·4	19·5	90·6	52·1	38·5	69·0	75·4	66·4	−2·6	55·9	63·0	65·1	61·3
	Ludhiana	812	·053	·014	·079	·048	−·003	·818	79·0	56·7	22·3	92·1	48·7	43·4	69·5	77·2	67·0	−3·1	55·9	61·9	63·7	60·5
Indus Valley and N.-W. Rajputana.	Peshawar	1,110	28·850	28·765	·085	28·802	−·009	·831	71·6	53·1	18·5	86·5	45·4	41·1	65·5	69·1	61·7	−1·6	50·6	59·1	60·5	56·7
	Jacobabad	186	29·734	29·625	·109	29·672	−·013	·820	87·7	59·2	28·5	103·0	50·6	52·4	77·8	83·9	72·6	−1·9	54·5	64·6‡	66·1	61·9
	Kurrachee	30	·940	·834	·106	·880	−·012	·861	83·7	66·3	17·4	97·1	50·6	46·5	77·4	80·4	73·8	−1·2	64·0	68·8	71·8	68·1
E. Rajputana, C. India and Gujarat.	Jaipur	1,431	28·510	28·389	·111	28·446	−·007	·839	86·9	61·1	25·8	100·8	47·8	53·0	78·1	85·4	73·6	−1·3	53·9	61·3	62·4	59·2
	Udaipur	1,925	·027‡	27·899	·128	27·957		·824‡	87·4	60·1‡	27·3	101·5	48·0	53·5	76·9	85·6	74·1‡		54·3	62·0‡	63·2	59·8
	Deesa	466	29·485	29·354	·131	29·412	−·009	·829	94·7	65·0	31·7	108·0	52·8	55·2	84·7	93·1	79·2	−1·1	54·5	64·0	65·1	61·2
	Jamnagar	61	·914	·780	·124	·846		·852	89·1	64·4	24·7	100·2	57·5	42·7	80·4	86·9	75·1		60·9	67·8	67·5	65·4
Deccan.	Belgaum	2,539	27·415	27·284	·131	27·347	−·011	·762	91·9	63·2	28·7	96·3	58·7	37·6	83·9	88·2	75·9	−1·6	57·8	62·5	65·3	61·9
	Sholapur	1,590	28·344	28·186	·158	28·262	−·021	·763	98·7	69·3	29·4	102·5	62·2	40·3	87·9	96·6	83·3	−0·9	55·9	63·7	66·3	62·0
	Akola	930	29·008	·842	·166	·920	−·011	·789	98·1	65·4	32·7	106·0	54·6	51·4	87·5	96·9	81·0	−0·9	55·3	65·2	68·0	62·8
	Buldana	2,132	27·814	27·679	·135	27·738		·780	92·5	67·7	24·8	101·7	57·5	44·2	82·6	90·2	79·4	−1·8	54·1	60·4	62·9	59·1
	Khandwa	1,044	28·897	28·741	·156	28·814	−·009	·802	96·8	63·8	33·0	107·2	53·1	54·1	85·0	94·9	80·1	−1·0	54·8	64·2§	67·0	62·0
	Nagpur	1,025	·912	·758	·154	·830	+·004	·798	96·5	67·1	29·4	104·1	58·2	45·9	84·9	94·4	81·1	−1·3	58·2	65·9§	68·4	64·2
	Do. (Sanitary Commr.'s Office)	1,013	·927	·782	·145	·850		·809	96·6	66·4	30·2	104·1	57·1	47·0	85·9	94·8	80·9		57·9	66·9‡	69·9	64·9
	Hyderabad (Deccan)	1,690	·248	·112	·136	·176	−·019	·779	96·3	69·9	26·4	100·0	63·1	36·9	86·9	93·9	82·4	−0·7	64·3	69·5	71·0	68·3
West Coast.	Bombay	37	29·926	29·803	·123	29·861	−·016	·837	86·7	73·5	13·2	94·7	69·4	25·3	80·4	82·8	78·5	+0·5	68·1	72·4	73·5	71·3
	Karwar	44	·918	·798	·120	·858	−·012	·835	87·6	71·6	16·0	91·4	65·9	25·5	83·6	86·0	78·0	−0·8	69·5	73·6	75·7	72·9

II.

at 65 Stations in India, Burma, etc., for March, 1904.

Vapour Tension.					Humidity.					Cloud.				Wind direction.										Wind Steadiness.		Wind Velocity.		Rainfall.		Station.	Meteorological Province.
From minimum.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	From minimum.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	Mean 10 hours.	Mean 16 hours.	Mean of two previous columns.	Departure from normal.	Total number of 10 hours and 16 hours winds from								Mean wind direction.	Normal mean wind direction of month.	Average percentage.	Normal percentage.	Mean velocity in miles per diem.		Total rainfall for the month.	Heaviest rainfall during the month.		
														Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.									
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
·742	·857	·858	·846	—·046	82	72	65	77	− 2	2·5	2·4	2·5	−0·6		12	35	3	9	2			1	N 49° E	N 63° E	71	66	127*	101	0	0	Port Blair .	Burma Coast and Bay Islands.
·698	·731	·696	·728	+·039	90	62	48	72	+ 4	1·5	2·0	1·8	−0·2	4	1	2	6	37	3	1	3	4	S 49° E	S 21° W	58	55	46*	108	0	0	Rangoon .	
·720	·787	·796	·792	+·004	79	72	73	79	+ 1	1·3	0·6	1·0	−1·5		4	1	2		1		10	44	N 48° W	N 42° W	84	85	346*	223	0	0	Diamond Island	
·725					80					0·6	0·4	0·5	−1·1		38	1					1	20	N 16° W	N 12° W	92	72			0	0	Cocos Island† .	
	·766	·781				67	64			2·5	2·3	2·4	+0·2				2	26	1	1	13	19	S 45° W	N 51° W	14	21	68*	89	0	0	Akyab .	
·666	·759	·760	·749	+·044	94	69	64	79	+ 3	3·7	2·1	2·9	−0·5		3	3	2	9	8	16	14	7	S 52° W	S 36° W	40	21	126*	132	2·37	1·67	Chittagong .	Bengal and Orissa.
·578	·617	·512	·609	−·034	81	54	36	62	— 5	1·6	1·5	1·6	−0·6	4	2		2		9	16	17	12	S 74° W	S 60° W	53	44	79	118	2·62	1·50	Calcutta (Alipore).	
·713‡	·797‡	·843§	·806	−·010	82‡	72‡	69§	77	— 2	3·1	2·6	2·9	−1·0		5	2		5	20	19	6	5	S 33° W	S 25° W	53	60	292	314	0·83	0·30	Saugor Island.	
·735	·780	·831	·803	−·009	93	66	73	79	— 4	3·2	3·0	3·1	0		2	1	1	4	22	23	7	2	S 30° W	S 54° W	69	34	231*	259	0·21	0·07	False Point .	
·345‖	·317‖	·278‖	·315	+·030	64‖	37‖	30‖	45	+11	2·4	3·1	2·8	+0·3		12				1	7	15	27	N 57° W	N 72° W	71	53	214*	194	2·36	1·27	Hazaribagh .	Gangetic Plain and Central Provs.
·408	·492	·451	·447	−·002	70	45	33	49	— 5	0·4	0·5	0·5	−0·7	13			5	4		6	24	10	S	S 75° W	44	29	99	108	0	0	Darbhanga .	
·392	·456	·430	·437	+·079	68	44	33	51	+ 9	2·3	3·2	2·8	+0·6	1	3	1	3	1	5	6	22	20	N 78° W	N 63° W	60	41	109*	122	0·31	0·14	Allahabad .	
·327	·358	·449	·381	+·090	78	52	40	58	+11	3·5	4·6	4·1	+0·5	10		3	2	3	6	5	28	5	S 78° W	N 81° W	47	28	36	50			Dehra Dun .	Upper Sub-Himalayas.
·373	·414	·341	·380	+·057	82	55	36	59	+11	2·8	2·9	2·9	+0·3	12	1	1	3	7	4	2	1	31	N 49° W	N 63° W	34	24	89	72	3·71	2·34	Roorkee .	
·402	·389	·315	·372	+·019	83	48	31	55	+ 6	2·5	2·8	2·7	+0·2	9	2	3	1	4		7	17	19	N 72° W	N 63° W	50	42	41*	67	1·81	0·94	Meerut .	
·430	·500	·488	·484	+·124	91	71	58	75	+21	4·5	4·2	4·4	+0·9	5	5	8	6	2	2		10	24	N 30° W	N 12° W	45	31	86	70	5·37	2·33	Lahore .	
·444	·463	·421	·450	+·086	95	64	46	70	+17	3·0	2·7	2·9	−1·1?	2		14		4			30	12	N 59° W	N 46° W	48	35	53*	53	3·75	1·26	Ludhiana .	
·344	·431	·426	·411	+·067	84	70	62	74	+15	5·4	5·8	5·6	+0·6	21	6	7	7		2	4	8	7	N 19° W	N 12° E	19	16	40*	86	7·27	1·77	Peshawar .	Indus Valley and N.-W. Rajputana.
·369	·439‡	·404	·418	+·102	73	48‡	37	54	+16	2·0	2·7	2·4	−0·6	7	7	3	16	10	5	2	7	5	S 86° E	E	21	14	96*	94	1·57	1·27	Jacobabad .	
·579	·601	·675	·655	+·029	88	64	65	79	+ 8	1·8	1·9	1·9	−0·7	1	3	2	4	2	4	13	26	7	S 81° W	S 78° W	54	60	213*	274	2·26	1·11	Kurrachee .	
·330	·336	·282	·320	+·015	62	37	25	44	+ 5	2·9	3·0	3·0	−0·1	2	1	8	3	3	3	14	15	13	N 88° W	N 46° W	37	30	97	108	1·05	0·61	Jaipur .	
·361‡	·347‡	·309	·331		71‡	35‡	26	43		1·5	2·2	1·9		19	2	2	3	2	3	13	12	5	S 71° W		32		70*		0·62	0·40	Udaipur .	E. Rajputana, C. India and Gujarat.
·319	·327	·250	·289	+·012	56	29	17	33	+ 6	1·5	2·0	1·8	−0·4		10	7	2	1	2	9	15	16	N 55° W	N 64° W	49	34	207	266	0·04	0·03	Deesa .	
·493	·516	·422	·509		81	51	35	61		2·0	2·0	2·0		7	6	5	1		2	15	16	3	N 80° W		45		350*		1·85	1·52	Jamnagar .	
·415	·303	·341	·396	−·041	71	26	27	49	0	0·7	3·5	2·1	+0·3	2	7	12	5	6	3	9	13	5	N 44° W	N 81° W	12	16	206	271	0·11	0·08	Belgaum .	Deccan.
·291	·291	·270	·309	−·019	40	22	16	29	— 3	1·1	4·4	2·8	+0·5	3	10	14	4	7	5	8	2	9	N 25° E	N 46° E	19	6	209*	190	0	0	Sholapur .	
·308	·328	·299	·308	+·020	49	26	17	32	+ 3	0·3	1·0	0·7	−1·0	11	4	11	8	4		3	5	16	N 6° E	N 39° W	29	42	94*	115	0·07	0·04	Akola .	
·255	·252	·236	·243	−·013	40	25	17	27	+ 1	0·8	2·7	1·8	−0·2	1	16	6	5	2	3	3	9	17	N 26° W	N 26° W	46	43	133*	178	0·29	0 15	Buldana, .	
·326	·346§	·314	·325	+·041	55	30§	20	36	+ 6	1·1	1·7	1·4	−0·4		5	13	4	6	4	4	5	21	N 16° W	N 39° W	31	40	92	120	0·07	0·07	Khandwa .	
·382	·404§	·371	·382	+·036	58	35§	23	40	+ 6	1·3	2·9	2·1	−0·3	2	4	16	6	6	6	6	8	8	N 30° E	N 6° E	13	12	80*	118	1·11	0·65	Nagpur .	
·382	·429‡	·421	·407		59	36‡	27	42		1·4	2·7	2·1		8		16		18		6		14	N 67° E		18		45*		1·29	0·70	Do. (Sanitary Commr.'s Office)	
·535	·505	·480	·508	+·048	73	40	30	49	+ 5	1·2	3·5	2·4	+0·8	40		1	3	4	1		7	6	N 76° W	S 48° E	8	23	77*	101	0·50	0·46	Hyderabad (Deccan),	
·616	·696	·705	·699	−·038	75	66	62	72	— 3	1·7	0·9	1·3	0		6	6	2	2	2	5	8	31	N 45° W	N 36° W	58	46	257	262	0·07	0·07	Bombay .	West Coast.
·697	·696	·752	·742	—·037	90	60	60	74	— 3	0·5	0·7	0·6	−0·8		15					1	27	19	N 56° W	N 81° W	80	81	118	110	0	0	Karwar .	

† Observations of 30 days. ‡ Mean of 30 days. § Mean of 29 days. ‖ Mean of 21 days. * Corrected.

Table

Abstract of Observations recorded at 10 A.M. and 4 P.M. at 65 Stations

Meteorological Province.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure.						Temperature of air.										Temperature, Wet-bulb.			
			Mean of 10 hours.	Mean of 16 hours.	Mean daily range.	Mean of daily mean pressures.	Departure from normal.	Mean reduced to Sea-level and gravity, 45° Lat.	Mean maximum.	Mean minimum.	Mean daily range.	Highest maximum.	Lowest minimum.	Absolute range.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	Mean minimum.	Mean 10 hours.	Mean 16 hours.	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
South India.	Periyakulam	944	29·016	28·859	·157	28·951		29·833	95·8	66·3	29·5	98·7	60·5	38·2	84·1	93·9	81·4		62·9	72·2	73·5	69·7
	Salem	940	·034	·871	·163	·959	—·024	·823	97·3	69·1	28·2	100·3	65·4	34·9	84·6	95·6	81·8	—1·5	67·3	73·8	76·9	72·7
	Chitaldrog	2,405	27·559	27·417	·142	27·486	—·011	·768	93·6	69·4	24·2	97·0	64·9	32·1	84·5	91·7	80·5	—0·8	60·6	66·1	66·0	64·2
	Bangalore	3,021	26·931	26·848	·133	26·915	—·017	·776	91·4	64·0	27·4	94·5	60·7	33·8	81·8	89·1	76·7	0	58·2	64·4	63·7	62·1
	Hassan	3,091	·914	·785	·129	·850	—·008	·783	90·2	62·3	27·9	93·2	59·5	33·7	80·8	87·2	75·3	—0·3	59·1	64·3	63·0	62·1
	Mysore	2,518	27·465	27·314	·151	27·390	—·017	·783	93·1	66·6	26·5	96·3	63·1	33·2	81·9	90·9	78·9	—0·5	64·2	69·8	68·6	67·5
	Madras	22	29·954	29·833	·126	29·895	—·010	·817	88·2	70·2	18·0	93·3	67·7	25·6	84·6	84·2	78·7	—0·8		74·5	75·1	73·5
	Bellary	1,475	28·457	28·301	·156	28·376	—·029	·766	99·7	72·6	27·1	102·8	68·2	34·6	88·3	95·8	85·6	0	61·2	75·5?	79·0?	71·9?
	Waltair	*226*	29·733	29·610	·123	29·665	—·008	·832	86·6	73·6	13·0	91·2	70·4	20·8	83·2	83·0	78·5	—1·2	68·9	73·9	74·6	72·5
Hill Station, Baluchistan.	Quetta	5,502	24·662	24·594	·068	24·621	—·006		61·3	40·3	21·0	76·2	30·2	46·0	54·6	58·1	51·2	—1·4	39·0	46·8	48·1	44·6
Hill Stations, Northern India.	Leh	11,503	19·652	19·560	·092	19·604	—·054		47·1	20·8	26·3	61·6	1·4	60·2	36·4	44·2	32·8	+1·9	17·0	25·6	28·8	25·7
	Srinagar	5,204	24·916	24·836	·080	24·871	—·033		56·8	40·0	16·8	72·1	32·4	39·7	48·1	54·7	47·2	+2·1	38·2	46·2	51·9	45·4
	Sarain		23·158	23·101	·057	23·120			53·6	34·6	19·0	69·9	28·0	41·9	47·2	49·1	44·4			40·6	43·0	
	Simla (Ridge)	7,224	·118	·065	·053	·085	—·020		54·4	42·7	11·7	66·5	31·2	35·3	49·9	51·8	48·9	—2·6	37·7†	41·6	44·1	41·2
	Chakrata	7,022	·293	·239	·054	·253	—·026		58·0	42·4	15·6	71·5	29·4	42·1	51·3	53·3	50·5	—2·8	38·1	43·8	45·1	42·3
	Ranikhet	6,069	24·114	24·039	·075	24·070	—·021		63·8	48·1	15·4	76·4	34·7	41·7	58·2	60·3	56·4	—1·1	43·1	48·0	48·0	46·4
	Muktesar	7,600	22·860	22·790	·070	22·818			59·4	43·7	15·7	73·8	30·7	43·1	52·4	55·9	51·9		36·8	43·9	45·9	42·2
	Katmandu	4,388	25·679	25·561	·118	25·618			78·7	45·7	33·0	86·6	39·1	47·5	67·0	75·0	62·5		43·6	54·9	56·1	51·5
	Darjeeling	7,376	22·985	22·952	·033	22·966	—·028		57·0	42·9	14·1	66·2	34·1	32·1	52·5	54·6	50·3	+0·6	40·5	48·8	50·8	46·7
Hill Stations, Central India.	Mount Abu	3,945	26·090	26·011	·079	26·042	—·026		73·4	59·7	13·7	87·8	46·9	40·9	67·7	71·5	66·8	—3·1	50·4	54·1	56·0	53·5
	Pachmarhi	3,528	·520	·415	·105	·459	—·005		82·2	58·5	23·7	93·0	48·4	44·6	76·0	80·0	70·7	—2·0	51·4	57·7	59·5	56·2
	Chikalda	3,612	·385	·275	·110	·322	—·041		84·4	63·6	20·8	92·3	53·7	38·6	75·0	82·8	74·3	—2·3	53·8	59·0	60·5	57·8
Hill Stations, South India.	Kodaikanal	7,688	22·870	22·800	·070	22·830			69·6	50·4	19·2	73·6	47·2	26·4	65·2	62·6	57·6		39·6	48·7	52·6	46·8
	Ootacamund	*7,322*	23·101	23·029	·072	23·059			69·5	47·7	21·8	72·5	43·5	29·0	65·5	64·3	58·9		42·3	49·8	52·3	48·1
	Dodabetta	*8,539*	22·088	22·027	·061	22·058			61·0	46·1	14·9	63·7	42·7	21·0	58·9	58·8	53·6		40·3	45·4	48·3	44·7
Extra India.	Aden	94	29·875	29·751	·124	29·801	—·047	·827	83·4	75·8	7·6	86·5	71·9	14·6	80·5	82·2	78·3	—0·2	67·2	74·2	72·5	71·3
	Perim	201	·798?	·677?	·121	·726?	+·039?	·862?	85·6	75·9	9·7	88·3	74·0	14·3	81·7	82·2	79·5	+0·2	73·0	75·3	75·6	74·6
	Minicoy	7	·963	·891	·072	·931		·863	87·5			91·7			85·1	85·0				76·9	76·7	
	Zanzibar	73	·895‡	·777	·118	·840	—·019	·838‡	86·4	78·7	7·7	90·9	73·5	17·4	82·6‡	85·8	81·2	—0·3		77·5†	78·4	
	Port Victoria (Seychelles)	15	·952	·853	·099	·908		·846	84·8	73·5	11·3	87·4	68·7	18·7	82·5	84·1	78·2		72·8	75·9	76·4	75·0
	Mauritius (Pamplemousses)	181				·728	—·049	·854				87·3	67·8	19·5			76·9	—0·4				72·9

† Mean of 30 days. ‡ Mean of 29 days.

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

II—*concluded.*

in India, Burma, etc., for March, 1904—concluded.

Vapour Tension.					Humidity.					Cloud.				Wind direction.										Wind Steadiness.		Wind Velocity.		Rainfall.		Station.	Meteorological Province.
														Total number of 10 hours and 16 hours winds from																	
From minimum.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	From minimum.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	Mean 10 hours.	Mean 16 hours.	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
																									%	%						
·533	·634	·554	·571		82	54	35	53		1·3	3·1	2·2		2	1	2	13	26	12	4	2	1	S 42° E		66		72*		0·20	0·17	Periyakulam	South India.
·649	·695	·686	·689	+·036	91	58	41	66	+ 7	0·3	1·9	1·1	—1·5	11		2	44		1		4		N 39° E	S 69° E	66	39	104*	127	0	0	Salem	
·422	·413	·320	·394	—·005	59	35	22	41	+ 3	0·3	1·6	1·0	—0·8	7	4	10	17	10	2	1	4	7	N 74° E	N 37° E	35	17	100*	154	0·19	0·11	Chitaldroog	
·421	·408	·296	·384	—·063	71	38	22	46	— 4	0·2	1·1	0·7		1	2	11	21	11	7	5	3	1	S 75° E	S 36° E	48	46	103*	118	0	0	Bangalore	
·470	·415	·296	·403	—·010	83	40	23	51	0	1·7	1·8	3·3	—0·2	2	1	17	18	13	2	1	5	3	N 84° E	S 81° E	52	48	55*	72	0·14	0·36	Hassan	
·574	·584	·424	·536	+·099	88	54	29	59	+12	4·8	6·7	5·8	+3·2‡		4	10	17	13	7	3	5	3	S 78° E	N 86° E	40	37	174*	192	0·91	0·01	Mysore	
	·719	·752	·759	—·043		60	64	77	— 1	2·2	0·7	1·5	—0·7				4	38	16	4			S 32° E	S 41° E	87	81	129	149	0	0	Madras	
·404	·738?	·801?	·654?	?	51	55?	47?	52?	?	0·5	3·7	2·1	—0·5	8	4	7	7	5	7	6	11	7	S 80° W	S 39° E	8	20	107*	110	0·37	0·20	Bellary	
·618	·719	·746	·728	—·018	78	63	66	73	+ 5	1·7	2·6	2·2	+0·1					4	12	46			S 32° W	S 19° W	90	60	141		0	0	Waltair	
·228	·246	·239	·236	+·028	90	60	52	68	+12	4·5	6·1	5·3	+1·2	9	7	3	1	9	9	5	9	10	S 76° W	S 78° W	18	30	76*	96	2·46	0·91	Quetta	Hill Station, Baluchistan.
·068	·057	·046	·060	—·042	56	26	15	34	—24?	7·0	7·8	7·4	+0·9		1				3	20	35	3	S 75° W	S 45° W	85	23	73	48	0·03	0·02	Leh	Hill Stations, Northern India.
·212	·298	·367	·279	+·021	85	87	83	85‡	+ 4	6·7	6·8	6·8	+1·1	10	6	4	1	9	3	3	5	21	N 44° W	N 21° W	27	16	82*	115	4·42	1·33	Srinagar	
	·192	·219				63	67			4·9	6·2	5·6		17	4	11	6		6	11	6	1	S 41° W		2		63*		8·09	2·76	Sarain	
·175†	·181	·213	·188	+·014	65†	52	57	59	+10	6·0	6·9	6·5	+1·5	9	18			9	23	1	2		S 17° E	S 33° W	21	4	145*	137	5·08	1·58	Simla (Ridge)	
·188	·213	·221	·205	+·016	71	59	56	63	+11	3·6	4·7	4·2	+0·2	3	18	3	1	13	23			1	S 45° E	S 39° W	26	13	282*	170	6·74	2·07	Chakrata	
·229	·234	·211	·223	—·001	69	51	44	56	+ 4	3··	3·8	3·8	+0·2	19	1	2	3		1	22	10	4	S 65° W	S 60° W	43	28	59*	84	2·46	1·01	Ranikhet	
·153	·204	·212	·188		55	54	51	54		4·6	5·1	4·9		4		5	7	2	3	15	26		S 65° W		43		195*		2·92	1·10	Muktesar	
·265	·297	·240	·265	—·036	85	45	28	54	— 7	2·4	4·2	3·3	0	7	2	6	7	6	6	8	13	7	S 61° W	N 82° W	14	47	32		0·04	0·04	Katmandu	
·231	·313	·339	·292	+·038	83	78	78	81	+ 6	3·5	5·2	4·4	—0·7	2		3	3	4		20	14	16	S 84° W	S 78° W	52	42	150*	180	0·16	0·12	Darjeeling	
·265	·268	·274	·264	+·053	54	42	37	44	+13	2·0	2·2	2·1	—0·2	1	4	9		2	3	13	16	9	S 89° W	N 31° W	44	38	222*	173	1·06	0·67	Mount Abu	Hill Stations, Central India.
·302	·268	·271	·275	+·024	62	31	28	40	+ 6	1·6	3·2	2·4	+0·1	2	3	5		2	1	8	7	34	N 55° W	N 57° W	63	32	124*	120	0·85	0·65	Pachmarhi	
·305	·317	·272	·293	+·021	53	37	25	39	+ 7	0·4	3·0	1·7	—0·6	51	2	1		1	1	2		4	N 48° W	N 51° W	6	27	157*	180	0·61	0·33	Chikalda	
·140	·178	·269	·216		39	29	53	45		1·3	5·0	3·2			9	17		10	11	7		1	S 85° E		23		370		0·04	0·04	Kodaikanal‖	Hill Stations, South India.
·215	·199	·269	·229		65	32	45	48		1·3	4·7	3·0		10		7	26	13	4		1	1	S 79° E		63		80*		0·07	0·05	Ootacamund	
·192	·168	·221	·197		62	34	47	48		1·4	4·2	2·8			5	23	16	17	1				N 79° E		72		407		0·19	0·11	Dodabetta	
·552	·757	·667	·690	—·033	62	73	61	68	— 5	3·3	1·1	2·2	—1·0	2	1	13	9	14	7	14		2	S 48° E	N 87° E	37	72	350* §	379	0	0	Aden	Eritrea India.
·776	·797	·805	·824	+·041	86	73	73	80	+ 3	0·6	0·2	0·4				1	26	30	1		3	1	S 55° E	S 63° E	79	60	460*	463	0·09	0·06	Perim	
	·817	·809				67	67			3·0 ‡	3·3	3·2			21	21	6				5	9	N 13° E		69		107* ‡		0·53	0·35	Minicoy	
	·874‡	·874				79‡	71			7·1 ‡	5·1	6·1	+0·8		14	9	5	2	12	10	4	4	N 22° W	S 44° E	5	13	126*	130	5·62	2·02	Zanzibar	
·802	·811	·814	·836	—·025	97	73	69	84	+ 1	5·0	4·9	5·0		15	7	13	10	3				14	N 25° E	N 21° W	43	38	81		0·56	0·36	Port Victoria (Seychelles).	
			·739	—·007				80	0			7·1	+0·6										N 89° E	S 73° E			266	251	12·99	4·70	Mauritius (Pamplemouses).	

* Corrected.

‡ Mean of three previous columns.

§ Mean of 28½ days.

‖ Wind variable 7.

G. I. C. P. O.—No. 357 Meteor.—19-8-04—385.

Explanation.

The lines of the above Chart represent isobars or lines of equal barometric pressure, and the numbers attached indicate the barometric pressure in inches and are 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 ordinary or normal distribution of pressure as given in the Charts of the Bay of Bengal prepared by Mr. Dallas, 1st Assistant Meteorological Reporter to the Government of India, and published by the Meteorological Department. Hence they have not the same validity as the isobars in the land area of India itself, but it is probable they deviate very little from the actual.

The mean 8 a.m. 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 I of the 8 a.m. 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	,,	,,	,,	,, ,,

LITHO. BY J.N.MUNDLE.

Explanation.

The Chart shows the variation of the mean 8 a.m. pressure of the month from the normal by means of lines drawn for equal amounts of variation (of two hundredths of an inch or ·020″). 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 variation, the dotted line facing the area of deficient pressure or negative variations.

CHART SHEWING THE VARIATION OF THE MEAN MAXIMUM TEMPERATURE OF THE MONTH FROM THE NORMAL.

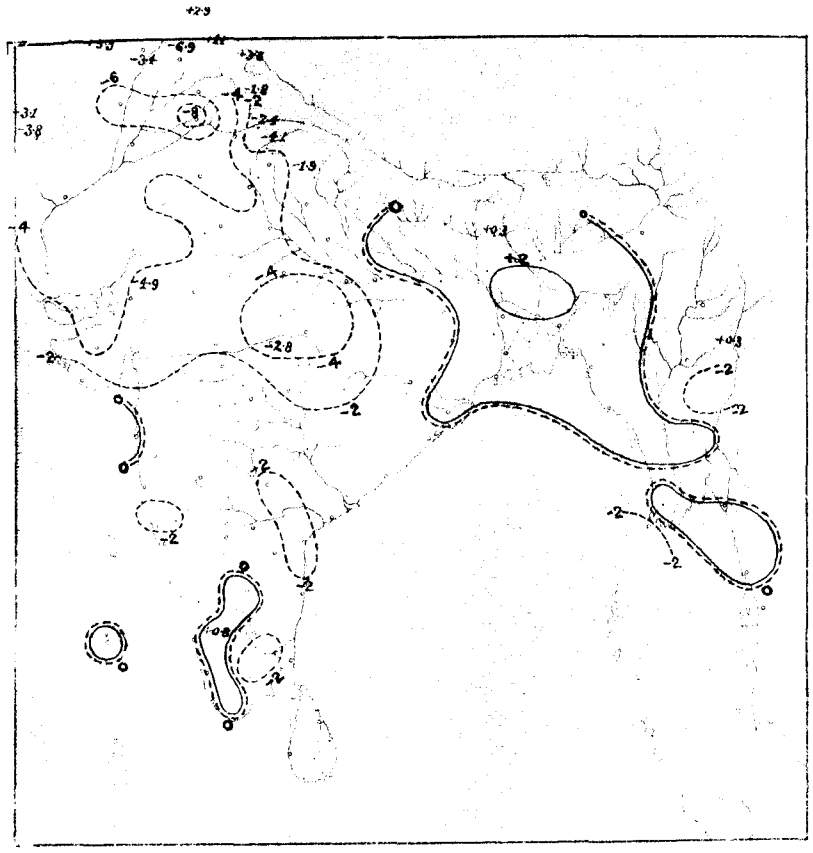
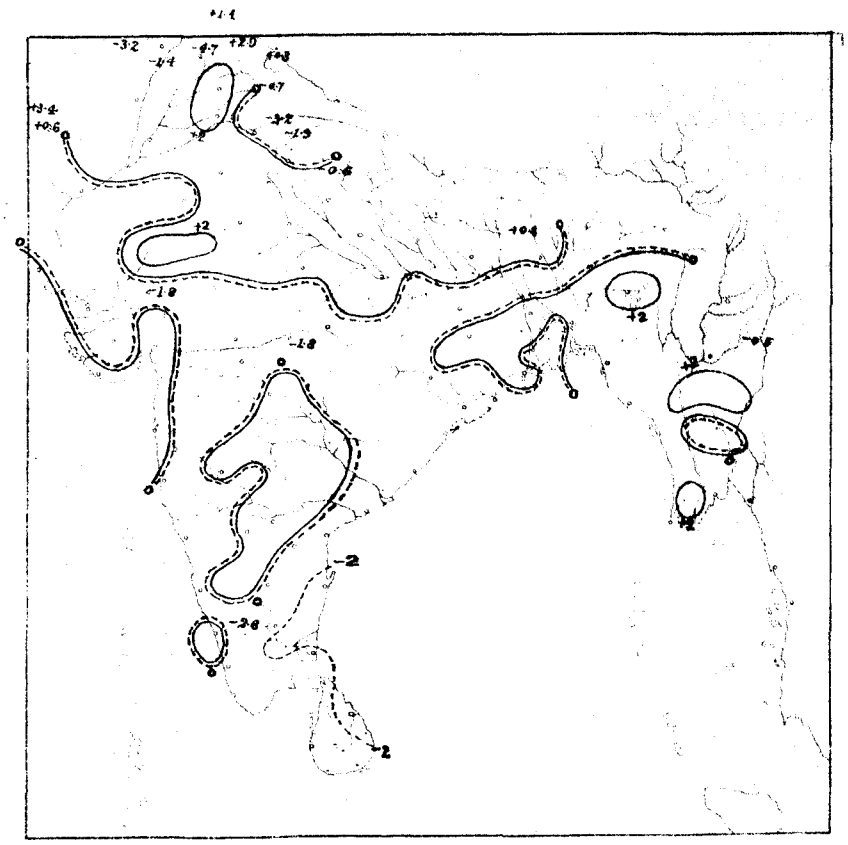


CHART SHEWING THE VARIATION OF THE MEAN MINIMUM TEMPERATURE OF THE MONTH FROM THE NORMAL.



Explanation.

ontinuous lines indicate that the mean maximum of month was in xcess by amounts indicated by the attached numbers: broken or dotted nes that it was in defect by amounts indicated by the attached numbers ouble lines are the lines of no variation, the broken line facing the area f deficient temperature.

Continuous lines indicate that the *mean minimum of month* was in excess by amounts indicated by the attached numbers: broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no variation, the broken line facing the area of deficient temperature.

CHART SHEWING THE VARIATION OF THE MEAN DAILY TEMPERATURE OF THE MONTH FROM THE NORMAL.

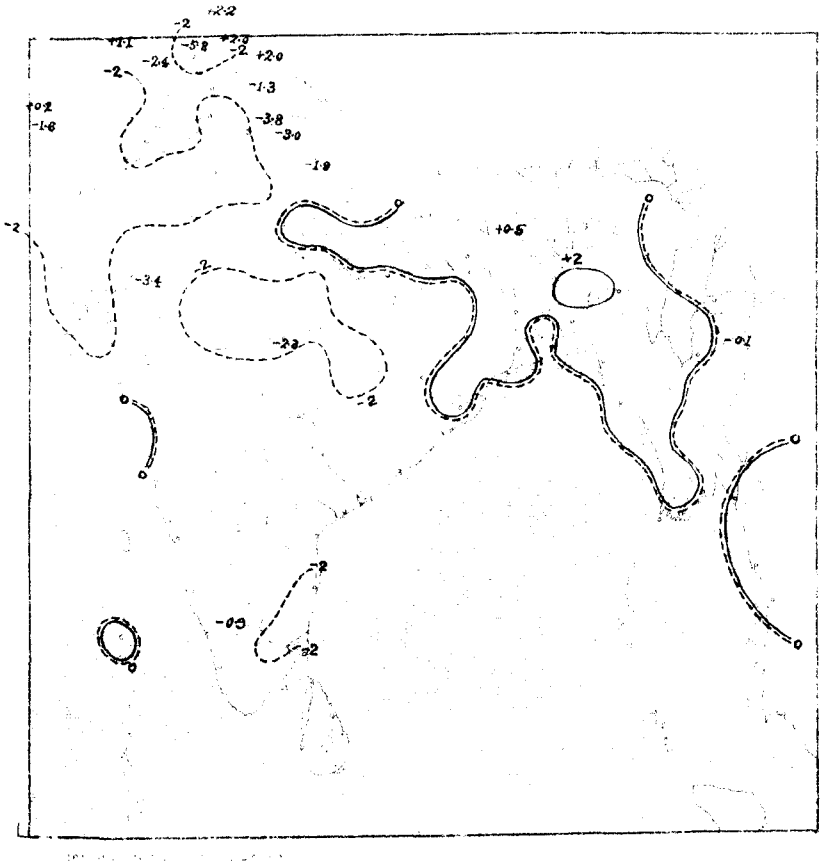
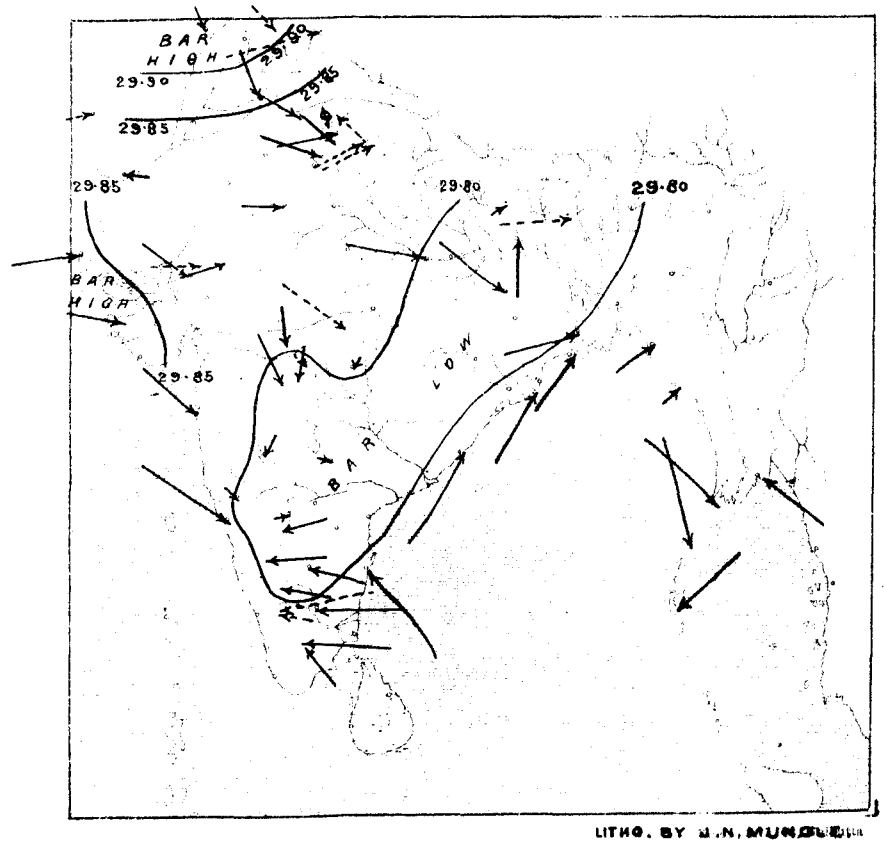


CHART SHEWING THE MEAN DISTRIBUTION OF PRESSURE AND THE RESULTANT WIND DIRECTIONS IN THE MONTH OF MARCH 1904.



LITHO. BY J.N. MUKERJEA

Explanation.

Continuous lines indicate that the mean daily temperature of month was in excess by amounts indicated by the attached numbers: broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no variation, the broken line facing the area of deficient temperature.

The Chart is prepared in the same manner as the Monthly Charts which previously to 1890 appeared in the Annual Reports, the only alteration made being that pressures are reduced to constant gravity (45°). The isobars are given for each twentieth of an inch. The arrows shew the directions of the resultants of the wind recorded at 10 and 16 hours and by their lengths the percentage of the observations expressing the numerical value of the resultant; a length of $\frac{1}{10}$th of an inch being equal to 100 per cent.

CHART SHEWING THE VARIATION AT 8 A. M. OF THE MEAN ABSOLUTE HUMIDITY OF THE MONTH FROM THE NORMAL.

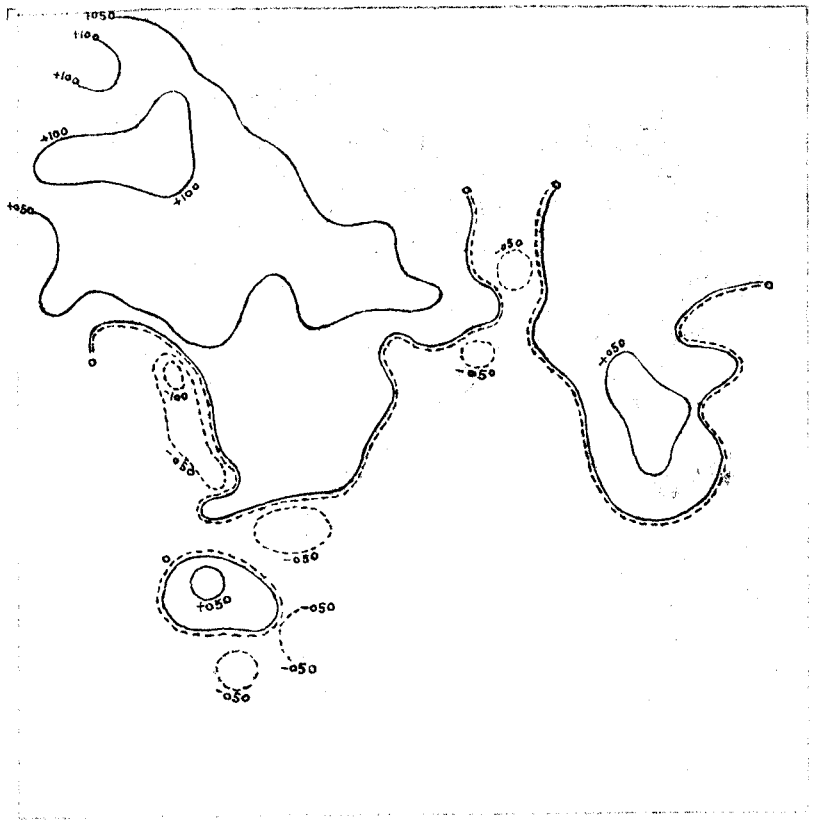
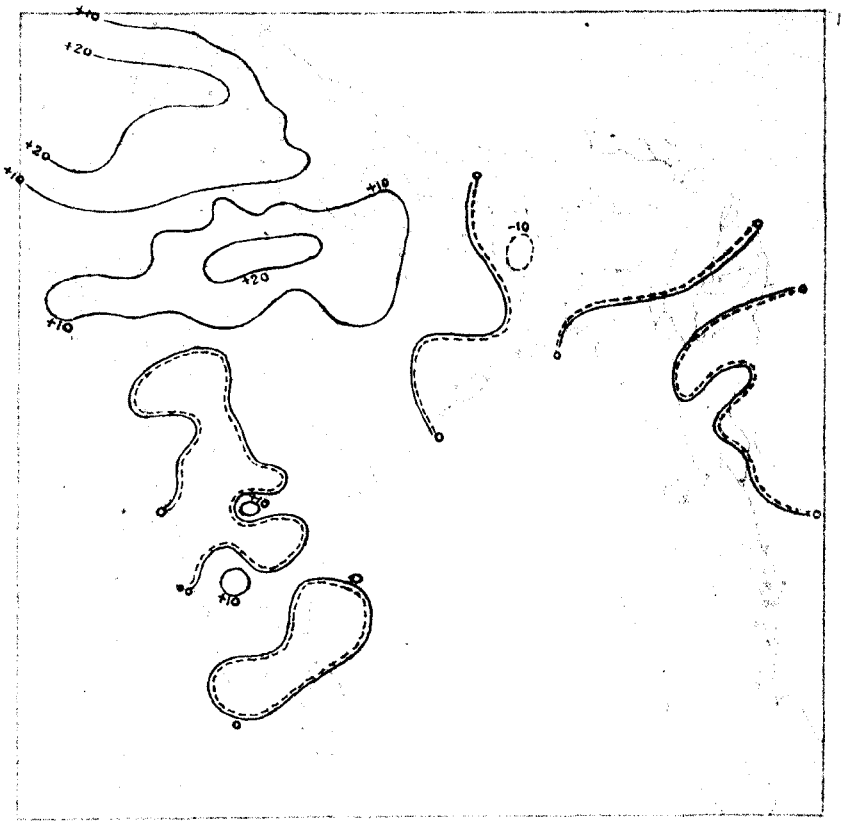


CHART SHEWING THE VARIATION AT 8 A. M. OF THE MEAN RELATIVE HUMIDITY OF THE MONTH FROM THE NORMAL.



Explanation.

Continuous lines indicate that the mean absolute humidity of month was in excess by amounts indicated by the attached numbers; broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no variation, the broken line facing the area of deficient humidity.

Continuous lines indicate that the mean relative humidity of month was in excess by amounts indicated by the attached numbers; broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no variation, the broken line facing the area of deficient humidity.

CHART SHEWING THE VARIATION AT 8 A. M. OF THE MEAN CLOUD AMOUNT OF THE MONTH FROM THE NORMAL.

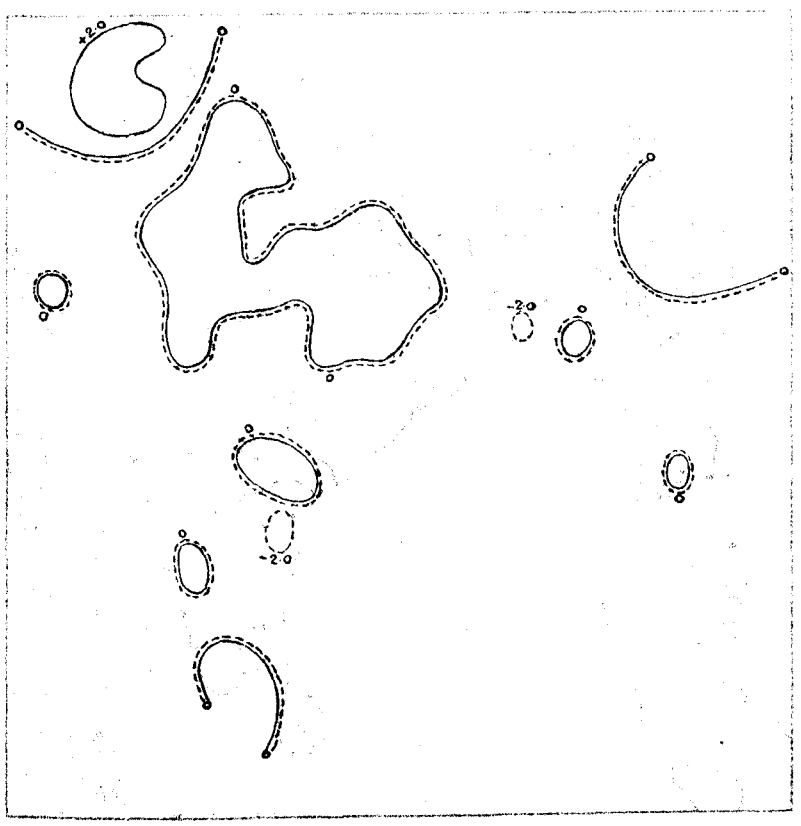
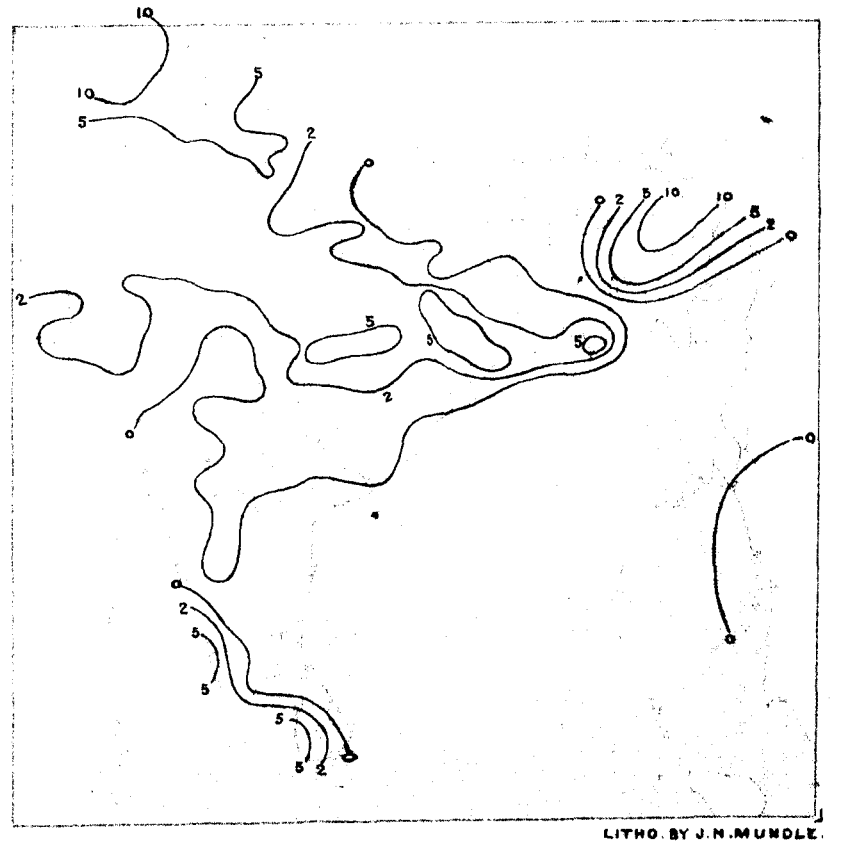


CHART SHEWING THE TOTAL NUMBER OF RAINY DAYS IN THE MONTH OF MARCH 1904.



LITHO. BY J.N.MUNDLE.

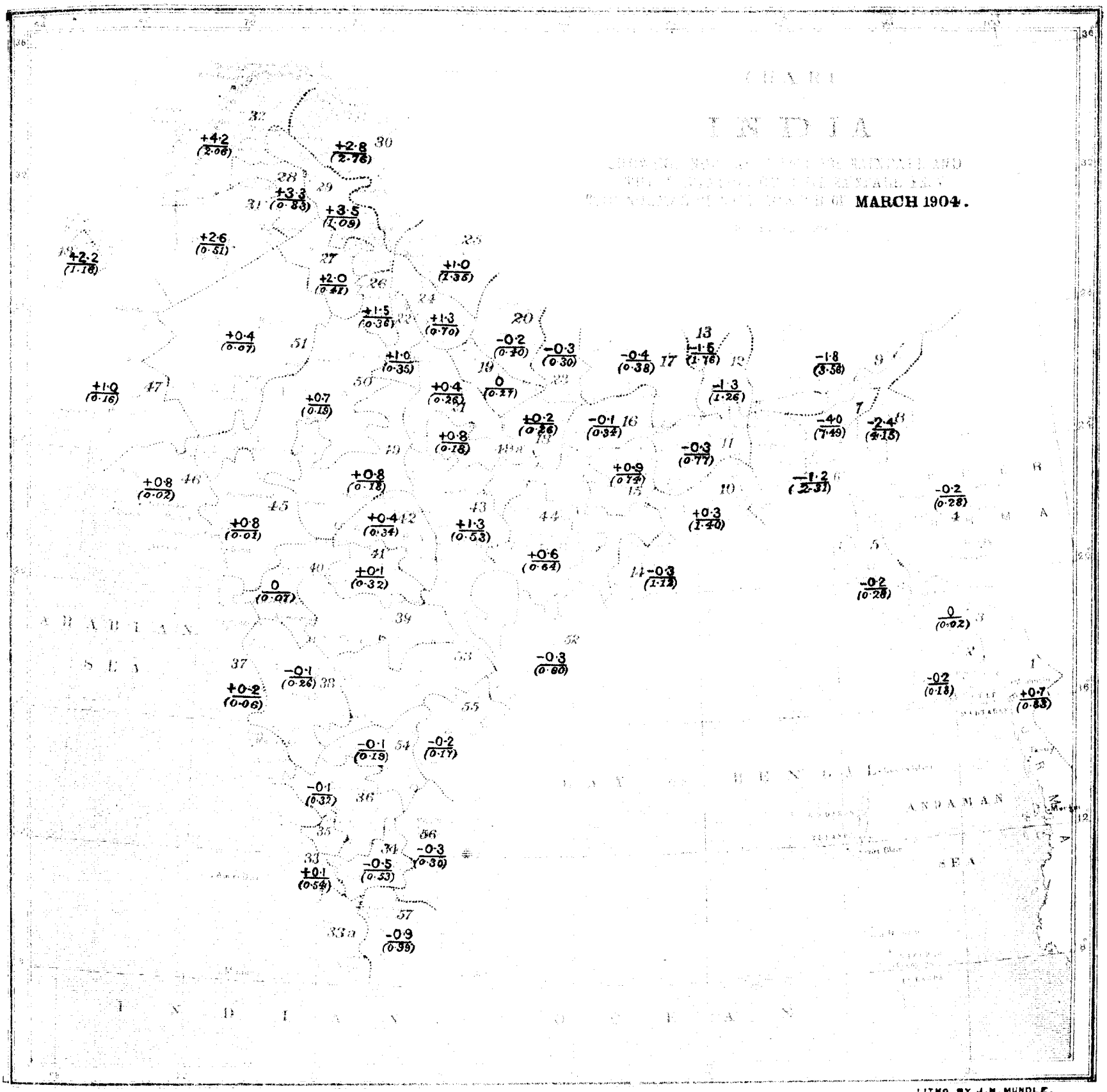
Explanation.

Continuous lines indicate that the mean cloud amount of month was in excess by amounts indicated by the attached numbers; broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no variation, the broken line facing the area of deficient cloud.

A rainy day is one on which 0·10 inch or more of rain is received within 24 hours.

Explanation.

The Chart shows the distribution of the rainfall of the month by means of isohyetic lines or lines of equal amounts of rain. The data used in the preparation of this Chart are the rainfall returns of all the observatories in India except those at the Hill Stations over 3,500 feet in elevation (177 in number). The double line or line of no rainfall separates areas in which the rainfall exceeded a tenth of an inch from those where it was actually or practically *nil* (*i.e.* less than a tenth of an inch). The dotted line faces the area of no rainfall.



LITHO. BY J.N. MUNDLE, Calcutta

Explanation.

The Chart gives the variations of the rainfall of the month (in tenths of an inch) from the normal over the whole of India and Burma. The country is divided into 57 areas, over each of which the meteorological conditions are fairly uniform, and the staple crops similar in character; and the numbers (both actual and normal for the month) have been calculated and the numbers given in the centre of each division (usually with a + or − sign attached) give the differences between the actual and normal mean rainfall of the district of the month. A plus sign indicates that the rainfall was in excess, and a negative sign that it was in defect by the amounts indicated by the numbers to which the signs are attached. The normal average rainfall is also given below in smaller figures enclosed within brackets so that the percentage variation can be at once estimated. The name of the district can be at once ascertained by referring in the following list to the number given near the right hand boundary of each district in small slanting red figures.

1. Tenasserim
2. Lower Burma Deltaic
3. Central do.
4. Upper do.
5. Arakan
6. East Bengal
7. Assam, Surma
8. Do., Hills
9. Do., Brahmaputra
10. Deltaic Bengal
11. Central do.
12. North do.
13. Bengal Hills
14. Orissa
15. Chota Nagpur
16. South Bihar
17. North Bihar
18. United Provinces, East
19. South Oudh
20. North do.
21. United Provinces, Central
22. Do. do., West
23. Do. do., East Submontane
24. Do. do., West do.
25. Do. do., Hills
26. South East Punjab
27. South do.
28. Central do.
29. Punjab, Submontane
30. Do., Hills
31. West Punjab
32. North West Frontier Province
33. Baluchistan Hills
34. Central India, East
34a Do. do.
35. Rajputana East, Central India West
36. West Rajputana
37. Madras, East Coast, North
38. Hyderabad, South
39. Madras, Central
40. Madras, East Coast, Central
41. Do. East Coast, South
42. Madras, South
43. Malabar
43a Travancore
44. Madras, South Central
45. Coorg
46. Mysore
47. Konkan
48. Bombay Deccan
49. Hyderabad, North
50. Khandesh
51. Berar
52. Central Provinces, West
53. Do., Central
54. Do., East
55. Gujarat
56. Kathiawar and Catch
57. Sind

GOVERNMENT OF INDIA.

METEOROLOGICAL DEPARTMENT.

MONTHLY WEATHER REVIEW.

PUBLISHED BY ORDER OF

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CALCUTTA, APRIL, 1904.

INTRODUCTION.

THIS review of the weather in India during the month of April 1904. is based on observations taken daily at 8 A.M. at 230 stations, and on additional observations taken at 10 A.M. and 4 P.M. at 65 stations. In the rainfall summary the rainfall data of the meteorological observatories and the rainfall statements of the month published by the Provincial Governments that had been received up to the date of the publication of the review, are utilized. A summary of the weather in the Bay of Bengal and the Arabian Sea, derived from information extracted from the logs of vessels entering the ports of Calcutta and Bombay, is also given.

Summary of the chief features of the weather in India during the month of April, 1904.

The weather was unusually disturbed over Burma and north-east India during the month of April 1904. The thunderstorms were both more frequent and heavier than usual and the total rainfall of the month was in large excess over this area. On the other hand, though barometric depressions appeared very frequently in the north-west, the weather was finer and less showery than usual over north-west India. Over the central parts of India and the Peninsula the weather was also finer than the average.

The weather was finer than usual over the greater part of northern India during the first four days of the month and the mean temperature exceeded the normal—more especially over north Bombay—while over the Peninsula the weather was showery and the temperature, on the whole, low. On the 5th conditions changed. Pressure differences increased over the Bay, Burma and north-east India, a strong flow of moist air from the Bay into north-east India, etc., set in, rain fell and temperature was reduced to largely below the normal over Burma, Assam and part of Bengal. These unsettled conditions lasted till the 13th, and during the whole of that time the mean temperature was low, as is shown by the following statement:—

Province or Division.	Departure from normal of mean temperature of 24 hours preceding 8 A. M. of								
	5th Apl.	6th Apl.	7th Apl.	8th Apl.	9th Apl.	10th Apl.	11th Apl.	12th Apl.	13th Apl.
	°	°	°	°	°	°	°	°	°
Burma . . .	−1·7	−4·7	−7·4	−7·4	−5·4	−3·5	−5·6	−4·9	−3·2
Assam . . .	+0·1	−7·9	−10·0	−2·9	+0·6	−5·1	−5·8	−6·6	−6·0

In other parts of the Indian region the mean temperature was generally excessive from the 5th to the 13th

The following gives comparative data for each alternate day during this period:—

Province or Division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of				
	5th April.	7th April.	9th April.	11th April.	13th April.
	°	°	°	°	°
Bengal	+0·4	−5·7	−0·9	−5·2	−1·5
Orissa	+1·2	+0·9	−0·4	+3·3	+1·2
Bihar	+2·5	−4·9	−0·1	−1·4	−1·3
Chota Nagpur	+1·9	+0·3	−1·2	−0·1	+3·3
United Provinces of Agra and Oudh.	+2·2	−0·7	+1·2	+0·6	+2·7
Punjab	+2·4	+1·0	+0·6	+2·5	−0·7
N.-W Frontier Province.	+2·5	+4·3	−1·2	+1·9	−0·8
Sind	+3·9	+8·3	+4·2	+3·8	+2·6
Rajputana	+3·7	+3·2	+4·0	+4·2	+0·2
Gujarat	+2·4	+3·6	+1·9	−0·4	−0·4
Central India	+3·5	+2·4	+3·2	+1·9	+1·2
Central Provinces	+2·8	+2·8	+2·7	+1·7	+1·6
Berar	+4·0	+6·1	+2·3	+2·8	+2·0
West Coast	+0·3	+0·7	−0·3	−0·8	−0·3
Bombay Deccan	+3·8	+0·1	−0·7	+0·3	+1·5
Mysore	+1·4	+1·5	+0·3	−0·8	−0·1
Madras Coast	+0·5	+3·2	+2·2	+1·5	+0·7
Madras Deccan	+2·3	+2·6	+1·8	−1·3	+1·5
South India	+0·4	+2·8	+1·0	−0·9	−0·4

The hottest area was thus the north-west of India and the head of the Peninsula where the excess was generally greater in the day than in the night temperature. The following statement shows the occasions and the stations at which the excess of the day temperature amounted to more than 10°:—

Date.	Station.	Maximum temperature.		
		Actual of date.	Normal of date.	Departure from normal of date.
		°	°	°
6th April	Hyderabad (Sd)	111·7	100·4	+11·3
7th "	Kurrachee	100·9	89·4	+11·5
	Jacobabad	110·8	100·3	+10·5
8th "	Jacobabad	111·8	100·6	+11·2
	Mooltan	106·4	96·2	+10·2

There was thus a marked contrast between the temperature conditions prevailing over north-west and north-east India as in the latter region at this time the maximum or day temperature was frequently more than 15° below the normal. This is shown below:—

Date.	Station.	Maximum temperature.		
		Actual of date.	Normal of date.	Departure from normal of date.
		°	°	°
6th April	Dhubri	74·6	90·1	−15·5
	Mymensingh	76·7	92·1	−15·4
7th "	Moulmein	73·5	94·8	−21·3
	Tavoy	74·2	94·1	−19·9
	Mandalay	84·5	102·8	−18·3
	Bogra	79·3	97·0	−17·7
	Dinajpur	78·3	95·4	−17·1
	Rangoon	81·6	98·5	−16·9
	Mymensingh	76·2	92·1	−15·9
	Dhubri	74·1	90·0	−15·9
8th "	Minbu	79·2	104·3	−25·1
	Mandalay	82·5	102·8	−20·3
	Yamethin	84·3	103·3	−19·0
9th "	Minbu	86·2	104·3	−18·1
	Yamethin	87·8	103·3	−15·5
	Thayetmyo	88·0	103·1	−15·1
11th "	Minbu	85·2	104·2	−19·0
	Yamethin	85·3	103·1	−17·8
	Mandalay	87·0	102·7	−15·7
	Dinajpur	80·3	95·5	−15·2
12th "	Bogra	81·3	97·1	−15·8
	Dinajpur	80·3	95·4	−15·1
13th "	Dhubri	74·1	89·4	−15·3

A brisk to rapid fall of temperature occurred over the greater part of the country on the 9th and another fall on the 12th—both partly due to showers on the hills—but the general distribution of temperature was not, on either occasion, materially modified.

Showers of rain occurred over the north-west Himalayas on the 15th and a sudden and large fall of temperature took place. A well-marked cool wave advanced into India apparently from the north-west and spread to nearly all parts of the country by the 18th. The following gives data for all divisions for these four days:—

Province or Division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of			
	15th April.	16th April.	17th April.	18th April.
	°	°	°	°
Burma	−1·3	−1·4	−2·3	−1·9
Assam	−4·7	−3·2	−0·8	−1·4
Bengal	+1·7	+2·3	+0·8	−0·6
Orissa	+2·2	+2·8	+1·5	+1·7
Bihar	+4·8	+4·0	+1·0	−0·8
Chota Nagpur	+4·0	+2·9	−2·1	−2·7

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF			
	15th April.	16th April.	17th April.	18th April.
	°	°	°	°
United Provinces of Agra and Oudh	+4·1	0	—5·5	—4·6
Punjab	—0·5	—7·2	—7·4	—3·4
North-West Frontier Province.	—1·3	—5·6	—5·8	—2·0
Sind	+0·6	—2·7	—3·8	—1·9
Rajputana	—0·6	—7·5	—7·6	—1·5
Gujarat	—0·1	—4·5	—4·0	—3·3
Central India	+2·9	—4·2	—8·4	—4·4
Central Provinces	+1·0	—2·0	—7·2	—5·9
Berar	+2·0	—1·9	—7·6	—5·4
West Coast	—1·2	—0·7	—1·1	—2·1
Bombay Deccan	—0·9	—1·8	—4·8	—3·2
Mysore	—0·8	—0·4	—0·2	+1·0
Madras Coast	+2·7	+3·3	+2·9	+2·8
Madras Deccan	+1·1	+1·5	—0·8	—1·5
South India	+1·3	+1·1	+3·0	+3·2

The depression of temperature was greatest and most widely extended on the 17th on which day maximum or minimum temperatures over 10° lower than usual were recorded at the following places :—

STATION.	DEPARTURE FROM NORMAL OF	
	Maximum, 17th April.	Minimum, 17th April.
	°	°
Bhamo	—14·8	— 3·0
Toungoo	—12·3	— 3·3
Sirsa	—10·8	— 7·8
Minbu	—10·5	+ 2·8
Lahore	—10·5	— 7·9
Ahmednagar	— 1·8	—14·2
Hoshangabad	— 8·4	—13·2
Nagpur	— 3·5	—12·8
Jubbulpore	— 6·8	—12·8
Dera Ismail Khan	— 1·5	—12·3
Sambhar	— 5·8	—12·2
Charda	— 1·5	—12·2
Montgomery	— 9·3	—11·7
Bikaner	— 6·2	—11·5
Poona	— 4·9	—11·4
Ajmer	— 5·2	—11·4
Indore	— 6·4	—11·2
Seoni	— 4·5	—11·2
Amraoti	— 5·5	—10·8
Neemuch	— 4·9	—10·1

On the 19th a general increase of temperature was in progress, more particularly in the north-west and from the 20th onward to the close of the month the distribution of temperature, relatively to the normal, was irregular. The principal features of the temperature conditions of this period were:— high temperatures over Bengal from the 23rd to the 26th and over the Punjab on the 26th and 27th and the sudden fall of temperature over north-west India on the 28th. At the close of the month the distribution of temperature, relatively to the normal, was still irregular, but the departures from the average were generally small; the following gives data for all provinces for the 30th :—

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF		
	Mean maximum temperature, 30th April.	Mean minimum temperature, 30th April.	Mean temperature, 30th April.
	°	°	°
Burma	—1·5	—0·1	—0·8
Assam	—1·5	—3·3	—2·4
Bengal	+0·8	+2·3	+1·6
Orissa	—0·6	+0·1	—0·3
Bihar	+4·1	+2·8	+3·5
Chota Nagpur	+3·2	+1·3	+2·3
United Provinces of Agra and Oudh	0	—0·2	—0·1
Punjab	—0·3	+2·0	+0·9
North-West Frontier Province	+0·9	+1·9	+1·4
Sind	+1·0	+1·1	+1·1
Rajputana	+0·3	—1·3	—0·5
Gujarat	—1·0	—1·1	—1·1
Central India	+0·5	—1·1	—0·3
Central Provinces	+2·3	—0·9	+0·7
Berar	+2·7	+2·4	+2·6
West Coast	—0·8	+0·9	+0·1
Bombay Deccan	+2·9	+1·9	+2·4
Mysore	—0·3	+1·1	+0·4
Madras Coast	—1·5	—1·3	—1·4
Madras Deccan	+0·6	—0·2	+0·2
South India	+1·9	+0·5	+1·2

Pressure.—The mean actual pressure of the month was highest in the extreme south, relatively high in the North-west Frontier Province and part of Mysore and lowest over the north Gangetic plain. Barometric gradients were steeper than usual and pressure, on the mean of the month, was lower than usual except over the south of the Bay and the east of the Arabian Sea where it was in trifling excess. On the mean of all stations pressure was 0·042″ below the average for the whole Indian region. Compared with this geographical mean, pressure was low

over extra-tropical and high over tropical India and Burma. The departures were greatest at the following stations :—

POSITIVE DEPARTURES.		NEGATIVE DEPARTURES.	
STATIONS.	Departure from normal of mean 8 A.M. pressure.	STATIONS.	Departure from normal of mean 8 A.M. pressure.
	"		"
Mergui	+·058	Mooltan	—·045
Port Blair	+·052	Debra Dun	—·045
Ratnagiri	+·047	Gaya	—·044
Mormugao	+·044	Benares	—·043
Mangalore	+·042	Bahraich	—·042
Trivandrum	+·041	Bareilly	—·042
		Roorkee	—·041

The following table gives the mean pressure departures and anomalies of the month for the eleven meteorological provinces of India :—

METEOROLOGICAL PROVINCE.	Departure from normal of mean 8 A.M. pressure of April 1904	Pressure anomaly, April 1904.
	"	"
Burma Coast and Bay Islands	—·004	+·038
Burma Inland	—·007	+·035
Assam	—·051	—·009
Bengal and Orissa	—·063	—·021
Gangetic Plain and Chota Nagpur	—·076	—·034
Upper Sub-Himalayas	—·077	—·035
Indus Valley and North-West Rajputana	—·058	—·016
East Rajputana, Central India and Gujarat	—·034	+·008
Deccan	—·036	+·006
West Coast	—·005	+·037
South India	—·029	+·013

Temperature.—The departures of the mean maximum or day temperatures from the normal were small over the greater part of the country. The mean day temperature was, however, in considerable defect over Burma (—0°·9 to —6°·9) ; Assam (—2°·8 to—3°·9) ; east Bengal (—2°·2 to—3°·6) ; the east of the Bay (Port Blair —4°·0) ; the west coast of the Peninsula (—0°·6 to—3°·4) and Gujarat (—0°·3 to—3°·7) while it was in considerable excess over west Bengal (+2°·2 to +2°·5) ; at some central stations (+2°·2 to +2°·7) ; over the south Madras coast (+2°·0 to (+3°·3) ; and over the western desert (+2°·0 to +4°·7).

The highest maximum recorded during the month was 113°·2 at Jacobabad on the 20th.

At most of the hill stations the mean maximum temperature was slightly excessive.

The mean minimum or night temperature was lower than usual over inland Burma, Assam, the east of the Central Provinces, parts of Chota Nagpur, of east and north Bengal, of Gujarat and the south Punjab and the central districts of the Peninsula. Elsewhere it was generally higher than usual. The following were the principal departures from the normal :—

POSITIVE DEPARTURES.		NEGATIVE DEPARTURES.	
STATIONS.	Departure from normal of mean minimum temperature.	STATIONS.	Departure from normal of mean minimum temperature.
	°		°
Ajmer	+3·1	Thayetmyo	—2·7
Jhansi	+3·1	Dhubri	—2·1
Pachpadra	+2·8	Bhamo	—2·0
Gaya	+2·6	Sambalpur	—2·0
Lavoy	+2·3		
Mooltan	+2·1		
Rawalpindi	+2·0		

At the hill stations the departures from the normal were generally small and somewhat irregular.

The mean temperature of the month was lower than usual over Burma, Assam, east Bengal, the west coast of the Peninsula, Gujarat and the south Punjab. The departures from the normal were generally unimportant except over inland Burma and Assam where they exceeded—2°·0. In all other parts of the Indian region the mean temperature exceeded the average, but the departures were small except over the western desert.

At the hill stations the departures from the normal were generally small and irregular.

The following table gives the mean departure data of the month for the eleven meteorological provinces :—

METEOROLOGICAL PROVINCE.	DEPARTURE FROM NORMAL OF		
	Mean maximum temperature, April 1904.	Mean minimum temperature, April 1904.	Mean temperature, April 1904.
	°	°	°
Burma Coast and Bay Islands	—3·3	+0·2	—1·5
Burma Inland	—4·6	—1·5	—3·0
Assam	—3·4	—1·4	—2·4
Bengal and Orissa	—0·8	+0·7	—0·1
Gangetic Plain and Chota Nagpur	+0·9	+1·0	+1·0
Upper Sub-Himalayas	+0·4	+0·9	+0·7
Indus Valley and North-West Rajputana.	+1·3	+1·0	+1·1
East Rajputana, Central India and Gujarat	+0·3	+1·1	+0·7
Deccan	+1·4	+0·2	+0·8
West Coast	—1·3	0	—0·7
South India	+1·2	+0·4	—0·8

Winds.—The wind was very unsteady and blew from south-west instead of from east by north at Port Blair, but on the Burma coast and over northern India generally, the wind directions, on the mean of the month, were approximately normal. Both the steadiness and velocity were, however, generally much in excess of the average. The latter was very marked at the head of the Bay at Saugor Island, where the normal mean diurnal velocity is 430 miles while the actual mean diurnal velocity was 628 miles. Over the Deccan and along the west coast the wind was steady from west-north-west and north-west, while on the Madras coast the mean direction was between south-south-east and south-south-west.

In the south-east trades region the winds were generally fairly normal though they were somewhat more easterly than usual at the Seychelles, less easterly than usual at Zanzibar, and about normal at Mauritius.

Humidity.—The air was damper than usual over a large part of the north-west dry area, of Gujarat, of the Central India plateau, of the Gangetic plain, of north-east India, and of the east coast, but was generally drier than usual elsewhere. The mean relative humidity of the month exceeded the normal over the greater part of the north-west dry area, Gujarat, the Central India plateau, the Gangetic plain, the Bombay coast, the interior of the Peninsula, north-east India and Burma. The excess was most marked at Bhuj (+16), Neemuch (+16), Jhansi (+16), and Kurnool (+15). Elsewhere the mean relative humidity was in defect of the average, more particularly at Rawalpindi (—11), Patiala (—11), Seoni (—16), Nagpur (—15), Sambalpur (—14), Chanda (—17) and Sholapur (—12).

At most of the hill stations the mean relative humidity was in defect.

The following table gives the mean monthly comparative data for the aqueous vapour pressure and humidity of the nine meteorological provinces of India:—

Meteorological Province.	Mean absolute humidity.		Mean relative humidity.	
	Average actual, April 1904.	Departure from normal, April 1904.	Average actual, April 1904.	Departure from normal, April 1904.
	"	"	%	
Burma Coast and Bay Islands	·856	—·022	77	0
Bengal and Orissa	·891	+·020	80	+2
Gangetic Plain and Chota Nagpur	·449	+·030	37	0
Upper Sub-Himalayas	·376	+·008	39	0
Indus Valley and North-West Rajputana.	·562	+·033	52	—2
East Rajputana, Central India and Gujarat.	·303	—·033	26	—2
Deccan	·364	—·030	31	—4
West Coast	·833	—·016	75	—2
South India	·682	+·023	62	+2

Cloud.—The mean cloud amount of the month was in excess of the average over north-east India and Burma, at a few places on the central Madras coast and at Port Blair, Colombo, Mysore, Bombay and Amini Divi. In all other places the sky was clearer than usual of cloud—more particularly over the east Punjab, the Central Provinces, Central India and the Deccan, and the south of the Peninsula. The greatest actual deficiency was in the extreme south at Trichinopoly (—2·8), Coimbatore (—2·3) and Cochin and Cuddalore (each —2·2).

In Kashmir and at Darjeeling the mean cloud amount was in excess of the average, but at all the remaining hill stations the sky was clearer than usual.

The following table gives comparative data of the mean cloud amount in the nine meteorological provinces of India:—

Meteorological Province.	Mean cloud amount.	
	Average actual, April 1904.	Departure from normal April, 1904.
Burma Coast and Bay Islands	4·8	+ 1·2
Bengal and Orissa	3·2	—0·6
Gangetic Plain and Chota Nagpur	0·2	—1·6
Upper Sub-Himalayas	1·6	—1·0
Indus Valley and North-West Rajputana	1·7	—1·1
East Rajputana, Central India and Gujarat	1·0	—1·1
Deccan	1·4	—1·3
West Coast	1·3	—0·8
South India	3·7	—0·7

Rainfall.—The weather was disturbed with frequent thunder-showers over Burma, Assam and east and north Bengal and the total rainfall of the month was in excess over the whole of this region. The excess was, relatively to the normal, greatest in Arakan and the total rainfall was more than twice as heavy as usual over that division and over upper Burma, Assam and east Bengal. Rain was also in slight local excess over Mysore, but in all other parts of the Indian region it was in defect and over south Bihar, the United Provinces (except the hills), the Punjab (except the central, submontane, and hills divisions), Khandesh, the Central Provinces, Rajputana, Central India, north Bombay, Baluchistan, and the central division of the east coast the total rainfall of the month was actually or practically *nil*.

In the south-east trades region the month's rainfall was about the average at the Seychelles and Mauritius, while it was in moderate excess at Zanzibar.

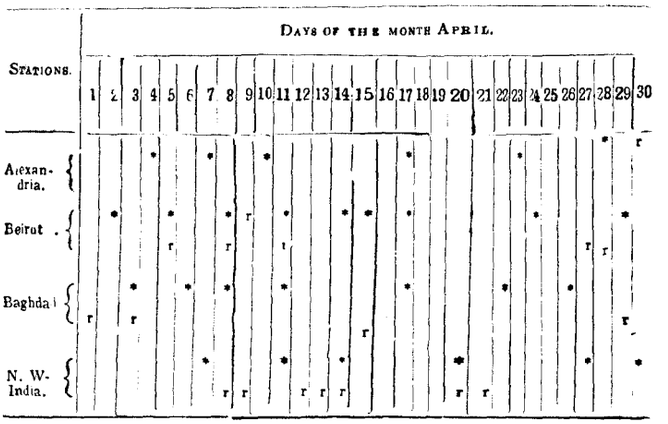
The following gives comparative rainfall data of the eleven meteorological provinces for the month:—

Meteorological Province.	Rainfall.			
	Mean actual for April 1904.	Mean normal for April.	Mean of departures from normal, April 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Burma Coast and Bay Islands	4·50	2·80	+2·11	+75
Burma Inland	2·60	1·13	+1·24*	+110
Assam	16·75	8·23	+8·51	+103
Bengal and Orissa	3·91	2·59	+1·31	+51
Gangetic Plain and Chota Nagpur	0·11	0·44	−0·33	−75
Upper Sub-Himalayas	0·13	0·52	−0·38*	−73
Indus Valley and North-West Rajputana.	0·11	0·36	−0·25	−69
East Rajputana, Central India and Gujarat.	0·01	0·06	−0·06	−100
Deccan	0·14	0·48	−0·33*	−69
West Coast	1·22	2·00	−0·78	−39
South India	0·65	1·42	−0·77	−54

* A reference to table I will show that the means of columns 2 and 3 are derived from a smaller number of stations than the means in the first column. The sum of the figures in columns 2 and 3 will, therefore, not agree with the figures in column 1.

General remarks on the monsoon area.—During the month of April the pressure was largely above the normal over western Siberia and this condition was accompanied with numerous slight depressions over north-west India. The European charts show that a series of slight depressions passed eastward along the Mediterranean Sea to the Black Sea area and some reached the Caspian. The principal disturbances were those between the 2nd and the 5th; the 5th and the 8th; and the 23rd and the 26th. They appear to have been slight generally as the weather was fine and litlte disturbed in Egypt where the mean pressure of the month was slightly above the normal and temperature low. There was no rain in the Sudan and the fall was normal in Egypt except at Cairo and Port Said where, owing to thunderstorms on the 29th, there was some excess. All the gauges on the Blue Nile, however, indicated higher readings at the end of the month than for the corresponding periods of the last three years. Heavy rain was reported from Abyssinia. Heavier rain than usual was also reported from the Seychelles and Zanzibar while at Aden the month's fall was actually *nil* or *0·38* below the normal. There was, so far as can be judged, no indication of a relation between the pressure changes in the south-east trades region and in south India at this time.

Turning to the north of the monsoon area again, the following shows the dates of the barometric minima (*) and of rainfall (r) at various stations during the month:—



The preceding data appear, in some cases at least, to indicate an advance of barometric minima eastward; for example, the minimum of the 4th at Alexandria apparently reached Beirut on the 5th, Baghdad on the 6th and north-west India on the 7th; that of the 23rd at Alexandria reached Beirut on the 24th, Baghdad on the 26th and north-west India on the 27th; and that of the 28th at Alexandria reached Beirut on the 29th, Baghdad on the 30th, and north-west India on the 1st May. At other times there appears to have been a more or less simultaneous tendency to depression production throughout the whole area.

The following table gives the daily departures of pressure from the normal for certain selected stations in the monsoon area and the mean of the whole number of stations:—

DEPARTURE FROM NORMAL OF PRESSURE.

Date.	Calcutta.	Lahore	Madras.	Colombo.	Bombay.	Bushire.	Aden.	Zanzibar.	Seychelles	Whole.
	"	"	"	"	"	"	"	"	"	"
1	−·008	+·027	−·031	−·031	−·068	+·017	+·035	+·018	−·010	−·006
2	−·035	+·024	−·036	−·049	+·050	−·017	−·056	−·004	−·011	−·028
3	−·050	−·028	−·038	−·054	−·025	−·022	−·081	−·036	−·049	−·043
4	−·077	−·070	−·079	−·065	−·038	+·024	−·078	+·006	−·001	−·042
5	−·213	−·254	−·121	−·085	−·143	−·056	+·044	+·005	+·020	−·089
6	−·287	−·306	−·131	−·134	−·151	−·139	−·101	−·023	−·033	−·151
7	−·166	−·230	−·164	−·092	−·114	−·063	−·068	+·014	−·00·	−·098
8	−·013	−·141	−·082	−·048	−·045	−·067	+·043	+·033	−·002	−·036
9	−·080	−·041	−·052	−·056	·036	+·032	−·067	+·023	0	−·031
10	−·112	·125	−·053	−·062	−·047	+·027	+·004	+·018	−·027	−·042
11	−·068	−·112	−·050	−·035	−·045	−·059	−·045	−·011	−·015	−·049
12	−·031	−·103	+·007	+·014	−·009	−·032	−·078	+·011	+·017	−·023
13	−·121	−·078	+·012	+·047	+·038	+·153	−·055	+·023	+·051	+·008
14	−·11·	−·247	−·018	+·046	+·025	+·103	+·025	+·005	+·073	−·011

DEPARTURE FROM NORMAL OF PRESSURE.

Date.	Calcutta.	Lahore.	Madras.	Colombo.	Bombay.	Bushire.	Aden.	Zanzibar.	Seychelles.	Whole.
	"	"	"	"	"	"	"	"	"	"
15 .	—·14	—·158	—·034	+·012	+·035	+·028	—·065	+·011	+·041	—·027
16 .	—·185	—·056	—·061	—·009	+·021	—·007	—·053	+·010	+·007	—·037
17 .	—·072	—·056	—·079	+·008	+·016	—·046	+·018	+·024	+·038	—·017
18 .	—·030	—·069	—·045	+·019	+·021	—·003	+·037	+·036	+·041	+·001
19 .	—·019	—·044	—·027	+·014	+·034	+·052	—·078	+·009	+·018	—·005
20	—·01[illegible]	—·070	—·003	+·016	+·051	+·023	—·065	—·012	—·009	—·009
21 .	+·002	+·007	+·003	+·029	+·022	+·057	—·059	—·012	+·003	+·006
22 .	—·048	+·047	+·024	+·052	+·017	+·062	—·033	—·023	+·027	+·014
23 .	—·127	—·057	—·031	+·023	—·023	+·034	—·062	—·020	+·020	—·027
24 .	—·106	—·069	—·046	+·008	—·022	+·05[illegible]	—·052	+·015	+·017	—·022
25 .	—·037	—·057	—·035	—·00[illegible]	+·009	—·001	+·035	+·014	+·013	—·007

DEPARTURE FROM NORMAL OF PRESSURE.

Date.	Calcutta.	Lahore.	Madras.	Colombo.	Bombay.	Bushire.	Aden.	Zanzibar.	Seychelles.	Whole.
	"	"	"	"	"	"	"	"	"	"
26 .	+·023	—·064	—·028	+·021	+·010	+·024	+·076	+·004	+·022	+·010
27 .	+·087	+·002	+·007	+·029	+·037	+·020	+·031	+·009	+·046	+·030
28 .	+·035	+·035	+·034	+·043	+·002	—·006	+·070	—·009	+·021	+·032
29 .	—·041	+·006	+·008	+·035	—·019	—·041	—·021	—·05[illegible]	—·017	—·016
30 .	+·005	—·011	+·024	—·003	—·02[illegible]	—·018	—·0[illegible]8	—·089	—·032	—·021

The above shows that pressure fell from the 1st to a minimum on the 6th. It then increased to a maximum on the 13th after which the departures were irregular till the 22nd between which date and the 28th there occurred another well-marked oscillation. On the 29th and 30th pressure again gave way.

Magnetic and Solar disturbances.

The following notes on solar and magnetic observations have been received:—

Kodaikanal:—The weather throughout the month was favourable for observations which were made on every day. In all 24 spots or groups of spots were seen, including 5 which were visible at the beginning of the month. On most days of the month there were 4 or 5 groups on the visible disc, and on no day were there fewer than two groups. Of the 19 new groups seen during the month no less than 14 were formed on the visible disc and most of them were comparatively short-lived—6 of them lasted for only one day, 3 for 2 days, and 2 for 5 days.

The largest group of the month (No. 254) appeared on the eastern limb on the 8th and was lost sight of at the western limb on the 21st. It was preceded and followed by a very large area of faculæ. A very fine group of prominences was seen close to the spot on the 21st and less conspicuous groups on the 22nd and 23rd. The two other most important groups (Nos. 265 and 266) both appeared at the eastern limb on April 21st. The latter of these was preceded by a large area of faculæ; and prominences of considerable size were seen near it on the 21st, 22nd, and 23rd. Nos. 254, 265, and 266 all belonged to the type of spot which undergoes very rapid changes; the main spots being accompanied by a large and variable number of small spots. On the other hand, spot No. 261 showed no important changes during the time from its first appearance at the eastern limb till its disappearance at the western limb. As regards distribution in latitude, spots were nearly twice as numerous in the northern hemisphere as in the southern. In the northern hemisphere all the spots had a latitude of between 20° and 30°, in the southern hemisphere they were all between 10° and 20°. One veiled spot appeared in the midst of a group of faculæ at the very high latitude of 48° but lasted apparently for less than a day.

The spectra of all the larger spots were carefully examined. The C. line was found to be disturbed at one time or another in most of the spots. Displacements indicating radial velocities were also observed on several occasions but in no case were the velocities very high. The highest velocity observed was in spot No 266 on the 26th when the C. line indicated a velocity away from the observer of about 58 miles per second.

Prominences have been observed on all days except the 1st, 2nd, 3rd, and 17th when the weather was unfavourable for this work. Their number and height have varied greatly but, on the whole, they were more numerous and taller in the second than in the first half of the month. The highest prominence measured was only a little over 50,000 miles but there were several groups which covered from 10° to 15° of the sun's limb.

There was a great magnetic disturbance on the 1st and moderate disturbances on the 2nd, 18th, and 19th but none of these could with any certainty be connected with solar phenomena.

C. Michie Smith, *Director*,

Kodaikanal and Madras Observatories.

Colaba Observatory, Bombay:—During the month the traces showed 8 calm days and 19 days of small, 2 days of moderate and one day of great magnetic disturbance, the last being recorded on the 1st.

Movements suspected to be due to seismic causes occurred on the 17th at about 9 P.M., the strain apparently lasting for about 5 hours.

The selected quiet days of the month were the 5th, 9th, 14th, 22nd and 27th.

Magnetic Disturbances.

April 1904.		April 1904.		April 1904.	
1	G.	11	S.	21	S.
2	S.	12	S.	22	C.
3	S.	13	S.	23	C.
4	S.	14	C.	24	S.
5	C.	15	S.	25	S.
6	S.	16	C.	26	S.
7	S.	17	S.	27	C.
8	S.	18	M.	28	C.
9	C.	19	M.	29	S.
10	S.	20	S.	30	S.

The magnitudes of the disturbances are determined from horizontal force traces.

C=Calm ; S=Small ; M=Moderate : G=Great ; V. G=Very great. Days are reckoned from midnight to midnight.

Five small seismic disturbances were recorded during the month, on the 4th, 5th, 9th, 13th and 24th.

The means of observed absolute values of the several elements as also the ranges and the summed ranges of the horizontal force and declination for the month are as follow :—

Declination	0° 14′ 33″.
Horizontal Force	0·37398 C.G.S. Unit.
Dip	21° 47′3
Horizontal Force range	·00050 C.G.S. Unit.
Horizontal Force summed* range	·00336 C.G.S. Unit.
Declination range	3·99
Declination summed* range	14′·99

(* Sum without regard to signs of 24 ordinates of diurnal inequality.)

N. A. F. Moos, *Director,*

Government Observatory, Bombay.

Alipore (Calcutta) Observatory.—List of displacements recorded by the Seismograph at the Alipore Observatory during April 1904 :—

Number.	Date 1904.	P. T. Commencement. G.M.T.	L. W. Commencement.	Maxima. G. M. T.	End. G. M. T.	Maxm. Amplitude in m. m.	Duration.	REMARKS.
		H. M.	H. M.	H. M.	H. M.		H. M.	
282	April 4	10-21·4	10-47·4	11-8·2	12-18·4	5·00	1 57 0	Sensibility 1 m. m. = 0″·42 of tilt.
283	„ 5	10-20·9	...	10-30 0	11-15·8	(a) 9·00	0-54·9	
284	„ 9	5-34·9	...	5-37·6	5-42 5	0·75	0- 7·6	
285	„ 13	19- 1·8	19-3 ·4	9·35·4	2[illegible]-9 1	·50	1-17·3	

(a) Measured from the top line.

The local times of the commencement.

Date 1904.	H. M.
April 4th	16-14·7
„ 5th	16-14·2
„ 9th	11-28·2
„ 13th	0-55 1

G. W. Küchler,

Asst. Meteor. Reporter to the Govt. of India.

Atmospheric Pressure.

The mean 8 A.M. pressure of the Indian land area averaged 0·042″ below the normal. The mean temperature of the area derived from the departures of the mean temperature from the normal at the various meteorological observatories was 0·2° above the normal so that this comparatively large pressure anomaly was not an effect of excessive temperature.

The actual distribution of the mean pressure of the month is shown in Plate I. Pressure was high at Minicoy, over the south of the Bay, part of Mysore and in Tenasserim, and was low in the region outlined by the stations of Bareilly, Bahraich, Lucknow and Gorakhpur. The mean pressure of the month was normal or in trifling excess over the east of the Arabian Sea and the south of the Bay, but was lower than usual elsewhere. Relatively to the geographical mean, pressure was high over Burma, the Peninsula, Central India and Gujarat and low elsewhere.

The following statement shows the more important pressure anomalies of the month :—

STATIONS.	Positive anomalies, April 1904.	STATIONS.	Negative anomalies, April 1904.
	″		″
Mergui	+·058	Mooltan	—·045
Port Blair	+·052	Dehra Dun	—·045
Ratnagiri	+·047	Gaya	—·044
Mormugao	+·044	Benares	—·043
Mangalore	+·042	Bahraich	—·042
Trivandrum	+·041	Bareilly	—·042
		Roorkee	—·041

The deficiency of pressure over northern India extended westward through Baluchistan and Afghanistan into Persia and Asiatic Turkey, but disappeared further to the westward, in Egypt, where the mean pressure of the month was slightly above the normal. Over the extreme south of the Indian region the mean monthly pressure was normal or in slight defect and apparently this condition extended southward into the Indian Ocean as the pressure departures at Zanzibar and Mauritius were small and unimportant.

At all the hill stations with the doubtful exception of Quetta, the mean monthly pressure was below the normal, the deficiency having been greatest at the central Himalayan stations. The departures from the normal were, however, with the exception of Mount Abu, everywhere smaller than at the neighbouring stations on the plains, so that the vertical pressure anomalies were, with the exception noted above, everywhere positive. The following data illustrate this condition :—

HILL STATION.	Departure from normal pressure, April 1904.	PLAIN STATION.	Departure from normal pressure, April 1904.	Vertical pressure anomaly (Hill—Plain).
	″		″	″
Quetta	+·020	Jacobabad	—·052	+·082
Leh	—·041	Lahore	—·075	+·034
Murree	—·044	Peshawar	—·069	+·025
Simla	—·042	Ludhiana	—·077	+·035
Chakrata	—·071	Roorkee	—·083	+·012
Ranikhet	—·069	Bareilly	—·084	+·015
Darjeeling	—·044	Dhubri	—·059	+·015
Mount Abu	—·035	Deesa	—·032	—·003
Pachmarhi	—·016	Seoni	—·043	+·027
Wellington	—·012	Coimbatore	—·025	+·013

The following is a summary of the chief abnormal features of the pressure distribution during the month under review:—

(1) Pressure over the Indian area was in defect by amounts averaging ·042.″

(2) Relatively to the geographical mean, pressure was in excess over Burma, the Peninsula, south Rajputana and Gujarat and in defect elsewhere.

(3) The defect was greatest at the foot of the central Himalayas.

(4) Pressure was in defect at the hill stations, but by smaller amounts than on the neighbouring plains.

Barometric depressions and cyclonic storms of the month.

The weather was quiet over the Indian area from the 1st to the 5th April. On the 6th a depression apparently developed over Mekran and neighbouring districts, the barometer at Jask having fallen 0·15″ between 8 A.M. on the 5th and 8 A.M. on the 6th. The reports of the 7th showed that the storm had advanced east-north-eastward to Sind, where pressure was 0·30″ below the normal. The winds had developed cyclonic directions over north-west India, and during the day duststorms and strong winds were experienced generally, with some showers of rain in the extreme north-west. By the following morning the storm, advancing north-eastward, had reached the south and central Punjab, but was filling up. Duststorms occurred on the plains, and thunderstorms, with rain, on the outer hills and snow in the interior were experienced over the Himalayas. By the morning of the 9th the storm had practically filled up. Another slight depression appeared over the western desert on the 10th. The storm slowly developed during this day, and on the morning of the 11th the barometer read 0·22″ below the normal at Mooltan and the weather was cloudy and unsettled over the north-west Himalayas. During the 11th the storm travelled east-north-eastward, and at 8 A.M. on the 12th lay over the east Punjab, where pressure was 0·13″ below the normal. The weather was showery over the north-west Himalayas. The storm apparently filled up during this day.

On the morning of the 13th yet another depression was shown entering the western desert. The barometer had fallen between 0·12″ and 0·19″ in Baluchistan and was falling briskly over the Indus valley, while the weather was becoming cloudy and unsettled in the north-west. The storm advanced east-north-eastward during the day and lay over the south Punjab on the morning of the 14th, when pressure was 0·24″ below the normal at Sirsa. The storm was still shown on the morning of the 15th, but the barmeter was beginning to rise, and the depression subsequently disappeared after giving thunderstorms to the hills and duststorms to the plains in the north-west.

During the 16th and 17th pressure was low along the foot of the eastern Himalayas, and strong westerly winds prevailed down the Gangetic plain and over the central parts of the country, but on the 18th another depression appeared over the western desert. The depression deepened somewhat during the 18th and 19th, and a large depression, having two centres, covered upper Sind and the Punjab on the morning of the 20th. Strong squally winds prevailed over the plains and thundershowers on the hills. The storm had practically disappeared by the morning of the 21st. Quiet weather prevailed from the 21st to the 25th, but on the latter date the barometer began to fall over Baluchistan and the western desert, and on the following morning, the 26th, a shallow storm was shown over the district represented by the stations of Jacobabad, Mooltan and Dera Ismail Khan. The storm moved north-eastward during the day, and at 8 A.M. on the 27th was central between Lahore and Montgomery and was occasioning thunderstorms on and near the hills. The disturbance had disappeared by the 28th, and the last three days of the month were generally quiet and undisturbed.

The preceding summary has shown that a series of slight to moderate depressions advanced across the Indus valley into north-west India, occasioning slightly disturbed weather over that area. In addition, several small, shallow depressions were developed over the central parts of India and west Bengal, but these were all, more or less, unimportant, and their influence on the weather was both temporary and slight.

Summary of the Reports of the Weather and Snowfall in the Mountain Districts to the North and North-West of India.

I.—AFGHAN MOUNTAIN DISTRICTS.

The following snowfall records have been received during the month:—

(1) *Killa Drosh.*—Between the 1st of December 1903 and May 14th, 1904, the snowfall was heavier than has been recorded during the past few years. The following gives particulars of the falls:—

Dates.	Area of snowfall.	Depth of snow.
20 Dec. 03 .	Over mountains around Killa Drosh . . .	Unknown
24 „ 03 .	Ditto ditto . . .	Do.
25 „ 03 .	Heavy over mountains, in Killa Drosh . .	4 inches.

Date.	Area of snowfall.	Depth of snow.
31 Dec. 03	Moderat over mountains	Unknown.
1 Jan. 04	Slight on mountains around Killa Drosh	Do.
3 „ 04	Heavy on mountains and in Killa Drosh	10 inches.
4 „ 04	Ditto ditto	10 inches.
7 „ 04	Slight on mountains	Unknown.
8 „ 04	Ditto	Do.
13 „ 04	Moderate on mountains	Do.
14 „ 04	Heavy on mountains and in Killa Drosh	1½ feet.
16 „ 04	Moderate on mountains	1 inch.
22 „ 04	Heavy at Drosh and on mountains	4 inches.
24 „ 04	Ditto ditto	23½ inches.
2 Feb. 04	Ditto ditto	6 inches.
7 „ 04	Ditto ditto	6 inches.
8 „ 04	Slight over mountains	Unknown.
21 „ 04	Ditto	Do.
1 Mar. 04	Ditto	Do.
2 „ 04	Ditto	Do.

In the middle of the month of January the depth of snow on the Lohari pass was 10 yards, while by the middle of May the pass was nearly clear. The mails were stopped for ten days in December, and the dâk runners were unable to run to time for about two months.

(2) *Kurram.*—Snow fell on the Sufed-i-Koh and on the higher peaks on the 8th, 10th, 27th, 28th and 30th April.

The accumulated snow on the Sufed-i-Koh was about 5 feet at the close of the month, at which time the passes were still closed.

II.—KASHMIR AND PUNJAB HIMALAYAS.

(1) *Leh.*—A slight sprinkle of snow fell at Leh on April 8th—9th and again on 27th—28th.

(2) *Kashmir.*—The depth of snow around the observatories in Kashmir was as follows :—

Observatories.	5th April.	12th April.	19th April.	26th April.
Minimarg	3 ft. 6 ins.	3 ft. 3 ins.	2 ft. 4 ins.	2 ft. 3 ins.
Sonemarg	2 ft.	1 ft. 6 „	1 ft.	0 „ 6 ins.
Dras	1 ft. 8 ins.	1 ft. 3 „	0 ft. 11½ ins.	0 „ 5½ ins.

The above shows that there was a steady decrease of snow during the month.

(3) *Simla.*—Snow fell as under :—

On 2nd April descending to 9,000 feet, where depth was 1 in.
„ 9th „ „ 9,000 „ „ „ 2 ins.
„ 12th „ „ 11,000 „ „ „ 1 in.
„ 13th „ „ 11,000 „ „ „ 2 ins.
„ 15th „ „ 11,000 „ „ „ 1 in.

The depth of snow on the passes, at the close of the month, was as follows :—

Rupin Pass . . . . 7 feet.
Bruin „ . . . . 7 „
Harang „ . . . . 1 foot 6 inches.
Shatul „ . . . . 6 feet.
Buldar „ . . . . 7 „
Runang „ . . . . 4 „

The snowfall was heavier than in the previous year.

Kulu.—Rain fell in the valleys and snow on the high passes and peaks between the 26th and 28th of March, and on the 9th, 12th to 15th and 21st of April 1904 the snowfall descending to 6,500 feet.

The following shows the depth of snow on the various passes at the close of the month :—

Kulu.		Plach.	
Rohtang	10 feet.	Srikhand	10 feet.
Hamta	8 „	Chul	2 „
Chandarkhani	6 „	Hingan	2 „
Barsai	4 „	Dundku	3 „
Bujadhar	2 „	Tikkar	2 „
Lohriachhri	3 „	Jalori	1 foot.
Bhuboo	1 feet.	Bhimri	1 „
Bastari	1 „	Skiran	2 feet.
		Gargarasan	5 „
		Supakun	2 „
		Bashleo	1 foot.
		Plach	3 feet.
		Tirath	5 „
		Raghopur	2 „

The snowfall of the month of April is considered to be somewhat less than that of the same month in previous years.

III.—UNITED PROVINCES HIMALAYAS.

(1) *Almora.*—The snowfall of the month of April was as follows :—

Malla Johar :— 1st to 10th April . . . 3 feet.
21st to 25th „ . . . 1 foot.
Malla Danpur :— 6th and 7th April . . 3 inches.
10th and 11th „ . . 3 „

On Byans and Darma a fall of snow occurred over the perpetual snows on the 8th and 9th.

The accumulated snow was as follows :—

Utadhura range . . . . 4 feet.
Ralamdhura „ . . . . 2 „
Millamdhura „ . . . . 1 foot.
Lipu Pass . . . . 2 yards.
Limpu „ . . . . 2½ „
Nirme „ . . . . 3 „

The snowfall of April 1904 is reported to be less than that of the same month last year.

Summary of Special Storm Reports.

The following records of local storms have been received from the observers:—

April 1st:—At 7 P.M. a very heavy duststorm passed over Hoshangabad. The storm lasted half an hour.

A duststorm was experienced at Khandwa between 3-25 and 4-20 P.M.

" *5th.*—A duststorm followed by a downpour of rain occurred at Rangoon between 6 P.M. and 8 P.M. About 2·80″ of rain fell.

" *6th.*—A thunderstorm accompanied with hail and rain was experienced at Ootacamund between 3-45 and 4 P.M.

" *7th.*—A severe nor-wester and duststorm passed over Burdwan at 5 A.M., when the storm lasted 20 minutes. Another storm passed at 7 P.M. lasting 15 minutes.

" *8th.*—A thunderstorm with hail and rain was experienced at Dodabetta between 2-30 and 3-15 P.M. There was a fall of 0·13″ of rain.

A storm with high winds and rain occurred at Srinagar between 2 P.M. and 6 P.M. There was a fall of 0·48″ of rain and snow fell on the higher mountains.

A severe thunderstorm passed over Sarain between 9 P.M. on the 8th and 4 A.M. on the 9th. Rain and hail fell.

" *9th.*—A thunderstorm commenced at Simla at 8-15 P.M. and continued till midnight. Rain and hail fell, the total amount being 0·15.″

" *10th.*—A thunderstorm was experienced at Ootacamund at 9-20 P.M. The wind force was at the rate of 25 miles per hour, and the rainfall amounted to 0·11.″

A thunderstorm passed over Srinagar between 9 P.M. and midnight. There was no rain.

" *11th.*—At Srinagar a thunderstorm occurred between 1 P.M. and 5 P.M. Light rain fell.

A thunderstorm occurred at Simla at 7-48 P.M., the storm lasting 45 minutes. Light rain and hail fell.

" *12th.*—At 2-40 P.M. a duststorm passed over Hoshangabad abating in 10 minutes.

14th.—A very heavy duststorm commenced at Hoshangabad at 2-40 P.M. and lasted half an hour. A second storm passed over the observatory at 11-50 P.M., the storm lasting 15 minutes.

A severe thunderstorm was experienced at Ootacamund at 4-15 P.M. The storm was followed by rain and hail, the total amount measured being 0·31.″

A thunderstorm occurred at Simla between 2-12 P.M. and 9 P.M. A heavy shower of rain occurred at 4-15 P.M.

April 15th.—Snow fell at Dras between 2 P.M. and 5 P.M.

A heavy duststorm was experienced at Hoshangabad between 11-0 and 11-30 A.M. A second storm passed at 1-30 P.M., lasting 45 minutes.

A thunderstorm occurred at Srinagar between 2 P.M. and 5 P.M. Light rain fell.

" *15th.*—A tornado or small cyclonic storm, which was attended by some loss of life and considerable damage to property, passed over a few villages in the Netrokona sub-division of the Mymensingh district during the night of the 15th. The storm only lasted a few minutes, but five persons were killed and about thirty were injured, while six hundred and twenty-three houses were destroyed and sixteen-houses damaged. The loss of property is estimated at R50,000.

" *16th.*—At Hoshangabad a heavy duststorm was experienced between 12-0 and 12-15.

" *20th.*—A hailstorm with stones of a large size was experienced at Ootacamund between 3 P.M. and 3-10 P.M. The rainfall measured 0·08,″ and temperature fell 7° in 10 minutes.

At Simla a thunderstorm occurred at 4-36 P.M. and lasted for one hour. The total rainfall was 0·08.″

" *21st.*—At 3-40 P.M. a very heavy duststorm passed over Hoshangabad. The storm lasted thirty minutes.

" *23rd.*—At 12 A.M. a heavy duststorm was experienced at Hoshangabad, the storm lasting fifteen minutes. Again at 1-40 P.M. another storm passed over, lasting thirty minutes.

A duststorm passed over Nagpur at 1 P.M., the storm lasting 30 minutes.

A duststorm lasting ten minutes passed over Pachmarhi at 3 A.M.

" *25th.*—A heavy duststorm was felt at Hoshangabad between 3-50 and 4-5 P.M.

At Nagpur a duststorm prevailed between 2 P.M. and 2-10 P.M.

April 29th.—Between 1-20 and 1-50 P.M. a duststorm was experienced at Hoshangabad.

A severe gale of wind and a snow-storm were experienced at Dras between 6 P.M. on the 26th and 6 P.M. on the 27th.

„ *27th.*—At Lahore a dust and thunderstorm was felt between 1-8 and 1-55 P.M. There was 0·32″ of rain.

„ *28th.*—At 2-40 P.M. a very heavy duststorm passed over Hoshangabad. The storm lasted half an hour. A second storm occurred at 12-15 A.M., lasting 15 minutes.

A thunderstorm occurred at Belgaum with strong winds.

„ *29th.*—A thunder and hailstorm occurred at Belgaum at 2-35 P.M. Total rainfall was 0·43.″

A tornado passed over three villages in the Pabna district (Bengal), causing the death of seven persons and injuries to thirty-one others. The damage to property is estimated at over ₹11,000. The path of the tornado was about 200 yards in breadth and one mile in length, and almost all the houses situated within this path were destroyed. Twenty heads of cattle were killed and about one hundred more were injured.

Earth-quake reports, April 9th.—A shock of earth-quake was felt at Pachpadra (Rajputana) at 10-43 A.M. The shock lasted one minute.

At Jodhpur the shock was felt at 10-49 A.M., the shock lasting thirty seconds. A rumbling noise was first heard and then doors and windows shook.

The following records of hailstorms have been received :—

April 4th.—At Cherrapoonjee and its adjacent villages a hailstorm, lasting three quarters of an hour, from 6 P.M., was experienced. The stones were of the size of a pea.

At Roha (Nowgong, Assam) a hail-storm occurred at about 4 P.M. The storm lasted about ten minutes, and the stones were about ½ inch in diameter.

„ *8th.*—In parts of Kamrup (Assam) a slight hail-storm was experienced. It lasted two minutes, and the maximum diameter of the stones was two inches.

A hailstorm passed over the Sialkot district. The storm came from the direction of Jummoo. It commenced about 5 P.M. and lasted one hour. The hailstones varied in weight from five mashas to half a chhatack (one oz.).

„ *9th.*—A hailstorm occurred around Shillong. The storm was very severe and lasted half an hour. The stones varied from the size of a walnut to that of a marble.

At Mowganj (Rewa, Central India) a hailstorm, lasting 10 minutes, was experienced. The hailstones were of small size.

April 11th.—At Sonemarg (Kashmir) a severe hailstorm occurred at 2-50 A.M., lasting five minutes.

„ *12th.*—At Roha (Nowgong, Assam) a slight hail-storm occurred. The storm lasted about 10 minutes, and the stones were about half an inch in diameter.

In the Bojali, tehsil of Barpeta (Assam), a slight storm was experienced, lasting 20 minutes, with hailstones of the size of a pea.

„ *13th.*—At Barpeta (Assam) a slight storm occurred, lasting 10 or 12 minutes, with stones about 1 inch in diameter.

„ *14th.*—A moderate storm occurred over parts of Kamrup. The storm lasted 15 or 16 minutes, and the maximum diameter of the stones was 1½ inch.

„ *14th.*—A hailstorm occurred on the night of the 14th in Bojali, tehsil Barpeta (Assam). The storm lasted 20 minutes, and the stones were of the size of a pea.

In the Nowgong district (Assam) a severe storm occurred. It lasted 10 minutes, and the stones were of great size.

In parts of Cachar slight to severe hailstorms occurred in the afternoon and night. The storms lasted from 2 to 10 minutes, and the stones varied in size from a pea to a potato.

At Cherrapoonjee there was a slight storm from 4 to 4-5 P.M. The stones were ½ inch in diameter.

„ *15th.*—In parts of Kamrup a slight hailstorm was experienced, lasting 10 minutes. The stones were from 1 to 2 inches in diameter.

„ *16th.*—At Roha (Nowgong, Assam) a slight storm occurred, lasting about 15 minutes. The stones measured ½ inch in diameter.

A slight storm was experienced at Dibrugarh. The storm lasted 5 minutes, and stones as large as walnuts are said to have fallen.

„ *18th.*—A moderate hailstorm passed over Cherrapoonjee. The storm lasted 15 minutes, and the stones were of the size of bullets.

„ *20th.*—A hailstorm occurred at about 6 P.M. in the Johi and Dadu talukas of Sind. The storm lasted 3 minutes, and the

diameter of the stones was from ¼ to ½ inch.

April 22nd.—In the Dharwar district hailstorms occurred, the stones varying in size from ¼ to ½ inch.

„ *24th.*—At Silchar a hailstorm—severe in some parganas—occurred, lasting 10 minutes. The stones were of the size of marbles.

„ *25th.*—A slight hailstorm was experienced in parts of Silchar, lasting 15 minutes The hailstones were the size of a marble.

At Nangpoh (Khasi Hills, Assam) a severe hailstorm was experienced. The storm lasted 20 minutes, and the stones were 2 inches in diameter.

„ *28th.*—In parts of Dharwar moderately severe hailstorms occurred. The storms commenced between 5 P.M. and 6 P M., and lasted from 5 to 15 minutes. The stones were from ⅜ to ½ inch in diameter.

April 29th.—Another hailstorm occurred in parts of Dharwar at 5-30 P.M., and lasted 15 minutes. The stones were ¼ inch in diameter.

The following are derived from newspaper reports:—

A severe thunderstorm burst over Rangoon on the evening of the 5th, when accidents occurred to the boats in the river.

A severe storm passed over Akyab in the early morning of the 6th. A number of boats in the harbour were damaged or carried on shore.

A heavy thunderstorm passed over Calcutta during the afternoon and evening of the 9th. Rain fell heavily, and the strong winds occasioned considerable damage.

Brief Summary of the weather in the Arabian Sea and Bay of Bengal during the month.

Arabian Sea.—Northerly winds prevailed over the Persian gulf and more or less variable winds over the Arabian Sea on the 1st and 2nd April. On the following day ordinary easterly winds set in and continued during 48 hours, but these winds were not maintained, and there occurred a strong outflow of northerly and north-westerly winds all over the sea between the 5th and the 10th. After the latter date variable winds re-appeared and continued till the 15th, when the wind returned to northerly, north-westerly and westerly directions. These winds lasted generally till the 19th, and over the Persian gulf and the north and west of the sea continued till nearly the close of the month.

The force, on the mean of the month, was 2·8, the normal force being 2·7. The mean force exceeded the normal on the 1st, 8th, and 9th, the 14th to the 18th, the 20th to the 24th, and the 26th to the 30th. The mean force was lowest on the 2nd, when, on the average of 25 vessels, it was only 1·9.

Bay of Bengal.—The winds were very steady over this area during the month. Southerly and south-westerly winds prevailed over the west and centre of the Bay and westerly winds in the east. These directions hardly changed throughout the month.

The average force, on the mean of the month, was 3·3, the normal force being 2·7, so that the wind was about 20% stronger than usual. The mean force exceeded the normal from the 5th to the 26th, and again on the 29th, and was highest on the 15th, when it averaged 4·8. On the first four and last three days of the month the wind was lighter than usual, and on the 2nd the mean force was only 1·9.

Equatorial Belt.—The wind was north-westerly during the first four days of the month. Easterly winds then appeared and continued till the 10th, but north-westerly and variable winds subsequently appeared, and it was not till after the 19th that south-easterly winds were established.

Temperature of the Air.

In April 1904 the mean temperature was about normal over the Indian area.

The mean maximum or day temperature varied irregularly from the normal. Over east Bengal, Assam, Burma and the north and east of the Bay the mean maximum temperature was lower than usual. The departures from

the normal were largest in Burma, and were more than 2° at the following stations:—

Station.	Mean maximum temperature		
	Actual, April 1904.	Normal, April.	Departure from normal, April 1904.
	°	°	°
Yamethin	95·4	102·3	—6·9
Moulmein	89·7	94·6	—4·9
Rangoon	93·8	98·6	—4·8
Tavoy	89·5	94·0	—4·5
Minbu	98·9	103·4	—4·5
Mandalay	97·8	102·3	—4·5
Bhamo	89·7	93·9	—4·2
Sibsagar	78·6	82·5	—3·9
Dhubri	85·1	88·7	—3·6
Toungoo	97·2	100·4	—3·2
Akyab	88·7	91·8	—3·1
Thayetmyo	99·9	103·0	—3·1
Bassein	93·3	96·2	—2·9
Silchar	85·7	88·5	—2·8
Narayanganj	90·4	93·2	—2·8
Jalpaiguri	87·0	89·5	—2·5
Chittagong	86·6	88·9	—2·3
Mymensingh	88·6	90·8	—2·2

The mean maximum temperature was also lower than usual over the west of the Peninsula and in Gujarat. Departures from the normal of 2°·0 or more were recorded at the following places:—

Area.	Station.	Mean maximum temperature.		
		Actual, April 1904.	Normal April.	Departure from normal, April 1904.
		°	°	°
West of the Peninsula.	Goa	85·8	89·2	—3·4
	Mormugao	88·1	90·1	—2·0
Gujarat	Veraval	84·0	87·7	—3·7
	Surat	97·9?	100·1	—2·2?

The mean maximum temperature was also lower than usual over the south and east Punjab and over parts of central India, but in these two areas the departures were unimportant.

In all other parts of the country the mean day temperature was in excess of the normal. The departures exceeded 2°·0 over south-west Bengal at several stations in the Peninsula, in east Ceylon and over the western desert. The following gives comparative data:—

Area.	Station.	Mean maximum temperature.		
		Actual, April 1904.	Normal, April.	Departure from normal, April 1904.
		°	°	°
Bengal	Balasore	100·0	97·5	+2·5
	Hazaribagh	100·5	98·1	+2·4
	Chaibassa	105·9	103·6	+2·3
	Burdwan	102·8	100·6	+2·2
Peninsula	Tinnevelly	101·8	98·0	+3·8
	Negapatam	95 8	92·5	+3·3
	Bijapur	102·8	99·8	+3·0
	Nagpur	108·2	105·5	+2·7
	Sambalpur	106·9	104·3	+2·6
	Ahmednagar	101·5	98·9	+2·6
	Chanda	109·0	106·5	+2·5
	Cocanada	98·0	95·6	+2·4
	Malegaon	105·4	103·2	+2·2
East Ceylon	Trincomalee	93·9	91·0	+2·9
Western Desert	Jacobabad	107·8	103·1	+4·7
	Mooltan	101·5	99·0	+2·5

At most of the hill stations the mean day temperature was higher than usual, but the departures were generally small.

The following gives the highest temperatures recorded during the month in the different divisions of India with the highest temperatures recorded in previous years:—

Province or Division.	Station.	Highest maximum temperature recorded in April, 1904.	Date on which recorded.	Highest maximum temperature recorded in April previous to 1904.	Year in which recorded.
		°		°	
Burma	Minbu	105·2	26th	110·6	1900
Assam	Gauhati	98·5	1st	96·0	1903
Bengal	Raniganj	111·4	15th	114·5	1898
Orissa	Balasore	109 0	16th	112·5	1892
Bihar	Daltonganj	111·0	28th	113·1	1898
Chota Nagpur	Chaibassa	110·5	30th	114·1	1896
United Provinces.	Mainpuri	110·2	27th	112 2	1807 and 1898.
Punjab	Mooltan	107·9	26th	114·0	1876
N.-W. F. Province.	D. I. Khan	101·2	25th	113·5	1892
Sind	Jacobabad	113·2	20th	117·1	1893

PROVINCE OR DIVISION.	STATION.	Highest maximum temperature recorded in April, 1904.	Date on which recorded.	Highest maximum temperature recorded in April previous to 1904.	Year in which recorded.
		°	°	°	
RAJPUTANA .	Pachpadra .	111·5	7th .	116·0	1894
GUJARAT . .	Ahmedabad .	109·8	5th .	115·3	1895
CENTRAL INDIA .	Sutna . .	107·1	27th .	112·6	1896
CENTRAL PROVINCES.	Chanda .	112·7	27th .	116·1	1879
BERAR . .	Akola . .	111·1	30th .	114·5	1898
WEST COAST .	Calicut .	92·3	8th, 28th and 29th.	94·9	1889, 1900 and 1902.
BOMBAY DECCAN	Malegaon .	108·8	30th .	111·8	1896
MYSORE . .	Chitaldroog .	100·2	28th .	103·2	1903
MADRAS COAST	Nellore .	108 8	19th .	113·8	1895
MADRAS DECCAN	Cuddapah .	110·3	18th .	112·3	1903
SOUTH INDIA .	Trichinopoly	107·2	18th .	109·2	1896

The above shows that the hottest weather generally occurred during the last week. Except in Assam, the recorded maxima have been considerably exceeded in previous years.

The mean minimum or night temperature exceeded the normal by small amounts over the greater part of the country. It was, however, lower than usual over inland Burma, Assam, parts of Chota Nagpur and of east and north Bengal, the central part of the Peninsula, and parts of Gujarat, of the Central Provinces and of the south Punjab. The departures were generally small, and amounted to or exceeded 2°·0 only at the following stations:—

PROVINCE OR DIVISION.	STATION.	MEAN MINIMUM TEMPERATURE.		
		Actual, April, 1904.	Normal April.	Departure from normal, April, 1904.
		°	°	°
Burma . .	Thayetmyo . .	73·1	75·8	−2·7
	Bhamo . . .	65·6	67·6	−2·0
Assam . .	Dhubri . . .	68·6	70·7	−2·1
Peninsula .	Mercara . .	62·0	64·2	−2·2
Central Provinces	Sambalpur . .	73·6	75·6	−2·0

Elsewhere, as mentioned above, the mean night temperature was in excess, but the departures amounted to or exceeded 2°·0 only at the following places:—

STATION.	MEAN MINIMUM TEMPERATURE.		
	Actual, April, 1904.	Normal, April.	Departure from normal, April, 1904.
	°	°	°
Ajmer	74·5	71·4	+3·1
Jhansi	79·8	76·7	+3·1
Pachpadra	72·4	69·6	+2·8
Gaya	77·5	74·9	+2·6
Tavoy	74·5	72·2	+2·3
Mooltan	70·7	68 6	+2·1
Rawalpindi	61·9	59·9	+2·0

At the north-western Himalayan and at the central hill stations the mean night temperature was higher than usual, but in Afghanistan, Baluchistan, and at Darjeeling and Wellington it was relatively low. This is shown below:—

HILL STATION.	MEAN MINIMUM TEMPERATURE.		
	Actual, April, 1904.	Normal, April.	Departure from normal, April, 1904.
	°	°	°
Ranikhet	59·2	57·1	+2·1
Chakrata	53·9	52·1	+1·8
Srinagar	46·8	45·4	+1·4
Gilgit	54·8	54·0	+0·8
Simla	53·0	52·2	+0·8
Kailang	31·8	31·3	+0·5
Cherat	58·0	57·9	+0·1
Pachmarhi	71·9	69·6	+2·3
Mount Abu	69·4	69·1	+0·3
Kabul	40·5	45·1	−4·6
Chaman	56·0	58·0	−2·0
Quetta	46·2	46·3	−0·1
Darjeeling	48·4	48·9	−0·5
Wellington	55·1	55·9	−0·8

The mean temperature of the whole Indian area was in excess by amounts averaging 0°·2. The temperature was lower than usual over Burma, Assam, east Bengal and the north and centre of the Bay, as well as over the west coast and parts of Gujarat and of the south Punjab, but was

higher than usual elsewhere. The following shows the principal departures from the average:—

STATIONS.	Positive departures, April, 1904.	STATIONS.	Negative departures, April, 1904.
	°		°
Jacobabad	+3·0	Yamethin	—3·9
Mooltan	+2·3	Moulmein	—3·3
Jhansi	+2·2	Bhamo	—3·1
Hazaribagh	+2·1	Thayetmyo	—2·9
Negapatam	+2·1	Dhubri	—2·9
Tinnevelly	+2·0	Minbu	—2·8
Ajmer	+2·0	Rangoon	—2·4
		Toungoo	—2·4
		Sibsagar	—2·3
		Mandalay	—2·2
		Silchar	—2·1

At the hill stations the mean temperature varied irregularly from the average.

The following gives temperature data for the extra-Indian stations for the month of April 1904:—

STATION.	MEAN TEMPERATURE. Actual, April, 1904.	Normal, April.	Departure from normal, April, 1904.
	°	°	°
Trincomalee	85·8	84·3	+1·5
Colombo	83·4	82·4	+1·0
Amini Divi	85·6	85·2	+0·4
Kabul	57·1	58·3	—1·2
Kashgar	59·2	60·4	—1·2
Teheran	58·7	60·7	—2·0
Ispahan	59·8	59·3	+0·5
Bushire	74·7	74·2	+0·5
Jask	80·7	80·2	+0·5
Muscat	83·5	83·1	+0·4
Baghdad	69·1	69·3	—0·2
Aden	83·1	83·2	—0·1
Perim	84·1	83·8	+0·3
Zanzibar	79·3	81·2	—1·9
Mauritius	74·1	75·3	—1·2

The preceding statement shows that the small departures from the normal which characterised the mean temperature conditions of India extended westward over Afghanistan, Baluchistan, Persia and Asiatic Turkey, but that in the south-east trades region the mean temperature was considerably lower than usual.

The following gives a summary of the chief abnormal features of the temperature conditions of the month in the Indian area:—

(1) Both the day and night temperatures and consequently also the mean temperature were below the normal over Burma, Assam, and east Bengal.

(2) Both the day and night temperatures and hence also the mean temperature were generally below the normal over the west of the Peninsula and Gujarat.

(3) Both the day and night temperatures and hence also the mean temperature were above the normal in most other parts of the country.

(4) The departures from the normal were generally small and the mean temperature of the whole area was nearly the average.

The following gives mean temperature data for the month for the 57 meteorological divisions of the empire:—

PROVINCE.	DIVISION.	ACTUAL TEMPERATURE. Mean maximum.	Mean minimum.	Monthly mean of mean between maximum and minimum.	Mean daily range.	Absolute range.	DEPARTURES FROM NORMAL OF MONTH OF Maximum.	Minimum.	Daily range.
		°	°	°	°	°	°		°
BURMA	Tenasserim	89·6	75·4	82·5	14·2	23·9	—3·7	+0·2	—3·9
	Lower Burma (Deltaic)	91·6	77·5	84·6	14·1	22·1	—2·9	+0·8	—3·7
	Central do.	98·6	73·8	86·2	24·8	35·7	—3·2	—2·2	—1·0
	Upper do.	94·3	72·9	83·6	21·4	34·7	—5·0	—1·0	—4·0
	Arakan	88·7	76·4	82·6	12·3	24·7	—3·1	+0·4	—3·5

Province.	Division.	Actual temperature.					Departure from normal of month of		
		Mean maximum.	Mean minimum.	Monthly mean of mean between maximum and minimum.	Mean daily range of temperature.	Absolute range.	Maximum.	Minimum.	Daily range.
		°	°	°	°	°	°	°	°
Bengal and Assam	Eastern Bengal	89·4	73·8	81·6	15·7	34·4	—2·3	0	—2·3
	Assam (Surma)	85·7	67·8	76·8	17·9	32·6	—2·8	—1·4	—1·4
	Do. (Hills)	70·9	57·0	63·9	13·7	29·4	...	...	...
	Do. (Brahmaputra)	81·9	66·8	74·4	15·2	32·4	—3·8	—1·4	—2·4
	Deltaic Bengal	97·2	77·6	87·4	19·6	33·1	—0·9	+ 1·0	—1·9
	Central do.	101·1	75·3	88·2	25·8	40·8	+ 0·7	+ 0·8	—0·1
	North do.	88·6	69·4	79·0	19·2	35·6	—2·2	0	—2·2
	Bengal Hills	57·9	42·9	50·5	15·0	28·7	—0·5	—0·5	0
	Orissa	94·1	78·7	86·5	15·4	25·9	+ 0·5	+ 1·4	—0·9
	Chota Nagpur	102·6	74·8	88·7	27·8	39·7	+ 2·1	+ 1·0	+ 1·1
	Bihar (South)	103·2	75·0	89·1	28·2	40·6	+ 0·4	+ 1·9	—1·5
	Do. (North)	98·2	72·0	85·1	26·2	40·9	+ 0·8	+ 1·1	—0·3
United Provinces of Agra and Oudh.	United Provinces (East)	104·0	73·0	88·5	31·0	43·0	+ 0·5	+ 0·8	—0·3
	Oudh (South)	103·2	72·3	87·8	30·9	45·0	+ 0·8	+ 1·4	—0·6
	Do. (North)	100·2	70·5	85·4	29·7	42·6	+ 0·6	+ 0·8	—0·2
	United Provinces (Central)	103·9	74·7	89·3	29·3	41·0	+ 1·0	+ 1·5	—0·5
	Do. (West)	101·3	71·5	86·4	29·8	41·8	+ 0·7	+ 0·6	+ 0·1
	Do. (East Submontane).	100·5	72·5	86·5	28·0	43·2	+ 0·1	+ 0·1	0
	Do. (West Submontane).	96·6	66·7	81·7	29·9	43·9	+ 1·0	+ 0·3	+ 0·7
	Do. (Hills)	73·3	55·6	64·4	17·7	35·4	+ 1·2	+ 2·0	—0·8
Punjab	Punjab (South-East)	100·1	74·7	87·4	25·4	38·9	+ 0·4	+ 1·2	—0·8
	Do. (South)	98·2	68·2	83·2	30·0	46·0	—0·6?	+ 0·5	—1·1?
	Do. (Central)	96·3	65·8	81·1	30·5	48·3	—1·9	+ 1·5	—3·4
	Do. (Sub-montane)	94·1	65·5	79·9	28·6	47·1	+ 0·4	+ 1·1	—0·7
	Do. (Hills)	63·5	42·2	52·9	21·4	39·6	0	+ 0·4	—0·4
	Do. (West)	99·1	69·1	84·1	30·0	48·4	+ 1·0	+ 0·9	+ 0·1
N.-W. F. Province	North-West Frontier Province	90·8	63·3	77·0	27·5	44·1	+ 0·1	—0·2	+ 0·3
Bombay and Malabar Coast Districts (Madras).	Malabar	89·4	78·3	83·9	11·1	17·3	—1·0	0	—1·0
	Madras (South Central)	99·0	75·4	87·2	23·6	30·7	—0·1	+ 0·8	—0·9
	Coorg	82·2	62·0	72·2	20·2	27·9	—1·7	—2·2	+ 0·5
	Mysore	93·9	68·7	81·3	25·3	34·8	+ 0·4	—0·8	+ 1·2
	Konkan	87·9	78·4	83·2	9·5	17·0	—1·6	0	—1·6
	Bombay Deccan	101·5	70·8	86·2	30·7	40·4	+ 0·9	—1·1	+ 2·0
	Hyderabad (North)	103·4	77·6	90·5	25·7	36·6	...	...	...
	Khandesh	103·5	71·6	87·6	31·9	46·1	+ 2·4	+ 0·9	+ 1·5
Central Provinces and Berar.	Berar	107·1	76·9	92·0	30·2	44·4	+ 1·6	+ 1·4	+ 0·2
	Central Provinces (West)	106·5	76·0	91·3	30·5	46·0	+ 1·5	+ 0·9	+ 0·6
	Do. (Central)	103·7	72·4	88·1	31·4	44·5	+ 1·2	+ 0·1	+ 1·1
	Do. (East)	104·4	75·0	89·8	29·4	40·9	+ 2·0	—1·0	+ 3·0
Bombay (North)	Gujarat	105·4	74·8	90·1	30·6	41·2	0	—0·4	+ 0·4
	Kathiawar and Cutch	95·6	72·9	84·3	22·7	32·8	—1·3	+ 0·7	—2·0
	Sind	101·7	73·0	87·3	28·7	45·6	+ 2·9	+ 1·3	+ 1·6
	Baluchistan Hills	78·9	48·1	63·5	30·7	48·8	+ 1·6	—1·1	+ 2·7
Rajputana and Central India.	Central India (East)	101·9	72·0	87·0	29·9	44·4	+ 0·7	+ 1·3	—0·6
	Rajputana (East), Central India (West)	102·6	73·5	88·1	29·1	43·7	+ 1·2	+ 1·1	+ 0·1
	Do. (West)	104·1	74·2	89·2	29·9	47·3	+ 0·7	+ 1·7	—1·0
Madras	East Coast (North)	91·4	78·6	85·1	12·8	21·6	+ 0·7	+ 0·6	+ 0·1
	Hyderabad (South)	103·7	77·5	90·6	26·2	36·2	+ 1·2	+ 0·4	+ 0·8
	Madras (Central)	105·2	78·8	92·0	26·4	39·1	+ 1·1	+ 0·2	+ 0·9
	East Coast (Central)	98·5	77·8	88·2	20·7	33·1	+ 1·6	+ 0·1	+ 1·7
	Do. (South)	97·7	78·2	88·0	19·6	28·5	+ 2·1	—1·0	+ 1·1
	Madras (South)	98·8	77·6	87·9	21·2	28·9	+ 2·3	+ 1·2	+ 1·1

The hottest areas were thus central Madras and Berar (92°·0), the west of the Central Provinces (91°·3), south Hyderabad (90°·6), north Hyderabad (90°·5) and Gujarat (90°·1); while the coolest plains district was the Brahmaputra valley (74°·4). The mean maximum temperature exceeded 105° in Berar (107°·1), the west of the Central

Provinces (106°·5), Gujarat (105°·4) and central Madras (105°·2). The mean diurnal range of temperature, which was generally less than usual over Burma and north-east and northern India and greater than usual elsewhere, was more than 30° over parts of the United Provinces, the Punjab, the Deccan, Khandesh, Gujarat and the Central Provinces, while it was only 9°·5 in the Konkan.

The following gives a brief account of the principal daily changes of temperature.

During the first four days of the month the weather was quiet and the mean temperature was generally low over the Peninsula and high elsewhere. Between the 5th and the 8th showers fell over Burma and north-east India and temperature was reduced to largely below the normal within the shower area, while it was generally high elsewhere—more particularly over the western desert.

The following gives comparative data for all divisions for these four days :—

Province or division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of			
	5th April.	6th April.	7th April.	8th April
	°	°	°	°
Burma	—1·7	—4·7	—7·4	—7·4
Assam	+0·1	—7·9	—10·0	—2·9
Bengal	+0·4	—5·2	—5·7	—4·5
Orissa	+1·2	+0·1	+0·9	+1·5
Bihar	+2·5	—2·8	—4·9	—2·6
Chota Nagpur	+1·9	+0·3	+0·3	+1·8
United Provinces of Agra and Oudh.	+2.2	+1·2	—0·7	+1·0
Punjab	+2·4	+2·7	+1·0	+6·0
North-West Frontier Province	+2·5	+4·8	+4·3	+5·9
Sind	+3·9	+6·5	+8·3	+7·2
Rajputana	+3·7	+4·4	+3·2	+5·2
Gujarat	+2·4	+3·0	+3·6	+2·4
Central India	+3·5	+3·2	+2·4	+3·8
Central Provinces	+2·8	+1·9	+2·8	+4·0
Berar	+4·0	+4·1	+6·1	+5·1
West Coast	+0·3	+0·6	+0·7	+0·6
Bombay Deccan	+3·8	+1·4	+0·1	+0·2
Mysore	+1·4	+0·9	+1·5	+0·7
Madras Coast	+0·5	+1·6	+3·2	+3·8
Madras Deccan	+2·3	+2·9	+2·6	+3·5
South India	+0·4	+0·6	+2·8	+3·7

The departures from the normal, both in the north-west where the temperature was in excess, and in the north-east where it was in defect, were most marked in the day temperature.

The following gives some of the more important examples between the 5th and the 8th :—

Date.	Departure from normal of maximum temperature of date.			
	Station.	Positive departures.	Station.	Negative departures.
		°		°
5th April	Jacobabad	+7·7	Tavoy	—5·3
	Khandwa	+6·5	Moulmein	—5·2
6th „	Hyderabad (Sind)	+11·3	Dhubri	—15·5
	Jacobabad	+9·8	Mymensingh	—15·4
7th „	Kurrachee	+11·5	Moulmein	—21·3
	Jacobabad	+10·5	Tavoy	—19·9
8th „	Jacobabad	+11·2	Minbu	—25 1
	Mooltan	+10·2	Mandalay	—20·3

A sudden fall of temperature occurred over the north-west on the 9th owing to showers in Kashmir and dust-storms on the plains, but generally betweeen the 9th and the 12th the mean temperature was high over north-west and central India and low elsewhere, more particularly in Burma where showers continued to fall. The following gives data for all divisions for the 11th and illustrates the general conditions of this period :—

Province or division.	Departure from normal of		
	Mean maximum temperature. 11th April.	Mean minimum temperature. 11th April.	Mean temperature. 11th April.
	°	°	°
Burma	—8·6	—2·5	—5·6
Assam	—8·9	—2·6	—5·8
Bengal	—6·8	—3·5	—5·2
Orissa	+2·6	+3·9	+3·3
Bihar	—3·5	+0·7	—1·4
Chota Nagpur	—0·1	—0·1	—0.1
United Provinces of Agra and Oudh.	+0·4	+0·7	+0·6
Punjab	+1·2	+3·7	+2·5
North-West Frontier Province.	—1·0	+4·8	+1·9
Sind	+4·0	+3·6	+3·8
Rajputana	+3·6	+4·8	+4·2
Gujarat	+0·1	—0·9	—0·4
Central India	+1·0	+2·8	+1·9
Central Provinces	+1·3	+2·0	+1·7
Berar	+2·6	+2·9	+2·8
West Coast	—1·6	0	—0·8
Bombay Deccan	+1·0	—0·5	+0·3
Mysore	0	—1·6	—0·8
Madras Coast	+1·0	+1·9	+1·5
Madras Deccan	—2·8	+0·3	—1·3
South India	—0·9	—0·9	—0·9

Owing to the showers the day temperatures were very low over Burma and north Bengal. The following gives examples of departures from the normal exceeding 15°:—

Date.	Station.	Maximum temperature. Actual of date.	Normal of date.	Departure from normal of date.
		°	°	°
9th April	Minbu	86·2	104·3	−18·1
	Yamethin	87·8	103·3	−15·5
	Thayetmyo	83·0	103·1	−15·1
11th ,,	Minbu	85·2	104·2	−19·0
	Yamethin	85·3	103·1	−17·8
	Mandalay	87·0	102·7	−15·7
	Dinajpur	80·3	95·5	−15·2
12th ,,	Bogra	81·3	97·1	−15·8
	Dinajpur	80·3	95·4	−15·1

On the 15th and 16th showers occurred in north-west India and some snow in Kashmir. These showers were accompanied, and followed by, a sudden fall of temperature over Baluchistan and north-west India. The following gives data for Baluchistan, Kashmir and the north-west divisions for the 14th, 15th and 16th, showing the extent of the change:—

Province or division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of 14th April.	15th April.	16th April.
	°	°	°
Baluchistan	+1·4	−10·2	−9·4
Kashmir	−2·4	−5·5	−7·6
Punjab	+0·8	−0·5	−7·2
North-West Frontier Province	−0·6	−1·3	−5·6
Sind	+3·6	+0·6	−2·7
Rajputana	+4·8	−0·6	−7·5
Gujarat	−0·1	−0·1	−4·5
Central India	+1·8	+2·9	−4·2

The fall extended over a large part of the country and on the 18th the mean temperature was low in all divisions except Orissa, Mysore, south India and the Madras coast. This is shown below:—

Province or division.	Departure from normal of Mean maximum temperature, 18th April.	Mean minimum temperature, 18th April.	Mean temperature, 18th April.
	°	°	°
Burma	−3·7	0	−1·9
Assam	−0·1	−2·7	−1·4
Bengal	+0·3	−1·4	−0·6
Orissa	+3·2	+0·1	+1·7
Bihar	−2·0	+0·5	−0·8
Chota Nagpur	−2·9	−2·4	−2·7
United Provinces of Agra and Oudh	−3·3	−5·8	−4·6
Punjab	−2·0	−4·7	−3·4
North-West Frontier Province	+1·3	−5·3	−2·0
Sind	+1·4	−5·1	−1·9
Rajputana	−1·4	−1·6	−1·5
Gujarat	−3·4	−3·1	−3·3
Central India	−3·8	−5·0	−4·4
Central Provinces	−3·4	−8·4	−5·9
Berar	−2·0	−8·7	−5·4
West Coast	−2·0	−2·2	−2·1
Bombay Deccan	−1·7	−4·7	−3·2
Mysore	+2·6	−0·7	+1·0
Madras Coast	+4·5	+1·0	+2·8
Madras Deccan	+1·6	−4·5	−1·5
South India	+4·1	+2·2	+3·2

On the 19th a general rise was taking place and the depression of temperature was disappearing. On the 20th the changes were variable and from that date to the close of the month the distribution of temperature, relatively to the normal, was irregular and the departures generally unimportant. The following gives comparative data for all divisions for the 24th showing the irregular character of the departures:—

Province or division.	Departure from normal of Mean maximum temperature, 24th April.	Mean minimum temperature, 24th April.	Mean temperture, 24th April.
	°	°	°
Burma	−2·3	−0·5	−1·4
Assam	−5·3	−1·4	−3·4
Bengal	+2·3	+2·5	+2·4
Orissa	+3·0	+0·4	+1·7
Bihar	+2·8	+2·8	+2·8
Chota Nagpur	+3·0	+4·1	+3·6

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF		
	Mean maximum temperature, 24th April.	Mean minimum temperature, 24th April.	Mean temperature, 24th April.
	°	°	°
United Provinces of Agra and Oudh	+1·4	−1·4	0
Punjab	0	−2·0	−1·0
North-West Frontier Province	+2·1	−3·0	−0·5
Sind	+2·6	−0·7	+1·0
Rajputana	+0·3	−2·0	−0·9
Gujarat	+0·2	−0·3	−0·1
Central India	+0·5	+1·7	+1·1
Central Provinces	+2·0	−1·4	+0·3
Berar	+2·6	+1·6	+2·1
West Coast	−1·2	+1·2	0
Bombay Deccan	+2·8	−0·3	+1·3
Mysore	+1·9	+0·5	+1·2
Madras Coast	+2·5	−0·6	+1·0
Madras Deccan	+3·3	+2·4	+2·9
South India	+2·5	+0·5	+1·5

On the 28th and 29th showers occurred in north-west India and some snow in Kashmir and a sudden fall of temperature followed in the north-west, but the general character of the temperature conditions was not materially modified thereby.

Winds.

The wind was very unusual at Port Blair where the mean direction was south-westerly instead of the normal east-north-east. The velocity was higher than usual, but the steadiness was low. The following gives data:—

STATION.	MEAN STEADINESS.			MEAN WIND DIRECTION.		MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, April 1904.	Normal percentage, April.	Departure from normal, April 1904.	Actual, April 1904.	Normal, April.	Actual, April 1904.	Normal, April.	Departure from normal, April 1904.
				°	°			
Port Blair	20	51	−31	S 40 W	N 83 E	165	115	+50

Along the Burma coast the velocity was low, but the wind's direction was approximately normal. Around the head of the Bay the wind's direction was also approximately normal, but the velocity and steadiness largely exceeded the average. This is shown below:—

STATION.	MEAN STEADINESS.			MEAN WIND DIRECTION.		MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, April 1904.	Normal percentage, April.	Departure from normal, April 1904.	Actual, April 1904.	Normal, April.	Actual, April 1904.	Normal, April.	Departure from normal, April 1904.
				°	°			
Chittagong	57	45	+12	S 25 W	S 12 W	238	166	+72
Calcutta	88	69	+19	S 19 W	S 30 W	173	168	+5
Saugor Island	90	76	+14	S 6 W	S 12 W	628	430	+198
False Point	90	80	+10	S 31 W	S 30 W	394	331	+63

Similar conditions prevailed over the Gangetic plain, where the wind blew from about the normal directions, but where both the velocity and steadiness exceeded the average. In the upper sub-Himalayas the mean wind was slightly more westerly and steadier than the normal, while in the Indus valley, with the exception of Peshawar, the wind directions were fairly normal. At Jacobabad the wind was more easterly than usual and very unsteady. The following gives data for this station:—

STATION.	MEAN STEADINESS.			MEAN WIND DIRECTION.		
	Actual percentage, April 1904.	Normal percentage, April.	Departure from normal, April 1904.	Actual, April 1904.	Normal, April.	Easterly deflection.
				°	°	
Jacobabad	8	13	−5	S 76 E	S 57 E	+19

In Rajputana the wind was more southerly and stronger and steadier than usual. The following gives data:—

STATION.	MEAN STEADINESS.			MEAN WIND DIRECTION.		MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, April 1904.	Normal percentage, April.	Departure from normal, April 1904.	Actual, April 1904.	Normal, April.	Actual, April 1904.	Normal, April.	Departure from normal, April 1904.
				°	°			
Jaipur	78	50	+28	S 83 W	N 57 W	125	120	+5
Deesa	71	56	+15	S 75 W	W	245	218	+27

The following gives mean comparative data of air movement for the different divisions of northern India and for Burma and the Bay Islands:—

Province or division.	Mean steadiness.			Mean wind velocity in miles per diem.		
	Actual percentage, April 1904.	Normal, percentage, April.	Departure from normal, April 1904.	Actual, April 1904.	Normal, April.	Departure from normal, April 1904.
Bay Islands	38	52	−14	165	115	+50
Burma	63	57	+ 6	101	143	−42
Bengal	78	63	+15	346	255	+91
Bihar	55	16	+39	138	137	+ 1
Chota Nagpur	63	46	+17	243	214	+29
Orissa	90	80	+10	394	331	+63
United Provinces of Agra and Oudh.	56	32	+24	94	80	+14
Punjab	43	29	+14	75	68	+ 7
North-West Frontier Province.	33	25	+ 8	94	96	− 2
Rajputana	75	53	+22	185	169	+16
Sind	46	47	− 1	202	209	− 7

The above shows that accompanying the larger pressure differences than usual both the steadiness and the velocity considerably exceeded the normal almost everywhere.

Very steady north-westerly winds prevailed throughout the Deccan and the force was generally above the average. The wind was also very steady, between west by north at Bombay and north-west at Karwar, along the west coast. The velocity was above the normal at Karwar and below at Bombay.

At Madras the mean wind direction was south-south-easterly and at Waltair south-south-westerly, but in the interior the directions varied between west-south-west and west-north-west. The steadiness was, on the whole, greater than usual.

The following gives mean comparative data of the air movement over the Peninsula:—

Province or division.	Mean steadiness.			Mean wind velocity in miles per diem.		
	Actual percentage, April 1904.	Normal percentage, April.	Departure from normal, April 1904.	Actual, April 1904.	Normal, April.	Departure from normal, April 1904.
Central Provinces	74	41	+33	154	150	+ 4
Berar	70	57	+13	214	179	+35
Bombay Deccan	53	24	+29	292	263	+29
Madras Deccan	37	7	+30	132	169	−37
West Coast	75	67	+ 8	175	185	−10
Mysore	32	19	+13	146	137	+ 9
Madras Coast	85	83	+ 2	200	182	+18
South India	32	28	+ 4	57	110	−53

The above shows greater steadiness and generally greater velocity over this region also.

The mean winds varied irregularly from the average at the hill stations in the north-west, the largest departures from the normal being reported from Simla and Chakrata. The following gives data for these two stations:—

Hill Station.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, April 1904.	Normal percentage, April.	Departure from normal, April 1904.	Actual, April 1904.	Normal, April.	Actual, April 1904.	Normal, April.	Departure from normal, April 1904.
				°	°			
Simla	28	10	+18	N	N 81 W	127	149	−22
Chakrata	59	23	+36	S 17 E	S 54 W	289	180	+109

At the central hill stations the winds were less westerly than usual, but the departures were not important.

At Aden and Perim the mean wind was south-easterly and both the velocity and steadiness were less than usual. The following gives data:—

Station.	Mean steadiness.			Mean wind (direction.)		Mean wind velocity in miles per diem.		
	Actual percentage, April 1904.	Normal percentage, April.	Departure from normal, April 1904.	Actual April 1904.	Normal April.	Actual, April 1904.	Normal, April.	Departure from normal, April 1904.
				°	°			
Aden	33	67	−34	S 43 E	N 87 E	139	370	−231
Perim	45	63	−18	S 43 E	S 60 E	370	432	− 62

The mean wind was more easterly than usual at the Seychelles and less easterly than usual at Zanzibar while it was about normal at Mauritius. The velocity was about the average. This is shown below:—

Station.	Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual, April 1904.	Normal, April.	Actual, April 1904.	Normal, April.	Departure from normal, April 1904.
	°	°			
Seychelles	S 76 E	S 63 E	83	...	...
Zanzibar	S 4 W	S 5 E	172	170	+ 2
Mauritius	S 66 E	S 70 E	190	205	−15

The following summarises the chief abnormal features of the wind's circulation:—

(1) The wind was unusually southerly and unsteady at the Bay Islands.

(2) The wind was stronger and steadier than usual over northern India. This increased velocity was particularly marked at Saugor Island.

(3) The winds were normal generally over the Peninsula.

(4) There was more easting than usual in the wind's direction at the Seychells.

Humidity and Cloud.

The air contained more vapour than usual over the greater part of the north-west dry area, Central India north and central Bengal, the east coast of the Peninsula and inland Burma, but less than usual elsewhere, more especially over the Central Provinces.

The mean relative humidity exhibited generally similar departures. The mean relative humidity was in excess of the normal over the greater part of the north-west dry area, Gujarat, the Bombay coast and Central India, the departures from the normal amounting to +5 or more at the stations for which comparative data are given below:—

Station.	Relative Humidity.		
	Actual, April 1904.	Normal, April.	Departure from normal, April 1904.
	%	%	
Neemuch	51·0	34·9	+16·1
Jhansi	44·0	28·0	+16·0
Bhuj	71·0	55·3	+15·7
Deesa	50·0	40·0	+10·0
Veraval	82·0	72·1	+ 9·9
Ahmedabad	55·0	46·9	+ 8·1
Indore	46·0	39·0	+ 7·0
Poona	48·0	41·0	+ 7·0
Dera Ismail Khan	59·0	53·5	+ 5·5
Lahore	52·0	46·9	+ 5·1

The mean relative humidity was also generally in excess over north-east India and Burma, the excess over these areas being largely an effect of the prevailing low temperature. At the following stations the excess was more than 5:—

Station.	Relative Humidity.		
	Actual, April 1904.	Normal, April.	Departnre from normal, April 1904.
	%	%	
Bhamo	83·0	73·8	+9·2
Minbu	69·0	60·1	+8·9
Bogra	83·0	76·5	+6·5
Thayetmyo	68·0	62·4	+5·6
Tavoy	88·0	82·5	+5·5
Jalpaiguri	81·0	75·8	+5·2
Dhubri	84·0	78·8	+5·2

The mean relative humidity was also in excess over the central districts of the Peninsula. The departures exceeded +5 at the following places:—

Station.	Relative Humidity.		
	Actual, April 1904.	Normal, April.	Departure from normal, April 1904.
	%	%	
Kurnool	69·0	54·3	+14·7
Mysore	83·0	73·5	+9·5
Gulbarga	58·0	49·5	+8·5
Mercara	85·0	77·6	+7·4
Bellary	60·0	52·8	+7·2

Over the remainder of the country the mean relative humidity was generally lower than usual, the deficiency having been considerable over the central and east Punjab and part of North-West Frontier Province, the west of the Unitd Provices, the Central Proivnces, part of lower Sind, the Bombay Deccan, the extreme south of the Peninsula, and west Bengal. The departures from the normal were more than —5 at the following large number of stations:—

Province or Division.	Station.	Relative Humidity.		
		Actual, April, 1904.	Normal, April.	Departure from normal, April 1904.
		%	%	
Punjab	Umballa	42·0	53·3	—11·3
	Rawalpindi	45·0	56·2	—11·2
	Montgomery	27·0	37·9	—10·9
	Mooltan	40·0	47·8	— 7·8
	Khushab	35·0	42·1	— 7·1
N.-W Frontier Province.	Peshawar	52·0	61·5	— 9·5
United Provinces.	Roorkee	34·0	41·4	— 7·4

Province or Division.	Station.	Relative Humidity. Actual, April 1904.	Normal, April.	Departure from normal, April 1904.
		%	%	
Central Provinces.	Chanda	28·0	44·9	—16·9
	Seoni	23·0	38·5	—15·5
	Nagpur	21·0	36·3	—15·3
	Sambalpur	37·0	51·3	—14·3
	Raipur	26·0	36·6	—10·6
	Hoshangabad	31·0	37·7	— 6·7
Lower Sind	Kurrachee	68·0	77·5	— 9·5
Bombay Deccan	Sholapur	27·0	39·4	—12·4
	Bijapur	49·0	60·1	—11·1?
Peninsula	Tinnevelly	61·0	70·7	— 9·7
	Cuddalore	72·0	80·5	— 8·5
	Madura	64·0	71·3	— 7·3
Bengal	Ranchi	33·0	44·2	—11·2
	Hazaribagh	28·0	35·5	— 7·5
	Balasore	72·0	78·2	— 6·2
	Gaya	46·0	51·1	— 5·1

The mean relative humidity of the month was below 30% at the following stations :—

Station.	Actual Relative Humidity, April 1904.
	%
Hazaribagh	28
Chanda	28
Aurangabad	28
Montgomery	27
Sholapur	27
Akola	27
Saugor	27
Raipur	26
Jaipur	25
Seoni	23
Sutna	22
Nagpur	21
Pendra	20
Kotah	19

The area of greatest dryness, on the mean of the month, hence included eastern Rajputana and the Central Provinces and neighbouring districts, and within these areas th ef ollowing low humidities were recorded on the following dates :—

Station.	Date.	Hour.	Lowest humidity recorded during April 1904.
			%
Nagpur	19th	8 A.M.	10
Montgomery	16th	,,	10
Jodhpur	15th	,,	10
Kurrachee	15th	,,	10
Lucknow	17th	,,	10
Hanumkonda	17th	,,	10
Pachmarhi	18th	,,	10
Jodhpur	16th	,,	9
Allahabad	17th	,,	9
Lucknow	19th	,,	9
Pachmarhi	16th	,,	9
Deesa	16th	,,	8
Sutna	17th	,,	8
Hazaribagh	17th	,,	7
Pachmarhi	17th	,,	6
Kotah	18th	,,	4

The mean relative humidity was less than usual at most of the hill stations on the north-west Himalayas and at Quetta and Chaman. The following gives data :—

Hill Station.	Relative Humidity. Actual, April 1904.	Normal, April.	Departure from normal, April 1904.
	%	%	
Murree	38·0	46·3	—8·3
Gilgit	43·0	49·8	—6·8
Leh	41·0	47·6	—6·6
Ranikhet	41·0	47·5	—6·5
Cherat	43·0	48·4	—5·4
Simla	37·0	40·0	—3·0
Chakrata	41·0	43·3	—2·3
Quetta	43·0	52·1	—9·1
Chaman	44·0	53·1	—9·1

The mean relative humidity was in defect at Mount Abu though at Deesa it was in considerable excess. This is shown below :—

STATION.	RELATIVE HUMIDITY.		
	Actual, April 1904.	Normal, April.	Departure from normal, April 1904.
	%	%	
Mount Abu	26·0	28·5	— 2·5
Deesa	50·0	40·0	+10·0

At Pachmarhi, as at the neighbouring plains stations, the relative humidity, on the mean of the month, was in defect. The following gives comparative data :—

STATION.	RELATIVE HUMIDITY.		
	Actual, April 1904.	Normal, April.	Departure from normal, April 1904.
	%	%	
Pachmarhi	23·0	29·4	—6·4
Hoshangabad	31·0	37·7	—6·7

At Perim both the absolute and relative humidities were in excess while at Aden the former was in excess and the latter in slight defect. This is shown below :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, April 1904.	Normal April.	Departure from normal, April 1904.	Actual, April 1904.	Normal, April.	Departure from normal, April 1904.
	"	"	"	%	%	
Aden	·804	·791	+·013	72·0	74·0	—2·0
Perim	·872	·839	+·033	80·0	76·1	+3·9

In the south-east trades region the departures of the mean relative humidity from the normal were irregular. The following gives data :—

STATION.	RELATIVE HUMIDITY.		
	Actual, April 1904.	Normal, April.	Departure from normal, April 1904.
	%	%	
Zanzibar	90·0	85·6	+4·4
Seychelles	83·0	80·0	+3·0
Mauritius	79·0	81·0	—2·0

The sky was more cloudy than usual over Burma and part of north-east India, the increased cloudiness being most marked over Assam and east and north Bengal. The excess in the cloud amount was 1·0 or more at the following places :—

STATION.	MEAN CLOUD AMOUNT.		
	Actual, April 1904.	Normal, April.	Departure from normal, April 1904.
Jalpaiguri	4·8	2·8	+2·0
Dinajpur	5·9	4·1	+1·8
Bogra	5·5	3·8	+1·7
Narayanganj	7·4	5·9	+1·5
Dhubri	6·4	5·0	+1·4
Mymensingh	6·4	5·3	+1·1
Sibsagar	7·9	6·9	+1·0
Moulmein	5·2	4·0	+1·2
Bhamo	4·9	3·8	+1·1

Cloud, on the mean of the month, was also locally in excess at the Bay Islands, on the central Madras coast, at Mysore, Colombo, Amini Divi, and Bombay. The following shows the departures from the average :—

STATION	MEAN CLOUD AMOUNT.		
	Actual, April 1904.	Normal, April.	Departure from normal, April 1904.
Port Blair	5·9	4·4	+1·5
Waltair	5·5	3·7	+1·8
Cocanada	4·7	3·8	+0·9
Masulipatam	4·4	4·0	+0·4
Mysore	4·7	4·4	+0·3
Colombo	5·7	4·9	+0·8
Amini Divi	6·1	4·9	+1·2
Bombay	3·5	3·1	+0·4

Over the whole of the remainder of the country, including most of the hill stations, the sky, on the mean of the month, was clearer than usual of cloud. This was especially the case over the east Punjab, the central parts of the country, west Bengal, the north Circars and the south of the Peninsula. The deficiency in the mean cloud amount equalled 1·5 or more at the following places:—

Province or division.	Station.	Mean cloud amount. Actual, April, 1904.	Normal, April.	Departure from normal, April, 1904.
Punjab	Sirsa	0·9	2·9	−2·0
	Ludhiana	1·0	2·7	−1·7
Central parts of India.	Nagpur	0·3	2·5	−2·2
	Chanda	0·3	2·4	−2·1
	Raichur	0·6	2·7	−2·1
	Raipur	0·5	2·5	−2·0
	Sambalpur	0·2	2·2	−2·0
	Seoni	0·1	2·1	−2·0
	Bijapur	0·4	2·3	−1·9
	Malegaon	0·1	2·0	−1·9
	Akola	0·1	1·9	−1·8
	Amraoti	0·3	2·1	−1·8
	Gulbarga	0·8	2·5	−1·7
	Hoshangabad	0·1	1·7	−1·6
	Jubbulpore	0	1.6	−1·6
	Lucknow	0·1	1·7	−1·6
	Sholapur	1·1	2·6	−1·5
West Bengal	Hazaribagh	0·3	2·0	−1·7
	Chaibassa	0·2	1·8	−1·6
North Circars	Gopalpur	0·5	3·5	−3·0
	Balasore	1·7	4·0	−2·3
Peninsula	Trichinopoly	1·4	4·2	−2·8
	Coimbatore	2·2	4·5	−2·3
	Cochin	2·3	4·5	−2·2
	Cuddalore	2·2	4·4	−2·2
	Madura	1·9	4·0	−2·1
	Calicut	2·9	4·9	−2·0

The deficiency was hence greatest at Gopalpur and over the south of the Peninsula, but the actual mean cloud amount was least at the most central stations and in west Bengal. At the following places the mean cloud amount of the month was less than 0·3:—

Station.	Mean cloud amount. Actual, April 1904.
Chaibassa	0·2
Benares	0·2
Kotah	0·2
Bhuj	0·2
Khandwa	0·2
Saugor	0·2
Sambalpur	0·2
Chapra	0·1
Lucknow	0·1
Bahraich	0·1
Pachpadra	0·1
Nowgong	0·1
Indore	0·1
Jhansi	0·1
Malegaon	0·1
Akola	0·1
Hoshangabad	0·1
Seoni	0·1
Aurangabad	0·1
Daltonganj	0
Arrah	0
Mainpuri	0
Neemuch	0
Jubbulpore	0

The mean cloud amount was below the normal at Aden, but was, on the contrary, greater than usual at the stations in the south-east trades region. The following gives data:—

Station.	Mean cloud amount. Actual, April, 1904.	Normal, April.	Departure from normal, April, 1904.
Seychelles	4·9	...	...
Zanzibar	7·7	6·0	+1·7
Mauritius	6·4	5·7	+0·7

Rainfall.

Frequent thunderstorms and showers rendered the month more disturbed than usual over the Burma coast and north-east India, but in other parts of the Indian area the rainfall during April was lighter than the normal, the storms in the north-west having given very little rain to that region. Moderate snow was, however, received over the interior of the Himalayas.

The principal periods of rainfall were:—

The 1st and 2nd, when south India received showers.

The 5th to 8th, when Burma and north-east India received constant thundershowers.

The 9th to 14th, when north-east and north-west India received showers.

The 22nd to 30th, when Assam and north Bengal received thundershowers.

The following table gives comparative rainfall data for the 57 meteorological or rainfall divisions of the empire:—

Province.	Division.	Number of rainy days.		Rainfall.		
		Average actual, April, 1904.	Average normal, April.	Average actual, April, 1904.	Average normal, April.	Departure from normal, April, 1904.
				Inches.	Inches.	Inches.
Burma	Tenasserim	7·6	5·0	6·67	4·00	+2·67
	Lower Burma (Deltaic)	2·7	2·5	1·97	1·81	+0·16
	Central do.	2·6	1·7	1·83	0·94	+0·89
	Upper do.	4·7	2·2	2·51	1·14	+1·37
	Arakan	5·3	1·7	4·64	1·44	+3·20
Bengal and Assam	Eastern Bengal	7·4	5·1	10·16	4·42	+5·7
	Assam (Surma)	19·6	12·1	28·46	13·08	+15·38
	Do. (Hills)	14·8	9·0	16·69	8·01	+8·68
	Do. (Brahmaputra)	17·3	11·5	14·55	8·09	+6·46
	Deltaic Bengal	2·6	3·5	2·29	2·29	0
	Central do.	1·5	2·4	0·80	1·39	−0·59
	North do.	7·5	4·7	5·08	3·61	+1·47
	Bengal Hills	11·0	8·6	6·11	4·87	+1·24
	Orissa	0·3	2·1	0·19	1·27	−1·08
	Chota Nagpur	0·9	1·7	0·37	0·89	−0·52
	Bihar (South)	0·1	0·7	0·04	0·29	−0·25
	Do. (North)	0·7	1·3	0·24	0·80	−0·56
United Provinces of Agra and Oudh.	United Provinces (East)	0·1	0·3	0·02	0·13	−0·11
	Oudh (South)	0	0·3	0	0·10	−0·10
	Do. (North)	0	0·4	0·02	0·17	−0·15
	United Provinces (Central)	0	0·3	0·01	0·09	−0·08
	Do. do. (West)	0	0·5	0 01	0·15	−0·14
	Do. do. (East Submontane)	0	0·5	0	0·25	−0·25
	Do. do. (West do.)	0 2	0·8	0·07	0·33	−0·26
	Do. do. (Hills)	1·2	2·6	0·38	1·12	−0·74
Punjab	Punjab (South-East)	0·1	0·6	0·01	0·18	−0·17
	Do. (South)	0	0·5	0	0·22	−0·22
	Do. (Central)	0·1	1·2	0·11	0·51	−0·40
	Do. (Submontane)	0·1	1·6	0·18	0·74	−0·56
	Do. (Hills)	3·2	3·3	1·11	1·91	−0·80
	Do. (West)	0·1	0·9	0·03	0·37	−0·34
North-West Frontier Province.	North-West Frontier Province	1·7	3·0	0·43	1·48	−1·05
Bombay and Malabar Coast Districts (Madras).	Malabar	3·6	4·8	1·67	3·35	−1·68
	Travancore	5·9	...	3·49	...	...
	Madras (South Central)	2·3	2·8	1·10	1·72	−0·62
	Coorg	7·5	...	3·67	...	...
	Mysore	3·6	2·4	1·70	1·20	+0·50
	Konkan	0·6	0·8	0·25	0·45	−0·20
	Bombay Deccan	0·9	2·3	0·42	1·13	−0·71
	Hyderabad (North)	...	...	...	...	...
	Khandesh	0·1	0·3	0·03	0·13	−0·10
Central Provinces and Berar.	Berar	0	0·6	0	0·24	−0·24
	Central Provinces (West)	0	0·6	0	0·24	−0·24
	Do. (Central)	0	0·8	0	0·30	−0·30
	Do. (East)	0·1	1·2	0·02	0·49	−0·47

Province.	Division.	Number of rainy days.		Rainfall.		
		Average actual, April, 1904.	Average normal, April.	Average actual, April, 1904.	Average normal, April.	Departure from normal, April, 1904.
				Inch.	Inches.	Inches.
Bombay (North)	Gujarat	0	0·1	0	0·02	−0·02
	Kathiawar and Cutch	0	0·1	0	0·03	−0·03
	Sind	0	0·3	0	0·1	−0·13
	Baluchistan Hills	0·3	1·4	0·07	0·53	−0·45
Rajputana and Central India.	Central India (East)	0	0·2	0	0·07	−0·07
	Rajputana (East), Central India (West)	0	0·3	0·01	0·11	−0·10
	Do. (West)	0·2	0·2	0·03	0·06	−0·03
Madras	East Coast (North)	0·4	1·5	0·22	0·85	−0·63
	Hyderabad (South)	...	...	...	...	...
	Madras (Central)	0·8	1·3	0·49	0·62	−0·13
	East Coast (Central)	0	0·9	0	0·46	−0·46
	Do. (South)	0·4	1·4	0·23	0·91	−0·68
	Madras (South)	1·4	3·4	0·73	2·22	−1·49

The preceding data show that the total rainfall of tha month was actually or practically nil (*i.e.*, it was less than one-tenth of an inch) over south Bihar, the whole of the United Provinces, except the hills, the south-east, south and west Punjab, Khandesh, Berar, the Central Provinces, north Bombay, Baluchistan, Central India, Rajputana and the central division of the east coast. From these areas the rainfall increased and amounted to 28·46″ in the Surma division of Assam, to 16·69″ in the hills division of Assam, and to 14·55″ in the Brahmaputra valley. The total rainfall was more than 100 per cent. in excess of the normal in the following divisions:—

Division.	Rainfall.			
	Average actual, April, 1904.	Average normal, April.	Departure from normal, April, 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Upper Burma	2·51	1·14	+ 1·37	+120
Arakan	4·64	1·44	+ 3·20	+222
Eastern Bengal	10·16	4·42	+ 5·74	+130
Assam Surma	28·46	13·08	+ 15·38	+118
„ Hills	16·69	8·01	+ 8·68	+108

Moderate to heavy showers occurred over Tenasserim between the 1st and the 8th, after which only scattered showers were received up to the end of the month. The following were the falls exceeding 2″ in 24 hours:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Thaton	Kyaikto	1st April	2·25
Amherst	Moulmein	5th „	3·80
	Kawkareik	„ „	3·10
	Amherst	„ „	2·10
	Do.	6th „	4·86
Tavoy	Thayetchaung	„ „	3·66
	Launglon	„ „	2·95
Amherst	Moulmein	„ „	2·03
Tavoy	Tavoy	7th „	3·76
Thaton	Bilin	12th „	2·40
Mergui	Victoria Point	16th „	2·09

In lower Burma the only period of general showers was between the 6th and the 8th, and the only falls exceeding 1″ in 24 hours occurred on the following dates during the month:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Maubin	Maubin	4th April	2·57
	Yandoon	5th „	2·95
Toungoo	Toungoo	„ „	1·50
Pegu	Pegu	„ „	1·03

DISTRICT.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
MAUBIN	Pantanaw	6th April	3·20
RANGOON	Rangoon	,, ,,	3·04
HANTHAWADDY	Kyauktan	,, ,,	1·27
PYAPON	Pyapon	8th ,,	1·60
BASSEIN	Bassein	,, ,,	1·50
	Ngaputaw	,, ,,	1·50
	Ngathainggyaung	,, ,,	1·41
MAUBIN	Maubin	,, ,,	1·38
MYAUNGMYA	Wakema	,, ,,	1·26
MAUBIN	Pantanau	9th ,,	1·83
MYAUNGMYA	Myaungmya	12th ,,	1·15
	Do.	28th ,,	1·53

Central Burma received showers at the same time, but the amounts were lighter than those in the preceding division. Upper Burma received general showers between the 6th and the 12th, and in some districts, more particularly upper Chindwin, Katha, Bhamo, Myitkyina and the southern Shan states, scattered showers continued throughout the month. On the following dates and at the following stations the rainfall amounted to 2″ or more in 24 hours during the month :—

DISTRICT.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
MINBU	Mezali	7th April	5·50
MAGWE	Taungdwingyi	,, ,,	3·86
CHIN HILLS	Tiddim	,, ,,	3·01
	Fort White	,, ,,	2·62
MAGWE	Myothit	,, ,,	2·30
MINBU	Sidoktaya	,, ,,	2·21
CHIN HILLS	Falam	,, ,,	2·04
MINBU	Mezali	10th ,,	5·20
CHIN HILLS	Haka	,, ,,	2·45
	Fort White	,, ,,	2·13
MANDALAY	Mandalay	,, ,,	2·06
KYAUKSE	Kyaukse	,, ,,	2·00

In Arakan rain fell generally between the 5th and the 12th, the weather during the remainder of the month having been fine. Falls of more than 2″ in 24 hours were recorded on the following dates during the month :—

DISTRICT.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
SANDOWAY	Gwa	5th April	2·13
AKYAB	Maungdaw	,, ,,	2·07
KYAUKPYU	Myebon	7th ,,	3·00
SANDOWAY	Gwa	,, ,,	2·35
AKYAB	Maungdaw	9th ,,	2·20

The rainfall of the whole province exceeded the normal, the excess having been particularly large over upper Burma and Arakan.

There was no rain of importance over the Surma valley of Assam, the hills, or the lower part of the Brahmaputra valley between the 1st and the 4th, but on the 5th rain commenced, and from that day till the close of the month rain fell more or less generally. The total rainfall was about twice as heavy as usual over the whole of Assam, and falls exceeding 6″ in 24 hours were recorded at the following places on the following dates :—

DISTRICT.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
SYLHET	Karimganj	13th April	7·83
CACHAR	Haillakandi	,, ,,	6·12
SYLHET	Sylhet	14th ,,	8·00
	Samanbagh	,, ,,	6·30
CACHAR	Haflong	16th ,,	8·62
	Do.	17th ,,	7·89
GOALPARA	Goalpara	23rd ,,	6·67

On the hills there was a heavy burst of rain between the 15th and the 17th, when the following falls exceeding 10″ in 24 hours were recorded :—

DISTRICT.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
KHASI AND JAINTIA HILLS.	Cherra Poonjee Police Station.	15th April	11·62
	Ditto	16th ,,	12·03
	Wahmaulien	17th ,,	18·67
	Cherra Poonjee Police Station.	,, ,,	13·85

At Cherra Poonjee there were 25 days of rainfall during the month, and the total rainfall amounted to 90·32″ instead of the normal 32·24″.

East and north Bengal and the Bengal hills shared in the disturbed conditions and heavy rainfall which characterised the weather over Assam. In east Bengal the total rainfall of the month was nearly two-and-a-half-times the normal amount. Rain commenced on the 5th and continued more or less heavily until the 12th. It then fell off, and the weather was fairly fine until the 20th, when showers recommenced and continued until the 23rd. After the latter date the weather was fine. The heaviest falls of rain, exceeding 4″ in 24 hours, were as follows :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Tippera	Brahmanbaria	6th April	5·77
	Kasba	,, ,,	4·83
Chittagong	Fenoa	7th ,,	8·86
Noakhali	Chhagalnaya	,, ,,	7·12
Chittagong	Kodala	,, ,,	5·41
Chittagong Hill Tracts.	Barkal	,, ,,	5·40
	Rangamati	,, ,,	4·41
	Bandarban	,, ,,	4·35
Noakhali	Fenny	,, ,,	4·25
Chittagong	Mirsarai	,, ,,	4·05
	Kutabdia	8th ,,	6·80
	Chittagong	,, ,,	5·26
Noakhali	Harishpur	,, ,,	5·21
Chittagong	Satkania	,, ,,	4·29
Noakhali	Chhagalnaya	10th ,,	7·95
	Fenny	,, ,,	5·83
Tippera	Laksam	,, ,,	5·62
Dacca	Munshiganj	,, ,,	5·47
Tippera	Chandpur	,, ,,	4·29

In north Bengal rain was more continuous, but less heavy than in east Bengal. The principal periods of rainfall were from the 5th to the 7th, from the 10th to the 14th, and from the 20th to the end of the month. The total fall of the month was 41 per cent. above the normal, and the following amounts exceeding 2″ in 24 hours were recorded during the month :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Cooch Behar	Cooch Behar	5th April	3·60
	Fulbari	,, ,,	2·23
	Mathabhanga	,, ,,	2·07
	Do.	10th ,,	2·02
Jalpaiguri	Buxa	12th ,,	2·28
Cooch Behar	Mathabhanga	28th ,,	2·40
Jalpaiguri	Buxa	29th ,,	2·94
Cooch Behar	Cooch Behar	,, ,,	2·32

On the hills the rainfall occurred on the same dates as on the neighbouring plains, but the fall was, relatively to the normal, lighter, and was only 25 per cent. in excess of the average.

In deltaic Bengal the rainfall of the month was exactly normal, but in all the remaining divisions of the province it was lighter than the average and in south Bihar practically none fell. In normal years the general conditions are such as to determine a much heavier rainfall to the east and north of the province than to the west, but in the present year these conditions were exaggerated and the rainfall was in greater contrast than usual.

In the United Provinces the greater part of the area and the greater part of the month were practically rainless, but light showers occurred on the 9th and 10th, which were more or less general over the whole area, and again on the 14th, 15th and 22nd, when, however, they were confined to the hill and submontane regions. Throughout the whole area the total rainfall of the month was in large defect.

Over the greater part of the Punjab there was no rain of any importance, but in the submontane division there were showers on the 9th, 14th, 15th, 27th and 28th, on the hills between the 8th and the 15th, and again on the 27th and 28th, and in the north and north-west divisions on the 9th and 10th, 14th and 15th, and 27th and 28th.

In the North-West Frontier Province rain, during April, was practically confined to the districts of Peshawar and Hazara, where showers fell between the 8th and the 15th, on the 20th and 21st, and on the 27th and 28th. There were no heavy falls, and the total rainfall was only about one-third of the normal.

In Baluchistan showers occurred on the 26th and 27th, one day earlier than those of the same fall in north-west India, but the average for the whole area was only 0·07″ or one-eighth of the normal.

The weather was showery in Kashmir throughout the month, but the total fall was generally less than the average.

Rajputana and Central India were practically rainless throughout.

Parts of the Central Provinces received insignificant showers on the 9th, and parts of Berar on the 2nd, but in general the weather was rainless throughout.

The greater part of the Bombay presidency was also rainless, but there were a few showers in the Konkan during the month, and moderate showers in the Karnatic on the 29th and 30th, when the following amounts exceeding 1·00″ in 24 hours were recorded:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M of date.
			Inches.
North Kanara	Mundgod	1st April	1·93
Belgaum	Khanapur	,, ,,	1·47
North Kanara	Yellapur	,, ,,	1·20
Belgaum	Sampgaon	,, ,,	1·11
Ditto	Belgaum	2nd ,,	2·15
North Kanara	Supa	,, ,,	1·34
Belgaum	Saundatti	30th ,,	1·28
Ditto	Belgaum	,, ,,	1·05

Mysore recorded three periods of general showers, *viz.*, on the 1st and 2nd, between the 9th and 14th, and between the 22nd and the end of the month. The principal falls, exceeding 1·50″ in 24 hours were as follows:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Hassan	Manjarabad	2nd April	1·80
Mysore	Krishnarajpete	,, ,,	1·75
Hassan	Hassan	,, ,,	1·60
Ditto	Alur	12th ,,	2·00
Mysore	Chamrajnagar	14th ,,	1·53
Shimoga	Shikarpur	30th ,,	1·60

The total fall for the month for this province exceeded the normal.

In Malabar the rainfall was similar to that in Mysore, showers occurring on the 1st and 2nd, between the 9th and the 14th, and from the 22nd to the end of the month. The total fall was, however, relatively to the normal, lighter than in Mysore, and was only about half the average

South and south-central Madras had occasional showers, mainly on the 2nd and 9th, and the total fall was less than usual. Central Madras received showers on the 2nd, between the 9th and 11th, and between the 23rd and the 30th, and the total fall was nearly normal. Showers occurred in thesouth division of the east coast on the 1st and 2nd and in all divisions on the 9th and 10th, but with these exceptions the month was practically rainless over this area.

The following gives rainfall data for the extra-Indian stations.

Station.	Rainfall.			
	Average actual, April 1904.	Average normal, April.	Departure from normal, April 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Trincomalee	0·65	1·81	−1·16	−64
Co'ombo	4·54	12·03	−7·49	−62
Minicoy	0·52	3·67	−3·15	−86
Amini Divi	0·82	2·58	−1·76	−68
Kashgar	0	0·12	−0·12	−100
Kabul	2·20	2·24	−0·04	−2
Meshed	0·45	1·78	−1·33	−75
Teheran	0·61	1·18	−0·57	−48
Ispahan	0·71	0·38	+0·33	+87
Bushire	0·23	0·53	−0·30	−57
Jask	0·05	0·03	+0·02	+7
Muscat	0	0·3	−0·03	−100
Baghdad	0·78	0·96	−0·18	−19
Aden	0	0·38	−0·38	−100
Perim	0	0·02	−0·02	−100
Seychelles	3·97	3·91	+0·06	+2
Zanzibar	14·56	10·39	+4·17	+40
Mauritius	4·08	4·92	−0·84	−17

The preceding data show that the month's rainfall was in excess of the average at Ispahan and Zanzibar, normal at Kabul, Jask, Baghdad, the Seychelles and Mauritius and in defect elsewhere. At Kashgar, Muscat, Aden and Perim no rain whatever fell.

Crop Report.

Madras.—The standing crops, at the close of the month, were generally fair, but pasture was scanty in parts of the Circars, the Deccan, Salem, Madura and South Canara. The harvests continued with fair to normal outturn.

Bombay.—The standing crops were in good condition, except in parts of Ratnagiri, the Deccan, Belgaum and Kanara, where they had been damaged by locusts. Harvesting was nearly completed at the close of the month, and the preparation of land for the next season's crop was generally in progress.

Bengal.—Ploughing and sowing continued during the

month, but rain was needed in parts of Bihar and also in the Orissa and Burdwan divisions. The prospects were generally fair.

United Provinces.—The standing crops were doing well, but rain was needed in Almora.

Punjab.—Harvesting and threshing of spring crops progressed in all districts, and the sowing of extra spring and of autumn crops continued. The condition of the extra spring crops was generally good.

North-West Frontier Province.—Harvesting of wheat and barley had commenced at the close of the month. Some damage had been done by high winds. Extra spring crops were being sown, and the prospects of the standing crops were excellent.

Burma.—Prospects of the harvest were generally favourable.

Central Provinces.—The harvesting of winter corps had been practically completed by the close of the month, and the preparation of the land for autumn sowings was in progress.

Assam.—Ploughing for and sowing of rice and jute and plucking of tea were in progress. Tea was thriving generally, but had been damaged by hail in Cachar and Kamrup.

Mysore.—The standing crops were in good condition.

Rajputana.—The prospects of crops and condition of cattle were generally good.

Central India.—At the close of the month crops were standing only in Baghelkhand, where they were good, and in Bhopal, where they had been slightly damaged in places. Opium was bad to indifferent in parts of Gwalior and good elsewhere in Gwalior and in Indore.

Kashmir, Jummoo.—The condition of the standing crops was fair.

W. L. DALLAS.

TABLE I.—Abstract of Observations taken at 8 A.M. at 230 Stations in India, Burma, etc., in April, 1904.

Table

Abstract of Observations taken at 8 A.M. at 230

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 A.M., in inches.								Temperature of Air.												
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
	I.—Burma Coast and Bay Islands.				−·004								91·0	−3·3	76·1	+0·2	83·6	−1·5	14·9					24·7
1	Tenasserim and Bay Islands.	Car Nicobar	25									80·6	88·6	−4·0	77·0	−1·8	82·8	−2·9	11·6	92·1	22nd	74·5	3rd	17·6
		Port Blair	61	29·863	+·010	29·855	29·913	12th	29·791	5th	·122	80·9	90·5	−1·4	75·4	+1·7	83·0	+0·2	15·1	94·1	1st	70·4	7th	23·7
		Mergui	96	29·842	+·021	29·870	29·898	12th	29·769	19th	·129	80·9	90·5	−1·4	75·4	+1·7	83·0	+0·2	15·1	94·1	1st	70·4	7th	23·7
		Tavoy	26	29·903	−·011	29·859	29·945	8th	29·840	5th	·105	78·6	89·5	−4·5	74·5	+2·3	82·0	−1·1	15·0	93·2	1st	66·6	7th	26·6
		Moulmein	94	29·802	−·015	29·834	29·856	12th	29·741	5th	·115	79·0	89·7	−4·9	74·8	−1·6	82·3	−3·3	14·9	94·5	1st	66·1	7th	27·7
2	Lower Burma	Rangoon	57	29·844	−·007	29·899	29·903	8th	29·767	5th	·136	80·2	93·8	−4·8	76·2	0	85·0	−2·4	17·6	97·6	15th	70·5	8th	26·7
		Bassein	27	29·866	−·003	29·830	29·924	12th	29·793	6th	·131	81·2	93·3	−2·9	76·4	+0·9	84·9	−1·0	16·9	96·7	h	71·9	8th	24·8
		Diamond Island	41	29·867	−·008	29·842	29·940	8th	29·791	5th	·149	83·3	87·8	−0·9	79·9	+1·6	83·9	+0·4	7·9	89·9	15th, 16th & 18th.	75·2	8th	14·7
5	Arakan	Akyab	20	29·853	−·025	29·816	29·932	12th	29·721	6th	·211	81·4	88·7	−3··	76·4	+0·4	82·6	−1·1	12·3	91·9	2nd	67·2	6th	24·7
3	Central Burma	Toungoo	183	29·701	−·02	29·825	29·775	8th	29·620	5th	·155	83·8	97·2	−3·2	74·4	−1·6	85·8	−2·4	22·8	101·4	4th	67·6	6th & 8th.	33·8
	II.—Burma Inland				−·007								95·1	−4·6	72·9	−1·5	84·0	−3·0	22·1					35·4
3	Central Burma	Thayetmyo	130	29·750	?	29·820	29·836	8th	29·660	5th	·176	83·3	99·9	−3·1	73·1	−2·7	86·5	−2·9	26·8	104·5	26th	67·0	12th	37·5
3	Upper Burma	Minbu	*165*	29·686	−·005	29·795	29·801	8th	29·586	6th	·215	81·0	98·9	−4·5	75·8	−1·1	87·4	−2·8	23·1	105·2	26th	69·1	8th	36·1
		Yamethin	657	29·199	−·002	29·803	29·287	8th	29·101	16th	·186	81·3	95·4	−6·9	75·2	−0·9	85·3	−3·9	20·2	100·3	4th & 24th	68·2	7th	32·1
		Monywa	*280*	29·581		29·800	29·708	8th	29·438	16th	·270	81·3	98·1		75·6		86·9		22·5	105·2	26th	67·2	7th	38·0
		Mandalay	250	29·588	−·008	29·786	29·699	8th	29·479	15th	·220	84·4	97·8	−4·5	77·9	+0·1	87·8	−2·2	19·9	104·1	26th	70·3	7th & 10th.	33·8
		Myitkyina	458	29·390		29·815	29·497	12th	29·307	17th	·190	82·6	85·7		67·3		76·5		18·4	94·1	28th	62·1	4th	32·0
		Bhamo	*381*	29·459	−·013	29·802	29·563	8th	29·333	16th	·230	77·2	89·7	−4·2	65·6	−2·0	77·7	−3·1	24·1	98·0	29th	61·6	1st, 4th & 23rd.	36·4
4 *a*)	Burma Hill States.	Maymyo	3,545	26·436*			26·489	1st	26·324	16th	·165	70·5	82·7		62·2		72·5		20·5	88·5	3rd	54·6	12th	33·9
		Lashio	*2,751*									70·5	87·3	−3·6	62·9	0	75·1	−1·8	24·4	94·5	25th & 26th.	57·0	6th	37·5
	III.—Assam				−·051								82·6	−3·4	66·9	−1·4	74·8	−2·4	15·6					32·4
7	Surma	Silchar	104	29·735	−·042	29·794	29·812	11th	29·549	16th	·263	72·4	85·7	−2·8	67·8	−1·4	76·8	−2·1	17·9	94·5	1st	61·9	6th	32·6
9	Brahmaputra	Sibsagar	333	29·496	−·051	29·754	29·595	30th	29·260	16th	·335	68·9	78·6	−3·9	65·9	−0·6	72·3	−2·3	12·7	87·2	22nd & 28th	59·9	7th	27·3
		Dhubri	115	29·662	−·059	29·735	29·786	8th	29·444	16th	·342	73·0	85·1	−3·6	68·6	−2·1	76·9	−2·9	16·5	98·2	1st	62·7	7th	35·5
		Gauhati	195	29·612		29·767	29·727	27th	29·380	16th	·347	71·8	84·9		67·7		76·3		17·2	98·5	1st	63·5	7th	35·0
		Tezpur	252	29·556		29·772	29·655	27th	29·332	16th	·323	70·6	82·6		66·9		74·8		15·7	96·2	1st	61·4	7th	34·8
		Dibrugarh	353	29·489		29·811	29·614	19th	29·254	16th	·360	68·6	78·5		64·7		71·6		13·8	89·2	28th	60·0	7th	29·2
	IV.—Bengal and Orissa				−·063								94·6	−0·8	74·8	+0·7	84·7	−0·1	19·8					35·2
6	East Bengal	Chittagong	87	29·745	−·046	29·780	29·817	27th	29·546	6th	·271	78·8	86·6	−2·3	73·2	−0·5	79·9	−1·4	13·4	91·0	1st	62·1	5th	28·9
		Noakhali	43	29·758		29·748	29·858	27th	29·521	6th	·337	81·4	86·3		74·5		80·7		12·3	91·3	1st	57·5	7th	33·8
		Comilla	36	29·766		29·780	29·870	27th	29·578	6th	·292	78·1	87·9		73·2		80·6		14·7	98·5	1st	63·9	6th	34·6
		Sirajganj	49	29·721		29·720	29·847	27th	29·550	16th	·297	77·7	92·5		72·9		82·7		19·6	103·9	1st	64·4	7th	39·5
		Narayanganj	26	29·763	−·048	29·737	29·877	27th	29·553	6th	·324	80·1	90·4	−2·8	75·4	+1·1	82·9	−0·9	15·0	99·1	1st	65·3	6th	33·8
		Barisal	13	29·780	−·053	29·738	29·883	27th	29·572	6th	·311	82·1	90·2	−2·0	75·4	0	82·8	−1·0	14·8	95·8	1st	65·1	6 h & 11th.	30·7
		Mymensingh	63	29·730	−·050	29·744	29·838	27th	29·539	16th	·299	76·9	88·6	−2·2	71·5	−0·7	80·1	−1·5	17·1	99·7	1st	62·3	7th	37·4
		Faridpur	46	29·731		29·727	29·850	27th	29·521	6th	·329	79·8	92·3		74·0		83·1		18·3	101·0	1st	64·8	6th	36·2
10	Deltaic Bengal	Jessore	33	29·721	−·074	29·701	29·846	27th	29·504	6th	·342	81·4	95·4	−1·8	75·7	+0·6	85·5	−0·6	19·7	102·0	1st	68·2	10th & 11th.	33·8
		Calcutta	21	29·734	−·038	29·701	29·853	27th	29·542	6th	·311	82·9	95·2	−0·1	77·4	+1·7	83·3	+0·7	17·8	101·5	24th	69·4	10th	32·1
		Saugor Island	25	29·711	−·062	29·710	29·838	27th	29·559	6th	·279	83·4	90·3	−0·5	80·7	+0·8	85·5	+0·2	9·6	94·9	18th	70·0	10th	24·9
		Krishnagar	47	29·701		29·696	29·824	27th	29·492	6th	·332	83·7	101·6		76·7		89·2		24·9	107·1	16th & 24th.	71·6	10th	35·5
		Midnapore	146	29·693		29·689	29·707	27th	29·468	6th	·239	83·5	103·4		77·5		90·5		25·9	108·9	24th	69·7	10th	39·2

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

* Mean of 19 days.

NOTE 1.—When a query is inserted against any reading or in the returns of any station, the data for that

NOTE 2.—The data from which divisional means of the figure columns Nos. 41, 43, and 45 are derived

I.

Stations in India, Burma, etc., in April, 1904.

Wind Direction. Number of winds from Calm	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	Wind Velocity. Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	Hygrometry, 8 A.M. Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Cloud. Mean cloud amount at 8 A.M.	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. 1903, to 30th April, 1904.	Normal rainfall for period, 1st Dec. to 30th April.	Departure from normal of period, 1st Dec., 1903, to 30th April, 1904.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
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	58
														81	+2·1	·859	−·015	3·8	+0·2				4·90	2·80	+2·11					I.—Burma Coast and Bay Islands.		
																														Car Nicobar	Tenasserim and Bay Islands	1
	1	1	3	3	2	4	10	6	N 85° W	6·1	4·9	+24	6·9	86	+3·5	·903	−·046	5·9	+1·5	7			7·97	3·33	+4·64	17·78	11·77	+6·01	2·71	Port Blair.		
19	2	2					1	6	N 27° W	3·9	2·1	+86	3·5	83	+1·6	·865	−·028	3·9	−0·7	5	6·70	−1·70	2·23	6·54	−4·31	8·03	12·84	−4·81	1·30	Mergui.		
30									Calm	1·4				88	+5·5	·865	−·002	2·5	−1·8	9	5·30	+3·70	8·06	3·78	+4·28	11·32	5·94	+5·38	3·80	Tavoy.		
23				5		1	1		N 23° E	2·1	3·2	−34	2·3	81	+2·5	·805	−·056	5·2	+1·2	12	5·00	+7·00	10·55	3·11	+7·44	11·23	4·13	+7·10	3·80	Moulmein.		
2		2	1		3	9	12	1	S 67° W	6·8	4·0	+70	5·7	81	+0·7	·840	−·008	3·2	+0·1	3	2·20	+0·80	3·97	1·83	+2·14	3·97	2·55	+1·42	2·91	Rangoon .	Lower Burma	2
				1	4	8	9	8	S 76° W	4·8	5·7	−16		81	+2·0	·863	−·007	0·5	?	2	2·10	−0·10	1·63	1·55	+0·08	1·63	2·12	−0·49	1·50	Bassein.		
1	1	1		2	2	4	8	11	N 79° W	7·4	5·1	+45	7·1	74	−0·3	·846	−·003	4·5	+0·3	1	2·09	−1·09	0·31	1·46	−1·15	0·31	2·49	−2·18	0·26	Diamond Island.		
		12	2	7	4	4		1	S 78° E	2·7	7·2	−63	2·6	84	+4·5	·901	+·016	4·9	+0·4	7	1·80	+5·20	5·77	1·28	+4·49	5·85	2·68	+3·17	2·52	Akyab .	Arakan .	5
12				13	4	1			S 32° E	12·1	4·0	+203	12·0	72	−1·3	·843	−·005	3·6	+0·8	4	3·10	+0·90	3·64	2·28	+1·36	3·64	2·79	+0·85	1·50	Toungoo .	Central Burma.	3
														72	+6·0	·721	+·023	2·4	+0·5				2·60	1·13	+1·24					II.—Burma Inland.		
	3				21	3	3		S 14° W	3·9	7·0	−44		68	+5·6	·780	+·015	1·5	+0·4	1	1·60	−0·60	0·89	0·90	−0·01	0·89	1·14	−0·25	0·80	Thayetmyo	Central Burma.	3
4		1		23		2			S 42° E	7·0			8·3	69	+8·9	·725	+·048	1·4	+0·2	3	1·20	+1·80	1·37	0·85	+0·52	1·37	1·55	−0·18	0·42	Minbu .	Upper Burma .	4
1		1		13	15				S 23° E	11·6			12·2	69	+3·6	·739	−·003	1·4	+0·4	5	3·60	+1·40	2·81	1·52	+1·29	2·81	2·68	+0·13	1·56	Yamethin.		
														75		·797		1·8		4	2·00	+2·00	2·14	0·71	+1·43	2·16	1·10	+1·06	0·90	Monywa.		
3	9	1		7	7	1		2	S 29° E	4·8																				Mandalay.		
2	3	1		2	21	1			S 4° E	8·1			8·2	81	+2·5	·718	+·008	1·8	?	3	2·40	+0·60	3·35	1·12	+2·23	3·35	1·67	+1·68	2·06			
10	4	8	6	2					N 58° E	2·9			2·9	79		·637		4·1		11			3·99			5·44			1·25	Myitkyina.		
18	1	4	6					1	N 61° E	3·9			4·6	83	+9·2	·653	+·019	4·9	+1·1	9	4·80	+4·20	3·66	1·66	+2·00	4·33	3·85	+0·48	0·72	Bhamo.		
4	1	1		3	7	11	2	1	S 28° W	5·3				75		·554		3·8		4	4·30	−0·30	6·10	2·80	+3·30	6·10	3·95	+2·15	3·71	Maymyo .	Burma Hill Stations.	10
	1	11	4	3	2	7	1	1	N 87° E	4·4				72	+2·5	·532	+·021	4·6	−0·9	5			2·56	2·20	+0·36	2·68	4·12	−1·44	1·02	Lashio.		
														87	+4·1	·674	−·020	6·7	+0·9				16·75	8·23	+8·51					III.—Assam.		
17		1	6	6					S 72° E	2·3	3·4	−32	4·0	86	+3·3	·688	−·042	6·5	+0·4	21	13·70	+7·30	30·72	13·62	+17·10	42·25	25·72	+16·53	5·00	Silchar .	Surma.	7
6	5	18						1	N 33° E	3·3	2·9	+14	3·0	94	+3·9	·671	−·018	7·9	+1·0	18	14·50	+3·50	21·83	9·50	+15·33	31·41	18·47	+12·97	3·35	Sibsagar .	Brahmaputra .	9
		8	17	2	2	1			N 86° E	8·4	8·0	+ 5	9·9	84	+5·2	·688	+·001	6·1	+1·4	13	7·40	+5·60	9·44	4·73	+4·71	13·36	7·59	+5·77	2·44	Dhubri.		
7	5	9	4	4	1				N 60° E	2·8			3·1	85		·670		7·0		17	10·20	+6·80	8·89	5·87	+3·02	11·11	10·30	+0·81	1·34	Gauhati.		
1		11	16	2					N 75° E	7·0			7·4	86		·644		6·0		19	11·00	+8·00	10·59	5·52	+4·67	13·55	10·55	+3·00	1·65	Tezpur.		
7	4	9	9	1					N 59° E	1·2			1·1	88		·680		6·3		20	13·50	+6·50	16·00	9·76	+6·24	26·21	19·99	+6·22	4·08	Dibrugarh.		
														78	+1·7	·801	+·005	4·4	+0·4				3·91	2·59	+1·31					IV.—Bengal and Orissa.		
		1	3	16	8	1	1		S 34° E	9·9	7·1	+39	9·8	83	+2·8	·822	−·018	4·5	+0·1	8	4·42	+3·53	15·42	5·85	+11·57	19·34	8·72	+10·62	5·24	Chittagong .	East Bengal .	6
			4	9	9	3	2	3	S 15° E	7·6			8·2	81		·871		4·5		6	4·61	+1·39	10·92	4·63	+6·26	12·92	9·23	+3·69	3·24	Noakhali.		
			3	6	20	1			S 16° E	8·8			7·4	87		·813		4·3		8	6·46	+1·54	12·43	6·27	+6·16	16·73	10·74	+5·99	3·65	Comilla.		
3		3	4	8	9	3			S 34° E	4·6			4·8	88		·839		6·2		7	4·60	+2·40	5·91	2·95	+2·96	6·55	5·70	+0·85	2·27	Sirajganj.		
			4	10	12	4			S 20° E	8·1	6·7	+21	6·9	86	+3·9	·887	+·037	7·4	+1·5	7	6·59	+0·41	5·57	4·51	+1·06	6·85	9·08	−0·23	2·07	Narayanganj.		
				6	21	2	1		S 4° E	6·4				82	−0·2	·902	−·001	4·1	−0·8	6	4·29	+1·71	9·52	3·12	+6·40	12·01	7·39	+4·62	2·88	Barisal.		
1	1	1	9	11	5	2			S 51° E	5·5			4·9	84	+2·0	·780	+·008	6·4	+1·1	11	6·23	+4·77	8·63	5·37	+3·26	11·35	8·98	+2·37	1·89	Mymensingh.		
			1	8	20	1			S 13° E	8·4			7·1	85		·877		5·7		6	6·00	0	5·89	4·16	+1·73	7·46	8·35	−0·89	2·23	Faridpur.		
8				8	13	1			S 15° E	4·3	4·5	−4	4·3	85	+3·9	·905	+·018	5·5	+0·8	6	4·68	+1·32	8·17	3·18	+4·99	11·38	6·91	+4·47	2·47	Jessore .	Deltaic Bengal.	10
				1	10	18		1	S 29° W	7·3	7·5	−3		78	+0·2	·876	+·023	2·9	−0·5	1	2·92	−1·92	0·33	1·43	−1·10	5·53	4·16	+1·37	0·33	Calcutta.		
					18	11	1		S 19° W	25·9	16·7	+55		81	+0·7	·924	−·004	6·0	+0·2	1	2·00	−1·00	1·24	0·85	+0·39	3·04	3·84	−0·80	1·24	Saugor Island.		
		1	2	3	16	5	2	1	S 3° W	5·5			6·0	71		·815		2·6		1	3·39	−2·39	0·60	2·43	−1·83	2·07	5·17	−3·10	0·50	Krishnagar.		
1	1	1			25	1	1		S 2° W	5·9			5·2	70		·796		0·9†		1	3·10	−2·10	1·25	1·78	−0·53	3·10	5·29	−2·19	1·25	Midnapore.		

station are not utilized in calculating the provincial departures from normal, are incomplete.

† Mean of 29 days.

Table

Abstract of Observations taken at 8 A.M. at 230

Number of District.	Meteorological Province or District.	Station.	Elevation of barometer above sea-level, in feet.	Pressure, 8 A.M., in inches.								Temperature of air.											
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
11	Central Bengal	Bankura	298	29·413		29·660	29·529	27th	29·282	6th	·247	83·6	105·2		77·0		91·1		28·2	110·1	15th	70·4	18th	39·7
		Raniganj	334	29·396		29·682	29·510	27th	29·2·2	6th	·298	81·9	105·7		76·6		91·2		29·1	111·4	15th	68·9	4th	42·5
		Burdwan	99	29·636	−·075	29·684	29·757	27th	29·440	6th	·317	81·1	102·8	+2·2	76·5	+0·8	89·6	+1·5	26·3	108·8	24th	70·2	4th	38·6
		Naya Dumka	489	29·227		29·670	29·383	27th	29·044	6th	·309	84·8	102·6		75·9*		89·3*		26·7	110·1	15th	67·5	4th	42·2
		Berhampore	67	29·669	−·071	29·685	29·795	27th	29·494	6th	·301	81·0	100·6	+0·6	75·7	+1·1	88·2	+0·9	24·9	106·5	30th	68·4	11th	38·1
		Rampur Boalia.	70	29·669		29·689	29·794	27th	29·502	6th	·292	81·0	98·1		74·4		86·3		23·7	106·5	16th	66·3	19th	40·2
		Malda	72	29·645		29·668	29·789	8th	29·484	16th	·305	80·4	98·1		73·8		86·0		24·3	107·2	25th	61·0	4th	43·2
		Bogra	61	29·687	−·063	29·700	29·806	27th	29·511	16th	·295	76·1	95·4	−0·8	72·3	+0·4	83·9	−0·2	23·1	105·3	25th	63·4	7th	41·9
12	North Bengal	Dinajpur	123	29·626	−·067	29·705	29·764	8th	29·435	16th	·329	76·4	92·7	−1·9	70·4	−0·3	81·6	−1·1	22·3	103·3	2nd	63·5	18th	39·8
		Rangpur	123	29·659		29·739	29·781	27th	29·448	16th	·333	75·4	88·9		69·3*		79·0*		19·6	99·4	2nd	63·4	6th	36·0
		Jalpaiguri	284	29·485	−·063	29·731	29·621	27th	29·260	16th	·364	73·7	87·0	−2·5	68·5	+0·3	77·8	−1·1	18·5	96·4	1st	63·1	16th	33·3
		Cooch Behar	156	29·623		29·757	29·738	27th	29·456	6th	·282	73·2	85·8		69·5		77·7		16·3	96·2	1st	63·1	10th	33·1
17	North Bihar	Purnea	125	29·610	−·064	29·691	29·761	8th	29·432	16th	·329	78·0	97·8	+0·8	71·0	+1·0	84·4	+0·9	26·8	106·1	25th	62·4	3rd	43·7
14	Orissa	Balasore	50	29·707	−·072	29·699	29·822	27th	29·536	6th	·286	83·3	100·0	+2·5	77·3	+1·3	88·7	+1·9	22·7	109·0	16th	71·8	1st	37·2
		False Point	21	29·762	−·060	29·725	29·852	27th	29·588	6th	·264	83·3	88·0	−1·9	79·4	+1·8	83·8	−0·1	8·6	95·0	18th	73·6	1st	21·4
		Cuttack	80	29·689	−·064	29·712	29·779	1st	29·516	6th	·263	83·4	102·9	+0·9	79·0	+1·0	91·0	+1·0	23·9	108·5	24th & 25th.	74·2	1st & 2nd.	34·3
		Puri	24	29·763		29·726	29·848	27th	29·596	6th	·252	81·0	85·6		79·2		82·4		6·4	87·2	29th	76·6	17th & 18th.	10·6
	V.—Gangetic Plain and Chota Nagpur.				−·076								101·9	+0·9	73·5	+1·0	87·7	+1·0	28·4					41·2
15	Chota Nagpur	Hazaribagh†	2,007	27·732	−·076	29·656	27·834	1st	27·540	6th	·294	85·7‡	100·5‡	+2·4‡	74·2‡	+1·7‡	87·4‡	+2·1‡	26·3	105·1	28th	68·1	6th	37·0
		Ranchi	2,128	27·628	−·071	29·675	27·730	27th	27·434	6th	·296	83·4	98·7	+1·6	73·5	+1·4	86·2	+1·5	25·2	103·4	28th	66·7	10th	36·7
16	South Bihar	Daltonganj	*730?*	28·892		29·673	29·104	1st	28·798	6th	·305	85·0	105·6		71·3		88·4		34·3	111·0	28th	63·2	4th	47·8
15	Chota Nagpur	Purulia	*816*	28·914		29·672	29·023	27th	28·742	6th	·281	84·4	105·2		75·5		90·4		29·7	110·2	23rd	69·2	4th	41·0
		Chaibassa	*760*	28·969	−·073	29·678	29·065	1st	28·785	6th	·280	82·4	105·9	+2·3	75·8	−0·2	90·9	+1·1	30·1	110·5	30th	66·5	9th	44·0
16	South Bihar	Gaya	375	29·328	−·086	29·653	29·451	1st	29·134	6th	·317	87·2	103·5	+0·1	77·5	+2·6	90·5	+1·4	26·0	108·3	15th	71·8	19th	36·5
		Dehri	351	29·346		29·649	29·467	1st	29·161	6th	·306	84·9	104·8		77·4		91·1		27·4	109·8	28th	69·5	1st	40·3
		Patna	163	29·528	−·079	29·665	29·660	8th	29·369	6th	·291	81·8	101·3	+0·7	74·7	+1·2	88·0	+1·0	26·6	107·6	26th	67·7	6th	39·9
		Arrah	190	29·520		29·663	29·636	8th	29·366	6th	·270	82·9	102·0		74·0		88·0		28·0	103·3	25th	66·1	19th	40·2
		Buxar	239	29·463		29·657	29·588	1st	29·298	6th	·290	83·5	101·8		74·8		88·3		27·0	105·7	28th	68·1	1st & 19th.	38·6
17	North Bihar	Bhagalpur	160	29·549		29·662	29·654	8th	29·399	6th	·295	81·2	100·7		73·1		86·9		27·6	108·1	26th	65·1	4th	43·0
		Darbhanga	166	29·560	−·071	29·682	29·704	8th	29·401	16th	·303	79·1	96·9	+0·8	73·1	+1·2	85·0	+1·0	23·8	104·1	25th	67·2	3rd	36·9
		Muzaffarpur	178	29·542		29·676	29·681	8th	29·401	6th	·280	80·2	98·3		71·9		85·1		2·.4	104·7	25th	66·3	14th	38·4
		Motihari	224	29·499		29·683	29·650	8th	29·303	16th	·347	80·0	97·2		70·7		84·0		26·5	103·7	29th	61·3	3rd	42·4
		Chapra	181	29·522		29·657	29·650	8th	29·369	6th	·281	81·1	101·5		P		P		P	106·7	20th	P	P	P
18	United Provinces (East).	Benares	267	29·433	−·085	29·654	29·553	1st	29·257	6th	·296	85·0	104·0	+0·9	72·6	+0·7	88·3	+0·8	31·4	110·1	28th	66·2	19th	43·9
		Allahabad	309	29·399	−·081	29·661	29·515	1st	29·211	6th	·304	85·0	103·9	+0·1	73·3	+0·9	88·6	+0·5	30·6	109·1	27th	67·1	19th	42·0
23	United Provinces (East Sub-montane).	Gorakhpur	257	29·441	−·074	29·615	29·574	27th	29·314	5th & 6th.	·260	81·7	100·5	+0·1	72·5	+0·1	86·5	+0·1	28·0	106·2	29th	63·0	18th	43·2
19	South Oudh	Lucknow	368	29·333	−·074	29·659	29·462	1st	29·160	6th	·302	83·9	103·2	+0·8	72·3	+1·4	87·8	+1·1	30·9	109·3	27th	64·3	1st	45·0
20	North Oudh	Bahraich	401	29·286	−·084	29·647	29·405	27th	29·121	6th	·284	81·9	100·2	+0·6	70·5	+0·8	85·4	+0·7	29·7	106·1	26th	63·5	1st	42·6
21	United Provinces (Central).	Cawnpore	416	29·195	−·063	29·662	29·417	1st	29·119	6th	·298	84·7	102·9	+0·7	73·3	+1·0	88·1	+0·9	29·6	107·0	26th & 28th.	65·8	18th	41·2
		Mainpuri	516	29·200	P	29·674	29·329	1st	29·009	6th	·330	82·7	103·4	+0·9	70·9	+0·4	87·2	+0·7	32·5	110·2	27th	65·7	5 days	44·5

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

‡ Mean of 27 days.

† Thermometers removed to verandah on 1st and 2nd.

* Mean of 29 days.

Note 1.—When a query is inserted against any reading

Note 2.—The data from which divisional means of the

I—*continued.*

Stations in India, Burma, etc., in April, 1904—continued.

Wind Direction. Number of winds from: Calm	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	Wind Velocity. Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	Hygrometry, 8 A.M. Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Cloud. Mean cloud amount at 8 A.M.	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., 1903, to 30th April, 1904.	Normal rainfall for period, 1st Dec. to 30th April.	Departure from normal of period, 1st Dec., 1903, to 30th April, 1904.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
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	58
		1		3	1	1	2		S 1° W	3·7			4·3	60		·683		1·1		1	3·00	−2·00	0·13	1·53	−1·34	2·39	4·33	− 1·94	0·11	Bankura	Central Bengal	11
22						1		1	W	2·2				61*		·651*		1·3		0	2·47	−2·47	0	1·59	−1·59	0·79	3·91	— 3·12	0	Raniganj.		
28																																
2	1	2	2	2	5	11	5		S 34° W	6·3	4·8	+31	6·2	77	P	·823	P	3·3*	0	1	3·48	−2·48	0·20	1·75	−1·55	2·53	4·41	− 1·88	0·20	Burdwan.		
5	1	1	3	6	4	3	4	3	S 3° W	4·5			5·0	52		·606		1·4		1	2·38	−1·38	0·11	1·02	−0·91	0·64	3·2	− 2·64	0·11	Naya Dumka		
	1		3		12	9	3	2	S 27° W	5·5	5·2	+ 6	5·0	76	−0·3	·805	+·018	4·3	+0·5	1	2·56	−1·56	1·64	1·24	+0·40	·34	3·70	− ·36	1·64	Berhampore.		
				2	13	3	1		S 4° W	5·4			5·5	78		·874		3·1		2	2·95	−0·95	1·02	1·81	−0·79	1·40	4·21	— 2·81	0·68	Rampur Boalia.		
10		1																														
		3	7	9	7	4			S 43° E	7·8			7·2	71		·727		3·4		0	1·81	−1·81	0	1·35	−1·35	0·85	3·84	— 2·99	0	Malda.		
1		8	12	5	3	1			S 85° E	5·5			4·7	83	+6·5	·762	0	5·5	+1·7	3	3·81	−0·81	1·39	2·07	−0·68	2·29	4·84	— 2·55	0·59	Bogra.		
	1	10	13	2	3	1			N 82° E	6·3			6·0	76	+4·3	·692	+·013	5·9	+1·8	6	3·21	+2·79	3·63	2·33	+1·30	3·83	3·92	— 0·09	1·12	Dinajpur.	North Bengal.	12
		2	14	2	2				S 83° E	3·0			3·2	81		·715		5·1		6	4·39	+1·61	4·15	3·16	+0·99	8·11	5·33	+ 2·78	1·26	Rangpur.		
10																																
		6	15	7		1		1	S 88° E	1·7			2·4	81	+5·2	·673	−·004	4·8	+2·0	12	5·53	+6·47	6·21	3·85	+2·36	9·01	6·97	+ 2·94	1·77	Jalpaiguri.		
2	1	1	26						N 86° E	3·2			3·3	87		·711		6·6		12	7·41	+4·59	11·83	5·88	+5·95	13·56	8·47	+ 5·09	3·60	Cooch Behar.		
2	1	15	9			2	1		N 60° E	5·9	3·6	+64	5·2	66	−0·9	·635	−·016	2·7	+0·1	2	1·93	+0·07	0·42	1·22	−0·80	0·52	2·79	− 2·27	0·27	Purnea.	North Bihar.	17
2	1	15	9			2	1		N 60° E	5·9	3·6	+64	5·2	66	−0·9	·635	−·016	2·7	+0·1	2	1·93	+0·07	0·42	1·22	−0·80	0·52	2·79	− 2·27	0·27	Balasore.	Orissa.	14
1					8	20		1	S 36° W	9·8			7·2	72	−6·2	·827	−·046	1·7	−2·3	3	3·58	−0·58	0·50	1·86	−1·36	3·63	5·33	— 1·70	0·19	False Point.		
					3	22	5		S 48° W	16·3	13·3	+23	17·0	82	+0·5	·933	+·005	5·6	+0·4	0	1·84	−1·84	0	0·73	−0·73	0·09	3·98	− 3·29	0	Cuttack.		
7					8	13	2		S 33° W	5·9	5·1	+16		75	+2·7	·863	+·037	2·6	−0·9	0	1·97	−1·97	0	0·98	−0·98	0·14	3·10	— 2·66	0	Puri.		
						30			S 45° W	21·7			21·3	90		·954		2·8*		0	1·17	−1·17	0	0·80	−0·80	0·37	3·35	— 2·98	0	Puri.		
														48	0	·528	−·004	0·5	−1·1				0·11	0·44	−0·33					V.—Gangetic Plain and Chota Nagpur.		
	1			1	4	9	10	5	S 70° W	11·3	8·4	+35	10·1	28‡	−7·5	·324‡	−·066	0·3	−1·7	0	1·35	−1·35	0·07	0·39	−0·32	2·98	2·6	+ 0·35	·04	Hazaribagh.	Chota Nagpur.	15
	1		1	2	5	4	7	19	S 89° W	7·1			8·4	33	−11·2	·368	−·114	0·4	−1·1	2	2·16	−0·16	0·71	0·84	−0·13	4·15	3·95	+ 0·20	0·38	Ranchi.		
20	2	2				3	2	1	N 56° W	6·6			5·3	31		·309		0		0	0·70	−0·70	0	0·27	−0·27	2·17	2·48	− 0·31	0	Daltonganj.	South Bihar.	16
6			2	5	1	5	6	5	S 58° W	4·1			5·0	53		611		0·6		1	2·39	−1·39	0·37	0·99	−0·62	2·25	3·64	— 1·39	0·31	Purulia.	Chota Nagpur.	15
23					1	3	3		S 59° W	2·3			2·0	58	+3·5	·640	−·015	0·2	−1·6	2	2·06	−0·06	1·00	1·36	−0·36	4·40	3·91	+ 0·49	0·60	Chaibassa.		
1	1	4	3	3		5	13		S 77° W	6·0	3·8	+58	4·8	46	−5·1	·585	−·013	0·9	−0·8	0	0·58	−0·58	0	0·15	−0·15	0·95	2·09	− 1·14	0	Gaya.	South Bihar.	15
3			4	2	4	13	4		S 28° W	8·3			7·3	31		·384		0·3		0	0·41	−0·41	0	0·10	−0·10	0·43	2·06	− 1·63	0	Dehri.		
		4	15	2	1	1	6	1	N 88° E	7·5	4·1	+70	8·5	55	+4·2	·573	+·017	0·6	−0·7	0	0·58	−0·58	0	0·27	−0·27	0·95	1·92	− 0·97	0	Patna.		
8		8		2		8	2	2	W	4·9			4·9	44		·386		0		0	0·55	−0·55	0	0·47	−0·47	1·09	2·56	− 1·47	0	Arrah.		
			12	1	1	6	10		S 18° W	10·3			9·6	37		·420		0·6		0	0·35	−0·35	0·01	0·15	−0·14	1·61	1·93	− 0·32	0·01	Buxar.		
7		8	7	1	1	2	4		N 69° E	5·8			5·3	59		·617		2·4		0	1·45	−1·45	0·02	0·88	−0·86	0·86	2·62	− 1·76	0·02	Bhagalpur.	North Bihar.	17
2		1	13	12		1	1		S 67° E	5·7	5·1	+12		68	+4·7	·686	+·063	0·7	−0·5	0	1·47	−1·47	0	0·70	−0·70	0·03	2·36	− 2·33	0	Darbhanga.		
5		1	11	9			2	2	S 75° E	5·7				70		·724		0·6		0	0·90	−0·90	0	0·47	−0·47	0·10	2·23	− 2·13	0	Muzaffarpur.		
2		3	20	1		2	2		E	5·9			5·6	61		·629		0·5		0	1·23	−1·23	0	0·68	−0·68	0·42	2·27	− 2·05	0	Motihari.		
		2	15	2		4	5	2	S 84° E	5·4			4·8	56		·583		0·1		0	0·55	−0·55	0	0·32	−0·32	0·9	2·02	− 1·03	0	Chapra.		
6			3	2		16	2	1	S 39° W	3·8	5·0	−24	4·3	54	+6·5	·651	P	0·2	−1·1	0	0·40	−0·40	0·01	0·13	−0·12	1·11	1·7	− 0·61	0·01	Benares.	United Provinces (East).	18
2	2	1	2	1		4	15	2	N 88° W	7·0	4·9	+43	5·8	34	−2·0	·406	−·018	0·3	−1·3	0	0·20	−0·20	0·02	0·13	−0·11	0·63	1·86	− 1·23	0·02	Allahabad.		
4	3	6	7		1		4	3	N 34° E	3·0	4·4	−32		55	+3·9	·562	+·028	1·4	+0·1	0	0·50	−0·56	0·02	0·45	−0·43	0·24	2·17	− 1·93	0·02	Gorakhpur.	United Provinces (East Submontane).	23
5	1		6	1			9	8	N 53° W	3·3	4·4	−25	3·6	30	P	·342	P	0·1	−1·6	0	0·40	−0·40	0·06	0·04	+0·02	0·50	2·15	− 1·65	0·06	Lucknow.	South Oudh.	19
3	2		7	7			5	6	N 64° E	4·5			4·2	64	P	·733	P	0·1	−1·4	0	0·80	−0·80	0	0·40	−0·40	0·72	3·24	− 2·52	0	Bahraich.	North Oudh.	20
2	3		3	1	1	4	10	6	N 79° W	5·4				43	+2·6	·511	+·046	0·3	−0·6	0	0·40	−0·40	0·05	0·03	+0·02	0·43	1·42	− 1·19	0·05	Cawnpore.	United Provinces (Central).	21
1	3		1	2	2	5	9	7	N 86° W	6·1			6·2	37	−0·4	·428	+·028	0	−1·4	0	0·40	−0·40	0	0·48	−0·48	0·84	2·55	− 1·71	0	Mainpuri.		

or in the returns of any station, the data for that station are not utilized in calculating the provincial departures from normal.
figure columns Nos. 41, 43 and 45 are derived are incomplete.

Table

Abstract of Observations taken at 8 A.M. at 230

Number of District	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 A.M., in inches.								Temperature of air.												
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
	VI.—Upper Sub-Himalayas.				−·077								96·9	+0·4	67·5	+0·9	82·2	+0·7	29·4					45·1
24	United Provinces (West Submontane).	Bareilly .	568	29·111	−·084	29·645	29·255	1st	28·938	6th	·317	79·6	99·8	+0·5	69·8	+0·9	84·8	+0·7	30·0	106·5	27th	63·1	2nd & 6th.	43·4
		Dehra Dun .	2,233	27·485	−·087	29·673	29·278	1st	27·277	6th	·341	73·2	92·0	+1·4	63·9	−0·4	78·0	+0·5	28·1	98·0	26th	56·0	2nd & 3rd.	42·0
		Roorkee .	899	28·784	−·083	29·656	29·930	1st	28·607	6th	·323	77·6	98·0	−0·2†	66·3	−0·2	82·2	−0·2†	31·7	104·2	26th	57·9	1st	46·3
22	United Provinces (West).	Meerut .	738	28·949	−·082	29·654	29·093	1st	28·761	6th	·332	79·3	100·3	+1·8	68·7	+0·6	84·5	+1·2	31·6	106·2	27th	61·8	1st & 7th.	44·4
26	South-East Punjab.	Delhi .	718	28·982	−·076	29·666	29·127	1st	28·793	6th	·334	80·7	100·1	+0·4	74·7	+1·2	87·4	+0·8	25·4	106·2	27th	67·3	17th	38·9
28	Central Punjab.	Lahore .	702	28·991	−·075	29·672	29·153	1st	28·800	6th	·353	76·1	96·3	−1·9	65·8	+1·5	81·1	−0·2	30·5	105·4	27th	57·1	17th	48·3
27	South Punjab .	Sirsa .	662	29·050	−·063	29·679	29·201	1st	28·875	6th	·326	81·4	100·5	−0·6†	69·0	+0·5	84·8	−0·1†	31·5	107·3	26th	59·6	16th	47·7
		Patiala .	*818*	28·878		29·668	29·024	1st	28·665	6th	·359	78·3	95·8		67·4		81·6		28·4	103·0	20th	58·7	17th	44·3
29	Punjab (Sub-montane).	Ludhiana .	812	28·878	−·077	29·666	29·039	1st	28·689	6th	·350	76·9	97·3	−0·1	67·8	+0·6	82·6	+0·3	29·5	102·0	27th	59·2	17th	46·8
		Sialkot .	830	28·862	−·077	29·671	29·012	1st & 2nd.	28·643	6th	·369	75·3	96·4	+1·2	66·9	+0·6	81·7	+0·9	29·5	106·7	27th	58·7	17th	48·0
		Umballa .	892	28·794	−·079	29·659	28·946	1st	28·590	6th	·356	77·4	93·5	+1·8						106·0	27th			
		Rawalpindi.†	1,674	28·057	−·069	29·721	28·210	1st	27·829	12th	·381	73·8	88·6	+0·2	51·9	+2·0	75·3	+1·1	26·7	99·0	26th	52·6	1st	46·4
	VII.—Indus Valley and North-West Rajputana.				−·058								99·7	+1·3	70·5	+1·0	85·1	+1·1	29·2					46·5
32	North-West Frontier Province.	Peshawar .	1,110	28·664	−·069	29·773	28·799	1st	28·494	5th & 6th.	·305	73·8	86·9	0	61·3	+0·5	74·1	+0·3	25·6	95·0	26th & 30th.	54·0	17th	41·0
		D. I. Khan	590	29·150	−·078	29·697	29·320	1st	28·984	6th	·336	76·8	94·6	+0·1	65·2	−0·9	79·9	−0·1	29·4	101·2	25th	54·1	16th	47·1
31	West Punjab .	Khushab .	612	29·106	?	29·690	29·272	1st	28·934	6th	·348	80·2	96·3	+1·0	69·0	+1·0	82·7	+1·0	27·3	104·1	26th	57·5	16th	48·0
		Montgomery .	558	29·150	−·061	29·677	29·317	1st	28·984	14th	·333	81·9	99·6	−0·5	67·6	−0·5	83·6	−0·5	32·0	107·8	26th	57·0	17th	50·8
		Mooltan .†	420	29·285	−·087	29·672	29·443	2nd	29·135	7th	·308	80·2	101·5	+2·5	70·7	+2·1	86·1	+2·3	30·8	107·9	26th	60·4	16th	47·5
47	Sind . .	Jacobabad .	186	29·542	−·062	29·690	29·677	1st	29·337	7th	·340	84·6	107·8	+4·7	71·0	+1·3	89·4	+3·0	36·8	113·2	20th	63·4	5 days	49·8
		Hyderabad .	96	29·674	−·045	29·725	29·772	27th	29·485	7th	·287	82·5	104·7	+2·0	73·3	+1·0	89·0	+1·5	31·4	112·2	6th	64·0	17th	48·2
		Kurrachee .	30	29·785	−·035	29·766	29·886	28th	29·611	6th	·275	81·2	92·5	+1·9	74·7	+1·6	83·6	+1·8	17·8	100·9	3rd & 7th.	62·2	3rd	38·7
41	West Rajputana	Bikaner .	*771*	28·957	−·059	29·692	29·087	1st & 2nd.	28·786	14th	·301	84·3	102·5	+1·2	76·2	+0·6	89·4	+0·9	26·3	108·0	26th	61·5	17th	43·5
		Deesa .	380	29·393	−·030	29·729	29·492	28th	29·213	6th	279	83·7	106·4	+0·1	72·4	+2·8	89·4	+1·5	34·0	111·5	7th	59·1	16th	52·4
		Jodhpur	782	28·954		29·755	29·096	2nd	28·815	6th	·281	82·8	103·3		73·0		88·7		29·3	108·2	7th & 8th.	62·2	16th & 17th.	46·0
	VIII.—East Rajputana, Central India and Gujarat.				−·034								100·5	+0·3	73·5	+1·1	87·0	+0·7	27·0					39·7
50	East Rajputana	Jaipur .	1,431	28·342	−·053	29·726	28·456	2nd	28·174	6th	·282	83·7	102·1	+0·4	71·6	+0·5	86·9	+0·5	30·5	106·2	26th	62·1	16th	41·1
		Bharatpur .	585	29·145		29·691	29·292	11th	28·971	6th	·321	81·7	102·7		71·4		87·1		31·3	107·4	20th	63·1	1st	44·3
		Kotah .	819	28·937		29·743	29·050	2nd	28·775	6th	·275	90·3	104·7		79·6		92·2		25·1	107·6	26th	70·1	16th & 17th.	37·5
		Sambhar .	1,254	28·511	−·046	29·727	28·626	2nd	28·329	6th	·267	82·0	101·9	+1·5	71·7	+0·6	86·8	+1·1	30·2	105·5	26th	59·7	17th	45·8
		Ajmer .	1,611	28·191	−·040	29·755	28·294	2nd	28·015	6th	·279	82·6	100·2	+0·9	74·5	+3·1	87·3	+2·0	25·7	103·9	8th	60·7	17th	43·2
		Udaipur .	1,925	27·904		29·755	27·995	2nd	27·739	6th	·256	85·6	100·3		73·8		87·1		26·5	105·0	3th	61·8	16th	43·2
		Deesa .	466	29·356	−·032	29·777	29·448	27th	29·178	6th	·270	82·1	106·2	+2·0	71·9	+0·2	89·1	+1·1	34·3	110·6	4th	63·0	16th	47·6
46	Kathiawar and Cutch.	Bhuj .	395	29·432	−·024	29·779	29·527	27th	29·259	6th	·268	82·4	100·7	−0·3	72·6	+1·1	86·7	+0·4	28·1	105·8	4th	64·9	16th	40·9
		Jamnagar .	61	29·780?		29·736?	29·855	28th	29·608	6th	·247	80·3	96·4		71·5		83·9		24·9	102·6	3rd	65·2	16th	37·4
		Rajkot .	429	29·417	−·029	29·801	29·491	27th	29·254	6th	·237	78·8	102·8	0	68·9	−0·5	85·9	−0·3	33·9	107·9	7th	60·9	12th	47·0
		Veraval .	*18*	29·849	−·009	29·869	29·909	27th	29·695	6th	·214	79·3	94·0	−3·7	74·1	+1·6	79·1	−1·1	9·9	88·1	1st	68·3	16th	19·8
		Dwarka .	37	29·819		29·802	29·899	27th	29·639	6th	·260	80·6	85·3		76·9		81·1		8·4	86·9	16th	74·7	1st & 17th.	12·2
		Bhavnagar Para.	55	29·810	−·031	29·809	29·875	20th	29·655	6th	·220	82·1	104·1	?	73·4*	−0·1	88·9*	?	30·7	108·7	6th	69·5	12 h	39·2
49	Central India .	Nowgong .	757	28·987	−·061	29·700	29·192	2nd	28·814	6th	·238	82·9	102·3	−1·1†	71·5	+0·1†	86·9	−0·5†	30·8	106·5	27th	63·5	3rd & 17th.	43·0
		Indore .	1,823	28·016	?	29·779	28·073	28th	27·852	6th	·221	82·8	101·3	+0·7	71·3	+1·6	86·3	+1·2	30·0	105·6	30th	59·1	17th	46·5
		Neemuch .	1,630	28·188	−·027	29·765	28·271	2nd	28·023	6th	·248	83·5	102·0	+1·1	72·6	+1·3	87·3	+1·2	29·4	105·0	6th & 30th.	59·3	16th	45·7

N B.—Elevations in italics indicate barometrical determinations.

* Mean of 27 days.
† Mean of 29 days.

Note 1.—When a query is inserted against any reading or
Note 2.—The data from which divisional means of the figure

I—*continued.*

Stations in India, Burma, etc., in April, 1904—continued.

Wind Direction. Number of winds from Calm	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	Wind Velocity. Mean daily velocity in miles per hour, instrumental errors uncorrected,	Normal (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	Hygrometry, 8 A.M. Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Cloud. Mean cloud amount at 8 A.M.	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., 1903, to 30th April, 1904.	Normal rainfall for period, 1st December to 30th April.	Departure from normal of period, 1st Dec., 1903, to 30th April, 1904.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
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	58
														42	−2·8	·394	−·017	1·3	−0·8				0·13	0·52	−0·38					VI.—Upper Sub-Himalayas.		
16			3			1	9	1	W	4·4	4·5	− 2	4·2	42	− 2·7	·423	−·022	0·6	−0·8	1	0·45	+ 0·55	3·11	0·17	−0·06	0·84	3·05	− 2·21	0·10	Bareilly .	United Provinces (West Sub-montane).	24
16	1	2			1	2	4	4	N 68° W	2·1	2·6	− 19		43	− 2·8	·351	−·016	1·6	−1·1	1	1·50	− 0·50	0·20	0·59	−0·39	6·23	6·92	− 0·69	0·10	Dehra Dun,		
10	1		3	4		2	2	8	N 53° W	5·9	3·2	+ 84		34	− 7·4	·343	−·078	0·8	−0·8	0	1·10	−1·10	0	0·39	−0·39	4·70	4·69	+ 0·01	0	Roorkee,		
11	1		1			1	10	6	N 72° W	1·9	2·4	− 21	1·9	36	− 3·7	·360	P	1·0	−0·6	0	0·90	− 0·90	0·08	0·19	−0·11	2·15	3·55	— 1·40	0·08	Meerut, .	United Provinces (West).	22
			1	1	1	3	13	11	N 79° W	7·0	3·9	+ 79	6·2	31	− 5·0	·315	−·058	1·2	−0·8	0	0·90	− 0·90	0	0·21	−0·21	1·48	3·18	— 1·70	0	Delhi . .	South-East Punjab.	26
3	9	2	3	2	1		2	8	N 8° W	3·9	3·3	+ 18		52	+ 5·1	·471	+·052	2·2	−0·1	1	1·00	0	0·32	0·42	−0·10	7·39	3·67	+ 3·72	0·32	Lahore . .	Central Punjab	28
4	5	3	3	2	1	3	3	6	N 24° W	5·3	4·0	+ 33	4·8	41	+ 2·3	·410	+·048	0·9	−2·0	0	0·60	−0·60	0	0·26	−0·26	1·64	2·06	— 0·42	0	Sirsa . .	South Punjab .	27
	7		2	5	2	2	3	9	N 40° W	6·8			6·8	40		·391		1·2		0			0			7·47			0	Patiala,		
8		3	4	3			6	6	N 27° W	2·7	2·1	+ 29	2·4	46	+1·3	·428	−·003	1·0	−1·7	0	1·00	−1·00	0	0·71	−0·71	5·58	5·42	+ 0·16	0	Ludhiana .	Punjab (Sub-montane),	29
6	3	7	2		1		4	7	N 9° W	2·7	2·3	+ 17		52	+ 4·2	·444	+·008	1·6	−0·5	0	1·90	− 1·90	0·06	0·80	−0·74	9·42	6·77	+ 2·65	0·04	Sialkot,		
15				3	1		1	10	N 60° W	4·6				42	−11·3	·393	−·082	1·3	0	1	0·90	+ 0·10	0·45	0·31	+0·14	5·08	5·53	− 0·45	0·32	Umballa,		
17	2	3					3	4	N 28° W	4·8	2·8	+ 71	4·4	45	−11·2	·374	−·048	2·7	−0·4	2	3·20	−1·20	0·39	1·70	−1·31	11·05	9·31	+ 1·74	0·18	Rawalpindi		
														44	−3·6	·459	−·015	1·2	−0·9				0·11	0·36	−0·25					VII.—Indus Valley and North-West Rajputana.		
16		1	2	2		1	6	2	W	3·6	4·2	− 17	3·9	52	−9·5	·431	−·038	2·8	−0·6	2	3·40	− 1·40	0·94	1·75	−0·81	12·57	6·91	+ 5·63	0·35	Peshawar .	North-West Frontier Province.	32
15	5	7						3	N 13° E	1·8	2·4	— 25	1·9	59	+5·5	·540	+·051	1·8	−0·3	0	1·90	− 1·90	0·07	0·70	−0·63	8·95	3·03	+ 5·92	0·07	D. I. Khan,		
7	8	8	1		1	2	1	2	N 13° E	7·3			7·0	35	−7·1	·373	−·029	1·8	−1·0	0	1·50	− 1·50	0	0·62	−0·62	7·19	3·80	+ 3·39	0	Khushab .	West Punjab .	31
6	3	6	1	7	2	1	1	3	N 75° E	7·5			7·0	27	−10·9	·293	−·120	1·3	−0·9	1	0·70	+ 0·30	0·12	0·13	−0·01	3·36	2·41	+ 0·95	0·12	Montgomery,		
14	7	1		4		2	1		N 17° E	1·3	2·5	− 48	1·6	40	−7·8	·400	−·071	0·9	−0·7	0	0·70	− 0·70	0	0·10	−0·10	3·25	1·56	+ 1·69	0	Mooltan,		
10	4	2	4	3	4			3	N 75° E	4·4	3·9	+ 13	4·6	43	+ 4·6	·517	+·096	0·8	−1·1	0	0·40	− 0·40	0	0·15	−0·15	2·33	1·10	+ 1·36	0	Jacobabad .	Sind . .	47
1	2	1		1	1	21		3	S 53° W	10·2	10·2	0	10·6	49	+1·2	·540	+·029	0·7	−0·9	0	0·20	−0·20	0	0·04	−0·04	1·35	0·71	+0·64	0	Hyderabad,		
3	3	1				3	16	4	N 78° W	10·2	14·0	− 28	9·0	68	−9·5	·714	−·079	1·1	−1·1	0	0·20	−0·20	0	0·25	−0·25	4·62	1·54	+ 3·08	0	Kurrachee,		
4				4	7	8	5	2	S 34° W	7·9	4·7	+ 68		37	+ 0·9	·436	+·027	0·9	−0·9	0	0·00	− 0·30	0·04	0·11	−0·07	1·82	1·12	+ 0·70	0·04	Bikaner .	West Rajputana	51
	1	2	1		5	17	2	2	S 45° W	10·6	4·5	+136	9·2	40	−4·5?	·459	−·029?	0·1	−1·8	0	0·20	− 0·20	0	0·04	−0·04	0·87	0·73	+ 0·14	0	Pachpadra,		
7		2	2	1	2	13	3		S 38° W	6·0	4·5	+ 33	5·4	31		·349		0·9		0	0·20	− 0·20	0	0·05	−0·05	0·71	0·55	+ 0·16	0	Jodhpur,		
														50	+5·7	·556	+·044	0·8	−0·8				0·01	0·06	−0·06					VIII.—East Rajputana Central India and Gujarat.		
5	1	2				5	8	9	N 73° W	5·4	5·7	− 5		25	− 9·5	·302	−·091	1·4	−0·7	0	0·40	− 0·40	0	0·07	−0·07	1·21	1·37	− 0·16	0	Jaipur .	East Rajputana	50
5				1		8	16		S 74° W	4·7			4·3	51		·562		1·3		0			0·07			0·80			0·07	Bharatpur .		
1	2	1	1			4	13	8	N 74° W	5·7			4·6	19		·272		0·2		0	0·30	− 0·30	0	0·02	−0·02	1·55	0·78	+ 0·77	0	Kotah,		
12	2	1					12	3	N 70° W	7·8	7·0	+ 11		54	−0·6	·375	−·002	1·0	−0·6	0	0·30	− 0·30	0	0·09	−0·09	1·93	1·29	+ 0·64	0	Sambhar,		
13				1		10	5	1	S 60° W	8·0	5·0	+ 60	7·1	38	+1·0	·426	+·003	0·8	−0·7	0	0·50	− 0·50	0	0·11	−0·11	1·33	1·22	+ 0·11	0	Ajmer,		
14	1					5	7	3	S 88° W	5·9			5·2	34		·419		0·6		0	0·30	− 0·30	0			1·09			0	Udaipur,		
	2	1	1	3	9	7	6	1	S 32° W	10·2	9·4	+ 9		50	+10·0	·542	+·035	0·8	−0·4	0	0	0	0	0·01	−0·01	0·34	0·34	0	0	Deesa,		
		1				9	12	8	W	14·7	10·9	+ 35	12·3	71	+15·7	·779	+·169	0·2	−0·8	0	0	0	0	0·12	−0·12	0·86	0·41	+ 0·45	0	Bhuj . .	Kathiawar and Cutch,	46
					12	15	3		S 31° W	18·6			22·5	75		·747		1·7		0			0			2·04			0	Jamnagar .		
					2	8	15	5	S 81° W	10·2	11·1	− 8	10·1	70	P	·693	+·023	1·1	0	0	0	0	0	0·01	− 0·01	1·21	0·18	+ 1·03	0	Rajkot,		
	1			1	1	3	16	6	N 83° W	12·2	7·2	+69	12·2	82	+9·9	·808	+·084	1·8	−0·8	0	0	0	9	6	0	0·23	0·10	+ 0·13	1	Veraval,		
					2	9	16	3	S 76° W	14·2				81		·885		1·6		0			0			0·70			0	Dwarka,		
	2			1	2	8	8	9	W	4·4			5·2	54	P	·587	−·114	0·7	−0·9	0	0	0	0	0·01	− 0·01	1·39	0·30	+ 1·09	0	Bhavnagar Para,		
2	1		1	1	2	7	11	4	S 74° W	2·8	2·8	0	2·8	31	− 0·5?	·347	−·076?	0·1	−1·1	0	0·10	− 0·10	0	0·05	− 0·05	3·12	2·01	+ 1·11	0	Nowgong	Central India	45
2	3	1			1		14	9	N 66° W	7·1	4·4	+61	5·8	46	+ 7·0	·522	+·064	0·1	−1·3	0	0·20	− 0·20	0	0·13	−0·13	1·21	0·68	+ 0·53	0	Indore,		
		3	1			13	11	2	S 73° W	10·6	1·03	+ 3	8·9	51	+16·1	·575	+·153	0	−1·3	0	0·10	− 0·10	0	0·09	−0·09	1·20	0·79	+ 0·41	0	Neemuch.		

In the returns of any station, the data for that station are not utilized in calculating the provincial departures from normal, columns Nos. 41, 43 and 45 are derived are incomplete.

Table

Abstract of Observations taken at 8 A.M. at 230

Number of District.	Meteorological Province or District.	Station.	Elevation of barometer above sea-level, in feet.	Pressure, 8 A.M., in inches.								Temperature of air.											
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
45	Gujarat	Surat	39	29·338	-·013	29·821	29·896	20th	29·691	6th	·205	83·5	97·9?	-2·2?	74·6	+1·8	86·3?	-0·2?	23·3?	106·1?	1st & 25th.	70·5	17th	35·6?
		Ahmedabad	163	29·675	-·020	29·787	29·750	27th	29·512	6th	·238	83·3	105·4	0	74·8	-0·4	90·1	-0·2	30·6	109·8	5th	68·6	17th	41·2
22	United Provinces (West).	Agra	555	29·159	?	29·674	29·316	1st	28·986	6th	·330	83·4	102·2	-0·4	74·3	+0·6	88·3	+0·1	27·9	107·0	27th	67·9	2nd & 17th.	39·1
21	United Provinces (Central).	Jhansi	858	28·900	-·058	29·705	29·014	2nd	28·733	6th	·281	87·8	105·5	+1·3	79·8	+3·1	92·7	+2·2	25·7	109·3	27th	72·1	17th	37·2
	IX.—Deccan				-·036								103·9	+1·4	74·6	+0·2	89·3	+0·8	29·3					41·5
38	Bombay (Deccan)	Belgaum	2,535	27·348	-·017	29·820	27·409	13th	27·270	5th	·139	74·2	95·3	-0·7	65·8	-1·7	80·6	-1·2	29·5	100·3	28th	61·9	2nd & 20th.	38·4
		Sholapur	1,590	28·257	-·028	29·780	28·310	2nd	28·152	6th	·158	85·2	105·6	+0·8	75·7	+0·2	90·7	+0·5	29·9	108·2	25th, 27th & 29th.	70·0	18th	38·2
		Poona	1,840	28·041	-·021	29·835	28·101	20th	27·913	6th	·188	76·9	102·1	+0·5	68·0	-1·7	85·1	-0·6	34·1	106·0	28th, 29th & 30th.	58·9	17th	47·1
		Bijapur	*1,948*	27·914	-·020	29·785	27·968	14th	27·802	6th	·166	83·0	102·8	+3·0	73·7	-1·1	88·3	+1·0	29·1	106·5	29th	68·8	16th, 17th & 20th.	37·7
40	Khandesh	Malegaon	1,430	28·407	-·039	25·774	28·462	20th	28·252	6th	·210	85·5	105·4	+2·2	72·6	+0·8	89·0	+1·5	32·8	108·8	30th	64·6	17th	44·2
		Ahmednagar	2,152	27·731	-·015	29·801	27·775	20th	27·588	6th	·187	83·8	101·5	+2·6	70·6	+1·0	86·1	+1·8	30·9	103·9	4 days	56·0	17th	47·9
41	Berar	Akola	930	28·884	-·030	29·750	28·939	27th	28·717	6th	·222	88·4	107·5	+1·5	76·4	+1·6	92·0	+1·6	31·1	111·1	30th	66·8	17th	44·3
		Amraoti	1,215	28·586	-·026	29·747	28·646	3rd	28·440	6th	·206	88·0	106·6	+1·6	77·4	+1·1	92·0	+1·4	29·2	110·4	28th & 30th.	66·0	17th	44·4
42	Central Provinces (West).	Khandwa	1,044	28·770	-·030	29·765	28·828	27th	28·603	6th	·225	85·6	106·4	+1·6	76·7	+1·4	91·6	+1·5	29·7	112·2	30th	69·6	17th	42·6
		Hoshangabad	1,006	28·802	-·034	29·764	28·860	27th	28·631	6th	·249	83·9	104·9	+0·1	74·1	+0·3	89·5	+0·2	30·8	108·9	30th	61·2	17th	47·7
		Nagpur	1,025	28·765	-·037	29·731	28·833	3rd	28·598	6th	·235	89·4	108·2	+2·7	77·2	+1·0	92·7	+1·9	31·0	111·7	26th	64·1	17th	47·6
43	Central Provinces (Central)	Chanda	*634*	29·171	-·028	29·742	29·227	1st	29·014	6th	·213	88·9	109·0	+2·5	75·1	-1·3	92·1	+0·6	33·9	112·7	27th	64·0	16th	48·7
		Seoni	2,033	27·780	-·043	29·723	27·859	28th	27·614	6th	·245	86·9	102·8	+1·7	71·8	0	87·3	+0·9	31·0	106·9	30th	61·0	17th	45·9
		Jubbulpore	1,327	28·446	-·051	29·725	28·525	3rd & 27th.	28·259	6th	·266	82·3	102·1	+0·1	68·0	-2·6?	85·1	-1·3?	34·1	105·5	27th	58·3	17th	47·2
		Saugor	1,807	27·992	-·039	29·737	28·073	27th	27·810	6th	·263	83·1	100·9*	-0·6*	74·5	+1·7	87·7*	+0·6	26·4	104·4	26th	68·1	17th	36·3
49	Central India	Sutna	1,040	28·095	-·066	29·660	28·806	2nd	28·497	6th	·309	85·0	102·0	+0·3	72·7	+1·1	87·4	+0·7	29·3	107·1	27th	64·7	17th	42·4
44	Central Provinces (East).	Raipur	970	28·794	-·058	29·699	28·874	3rd	28·624	6th	·250	88·9	105·7	+1·4	77·0	+0·1	91·4	+0·8	28·7	109·3	25th & 26th.	69·4	17th	39·9
		Pendra	2,123?	27·739?		29·673?	27·822	1st	27·558	6th	·264	86·9	100·7		74·5		87·6		26·2	104·3	29th	67·6	17th	36·7
		Sambalpur	486	29·265	-·075	29·694	29·352	1st	29·086	6th	·266	86·6	106·9	+2·6	73·6	-2·0	90·3	+0·3	33·3	111·1	27th	65·1	18th	46·0
39	Hyderabad (North).	Aurangabad	1,905	27·949		29·771	27·987	13th	27·828	6th	·159	85·4	102·3		74·5		88·4		27·8	105·5	29th & 30th.	66·2	10th	39·3
		Indur	1,260	28·565		29·759	28·645	2nd	28·529	18th & 17th.	·116	89·5	108·1		79·8		93·0		26·3	108·5	8th & 30th.	68·2	1st	40·3
		Bidar	*2,165*	27·709		29·779	27·783	12th	27·573	6th	·210	86·4	101·7		78·6		90·2		23·1	101·3	8th & 27th.	74·0	25th	30·3
53	Hyderabad (South).	Gulbarga	1,503	28·333	-·037	29·768	28·411	12th	28·218	6th	·193	85·8	103·6	+0·4	76·5	+0·4	90·1	+0·4	27·1	107·1	8th	69·2	16th	37·9
		Raichur	1,326	28·510	-·020	29·773	28·576	2nd	28·399	6th	·177	84·6	103·7	+1·6	78·6	-0·6	91·2	+0·5	25·1	107·0	27th, & 28th.	72·6	19th	34·4
		Hyderabad (Dn.)	1,690	28·144	-·035	29·760	28·209	12th	28·008	6th	·201	85·3	103·7	+1·7	76·7	+1·4	90·2	+1·6	27·0	107·4	8th, 26th & 27th	70·7	1st	36·7
		Hanumkonda	871	28·939		29·751	29·001	22nd	28·772	6th	·229	84·1	103·6		78·0		90·8		25·6	108·2	26th & 27th.	72·3	1st & 18th.	35·9
	X.—West Coast				-·005								88·6	-1·3	78·4	0	83·5	-0·7	10·2					17·1
37	Konkan	Bombay	37	29·849	-·017	29·826	29·909	20th	29·731	6th	·178	81·3	88·9	+0·4	77·9	+0·2	83·4	+0·3	11·0	91·0	29th	75·0	18th	16·0
		Ratnagiri	110	29·786	+·005	29·836	29·838	13th & 20th.	29·688	6th	·150	81·7	88·5	-1·6	77·3	-0·1	82·9	-0·9	11·2	89·3	27th & 29th.	72·9	18th	16·9
		Mormugao	*60*	29·842	+·002	29·837	29·901	13th	29·753	5th & 6th.	·148	82·6	88·1	-2·0	78·9	-1·1	83·5	-1·6	9·2	92·0	1st	71·4	2nd	20·6
		Goa	199	29·705	-·009	29·842	29·774	14th	29·605	5th	·169	82·2	85·8	-3·4	80·0	+1·1	82·9	-1·2	5·8	87·0	6 days.	73·0	2nd	14·0
		Karwar	44	29·649	-·011	29·827	29·911	13th	29·756	6th	·155	82·0	88·4	-1·6	77·9	0	83·2	-0·8	10·5	89·3	8 days	72·0	2nd & 18th.	17·3
33	Malabar	Cochin	10	29·689	-·012	29·827	29·935	15th	29·793	6th	·142	83·6	90·6	-0·9	78·6	+0·2	84·6	-0·4	12·0	91·8	27th	74·7	1st	17·1
		Calicut	27	29·876	-·006	29·832	29·929	15th	29·764	6th	·165	83·4	90·6	-0·7	78·1*	+0·2*	84·4*	-0·3	12·5	92·3	8th, 28th & 29th.	73·2	2nd	19·1
		Mangalore	65	29·815		29·842	29·901	15th	29·750	6th	·151	83·2	89·5	-1·6	73·3	-0·4	83·9	-1·0	11·2	91·2	1st & 13th,	72·4	29th	18·8
		Trivandrum	198	29·694	-·001	29·823	29·749	15th	29·596	6th	·153	81·6	86·9	-0·6	78·3	0	82·6	-0·3	8·6	88·5	4th	74·5	1st & 10th.	14·0

* Mean of 29 days.

Note 1.—When a query is inserted against any reading or in the returns of any station,
Note 2.—The data from which divisional means of the figure columns Nos. 41, 43

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

I—*continued.*

Stations in India, Burma, etc., in April, 1904—continued.

Wind Direction. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	Wind Velocity. Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	Hygrometry, 8 A.M. Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Cloud. Mean cloud amount at 8 A.M.	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., 1903, to 30th April, 1904.	Normal rainfall for period, 1st Dec. to 30th April.	Departure from normal of period, 1st Dec., 1903, to 30th April 1904.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
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	58
4	5	1			11	8	1		S 28° W	7·6	8·0	−5·0	7·1	65	0	·748	+·009	1·1	−0·6	0	0	0	0	0	0	0·81	0·14	+0·67	0	Surat	Gujarat	45
	3	2			1	10	2	12	N 74° W	3·3			5·4	55	+8·1	·616	+·074	0·8	−0·7	0	0·10	−0·10	0	0	0	1·05	0·30	+0·75	0	Ahmedabad.		
3		1		2		21		3	S 48° W	6·2	4·7	+32	7·3	30	−5·0	·343	−·052	0·3	−0·9	0	0·40	−0·40	0	0·13	−0·13	0·75	1·50	−0·75	0	Agra	United Provinces (West).	22
2		1		1		8	9	9	N 88° W	6·5	4·2	+55	7·0	44	+16·0	·578	+·214	0·1	−0·8	0	0·50	−0·50	0·03	0·12	−0·09	2·30	1·65	+0·65	0·03	Jhansi	United Provinces (Central).	21
														38	−5·7	·449	−·091	0·6	−1·5				0·14	0·48	−0·33					IX.—Deccan.		
7	1		1		1	8	10	2	S 75° W	13·5	13·1	+3		66	+3·8	·556	−·008	1·6	−0·9	3	3·80	−0·80	2·71	1·90	+0·81	3·00	2·52	+0·48	1·84	Belgaum	Bombay (Deccan)	38
2	5	2			1	1	5	14	N 44° W	8·9	8·2	+9	10·8	27	−12·4	·325	?	1·1	−1·5	0	1·10	−1·10	0	0·43	−0·43	0·59	1·22	−0·63	0	Sholapur.		
	1					3	20	6	N 83° W	13·0	9·9	+31		48	+7·0	·437	+·011?	0·5	−1·4	1	1·40	−0·40	0·41	0·68	−0·27	0·49	1·01	−0·53	0·41	Poona.		
	5	2			1	4	6	12	N 56° W	9·1			8·9	49	−11·1?	·555	−·103?	0·4	−1·9	0	2·20	−2·20	0·08	0·80	−0·72	1·18	1·39	−0·21	0·08	Bijapur.		
1	4			1		1	13	10	N 64° W	9·8	7·7	+27	11·3	42	−11·2?	·532	?	0·1	−1·9	1	0·30	+0·70	0·21	0·10	+0·11	0·55	0·54	+0·01	0·21	Malegaon	Khandesh	40
4	10	4	1					11	N 10° W	5·6			6·8	50	−5·2?	·588	−·043?	0·3	−1·3	0	0·60	−0·60	0	0·33	−0·33	0·38	1·56	−1·18	0	Ahmednagar.		
1	1			1		1	12	14	N 67° W	7·7	5·4	+43	7·5	27	−2·9	·349	−·029?	0·1	−1·8	0	0·50	−0·50	0	0·20	−0·20	0·10	1·88	−1·78	0	Akola	Berar	41
1	3	1		1	2	7	12	3	S 84° W	7·6	4·4	+73	6·8	?	?	?	?	0·3	−1·8	0	0·80	−0·80	0	0·23	−0·23	1·20	1·68	−0·48	0	Amraoti.		
	1				1		5	25	N 53° W	7·6	5·6	+36		32	+2·5	·386	+·026?	0·2	−1·2	0	0·30	−0·30	0	0·13	−0·13	1·73	0·99	+0·74	0	Khandwa	Central Provinces (West).	
2		2				26			S 45° W	2·4	2·9	−17	2·4	31	−6·7	·367	−·079	0·1	−1·6	0	0·30	−0·30	0	0·15	−0·15	3·55	1·39	+2·17	0	Hoshangabad		
3	9	2			1	1	2	12	N 29° W	6·1	6·7	−9	4·8	21	−15·3	·231	−·176	0·3	−2·2	0	1·10	−1·10	0	0·18	−0·18	1·37	2·25	−0·89	0	Nagpur.		
21			1	3	2	1	1	1	S 10° E	2·4	3·8	−37	2·1	28	−6·9	·372	−·181	0·3	−2·1	0	1·80	−1·80	0	0·59	−0·59	0·75	2·91	−2·16	0	Chanda	Central Provinces (Central).	4
	6	4	1	1	1	3	6	8	N 41° W	5·7	3·8	+50	4·8	23	−5	·285	−·159	0·1	−2·0	0	1·30	−1·30	0	0·39	−0·39	2·71	2·91	−0·20	0	Seoni.		
		1		4	3	7	11	5	S 65° W	3·5	3·5	0	3·1	33	−1·5	·364	−·026	0	−1·6	0	0·60	−0·60	0	0·15	−0·15	2·21	2·19	+0·02	0	Jubbulpore.		
		2			1	5	18	4	S 85° W	8·1	3·7	+119	7·2	27	−2·6	·311	−·040	0·2	−1·1	0	0·30	−0·30	0	0·09	−0·09	2·75	2·13	+0·62	0	Saugor.		
4			1	1		3	14	7	N 84° W	4·5	6·8	−34	4·1	22	−4·2	·260	−·056	0·7	−0·3	0	0·20	−0·20	0	0·11	−0·11	2·00	2·54	−0·54	0	Sutna	Central India.	49
7		2	2		1	13	5		S 51° W	5·8	5·9	−2	7·0	26	−10·6	·357	−·099	0·5	−2·0	0	1·40	−1·40	0	0·53	−0·53	0·86	1·98	−1·12	0	Raipur	Central Provinces (East).	44
13	4				3	1	3	6	N 00° W	5·4			4·6	20		·261		0·5		0			0			2·71			0	Pendra.		
		1	2	6	4	12	2	3	S 23° W	4·4	2·6	+69	4·3	37	−14·3	·470	−·140	0·2	−2·0	0	1·50	−1·50	0·06	0·60	−0·54	1·22	2·70	−1·48	0·06	Sambalpur		
4	8					6	12		N 77° W	13·3			13·2	28		·362		0·1		0	0·60	−0·60	0	0·22	−0·22	0·49	1·20	−0·76	0	Aurangabad.	Hyderabad (North).	39
12		2				2		14	N 45° W	4·5			3·8	46		·648		0·8		0	1·40	−1·40	0	0·49	−0·49	0·73	1·48	−0·75	0	Indur.		
	8	4	1	1	1	7	3	5	N 41° W	4·6			3·9	43		·604		2·0		0	2·60	−2·60	0	0·98	−0·98	1·91	2·20	−0·29	0	Bidar.		
3	6	4	3			3	5	6	N 29° W	8·3			7·9	58	+8·5	·725	?	0·8	−1·7	1	2·20	−1·20	0·11	1·05	−0·94	1·19	1·93	−0·74	0·11	Gulbarga	Hyderabad (South).	53
3	1	1				12	4	9	S 89° W	9·8			9·3	49	−4·3	·586	−·019	0·6	−2·1	0	1·20	−1·20	0	0·66	−0·66	2·13	1·34	+0·79	0	Raichur.		
28								2	N 45° W	4·0			3·9	46	−10·3	·552	−·083	2·2	0	0			0·06	0·67	−0·61	0·70	1·63	−0·93	0·06	Hyderabad (Dn.),		
1	1		2	17	4	2	1	2	S 34° E	8·9			7·6	60		·694		1·4		0	1·30	−1·30	0			0·33			0	Hanumkonda.		
														75	−1·5	·827	−·030	3·0	−0·8				1·22	2·00	−0·78					X.—West Coast.		
2	4	5	2	2	2	5	3	5	N 37° W	9·0	11·3	−20		76	+1·0	·817	−·015	3·5	+0·4	0	0·10	−0·10	0	0·07	−0·07	0·07	0·27	−0·20	0	Bombay	Konkan	37
3	6	8	5	2			1	5	N 29° E	11·5	11·1	+4	11·4	72	+1·5	·781	−·031	2·3	−0·7	1	0·10	+0·90	0·14	0·08	+0·06	0·17	0·32	−0·15	0·14	Ratnagiri.		
7	13	1	1					8	N 12° W	10·3				75	0	·835	−·052	2·9	−0·3	2			2·11	1·04	+1·07	2·31	1·09	+1·22	1·72	Mormugao.		
	17	4	2				2	5	N 2° W	10·6				75	+0·6	·825	−·041	3·3	−0·1	1			0·36	0·32	+0·04	0·36	0·63	−0·27	0·36	Goa.		
3	12	6	5				2	2	N 57° E	5·3				74	−3·5	·801	−·029	3·0	−0·3	1	0·90	+0·10	0·58	0·55	+0·03	0·53	0·73	−0·15	0·58	Karwar.		
		12	13	3				2	N 71° E	8·7				76	−2·8	·875	−·016	2·3	−2·2	3	7·00	−4·00	1·46	5·20	−3·74	11·08	10·42	+0·66	0·75	Cochin	Malabar	33
3	12	4	2	1				8	N	10·4			10·3	73	−4·7	·835	−·036	2·9	−2·0	2	5·10	−3·10	1·03	4·38	−3·35	5·11	6·27	−1·16	0·53	Calicut.		
17	3	4	4	1				1	N 49° E	3·3	3·7	−11		73	−3·2	·831	−·032	4·4	−0·1	2	2·30	−0·30	1·52	1·65	−0·13	2·51	2·25	+0·26	1·07	Mangalore.		
4	8		1					17	N 29° W	6·7				71	−2·4	·839	−·022	2·8	−1·5	5	7·10	−2·10	3·89	4·74	−0·85	6·44	10·03	−3·59	2·30	Trivandrum.		

the data for that station are not utilized in calculating the provincial departures from normal.
and 45 are derived are incomplete.

Table

Abstract of Observations taken at 8 A.M. at 230

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 A.M., in inches.								Temperature of air.											
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
	XI.-South India.				-·029								97·6	+1·2	76·3	+0·4	86·9	+0·8	21·3					30·8
57	Madras (South)	Pamban	37	29·842	—·016	29·805	29·905	13th	29·726	6th	·179	85·7	92·3	+1·4	80·9	+1·9	86·6	+1·7	11·4	94·3	8th & 18th	77·7	1st & 4th	16·6
		Tinnevelly	168	29·703	—·018	29·800	29·754	12th, 13th & 22nd.	29·592	6th	·162	86·3	101·8	+3·8	78·8	+0·2	90·3	+2·0	23·0	105·5	27th	70·4	11th	35·1
		Madura	447	29·421	—·023	29·801	29·481	13th	29·316	6th	·168	85·2	100·9	+1·6	77·8	+1·4	89·4	+1·5	23·1	104·0	17th, 18th & 27th.	75·0	23rd	29·0
		Periyakulam	945	28·931			28·931	13th & 22nd.	28·820	6th	·161	82·3	100·1		73·0		85·4		27·1	104·0	8th	69·0	15th	35·0
34	Madras (South-Central).	Salem	940	28·955	—·031	29·830	29·012	12th & 13th.	28·835	6th	·177	83·4	100·2	−0·5	77·1	+1·3	88·6	+0·4	23·1	103·2	26th	72·4	2nd	30·8
		Coimbatore	1,348	28·532	—·025	29·824	28·583	13th	28·419	6th	·170	80·1	97·7	+0·3	73·6	+0·2	85·7	+0·3	24·1	100·4	30th	69·8	9th	30·6
35	Coorg	Mercara	3,781	26·229	—·005		26·275	13th	26·154	6th	·121	68·1	82·2	−1·7	62·0	−2·2	72·2	−2·0	20·2	87·0	10th	59·1	23rd	27·9
36	Mysore	Chitaldroog	2,405	27·500	—·012	29·831	27·551	13th	27·405	6th	·149	77·4	96·2	+0·4	71·2	−0·6	83·7	−0·1	25·0	100·2	28th	62·9	2nd	37·3
		Bangalore	3,021	26·920	—·022	29·838	26·959	12th & 14th.	26·831	6th	·125	75·8	93·9	+0·7	69·0	−0·2	81·4	+0·3	24·9	96·3	7th & 9th	63·8	2nd	32·5
		Hassan	3,091	26·868	—·006	29·861	26·908	13th	26·770	6th	·138	74·3	91·0	−0·1	65·6	−0·8	78·3	−0·5	25·4	94·0	22nd	58·4	29th	35·6
		Mysore	2,518	27·413	—·011	29·864	27·461	13th	27·320	6th	·141	75·1	94·6	+0·6	68·8	−1·5	81·7	−0·5	25·8	99·9	7th	66·0	2nd	33·9
56	Madras, East Coast, South.	Negapatam	31	29·832	—·036	29·791	29·897	12th	29·717	6th	·180	85·7	95·8	+3·3	79·8	+0·8	87·8	+2·1	16·0	100·3	16th	76·0	4th	24·3
		Cuddalore	12	29·847	—·033	29·788	29·911	22nd	29·731	6th	·180	85·4	94·8	+2·0	78·2	+1·4	86·5	+1·7	16·6	101·2	19th	74·7	4th	26·5
		Trichinopoly	255	29·619	—·025	29·805	29·679	13th	29·522	6th	·157	86·0	102·9	+1·8	78·6	+1·1	90·8	+1·5	24·3	107·2	18th	73·4	22nd	33·8
		Madras	22	29·838	—·039	29·791	29·896	13th	29·718	6th	·178	84·8	94·2	+1·1	77·9	+0·8	86·1	+1·0	16·3	100·5	24th	74·0	4th	26·5
		Vellore	707	29·147		29·792	29·212	12th	29·043	6th	·169	83·8	101·0		76·4		88·7		24·6	101·9	16th, 17th & 26th.	73·5	5th & 23rd.	31·4
55	Madras, East Coast, Central.	Nellore	71	29·761	—·035	29·766	29·840	12th	29·631	6th	·209	84·8	102·5	+1·6	77·3	—0·1	89·9	+0·8	25·2	108·8	19th	74·1	1st & 3rd.	34·7
		Masulipatam	15	29·628	—·039	29·778	29·895	1st & 12th	29·684	6th	·211	85·4	94·5	−0·1?	78·3	+0·8	86·4	+0·2?	16·2	103·2	25th	71·6	1st	31·6
54	Madras, Central	Cuddapah	433	29·401	—·034	29·766	29·458	2nd	29·278	6th	·180	88·7	107·0	+1·8	80·7	−0·1	93·9	+0·9	26·3	110·3	13th	71·7	9th	38·6
		Kurnool	945	28·886	—·034	29·764	28·948	2nd	28·772	6t	·176	86·2	104·8	+1·2	78·9	+0·9	91·9	+1·1	25·9	108·8	29th	71·9	2nd	36·9
		Bellary	1,475	28·372	—·027	29·783	28·422	13th	28·268	6th	·154	83·5	103·8	+0·4	76·8	—0·3	90·3	+0·1	27·0	107·0	22nd & 28th.	65·2	2nd	41·8
52	Madras East Coast, North.	Cocanada	26	29·821	—·042	29·783	29·893	12th	29·669	6th	·224	84·7	98·0	+2·4	79·5	+1·2	88·8	+1·8	18·5	103·6	26th	74·0	1st	29·6
		Waltair (Vizag.)	226	29·599	—·048	29·766	29·669	12th	29·446	6th	·223	83·8	89·7	?	78·8	?	84·3	?	10·9	93·4	25th	73·4	1st	20·0
		Gopalpur	21	29·764	—·053	29·726	29·846	1st	29·614	6th	·232	82·9	86·6	−1·1	77·5	0	82·1	−0·6	9·1	88·7	28th	73·5	1st & 2nd	15·2
	XII.-Hill Stations.																							
43	Baluchistan	Pishin											77·6		42·2		59·9		35·4	84·4	20th	31·0	16th	53·4
		Quetta	5,502	24·652	+·020		24·743	1st	24·525	7th	·218	61·7	77·6	+3·4	46·2	−0·1	61·9	+1·7	31·4	83·7	20th	34·8	16th	48·9
		Kalat										60·9	77·2	+1·1?	25·6	−11·7?	51·3	−5·3?	51·6	81·5	19th	11·8	13th	72·7
		Chaman	4,311	25·673	—·023		25·808	22nd	25·511	13th	·297	67·6	81·4	−0·2	56·0	−2·0	68·7	−1·1	25·4	89·2	2·th	45·1	15th	44·1
30	Punjab	Leh	11,503	19·689	—·041		19·841	2nd	19·429	15th	·415	39·5	56·0	−1·1	30·7	−0·2	43·4	−0·7	25·3	61·6	26th	22·9	17th	41·7
		Srinagar	*5,204*	24·852	—·057		25·023	28th	24·681	15th	·342	53·2	69·8	+1·6	46·8	+1·4	58·3	+1·5	23·0	79·2	26th	38·6	16th	40·6
		Sonemarg	*8,764*	21·844			21·973	2nd	21·631	15th	·342	31·9	52·6		23·0		40·8		23·6	62·2	6th & 26th	15·1	9th	47·1
		Skardu	*7,505*	22·833			22·999	2nd	22·562	15th	·437	49·3	64·3		43·4		53·9		20·9	73·9	21st	38·6	12th	35·3
		Dras	*10,059*	20·738			20·955	2nd	20·548	15th	·407	33·5	47·4		24·7		35·1		22·7	58·3	27th	15·1	2nd	43·2
		Gilgit	4,890	25·099			25·254	28th	24·830	15th	·424	60·4	74·1	+1·4	51·8	+0·8	64·5	+1·1	19·3	84·3	3)th	46·1	12th	38·2
		Chitral	*5,486*	?	?							56·9	72·5		44·9*		58·8*		27·6	81·1	26th & 30th.	28·0	9th	53·1
		Killa Drosh										56·7	74·1		51·6		62·9		22·5	82·7	18th	43·3	15th	39·4
		Murree	6,333	23·789	—·041		23·892	3rd	23·645	15th	·247	59·6	68·3	—0·5	51·1	-1·2	59·7	-0·9	17·2	77·2	26th	40·0	16th	37·2

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

* Mean of 25 days.

Note 1.—When a query is inserted against any reading or in the returns of any

Note 2.—The data from which divisional means of the figure columns Nos. 41,

I—*continued.*

Stations in India, Burma, etc., in April, 1904—continued.

Wind Direction. Number of winds from: Calm	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	Wind Velocity. Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	Hygrometry, 8 A.M. Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Cloud. Mean cloud amount at 8 A.M.	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., 1903, to 30th April, 1904.	Normal rainfall for period, 1st Dec. to 30th April.	Departure from normal of period, 1st Dec., 1903, to 30th April, 1904.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
26	24	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	58
														71	+0·6	·812	+·004	2·8	−1·0				0·65	1·42	−0·77					XI.—South India.		
2			1	4	10	11	2		S 16° W	11·6			12·3	79		·974		3·0		0	3·30	−3·30	0	2·40	−2·40	9·53	15·49	−5·96	0	Pamban	Madras (South)	57
	6	2	1	1		6	6	8	N 57° W	4·5			4·3	61	−9·7	·773	P	3·7	−1·1	2	3·70	−1·70	1·32	3·28	−1·96	7·41	10·56	−3·15	1·07	Tinnevelly.		
9	1	6	2	1		1	2	8	N 9° W	3·5	3·6	−3	4·0	64	−7·3	·786	−·047	1·9	−2·1	1	3·30	−2·30	0·86	2·25	−1·39	9·03	5·34	+3·69	0·86	Madura.		
17	2	1		2	1	1	2	3	N 45° W	3·0			3·6	67		·738		2·1		4	4·70	−0·70	1·41	2·69	−1·28	7·23	7·58	−0·35	0·48	Periyakulam.		
12			1	2	3	8	3	1	S 37° W	2·5	5·0	−50	2·2	72	+1·1	·833	+·027	2·4	−1·1	3	3·10	−0·10	2·10	1·84	+0·26	3·64	4·37	−0·73	0·65	Salem.	Madras (South Central).	34
12			1		2	14	1		S 40° W	3·2	3·5	−9	2·8	83	+0·9?	·860	+·043	2·2	−2·3	1	3·50	−2·50	0·13	1·69	−1·56	2·51	3·94	−1·43	0·10	Coimbatore.		
4	13	1					5	7	N 26° W	5·7	3·8	+50	5·3	85	+7·4	·593	−·003	3·3	−0·9	7	5·70	+1·30	3·27	2·67	+0·60	7·27	4·15	+3·12	1·19	Mercara.	Coorg.	35
1	1				2	10	13	3	S 75° W	7·0			6·1	66	+2·7	·619	−·009	2·3	−0·6	2	2·50	−0·50	0·66	1·97	−1·31	1·45	2·48	−1·03	0·39	Chitaldroog.	Mysore.	36
		1			3	13	11	2	S 65° W	7·5	3·5	+114	6·5	71	−1·2	·631	−·018	1·9	−1·4	2	2·40	−0·40	0·57	1·26	−0·69	1·75	2·45	−0·70	0·29	Bangalore.		
	1				1	4	15	9	N 81° W	3·7			3·3	74	+1·3	·631	−·004	3·5	−0·9	7	4·80	+2·20	3·36	3·10	+0·26	5·50	3·72	+1·78	1·97	Hassan.		
	1				2	13	11	3	S 70° W	7·8			8·4	83	+9·5	·715	+·045	4·7	+0·3	7	4·30	+2·70	3·14	3·00	+0·14	3·91	3·42	+0·29	1·24	Mysore.		
6		1	2	5	5	11			S 6° W	10·0	5·2	+92	8·8	71	−4·1	·889	−·019	4·1	−0·4	1	1·20	−0·20	0·18	0·56	−0·38	25·91	15·82	+10·09	0·18	Negapatam.	Madras, East Coast, South.	58
16				3	6	5			S 7° W	4·7			5·8	72	−8·5	·883	−·084?	2·2	−2·2	0	1·00	−1·00	0	0·83	−0·83	8·53	10·83	−2·30	0	Cuddalore.		
21	1					5	2	1	S 74° W	4·2	4·0	+5		63	−5·4?	·779	−·025	1·4	−2·8	0	2·10	−2·10	0	2·06	−2·06	8·57	6·29	+2·28	0	Trichinopoly.		
				3	23	4			S 1° W	8·4	7·9	+6		75	+0·9	·905	+·010	3·2	−1·2	0	1·10	−1·10	0	0·40	−0·40	20·65	7·38	+13·27	0	Madras.		
3		6		4	3	5	5	4	S 63° W	4·0			4·0	68		·779		2·0		0	1·20	−1·20	0·03	0·71	−0·68	14·28	4·40	+9·88	0·03	Vellore.		
					29	1			S 2° W	8·3				74	−0·8	·883	−·022	1·4	−2·7	0	0·30	−0·30	0	0·40	−0·40	10·07	2·77	+7·30	0	Nellore.	Madras, East Coast, Central.	55
3				3	17	6	1		S 7° W	4·0	8·8	−55	3·8	85	+4·3	1·036	+·057?	4·4	+0·4	0	0·50	−0·50	0	0·47	−0·47	1·67	1·66	+0·01	0	Masulipatam.		
	1			9	1	7	1	11	S 64° W					53	−1·5	·721	−·010	2·0	−0·6	2	0·70	+1·30	0·67	0·54	+0·13	2·13	1·95	+0·18	0·46	Cuddapah.	Madras, Central.	54
2		2				12	5	9	S 88° W	6·0				69	+14·7	·867	?	1·7	−0·5	0	1·70	−1·70	0·05	0·94	−0·89	0·26	1·56	−1·30	0·05	Kurnool.		
3	4		1		2	4	6	10	N 67° W	6·5	5·2	+25	6·9	60	+7·2	·696	?	2·8	−0·1	1	1·90	−0·90	0·50	0·74	−0·24	1·15	1·10	+0·05	0·48	Bellary.		
11				1	2	12	4		S 46° W	7·2			6·0	79	+5·3	·955	+·085	4·7	+0·9	0	0·70	−0·70	0	0·35	−0·35	0·41	2·10	−1·69	0	Cocanada.	Madras, East Coast, North.	52
					1	28	1		S 45° W	20·8				71	−4·1	·823	−·024	5·5	+1·8	0	0·90	−0·90	0	0·59	−0·59	0·13	3·04	−2·91	0	Waltair (Vizag.).		
					9	21			S 32° W	25·1	14·5	+73	24·6	84	+1·6	·936	+·022	0·5	−3·0	0	1·10	−1·10	0	0·69	−0·69	3·35	2·69	+0·66	0	Gopalpur.		
																														XII.—Hill Stations.		
																				2	1·90	+0·10	0·26	0·86	−0·60	9·64	8·91	+0·73	0·15	Pishin.	Baluchistan.	18
20			1	1	5		1	2	S 10° W	2·4	4·8	−50	2·5	43	−9·1	·238	−·034	1·4	−1·1	0	2·40	−2·40	0·08	1·07	−0·99	7·81	7·96	−0·15	0·04	Quetta.		
	7		8		13		2		S 45° E					51		·279				0	1·10	−1·10	0·01	0·22	−0·21				0·01	Kalat.		
	2		6	6	3	7	3	3	S 1° E	7·6			8·1	44	−9·1	·295	−·013	1·5	−0·9	1	1·60	−0·60	0·24	0·43	−0·19	5·64	5·71	−0·07	0·20	Chaman.		
	1	3	5		7	4	9	1	S 42° W	4·2				41	−6·6	·100	−·010	6·0	+0·5	0	0·70	−0·70	0·03	0·16	−0·13	0·14	1·23	−1·09	0·01	Leh.	Punjab.	30
4	1	2	9	9	6	1	1	2	S 43° E	4·4			4·1	86	+2·4	·354	+·021	5·2	+0·7	7	6·80	+0·20	2·02	2·69	−0·67	13·06	13·03	+0·03	0·48	Srinagar.		
18		1	1	4	2	2	1	1	S 17° E	1·9			1·7	90		·191		4·5		9			7·63			27·81			1·58	Sonemarg.		
20		1			1	4	4		S 63° W	6·0			6·1	61		·212		5·3		2	2·00	0	0·67	2·65	−1·98	2·36	7·42	−5·06	0·37	Skardu.		
22		1	1	1	2	1		2	S 2° W	2·5			2·0	78*		·151*		4·5		10	8·80	+1·20	4·04	3·85	+0·19	10·93	16·98	−6·05	1·02	Dras.		
21		1	1			2	5		S 81° W	3·5			3·1	43	−6·8	·222	−·022	6·4	+1·2	1	2·80	−1·80	0·66	1·15	−0·49	0·88	2·20	−1·32	0·48	Gilgit.		
21				8		1			S 7° W	1·6			1·5	62		·281		2·7		7			1·98			4·63			0·62	Chitral.		
21		2	4	1				1	N 79° E					70		·325		2·9		6			2·58			6·56			0·68	Killa Drosh.		
20	1	1	2	3	2			1	S 67° E	7·4	8·7	−15	8·0	38	−8·3	·193	−·032	2·9	−1·2	3	5·90	−2·90	0·69	3·35	−2·66	14·28	16·05	−1·77	0·19	Murree.		

station, the data for that station are not utilized in calculating the provincial departures from normal.
43 and 45 are derived are incomplete.

* Killa Drosh wind direction of 23 days.

Table

Abstract of Observations taken at 8 A.M. at 230

Number of District.	Meteorological Province or District.	Station.	Elevation of barometer above sea-level, in feet.	Pressure, 8 A.M., in inches.								Temperature of air.											
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
30	Punjab—*concld.*	Kailang	*10,057*	20·968			21·106	2nd	20·754	15th	·352	37·3	49·5	−3·5	31·8	+0·5	40·7	−1·5	17·7	58·2	30th	25·3	2nd	32·9
		Poo											62·7		41·8		52·3		20·9	72·4	30th	33·7	15th	38·7
		Simla	7,224	23·067	−·042		23·178	27th	22·570	6th	·308	59·3	67·1	+1·9	53·0	+0·8	60·1	+1·4	14·1	73·9	27th	43·3	9th	30·6
		Sarain		23·103			23·224	27th	22·890	6th	·334	57·2	67·6		44·6		56·2		23·0	71·0	30th	38·7	2nd	35·3
	North-West Frontier Province.	Para Chinar	6,000	24·399			24·517	1st	24·223	14th	·294													
		Cherat	*4,256*	25·618	−·055		25·735	2nd	25·453	6th	·282	65·9	75·5	0	58·0	+0·1	66·8	+0·1	17·5	86·4	30th	51·0	15th	35·4
25	United Provinces.	Chakrata	7,022	23·219	−·071		23·352	27th	23·020	6th	·332	59·4	70·7	+0·1	53·9	+1·8	62·3	+1·1	16·8	73·0	5th	42·8	9th	35·2
		Ranikhet	6,063	24·020	−·069		24·160	27th	23·835	6th	·325	64·8	76·8	+2·0	59·2	+2·1	68·0	+2·1	17·6	84·0	30th	49·5	15th	34·5
		Muktesar	7,600	22·791			22·941	27th	22·598	6th	·343	59·4	72·3		53·7		63·0		18·6	78·6	30th	42·1	9th	36·5
	Sikkim	Tangu																						
13	Bengal	Yatung	10,480										54·1		37·4		45·8		16·7	62·1	30th	30·9	2nd	31·2
		Darjeeling	7,376	22·930	−·044		23·068	27th	22·778	6th	·290	54·0	61·7	−0·5	48·4	−0·5	55·1	−0·5	13·3	63·2	4th	42·1	6th	26·1
	Assam Hill Tracts	Shillong	4,900	25·084			25·207	27th	24·934	16th	·273	64·2	73·1		56·7		64·9		16·4	80·6	2nd & 3rd	49·0	6th	31·6
		CherraPoonjee	4,309	25·636			25·742	27th	25·467	16th	·275	61·5	68·2		57·2		62·8		11·0	79·2	1st	52·0	6th & 7th	27·2
	Central India	Mount Abu	3,945	26·018	−·035		26·080	28th	25·879	6th	·207	76·3	85·4	−0·3	69·4	+0·3	77·4	0	16·0	89·2	4th	61·9	15th	27·3
		Pachmarhi	3,528	26·428	−·016		26·487	28th	26·274	6th	·213	81·1	93·6	+1·1	71·9	+2·3	82·8	+1·7	21·7	97·7	30th	60·2	18th	37·5
	South India	Wellington	6,200	24·254	−·012		24·296	13th	24·174	6th	·122	68·0	77·8	+1·9	55·1	−0·8	66·5	+0·6	22·7	81·7	7th	49·7	15th	32·0
		Kodaikanal	7,688	22·843			22·880	14th	22·775	6th	·105	61·3	70·3		51·0		60·1		16·3	77·3	7th	48·8	15th	28·5
		Ootacamund	*7,322*	23·064			23·098	13th	22·989	6th	·109	62·9	71·0		51·3		61·1		19·7	76·6	7th	48·3	22nd & 29th.	28·3
	XIII.—Extra India.																							
	Ceylon	Trincomalee	12	29·874	+·003	29·812	29·918	12th	29·773	6th	·175	81·7	93·9	+2·9	77·7	+0·1	85·8	+1·5	16·2	98·0	8th	73·0	2nd	25·0
		Colombo	40	29·872	−·009	29·833	29·934	14th	29·761	6th	·163	82·0	83·0	+0·1	77·8	+1·8	83·4	+1·0	11·2	91·0	4 days	73·5	19th	17·5
	Persia	Meshed	3,104									55·0			46·2	−1·9						40·9	14th & 22nd.	
		Teheran(*b*)†	*4,062*	25·893			26·100	21st	25·759	3rd & 9th.	·350	56·9	69·8	−1·6	47·6	−2·3	58·7	−2·0	22·2	76·7	26th	40·0	20th	36·7
		Ispahan(*b*)†	*5,817*	24·290			24·440	14th	24·200	3rd & 4th, 6th	·240	53·7	73·1	+0·1	46·6*	+0·8	59·6*	+0·5	26·5	81·6	18th	40·2	13th & 15 h.	41·1
		Bushire	14	29·895	+·004	29·805	30·049	13th	29·762	6th	·267	71·9	81·1	−0·5	68·2	+1·5	74·7	+0·5	12·9	91·6	9th & 28th	62·7	21st	28·9
		Bahrein	30	29·882			30·042	13th	29·764	29th	·278	74·2	80·8		63·7		74·7		12·1	89·2	28th	63·8	21st & 22nd.	25·4
		Jask	13	2··837	−·045	29·807	29·944	13th	29·657	6th	·287	79·3	87·5	+0·3	73·9	+0·6	80·7	+0·5	13·6	92·8	26th	65·7	17th	27·1
	Arabia	Muscat†	20	29·813	−·026	29·811	29·917	15th	29·694	6th	·253	83·7	85·9	+0·1	81·1	+0·6	83·5	+0·4	4·8	91·8	11th	73·6	3rd	19·2
		Baghdad	220	29·849	−·040	30·010	30·150	13th	29·573	8th	·477	65·0	91·2	−0·4	57·0	+0·1	69·1	−0·2	24·2	99·3	23rd	46·3	18th	41·0
		Busrah		29·900			30·038	4th	29·647	26th	·391		84·3		61·5		72·9		22·8	91·4	29th	56·0	20th & 21st	35·4
		Aden	94	29·817	−·024	29·843	29·908	5th	29·755	19th	·153	82·4	88·7	−0·4	77·5	+0·2	83·1	−0·1	11·2	91·8	13th & 17th.	72·9	1st	18·9
		Dthala																						
		Perim	201	29·770	+·082	29·905	29·812	14th	29·736	3rd & 7th.	·076	81·9	89·1	+0·4	78·9*	+0·1	84·1*	+0·3	10·2	91·9	26th	79·2	1st, 2nd & 3rd.	15·7
	Afghanistan	Kabul										52·2	73·6	+2·2	40·5	−4·6	57·1	−1·2	33·1	79·2	26th	30·1	16th	48·8
	Central Asia	Kashgar†	4,255	25·502			25·680	24th	25·280	5th & 11th.	·520	55·7	70·8	−0·8	47·5	−1·6	59·2	−1·2	23·3	83·3	29th	37·3	16th	46·0
	Arabian Sea Islands.	Amini Divi	*13*	29·905	+·007	29·846	29·952	15th	29·799	6th	·153	84·9	90·5	+0·1	80·6	+0·6	85·6	+0·4	9·9	93·4	1st	76·1	3rd	17·0
		Minicoy	7	29·920		29·853	29·974	22nd	29·834	6th	·140	85·0	89·0	−0·6						91·7	1st			
	Africa	Zanzibar	73	29·936	0	29·936	29·974	18th & 27th.	29·877	3rd	·097	77·9	82·7	−2·0	75·8	−1·8	79·3	−1·9	6·9	86·9	14th	73·9	24th & 29th.	13·0
		Do. Dunga	*154*	29·814		29·897	29·863	9th	29·758	3rd	·105	76·5	85·3							90·0	14th			
	Straits Settlements.	Penang (*a*)	20	29·911		29·856	29·937	16th	29·858	15th	·079	80·3	89·0		74·0		81·5		15·0	91·0	10th, 19th & 28th,	72·0	21st	19·0
		Singapore (*a*)	10	29·901		29·832	29·944	14th	29·867	5th	·077	83·2	88·8		73·9		80·4		12·9	90·2	19th	72·2	6th	18·0

(*a*) 9-hours observations.
(*b*) Aneroid uncorrected.

* Mean of 28 days.
† „ „ 29 „

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

I—*concluded.*

Stations in India, Burma, etc., in April, 1904—concluded.

Wind Direction. Number of winds from Calm	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	Wind Velocity. Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	Hygrometry, 8 A.M. Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Cloud. Mean cloud amount at 8 A.M.	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., 1903, to 30th April 1904.	Normal rainfall for period, 1st Dec. to 30th April.	Departure from normal of period, 1st Dec., 1903, to 30th April, 1904.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
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	58
		1	1	5	10	6	7	S 63° W	1·2				68		·153		5·1		7			3·07	2·96	+0·11	12·93	13·56	−0·63	1·10	Kailang	Punjab—*concld.*	30
																				5			2·85	1·72	+1·13	9·20	14·01	−4·81	0·91	Poo.		
20				5	2	2			S 23° E									3·9														
2	19	1		2	5			1	N 6° E	5·7			5·5	37	− 3·0	·176	− ·021	2·1	−1·1	2	3·10	−1·10	0·61	1·70	−1·09	10·17	10·71	− 0·54	0·23	Simla.		
																							1·14			27·83			0·55	Sarain.		
6	2	1	1	1	12	5	1	1	S 13° W	4·0			3·8	43		·194		2·8		3												
22	2	1		2	2		1		S 45° E	5·5			5·0					2·6		6	8·50	−2·50	2·61	3·19	−0·58	11·57	11·30	+ 0·27	0·84	Para Chinar	North-West Frontier Province.	
2	19	2				2	2	3	N 11° W	10·3			9·6	43	− 5·4	255	−·022	2·3	−0·9	3			0·61	2·22	−1·61	17·43	12·39	+ 5·04	0·21	Cherat.		
11	13	3	1		2				N 13° E	9·6	6·1	+57	11·5	41	− 2·3	·212	+·002	1·4	−1·2	3	3·90	−0·50	0·97	1·44	−0·47	16·62	12·83	+ 3·79	0·59	Chakrata	United Provinces.	25
14			4			4	5	3	S 85° W	3·5	3·0	+17	4·0	41	− 6·5	·245	−·033	1·8	−1·0	2	2·80	−0·80	0·54	1·16	−0·62	5·13	8·77	− 3·64	0·28	Ranikhet.		
																							0·31			4·57			0·20	Muktesar.		
4	1	3	1	2	2	3	13	1	S 80° W	10·9			10·0	38		·187		1·6		1										Taugu	Sikkim.	
																				15	12·67	+2·3	7·73	4·69	+3·04	12·91	8·71	+ 4·20	1·35	Yatung	Bengal	13
14		5	2	2		3	3	1	N 45° E	7·8	?	?	7·2	85	+ 4·1	·354	+·005	5·7	+0·9	11	8·29	+2·71	3·71	4·34	−0·60	6·22	7·84	− 1·62	0·93	Darjeeling.		
10				4	15	1			S 39° W	9·1			10·3	67		·401		3·9		16	8·70	+7·30	7·22	4·29	+2·93	9·70	7·71	+ 1·99	1·05	Shillong	Assam Hill Tracts	8
4		4	1	1	13	7			S 59° W	9·0			10·4	92		·56		8·4		25	17·00	+8·00	88·35	32·92	+55·43	97·72	49·87	+47·85	13·55	Cherra Poonjee		
	3	4		2		12	5	4	S 84° W	5·5	7·7	+23	9·6	26	— 2·5	·234	−·030	0·5	−0·5	0	0·30	−0·30	0	0·04	−0·04	1·61	1·00	+ 0·61	0	Mount Abu.	Central India.	
	3		1			1	1	21	N 42° W	8·5	5·3	+60	8·8	53	− 6·4	·245	−·060	0·4	−1·5	0	0·80	−0·80	0·04	0·25	−0·21	3·64	2·17	+ 1·47	0·04	Pachmarhi.		
19	2	2	1						N 41° E	2·5	2·9	−10		64	+ 0·6	·139	+·022	2·4	−1·0	8	6·20	+1·80	2·47	3·40	−0·93	8·97	12·07	− 3·10	0·91	Wellington.	South India.	
	1	2	11	4				2	N 69° E	12·0				57		·308		2·4		5	7·00	−2·00	4·21	5·29	−1·08	19·85	17·10	+ 2·75	2·20	Kodaikanal.		
4	1	8	13	3				1	N 76° E	4·0			4·0	58		·329		2·0		7	7·10	−0·10	1·39	3·46	−1·57	5·88	6·84	− 0·96	0·34	Ootacamund.		
																														XIII.—Extra India.		
4					26				S 45° W					84	+ 3·0	·911	−·013	2·1	−1·0	3			0·65	1·81	−1·16	25·44	26·52	−1·08	0·30	Trincomalee.	Ceylon.	
		1	5	7	3	8	6		S 4° W	8·2	5·6	+46		83	+ 5·1	·912	+·018	5·7	+0·8	8			4·54	12·03	−7·49	20·59	28·76	− 8·17	2·10	Colombo.		
														67		·292		4·5	+0·1	1			0·45	1·78	−1·33	8·68	6·35	+ 2·33	0·45	Meshed	Persia.	
11	1	3	1	1	3	7	2		S 27° W	3·5			4·6	57	?	·267	?	3·1	+0·1	0			0·61	1·13	−0·57	10·65	7·46	+ 3·19	0·09	Teheran.		
23	1					1	2	2	N 63° W	4·0			5·2	63	− 2·0	·292	·031	3·6	+0·9	2			0·71	0·38	+0·33	3·35	2·31	+ 1·01	0·50	Ispahan.		
1	3	6	2	1	1	3	9	9	N 36° W	12·4	9·1	+36	13·6	84	+22·5	·656	+·139	4·2	+1·8	1			0·23	0·53	−0·30	4·77	10·24	− 5·47	0·15	Bushire.		
	14	3	1	1	1	2	1	7	N 13° W					80		·679				1			0·10			1·52			0·10	Bahrein.		
	4		3	2		1	6	4	N 46° W	12·7			10·5	66	+ 0·4	·657	−·015	0·1	−0·9	0			0·05	0·03	+0·02	4·05	3·80	+ 0·25	0·05	Jask.		
5	3			3			18		N 38° W	5·4			5·6	65	+ 7·0	·777	+·132	0·4	0·4	0			0	0·03	−0·03	0·23	3·40	− 3·17	0	Muscat	Arabia.	
14	6				4	1	1	4	N 51° W	2·4	4·4	−45	3·1	61	− 0·6	·379	−·023	2·7	+1·1	2			0·78	0·96	−0·18	3·04	7·75	− 4·71	0·51	Baghdad.		
																				1			0·31			4·61			0·29	Busrah.		
		1	6	9	6		3	2	N 85° E	7·5	11·8	−49	6·1	72	− 2·0	·804	+·013	2·8	−0·6	0			0	0·38	−0·33	0·52	2·23	− 1·71	0	Aden.		
																														Dthala.		
			11	9	2		3	9	S 66° E	15·4			15·6	80	+ 3·9	·872	+·032	1·5	−2·8	0			0	0·02	−0·02	0·88	0·97	−0·09	0	Perim.		
	7	6	3	9	1	1	2	1	N 68° E					90		·359		2·2	+1·1	4			2·30	2·24	−0·04	8·30 (a)	9·65 (a)	− 1·35 (a)	0·73	Kabul	Afghanistan.	
22	1	1	1	1	2			1	S 85° E	2·9			2·6	39	− 7·2	·173	−·047	3·9	−1·1	0			0	0·12	−0·12	0·08	0·71	− 0·63	0	Kashgar	Central Asia.	
7	1							23	N 45° W					75	− 2·6	·900	−·046	6·1	+1·2	1			0·82	2·58	−1·76	3·46 (a)	3·09 (a)	+0·37 (a)	0·82	Amini Dhl.	Arabian Sea Islands.	
	6						7	17	N 47° W	5·4			5·8	71	− 5·4	·853	−·028	3·6	−1·1	2			0·52	3·67	−3·15	1·05	7·09	− 6·04	0·26	Minicoy.		
				1	13	14	2		S 25° W	7·6			7·2	90	+ 4·4	·857	−·001	7·7	+1·4	21			4·56	10·33	+4·17	35·31	24·41	+10·93	2·10	Zanzibar	Africa.	
					6	24			S 36° W	2·2			2·1	94		·859		6·1		21			0·29			40·18			3·46	Do. Dunga.		
5	4	16	1	2	2				N 49° E	4·7								0·7		11			9·70			29·67			1·88	Penang	Straits Settlements.	
	4		3	2	1	2	3	15	N 44° W	6·4								5·6		16			11·61			50·58			2·85	Singapore.		

(a) Since 1st January 1904.

Table II.—Abstract of Observations recorded at 10 A.M. and 4 P.M. at 65 Stations in India, Burma, etc., in April, 1904.

Table

Abstract of Observations recorded at 10 A.M. and 4 P.M. at

Meteorological Province.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure.						Temperature of air.										Temperature, Wet-bulb.			
			Mean of 10 hours.	Mean of 16 hours.	Mean daily range.	Mean of daily mean pressures.	Departure from normal.	Mean reduced to S. L. and gravity, 45° Lat.	Mean maximum.	Mean minimum.	Mean daily range.	Highest maximum.	Lowest minimum.	Absolute range.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	Mean minimum.	Mean 10 hours.	Mean 16 hours.	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
Burma Coast and Bay Islands.	Port Blair	61	29·873	29·771	·102	29·823	+·011	29·815	88·6	77·1	11·5	92·1	74·5	17·6	85·1	86·5	81·9	—2·8	75·0	79·3	79·3	77·9
	Rangoon	57	·844	·695	·149	·773	—·012	·767	94·0	76·2	17·8	97·5	7·.·1	26·4	86·9	90·2	82·7	—2·3	73·5	77·0	76·6	75·7
	Diamond Island	41	·878	·763	·115	·822	—·010	·797	88·0	79·8	8·2	90·0	75·2	14·8	85·5	85·5	83·4	+0·4	74·6	78·1	78·0	76·0
	Cocos Island	119	·798	·691	·107	·715		·796	92·6	79·7	12·9	96·0	74·9	21·1	88·3	88·8	85·2		7·.·1			
	Akyab	20	·866	·752	·114	·805	—·024	·767	88·8	76·0	12·8	92·0	67·2	24·8	85·1	85·3	81·9	—1·5		78·8	76·2	
Bengal and Orissa.	Chittagong	87	·762	·615	·117	·695	—·048	·730	86·5	73·2	13·3	89·7	62·1	27·6	82·8	82·6	79·9	—1·4	71·7	76·2	7·.·6	74·8
	Calcutta (Alipore)	21	·744	·611	·133	·677	—·074	·643	95·2	77·4	17·8	101·5	69·4	32·1	89·3	92·6	85·6	+0·6	73·9	79·1	79·0	77·3
	Saugor Island	25	·759	·630	·129	·691	—·066	·660	90·2	80·7	9·5	94·8	69·9	24·9	86·2	87·4	84·8	+0·1	76·7	80·1	81·0	79·2
	False Point	21	·773	·645	·128	·705	—·070	·667	88·0	79·5	8·5	94·9	73·7	21·2	86·0	85·3	83·1	0	77·3	79·8	80·1	79·1
Gangetic Plain and Chota Nagpur.	Hazaribagh	2,007	27·743	27·627	·116	27·681	—·084	·565	100·8†	74·2†	26·6	105·1	68·1	37·0	93·2†	98·1†	87·4†	+2·2	58·8†	61·3†	65·6†	63·1
	Darbhanga	166	29·577	29·430	·147	29·503	—·072	·620	96·7	73·1	23·6	104·1	67·2	36·9	87·1	96·0	84·1	+1·0	66·9	74·6	75·0‡	72·1
	Allahabad	309	·419	·287	·132	·346	—·072	·598	104·0	73·3	30·7	109·1	67·3	41·8	95·1	102·9	83·1	+0·5	60·9	70·8	74·2	68·7
Upper Sub-Himalayas.	Dehra Dun	2,233	27·506	27·410	·096	27·450	—·091	·595	92·4	63·9	28·5	100·4	56·1	44·3	81·9	89·5	78·1	+0·7	51·3	62·6	63·8	60·2
	Roorkee	899	28·803	28·689	·114	28·738	—·092	·581	98·5	66·3	32·2	105·7	58·0	47·7	88·2	96·6	81·8	0	55·8	64·5	65·2	61·8
	Meerut	738	·971	·861	·110	·908	—·085	·590	100·6	68·7	31·9	106·4	61·8	44·6	91·6	98·8	81·1	+1·4	57·6	65·3	67·1	63·8
	Lahore	702	29·006	·915	·091	·954	—·031	·611	96·8	65·8	31·0	105·4	57·1	48·3	86·9	95·2	80·9	0	59·0	68·7	70·7	66·1
	Ludhiana	812	28·888	·808	·080	·842	—·076	·607	97·9	67·8	30·1	106·0	59·2	46·8	85·9	96·1	82·4	+0·6	63·5	69·6	72·8	68·6
Indus Valley and N.-W. Rajputana.	Peshawar	1,110	·685	·586	·099	·630	—·064	·719	87·2	61·3	25·9	96·0	54·0	42·0	79·9	85·1	73·9	+0·4	55·2	61·0	66·4	61·9
	Jacobabad	186	29·559	29·438	·121	29·496	—·058	·636	108·1	71·0	37·1	113·0	63·3	49·7	96·8	105·1	88·7	+3·2	59·0	71·4	76·7	70·0
	Kurrachee	30	·798	·701	·097	·746	—·037	·726	92·3	74·6	17·7	100·9	62·2	38·7	87·5	87·7	82·1	+1·5	70·0	75·5	76·7	74·1
E. Rajputana, Central India, and Gujarat.	Jaipur	1,431	28·259	28·246	·113	28·296	—·051	·642	102·4	71·6	30·8	107·2	62·0	45·2	93·5	100·7	86·9	+0·6	55·9	65·1	66·3	62·4
	Udaipur	1,925	27·909	27·796	·113	27·848		·662	100·4	73·8	26·6	104·9	61·6	43·3	92·7	98·3	88·0		62·8	67·8	69·5	66·7
	Deesa	466	29·362	29·226	·136	29·289	—·033	·693	106·2	71·8	34·4	110·7	62·9	47·8	92·6	104·4	89·9	+1·0	61·0	69·4	68·9	66·4
	Jamnagar	61	·795	·684	·111	·737		·743	96·4	71·1	25·3	102·9	64·8	38·1	87·8	92·2	82·7		67·8	74·4	73·6	71·9
Deccan.	Belgaum	2,539	27·355	27·237	·118	27·299	—·010	·705	95·0	66·2	28·8	100·3	61·7	38·6	84·8	89·2	77·9	—1·3	64·0	66·9	71·5	67·5
	Sholapur	1,590	28·256	28·099	·157	28·176	—·027	·651	105·7	75·7	30·0	103·1	70·0	38·1	94·5	103·3	88·9	+0·5	60·8	66·8	68·6	65·4
	Akola	930	·281	·733	·151	·806	—·032	·646	107·7	76·3	31·4	111·0	66·6	44·4	97·5	105·8	91·7	+1·6	60·1	68·4	68·7	65·7
	Buldana	2,132	27·725	27·600	·125	27·657	—·051	·656	101·3	77·4	23·9	106·0	72·2	33·8	90·6	99·3	88·3	+1·0	59·0	64·7	65·3	63·0
	Khandwa	1,044	28·783	28·636	·147	28·707	—·025	·670	106·7	76·5	30·2	112·6	69·5	43·1	95·2	104·6	91·9	+1·5	60·9	69·2	69·7	66·6
	Nagpur	1,025	·769	·618	·151	·691	—·037	·630	108·5	77·3	31·2	111·9	64·2	47·7	98·8	106·3	92·6	+2·0	58·5	67·9	70·1	65·5
	Do. (Sanitary Commr.'s Office).	1,013	·760	·617	·143	·686		·615	108·7	77·5	31·2	112·4	64·6	47·8	99·3	107·0	92·8		58·8	67·2	69·6	65·2
	Hyderabad (Deccan)	1,690	·149	·016	·133	·081	—·043	·652	103·9	76·7	27·2	107·4	70·9	36·5	91·7	102·1	89·6	+1·6	66·5	70·9	72·5	70·0
West Coast.	Bombay	37	29·860	29·749	·111	29·804	—·008	·780	89·0	77·9	11·1	91·1	75·2	15·9	84·1	85·8	82·4	+0·3	73·7	76·6	77·1	75·8
	Karwar	44	·866	·754	·112	·812	—·003	·789	88·5	77·9	10·6	89·6	71·9	17·7	85·7	87·0	82·1	—0·9	74·5	76·7	77·6	76·3

† Mean of 27 days.

‡ Mean of 29 days.

II.

65 Stations in India, Burma, etc., in April, 1904.

Vapour Tension.					Humidity.					Cloud.				Wind Direction. Total number of 10 hours and 16 hours winds from										Wind Steadiness.		Wind Velocity.		Rainfall.		Station.	Meteorological Province.
From minimum.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	From minimum.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	Mean 10 hours.	Mean 16 hours.	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
																									%	%						
·842	·925	·912	·918	—·041	90	76	73	83	+ 3	5·8	4·3	5·1	+0·5		2	2	8	12	6	6	15	9	S 40° W	N 89° E	20	51	165*	115	7·97	2·71	Port Blair	Burma Coast and Bay Islands.
·794	·795	·738	·795	—·012	87	62	53	72	+ 1	5·4	6·1	5·8	+2·4	2	1	1	3	5	13	13	21	1	S 46° W	S 24° W	55	57	60*	134	3·97	2·91	Rangoon	
·786	·865	·863	·856	—·014	77	70	70	75	— 3	3·4	3·1	3·3	—0·1		1	2	1	2	7	4	16	27	N 73° W	N 63° W	60	69	180*	204	0·31	0·26	Diamond Island, Cocos Island	
·806					80					4·3	4·7	4·5	+1·4		5	1	1	2	8	19	13	11	S 73° W	N 36° W	55	53			0·44	0·35		
	·903	·875				75	72			5·7	4·8	5·3	+2·0		·2			2	11	31	9	5	S 49° W	S 66° W	73	26	63*	91	5·77	2·52	Akyab	
·767	·823	·841	·821	—·008	93	73	75	83	+ 7	6·1	3·6	4·9	+0·6			2	2	12	11	20	11	2	S 25° W	S 12° W	57	45	238*	166	15·42	5·24	Chittagong	Bengal and Orissa.
·800	·860	·816	·857	+·060	85	62	54	72	+ 2	1·8	0·6	1·2	—1·4					2	32	24	1	1	S 19° W	S 30° W	88	69	173	168	0·33	0·33	Calcutta (Alipore),	
·858	·947	·971	·940	+·003	83	75	75	81	+ 1	6·0	3·1	4·6	—0·2					5	42	12		1	S 16° W	S 12° W	90	76	628	430	1·24	1·24	Saugor Island.	
·908	·936	·958	·945	+·024	90	75	78	84	— 1	2·2	2·2	2·2	—1·4					1	19	39		1	S 31° W	S 30° W	90	80	334*	331	0	0	False Point	
·311†	·265†	·229†	·284	—·043	37†	17†	12†	24	— 5	0·2	0·7	0·5	—2·4		13		1	2	3	5	9	27	N 50° W	N 72° W	63	46	243*	214	0·07	0·04	Hazaribagh	Gangetic Plain and Chota Nagpur.
·587	·760	·621†	·619	+·063	71	55	37‡	53	+ 2	0	0	0	—1·0	5		1	22	22		2	5	3	S 64° E	S 51° E	55	16	138	137	0	0	Darbhanga	
·377	·434	·465	·445	+·071	46	26	22	34	+ 2	0·1	0·2	0·2	—1·5		2	4	2		2	1	29	20	N 67° W	N 54° W	70	35	155*	127	0·02	0·02	Allahabad	
·307	·331	·275	·309	—·002	52	31	20	36	— 1	1·9	2·8	2·4	—0·4	9	3	1	2	2	6	5	29	3	S 80° W	N 85° W	52	28	48	55	0·20	0·10	Dehra Dun	Upper Sub-Himalayas.
·313	·294	·208	·277	—·046	49	22	12	30	— 4	0·8	0·8	0·8	—1·1	4	1	1	1	11	1	5	8	28	N 67° W	N 72° W	40	22	125	79	0	0	Roorkee	
·336	314	·260	·308	—·100	48	21	14	30	— 8	1·3	0·6	1·0	—1·0	6	3	2	2	2		3	22	20	N 66° W	N 63° W	62	44	47*	60	0·08	0·08	Meerut	
·415	·461	·425	·451	+·056	65	36	26	44	+ 3	2·0	2·3	2·2	—0·7	3	10	3	6	4	1	2	11	20	N 37° W	N 15° W	43	28	94	77	0·32	0·32	Lahore	
·539	·521	·506	·533	+·128	80	42	30	53	+10	0·8	1·9	1·4	—1·6	2		7	5	6			36	4	N 82° W	N 48° W	42	30	56*	58	0	0	Ludhiana	
·369	·408	·416	·415	—·007	67	41	36	50	— 4	3·2	4·4	3·8	—0·6	13	8	10	6	2		1	11	9	N 11° W	N 9° E	33	25	94*	96	0·91	0·35	Peshawar	Indus Valley and N.W. Rajputana.
·345	·557	·545	·499	+·111	45	32	25	36	+ 2	0·6	0·4	0·5	—1·9	9	11	3	7	5	15	1	2	7	S 76° E	S 57° E	8	13	114*	101	0	0	Jacobabad	
·688	·732	·775	·776	—·003	79	57	60	72	— 4	0·8	1·0	0·9	—0·8			1	1			22	33	3	S 75° W	S 69° W	84	81	289*	317	0	0	Kurrachee	
·256	·270	·218	·261	—·072	33	17	11	22	— 8	0·8	1·4	1·1	—1·4		1	1			2	19	26	11	S 53° W	N 57° W	78	50	125	120	0	0	Jaipur	
·439	·377	·370	·385		53	24	20	31		0·4	1·1	0·8		8	2	1			1	13	28	7	S 87° W		68		126*		0	0	Udaipur	E. Rajputana, C. India and Gujarat.
·404	·414	·235	·341	+·002	51	28	11	29	+ 3	0·5	1·2	0·9	—0·7		2			2	5	20	22	9	S 75° W	W	71	56	245	218	0	0	Deesa	
·639	·673	·581	·666		83	51	39	63		0·7	0·8	0·8			1				15	30	14		S 45° W		83		542*		0	0	Jamnagar	
·572	·438	·554	·554	0	89	37	41	64	+ 4	1·3	2·7	2·0	—0·9	5	8	6	1	2		10	21	7	N 72° W	N 78° W	46	36	329	314	2·71	1·84	Belgaum	Deccan.
·351	·314	·268	·332	—·095	40	19	13	28	— 6	0·9	4·2	2·6	—1·0	1	8	12	1	2	2	2	1	31	N 22° W	N	60	12	255*	211	0	0	Sholapur	
·306	·306	·212	·283	—·038	34	17	9	21	— 4	0·1	1·1	0·6	—1·5	3	8	3		1		5	8	32	N 47° W	N 51° W	70	56	181*	142	0	0	Akola	
·273	·295	·203	·249	—·040	29	20	11	19	— 4	0·3	1·3	0·8	—1·5	1	14	2	1	1		2	17	22	N 47° W	N 33° W	70	58	247*	216	0	0	Buldana	
·347	·375	·288	·315	+·005	38	22	13	25	— 1	0·1	1·2	0·7	—1·3		2				1		5	52	N 48° W	N 48° W	94	60	191	186	0	0	Khandwa	
·264	·360	·287	·292	—·110	28	16	12	20	—10	0·2	1·4	0·8	—2·4	4	13	6	2	2		1	20	12	N 42° W	N 66° W	53	22	116*	144	0	0	Nagpur	
·268	·267	·262	·274		29	14	11	19		0·5	1·7	1·1		6		4		2		16		32	N 67° W		53		59*		0	0	Do. (Sanitary Commr.'s Office).	
·529	·452	·432	·490	—·074	58	29	21	38	— 8	1·8	2·4	2·1	—0·7	27	2	3	4	2		1	6	15	N 38° W	S 9° W	27	5	97*	108	0·06	0·03	Hyderabad (Deccan).	
·779	·819	·819	·831	—·010	82	70	66	76	— 1	1·7	0·7	1·2	—0·4			1	1	2	3	7	26	20	N 83° W	N 60° W	70	56	217	254	0	0	Bombay	West Coast.
·810	·797	·823	·835	—·021	85	65	64	74	— 2	1·1	1·4	1·3	—1·2	2	14						21	23	N 51° W	N 84° W	80	78	133	115	0·58	0·58	Karwar	

* Corrected.

Table

Abstract of Observations recorded at 10 A.M. and 4 P.M. at

Meteorological Province.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure.						Temperature of air.										Temperature, Wet-bulb.			
			Mean of 10 hours.	Mean of 16 hours.	Mean daily range.	Mean of daily mean pressures.	Departure from normal.	Mean reduced to S. L. and for gravity 45° Lat.	Mean maximum.	Mean minimum.	Mean daily range.	Highest maximum.	Lowest minimum.	Absolute range.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	Mean minimum.	Mean 10 hours.	Mean 16 hours.	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
South India.	Periyakulam	945	28·931	28·78?	·149	28·877		29·750	100·3	73·0	27·3	104·0	69·0	35·0	89·8	96·6	85·6		69·7	76·0	76·3	74·0
	Salem	940	·952	·780	·172	·875	−·038	·732	100·4	77·0	23·4	103·3	72·4	30·9	89·3	96·2	87·2	+0·4	71·2	78·0	78·5	75·9
	Chitaldroog	2,405	27·501	27·361	·140	27·434	−·016	·705	96·3	71·2	25·1	100·3	62·7	37·6	84·7	94·6	82·5	0	65·6	70·3	68·9	68·3
	Bangalore	3,021	26·926	26·791	·135	26·865	−·013	·709	94·0	69·0	25·0	96·3	63·9	32·4	83·6	91·0	80·2	+0·3	63·1	66·6	67·4	66·7
	Hassan	3,091	·869	·747	·122	·814	+·003	·744	90·9	65·6	25·3	94·0	58·4	35·6	81·4	86·3	77·0	−0·5	63·5	68·7	68·8	67·0
	Mysore	2,518	27·416	27·269	·147	27·349	−·012	·735	94·7	68·8	25·9	99·9	65·9	34·0	82·0	92·0	80·5	−0·4	66·7	73·1	72·8	70·9
	Madras	22	29·842	29·708	·131	29·782	−·043	·732	94·4	77·8	16·6	100·4	74·2	26·2	90·6	87·7	84·6	+0·5		79·4	80·1	78·9
	Bellary	1,475	28·379	28·226	·153	28·302	−·036	·678	103·8	76·8	27·0	107·0	65·1	41·9	90·6	100·6	89·2	0	65·4	75·7	78·6	73·2
	Waltair	226	29·606	29·49?	·116	29·545	−·044	·710	89·9	78·7	11·2	93·2	73·4	19·8	87·0	85·7	83·3	0	74·6	77·8	78·3	76·9
Hill Station, Baluchistan.	Quetta	5,502	24·662	24·589	·073	24·618	+·019		77·8	46·2	31·6	83·8	35·0	48·8	70·4	74·6	62·7	+1·8	42·1	52·4	54·2	49·6
Hill Stations, Northern India.	Leh	11,503	19·692	19·599	·093	19·647	−·033		56·4	30·8	25·6	64·4	22·9	41·5	46·4	52·6	42·5	−0·4	26·7	33·7	37·4	32·6
	Srinagar	5,204	24·860	24·775	·085	24·813	−·071		70·2	46·7	23·5	79·2	38·8	40·4	59·2	67·6	57·4	+1·7	44·4	56·3	63·6	54·8
	Saraln		23·121	23·066	·055	23·083			68·0	44·6	23·4	75·8	38·7	37·1	62·5	65·3	56·9			47·7	49·5	
	Simla (Ridge)	7,224	·093	·043	·050	·060	−·038		67·3	53·0	14·3	72·9	43·3	30·6	62·0	64·5	60·8	+1·5	43·91	48·2	49·2	46·9
	Chakrata	7,022	·246	·194	·052	·208	−·061		71·3	53·9	17·4	78·0	42·8	35·2	65·8	67·0	63·2	+1·4	43·6	50·0	49·7	47·8
	Ranikhet	6,069	24·042	·969	·073	·998	−·071		77·3	59·1	18·2	85·8	48·3	37·5	71·1	72·8	68·8	+2·2	48·5	53·1	53·2	51·5
	Muktesar	7,600	22·813	22·750	·063	22·774			72·6	53·7	18·9	80·0	42·1	37·9	63·8	68·2	63·8		42·8	48·7	50·8	47·4
	Katmandu	4,388	25·582	25·464	·118	25·521			82·4	55·1	27·3	87·8	46·9	40·9	72·4	78·0	69·4		53·3	60·7	61·7	58·6
	Darjeeling	7,376	22·963	22·929	·034	22·944	−·043		61·7	48·4	13·3	68·2	42·1	26·1	57·5	59·1	55·7	−0·5	45·9	54·6	56·3	52·3
Hill Stations, Central India.	Mount Abu	3,945	26·036	25·960	·076	25·992	−·030		85·4	69·4	16·0	89·2	62·0	27·2	79·2	83·7	78·0	0	53·2	58·0	60·3	57·2
	Pachmarhi	3,528	·445	26·342	·103	26·388	−·013		93·9	71·9	22·0	98·4	60·2	38·2	85·8	91·6	83·5	+1·8	55·0	59·8	61·9	58·9
	Chikalda	3,642	·314	·209	·105	·256	−·047		93·5	72·7	20·8	98·4	66·3	32·1	84·5	91·9	83·7	+0·6	57·2	61·6	63·2	60·7
Hill Stations, S. India.	Kodaikanal	7,688	22·854	22·783	·071	22·817			70·4	54·0	16·4	77·3	48·8	28·5	67·7	63·1	60·2		47·2	55·3	55·7	53·0
	Ootacamund	7,322	23·081	23·006	·075	23·042			71·0	51·3	19·7	76·6	48·4	28·2	67·8	64·4	61·8		48·4	55·5	56·2	53·4
	Dodabetta	8,539	21·050	21·989	·061	22·018			63·7	50·2	13·5	66·3	45·7	20·6	62·1	58·8	57·5		45·0	49·9	50·1	48·3
Extra India.	Aden	94	29·828	29·700	·128	29·755	−·035	·779	88·8	77·6	11·2	91·8	73·1	18·7	85·2	87·1	81·4	0	68·9	77·4	75·9	74·1
	Perim	201	·778?	·665?	·113	·713?	?	·848?	89·3	78·9‡	10·4	91·9	76·2	15·7	84·6	85·9	82·4	+0·4	75·0	77·5	78·0	76·8
	Minicoy	7	·928	·873	·055	·905		·836	89·0			91·6			86·8	86·5				78·2	77·8	
	Zanzibar	73	·960	·853	·107	·911	+·014	·910	82·6	75·8	6·8	86·9	73·9	13·0	78·8	80·7	77·4	−2·0		75·9	76·4	
	Port Victoria (Seychelles)	15	·964	·861	·100	·917		·856	85·9	74·2	11·7	87·6	72·2	15·4	83·5	84·8	78·8		73·5	77·0	77·0	75·8
	Mauritius (Pamplemouses).	181				·829	−·004	·957				84·4	62·3	22·1			74·1	−1·2				70·1

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

‡ Mean of 28 days.
§ " " 28½ "

II—*concluded.*

65 Stations in India, Burma, etc., for April, 1904—concluded.

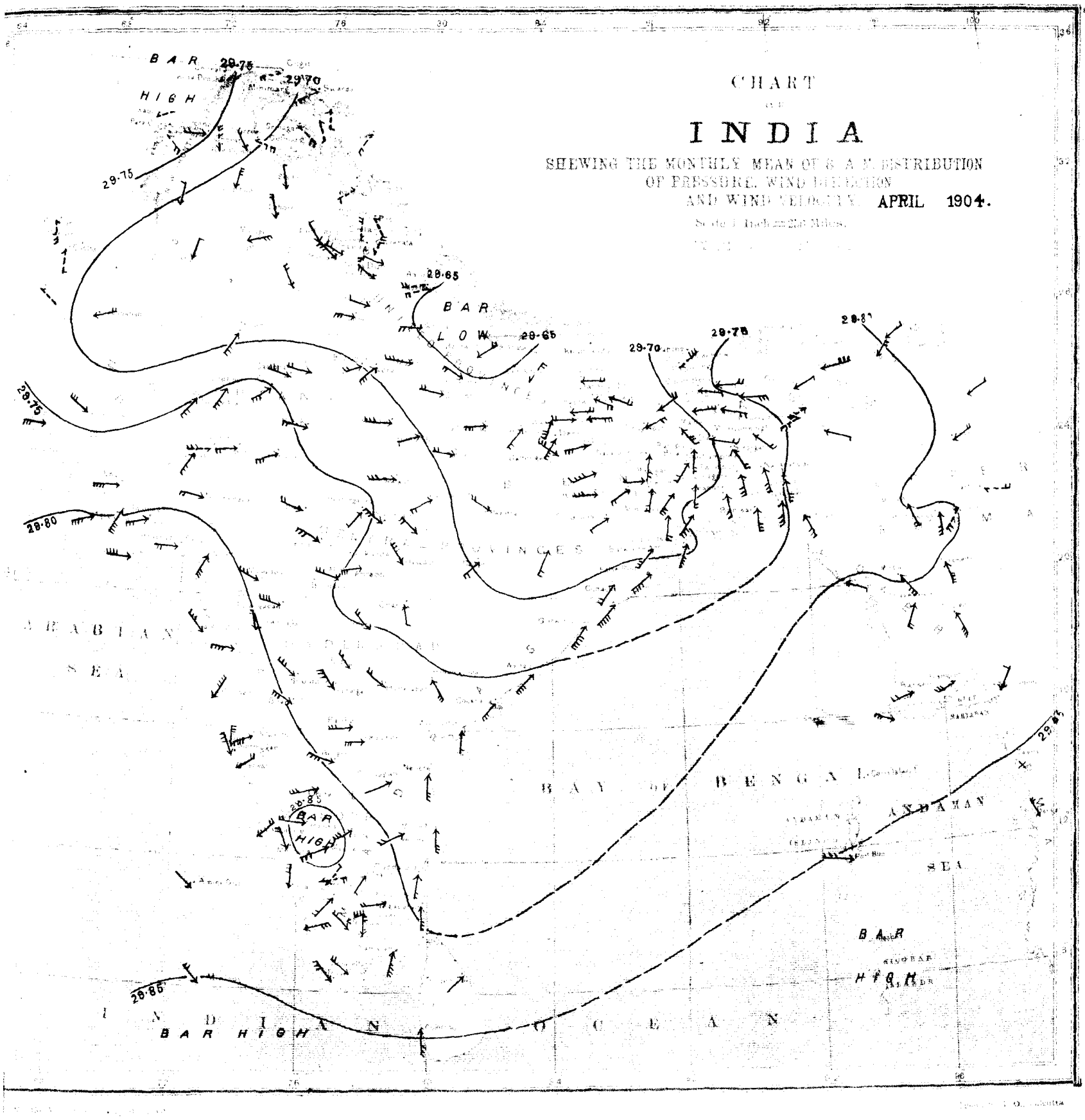
Vapour Tension.					Humidity.					Cloud.				Wind Direction.										Wind Steadiness.		Wind Velocity.		Rainfall.		Station.	Meteorological Province.
														Total number of 10 hours and 16 hours winds from																	
From minimum.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	From minimum.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	Mean 10 hours.	Mean 16 hours.	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
																									%	%						
·684	·715	·634	·686		84	51	37	56		2·1	4·8	3·5		2	5	3	8	17	11	9	4	1	S 27° E		40		80*		1·41	0·48	Periyakulam	South India.
·685	·815	·748	·766	+·010	74	59	45	61	− 1	3·1	5·8	4·5	+0·1	11	2	1	9		6	11	17	3	S 62° W	S 4° E	32	28	57*	116	2·10	0·95	Salem	
·567	·562	·591	·527	−·008	74	47	24	50	+ 1	2·0	3·4	2·7	−1·3		4	2	6	3	1	6	20	18	N 68° W	N 39° W	43	15	147*	191	0·30	0·39	Chitaldroog	
·511	·562	·597	·540	−·045	72	49	28	52	− 3	1·1	3·1	2·1			7	7	4	7	7	9	12	7	S 82° W	S 27° W	17	38	156*	115	0·57	0·20	Bangalore	
·568	·558	·504	·563	+·001	89	52	42	63	+ 2	2·1	5·9	4·0	−1·7	1	3	11	7	1		11	15	11	N 56° W	N 44° E	30	12	78*	82	3·36	1·07	Hassan	
·635	·708	·571	·658	+·069	90	65	39	67	+ 8	4·4	6·1	5·3	−0·4		5	6	7	3	2	10	21	6	N 83° W	N 85° E	32	12	203*	190	3·14	1·24	Mysore	
	·854	·925	·911	+·011		60	70	76	− 2	2·8	1·8	2·3	−1·2					24	27	9			S 12° E	S 36° E	85	83	200	182	0	0	Madras	
·490	·714	·716	·664	+·124	53	50	37	49	+ 8	2·1	4·1	3·1	−1·3	1	7	6	4	3	2	3	14	20	N 47° W	S 63° W	47	8	166*	130	0·50	0·18	Bellary	
·802	·833	·871	·857	+·020	82	65	70	75	+ 6	3·5	4·4	4·0	+1·1					1	28	31			S 23° W	S 24° W	92	83	212		0	0	Waltair	
·231	·210	·210	·210	−·041	72	28	25	42	− 6	1·4	2·7	2·1	−1·2	8	5	2		3	2	3	19	18	N 67° W	N 78° W	55	35	60*	81	0·08	0·04	Quetta	Hill Station, Baluchistan.
·114	·090	·096	·100	−·014	65	29	25	40	− 5	5·9	6·8	6·4	−0·1		1	1	2	1	11	16	24	4	S 62° W	S 63° W	65	27	102	74	0·03	0·01	Leh	Hill Stations, Northern India.
·271	·426	·557	·397	+·067	84	84	80	83¶	+ 5	4·2	4·4	4·3	−0·7	9	7	7	1	4	3	2	7	20	N 37° W	N 18° W	38	19	95*	115	2·02	0·48	Srinagar	
	·179	·192				33	32			2·9	4·4	3·7		5	5	10	4	1	13	15	7		S 26° W		22		91*		1·14	0·55	Sarain	
·199‡	·196	·194	·188	−·023	51‡	36	32	40	− 3	2·8	4·5	3·7	−0·5	9	34				17				N	N 81° W	28	10	127*	149	0·61	0·23	Simla (Ridge)	
·182	·199	·179	·180	−·025	45	33	28	35	− 7	1·5	3·1	2·3	−1·3	3	5	4	1	12	32	2		1	S 17° E	S 54° W	59	23	289*	180	0·97	0·59	Chakrata	
·228	·218	·204	·210	−·040	47	30	26	34	− 9	0·9	2·0	1·5	−1·7	12	2	1	2	2		20	16	5	S 73° W	S 81° W	52	41	96*	91	0·51	0·28	Ranikhet	
										2·0	2·9	2·5		2	2				4	22	29	1	S 70° W		80		212*		0·31	0·20	Muktesar	
·167	·189	·194	·176		42	34	29	35																								
·392	·402	·371	·381	+·021	89	51	39	60	+ 2	2·1	5·4	3·8	−0·2	4	4	7	12	4	2	5	10	12	N 13° W	N 87° W	17	42	33		3·03	1·25	Katmandu	
·286	·401	·428	·365	+·046	84	84	84	84	+ 8	6·9	7·8	7·4	+1·2	7		1		2	2	20	17	11	S 76° W	S 75° W	63	32	169*	206	3·71	0·93	Darjeeling	
·223	·242	·256	·232	−·013	31	24	22	25	− 1	0·7	1·6	1·2	−0·6		4	2	1	1		32	7	13	S 76° W	S 87° W	61	56	229*	211	0	0	Mount Abu	Hill Stations, Central India.
·244	·219	·211	·217	−·054	31	18	14	20	− 7	0·4	0·7	0·6	−1·9	1	10	1		1			3	44	N 38° W	N 63° W	89	44	211*	144	0·01	0·04	Pachmarhi	
·294	286	·246	·267	−·011	36	24	17	25	− 1	0·2	0·7	0·5	−2·2	27	14	8				2		9	N 5° W	N 46° W	42	35	180*	197	0·02	0·02	Chikalda	
·271	·315	·373	·332		65	47	65	64		3·1	6·6	4·9			4	16	14	14	4			2	N 85° E		57		287		4·21	2·20	Kodaikanal†	Hill Stations, S. India.
·312	·317	·372	·329		82	47	62	65		2·4	6·9	4·7		6	2	17	22	11				2	N 79° E		68		88*		1·89	0·34	Ootacamund	
·249	·234	·273	·247		68	42	55	56		2·9	6·5	4·7			13	21	23	2				1	N 55° E		78		139		1·00	0·25	Dodabetta	
·593	·832	·741	·762	−·017	62	69	58	67	− 4	2·0	0·8	1·4	−0·7	1		12	8	15	5	14	1	4	S 43° E	N 87° E	33	67	133§	370	0	0	Aden	Extra India.
·822‡	·852	·860	·885	+·012	83‡	71	69	78	0	0·4	0·2	0·3			2		6	34	4		5	9	S 43° E	S 88° E	45	63	370*	432	0	0	Perim	
	·854	·838				67	66			3·7	4·1	3·9			7	1				1	14	37	N 51° W		87		138*		0·52	0·26	Minicoy	
	·857	·855				87	82			7·5	7·8	7·7	+1·7			1		10	34	13	2		S 4° W	S 5° E	84	81	172*	170	14·56	2·10	Zanzibar	
·822	·844	·828	·856	−·007	97	73	69	83	+ 3	4·5	5·2	4·9		15	4	3	5	19	2	1	1	10	S 76° E	S 63° E	20	6	83		3·97	1·70	Port Victoria (Seychelles).	
			·669	−·035				79	− 2			6·4	+0·7										S 66° E	S 70° E			190	205	4·08	1·04	Mauritius (Pamplemouses)	

* Corrected.

† Wind variable 6.

¶ Mean of three previous columns.

G. I. C. P. O.—No. 495 Metcor.—6-10-1904—385.

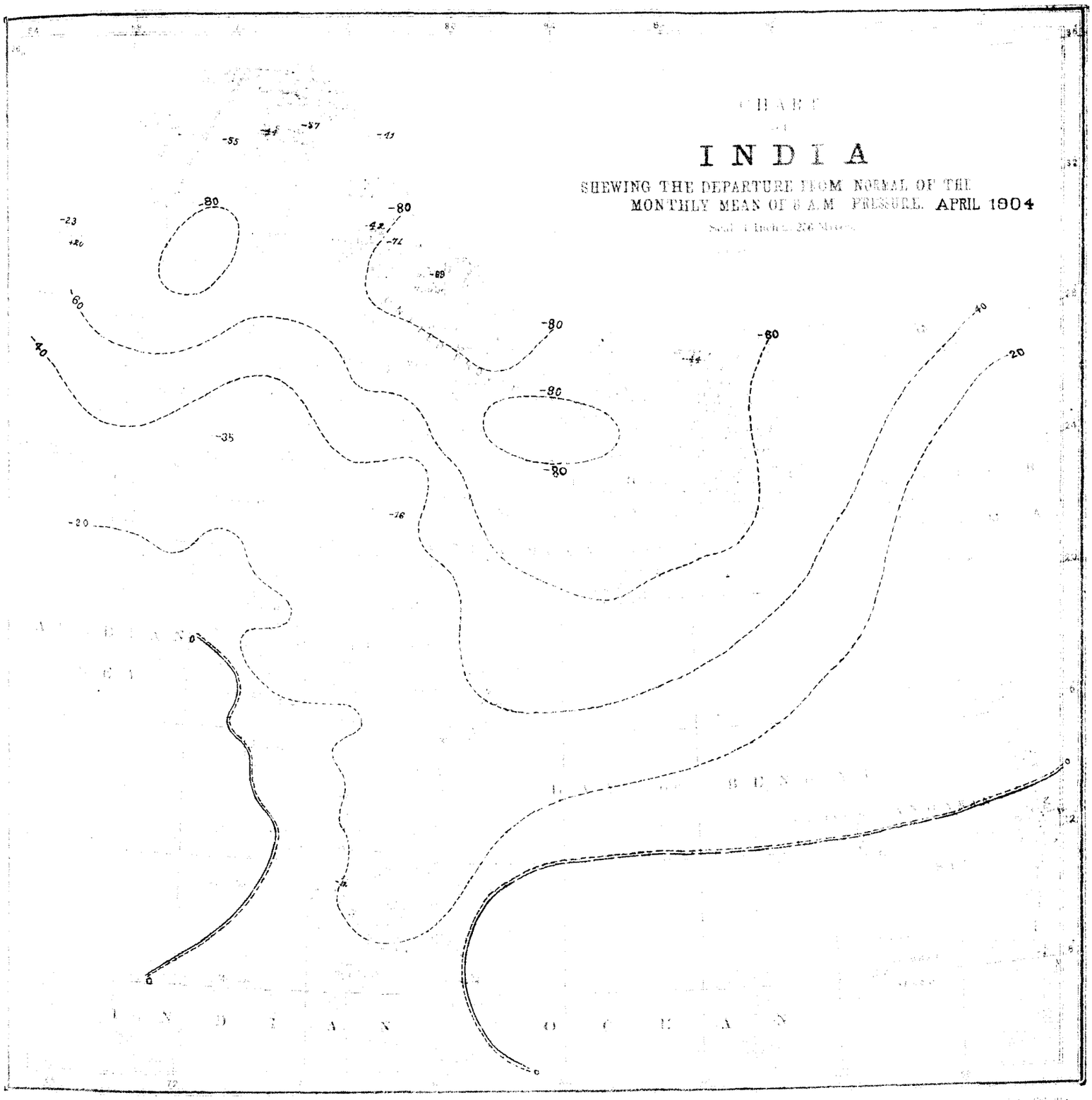


Explanation.

The lines of the above Chart represent isobars or lines of equal barometric pressure, and the numbers attached indicate the barometric pressure in inches and are drawn for differences of pressure of ·05 inch. The isobars in the Bay of Bengal are filled in by means of the ships observations, and by comparison with the ordinary or normal distribution of pressure as given in the Charts of the Bay of Bengal prepared by Mr. Dallas, 1st Assistant Meteorological Reporter to the Government of India, and published by the Meteorological Department. Hence they have not the same validity as the isobars in the land area of India itself, but it is probable they deviate very little from the actual.

The mean 8 a.m. wind directions of the month are shown 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 I of the 8 a.m. 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 shown 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 ,, ,, ,, ,, ,,



Explanation

The Chart shows the departure from the normal of the mean 8 a.m. pressure of the month by means of lines drawn for equal amounts of departure (of two hundredths of an inch or ·020″). 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.

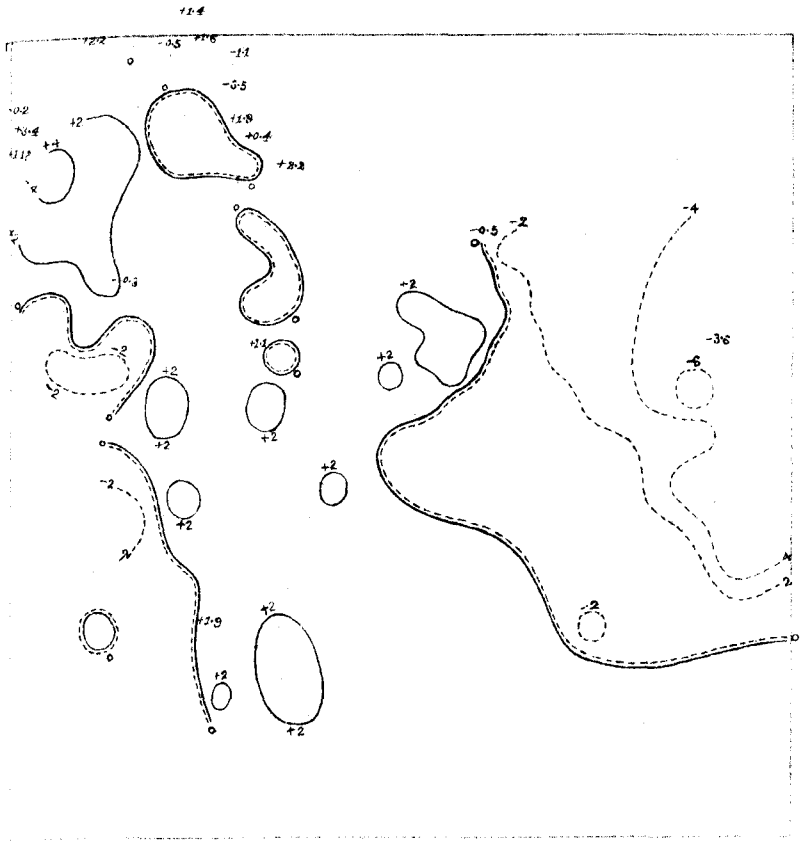


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MINIMUM TEMPERATURE.

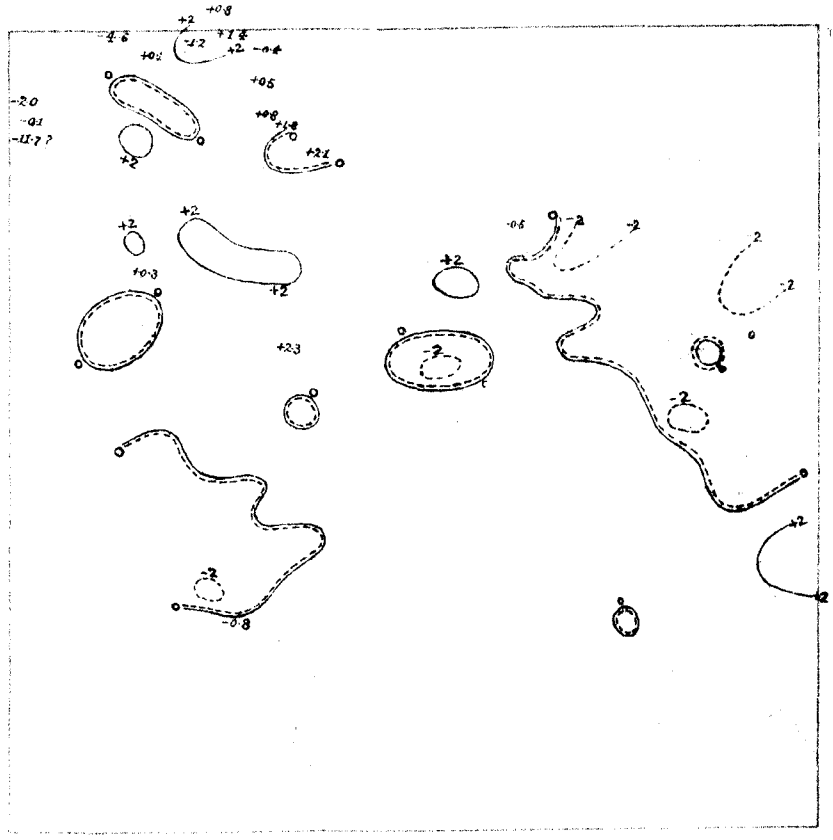


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MEAN TEMPERATURE.

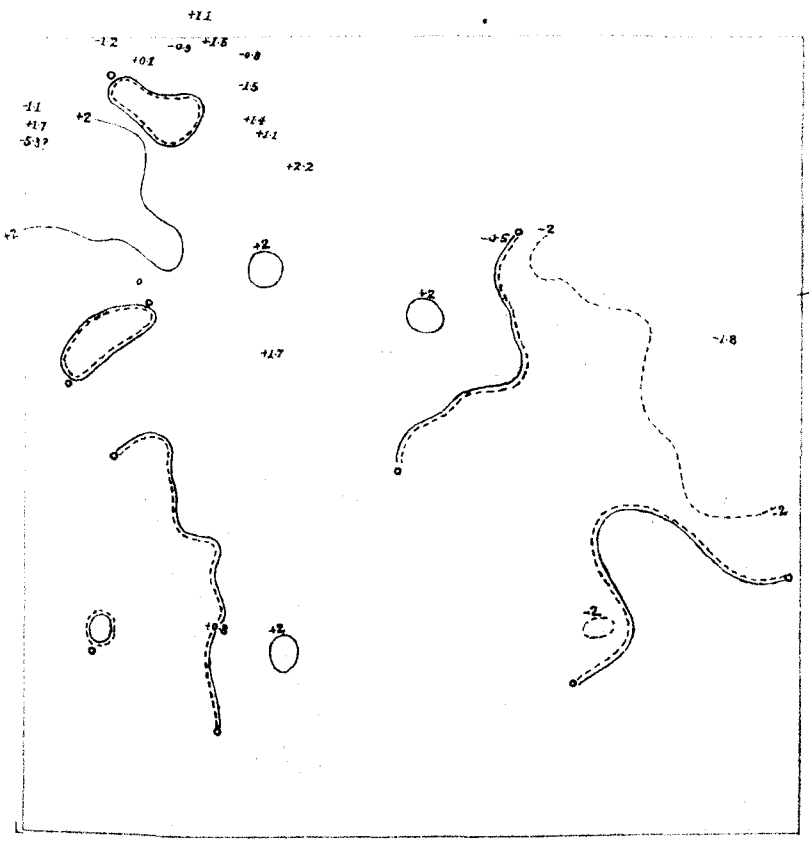
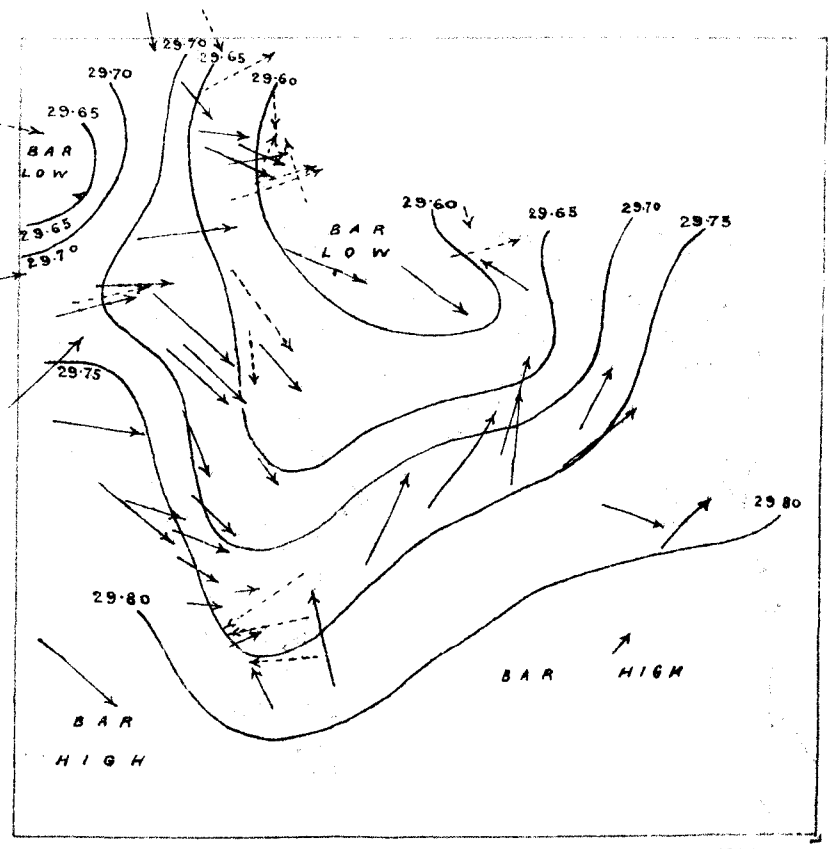


CHART SHEWING THE MONTHLY MEAN OF PRESSURE AND RESULTANT WIND DIRECTION.



LITHO. BY J.N. MUNDLE.

Explanation.

Continuous lines indicate that the mean daily temperature of month was in excess by amounts indicated by the attached numbers; broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no departure, the broken line facing the area of deficient temperature.

The Chart is prepared in the same manner as the Monthly Charts which previously to 1890 appeared in the Annual Reports, the only alteration made being that pressures are reduced to constant gravity (45°). The isobars are given for each twentieth of an inch. The arrows show the directions of the resultants of the wind recorded at 10 and 16 hours, and by their lengths the percentage of the observations expressing the numerical value of the resultant; a length of $\frac{1}{20}$th of an inch being equal to 100 per cent.

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

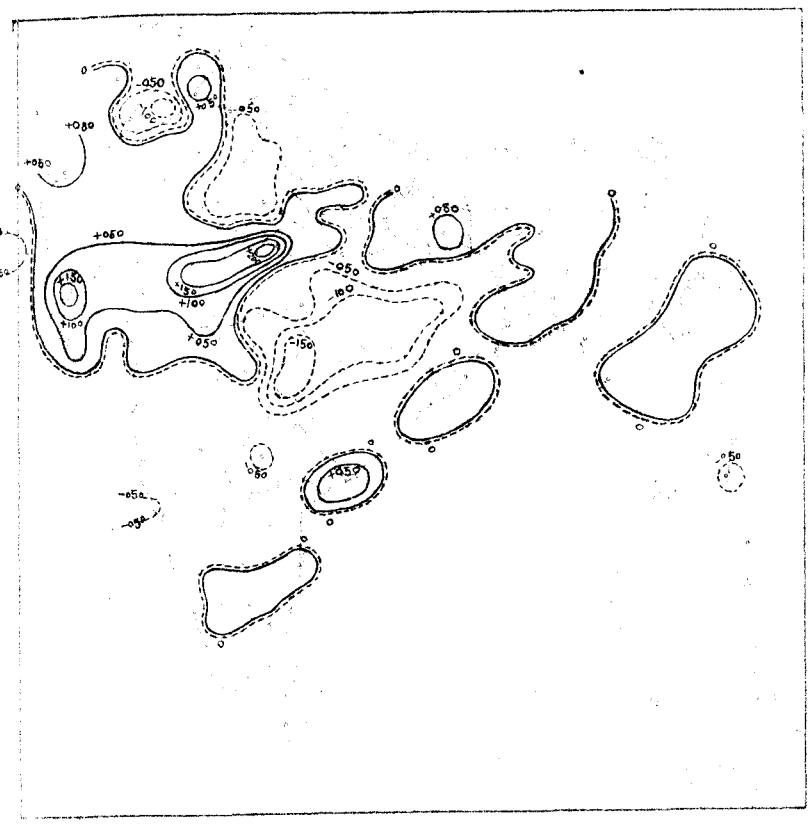
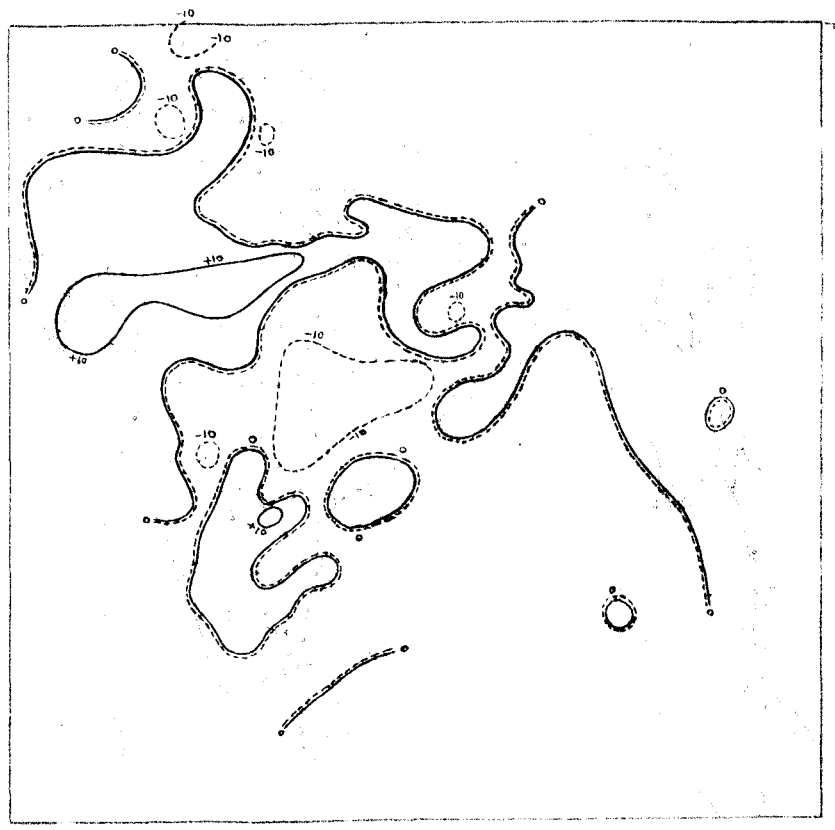


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF RELATIVE HUMIDITY AT 8 A. M.



Explanation.

Continuous lines indicate that the mean absolute humidity of month was in excess by amounts indicated by the attached numbers; broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no departure from the normal, the broken line facing the area of deficient humidity.

Continuous lines indicate that the mean relative humidity of month was in excess by amounts indicated by the attached numbers; broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no departure from the normal, the broken line facing the area of deficient humidity.

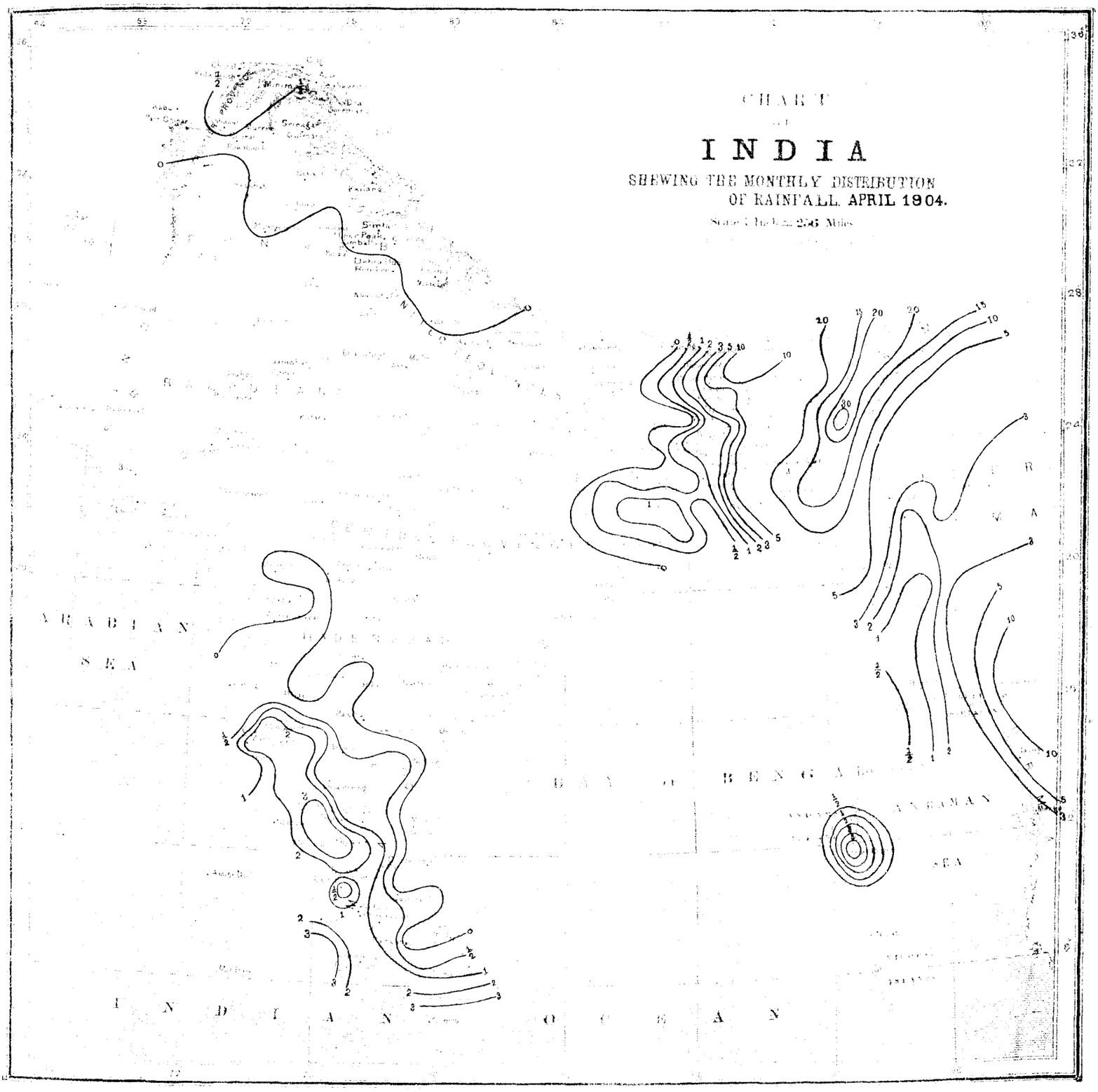
CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF CLOUD AMOUNT AT 8 A. M.

CHART SHEWING THE TOTAL NUMBER OF DAYS IN THE MONTH ON WHICH RAINFALL EXCEEDED 0·01 INCH

Explanation.

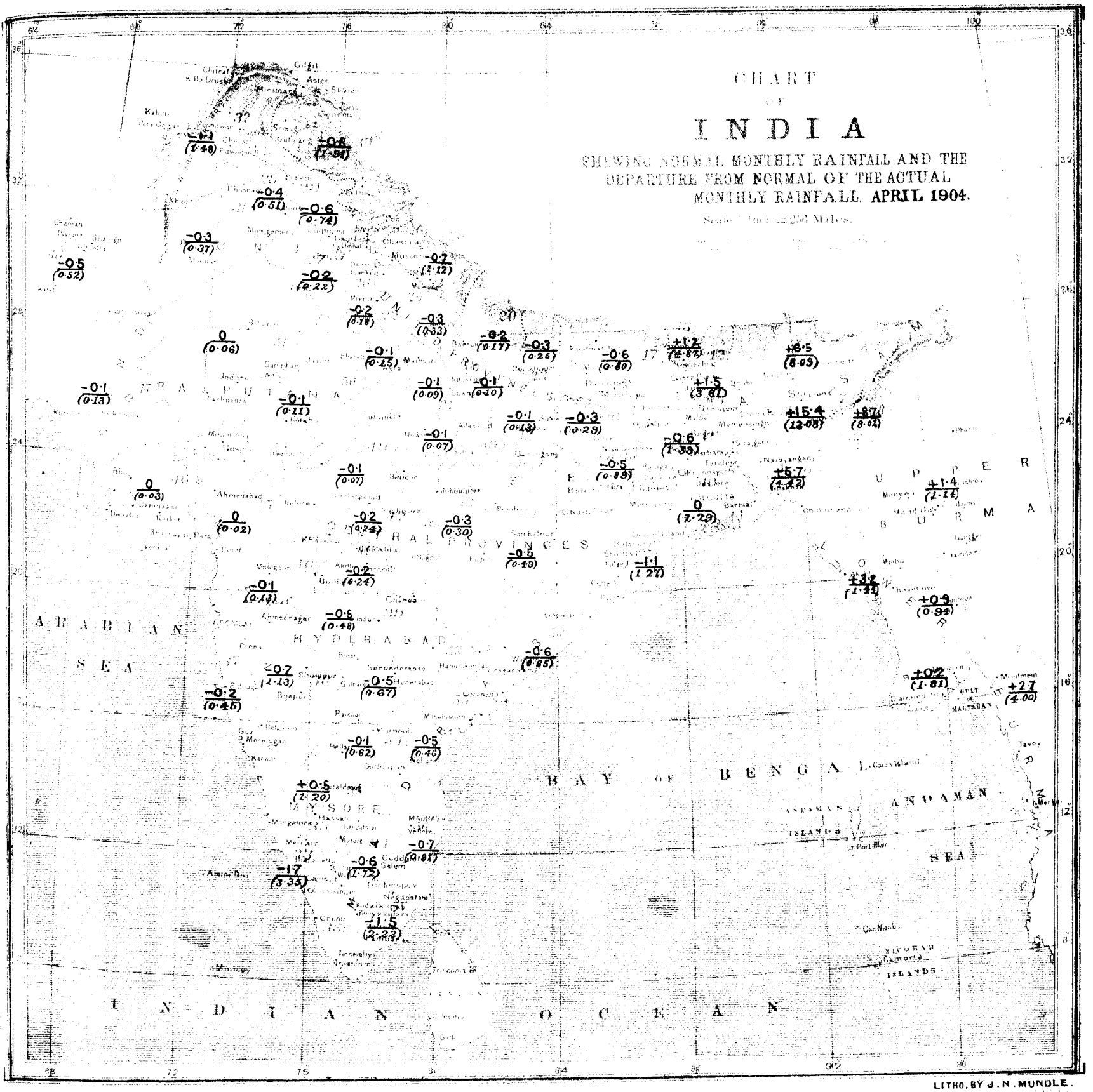
Continuous lines indicate that the mean cloud amount of month was in excess by amounts indicated by the attached numbers; broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no departure from the normal, the broken line facing the area of deficient cloud.

A rainy day is one on which 0·10 inch or more of rain is received within 24 hours.



Explanation.

The Chart shows the distribution of the rainfall of the month by means of isohyetic lines or lines of equal amounts of rain. The data used in the preparation of this Chart are the rainfall returns of all the observatories in India except those at the Hill Stations over 3,500 feet in elevation (177 in number). The double line or line of *no* rainfall separates areas in which the rainfall exceeded a tenth of an inch from those where it was actually or practically *nil* (*i.e.* less than a tenth of an inch). The dotted line faces the area of no rainfall.



LITHO. BY J. N. MUNDLE.

Explanation.

The Chart gives the departures of the rainfall of the month (to tenths of an inch) from the normal over the whole of India and Burma. The country is divided into 57 areas, over each of which the meteorological conditions are fairly uniform, and the staple crops similar in character; and the means (both actual and normal for the month) have been calculated, and the numbers given in the centre of each division (usually with a + or − sign attached) give the difference between the actual and normal mean rainfall of the district of the month. A plus sign indicates that the rainfall was in excess, and a negative sign that it was in defect by the amounts indicated by the numbers to which the signs are attached. The normal average rainfall is also given below in smaller figures enclosed within brackets so that the percentage departure from the normal can be at once estimated. The name of the district can be at once ascertained by referring in the following list to the number given near the right hand boundary of each district in small slanting red figures.

1. Tenasserim
2. Lower Burma Deltaic
3. Central do.
4. Upper do.
5. Arakan
6. East Bengal
7. Assam, Surma
8. Do., Hills
9. Do., Brahmaputra
10. Deltaic Bengal
11. Central do.
12. North do.
13. Bengal Hills
14. Orissa
15. Chota Nagpur
16. South Bihar
17. North Bihar
18. United Provinces, East
19. South Oudh
20. North do.
21. United Provinces, Central
22. Do. do., West
23. Do. do., East Submontane
24. Do. do., West do.
25. Do. do., Hills
26. South East Punjab
27. South do.
28. Central do.
29. Punjab, Submontane
30. Do., Hills
31. West Punjab
32. North West Frontier Province
33. Malabar
33a Travancore
34. Madras, South Central
35. Coorg
36. Mysore
37. Konkan
38. Bombay Deccan
39. Hyderabad, North
40. Khandesh
41. Berar
42. Central Provinces, West
43. Do., Central
44. Do., East
45. Gujarat
46. Kathiawar and Cutch
47. Sind
48. Baluchistan Hills
49. Central India, East
49a Do. do.
50. Rajputana East, Central India West
51. West Rajputana
52. Madras, East Coast, North
53. Hyderabad, South
54. Madras, Central
55. Madras, East Coast, Central
56. Do. East Coast, South
57. Madras, South

GOVERNMENT OF INDIA.

METEOROLOGICAL DEPARTMENT.

MONTHLY WEATHER REVIEW

PUBLISHED BY ORDER OF

THE GOVERNMENT OF INDIA.

CALCUTTA, MAY, 1904.

INTRODUCTION.

THIS review of the weather in India during the month of May 1904 is based on observations taken daily at 8 A.M. at 231 stations, and on additional observations taken at 10 A.M. and 4 P.M. at 65 stations. In the rainfall summary the rainfall data of the meteorological observatories, and the rainfall statements of the month published by the Provincial Governments that had been received up to the date of the preparation of the review are utilized. A summary of the weather in the Bay of Bengal and the Arabian Sea, derived from information extracted from the logs of vessels entering the ports of Calcutta and Bombay, is also given.

Summary of the chief features of the weather in India during the month of May, 1904.

The weather was somewhat more settled than usual over north-western and central India during May 1904 though the number of slight disturbances affecting the north-west was considerable. Over the Peninsula and north-east India, on the contrary, the weather was very showery and unsettled. In north-east India thunder-showers were of almost daily occurrence and during the last week of the month a moderate cyclonic storm occasioned heavy and widespread rain over the eastern half of India.

The weather was fine and quiet during the first four days of the month and the mean temperature generally exceeded the normal except in the north-east where it was lower than usual. The excess was greatest in the north-west where at some stations on the 4th the mean temperature was more than 10° above the average. The following gives comparative data for these four days for the different divisions of north-west India:—

Province or Division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of			
	1st May.	2nd May.	3rd May.	4th May.
	°	°	°	°
United Provinces of Agra and Oudh.	+1·7	+1·5	+1·5	+3·0
Punjab	+2·0	+1·9	+4·7	+9·2
North-west Frontier Province .	+1·7	+3·2	+5·1	+6·8
Sind	+1·7	+3·7	+2·5	+5·0
Rajputana	+1·7	+2·0	+4·4	+5·1
Gujarat	+0·3	+2·4	+2·3	+1·1
Central India	+0·2	+3·2	+3·7	+3·5

On the 5th a slight barometric depression appeared in the north-west, the weather became showery and a brisk fall of temperature commenced. Unsettled weather with general showers in the north-east and scattered showers in other parts of the country continued until the 9th and during this interval temperature fell unsteadily over the greater part of the country and was generally lower than usual except over the west of the Peninsula and the extreme north-west of India. The following gives data for all divisions for the 9th and shows the prevailing low temperature:—

Province or division.	Departure from normal of		
	Mean maximum temperature 9th May.	Mean minimum temperature 9th May.	Mean temperature 9th May.
	°	°	°
Burma	+0·6	+1·2	+0·9
Assam	−6·0	−0·4	−3·2
Bengal	−1·9	−3·7	−2·8
Orissa	−1·3	+0·4	−0·5
Bihar	−3·1	−2·9	−3·0
Chota Nagpur	−3·0	−3·5	−3·3
United Provinces of Agra and Oudh	−5·9	−3·0	−4·5
Punjab	−1·2	+3·4	+1·1
North-west Frontier Province	+1·6	+1·2	+1·4
Sind	+3·3	+2·8	+3·1
Rajputana	+0·6	+2·6	+1·6
Gujarat	−2·1	+0·8	−0·7
Central India	−1·3	−2·3	−1·8
Central Provinces	−1·8	−2·1	−2·0
Berar	−2·6	−2·0	−2·3
West Coast	−0·4	+1·5	+0·6
Bombay Deccan	+1·5	+3·3	+2·4
Mysore	+1·5	−0·1	+0·7
Madras Coast	−2·9	−1·1	−2·0
Madras Deccan	−0·9	+1·0	+0·1
South India	−1·8	−0·3	−1·1

On the 10th the temperature rose again and another hot period was inaugurated over north-western and central India. This hot period only lasted till the 13th, but on the 12th the heat was very excessive in some places, the mean temperature having been over 10° above the normal at Sialkot, Lahore and Mooltan. The following gives comparative data for the north-western and central divisions for this day:—

Province or division.	Departure from normal of		
	Mean maximum temperature 12th May.	Mean minimum temperature 12th May.	Mean temperature 12th May.
	°	°	°
United Provinces of Agra and Oudh	+1·6	+2·5	+2·1
Punjab	+7·7	+9·7	+8·7
North-west Frontier Province	+5·1	+1·1	+3·1
Sind	+3·6	+2·0	+2·8
Rajputana	+4·1	+3·8	+4·0
Central India	+3·4	+4·9	+4·2
Central Provinces	+1·1	+1·3	+1·2
Berar	−1·8	+5·3	+1·8

Between the 13th and 18th a very showery period prevailed over a large part of the country and temperature fell to very largely below the normal except in the north-east and over Burma. There was thus a marked contrast between the conditions existing at the commencement and at the end of this showery period, as is shown by the following statement which gives comparative temperature data for all divisions for the 13th and for the 18th and shows that, while at the beginning of the period the mean temperature exceeded the average over north-west and central India and was below the average over north-east India and Burma, these conditions were to a great extent reversed at the end of the period:—

Province or division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of	
	13th May	18th May.
	°	°
Burma	−1·9	+1·2
Assam	−1·4	+1·9
Bengal	−3·7	+1·6
Orissa	−4·9	0
Bihar	−5·1	+1·2
Chota Nagpur	−3·6	−1·7
United Provinces of Agra and Oudh	−0·6	−6·1
Punjab	+5·2	−9·4
North-west Frontier Province	−0·3	−6·5
Sind	+1·9	+0·3

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF MEAN TEMPERATUPE OF 24 HOURS PRECEDING 8 A.M. OF	
	13th May.	18th May.
	°	°
Rajputana	+3·1	−9·0
Gujarat	−0·1	−1·8
Central India	+1·1	−4·1
Central Provinces	+2·0	−3·6
Berar	+0·7	−1·5
West Coast	−0·9	−1·4
Bombay Deccan	+1·5	−1·8
Mysore	−1·7	−3·1
Madras Coast	−0·2	−0·7
Madras Deccan	−1·6	−4·5
South India	−1·6	−1·3

The depression of temperature was very large in some districts on the 16th and 17th, the departures of the mean temperature from the normal amounting to over 10° at the stations for which comparative data are given below :—

Date.	Station.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of date.
		°
16TH MAY, 1904	Rawalpindi	−16·1
	Peshawar	−13·6
	Dera Ismail Khan	−11·2
	Delhi	−12·0
	Agra	−10·2
	Cherat	−21·1
	Murree	−19·4
	Srinagar	−13·8
	Gilgit	−10·5
17TH „	Montgomery	−13·4
	Sirsa	−11·2
	Peshawar	−10·1
	Agra	−10·1
	Chanda	−12·0
	Srinagar	−13·4
	Cherat	−11·8
	Murree	−10·6

Between the 19th and the 22nd the weather was generally fine and the temperature rose briskly over the whole country, so that by the latter date the mean temperature exceeded the normal in all places except Burma and deltaic Bengal. The excess as before was greatest in the north-west. The following gives comparative data for the 22nd for the north-west divisions :—

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF		
	Mean maximum temperature 22nd May.	Mean minimum temperature 22nd May.	Mean temperature 22nd May.
	°	°	°
United Provinces of Agra and Oudh.	+3·2	+4·4	+3·8
Punjab	+7·9	+8·0	+8·0
North-west Frontier Province	+4·4	+4·0	+4·2
Sind	+3·0	+1·5	+2·3
Rajputana	+6·8	+3·8	+5·3
Gujarat	+1·3	+0·2	+0·8
Central India	+7·5	+3·7	+5·6

On the 23rd and 24th scattered showers occurred both in the north-west and along the Madras coast and the mean temperature was reduced to below the normal in both those areas. On the 25th a moderate cyclonic storm struck the Madras coast near Cocanada and this storm formed the most important feature of the weather between the 25th and the 28th. The storm passed along a curved course through the northern districts of Madras, the east of the Central Provinces and south-west Bengal to central Bengal where it filled up. It occasioned heavy rain over the regions traversed by it, particulars of which are given in the rainfall sections of the different provinces, and this heavy rainfall occasioned a brisk to rapid fall of temperature over a large part of the country. This is shown in the following statement which gives comparative data for the stations at which the mean temperature was more than 10° below the normal between the 25th and the 28th :—

Date.	Station.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of date.
		°
26TH MAY	Nellore	−15·6
	Masulipatam	−11·9
	Madras	−11·6
	Cocanada	−10·1
27TH „	Raipur	−20·4
	Gaya	−18·6
	Masulipatam	−13·5
	Cocanada	−12·8
	Chanda	−10·5
	Nellore	−10·1

Date.	Station.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of date.
		°
28TH MAY	Raipur	−19·5
	Gaya	−19·0
	Sambalpur	−15·6
	Ranchi	−13·3
	Hazaribagh	−12·8
	Chaibassa	−12·6
	Benares	−12·5

After the storm had disappeared and the rain ceased the temperature rose, but both on the 30th and 31st scattered showers were reported in different parts of the country and the month closed with temperature considerably below the normal over most of the Indian area.

Pressure.—On the mean of the month pressure was lowest over the Punjab and highest over Tenasserim and barometric gradients were steeper than usual. The mean pressure was generally below the normal over the western and above over the eastern half of India, but the departures nearly balanced each other and the departure from normal of the geographical mean of the whole country was only −·004″. The relatively low pressures over north-west India extended apparently over Arabia and the greater part of Persia, but disappeared over Asiatic Turkey and Egypt where the pressure on the mean of the month exceeded the normal. In the south-east trades region the mean pressure was lower than usual.

The following table gives the mean pressure departures and anomalies of the month for the eleven meteorological provinces of India :—

METEOROLOGICAL PROVINCE.	Departure from normal of mean 8 A.M. pressure of May, 1904.	Pressure anomaly, May, 1904.
	″	″
Burma Coast and Bay Islands	+·009	+·013
Burma Inland	+·016	+·020
Assam	+·006	+·010
Bengal and Orissa	+·011	+·015
Gangetic Plain and Chota Nagpur	+·002	+·006
Upper Sub-Himalayas	−·015	−·011
Indus Valley and North-West Rajputana	−·023	−·019
East Rajputana, Central India and Gujarat	−·016	−·012
Deccan	−·009	−·005
West Coast	−·006	−·002
South India	−·004	0

Temperature.—The weather was somewhat more disturbed than usual over eastern and southern India during May 1904 and less disturbed in the north-west and the mean temperatures reflected these conditions.

The mean maximum temperature of the month exceeded the normal over the North-west Dry Area, Rajputana, the west of Central India and of the Central Provinces and the greater part of Bombay while it was generally in defect elsewhere. The excess was most marked over the western desert and the Bombay Deccan ; and the deficiency over the Madras coast and the north-east of India. The following shows the principal departures :—

POSITIVE DEPARTURES.		NEGATIVE DEPARTURES.	
Stations.	Departures from normal.	Stations	Departures from normal.
	°		°
Jacobabad	+3·9	Gaya	−8·1
Ahmednagar	+3·2	Gorakhpur	−5·0
		Bahraich	−4·3
		Darbhanga	−3·7
		Berhampore	−3·7
		Chaibassa	−3·7
		Bogra	−3·6
		Dinajpur	−3·5
		Bareilly	−3·5
		Ranchi	−3·3
		Burdwan	−3·1
		Nellore	−4·1
		Masulipatam	−3·4

The highest maximum recorded during the month was 123°·0 at Jacobabad on the 21st, a reading which was 10° 2 above the normal.

The mean minimum temperature of the month was, like the mean maximum temperature, generally in excess of the normal over a large part of north-western and central India and generally in defect elsewhere. The departures from the normal were, however, on the whole, smaller in the case of the minimum than in the case of the maximum.

The following shows the principal departures:—

POSITIVE DEPARTURES.		NEGATIVE DEPARTURES.	
Stations.	Departures from normal.	Stations.	Departures from normal.
	°		°
Lahore	+4.2	Ranchi	−2·9
Sialkot	+3·7	Chaibassa	−2·9
Mooltan	+3·7	Gorakhpur	−2·7
Rawalpindi	+2·9	Bahraich	−2·5
Pachpadra	+2·1	Bogra	−2·2
Amraoti	+2·0	Nellore	−2·9
		Cocanada	−2·1

Very high night temperatures were experienced over the west and north Punjab during the first week when the following minimum temperatures, more than 10° above the normal, were recorded:—

Date.	Station.	Departure from normal of minimum temperature of date.
		°
4th May	Sialkot	+11·2
	Rawalpindi	+16·1
	Khushab	+14·6
	Lahore	+12·8
5th do.	Lahore	+12·5
6th do.	Lahore	+11·2
7th do.	Rawalpindi	+12·2

The mean temperature of the month slightly exceeded the average over north-west India and the Bombay Presidency as well as at a few stations in Burma and the south of the Peninsula, but was in defect elsewhere. The departures from the normal were not, however, very large or important. At all the northern hill stations the mean monthly temperature was lower than usual.

The following table gives mean comparative data of temperature for the eleven meteorological provinces or divisions into which India is divided:—

Meteorological Province.	Departure from normal of		
	Mean maximum temperature, May, 1904.	Mean minimum temperature, May, 1904.	Mean temperature, May, 1904.
	°	°	°
Burma Coast and Bay Islands	−0·6	0	−0·3
Burma Inland	+0·5	−0·3	+0·1
Assam	−1·8	−0·6	−1·2
Bengal and Orissa	−1·9	−1·1	−1·5
Gangetic Plain and Chota Nagpur	−3·6	−1·6	−2·6
Upper Sub-Himalayas	−0·7	+0·9	+0·1
Indus Valley and North-West Rajputana.	+1·4	+1·2	+1·3
East Rajputana, Central India and Gujarat.	0	+0·3	+0·2
Deccan	+0·3	+0·3	+0·3
West Coast	−0·6	−0·5	−0·5
South India	−1·5	−0·9	−1·2

Winds.—Over the Bay and on the surrounding coasts the winds, on the mean of the month, were generally stronger than usual. The velocity decreased inland and over northern India, though the steadiness exceeded the average, the velocity was generally low and the wind's direction varied irregularly from the normal. Over the Arabian Sea the force of the wind was low and a similar condition was reported from most of the Peninsular districts. The wind's mean direction was generally more northerly than the average over the Deccan and more westerly over southern India. At Aden and Perim the wind was much lighter and more southerly than the average while over the south-east trades region the only important departure from the normal was the great steadiness of the wind at the Seychelles.

Humidity.—The mean relative humidity of the month was below the normal in three areas. The first included the north-west dry area and part of the Punjab, the deficiency in this area having been most marked at Rawalpindi, Montgomery and Bikaner. The second area stretched across the h ad of the Peninsula from Gujarat to Orissa and within this area the largest departures from the normal were recorded at Bhavnagar, Malegaon and Balasore. The third area overlay Burma and here the largest departures were shown at Toungoo and Minbu. Over the whole of the remainder of the country the mean relative humidity was normal or exceeded the normal. The excess was large over the Gangetic plain, west Bengal and the interior of the Peninsula where the absolute humidity was in excess of the normal and the mean temperature was below the average.

The following gives actual and departure data of the mean aqueous vapour pressure and mean relative humidity of the nine meteorological provinces for May 1904.

Meteorological Province.	Mean absolute humidity.		Mean relative humidity.	
	Average actual, May, 1904.	Departure from normal, May, 1904.	Average actual, May, 1904.	Departure from normal, May, 1904.
	"	"	%	
Burma Coast and Bay Islands.	·889	−·024	81	−1
Bengal and Orissa	·910	−·021	79	−1
Gangetic Plain and Chota Nagpur.	·663	+·070	55	+7
Upper Sub-Himalayas	·502	+·049	43	+3
Indus Valley and North-West Rajputana.	·640	+·025	50	0
East Rajputana, Central India, and Gujarat.	·459	−·049	35	−3
Deccan	·465	−·018	38	−1
West Coast	·871	−·007	76	0
South India	·734	+·037	70	+7

Cloud.—The sky, on the mean of the month, was clearer than usual of cloud over north-west and part of central India. The deficiency was considerable to large at Sirsa (−2·6), Bhavnagar (−2·0) and Malegaon (−1·7). The cloud amount was also relatively low over Burma and the Bay area, more particularly at Mandalay (−2·5); Thayetmyo (−2·2); Mergui (−2·0), Barisal (−1·9) and Gopalpur (−2·9). Between these two areas of relatively low cloud amount there existed a broad band covering Assam, Bengal, the Gangetic plain and the east and south of the Peninsula where the sky was more cloudy than usual. This was particularly the case at Burdwan (+2·1), Gorakhpur (+4·0), Nowgong (+2·0) and Goa (+2·3).

The following gives actual and departure data of the

mean cloud amount in the nine meteorological provinces for May 1904:—

METEOROLOGICAL PROVINCE.	MEAN CLOUD AMOUNT.	
	Average actual, May, 1904.	Departure from normal, May, 1904.
Burma Coast and Bay Islands	6·8	+0·2
Bengal and Orissa	5·4	+0·3
Gangetic Plain and Chota Nagpur	5·7	+0·2
Upper Sub-Himalayas	2·0	−0·1
Indus Valley and North-West Rajputana	1·6	−0·5
East Rajputana, Central India and Gujarat	1·6	−0·3
Deccan	3·4	+0·3
West Coast	2·5	−0·4
South India	5·3	+0·4

Rainfall.—There was little or no rain during the month over Sind, the south Punjab, western Rajputana, the Central Provinces, the north Deccan and Bombay, and the average actual rainfall was generally deficient over the whole of that area. From this region of light and deficient rainfall the amount increased and was greatest (at the meteorological observatories) at Jalpaiguri, 24·54″, Moulmein 23·22″, and Mysore, 12·23″. In Burma and the Assam hills the month's rainfall was generally lighter than the average while over the Assam plains, Bengal, the Gangetic plain and the east and south of the Peninsula the total rainfall exceeded the normal. In north-east India rain fell almost daily while over the east of the Peninsula and north-east India heavy rain was received from a cyclonic storm in the last week of the month.

The following gives comparative rainfall data of the eleven meteorological provinces or divisions:—

METEOROLOGICAL PROVINCE.	RAINFALL.			
	Mean actual for May, 1904.	Mean normal for May.	Mean of departure from normal, May, 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Burma Coast and Bay Islands	10·90	14·65	−4·01*	− 27
Burma Inland	3·43	5·41	−2·01*	− 37
Assam	14·41	13·30	+1·12	+ 8
Bengal and Orissa	10·39	7·33	+3·07	+ 42
Gangetic Plain and Chota Nagpur	3·14	1·63	+1·50	+ 92
Upper Sub-Himalayas	1·11	0·91	+0·19*	+ 21
Indus Valley and North-West Rajputana.	0·19	0·42	−0·23	− 55
East Rajputana, Central India and Gujarat.	0·45	0·38	−0·05*	− 5
Deccan	0·66	0·89	−0·23	− 26
West Coast	3·88	5·14	−1·25	− 24
South India	4·70	2·25	+2·45	+109

* A reference to Table I will show that the means of columns 2 and 3 are derived from a smaller number of stations than the means in the first column. The sum of the figures in columns 2 and 3 will, therefore, not agree with the figures in column.

General remarks for Indian Monsoon area.—Pressure was, as usual, unsteady over western Siberia and the daily changes were large and irregular. Large downward movements of pressure occurred over this region on the 3rd and 4th, 9th and 10th, 15th, 19th, 26th and 29th, and on some of these dates notably on the 10th and 19th, similar changes were recorded at the observatories of Kashgar and Gilgit. Light rain fell at Kashgar on the 15th and 26th and at Gilgit on the 5th and 6th, the 12th and 13th, and the 22nd and 23rd and the unsettled weather in these regions agreed much more closely with disturbed weather conditions over north-west India than with the barometric changes over western Siberia.

Similarly, to the westward of India, there is very little evidence of the weather over north-west India having been influenced by changes advancing from the westward. Pressure was unsteady both at Beirut and Baghdad, but there is no direct evidence of unsettled conditions having passed across those stations towards India. In Egypt the mean pressure of the month was generally above the normal. Three depressions affected the weather of this country. Two of these, *viz.*, those of the 6th to 8th and 25th to 28th passed to south-east and could not have affected the Indian weather. The third passed through Syria causing a minimum at Beirut on the 23rd, but the depression cannot be traced to Baghdad. The rainfall of Egypt was generally normal or deficient especially in the Sudan where it was very short of the normal.

Hence it appears probable that most of the numerous small depressions, which appeared over north-west India during the month, were formed close to the Indian frontier and were probably due to the rapid rise of temperature which, as shown in the temperature section, occurred over the western desert and neighbouring regions.

The pressure changes over the south-east trades region during the month were generally slight or small and the pressure oscillations recorded were not, so far as can be traced, transmitted northward into the Indian region.

The following table shows the daily departures of pressure from the normal at various selected stations within the monsoon area and the mean daily departures derived from the whole number of stations:—

DATE.	DEPARTURE FROM NORMAL.									
	Calcutta.	Madras.	Colombo.	Bombay.	Lahore.	Bushire.	Aden.	Zanzibar.	Seychelles.	Whole.
1	+·018	−·002	+·003	−·033	−·009	+·138	+·084	−·052	−·009	+·015
2	+·050	+·019	−·018	−·025	−·074	+·113	+·047	−·049	−·004	+·007
3	−·031	+·022	+·012	−·002	−·111	+·053	+·059	+·019	+·021	+·005
4	−·045	−·008	+·008	+·003	−·164	+·127	+·051	+·024	+·012	+·001
5	−·017	−·035	+·013	−·013	−·119	+·048	−·037	+·021	+·024	−·013
6	−·037	−·041	−·019	−·034	−·152	−·034	+·006	−·008	−·028	−·039
7	+·010	−·028	−·025	−·007	−·030	−·141	−·030	−·032	−·035	−·023
8	+·089	+·060	+·008	+·032	+·008	+·094	−·001	−·016	+·012	+·031
9	+·070	+·062	+·012	+·029	+·017	+·006	−·048	−·027	−·014	+·012

DEPARTURE FROM NORMAL.

DATE.	Calcutta.	Madras.	Colombo.	Bombay.	Lahore.	Bushire.	Aden.	Zanzibar.	Seychelles	Whole.
10	—·011	+·024	—·008	—·029	—·061	—·032	—·032	—·055	—·046	·028
11	—·037	—·014	—·012	—·042	—·150	+·016	—·131	—·095	—·070	—·057
12	+·032	—·012	—·001	—·052	—·131	+·051	—·015	—·028	—·014	—·019
13	—·061	—·027	—·019	—·015	—·168	+·007	—·001	+·010	+·006	—·029
14	—·005	—·036	—·015	—·028	—·087	+·011	—·031	—·017	—·006	—·024
15	+·051	+·013	+·009	—·013	+·050	+·011	+·008	—·003	+·022	+·016
16	+·022	+·050	+·024	+·051	+·157	—·029	—·006	+·017	+·033	+·035
17	+·014	+·010	+·007	+·038	+·095	+·010	—·024	+·009	+·032	+·021
18	—·029	—·009	—·030	+·001	+·114	+·027	—·072	+·007	+·012	+·002
19	—·036	—·044	—·062	—·036	—·010	—·054	—·108	+·016	+·011	—·036
20	—·063	—·055	—·056	—·085	—·026	+·089	—·080	—·010	·009	—·039
21	—·055	—·048	—·016	—·034	—·025	+·079	—·094	—·021	—·046	—·029
22	+·040	—·007	—·017	+·012	—·045	+·105	+·024	0	—·032	+·009
23	+·068	—·005	—·043	—·030	—·068	+·106	—·006	—·018	—·038	—·004

DEPARTURE FROM NORMAL.

DATE.	Calcutta.	Madras.	Colombo.	Bombay.	Lahore.	Bushire.	Aden.	Zanzibar.	Seychelles.	Whole.
24	+·057	—·026	—·070	—·102	—·080	+·078	+·040	—·027	—·017	—·016
25	+·054	—·036	—·046	—·118	+·047	+·017	+·021	—·067	—·029	—·018
26	+·080	—·077	—·053	—·107	+·094	—·080	+·019	—·058	—·038	—·024
27	+·025	+·009	—·006	—·019	+·060	—·065	—·049	—·054	—·020	—·013
28	—·115	—·006	+·003	+·035	—·066	—·072	—·029	—·026	—·010	—·032
29	—·011	+·004	+·014	+·049	—·004	—·003	—·011	+·000	+·015	+·007
30	+·047	+·040	+·038	+·076	+·108	+·059	+·074	+·032	+·083	+·062
31	+·116	+·077	+·109	+·113	+·107	+·101	+·064	+·054	+·115	+·095

The departures and the periods of the oscillations were both irregular, minima for the whole area were recorded on the 6th, 11th, 20th, and 28th and maxima on the 1st, 8th, 16th, 22nd and 31st. On the last day of the month a moderate to considerable excess of pressure was reported from all parts of the monsoon area.

Magnetic and Solar Disturbances.

KODAIKANAL OBSERVATORY.

Solar Observations—May, 1904.

The sun was seen on every day of the month sufficiently well to enable the spots to be observed and recorded, but the prominences were mapped on only 26 days, the other five days not being clear enough for this work.

Spots.—There has been a distinct falling off in the size of the spots. Four groups were visible at the beginning of the month and 27 new groups appeared during the month. These were all small and most of them were short-lived. As regards distribution, spots, are still more numerous in the northern than in the southern hemisphere, but the difference between the two is not so great as it was last month. In the northern hemisphere almost all the spots lay between 15° and 25° latitude with a maximum activity between 15° and 20°. In the southern hemisphere no spot had a latitude greater than 20° and most of them appeared between latitudes 10° and 15°.

Faculæ.—Many faculæ were observed. They were most numerous in the same latitudes as the sunspots but one small group appeared high up in 60° north latitude while another was seen in latitude 40° south.

Prominences.—In these also there was a decided falling off but a few large ones were observed. For the three days, May 6th to 8th, the same part of the east limb (20° to 30° north latitude) was covered with large prominences. On the 4th there was a jet at latitude 40° north more than 3′ in height, while another prominence at 20° south latitude showed a strong displacement of the C line.

The observations of widened lines could be made in only a few cases as most of the spots were too small for satisfactory work. Disturbances in the C line in and near spots were found to be numerous as was to be expected from the character of the spots and their rapid changes in appearance.

The only large magnetic disturbance recorded was on the 12th when group No. 275 was a little past the meridian. This group consisted of a number of small spots which underwent many changes during the time when it was visible.

C. MICHIE SMIRH,
Director,
Kodaikanal and Madras Observatories.

Colaba Observatory.

MAY, 1904.

Note on the Magnetic record.

During the month the traces showed 11 calm days and 17 days of small, 2 days of moderate and 1 day of great disturbance, the last one being recorded on the 12th. Movements suspected to be due to seismic causes occurred on the 8th at about 3 P. M., the strain apparently lasting for 4 hours. One small seismic disturbance only was recorded during the month on the 1st.

The selected quiet days of the month were the 4th, 7th, 16th, 22nd, and 26th.

The mean observed absolute values of the several elements as also the ranges and summed ranges * of the Horizontal Force and Declination for the month are as follows:—

	o ′ ″
Declination . . .	0 14 44
Horizontal Force . .	0·37416 C. G. S. unit.
Dip	21° 47′·5
H. Force range . .	·00047 C. G. S. unit.
„ Summed range* .	·00312 C. G. S. unit.
Declination range . .	4′·24
„ summed range* .	16′·49

* Means sum without regard to signs of ordinates of diurnal inequality.

Magnetic Disturbances.

MAY, 1904.

May, 1904.		May, 1904.		May, 1904.	
1	S.	11	C.	21	C.
2	S.	12	G.	22	C.
3	C.	13	M.	23	S.
4	C.	14	S.	24	S.
5	C.	15	S.	25	S.
6	S.	16	C.	26	C.
7	C.	17	S.	27	S.
8	S.	18	S.	28	M.
9	S.	19	S.	29	S.
10	C.	20	C.	30	S.
				31	S.

The magnitudes of the disturbances are determined from Horizontal force traces.

C= Calm; S=Small ; M=Moderate; G=Great; V G=Very great. Days are reckoned from midnight to midnight.

N. A. F. Moos,

Director, Govt. Observatory, Bombay.

Alipore (Calcutta) Observatory.—List of displacements recorded by the Seismograph at the Alipore Observatory during May, 1904.

Number.	Date, 1904.	P. T. Commencement. G.M.T.	L.W. Commencement.	Maxima. G. M. T.	End. G.M.T.	Maximum amplitude in M M.	Duration.	REMARKS.
286	May 1st	H. M. 15-37'9	H. M. 15 47'6	H. M. 15-50'1	H. M. 16-52'2	5-25	H. M. 1-14'3	Sensibility 1 mm.= 0"·42 of tilt.

The local times of the commencement.

Date 1904.	H. M.
May 1st	21-31'2

G. W. Küchler,

Asst. Meteo. Reporter to the Govt. of India.

Royal Alfred Observatory, Mauritius.

Sunspots either in groups or as isolated spots were observed from the Royal Alfred Observatory on every day of the month of May 1904 except the 24th.

The following gives a description of the magnetic disturbances of the month :—

DAY.	HOURS.	MAGNETIC DISTURBANCES.
1	3 to 16	Long wave in H. F. (+·000355) with small superposed fluctuations.
6	8 to 19	Smooth double wave in H. F. (+·000216 and −·000161).
7	13 to 18	Wave in H. F. (−·000161).
8	14	Sudden increase of H. F. (·000090) followed until 18th by small rapid fluctuations.
14	19	Occasional small fluctuations.
15	8	Occasional small fluctuations.
24	6½ to 16	Occasional small rapid fluctuations.
27	20¾ to 21	Decrease of H. F. (·000129).
27	23½ to 2 of 28th	Decrease of H. F. (·000297).
28	6 to 10¾	Increase of H. F. (·000368) with wave 10½h to 10¾h (−·000120).
28	10¾ of 28th to 8 of 29th	Long wave in H. F. culminating at 17½h of 28th −·000320 with superposed waves.
28	14 to 17¼	(+·000168).
28	20 to 23	(−·000258).
29	0 to 3	(+·000220).
29	4 to 6	(+·000194).

T. F. CLAXTON,
Director.

Atmospheric Pressure.

The chart of actual mean pressure for the month of May 1904 shows that pressure was highest over Tenasserim and lowest over the south-west Punjab while a fairly well marked arm of relatively low pressure extended south-eastward from the Punjab as far as south-west Bengal. The general distribution was approximately normal, but gradients were steeper than usual as the mean pressure was in considerable defect over the Punjab while it was about normal over the west of the Peninsula and over Tenasserim.

The mean atmospheric pressure of the whole Indian land area for the month of May 1904 was ·004" below the normal. It was below the normal over north-west India and over the south Gangetic plain and the adjacent parts of the Central Provinces, Central India and Chota Nagpur, about normal over the Peninsula, except the north-east, and above the normal over north-east India, the north-east of the Peninsula and Burma. The principal departures—exceeding ±·025" were as follows :—

POSITIVE DEPARTURES.		NEGATIVE DEPARTURES.	
STATIONS.	Departures of mean pressure from normal.	STATIONS.	Departures of mean pressure from normal.
	"		"
Thayetmyo . . .	+·029	Ahmedabad . . .	−·028
Bogra	+·027	Mooltan . . .	−·041
		Sirsa	−·033
		Ludhiana . . .	−·028
		Lahore . . .	−·028
		Kurrachee . . .	−·027
		Jacobabad . . .	−·027

The relatively low pressures reported from north-west India apparently extended westward over Arabia and part of Persia, but disappeared over Asiatic Turkey and Egypt where the mean pressure of the month exceeded the normal. In the south-east trades region the mean pressure of the month was below the normal.

Relatively to the geographical mean of the whole country pressure was in excess over Burma, north-east India, the submontane districts of the United Provinces, and parts of the east and west coasts of the Peninsula, and was in defect elsewhere. The departures were generally small and unimportant but exceeded ± ·020″ at the stations for which comparative data are given below :—

Positive Departures.		Negative Departures.	
Stations.	Departure from normal.	Stations.	Departure from normal.
	″		″
Thayetmyo	+·033	Mooltan	—·037
Bogra	+·031	Sirsa	—·029
Narayanganj	+·029	Ludhiana	—·024
Dinajpur	+·023	Lahore	—·024
Minbu	+·023	Kurrachee	—·024
Gopalpur	+·023	Jacobabad	—·023
Barisal	+·022	Bikaner	—·021
Yamethin	+·021	Ahmedabad	—·024

The mean pressure of the month was about normal at the hill stations with the local exceptions of Pachmarhi, where pressure was in moderate excess and of Quetta, where the departure was somewhat doubtful. As pressure was generally in defect at the level of the plains over north-western and central India the vertical pressure anomalies were generally positive over these areas. The following gives data for ten pairs of stations :—

Hill Station.	Departure from normal pressure, May 1904.	Plain Station.	Departure from normal pressure, May 1904.	Vertical pressure anomaly (Hill—Plain).
	″		″	″
Quetta	+·023	Jacobabad	—·027	+·050
Leh	+·001	Lahore	—·028	+·029
Murree	—·006	Peshawar	—·015	+·009
Simla	+·005	Ludhiana	—·028	+·033
Ranikhet	—·015	Bareilly	—·004	—·011
Chakrata	—·004	Roorkee	—·001	—·003
Darjeeling	+·003	Dhubri	+·002	+·001
Pachmarhi	+·044	Hoshangabad	—·009	+·053
Mount Abu	—·016	Deesa	—·021	+·005
Wellington	—·008	Coimbatore	—·012	+·004

The chief abnormal features of the pressure distribution of the month may be summed up as follows :—

1. Pressure was generally in defect over the western and in excess over the eastern half of India

2. The departures from the normal were generally slight and the departure from normal of the geographical mean of the whole country was —·004.″

3. Barometric gradients were steeper than usual, but the general distribution of pressure was approximately normal.

4. At most of the hill stations the mean pressure of the month was about the average, but at Quetta and Pachmarhi there was some excess.

Barometric depressions and cyclonic storms of the month.

A considerable number of depressions—generally small and of slight intensity—crossed the Indus valley and entered north-west India during the month under review. They travelled generally to east or north-east and occasioned dust and thunderstorms and rain over the plains and hills of north-west India. None of the depressions or storms was of any importance or presented any peculiar features. They were apparently developed over the Indus valley or the Baluchistan plateau as the weather over Persia and Asiatic Turkey was quiet and the rainfall less than usual.

Arabian Sea.—Over this region the weather was quiet throughout the month and the winds were somewhat lighter and more variable than usual.

Bay of Bengal.—The weather was quiet and of the normal character over the Bay until the 24th when a cyclonic storm of moderate intensity appeared. Prior to the appearance of the storm the barometric pressure had been unsteady over parts of the west of the Bay, the barometer rising and falling quickly on successive days. The storm apparently developed over the south of the Bay in Lat. 8° N. and Long 88° E. on the 23rd, but the evidence on this point is unstisfactory.

May 23rd—The following gives marine data for the south of the Bay:—

NAME OF VESSEL OR STATION.	8 A.M. POSITION. Lat. N.	8 A.M. POSITION. Long. E.	Barometer as corrected by Calcutta.	WIND. Direction.	WIND. Force.	WEATHER.
	° ′	° ′	″			
S.S. *Umtali*	6 25	81 45	29·965	W	2	Fine with slight following sea; midnight occasional rain squalls.
S.S. *Kirklee*	6 44	82 20	·700	SW	2	Fine and moderate head sea.
S.S. *Scindia*	6 56	81 42	·696	SW	2	Fine.
S.S. *Oolobaria*	8 05	82 36	·691	Calm	0	Fine.
S.S. *Clan MacMillan.*	8 28	82 30	·644	NNE	2	Fine; midnight heavy lightning to south-east.
S.S. *Secundra*	8 44	85 19	·631	ENE	2	Cloudy and heavy south-west swell; noon threatening rain.
S.S. *Virawa*	9 01	83 12	·670	Var	2	Fine.
R.I.M.S. *Canning*	9 33	87 15	·746	ENE	3	Slight south-west swell.
S.S. *Omba*	9 41	96 37	·779	Var	1	Cloudy and westerly swell.
S.S. *Nam Sang*	10 20	95 58	·756	Calm	0	Fine and moderate south-west swell.
S.S. *Itinda*	12 34	90 23	·723	SEbyS	2	Fine and slight sea.
S.S. *Okara*	12 36	83 17	·661	SEbyE	2	Fine and slight following sea.
S.S. *Vadala*	13 09	82 32	·589	S	4	Moderate sea; noon fine.
S.S. *Bangala*	13 58	85 49	·663	S	4	Fine and moderate sea; 4 P.M. cloudy.
S.S. *Ameer*	14 27	85 12	·459?	SE	4	Fine and smooth sea.
Port Blair			·793	ESE	8*	Cloudy.

* Velocity.

The barometer had decreased very slightly at Port Blair, where the wind had shifted to east-south-east. The wind was east-north-easterly on board the *Secundra* in Lat. 8°44′ N. and Long. 85°19′ E. and the *Canning* in Lat. 9°33′ N. and Long 87°15′ E. and north-north-east on board the *Clan MacMillan* in Lat. 8°28′ N. and Long. 82°30′ E. The centre of the developing storm was hence probably to the south of these vessels in about Lat. 8° N. and Long 88° E.

May 24th:—The following gives marine data for the southern half of the Bay.

NAME OF VESSEL OR STATION.	8 A.M. POSITION. Lat. N.	8 A.M. POSITION. Long. E.	Barometer as corrected by Calcutta.	WIND. Direction.	WIND. Force.	WEATHER.
	° ′	° ′	″			
S.S. *Secundra*	7 12	83 16	29·569	SWbyW	6	High sea.
S.S. *Muttra*	8 50	81 21*	·505	SSW	4 to 5	Fine; 4 P.M. occasional light rain.
S.S. *Planet Mars*	9 21	96 55	·719	NW	4	Fine and strong swell.
S.S. *Umtali*	9 55	83 32	·945	Var	2	Light rain.
S.S. *Vadala*	10 18	82 02	·548	SW	4	Passing rain squalls.
S.S. *Itinda*	10 41	87 25	·625	SE	2	Fine and slight swell.
S.S. *Oolobaria*	11 10	83 50	·633	NNE	2	Fine and smooth sea.
S.S. *Virawa*	12 05	84 25	·607	NE	2	Heavy rain and smooth sea.
R.I.M.S. *Canning*	12 05	90 10	·719	SE	4	Slight to moderate S. swell.
S.S. *Clan MacMillan.*	12 15	83 31	·614	NE	2	Smooth sea, 8 P.M. vivid lightning.
S.S. *Fasilka*	12 46	82 20	·571	SW	2	Overcast and slight sea.
S.S. *Lai Sang*	12 55	93 10	·743	SbyE	5	Passing clouds and slight sea.
S.S. *Strathnevis*	16 28	83 51		SW by S	2	Moderate head sea.
Port Blair			·765	ESE	13†	Cloudy.

* Noon position.

† Velocity.

The storm had apparently developed slightly and moved north-westward. The wind was still east-south-east at Port Blair where the barometer had fallen. The wind was south-east on board the *Canning* in Lat. 12° 5′ N. and Long. 90° 10′ E and the *Itinda* in Lat. 10° 41′ N. and Long. 87° 25′ E., while it was north-easterly and north-north-easterly on board the *Oolobaria* in Lat. 11° 10′ N. and Long. 83° 50′ E., the *Virawa* in Lat. 12° 5′ N. and Long. 84° 25′ E. and the *Clan MacMillan* in Lat. 12° 15′ N. and Long. 83° 31′ E. To the southward of these vessels the wind was south-westerly and the weather squally with rain. The centre of the storm was thus at 8 A.M. on this day in about Lat. 10° N. and Long. 86° E.

May 25th.—The following gives marine data for this day:—

NAME OF VESSEL OR STATION.	8 A.M. POSITION Lat. N.	8 A.M. POSITION Long. E.	Barometer as corrected by Calcutta.	WIND. Direction.	WIND. Force.	WEATHER.
	° ′	° ′	″			
S.S. *Itinda* .	9 02	85 19	29·613	SW	4	Light rain and moderate sea.
S.S. *Fasilka* .	10 04	81 57	·540	WSW	5	Overcast and high sea.
S.S. *Aratoon Apcar.*	12 01	84 32	·610	SSW	6	Frequent drizzling rain; 4 A.M. heavy squalls of wind and rain.
S.S. *Calibia* .	12 40	84 52	·620	SSW	4	Squally, showery and confused sea.
S.S. *Umtali* .	13 59	84 51	·845	E	2	4 P.M. heavy rain.
S.S. *Strathnevis* .	14 02	81 32		WNW	6	Heavy rain with thunder and lightning.
S.S. *Zillah* .	14 40	81 30	·545	ENE	6	Rainy and confused sea.
S.S. *Gibraltar* .	14 40	85 35	·550	SSE	7	High head sea; 4 A.M. heavy squalls of wind and rain.
S.S *Oolobaria* .	14 46	84 43	·571	SE	5	Cloudy and choppy sea; noon occasional rain.
S.S. *Virawa* .	15 02	85 26	·568	SE	5	Cloudy and rising sea.
S.S. *Pasha* .	15 40	82 00*	·6–5	NE	3	Fine and slight sea.
S.S. *Clan MacMillan.*	15 42	84 21	·514	E	4	Passing clouds; 4 A.M. strong squalls, light rain and vivid lightning.
S.S. *Okara* .	18 21	84 53	·601	Calm.	0	Fine.
S S. *Rabenfels* .	18 45	86 12	·667	E	2 to 3	
Port Blair			·775	SSE	10†	Cloudy.

* Noon position.

† Velocity.

The storm had continued to move north-westward and had developed somewhat in intensity. The barometer had begun to rise at Port Blair where the wind had shifted to south-south-east. The position of the centre of the disturbance was indicated by the observations recorded on board the *Strathnevis*, the *Zillah*, the *Clan MacMillan*, the *Rabenfels*, the *Oolobaria*, the *Gibraltar*, the *Virawa*, the *Umtali*, and the *Aratoon Apcar*. The observations of these vessels exhibited a well-defined cyclonic circulation of the winds around a centre in about Lat. 14° N. and Long. 83° 30′ E. The weather was rainy and squally, but the winds did not exceed the force of a moderate gale.

On this day the storm had commenced to influence the winds along the Madras coast, where the directions had suddenly changed from south-west to north-east with a falling barometer.

The following gives 8 A.M. data for the coast stations:—

STATION.	PRESSURE. 8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	PRESSURE. Change in past 24 hours.	PRESSURE. Departure from normal.	WIND. Direction at 8 A.M.	WIND. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	REMARKS.
	″	″	″				Inch.	
Negapatam.	29·659	—·002	—·075	Calm	4	10	0·22	
Cuddalore .	·683	+·019	—·034	Calm	2	10	0·06	Drizzling.
Madras .	·674	—·012	—·036	S	4	10	0·45	Sea smooth.
Nellore .	·670	—·021	—·014?	SE	2	10	0·18	Drizzling.
Masulipatam	·633	—·061	—·037	Calm	...	10	...	
Cocanada .	·634	—·071	—·043	N	11	5	...	Sea rough.
Waltair .	·654	—·061	—·008	NE	7	3	...	Sea smooth.
Gopalpur .	·694	+·008	+·064	NE	13	1	...	Sea smooth.
Cuttack .	·685	0	+·053	SSW	5	6	...	
False Point	·701	+·002	+·062	S	13	5	...	
Balasore .	·696	+·006	+·066	SW	13	5	...	Thunder.
Saugor Island.	·684	—·012	+·045	S	23	4	...	Sea slight.

May 26th.—The following gives marine data for this day:—

NAME OF VESSEL.	8 A.M. POSITION. Lat. N.	8 A.M. POSITION. Long. E.	Barometer as corrected by Calcutta.	WIND. Direction.	WIND. Force.	WEATHER.
	° ′	° ′	″			
S.S. *Calibia* .	9 54	83 22	29·690	SSW	4	Moderate head swell; 4 A.M. squally and showery.
S.S. *Asia* . .	10 02	82 14	·680	SW	6	
S.S. *Sutherland*	10 13	80 12	·660	SW	6	Slight sea.
S.S. *Shirala* .	12 40	81 16	·484	S by W	9	Cloudy and moderate sea.
S.S. *Gibraltar* .	12 52	84 47	·590	SSW	8	Cloudy and high head sea; 4 A.M terrific squalls of wind and heavy rain.

NAME OF VESSEL.	8 A.M. POSITION		Barometer as corrected by Calcutta	WIND		WEATHER.
	Lat. N.	Long. E.		Direction.	Force.	
	° ′	° ′	″			
S.S. *Bangala* .	Madras.		29·614	...	...	8 P.M. cloudy.
S.S. *Oolobaria* .	17 54	86 28	·669	SE	4	Fine and moderate sea.
S.S. *Umtali* .	18 14	86 54	·905	S	2	Fine and smooth sea.
S.S. *Virawa* .	18 24	86 57	·659	SE by S	4	Fine.
S.S. *Gwalior* .	Gopalpur.		·537	...	...	8 P.M. overcast.
S.S. *Omba* .	19 41	89 09	·729	SW	4	Cloudy and moderate sea.
S.S. *Okara* .	Puri.		·621			4 A.M. cloudy.

The storm had begun to recurve on its track and had moved north by west to the neighbourhood of Cocanada over which station the centre was moving at 8 A.M. The cyclonic circulation over the Bay had broken up, but strong winds and gales were reported by the *Gibraltar*, the *Asia*, the *Sutherland*, and the *Shirala*.

The following gives 8 A.M. data for the coast stations:—

STATION.	PRESSURE.			WIND.		Cloud.	Rainfall.	REMARKS.
	8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	Change in past 24 hours.	Departure from normal.	Direction at 8 A.M.	Average hourly velocity miles during past 24 hours.			
	″	″	″				Inches.	
Negapatam .	29·655	—·004	—·077	Calm	6	10	3·28	
Cuddalore .	·642	—·041	—·074	SSW	1	10	0·16	Showery.
Madras .	·631	—·043	—·077	SSW	5	10	0·16	Sea smooth.
Nellore .	·604	—·066	—·078	SSE	3	10	0·82	Showery.
Masulipatam	·522	—·111	—·146	WNW	...	10	3·25	Raining and strong wind.
Cocanada .	·326	—·308	—·348	SE	28	10	1·16	Sea very rough.
Waltair .	·573	—·081	—·086	SE	21	8	2·80	Sea slight and continuous rain.
Gopalpur .	·660	—·034	+·034	SSE	7	5	0·32	Sea rough.
Cuttack .	·674	—·011	+·046	SSE	3	6	...	
False Point	·690	—·011	+·055	SE	12	8	0·03	
Balasore .	·713	+·017	+·087	SSE	9	7	...	Thunder.
Saugor Island.	·707	+·023	+·074	S	16	5	0·03	Sea smooth.

The barometer had fallen ·208″ at Cocanada and south-easterly gales were blowing along the Madras coast with heavy rain.

May 27th.—The following gives 8 A.M data for the storm area:—

STATION.	PRESSURE.			WIND.		Cloud.	Rainfall.	REMARKS.
	8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	Change in past 24 hours.	Departure from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	″	″	″				Inches.	
Cocanada .	29·645	+·319	—·027	SW	13	5	0·17	Sea rough.
Waltair .	·636	+·063	—·021	SW	25	10	2·59	Sea rising and continuous rain.
Gopalpur .	·597	—·063	—·025	SSW	19	10	1·41	Showery.
Cuttack .	·611	—·063	—·014	SW	3	10	2·31	Raining.
False Point .	·630	—·060	—·001	SSE	15	10	0·99	Thunderstorm.
Balasor .	·625	—·088	+·003	S	6	6	0·24	
Saugor Island.	·636	—·071	+·009	SSE	16	6	...	Sea slight.
Calcutta .	·656	—·059	+·026	ESE	3	7	2·92	Thunderstorm.
Chaibassa .	·590	—·084	—·016	Calm	2	7	0·48	Showery.
Ranchi .	·603	—·062	—·029	SE	6	10	0·08	Showery.
Kaipur .	·601	—·028	—·034	NW	14	9	3·16	Continuous rain.
Sambalpur .	·492	—·154	—·122	SE	11	9	0·11	
Pendra .	·625	+·002	...	NNW	8	10	0·64	Showery.
Hazaribagh .	·617	—·054	—·016	S	9	10	0·76	Showery.

The storm had continued to recurve slowly and at 8 A.M. the centre lay to the south-east of Sambalpur, where the barometer had fallen 0·15″ and pressure was 0·12″ below the normal. Heavy rain had fallen over the east of the Central Provinces and the north of the Madras presidency and southerly gales were blowing along the Madras coast.

May 28th.—The following gives 8 A.M. data for the storm area:—

STATION.	PRESSURE.			WIND.		Cloud.	Rainfall.	REMARKS.
	8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	Change in past 24 hours.	Departure from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	″	″	″				Inches.	
Balasore .	29·569	—·056	—·050	W	12	5	0·66	Showery.
Saugor Island.	·537	—·099	—·083	WSW	34	10	0·17	Showery.
Calcutta .	·510	—·146	—·115	W	7	10	1·12	Showery.
Chaibassa .	·549	—·041	—·058	WSW	4	3	0·80	Showery.
Burdwan .	·473	—·185	—·146	NW	5	10	1·03	Showery.
Berhampore	·420	—·251	—·213	WNW	9	10	1·77	Showery.

STATION.	PRESSURE. 8 A.M. reduced to sea-level and constant gravity at Lat 45°.	PRESSURE. Change in past 24 hours.	PRESSURE. Departure from normal.	WIND. Direction at 8 A.M.	WIND. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	REMARKS.
	"	"	"				Inches.	
Jessore .	29·470	—·214	—·171	SW	2	10	2·09	Continuous rain.
Narayanganj	·494	—·214	—·161	SSW	7	8	0·84	Showery.
Mymensingh	·486	—·239	—·200	SE	4	10	1·07	Showery.
Bogra .	·411	—·291	—·226	SE	3	10	2·39	Raining.
Dinajpur .	·469	—·215	—·184	NNE	4	10	3·80	Raining.
Jalpaiguri .	·514	—·181	—·174	ESE	1	8	1·44	Drizzling.
Shillong .	...	—·124	...	S	4	10	1·40	Showery.
Cherra Poonjee.	...	—·134	...	SSE	15	10	5·36	Rainy.

The storm had advanced north-eastward and was central at 8 A. M. over the area outlined by the stations of Berhampore, Bogra, and Dinajpur, where the barometer had fallen between 0·21″ and 0·29″ and pressure was 0·23″ below the normal. The winds were cyclonic, but not very strong over Bengal, where, however, heavy rain was falling (see Rainfall Section).

A rapid rise of pressure took place during the day, and by 8 A. M. of the 29th the depression had practically filled up and disappeared, though heavy rain continued to fall.

The following table shows the position and rate of movement of the storm from the 23rd to the 28th:—

DATE.	POSITION OF CENTRE AT 8 A.M. Lat. N.		POSITION OF CENTRE AT 8 A.M. Long. E.		Distance travelled during interval.	Average hourly rate of motion.
	°	′	°	′	Miles.	Miles.
23rd May . . .	8	0	88	0		
24th " . . .	10	0	86	0	220	9
25th " . . .	14	0	83	30	312	13
26th " . . .	16	40	82	0	200	8
27th " . . .	20	20	83	20	360	15
28th " . . .	24	40	88	30	368	15

Summary of the Reports of the Weather and Snowfall in the Mountain Districts to the North and North-West of India.

The following are the reports of snowfall during May, 1904:—

I.—AFGHAN MOUNTAIN DISTRICTS.

Kurram.—Snow fell on the Sufed-i-koh on the 4th, 10th, 16th, and 27th of May, but was gradually melting. At the close of the month snow was supposed to be about four feet deep on the higher summits of the Sufed-i-koh and the passes were still closed.

II.—KASHMIR AND PUNJAB HIMALAYAS.

(1) *Leh.*—Light snowfalls were exceedingly frequent during May, indeed on more than half the days a little snow fell in, or in the neighbourhood of Leh. The snow, however, melted immediately and was too small in amount to be measured. The weather was very dull and, compared with the early part of the year, chilly. The snow line at the end of May was about 16,000 feet. People were already going to Yarkand so the Lasser and Karakoram passes were evidently open.

(2) *Kashmir.*

Gulmarg.—May 14th.—Snow fell moderately heavily on this day and covered the Khelanmarg valley.

May 16th.—A fresh and rather heavy fall of snow occurred in the Khelanmarg valley. This was very unusual at this season.

May 24th.—A light fall of snow occurred on the Afferwata mountain.

On the 3rd May there was no snow around the observatories of Sonemarg and Dras but one foot still lay around Minimarg.

(3) *Simla Chur peak.*—A light fall of snow occurred on the Chur peak between noon and 2 P.M. on the 17th May.

Kilba Bashahr.—Snow fell as follows:—

On May 12th . .	2″	down to	11,000 feet.
" 13th . .	1½	" "	10,000 "
" 17th . .	1	" "	10,000 "
" 25th . .	½	" "	11,000 "

The snowfall was heavier than in 1903 and the depth of snow on the passes was as follows:—

Rupin Pass .	8 feet.
Bruin " .	8 "
Harang " .	8 "
Shatul " .	6 "
Buldar " .	8 "
Runang " .	4 "

(4) *Kulu, Kangra.*—Rain fell on the 28th and 29th of April and on the 5th, 6th, 7th, 8th, 11th, 12th, 13th, 14th, 15th, 16th, 18th, 25th, and 26th of May in the Kulu tehsil, and on the 28th April and the 5th, 6th 8th, 13th, 14th, 15th, 16th, 18th, and 24th May in the Plach tehsil. During the period under report slight falls of snow also occurred on the high peaks, but they never descended below 8,000 feet

On the 16th snow fell down to 9,500 feet in considerable quantity around the north of the valley.

The following shows the depth of snow on the various passes at the close of the month :—

TEHSIL KULU.		TEHSIL PLACH.	
Pass.	Depth of snow.	Pass.	Depth of snow.
Rohtang . . .	12 feet.	Srikhand . . .	7 feet.
Hamta	5 „	Dundku . . .	1 „
Chandarkhani . .	3 „	Gargarasan . .	2 „
Barsai	2 „	Plach	1 „
Bujadhar . . .	1 „	Tirath	2 „
Sairi	1 „		

(5) *Pangi (Chamba).*—Snow fell as follows :—

On May 14th	1 inch	down to 7,500 feet,
„ „ 15th	1 „	. . do .
„ „ 24th	4 „	. . do .

The snowfall continued unusually late in the season.

III.—UNITED PROVINCES HIMALAYAS.

Almora.—The following are the reports of snowfall during May :—

Johar.—	1st to 8th May	. . . 3 feet.
„	9th to 31st „	. . . 4 „
Danpur.—	6th to 8th May	. . . 1 inch.
	24th to 28th „	. . . 6 inches.
Bvans	On 6th May	. . . 6 „
Chandas	„ 7th „	. . . 1 foot.
Darma	„ 9th „	. . . 6 inches.
	„ 18th „	. . . 6 „

The snowfall during May on the following passes and ranges was as follows :—

Uta-Dhura Range	.	3 feet.
Ralam-Dhura „	.	2 „
Millam-Dhura „	.	1 „ 6 inches.
Bagdwar-Dhura „	.	0 „ 6 „
Lipu Pass „	.	3 „ 9 „
Limpu „	.	6 „
Nirme „	.	6 „ 6 inches.

The snowfall on the higher passes at the end of May was between 3 feet and 6 feet deep.

The snowfall was less than in the previous year.

Summary of Special Storm Reports.

Thunderstorms and duststorms were exceptionally numerous during May 1904. The following gives a record of the principal local storms reported by the observers :—

May 4th.—Heavy duststorms passed over Hoshangabad at 12 A.M. and 2-30 P.M.

A thunderstorm commenced at Simla at 3 P.M. and continued 2 hours. The rainfall was light.

„ *5th.*—A thunderstorm passed over Srinagar between 3 P.M. and 6 P.M. Light rain fell.

„ *6th.*—Very heavy duststorms passed over Hoshangabad at 1-30 P.M. and 5-25 P.M. The second storm was followed by light rain at 6-10 P.M.

A thunderstorm occurred at Lahore between 3 P.M. and 5-25 P.M. Light rain fell at 4-30 P M.

A duststorm with much thunder and some showers passed over Nagpur at 3-45 P.M. The storm came up from south and lasted fifteen minutes.

A thunderstorm commenced at Simla at 6-5 P.M. and lasted till 8 P.M. A few drops of rain fell at 6-30 P.M.

„ *7th.*—A heavy storm commenced at Hoshangabad at 7 P.M. and lasted half an hour.

A duststorm with light rain passed over Nagpur at 8 P.M.

May 7th.— A thunderstorm commenced at Srinagar at 4 P.M. and continued until midnight. During the storm light rain fell.

„ *8th.*—A very heavy storm passed over Hoshangabad from north to south. Rain fell at 6-20 P.M. amounting to '32 cents.

„ „ A duststorm occurred at Nagpur at 9-30 P.M. The storm came up from north-west and lasted one hour.

„ *8th and 9th.*—Severe storms were felt at Akola on the 8th and 9th. On the 8th the storm commenced in the afternoon and lasted three-quarters of an hour, while on the 9th it commenced suddenly at 4-25 P.M. and lasted till 4-45 P. M.; recommenced about 5-10 P.M. and ceased at 6 P.M.

„ *10th.*—A thunderstorm passed over Gulmarg between 3 P.M. and 6 P.M. Light rain fell.

Heavy duststorms passed over Hoshangabad at 2-40 P.M. and 7-30 P.M. The former abated in half an hour, the latter in twenty minutes.

A duststorm with light rain was experienced at Nagpur at 3-45 A.M. The storm came from west and lasted one hour.

A thunderstorm occurred at Srinagar at 8 P.M. Drizzling rain followed.

May 11th.—A thunderstorm commenced at Gulmarg at 4 P.M. and lasted until 10 P.M. Light rain, hail, and sleet fell.

A storm travelling from north-east to south-west passed over Hoshangabad at 9-5 P.M. It abated in half an hour.

A duststorm with rain commenced at Raipur at 4-55 P.M. and lasted till 5-20 P.M. Light rain fell.

A thunderstorm commenced at 6. P.M. at Srinagar and continued till 9 P.M. Drizzling rain fell throughout the storm.

„ *12th.*—At Gulmarg a thunderstorm occurred between 8 P.M. and 11 P.M. with light rain and north-west winds.

A heavy duststorm passed over Hoshangabad from south-west to north-east at 1-40 P.M. The storm lasted a quarter of an hour.

„ *13th.*—At 3-45 P.M. a nor'wester occurred at Burdwan. The storm lasted fifteen minutes.

A thunderstorm commenced at Lahore at 4-45 P.M. and lasted till 5-45 P.M. Light rain fell.

A severe thunderstorm occurred at Simla at 2-40 A.M. and lasted for one hour. Very little rain fell. At 7 P.M. another storm came up from west and lasted for 40 minutes. Heavy showers of hail occurred and temperature fell very rapidly during the storm.

„ *14th.*—A thunderstorm occurred between 8-5 and 8-45 P.M. at Jaipur.

A very severe thunderstorm passed over Sarain between 4 P.M. and 4-30 P.M. Hail and rain fell and temperature decreased 7° in 30 minutes.

Thunderstorms occurred at Gulmarg between 5 A.M. and 8 A.M. and between 1 P.M. and 6 P.M. Rain and hail fell in the valleys and some snow on the peaks.

A very heavy duststorm passed over Hoshangabad from south-west to north-east at 5-45 P.M. The storm lasted a quarter of an hour.

A duststorm coming from north-east passed over Jodhpur at 8-10 P.M. No rain fell and the storm only lasted 20 minutes.

A thunderstorm passed from west-south-west to east-north-east over Simla between 2-4 and 2-30 P.M. Showers of rain and hail fell.

Thunderstorms occurred at Srinagar between 1 A.M. and 5 A.M. and strong squally winds between 3 P.M. and 7 P.M. Light rain fell on both occasions.

A very severe duststorm accompanied with lightning, drizzling rain, and heavy winds passed over Allahabad at 9 P.M. The wind rose at 9 P.M. and blew at the rate of 40 miles per hour.

May 15th.—A thunderstorm passed over Belgaum between 3 P.M. and 5 P.M.

A duststorm occurred at Hoshangabad between 2-30 and 3 P.M. The storm passed from south-west to north-east.

A duststorm with thunder, lightning, and rain passed over Nagpur from south-west at 5 P.M. The storm lasted one hour.

A severe thunderstorm commenced at 3-30 P.M. at Sarain and lasted continuously up to 6-30 P.M. The storm came from west-north-west. The rainfall during the storm measured 0·87″. The temperature fell from 57°·8 to 44°·2.

At Simla a thunderstorm commenced at 2-30 P.M. and continued till 3-30 P.M. Heavy showers of hail and rain fell during the storm, and again at 5 P.M.

„ *16th.*—A thunderstorm occurred at Jaipur between 11-40 P.M. on the 15th and 2-30 A.M. of 16th, and a duststorm between 4-50 and 7-30 P.M.

A duststorm occurred at Allahabad at 6-15 A.M.

At Gulmarg a thunderstorm was experienced between noon and 6. P.M. Light rain fell.

A very heavy duststorm passed over Hoshangabad from south-west to north-east. The storm commenced at 1-40 P.M. and lasted half an hour.

A duststorm passed over Jodhpur from north-east at 3-40 P.M. Light rain fell. A second storm occurred at 4-55 P.M., the storm lasting for twelve minutes.

At Lahore a duststorm with rain occurred at midnight.

A thunderstorm with hail was experienced at Nagpur at 4-35 P.M.

A very severe duststorm occurred at Sambhar between 3-30 P.M. and 5·40 P.M. The wind was very strong but no rain fell.

„ *17th.*—A thunderstorm passed over Jodhpur from west at 7·53 P.M. The storm only lasted 8 minutes and light rain fell.

A duststorm was experienced at Jaipur between 1-55 P.M. and 6-45 P.M. It was followed by a few drops of rain.

A duststorm passsd from north-east over Sambhar between 0-40 P.M. and 6·50 P.M. No rain fell but the wind was very strong.

A slight thunderstorm visited Simla. It commenced at 11-20 A.M. and ended at 12-30 P.M. Light rain fell. The storm passed from south-west to north-east.

May 19th.—A thunderstorm was experienced at Gulmarg between 6-30 P.M. and 8-30 P.M. Heavy hail fell between 7 P.M. and 7-10 P.M.

" *21st.*—A thunderstorm with light rain passed over Srinagar between 1 A.M. and 5 A.M.

" *22nd.*—A thunderstorm passed over Belgaum between 4 P.M. and 6-45 P.M. Drizzling rain fell.

A thunderstorm occurred at Gulmarg between noon and midnight. Light rain fell.

A very heavy duststorm was experienced at Hoshangabad travelling from south-west to north-east. The storm commenced at 3-50 P.M. and lasted fifteen minutes.

A duststorm passed over Pachmarhi from north-west. The storm commenced at 9 A.M. and lasted three minutes.

A thunderstorm was experienced at Srinagar at 8 P.M. Light rain fell.

" *23rd.*—A thunderstorm was experienced at Belgaum between 5 P.M. and 10 P.M.

A severe duststorm passed over Cocanada from north. The storm commenced at 6 A.M. and lasted twenty-five minutes. Some rain fell.

A thunderstorm occurred at Simla between 6 P.M. and 8 P.M. The storm came up from north-west and rain and hail fell.

" *24th.*—A thunderstorm was experienced at Belgaum between 3-23 P.M. and 9-18 P.M. Some rain fell.

A thunderstorm with rain passed over Gulmarg between noon and 5 P.M. Fresh snow fell on the mountains.

A thunderstorm passed over Hoshangabad from south-west to north-east. The storm commenced at 8-50 P.M. and lasted forty-five minutes.

A thunderstorm was experienced at Lahore at 10-20 P.M. No rain fell.

A thunderstorm occurred at Simla at 3-45 P.M. No rain fell.

A gale of wind was experienced at Srinagar between 11 A.M. and 4 P.M.

" *25th.*—A thunderstorm occurred at Allahabad between 4-38 P.M. and 10 P.M. Drizzling rain occurred and the wind was strong.

A thunderstorm passed over Belgaum between 3-52 P.M. and 9-37 P.M.

A nor'wester occurred at Gulmarg between 10 A.M. and 2 P.M. Light rain fell.

A duststorm with thunder and rain occurred at 9 P.M. at Nagpur.

A thunderstorm passed over Simla from north-north-east. It commenced at 1-5 P.M. and lasted till 8 P.M. Half an inch of rain fell.

May 26th.—A very heavy duststorm passed over Hoshangabad from north-east to south-west. It commenced at 8-45 P.M. and lasted thirty minutes.

A storm commenced at Raipur at 4-50 P.M. and lasted till 8 A.M. (27th). Three inches sixteen cents of rain fell.

A thunderstorm occurred at Simla at 4 P.M. and lasted one hour.

" *27th.*—A duststorm occurred at Allahabad between 4-25 P.M. and 5-30 P.M. Light rain fell.

A thunderstorm occurred at Gulmarg between 11 A.M. and 4 P.M. Light rain fell.

A heavy duststorm passed over Hoshangabad from south-west to north-east at 1-40 P.M. The storm lasted thirty minutes. Another storm occurred at 8-40 P.M. lasting fifteen minutes.

" *28th.*—A duststorm occurred at Hoshangabad at 6-10 P.M. coming from south-west. The storm lasted half an hour.

A duststorm coming up from west was experienced at Lahore at 1 A.M. The storm lasted thirty minutes.

" *29th.*—A thunderstorm occurred at Allahabad between 7 P.M. and 8 P.M. Light rain fell.

A thunderstorm occurred at Dras between 1 P.M. and 3 P.M. Very severe hail fell.

A duststorm occurred at Jaipur between 6-40 and 7 P.M.

A duststorm with thunder and rain occurred at Nagpur at 2 P.M.

A thunderstorm commenced at Simla between 2 and 3 P.M. Hail and rain fell.

" *30th.*—At Gulmarg a thunderstorm occurred between 4-30 and 9 P.M. The storm was very severe and hail fell for twenty-five minutes.

A duststorm passed over Hoshangabad from south-west between 4-30 P.M. and 5 P.M.

A thunderstorm occurred at Simla between 2-30 P.M. and 4 P.M.

" *31st.*—A duststorm occurred at Allahabad between 6-30 P.M. and 9 P.M. No rain fell.

A thunderstorm passed over Gulmarg between 5 P.M. and 11 P.M. No rain fell, but in the surrounding districts the hail was very heavy and the stones large.

A thunderstorm occurred at Jaipur between 2-30 and 3 P.M. A few drops of rain fell.

A thunderstorm commenced at midnight at Pachmarhi and lasted twelve minutes.

A thunderstorm passed over Simla from east. It commenced at 1 P.M. and lasted till 4-50 P.M. Some rain and hail fell.

Hail Storms.—

Punjab.—On the 6th May a hailstorm occasioned damage over the south-west of the Gujrat district.

There was a hailstorm in the Bhangi Khel village of the Isakhel tehsil of Mianwali district on the 7th and 8th May.

Kashmir.—On the 6th May at 3-30 P.M. a violent hailstorm occurred at Sonemarg. The storm advanced from north-east and lasted ten minutes. On the 19th a violent hailstorm was experienced at Gulmarg at 7 P.M. The storm came up from north-west and lasted ten minutes. On the 29th a violent hailstorm occurred at Dras. The storm came from south-east at 1 P.M. and lasted ten minutes. On the 30th a violent hailstorm occurred at Gulmarg. The storm came from north-east at 5 P.M. and lasted twenty-five minutes.

Rajputana.—A hailstorm occurred at Uniara in the Jaipur state on the 6th. It commenced at 3 P.M. from south-west and only lasted two minutes. The stones were of the size of cotton seeds.

Madras.—Hailstorms occurred in the Rayaghada village of the Vizagapatam district on the 4th and 5th. The former lasted five and the latter ten minutes, and the hail stones varied in size from red gram seeds to gooseberries.

Central India.—Hailstorms occurred in the Hasalpur and Mhow perganas of the Indore state on the 8th May. In the former case the storm began at 2 P.M. and lasted forty-five minutes; in the latter at 7-30 P.M. and lasted about six minutes. A storm occurred in the Sailana district of the Malwa Agency on the 16th May and lasted three minutes. On the 25th May a hailstorm occurred in the Bardi tehsil of the Rewah state in the evening. It travelled from west to east and lasted ten minutes. On the 31st a storm occurred in the Bharpura district of Indore at 4 P.M. The storm came up from north, lasted half an hour and the stones were the size of a plum.

Bombay.—Hailstorms occurred in the Dharwar subdivision on the 28th and 29th of April and the 1st, 9th, 23rd, and 24th of May. The storms lasted between five and ten minutes and the stones were between ¼ and ½ inch in diameter. Hailstorms were experienced near Athni in the Belgaum district on the 1st and 6th. They lasted between ten and fifteen minutes and the stones measured from ½ to 1¼ inch in diameter.

In the Haveri sub-division, Dharwar, hailstorms occurred on the 1st, 2nd, and 10th of May. The hail stones were ¼ inch in diameter and the storms lasted from three to ten minutes. In the Gadag sub-division of Dharwar hailstorms occurred on the 1st, 2nd, 12th, 23rd, and 24th May. The storms lasted from one to fifteen minutes and the size of the stones varied from $\frac{1}{16}$ to ¼ inch in diameter.

A hailstorm was experienced in the Ron sub-division of Dharwar on the 23rd May. The storm lasted ten minutes and the stones were 1 inch in diameter.

A hailstorm occurred in Kathiawar at 6 P.M. on the 8th May. The storm passed over the district near the Ranpur and Kundli stations of Bhavnagar Railway.

A hailstorm occurred in the Mahal Manjhand of the Kurrachee Collectorate on the 14th May. The storm advanced from west to east at about 6 P.M. and lasted half an hour. The hail stones were from ¼ to ¾ of an inch in diameter.

Brief Summary of the weather in the Arabian Sea and Bay of Bengal during the month.

Arabian Sea:—Between the 1st and the 4th, the winds over the Arabian Sea were north-westerly in the north and east, north-easterly in the south-west, and variable over the centre. On the 5th south-westerly and westerly winds set in and continued until the 8th, after which date and up to the 13th the winds were south-easterly in the west and northerly in the east of the sea. On the 14th south-westerly and westerly winds re-appeared and spread all over the sea lasting practically until the 23rd. More or less variable winds prevailed during the last week of the month. Thus though south-westerly and westerly winds prevailed on several days there was no advance of monsoon winds throughout the month.

The force of the wind, on the mean of the month, was 2·9, the average force being 3·4. The mean force exceeded the average only on two days, *viz*: the 14th and 24th, while it was very low on the 2nd (2·4) and the 16th and 25th (2·5).

The following reports of vessels were received during the month:—

The *Somali* left Mombassa on the 13th and experienced up to Lat. 5°N. and Long 50°E. at noon on the 16th moderate to fresh south-easterly winds, occasional light to heavy showers and a moderate sea; thence to Lat. 9°N. and Long. 57°E. at noon on the 18th, fresh to strong south-westerly winds, occasional heavy rain squalls and a moderate sea; thence to arrival at Bombay on the 23rd a moderate to light north-west wind passing clouds and a smooth sea.

The *Peninsular* left Aden on the 15th and experienced fine weather with gentle to moderate south-south-westerly winds up to Long. 54°E. at noon on the 17th; thence to Long. 60°E. on the 18th light to gentle south-westerly winds and occasional clouds; thence to Long. 65°E. on the 19th light variable breezes and calms; thence to arrival at Bombay on the 21st gentle to moderate north-westerly winds and fine weather.

Bay of Bengal:—On the first two days of the month the wind was southerly and south-south-westerly over the west and north of the Bay and northerly and north-north-westerly in the east. On the 3rd the northerly winds disappeared and south-south-westerly winds became general. These winds lasted practically till the close of the month, but on the 23rd the directions became variable over the centre of the Bay where, on the 24th, the winds varied between south-east and north-east. On the 24th the winds were cyclonic and strong over the west of the Bay, but from the 25th onward to the close of the month, south-south-west winds again prevailed.

The force of the wind, on the mean of the month, was 3·4, the normal force being 3·0. The mean force was below the average on the 1st, 2nd, 8th, 9th, 15th, and 24th and was normal or above the normal on the remaining days. The mean force was highest on the 4th and 28th when it averaged 4·4.

Equatorial Belt:—From the 1st to the 22nd the winds over the west of the equatorial belt were fairly steady from between south-east and east, but after the latter date the direction drew more towards south and at the close of the month was almost southerly.

Temperature of the air.

During the month of May 1904 the weather was more unsettled than usual over north-eastern and southern India and less unsettled than usual over western India. These conditions left their mark on the temperatures of the month.

The mean maximum or day temperature exceeded the normal over the north and south Punjab, Rajputana, the greater part of the Bombay presidency, a considerable part of Burma, and at a few stations in the extreme south of India. The departures from the normal exceeded 2° at the following stations:—

STATION.	MEAN MAXIMUM TEMPERATURE.		
	Actual, May 1904.	Normal, May.	Departure from normal, May 1904.
	°	°	°
Jacobabad	115·5	111·6	+3·9
Hyderabad	109·6	106·9	+2·7
Bikaner	109·2	107·1	+2·1
Mooltan	108·7	106·6	+2·1
Ahmednagar	102·6	99·4	+3·2
Malegaon	106·3	104·0	+2·3
Minbu	100·2	97·5	+2·7

Over the whole of the remainder of India the mean maximum temperature was in defect. The deficiency was considerable to large over north-east India, the Gangetic plain and the Madras coast and was more than 3° at the stations for which comparative data are given below:—

STATION.	MEAN MAXIMUM TEMPERATURE.		
	Actual, May 1904.	Normal, May.	Departure from normal, May 1904.
	°	°	°
Gaya	96·8?	104·9	−8·1?
Gorakhpur	96·0	101·0	−5·0
Bahraich	98·7	103·0	−4·3
Darbhanga	91·9	95·6	−3·7
Berhampore	92·8	96·5	−3·7
Chaibassa	101·4	105·1	−3·7
Bogra	88·9	92·5	−3·6
Dinajpur	88·2	91·7	−3·5
Bareilly	99·7	103·2	−3·5
Ranchi	96·3	99·6	−3·3
Burdwan	95·3	98·4	−3·1
Nellore	101·9	106·0	−4·1
Masulipatam	96·7	101·1	−3·4

At all the northern hill stations except Quetta and Ranikhet the mean maximum temperature was in defect, the deficiency having been 2° or more at the following places:—

HILL STATION.	MEAN MAXIMUM TEMPERATURE.		
	Actual, May 1904.	Normal, May.	Departure from normal, May 1904.
	°	°	°
Gilgit	81·5	85·4	−3·9
Kailang	58·5	61·9	−3·4
Srinagar	73·6	76·9	−3·3
Cherat	87·3	89·6	−2·3
Chaman	92·3	94·3	−2·0

At the central and southern hill stations the departures were unimportant.

The highest day temperatures of the month were generally recorded during the third week and the following gives the highest readings registered in the different divisions during the month together with the highest readings previously recorded:—

PROVINCE OR DIVISION.	STATION.	Highest maximum temperature recorded in May 1904.	Date on which recorded.	Highest maximum temperature recorded in May previous to 1904	Year in which recorded.
		°		°	
BURMA	Minbu	107·1	4th	109·1	1903
ASSAM	Silchar	94·0	19th	101·8	1886
BENGAL	Raniganj	109·4	1st	115·5	1889
ORISSA	Cuttack	106·4	21st	118·0	1872
BIHAR	Daltonganj	113·1	22nd	116·1	1897
CHOTA NAGPUR	Chaibassa	110·4	4th	117·8	1894
UNITED PROVINCES.	Jhansi	115·4	22nd	118·0	1869
PUNJAB	Montgomery	116·8	„	121·9	1895
NORTH-WEST FRONTIER PROVINCE.	Dera Ismail Khan.	110·7	23rd	119·5	1892
SIND	Jacobabad	123·0	21st	123·0	1888, 1895, 1898, and 1901.
RAJPUTANA	Kotah	117·1	22nd	117·1	1901
GUJARAT	Ahmedabad	113·3	3rd	115·4	1902
CENTRAL INDIA	Nowgong	114·5	22nd	116·5	1881 and 1883.
CENTRAL PROVINCES.	Nagpur	116·7	23rd	117·7	1883
BERAR	Akola	115·5	„	116·4	1901
WEST COAST	Bombay	92·5	31st	96·3	1879
BOMBAY DECCAN.	Malegaon	111·8	3rd & 22nd	110·8	1883, 1895, 1897, 1901, and 1902.
MYSORE	Chitaldroog	98·7	3rd & 4th	103·0	1897
MADRAS COAST	Nellore	109·3	5th	115·7	1892
MADRAS DECCAN.	Indur	110·8	4th & 5th.	115·5	1898
SOUTH INDIA	Trichinopoly.	108·2	6th	110·2	1896

The preceding data show that except in Sind, Rajputana, the central parts of the country, and the Bombay Deccan the recorded maxima were lower—in some cases considerably lower—than those previously recorded.

The absolutely highest maxima were, as is usual, recorded in Sind, the thermometer rising to 123° at Jacobabad on the 21st. This reading was equal to the highest reading previously recorded at that station during May.

The departures of the mean minimum or night temperature from the normal exhibited a generally similar distribution to those of the day temperature.

The mean minimum temperature was generally in excess over north-western India, Bombay, and some central districts, as well as at some stations in central Burma and on the Burma coast and in the south of the Peninsula. The departures were generally smaller than those of the maximum temperature and exceeded 2° only at the following stations:—

Station.	Mean minimum temperature.		
	Actual, May 1904.	Normal, May.	Departure from normal, May 1904.
	°	°	°
Lahore	76·8	72·6	+4·2
Sialkot	78·5	74·8	+3·7
Mooltan	81·3	77·6	+3·7
Rawalpindi	71·5	68·6	+2·9
Pachpadra	79·6	77·5	+2·1

In all other parts of the country the mean minimum temperature was lower than usual, but the departures were generally moderate or small and were more than 2° only at the following places:—

Station.	Mean minimum temperature.		
	Actual, May 1904.	Normal, May	Departure from normal, May 1904.
	°	°	°
Ranchi	73·1	76·0	−2·9
Chaibassa	77·1	80·0	−2·9
Gorakhpur	74·6	77·3	−2·7
Bahraich	75·4	77·9	−2·5
Bogra	72·3	74·5	−2·2
Nellore	79·1	82·0	−2·9
Cocanada	80·7	82·8	−2·1

At the northern and southern hill stations, with the exceptions of Leh and Quetta, the nights, on the mean of the month, were cooler than usual, while at the central hill stations the mean night temperatures were about normal. This is shown below:—

Hill Station.	Mean minimum temperature.		
	Actual, May 1904.	Normal, May.	Departure from normal, May 1904.
	°	°	°
Kabul	48·4	53·1	−4·7
Murree	56·3	59·4	−3·1
Chaman	63·4	65·9	−2·5
Gilgit	51·7	61·8	−2·1
Simla	56·9	58·6	−1·7
Chakrata	54·9	56·5	−1·6
Ranikhet	58·9	60·5	−1·6
Cherat	66·7	68·3	−1·6
Darjeeling	51·2	52·6	−1·4
Kailang	37·2	38·1	−0·9
Srinagar	52·0	52·1	−0·1
Quetta	53·3	52·3	+1·0
Leh	37·2	36·8	+0·4
Mount Abu	72·0	71·1	+0·9
Pachmarhi	75·4	75·1	+0·3
Wellington	56·5	58·0	−1·5

The mean temperature of the month was above the normal over western and below over eastern and southern India. The principal departures from the normal were as follows:—

Station.	Positive departures, May 1904.	Station.	Negative departures, May 1904.
	°		°
Mooltan	+2·9	Gaya	−4·7?
Jacobabad	+2·6	Gorakhpur	−3·9
Sialkot	+2·4	Bahraich	−3·4
Rawalpindi	+2·3	Chaibassa	−3·3
Ahmednagar	+2·2	Ranchi	−3·1
Minbu	+2·3	Bogra	−2·9
		Berhampore	−2·7
		Darbhanga	−2·7
		Dinajpur	−2·7
		Nellore	−3·5
		Masulipatam	−2·7

On the northern hills the temperature, on the mean of the month, was below the average except at Quetta, while at the central and southern hill stations the departures were unimportant.

The following gives mean temperature data for the extra-Indian stations: —

STATION.	MEAN TEMPERATURE.		
	Actual, May 1904.	Normal, May.	Departure from normal, May 1904.
	°	°	°
Trincomalee	86·3	85·9	+0·4
Colombo	82·5	83·3	−0·8
Kabul	64·8	67·9	−3·1
Kashgar	70·1	69·4	+0·7
Teheran	69·9	71·2	−1·3
Ispahan	68·1	69·1	−1·0
Bushire	82·0	82·3	−0·3
Jask	85·5	85·4	+0·1
Muscat	90·1	88·9	+1·2
Baghdad	80·3	79·8	+0·5
Aden	87·3	87·2	+0·1
Perim	87·3	87·2	+0·1
Zanzibar	78·8	79·1	−0·3
Seychelles	78·1	...	—
Mauritius	71·4	72·1	−0·7

At the Persian stations and in Afghanistan the mean temperature was below the normal, while elsewhere it was normal or in slight excess.

The following summarises the chief departures of the temperature conditions of the month from the normal :—

(1) The temperature was generally above the normal, both by day and night, over a large part of north-western India and of Bombay and at some central stations.

(2) The temperature was generally below the normal, both by day and night, over the remainder of India.

(3) The principal deficiency was shown over Bengal and the north Gangetic plain.

(4) The temperature was generally lower than usual, both by day and night, at the northern hill stations.

The following table gives the mean temperature data for the month for the 57 meteorological divisions of the empire :—

PROVINCE.	DIVISION.	ACTUAL TEMPERATURE.					DEPARTURE FROM NORMAL OF MONTH OF		
		Mean maximum.	Mean minimum.	Mean of day.	Mean daily range.	Absolute range.	Maximum.	Minimum.	Daily range.
		°	°	°	°	°	°	°	°
BURMA	Tenasserim	87·5	76·0	81·8	11·5	18·8	−1·3	−0·1	−1·2
	Lower Burma (Deltaic)	90·8	78·5	84·6	12·3	21·4	+0·1	+0·8	−0·7
	Central do.	97·3	75·5	86·4	21·8	33·4	+0·2	−1·7	+1·9
	Upper do.	96·2	76·2	86·2	20·0	32·0	+0·3	+0·1	+0·2
	Arakan	90·0	77·9	84·0	12·1	19·7	−0·6	−0·3	−0·3
BENGAL AND ASSAM	Eastern Bengal	88·8	74·1	81·5	14·7	26·5	−1·3	−1·0	−0·3
	Assam (Surma)	87·2	72·6	79·9	14·6	28·7	−1·5	+0·1	−1·6
	Do. (Hills)	71·8	60·4	66·1	11·4	21·7	...	...	...
	Do. (Brahmaputra)	84·2	71·5	77·9	12·7	25·0	−2·0	−0·9	−1·1
	Deltaic Bengal	93·8	77·5	85·7	16·3	30·5	−1·4	−0·8	−0·6
	Central do.	94·0	75·2	84·6	18·9	37·4	−3·5	−1·6	−1·9
	North do.	86·7	72·0	79·4	14·7	27·1	−2·8	−1·4	−1·4
	Bengal Hills	60·1	46·9	53·5	13·2	26·4	−1·3	−1·4	+0·1
	Orissa	93·6	79·2	86·4	14·4	29·5	−1·2	−0·7	−0·5
	Chota Nagpur	99·1	75·3	87·2	23·9	39·5	−3·5	−2·9	−0·6
	South Bihar	100·0	77·5	88·8	22·5	35·7	−5·6	−1·6	−4·0
	North do.	93·9	74·3	84·0	19·7	34·2	−3·7	−1·7	−2·0
UNITED PROVINCES OF AGRA AND OUDH.	United Provinces (East)	104·3	79·1	91·7	25·2	38·0	−2·0	−0·1	−1·9
	Oudh (South)	102·9	77·7	90·3	25·2	37·5	−2·1	−0·1	−2·0
	Do. (North)	98·7	75·4	87·0	23·3	45·1	−4·3	−2·5	−1·8
	United Provinces (Central)	106·4	79·6	93·0	26·7	41·0	−1·0	+0·2	−1·2
	Do. (West)	103·2	78·0	90·6	25·2	40·5	−2·0	−0·8	−1·2
	Do. (Submontane, East)	96·0	74·6	85·3	21·4	37·7	−5·0	−2·7	−2·3
	Do. (Submontane, West)	98·2	72·9	85·6	25·3	42·8	−2·1	−0·9	−1·2
	Do. (Hills)	75·0	55·8	65·4	19·2	36·0	−0·2	−1·6	+1·

Province.	Division.	Actual temperatures.					Departure from normal of month of		
		Mean maximum.	Mean minimum.	Mean of day.	Mean daily range.	Absolute range.	Maximum.	Minimum.	Daily range.
		°	°	°	°	°	°	°	°
Punjab	Punjab (South-East)	102·6	79·8	91·2	22·8	40·4	−2·1	−0·4	−1·7
	Do. (South)	104·3	77·4	90·9	26·9	44·9	+0·3	+1·1	−0·8
	Do. (Central)	105·2	76·8	91·0	28·4	49·7	−0·5	+4·2	−4·7
	Do. (Submontane)	102·5	75·5	89·0	27·0	47·0	+0·7	+2·6	−1·9
	Do. (Hills)	69·9	48·0	59·0	21·9	39·0	−2·3	−1·3	−1·0
	Do. (West)	106·9	79·0	93·0	27·9	44·7	+0·9	+2·6	−1·1
N.-W. F. Province	N.-W. F. Province	101·3	72·9	87·2	28·4	43·5	−0·1	+0·5	−0·6
Bombay and Malabar Coast Districts (Madras).	Malabar	88·3	77·3	82·8	11·0	20·6	−0·9	−0·9	0
	Madras (South Central)	94·9	73·7	84·3	21·2	33·7	−2·3	−1·0	−1·3
	Coorg	79·4	63·6	71·5	15·8	24·9	−0·9	−1·3	+0·4
	Mysore	90·1	68·7	79·4	21·4	33·7	−1·1	−0·4	−0·7
	Konkan	89·5	80·6	85·0	8·9	14·3	−0·3	−0·1	−0·2
	Bombay Deccan	100·1	73·1	86·7	27·1	37·4	+0·8	+0·3	+0·5
	Hyderabad (North)	104·1	79·6	91·8	24·5	38·1	...	...	...
	Khandesh	104·5	74·2	89·4	30·3	40·9	+2·8	+0·8	+2·0
Central Provinces and Berar.	Berar	108·8	82·4	95·6	26·4	38·8	+1·1	+1·8	−0·7
	Central Provinces (West)	108·4	81·5	95·0	27·0	43·3	+0·6	+0·4	+0·2
	Do. (Central)	105·8	78·7	92·2	27·1	40·2	−0·3	−0·5	+0·2
	Do. (East)	104·8	80·1	92·5	24·7	45·7	−1·0	−0·6	−0·4
Bombay (North)	Gujarat	101·9	79·2	90·6	22·7	33·5	+0·9	−0·2	+1·1
	Kathiawar and Cutch	97·6	77·7	87·7	19·9	28·7	−0·5	+0·3	−0·8
	Sind	106·3	79·2	92·8	27·1	43·2	+2·5	+0·8	+1·7
	Baluchistan Hills	88·3	55·3	71·9	33·0	47·5	−0·4	−0·8	+0·4
Rajputana and Central India.	Central India (East)	104·9	79·0	92·0	25·9	41·0	−0·1	+0·9	−1·0
	Rajputana (East), Central India (West)	106·3	79·7	93·0	26·6	43·9	+1·0	+0·1	+0·9
	Do. (West)	108·5	81·2	94·9	27·3	45·8	+1·7	+1·9	−0·2
Madras	East Coast (North)	92·8	79·8	86·3	13·0	27·4	−1·4	−1·5	+0·1
	Hyderabad (South)	102·2	79·5	90·9	22·7	36·0	−1·3	0	−1·3
	Madras (Central)	103·1	79·6	91·4	23·5	36·7	−1·4	−1·1	−0·3
	East Coast (Central)	99·3	79·4	89·4	19·9	35·7	−3·8	−2·4	−1·4
	Do. (South)	98·2	78·7	88·5	19·5	31·7	−1·5	−0·8	−0·7
	Madras (South)	97·1	77·8	87·1	19·3	31·5	+0·1	−0·4	+0·5

The above shows that the mean maximum temperature of the month exceeded 105° in the central division of the United Provinces, the central division of the Punjab, the west Punjab, Berar, the west and central divisions of the Central Provinces, Sind, Rajputana and the west of Central India and was actually highest (108°·8) in Berar. The hottest area, on the mean of the day, was Berar with a mean temperature of 95°·6, while the coolest plains district was the Brahmaputra valley with a mean temperature of 77°·9. The mean daily range of temperature was less than usual over the greater part of the country.

The following paragraphs give a brief statement of the more important temperature changes of the month.

For the first week of the month the mean temperature was normal or below the normal over north-east India and on the Madras coast and was more or less excessive elsewhere. The following gives comparative data for all districts for these seven days:—

Province or Division.	Departure from normal of mean temperature of 24 hours preceding 8 A. M. of						
	1st May.	2nd May.	3rd May.	4th May.	5th May.	6th May.	7th May.
	°	°	°	°	°	°	°
Burma	−1·1	−0·6	+1·7	−0·2	+0·5	+0·3	+0·7
Assam	−3·0	−0·5	−3·0	−3·9	−2·8	−2·4	−1·4
Bengal	+0·2	−1·9	−3·0	−1·5	−1·0	−3·3	−3·2
Orissa	−0·2	−0·7	−0·7	+2·1	+1·9	−3·9	−5·3
Bihar	+2·0	−1·9	−2·7	−3·1	−0·7	−1·9	−4·1
Chota Nagpur	+2·1	+1·9	+2·2	+2·9	+2·1	−4·4	−5·7
United Provinces of Agra and Oudh.	+1·7	+1·5	+1·5	+3·0	+3·6	+1·5	−1·5
Punjab	+2·0	+1·9	+4·7	+9·2	+6·9	+6·1	+5·6
North-west Frontier Province.	+1·7	+3·2	+5·1	+6·8	+5·2	+4·7	+3·7
Sind	+1·7	+3·7	+2·5	+5·0	+4·7	+4·0	+2·7

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF						
	1st May.	2nd May.	3rd May.	4th May.	5th May.	6th May.	7th May.
	°	°	°	°	°	°	°
Rajputana .	+1·7	+2·0	+4·4	+5·1	+5·0	+4·6	+4·0
Gujarat . .	+0·3	+2·4	+2·3	+1·1	+1·3	+0·6	+0·1
Central India .	+0·2	+3·2	+3·7	+3·5	+2·6	+3·4	−0·9
Central Provinces.	+1·2	+2·6	+3·4	+3·7	+3·4	+2·3	+0·5
Berar . .	+2·7	+4·9	+5·2	+5·2	+2·8	+1·7	+0·7
West Coast .	+0·6	+0·5	+0·7	+0·5	+0·5	+0·5	−0·3
Bombay Deccan	+2·6	+3·3	+2·2	+3·0	+0·9	+0·2	−1·2
Mysore . .	+1·4	+2·1	+2·0	+0·3	+1·2	+1·3	+0·4
Madras Coast	−1·5	−1·2	−0·6	−0·5	+1·9	+1·6	−0·5
Madras Deccan	+1·6	+2·0	+1·7	+2·4	+3·1	+2·5	+0·6
South India .	+1·6	+2·2	+2·4	+3·2	+1·7	+3·0	−0·3

The above shows that the excess during this period was generally most marked over the Punjab, where at the following places on the following dates either the maximum or minimum temperatures or both were more than 10° above the normal:—

DATE.	Station.	DEPARTURE FROM NORMAL OF	
		Maximum of date.	Minimum of date.
		°	°
4TH MAY . . .	Sialkot . . .	+10·4	+11·2
	Rawalpindi . .	+10·0	+16·1
	Khushab . . .	+ 9·5	+14·6
	Lahore . . .	+ 7·7	+12·8
5TH „ . . .	Do. . . .	+ 6·1	+12·5
6TH „ . . .	Do. . . .	+ 4·0	+11·2
7TH „ . . .	Rawalpindi . .	+ 5·4	+12·2

The absolutely highest temperature recorded during this period was 119°5 at Jacobabad on the 4th.

As mentioned above the mean temperature was continuously low over north-east India during this week, but the departures from the normal were less generally large than those reported from the area of excess and exceeded 10°0 only at the following places:—

DATE.	Station.	DEPARTURE FROM NORMAL OF	
		Maximum of date.	Minimum of date.
		°	°
2ND MAY . . .	Bogra	− 3·6	−10·9
5TH „ . . .	„	−10·8	− 2·7
7TH „ . . .	Gorakhpur . . .	−16·4	− 7·7
	Bahraich . . .	−10·6	− 6·8
	False Point . . .	− 1·0	−10·2

On the 8th and 9th temperature was generally lower than usual except over the west of the Peninsula and the extreme north-west of India, but on the 10th temperature rose in the north-west and the area of excessive temperature extended over the whole of north-western and western India and parts of the central districts so that it was only from Burma, north-east India, and the south of the Peninsula that temperatures below the normal were reported. The following gives comparative data for all districts for the 12th when this distribution was most strongly marked:—

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF		
	Mean maximum temperature, 12th May.	Mean minimum temperature, 12th May.	Mean temperature, 12th May.
	°	°	°
Burma	−1·2	−1·6	−1·4
Assam	−2·8	0	−1·4
Bengal	−4·1	−4·6	−4·4
Orissa	−1·5	−6·3	−3·9
Bihar	−6·9	−4·1	−5·5
Chota Nagpur	+3·2	−6·6	−1·7
United Provinces of Agra and Oudh .	+1·6	+2·5	+2·1
Punjab	+7·7	+9·7	+8·7
N.-W. Frontier Province . . .	+5·1	+1·1	+3·1
Sind	+3·6	+2·0	+2·8
Rajputana	+4·1	+3·8	+4·0
Gujarat	+0·7	−1·9	−0·6
Central India	+3·4	+4·9	+4·2
Central Provinces	+1·1	+1·3	+1·2
Berar	−1·8	+5·3	+1·8
West Coast	−2·2	−1·1	−1·7
Bombay Deccan	+2·0	+1·4	+1·7
Mysore	−5·8	−0·9	−3·4
Madras Coast	−0·9	−0·6	−0·8
Madras Deccan	−4·1	−4·0	−4·1
South India	−6·3	−2·3	−4·3

During the six days from the 8th to the 13th the most important feature in the weather conditions was the excessive temperature over north-west India. The excess, though large all through the 24 hours, was most marked at night and at the following places on the following dates

the minimum temperature was more than 10° above the normal:—

Date.	Station.	Departure from normal of minimum temperature of date.
		°
8TH MAY	Quetta	+14·0
„ „	Lahore	+11·7
9TH „	Quetta	+14·7
„ „	Mooltan	+10·3
10TH „	Rawalpindi	+11·9
„ „	Dera Ismail Khan	+10·8
11TH „	Quetta	+18·1
„ „	Sialkot	+11·3
12TH „	Lahore	+14·6
„ „	Mooltan	+12·9
„ „	Sialkot	+12·1
„ „	Delhi	+10·6
„ „	Montgomery	+10·6
„ „	Sirsa	+10·2
13TH „	Lahore	+12·4
„ „	Sirsa	+11·4

The lowest temperatures in the north-east were recorded on the 13th after heavy showers, and on this day the maximum temperature was more than 10° below the normal at the following places:—

Station.	Departure from normal of maximum temperature of 13th May.
	°
Gaya	−13·9
Berhampore	−13·0
Patna	−12·3
Burdwan	−10·4

The excessive temperatures in the north-west on the 11th, 12th, and 13th were succeeded by dust and thunderstorms, more particularly on and near the hills, and a rapid fall of temperature occurred in the north-west on the 13th and 14th, so that, from the 14th to the 19th, the mean temperature was lower than usual over the greater part of the country. The following gives comparative data for all districts for these six days:—

Province or Division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of					
	14th May.	15th May.	16th May.	17th May.	18th May.	19th May.
	°	°	°	°	°	°
Burma	−3·3	−1·2	+ 0·5	+ 1·1	+ 1·2	−2·3
Assam	−2·8	−0·7	− 0·1	+ 0·2	+ 1·9	+2·4
Bengal	−4·8	−1·5	+ 0·1	+ 1·2	+ 1·6	+0·2
Orissa	−0·6	−2·7	− 1·3	+ 1·2	0	+1·0
Bihar	−5·3	−2·6	− 0·4	+ 1·4	+ 1·2	−2·1
Chota Nagpur	−2·4	−3·6	− 4·2	− 2·9	−1·7	−3·1
United Provinces of Agra and Oudh.	−3·3	−5·6	− 5·6	− 5·0	−6·1	−7·3
Punjab	−0·7	−4·4	− 8·4	− 8·2	−9·4	−4·8
N.-W. F. Province	+0·1	−3·3	−12·5	−10·1	−6·5	−3·1
Sind	+2·3	−0·3	− 0·6	− 1·4	+0·3	+2·1
Rajputana	+3·5	−3·3	− 6·5	− 6·7	−9·0	−3·9
Gujarat	−0·5	−0·7	− 1·1	− 1·9	−1·8	−0·9
Central India	−0·5	−2·7	− 2·6	− 5·5	−4·1	−2·7
Central Provinces	+0·6	+1·3	− 0·7	− 4·4	−3·6	−2·4
Berar	−0·7	+0·4	+ 1·1	− 2·7	−1·5	+0·1
West Coast	−1·6	−1·2	− 0·1	− 0·9	−1·4	−0·9
Bombay Deccan	−0·5	−0·9	− 0·1	− 1·8	−1·8	+0·1
Mysore	−3·8	−3·4	− 2·8	− 3·2	−3·1	−2·1
Madras Coast	−0·5	+0·3	− 2·2	− 0·9	−0·7	−0·7
Madras Deccan	−2·2	−0·6	− 3·7	− 7·9	−4·5	−2·9
South India	2·0	−3·1	− 1·2	− 2·1	−1·3	−1·0

The preceding data show that a brisk rise of temperature had commenced over the north-west on the 19th and this rise continued and extended, so that by the 22nd it was only in Burma and Bengal that there was any deficiency of temperature of importance.

The following gives comparative data for the 22nd:—

Province or Division.	Departure from normal of		
	Mean maximum temperature, 22nd May.	Mean minimum temperature, 22nd May.	Mean temperature, 22nd May.
	°	°	°
Burma	−1·5	−1·6	−1·6
Assam	+1·5	+1·2	+1·4
Bengal	−2·0	+0·3	−0·9
Orissa	+1·9	+3·9	+2·9
Bihar	−2·7	+2·2	−0·3

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF		
	Mean maximum temperature, 22nd May.	Mean minimum temperature, 22nd May.	Mean temperature, 22nd May.
	°	°	°
Chota Nagpur	+3·8	+2·4	+3·1
United Provinces of Agra and Oudh	+3·2	+4·4	+3·8
Punjab	+7·9	+8·0	+8·0
N.-W. Frontier Province	+4·4	+4·0	+4·2
Sind	+3·0	+1·5	+2·3
Rajputana	+6·8	+3·8	+5·3
Gujarat	+1·3	+0·2	+0·8
Central India	+7·5	+3·7	+5·6
Central Provinces	+5·9	+4·8	+5·4
Berar	+6·5	+6·3	+6·4
West Coast	−1·0	+0·9	−0·1
Bombay Deccan	+3·6	+1·5	+2·6
Mysore	−1·0	−0·5	−0·8
Madras Coast	+0·3	+1·5	+0·9
Madras Deccan	+2·5	+1·0	+1·8
South India	−1·6	+0·5	−0·6

The greatest excess during the three days, 20th to 22nd, was reported from the north-west, where at the following stations on the following dates either the maximum or minimum temperature was over 10° above the normal :—

DATE.	Station.	DEPARTURE FROM NORMAL OF	
		Maximum of date.	Minimum of date.
		°	°
21ST MAY	Jacobabad	+10·2	+6·3
	Quetta	+5·9	+12·4
22ND ,,	Sialkot	+10·6	+6·9
	Lahore	+8·9	+11·1
	Sirsa	+8·9	+11·0

The highest temperature recorded during this hot period was 123°·0 at Jacobabad on the 21st.

Between the 23rd and the 25th the mean temperature was high over the central parts of the country, but was low in all surrounding regions—more particularly on the Madras coast where the weather was showery. The depression was most marked in the day or maximum temperature which was more than 10° below the normal at the following places on the following dates :—

DATE.	Station.	Departure from normal of maximum temperature of date.
		°
24TH MAY	Cocanada	−18·7
	Masulipatam	−16·3
	Nellore	−10·5
25TH ,,	Cocanada	−12·8
	Nellore	−12·4
	Masulipatam	−10·3

The temperature conditions between the 26th and the close of the month were largely controlled (1) by the extensive rainfall which accompanied a moderate cyclonic storm and (2) by the showers which fell in connexion with a depression in the north-west. The cyclonic storm struck the Madras coast near Cocanada on the morning of the 26th and thence proceeded along a curved course into north-east India. Moderate to heavy rain fell over the track of the storm and showers in some other parts of the country, and the mean temperature was reduced to below the normal except in some north-western districts ; the principal depression of temperature occurring within the areas of heaviest rainfall. The following gives comparative data for all districts from the 26th to the 31st :—

PROVINCE OR DIVISION	DEPARTURE FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF					
	26th May.	27th May.	28th May.	29th May.	30th May.	31st May.
	°	°	°	°	°	°
Burma	+2·5	+1·8	+1·1	−0·1	−1·0	−0·4
Assam	−2·8	−0·1	−0·2	−4·1	−1·1	0
Bengal	−2·6	−1·1	−1·8	−3·5	+0·5	−1·2
Orissa	−1·0	−4·7	−6·4	0	+0·3	+1·1
Bihar	−6·3	−6·8	−11·5	−8·1	−3·7	−3·2
Chota Nagpur	−3·8	−5·5	−12·9	−7·5	−0·8	−1·0
United Provinces of Agra and Oudh.	−3·4	−6·5	−7·1	−2·4	−2·4	−3·0
Punjab	−4·5	−5·0	−1·9	−3·6	−2·8	−2·8
N.-W. Frontier Province	−3·1	−2·7	−4·4	−7·7	−4·2	+0·4
Sind	+1·2	+1·0	+0·8	−0·4	−0·8	+0·2
Rajputana	+0·4	−1·4	+1·0	+0·6	−5·4	−6·0
Gujarat	−1·4	+0·3	0	−1·1	−1·8	−2·5
Central India	−0·5	−4·6	−2·4	+0·5	−3·1	−4·3
Central Provinces	−4·0	−7·3	−7·6	−1·8	−1·7	−5·0
Berar	0	−3·3	−0·8	−0·2	−0·6	−0·8

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF					
	26th May.	27th May.	28th May.	29th May.	30th May.	31st May.
	°	°	°	°	°	°
West Coast . .	—2·0	—2·8	—0·2	+0·3	+0·4	+0·4
Bombay Deccan . .	—0·2	—1·9	—1·5	—1·1	+0·4	+0·2
Mysore . . .	—2·8	—4·8	—2·5	+0·1	—0·8	—1·5
Madras Coast . .	—8·4	—6·8	—3·3	—0·4	—1·9	—2·0
Madras Deccan . .	—5·8	—4·5	—2·8	+0·9	+0·7	+0·1
South India . .	—4·9	—5·4	—1·3	+0·8	—1·4	—3·6

Extremely low day temperatures were recorded during this period of unsettled weather, maximum readings, more than 12° below the normal having been registered at the following stations on the following dates :—

DATE.	Station.	Departure from normal of maximum temperature of date.
		°
26th May .	Nellore	—25·3
	Madras	—18·5
	Masulipatam	—15·6
	Cuddapah	—13·9
	Cocanada	—12·3
27th „ .	Gaya	—28·9?
	Masulipatam	—18·7
	Cocanada	—18·2
27th May .	Raipur	—15·4
	Nellore	—14·2
	Sambalpur	—13·1
	Gorakhpur	—12·9
	Chanda	—12·8
	Nowgong	—12·7
	Lucknow	—12·2
28th „ .	Gaya	—28·7?
	Raipur	—25·9
	Sambalpur	—21·5
	Ranchi	—18·8
	Chaibassa	—18·7
	Hazaribagh	—18·1
	Benares	—16·6
	Darbhanga	—16·4
	Gorakhpur	—14·4
	Cuttack	—13·9
	Patna	—12·3
29th „ .	Gaya	—16·5?
	Purnea	—14·4
30th „ .	Gaya	—14·3

At the close of the month the barometer was rising everywhere, but the weather remained somewhat showery and unsettled and, as shown above, the mean temperature was lower than usual almost everywhere.

Winds.

May is the last month of the hot weather over a large part of India and is hence a period of transition, more particularly over southern India, and the south of the Bay and of the Arabian Sea. The winds are consequently more or less unsteady but westerly winds continue to obtain over the Gangetic plain, easterly winds in Assam, and strong southerly winds across the Bay coast. In western and central India and the Deccan the winds range between north-west and west.

In May 1904 the winds were somewhat more westerly than usual at the Bay Islands and on the Burma coast. They were stronger than usual at Port Blair, and Diamond Island and lighter than usual at Akyab while the steadiness was generally in excess of the average.

At Chittagong, as on the Burma coast, the wind was unusually westerly, but at the remaining stations around the head of the Bay the mean directions were approximately normal. The wind was remarkably steady over this region. The velocity of the wind exceeded the normal at the coast stations, but decreased inland and was below the average at Calcutta. The following gives comparative data of velocity and steadiness :—

STATION.	MEAN STEADINESS.			MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, May, 1904.	Normal percentage May.	Departure from normal, May 1904.	Actual, May 1904.	Normal, May.	Departure from normal, May 1904.
Chittagong . .	56	43	+13	145	154	— 9
Calcutta . .	83	67	+16	128	168	— 40
Saugor Island . .	85	73	+12	500	406	+94
False Point . .	87	75	+12	392	329	+63

In west Bengal the wind, on the mean of the month, was approximately normal, but in the Gangetic plain and upper India the wind's directions were irregular and varied considerably from the normal. The wind was, however, steadier than usual and at the majority of stations the velocity exceeded the average. The following gives data for the stations in these areas :—

STATION.	MEAN STEADINESS.			MEAN WIND DIRECTION.		MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, May, 1904.	Normal percentage, May.	Departure from normal, May 1904.	Actual, May 1904.	Normal, May.	Actual, May 1904.	Normal, May.	Departure from normal, May 1904.
				°	°			
Allahabad	21	24	— 3	N 14 E	S 6 W	123	163	—40
Dehra Dun	35	24	+11	S 25 W	S 79 W	56	53	+ 3
Roorkee	34	11	+23	S 37 E	S 54 W	106	89	+17
Meerut	21	21	0	N 85 E	N 57 W	39	62	—23
Lahore	38	18	+20	N 45 E	N 12 E	88	77	+11
Ludhiana	25	10	+15	S 34 E	N 57 W	67	62	+ 5

In the Indus valley the winds were generally lighter than usual and at Jacobabad there was a variable east-north-east wind instead of the usual south-east wind, but elsewhere the directions were about normal. In Rajputana the wind, on the mean of month, was more southerly and steadier than the average.

The following gives comparative data of the mean air movement and steadiness over northern India, Burma and the Bay Islands for the month:—

PROVINCE OR DIVISION.	MEAN STEADINESS.			MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, May 1904.	Normal percentage, May.	Departure from normal, May 1904.	Actual, May 1904.	Normal, May.	Departure from normal, May 1904.
Bay Islands	53	43	+10	223	178	+45
Burma	55	45	+10	97	127	—30
Bengal	75	61	+14	258	243	+15
Bihar	60	59	+ 1	121	149	—28
Chota Nagpur	14	16	— 2	206	221	—15
Orissa	87	75	+12	392	329	+63
United Provinces of Agra and Oudh.	28	20	+ 8	81	92	—11
Punjab	32	14	+18	78	70	+ 8
North-west Frontier Province.	21	28	— 7	66	110	—44
Rajputana	77	60	+17	251	237	+14
Sind	51	47	+ 4	228	260	—32

The preceding data show that the wind was steadier than the average in all divisions except Chota Nagpur and the North-west Frontier Province and was lighter than usual except in the Bay Islands, Bengal, Orissa, the Punjab and Rajputana.

At the Deccan stations, with the exception of Nagpur and Hyderabad, the mean wind direction was somewhat more northerly th an usual. This is shown below :—

STATION.	MEAN WIND DIRECTION.		
	Actual, May 1904.	Normal, May.	Northerly deflection.
	°	°	
Belgaum	N 87 W	W	+ 3
Sholapur	N 34 W	N 48 W	+14
Akola	N 44 W	N 49 W	+ 5
Buldana	N 48 W	N 51 W	+ 3
Khandwa	N 49 W	N 63 W	+14
Nagpur	N 64 W	N 48 W	—16
Hyderabad	N 82 W	N 64 W	—18

The steadiness was greater than usual at nearly all stations while, on the contrary, the velocity was generally below the average.

The wind was lighter than usual at the west coast stations, but in other respects the departures from the average conditions were irregular. Thus at Bombay the wind was more southerly and steadier than the average while at Karwar it was more northerly and less steady. The following gives comparative data :—

STATION.	MEAN STEADINESS.			MEAN WIND DIRECTION.	
	Actual percentage, May 1904.	Normal percentage, May.	Departure from normal, May 1904.	Actual, May 1904.	Normal, May.
				°	°
Bombay	87	71	+16	S 80 W	N 83 W
Karwar	76	81	— 5	N 50 W	N 66 W

At Madras and Waltair the mean wind direction was about normal while at the inland stations of the south India division the mean direction was more westerly than usual. The velocity was below the average and the steadiness varied irregularly from the normal.

The following gives comparative data of the mean air movement over the different divisions of the Peninsula :—

Province or Division.	Mean steadiness.			Mean wind velocity in miles per diem.		
	Actual percentage, May 1904.	Normal percentage, May.	Departure from normal, May 1904.	Actual, May 1904.	Normal, May.	Departure from normal, May 1904.
Central Provinces .	65	58	+ 7	170	220	—50
Berar . . .	75	70	+ 5	246	262	—16
Bombay Deccan .	71	59	+12	325	347	—22
Madras Deccan .	48	51	— 3	150	179	—29
West Coast . .	82	76	+ 6	160	190	—30
Mysore . . .	60	67	— 7	157	177	—20
Madras Coast .	68	66	+ 2	184	218	—34
South India . .	39	52	—13	48	98	—50

The above shows that the wind was lighter than usual in all the Peninsular divisions while the steadiness varied slightly and irregularly from the average.

At Quetta the wind, on the mean of the month, was lighter than the average, though in other respects it was approximately normal, but at the Himalayan hill stations the winds varied very largely from the average, in direction, steadiness and velocity. This is shown below:—

Hill Station.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, May 1904.	Normal percentage, May.	Departure from normal, 1904.	Actual, May 1904.	Normal, May.	Actual, May 1904.	Normal, May.	Departure from normal, 1904.
				°	°			
Quetta . .	50	45	+ 5	N 70 W	N 69 W	54	79	—25
Leh . .	55	31	+24	S 58 W	S 72 W	86	77	+ 9
Srinagar . .	5	6	— 1	S 5 W	N 30 E	101	103	— 2
Simla . .	18	25	— 7	N 2 E	N 18 W	100	144	—44
Chakrata . .	48	33	+15	S 6 E	S 57 W	301	187	+114
Ranikhet .	43	44	— 1	S 78 W	S 86 W	93	98	— 5
Katmandu . .	29	39	—10	N 65 W	S 89 W	36	...	...
Darjeeling . .	69	36	+33	S 57 W	S 78 W	108	163	—55

At Mount Abu, as on the neighbouring plains, the wind was unusually southerly while at the central hill stations it was more northerly than the average.

At Aden and Perim the wind was unusually southerly and was very light in force. The following gives comparative data for these stations :—

Station.	Mean wind direction.			Mean wind velocity in miles per diem.		
	Actual, May 1904.	Normal, May.	Southerly Deflection.	Actual, May 1904.	Normal, May.	Departure from May normal, 1904.
	°	°				
Aden	S 21 E	S 59 E	+38	103	269	—16
Perim	S 33 E	S 65 E	+33	285	329	— 4

In the south-east trades region the winds were approximately normal except that at the Seychelles the wind was unusually steady and at Mauritius the velocity was in defect. The following gives data for the stations in this area :—

Station.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, May 1904.	Normal percentage, May.	Departure from May normal, 1904.	Actual, May 1904.	Normal, May.	Actual, May 1904.	Normal, May.	Departure from May normal, 1904.
				°	°			
Seychelles . .	89	56	+33	S 46 E	S 39 E	184	...	...
Zanzibar . .	84	85	— 1	S 1 E	S 5 E	210	194	+16
Mauritius . .	...	...	...	S 66 E	S 65 E	192	246	—54

Humidity and Cloud.

The absolute humidity, on the mean of the month, was in excess over the Gangetic plain, the east Satpuras, part of Assam and of upper Burma, the interior of the Peninsula, the Bombay coast, the south of the north-west dry area and part of the Central India plateau and was generally in defect elsewhere. The area of greatest dryness, relatively to the normal, lay over Orissa and the north Madras coast while the air was dampest over west

Bengal and the east of the United Provinces and over the Neemuch district.

The distribution of the relative humidity with respect to the normal differed somewhat from the above. A band of low relative humidity stretched across the head of the Peninsula from Orissa to Kathiawar. The following gives comparative data of mean absolute and relative humidities for stations within this band :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, May 1904.	Normal, May.	Departure from normal, May 1904.	Actual, May 1904.	Normal, May.	Departure from normal, May 1904.
	"	"	"	%	%	
Balasore	·336	·971	—·135	69·0	78·7	—9·7
Waltair	·855	·931	—·076	71·0	74·9	—3·9
Gopalpur	·935	·986	—·051	80·0	83·6	—3·6
Nagpur	·439	·514	—·075	30·0	33·5	—3·5
Amraoti	·504	·542	—·038	35·0	39·1	—4·1
Sholapur	·487	·528	—·041	41·0	45·1	—4·1
Bijapur	·633	·682	—·049	58·0	63·6?	—5·6?
Malegaon	·569	·738?	—·169?	45·0	57·8	—12·8
Bhavnagar Para	·727	·838	—·111?	58·0	65·5	—7·5

The mean relative humidity was, likewise, lower than usual over the greater part of Burma. The following gives data :—

STATION.	RELATIVE HUMIDITY.		
	Actual, May 1904.	Normal, May.	Departure from normal, May 1904.
	%	%	
Minbu	68·0	76·6	—8·6
Toungoo	76·0	82·5	—6·5
Bassein	82·0	86·1	—4·1
Rangoon	84·0	88·0	—4·0
Yamethin	73·0	76·6	—3·6
Thayetmyo	69·0	72·4	—3·4
Mandalay	68·0	70·6	—2·6
Moulmein	87·0	87·9	—0·9
Diamond Island	78·0	78·5 ?	—0·5?

A third area of low relative humidity was shown over the north-west dry area and part of the Punjab. The following gives data for this area : —

STATION.	RELATIVE HUMIDITY.		
	Actual, May 1904.	Normal, May.	Departure from normal, May 1904.
	%	%	
Rawalpindi	35·0	43·6	—8·6
Montgomery	28·0	35·5	—7·5
Bikaner	39·0	45·5	—6·5
Pachpadra	57·0	61·5?	—4·5?
Jaipur	38·0	40·3	—2·3
Sambhar	40·0	41·0	—1·0
Ajmer	44·0	44·4	—0·4
Dera Ismail Khan	45·0	48·5	—3·5
Mooltan	42·0	44·1	—2·1
Khushab	31·0	32·3	—1·3
Kurrachee	75·0	77·4	—2·4
Jacobabad	39·0	40·3	—1·3
Hyderabad	56·0	56·5	—0·5

Over practically the whole of the remainder of the country the mean relative humidity was normal or in excess of the normal. The excess was considerable to large over the interior of the Peninsula and over the Gangetic plain where not only was the absolute humidity in excess, but the mean temperature was more or less below the normal. The following gives comparative data for those stations at which the mean relative humidity was more than 10 in excess of the average.

STATION.	RELATIVE HUMIDITY.		
	Actual, May 1904.	Normal, May.	Departure from normal, May 1904.
	%	%	
Gulbarga	70·0	54·7	+15·3
Bellary	65·0	52·9	+12·1
Mysore	85·0	73·5	+11·5
Neemuch	64·0	50·1	+13·9
Chaibassa	73·0	61·3	+11·7
Allahabad	53·0	42·4	+10·6
Bareilly	59·0	47·6	+11·4
Meerut	51·0	40·8	+10·2
Bhuj	73·0	62·9	+10·1

The preceding data show that the general features of the distribution of the mean relative humidity departures from the normal for May were similar to those of April except that the relatively high humidities noticed over Burma in April had disappeared in May and been replaced by lower humidities than usual and that the low humidities noticed over the west of the United Provinces in April had been succeeded by high relative humidities in May.

The mean relative humidity of the month was less than 35% at 8 A.M. at the following places:—

Station.	Relative Humidity. Actual, May 1904.
	%
Chanda	34
Saugor	34
Sutna	33
Udaipur	33
Khushab	31
Kotah	30
Nagpur	30
Montgomery	28

In Baluchistan and at Simla and Darjeeling the mean relative humidity was below the normal—generally by small amounts—but at the remaining Himalayan hill stations it was normal or in excess. This is shown below:—

Hill Station.	Relative Humidity. Actual May 1904.	Normal, May.	Departure from normal, May 1904.
	%	%	
Quetta	37·0	45·4	−8·4
Chaman	29·0	29·6	−0·6
Simla	45·0	45·4	−0·4
Darjeeling	90·0	90·3	−0·3
Gilgit	51·0	43·9	+7·1
Murree	44·0	39·1	+4·9
Srinagar	84·0	81·0	+3·0
Cherat	36·0	34·0	+2·0
Leh	45·0	45·0	0
Ranikhet	55·0	49·9	+5·1
Chakrata	48·0	46·6	+1·4

At the central hill stations the air was drier than usual The following gives data:—

Hill Station.	Relative Humidity. Actual, May 1904.	Normal, May.	Departure from normal, May 1904.
	%	%	
Mount Abu	35·0	40·3	−5·3
Pachmarhi	32·0	36·9	−4·9

At Aden the absolute humidity, on the mean of the month was in excess and the relative humidity normal while at Perim both the absolute and relative humidities were in excess. The following gives data for these two stations:—

Station.	Absolute Humidity. Actual, May 1904.	Normal, May.	Departure from normal, May 1904.	Relative Humidity. Actual, May 1904.	Normal, May.	Departure from normal, May 1904.
	"	"	"	%	%	
Aden	·925	·918	+·007	74·0	74·9	− 0·9
Perim	·968	·938	+·030	79·0	76·1	+ 2·9

In the south-east trades region the information was very scanty, but apparently the absolute humidity, except at Zanzibar, was, in defect, the mean temperature lower than usual and the mean relative humidity in trifling excess. This is shown below:—

Station.	Absolute Humidity. Actual, May 1904.	Normal, May.	Departure from normal, May 1904.	Relative Humidity. Actual, May 1904.	Normal, May.	Departure from normal, May 1904.
	"	"	"	%	%	
Seychelles	·824	·846	−·022	81·0	80·0	+ 1·0
Zanzibar	·845	·807	+·038	90·0	86·2	+ 3·8
Mauritius	·622	·625	−·003	81·0	79·0	+ 2·0

The mean 8 A.M. cloud amount of the month was less than usual over north-west India, the greater part of the Bombay presidency and parts of Central India and of the Central Provinces. The departures from the normal

were generally small, but exceeded 1·0 at the following stations :—

Station.	Mean cloud amount. Actual, May 1904.	Normal, May.	Departure from normal, May 1904.
Sirsa	0·3	2·9	—2·6
Ludhiana	0·7	1·9	—1·2
Pachpadra	1·0	2·5	—1·5
Kurrachee	2·2	3·6	—1·4
Bhavnagar Para	1·7	3·7	—2·0
Malegaon	0·4	2·1	—1·7
Surat	2·2	3·4	—1·2
Veraval	2·8	4·0	—1·2
Ahmedabad	1·6	2·7	—1·1

The sky was also clearer than usual over Burma and at the Bengal and Madras coast stations. The deficiency of cloud was more marked in these areas than over north-west India and amounted to over 1·0 at the following places :—

Province or Division.	Station.	Mean cloud amount. Actual, May 1904.	Normal, May.	Departure from normal, May 1904.
Burma	Bassein	1·1	6·0	—4·9
	Mandalay	2·4	4·9	—2·5
	Thayetmyo	2·9	5·1	—2·2
	Mergui	4·3	6·3	—2·0
	Minbu	3·0	4·4	—1·4
	Akyab	5·6	6·9	—1·3
	Tavoy	5·7	6·8	—1·1
Bengal Coast	Barisal	4·4	6·3	—1·9
	Chittagong	4·4	6·1	—1·7
	Balasore	4·4	5·5	—1·1
Madras Coast	Gopalpur	2·5	5·4	—2·9
	Trichinopoly	3·3	4·4	—1·1

The sky was thus clearer than usual over north-west India and over Burma and the Bay area, but between these two regions there was a broad band in which the mean cloud amount exceeded the average. The excess was considerable in parts of the delta of Bengal, of the United Provinces, of Central India, of the west coast, and of Madras and was more than 1·0 at the stations for which comparative data are given below :—

Province or Division.	Station.	Mean cloud amount. Actual, May 1904.	Normal, May.	Departure from normal, May 1904.
Bengal	Burdwan	7·1	5·0	+2·1
	Berhampore	7·5	5·6	+1·9
	Bogra	6·2	4·7	+1·5
	Dinajpur	7·3	5·9	+1·4
	Calcutta	6·3	5·0	+1·3
	Darbhanga	3·4	2·3	+1·1
	Patna	3·1	2·0	+1·1
United Provinces.	Gorakhpur	5·6	1·6	+4·0
	Cawnpore	2·4	1·2	+1·2
	Meerut	3·1	2·0	+1·1
Central India	Nowgong	3·4	1·4	+2·0
	Sutna	2·9	1·0	+1·9
Madras	Mysore	6·7	5·0	+1·7
	Cuddapah	5·1	3·6	+1·5
	Hyderabad (Deccan)	4·4	2·9	+1·5
	Cuddalore	5·5	4·2	+1·3
	Salem	5·4	4·2	+1·2
	Raichur	4·5	3·3	+1·2
West Coast	Goa	6·3	4·0	+2·3
	Bombay	5·5	4·1	+1·4
	Calicut	6·5	5·4	+1·1

At the hill stations with the exception of Quetta, Cherat and Pachmarhi the sky was slightly more cloudy than usual. The following gives data :—

Hill Station.	Mean cloud amount. Actual, May 1904.	Normal, May.	Departure from normal, May 1904.
Quetta	0·7	1·0	—0·3
Cherat	1·1	2·2	—1·1
Pachmarhi	0·9	2·0	—1·1
Kabul	1·5	0·3	+1·2
Chaman	1·0	0·6	+0·4
Leh	6·6	4·7	+1·9
Gilgit	5·8	4·1	+1·7
Srinagar	4·0	3·4	+0·6
Chakrata	2·5	1·9	+0·6
Ranikhet	2·9	2·3	+0·6
Simla	3·0	2·8	+0·2
Murree	2·9	2·8	+0·1
Darjeeling	7·5	6·7	+0·8
Mount Abu	1·2	0·8	+0·4
Wellington	5·1	4·0	+1·1

The mean cloud amount of the month was less than 1·0 at the stations for which comparative data are given below :—

Station.	Mean cloud amount. Actual, May 1904.
Jhansi	0·9
Hoshangabad	0·8
Daltonganj	0·8
Arrah	0·7
Ludhiana	0·7
Kotah	0·7
Udaipur	0·7
Khandwa	0·7
Neemuch	0·6
Mainpuri	0·5
Montgomery	0·5
Malegaon	0·4
Sirsa	0·3
Dera Ismail Khan	0·3
Khushab	0·3
Hyderabad (Sind)	0·1
Jacobabad	0·1
Moo'tan	0

At Aden the sky was slightly less cloudy than usual and at Perim the mean cloud amount of the month was very small. The following gives data for these two stations :—

Station.	Mean cloud amount. Actual, May 1904.	Normal, May.	Departure from normal, May 1904.
Aden	2·9	3·0	−0·1
Perim	0·5	3·6	−3·1

In the south-east trades region the mean cloud amount was above the normal at Zanzibar and below it at Mauritius. This is shown in the following statement :—

Station.	Mean cloud amount. Actual, May 1904.	Normal, May.	Departure from normal, May 1904.
Seychelles	5·4	...	...
Zanzibar	7·5	6·1	+1·4
Mauritius	4·5	5·1	−0·6

Rainfall.

The rainfall of the month of May is usually small in amount and of little economic importance over by far the greater part of the country including the Punjab, Rajputana, the United Provinces, Central India, Berar, the Central Provinces, the north Deccan and north Bombay. Moderate to heavy rain is usually received in three areas :—

1st.—Bengal and Assam.

2nd.—Lower Burma and Tenasserim.

3rd.—Southern India, more especially Malabar.

The rainfall in the first of these areas is due to thunder-showers, which are heaviest and most frequent in east Bengal, Assam and the northern districts of north Bengal. In the second and third areas the rainfall, in the earlier part of the month, is also usually due to thunder-showers, and in the latter part to temporary advances of the humid winds of the south-west monsoon.

Except over parts of north-western and western India the weather was more disturbed than usual during May 1904. Thunderstorms were unusually frequent over northern and north-eastern India, and a cyclonic storm in the last week of the month gave heavy rain to the east of the Peninsula and north-east India. The actual distribution of rain, as shown by the records of the meteorological observatories is given in Plate IV. Actually or practically no rain was received over Baluchistan, the south-west Punjab, Sind, western Rajputana, Gujarat and Bombay, and less than half an inch over the south of the Gangetic plain, the west and centre of the Central Provinces, the east of Central India and the northern part of the Deccan. From these areas the total rainfall increased and the month's total amounted to 12·23″ at Mysore, to 23·22″ at Moulmein and to 24·54″ at Jalpaiguri.

The chief periods of rainfall were as follows :—

(1) The 5th to the 9th when showers occurred over southern India and north-west India.

(2) The 11th when showers occurred over southern India.

(3) The 13th to the 16th when general showers fell in the north-west.

(4) The 17th and 18th when scattered showers occurred over a considerable part of the country—most general in the south.

(5) The 26th to the 29th when fairly general rain fell over eastern and north-eastern India.

(6) In north-east India and Burma showers were of almost daily occurrence throughout the month.

The following table gives comparative rainfall data for the 57 rainfall divisions of India :—

Province.	Division.	Number of rainy days.		Rainfall.		
		Average actual, May 1904	Average normal, May.	Average actual, May 1904.	Average normal, May.	Departure from normal, May 1904.
				Inches.	Inches.	Inches.
Burma	Tenasserim	19·4	18·7	21·87	23·03	—1·16
	Lower Burma (Deltaic)	10·4	14·7	6·96	12·05	—5·09
	Central do.	6·5	9·4	3·65	6·68	—3·03
	Upper do.	7·3	8·1	3·88	5·86	—1·98
	Arakan	10·5	12·0	10·25	12·45	—2·20
Bengal and Assam	Eastern Bengal	14·9	10·9	14·64	10·36	+ 4·28
	Assam (Surma)	20·2	16·1	18·21	17·64	+ 0·57
	Do. (Hills)	15·1	15 2	13·10	15·10	—2·00
	Do. (Brahmaputra)	16·8	14 5	13·01	12 03	+ 0·98
	Deltaic Bengal	9·4	8 0	8·42	6·16	+ 2·26
	Central do.	9 5	6 2	8·69	4·55	+ 4·14
	North do.	15·4	11·7	18·08	11·35	+ 6·73
	Bengal Hills	16 4	13 6	10 81	8·66	+ 2·15
	Orissa	5·8	5·0	3 61	3·72	—0·11
	Chota Nagpur	6·9	3·7	4 54	2·20	+ 2·34
	Bihar (South)	4 1	2·1	3·22	1 43	+ 1·79
	Do. (North)	6 6	4·1	5·51	3·02	+ 2·49
United Provinces of Agra and Oudh.	United Provinces (East)	1·0	0·9	0·51	0·48	+ 0·03
	Oudh (South)	1·3	1·1	0·32	0·52	—0·20
	Do. (North)	2·6	1·7	1 04	0 96	+ 0·08
	United Provinces (Central)	1·4	0·9	0·43	0·36	+ 0·07
	Do. do. (West)	2·5	1·2	1·03	0·46	+ 0·57
	Do. do. (East Submontane)	4·1	1·9	2 30	1·18	+ 1·12
	Do. do. (West do.)	3·9	1·8	1·44	0·83	+ 0·61
	Do. do. (Hills)	6·8	4·5	2·48	2·13	+ 0·35
Punjab	Punjab (South-East)	2·8	1·4	1·32	0·55	+ 0·77
	Do. (South)	1·4	1·1	0 55	0·48	+ 0·07
	Do. (Central)	1·2	1·5	0·37	0·65	—0·28
	Do. (Submontane)	2·4	1·8	0·92	0·84	+ 0·08
	Do. (Hills)	6·5	4 1	2·50	2·20	+ 0·30
	Do. (West)	0·6	0 9	0·15	0·42	—0·27
N.-w. F. Province	North-west Frontier Province	1·4	2 0	0·48	0 85	— 0·37
Bombay and Malabar Coast Districts (Madras).	Malabar	9·2	7·9	8 05	7·08	+ 0·97
	Travancore	8·0	...	7·12	...	...
	Madras (South, Central)	9·2	5·6	7·49	3·72	+ 3·77
	Coorg	9·5	...	5·98	...	...
	Mysore	8 9	5·7	6 04	3·67	+ 2·37
	Konkan	1·3	1·8	0 65	1·45	— 0·80
	Bombay Deccan	3·4	3·1	1·85	1·71	+ 0·14
	Hyderabad (North)	1·7	1·5	0·46	0·68	—0·22
	Khandesh	0·6	1·1	0·22	0·63	—0·41
Central Provinces and Berar.	Berar	1·1	0·6	0·29	0·42	—0·13
	Central Provinces (West)	0·7	0·9	0 25	0·43	— 0·18
	Do. (Central)	1·4	1·0	0·49	0·49	0
	Do. (East)	2·5	1·7	2·60	0·80	+ 1·80
Bombay (North)	Gujarat	0·2	0·4	0·11	0·23	—0·12
	Kathiawar and Cutch	0·2	0·4	0·08	0·24	—0 16
	Sind	0	0·3	0·01	0·10	— 0·09
	Baluchistan Hills	0	0·6	0	0·20	—0 20
Rajputana and Central India.	Central India (East)	1·2	0·7	0·49	0·32	+ 0 17
	Rajputana (East), Central India (West)	2·5	1·1	1·04	0·44	+ 0·60
	Do. (West)	1·8	0·7	0·61	0·31	+ 0·30
Madras	East Coast (North)	5·9	3·4	5·17	2·18	+ 2·99
	Hyderabad (South)	3·2	1·9	1·06	0 99	+ 0·07
	Madras (Central)	4 2	2·9	2 48	1·66	+ 0·82
	East Coast (Central)	3·4	1 7	3 15	1·28	+ 1·87
	Do. (South)	4·9	2·8	3·33	2·19	+ 1·14
	Madras (South)	4·3	2·7	2·88	1·71	+ 1·17

The preceding data show that the rainfall of the month was in defect of the normal in twenty, exactly normal in one, and in excess in all the remaining rainfall divisions. The twenty divisions of light rainfall included Burma, the Assam Hills, Orissa, south Oudh, the central and west Punjab, the North-west Frontier Province, the Konkan, north Hyderabad, Khandesh, Berar, the west of the Central Provinces, Gujarat, Kathiawar, Sind, and Baluchistan, and the deficiency exceeded 50% over the divisions for which comparative data are given below :—

Division.	Rainfall.			
	Average actual, May 1904.	Average normal, May.	Departure from normal, May 1904.	Percentage departure from normal.
	Inch.	Inches.	Inch.	
West Punjab	0·15	0·42	−0·27	−64
Konkan	0·65	1·45	−0·80	−55
Khandesh	0·22	0·63	−0·41	−65
Gujarat	0·11	0·23	−0·12	−52
Kathiawar and Cutch	0·08	0·24	−0·16	−67
Sind	0·01	0·10	−0·09	−90
Baluchistan hills	0	0·20	−0·20	−100

Over the whole of the remainder of India the month's rainfall was greater than usual. The excess was greatest and more than 100% in the following divisions :—

Division.	Rainfall.			
	Average actual, May 1904.	Average normal, May.	Departure from normal, May 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Chota Nagpur	4·54	2·20	+2·34	+106
South Bihar	3·22	1·43	+1·79	+125
United Provinces, West	1·03	0·46	+0·57	+124
South-East Punjab	1·32	0·55	+0·77	+140
Madras, South-Central	7·49	3·72	+3·77	+101
Central Provinces, East	2·60	0·80	+1·80	+225
Rajputana, East, Central India, West.	1·04	0·44	+0·60	+136
East Coast, North	5·17	2·18	+2·99	+137
East Coast, Central	3·15	1·28	+1·87	+146

The general rainfall of the whole country (excluding the hill districts) was 0·60″ above the normal as determined from the departures given in the fifth figure column of the table on page 156.

In Tenasserim showers occurred more or less throughout the month, but the periods of most general rain were between the 9th and the 21st and the 27th to the 31st. Falls of 3·00″ and above in 24 hours were recorded at the following places on the following days :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Thaton	Kyaikto	4th May	3·15
Mergui	Victoria Point	17th „	5·34
Tavoy	Thayetchaung	„ „	3·95
Thaton	Thaton	„ „	3·70
Tavoy	Thayetchaung	18th „	4·00
Thaton	Thaton	„ „	3·99
Amherst	Kawkareik	„ „	3·32
Tavoy	Yebyu	„ „	3·04
Amherst	Monlmein	19th „	6·60
	Kawkareik	„ „	3·53
Thaton	Kyaikto	20th „	4·57
	Bilin	„ „	3·40
	Pa—an	„ „	3·09
	Bilin	27th „	3·16
Mergui	Victoria Point	28th „	3·66
		29th „	3·70

In lower Burma showers became general on the 12th, after which date rain fell more or less daily until the close of the month. The following were the falls exceeding 3·00″ in 24 hours :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Myaungmya	Wakema	14th May	3·11
Toungoo	Shwegyin	18th „	3·10
Do.	Do.	20th „	3·23
Myaungmya	Wakema	30th „	4·95

Central Burma experienced two showery periods, the first between the 13th and the 22nd, the second between the 27th and the close of the month.

The showers were not generally heavy, only exceeding 1·50″ in 24 hours at the following places, and the total rainfall was little more than half the average :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
THARRAWADDY	Gyobingauk	14th May	1·91
	Zigon	,, ,,	1·82
HENZADA	Kanaung	,, ,,	1·74
THAYETMYO	Minhla	,, ,,	1·65
THARRAWADDY	Tharrawaddy	22nd ,,	1·71
	Minhla	27th ,,	2·67
PROME	Prome	,, ,,	2·45
THARRAWADDY	Monyo	29th ,,	1·70
	Minhla	,, ,,	1·57
	Tapun	31st ,,	1·69

Upper Burma received scattered showers throughout the month, but more particularly between the 8th and the 15th, the 19th and 22nd, and the 25th and the 31st. The total rainfall was lighter than usual and the only falls exceeding 3·00″ in 24 hours were as follows :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
MEIKTILA	Pyin-Nyaung	11th May	3·66
YAMETHIN	Pyinmana	18th ,,	3·46
	Do.	19th ,,	3·25
SOUTHERN SHAN STATES	Fort Stedman	,, ,,	3·12
MANDALAY	Madaya	25th ,,	3·03
MYITKYINA	Sadon	28th ,,	3·42
	Mogaung	29th ,,	3·58

Arakan received nearly the normal amount of rain. The fall was not continuous, but occurred generally between the 11th and 14th, the 18th and the 21st, and the 26th and the 31st. The following falls exceeding 3·00″ in 24 hours were recorded during these periods :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
KYAUKPYU	Myebon	13th May	8·20
	Ramree	,, ,,	3·51
AKYAB	Akyab	14th ,,	3·31
SANDOWAY	Gwa	18th ,,	3·55
KYAUKPYU	Myebon	,, ,,	3·25
SANDOWAY	Gwa	19th ,,	3·54
	Taungup	,, ,,	3·24
	Gwa	28th ,,	4·02
KYAUKPYU	Ramree	29th ,,	3·68

In the Brahmaputra and Surma valleys of Assam the total rainfall of the month slightly exceeded the normal. Rain fell almost daily in both divisions and the following amounts exceeding 4·00″ in 24 hours were registered on the following dates :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
SYLHET	Sylhet	5th May	5·34
CACHAR	Jaffirband	12th ,,	4·68
	Koyah	13th ,,	4·66
SYLHET	Habiganj	,, ,,	4·02
	Samanbagh	15th ,,	4·80
GOALPARA	Dhubri	24th ,,	5·08
SYLHET	Habiganj	25th ,,	4·26
LAKHIMPUR	Balijan	,, ,,	4·15
DARRANG	Charduar	28th ,,	5·20
	Kabira	,, ,,	4·47
	Boreli	29th ,,	6·76
	Balipara	,, ,,	6·63
	Tejpur	,, ,,	6·08
GOALPARA	Dhubri	,, ,,	5·78
DARRANG	Barpukhuri	,, ,,	5·40
KAMRUP	Nalbari	,, ,,	4·90
GOALPARA	Bijni	,, ,,	4·52
KAMRUP	Barpeta	,, ,,	4·14
DARRANG	Majkhat	,, ,,	4·13

On the hills the rainfall of the month, relatively to the normal, was lighter than on the neighbouring plains. At Cherrapoonjee the total rainfall of the month was 41·76″ instead of 51·53″ and at Jowai 15·15″ instead of 26·18″.

The following were the heaviest falls, exceeding 10″ in 24 hours, registered at the various hill stations :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Khasi and Jaintia Hills.	Cherrapoonjee Mr. Shadwell's House	29th May	12·26
	Cherrapoonjee Welsh Mission House	,, ,,	12·09
	Wahmaulien	,, ,,	11·60
	Cherrapoonjee, Police Station.	,, ,,	10·78
	Laitlyngkot	,, ,,	10·50
	Cherrapoonjee Roman-Catholic Mission House.	,, ,,	10·44

In Bengal the rainfall was more or less excessive. In south-west Bengal rain fell generally on the 6th and 7th, the 9th, the 11th to the 14th, the 24th and 25th, and the 27th and 28th. At other times the weather was fair with occasional passing showers. The heaviest rainfall was received on the 27th and 28th, when the cyclonic storm noticed in another section was passing through the province. The following gives the falls, exceeding 3·00″ in 24 hours, registered during the month:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M of date.
			Inches.
Jessore	Narail	6th May	3·39
Murshidabad	Berhampore	13th ,,	4·58
Khulna	Khulna	20th ,,	4·17
	Mollahat	21st ,,	4·13
Birbhum	Rampore Hat	23rd ,,	4·61
Murshidabad	Azimganj	24th ,,	4·50
	Berhampore	25th ,,	3·65
Midnapore	Panskura	27th ,,	3·08
Murshidabad	Kandi	28th ,,	4·11
Birbhum	Murari	,, ,,	3·72
Murshidabad	Jangipur	,, ,,	3·50
Birbhum	Labpur	,, ,,	3·41
Nadia	Ranaghat	,, ,,	3·37
Birbhum	Rampore Hat	,, ,,	3·07

In north Bengal the weather was showery or rainy throughout the month and the total rainfall was more than 50% above the average. On several days—more particularly on the 6th and 7th, the 11th to the 17th, and the 27th to the 29th—the rainfall was heavy and the following amounts, exceeding 5 inches in 24 hours, were recorded during the month :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M of date.
			Inches.
Jalpaiguri	Bhagatpur	6th May	5·10
Rajshahi	Boalia	24th ,,	5·30
Rangpore	Gobindganj	25th ,,	5·94
Bogra	Panchbibi	28th ,,	7·23
Dinajpur	Thakurgaon	,, ,,	6·14
	Nawabganj	,, ,,	5·19
Rangpore	Ulipur	29th ,,	7·41
	Kurigaon	,, ,,	7·32

In east Bengal the rainfall was less continuous than in north Bengal, but the total was in moderate excess of the average. The principal rainfall periods were the 6th, the 9th to the 14th, and the 20th to the end of the month, and during these periods the following amounts, exceeding 4″ in 24 hours, were registered :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Mymensingh	Diwanganj	6th May	4·75
	Subarnakhali	12th ,,	6·35
Backergunge	Daulatkhan	,, ,,	4·07
Tippera	Brahmanbaria	13th ,,	4·81
Noakhali	Lakhmipur	,, ,,	4·40
Backergunge	Patuakhali	22nd ,,	4·97
Mymensingh	Kishorganj	25th ,,	5·87
	Mymensingh	,, ,,	5·25
	Durgapur	,, ,,	4·39
Dacca	Jaydebpur	,, ,,	4·20
Mymensingh	Netrakona	,, ,,	4·06

In Bihar the rainfall was much heavier than usual, as is shown by the following data of the contained districts :—

District.	Rainfall. Average actual, May, 1904.	Average normal, May.	Departure from normal, May, 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Patna	3·66	1·75	+1·91	+109
Gaya	3·64	1·18	+2·46	+208
Shahabad	1·22	0·77	+0·45	+58
Saran	3·76	1·55	+2·21	+143
Champaran	4·33	2·61	+1·72	+66
Muzaffarpur	3·78	2·29	+1·49	+65
Darbhanga	5·62	2·56	+3·06	+120
Monghyr	4·79	2·16	+2·63	+122
Bhagalpur	6·90	3·15	+3·75	+119
Purnea	7·76	5·41	+2·35	+43
Malda	7·78	4·54	+3·24	+71
Sonthal Parganas	7·01	2·75	+4·26	+155

Thunderstorms occasioned heavy rain on the 7th, 9th, and 12th, while during the last week there was a general burst of rain due in part to the cyclonic storm of that period. The following shows the falls exceeding 4″ in 24 hours :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Purnea	Barsoe	27th May.	4·37
Sonthal Parganas	Hiranpur	,, ,,	4·21
	Pakaur	28th ,,	5·10
	Mohespur	,, ,,	4·90
	Sahibganj	,, ,,	4·50
Darbhanga	Tajpur	,, ,,	4·10

The month's rainfall in Orissa was about normal. Showers occurred at different times during the month, but the only general and heavy burst of rain was reported on the 27th and 28th when the cyclonic storm was passing north-eastward. The heaviest falls, exceeding 2″ in 24 hours, were as follows :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Puri	Kanas	6th May.	2·09
Orissa Tributary Mahals.	Baripada	12th ,,	2·72
	Baramba	16th ,,	3·06
	Narsingpur	26th ,,	2·02
Cuttack	Cuttack	27th ,,	2·53

In Chota Nagpur the rainfall was as heavy as in Bihar and occurred under similar conditions. The following gives comparative data for the contained districts :—

District.	Rainfall. Average actual, May 1904.	Average normal, May.	Departure from normal, May 1904.	Percentage departure from normal.
	Inches	Inches.	Inches.	
Hazaribagh	4·51	1·89	+2·62	+138
Ranchi	4·36	1·69	+2·67	+158
Palamau	4·12	0·94	+3·18	+338
Manbhum	4·29	2·81	+1·48	+ 53
Singhbhum	4·84	3·33	+1·51	+ 45

Scattered thunder-showers occurred up to the 25th after which there was a heavy general burst of rain due to the cyclonic storm. The following falls, exceeding 2″ in 24 hours, were registered during this period:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Chota Nagpur Tributary States.	Sirguja	26th May	3·00
	Jashpur	,, ,,	2·38
	Gangpur	27th ,,	3·40
Puri	Kanas	,, ,,	3·30
	Khurda	,, ,,	2·73
Palamau	Palamau	,, ,,	2·45
Ranchi	Chainpur	,, ,,	2·36
	Gamla	,, ,,	2·16
Puri	Bhanpur	,, ,,	2·15
Hazaribagh	Pachamba	28th ,,	4·80
	Ramgar	,, ,,	2·80
Ranchi	Chainpur	,, ,,	2·03
Manbhum	Purulia	,, ,,	2·02
	Raghunathpur	,, ,,	2·01

In the United Provinces the rainfall occurred, as is usual at this season, during periods of thunderstorm disturbances, but the showers were heavier than usual and the total rainfall exceeded the normal in all divisions. The excess was most marked in the submontane and west divisions and the following gives comparative data for the districts in these divisions:—

Province or Division.	District.	Rainfall. Average actual, May 1904.	Average normal, May.	Departure from normal, May 1904.	Percentage departure from normal.
		Inches.	Inches.	Inches.	
United Provinces West Submontane.	Pilibhit	1·59	0·96	+ 0·63	+ 66
	Shahjahanpur	0·60	0·69	— 0·09	— 13
	Budaun	0·88	0·47	+ 0·41	+ 87
	Bareilly	1·28	0·79	+ 0·49	+ 62
	Moradabad	1·51	0·77	+ 0·74	+ 96
	Bijnor	1·60	0·79	+ 0·81	+ 103
	Muzaffarnagar	1·64	0·62	+ 1·02	+ 165
	Saharanpur	1·32	0·63	+ 0·69	+ 110
	Dehra Dun	2·08	1·51	+ 0.57	+ 38
	Almora	2·63	2·84	— 0·21	— 7
United Provinces East Submontane.	Gorakhpur	3·73	1·54	+ 2·19	+ 142
	Basti	3·13	1·42	+ 1·71	+ 120
	Azamgarh	0·53	0·69	— 0·16	— 23
	Ballia	1·03	0·84	+ 0·19	+ 23
United Provinces West.	Agra	0·39	0·34	+ 0·05	+ 15
	Muttra	1·22	0·41	+ 0·81	+ 198
	Aligarh	1·25	0·23	+ 1·02	+ 443
	Bulandshahr	1·37	0·50	+ 0·87	+ 174
	Meerut	1·20	0·62	+ 0·58	+ 94

The principal showery periods were between the 6th and the 9th, the 13th and 17th, and the 25th and the 29th and the following falls exceeding 1·50″ in 24 hours were recorded during the month:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Gorakhpur	Maharajgunj	6th May	1·58
Muzaffarnagar	Khandla	7th „	2·25
Gorakhpur	Deoria	„ „	2·22
Dehra Dun	Dehra (Asylum)	23rd „	1·70
Basti	Basti	26th „	2·60
	Khalilabad	„ „	1·87

In the Punjab the rainfall was irregularly distributed, there having been some deficiency in the central and west divisions and more or less excess elsewhere. The excess was greatest in the south-east division and the following gives comparative data for the contained districts:—

District.	Rainfall. Average actual, May 1904.	Average normal, May.	Departure from normal, May 1904.	Percentage departure from normal.
	Inches.	Inch.	Inches.	
Gurgaon	1·36	0·48	+ 0·88	+ 183
Rohtak	0·76	0·61	+ 0·15	+ 25
Delhi	1·36	0·74	+ 0·62	+ 84
Karnal	1·59	0·53	+ 1·06	+ 200

The deficiency was, on the other hand, most marked in the west, where, as is shown by the following data of the districts, the month's rainfall was, except in Montgomery and Mooltan, very light:—

District.	Rainfall. Average actual, May 1904.	Average normal, May.	Departure from normal, May 1904.	Percentage departure from normal.
	Inch.	Inch.	Inch.	
Montgomery	0·35	0·31	+ 0·04	+ 13
Jhang	0·13	0·33	— 0·20	— 61
Dera Ghazi Khan	0·03	0·44	— 0·41	— 93
Muzaffargarh	0·06	0·24	— 0·18	— 75
Mooltan	0·22	0·23	— 0·01	— 4
Shahpur	0·16	0·66	— 0·50	— 76
Mianwali	0·06	0·46	— 0·40	— 87

The periods of rainfall were the same as in the United Provinces, *viz.*, between the 5th and 9th, the 13th and 17th, and the 25th and 29th, and the falls exceeding 1·50″ in 24 hours were as follows:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8, A.M. of date.
			Inches.
Karnal	Karnal	8th May	2·10
Gurdaspur	Dalhousie	14th „	1·93
Jind State	Safidan	„ „	1·60
Gurgaon	Sohna	15th „	2·00

No rain fell during the month in the Dera Ismail Khan district of the North-west Frontier Province and very

little in other parts of the division. The following gives data for the districts:—

District.	Rainfall. Average actual, May, 1904.	Average normal, May.	Departure from normal, May, 1904.	Percentage departure from normal.
	Inches.	Inches.	Inch.	
Peshawar	0·34	0·69	—0·35	— 51
Hazara	1·53	1·67	—0·14	— 8
Kohat	0·76	1·06	—0·30	— 28
Bannu	0·12	0·79	—0·67	— 85
Dera Ismail Khan	0	0·49	—0·49	— 100

In Baluchistan there was no rain. In Kashmir the weather was showery throughout the month, but the rainfall was irregularly distributed, some stations reporting more and others less than the normal amount.

Western Rajputana received scattered showers between the 6th and the 9th and the 13th and the 18th and the total rainfall of the month was twice as heavy as usual. In eastern Rajputana there were three showery periods, *viz.*, between the 6th and the 9th, the 13th and the 18th, and the 27th and the 31st. The total rainfall was much heavier than the small anticipated fall, and the following amounts exceeding 1·00″ in 24 hours were registered during the month:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Bharatpur	Uchen	14th May	1·02
Alwar	Alwar	15th ,,	1·75
	Mandawar	,, ,,	1·48
Dharatpur	Bhasawar	,, ,,	1·22
	Wair	,, ,,	1·17
Alwar	Tijara	16th ,,	2·22
Jaipur	Mahwa	,, ,,	1·07
Alwar	Rajgarh	,, ,,	1·05
Dungarpur	Dungarpur	30th ,,	1·54
Udaipur	Kherwara	,, ,,	1·16
Dungarpur	Dungarpur	31st ,,	2·40
Banswara	Banswara	,, ,,	1·77
Udaipur	Udaipur	,, ,,	1·65
Kusalgarh	Kusalgarh	,, ,,	1·50
Kotah	Bakani	,, ,,	1·35
	Antah	,, ,,	1·23
Ajmer Merwara	Nasirabad	,, ,,	1·22

In the Central India states the rainfall was much lighter than in Rajputana, but fell on about the same dates. The following falls exceeding 1·00″ in 24 hours were recorded in this region:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Gwalior	Jhabua	30th May	1·30
	Do.	31st ,,	2·10
	Sailana	,, ,,	1·75
	Ali Rajpur	,, ,,	1·16

In the Central Provinces the weather was fine with a few scattered showers throughout the whole month except in the eastern division, where heavy rain occurred on the 26th, 27th, and 28th due to the cyclonic storm mentioned above. The following were the falls exceeding 2·00″ in 24 hours recorded during this burst of rainfall:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Raipur	Baloda	27th May	4·75
Feudatory States	Kanker	,, ,,	4·10
Raipur	Raipur	,, ,,	3·16
	Dhamtari	,, ,,	2·95
Bilaspur	Janjgir	,, ,,	2·77
Raipur	Simga	,, ,,	2·30
Bilaspur	Korba	,, ,,	2·20
Feudatory States	Kawardha	,, ,,	2·20
Bilaspur	Bilaspur	,, ,,	2·09

The following gives comparative data for the districts in the eastern division and shows that the total rainfall was about three times as heavy as usual:—

District.	Rainfall. Average actual, May 1904.	Average normal, May.	Departure from normal, May 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Raipur	2·54	0·77	+1·77	+230
Bilaspur	2·87	0·76	+2·11	+278
Sambalpur	2·16	1·23	+0·93	+ 76

The northern districts of the Nizam's dominions, like the adjoining parts of the Central Provinces, received lighter rainfall than usual during the month while the southern districts, like the adjoining parts of Madras, received more than usual. There were no heavy falls during the month.

Over nearly the whole of the Bombay Presidency the month's rainfall was much less than usual. In the Konkan, Khandesh, and the northern divisions the rainfall was unimportant and much below the average, but in the Deccan frequent thunderstorms occurred and the total rainfall exceeded the average in some districts.

The following gives comparative data of the contained districts :—

Division.	District.	Rainfall			
		Average actual, May 1904.	Average normal, May.	Departure from normal, May 1904.	Percentage departure from normal.
		Inches.	Inches.	Inches.	
Karnatak	Dharwar	3·49	2·50	+0·99	+40
	Bijapur	0·99	1·51	—0·52	—34
	Belgaum	3·77	2·33	+1·44	+62
South Deccan	Satara	1·21	1·43	—0·22	—15
	Sholapur	0·60	1·09	—0·49	—45
	Poona	0·25	1·05	—0·81	—76

The rainfall of the month was in excess in practically all divisions of the Madras Presidency. The weather was fine during the first week, but thereafter showers set in and continued more or less generally till the close of the month. During the last week there was heavy general rain due in part to the cyclonic storm of that period. Falls exceeding 4″ in 24 hours were recorded at the following large number of stations :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Travancore State.	Parur	22nd May	4·35
Nellore	Kanuparti	23rd "	4·73
Travancore State	Kottayam Engr's Office	24th "	5·44
	Changanachery	" "	4·93
	Vaikam	" "	4·87
	Kottayam	" "	4·53
	Alleppey	25th "	4·02
Godavari	Pentapad	26th "	7·71
Malabar	Tellicherry	" "	7·10
	Payyanur	" "	6·08
Godavari	Tanuku	26th May	5·35
Malabar	Tirurangadi	" "	4·95
	Cannanore	" "	4·60
Godavari	Narasapur	" "	4·38
Malabar	Cherpulcherry	" "	4·09

The following gives a statement of the rainfall of the month in the 22 collectorates of the presidency :—

Collectorate.	Rainfall			
	Average actual, May 1904.	Average normal, May.	Departure from normal, May 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Ganjam	4·17	2·52	+1·65	+65
Vizagapatam	6·96	2·64	+4·32	+164
Godavari	5·00	1·74	+3·26	+187
Kistna	4·65	1·43	+3·22	+225
Nellore	3·15	1·28	+1·87	+146
Chingleput	1·62	1·37	+0·25	+ 18
Madras	0·92	2·00	—1·08	— 54
North Arcot	4·02	2·50	+1·52	+ 61
South Arcot	3·84	2·13	+1·71	+ 80
Tanjore	3·17	2·04	+1·13	+ 55
Trichinopoly	4·03	3·05	+0·98	+ 32
Madura	3·85	2·00	+1·85	+ 93
Tinnevelly	1·72	1·38	+0·34	+ 25
Malabar	9·81	7·77	+2·04	+ 26
South Canara	4·85	5·84	—0·99	— 17
Salem	7·84	3·95	+3·89	+ 98
Coimbatore	6·14	3·18	+2·96	+ 93
Nilgiris	7·73	5·17	+2·56	+ 50
Cuddapah	1·81	1·72	+0·09	+ 5
Anantapur	4·15	1·92	+2·23	+116
Bellary	2·57	1·84	+0·73	+ 40
Kurnool	1·59	1·19	+0·40	+ 34

The rainfall at the extra-Indian stations was as follows:—

STATION.	RAINFALL.			
	Average actual, May 1904.	Average normal, May.	Departure from normal, May 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Trincomalee	3·35	2·46	+0·89	+ 36
Colombo	9·93	11·12	—1·19	— 11
Kabul	0·39	0·54	—0·15	— 28
Kashgar	0·15	0·88	—0·73	— 83
Meshed	3·98	0·74	+3·24	+438
Teheran	1·04	0·33	+0·71	+215
Ispahan	0·15	0·11	+0·04	+ 36
Bushire	0	0	0	0
Jask	0	0	0	0
Muscat	0	0	0	0
Baghdad	0·98	0·24	+0·74	+308
Aden	0·50	0·19	+0·31	+163
Perim	0	0·37	—0·37	—100
Seychelles	0·08	4·51	—4·43	— 98
Zanzibar	21·25	10·62	+10·63	+100
Mauritius	3·58	3·07	+0·51	+ 17

The preceding data show that the month's rainfall was very irregularly distributed. There was some excess on the eastern and defect on the western side of Ceylon. Afghanistan and Kashgaria received less rain than usual. Southern Persia and northern Arabia received no rain, while over northern Persia and Asiatic Turkey the fall was in large excess. In the south-east trades region the rainfall was very irregular.

Crop Report.

Madras.—The standing crops were fair and harvests continued with fair to normal outturn.

Bombay.—The preparation of land for autumn cultivation was in general progress and the sowing of autumn crops continued or commenced. Fodder and water were generally sufficient.

Bengal.—Prospects were generally good though excessive rain towards the end of the month somewhat retarded the weeding of rice and jute.

United Provinces.—Hail occurred in some districts but no appreciable damage was done.

Punjab.—The condition and prospects of extra-spring and autumn crops were generally good, and the outturn of the spring crops was good in most districts. Want of labour (due to plague) had affected the spring crops in parts of Shahpur.

North-west Frontier Province.—The outturn of the spring crops was much above the average.

Burma.—More rain was required in the Kyaukpadaung district, otherwise the standing crops were mostly doing well.

Central Provinces.—Preparation of land for autumn sowings continued.

Assam.—Prospects of tea, sugarcane, and early rice were fair, but the weather was too wet for tea in Darrang.

Mysore.—The prospects of the season were good.

Rajputana.—Agricultural operations were satisfactory and the prospects of spring crops were generally good.

Central India.—The standing crops were good in Baghelkhand.

W. L. DALLAS.

TABLE I.—Abstract of Observations taken at 8 A.M. at 231 Stations in India, Burma, etc., in May, 1904.

Table

Abstract of Observations taken at 8 A.M. at 231

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 A.M., in inches.								Temperature of air.												
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
					+·009																			
	I.—Burma Coast and Bay Islands.												89·7	−0·6	69·0	0	83·4	−0·3	12·8					21·1
1	Tenasserim and Bay Islands.	Car-Nicobar*	25	29·830		29·782	29·894	15th	29·757	7th	·137	80·1	86·5		76·2		81·4		10·3	90·1	3rd	74·1	31st	16·0
		Port Blair	61	29·809	+·017	29·801	29·865	8th	29·754	19th	·111	81·7	87·1	−1·8	78·1	−0·3	82·6	−1·1	9·0	93·2	2nd	74·8	30th	18·4
		Mergui	96	29·803	+·019	29·831	29·874	8th	29·724	18th & 22nd.	·150	79·8	88·3	−0·8	75·0	+1·2	81·7	+0·2	13·3	91·6	3rd, 8th & 27th,	73·4	6th & 12th	18·2
		Tavoy	26	29·864	−·002	29·821	29·927	8th	29·783	18th	·144	79·0	87·7	−0·7	?	?	?	?	?	92·2	3rd	?	?	?
		Moulmein	94	29·756	−·008	29·788	29·833	8th	29·645	19th	·188	77·7	88·0	−1·3	74·6	−1·2	81·3	−1·3	13·4	95·0	2nd & 3rd	72·3	4th, 5th & 29th.	22·7
2	Lower Burma	Rangoon	57	29·799	+·011	29·793	29·886	8th	29·682	19th	·204	81·5	91·6	−0·3	77·4	+0·1	84·4	−0·1	14·2	98·1	7th	75·4	4 days.	22·7
		Bassein	27	29·814	+·013	29·778	29·893	8th	29·721	19th	·172	83·0	92·6	+1·1	78·5	+1·5	85·5	+1·3	14·1	98·7	3rd	74·8	20th	23·9
		Diamond Island.	41	29·809	+·011	29·785	29·889	8th	29·713	19th	·176	83·5	88·1	−0·5	79·5	+0·7	83·8	+0·1	8·6	90·9	9th	73·2	19th	17·7
5	Arakan	Akyab	20	29·799	+·006	29·761	29·893	8th	29·696	19th	·198	82·9	90·0	−0·6	77·9	−0·3	84·0	−0·5	12·1	92·9	3rd	73·2	21st	19·7
3	Central Burma.	Toungoo	183	29·655	+·013	29·778	29·747	8th	29·538	18th	·209	84·3	95·1	−0·6	75·2	−1·5	85·2	−1·1	19·9	101·4	3rd & 8th.	71·1	4th	30·3
					+·016								96·6	+0·5	76·1	−0·3	86·4	+0·1	20·5					32·7
	II.—Burma, Inland.																							
3	Central Burma.	Thayetmyo	130	29·705	+·029	29·775	29·800	8th	29·596	19th	·204	85·6	99·4	+1·0	75·8	−1·9	87·6	−0·5	23·6	105·5	3rd & 5th.	69·0	14th	36·5
		Minbu	*165*	29·642	+·019	29·750	29·739	8th	29·550	19th	·189	84·2	100·2	+2·7	79·5	+1·8	89·9	+2·3	20·7	107·1	4th	74·6	14th	32·5
4	Upper Burma	Yamethin	657	29·162	+·017	29·767	29·255	8th	29·059	19th	·196	82·6	95·4	+0·1	76·6	+0·4	86·0	+0·3	18·8	102·3	3rd	72·2	14th	30·1
		Monywa	*280*	29·538		29·757	29·640	8th	29·438	19th	·202	84·0	100·0		78·8		89·4		21·2	105·7	3rd	75·2	14th	30·5
		Mandalay	250	29·549	+·005	29·746	29·656	8th	29·412	19th	·214	85·2	98·6	−0·4	78·3	−0·7	88·5	−0·6	20·3	105·1	3rd & 4th	73·8	21st	31·3
		Myitkyina	458	29·347		29·765	29·437	8th	29·253	28th	·183	78·2	90·1		72·3		81·1		17·8	97·9	19th	64·1	1st	33·8
		Bhamo	*381*	29·417	+·009	29·755	29·526	8th	29·289	19th	·237	77·4	92·6	−1·1	71·5	−1·2	82·1	−1·2	21·1	98·0	18th	64·1	1st	33·9
												71·9	82·1		65·0		73·6		17·1	86·9	3rd	60·6	2nd	26·3
4(a)	Burma Hill Stations.	Maymyo	3,545	Not recorded																				
		Lashio	*2,751*									72·7	86·1	−2·2	65·8	−1·0	75·9	−1·6	20·3	92·5	18th	60·0	1st	32·5
					+·006								84·7	−1·8	71·7	−0·6	78·2	−1·2	13·0					25·6
	III.—Assam.																							
7	Surma	Silchar	104	29·712	+·014	29·770	29·810	8th	29·543	28th	·267	76·5	87·2	−1·5	72·6	+0·1	79·9	−0·7	14·6	94·0	19th	65·3	3rd	28·7
9	Brahmaputra	Sibsagar	333	29·473	+·002	29·767	29·592	2nd	29·354	19th	·238	74·6	83·2	−2·7	71·2	−0·5	77·2	−1·6	12·0	90·2	19th & 20th.	66·0	4th	24·2
		Dhubri	115	29·658	+·002	29·730	29·771	8th	29·447	28th	·324	76·1	84·6	−1·3	71·9	−1·3	78·3	−1·3	12·7	92·2	18th	66·2	6th	26·0
		Gauhati	195	29·603		29·758	29·721	8th	29·437	28th	·284	75·8	85·5		72·4		79·0		13·1	91·5	18th, 19th & 21st.	68·0	4th	23·5
		Tezpur	252	29·542		29·755	29·656	8th	29·408	28th	·248	75·0	84·6		72·0		78·3		12·6	91·1	20th	67·9	4th	23·2
		Dibrugarh	353	29·468		29·786	29·581	8th	29·345	19th	·236	74·1	83·2		70·1		76·7		13·1	92·2	19th	64·0	4th	28·2
					+·011								91·5	−1·9	75·3	−1·1	83·4	−1·5	16·2					30·9
	IV.—Bengal and Orissa.																							
6	East Bengal	Chittagong	87	29·709	+·006	29·743	29·810	8th	29·550	28th	·260	81·8	89·0	+0·4	75·0	−0·4	82·0	0	14·0	92·5	18th & 19th.	69·1	3rd	23·4
		Noakhali	43	29·734		29·724	29·854	2nd	29·577	28th	·277	82·1	88·0		75·1		81·6		12·9	92·2	19th & 20th.	65·9	3rd	26·3
		Comilla	36	29·752		29·738	29·891	2nd	29·559	28th	·332	79·4	89·1		73·3		81·2		15·8	94·3	19th	65·8	3rd	28·5
		Sirajganj	49	29·718		29·717	29·813	8th	29·441	28th	·372	77·6	88·0		72·4		80·2		15·6	95·3	6th	65·3	2nd	30·0
		Narayanganj	26	29·756	+·025	29·731	29·894	2nd	29·520	28th	·374	80·5*	89·7	−1·6	74·7	−1·1	82·2	−1·4	15·0	93·1	4 days	68·3	2nd & 3rd	24·8
		Barisal	13	29·762	+·018	29·720	29·900	2nd	29·566	28th	·334	83·5	90·6	−1·3	75·6	−1·8	83·1	−1·6	15·0	93·3	18th & 19th.	69·1	6th & 11th	24·2
		Mymensingh	63	29·719	+·010	29·733	29·816	8th	29·467	28th	·349	77·9	86·1	−2·5	73·1	−0·7	79·6	−1·6	13·0	92·2	19th	67·1	2nd	25·1
		Faridpur	46	29·726		29·722	29·829	2nd	29·492	28th	·337	80·1	90·0		73·4		81·7		16·6	93·3	1st	64·0	3rd	29·3
10	Deltaic Bengal	Jessore	33	29·717	+·007	29·697	29·850	2nd	29·490	28th	·360	81·7	92·2	−2·6	75·4	−1·4	83·8	−2·0	16·8	96·5	1st	68·2	6th	28·3
		Calcutta	21	29·717	+·009	29·681	29·826	8th	29·543	28th	·283	83·5	93·3	−1·2	76·7	−0·7	85·0	−1·0	16·6	98·0	20th	67·8	12th	30·1
		Saugor Island	25	29·715	+·016	29·684	29·824	8th	29·578	28th	·246	85·4	91·5	−0·3	80·8	−0·2	86·2	−0·2	10·7	94·9	14th	71·5	12th	23·4
		Krishnagar	47	29·693		29·688	29·795	2nd	29·483	28th	·312	81·3	95·1		76·8		85·9		18·3	105·0	1st	69·5	14th	35·5
		Midnapore	149	29·572		29·667	29·688	9th	29·424	28th	·264	83·9	97·2		78·0		87·6		19·2	106·3	1st	71·7	6th & 7th	35·2

* Mean of 30 days.

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

Note 1.—When a query is inserted against any reading or in the returns

Note 2.—The data from which divisional means of the figure columns

I.

Stations in India, Burma, etc., in May, 1904.

Wind Direction. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	Wind Velocity. Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	Hygrometry, 8 A.M. Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Cloud. Mean cloud amount at 8 A.M.	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, 1904.	Normal rainfall for period, 1st to 31st May.	Departure from normal of period, 1st to 31st May 1904.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
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	58
														85	−1·0	·911	−·014	6·1	−1·0				10·90	14·66	4·01					I.—Burma Coast and Bay Islands.		
					3	8	3	1	S 48° W	2·0			2·0	91		·934		8·6		16			13·15			13·15			2·92	Car-Nicobar*	Tenasserim and Bay Islands.	1
15																																
		2	1	4	4	8	9	3	S 53° W	8·1	7·3	+11	9·0	87	+0·5	·946	−·020	7·6	+0·7	15			11·99	17·09	−5·10	11·99	17·09	−5·10	2·49	Port Blair,		
					3	2	2	3	S 83° W	2·6	2·1	+24	2·3	90	+2·3	·900	−·005	4·3	−2·0	18	18·00	0	13·85	19·26	−5·41	13·85	19·26	−5·41	1·83	Mergui,		
19	1	1																														
						1	1		S 66° W	1·0				91	+3·5	·896	+·002	5·7	−1·1	18	17·70	+0·30	12·69	26·05	−13·36	12·69	26·05	−13·36	2·11	Tavoy,		
29																																
					2	2			S 23° W	1·5	3·1	−52	1·7	87	−0·9	·829	−·058	7·9	+0·6	21	17·40	+3·60	23·22	19·40	+3·82	23·22	19·40	+3·82	6·60	Moulmein,		
27																																
				3	1	5	6	1	S 28° W	4·4	3·9	+13	3·7	84	−4·0	·910	−·008	6·8	−0·2	11	14·00	−3·00	5·76	11·22	−5·46	5·76	11·22	−5·46	1·93	Rangoon	Lower Burma	2
10																																
		2		3	3	7	9	7	S 79° W	5·0	5·0	0		82	−4·1	·934	−·001	1·1	−4·9	9	12·10	−3·10	2·70	10·30	−7·60	2·70	10·30	−7·60	0·97	Bassein,		
	2	3	1	2	3	4	6	10	N 71° W	8·0	4·5	+78	8·0	78	−0·5P	·901	−·005	7·3	+0·1	8	11·18	−3·18	8·61	10·43	−1·82	8·61	10·43	−1·82	2·45	Diamond Island,		
		15	2	10	1	2		1	N 84° E	2·4	7·0	−66	2·3	85	+0·9	·960	−·007	5·6	−1·3	11	11·50	−0·50	11·22	11·88	−0·66	11·22	11·88	−0·66	3·31	Akyab	Arakan	5
13			1	9	8				S 29° E	10·0	3·5	+186	9·9	76	−6·5	·896	−·027	6·3	−0·6	8	10·10	−2·10	5·77	6·28	−0·51	5·77	6·28	−0·51	1·77	Toungoo	Central Burma.	3
														74	−2·7	·813	−·015	3·7	−1·5				3·43	5·41	−2·01					II.—Burma Inland.		
	1	1		5	21	2	1		S 4° E	5·2	7·3	−29		69	−3·4	·844	+·001	2·9	−2·2	7	6·90	+0·10	2·93	4·13	−1·20	2·93	4·13	−1·20	0·82	Thayetmyo	Central Burma	3
	1	1		24	1	1	1	2	S 43° E	7·8			9·3	68	−8·6	·796	−·046	3·0	−1·4	4	6·40	−2·40	1·23	6·01	−4·78	1·23	6·01	−4·78	0·46	Minbu	Upper Burma	4
1		1	1	22	6				S 40° E	10·0			10·5	73	−3·6	·811	−·012	2·6	−1·2	5	8·10	−3·10	2·12	6·76	−4·64	2·12	6·76	−4·64	1·03	Yamethin,		
2	7	1		3	8	5	1	4	S 10° E	3·2			3·3	69		·806		3·1		5	7·20	−2·20	3·89	3·54	+0·35	3·89	3·54	+0·35	1·68	Monywa,		
	3	1		3	21	2			S 3° E	6·9			7·0	68	−2·6	·820	−·025	2·4	−2·5	10	6·60	+3·40	6·03	5·55	+0·48	6·03	5·55	+0·48	1·15	Mandalay,		
1	1	5		4					N 82° E	2·1			2·1	84		·821		0·5		7			3·58			3·58			1·58	Myitkyina,		
12			9						S 27° E	2·7			3·2	85	+4·7	·796	+·005	5·3	−0·3	11	10·40	+0·60	4·21	6·46	−2·25	4·21	6·46	−2·25	0·80	Bhamo.		
24		2	1		2	2																										
		3	2		9	14	1	2	S 24° W	3·0				83		·651		4·8		13	12·80	+0·20	9·29	10·39	−1·10	9·29	10·39	−1·10	2·46	Maymyo	Burma Hill Stations.	4(a)
	4	12	1		3	7	2	2	N 10° E	1·2				82	−1·5	·664	−·006	6·1	−0·7	12			4·56	6·13	−1·57	4·56	6·13	−1·57	0·66	Lashio,		
														90	+2·7	·800	+·011	8·3	+0·8				14·41	13·30	+1·12					III.—Assam.		
28			2	1					S 75° E	1·0	3·4	−71	1·7	88	+2·5	·861	+·036	8·2	+0·9	22	16·50	+5·50	13·61	17·24	−3·63	13·61	17·24	−3·63	2·95	Silchar	Surma	7
9		1	15	1	4	1			N 61° E	2·7	2·9	− 7	2·5	95	+3·5	·817	−·007	9·5	+1·4	18	15·90	+2·10	10·98	12·62	−1·64	10·98	12·62	−1·64	1·65	Sibsagar	Brahmaputra	3
1	1	6	13	5	2	1		1	S 89° E	6·8	7·0	− 3	8·0	99	+2·1	·806	+·005	7·2	+0·2	17	15·70	+1·30	22·82	15·43	+7·39	22·82	15·43	+7·39	5·78	Dhubri,		
14	3	8	2		1	1	2		N 41° E	2·0			2·2	89		·798		8·0		16	14·20	+1·80	11·50	9·76	+1·74	11·50	9·76	+1·74	2·12	Gauhati,		
4		12	11	1	1	1	1		N 72° E	4·3			4·6	89		·778		8·7		18	14·10	+3·90	17·56	10·12	+7·44	17·56	10·12	+7·44	5·83	Tezpur,		
8	1	11	8	1	1		1		N 65° E	1·4			1·3	87		·736		8·0		14	15·20	−1·20	10·00	14·60	−4·60	10·00	14·60	−4·60	2·01	Dibrugarh,		
														82	+0·6	·868	−·035	5·5	+0·3				10·39	7·33	+3·07					IV.—Bengal and Orissa.		
	1	1	4	16	7	1	1		S 39° E	6·8	6·4	+ 6	6·2	81	−2·4	·877	−·037	4·4	−1·7	14	10·55	+3·45	11·80	10·31	+1·49	11·80	10·31	+1·49	2·62	Chittagong	East Bengal	6
			2	11	6	9	2	1	S 3° E	5·4			5·8	82		·905		4·6		16	10·45	+5·55	18·16	10·06	+8·10	18·16	10·06	+8·10	2·76	Noakhali,		
	2	2	6	10	10	1			S 45° E	7·0			5·8	85		·856		3·6	.	19	11·89	+7·11	12·77	11·01	+1·76	12·77	11·01	+1·76	1·54	Comilla,		
8		2	6	7	6	2			S 45° E	3·8			3·9	89		·841		6·4		19	10·16	+8·84	15·36	7·95	+7·41	15·36	7·95	+7·41	1·92	Sirajganj.		
2		4	5	8	8	4			S 38° E	5·3	6·2	−15	4·5	87*	+2·2	·913*	−·016	6·5	+0·2	19	11·53	+7·47	9·83	9·44	+0·39	9·83	9·44	+0·39	1·30	Narayanganj.		
7		1	1	3	14	3	1	1	S	5·8				80	−2·4	·927	−·041	4·4	−1·9	14	9·84	+4·16	9·87	9·19	+0·68	9·87	9·19	+0·68	2·29	Barisal,		
2			11	12	2	2		2	S 57° E	3·8			2·6	84	−1·2	·807	−·033	6·6	+0·4	21	13·48	+7·52	22·50	12·96	+9·54	22·50	12·96	+9·54	5·25	Mymensingh.		
2	1		5	9	12	1	1		S 29° E	5·5			4·7	84		·875		4·5		15	10·72	+4·28	8·69	8·30	+0·39	8·69	8·30	+0·39	1·27	Faridpur,		
13			2	4	11	1			S 15° E	2·9	4·9	−41	2·8	85	+1·2	·930	−·042	5·7	−0·2	12	9·74	+2·26	14·53	7·94	+6·59	14·53	7·94	+6·59	2·09	Jessore	Deltaic Bengal.	10
3		1	2	3	13	9			S 5° W	5·4	7·1	−24		80	+0·6	·922	−·022	6·3	+1·3	7	7·46	−0·46	9·84	5·68	+4·16	9·84	5·68	+4·16	2·92	Calcutta,		
	2																															
				2	18	8	1		S 12° W	21·0	15·3	+37		79	−2·2	·963	−·046	6·1	−0·9	5	6·71	−1·71	2·95	5·09	−2·14	2·95	5·09	−2·14	1·07	Saugor Island		
1			4	11	12	4	1		S 23° E	4·6			5·0	83		·892		5·0		8	7·74	+0·26	5·21	6·55	−1·34	5·21	6·55	−1·34	1·33	Krishnagar.		
3	2			1	23	1		1	S 3° W	5·7			5·0	78		·905		2·8		10	7·05	+2·95	5·20	5·69	−0·49	5·20	5·69	−0·49	1·46	Midnapore.		

of any station, the data for that station are not utilized in calculating the provincial departures from normal.

Nos. 41, 43, and 45 are derived are incomplete.

* Mean of 30 days.

Table

Abstract of Observations taken at 8 A.M. at 231 Stations

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 A.M., in inches.								Temperature of air.												
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
11	Central Bengal.	Bankura	298	29·388		29·636	29·500	9th	29·231	28th	·269	83·2	98·7		77·1		87·9		21·6	109·1	1st	68·4	9th	40·7
		Raniganj	334	29·380		29·667	29·482	9th	29·205	28th	·277	81·3	98·3		76·7		87·5		21·6	109·4	1st	70·9	6th, 14th & 24th.	38·5
		Burdwan	99	29·626	+·005	29·673	29·728	9th	29·416	28th	·312	82·2	95·3	-3·1	76·8	-1·0	86·1	-2·1	18·5	105·4	1st	69·3	14th	36·1
		Naya Dumka	489	29·224		29·671	29·738	9th	29·038	28th	·310	80·8	95·4		76·0		85·7		19·4	107·0	1st	69·4	14th	37·6
		Berhampore	67	29·667	+·005	29·683	29·791	9th	29·404	28th	·387	79·9	92·8	-3·7	75·0	-1·6	83·9	-2·7	17·8	104·3	1st	65·7	11th	38·6
		Rampur Boalia	70	29·671		29·696	29·761	8th	29·372	28th	·389	79·8	91·5		72·5		82·5		18·0	102·0	1st	61·1	3rd	40·9
		Malda	72	29·645		29·669	29·736	9th	29·398	28th	·338	79·1	91·4		74·0		82·7		17·4	101·1	18th	67·0	2nd	34·1
		Bogra	61	29·690	+·027	29·704	29·792	8th	29·398	28th	·394	76·7	88·9	-3·6	72·3	-2·2	80·6	-2·9	16·6	95·2	18th	62·7	2nd	32·5
12	North Bengal	Dinajpur	123	29·634	+·019	29·713	29·741	8th	29·389	28th	·352	77·1	88·2	-3·5	72·4	-1·9	80·3	-2·7	15·8	96·3	18th	64·5	2nd	31·8
		Rangpur	123	29·661		29·741	29·772	8th	29·404	28th	·368	77·1	86·3		71·4		78·9		14·9	93·2	18th	66·8	1st & 2nd.	26·4
		Jalpaiguri	284	29·486	+·006	29·731	29·787	8th	29·272	28th	·315	76·4	86·2	-2·1	71·5	-0·8	78·9	-1·5	14·7	90·9	20th & 23rd.	63·1	3rd	27·8
		Cooch Behar	156	29·622		29·735	29·726	8th	29·403	28th	·323	76·7	85·9		72·8		79·4		13·1	91·9	23rd	66·6	13th	22·3
17	North Bihar	Purnea	125	29·621	+·014	29·702	29·728	8th	29·438	28th	·290	78·8	93·1	?	73·1	-1·1	83·1	?	20·0	102·3	19th	66·1	2nd	35·2
14	Orissa	Balasore	50	29·680	+·005	29·672	29·793	9th	29·570	13th	·223	85·0	96·8	-0·8	77·8	-0·9	87·3	-0·9	19·0	105·5	4th	70·4	6th & 7th.	35·1
		False Point	21	29·717	+·001	29·679	29·837	8th	29·594	13th	·243	84·8	90·0	-1·0	79·6	-0·1	84·8	-0·6	10·4	98·5	14th	69·1	7th	29·4
		Cuttack	80	29·651	+·005	29·674	29·761	8th	29·555	20th	·206	84·8	99·8	-1·8	78·9	-1·1	89·4	-1·5	20·9	106·4	21st	70·7	13th	35·7
		Puri	24	29·722		29·685	29·835	8th	29·628	20th	·207	83·5	87·9		80·5		84·2		7·4	90·2	15th	72·6	13th	17·6
	V.—Gangetic Plain and Chota Nagpur.				+·002								99·3	-3·6	76·3	-1·6	87·8	-2·6	23·0					37·2
15	Chota Nagpur	Hazaribagh	2,007	27·700	-·018	29·632	27·798	8th	27·615	28th	·183	82·3	98·8	?	74·4	-1·1	86·6	?	24·4	105·1	22nd	67·8	12th	37·3
		Ranchi	2,128	27·595	-·012	29·649	27·689	8th	27·490	28th	·199	81·0	96·3	-3·3	73·1	-2·9	84·7	-3·1	23·2	103·7	3rd, 4th & 22nd.	66·9	6th & 7th.	36·8
16	South Bihar	Daltonganj	*730?*	28·949		29·629	29·072	8th	28·857	21st	·215	84·7	105·0		78·1		91·6		26·9	113·1	22nd	71·5	27th & 28th.	41·6
15	Chota Nagpur	Purulia	*816*	28·887		29·647	28·992	9th	28·770	28th	·222	83·0	99·9		76·4		88·1		23·5	108·2	1st	65·4	6th	42·8
		Chaibassa	*760*	28·941	+·001	29·649	29·045	9th	28·836	28th	·209	82·8	101·4	-3·7	77·1	-2·9	89·3	-3·3	24·3	110·4	4th	69·5	7th	40·9
17	South Bihar	Gaya	375	29·307	-·006	29·633	29·408	7th	29·207	29th	·201	85·2	96·8	-8·1	78·3	-1·2	87·6	-4·7	18·5	105·2	1st & 2nd	71·8	12th & 28th.	33·4
		Dehri	351	29·330		29·632	29·435	8th	29·229	29th	·206	85·3	102·6		78·9		90·8		23·7	110·4	3rd	72·0	12th & 28th.	38·4
		Patna	183	29·529	+·014	29·665	29·623	9th	29·434	28th	·189	82·2	97·2	-3·0	75·8	-1·9	86·5	-2·5	21·4	105·5	1st	70·7	7th	34·8
		Arrah	190	29·513		29·655	29·610	9th	29·404	29th	·206	83·2	98·3		76·8		87·6		21·5	104·5	1st & 2nd	72·1	7th & 9th.	32·4
		Buxar	239	29·449		29·643	29·548	8th	29·341	29th	·207	84·1	100·3		77·3		88·8		23·0	105·0	1st, 2nd & 21st.	71·6	9th & 2 th.	33·4
1	North Bihar	Bhagalpur	160	29·560		29·673	29·669	9th	29·388	28th	·281	81·2	95·1		74·7		84·9		20·4	106·3	1st	69·6	2nd	36·7
		Darbhanga	166	29·563	+·014	29·684	29·655	8th	29·457	28th	·198	80·5	91·9	-3·7	74·6	-1·7	83·3	-2·7	17·3	99·3	17th & 18th.	68·0	2nd	31·3
		Muzaffarpur	178	29·541		29·674	29·641	8th	29·433	28th	·208	81·1	92·9		74·0		83·5		18·9	100·2	1st	67·2	25th	33·0
		Motihari	224	29·506		29·690	29·657	8th	29·390	28th	·267	80·6	93·0		73·1		83·1		19·9	99·4	1st	66·3	25th	33·1
		Chapra	181	29·521		29·656	29·619	9th	29·417	29th	·202	82·5	97·4		76·0*		86·3*		21·4	105·4	1st	70·6	7th & 30th.	34·8
18	United Provinces (East).	Benares	267	29·404	-·008	29·624	29·506	8th	29·304	21st	·202	86·7	103·8	-1·7	78·3	-0·6	91·1	-1·2	25·5	109·6	22nd	71·7	19th	37·9
		Allahabad	309	29·361	-·006	29·621	29·488	15th	29·250	21st	·238	87·9	104·7	-2·3	79·9	+0·4	92·3	-1·0	24·8	111·1	22nd	73·1	1st & 19th.	38·0
22	United Provinces (East Submontane.)	Gorakhpur	257	29·448	+·015	29·662	29·544	8th	29·383	20th	·211	81·7	96·0	-5·0	74·6	-2·7	85·3	-3·9	21·4	104·7	1s	67·0	6th & 26th.	37·7
19	South Oudh	Lucknow	368	29·309	+·004	29·634	29·460	16th	29·215	28th	·245	85·5	102·9	-2·1	77·7	-0·1	90·3	-1·1	25·2	108·8	2nd	71·3	28th	37·5
20	North Oudh	Bahraich	401	29·282	+·011	29·642	29·375	8th	29·152	29th	·223?	84·1	98·7	-4·3	75·4	-2·5	87·0	-3·4	23·3	106·6	1st	61·5	31st	45·1
21	United Provinces (Central).	Cawnpore	416	29·253	+·008	29·618	29·428	16th	29·157	28th	·271	87·5	101·3	-1·9	80·2	-0·4	92·3	-1·2	24·1	110·5	12th	72·3	16th	38·2
		Mainpuri	516	29·147	+·004	29·616	29·269	15th	29·048	6th	221	87·0	106·6	?	74·3	?	90·5	?	32·3	113·2	4th, 22nd & 24th.	69·7	15th	43·5

* Mean of 25 days.

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

Note 1.—When a query is inserted against any reading or in the returns of any

Note 2.—The data from which divisional means of the figure columns Nos. 4,

I—*continued.*

in India, Burma, etc., in May, 1904—continued.

Wind Direction. Number of winds from Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	Wind Velocity. Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	Hygrometry, 8 A.M. Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Cloud. Mean cloud amount at 8 A.M.	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 1904.	Normal rainfall for period, 1st to 31st May.	Departure from normal of period, 1st to 31st May, 1904.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
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	58
16			2	9	4				S 39° E	3·3			3·8	74		·826		2·9		6	6·19	− 0·19	6·33	3·89	+ 2·44	6·33	3·89	+ 2·44	1·71	Bankura	Central Bengal	11
21		2	3	2	1		1	1	S 85° E	2·6				77		·820		4·1		7	5·18	+ 1·82	4·87	3·77	+ 1·10	4·87	3·77	+ 1·10	1·02	Raniganj.		
3		3	2	5	4	8	3	3	S 18° W	4·7	5·5	− 15	4·7	82	+6·8	·912	+·029	7·1	+2·1	8	7·32	+ 0·68	6·75	6·35	+ 0·40	6·75	6·35	+ 0·40	1·25	Burdwan.		
4	1	2	12	8	3			1	S 72° E	5·2			5·8	78		·817		6·5		9	5·21	+ 3·79	6·19	3·60	+ 2·59	6·19	3·60	+ 2·59	2·35	Naya Dumka.		
	1		15	6	5	2		2	S 63° E	6·1	5·5	+ 11	5·3	86	+3·4	·878	−·026	7·5	+1·9	13	7·74	+ 5·26	14·58	5·41	+ 9·17	14·58	5·41	+ 9·17	4·58	Berhampore.		
20				6	4	1			S 24° E	5·7			5·8	85		·878		5·3		13	7·74	+ 5·26	15·65	5·54	+10·11	15·65	5·54	+10·11	5·17	Rampur Boalia.		
	1	7	8	12	1	1		1	S 79° E	8·0			7·4	85		·846		7·6		11	5·58	+ 5·42	7·22	3·85	+ 3·37	7·22	3·85	+ 3·37	3·11	Malda.		
5		1	14	4	5	2			S 61° E	4·2			3·9	84	+1·9	·781	−·070	6·2	+1·5	12	9·77	+ 2·23	11·74	8·04	+ 3·70	11·74	8·04	+ 3·70	2·66	Bogra.		
	2	11	11	4	2			1	N 74° E	5·1			4·9	85	+4·9	·792	−·011	7·3	+1·4	12	8·23	+ 3·77	11·50	8·45	+ 3·05	11·50	8·45	+ 3·05	3·20	Dinajpur.	North Bengal.	12
20		5	5	1					N 72° E	2·2			2·3	88		·818		5·2		17	11·19	+ 5·61	24·54	10·31	+14·23	24·54	10·31	+14·23	3·66	Rangpur.		
	1	6	14	5	1		1	3	N 81° E	1·5			1·9	87	+3·5	·793	−·007	4·7	+0·4	16	12·42	+ 3·58	13·66	12·04	+ 1·62	13·66	12·04	+ 1·62	2·39	Jalpaiguri.		
8		2	20			1			N 87° E	2·8			2·8	87		·790		7·5		18	14·76	+ 3·24	22·96	15·26	+ 7·70	22·96	15·26	+ 7·70	4·57	Cooch Behar.		
2		13	9	7					N 80° E	5·1	3·4	+ 50	4·5	80	+4·1	·789	−·024	4·1	−0·3	6	5·34	+ 0·66	5·57	4·77	+ 0·80	5·57	4·77	+ 0·80	1·55	Purnea.	North Bihar.	17
1	1		1		9	18	1		S 32° W	9·7			7·2	69	−9·7	·836	−·135	4·4	−1·1	9	7·74	+ 1·26	3·09	5·97	− 2·88	3·09	5·97	− 2·88	0·66	Balasore.	Orissa.	14
				1	10	16	4		S 34° W	15·8	12·6	+ 25	16·4	80	−2·5	·953	−·062	6·8	+0·4	6	4·32	+ 1·68	3·12	5·23	− 2·11	3·12	5·23	− 2·11	0·99	False Point.		
2					12	14	3		S 31° W	5·8	5·1	+ 14		73	+1·0	880	−·024	5·1	+0·5	7	5·23	+ 1·77	5·30	4·24	+ 1·06	5·30	4·24	+ 1·06	2·31	Cuttack.		
1			1	1	1	27			S 39° W	20·4			20·0	87		1·006		5·2		3	3·39	− 0·39	2·04	2·89	− 0·85	2·04	2·89	− 0·85	1·04	Puri.		
														64	+7·0	·726	+·033	2·4	+0·6				3·14	1·63	+1·50					V.—Gangetic Plain and Chota Nagpur.		
	1	1	1	5	10	9	1	3	S 14° W	9·7	8·8	+ 10	8·6	55	+9·4	·610	+·076	3·1	0	6	3·93	+ 2·07	3·12	2·33	+ 0·79	3·12	2·33	+ 0·79	1·28	Hazaribagh.	Chota Nagpur.	15
1			2	4	11	8	2	3	S 16° W	7·0			8·3	60	+9·3	·632	+·027	1·8	−0·4	8	4·68	+ 3·32	5·38	2·08	+ 3·30	5·38	2·08	+ 3·30	1·53	Ranchi.		
17	6	1	3		1		1	2	S 9° E	6·2			4·9	51		·605		0·8		6	2·07	+ 3·93	4·02	1·04	+ 2·98	4·02	1·04	+ 2·98	2·45	Daltonganj.	South Bihar.	16
1	1	1	5	9	5	4	3	2	S 24° E	4·4			5·4	71		·797		2·2		9	5·26	+ 3·74	5·32	2·92	+ 2·40	5·32	2·92	+ 2·40	2·02	Purulia.	Chota Nagpur.	15
17		1		4	4	2	3		S 7° W	2·4			2·1	73	+11·7	·816	+·027	2·5	0	12	5·65	+ 6·35	6·73	3·34	+ 3·39	6·73	3·34	+ 3·39	2·03	Chaibasa.		
5		15	4	1	3		2	1	N 58° E	5·6	3·9	+ 44	4·5	65	+ 6·9	·778	0	3·1	0·5	4	1·94	+ 2·06	4·60	0·98	+ 3·62	4·60	0·98	+ 3·62	2·13	Gaya.	South Bihar.	16
	1	3	14	3	4	3	3		S 69° E	9·7			8·6	58		·688		3·5		2	1·47	+ 0·53	1·93	0·82	+ 1·11	1·93	0·82	+ 1·11	1·01	Tehri.		
1	1	2	23	1		2		1	N 88° E	8·6	4·8	+ 79	9·7	70	+5·4	·764	−·002	3·1	+1·1	5	2·97	+ 2·03	2·83	1·93	+ 0·90	2·83	1·93	+ 0·90	1·12	Patna.		
7	2	14	1	3		1		3	N 42° E	5·0			5·0	64		·713		0·7		6	2·45	+ 3·55	1·86	1·47	+ 0·39	1·86	1·47	+ 0·39	0·62	Arrah.		
	1	1	23	1	1		4		E	7·1			6·7	59		·633		2·2		0	1·97	− 1·97	0·23	0·82	− 0·59	0·23	0·82	− 0·59	0·05	Buxar.		
8		10	8	3		1	1		N 76° E	5·4			5·0	76		·808		5·5		7	4·16	+ 2·84	4·91	2·79	+ 2·12	4·91	2·79	+ 2·12	1·42	Bhagalpur	North Bihar.	17
1		2	12	12	1	1	1	1	S 68° E	5·2	5·9	− 12		77	+5·5	·797	+·005	3·4	+1·1	7	3·93	+ 3·07	5·83	3·07	+ 2·76	5·83	3·07	+ 2·76	1·90	Darbhanga.		
7		1	12	11					S 72° E	6·1				76		·810		1·3		7	3·65	+ 3·35	6·80	2·40	+ 4·40	6·80	2·40	+ 4·40	2·39	Muzaffarpur.		
3		11	15		1	1			N 75° E	7·5			7·2	77		·802		2·5		6	4·25	+ 1·75	4·97	2·65	+ 2·32	4·97	2·65	+ 2·32	2·60	Motihari.		
	2	6	17	3	1	2			N 85° E	6·0			5·3	67		·639		2·0		4	2·13	+ 1·67	2·18	1·35	+ 0·83	2·18	1·35	+ 0·83	0·90	Chapra.		
4		4	12	5		2		4	N 87° E	3·5	5·2	− 33	4·0	59	+6·2	·754	+·080	1·5	−0·2	0	1·00	− 1·00	0·13	0·64	− 0·51	0·13	0·64	− 0·51	0·05	Benares.	United Provinces (East).	18
1	2	5	11	3	1	2	4	2	N 77° E	6·3	6·2	+ 2	5·2	53	+10·6	·689	+·101	2·3	+0·7	0	0·50	− 0·50	0·06	0·29	− 0·23	0·06	0·29	− 0·23	0·02	Allahabad.		
1	4	16	6	1			1	2	N 44° E	2·6	3·9	− 33		71	+8·5	·737	+·003	5·6	+4·0	7	2·40	+ 4·60	5·29	1·34	+ 3·95	5·29	1·34	+ 3·95	1·26	Gorakhpur.	United Provinces (East submontane).	23
9		2	12	6	1		1		S 77° E	3·5	4·3	− 19	3·8	51	+4·9	·618	+·025	2·2	+0·7	2	1·50	+ 0·50	0·52	1·01	− 0·4	0·5	1·01	− 0·49	0·31	Lucknow.	South Oudh.	19
3			11	12		1	2	2	S 63° E	5·1			4·8	89	P.	1·039?	+·279?	1·0	−0·4	5	2·50	+ 2·50	1·60	1·95	− 0·35	1·60	1·95	− 0·35	0·58	Babraich	North Oudh.	0
6	1	3	10	5	1	1	3	1	S 83° E	3·8				50	+4·2	·618	+·016	2·4	+1·2	2	1·00	+ 1·0	0·45	0·31	+ 0·14	0·45	0·31	+ 0·14	0·20	Cawnpore	United Provinces (Central).	21
2	1		10	7	4	2	2	3	S 56° E	7·7			7·8	42	−0·1	·540	?	0·5	−0·8	1	1·10	− 0·10	0·25	0·43	− 0·18	0·25	0·43	− 0·18	0·25	Mainpuri.		

station, the data for that station are not utilized in calculating the provincial departures from normal.

43 and 45 are derived are incomplete.

Table

Abstract of Observations taken at 8 A.M. at 231 Stations

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 A.M., in inches.								Temperature of air.												
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
	VI.—Upper Sub-Himalayas.				−·015								101·9	−0·7	75·6	+0·9	88·8	+0·1	26·2					44·5
24	United Provinces (West Submontane).	Bareilly .	568	29·098	−·004	29·628	29·203	8th	28·591	6th	·212	83·2	99·7	−3·5	75·9	−0·5	87·8	−2·0	23·8	106·5	1st	64·1	9th	42·4
		Dehra Dun .	2,233	27·489	−·004	29·655	27·733	8th	27·325	20th	·348	77·3	94·6	−0·4	69·4	−1·1	82·0	−0·8	25·2	101·0	22d	58·5	18th	42·5
		Roorkee .	899	28·770	−·001	29·630	29·021	8th	28·671	20th	·350	83·2	100·4	−2·4	73·5	−1·1	87·0	−1·8	26·9	106·7	23rd	63·3	18th	43·4
22	United Provinces (West).	Meerut . .	738	28·916	−·013	29·615	29·155	8th	28·806	6th	·349	82·5	101·8	−1·2	75·1	−0·8	88·5	−1·0	26·7	108·7	22nd & 24th.	68·3	18th & 19th.	40·4
26	South-East Punjab.	Delhi . .	718	28·931	−·020	29·606	29·119	8th	28·822	6th	·297	85·4	102·6	−2·1	79·8	−0·4	91·2	−1·3	22·8	110·2	12th & 22nd.	69·8	15th	40·4
28	Central Punjab.	Lahore . .	702	28·912	−·028	29·575	29·100	16th	28·786	13th	·314	86·3	105·2	−0·5	76·8	+4·2	91·0	+1·9	28·4	114·9	22nd	65·2	18th	49·7
27	South Punjab .	Sirsa . .	662	28·955	−·033	29·571	29·129	16th	28·813	13th	·316	89·8	107·5	+0·3	78·5	+1·1	93·0	+0·7	29·0	116·3	22nd	66·6	16th	49·7
		Patiala . .	*818*	28·821		29·599	28·969	16th	28·674	14th	·295	84·9	101·0		76·3		88·7		24·7	107·0	4th, 21st & 24th.	66·9	8th	40·1
29	Punjab (Submontane).	Ludhiana .	812	28·814	−·028	29·588	28·974	16th	28·710	12th	·264	84·6	103·8	−0·4	76·5	+1·1	90·2	+0·4	27·3	112·9	22nd	67·6	16th	45·3
		Sialkot . .	830	28·796	−·023	29·588	28·970	16th	28·662	12th	·308	86·2	104·1	+1·0	78·5	+3·7	91·3	+2·4	25·6	113·9	22nd	66·1	16th	47·8
		Umballa .	892	28·756	0	29·609	28·888	15th	28·632	6th	·226	84·0	104·3	−0·9						112·9	22nd			
		Rawalpindi	1,674	27·995	−·016	29·622	28·162	16th	27·910	13th	·252	84·5	99·7	+1·6	71·5	+2·9	85·6	+2·3	28·2	108·0	22nd	60·1	16th	47·9
	VII.—Indus Valley and North-West Rajputana.				−·023								106·2	+1·4	78·6	+1·2	92·4	+1·3	27·6					44·4
32	N.-W. Frontier Province.	Peshawar .	1,110	28·576	−·015	29·457	28·759	16th	28·469	13th	·290	83·7	98·9	+0·3	70·0	0	84·5	+0·2	28·9	104·5	23rd	62·5	16th	42·0
		D. I. Khan .	590	28·00	−·024	29·593	29·253	16th	28·957	21st	·296	87·2	103·7	−0·5	75·8	+0·9	89·8	+0·2	27·9	110·7	23rd	65·6	17th	45·1
31	West Punjab .	Khushab .	612	29·027	−·011	29·597	29·210	16th	28·916	21st	·294	89·7	104·6	−0·3	77·5	+0·2	91·1	−0·1	27·1	112·3	22nd	69·4	18th	42·9
		Montgomery .	558	29·052	?	29·566	29·258	16th	28·905	13th	·353	91·0	107·4	−0·9	78·3	?	92·9	?	29·1	116·8	22nd	66·5	17th	50·3
		Mooltan .	420	29·181	−·041	29·560	29·338	18th	29·061	21st	·277	89·1	108·7	+2·1	81·3	+3·7	95·0	+2·9	27·6	115·9	21st	75·0	1st & 2nd.	40·9
47	Sind . . .	Jacobabad .	186	29·431	−·027	29·574	29·607	16th	29·314	21st	·293	92·4	115·5	+3·9	79·4	+1·2	97·5	+2·6	36·1	123·0	21st	70·7	24th	52·3
		Hyderabad .	96	29·576	−·017	29·627	29·694	16th	29·455	20th	·239	87·2	109·6	+2·7	78·4	0	94·0	+1·4	31·2	116·2	5th	72·0	24th	44·2
		Kurrachee .	30	29·680	−·028	29·660	29·767	17th	29·533	25th	·234	84·6	93·9	+1·0	79·8*	+1·1*	86·9*	+1·1*	14·1*	106·9	25th	73·7	1st	33·2
51	West Rajputana	Bikaner .	*771*	28·865	−·025	29·587	29·011	17th	28·767	6th	·244	91·8	109·2	+2·1	84·2	+1·6	96·7	+1·9	25·0	115·4	22nd, & 23rd.	71·0	17th	44·4
		Pachpadra .	*380*	29·311	−·015	29·643	29·450	17th	29·203	21th	·247	87·7	109·4	+1·3	79·6	+2·1	94·5	+1·7	29·8	116·5	3rd & 22nd.	69·0	16th	47·5
		Jodhpur .	782	28·938		29·660	29·040	17th	28·795	24th	·245	87·2	106·9		79·9		93·4		27·0	113·3	22nd	67·8	17th	45·5
	VIII.—East Rajputana, Central India and Gujarat.				−·016								103·1	0	79·1	+0·3	91·1	+0·2	23·9					37·8
50	East Rajputana	Jaipur . .	1,431	28·274	−·018	29·644	28·414	16th	28·161	24th	·253	87·6	107·0	+0·4	77·8	−0·4	92·4	0	29·2	114·2	22nd	65·6	18th	48·6
		Bharatpur .	585	29·062		29·602	29·207	17th	28·971	24th	·236	86·9	106·0		78·2		92·2		27·8	114·8	22nd	67·3	16th	47·5
		Kotah . .	819	28·848		29·647	28·997	16th	28·714	24th	·283	92·7	108·9		85·2		97·1		23·7	117·1	22nd	73·1	18th	44·0
		Sambhar .	1,254	28·438	−·010	29·636	28·576	16th	28·325	24th	·251	88·1	106·6	+1·5	79·7	−0·5	93·2	+0·5	26·9	112·5	21st & 22nd.	68·5	18th	44·0
		Ajmer . .	1,611	28·119	−·008	29·666	28·243	16th	28·006	24th	·237	86·9	103·8	0	80·9	+1·6	92·4	+0·8	22·9	108·9	21st	69·1	17th	39·8
		Udaipur .	1,925	27·832?		29·665?	27·964	17th	27·716?	24th	·248?	89·1	103·1		79·1		91·1		24·0	109·6	22nd	67·3	17th	42·3
		Deesa . .	466	29·285	−·021	29·701	29·387	16th	29·154	24th	·233	85·2	108·6	+1·9	77·0	−0·5	92·8	+0·7	31·6	115·1	3rd	74·0	11th & 12th.	41·1
48	Kathiawar and Cutch.	Bhuj . .	395	29·343	−·017	29·687	29·448	31st	29·217	25th	·231	85·7	101·0	−0·3	77·0	+0·3	89·0	0	24·0	110·3	3rd	73·9	18th	36·4
		Jamnagar .	61	29·703		29·709	29·810	31st	29·575	24th	·235	85·	99·5		77·1		88·3		22·4	106·2	5th	73·7	1st & 12th.	32·5
		Rajkot . .	429	29·349	−·010	29·727	29·459	31st	29·224	25th	·235	83·6	105·4	0	74·9	−0·2	90·2	−0·1	30·5	111·4	3rd	69·8	24th	41·6
		Veraval .	*18*	29·785	−·024	29·745	29·860	17th	29·662	25th	·198	82·0	85·5	−1·2	79·3	+0·9	82·4	−0·2	6·2	86·6	10 days	74·3	19th	12·3
		Dwarka .	37	29·737		29·720	29·822	17th	29·606	25th	·216	83·3	87·8		80·4		84·1		7·4	89·4	25th	77·7	2nd	11·7
		Bhavnagar .	55	29·745	−·037	29·744	29·846	31st	29·635	24th	·211	86·1	106·6	?	77·7†	−1·3†	92·4†	?	28·9	113·2	21st	75·5	17th	37·7
49	Central India	Para. Nowgong .	757	28·915	−·0.0	29·614	29·076	16th	28·795	24th	·281	90·3	106·1	−1·3	80·0	+0·2	93·1	−0·6	26·1	114·5	22nd	73·5	1st	41·0
		Indore .	1,823	27·956	+·004	29·705	28·046	8th	27·848	24th	·198	85·9	103·8	+1·0	77·0	+1·1	90·4	+1·1	26·8	110·1	22nd & 23rd.	67·6	17th	42·5

* Mean of 27 days. † Mean of 22 days.

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

Note 1.—When a query is inserted against any reading or in the returns

Note 2.—The data from which divisional means of the figure columns

I—*continued.*

in India, Burma, etc., in May, 1904—continued.

Wind Direction. Number of winds from Calm	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	Wind Velocity. Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	Hygrometry, 8 A.M. Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Cloud. Mean cloud amount at 8 A.M.	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 1904.	Normal rainfall for period, 1st to 31st May.	Departure from normal of period, 1st to 31st May 1904.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
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	58
														46	+ 3·4	·535	+ ·020	1·9	0				1·11	0·91	+0·19					**VI.—Upper Sub-Himalayas.**		
		2	13	1			1	1	N 8° E	3·6	5·2	−31	3·4	59	+11·4	·657	+·067	2·0	+0·5	5	2·27	+2·73	1·27	0·76	+ 0·51	1·27	0·76	+ 0·51	0·45	Bareilly	United Provinces (West Submontane).	24
														50	+ 3·8	·461	−·006	3·0	+0·6	7	3·40	+3·60	2·03	1·69	+ 0·34	2·03	1·69	+ 0·34	0·60	Dehra Dun.		
																														Roorkee.		
														45	+ 4·8	·505	+·023	2·0	+0·4	6	2·10	+3·90	1·64	0·82	+ 0·82	1·64	0·82	+ 0·82	0·49	Meerut .	United Provinces (West).	22
														51	+10·2	·567	+·053	3·1	+1·1	6	1·50	+4·50	1·98	0·60	+ 1·38	1·98	0·60	+ 1·38	0·48	Delhi .	South-East Punjab.	26
														45	+ 6·8	·548	+·058	3·4	+1·0	4	2·20	+1·80	1·19	0·72	+ 0·47	1·19	0·72	+ 0·47	0·52	Lahore .	Central Punjab	28
														44	+3·5	·557	+ 056	1·1	−0·7	1	1·50	−0·50	0·21	0·82	− 0·61	0·21	0·82	− 0·61	0·14	Sirsa .	South Punjab .	27
														41	+ 4·5	·565	+·074	0·3	−2·6	0	1·60	−1·69	0·02	0·71	− 0·69	0·02	0·71	− 0·69	0·02	Patiala.		
																				4			1·26			1·26			0·82			
														47		·560		1·8												Ludhiana .	Punjab (Submontane.)	29
														42	+ 1·7	·504	−·011	0·7	−1·2	3	1·60	+1·40	0·64	0·61	+ 0·03	0·64	0·61	+ 0·03	0·27	Sialkot.		
														41	+ 0·1	·516	−·002	1·3	−0·2	3	2·30	+0·70	1·05	1·03	+ 0·02	1·05	1·03	+ 0·02	0·61	Umballa.		
														48	− 1·3	·560	−·036	1·6	+0·4	2	1·70	+0·30	1·27	0·73	+ 0·54	1·27	0·73	+ 0·54	1·00	Rawalpindi.		
														45	−2·6	·590	−·015	0·8	−0·8				0·19	0·42	−0·23					**VII.—Indus Valley and North-West Rajputana.**		
														44	+ 1·6	·504	+·024	1·7	−0·4	3	1·60	+1·40	0·34	0·75	− 0·41	0·34	0·75	− 0·41	0·12	Peshawar .	N.-W. Frontier Province.	32
														45	−3·5	·574	−·037	0·3	−0·6	0	1·00	−1·00	0	0·34	− 0·34	0	0·34	− 0·34	0	D. I. Khan.		
														31	− 1·3	·437	−·005	0·3	−0·8	0	1·20	−1·20	0·17	0·78	− 0·61	0·17	0·78	− 0·61	0·07	Khushab .	West Punjab .	31
																				3	1·00	+2·00	0·46	0·27	+ 0·19	0·46	0·27	+ 0·19	0·18	Montgomery.		
														28	− 7·5	·383	−·137?	0·5	−0·7											Mooltan.		
														42	− 2·1	·568	−·008	0	−0·6	0	0·80	−0·80	0	0·30	− 0·30	0	0·30	− 0·30	0	Jacobabad .	Sind . . .	47
														39	− 1·3	·582	−·001	0·1	−0·8	0	0·30	−0·30	0	0·16	− 0·16	0	0·16	− 0·16	0	Hyderabad.		
														56	− 0·5	·717	+·026	0·1	−0·9	0	0·30	−0·30	0	0·18	− 0·18	0	0·18	− 0·18	0	Kurrachee.		
														75	− 2·4	·887	−·027	2·2	−1·4	0	0	0	0	0	0	0	0	0	Bikaner .	West Rajputana	51
														39	− 6·5	·551	−·090	1·0	−0·1	0	1·50	−1·50	0·05	0·88	− 0·83	0·05	0·88	− 0·83	0·05	Pachpadra.		
														57	−4·5?	·736	−·010?	1·0	−1·5	2	1·10	+0·90	0·64	0·66	− 0·02	0·64	0·66	− 0·02	0·37	Jodhpur.		
														44		·549		1·3		2	1·20	+0·80	0·45	0·27	+ 0·18	0·45	0·27	+ 0·18	0·23			
																							0·45	0·38	−0·02					**VIII.—East Rajputana, Central India and Gujarat.**		
														56	+1·8	·691	+·009	1·7	−0·1													
														38	− 2·3	·479	−·057	1·9	+0·4	4	1·50	+2·50	0·63	0·49	+ 0·14	0·63	0·49	+ 0·14	0·19	Jaipur .	East Rajputana	50
																·739		1·3		5			1·38			1·38			0·50	Bharatpur.		
														58		·431		0·7		3	1·20	+1·80	1·11	1·11	0	1·11	1·11	0	0·57	Kotah.		
														30																Sambhar.		
														40	−1·0	·513	−·035	1·3	+0·1	3	1·60	+1·40	0·74	0·76	− 0·02	0·74	0·76	− 0·02	0·41	Ajmer.		
														44	− 0·4	·554	−·015	1·6	+0·6	3	1·50	+1·50	1·37	0·61	+ 0·76	1·37	0·61	+ 0·76	0·75	Udaipur.		
																		0·7		2	1·70	+0·30	1·84			1·84			1·65			
														33		·435		1·9	−0·5	0	0·55	−0·55	0	0·25	− 0·25	0	0·25	− 0·25	0	Deesa.		
														60	+1·7	·716	+·017	1·0	−0·3	0	0·30	−0·30	0	0·09	− 0·09	0	0·09	− 0·09	0	Bhuj .	Kathiawar and Cutch.	46
														73	+10·1	·891	+·121?	2·6		0			0			0			0	Jamnagar.		
														69		·828		1·7	+0·1	0	0·60	−0·60	0	0·22	− 0·22	0	0·22	− 0·22	0	Rajkot.		
														69	−1·9	·794	−·031	2·8	−1·2	0	0·10	−0·10	0	0·02	− 0·02	0	0·02	− 0·02	0	Veraval.		
														84	+3·0	·917	+·011	2·1		0			0			0			0	Dwarka.		
														82		·935														Bhavnagar Para.		
														58	−7·5	·727	−·111?	1·7	−2·0	0	0·40	−0·40	0	0·10	− 0·10	0	0·10	− 0·10	0	Nowgong .	Central India	49
														35	+0·6	·494	+·004	3·4	+2·0	0	0·90	−0·90	0·13	0·33	− 0·20	0·13	0·33	− 0·20	0·09	Indore.		
														56	+5·8	·695	+·075	3·1	+2·0	1	1·20	−0·20	0·16	0·59	− 0·43	0·16	0·59	− 0·43	0·11			

of any station, the data for that station are not utilized in calculating the provincial departures from normal.

Nos. 41, 43 and 45 are derived are incomplete.

‡ Mean of 28 days.

Table

Abstract of Observations taken at 8 A.M. at 231 Stations

Number of District.	Meteorological Province or District.	Station	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 A.M., in inches.								Temperature of air.												
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8A.M. 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 A.M. 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	25
49	Central India	Neemuch	1,630	28·116	−·010	29·684	28·258	17th	27·999	24th	·259	85·1	104·4	+0·4	78·0	+0·9	91·3	+0·7	26·4	112·1	22nd	68·7	17th	43·4
45	Gujarat	Surat	39	29·778	−·009	29·761	29·855	16th	29·663	24th & 25th	·192	86·7	95·7	P	79·0	+0·9	87·4	P	16·7	104·7	20th	75·0	12th	29·7
		Ahmedabad‖	163	29·609	−·028	29·720	29·709	16th	29·483	24th	·226	86·6	108·0	+0·9	79·3	−0·2	93·7	+0·4	28·7	113·3	3rd	76·1	4th	37·2
22	United Provinces (West).	Agra	555	29·081	P	29·590	29·208	17th	28·983	21st	·225	87·9	104·5	−2·7	80·8	−0·7	92·7	−1·7	23·7	112·0	22nd	71·4	16th	40·6
21	United Provinces (Central).	Jhansi	858	28·827	−·018	29·625	28·986	16th	28·709	24th	·277	90·7	108·2	−0·1	84·4	+0·8	96·3	+0·4	23·8	115·4	22nd	74·1	16th & 18th.	41·3
	X.—Deccan.				−·009								104·5	+0·3	78·5	+0·3	91·5	+0·3	25·9					39·7
38	Bombay Deccan.	Belgaum	2,539	27·323	+·001	29·783	27·407	16th	27·210	25th	·197	75·1	92·0	−1·0	68·3	+0·1	80·2	−0·5	23·7	99·3	4th	65·8	26th & 29th	33·5
		Sholapur	1,590	28·221	−·010	29·742	28·315	16th	28·095	25th	·220	85·0	105·3	+0·5	78·0	+1·5	91·7	+1·0	27·3	110·7	23rd	73·0	16th & 18th.	37·7
		Poona	1,840	28·000	−·012	29·783	28·088	31st	27·881	25th	·207	79·3	101·2	+2·0	72·3	+0·4	86·8	+1·2	28·9	107·1	1st & 2nd.	68·9	19th	38·2
		Bijapur	*1,948*	27·879	−·017	29·753	27·971	16th	27·760	25th	·211	82·1	102·0	+1·7	73·7	−1·0	87·9	+0·4	28·3	106·5	2nd, 5th & 23th.	66·3	26th	40·2
40	Khandesh	Malegaon	1,430	28·356	−·024	29·719	28·457	16th	28·237	24th	·220	86·8	106·3	+2·3	75·5	+0·4	90·9	+1·4	30·8	111·8	3rd & 22nd	71·0	10th	40·8
		Ahmednagar	2,152	27 686	−·007	29·750	27·777	31st	27·575	25th	·202	84·2	102·6	+3·2	72·9	+1·1	87·8	+2·2	29·7	106·4	4th	65·4	29th	41·0
4	Berar	Akola	930	28·829	−·005	29·689	28·934	16th	28·737	24th	·197	90·7	109·0	+1·3	82·7	+1·6	95·9	+1·5	26·3	115·5	23rd	77·4	1st	38·1
		Amraoti	1,215	28·512	+·004	29·684	28·648	16th	28·463	26th	·185	91·0	108·5	+0·8	82·0	+2·0	95·3	+1·4	26·5	115·0	23rd	75·5	17th & 27th.	39·5
42	Central Provinces (West).	Khandwa	1,044	28·710	−·011	29·698	28·803	16th	28·597	24th	·206	87·7	108·0	+1·5	82·0	+1·1	95·0	+1·3	26·0	116·2	23rd	72·6	17th	43·6
		Hoshangabad	1,006	28·737	−·009	29·687	28·830	8th	28·634	24th	·196	89·6	108·2	+0·6	80·4	+0·1	94·3	+0·4	27·8	115·0	23rd	71·2	9th	43·8
		Nagpur	1,025	28·708	+·005	29·667	28·813	16th	28·631	21st	·182	92·1	109·1	−0·2	82·0	+0·1	95·6	−0·1	27·1	116·7	3rd	74·1	31st	42·6
43	Central Provinces (Central).	Chanda	*634*	29·113	+·012	29·679	29·221	16th	29·016	26th	·205	91·8	108·9	−0·6	81·8	−0·1	95·4	−0·4	27·1	116·2	23rd	76·0	17th & 27th.	40·2
		Seoni	2,033	27·723	−·008	29·656	27·822	8th	27·653	21st	·169	88·6	104·8	+0·9	76·8	−0·3	90·8	+0·3	28·0	111·4	23 d	72·0	27th	39·4
		Jubbulpore	1,327	28·384	−·011	29·645	28·476	9th	28·308	24th	·168	88·0	105·1	−0·5	77·1	−1·8	91·1	−1·2	28·0	112·5	22nd	70·6	1st	41·9
		Saugor	1,807	27·930	−·005	29·636	28·037	16th	27·836	24th	201	87·5	104·2	−0·9	78·9	+0·4	91·6	−0·3	25·3	111·5	22nd	72·1	9th & 15th	39·4
49	Central India	Sutna	1,040	28·632	−·018	29·614	28·767	16th	28·542	24th	·225	90·4	105·2	−0·3	80·8	+1·5	93·0	+0·6	24·4	113·1	22nd	75·1	1st & 19th	38·0
44	Central Provinces (East).	Raipur	970	28·739	−·008	29·638	28·835	16th	28·657	21st	·178	91·3	106·2	−1·2	81·8	−0·2	94·0	−0·7	24·4	113·8	23rd	57·9	27th	55·9
		Pendra	2,123?	27·696?		29·623?	27·773	17th	27·621	28th	·152	87·3	102·1		77·8		90·0		24·3	109·9	23rd	68·1	27th	41·8
		Sambalpur	486	29·212	−·020	29·628	29·317	8th & 9th.	29·062	27th	·255	90·2	106·2	−0·7	80·7	−0·9	93·5	−0·8	25·5	113·1	5th, 22nd & 23rd	73·6	28th	39·5
39	Hyderabad (North).	Aurangabad	1,905	27·901		29·717	27·987	31st	27·801	25th	·186	86·3	104·2		76·9		90·5		27·3	109·1	22nd	71·2	6th	37·9
		Indur	1,260	28·614		29·802	28·717	1st	28·525	17th	·192	91·2	106·2		81·8		94·0		24·4	110·8	4th & 5th	75·2	17th	35·6
		Bidar	*2,165*	27·673		29·741	27·807	16th	27·526	26th	·281	86·1	101·8		80·1		90·9		21·7	107·9	23rd	67·0	31st	40·9
53	Hyderabad (South).	Gulbarga	1,503	28·298	−·022	29·737	28·392	16th	28·176	26th	·216	83·5	100·4	P	78·8	+0·4	89·7	P	21·6	104·9	29th	73·5	8th	31·4
		Raichur	1,326	28·477	−·010	29·741	28·587	16th	28·353	26th	·234	83·7	102·8	−0·6	78·6	−0·9	90·7	−0·8	24·2	108·0	5th	70·1	17th	37·9
		Hyderabad (Deccan).	1,696	28·104	−·006	29·718	28·217	16th	27·974	26th	·243	85·2	101·9	−1·9	79·5	+0·9	90·7	−0·5	22·4	108·9	5th	73·2	12th & 24th.	35·7
		Hanumkonda.	871	28·884		29·689	29·015	16th	28·743	26th	·272	86·9	103·6		80·9		92·3		22·7	110·7	23rd	71·8	24th	38·9
	X.—West Coast.				−·006								88·9	−0·6	79·1	−0·5	84·0	−0·5	9·8					17·1
37	Konkan	Bombay	37	29·809	−·013	29·786	29·880	16th	29·680	25th	·200	84·3	91·1	+0·4	81·0	+0·3	86·1	+0·4	10·1	92·5	31st	78·0	1st	14·5
		Ratnagiri	110	29·749	+·006	29·798	29·838	31st	29·624	25th	·214	84·6	90·6	−0·5	80·5	+0·9	85·6	+0·2	10·1	92·3	17th	78·9	4 days	13·4
		Mormugao	*60*	29·807	−·004	29·802	29·891	31st	29·670	25th	·221	84·0	89·6	−0·4	80·6	−0·5	85·1	−0·5	9·0	92·0	1st	75·4	17th & 18th.	16·6
		Goa	199	29·669	−·003	29·805	29·758	16th	29·531	25th	·227	83·7	86·8	P	82·1	+1·6	84·4	P	4·7	88·0	1st & 17th	80·0	27th	8·0
		Karwar	44	29·825	+·004	29·803	29·912	16th	29·691	25th	·221	83·0	89·2	−0·6	78·8	−0·9	84·0	−0·8	10·4	91·3	19th	72·5	25th	18·8
33	Malabar	Cochin	10	29·862	−·012	29·801	29·928	31st	29·760	24th	·168	81·2	88·8	−0·8	76·9	−0·7	82·9	−0·8	11·9	92·3	24th	72·7	26th	19·6
		Calicut	27	29·843	−·011	29·800	29·916	31st	29·726	24th	·190	81·2	88·6	−1·8	76·9	−1·0	82·8	−1·4	11·7	92·3	1st	74·2	4 days	18·1
		Mangalore	65	29·814	−·002	29·811	29·875	30th	29·699	25th	·176	82·8	88·9	−1·4	78·1	−0·7	83·5	−1·1	10·8	91·2	2nd & 7th	63·5	14th	27·7
		Trivandrum	198	29·666	−·021	29·794	29·747	31st	29·553	24th	·194	81·1	86·8	+0·5	77·4	−1·1	82·1	−0·3	9·4	90·0	9th & 10th.	73·0	25th	17·0

Mean of 30 days.

N. B—Elevations in italics indicate barometrical determinations.

Note 1.—When a query is inserted against any reading or in the returns

Note 2.—The data from which divisional means of the figure columns

I—*continued.*

in India, Burma, etc., in May, 1904—continued.

Wind Direction. Number of winds from: Calm.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Wind resultant.	Wind Velocity. Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	Hygrometry, 8 A.M. Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Cloud. Mean cloud amount at 8 A.M.	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 1904.	Normal rainfall for period, 1st to 31st May.	Departure from normal of period, 1st to 31st May 1904.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of Dist.
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	58
2	1					14	12	2	S 72° W	15·2	12·4	+23	12·8	64	+13·9	·763	+·125	0·6	−0·3	1	1·00	0	0·53	0·45	+ 0·08	0·53	0·45	+ 0·08	0·41	Neemuch	Central India	49
4		1			14	8	4		S 25° W	10·0	12·7	−21	9·4	67	−1·0	·855	+·008	2·2	−1·2	0	0·30	− 0·30	0	0·13	− 0·13	0	0·13	− 0·13	0	Surat	Gujarat	45
	2				7	12	3	6	S 60° W	3·9			6·4	60	+ 0·6	·752	−·002	1·6	−1·1	0	0·50	− 0·50	0	0·01	− 0·01	0	0·01	− 0·01	0	Ahmedabad		
4		5		9		10		1	S 13° E	6·0*	5·9	+ 2	7·1*	42	+3·9	·549	+·013	1·1	+0·1	2	1·50	+ 0·50	0·31	0·56	− 0·25	0·31	0·56	− 0·25	0·15	Agra	United Provinces, (West).	22
3	1	3		4	1	8	2	9	W	6·9	4·8	+44	8·1	53	+21·0†	760	+·277†	0·9	−0·1	2	0·70	+ 1·30	0·78	0·41	+ 0·37	0·78	0·41	+ 0·37	0·61	Jhansi	United Provinces, (Central)	21
														46	+ 0·4	·563	−·007	2·4	0				0·66	0·89	−0 23					IX.—Deccan.		
4	1					10	14	2	S 78° W	14·9	18·1	−18		75	+ 6·3	·651	+·034	4·4	+0·7	7	4·70	+ 2·30	3·48	2·49	+ 0·99	3·48	2·49	+ 0·99	1·23	Belgaum	Bombay Deccan.	38
1	3	2				1	4	20	N 41° W	9·9	10·0	− 1	12·0	41	−4·1	·187	−·041	3·4	+0·3	2	2·00	0	0·52	·00	− 0·48	0·52	1·00	− 0·48	0·17	Sholapur.		
					1	4	21	2	S 85° W	16·3*	14·2	+15		57	+2·8	·575	+·027	1·6	−1·0	0	2·10	− 2·10	0·03	1·33	− 1·30	0·03	1·33	− 1·30	0·03	Poona.		
	2	1			1	8	10	9	N 84° W	10·8			10·6	58	−5·6†	·633	−·049	2·8	−0·4	3	3·30	− 0·30	0·53	1·79	− 1·26	0·53	1·79	− 1·26	0·18	Bijapur.		
	1					5	18	7	N 85° W	11·9	10·4	+14	13·7	45	−12·8	·569	−·169†	0·4	−1·7	1	1·20	− 0·20	0·33	0·73	− 0·40	0·33	0·73	− 0·40	0·20	Malegaon	Khandesh	40
6	9	2					3	11	N 27° W	7·1			8·7	63	+2·6†	·742	+·063	1·3	−0·8	0	1·80	− 1·80	0·04	0·83	− 0·81	0·04	0·88	− 0·84	0·02	Ahmednagar.		
	1						5	25	N 50° W	9·4	8·6	+ 9	9·2	37	−1·1	·518	−·001	1·6	−0·3	1	0·80	+ 0·20	0·16	0·43	− 0·27	0·16	0·43	− 0·27	0·16	Akola	Berar	41
	3		1		2	6	14	5	N 89° W	8·2	6·0	+37	7·3	35	−4·1	·504	−·038	1·6	−0·5	2	1·50	+ 0·50	0·28	0·63	− 0·35	0·28	0·63	− 0·35	0·17	Amraoti.		
	1				1	1	7	21	N 58° W	9·5‡	9·1	+ 4	9·0‡	41	−2·4	·530	−·019	0·7	−0·4	2	0·80	+ 1·20	0·72	0·35	+ 0·37	0·72	0·35	+ 0·37	0·37	Khandwa	Central Provinces, (West)	42
		3		1		24		3	S 51° W	2·7	3·8	−29	2·8	38	−2·5	·430	−·125†	0·8	−0·5	1	1·00	0	0·33	0·55	− 0·22	0·33	0·55	− 0·22	0·32	Hoshangabad.		
3	7	1	1	1	2	1	10	5	N 56° W	6·2	9·5	−35	4·9	30	−3·5	·439	−·075	2·0	−0·7	1	1·40	− 0·40	0·51	0·72	− 0·21	0·51	0·72	− 0·21	0·39	Nagpur.		
16			1	5	3	1	5		S 7° W	1·7	4·9	−65	1·5	34	−2·3	·511	−·027	2·6	+0·3	1	1·70	− 0·70	0·61	0·74	− 0·13	0·61	0·74	− 0·13	0·50	Chanda	Central Provinces, (Centre)	43
	7	4	1	3	2	3	4	7	N 31° W	6·4	4·6	+39	3·8	35	+2·5	·468	+·007	2·4	+0·6	0	1·90	− 1·90	0	0·68	− 0·68	0	0·63	− 0·63	0	Seoni.		
		9	1	2	5	6	9	4	S 65° W	4·4	4·5	− 2	3·9	35	+2·3	·460	−·001	1·3	−0·1	0	1·30	− 1·30	0·11	0·55	− 0·44	0·11	0·55	− 0·44	0·08	Jubbulpore.		
	1	2	1		5	5	15	2	S 75° W	8·8	4·4	+100	7·8	34	−1·6	·437	−·019	2·0	+0·8	2	1·00	+ 1·00	0·43	0·50	− 0·07	0·43	0·50	− 0·07	0·17	Saugor.		
6			3	3	2	4	10	3	S 61° W	4·7	8·1	−42	4·3	33	+3·9	·456	+·028	2·9	+1·9	1	1·10	− 0·10	0·32	0·38	− 0·06	0·32	0·38	− 0·06	0·23	Sutna	Central India	49
3		1	1	1	1	20	3	1	S 47° W	7·9	7·4	+ 7	9·5	38	+3·5	·537	+·025	4·0	+0·9	4	2·30	+ 1·70	3·59	0·94	+ 2·65	3·59	0·94	+ 2·65	3·16	Raipur	Central Provinces, (East).	44
2	6	1	1	1	8	5	2	5	S 73° W	7·1			6·0	35		·441		2·9		2			0·81			0·81			0·64	Pendra.		
	1			6	7	14	1	2	S 23° W	6·2	3·0	+107	6·1	49	−2·1	·681	−·042	2·5	−1·0	3	3·00	0	1·07	1·62	− 0·55	1·07	1·62	− 0·55	0·53	Sambalpur.		
4	3						16	8	N 68° W	14·8			14·7	37		·452		1·6		0	1·60	− 1·60	0	0·74	− 0·74	0	0·74	− 0·74	9	Aurangabad	Hyderabad (North).	39
5		6				1		19	N 30° W	5·1			4·3	40		·589		1·6		0	1·20	− 1·20	0	0·39	− 0·39	0	0·39	− 0·39	0	Indur.		
	4	1		2	1	11	7	5	S 83° W	6·9			5·8	58§		·710§		2·6		2	2·50	− 0·50	0·54	1·00	− 0·46	0·54	1·00	− 0·46	0·21	Bidar.		
6	3		1		1		11	9	N 63° W	10·9			10·5	70	+15·3	·808	+·161†	3·5	+0·1	2	2·50	− 0·50	0·33	1·16	− 0·83	0·33	1·16	− 0·83	0·21	Gulbarga	Hyderabad (South).	53
2		1		3		19	5	1	S 49° W	12·5			1·9	55	+1·1	·614	+·002	4·5	+1·2	1	1·80	− 0·80	0·24	0·72	− 0·48	0·24	0·72	− 0·48	0·17	Raichur.		
10		1	1	1		1	16	1	W	4·8			4·7	55	+5·5	·657	+·039	4·4	+1·5	4			1·67	0·99	+ 0·68	1·67	0·99	+ 0·68	1·05	Hyderabad (Deccan).		
1	1			12	9	2	3	3	S 8° E	9·7			8·2	51		·699		3·8		3	1·00	+ 2·00	0·45			0·45			0·15	Hanumkonda.		
														77	+ 0·4	·867	−·003	5·5	+0·6				3·88	5·14	−1·25					X.—West Coast.		
	3	1			3	11	9	4	S 77° W	7·7	9·9	−22		71	+ 0·9	·874	−·005	5·5	+1·4	0	0·70	− 0·70	0	0 71	− 0·71	0	0 71	− 0·71	0	Bombay	Konkan	37
8	8	2		1		1	6	5	N 35° W	9·5	11·2	−15	9·4	71	+ 2·4†	·816	+·007	4·3	+0·8	0	1·50	− 1·50	0·03	1·45	− 1·42	0·03	1 45	− 1·42	0·02	Ratnagiri.		
6		1	1	1			6	16	N 53° W	8·9†				77	+1·1	·900	−·010	5·2	+0·6	2			0·63	2·57	− 1·94	0·63	2·57	− 1·94	0·32	Mormugao.		
3	7	2	4			2	3	10	N 23° W	10·5				76	+3·5	·878	+·009	6·3	+2·3	2			1·06	2·33	− 1·27	1·06	2·33	− 1·27	0·42	Goa.		
2	19	4	2				3	1	N 3° E	5·6				74	−2·7	·832	−·017	4·0	+0·1	3	3·80	− 0·80	1·19	3·28	− 2·09	1·19	3·28	− 2·09	0·65	Karwar.		
2		6	16	5	1			1	N 89° E	7·0				81	−0·6	·876	−·021	6·1	+0·4	10	12·90	− 2·90	10·52	12·39	− 1·87	10·52	12·39	− 1·87	2·95	Cochin	Malabar	33
3	8	1	3	1			2	13	N 21° W	8·7			8·6	83	+4·4	·882	+·002	6·5	+1·1	13	9·00	+ 4·00	11·70	7·78	+ 3·92	11·70	7·78	+ 3·92	2·51	Calicut.		
20	4	1	2	1		1		2	N 16° E	4·2	4·6	− 9		78	−0·1	·881	+·005	5·8	−0·6	6	6·90	− 0·90	4·33	6·66	− 2·33	4·33	6·66	− 2·33	1·25	Mangalore.		
6	9						1	15	N 31° W	6·8				78	−3·0	·833	−·038	5·6	−0·6	6	10·20	− 4·20	5·50	9·05	− 3·55	5·50	9·05	− 3·55	2·88	Trivandrum.		

of any station, the data for that station are not utilized in calculating the provincial departures from normal.
Nos. 41, 43 and 45 are derived are incomplete.

† Mean of 27 days.
‡ " 22 "

* Mean of 29 days.
§ " 19 "
Agra wind directions for 29 days

Table

Abstract of Observations taken at 8 A.M. at 231 Stations

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 A.M., in inches.								Temperature of Air.											
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
					−·004								96·3	−1·5	76·5	−0·9	86·5	−1·2	19·8				32·6
	XI.—South India.																							
57	Madras (South)	Pamban	37	29·792	−·013	29·755	29·867	31st	29·723	24th	·144	85·5	92·1	+0·9	81·6	+0·2	86·9	+0·6	10·5	95·3	10th & 17th.	78·2	24th & 30th.	17·1
		Tinnevelly	168	29·664	−·018	29·760	29·755	31st	29·587	25th	·168	86·6	100·9	+0·5	80·0	−0·7	90·5	−0·1	20·9	105·5	6th	72·9	20th	32·6
		Madura	417	29·380	−·004	29·760	29·460	31st	29·294	24th	·166	84·3	99·0	−1·1	76·7	−0·8	87·9	−1·0	22·3	105·0	5th	64·7	11th	40·3
		Periyakulam	945	28·897		29·778	28·983	31st	28·803	24th	·180	83·7	96·4		73·0		83·2		23·4	103·9	4th	68·1	20th	35·8
34	Madras (South Central).	Salem	940	28·916	−·013	29·794	28·979	31st	28·821	24th	·158	81·4	96·9	−2·3	74·7	−1·2	85·8	−1·8	22·2	104·2	3rd & 4th.	69·4	14th & 30th.	34·8
		Coimbatore	1,348	28·494	−·012	29·790	28·564	31st	28·391	25th	·173	78·3	92·8	−2·2	72·7	−0·7	82·8	−1·5	20·1	101·9	1st	69·3	11th & 30th.	32·6
							26·272	16th	26·095	24th	·177	68·4	79·4	−0·9	63·6	−1·3	71·5	−1·1	15·8	85·0	9th	60·1	12th & 25th.	24·9
35	Coorg	Mercara	3,781	26·204	+·005																			
36	Mysore	Chitaldroog	2,405	27·468	−·008	29·799	27·564	16th	27·358	25th	·206	76·6	93·1	−0·6	71·5	+0·5	82·3	−0·1	21·6	98·7	3rd & 4th.	65·4	14th	33·3
		Bangalore	3,021	26·886	−·010	29·811	26·943	16th	26·792	25th	·151	73·8	89·5	−1·8	67·7	−1·4	78·6	−1·6	21·8	97·3	5th	63·3	13th & 30th.	34·0
		Hassan	3,091	26·835	−·010	29·824	26·899	16th	26·723	25th	·176	74·3	87·5	−0·1	67·2	+0·6	77·4	+0·3	20·3	93·9	6th	63·6	14th	30·3
		Mysore	2,518	27·381	−·014	29·830	27·453	16th	27·271	25th	·182	71·7	90·3	−1·8	68·4	−1·2	79·4	−1·5	21·9	97·4	4th	60·4	4th	37·0
56	Madras, East Coast, (South).	Negapatam	31	29·779	−·015	29·738	29·839	16th & 3 st	29·695	26th	·144	85·5	97·1	−0·2	80·0	−0·2	88·6	−0·2	17·1	103·2	7th	75·5	26th	27·8
		Cuddalore	12	29·798	+·003	29·739	29·888	8th	29·701	26th	·187	86·3	96·4	−2·4	79·6	−0·5	88·0	−1·5	16·8	102·2	20th & 30th.	74·7	30th	27·5
		Trichinopoly	255	29·573	−·005	29·759	29·634	9th	29·492	25th	·142	84·3	101·0	−0·8	77·4	−1·3	89·2	−1·1	23·6	108·2	6th	71·4	24th	36·8
		Madras	22	29·781	−·003	29·733	29·867	8th	29·679	26th	·188	86·7	96·0	−2·5	79·9	−1·2	88·0	−1·9	16·1	103·0	15th	75·0	24th	28·0
		Vellore	707	29·098		29·740	29·179	8th	29·001	26th	·178	84·3	100·6		76·8		88·7		23·8	109·3	5th	70·0	26th	38·3
55	Madras, East Coast, (Central).	Nellore	52	29·727	+·009	29·716	29·815	9th	29·618	26th	·197	86·1	101·9	−4·1	79·1	−2·9	90·5	−3·5	22·8	109·3	5th	71·1	24th	38·2
		Masulipatam	15	29·772	+·016	29·721	29·865	9th	29·572	26th	·293	86·7	96·7	−3·4	79·7	−1·9	88·2	−2·7	17·0	104·2	19th	71·1	16th	33·1
54	Madras, (Central)	Cuddapah	433	29·368	−·010	29·733	29·440	31st	29·256	26th	·184	88·9	104·9	−1·4	82·0	−1·5	93·5	−1·5	22·9	110·3	4th, 5th & 6th,	73·8	24th	36·5
		Kurnool	945	28·859	−·007	29·737	28·979	16th	23·755	25th	·224	85·8	102·9	−1·9	80·2	−0·8	91·6	−1·4	22·7	107·8	5th	73·1	11th & 12th	34·7
		Bellary	1,475	28·313	−·008	29·755	28·457	16th	28·230	26th	·227	82·3	101·4	−1·0	76·5	−1·0	89·0	−1·0	24·9	107·0	4 days	68·2	11th	38·8
52	Madras, East Coast, (North).	Cocanada	26	29·760	+·011	29·722	29·884	23rd	29·364	26th	·520	86·5	98·7	−2·0	80·7	−2·1	89·7	−2·1	18·0	105·1	21st & 22nd,	72·0	23rd	33·1
		Waltair(Vizag.)	*226*	29·546	+·009	29·712	29·656	8th	29·408	26th	·248	84·9	90·7	P	79·2	P	85·0	P	11·5	98·9	31st	68·4	7th	30·5
		Gopalpur	72	29·702	+·019	29·684	29·848	8th	29·573	20th	·275	81·4	89·0	−0·8	79·6	−0·9	84·3	−0·9	9·4	94·2	17th	75·5	10th	18·7
	XII.—Hill Stations.																							
													87·9		49·2		68·6		38·7	95·4	31st	43·1	18th	52·3
48	Baluchistan	Pishin										71·5	84·8	+1·3	53·3	+1·0	69·1	+1·2	31·5	91·6	31st	44·9	18th, 24th & 25th.	46·7
		Quetta	5,502	24·607	+·023		24·724	1st	24·528	21st	·196	70·6	84·9	−0·5?	30·2	−13·1?	57·5	−6·8?	54·7	95·5	10th	19·8	24th	75·7
		Kalat			Not	recorded.																		
		Chaman	4,311	25·610	−·020		25·716	1st	25·80	21st	·236	79·0	92·3	−2·0	63·4	−2·5	77·9	−2·3	28·9	99·2	20th	55·6	23rd	43·6
30	Punjab	Leh	11,503	19·728	+·001		19·841	22nd	19·614	14th	·227	46·3	62·1	−1·9	37·2	+0·4	49·7	−0·8	24·9	70·6	4th	32·4	15th	38·2
		Srinagar	5,204	24·851	+·003		24·959	23rd	24·728	28th	·231	59·4	73·6	−3·3	52·0	−0·1	62·8	−1·7	21·6	84·2	4th	45·2	17th	39·0
		Gulmarg*	*8,569*	21·839			21·940	23rd	21·743	14th	·197	48·9	56·7		38·3		47·5		18·4	67·6	3rd	31·2	18th	36·4
		Sonemarg	*8,764*	21·859			21·941	23rd	21·755	28th	·186	44·1	61·3		36·9		49·1		24·4	71·2	4th	32·1	16th	39·1
		Skardu	*7,505*	22·046			22·982	23rd	22·712	29th	·270	57·4	70·5		49·5		60·0		21·0	83·0	31st	43·2	15th	39·8
		Dras	*10,059*	20·840			20·911	23rd	20·704	14th	·207	46·5	60·0		36·0		48·0		24·0	71·4	31st	32·1	16th & 18th	39·3
		Gilgit	4,890	25·098			25·260	23rd	24·944	29th	·316	65·6	81·5	−3·9	59·7	−2·1	70·6	−3·0	21·8	93·3	4th	52·6	15th	40·7
		Chitral	*5,486*									69·0	82·7		56·5		69·6		26·2	92·2	31st	50·0	8th	42·2
		Killa Drosh			Not	recorded.						67·0	83·1		60·9		72·0		22·2	91·4	31st	51·7	15th	39·7
		Murree	6,333	23·791	−·006		23·867	15th	23·684	14th	·183	67·2	76·7	−0·2	56·3	−3·1	66·5	−1·7	20·4	84·3	4th	40·0	1 6th	44·3

* Mean of 22 days.

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

Note 1.—When a query is inserted against any reading or in the returns

Note 2.—The data from which divisional means of the figure columns

I—*continued.*

in India, Burma, etc., in May, 1904—continued

Wind Direction. Number of winds from: Calm.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Wind resultant.	Wind Velocity. Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	Hygrometry, 8 A.M. Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Cloud. Mean cloud amount at 8 A.M.	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 1904.	Normal rainfall for period, 1st to 31st May.	Departure from normal of period, 1st to 31st May 1904.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
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	58
														73	+4·0	·823	+·005	4·6	+0·3				4·70	2·25	+2·45					**XI.—South India.**		
																·945		3·5		1	1·20	−0·20	0·13	0·55	−0·42	0·13	0·55	−0·42	0·13	Pamban	Madras (South)	57
5			1	2	5	6	7	4	1	S 15° W	13·9			14·7	78		·800	+·006	4·9	0	3	3·30	−0·30	2·81	1·37	+1·44	2·81	1·37	+1·44	1·37	Tinnevelly,		
		3	1		2	4	5	8	7	S 89° W	5·2			5·0	63	+1·6	·802	−·012	3·9	−0·1	6	4·20	+1·80	3·97	2·65	+1·32	3·97	2·65	+1·32	1·60	Madura,		
6	1	2				1	2	4	15	N 54° W	4·5	3·7	+22	5·1	68	+2·4	·748		3·8		11	5·10	+5·90	7·23	2·73	+4·50	7·23	2·73	+4·50	2·25	Periyakulam,		
15	7	1		2	3	2	1			N 10° W	7·9			3·1	72		·830	+·018	5·4	+1·2	12	7·10	+4·90	9·24	5·01	+4·23	9·24	5·01	+4·23	2·45	Salem	Madras, (South Central)	34
13					1	9	8			S 63° W	2·3	4·4	−48	2·0	76	+5·2	·837	+·020	3·2	−0·5	6	4·70	+1·30	5·85	2·28	+3·57	5·85	2·28	+3·57	2·05	Coimbatore,		
4				1	7	15	3	1		S 38° W	2·4	5·3	−55	2·1	82	+1·7	·837	+·017	4·3	−1·8	8	9·00	−1·00	6·12	5·78	+0·34	6·12	5·78	+0·34	1·80	Mercara	Coorg	35
3	11							17		N 28° W	5·6	5·3	+6	5·2	91	+6·5	·629	+·017	4·3	−1·8	8	9·00	−1·00	6·12	5·78	+0·34	6·12	5·78	+0·34	1·80	Chitaldroog	Mysore	36
						1	10	14	6	S 81° W	8·5			7·4	73	+2·6	·667	+·003	5·3	−0·2	5	4·60	+0·40	2·23	3·74	−1·51	2·23	3·74	−1·51	1·22	Bangalore,		
		1					9	19	2	S 82° W	8·0	5·5	+45	7·0	80	+4·5	·672	+·004	5·5	+0·8	12	6·50	+5·50	9·51	4·22	+5·29	9·51	4·22	+5·29	1·91	Hassan,		
							7	15	9	N 88° W	3·6			3·2	79	+4·1	·673	+·034	6·3	+2·9	12	7·80	+4·20	7·53	5·17	+2·36	7·53	5·17	+2·36	3·75	Mysore,		
	1	1				2	11	13	2	S 73° W	8·0			8·6	85	+11·5	·730	+·063	6·7	+1·7	10	8·30	+1·70	12·23	3·37	+8·86	12·23	3·37	+8·86	3·50	Mysore,		
				2	4	13	7			S 45° W	8·8	7·4	+19	7·7	70	+2·5	·867	−·008	4·2	+0·1	4	2·10	+1·90	6·69	1·61	+5·08	6·69	1·61	+5·08	3·28	Nagapatam	Madras, East Coast, (South)	56
	5									S 18° W	8·6			4·5	66	−6·6	·828	−·116	5·5	+1·3	2	1·20	+0·80	1·28	0·28	+1·00	1·28	0·28	+1·00	1·06	Cuddalore,		
26	1			1	1	2				S 41° W	5·6	6·0	−7		67	+3·2	·792	+·011	3·3	−1·1	8	3·50	+4·50	4·38	2·94	+1·44	4·38	2·94	+1·44	1·62	Trichinopoly		
11						3	16	1		S 26° W	7·7	9·2	−16		67	+2·8	·858	−·006	4·2	+0·1	3	2·30	+0·70	0·92	0·90	+0·02	0·92	0·90	+0·02	0·45	Madras,		
						17	9	4	1	S 80° W	4·0			4·0	65		·764		3·8		6	4·40	+1·60	4·38	3·02	+1·36	4·38	3·02	+1·36	1·54	Vellore,		
4		1				2	11	4	9	S12° W	6·9				69	+6·5	·859	−·023	3·7	−0·5	4	1·60	+2·40	2·83	0·39	+2·44	2·83	0·39	+2·44	1·57	Nellore	Madras, East Coast, (Central)	55
				8	9	8	1	4		S 46° W	5·0†	8·9	−44	4·8†	83	+6·9	1·051	+·036	5·1	−0·1	4	1·90	+2·10	4·72	1·27	+3·45	4·72	1·27	+3·45	3·25	Masulipatam		
4		1		3	7	7	3	6		S 78° W					56	+3·4	·767	+·028	5·1	+1·5	4	2·50	+1·50	0·94	1·80	−0·86	0·94	1·80	−0·86	0·31	Cuddapah	Madras, (Central)	54
		1		6		9	5	10		N 85° W	8·6				77	+24·8	·943	+·272	4·0	+0·6	2	2·90	−0·90	1·26	0·95	+0·31	1·26	0·95	+0·31	0·91	Kurnool,		
2		1	1		2	6	9	10		N 77° W	7·1	8·4	−15	7·5	65	+12·1	·717	+·091	5·2	+0·5	6	3·20	+2·80	4·73	1·98	+2·75	4·73	1·98	+2·75	2·20	Bellary,		
4	1	1	2	1	1	2	12	7		S 62° W	8·7			7·3	78	+7·9	·988	+·067	5·1	+0·1	5	2·80	+2·20	2·73	0·93	+1·80	2·73	0·93	+1·80	1·26	Cocanada	Madras, East Coast, (North).	52
6		2		1	1	13	5	3		S 44° W	17·8				71	−3·9	·855	−·076	5·8	−0·1	6	3·40	+2·60	9·30	2·47	+6·83	9·30	2·47	+6·83	2·80	Waltair (Vizag.)		
1		1		1	1	26		1		S 25° W	22·1	13·3	+66	21·7	80	−3·6	·935	−·051	2·5	−2·9	6	3·30	+2·70	3·28	2·10	+1·18	3·28	2·10	+1·18	1·41	Gopalpur,		
		1	1		1	12	15	1																								
																														XII.—Hill Stations.		
																				0	0·70	−0·70	0	0·19	−0·19	0	0·19	−0·19	0	Pishin	Baluchistan	48
																				0	1·10	−1·10	0	0·40	−0·40	0	0·40	−0·40	0	Quetta,		
25					1			4	1	W	2·1	4·7	−55	2·2	37	−8·4	·289	−·052	0·7	−0·3	0	0·90	−0·90	0	0·26	−0·26	0	0·26	−0·26	0	Kalat,		
		8		5		16		2		S 21° E					36		·269				0	0·10	−·010	0	0·05	−0·05	0	0·05	−0·05	0	Chaman,		
1	1	1	1			5	19	2	1	S 42° W	9·0			9·9	29	−0·6	·279	−·027	1·0	+0·4	0	0·90	−0·90	0·14	0·22	−0·08	0·14	0·22	−0·08	0·08	Leh	Punjab	30
	2	3	2	4	13	2	4	1		S 4° E	3·5				45	0	·141	0	6·6	+1·9	0	0·90	−0·90	0·14	0·22	−0·08	0·14	0·22	−0·08	0·08	Srinagar,		
9	3		2	10	3		1	3		S 50° E	4·5			4·2	84	+3·0	·430	−·007	4·6	+0·6	11	5·80	+5·20	3·95	2·60	+1·35	3·95	2·60	+1·35	0·73	Gulmarg,		
1	1	7	9	2	1			1		N 75° E	4·2			4·7	86		·305		5·4		12			4·57			4·57			0·73			
18		4	1	2	3	1	2			S 47° E	3·1			2·8	82		·238		4·1		12			7·56			7·56			1·13	Sonemarg,		
7	1	9	7	2		2	3			N 64° E	6·5			6·6	73		·333		5·4		5	1·90	+3·10	1·96	1·04	+0·92	1·96	1·04	+0·92	0·69	Skardu,		
21	1			1	1	1	4	2		W	6·6			5·2	66		·205		4·3		10	6·20	+3·80	4·29	2·82	+1·57	4·39	2·82	+1·57	0·95	Dras,		
29						1	1			S 66° W	3·3			2·9	51	+7·1	·330	+·019	5·8	+1·7	2	1·70	+0·30	1·43	0·57	+0·86	1·43	0·57	+0·86	0·73	Gilgit,		
25	3		1		2					N 45° E	2·0			2·0	46		·318		1·0		2			0·56			0·56			0·30	Chitral,		
30		1								N 45° E					72		·475		2·8		3			0·74			0·74			0·19	Killa Drosh,		
16	4	1	2	2	1			5		N 39° E	6·7	8·3	−19	7·2	44	+4·9	·284	+·027	2·9	+0·1	6	6·30	−0·30	1·85	2·97	−1·12	1·85	2·97	−1·12	0·56	Murree,		

† Mean of 23 days.

of any station, the data for that station are not utilized in calculating the provincial departures from normal.
Nos. 41, 43, and 45 are derived are incomplete.

Table

Abstract of Observations taken at 8 A.M. at 231 Stations

Number of District.	Meteorological Province or District.	Station.	Elevation of bar cistern above sea-level, in feet.	Pressure, 8 A.M., in inches.								Temperature of Air.												
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
30	Punjab—*concld.*	Kailang	*10,087*	20·681			21·089	22nd	20·872	29th	·217	43·0	58·5	—3·4	37·2	—0·9	47·9	—2·2	21·3	66·8	12th	32·3	14th	34·5
		Poo											69·2*		45·7*		57·5*		23·5	76·9	5th	37·8	14th	39·1
		Simla	7,224	23·077	+·005		23·152	22nd	22·990	28th	·162	63·0	71·8	—1·3	56·9	—1·7	64·4	—1·5	14·9	79·6	23rd	44·8	16th	34·8
		Sarain		23·114			23·214	8th	23·024	28th	·190	60·6	71·1		48·9		60·0		22·2	79·7	22nd	40·7	18th	39·0
	North-West Frontier Province.	Para Chinar	6,000	24·378			24·449	4th	24·266	13th	·183													
		Cherat	*4,256*	25·582	—·011		25·696	16th	25·480	13th	·216	73·5	87·3	—2·3	66·7	—1·6	77·0	—2·0	20·6	93·4	4th, 12th & 22nd.	53·0	16th	40·4
25	United Provinces.	Chakrata*	7,022	23·242	—·001		23·373	8th	23·155	20th	·218	62·[illegible]	73·8	—0·5	54·9	—1·6	64·4	—1·1	18·9	79·5	2nd & 24th.	44·3	16th	35·2
		Ranikhet	6,069	24·031	—·015		24·102	8th	23·934	28th	·168	65·8	78·4	+0·2	58·9	—1·6	68·7	—0·7	19·5	86·1	1st	50·0	26th	36·1
		Muktesar	7,600	22·809			22·884	8th	22·700	28th	·184	60·2	72·8		53·6		63·2		19·2	86·0	1st	43·4	8th	36·6
	Sikkim	Taugu											57·6		42·5		50·0		15·1	63·1	3rd	33·9	18th	29·2
13	Bengal	Yatung	10,480	Not recorded																				
		Darjeeling	7,376	22·984	+·003		23·054	8th	22·840	28th	·214	55·5	62·5	—1·3	51·2	—1·4	56·9	—1·4	11·3	67·7	31st	44·1	3rd	23·6
8	Assam Hill Tracts	Shillong	4,900	25·099			25·237	2nd	24·963	28th	·274	65·8	73·5		59·8		66·7		13·7	78·6	18th	55·5	3rd	23·1
		Cherra Poonjee	4,309	25·641			25·762	2nd	25·490	28th	·272	64·5	70·0		61·0		65·5		9·0	76·2	19th & 20th	56·0	3rd	20·2
	Central India	Mount Abu	3,945	25·964	—·016		26·047	1st	25·866	25th	·181	78·8	88·5	+0·3	72·0	+0·9	80·3	+0·6	16·5	94·2	21st	62·4	31st	31·8
		Pachmarhi	3,528	26·411	+·044		26·522	8th	26·270	26th	·252	83·3	95·8	+0·7	75·4	+0·3	85·6	+0·5	20·4	103·2	23rd	70·2	7th, 8th & 9th.	33·0
	South India	Wellington	6,200	24·225	—·008		24·318	28th	24·119	25th	·199	67·9	76·0	—0·1	56·5	—1·5	66·3	—0·8	19·5	82·2	5th	47·2	11th	35·0
		Kodaikanal	7,698	22·815			22·868	4th	22·720	25th & 26th.	·148	61·2	68·6		54·3		59·7		14·3	76·3	4th	51·6	7th	24·7
		Ootacamund	*7,322*	23·035			23·095	31st	22·9 7	24th	·158	62·0	69·1		52·7		60·9		16·4	73·5	4th	48·8	27th	24·7
	XIII.—Extra India.																							
	Ceylon	Trincomalee	12	29·825	+·013	29·763	29·909	31st	29·765	20th	·144	82·3	94·1	+1·1	78·4	—0·4	86·3	+0·4	15·7	99·0	7th	75·0	2nd	24·0
		Colombo	40	29·848	—·008	29·814	29·956	31st	29·778	24th	·178	81·5	86·7	—1·3	78·2	—0·2	82·5	—0·8	8·5	90·5	28th	68·5	23rd	22·0
												69·7			56·2	-1·0						42·9	22nd	
	Persia	Meshed	3,104									70·2	81·7	-1·2	58·0	—1·4	69·9	—1·3	23·7	93·7	29th	44·0	21st	49·7
		Teheran(*b*)	*4,002*	25·820			26·060	23rd	25·610	26th	·390	67·6	81·9	—2·2	54·3	+0·2	68·1	—1·0	27·6	94·5	29th	46·3	21st	46·2
		Ispahan(*b*)	*5,817*	24·325			24·490	23rd	24·070	20th	·420	80·6	89·1	0	74·8	—0·5	82·0	—0·3	14·3	98·0	10th, & 30th	66·1	31st	31·9
		Bushire	14	29·797	+·030	29·770	29·978	1st	29·628	28th	·350	81·5	88·7		75·9		82·3		12·8	93·7	10th	69·5	23rd	24·2
		Bahrein	30	29·803			29·945	2nd	29·646	28th	·299	84·2	93·0	+0·6	77·9	—0·4	85·5	+0·1	15·1	105·2	31st	72·2	18th	33·0
		Jask	*13*	29·713	—·038	29·683	29·839	1st	29·619	31st	·220	90·4	93·2	+1·5	86·9	+0·9	90·1	+1·2	6·2	102·3	16th & 31st.	80·6	9th	21·7
	Arabia	Muscat†	20	29·720	—·014	29·687	29·857	8th	29·635	31st	·222	76·6	93·2	+1·4	67·3	—0·5	80·3	+0·5	25·9	109·8	29th	55·0	20th	54·8
		Baghdad	220	29·746	+·034	29·941	29·859	19th	29·472	29th	·387		96·6		73·4		85·0		23·2	114·2	29th	65·9	22nd	48·3
		Busrah		29·857			30·035	1st	29·609	29th	·426	86·1	93·3	0	81·2	+0·2	87·3	+0·1	12·1	99·3	7th	77·8	3rd & 11th.	21·5
		Aden	94	29·758	—·010	29·783	29·895	1st	29·660	11th	·235													
		Dthala										85·5	92·6	+0·1	81·9	0	87·3	+0·1	10·7	95·3	17th & 30th.	79·8	2nd	15·5
		Perim	201	29·726	+·095	29·859	29·759	1st & 2nd.	29·669	11th	·130	65·0	81·2	-1·4	48·4	—4·7	64·8	—3·1	32·8	89·1	31st	39·4	23rd & 26th.	49·7
	Afghanistan	Kabul		Not recorded.								68·1	82·0	+1·2	58·1	+0·1	70·1	+0·7	23·9	95·1	31st	51·3	18th	43·8
	Central Asia	Kashgar	4,255	2··530			25·709	9th	25·310	12th	·390									92·3	2nd & 6th.			
	Arabian Sea Island	Amini Divi	*13*									84·6	89·3	+0·7						85·4	19th	71·9	31st	13·5
		Minicoy	7	29·898		29·881	29·939	31st	29·809	25th	·180	77·3	82·0	—0·3	75·4	—0·2	78·8	—0·3	6·6	85·7	26th & 31st.	?		
	Africa	Zanzibar	73	29·993	—·014	29·993	30·097	31st	29·897	11th	·200	75·3	82·7		?		?		?	85·7	26th & 31st.	?		
		Do. Dunga	*154*	29·891		29·978	30·020	31st	2··801	1st	·219	81·7	90·8		71·9		82·9		15·9	92·0	6 days	73·0	31st	19·0
	Straits Settlements.	Penang(*a*)	20	29·887		29·831	29·919	8th	29·852	23rd	·067	85·0	18·1		71·3		81·2		13·8	91·0	9th	69·9	29th	21·1
		Singapore(*a*)	10	29·902		29·833	29·936	8th	29·865	24th	·071													

* Mean of 30 days.

† Mean of 29 days.

(*b*) Aneroid uncorrected.

(*a*) 9 hours observations.

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

I—*concluded.*

in India, Burma, etc., in May, 1904—concluded.

Wind Direction. Number of winds from: Calm.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Wind resultant.	Wind Velocity. Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal (uncorrected.)	Percentage departure from normal.	Mean velocity corrected (where possible).	Hygrometry, 8 A.M. Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Cloud. Mean cloud amount at 8 A.M.	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 1904.	Normal rainfall for period, 1st to 31st May.	Departure from normal of period, 1st to 31st May, 1904.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
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	58
	1	1	2	3	4	5	10	5	S 72° W	1·5				72		·199		5·3		8			5·75	2·58	+3·17	5·75	2·58	+ 3·17	1·71	Kailang,	Punjab—*concld.*	30
						2	1		S 63° W									4·3*		3			1·51	0·71	+ 0·80	1·51	0·71	+ 0·80	0·98	Poo,		
27									N 10° E	4·3	2·9	+48	4·1	45	− 0·4	·256	−·011	3·0	+0·2	7	5·20	+1·80	3·03	3·06	− 0·03	3·03	3·06	− 0·03	0·79	Simla,		
5	14	1		3	0	1	1		S 37° W	3·0			2·9	53		·268		3·7		11			5·51			5·51			1·10	Sarain,		
21	1		1	1	1	5	1		N 45° E	3·8			3·4					1·4		7	6·50	+0·50	1·87	2·02	− 0·15	1·87	2·02	− 0·15	0·53	Para Chinar,	North-West Frontier Province.	
28	1	1		1					N 4° E	7·8			7·3	36	+ 2·0	·291	−·003	1·1	−1·1	3			0·69	1·21	− 0·52	0·69	1·21	− 0·52	0·19	Cherat,		
5	14	5		1	2			4	N 6° E	10·2	6·0	+70	12·2	48	+ 1·4	·266	−·014	2·5	+0·6	7	5·90	+1·10	3·25	2·43	+ 0·82	3·25	2·43	+ 0·82	0·95	Chakrata,	United Provinces.	25
9	14	2		1	3			1	S 55° W	3·4	3·3	+ 3	3·9	55	+ 5·1	·318	−·006	2·9	+0·6	9	5·50	+3·50	2·90	2·28	+ 0·62	2·90	2·28	+ 0·62	0·64	Ranikhet,		
13	2	1	3	1		8	2	1	W	10·3			9·4	56		·290		3·5		9			2·75			2·75			0·80	Muktesar,		
7	1	2	1		1	4	13	2																						Taugu,	Sikkim,	
																				14	14·50	−0·50	4·99	4·88	+ 0·11	4·99	4·88	+ 0·11	0·87	Yatung,	Bengal	13
9		3	2	3		7	0	1	S 37° W	4·8	6·2	−23	4·1	90	− 0·3	·398	−·031	7·5†	+0·8	21	13·43	+7·57	12·63	8·78	+ 3·85	12·63	8·78	+ 3·85	2·48	Darjeeling,		
14		1			2	14			S 39° W	4·4			5·0	73		·433		6·4		16	17·80	−1·80	9·28	10·15	− 0·87	9·28	10·15	− 0·87	2·65	Shillong,	Assam Hill Tracts.	8
1	1	4	1	1	3	10	7	3	S 68° W	8·2			7·2	88		·549		8·0		27	21·10	+5·90	42·34	49·93	− 7·59	42·34	49·93	− 7·59	11·36	Cherra Poonjee,		
		1		2	3	11	5	9	S 71° W	12·3	9·4	+31	12·1	35	− 5·3	·320	−·040	1·2	+0·4	1	1·30	−0·30	0·47	0·99	− 0·52	0·47	0·99	− 0·52	0·47	Mount Abu	Central India.	
	1	3	1	1	1	2	1	21	N 42° W	8·3	6·8	+22	8·5	32	− 4·9	·356	−·051	0·9	−1·1	1	1·39	−0·30	0·40	0·50	− 0·10	0·40	0·50	− 0·10	0·29	Pachmarhi,		
17	6	4	3	1					N 39° E	2·1	3·0	−20		67	+ 6·6	·451	+·017	5·1	+1·1	12	8·20	+3·80	3·65	3·76	− 0·11	3·65	3·76	− 0·11	0·80	Wellington,	South India.	
	5	6	4	2	2	1	3	8	N 1° E	10·1				66		·351		5·5		18	9·30	+8·70	7·64	6·47	+ 1·17	7·64	6·47	+ 1·17	1·38	Kodaikanal,		
19		4	4	2				2	N 67° E	3·0			2·8	69		·381		4·6		16	9·70	+6·30	6·89	5·93	+ 0·96	6·89	5·93	+ 0·96	1·13	Ootacamund,		
																														XIII.—Extra India.		
						31			S 45° W	11·0§				83	+5·5	·918	0	3·0	+0·5	3			3·35	2·46	+ 0·89	3·35	2·46	+ 0·89	1·68	Trincomalee	Ceylon.	
			1	2	5	16	7		S 42° W	9·1	8·5	+ 7		85	+6·6	·926	+·012	6·7	+0·4	16			9·93	11·12	− 1·19	9·93	11·12	− 1·19	4·42	Colombo,		
														67		·487		1·2	−1·3	5			3·98	0·74	+ 3·24	3·98	0·74	+ 3·24	1·66	Meshed,	Persia.	
17		6	1			1	3	2	N 13° E	3·6			4·7	40	P	·233	−·009	2·5	+0·1	3			1·04	0·33	+ 0·71	1·04	0·33	+ 0·71	0·34	Teheran,		
20	2			1		1	4	3	N 63° W	3·3			4·3	56	−4·5	·379	−·067	1·9	+0·2	0			0·05	0·11	− 0·06	0·05	0·11	− 0·06	0·05	Ispahan,		
3	5	3	1	1	1		5	12	N 35° W	16·9	8·9	+90	18·6	72	+12·1	·750	+·092	2·3	+0·9	0			0	0	0	0	0	0	0	Bushire,		
1	11	4		1			5	9	N 22° W					73		·791				1			0·25			0·25			0·25	Bahrein,		
	4		6	6		1	6	8	N 24° W	11·6			9·6	65	−3·2	·768	−·055	0	−0·7	0			0	0	0	0	0	0	0	Jask,		
6	1			4			6	12	N 69° W	5·3			5·5	59	−2·7	·820	+·002	0	−0·4	0			0	0	0	0	0	0	0	Muscat,	Arabia.	
16	6	2	1		1		3	2	N 21° W	2·6	4·2	−38	3·5	51	−1·5	·490	−·017	2·1	+1·3	4			0·98	0·24	+ 0·74	0·98	0·24	+ 0·74	0·40	Baghdad,		
																				3			1·72			1·72			0·95	Busrah,		
	3	6	9	6		3	2	2	N 79° E	5·4†	10·6	−49	4·1†	74	−0·9	·925	+·007	2·9	−0·1	1			0·50	0·19	+ 0·31	0·50	0·19	+ 0·31	0·50	Aden,		
																														Dthala,		
			7	11	6	3	3	1	S 31° E	12·0			12·1	79	+2·5	·963	+·030	0·5	−3·1	0			0	0·37	− 0·37	0	0·37	− 0·37	0	Perim,		
	5	17	3	3	2			1	N 49° E					83		·518		1·5	+1·2	1			0·39	0·51	− 0·15	0·39	0·51	− 0·15	0·28	Kabul,	Afghanistan.	
23	3						2	3	N 39° W	2·7			2·5	41	−3·0	·279	−·022	3·8	+0·6	1			0·15	0·88	− 0·73	0·15	0·88	− 0·73	0·10	Kashgar,	Central Asia.	
																								4·10			4·10			Amini Divi,	Arabian Sea Islands.	
	4				1	1	9	16	N 56° W	7·4			7·9	75	−2·6	·886	−·015	5·0	−0·3	7			5·61	6·40	− 0·79	5·61	6·40	− 0·79	1·46	Minicoy,		
					17	14			S 20° W	9·3†			8·5†	90	+3·3	·845	+·038	7·9	+1·5	13			21·25	10·62	+10·63	21·25	10·62	+10·63	4·12	Zanzibar,	Africa.	
				3	9	19			S 21° W	5·1			5·0	96		·839		7·1		19			12·36			12·36			2·25	Do. Dunga,		
																		0·6		7			7·72			7·72			2·48	Penang,	Straits Settlements.	
3	2	12	3	5	4			2	N 72° E	3·3								4·8		7			4·12			4·12			1·92	Singapore,		
		1		17	7	5		1	S 22° E	4·5																					

† Mean of 21 days.

§ Mean of 23 days.

TABLE II.—Abstract of Observations recorded at 10 A.M. and 4 P.M. at 65 Stations in India, Burma, etc., in May, 1904.

Table

Abstract of Observations recorded at 10 A.M. and 4 P.M. at 65

Meteorological Province.	Station.	Elevation of barometer cistern above sea-level in feet.	Pressure.						Temperature of Air.										Temperature, Wet-bulb.			
			Mean of 10 hours.	Mean of 16 hours.	Mean daily range.	Mean of daily mean pressures.	Departure from normal.	Mean reduced to S. L. and gravity 45° Lat.	Mean maximum.	Mean minimum.	Mean daily range.	Highest maximum.	Lowest minimum.	Absolute range.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	Mean minimum.	Mean 10 hours.	Mean 16 hours.	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
Burma Coast and Bay Islands.	Port Blair	61	29·824	29·729	·095	29·777	+·015	29·768	87·0	78·1	8·9	93·2	74·8	18·4	84·4	83·6	81·4	− 1·2	75·5	79·7	78·9	78·1
	Rangoon	57	·801	·672	·129	·741	+·002	·735	91·1	77·4	13·7	98·4	75·2	23·2	86·0	86·9	81·9	− 0·3	74·5	78·8	78·3	77·2
	Diamond Island	41	·821	·720	·101	·771	+·003	·746	88·0	79·1	8·9	90·8	73·2	17·6	85·3	85·2	84·2	− 0·1	74·7	78·7	78·7	77·4
	Cocos Island	119	·741	·611	·100	·691		·741	91·4	79·7	11·7	97·1	73·0	24·1	87·5	86·8	84·5		75·8			
	Akyab	20	·807	·701	·106	·760	−·001	·723	89·9	77·7	12·2	92·9	73·2	19·7	85·7	87·3	84·4	− 0·6		80·6	80·4	
Bengal and Orissa.	Chittagong	87	·720	·617	·103	·667	−·002	·701	89·0	75·0	14·0	92·7	69·1	23·6	85·5	85·2	82·0	+ 0·1	73·3	77·5	76·2	76·7
	Calcutta (Alipore)	21	·722	·611	·111	·669	+·008	·635	93·3	76·7	16·6	98·1	68·1	30·0	87·9	90·3	84·7	− 1·0	73·8	79·5	79·8	77·7
	Saugor Island	25	·729	·617	·112	·677	+·004	·646	91·6	80·7	10·9	94·8	71·6	23·2	88·2	88·9	85·1	− 0·2	77·0	81·5	82·0	80·2
	False Point	21	·729	·610	·119	·674	−·012	·636	90·0	79·6	10·4	98·7	69·3	29·4	87·5	87·5	83·7	− 0·6	76·7	81·4	81·4	79·8
Gangetic Plain and Chota Nagpur.	Hazaribagh	2,007	27·710	27·600	·110	27·652	−·025	·549	98·6	74·3	24·3	105·3	67·6	37·7	89·3	92·6	85·3	− 0·9	66·7	71·4	70·7	69·6
	Darbhanga	166	29·579	29·451	·128	29·514	+·015	·632	91·8	74·6	17·2	99·3	68·0	31·3	85·2	90·7	82·2	− 2·8	71·1	77·1	79·0	75·3
	Allahabad	309	·369	·240	·129	·302	−·012	·553	104·7	79·8	24·9	111·3	72·9	38·4	95·2	103·3	91·4	− 1·1	70·1	76·6	77·4	74·7
Upper Sub-Himalayas.	Dehra Dun	2,233	27·491	27·393	·101	27·438	−·023	·573	94·3	69·4	24·9	100·9	58·6	42·3	85·0	90·6	80·7	− 0·9	60·3	66·5	69·0	65·3
	Roorkee	899	28·778	28·659	·119	28·713	−·017	·553	100·3	73·4	26·9	107·1	63·1	44·0	89·8	87·8	85·8	− 1·8	63·9	69·6	71·2	68·2
	Meerut	738	·928	·808	·120	·862	−·024	·543	101·7	75·1	26·6	108·7	67·3	41·4	91·1	90·6	87·3	− 1·1	66·1	72·1	73·1	70·4
	Lahore	702	·925	·824	·101	·868	−·037	·512	105·4	76·8	28·6	115·2	65·2	50·0	95·3	102·8	90·8	+ 1·9	68·4	73·9	75·8	72·0
	Ludhiana	812	·828	·731	·097	·774	−·028	·527	103·7	76·5	27·2	112·9	67·3	45·6	91·9	101·2	89·4	+ 0·2	68·1	73·6	74·3	72·0
Indus Valley and N.-W. Rajputana.	Peshawar	1,110	·579	·469	·110	·518	−·027	·581	99·2	70·0	29·2	104·5	62·4	42·1	91·0	96·6	84·3	+ 0·3	60·6	70·0	71·1	67·2
	Jacobabad	186	29·440	29·323	·117	29·373	−·030	·514	115·7	79·4	36·3	123·2	70·6	52·6	104·5	112·9	96·9	+ 2·7	64·9	77·8‡	79·4‡	74·1
	Kurrachee	30	·688	·605	·083	·642	−·033	·622	94·0	80·1§	13·9	107·1	73·6	33·5	89·9	89·7	85·9§	+ 1·2	75·1	80·3§	80·2	78·8
East Rajputana, Central India and Gujarat.	Jaipur	1,431	28·282	28·169	·113	28·221	−·023	·553	106·7	77·8	28·9	114·0	65·4	48·6	95·7	103·6	91·4	− 0·2	63·5	70·3	70·2	68·0
	Udaipur	1,925?	27·833‡	27·731‡	·102	27·781		·585‡	102·8	79·2	23·6	109·4	67·5	41·9	95·3	99·8	90·6		63·8	69·9	69·6	67·8
	Deesa	466	29·281	29·143	·138	29·211	−·028	·612	108·3	77·6	30·7	114·9	73·8	41·1	93·4	100·6	92·6	+ 0·9	65·8	74·5	72·9	72·0
	Jamnagar	61	·706	·603	·103	·651		·658	99·4	76·8	22·6	106·2	73·6	32·6	91·3	95·1	87·0		73·1	77·0	77·9	76·0
Deccan.	Belgaum	2,539	27·328	27·218‡	·110	27·275	−·003	·693‡	91·7‡	68·3‡	23·4	99·1	65·9	33·2	82·5	86·1‡	77·1‡	− 0·6	66·5‡	70·3	73·0‡	70·0
	Sholapur	1,590	28·213	28·057	·156	28·135	−·019	·616	105·1	78·0	27·1	110·8	73·0	37·8	93·0	101·5	89·7	+ 0·8	66·5	70·1	70·8	69·1
	Akola	930	·825	·674	·151	·752	−·015	·589	108·7	82·7	26·0	115·5	77·5	38·0	98·3	106·0	94·6	+ 1·3	65·5	72·7	71·6	69·9
	Buldana	2,132	27·670	27·544	·126	27·604	−·034	·597	102·6	78·0	24·6	108·5	71·7	36·8	91·1	100·6	88·8	+ 0·9	63·0	68·0	67·8	66·3
	Khandwa	1,044	28·715	28·569	·146	28·644	−·014	·604	107·6	81·7	25·9	116·2	72·1	44·1	96·3	105·5	93·9	+ 1·0	66·0	72·2	71·6	69·9
	Nagpur	1,025	·707	·560	·147	·636	−·002	·573	108·9	82·1	26·8	116·7	74·3	42·4	99·3	105·3	91·1	− 0·1	64·6	71·6	72·0	69·4
	Nagpur (Sanitary Commr.'s Office)	1,013	·709	·563	·146	·638		·565	109·4	82·8	26·6	117·6	76·2	41·4	100·5	106·1	95·0		65·3	72·8	74·3	70·8
	Hyderabad (Deccan)	1,690	·108	27·978	·130	·044	−·007	·622	101·9	79·3	22·6	109·3	73·0	36·3	92·2	99·3	89·5	− 0·6	70·4	73·5	74·1	72·7
West Coast.	Bombay	37	29·816	29·719	·097	29·767	−·007	·743	91·2	81·0	10·2	92·3	78·2	14·1	86·9	88·2	85·0	+ 0·4	76·5	78·8	79·4	78·2
	Karwar	44	·837	·736	·101	·788	+·001	·766	89·2	78·7	10·5	91·2	72·5	18·7	86·3	86·9	82·9	− 0·8	75·7	77·6	78·2	77·2

‡ Mean of 30 days.

§ Mean of 28 days.

II.

Stations in India, Burma, etc., in May, 1904.

Vapour Tension.					Humidity.					Cloud.				Wind Direction.										Wind steadiness.		Wind velocity.		Rainfall.		Station.	Meteorological Province.
														Total number of 10 hours and 16 hours winds from																	
From minimum.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	From minimum.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	Mean 10 hours.	Mean 16 hours.	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.	Actual 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
																									%	%						
·854	·900	·930	·928	−·023	89	82	81	86	+1	7·7	6·8	7·3	+0·3		1	3	2	6	4	17	22	7	S. 68° W.	S. 39° W	53	43	223*	178	11·99	2·49	Port Blair .	Burma Coast and Bay Islands.
·818	·891	·894	·868	−·022	87	72	68	80	−3	6·7	8·0	7·4	+0·3			1	7	15	14	11	14		S. 6° W.	S. 21° W	52	59	40*	119	5·76	1·93	Rangoon .	
·798	·893	·897	·871	−·028	81	71	74	78	0	7·2	7·4	7·3	+0·8	1	1		1	5	5	11	11	27	N. 84° W	S. 72° W.	55	46	194*	187	8·61	2·45	Diamond Island.	
·843					83					6·4	6·6	6·5	0		4	1	1	7	5	25	14	5	S. 53° W.	S. 46° W	56	52			9·59	4·48	Cocos Island.	
	·880	·849				79	73			6·1	4·8	5·5	−0·2			1	1	10	5	32	3	10	S. 41° W.	S. 21° W.	58	30	57*	84	11·22	3·31	Akyab .	
·811	·828	·920	·852	−·023	92	68	76	80	0	5·3	4·0	4·7	−1·0		2	1	3	7	14	23	8	4	S. 32° W.	S. 1° W.	56	43	115*	154	11·80	2·62	Chittagong .	Bengal and Orissa.
·799	·898	·879	·865	−·015	87	68	62	75	0	5·1	5·0	5·1	+0·8	3				5	38	14	1	1	S. 9° W	S. 9° W	83	67	128	108	9·84	2·92	Calcutta (Alipore).	
·885	·991	1·000	·961	−·026	84	71	73	78	−3	6·1	6·2	6·2	+0·3		1			11	41	8	1		S. 1° E	S. 6° W.	85	73	500	406	2·95	1·07	Sagor Island.	
·884	·993	·992	958	−·020	87	76	76	81	−2	6·2	5·2	5·7	+0·9					3	29	27	3		S. 22° W.	S. 21° W.	87	75	392*	329	3·12	0·99	False Point	
·564	·547	·483	·552	+·060	67	41	44	49	+7	2·4	6·1	4·3	+0·4	2	9	5	7	2	12	8	10	7	S. 70° W	S. 89° W	14	16	208*	221	3·12	1·28	Hazaribagh	Gangetic Plain and Central India and Nagpur.
·720	828	·837	·790	+·032	84	68	59	72	+8	2·7	1·4	2·1	+0·1	4	1	1	22	24	2	2	3	3	S. 63° E.	S. 80° E.	60	59	121	149	5·83	1·90	Darbhanga.	
·611	·609	·555	638	+·117	59	41	29	45	+6	1·7	1·8	1·8	+0·2	2	6	9	16	4	1	3	12	10	N. 14° E	N. 6° W.	21	24	123*	153	0·06	0·02	Allahabad .	
·418	·426	·445	·433	+·030	59	36	32	44	+3	3·6 ††	4·0§	3·8	+1·1			7	5	10	10	12	17	1	S. 25° W.	S. 79° W	35	24	56	53	2·0^	0·60	Dehra Dun	Upper Sub-Himalayas.
·473	460	·468	450	+·012	58	34	24	41	+4	1·8	1·6	1·7	+0·1	6		2	1	33	2	3	2	13	S. 37° E	S. 54° W.	34	11	106	89	1·61	0·49	Roorkee .	
·530	538	·469	515	+·022	61	37	25	43	+2	2·0	2·2	2·1	+0·2	25	2	1	16	7	1		4	6	N. 85° E	N. 57° W.	21	21	39*	62	1·98	0·48	Meerut .	
·511	554	553	544	+·090	56	34	26	40	+4	1·0	1·8	1·4	−0·8	1	11	13	14	6	4	1	6	6	N. 45° E	S. 12° E.	38	18	88	77	0·21	0·14	Lahore .	
·581	597	·502	·567	+·080	65	40	2.	45	+4	0·6	1·6	1·1	−1·0	6	2	7		29			16	2	S. 34° E.	N. 57° W.	25	10	67*	62	0·64	0·27	Ludhiana .	
·419	·493	·452	·462	+·026	58	34	27	41	+1	2·0	4·4	3·2	+0·1	17	9	10	8	2	4	1	9	2	N. 25° E.	N. 16° E	21	28	66*	110	0·34	0·12	Peshawar .	Indus Valley and N.-W. Rajputana.
·499	·502‡	·561	·542	+·052	42	28‡	20‡	31	−1	0·1	0·5	0·3	−0·9	13	12	1	7	12	6	3	2	6	N. 88° E.	S. 33° E.	13	10	125* ¶	113	0	0	Jacobabad.	
·836§	·914§	901	·916	−·002	82§	67§	65	78	−1	1·1	1·4	1·3	−0·7						3	23	35	1	S. 70° W	S. 67° W	89	84	330	366	0	0	Kurrachee .	
·413	428	320	·391	−·054	44	27	17	31	−4	1·6	3·1	2·4	+0·1		1	1	1	2	4	19	25	3	S. 68° W.	N. 72° W.	71	48	139	151	0·63	0·19	Jaipur .	East Rajputana, Central India and Gujarat.
·405	·421	·382	·399		42	26	19	29		0·2	2·0	1·1			2			3	4	21	27	5	S. 70° W		74		181		1·64	1·65	Udaipur .	
·590	·599	·561	·623	−·043	62	39	16	39	−1	0·6	0·8	0·7	−0·7				1		10	36	12	3	S. 49° W	S. 63° W	82	71	365	332	0	0	Deesa .	
·767	739	·729	7·3		83	50	45	64		1·4	0·7	1·1							10	28	18		S. 52° W		78		653*		0	0	Jamnagar‡‡	
·631	592	·649	·657	+·031	91	54	53	75	+3	3·6	4·6‡	4·1	+0·6	1	3	2		1		11	35	9	N. 87° W	W.	76	60	362	322	3·18	1·23	Belgaum .	Deccan.
·513	451	·370	·478	−·021	51	30	19	40	−2	2·2	0·9	1·6	+0·5		8	6	2	3		4	2	37	N. 31° W.	N. 48° W.	65	58	287*	271	0·52	0·17	Sholapur .	
·405	461	·317	3.1	−·030	35	26	14	25	−3	1·4	4·6	3·0	+0·6	5	4	4		2	1	2	5	39	N. 44° W.	N. 49° W.	69	72	215*	230	0·16	0·16	Akola .	
·391	·460	·274	·348	−·055	42	28	14	28	−4	0·6	1·9	1·3	−1·1	1	13	1				1	17	29	N. 48° W.	N. 51° W.	81	68	273*	293	0·01	0·01	Buldana .	
·450	485	·344	·413	−·043	42	29	16	29	−3	1·4	3·5	2·5	+0·1		3	1	1			2	8	47	N. 49° W.	N. 63° W.	87	75	222* †	247	0·72	0·37	Khandwa .	
·395	429	·370	385	−·046	37	23	17	26	−2	2·3	5·1	3·7	−0·1	2	12	3	4	2	4	5	21	9	N. 64° W.	N. 48° W.	43	41	119*	92	0·51	0·39	Nagpur .	
·415	451	·458	432		38	24	20	27		2·3	5·6	4·0		3		7		12		13		27	N. 67° W.		25		72*		1·16	0·80	Do. (Sanitary Commr.'s Office).	
·637	593	·531	·593	+·027	61	40	29	45	+3	4·3	4·3	4·3	+1·1	24		3	2	4		2	20	7	N. 82° W.	N. 64° W.	32	13	116*	154	1·07	1·05	Hyderabad (Deccan)	
·851	877	·889	885	−·004	81	63	63	75	−1	3·0	1·8	2·4	−0·2						2	18	35	7	S. 80° W.	N. 83° W.	87	71	185	212	0	0	Bombay .	West Coast.
·852	829	·818	836	−·009	87	66	66	76	+1	2·5	2·7	2·6	−0·6	2	17					2	20	21	N. 50° W.	N. 66° W.	76	81	134	137	1·19	0·65	Karwar .	

‡‡ Wind variable 6.

* Corrected.

† Mean of 21½ days.
¶ " " 30½ "
‖ " " 29 "

†† Mean of 25 days.

Table

Abstract of Observations recorded at 10 A.M. and 4 P.M. at 654

Meteorological Province.	Station.	Elevation of barometer cistern above sea-level, in feet.	Pressure.						Temperature of Air.										Temperature, Wet-bulb.			
			Mean of 10 hours.	Mean of 16 hours.	Mean daily range.	Mean of daily mean pressures.	Departure from normal.	Mean reduced to S. L., and gravity 45° Lat.	Mean maximum.	Mean minimum.	Mean daily range.	Highest maximum.	Lowest minimum.	Absolute range.	Mean to hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	Mean minimum.	Mean 10 hours.	Mean 16 hours.	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
South India.	Periyakulam	944	28·900	28·774	·12	28·850		29·702	96·0	73·0	23·0	103·9	68·1	35·8	86·9	90·3	82·9		70·7	75·9	76·5	74·3
	Salem	940	·914	·777	·137	·858	−·013	·720	96·6	74·8	21·8	104·0	69·5	34·5	86·3	92·0	83·4	−1·9	71·0	77·5	78·9	75·8
	Chitaldroog	2,405	27·472	27·341	·131	27·411	−·007	·693	92·9	71·5	21·4	98·7	65·2	33·5	82·3	90·5	80·5	−0·2	68·0	71·5	71·7	70·4
	Bangalore	3,021	26·891	26·772	·119	26·839	−·004	·703	89·3	67·8	21·5	97·3	63·1	34·2	80·0	87·0	76·9	−1·6	65·1	71·3	70·9	69·1
	Hassan	3,091	·841	·731	·107	·795	+·004	·742	87·4	67·2	20·2	93·9	63·6	30·3	79·8	81·2	75·6	+0·2	65·5	70·9	70·9	69·1
	Mysore	2,518	27·382	27·260	·122	27·328	−·013	·733	91·0	68·3	21·8	97·3	60·3	37·0	80·3	85·3	77·6	−1·6	67·1	73·4	75·0	71·8
	Madras	22	29·783	29·668	·122	29·735	+·002	·685	95·9	79·5	16·4	102·7	74·6	28·1	91·9	88·6	85·8	−2·9		78·9	79·8	78·7
	Bellary	1,475	28·342	28·201	·141	28·272	−·026	·653	101·1	76·4	24·7	107·0	68·2	38·8	88·9	97·4	87·8	−1·2	69·3	75·3	76·9	73·8
	Waltair	*226*	29·551	29·440	·111	29·496	+·005	·660	90·7	79·0	11·7	99·0	68·2	30·8	87·5	86·3	83·8	−2·0	74·0	78·4	79·5	77·3
Hill Station, Baluchistan.	Quetta	5,502	21·613	24·543	·070	24·569	+·015		85·3	53·6	31·7	92·3	44·9	47·4	79·0	82·6	69·6	+1·6	45·6	57·0	57·6	53·4
Hill Stations, Northern India.	Leh	11,503	19·727	19·649	·078	19·695	+·001		62·2	37·2	25·0	70·6	32·4	38·2	52·6	58·0	49·1	−0·7	33·1	39·7	42·1	38·3
	Srinagar	5,204	24·852	24·777	·075	24·817	+·003		73·3	52·1	21·2	84·0	45·2	38·8	64·4	70·2	62·1	−1·8	49·7	60·5	65·1	58·4
	Sarain		23·124	23·071	·053	23·089			70·8	48·9	21·9	79·7	40·7	39·0	65·2	66·8	60·0			51·6	52·4	
	Kalabagh												Imperfect.									
	Simla (Ridge)	7,224	·093	·043	·050	·059	−·003		71·6	56·6	15·0	79·6	44·8	34·8	66·3	67·1	64·3	−1·7	48·2	53·8	54·0	52·0
	Chakrata†	7,022	·262	·209	·053	·226	−·001		73·7	54·9	18·8	79·5	44·3	35·2	67·5	68·2	64·4	−1·2	47·3	53·9	55·2	52·1
	Ranikhet	6,069	24·047	·976	·071	24·002	−·023		78·0	58·5	19·5	84·0	49·0	35·0	71·6	73·3	68·4	−1·1	51·9	58·1	58·4	56·1
	Muktesar	7,600	22·822	22·760	·062	22·782			72·5	53·6	18·9	78·5	43·4	35·1	64·1	68·1	63·2		47·2	53·3	56·1	52·2
	Katmandu	4,388	25·570	25·455	·115	25·509			80·2	60·4	19·8	87·2	53·0	34·2	72·6	76·1	70·4		58·8	64·5	65·2	62·8
	Darjeeling	7,376	22·987	22·955	·032	22·967	+·005		62·6	51·2	11·4	67·5	44·3	23·2	58·6	60·4	57·0	−1·3	50·0	56·4	58·2	54·9
Hill Stations, Central India.	Mount Abu	3,945	25·977	25·901	·076	25·936	−·022		88·4	71·9	16·5	94·2	62·2	32·0	82·2	86·4	80·2	+0·4	56·1	62·4	64·2	60·9
	Pachmarhi	3,528	26·424	26·314	·110	26·366	+·032		96·5	75·3	21·2	103·2	70·0	33·2	86·8	93·8	86·0	+0·8	60·2	64·6	66·0	63·6
	Chikalda	3,642	·263	·162	·101	·210	−·020		95·3	73·7	21·6	100·8	69·3	31·5	86·3	93·3	84·7	+1·0	61·0	64·7	66·7	64·1
Hill Stations, S. India.	Kodaikanal	7,688	22·824	22·755	·069	22·788			63·4	51·3	14·1	76·3	51·6	24·7	65·3	61·4	59·6		49·5	57·0	57·7	54·5
	Ootacamund	*7,322*	23·050	·981	·069	23·016			69·0	52·7	16·3	73·4	48·6	24·8	66·3	63·2	60·9		50·8	57·5	58·0	55·4
	Dodabetta	*8,639*	22·040	21·977	·063	22·009			62·3	49·7	12·6	67·9	45·3	22·6	61·0	57·2	56·1		47·9	53·3	52·8	51·3
Extra India.	Aden	94	29·768	29·649	·119	29·706	−·013	·729	93·3	81·3	12·0	93·7	77·8	18·9	88·6	91·2	86·1	+0·1	74·2	81·2	79·4	78·3
	Perim	201	·736?	·621?	·115	·682?	?	?	92·7	81·9	10·8	95·3	79·8	15·5	88·3	89·4	86·1	+0·1	76·4	80·1	80·2	78·9
	Minicoy	7	·905	·858	·047	·887		·819	89·1	*		92·3			86·5	85·3				78·8	78·7	
	Zanzibar	73	30·016	·921	·095	·974	−·001	·973	81·9	75·4	6·5	85·4	71·9	13·5	78·4	80·8	77·5	−0·3		75·6	76·0	
	Port Victoria (Seychelles).	15	29·973	892	·081	·934		·873	84·3	74·7	9·6	86·9	69·5	17·4	82·8	83·3	78·1		72·9	76·3	76·3	75·2
	Mauritius (Pamplemousses).	181				·907	+·006	30·036				81·7	57·1	24·6			71·4	−0·7				67·8

Elevations in italics indicate barometric determinations.

† Observations of 30 days.

II—*concluded.*

Stations in India, Burma, etc., in May, 1904—concluded.

Vapour Tension.					Humidity.					Cloud.				Wind direction.										Wind steadiness.		Wind velocity.		Rainfall.		Station.	Meteorological Province.
														Total number of 10 hours and 16 hours winds from																	
From minimum.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	From minimum.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	Mean 10 hours.	Mean 16 hours.	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
																									%	%						
·722	·747	·729	·733		89	58	53	65		3·6	6·5	5·1		5	6	4	4	3	9	13	4	9	S. 40° W.		18		74*		7·23	2·25	Periyakulam	South India.
·706	·830	·824	·790	+·017	82	66	56	70	+ 5	4·3	7·1	5·7	+0·9	21		1	4	1	4	7	22	2	S. 72° W.	S. 52° W.	39	52	48*	98	9·24	2·45	Salem.	
·643	·638	·545	·623	+ 034	83	58	39	62	+ 5	3·8	4·8	4·3	−0·1		2	1	2	2		7	27	21	N. 75° W.	N. 78° W.	71	73	177*	216	2·23	1·22	Chitaldroog.	
·591	·667	·573	·624	+·019	87	66	46	68	+ 5	4·4	4·5	4·5		4	6	4		1	4	13	18	12	N. 84° W.	S. 81° W.	52	66	165*	151	9·51	1·91	Bangalore.	
·612	·656	·642	·651	+·038	91	65	62	75	+ 6	4·6	7·5	6·1	+0·1		1	4	3	1	1	15	24	13	N. 89° W.	N. 82° W.	60	70	77*	96	7·53	3·75	Hassan.	
·654	·742	·743	·727	+·101	94	72	63	78	+13	6·6	8·3	7·5	+1·4	1	5	3	2	2		17	21	11	N. 88° W.	S. 81° W.	56	60	207*	245	12·23	3·59	Mysore.	
	·816	·900	·886	−·010		55	67	72	+ 2	4·3	4·1	4·2	+0·5			2	2	23	18	13	3	1	S. 9° E.	S. 9° E.	68	66	181	218	0·92	0·45	Madras.	
·634	·710	·675	·698	+·112	70	52	39	56	+11	3·8	4·5	4·2	1·1	1	5		2	3	2	6	23	20	N. 74° W.	N. 72° W.	63	58	184*	204	4·73	2·20	Bellary.	
·779	·859	·923	·868	−·019	79	66	73	75	+ 5	4·8	5·5	5·2	+0·8		1	1		3	27	29	1		S. 21° W.	S. 19° W.	82	67	181		9·30	2·80	Waltair.	
·231	·239	·219	·224	−·050	58	24	20	34	− 7	0·8	2·0	1·4	−0·6	14	5			4	1	3	19	16	N. 70° W	N. 69° W.	50	45	54*	79	0	0	Quetta.	Hill Station, Baluchistan.
·158	·138	·135	·143	+·013	70	35	29	45	+ 5	5·7	7·7	6·7	+0·2		3	3	1	1	15	16	17	6	S. 58° W.	S. 72° W.	55	31	86	77	0·14	0·08	Leh.	
·335	·492	·580	·440	−·002	85	81	77	81	+ 3	3·7	6·5	5·1	+1·1	7	4	6	3	12	9	4	4	13	S. 5° W.	N. 30° E.	5	6	101*	103	3·73	0·73	Srinagar.	Hill Stations, Northern India.
	·244	·271				41	47			3·9	5·9	4·9		16	3	7	2	1	9	17	6	1	S. 40° W.		27		69*		5·51	1·10	Sarain.	
																			1m	per	fect.										Kalabagh.	
·253	·286	·284	·268	−·001	57	45	44	49	+ 3	3·1	4·7	3·9	0	13	27			4	15		1	2	N. 2° E.	N. 18° W	18	25	100*	144	3·03	0·79	Simla (Ridge).	
·251	·278	·303	·271	+·003	61	42	44	49	+ 1	2·9	5·1	4·0	+0·4	3	11	1		5	38			2	S. 6° E.	S. 57° W.	48	33	301*	187	3·25	0·95	Chakrata.	
·321	·346	·337	·329	+·005	66	46	42	51	+ 2	2·3	3·1	2·7	−0·7	10		1	5	4		14	19	9	S. 78° W.	S. 66° W	43	44	93*§	98	2·90	0·64	Ranikhet.	
·260	·293	·330	·290		64	51	49	55		4·0	5·3	4·7		4		1	3	3		12	35	4	S. 80° W.		66		226*		2·75	0·80	Muktesar.	
·485	·519	·502	·496	+ 006	92	65	56	71	+ 3	5·7	5·5	5·6	+0·4	4	3	4	8	4	1	10	10	18	N. 65° W	S. 89° W.	29	39	36		5·63	0·97	Katmandu.	
·351	·434	·466	·411	+·008	93	88	88	90	+ 3	7·6	7·8	7·7	+0·3	5		1		4		35	12	5	S. 57° W.	S. 78° W.	69	36	108*	163	12·63	2·48	Darjeeling.	
·274	·341	·349	·314	−·031	37	33	28	33	− 3	0·6	1·0	0·8	−0·4					1	6	35	15	5	S. 57° W.	S. 66° W.	82	70	268*	259	0·47	0·47	Mount Abu.	Hill Stations, Central India.
·351	·355	·317	·333	−·030	40	28	20	29	− 4	0·2	1·7	1·0	−2·0		4	7		1	1	4	2	43	N. 41° W.	N. 66° W.	74	58	212*	180	0·40	0·29	Pachmarhi.	
·396	·358	·344	·358	−·008	48	29	23	33	− 1	1·8	5·4	3·6	+0·6	26	17	4					15		N. 14° W.	N. 33° W.	50	67	194*	242	0·11	0·04	Chikalda.	
·310	·384	·443	·376		74	63	52	74		5·3	7·9‖	6·6			10	13	9	6	7		4	11	N. 34° E.		31		241		7·64	1·38	Kodaikanal‖	Hill Stations, S. India.
·355	·384	·431	·393		89	60	74	74		5·3	7·6	6·5		24	10	6	11	3		2	2	4	N. 39° E.		29		72*		6·89	1·13	Ootacamund	
·316	·327	·357	·330		89	63	76	76		5·7	8·1	6·9			27	15	8	1	1		2	8	N. 16° E.		69		339		6·73	1·71	Dodabetta.	
·754	·966	·844	·810	+·015	70	72	58	70	0	1·7	0·6	1·2	−0·7	2	1	9	6	15	8	15	3	3	S. 21° E.	S. 59° E.	34	43	103*	269	0·50	0·50	Aden.	Extra India.
·839	·921	·914	·926	−·040	77	69	66	74	− 2	0	0·7	0·4			1	2	3	35	7	6	2	6	S. 33° E.	N. 86° E	56	29	285*	329	0	0	Perim.	
	·883	·896				70	74			5·3	6·6	6·0			5	1				4	18	34	N 59° W		84		186*		5·64	1·46	Minicoy.	
	·851	·834				87	79			7·9	7·1	7·5	+1·4	1				15	32	13	1		S. 1° E.	S. 5° E.	84	85	210*	194	21·25	4·12	Zanzibar.	
·791	·824	·819	·824	−·022	92	73	71	81	+ 1	4·9	5·8	5·4		6			2	54					S. 46° E.	S. 39° E.	89	56	184		0·08	0·03	Port Victoria (Seychelles).	
			·622	−·003				81	+ 2			4·5	−0·6										S. 66° E.	S. 63° E.			192	246	3·58	2·34	Mauritius (Pamplemousses).	

* Corrected. † Wind variable ?. § Mean of 13 days ‖ Mean of 28 days. ¶ Mean of 29½ days.

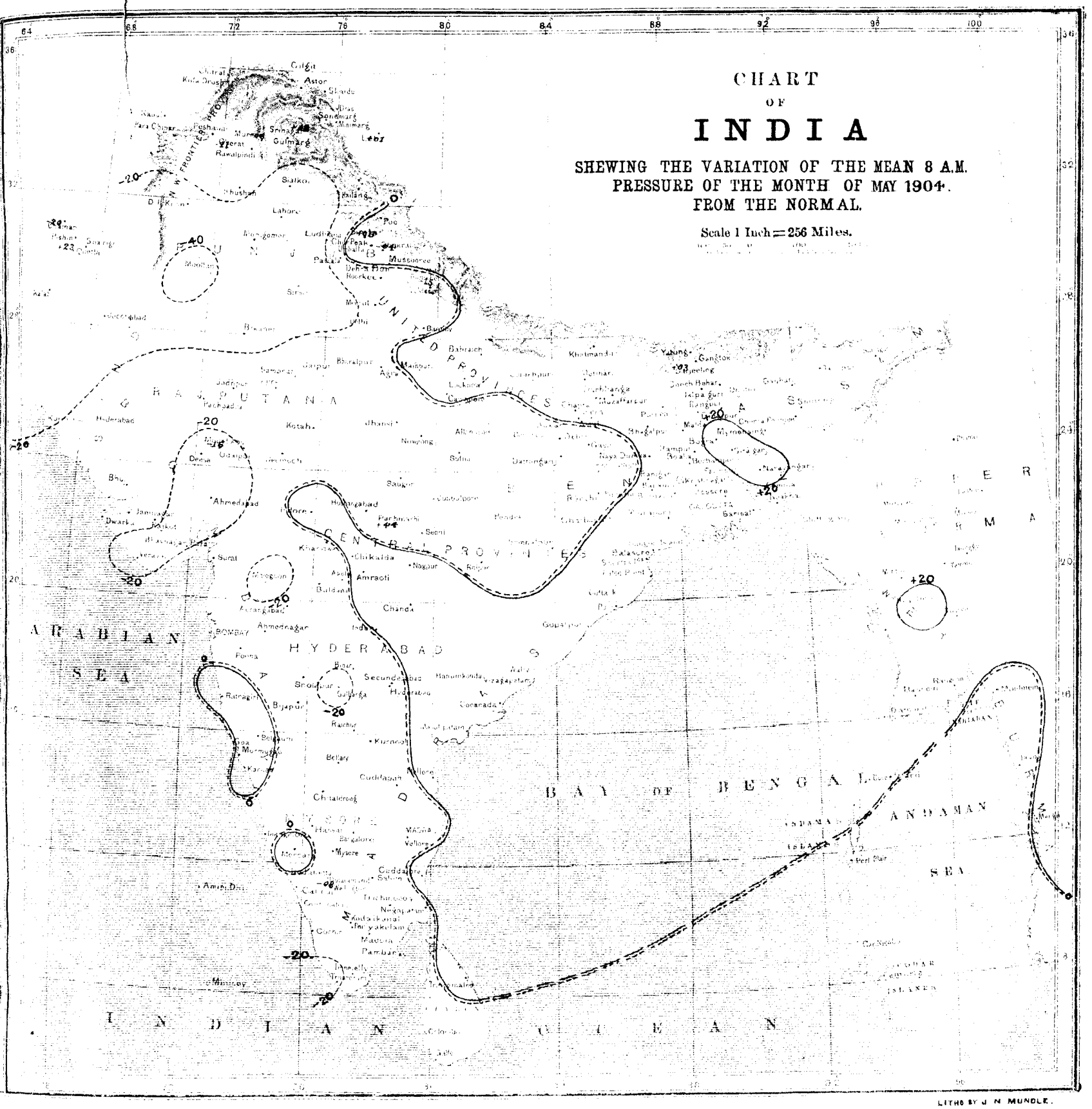
G. I. C P. O.—No. 419 Meteo.—3-10-04.—385.—C T.

Explanation.

The lines of the above Chart represent isobars or lines of equal barometric pressure, and the numbers attached indicate the barometric pressure in inches and are 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 ordinary or normal distribution of pressure as given in the Charts of the Bay of Bengal prepared by Mr. Dallas, 1st Assistant Meteorological Reporter to the Government of India, and published by the Meteorological Department. Hence they have not the same validity as the isobars in the land area of India itself, but it is probable they deviate very little from the actual.

The mean 8 a.m. 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 I of the 8 a.m. 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	,, ,, ,, ,, ,,



LITHO BY J. N. MUNDLE.

Explanation.

The Chart shows the variation of the mean 8 a.m. pressure of the month from the normal by means of lines drawn for equal amounts of variation (of two hundredths of an inch or ·020″). 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 variation, the dotted line facing the area of deficient pressure or negative variations.

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

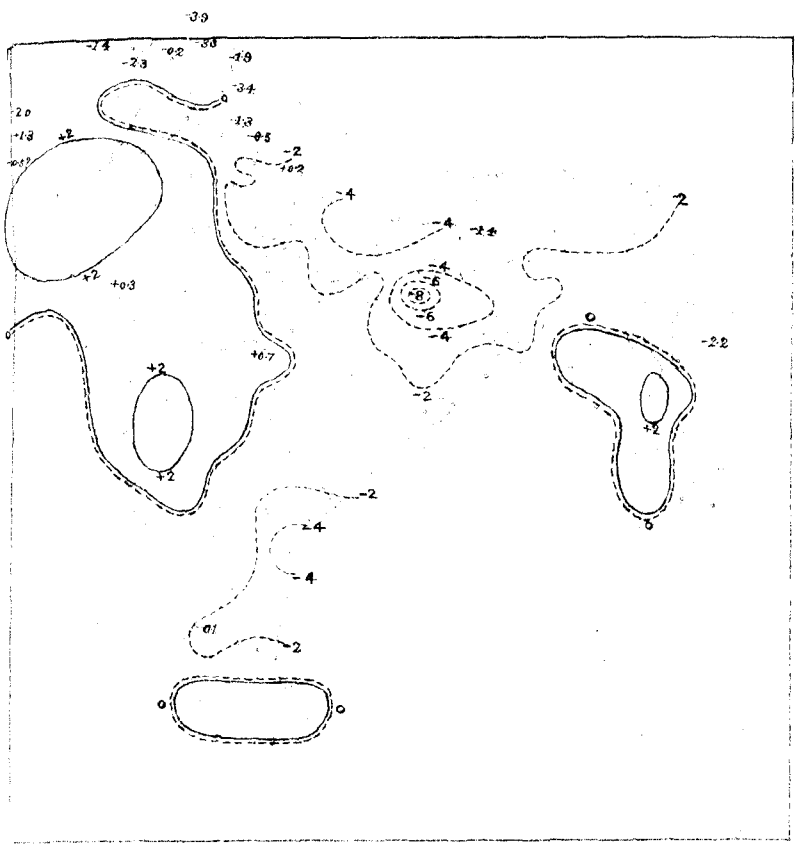
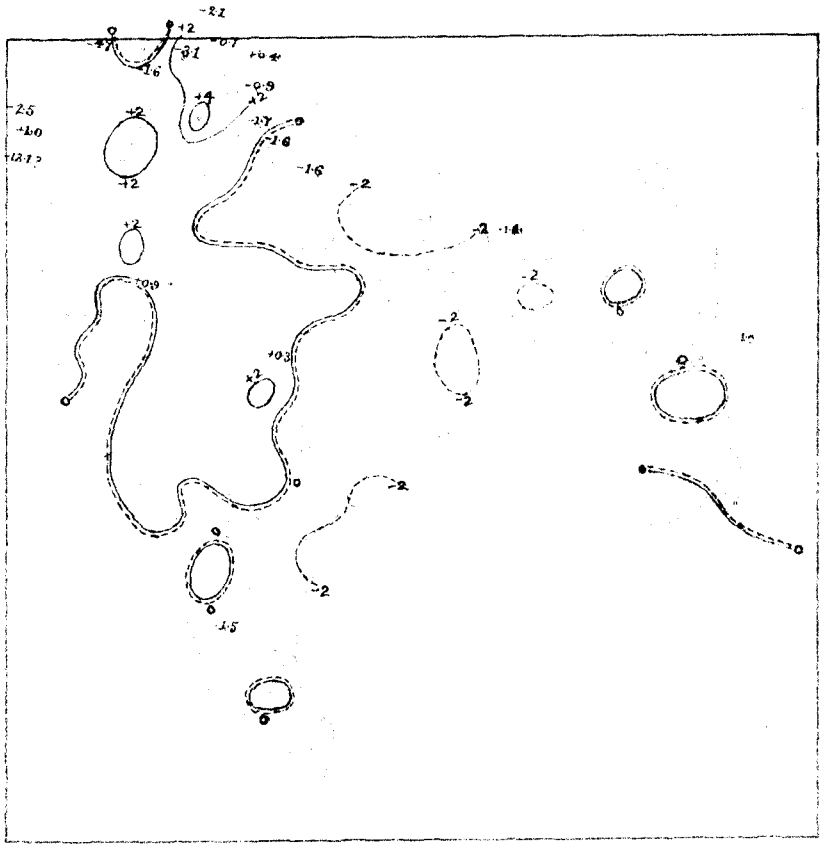


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MINIMUM TEMPERATURE.



Explanation.

Continuous lines indicate that the mean daily maximum of month was in excess by amounts indicated by the attached numbers; broken or dotted lines that it was in defect by amount indicated by the attached numbers. Double lines are the lines of no departure, the broken line facing the area of deficient temperature.

Continuous lines indicate that the mean minimum of month was in excess by amounts indicated by the attached numbers; broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no departure, the broken line facing the area of deficient temperature.

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

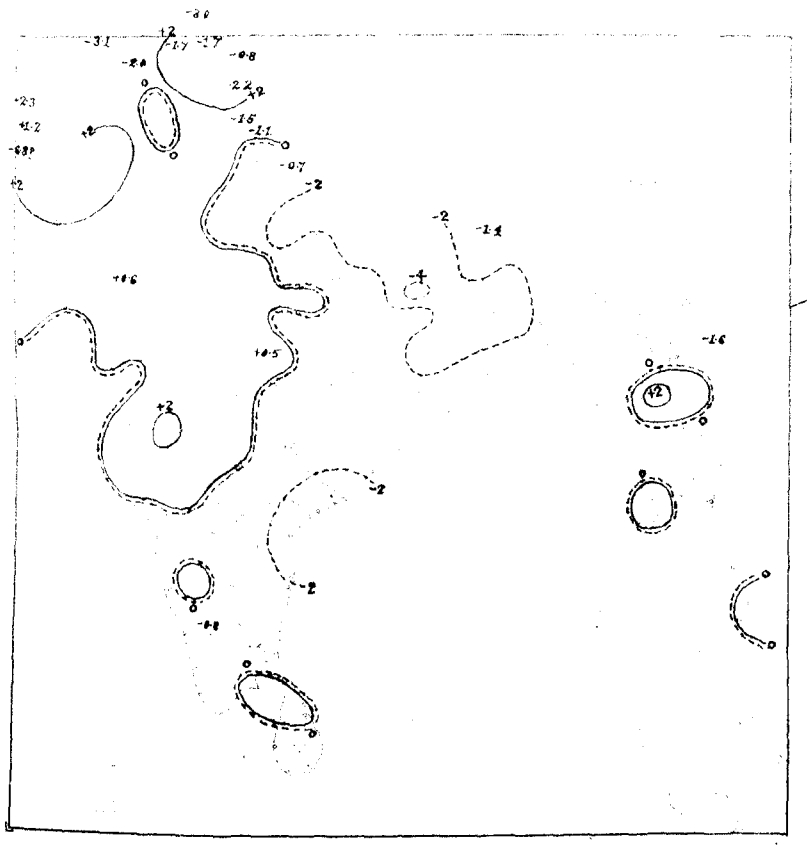
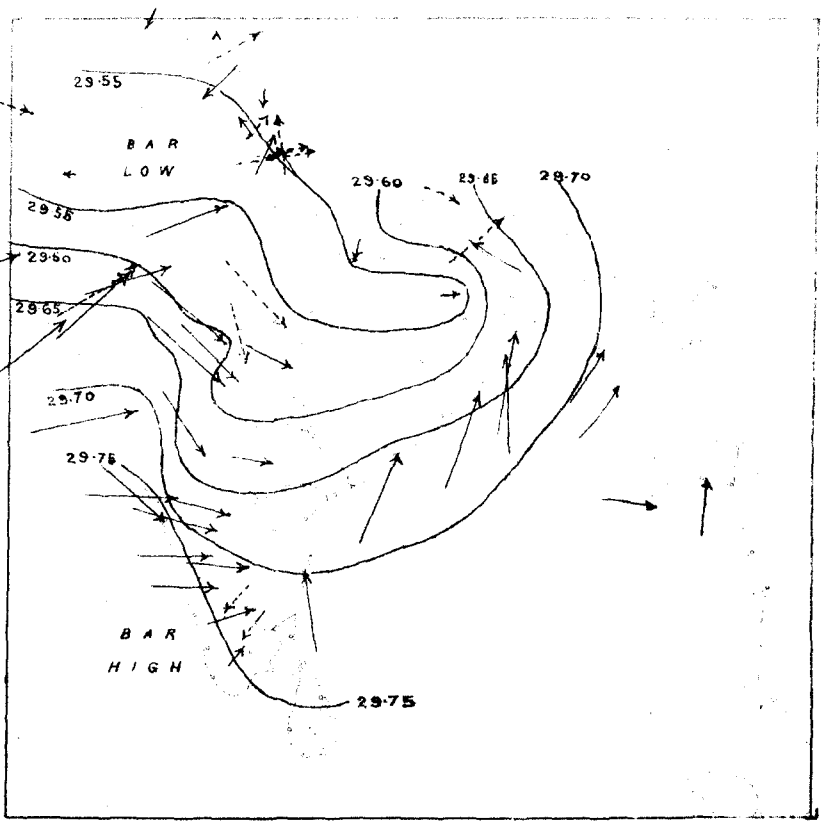


CHART SHEWING THE MONTHLY MEAN OF PRESSURE AND RESULTANT WIND DIRECTION.



LITHO. BY J.N. MUNDLE.

Explanation.

Continuous lines indicate that the mean daily temperature of month was in excess by amounts indicated by the attached numbers; broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no departure, the broken line facing the area of deficient temperature.

The Chart is prepared in the same manner as the Monthly Charts which previously to 1890 appeared in the Annual Reports, the only alteration made being that pressures are reduced to constant gravity (45°). The isobars are given for each twentieth of an inch. The arrows show the directions of the resultants of the wind recorded at 10 and 16 hours, and by their lengths the percentage of the observations expressing the numerical value of the resultant; a length of $\frac{1}{20}$th of an inch being equal to 100 per cent.

CHART SHEWING THE VARIATION AT 8 A.M. OF THE MEAN ABSOLUTE HUMIDITY OF THE MONTH FROM THE NORMAL.

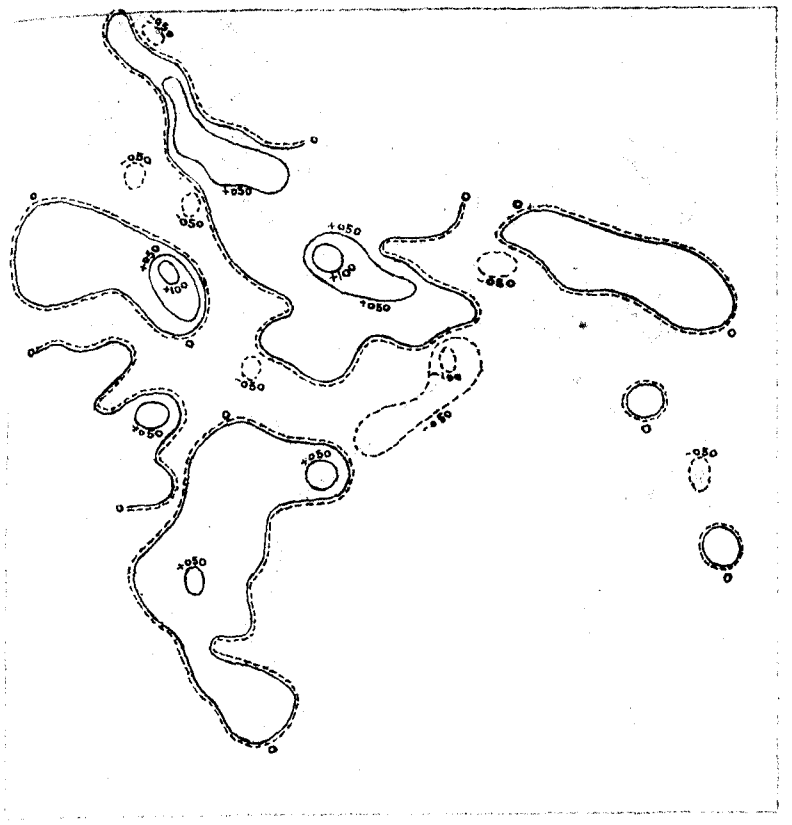
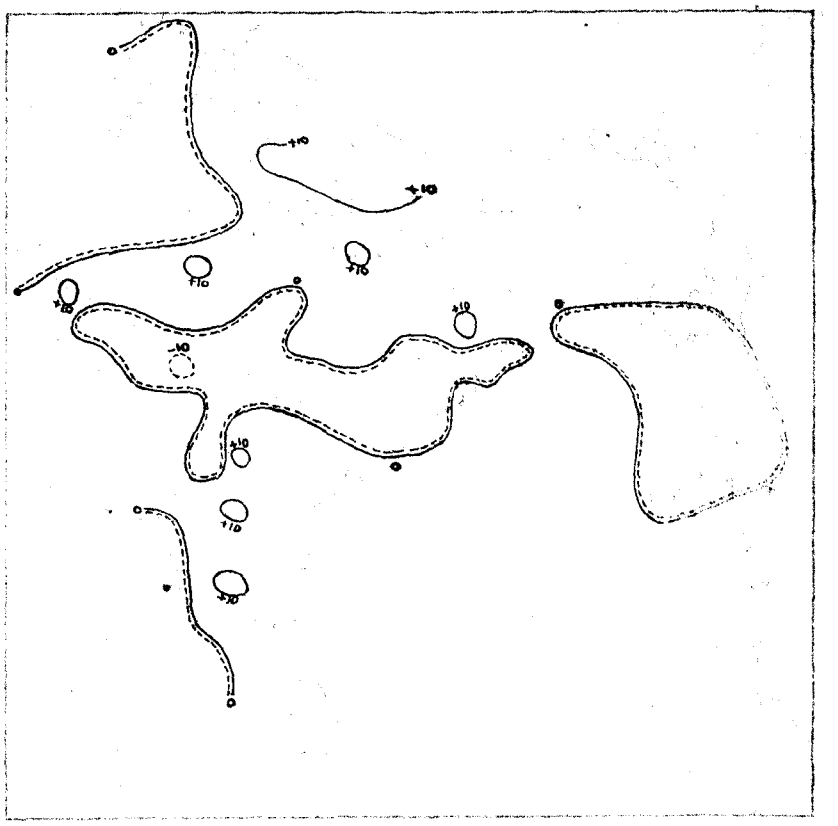


CHART SHEWING THE VARIATION AT 8 A.M. OF THE MEAN RELATIVE HUMIDITY OF THE MONTH FROM THE NORMAL.



Explanation.

Continuous lines indicate that the mean absolute humidity of month was in excess by amounts indicated by the attached numbers; broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no variation, the broken line facing the area of deficient humidity.

Continuous lines indicate that the mean relative humidity of month was in excess by amounts indicated by the attached numbers; broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no variation, the broken line facing the area of deficient humidity.

CHART SHEWING THE VARIATION AT 8 A.M. OF THE MEAN CLOUD AMOUNT OF THE MONTH FROM THE NORMAL.

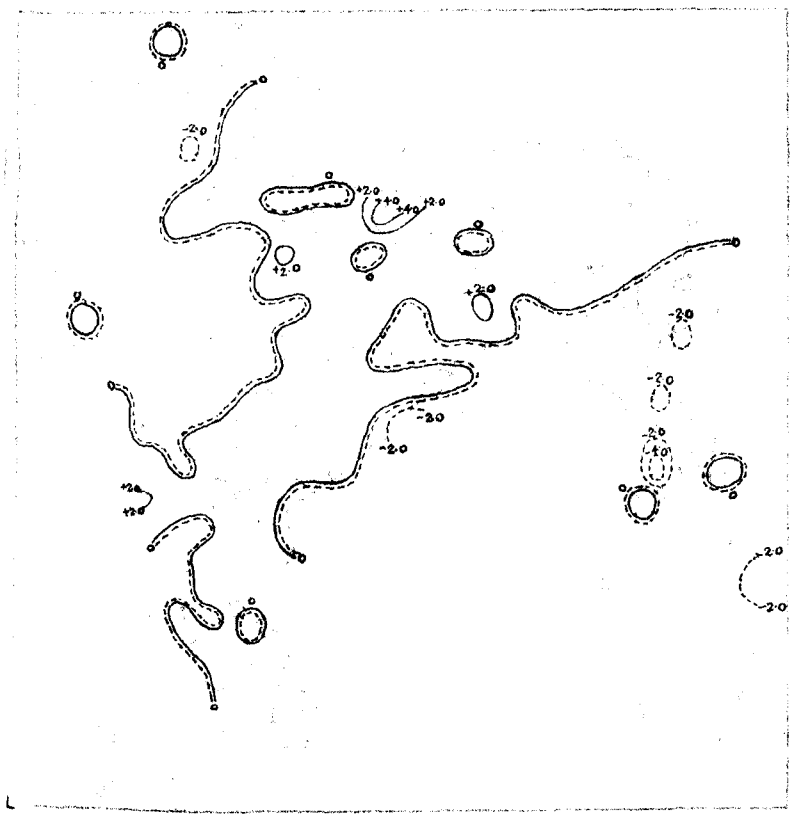


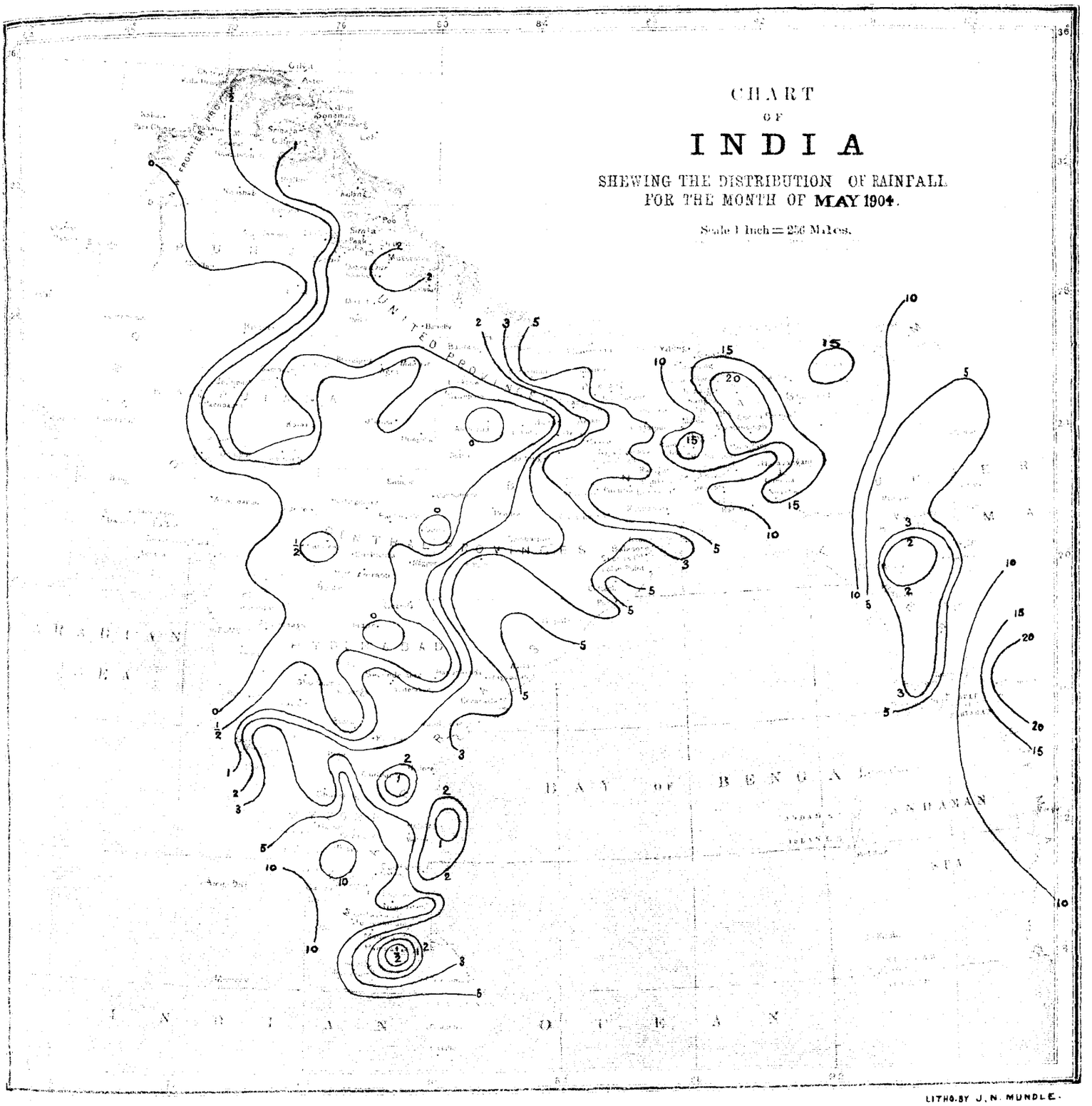
CHART SHEWING THE TOTAL NUMBER OF RAINY DAYS IN THE MONTH OF **MAY 1904.**

LITHO. BY J.N MUNDLE.

Explanation.

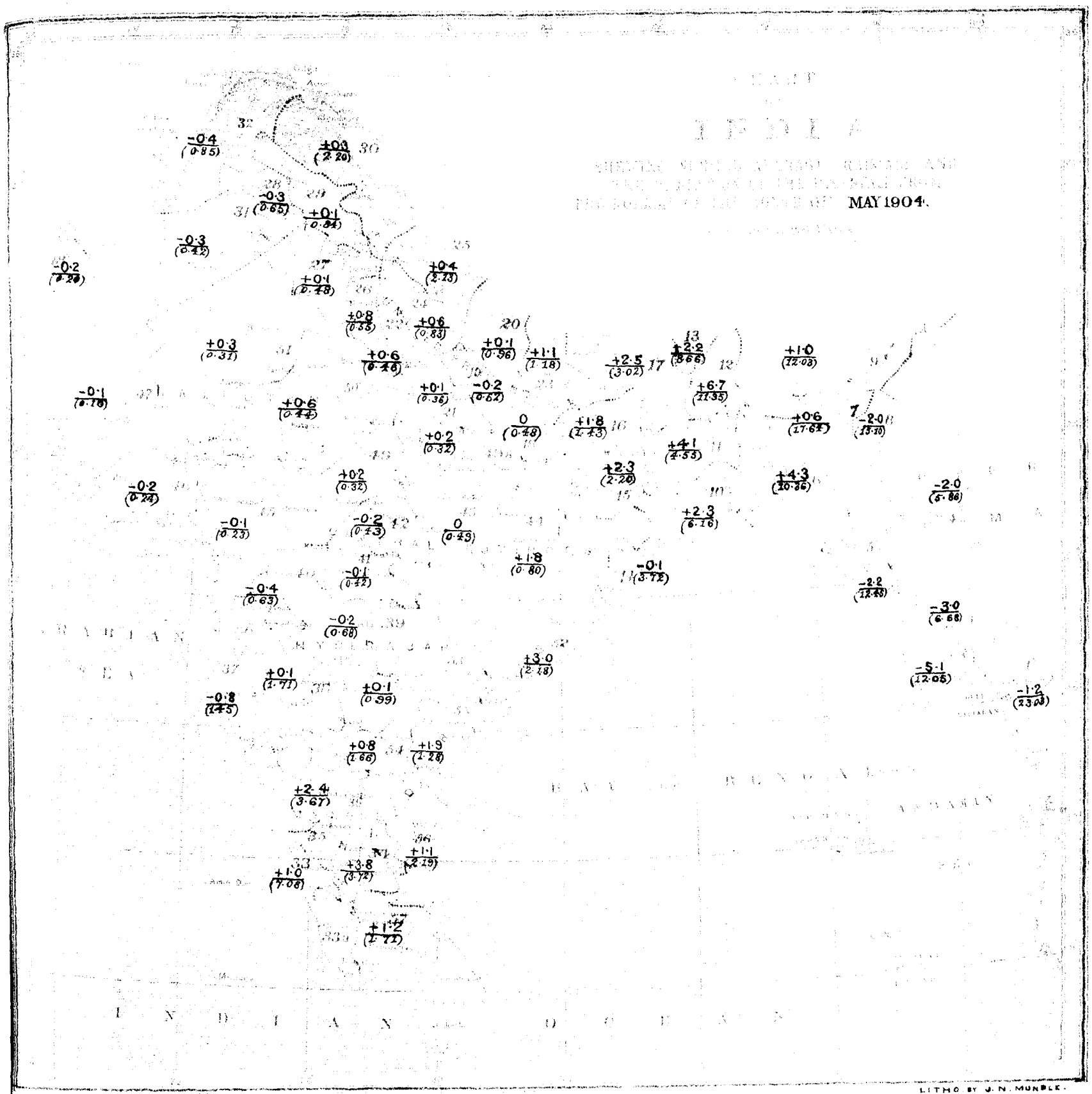
Continuous lines indicate that the mean cloud amount of month was in excess by amounts indicated by the attached numbers; broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no variation, the broken line facing the area of deficient cloud.

A rainy day is one on which 0·1x) inch or more of rain is received within 24 hours.



Explanation.

The Chart shows the distribution of the rainfall of the month by means of isohyetic lines or lines of equal amounts of rain. The data used in the preparation of this Chart are the rainfall returns of all the observatories in India except those at the Hill Stations over 3,500 feet in elevation (177 in number). The double line or line of no rainfall separates areas in which the rainfall exceeded a tenth of an inch from those where it was actually or practically *nil* (*i.e.* less than a tenth of an inch). The dotted line faces the area of no rainfall.



LITHO BY J. N. MUNDLE.

Explanation

The Chart gives the variations of the rainfall of the month (in tenths of an inch) from the normal over the whole of India and Burma. The country is divided into 57 areas, over each of which the meteorological conditions are fairly uniform, and the staple crops similar in character; and the means (both actual and normal) for the month have been calculated, and the numbers given in the centre of each division (usually with a + or − sign attached) give the difference between the actual and normal mean rainfall of the district of the month. A plus sign indicates that the rainfall was in excess, and a negative sign that it was in defect by the amounts indicated by the numbers to which the signs are attached. The normal average rainfall is also given below in smaller figures enclosed within brackets so that the percentage variation can be at once estimated. The name of the district can be at once ascertained by referring in the following list to the number given near the right hand boundary of each district in small slanting red figures.

1. Extreme South
2. Lower Burma (Delta)
3. Central do.
4. Upper do.
5. Arakan
6. East Bengal
7. Assam, Surma
8. Do., Hills
9. Do., Brahmaputra
10. Delta, Central
11. Central do.
12. North do.
13. Bengal Hills
14. Orissa
15. Chota Nagpur
16. South Bihar
17. North Bihar
18. United Provinces, East
19. South Oudh
20. North do.
21. United Provinces, Central
22. Do. do., West
23. Do. do., East Submontane
24. Do. do., West do.
25. Do. do., Hills
26. South East Punjab
27. South do.
28. Central do.
29. Punjab, Submontane
30. Do., Hills
31. West Punjab
32. North West Frontier Province
33. Malabar
34. Travancore
35. Madras S. W. Coast
36. Coorg
37. Mysore
38. Konkan
39. Bombay Deccan
40. Hyderabad, North
41. Khandesh
42. Berar
43. Central Provinces, West
44. Do., Central
45. Do., East
46. Gujarat
47. Kathiawar and Cutch
48. Sind
49. Baluchistan Hills
50. Central India, East
51. Do. do.
52. Rajputana East, Central India West
53. West Rajputana
54. Madras, East Coast, North
55. Hyderabad, South
56. Madras, Central
57. Madras, East Coast, South
58. Madras, South

GOVERNMENT OF INDIA.

METEOROLOGICAL DEPARTMENT.

MONTHLY WEATHER REVIEW.

PUBLISHED BY ORDER OF

THE GOVERNMENT OF INDIA.

CALCUTTA, JUNE, 1904.

INTRODUCTION.

THIS review of the weather in India during the month of June 1904, is based on observations taken daily at 8 A.M. at 231 stations, and on additional observations taken at 10 A.M. and 4 P.M. at 66 stations. In the rainfall summary the rainfall data of the meteorological observatories and the rainfall statements of the month published by the Provincial Governments that had been received up to the date of the preparation of the review, are utilized. A summary of the weather in the Bay of Bengal and the Arabian Sea, derived from information extracted from the logs of vessels entering the ports of Calcutta and Bombay, is also given, and brief notes on Magnetic and Solar disturbances are supplied by the Observatories.

Summary of the chief features of the weather in India during the month of June, 1904.

The principal features affecting the weather over India during June were, the slight delay in the appearance of the south-west monsoon current along the west coast of India, its failure to extend northward beyond Bombay and to penetrate freely into the interior of the Peninsula, and the early arrival of the Bay of Bengal current.

Between the 1st and the 5th a moderate to slight cyclonic storm affected the weather over Burma, occasioning general rain and ushering in the monsoon over that province. This rainfall was very steady and continuous, and the mean temperature was low from the 1st to the 15th. The following gives comparative temperature data for Burma for each alternate day for this period :—

Province.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of							
	1st June.	3rd June.	5th June.	7th June.	9th June.	11th June.	13th June.	15th June.
	°	°	°	°	°	°	°	°
Burma . . .	—1·1	—1·4	—2·2	—3·7	—2·0	—1·5	—1·4	—0·5

Over India between the 1st and the 5th there was comparatively little rain, but showers occurred over Rajputana and Central India, reducing the temperature to largely below the normal over those provinces and the neighbouring districts of the Punjab. The following gives comparative data for those stations at which between the above dates the mean temperature was more than 6° below the normal :—

Date.	Station.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of date.
		°
1st June . . .	Neemuch	—11·2
	Jaipur	— 9·6
	Sambhar	— 9·5
	Ajmer	— 8·9
	Agra	— 7·1
	Indore	— 6·3
	Khandwa	—6·2

DATE.	STATION.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of date.
		°
2ND June	Jaipur	−8·2
	Khandwa	−7·7
	Ajmer	−7·2
	Neemuch	−7·2
	Sambhar	−6·7
3RD „	Sirsa	−9·6
	Bikaner	−9·5
	Ajmer	−7·9
	Jaipur	−7·0
	Sambhar	−6·6
4TH „	Sirsa	−11·2
	Ajmer	−7·8
	Bikaner	−7·2
	Sambhar	−6·3

On the 6th the monsoon set in on the south-west coast and the mean temperature was low over the south and west of the Peninsula from the 6th to the 11th. During this period temperature was steadily excessive over northern India. This is shown below:—

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF					
	6th June.	7th June.	8th June.	9th June.	10th June.	11th June.
	°	°	°	°	°	°
Chota Nagpur	+0·7	+1·9	+1·2	−1·8	−5·3	−6·5
United Provinces of Agra and Oudh.	+4·1	+6·5	+4·1	+2·8	+0·5	+1·5
Punjab	+3·2	+5·0	+4·4	+4·1	+4·7	+4·6
North-West Frontier Province.	+3·5	+4·1	+3·8	+5·3	+4·9	+2·1
Central India	+0·7	+1·8	+1·1	+1·8	+2·1	+1·8

The excess was greatest in the submontane districts, and amounted to between 7° and 10° at the stations for which data are given below:—

DATE.	STATION.	DEPARTURE FROM NORMAL OF		
		Maximum of date.	Minimum of date.	Mean temperature of date.
		°	°	°
7TH JUNE	Roorkee	+6·6	+11·7	+9·2
	Cherat	+8·4	+11·7	+10·1
	Mainpuri	+5·5	+11·2	+8·4
	Chakrata	+3·4	+10·6	+7·0
8TH „	Roorkee	+5·9	+11·6	+8·8
	Rawalpindi	+11·1	+9·3	+10·2
10TH „	Do.	+8·6	+12·4	+10·5

On the 10th a slight depression appeared over deltaic Bengal, and advanced during the 11th and 12th into east Bengal and lower Assam. Heavy rain accompanied it, and temperature was reduced to below the normal in the north-east and so continued till the 15th. This is shown below:—

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF					
	10th June.	11th June.	12th June.	13th June.	14th June.	15th June.
	°	°	°	°	°	°
Assam	+0·6	−1·0	−4·2	−5·0	−2·3	+0·6
Bengal	−1·7	−2·6	−3·8	−1·3	−0·7	−0·4
Orissa	−3·8	−5·9	−3·9	+1·5	+2·8	−3·2
Bihar	−4·1	−2·9	−3·0	+0·3	−0·9	−3·1
Chota Nagpur	−5·3	−6·5	−3·8	+1·1	+0·6	−1·4

During this time the temperature was unsteady in the north-west owing to the occurrence of showers on and near the hills.

On the 16th another depression appeared over the north-west of the Bay and the neighbouring coasts. It hung about this region, giving daily rain, until the 20th, and the mean temperature was very low over the north-east of the Peninsula during this time. The following gives data for those stations at which the depression of the mean temperature exceeded 6°:—

DATE.	STATION.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of date.
		°
16TH JUNE	Raipur	−7·5
	Gopalpur	−6·7
17TH „	Raipur	−7·9
18TH „	Do.	−11·0
	Sambalpur	−9·9
19TH „	Raipur	−10·4
	Sambalpur	−9·6
	Cocanada	−7·4
	Cuttack	−6·1
20TH „	Chanda	−9·8
	Raipur	−9·7
	Nagpur	−7·8

In north-west India, part of Central India and the Bombay Deccan during this time there was little or no rain,

and the heat was greater than usual. This is shown below:—

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF				
	16th June.	17th June.	18th June.	19th June.	20th June.
	°	°	°	°	°
United Provinces of Agra and Oudh.	+1·5	+1·8	+4·2	+4·6	+2·6
Punjab	+0·5	+1·7	+3·0	+4·9	+6·6
North-West Frontier Province.	−0·9	−1·6	+0·7	+3·2	+6·2
Sind	+0·3	−0·3	+0·9	+1·5	+2·6
Rajputana	+1·2	+1·5	+2·1	+4·5	+4·4
Gujarat	+0·8	+1·2	+1·9	+2·2	+2·5
Central India	+1·8	+2·3	+3·5	+4·3	+4·2
Bombay Deccan	+0·9	−1·3	+1·5	+2·4	+1·2

On the 21st, though there was no storm of any importance, a period of general showers set in, and the mean temperature was below the normal over the greater part of the country on the 22nd, 23rd and 24th. The following gives data for all divisions for these three days:—

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF		
	22nd June.	23rd June.	24th June.
	°	°	°
Burma	−1·1	−1·0	−0·9
Assam	+0·3	+0·8	+1·3
Bengal	−0·2	+0·1	+0·5
Orissa	−0·3	−0·4	−0·3
Bihar	−2·5	−0·7	−1·6
Chota Nagpur	−1·1	−0·6	−1·6
United Provinces of Agra and Oudh.	−4·9	−8·1	−4·6
Punjab	−3·8	−4·2	−2·3
North-West Frontier Province.	−1·2	−0·1	−2·6
Sind	−0·6	+0·1	−1·5
Rajputana	−2·6	+0·4	+0·2
Gujarat	+1·7	+2·0	+2·0
Central India	−4·1	−5·9	−1·2
Central Provinces	−3·5	−4·3	−2·7
Berar	−6·1	−5·1	−2·2
West Coast	+1·7	+0·6	−0·8
Bombay Deccan	−1·0	−0·3	+0·6
Mysore	−1·3	−1·3	−1·5
Madras Coast	−0·3	−1·3	−1·3
Madras Deccan	+0·1	−1·5	−0·7
South India	−0·1	−0·1	−0·3

On the 25th the rainfall became heavier along the west coast, and at the same time a depression began to develop over the north-west of the Bay. Temperature fell in both areas, and from the 25th until the close of the month the mean temperature was lower than usual over the south and east of the Peninsula, Orissa, west Bengal and the east of the United Provinces. The deficiency was most marked within the areas of heaviest rainfall, and amounted to over 6° at the stations for which comparative data are given below:—

DATE.	STATION.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of date.
		°
25TH JUNE	Gaya	−6·8
27TH "	Do.	−8·0
	Cuttack	−6·9
	Chaibassa	−6·8
	Sambalpur	−6·2
28TH "	Gaya	−6·1
29TH "	Cuttack	−7·7
	False Point	−6·1
30TH "	Sambalpur	−8·4
	Cuttack	−7·3
	False Point	−6·8
	Gopalpur	−6·3

During this period uninterruptedly fine weather prevailed over north-western and central India and a steady rise of temperature occurred over these areas. The excess, as was the case in the previous hot period, was most marked at the submontane stations where, at the close of the month, the heat was very excessive. The following gives comparative data for the stations where, during the last six days of the month, the mean temperature was more than 6° above the normal:—

DATE.	STATION.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of date.
		°
26TH JUNE	Ludhiana	+6·4
27TH "	Delhi	+10·3
	Sialkot	+8·2
	Mainpuri	+6·9
	Lahore	+6·8
	Sutna	+6·8
	Khushab	+6·3
	Saugor	+6·2
	Ludhiana	+6·1

DATE.	Station.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of date.
		°
28TH June	Sialkot	+10·5
	Khushab	+ 8·7
	Ludhiana	+ 8·2
	Sutna	+ 7·9
	Lahore	+ 7·8
	Sirsa	+ 7·3
	Rawalpindi	+ 7·1
	Hoshangabad	+ 7·1
	Delhi	+ 6·7
	Mainpuri	+ 6·6
	Meerut	+ 6·3
	Cawnpore	+ 6·1
29TH „	Sialkot	+11·6
	Rawalpindi	+ 9·4
	Khushab	+ 7·8
	Delhi	+ 7·7
	Meerut	+ 7·3
	Ludhiana	+ 7·2
	Mainpuri	+ 7·0
	Peshawar	+ 6·4
	Jhansi	+ 6·2
30TH „	Rawalpindi	+14·4
	Sialkot	+11·6
	Lahore	+ 8·0
	Delhi	+ 7·9
	Khushab	+ 7·4
	Ludhiana	+ 6·8
	Jhansi	+ 6·6
	Sutna	+ 6·4

Pressure.—The mean pressure of the Indian land area was ·013″ below the normal. Relatively to the geographical mean pressure was in excess over the Peninsula (except the north-east), the west of the Central Provinces and of Central India, Rajputana and north Bombay and was in defect over the Punjab, the Gangetic plain, the north-east of the Peninsula, north-east India and Burma. The excess was greatest and more than ·060″ on the Malabar coast and in east Ceylon, and the deficiency greatest and over ·060″ at the head of the Bay.

The vertical pressure anomalies were positive in the north and generally negative in the central and southern hill districts.

The following gives the mean pressure departures and anomalies of the month for the eleven meteorological provinces:—

METEOROLOGICAL PROVINCE.	Departure from normal of mean 8 A.M. pressure of June 1904.	Pressure anomaly, June 1904.
	″	″
Burma Coast and Bay Islands	—·032	—·023
Burma Inland	—·030	—·017
Assam	—·056	—·043
Bengal and Orissa	—·059	—·046
Gangetic Plain and Chota Nagpur	—·035	—·022
Upper Sub-Himalayas	—·032	—·019
Indus Valley and North-West Rajputana	—·020	—·007
East Rajputana, Central India and Gujarat	+·009	+·022
Deccan	+·001	+·014
West Coast	+·038	+·051
South India	+·015	+·028

Temperature.—The Arabian Sea monsoon currents failed to penetrate properly into north-west India and the interior of the Peninsula and there was an excess of temperature over those parts of the country, but in other places the rainfall was generally good and the mean temperature was normal or below the average.

The mean maximum or day temperature was generally above the normal over the Konkan coast, the Bombay Deccan, the west of the Central Provinces, Khandesh and north-west India generally. It was also slightly excessive over parts of north-east India and of the Madras coast. In all other parts of the country it was lower than usual. The excess was moderate to considerable over Gujarat, upper Sind, and the submontane districts of the Punjab and of the North-West Frontier Province while the deficiency was moderate to large over Burma, west and south-west Bengal, the east of the Central Provinces and the south and south-west of the Peninsula. On the hills the departures from the normal were generally unimportant.

The departures of the mean minimum temperature from the normal were generally similar to those of the maximum. There was a general slight to considerable excess over north-west India and a slight excess over north-east India and on the Madras coast. Elsewhere there was a deficiency which was greatest over the east of the Central Provinces. On the hills the mean minimum temperature was generally lower than usual.

The departures of the mean temperature of the month were consequently of a similar character. The excess was moderate to considerable over the greater part of the Punjab and of the North-West Frontier Province while the deficiency was moderate to considerable over Bihar, the

east of the Central Provinces, the south of the Peninsula and central Burma.

The following gives temperature departure data of the month for the eleven meteorological provinces:—

Meteorological Province.	Departure from normal of		
	Mean maximum temperature, June 1904.	Mean minimum temperature, June 1904.	Mean temperature, June 1904.
	°	°	°
Burma Coast and Bay Islands	—1·6	—0·1	—0·8
Burma Inland	—3·4	—0·9	—2·2
Assam	+2·2	+0·3	+1·3
Bengal and Orissa	—0·4	+0·1	—0·1
Gangetic Plain and Chota Nagpur.	—1·7	+0·1	—0·8
Upper Sub-Himalayas	+1·7	+2·6	+2·2
Indus Valley and North-West Rajputana.	+1·1	+1·1	+1·2
East Rajputana, Central India and Gujarat.	+0·5	+0·6	+0·6
Deccan	—0·3	—0·2	—0·3
West Coast	—1·8	—0·9	—1·4
South India	—1·5	—0·4	—1·0

Winds:—Winds were more westerly than usual over the greater part of the Bay, but at the head of the Bay this feature disappeared and the winds were more southerly than the average at the coast stations and more easterly than usual at Calcutta. In upper India the winds were variable in direction and the velocity was generally low. Over the Deccan the wind's direction was somewhat more northerly than the average, but elsewhere in the Peninsula the winds were approximately normal.

Humidity:—The mean relative humidity of the month was in excess over the greater part of the Indus Valley (Jacobabad +14) and over east Rajputana (Ajmer +6) and the west of Central India (Neemuch +10). It was also in excess over the west and south-west of Bengal, the east of the Central Provinces and the east and south-west of the Peninsula, but the departures in these areas were generally unimportant. There was some excess also over central Burma, due largely to the deficiency of temperature. Elsewhere the mean relative humidity was in defect of the average and over the submontane regions of upper India and in Gujarat, where the mean temperature was in moderate to considerable excess, the deficiency in the relative humidity was large.

At Aden and Perim the mean relative humidity was below the average while in the south-east trades region the absolute humidity was in defect and the relative humidity in excess of the normal.

The following gives mean comparative data of the nine meteorological provinces:—

Meteorological Province.	Mean absolute humidity.		Mean relative humidity.	
	Average actual, June 1904.	Departure from normal, June 1904.	Average actual, June 1904.	Departure from normal, June 1904.
	"	"	%	
Burma Coast and Bay Islands	·910	—·011	91	+1
Bengal and Orissa	·957	—·013	85	+1
Gangetic Plain and Chota Nagpur	·878	+·076	72	+6
Upper Sub-Himalayas	·671	+·016	51	—2
Indus Valley and North-West Rajputana.	·756	+·019	51	—1
East Rajputana, Central India and Gujarat.	·656	—·030	49	—5
Deccan	·682	—·003	65	+1
West Coast	·889	—·013	85	+2
South India	·697	—·008	73	+2

Cloud:—There was a marked deficiency of cloud over a large part of India, on the mean of the month. There was some excess of cloud over Burma, over the coasts and the south of the Peninsula and over west Bengal, Orissa and the east of the United and of the Central Provinces, but in nearly all other parts of the country the sky was clearer than usual. The deficiency was considerable over the west of the United Provinces, and adjoining parts of the Punjab and Rajputana, as well as locally at Purnea and Silchar.

On the hills the weather was more serene than usual.

The following gives mean comparative data of the cloud amount for the nine meteorological provinces:—

Meteorological Province.	Mean cloud amount.	
	Average actual, June 1904.	Departure from normal, June 1904.
Burma Coast and Bay Islands	8·7	+0·4
Bengal and Orissa	7·9	+0·1
Gangetic Plain and Chota Nagpur	6·5	+0·6
Upper Sub-Himalayas	3·1	—0·3
Indus Valley and North-West Rajputana	1·4	—1·0
East Rajputana, Central India and Gujarat	2·7	—1·9
Deccan	7·1	+0·3
West Coast	7·8	+0·7
South India	8·6	+1·1

Rainfall:—The Arabian Sea monsoon commenced on the Malabar coast slightly later than usual, but extended

quickly northward as far as Bombay. It failed, however, to extend beyond Bombay nor did it properly penetrate into the interior of the Peninsula. The Bay monsoon commenced earlier than usual and was fairly vigorous, five storms having been developed over the Bay area during the month. The total rainfall was heavier than usual over Burma, west Bengal and Orissa, north Oudh, the east sub-montane division of the United Provinces, the west coast, south Madras, the south division of Hyderabad, the north division of the east coast and the east division of the Central Provinces, but was deficient in all other places. The deficiency was greatest in the Punjab, western Rajputana and north Bombay.

In the south-east trades region the rainfall varied irregularly, but largely, from the normal.

The following table gives comparative rainfall data of the eleven meteorological provinces for the month of June 1904:—

METEOROLOGICAL PROVINCE.	RAINFALL.			
	Mean actual, June 1904.	Mean normal, June.	Mean of Departures from normal, June 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Burma Coast and Bay Islands	33·45	27·58	+5·81	+ 32
Burma Inland	7·62	6·65	+0·87*	+ 13
Assam	13·83	16·81	−2·98	− 18
Bengal and Orissa	11·07	13·55	−2·48	− 19
Gangetic Plain and Chota Nagpur	8·23	7·36	+0·88	+ 12
Upper Sub-Himalayas	1·75	4·25	−2·41*	− 57
Indus Valley and North-West Rajputana.	0·33	0·93	−0·60	− 65
East Rajputana, Central India and Gujarat.	2·01	4·67	−2·50*	− 54
Deccan	6·30	6·55	−0·51*	− 8
West Coast	38·97	27·94	+11·04	+ 40
South India	2·03	2·71	−0·68	− 25

*A reference to Table I will show that the means of columns 2 and 3 are derived from a smaller number of stations than the means in the first column. The sum of the figures in columns 2 and 3 will, therefore, not agree with the figures in column 1.

General Remarks for the monsoon area:—There was not much of interest in the general weather conditions of the countries to the north and west of India during the month of June 1904. Over Persia, Asiatic Turkey and Arabia, the departures of pressure from the normal, on the mean of the month, were generally small and unimportant while the weather was, on the whole, finer and drier than usual. In Egypt the mean monthly pressure generally exceeded the normal—more particularly over the Sudan—and the rainfall was *nil*. In western Siberia the pressure changes, from day to day, were considerable, but, on the whole, pressure was generally higher than usual. At Irkutsk the barometer ranged above the normal from the 3rd to the 5th, from the 8th to the 11th, and from the 13th to the 25th, while it was lower than usual at other times. It will be seen that these departures from the average differed materially from the pressure departures over the Indian monsoon area.

The following table shows the departures of pressure from the normal at certain selected stations in the monsoon area and the average departure for the whole:—

DATE.	DEPARTURE FROM NORMAL OF									
	Calcutta.	Madras.	Colombo.	Bombay.	Lahore.	Bushire.	Aden.	Zanzibar.	Seychelles.	Whole.
	"	"	"	"	"	"	"	"	"	"
1	+·057	+·016	+·051	+·068	−·021	+·017	+·099	+·073	+·094	+·050
2	+·065	+·010	+·035	+·030	+·001	−·005	+·123	+·030	+·082	+·041
3	+·067	−·006	+·051	+·051	+·115	+·047	+·015	+·031	+·083	+·050
4	+·015	−·025	+·049	+·029	+·047	+·110	−·021	+·068	+·072	+·030
5	−·033	−·006	+·049	+·046	+·001	+·150	+·096	+·075	+·113	+·055
6	−·074	+·017	+·079	+·020	−·091	+·069	+·107	+·060	+·111	+·033
7	−·044	+·014	+·062	+·016	−·039	−·006	+·125	+·060	+·116	+·034
8	−·074	−·015	+·041	+·023	−·031	+·029	+·087	+·032	+·106	+·022
9	−·104	+·018	+·012	−·067	−·057	−·023	+·098	+·030	+·126	+·007
10	−·170	+·028	+·039	−·079	−·073	−·051	−·011	+·013	+·127	−·020
11	−·149	+·040	+·051	−·086	−·085	−·039	+·035	+·007	+·116	−·002
12	−·118	+·031	+·054	−·023	−·163	−·076	−·003	+·009	+·085	−·023
13	−·110	+·025	+·018	−·007	−·140	−·092	+·004	−·004	+·061	−·027
14	−·071	−·003	+·019	+·034	−·114	−·091	+·014	−·020	+·075	−·017
15	+·020	+·034	+·059	+·060	+·052	−·007	+·041	−·030	+·065	+·033
16	−·025	+·021	+·056	+·063	+·054	+·009	+·017	+·029	+·094	+·035
17	−·143	+·006	+·046	+·034	+·024	+·025	+·030	+·025	+·101	+·016
18	−·115	−·010	+·064	−·005	−·030	+·041	−·004	+·043	+·099	+·009
19	−·073	−·069	−·011	−·058	−·082	+·059	+·014	+·029	+·054	−·015
20	−·028	−·066	−·004	−·093	−·096	+·063	+·035	+·010	+·030	−·017
21	+·084	+·004	+·062	−·015	+·107	+·011	+·020	+·031	+·066	+·041
22	+·059	+·049	+·065	+·046	+·019	+·034	+·031	+·057	+·086	+·050
23	−·023	+·030	+·058	+·062	+·027	−·012	+·058	+·035	+·065	+·033
24	−·093	−·004	+·031	+·035	−·007	−·019	+·068	+·008	+·021	+·004
25	−·130	−·022	+·010	−·004	−·076	+·007	−·073	+·007	+·014	−·030
26	−·125	−·014	+·033	+·004	−·076	+·024	−·025	−·013	−·004	−·022
27	−·096	0	+·054	+·059	−·085	+·040	−·060	+·002	−·003	−·010
28	−·077	+·026	+·070	+·091	−·042	+·049	+·061	+·023	+·035	+·026
29	−·126	+·047	+·081	+·056	−·099	+·023	+·012	+·039	+·041	+·008
30	−·161	−·006	+·042	+·004	−·066	−·013	+·032	+·020	+·022	−·014

From the 1st to the 9th the mean pressure exceeded the average but from the 10th onward the departures were generally irregular though there was a fairly well-marked excess on the 15th and 16th and from the 21st to the 23rd.

The principal feature of the meteorological conditions of the month of June is the setting in of the south-west monsoon current. During the month under review the monsoon appears to have extended over the Arabian Sea with great rapidity as the appearance of monsoon rainfall along the west coast appears to have synchronised with the setting in of the current over the centre of the Arabian Sea. The following table gives information (1) as to the daily departure of the monsoon rainfall over India derived from the records of the meteorological observatories, and (2) so far as is known the abnormal conditions of pressure and winds prevailing over the sea area to the west and south-west of India:—

Date of month (June).	Diurnal departure of pressure gradient from normal between Mauritius and Seychelles.	Diurnal departure of pressure gradient from normal between Seychelles and Bombay.	Easterly deflection of wind at Mauritius.	Easterly deflection of wind at Seychelles.	Departure of hourly wind velocity from normal at Mauritius.	Departure of daily wind velocity from normal at Seychelles.	Mean departure of rain over India.
1	2	3	4	5	6	7	8
	"	"	°	°	Miles.	Miles.	Inch.
1	+·074	—·034	—10	+ 1	—1·1	+144	—0·06
2	+·061	—·009	+ 6	+24	+1·1	+177	—0·06
3	+·063	—·017	+16	+24	—0·2	+132	—0·07
4	+·068	+·005	— 7	+24	—1·6	+113	—0·10
5	+·027	+·023	—11	+24	+0·9	+180	—0·08
6	+·004	+·055	—14	+24	+3·7	+ 64	—0·06
7	+·002	+·063	— 8	+24	+2·2	+ 31	0
8	+·006	+·059	+ 3	+24	+1·8	+ 21	+0·03
9	—·009	+·134	—13	+24	—1·6	— 57	+0·05
10	—·012	+·155	—29	+24	—2·9	— 13	+0·13
11	—·026	+·144	— 6	+24	—2·5	+ 12	+0·14
12	—·047	+·056	+ 2	+24	—4·5	+ 6	+0·13
13	—·084	+·019	—40	+24	—7·8	+ 6	+0·06
14	—·092	+·012	—48	+ 1	—4·5	— 22	—0·09
15	—·025	—·020	—23	+24	+0·6	— 7	—0·19
16	+·001	+·036	—10	+24	—0·6	— 68	—0·11
17	0	+·084	+ 5	+ 1	+2·0	+ 38	—0·06
18	+·009	+·131	+ 2	+24	—0·5	+ 49	—0·08
19	+·008	+·146	— 9	—21	—4·6	+ 3	+0·08
20	—·004	+·145	—23	+ 46	—3·7	+ 49	+0·12
21	+·011	+·124	—19	+ 24	+2·6	+165	+0·05
22	+·032	+·067	—14	+ 24	+1·0	+ 59	+0·16
23	+·029	+·027	+ 1	+ 24	+2·0	— 38	+0·01
24	+·031	+·034	— 8	+ 24	+1·5	— 43	+0·03
25	—·003	+·034	— 6	+ 24	+0·[illegible]	+ 1	+0·01
26	—·033	+·019	+ 1	—88	+0·8	— 27	+0·10
27	—·078	—·029	+34	—21	—4·6	—157	+0·07
28	—·081	—·014	—27	...	—4·9	—211	—0·14
29	—·027	+·028	—16	+ 24	—5·5	— 25	—0·18
30	—·013	+·067	—23	+ 24	—5·5	— 46	—0·09

The Indian rainfall was lighter than usual from the 1st to the 6th; it was exactly normal on the 7th; above the normal from the 8th to the 13th; below from the 14th to the 18th; above from the 19th to the 27th and below from the 28th to the end of the month. The pressure gradient was steeper than usual over the equatorial regions from the 1st to the 8th; slighter from the 9th to the 15th; steeper from the 16th to the 24th, and slighter from the 25th to the end of the month. There was thus a tendency for rainfall to be in defect over India when the pressure gradient was steeper than usual over the equatorial belt. The pressure gradient between the Seychelles and Bombay was less than usual from the 1st to the 3rd and was generally greater than usual at other times. The periods of greatest excess of the pressure gradient agreed roughly with the periods of greatest excess of rain over India. The wind was more southerly and less easterly than the normal at Mauritius on most days of the month and the velocity generally below the normal, while, on the contrary, at the Seychelles the wind was very steadily more easterly than the average and was stronger than usual on most days from the 1st to the 22nd. From the 23rd onward there was a sudden falling off and the velocity was largely below the normal on the 27th and 28th.

Magnetic and Solar disturbances.

Kodaikanal:—Solar Observations, June 1904. The month was, on the whole, a very unfavourable one for solar observations, but this was of the least importance since the sun's activity was small. On 6 days no observations could be made and on three other days only short glimpses of the sun were obtained.

Spots.—Twelve spot groups (including two that were on the disc at the beginning of the month) were observed. These were mostly composed of scattered groups of small spots or individual very small spots. Only two were regular spots of considerable size. One of these (No. 299) appeared at the east limb on the 13th and disappeared at

the west limb on the 26th. On its first appearance it was accompanied by a train of small spots which disappeared one after the other, and after the 22nd only the large spot remained. Group No. 302 was the only other of any importance. It was first seen on the 21st some distance from the eastern limb (no observations were possible on the 19th and 20th) as a rather faint group of scattered spots. By the 24th it had condensed into two regular spots of moderate size, but these grew smaller from day to day and at the end of the month, though still visible at some distance from the west limb, they were inconspicuous. As regards numbers of groups the spots were equally distributed between the two hemispheres, but as regards size and duration the northern groups far excelled the southern. In the northern hemisphere all the spots except one, had a latitude between 10° and 20°. The remaining one being in latitude 24°. In the southern hemisphere all the spots were in the zone 10° to 25°.

Spot spectra.—Owing to the unfavourable weather and the small size of the spots, widened lines were observed on only 5 days. On 5 other days observations were made of the spot regions, especially on the behaviour of the C line as an index to the amount of disturbance present. On the 13th D3 was found dark in spot No. 297.

Faculæ were fairly numerous and extensive. All the groups except three seemed to be connected with spots. Two groups appeared in higher latitude than the spots —one between 30° and 40° north latitude and one between 35° and 45° south latitude.

Prominences.—These could be recorded on only 10 days. Large prominences were not very numerous. The tallest seen was one on the 29th which had a height of about 96″ (45,000 miles).

Magnetic disturbances.—The only large magnetic disturbance was on the 16th and this could not be associated with any spot.

C. Michie Smith,
Director of Kodaikanal and Madras Observatories.

Colaba :—Note on the Magnetic Record, June 1904.

During the month the traces showed 17 calm days, 9 days of small and 4 days of moderate disturbances.

Movements suspected to be due to seismic causes occurred on the 5th at about 4 A.M., the strain apparently lasting for about 4 hours.

The selected quiet days of the month were the 3rd, 8th, 13th, 22nd and 29th.

The mean observed absolute values of the several elements as also the ranges and *summed ranges of the Horizontal Force and Declination for the month were as follows :—

Declination	0° 14′ 31″
Horizontal Force	0·37410 C. G. S. unit.
Dip	21° 48′·2
Horizontal Force Range	·00051 C. G. S. unit.
„ „ *Summed Range	·00351 C. G. S. unit.
Declination range	4′·60
„ *Summed range	1′·927

* Means sum without regard to signs of 24 ordinates of diurnal inequality.

After a somewhat prolonged quiescent period, renewed seismic activity has been evidenced by five seismic disturbances recorded all within an interval of three days during the month. One on the 24th, one on the 25th, two on the 26th and one on the 27th. The two largest of them were recorded on the 25th and 26th one following the other after an interval of about 6 hours, their amplitudes being about 11 and 9 m. m. respectively equivalent to an apparent tilt of 4·9 and 3·8 seconds of arc.

The following gives the dates of the magnetic disturbances recorded.

June 1904.		June 1904.		June 1904.	
1	C.	11	S.	21	C.
2	C.	12	C.	22	C.
3	C.	13	C.	23	C.
4	C.	14	C	24	C.
5	S.	15	M.	25	C.
6	M.	16	M.	26	S.
7	S.	17	S.	27	M.
8	C.	18	S.	28	S.
9	S.	19	C.	29	C.
10	S.	20	C.	30	C.

The magnitudes of the disturbances are determined from Horizontal Force traces.

C = calm; S = small; M = moderate; G = great, and VG = very great.

Days are reckoned from midnight to midnight.

N. A. F. Moos,
Director, Govt. Observatory, Bombay.

Alipore :—List of displacements recorded by the Seismograph at the Alipore Observatory during June 1904.

Number.	Date 1904.	P. T. Commencement. G.M.T.	L. W. com.	Maxima. G. M. T.	End G. M. T.	Maximum amplitude in m. m.	Duration.	REMARKS.
287	June 17	19-54·0	...	19-55·6	20-3·2	1·00	0 9·2	
288	„ 24	1-32·4	1-40·5	1-45·6	2-10·0	3·00	0-37·6	
289		4-14·1		4-15·1	4-19·2	0·75?	0-5·1	Doubtful.
290	„ 25	14-56·0	15-14·3	15-27·0	17-40·8	(a) 17·25	2-44·8	
291		20-31·9		20-36·0	20-40·0 26-6	0·75	0-8·1	
292		21-11·6	21-36·0	21-38·0	0 0·4	8·50	2-48·8	
293	„ 26	10-59·4	11-16·7	11-17·7	12-1·4	1·50	1-2·0	
294	„ 27	0-19·0	0-41·3	0-45·4	1-22·0	5·00	1-3·0	

(a) Measured from the base line. Sensibility 1 m. m. = 0′·38 of tilt.
P. T. = Preliminary. L. W. = Large waves.

The local times of the commencement :—

Date, 1904.		H. Ms.
June	18	1-47·3
„	24	7-25·7
„	„	10-7·4
„	25	20-49·3
„	26	2-25·2
„	„	3- 4·9
„	„	16-52·7
„	27	6-12·3

G. W. Küchler,
Asst. Metl. Reporter to the Govt. of India.

Mauritius:—The Director of the Royal Alfred Observatory reports that sunspots and faculæ were observed on all days except the 14th when the weather was cloudy.

Description of Magnetic disturbances June 1904.

June 5th:—2 hours 30 minutes. Sudden increase of Horizontal Force (·000132) followed by small fluctuations till 7 hours.

June 6th:—8 hours 30 minutes, frequent rapid fluctuations; 8 hours 30 minutes to 8 hours 45 minutes, increase of Horizontal Force (·000161); 11 hours to 16 hours, decrease of Horizontal Force (·000507); 16 hours to 18 hours 30 minutes, increase of Horizontal Force (·000249) with waves; 16 hours 15 minutes to 17 hours (+·000129); 18 hours to 18 hours 30 minutes (—·000129) and double wave; 19 hours 45 minutes to 21 hours (+·000113 to —·000097).

„ *11th*:—4 hours to 9 hours, small fluctuation 12 hours 30 minutes to 16 hours wave (+·000161).

„ *15-16th*:—Large disturbance.

T. F. Claxton,
Director.

Atmospheric Pressure.

The 8 A.M. pressure of the Indian land area, on the mean of all stations, was 0·013″ below the normal, which was approximately the same general departure as that recorded last month.

The distribution of the actual mean pressure of the month is given in Plate I. Pressure was highest at Colombo (29·871″) and was lowest at Dera Ismail Khan (29·403″). The range between these two stations was 0·100″ greater than the normal. A well-marked low pressure area covered the western desert while the trough of relatively low pressure over northern India was better defined and more southerly than is ordinarily the case. The mean pressure of the month exceeded the normal to the south and west of a line running from Kurrachee to Bikaner and thence south-eastward to Masulipatam and was in defect of the normal to the north and east of that line. The excess was greatest over the south of the Peninsula and Ceylon while the deficiency was greatest over the head of the Bay and surrounding coasts. The excess of pressure in the south was apparently a general feature of the south of the monsoon area as it was equally well marked at Aden, Zanzibar, the Seychelles and Mauritius. The deficiency over northern India did not, on the other hand, extend westward as in Baluchistan and at the head of the Persian Gulf the mean pressure of the month was in excess and at Baghdad and Muscat was about normal.

Relatively to the geographical mean (—·013″) the mean pressure of the month was in excess over Sind, Rajputana, the west of Central India and the Peninsula, except the north-east, while it was in defect over the Punjab, the Gangetic plain and the whole of north-east India and Burma. The departures from the normal were considerable in both directions and exceeded ·040″ at the following large number of stations :—

Positive departures.		Negative departures.	
Stations.	Pressure anomaly.	Stations.	Pressure anomaly.
	″		″
Trivandrum	+·063	Chittagong	—·065
Trincomalee	+·063	Akyab	—·061
Tinnevelly	+·062	Saugor Island	—·060
Colombo	+·058	Balasore	—·055
Calicut	+·061	False Point	—·053
Madura	+·057	Jessore	—·053
Cochin	+·056	Silchar	—·053
Pamban	+·055	Barisal	—·054
Mormugao	+·053	Mymensingh	—·049
Karwar	+·052	Burdwan	—·049
Mangalore	+·052	Calcutta	—·048
Hassan	+·047	Chaibassa	—·046
Chitaldroog	+·047	Cuttack	—·042
Ratnagiri	+·046	Ranchi	—·041
Goa	+·046	Berhampore	—·041
Trichinopoly	+·044	Dhubri	—·041
Mysore	+·043		

The preceding data show that strong contrasts existed in the pressure conditions in different parts of the country.

although the mean departure for the whole region was comparatively small.

Pressure, on the mean of the month, was lower than usual at all the Himalayan stations except Simla, but was in excess over Baluchistan and at the central and southern hill stations. In both cases the departures at the elevation of the hills were less than those at the level of the neighbouring plains stations, so that while the vertical pressure anomalies in the Baluchistan and Himalayan areas were positive, those between the hill and plains stations in western and southern India were negative. The following gives data for ten pairs of stations and exhibits this difference:—

HILL STATION.	Departure from normal pressure, June 1904.	PLAIN STATION.	Departure from normal pressure, June 1904.	Vertical pressure anomaly (Hill—Plain).
	"		"	"
Leh	—·004	Lahore	—·034	+·030
Quetta	+·030	Jacobabad	—·009	+·039
Murree	—·015	Peshawar	—·045	+·030
Simla	+·004	Ludhiana	—·027	+·031

HILL STATION.	Departure from normal pressure, June 1904.	PLAIN STATION.	Departure from normal pressure, June 1904.	Vertical pressure anomaly (Hill—Plain).
	"		"	"
Chakrata	—·008	Roorkee	—·030	+·022
Ranikhet	—·028	Bareilly	—·033	+·005
Darjeeling	—·016	Dhubri	—·054	+·038
Mount Abu	+·005	Deesa	+·014	—·009
Pachmarhi	+·026	Seoni	—·011	+·037
Wellington	+·011	Coimbatore.	+·027	—·016

The chief features of the pressure conditions of the month were as follows:—

(1) Considerable departures of the mean pressure from the normal in different parts of the Indian region.

(2) An excess of pressure, on the mean of the month, over the greater part of the Peninsula, Ceylon, north Bombay and Rajputana.

(3) A deficiency of pressure over northern and north-eastern India and Burma.

Barometric depressions and cyclonic storms of the month.

The weather over the Bay area was more disturbed than usual during June and a series of five depressions formed over that region while in the Arabian Sea the weather was quiet and no storm appeared.

Slight cyclonic storm of the 1st to the 4th.—June 1st—The following gives 8 A.M. data for the Burma coast stations:—

STATION.	PRESSURE. 8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	PRESSURE. Change in past 24 hours.	PRESSURE. Departure from normal.	WIND. Direction at 8 A.M.	WIND. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	REMARKS.
	"	"	"				Inches	
Mergui	29·746	—·070	—·053	SSW	3	6	1·20	
Tavoy	·729	—·067	—·078	Calm	1	9	1·64	Showery.
Moulmein	·692	—·050	—·072	Calm	2	8	0·63	
Rangoon	·690	—·076	—·061	ENE	4	10	0·16	Drizzling.
Diamond Island.	·683	—·070	—·051	NNW	10	10	2·42	Rainy and wind variable.
Bassein	·678	—·080	—·050	NNE	3	2	...	
Akyab	·714	—·025	+·013	SE	2	10	0·22	Raining.
Port Blair	·732	—·057	—·024	WNW	19	9	0·05	Cloudy.

The barometer was falling briskly around the Andaman Sea where the winds were blowing from cyclonic directions. The weather was showery, but the force of the wind was only light.

The following gives marine data for this day:—

NAME OF VESSEL.	8 A.M. POSITION. Lat. N.	Long. E.	Barometer, as corrected by Calcutta office,	WIND. Direction.	Force.	WEATHER.
	° ′	° ′	"			
S.S. *Catherine Apcar.*	11 18	95 30	29·695	WSW	2	Slight sea and incessant rain.
S.S. *Nawab*	12 13	90 40	·703	WSW	4	Rough sea, 8 P.M. overcast.
S.S. *Newholm*	12 15	94 52	...	NW	4	Fine, 8 P.M. heavy squalls and overcast.
R. I. M. S. *Canning.*	14 41	94 10*	·703	NW	4	Slight south-west swell and overcast.
S.S. *Bihara*	15 30	95 10	·694	S	4	Drizzling rain.
S.S. *Shahzada*	15 58	96 45	·558	...	...	Dull, rainy.
R. I. M. S. *Elphinstone.*	Rangoon.		·637	...	...	
S.S. *Virginia*	16 48	91 25	·633	S	...	Heavy rain squalls and thunder and lightning.
S.S. *Bangala*	18 50	90 25	·650	W	2	Cloudy.

* Noon position.

The *Catherine Apcar* reported incessant rain and the *Bihara* and *Shahsada* dull, rainy weather, but the wind force was only light.

June 2nd.—The following gives 8 A.M. data for the Burma coast stations:—

STATION.	PRESSURE. 8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	PRESSURE. Change in past 24 hours.	PRESSURE. Departure from normal.	WIND. Direction at 8 A.M.	WIND. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	REMARKS.
	"	"	"				Inches.	
Mergui .	29·725	—·021	—·075	Calm	2	7	3·10	
Tavoy .	·732	+·003	—·074	SW	2	9	0·68	Raining.
Moulmein	·672	—·020	—·090	SE	3	4	0·12	
Rangoon .	·658	—·032	—·091	NE	3	9	0·60	
Diamond Island.	·647	—·036	—·085	NE	8	10	0·15	Sea smooth.
Bassein .	·656	—·022	—·070	NW	3	2	0·15	
Akyab .	·691	—·023	—·006	SE	2	10	0·33	
Port Blair	·721	—·011	—·033	WSW	41	9	2·03	Cloudy.

The barometer was still falling—though slowly—around the Andaman Sea, where the cyclonic circulation of the winds had become better defined though the force was still light. Rain was falling all over Burma.

The following gives marine data for this day:—

NAME OF VESSEL.	8 A.M. POSITION. Lat. N.	8 A.M. POSITION. Long. E.	Barometer, as corrected by Calcutta office.	WIND. Direction.	WIND. Force.	WEATHER.
	° ′	° ′	"			
R.I.M.S. *Canning*.	13 22	91 49	29·720	WSW	3	SW swell and overcast.
R.I.M.S. *Elphinstone*.	14 30	95 16	·752	WSW	3	Moderate SW swell and rain squalls.
S.S. *Newholm* .	14 57	92 54	...	W	4	Heavy rain squalls.
S.S. *Shahsada* .	Moulmein.		·520	S	2	Moderate sea and fine.

Cyclonic winds prevailed over the Andaman Sea and the centre of the Bay. Moderate rain was falling at Port Blair where, however, the wind was not very strong. Rain squalls were reported from the ships in the neighbourhood of the disturbance.

June 3rd.—The following gives 8 A.M. data for the Burma coast stations:—

STATION.	PRESSURE. 8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	PRESSURE. Change in past 24 hours.	PRESSURE. Departure from normal.	WIND. Direction at 8 A.M.	WIND. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	REMARKS.
	"	"	"				Inches	
Mergui .	29·754	+·029	—·044	SSW	4	6	0·15	
Tavoy .	·745	+·013	—·059	S	3	9	1·82	Continuous rain.
Moulmein .	·673	+·001	—·088	Calm	5	10	0·37	
Rangoon .	·644	—·014	—·103	E	10	10	0·83	Drizzling.
Diamond Island.	·500	—·147	—·229	ESE	12	10	1·70	Sea smooth.
Bassein .	·594	—·062	—·130	ESE	5	6	0·50	
Akyab .	·646	—·045	—·046	NE	2	6	...	
Port Blair .	·737	+·016	—·015	WSW	19	10	2·47	Cloudy.

Pressure was recovering in Tenasserim and over the Bay Islands, but was giving way rapidly at Diamond Island. The cyclonic storm was passing out into the Bay and was apparently central about 100 miles south-west of Diamond Island, where pressure was 0·23″ below the normal.

The following gives marine data for this day:—

NAME OF VESSEL.	8 A.M. POSITION. Lat. N.	8 A.M. POSITION. Long. E.	Barometer, as corrected by Calcutta office.	WIND. Direction.	WIND. Force.	WEATHER.
	° ′	° ′	"			
R.I.M.S. *Canning*.	11 48	89 31	29·729	SW	5 to 6	High SW swell and overcast.
R.I.M.S. *Elphinstone*.	12 02	93 39	·700	SW	3	Moderate SW swell and rain squalls.
S.S. *Megna* .	15 28	96 10*	·645	S	5	Moderate sea and squally; noon heavy rain squalls.
S.S. *Newholm* .	17 40	90 35	...	W	2	Cloudy.

* Noon position.

There were very few ships within the disturbed area. The *Megna* and the *Elphinstone* reported rain squalls and at Port Blair moderate rain continued with an increasing west-south-west wind.

The depression partially filled up during the 4th and had become very slight by the 5th, when it crossed the Arakan coast into Burma.

On the 8th and 9th a shallow depression was developing over the head of the Bay and deltaic Bengal. Early on the morning of the 10th it crossed the coast. The storm advanced northward during the 10th and at 8 A.M. on the 11th the centre lay near Jessore where the barometer marked 0·24″ below the normal. Moderately heavy rain was falling in its neighbourhood and the surrounding winds were fresh in force. The storm continued

to move northward during the day and its centre at 8 A.M. on the 12th lay over Mymensingh where pressure was 0·28″ below the average. Cherrapoonjee reported over 19 inches of rain and, as will be seen in the rainfall section, the rain within the storm area was very heavy on this day. The storm filled up during the 12th.

Another shallow depression developed over the north of the Bay during the 14th and 15th and was shown lying over Orissa and deltaic Bengal on the morning of the 16th. The winds exhibited a fairly well-defined cyclonic circulation around the depression, but the disturbance was very feeble at this time. The storm intensified during the 16th and at 8 A.M. on the 17th pressure was 0·17″ below the normal at Saugor Island where the wind was light from east. The storm advanced slowly westward and at 8 A.M. on the 18th lay to the south of Chaibassa where pressure was 0·16″ below the average. No change occurred during the next 24 hours and the depression had practically filled up by the morning of the 20th.

On the 24th the barometer was giving way briskly over north-east India and a shallow depression was shown over south-east Bengal and the head of the Bay. This depression never developed, but drifted slowly into central Bengal where it filled up.

Another shallow depression appeared over south-west Bengal on the 28th and gradually intensified during the next three days so that at Saugor Island, on the 1st July, pressure was 0·26″ below the average—strong winds blowing over the north of the Bay. The storm advanced very slowly in a westerly direction and was central near Sambalpur on the 2nd, near Raipur on the 3rd and disappeared in a large diffused low pressure area lying over Gujarat, Central India and Rajputana, on the 4th July.

Summary of the Reports of the Weather and Snowfall in the Mountain Districts to the North and North-West of India.

I.—AFGHAN MOUNTAIN DISTRICTS.

(1) *Chitral.*—There was practically no snow during June. On the 11th June there was a slight coating of snow on the hills to the north-east of Drosh. This, however, disappeared in a few hours.

II.—KASHMIR AND PUNJAB HIMALAYAS.

(1) *Gilgit.*—So far as is ascertainable the snowfall and rainfall within the Gilgit agency during June were slightly below the normal. In early June the snowfall in the Hanza district was above the normal and reports from the passes into the Pamirs show considerable snowfalls during June.

(2) *Leh.*—There were a few slight falls of snow on the higher hills around Leh in June but the snow rapidly melted. There was a fall of one foot on the Chang-la at the end of June.

(3) *Srinagar.*—The weather was exceptionally dry during June, and the snowfall below the average on the higher hills. On the higher ranges to the south, near Gulmarg, slight snow fell on June 15th and 22nd. On the north fresh snow was seen on the 14th June and at Astor light snow fell during June. At Minimarg about 6″ of snow fell down to about 11,500 feet during the last fortnight of June.

(4) *Simla.*—The Deputy Conservator of Forests, Bashahr division, Simla, reports that a fall of snow occurred on the 21st—22nd June down to 13,000 feet.

(5) *Chamba Division.*—Three inches of fresh snow fell on the Sach pass during June.

III.—UNITED PROVINCES HIMALAYAS.

Almora.—The snowfall in this district was as follows:—

		Ft.	Ins.
Malla Johar, 20th June		3	6
Malla Danpur,	6th—9th June	0	4
	13th—16th June	0	3
	19th—23rd „	1	0
Byans, Chandas & Darma	9th June	0	6
	21st „	1	0
	22nd „	1	0

The snowfall was confined to the higher peaks.

The snowfall was less than that of the corresponding period of the previous year.

Summary of Special Storm Reports.

A large number of local storms was experienced during the month. The following gives a brief statement of those of which reports have been received from the observers.—

June 1st.—A thunderstorm occurred at Gulmarg between 1 P.M. and 9 P.M. with heavy squalls and light rain.

A slight storm was experienced at Jaipur between 7·10 and 7·40 P.M. The storm came up from north-west.

June 1st.—Thunderstorms passed over Lahore at 2 P.M. of the 1st and at 2 A.M. of the 2nd.

A duststorm with drizzling rain and high winds was experienced at Srinagar between 5 P.M. and 9 P.M.

„ *2nd.*—Between 0·30 and 2 P.M. and again between 3·30 and 7·30 P.M. gales of wind were experienced at Dras.

June 2nd—A severe thunderstorm passed over Gulmarg between 3 P.M. and 9 P.M. It came up from north and gave hail to surrounding districts.

A storm passed over Jaipur between 5·5 and 5·45 P.M.

A duststorm lasting two hours occurred at Lahore beginning at 11 P.M.

A thunderstorm occurred at Simla during the morning. It came up from south.

A duststorm was experienced at Srinagar between 4 P.M. and 7 P.M. with light rain.

" *3rd*.—A duststorm with thunder and some rain came up from north-east at 2·50 P.M. at Nagpur. The storm lasted 15 minutes.

A violent duststorm passed over Pachmarhi at 4 P.M. lasting twenty minutes.

A thunderstorm occurred at Simla between 3 P.M. and 4·40 P.M. The storm came up from south.

" *4th*.—A thunderstorm occurred at Jaipur between 12·40 and 13·25 P.M.

A duststorm passed over Sambhar between 11·55 A.M. and 0·20 P.M.

A thunderstorm occurred at Simla at 6·20 P.M. It came up from south and lasted 15 minutes.

" *5th*.—A very heavy duststorm passed over Hoshangabad travelling from south-west to north-east. The storm commenced at 2·30 P.M. and lasted half an hour.

" *6th*.—Very heavy duststorms occurred at Hoshangabad at 0·10 A.M. and 7·40 P.M.

" *7th*.—A duststorm was experienced at Gulmarg between 2 P.M. and 10 P.M.

Heavy duststorms passed over Hoshangabad from south-west to north-east at 4-30 A.M. and 3-43 P.M.

" *8th*.—A thunderstorm occurred at Gulmarg between noon and 6 P.M.

Severe duststorms passed over Hoshangabad from south-west to north-east at 1-20 P.M. and 3-45 P.M. A few drops of rain fell.

A duststorm commenced at Raipur at 5-30 P.M. and a second at 9 P.M. The latter lasted one hour.

A severe duststorm was experienced at Dras between 4 P.M. and 5-30 P.M.

" *9th*.—A thunderstorm was experienced at Gulmarg between 3 P.M. and midnight with light rain.

Heavy storms travelling from south-west to north-east passed over Hoshangabad at 4 A.M., at 1 P.M. and at 9-10 P.M.

A duststorm with thunder, lightning and rain passed over Nagpur at 1-45 A.M. The storm came up from south-west and lasted half an hour.

A thunderstorm occurred at Simla between 4-50 P.M. and 5-20 P.M. A second storm commenced at 6-30 P.M. and lasted till 8 P.M. Heavy rain fell.

June 9th.—A thunderstorm occurred at Srinagar between 2 P.M. and 3-45 P.M. The barometer rose rapidly after the storm.

A duststorm occurred at Dras between 1 P.M. and 5 P.M. Light rain fell.

" *10th*.—A thunderstorm and nor'wester passed over Gulmarg between noon and 6 P.M. with thunder, lightning and rain.

Very heavy duststorms passed over Hoshangabad at 2·30 P.M. lasting twenty minutes and a second at 7·40 P.M. lasting half an hour. The storms travelled from south-west to north-east.

A thunderstorm occurred at Pachmarhi at 6 P.M. and lasted thirty minutes. It was accompanied with violent winds and was followed by rain. The storm travelled from north-east.

" *11th*.—A thunderstorm commenced at Gulmarg at 4 P.M. and lasted to 8 P.M. Light rain fell.

Heavy duststorms were experienced at Hoshangabad at 3-10 P.M. and 5-20 P.M. The storms passed from south-west to north-east.

A thunderstorm commenced at Simla at 7 A.M. and continued half an hour. The storm came up from south.

A thunderstorm with drizzling rain occurred at Srinagar between 5 P.M. and 9 P.M.

" *12th*.—A fairly severe duststorm of short duration commenced at Allahabad at 5-30 P.M.

Heavy duststorms passed over Hoshangabad at 1-50 P.M. and 7 P.M.

" *13th*.—Thunderstorms occurred at Simla between 4-45 A.M. and 5-15 A.M. and between 1 P.M. and 2-30 P.M. Rain and hail accompanied the storms.

" *14th*.—A very severe duststorm passed over Lahore at 8-20 P.M. and lasted four hours. The pressure movements were large. The wind was from north and north-west and strong. A few drops of rain fell.

" *15th*.—A thunderstorm was experienced at Gulmarg between 3 P.M. and 10 P.M. with light rain.

A very heavy duststorm passed over Hoshangabad at 2-40 P.M. lasting half an hour.

A thunderstorm coming up from west and lasting fifteen minutes was experienced at Pachmarhi at 3 P.M.

A duststorm commenced at Srinagar at 3-30 P.M. and lasted till 4-30 P.M. afterwards at 7 P.M. a thunderstorm began and continued till 9 P.M.

" *16th*.—A duststorm was experienced at Jaipur between 4-55 P.M. and 5-15 P.M.

A duststorm lasting half an hour was experienced at Nagpur at 7-30 P.M.

A storm passed over Patiala between 4 P.M. and 4-30 P.M.

June 16th.—A duststorm commenced at Sambhar at 4-40 P.M. and lasted till 5-25 P.M.

" *17th.*—A heavy duststorm passed over Hoshangabad from south-west to north-east at 3-10 P.M. lasting fifteen minutes. Light rain fell.

A duststorm with thunder and rain was experienced at Nagpur at 7-45 P.M. travelling from north-west.

At Pachmarhi there was a thunderstorm from north-west at 5 P.M. The storm occasioned a violent wind and was followed by rain and lasted twenty minutes.

A duststorm occurred at Sambhar between 3 P.M. and 3-25 P.M.

" *18th.*—A heavy storm passed over Hoshangabad at 7-30 P.M. travelling from south-west to north-east.

There was a duststorm with thunder and rain at Nagpur at 7 P.M. The storm came up from north.

" *19th.*—A duststorm passed over Jodhpur at 8-3 P.M. A few drops of rain fell and the storm lasted about half an hour.

" *20th.*—A moderate duststorm occurred at Lahore between 6 P.M. and 6-42 P.M. The Barometer rose from 28·834″ at 6 P.M. to 28·894″ at 6-22 P.M. and temperature decreased from 107° to 97° in the same interval. A thunderstorm followed at 9 P.M.

A thunderstorm from east passed over Pachmarhi at 7 P.M. The storm lasted forty minutes.

A thunderstorm occurred at Simla at 11 A.M. and continued till 2·20 P.M. Rain and hail fell during the storm.

" *21st.*—A slight thunderstorm occurred at Allahabad at about 2 P.M.

A duststorm with rain occurred at Jodhpur at 4·50 P.M. coming up from north-east. The storm lasted for twenty minutes.

A thunderstorm with rain passed over Lahore at 3 A.M.

June 21st.—A thunderstorm occurred at Simla between 4 and 6 A.M.

" *22nd.*—A thunderstorm with rain passed over Allahabad between noon and 3 P.M.

A thunderstorm with light rain occurred between 4 A.M. and 8 A.M. at Gulmarg and between 2 P.M. and 8 P.M. there was a severe gale of wind.

A thunderstorm occurred at Lahore between 3·30 P.M. and 5·20 P.M. The wind velocity ranged between 12 and 20 miles per hour, the barometer rose from 28·918″ at 3·30 P.M. to 29·016″ at 3·50 P.M. while temperature fell from 102° at 2 P.M. to 75° at 4·15 P.M. Rainfall measured 0·39″.

A thunderstorm from east passed over Simla between 1·50 P.M. and 6·30 P.M. Rain and hail occurred.

A duststorm occurred at Srinagar between 2 P.M. and 6 P.M.

" *23rd.*— A thunderstorm with light rain passed over Gulmarg between 2 P.M. and 6 P.M.

There was a thunderstorm with rain at Lahore at 3 P.M.

" *25th.*— A thunderstorm was experienced at Gulmarg between 3 P.M. and 7 P.M. Light rain fell.

A thunderstorm giving hail and rain occurred at Srinagar between 6 P.M. and 7·30 P.M.

" *28th.*— A severe gale of wind was experienced at Gulmarg between 2 P.M. and 10 P.M.

" *29th* — A severe gale of wind and a thunderstorm were felt at Gulmarg between 3 P.M. and 10 P.M.

" *30th.*— A thunderstorm occurred at Gulmarg between 4 A.M. and 9 A.M. A few drops of rain fell.

A duststorm with thunder occurred at Srinagar between 6 A.M. and 10 A.M. No rain fell.

Earthquake Report.—On the 4th of June at 1·50 P.M. a slight shock of earthquake was felt at Gulmarg.

Brief Summary of the weather in the Arabian Sea and Bay of Bengal during the month.

Arabian Sea.—The monsoon was very steady over this region during the month. Between the 1st and 13th south-westerly winds prevailed over the Arabian Sea as far east as Long. 64° E. where the direction changed and drew into west. Between the 14th and the close of the month the wind's direction was more southerly than the normal over the west of the sea, but the shift to west continued to take place in about Long. 64°E. and westerly winds prevailed steadily between that Longitude and the west coast of India. In the Persian Gulf the wind blew steadily from north-west throughout the month, while on the Mekran and Sind coasts the wind was strong from west.

On the mean of the month, the force of the wind was 4·3, the normal force being 4·5. The mean force exceeded the normal on the 11th, 12th, 14th, 18th, 19th, 20th, 22nd, 24th, 25th and 26th and was lowest on the 3rd when, on the average of thirty seven vessels, the force was only 3·3.

Bay of Bengal.—During the first three days of the month the wind was southerly and south-south-westerly over the west of the Bay, but drew into cyclonic directions in the east owing to a storm off the Burma coast. By the 5th the disturbed conditions over the east of the Bay had subsided and the wind blew steadily from south-west over the south and centre of the Bay until the close of the month. In the north conditions were less settled. Between the 6th and the 10th, the 14th and 17th, the 24th and 26th and on the 29th and 30th the winds over the head of the Bay fell light, then became variable and finally settled down into cyclonic directions under the influence of the slight disturbances of those dates.

The Bay monsoon, on the mean of the month, unlike the Arabian Sea current, was stronger than usual. The mean force for the whole month was 4·8, the normal mean force being 4·0. The force exceeded the normal on all days of the month and averaged 5·0 or more on the 6th (5·0); the 11th (6·0); the 12th (5·1); the 16th (5·1); the 17th (5·3); the 18th (5·2); the 20th (5·1); the 22nd (5·1); the 23rd (5·1); and the 29th (5·0).

Equatorial Belt.—The south-east trades blew steadily over the west of the Equatorial belt throughout the month. Their greatest extension occurred apparently on the 12th when south-south-east winds were reported as far north as Lat. 4°N.

The following marine reports were received during the month referring to the weather over the Indian seas:—

June 4th.—The mail steamer *Oriental* left Aden on the 29th May and experienced up to Long. 54°E. light easterly winds and fine weather; thence to Long. 67°E., moderate south-westerly winds, occasional passing clouds, and slight to considerable south-westerly swell; thence to arrival at Bombay on the 4th June light west-north-westerly and westerly winds and a slight south-westerly swell.

June 10th.—The S. S. *Bundesrath* left Lamu on the 29th May and experienced up to Lat. 6°N. Long. 52°E., at noon on the 1st June, moderate to strong south-westerly winds, cloudy weather and a heavy sea and swell; thence to Lat. 12°N. Long. 66°E., at noon on the 5th, moderate to strong south-west winds occasionally increasing to a moderate to fresh gale, cloudy weather with heavy rain squalls, and high sea; thence to Goa at 6 P.M. on the 7th moderate to strong south-westerly, south-easterly and north-westerly winds, heavy rain, high sea and squally weather with thunder and lightning.

June 11th.—The mail steamer *Egypt* left Aden on the 6th and experienced up to Long. 51°E. light south-westerly winds, clear sky and confused swell; thence to Long. 70°E. fresh to strong monsoon, cloudy and squally weather with rain and considerable sea and swell; thence to arrival at Bombay light north-westerly and variable winds and overcast, squally weather with very heavy rain.

June 18th.—The mail steamer *Peninsular* left Aden on the 12th and experienced up to Long. 53°E., at 8 A.M. on 14th, moderate south-west winds and fine weather; thence to Long. 65°E., at 4 P.M. on the 16th, a strong monsoon, squally weather with a moderate gale and moderate to considerable south-west sea and swell; thence to Long. 70°E., at 4 P.M. on 17th, moderate winds and west-south-west and west swell; thence to arrival at Bombay gentle west-north-west winds and fine to cloudy weather.

June 25th.—The mail steamer *Oceana* left Aden on the 20th and experienced up to Long. 52°E. moderate south-westerly and light variable winds and confused swell; thence to Long. 69°E. a strong monsoon blowing with a moderate gale and high sea and swell; thence to arrival at Bombay fresh to strong winds from west and west-north-west, high sea and swell and occasional passing rain squalls.

Temperature of the Air.

The general temperature conditions of the month were mainly determined by the early setting in of the Bay monsoon current and by the delay in the complete establishment of the Arabian Sea current over the more northern portion of its field.

The mean maximum or day temperature of the month was below the normal over the south and east of the Peninsula, the greater part of north-east India, Burma, the Sind and Kathiawar coasts and the east of Rajputana and the adjoining parts of Central India. Over the greater part of these areas the general deficiency was small and unimportant, but over the south and south-west of the Peninsula, west and south-west Bengal and the east of the Central Provinces and a considerable part of Burma the mean maximum temperature was moderately to largely below the normal, the deficiency amounting to over 2°·5 at the following stations:—

Area.	Station.	Mean maximum temperature.		
		Actual, June 1904.	Normal, June.	Departure from normal, June 1904.
		°	°	°
Peninsula	Tinnevelly	93·1	97·1	—4·0
	Coimbatore	86·1	89·9	—3·8
	Madura	95·0	98·2	—3·2
	Salem	92·0	95·2	—3·2
	Goa	82·0	85·2	—3·2
	Calicut	81·7	84·6	—2·9
	Bangalore	81·8	84·7	—2·9

Area.	Station.	Mean maximum temperature. Actual, June 1904.	Normal June.	Departure from normal, June 1904.
		°	°	°
Peninsula	Trivandrum	80·0	82·9	−2·9
	Mercara	70·1	72·9	−2·8
Bengal	Gaya	90·8?	99·6	−8·8?
	Cuttack	92·3	95·5	−3·2
	Chaibassa	93·3	96·2	−2·9
	Ranchi	88·4	91·1	−2·7
	Hazaribagh	89·8	92·5	−2·7
Central Provinces	Raipur	91·5	97·2	−5·7
	Sambalpur	92·8	97·3	−4·5
Burma	Minbu	88·4	93·0	−4·6
	Yamethin	87·9	91·9	−4·0
	Thayetmyo	87·9	91·4	−3·5
	Mandalay	92·2	95·0	−2·8
	Tavoy	82·1	84·8	−2·7

The large deficiency at Gaya is doubtful though it was associated with heavy local rainfall.

Over the remainder of the Indian region the mean maximum temperature exceeded the normal. The excess was moderate to considerable over part of Assam, the eastern districts of Gujarat and upper Sind and was greatest along the foot of the hills in the Punjab and the North-West Frontier Province. It amounted to over 2°·5 at the following stations:—

Province or Division.	Station.	Mean maximum temperature. Actual, June 1904.	Normal, June.	Departure from normal, June 1904.
		°	°	°
Punjab	Rawalpindi	108·6	102 8	+5·8
	Sialkot	109·9	105·5	+4·4
	Amba	105·6	101·4	+4·2
	Khushab	110·0	107·1	+2·9
N. W. F. Province	Peshawar	109·6	105·9	+3·7
Upper Sind	Jacobabad	115·3	112·7	+2·6
Gujarat	Bhavnagar Para	101·8	98·4	+3·4
	Ahmedabad	102·8	99·7	+3·1
	Malegaon	97·5	94·9	+2·6

The highest maximum temperatures of the month were recorded during the first week over the Peninsula and north-east India and about the middle of the month in upper Sind, but in the Punjab, etc., towards the close of the month the delay having been due to the delay in the complete extension of the monsoon currents. The following gives the highest maximum recorded in each division during the month together with the highest reading previously recorded at the station:—

Province or Division.	Station.	Highest maximum temperature recorded in June 1904.	Date on which recorded.	Highest maximum temperature recorded in June previous to 1904.	Year in which recorded.
		°	°	°	°
Burma	Mandalay	95·5	20th June	104·9	1891
Assam	Silchar	99·1	6th „	99·6	1895 and 1900.
Bengal	Bankura	103·1	5th & 6th	113·6	1901
Orissa	Cuttack	106·4	2nd June	116 0	1872
Bihar	Daltonganj	107·6	6th „	116·1	1897
Chota Nagpur	Chaibassa	104·9	7th „	112·1	1895
United Provinces	Jhansi	111·8	12th „	119·2	1873
Punjab	Khushab	116·3	28th „	120·4	1896 and 1897.
N. W. F. Province	Peshawar	116·0	28th & 29th	119·0	1880
Sind	Jacobabad	120·0	13th, 14th & 15th June.	126·0	1897
Rajputana	Bikaner	112·4	21st „	119·8	1897
Gujarat	Ahmedabad	104·8	9th „	116·9	1897
Central India	Nowgong	109·5	12th „	117·2	1878
Central Provinces	Chanda	107·2	1st & 6th	117·9	1878
Berar	Akola	105·7	9th June	114·5	1903
West Coast	Bombay	92·5	7th & 8th	98·5	1901
Bombay Deccan	Malegaon	103·8	6th June	110·8	1900
Mysore	Chitaldroog	92·1	5th „	99·2	1900
Madras Coast	Masulipatam	106·7	2nd & 6th	115·9	1878
Madras Deccan	Cuddapah	105·7	5th June	111·3	1894 and 1900.
South India	Tinnevelly	100·3	1st „	105·5	1900

The temperatures quoted above were not remarkable and have been largely exceeded in previous years.

The highest temperature recorded was 120°·0 registered at Jacobabad on the 13th, 14th and 15th. This reading was 3°·5 lower than the highest reading recorded last year and 6° lower than the absolute maximum recorded at this station.

The mean maximum temperature of the month was approximately normal at most of the hill stations, but was higher than usual at Murree (+4°·1) and lower at Wellington (−2°·3).

The departures of the mean minimum or night temperature from the normal were similar in general character to those of the maximum. They exhibited a deficiency over the south and part of the east of the Peninsula, the east of the Central Provinces, west and south-west Bengal, a considerable part of Burma and the east of Rajputana. Elsewhere they were small and variable or showed a slight excess. The departures from the normal were generally

moderate or small but exceeded 2°·0 at the following places:—

Positive Departures.		Negative Departures.	
Stations.	Departure.	Stations.	Departure.
	°		°
Sialkot	+4·6	Trivandrum	−2·2
Lahore	+3·9	Tinnevelly	−2·1
Rawalpindi	+3·6	Sambalpur	−3·3
Multan	+3·6	Raipur	−2·9
Khushab	+3·4	Thayetmyo	−3·2
Mainpuri	+3·2		
Cawnpore	+2·8		
Sutna	+2·8		
Roorkee	+2·6		
Delhi	+2·4		
Montgomery	+2·4		
Ludhiana	+2·3		
Bareilly	+2·2		

The preceding data show that the largest negative departures were recorded over the east of the Central Provinces, the south of the Peninsula and central Burma and the largest positive departures over the Punjab—more particularly along the foot of the hills.

Over Further Kashmir, Afghanistan and Baluchistan the mean night temperature was lower than the average, but in the other hill districts the departures were generally unimportant.

The mean temperature of the month was generally in excess over north-west India, the west of the Central Provinces and of Central India, the Bombay Deccan and the north Konkan, as well as over parts of north and east Bengal, of Tenasserim and of the Madras coast and was generally in defect elsewhere. The most important departures from the normal exceeding ± 3° were as follows:—

Positive Departures.		Negative Departures.	
Stations.	Departure.	Stations.	Departure.
	°		°
Rawalpindi	+4·7	Gaya	−4·5
Sialkot	+4·5	Raipur	−4·3
Khushab	+3·2	Sambalpur	−3·9
		Thayetmyo	−3·4
		Tinnevelly	−3·1

The principal abnormal features of the temperature distribution were hence:—

(1) An excess of temperature, both by day and night, over north-west India and part of western India.

(2) The excess was most marked along the foot of the hills in the north-west.

(3) A deficiency of temperature over the south and east of the Peninsula and the greater part of north-east India and of Burma.

(4) The deficiency was most marked over west Bengal and the east of the Central Provinces.

The following gives mean temperature and departure data for the extra-Indian stations:—

Stations.	Mean Temperature.		
	Actual, June 1904.	Normal, June.	Departure from normal, June 1904.
	°	°	°
Trincomalee	84·5	85·0	−0·5
Colombo	80·5	81·6	−1·1
Amini Divi	82·2	82·0	+0·2
Kabul	71·4	74·0	−2·6
Kashgar	77·0	77·7	−0·7
Ispahan	77·7	78·3	−0·6
Teheran	79·6	79·3	+0·3
Bushire	85·3	86·2	−0·9
Jask	89·9	89·5	+0·4
Muscat	91·6	91·0	+0·6
Baghdad	91·8	88·6	+3·2
Aden	89·2	89·2	0
Perim	89·8	88·9	+0·9
Seychelles	75·2	78·7	−3·5
Zanzibar	76·7	77·9	−1·2
Mauritius	67·7	68·7	−1·0

The preceding data show that the mean temperature was in considerable excess in Asiatic Turkey, normal or in slight excess in most parts of Persia and Arabia and in defect elsewhere. The deficiency was considerable at the Seychelles and slight to moderate at Kabul, Colombo, Zanzibar and Mauritius.

The following table gives comparative temperature data of the month for the 57 meteorological divisions of the empire :—

Provinces.	Division.	Actual temperature.					Departures from normal of month of		
		Mean maximum.	Mean minimum.	Monthly mean of mean between maximum and minimum.	Mean daily range.	Absolute range.	Maximum.	Minimum.	Daily range.
		°	°	°	°	°	°	°	°
Burma	Tenasserim	84·9	76·4	80·7	8·6	16·1	—0·9	+0·4	— 1·3
	Lower Burma (Deltaic)	84·2	76·6	80·4	7·6	14·2	—2·0	+0·2	— 2·2
	Central do.	87·4	73·7	80·6	13·8	20·1	—2·9	—2·5	— 0·4
	Upper do.	89·2	76·7	82·9	12·5	19·9	—3·4	—0·3	— 3·1
	Arakan	84·4	77·6	81·0	6·8	17·7	—1·6	—0·5	— 1·1
Bengal and Assam.	Eastern Bengal	88·4	77·7	83·1	10·8	21·2	+0·7	+0·5	+ 0·2
	Assam (Surma)	91·6	76·5	84·1	15·1	26·3	+2·2	+0·3	+ 1·9
	Do. (Hills)	75·1	64·6	69·8	10·5	20·7	...	...	...
	Do. (Brahmaputra)	89·1	76·0	82·6	13·1	24·6	+1·1	+0·1	+ 1·0
	Deltaic Bengal	91·1	79·5	85·2	11·6	23·9	—0·7	0	— 0·7
	Central do.	91·3	78·7	85·0	12·7	26·6	—1·1	+0·2	— 1·3
	North do.	90·0	77·6	83·8	12·4	25·3	+1·2	+1·2	0
	Bengal Hills	67·1	56·8	62·0	10·3	20·6	+1·9	+0·6	+ 1·3
	Orissa	90·0	78·8	84·5	11·1	27·8	—2·0	—1·0	— 1·0
	Chota Nagpur	91·0	76·2	83·6	14·8	28·6	— 2·8	—0·5	— 2·3
	South Bihar	95·0	80·0	87·5	15·0	33·2	—5·5	—0·3	— 5·2
	North do.	93·0	79·0	86·1	14·0	28·8	—0·3	+0·8	— 1·1
United Provinces of Agra and Oudh.	United Provinces (East)	100·8	82·9	91·8	17·9	33·7	—0·2	+0·7	— 0·9
	Oudh (South)	101·0	81·9	91·5	19·1	37·5	+0·5	+0·6	— 0·1
	Do. (North)	96·3	78·3	87·3	18·0	38·5	—1·1	—0·9	— 0·2
	United Provinces (Central)	104·1	85·1	94·7	19·0	35·0	+1·7	+2·4	— 0·7
	Do. do. (West)	103·4	84·1	93·8	19·3	33·8	+0·9	+1·7	— 0·8
	Do. do. (East Submontane).	94·9	79·2	87·1	15·7	31·1	—2·0	—0·5	— 1·5
	Do. do. (West Submontane)	98·4	79·5	89·0	18·9	37·0	+0·7	+1·9	— 1·2
	Do. do (Hills)	75·0	61·3	68·2	13·7	28·4	—0·2	+1·1	— 1·3
Punjab	Punjab (South-East)	103·2	85·7	94·5	17·5	37·4	0	+2·4	— 2·4
	Do. (South)	104·8	83·7	94·2	21·1	38·1	—0·3	+1·9	— 2·2
	Do. (Central)	108·2	83·2	95·7	25·0	40·2	+0·8	+3·9	— 3·1
	Do. (Submontane)	108·4	82·3	95·4	26·0	40·3	+4·0	+3·5	+ 0·5
	Do. (Hills)	80·0	55·0	67·5	25·0	39·4	+0·4	—0·8	+ 1·2
	Do. (West)	109·8	86·5	98·2	23·3	35·4	+1·5	+3·1	— 1·6
N.-W. F. Province	North-West Frontier Province	109·5	80·6	95·1	28·9	41·6	+2·5	+1·4	+ 1·1
Bombay and Malabar Coast Districts (Madras).	Malabar	82·2	74·1	78·2	8·1	17·9	—2·2	—1·1	— 1·1
	Madras (South Central)	89·1	73·4	80·8	16·7	22·7	—3·5	—0·5	— 3·0
	Coorg	70·1	61·9	66·1	8·2	19·9	—2·8	—1·4	— 1·4
	Mysore	82·0	66·9	74·5	15·2	23·2	—2·4	—0·9	— 1·5
	Konkan	84·9	76·9	80·9	7·9	18·1	—1·5	—0·8	— 0·7
	Bombay Deccan	87·9	71·3	79·6	16·6	27·8	—0·4	0	— 0·4
	Hyderabad (North)	93·7	73·7	83·7	20·0	31·3	...	...	...
	Khandesh	94·8	73·7	84·3	21·1	31·2	+2·1	+0·1	+ 2·0
Central Provinces and Berar.	Berar	97·6	77·9	87·8	19·7	32·8	—0·1	+0·7	— 0·8
	Central Provinces (West)	95·8	79·2	89·0	19·6	31·8	+0·8	+0·5	+ 0·3
	Do. do. (Central)	96·7	77·3	87·0	19·4	34·1	—0·2	—0·5	+ 0·3
	Do. do. (East)	92·2	76·2	84·2	16·0	33·5	—5·1	—3·1	— 2·0
Bombay (North)	Gujarat	98·2	81·2	89·7	17·1	23·5	+3·1	+1·2	+ 1·9
	Kathiawar and Cutch	95·2	80·5	87·9	14·6	20·0	+0·7	+0·5	+ 0·2
	Sind	104·0	82·6	93·3	21·4	32·7	+0·3	—0·1	+ 0·4
	Baluchistan Hills	94·9	59·1	77·0	35·8	46·5	—0·9	—3·3	+ 2·4
Rajputana and Central India.	Central India (East)	98·4	79·9	89·2	18·5	35·6	+0·1	+0·9	— 0·8
	Rajputana (East), Central India (West)	102·1	81·7	91·9	20·5	34·0	+0·6	—0·1	+ 0·7
	Do. (West)	105·3	83·0	94·2	22·4	36·7	+0·4	+0·4	0
Madras	East Coast (North)	91·6	79·7	85·7	11·9	28·6	—0·4	—1·1	+ 0·7
	Hyderabad (South)	93·9	75·2	84·6	18·8	32·2	—0·9	—0·2	— 0·7
	Madras (Central)	90·1	77·2	86·7	18·8	29·5	—1·1	—0·5	— 0·6
	East Coast (Central)	98·4	80·9	89·6	17·5	30·9	—1·4	—0·4	— 1·0
	Do. (South)	97·5	79·8	88·7	17·8	25·0	—0·1	+1·0	— 1·1
	Madras (South)	92·0	76·6	84·1	15·4	24·5	—2·5	—1·0	— 1·5

The above shows that the hottest areas within India were the west Punjab with a temperature, on the mean of the month, of 98°·2, and the central division of the Punjab, the submontane Punjab and the North-west Frontier Province with a mean temperature exceeding 95°; while the coolest area on the plains was Malabar with a mean temperature of 78°·2. The highest mean maximum temperature (109°·8) was recorded in the west Punjab. The mean daily range was generally less than usual except in parts of the extreme north-west.

The following gives a brief account of the larger changes of the temperature conditions during the month:—

Between the 1st and the 4th the mean temperature was generally lower than usual over the greater part of India, but especially so over the west of Central India, Rajputana and the Punjab where thunderstorms had occasioned showers of rain. The following gives comparative data for these areas for these four days:—

Province or Division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of			
	1st June.	2nd June.	3rd June.	4th June.
	°	°	°	°
Central India	—5·9	—5·1	—2·7	—1·5
Rajputana	—6·3	—4·9	—6·7	—5·6
Punjab	+0·3	+0·9	—2·6	—2·2

Both the day and night temperatures were affected by these unsettled conditions and at the following places, within the areas given above, the maximum or minimum temperature was more than 10° below the normal on the following dates:—

Date.	Station.	Departure from normal of	
		Maximum temperature of date.	Minimum temperature of date.
		°	°
1st June 1904	Ajmer	—10·4	—7·4
	Jaipur	—9·0	—10·2
	Sambhar	—7·1	—11·8
	Neemuch	—6·4	—16·0
2nd „ „	Jaipur	—12·0	—4·4
	Ajmer	—10·8	—3·5
3rd „ „	Sirsa	—8·4	—10·7
	Bikaner	—2·7	—16·2
4th „ „	Sirsa	—15·9	—7·4
	Bikaner	—12·0	—2·4
	Ajmer	—10·4	—5·2

Between the 2nd and the 4th a cyclonic storm appeared off the Burma coast and ushered the monsoon rainfall into that province. The rainfall extended to all parts of the province and the mean temperature was low from the 2nd to the 10th. This is shown below:—

Province.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of								
	2nd June.	3rd June.	4th June.	5th June.	6th June.	7th June.	8th June.	9th June.	10th June.
	°	°	°	°	°	°	°	°	°
Burma	—2·0	—1·4	—0·7	—2·2	—3·3	—3·7	—3·3	—2·0	—2·0

On the 5th the temperature was rising over the greater part of India and the mean temperature was very excessive over northern India, with the exception of Rajputana, until the 9th. The excess was about equally large in the day and night temperatures and the following gives comparative data for the different divisions of northern India for these four days:—

Province or Division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of				
	5th June.	6th June.	7th June.	8th June.	9th June.
	°	°	°	°	°
Bengal	+3·4	+4·5	+2·7	+2·4	—1·7
Orissa	+1·6	+3·8	+1·8	+3·9	+0·6
Bihar	+0·8	+1·0	—1·0	+3·5	+0·1
Chota Nagpur	—0·4	+0·7	+1·9	+1·2	—1·8
United Provinces of Agra and Oudh.	+1·0	+4·1	+6·5	+4·1	+2·8
Punjab	+1·2	+3·2	+5·0	+4·4	+4·1
North-West Frontier Province	+1·1	+3·5	+4·1	+3·8	+5·3
Rajputana	—3·0	—0·8	—1·1	—1·3	—0·8
Central India	—1·1	+0·7	+1·8	+1·1	+1·8

On the 9th a depression or storm appeared at the head of the Bay and rain increased over north-east India and the Peninsula, where temperature was low until the 13th and was about normal on the 14th and 15th. This rainfall did not extend into north-west India where the mean temperature was steadily excessive until the 15th. The following gives comparative data for the different divisions of north-west India from the 9th to the 15th:—

Province or Division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of						
	9th June.	10th June.	11th June.	12th June.	13th June.	14th June.	15th June.
	°	°	°	°	°	°	°
United Provinces of Agra and Oudh.	+2·8	+0·5	+1·5	—0·6	+0·6	+2·2	+4·6
Punjab	+4·1	+4·7	+4·6	+3·2	+1·8	+3·8	+3·4
North-West Frontier Province	+5·3	+4·9	+2·1	+5·5	—0·6	+1·0	—1·4
Sind	—0·6	+0·5	+0·4	+1·2	+1·4	+1·4	+1·2
Rajputana	—0·8	+1·6	+3·6	+4·0	+1·5	+1·2	+1·3
Central India	+1·8	+2·1	+1·8	—1·2	—3·4	+0·1	+1·2

During this period the weather was showery over the Peninsula and temperature changed considerably from day to day, but the departures from the average were not generally large. The following gives comparative data for the Peninsular divisions for each alternate day from the 1st to the 15th :—

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF							
	1st June.	3rd June.	5th June.	7th June.	9th June.	11th June.	13th June.	15th June.
	°	°	°	°	°	°	°	°
Central Provinces .	—3·6	—2·6	—0·5	—0·9	—1·1	—0·6	—0·2	+0·2
Berar . . .	—1·1	—2·0	—1·1	+2·3	—0·5	+1·0	—0·6	+4·7
West Coast . .	+0·3	—0·7	+0·1	—1·6	—3·0	—1·9	—0·7	—1·7
Bombay Deccan . .	—0·6	+0·2	+1·4	+0·5	—0·9	— 25	—0·8	—0·3
Mysore . . .	—2·2	—2·8	—2·2	—2·4	—2·2	—1·7	—1·0	—0·7
Madras Coast . .	—1·1	+1·3	+1·5	—2·0	+0·2	—0·2	+2·1	+0·1
Madras Deccan . .	—1·0	+0·9	+1·3	—3·1	—2·8	—2·8	—0·7	—1·1
South India . .	—2·2	—4·3	—2·9	—4·2	—3·2	—3·1	—1·3	—0·5

On the 16th a fresh storm appeared at the head of the Bay and the accompanying rainfall occasioned lower temperatures than usual over Burma, north-east India, the east of the Peninsula and the east of the Central Provinces till the 20th. The greatest depression of temperature was reported from the last named area where the maximum temperature was more than 10° below the normal at the following places on the following dates :—

DATE.	STATION.	MAXIMUM TEMPERATURE.		
		Actual of date.	Normal of date.	Departure from normal of date.
		°	°	°
17th June 1904 .	Raipur . . .	85·1	95·2	—10·1
18th „ .	Raipur . . .	78·1	94·7	—16·6
	Sambalpur . .	80·6	95·0	—14·4
19th „ .	Raipur . . .	78·1	94·2	—16·1
	Sambalpur . .	80·1	94·5	—14·4
20th „ .	Raipur . . .	78·1	93·6	—15·5
	Chanda . . .	81·1	95·6	—14·5
	Nagpur . . .	82·1	94·6	—12·5

Heavy rain was experienced during this time over the west coast of the Peninsula where also the temperature was below the normal from the 16th to the 20th. This is shown below :—

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF				
	16th June.	17th June.	18th June.	19th June.	20th June
	°	°	°	°	°
West Coast . .	—2·0	—2·6	—1·7	—2·8	—2·2

In north-west India, the west of Central India, and of the Central Provinces and the Bombay Deccan, on the contrary, the mean temperature ranged above the average during this period. The excess was large over parts of the United Provinces and of the Punjab and amounted to over 6° at the following stations on the following dates :—

DATE.	STATION.	Departure from normal of mean temperature of 24 hours preceding 8A.M. of date.
		°
17th June . .	Sialkot	+6·1
18th „ . . .	Mainpuri	+7·9
	Jhansi	+7·0
	Cawnpore	+6·5
	Hoshangabad . . .	+6·5
	Dehra Dun	+6·1
19th „ . . .	Mainpuri	+10·1
	Sialkot	+7·3
	Khushab	+6·9
	Jhansi	+6·9
	Saugor	+6·8
	Cawnpore	+6·2
	Sambhar	+6·2
	Roorkee	+6.2
	Meerut	+6·1
20th „ . . .	Sialkot	+9·5
	Mainpuri	+9·4
	Rawalpindi	+8·4
	Jhansi	+7·4
	Lahore	+7·1
	Peshawar	+7·0
	Kotah	+7·0
	Bikaner	+6·6
	Montgomery	+6·5
	Multan	+6·3
	Ludhiana	+6·2

On the 20th and 21st the weather became disturbed over nearly the whole of India, and showers, duststorms and thunderstorms were reported generally. Temperature fell over a large part of the country and on the 22nd, 23rd and 24th was generally low except over Assam, Gujarat,

the western desert and the west coast. The following gives data for all divisions for these three days:—

Province or Division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of		
	22nd June.	23rd June.	24th June.
	°	°	°
Burma	−1·1	−1·0	−0·9
Assam	+0·3	+0·8	+1·3
Bengal	−0·2	+0·1	+0·5
Orissa	−0·3	−0·4	−0·3
Bihar	−2·5	−0·7	−1·6
Chota Nagpur	−1·1	−0·6	−1·6
United Provinces of Agra and Oudh	−4·9	−8·1	−4·6
Punjab	−3·8	−4·2	−2·3
North-West Frontier Province	−1·2	−0·1	−2·6
Sind	−0·6	+0·1	−1·5
Rajputana	−2·6	+0·4	+0·2
Gujarat	+1·7	+2·0	+2·0
Central India	−4·1	−5·9	−1·2
Central Provinces	−3·5	−4·3	−2·7
Berar	−6·1	−5·1	−2·2
West Coast	+1·7	+0·6	−0·8
Bombay Deccan	−1·0	−0·3	+0·6
Mysore	−1·3	−1·3	−1·5
Madras Coast	−0·3	−1·3	−1·3
Madras Deccan	+0·1	−1·5	−0·7
South India	−0·1	−0·1	−0·3

On the 25th and 26th the rainfall was generally light and restricted and the mean temperature rising, but on the 27th another storm was forming over lower Bengal, rain extended and the mean temperature was low over Burma, north-east India and the east and south of the Peninsula, (though it remained high elsewhere) from the 27th to the close of the month. The following gives comparative data of all divisions for these four days:—

Province or Division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of			
	27th June.	28th June.	29th June.	30th June.
	°	,,	°	°
Burma	−1·4	−2.1	−1·4	−1·4
Assam	+0·2	+1.3	+0·3	+0·7
Bengal	−1·0	+0.3	+1·0	+0·4
Orissa	−4·6	−2·3	−5·3	−5·0
Bihar	−2·1	−1·1	−0·3	+0·5
Chota Nagpur	−2·9	−3·3	−0·3	−0·5
United Provinces of Agra & Oudh	+3·7	+3·4	+4·0	+1·9
Punjab	+6·0	+7·1	+7·0	+6·9
North-West Frontier Province	+3·5	+4·8	+5·0	+5·0
Sind	+0·2	−1·1	−1·3	−1·6
Rajputana	+3·1	+3·2	+2·4	+2·2
Gujarat	+2·4	+2·2	+2·1	+1·8
Central India	+4·3	+4·9	+4·1	+4·5
Central Provinces	+1·6	+2·7	+2·5	+0·7
Berar	+3·7	+4·1	+4·2	+3·1
West Coast	−2·1	−1·1	−0·4	−0·9
Bombay Deccan	−0·6	+1·0	+0·6	+1·0
Mysore	−1·4	−0·5	−0·9	−2·1
Madras Coast	−0·7	−1·3	−0·4	0
Madras Deccan	−0·4	−2·5	−1·7	−0·8
South India	−2·5	−0·9	−2·0	+0·1

The excess was very large in the extreme north-west and at the following places on the following days the maximum temperature was more than 10° above the average:—

Date.	Station.	Maximum temperature.		
		Actual of date.	Normal of date.	Departure from normal of date.
		°	°	°
27th June 1904	Ambala	109·9	96·7	+13·2 ?
	Delhi	111·2	98·9	+12·3
	Mainpuri	106·3	95·8	+10·5
	Sialkot	112·9	102·6	+10·3
28th ,,	Sialkot	115·9	102·1	+13·8
	Rawalpindi	114·0	101·4	+12·6
	Ambala	108·5	96·3	+12·2
	Seoni	98·8	86·9	+11·9
	Khushab	116·3	104·6	+11·7
	Ludhiana	111·9	101·1	+10·8
29th ,,	Rawalpindi	115·5	100·9	+14·6
	Sialkot	114·9	101·6	+13·3
	Peshawar	116·0	105·8	+10·2
30th ,,	Rawalpindi	115·0	100·4	+14·6
	Sialkot	112·9	101·1	+11·8

During this hot period the mean daily temperature exceeded 100° at the stations for which data are given below:—

DATE.	STATION.	MEAN TEMPERATURE. Actual of date.	Normal of date.	Departure from normal of date.
		°	°	°
27th June 1904	Delhi	101·0	90·7	+10·3
	Jacobabad	100·4	98·2	+2·2
	Khushab	100·3	94·0	+6·3
28th ,,	Khushab	102·5	93·8	+8·7
	Sialkot	102·0	91·5	+10·5
28th June 1904.	Montgomery	101·2	96·0	+5·2
	Sirsa	100·7	93·4	+7·3
	Lahore	100·1	92 3	+7·3
29th ,,	Sialkot	103·0	91·2	+11·8
	Khushab	111·5	103·7	+7·8
30th ,,	Rawalpindi	103·2	88·8	+14·4
	Sialkot	102·5	90·9	+11 6
	Khushab	101·0	93·6	+7 4

Winds.

The mean wind direction was much more westerly than usual on the Burma coast and at the Bay Islands. The velocity considerably exceeded the normal both at Port Blair and at Diamond Island, while it was lower than usual on the Arakan coast and at Rangoon. The following gives data:—

STATION.	MEAN WIND DIRECTION. Actual, June 1904.	Normal, June.	Westerly deflection.	MEAN WIND VELOCITY IN MILES PER DIEM. Actual, June 1904.	Normal, June.	Departure from normal, June 1904.
Rangoon	S 1° W	S 24° W	—23	58	122	— 64
Diamond Island	S 55 W	S 36 W	+19	326	230	+ 96
Akyab	S 31 W	S 3 E	+34	73	91	— 18
Port Blair	S 66 W	S 45 W	+21	458	250	+208
Cocos Island	S 44 W	S 35 W	+ 9	...	...	...

On the Orissa coast the westerly component in the wind's direction was as noticeable as on the eastern side of the Bay, but at the head of the Bay the direction was more southerly and at Calcutta more easterly than usual. The velocity was lower than usual, except at Chittagong, and the steadiness was everywhere below the normal. This is shown below:—

STATION.	MEAN STEADINESS. Actual percentage, June 1904.	Normal percentage, June.	Departure from normal, June 1904.	MEAN WIND DIRECTION. Actual, June 1904.	Normal, June.	MEAN WIND VELOCITY IN MILES PER DIEM. Actual, June 1904.	Normal, June.	Departure from normal, June 1904.
False Point	63	65	— 2	S 57° W	S 36° W	267	300	—33
Saugor Island	55	70	—15	S 4 W	S 12 W	311	382	—71
Chittagong	52	61	— 9	S 11 E	S 24 E	190	168	+22
Calcutta	46	59	—13	S 37 E	S 3 W	67	142	—75

In the Gangetic plain and upper India the wind varied irregularly from the normal, and in most places the velocity was below the average. At several stations, however, the steadiness was considerably in excess of the average.

In the upper part of the Indus valley the winds, though light, blew from the average direction, and were steadier than usual, but at Kurrachee the wind, as at the head of the Bay, was abnormally southerly. Comparative data are given below:—

STATION.	MEAN STEADINESS. Actual percentage, June 1904.	Normal percentage, June.	Departure from normal, June 1904.	MEAN WIND DIRECTION. Actual, June 1904.	Normal, June.	MEAN WIND VELOCITY IN MILES PER DIEM. Actual, June 1904.	Normal, June.	Departure from normal, June 1904.
				°	°			
Peshawar	43	31	+12	N 35 E	N 36 E	64	106	—42
Jacobabad	60	44	+16	S 28 E	S 30 E	119	127	— 8
Kurrachee	91	87	+ 4	S 48 W	S 63 W	365	420	—55

In Rajputana the wind's direction was approximately normal, though at Jaipur the wind blew from a little to the south of west instead of from the north of west. The steadiness was, however, in large excess. This is shown below:—

STATION.	MEAN STEADINESS. Actual percentage June 1904.	Normal. percentage June.	Departure from normal, June 1904.	MEAN WIND DIRECTION Actual, June 1904.	Normal, June.
				°	°
Jaipur	73	43	+30	S 79 W	N 70 W
Deesa	92	66	+26	S 44 W	S 44 W

The following gives comparative data of the air movement over the Bay Islands, Burma and the different divisions of northern India :—

STATION.	MEAN STEADINESS.			MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, June 1904.	Normal percentage, June.	Departure from normal, June 1904.	Actual, June 1904.	Normal, June.	Departure from normal, June 1904.
Bay Islands	91	85	+ 6	458	250	+208
Burma	72	68	+ 4	152	148	+ 4
Bengal	51	63	—12	189	231	— 42
Orissa	63	65	— 2	267	300	— 33
Bihar	73	65	+ 8	92	144	— 52
Chota Nagpur	10	13	— 3	185	223	— 38
United Provinces	25	14	+11	80	96	— 16
Punjab	25	8	+17	63	77	— 14
North-West Frontier Province.	43	31	+12	64	106	— 42
Sind	76	66	+10	243	274	— 31
Rajputana	83	55	+28	290	282	+ 8

The winds in these areas, with the exception of Port Blair, were thus, on the whole, lighter than usual, but the steadiness, except in lower and south-west Bengal, exceeded the average.

Over the greater part of the Deccan the wind was somewhat more northerly than the average. The following gives data for those stations at which this feature was noticeable :—

STATION.	MEAN WIND DIRECTION.		
	Actual, June 1904.	Normal, June.	Northerly deflection.
	°	°	
Sholapur	N 88 W	S 84 W	+ 8
Akola	N 52 W	N 69 W	+17
Buldana	N 27 W	N 75 W	+48
Khandwa	N 57 W	N 78 W	+21

On the whole the velocity exceeded the normal, and at all stations the steadiness was above the average. This is shown below :—

STATION.	MEAN STEADINESS.			MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, June 1904.	Normal percentage, June.	Departure from normal, June 1904.	Actual, June 1904.	Normal, June.	Departure from normal, June 1904.
Belgaum	86	78	+ 8	487	550	— 63
Sholapur	80	76	+ 4	453	329	+124
Akola	89	68	+21	290	235	+ 55
Buldana	85	70	+15	271	262	+ 9
Khandwa	84	71	+13	275	247	+ 28
Nagpur	77	55	+22	159	216	— 57
Hyderabad (D.)	95	72	+23	228	218	+ 10

Along the west coast the wind was approximately normal, and over southern India, though there was slightly more westing than usual the general directions were about the average. The steadiness in this region was, however, everywhere in excess.

The following gives comparative data of the mean air movement over the Peninsular divisions :—

PROVINCE OR DIVISION.	MEAN STEADINESS.			MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, June 1904.	Normal percentage, June.	Departure from normal, June 1904.	Actual, June 1904.	Normal, June.	Departure from normal, June 1904.
Central Provinces	81	63	+18	217	232	—15
Berar	87	69	+18	281	249	+32
Bombay Deccan	83	77	+ 6	470	440	+30
Madras Deccan	90	76	+14	276	236	+40
West Coast	72	68	+ 4	245	255	—10
Mysore	88	80	+ 8	252	240	+12
Madras Coast	82	57	+25	221	211	+10
South India	77	73	+ 4	116	120	— 4

The above shows increased steadiness in all divisions and increased velocity in most places.

On the northern hills the departures of the wind's direction from the normal were irregular, but at the central hill stations the wind, as in the Deccan, was more northerly than the average. This is shown below :—

HILL STATION.	MEAN WIND DIRECTION		
	Actual, June 1904	Normal, June.	Northerly deflection.
	°	°	°
Pachmarhi	N 53 W	N 81 W	+28
Chikalda	N 3 W	N 42 W	+39

At Aden the wind was more easterly than usual, but at Perim the mean direction was exactly normal. Both

the steadiness and velocity were below the normal. The following gives data:—

STATION.	MEAN STEADINESS.			MEAN WIND DIRECTION.		MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, June 1904.	Normal percentage, June.	Departure from normal, June 1904.	Actual, June 1904.	Normal, June.	Actual, June 1904.	Normal, June.	Departure from normal, June 1904.
				°	°			
Aden . . .	35	57	—22	S 40 E	S	94	223	—129
Perim . . .	37	38	— 1	N 47 W	N 47 W	237	322	— 85

In the south-east trades region the wind's direction varied irregularly from the normal and the velocity was lower than usual except at the Seychelles:—

STATION.	MEAN WIND DIRECTION.		MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual, June 1904.	Normal, June.	Actual, June 1904.	Normal, June.	Departure from normal, June 1904.
	°	°			
Seychelles . . .	S 49 E	S 24 E	296	278	+18
Zanzibar . . .	S 1 W	S 4 E	205	211	— 6
Mauritius . . .	S 52 E	S 61 E	226	269	—43

Humidity and Cloud.

The chart giving the departures of the absolute humidity from the normal shows that the air, on the mean of the month, was considerably damper than usual over the greater part of north-west India, Rajputana and the west of Central India, as well as at the stations of Bellary and Kurnool, while the amount of vapour in the air was in trifling excess over north-east India, the east of the Central Provinces and Mysore. Elsewhere, the air contained less moisture than usual, the deficiency being most marked along the Madras coast and in parts of the east and north Punjab. The departures of the mean relative humidity from the normal exhibited considerable departures from this distribution.

Over the Indus valley, east Rajputana and the west of Central India the mean temperature was about normal and both the absolute and relative humidities were in excess. The following gives comparative data for those stations where the excess was more than 5:—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, June 1904.	Normal, June.	Departure from normal, June 1904.	Actual, June 1904.	Normal, June.	Departure from normal, June 1904.
	"	"	"	%	%	
Jacobabad . .	·947	·786	+·161	65·0	51·3	+13·7
Neemuch . .	·855	·783	+·072	79·0	69·5	+ 9·5
Bhuj . . .	·984	?	?	78·0	70·6	+ 7·4
D. I. Khan . .	·921	·797	+·124	63·0	56·0?	+ 7·0?
Ajmer . . .	·803	·750	+·053	67·0	61·3	+ 5·7

In the north and east of the Punjab and the west of the United Provinces the departures of the absolute humidity from the normal though generally in defect were irregular in amount, but the mean temperature was excessive and the relative humidity was considerably below the normal. This is shown below:—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, June 1904.	Normal, June.	Departure, from normal, June 1904.	Actual, June 1904.	Normal, June.	Departure from normal, June 1904.
	"	"	"	%	%	
Rawalpindi . .	·474	·620	—·146	31·0	50·4	—19·4
Peshawar . .	·540	·593	—·053	35·0	43·5	— 8·5
Sialkot . . .	·725	·699	+·026	48·0	52·3	— 4·3
Ambala . .	·722	·799	—·077	54·0	67·3	—13·3
Ludhiana . .	·626	·726	—·100	45·0	55·6	—10·6
Delhi . . .	·700	·722	—·022	50·0	56·2	— 6·2
Dehra Dun . .	·664	·678	—·014	61·0	69·8	— 8·8
Mainpuri . .	·750	·821	—·071	54·0	65·5	—11·5
Meerut . . .	·719	·747	—·028	54·0	61·5	— 7·5
Agra . . .	·714	·764	—·050	51·0	57·1	— 6·1
Lucknow . .	·822	·837	—·015	64·0	69·3	— 5·3

In Gujarat similar conditions prevailed, the absolute humidity having been lower than usual, the temperature

in excess and the relative humidity in considerable defect :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, June 1904.	Normal, June.	Departure from normal, June 1904.	Actual, June 1904.	Normal, June.	Departure from normal, June 1904.
	"	"	"	%	%	
Bhavnagar Para .	·?08	?	?	63·8	76·8	—13·0
Malegaon . .	·735	·757	—·022	64·0	71·3	— 7·3
Ahmedabad . .	·829	·876	—·047	65·0	72·1	— 7·1
Rajkot . . .	·821	·875	—·054	69·0	74·4	— 5·4

Over west Bengal and the east and south-west of the Peninsula the departures of absolute humidity were irregular and generally small, but the mean temperature was low and the relative humidity was everywhere above the normal though the departures were generally unimportant. The following gives data :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, June 1904.	Normal, June.	Departure from normal, June 1904.	Actual, June 1904.	Normal June.	Departure from normal, June 1904.
	"	"	"	%	%	
Raipur . . .	·789	·762	+·027	78·0	67·5	+10·5
Cocanada . .	·920	·866	+·054	80·0	72·3	+ 7·7
Bellary . . .	·702	·640	+·062	68·0	60·8	+ 7·2
Mysore . . .	·686	·657	+·029	87·0	80·3	+ 6·7

On the Madras coast the air was drier than usual and the mean temperature higher than the average so that the relative humidity was considerably lower than usual. This is shown below :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, June 1904.	Normal, June.	Departure from normal, June 1904.	Actual, June 1904.	Normal, June.	Departure from normal, June 1904.
	"	"	"	%	%	
Negapatam . .	·762	·790	—·028	62·0	64·2	— 2·2
Cuddalore . .	·750	·882?	—·132?	60·0	71·5	—11·5
Madras . . .	·706	·801	—·095	55·0	63·2	— 8·2
Nellore . . .	·767	·822	—·055	60·0	61·7	— 1·7
Masulipatam .	·931	·950	—·019	78·0	77·1	+ 0·9
Waltair . . .	·823	·889	—·066	72·0	74·0	— 2·0

Over north-east India the air was slightly damper than the average, but the mean temperature was in slight excess and the relative humidity consequently in slight defect. The following gives data :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, June 1904.	Normal, June.	Departure from normal, June 1904.	Actual, June 1904.	Normal, June.	Departure from normal, June 1904.
	"	"	"	%	%	
Dinajpur . .	·942	·928	+·014	85·0	88·8	—3·8
Mymensingh .	·945	·937	+·008	86·0	89·6	—3·6
Bogra . . .	·917	·952	—·035	84·0	87·5	—3·5
Silchar . . .	·925	·923	+·002	86·0	89·3	—3·3

In Burma the departures of humidity from the normal were irregular, but over central Burma there was considerable deficiency of mean temperature and in this area the relative humidity was in moderate excess. This is shown below :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual June, 1904.	Normal, June	Departure from normal, June 1904.	Actual, June 1904.	Normal, June.	Departure from normal, June 1904.
	"	"	"	%	%	
Thayetmyo . .	·898	·874	+·024	88·0	82·5	+5·5
Yamethin . .	·838	·850	—·012	86·0	81·0	+5·0
Mandalay . .	·885	·866	+·019	80·0	75·1	+4·9
Bhamo . . .	·906	·886	+·020	94·0	89·1	+4·9
Minbu . .	·891	·890	+·001	86·0	81·7	+4·3
Mergui . .	·874	·894	—·020	95·0	90·7	+4·3

The mean relative humidity of the month was more than 90% and less than 40% at the following stations :—

STATION.	Actual relative humidity over 90%.	STATION.	Actual relative humidity less than 40%.
Mercara . . .	97	Khushab . . .	39
Mergui . . .	95	Peshawar . . .	35
Tavoy	94	Montgomery . .	35
Akyab	94	Rawalpindi . .	31
Bhamo	94		
Bassein . . .	93		
Rangoon . . .	91		
Sibsagar . . .	91		
Tezpur	91		
Calicut	91		
Mangalore . . .	91		

The regions outlined by the above stations were hence the driest and dampest within the Indian area and within the former the following comparatively low humidities were recorded during the month :—

Station.	Date.	Lowest humidity recorded during June 1904.
		%
Ambala	14th June	28
Do.	15th ,,	28
Rawalpindi	6th ,,	28
Mainpuri	7th ,,	28
Roorkee	8th ,,	26
Peshawar	19th ,,	22
Montgomery	19th ,,	22
Rawalpindi	14th ,,	22
Do.	29th ,,	22
Montgomery	1st ,,	21
Rawalpindi	28th ,,	20
Do.	27th ,,	19
Cherat	18th ,,	16
Do.	19th ,,	16
Chitral	5th ,,	16
Do.	11th ,,	16
Do.	29th ,,	16
Do.	13th ,,	15
Do.	27th ,,	15
Chaman	24th ,,	14
Cherat	29th ,,	14
Do.	14th ,,	12
Do.	12th ,,	11
Chitral	12th ,,	10
Cherat	13th ,,	9
Peshawar	12th ,,	8

The air was generally drier than usual at the Baluchistan and north-west Himalayan stations, but at the central and southern hill stations and at Darjeeling the departures were irregular. The following gives data for the different hill stations :—

Hill Station.	Absolute Humidity.			Relative Humidity.		
	Actual, June 1904.	Normal, June.	Departure from normal, June 1904.	Actual, June 1904.	Normal, June.	Departure from normal, June 1904.
	"	"	"	%	%	
Quetta	·330	·455	—·125	38·0	49·4	—11·4
Chaman	·268	·362	—·094	25·0	28·8	— 3·8
Cherat	·322	·503	—·181	28·0	50·7	—22·7
Murree	·330	·383	—·053	38·0	52·4	—14·4
Gilgit	·350	·355	—·005	34·0	37·9	— 3·9
Leh	·168	·184	—·016	40·0	42·2	— 2·2
Srinagar	·544	·574	—·030	80·0	81·0	— 1·0
Simla	·373	·402	—·029	61·0	65·5	— 4·5
Chakrata	·429	·437	—·008	66·0	71·4	— 5·4
Ranikhet	·507	·498	+·009	70·0	73·4	— 3·4
Darjeeling	·500	·498	+·002	93·0	94·8	— 1·8
Mount Abu	·609	·571	+·038	82·0	72·9	+ 9·1
Pachmarhi	·593	·621	—·028	69·0	71·7	— 2·7
Wellington	·426	·446	—·020	73·0	69·7	+ 3·3

At Aden and Perim both the absolute and relative humidities were below the average. The following gives data :—

Station.	Absolute Humidity.			Relative Humidity.		
	Actual, June 1904.	Normal, June.	Departure from normal, June 1904.	Actual, June 1904.	Normal, June.	Departure from normal June, 1904.
	"	"	"	%	%	
Aden	·935	·938	—·003	70·0	71·6	—1·6
Perim*	·869	·942	—·073	62·0	68·0	—6·0

In the south-east trades region the air was drier than usual, but the mean temperature was low and the relative humidity was normal or in some excess. This is shown below :—

Station.	Absolute Humidity.			Relative Humidity.		
	Actual, June 1904.	Normal, June.	Departure from normal, June 1904.	Actual, June 1904.	Normal, June.	Departure from normal, June 1904.
	"	"	"	%	%	
Seychelles	·744	·781	—·037	81·0	79·0	+2·0
Zanzibar	·762	...	...	88·0	...	...
Mauritius	·517	·538	—·021	76·0	76·0	0

* Taken from Table II.

The mean cloud amount of the month was in some excess over the west, south and east of the Peninsula. The following gives data :—

STATION.	MEAN CLOUD AMOUNT.		
	Actual, June 1904.	Normal, June.	Departure from normal, June 1904.
Mormugao	8·0	6·8	+1·2
Calicut	9·5	8·1	+1·4
Trivandrum	9·7	8·1	+1·6
Tannevelly	7·9	6·5	+1·4
Mysore	9·5	8·1	+1·4
Bangalore	9·2	6·9	+2·3
Salem	7·7	6·0	+1·7
Cuddalore	6·5	5·4	+1·1
Cuddapah	7·6	6·4	+1·2
Masulipatam	8·2	6·6	+1·6
Waltair	9·2	7·4	+1·8
Cocanada	8·3	7·0	+1·3

The cloud amount was also in excess over west Bengal, Orissa, and the east of the United and Central Provinces, the departures from the normal having been more than +1 at the following stations :—

STATION.	MEAN CLOUD AMOUNT.		
	Actual, June 1904.	Normal, June.	Departure from normal, June 1904.
Patna	7·4	5·8	+ 1·6
Hazaribagh	8·6	7·2	+ 1·4
Raipur	7·9	6·4	+ 1·5
Sambalpur	8·6	6·6	+ 2·0
Sutna	8·5	4·6	+ 3·9
Gorakhpur	8·1	4·9	+ 3·2
Nowgong	7·2	4·7	+ 2·5

Over the greater part of Burma the sky was also more cloudy than usual on the mean of the month. The following gives data :—

STATION.	MEAN CLOUD AMOUNT.		
	Actual, June 1904.	Normal, June.	Departure from normal, June 1904.
Yamethin	9·7	5·2	+4·5
Minbu	7·2	5·7	+1·5
Bhamo	8·8	7·6	+1·2
Toungoo	10·0	8·9	+1·1

Over practically the whole of the remainder of the Indian region, including north-west and north-east India and the interior of the Peninsula the sky was clearer than usual on the mean of the month. The serenity was great over the west of the United Provinces and the neighbouring parts of Rajputana and of the Punjab, but the departure from the normal was absolutely greatest at Silchar. The following gives data :—

	STATION.	MEAN CLOUD AMOUNT.		
		Actual, June 1904.	Normal, June.	Departure from normal, June 1904.
NORTH-WEST INDIA.	Sirsa	0·8	4·5	—3·7
	Mainpuri	1·3	4·9	—3·6
	Bahraich	1·9	4·8	—2·9
	Sambhar	1·3	4·0	—2·7
	Jaipur	1·7	4·2	—2·5
	Agra	1·4	3·8	—2·4
	Lucknow	3·5	5·8	—2·3
	Roorkee	1·9	4·2	—2·3
	Dehra Dun	2·8	5·0	—2·2
	Ludhiana	1·3	3·3	—2·0
	Lahore	0·8	2·8	—2·0
	Ambala	1·4	3·0	—1·6
	Delhi	3·6	5·0	—1·4
	Bikaner	0·4	2·3	—1·9
	Neemuch	2·6	4·4	—1·8
	Malegaon	2·9	6·2	—3·3
	Surat	5·1	6·9	—1·8
	Veraval	5·2	6·9	—1·7
	Kotah	1·5	...	...
	Jhansi	1·9	3·5	—1·6
	Sialkot	0 6	2·0	—1·4
	Montgomery	0·2	1·5	—1·3
	Rawalpindi	1·5	2·8	—1·3
	Hyderabad (Sd.)	1·5	3·8	—2·3
NORTH-EAST INDIA.	Silchar	4·3	9·0	—4·7
	Purnea	4·3	6·8	—2·5
	Barisal	6·2	8·1	—1·9
	Dhubri	6·5	8·1	—1·6
	Chittagong	6·5	7·8	—1·3
	Mymensingh	6·4	7·6	—1·2
	Dinajpur	6·8	8·0	—1·2
	Balasore	6·9	8·0	—1·1
	Mandalay	5·4	6·6	—1·2

At most of the hill stations the mean cloud amount was slightly less than usual. This is shown below:—

HILL STATION.	MEAN CLOUD AMOUNT.		
	Actual, June 1904.	Normal, June.	Departure from normal, June 1904.
Quetta	0	0·6	−0·6
Chaman	0	0·5	−0·5
Murree	0·7	3·5	−2·8
Cherat	0·7	2·7	−2·0
Srinagar	1·7	3·2	−1·5
Gilgit	2·3	2·8	−0·5
Leh	3·4	3·6	−0·2
Simla	2·2	5·0	−2·8
Ranikhet	3·8	5·9	−2·1
Darjeeling	7·5	8·6	−1·1
Pachmarhi	5·6	6·5	−0·9
Chakrata	5·2	4·0	+1·2
Mount Abu	5·7	5·3	+0·4
Wellington	9·4	6·5	+2·9

The following table shows the stations at which the cloud amount, on the mean of the month, was more than 8·5 and less than 1·0, and hence defines the areas of greatest and least cloudiness:—

STATION.	Actual mean cloud amount over 8·5.	STATION.	Actual mean cloud amount less than 1·0.
Toungoo	10·0	Lahore	0·8
Yamethin	9·7	Sirsa	0·8
Trivandrum	9·7	Khushab	0·8
Monywa	9·5	Sialkot	0·6
Calicut	9·5	Jacobabad	0·5
Mysore	9·5	D. I. Khan	0·4
Bangalore	9·2	Bikaner	0·4
Hassan	9·2	Montgomery	0·2
Waltair	9·2	Multan	0
Rangoon	9·1		
Akyab	9·1		
Mangalore	9·1		
Diamond Island	9·0		
False Point	9·0		
Moulmein	8·9		
Port Blair	8·8		
Bhamo	8·8		
Karwar	8·8		
Chitaldroog	8·8		
Thayetmyo	8·7		
Tavoy	8·6		
Hazaribagh	8·6		
Sambalpur	8·6		

At Aden and Perim the mean cloud amount was low and less than the small normal amount. The following gives data:—

STATION.	MEAN CLOUD AMOUNT.		
	Actual, June 1904.	Normal, June.	Departure, from normal, June 1904.
Aden	2·2	3·0	−0·8
Perim*	0·2	1·8	−1·6

* Taken from Table II.

In the south-east trades region the departures of the mean cloud amount from the average were irregular, Zanzibar exhibiting a moderate excess, the Seychelles a considerable deficiency and Mauritius a trifling excess:—

STATION.	MEAN CLOUD AMOUNT.		
	Actual, June 1904.	Normal, June.	Departure from normal, June 1904.
Seychelles	4·8	7·1	−2·3
Zanzibar	6·6	4·8	+1·8
Mauritius	5·1	5·0	+0·1

Rainfall.

At the commencement of the month the weather was fine except in Burma, north-east India and Malabar where thunderstorms were occasioning light rain. The monsoon burst on the Malabar coast on the 7th and extending rapidly northward reached Bombay on the 8th; between the 8th and the 20th the monsoon gave rain to Malabar and the South Konkan, but no rain of importance fell over the Deccan and south India. On the 20th, under the influence of a storm from the Bay, monsoon rainfall extended into Rajputana, Central India and the south-east Punjab.

Precipitation diminished to showers along the west coast between the 21st and 23rd, after which the rainfall increased at the coast stations though rain still held off from the interior of the Peninsula.

Monsoon rainfall commenced in Burma as early as the 3rd. On the 9th the rains commenced in north-east India and the Central Provinces and the fall continued steadily until the close of the month.

The general distribution of the rainfall of the month was hence largely determined by—

(1) the trifling delay in the advance of the Arabian Sea monsoon current;
(2) the failure of that current to establish itself north of Bombay or to penetrate freely into the interior of the Peninsula;
(3) the early advance of the Bay of Bengal current;
(4) and the number and movements of the depressions which were developed over the Bay.

The following table gives comparative rainfall data for the 57 meteorological divisions of the empire:—

Province.	Division.	Number of rainy days.		Rainfall.		
		Average actual, June 1904.	Average normal, June.	Average actual, June 1904.	Average normal, June.	Departure from normal, June 1904.
				Inches.	Inches.	Inches.
Burma	Tenasserim	29·4	25·3	54·53	38·48	+16·05
	Lower Burma (Deltaic)	27·7	22·8	23·74	20·43	+ 3·31
	Central do.	24·0	16·2	13·37	10·29	+ 3·08
	Upper do.	12·0	9·4	8·41	6·54	+ 1·87
	Arakan	27 5	24·1	52·71	40·64	+12·07
Bengal and Assam	Eastern Bengal	16·1	16·3	15·07	18 03	— 2·96
	Assam (Surma)	18·9	20·8	18·96	24·33	— 5 37
	Do. (Hills)	19·4	20·7	19·87	29·27	— 9 40
	Do. (Brahmaputra)	15·2	16·0	14·71	15·26	— 0·55
	Deltaic Bengal	15·0	13·0	10·61	11·02	— 0·41
	Central do.	14·5	11·9	9·50	10·52	— 1·02
	North do.	12·5	15·5	9·20	20·c4	—10·84
	Bengal Hills	19·4	19·9	19·41	23·33	— 3·92
	Orissa	15·8	10·5	11·92	9·33	+ 2·59
	Chota Nagpur	14·8	10·6	12·63	9·34	+ 3·29
	Bihar (South)	10·0	7·9	7·45	6·97	+ 0·48
	Do. (North)	9·3	9·1	6·49	8·90	— 2·41
United Provinces of Agra and Oudh.	United Provinces (East)	4·5	6·0	3·05	5·04	— 1·99
	Oudh (South)	3·4	5·3	3·84	4·87	— 1·03
	Do. (North)	5·1	6·3	9·09	5·74	+ 3·35
	United Provinces (Central)	2·7	5·1	2·24	4·44	— 2·20
	Do. (West)	2·0	3·6	1·94	2·60	— 0·65
	Do. (Submontane, East)	7·8	7·1	7·50	6·59	+ 0·91
	Do. (Do. West)	3·6	6·1	3·85	5·71	— 1·85
	Do. (Hills)	8·4	10·9	8·38	8·82	— 0·44
Punjab	Punjab (South-East)	1·7	3·4	1·01	2·44	—1·43
	Do. (South)	2·7	2·5	1·09	1·88	—0·79
	Do. (Central)	1·9	2·4	0·81	1·65	—0·84
	Do. (Submontane)	1·6	3·5	0·74	2·82	—2·08
	Do. (Hills)	4·0	6·8	1·91	5·18	—3·27
	Do. (West)	0·5	1·4	0·17	0·75	—0·58
North-West Frontier Province.	North-West Frontier Province	0·5	1·7	0·18	0·99	—0·81
Bombay and Malabar Coast Districts (Madras).	Malabar	28·0	23·9	45·13	35·54	+9·59
	Travancore	26·3	...	33·69	...	...
	Madras (South Central)	2·5	3·8	1·09	1·96	—0·87
	Coorg	27·0	...	27·66	...	...
	Mysore	7·7	6·7	5·35	4·26	+1·09
	Konkan	21·2	18·6	35·37	26·62	+8·75
	Bombay Deccan	7·7	8·8	5·72	6·01	—0·29
	Hyderabad North	7·7	8·1	4·52	5·61	—1·09
	Khandesh	4·9	8·0	3·41	5·70	—2·29
Central Provinces and Berar.	Berar	8·1	8·2	4 86	5·69	—0·83
	Central Provinces (West)	7·1	8·7	5·90	7·13	—1·23
	Do. do. (Central)	8·5	9·0	5·79	7·79	—2·00
	Do. do. (East)	16·2	9·6	14·55	8·83	+5·72

Province.	Division.	Number of rainy days.		Rainfall.		
		Average actual, June, 1904.	Average normal, June.	Average actual, June, 1904.	Average normal, June.	Departure from normal, June, 1904.
				Inches.	Inches.	Inches.
Bombay (North)	Gujarat	31	6·9	2·08	6·86	—4·78
	Kathiawar and Cutch	1·4	4·5	1·06	4·21	—3·15
	Sind	0·1	0·6	0·02	0·40	—0·38
	Baluchistan Hills	0	0·6	0·02	0·30	—0·28
Rajputana and Central India.	Central India (East)	5·0	7·0	3·48	4·74	—1·26
	Rajputana (East), Central India (West)	3·1	3·6	1·68	3·18	—1·50
	Rajputana (West)	1·1	2·1	0·58	1·39	—0·81
Madras	East Coast (North)	9·5	7·2	5·76	5·19	+0·57
	Hyderabad South	7·3	6·8	4·60	4·05	+0·55
	Madras (Central)	4·8	4·5	1·84	2·54	—0·70
	East Coast (Central)	1·4	2·9	0·39	1·03	—1·24
	East Coast (South)	2·0	3·3	0·69	1·94	—1·25
	Madras (South)	2·8	2·0	1·08	0·97	+0·11

The total rainfall of the month was less than one-tenth of an inch in amount over Sind and Baluchistan and less than half an inch over the west Punjab, the North-west Frontier Province and the central division of the east coast. From these areas the amount of the month's rainfall increased and exceeded 50″ in Tenasserim and Arakan, 45″ in Malabar, 35″ in the Konkan, 33″ in Travancore and 27″ in Coorg.

The rainfall of the month was generally in excess of the normal over Burma, south-west Bengal, north Oudh and the west, south and north-east of the Peninsula. The excess was more than 20 per cent. in the case of the following divisions :—

Division.	Rainfall.			
	Average actual, June 1904.	Average normal, June.	Departure from normal, June 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Tenasserim	54·53	38·48	+16·05	+42
Central Burma	13·37	10·29	+ 3·08	+30
Upper Burma	8·41	6·54	+ 1·87	+29
Arakan	52·71	40·64	+12·07	+30
Orissa	11·92	9·33	+ 2·59	+28
Chota Nagpur	12·63	9·34	+ 3·29	+35
North Oudh	9·09	5·74	+ 3·35	+58
Malabar	45·13	35·54	+ 9·59	+27
Mysore	5·35	4·26	+ 1·09	+26
Konkan	35·37	26·62	+ 8·75	+33
Central Provinces East	14·55	8·83	+ 5·72	+65

Over the whole of the remainder of the Indian region the month's rainfall was less than the average, the deficiency amounting to more than 40 per cent. within the following large number of divisions :—

Division.	Rainfall.			
	Average actual, June 1904.	Average normal, June.	Departure from normal, June 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
North Bengal	9·20	20·04	—10·84	—54
United Provinces Central	2·24	4·44	— 2·20	—50
South-East Punjab	0·98	2·44	— 1·46	—60
South Punjab	1·09	1·88	— 0·79	—42
Central Punjab	0·81	1·65	— 0·84	—51
Punjab Submontane	0·74	2·82	— 2·08	—74
Punjab Hills	1·91	5·18	— 3·27	—63
West Punjab	0·17	0·75	— 0·58	—77
North-West Frontier Province.	0·18	0·99	— 0·81	—82
Madras South Central	1·09	1·96	— 0·87	—44
Gujarat	2·08	6·86	— 4·78	—70
Kathiawar and Cutch	1·06	4·21	— 3·15	—75
Sind	0·02	0·40	— 0·38	—95
Baluchistan Hills	0·02	0·30	— 0·28	—93
Rajputana East, Central India West.	1·68	3·18	— 1·50	—47
West Rajputana	0·58	1·39	— 0·81	—58
East Coast Central	0·39	1·63	— 1·24	—76
East Coast South	0·69	1·94	— 1·25	—64

The above shows that over the greater part of the country the fall was below the normal and in some divisions largely so, but the mean departure of the rainfall of the whole country (excluding the hills) derived from the fifth figure column of the table on pages 193 and 194 amounted to +0·23″.

Except in the upper division daily rainfall occurred over Burma during the month. The month's rainfall was heavier than usual generally, the heaviest falls in 24 hours having occurred in most districts either during the existence of the cyclonic storm at the commencement of the month or during a general fall in the last week. The following amounts exceeding 5″ in 24 hours were registered during the month :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
AKYAB	Maungdaw	4th June	6·78
KYAUKPYU	Ramree	,, ,,	5·47
KYAUKPYU	Kyaukpyu	5th ,,	12·26
KYAUKPYU	An	,, ,,	6·56
AKYAB	Akyab	,, ,,	6·56
SANDOWAY	Sandoway	,, ,,	6·40
SANDOWAY	Taungup	,, ,,	6·06
KYAUKPYU	Myebon	,, ,,	5·44
BASSEIN	Ngaputaw	6th ,,	5·50
ARAKAN HILL TRACTS	Paletwa	11th ,,	5·14
TAVOY	Launglon	12th ,,	8·28
KYAUKPYU	Myebon	,, ,,	5·42
TAVOY	Tavoy	13th ,,	11·35
TAVOY	Launglon	18th ,,	5·21
KYAUKPYU	Ramree	19th ,,	5·17
SANDOWAY	Sandoway	25th ,,	6·32
KYAUKPYU	Ramree	26th ,,	5·67
AKYAB	Maungdaw	27th ,,	13·20
SANDOWAY	Taungup	,, ,,	6·72
TAVOY	Launglon	,, ,,	5·89
AKYAB	Rathedaung	,, ,,	5·66
SANDOWAY	Sandoway	,, ,,	5·18
TAVOY	Tavoy	28th ,,	6·20
SANDOWAY	Gwa	,, ,,	5·45
KYAUKPYU	An	,, ,,	5·25

In upper Burma the rainfall was less continuous than in the other divisions. Rain fell daily from the 1st to the 11th, but after the latter date, except in the more hilly districts, the rain fell off and only showers were experienced up to the end of the month. The following falls exceeding 4″ in 24 hours were recorded during the month:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
PAKOKKU	Pasok	4th June	5·12
LOWER CHINDWIN	Pale	6th ,,	4·86
PAKOKKU	Pauk	,, ,,	4·68
CHIN HILLS	Fort White	8th ,,	4·12
CHIN HILLS	Ditto	9th ,,	6·30
UPPER CHINDWIN	Tamu	10th ,,	5·45
CHIN HILLS	Fort White	,, ,,	4·46
UPPER CHINDWIN	Homalin	11th ,,	6·85
UPPER CHINDWIN	Maingkaing	,, ,,	5·31
UPPER CHINDWIN	Homalin	12th ,,	4·13

In Assam, the month's rainfall was normal in the Brahmaputra valley and slightly below the normal elsewhere. In the Brahmaputra valley the principal periods of rainfall were the 1st and 2nd, the 8th to the 14th and the 18th to the end of the month. The heaviest and most extensive rainfall was generally reported during the fall of the 8th to the 14th. The following are the falls exceeding 4″ in 24 hours recorded during the month:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
NOWGONG	Lanka	10th June	8·07
DARRANG	Kabira	12th ,,	9·49
DARRANG	Singrimari	,, ,,	5·90
DARRANG	Attarikhat	,, ,,	4·90
KAMRUP	Mandakata	,, ,,	4·50
NOWGONG	Kulikuchi	,, ,,	4·09
KAMRUP	Ramgaon	,, ,,	4·04
DARRANG	Balipara	13th ,,	7·60
DARRANG	Boreli	,, ,,	7·26
DARRANG	Charduar	,, ,,	6·70
DARRANG	Kerkeriya	,, ,,	6·12
DARRANG	Tezpur	,, ,,	5·90
DARRANG	Barpukhuri	,, ,,	5·90
KAMRUP	Mandakata	,, ,,	5·70
KAMRUP	Tambulpur	,, ,,	5·00
DARRANG	Orangajuli	,, ,,	4·80
NOWGONG	Kuturi	,, ,,	4·70
DARRANG	Majbat	,, ,,	4·31
DARRANG	Mangaldai	,, ,,	4·06

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
GOALPARA .	Goalpara . . .	14th June .	4·45
	Bijni	„ „ .	4·24
LAKHIMPUR .	North Lakhimpur .	23rd „ .	4·77
	Pathalipam . .	24th „ .	4·32
DARRANG . . .	Balipara . . .	29th „ .	4·33

In the Surma valley the weather was showery between the 1st and the 7th. After the latter date rain set in steadily and with a brief interruption on the 14th and 15th continued till the close of the month. The falls exceeding 4″ in 24 hours in this region were as follows:—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
SYLHET . .	Karimganj . . .	12th June .	4·50
	Sunamganj . .	„ „ .	4·25
	Lalakhal . . .	13th „ .	14·25
	Sunamganj . .	„ „ .	5·10
CACHAR . . .	Badarpur . . .	„ „ .	4·41
SYLHET . . .	Sunamganj. . .	22nd „ .	7·10
CACHAR . . .	Barkhola . . .	„ „ .	6·44
SYLHET . . .	Lalakhal . . .	„ „ .	5·53
CACHAR . .	Maibong . . .	30th „	4·70
	Barkhola . . .	„ „ .	4·48

The following gives comparative data for the eight plains districts of the province:—

DISTRICT.	RAINFALL.			
	Average actual, June 1904.	Average normal, June.	Departure from normal, June 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Cachar. . . .	19·38	21·33	−1·95	− 9
Sylhet	18·57	27·07	−8·50	−31
Goalpara . . .	12·54	24·80	−12·26	−49
Kamrup . . .	16·87	14·28	+2·59	+18
Darrang . . .	18·89	14·31	+4·58	+32
Nowgong . . .	15·70	10·41	+5·29	+51
Sibsagar . . .	9·48	12·04	−2·56	−21
Lakhimpur . . .	13·29	18·38	−5·09	−28

Over the Assam hill districts the rainfall was less continuous and, relatively to the normal, less heavy than on the plains. There was, however, a heavy fall of rain on the 12th when the second cyclonic storm of the month was breaking up over east Bengal. On that date Cherrapoonjee reported a fall of 18·56″ in 24 hours, Wahmaulien of 12·62″ and Jowai of 6·47″. The total rainfall of the month at Cherrapoonjee was only 56·55″ instead of the normal 105·12″.

There was no rainfall of importance over south-west Bengal during the first eight days of the month. On the 9th rain commenced generally and with a brief and partial interruption between the 13th and 15th, continued till the close of the month. The heaviest falls of rain were associated with the various cyclonic storms of the month and amounts exceeding 4″ in 24 hours were recorded at the following places on the following dates:—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
24-PARGANAS . .	Basirhat . . .	11th June .	5·27
MIDNAPORE . .	Panskura . . .	„ „ .	5·20
HOWRAH . . .	Mohesreka . .	16th „ .	4·45
MURSHIDABAD . .	Lalbagh . . .	26th „ .	4·80
Do. . .	Azimganj . . .	„ „ .	4·76

The general rainfall was about normal. The following gives data for the contained districts:—

DISTRICT.	RAINFALL.			
	Average actual, June 1904.	Average normal, June.	Departure from normal, June 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Burdwan	9·54	10·15	−0·61	− 6
Birbhum	10·92	10·96	−0·04	0
Bankura	10·54	10·83	−0·29	− 3
Midnapore	12·21	10·23	+1·98	+19
Hooghly	11·10	10·28	+0·82	+ 8
Howrah	10·75	10·93	−0·18	− 1
24-Parganas	12·49	10·89	+1·60	+15
Calcutta	10·25	11·04	−0·79	− 7
Nadia	7·52	10·00	−2·48	−25
Murshidabad	9·03	10·15	−1·12	−11
Jessore	9·06	11·69	−2·63	−22
Khulna	10·63	12·77	−2·14	−17

The north of Bengal had a slight burst of rain on the 1st and 2nd but otherwise the rainfall was similar to that in south-west Bengal, commencing on the 9th and continuing more or less steadily till the close of the month. The heaviest rainfall occurred generally on the 12th and 13th or on the 25th and 26th of the month, during the existence of the second and third cyclonic storms. The following amounts exceeding 4″ in 24 hours were recorded during the month:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Jalpaiguri	Bhagatpur	13th June	7·00
Do.	Alipur Duars	„ „	5·42
Do.	Kalchini	„ „	4·18
Darjeeling	Darjeeling	14th „	4·93
Do.	Mongpoo	„ „	4·73
Do.	Kurseong	20th „	4·70
Do.	Mongpoo	21st „	6·43
Do.	Kurseong	25th „	5·25
Do.	Mongpoo	„ „	5·04
Pabna	Pabna	26th „	5·15

The total rainfall of the month was only about half the average, as is shown by the following district data:—

District.	Rainfall.			
	Average actual, June 1904.	Average normal, June.	Departure from normal, June 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Rajshahi	7·22	10·53	−3·31	−31
Dinajpur	5·33	13·78	−8·45	−61
Jalpaiguri	13·93	26·77	−12·84	−48
Darjeeling	21·98	23·36	−1·38	− 6
Cooch Behar	11·35	27·44	−16·09	−59
Rangpur	8·13	17·05	−8·92	−52
Bogra	7·02	12·83	−5·81	−45
Pabna	11·20	11·49	−0·29	− 3

In east Bengal there was a heavyish burst of rain between the 8th and the 14th, but at other times the weather was only showery. The following amounts exceeding 4″ in 24 hours were recorded during the month:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Chittagong	Cox's Bazar	8th June	4·33
Noakhali	Hatya	9th „	4·05
Backergunge	Bauphal	10th „	5·50
Chittagong	Fenoa	11th „	9·32
Do.	Kodala	„ „	7·35
Noakhali	Chhagalnaya	„ „	5·25
Chittagong	Mirsarai	„ „	4·40
Mymensingh	Durgapur	12th „	9·58
Do.	Netrakona	„ „	8·80
Noakhali	Harishpur	„ „	7·50
Chittagong Hill Tracts.	Rangamati	„ „	6·87
Chittagong	Mirsarai	„ „	6·10
Mymensingh	Mymensingh	„ „	5·70
Chittagong Hill Tracts.	Bandarban	„ „	5·11
Do. do.	Barkal	„ „	4·85
Backergunge	Daulatkhan	„ „	4·77
Mymensingh	Kishorganj	„ „	4·73
Noakhali	Fenny	„ „	4·72
Mymensingh	Nalitabari	„ „	4·33
Noakhali	Noakhali	„ „	4·30
Do.	Chhagalnaya	„ „	4·22
Mymensingh	Durgapur	13th „	5·60
Do.	Nalitabari	„ „	5·14
Chittagong	Cox's Bazar	28th „	4·99

The month's rainfall was, except in Backergunge, less than usual, as is shown by the following district data:—

District.	Rainfall.			
	Average actual, June 1904.	Average normal, June.	Departure from normal, June 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Dacca	7·69	12·64	−4·95	−39
Mymensingh	13·54	17·90	−4·36	−24
Faridpur	8·37	12·45	−4·08	−33
Backergunge	18·28	17·37	+0·91	+ 5
Tippera	10·33	14·58	−4·25	−29
Noakhali	17·91	22·21	−4·30	−19
Chittagong	21·01	23·56	−2·55	−11

Bihar experienced showery weather during the first half of the month, but from the 18th to the 30th fairly steady daily rain was received. The heaviest rainfall was generally received on the 23rd and 27th. The following gives the falls exceeding 4″ in 24 hours recorded during the month:—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
MUZAFFARPUR . .	Mahua . . .	15th June .	6·35
CHAMPARAN . .	Ramnagar . . .	23rd ,, .	6·00
Do. . . .	Bagaha . . .	,, ,, .	5·37
PURNEA . . .	Purnea . . .	25th ,, .	4·55
PATNA . . .	Islampur . . .	27th ,, .	6·00
MUZAFFARPUR . .	Muzaffarpur . .	,, ,, .	4·99
GAYA . . .	Gaya . . .	,, ,, .	4·76
Do. . . .	Sherghati . . .	28th ,, .	4·50

The rainfall of the month was irregularly distributed but was lighter than usual in the north. The following gives comparative data for the contained districts:—

STATION.	RAINFALL.			
	Average, actual, June 1904.	Average normal, June.	Departure from normal, June 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Patna	5·92	7·71	−1·79	−23
Gaya	9·41	6·52	+2·89	+44
Shahabad	6·88	6·44	+0·44	+ 7
Saran	6·14	7·95	−1·81	−23
Champaran	8·56	9·34	−0·78	− 8
Muzaffa·pur	6·10	7·41	−1·31	−18
Darbhanga	4·82	7·47	−2·65	−35
Monghyr	7·26	7·62	−0·36	− 5
Bhagalpur	6·75	8·34	−1·59	−19
Purnea	6·90	12·61	−5·71	−45
Malda	5·15	10·11	−4·96	−49
Sonthal Parganas . . .	10·84	9·79	+1·05	+11

Orissa received scattered showers between the 1st and the 8th and general rain between the 9th and the 12th, the 16th and the 22nd and the 25th and 30th. The following falls of 4″ or more in 24 hours were registered during the month:—

DISTRICT.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
BALASORE . . .	Jellasore . .	10th June .	4·15
ORISSA TRIBUTARY MAHALS.	Kunjabougar . .	16th ,, .	5·10
	Boad . . .	,, ,, .	4·15
	Keonjhar . .	17th ,, .	4·02
	Pal Lahera . .	18th ,, .	4·75
ANGUL. . . .	Kumarkhole . .	29th ,, .	12·00
	Bissipara . .	30th ,, .	4·10
	Kumarkhole . .	,, ,, .	4·09

The month's rainfall was heavier than the average, as is shown by the following data for the contained districts:—

DISTRICT.	RAINFALL.			
	Average actual, June 1904.	Average normal, June.	Departure from normal, June 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Cuttack	12·92	9·71	+3·21	+33
Balasore	12·75	9·10	+3·65	+40
Puri	8·81	8·17	+0·64	+ 8

In Chota Nagpur the rainfall was similar to that in Orissa. Falls exceeding 4″ in 24 hours were recorded at the following places on the following dates:—

DISTRICT.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
SINGHBHUM . . .	Baharagura . .	25th June .	4·15
RANCHI	Bano . . .	26th ,, .	4·75
GHOTA NAGPUR TRIBUTARY STATES.	Gangpur . .	28th ,, .	7·10
HAZARIBAGH . . .	Chatra . . .	,, ,, .	4·75

The month's fall exceeded the normal except in Palamau. The following gives data for the districts:—

District.	Rainfall. Average actual, June 1904.	Average normal, June.	Departure from normal, June 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Hazaribagh	12·17	8·43	+3·74	+44
Ranchi	13·92	9·64	+4·28	+44
Palamau	5·99	6·80	−0·81	−12
Manbhum	11·51	9·59	+1·92	+20
Singhbhum	13·34	10·57	+2·77	+26

The United Provinces aud Oudh received a few scattered showers between the 1st and the 21st, a general burst of rain between the 22nd and 24th and subsequently showers again towards the close of the month. In the submontane and hill districts the showery periods were lengthened. The rainfall was very heavy in some districts during the period 22nd to 24th when most of the heavy amounts were recorded. The following gives the falls exceeding 5″ in 24 hours registered during the month:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Sitapur	Biswan	22nd June	12·20
Kheri	Nighasan	,, ,,	10·75
Sitapur	Sidhauli	,, ,,	7·76
Kheri	Kheri	,, ,,	7·75
Unao	Safipur	,, ,,	7·68
Barabanki	Fatehpur	,, ,,	7·52
Bahraich	Bahraich	,, ,,	7·40
Almora	Tanakpur	,, ,,	6·71
Gonda	Tarabgunj	,, ,,	6·00
Bahraich	Kaisarganj	,, ,,	5·70
Cawnpore	Bilhaur	,, ,,	5·27
Aligarh	Iglas	,, ,,	5·25
Bareilly	Pandhera	,, ,,	5·05
Gonda	Utraula	23rd ,,	10·11
Gorakhpur	Maharajganj	,, ,,	9·15
Bareilly	Nawabganj	,, ,,	6·98
Pilibhit	Puranpur	,, ,,	6·06
Gorakhpur	Gorakhpur	,, ,,	5·65
Bareilly	Oganpur	,, ,,	5·25
Almora	Tanakpur	,, ,,	5·17
Naini Tal	Kilpuri	,, ,,	5·05
Almora	Chaukuri	28th ,,	6·12
	Purana-Thal	,, ,,	5·60
	Berinag	,, ,,	5·50
	Rawana-Thal	,, ,,	5·20

In most divisions the rainfall of the month was normal or in slight defect, but in north Oudh the rainfall was considerably heavier and in the central division of the United Provinces considerably lighter than usual. The following gives district data for these two divisions:—

Division.	District.	Rainfall. Average actual, June 1904.	Average normal, June.	Departure from normal June, 1904.	Percentage departure from normal.
		Inches.	Inches.	Inches.	
United Provinces, Central	Banda	2·18	5·22	−3·04	−58
	Fatehpur	4·58	4·42	+0·16	+4
	Hamirpur	1·77	6·64	−4·87	−73
	Cawnpore	3·05	3·97	−0·92	−23
	Jalaun	2·03	3·86	−1·83	−47
	Etawah	1·90	3·30	−1·40	−42
	Farrukhabad	1·92	3·65	−1·73	−47
	Mainpuri	1·00	3·33	−2·33	−70
	Etah	2·12	3·04	−0·92	−30
	Jhansi	2·40	4·99	−2·59	−52
North Oudh	Fyzabad	6·98	5·96	+1·02	+17
	Gonda	12·71	6·01	+6·70	+111
	Bara Banki	6·76	4·99	+1·77	+35
	Bahraich	10·90	5·98	+4·92	+82
	Sitapur	8·47	5·17	+3·30	+64
	Kheri	11·08	6·63	+4·45	+67

In all parts of the Punjab only showers were received during the month and the total rainfall was considerably lighter than usual. The only moderately general fall was that which occurred between the 21st and 24th during which period the following falls exceeding 2″ in 24 hours were registered:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Ambala	Dadupur	21st June	3·00
Karnal	Thanesar	,, ,,	2·73
Gurgaon	Rewari	22nd ,,	2·52
Gujranwala	Khangah Dogran	23rd ,,	2·07

In the North-west Frontier Province only a few light scattered showers were recorded and the total fall was only one-fifth of the normal.

There was practically no rain in Baluchistan.

In Kashmir the weather was showery at times during the month but the total rainfall was considerably less than usual.

In west Rajputana there were two periods of light showers, *viz.*, between the 1st and the 4th and the 19th and 22nd. The total rainfall of the month in this area was less than half the normal. In east Rajputana there were three showery periods, *viz.*, the 1st to the 5th, the 11th to the 16th and the 20th to the 24th but, relatively to the average, the rainfall was but little heavier than in west Rajputana. The following gives comparative data for some of the larger states:—

State.	Rainfall.			
	Average actual, June 1904.	Average normal, June.	Departure from normal, June 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Bikaner	1·09	1·65	−0·56	−34
Jaipur	1·49	2·23	−0·74	−33
Alwar	1·91	2·40	−0·49	−20
Bharatpur	1·23	2·84	−1·61	−57
Dholpur	1·07	2·95	−1·88	−64
Karauli	0·70	3·87	−3·17	−82
Kotah	2·31	5·42	−3·11	−57
Ajmer-Merwara	1·85	2·60	−0·75	−29
Udaipur	2·24	4·01	−1·77	−44

In Central India showers fell between the 10th and 13th and between the 19th and 23rd. The rainfall was moderately heavy in Gwalior and Bundelkhand and amounted to over 4″ in 24 hours at the following places on the following dates:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Gwalior	Jhabua	21st June	4·15
Do.	Sipri	„ „	4·05
Do.	Mungaoli	„ „	4·02
Bundelkhand	Sarila	22nd „	4·03

The total rainfall for the month was generally less than usual, as is shown by the following data of the larger states:—

State.	Rainfall.			
	Average actual, June 1904.	Average normal, June.	Departure from normal, June 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Indore	3·75	6·33	−2·58	−41
Rutlam	5·28	5·22	+0·06	+ 1
Bhopal Agency	3·87	8·32	−4·45	−53
Gwalior	3·48	5·65	−2·17	−38
Rewah	2·76	7·07	−4·31	−61
Bundelkhand	3·49	7·75	−4·26	−55

The weather was generally fine during the first five days of the month over the Central Provinces but subsequently showers set in and continued till the end of the month. The showers were both more general and heavier in the eastern division than in other parts of the Central Provinces but in the Amraoti and Nagpur districts a good deal of heavy rain was received between the 19th and the 21st.

The following gives a record of the falls exceeding 3″ in 24 hours registered during the month:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Feudatory States	Dongargarh	13th June	3·35
	Khairagarh	„ „	3·03
	Raj-Nandgaon	16th „	3·10
	Sonepur	17th „	3·15
	Rampur	18th „	4·26
	Raigarh	„ „	4·04
	Deogarh	„ „	3·80
Wardha	Wardha	„ „	3·24
Nagpur	Katol	„ „	3·01
Raipur	Dhamtari	19th „	5·03
	Raipur	„ „	3·34
Balaghat	Lanji	20th „	3·50
Wardha	Arvi	„ „	3·16
	Wardha	„ „	3·09
Amraoti	Kholapur	21st „	5·21
	Amraoti	„ „	3·49
Nagpur	Umrer	„ „	3·35
	Ramtek	„ „	3·26
	Nagpur	„ „	3·10
Sambalpur	Saraipali	23rd „	3·90
Feudatory States	Bhawanipatna	24th „	5·35
	Raigarh	„ „	4·36
Sambalpur	Bargarh	„ „	3·31
	Padampur	„ „	3·20
Wardha	Hinganghat	28th „	8·66
Feudatory States	Sonepur	29th „	3·67
	Raigarh	„ „	3·37
	Rampur	30th „	4·80
	Bolangir	„ „	3·36

The total rainfall of the month was somewhat lighter than usual except in the east division.

Over the Bombay Presidency the rainfall of the month was lighter than usual except along the coast. In the Konkan the weather was fine until the 6th after which rain set in and continued to fall daily until the close of

the month. The rainfall was particularly heavy between the 10th and 12th, 19th and 21st, and 26th and 27th and the following falls exceeding 7″ in 24 hours were registered during the month:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Savantvadi	Savantvadi	10th June	7·80
Thana	Kalyan	11th ,,	9·55
Savantvadi	Kudal	,, ,,	8·84
	Savantvadi	,, ,,	7·11
Thana	Thana	12th ,,	14·66
	Bhiwndi	,, ,,	13·75
	Kurla	,, ,,	10·74
	Shahapur	,, ,,	10·31
Kolaba	Uran	16th ,,	7·81
		19th ,,	10·02
Thana	Thana	,, ,,	9·27
Kolaba	Alibagh	,, ,,	8·32
Ratnagiri	Khed	20th ,,	11·70
North Kanara	Sirsi	21st ,,	8·12
	Sidapur	,, ,,	7·10
Thana	Kalyan	25th ,,	7·20
Kolaba	Panvel	26th ,,	9·32
	Pen	,, ,,	9·12
Ratnagiri	Ratnagiri	,, ,,	8·78
Kolaba	Matheran	,, ,,	7·84
Savantvadi	Kudal	,, ,,	7·60
Ratnagiri	Mandangad	,, ,,	7·17
	Rajapur	,, ,,	7·10
North Kanara	Bhatkal	27th ,,	7·50

The following gives comparative data for the contained districts :—

District.	Rainfall.			
	Average actual, June 1904.	Average normal, June.	Departure from normal, June 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
North Kanara	40·33	27·65	+12·68	+46
Savantvadi	58·45	38·24	+20·21	+53
Ratnagiri	39·12	32·19	+ 6·93	+22
Kolaba	34·55	25·97	+ 8·58	+33
Thana	23·32	18·85	+ 4·47	+24

In the Karnatak division the weather was showery throughout the month, the periods of most general showers having been the 7th to the 14th and the 20th to the 30th. The following amounts exceeding 3″ in 24 hours were registered :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Dharwar	Ron	4th June	3·38
	Haveri	,, ,,	3·16
Belgaum	Chandgad	11th ,,	4·88
		12th ,,	4·95
	Khanapur	,, ,,	4·45
	Belgaum	,, ,,	3·65
	Chandgad	20th ,,	5·40
	Khanapur	,, ,,	3·10
	Chandgad	21st ,,	5·73
Dharwar	Kod	,, ,,	3·50
Belgaum	Chandgad	27th ,,	4·62

The total rainfall of the month was irregularly distributed, as is shown by the following data for the different districts :—

District.	Rainfall.			
	Average actual, June 1904.	Average normal, June.	Departure from normal, June 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Dharwar	5·86	4·10	+1·76	+43
Bijapur	2·26	3·56	—1·30	—37
Belgaum	11·50	7·33	+4·17	+57

In the south Deccan the showers were less general than in the Karnatak but fell at about the same time. The rainfall was heavy on the hills, but was less than the normal on the plains, as is shown by the following district data :—

District or Hill Station.	Rainfall.			
	Average actual, June 1904.	Average normal, June.	Departure from normal, June 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Satara	3·60	6·34	—2·74	—43
Sholapur	3·67	4·11	—0·44	—16
Poona	4·78	6·89	—2·11	—31
Malcolmpeth	70·30	47·55	+22·75	+48

In Khandesh the rainfall was generally light and scattered except on the 20th and 21st when general rain fell. The following amounts exceeding 3″ in 24 hours were registered on the following dates :—

DISTRICT.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
NASIK . . .	Igatpuri . . .	12th June .	3·40
AHMEDNAGAR . .	Shrigonda . . .	20th ,, .	3·23
NASIK . . .	Igatpuri . . .	21st ,, .	5·15
	Trimbak . . .	,, ,, .	4·35
		26th ,, .	3·50

In Gujarat moderately general rain fell on the 21st, but at other times only scattered showers were received. These showers were, however, heavy at times and the following amounts exceeding 3 inches in 24 hours were registered during the month :—

DISTRICT.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
SURAT . . .	Pardi . . .	12th June .	4·27
	Balasore . . .	18th ,, .	3·90

In Kathiawar similar conditions prevailed, but the rainfall was lighter while in Sind practically no rain whatever fell. In Gujarat the total rainfall amounted to one-third and in Kathiawar to one quarter of the normal fall.

In the Nizam's territories there were scattered showers throughout the month, but the showers were moderately heavy and the total rainfall of the month was about normal.

In the Hassan, Shimoga and Kadur districts of Mysore fairly continuous showers were received during the month and the following heavy falls exceeding 4 inches in 24 hours were registered :—

DISTRICT.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
SHIMOGA . . .	Nagar . . .	11th June .	4·25
	Tirthahalli . .	21st ,, .	13·50
KADUR . . .	Koppa . . .	,, ,, .	8·07
SHIMOGA . . .	Sorab . . .	,, ,, .	7·40
KADUR . . .	Yedahalli . . .	,, ,, .	6·73
HASSAN . . .	Manjarabad . .	21st June .	6·13
KADUR . . .	Sringeri . . .	,, ,, .	5·10
SHIMOGA . . .	Shikarpore . .	,, ,, .	4·64
	Nagar . . .	,, ,, .	4·33
KADUR . . .	Sringeri . . .	23rd ,, .	5·54
	Koppa . . .	,, ,, .	4·47
SHIMOGA . . .	Tirthahalli . .	,, ,, .	4·42
KADUR . . .	Sringeri . . .	25th ,, .	4·58

In the other districts of Mysore the rainfall was light and scattered, but the total rainfall of the whole division was in excess of the normal.

In Travancore, showers fell between the 1st and the 5th after which date monsoon rainfall set in and continued till the end of the month. Similar conditions prevailed over Malabar and South Canara. The following shows the average daily rainfall for these three districts from the 5th to the 10th :—

DISTRICT.	AVERAGE ACTUAL RAINFALL DURING 24 HOURS PRECEDING 8 A.M. OF					
	5th June.	6th June.	7th June.	8th. June.	9th. June.	10th June.
	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Travancore . . .	1·59	1·47	1·42	0·69	0·72	1·67
Malabar . . .	0·49	2·79	3·24	1·54	1·22	1·62
South Canara . .	0·47	0·81	2·93	3·06	1·15	1·23

The total fall for the month was heavier than usual in this division and the following falls exceeding 6 inches in 24 hours were recorded during the month :—

DISTRICT.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
TRAVANCORE STATE	Peermade . . .	10th June	6·80
	Kottayam Engineer's office.	13th ,, .	6·94
	Ditto . .	18th ,, .	7·14
SOUTH CANARA .	Karkal . . .	20th ,, .	7·43
MALABAR . .	Nilambur . .	21st ,, .	7·67
		22nd ,, .	6·45
SOUTH CANARA . .	Mangalore . .	26th ,, .	6·64
	Baindur . . .	27th ,, .	6·92

South Madras received occasional showers during the month. They were not heavy, seldom exceeding 1 inch in 24 hours, but the total rainfall of the division for the month was about normal.

In the south-central division of Madras the rainfall was light and scattered throughout the month, and the total fall was only about half the normal.

In central Madras there were three showery periods during the month, *viz.*, between the 5th and the 8th, the 15th and the 20th, and the 26th to the 30th. The showers were generally light, and the total average rainfall for the month was less than usual.

In the northern division of the east coast the rainfall generally agreed with the periods of development of the depressions in the north of the Bay, so that the amount and extent of the rainfall diminished southward. The principal periods of rain were between the 5th and the 11th, the 14th and the 18th and the 20th and the end of the month and the principal falls of rain, exceeding 3″ in 24 hours, occurred at the following places on the following days:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Kistna	Mangalagiri	6th June	3·61
Vizagapatam	Malkanagiri	9th ,,	3·05
Ganjam	Rambha	16th ,,	7·30
Vizagapatam	Jeypore	23rd ,,	3·80
Ganjam	Balliguda	30th ,,	4·53
Do.	Daringabadi	,, ,,	3·20

In the central division of the east coast there was no rain of importance throughout the month. In the south division there were showers in the first and last weeks of the month, but the amounts were small and the total rainfall was only about one-third of the normal.

The following gives comparative data for all the collectorates of the Presidency.

Collectorate.	Rainfall.			
	Average actual, June 1904.	Average normal June.	Departure from normal, June 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Ganjam	8·37	5·73	+2·64	+46
Vizagapatam	4·63	4·69	—0·06	— 1
Godavari	4·24	4·65	—0·41	— 9
Kistna	3·22	3·94	—0·72	—18
Nellore	0·39	1·63	—1·24	—76
Madras	0·58	2·02	—1·44	—71
Chingleput	0·73	2·11	—1·38	—65
North Arcot	1·35	2·72	—1·37	—50
South Arcot	0·39	1·95	—1·56	—80
Tanjore	0·66	1·43	—0·77	—54
Trichinopoly	0·13	1·40	—1·27	—91
Madura	0·27	1·05	—0·78	—74
Tinnevely	1·77	0·87	+0·90	+103
Malabar	43·39	33·23	+10·16	+31
South Canara	47·91	39·64	+8·27	+21
Salem	0·87	2·07	—1·20	—58
Coimbatore	0·69	1·59	—0·90	—57
Cuddapah	1·46	2·29	—0·83	—36
Anantapur	1·30	2·35	—1·05	—45
Bellary	2·59	2·59	0	0
Kurnool	1·98	2·95	—0·97	—33

The following gives comparative data of rainfall for the extra Indian stations:—

Station.	Rainfall.			
	Average actual, June 1904.	Average normal, June.	Departure from normal, June 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Trincomalee	0	1·51	—1·51	—100
Colombo	9·09	8·23	+0·86	+ 10
Minicoy	10·28	8·60	+1·68	+ 20
Amini Divi	17·75	13·14	+4·61	+ 35
Kashgar	0·85	0·31	+0·54	+174
Kabul	0·18	0·21	—0·03	— 14
Meshed	0	0·23	—0·23	—100
Teheran	0	0·04	—0·04	—100
Ispahan	0	0	0	0
Bushire	0	0	0	0
Jask	0	0·11	—0·11	—100
Muscat	0	0·36	—0·36	—100
Baghdad	0	0	0	0
Aden	0	0·01	—0·01	0
Perim	0	0	0	0
Zanzibar	8·12	1·07	+7·05	+659
Seychelles	0·12	6·42	—6·30	— 98
Mauritius	3·57	1·95	+1·62	+ 83

No rain fell during the month over Persia, Asiatic Turkey and Arabia but the anticipated rainfall over these regions for this month is very light. In Afghanistan the normal amount was received and in Kashgaria the fall was heavier than usual. Over the east of Ceylon no rain fell but at Colombo the fall was 10% above the normal. In the south-east trades region the fall was irregularly distributed. In the Seychelles hardly any rain fell while at Mauritius the fall was twice and at Zanzibar seven times as heavy as usual.

Crop Report.

Madras.—The rainfall was irregularly distributed during the month. At the close the standing crops were in good condition but pasture was scanty in parts of Kistna, Madura and the Deccan.

Bombay.—The preparation of land and the sowing of autumn crops continued during the month.

Bengal.—The prospects of the crops were on the whole good.

United Provinces.—The standing crops, at the close of the month, were doing well and the sowing of autumn crops was in progress.

Punjab.—At the end of the month the condition and prospects of the extra spring and autumn crops were said to be good. Rain was badly wanted for autumn sowings in Meanwali.

North-West Frontier Province.—Autumn sowings had been suspended and, at the close of the month, rain was urgently required to complete sowings and to save the sown crops from withering.

Burma.—The standing sesamum, maize and cotton crops were, at the end of the month, doing well on the whole and prospects continued good.

Central Provinces.—At the close of the month more rain was urgently required in Saugor, Damoh, and Betul, while a break was urgently needed in Raipur. Rain was in considerable defect in the northern districts and in the Nerbudda valley.

Assam.—More rain was wanted at the close of the month in upper Assam. The prospects of tea, sugar cane and cotton were fair.

Mysore.—The standing crops were in good condition and the prospects good.

Hyderabad.—More rain was wanted in parts to complete the autumn sowings.

Rajputana.—Agricultural operations were satisfactory.

Central India.—Agricultural operations were in progress everywhere.

Jummoo.—The condition of the standing crops was good at the close of the month.

W. L. DALLAS.

TABLE I.—Abstract of Observations taken at 8 A M. at 231 Stations in India, Burma, etc., in June, 1904.

Table

Abstract of Observations taken at 8 A.M. at 231 Stations

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure, 8 A.M., in inches.								Temperature of Air.												
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
	I.—Burma Coast and Bay Islands.				−·032								84·8	−1·6	76·3	−0·1	80·6	−0·8	8·6					16·1
1	Tenasserim and Bay Islands.	Car Nicobar† .	25	29·816		29·768	29·886	22nd	29·764	8th	·122	80·9	86·3		78·5		82·4		7·8	88·9	12th	74·0	3rd	14·9
		Port Blair .	61	29·754	−·003	29·746	29·829	21st	29·669	14th	·160	80·9	84·5	−1·5	77·9	+0·1	81·2	−0·7	6·6	87·4	3rd	74·0	3rd	13·4
		Mergui . .	96	29·765	−·005	29·794	29·866	22nd	29·686	30th	·180	77·3	85·5	−0·2	74·6	+1·5	80·1	+0·7	10·9	90·6	5th & 7th.	72·4	13th & 20th.	18·2
		Tavoy . .	26	29·816	−·022	29·773	29·918	22nd	29·732	14th	·186	76·4	82·1	−2·7	?	?	?	?	?	90·2	17th	?	?	?
		Moulmein .	94	29·685	−·037	29·717	29·789	21st	29·599	14th	·190	77·3	83·5	−1·1	74·4	−0·4	78·9	−0·8	9·1	89·0	2nd	71·3	21st	17·7
2	Lower Burma .	Rangoon .	57	29·709	−·031	29·704	29·809	21st	29·630	14th	·179	79·3	84·9	−1·6	76·5	0	80·7	−0·8	8·4	89·1	13th	73·9	6th & 25th.	14·2
		Bassein .	27	29·713	−·036	29·678	29·825	21st	29·615	14th	·210	78·8	84·1	−2·2	76·7	+0·4	80·5	−0·9	7·4	89·2	2nd & 13th.	73·9	7th	15·3
		Diamond Island	41	29·696	−·046	29·672	29·800	21st	29·524	3rd	·276	80·6	83·5	−2·1	76·6	+0·2	80·1	−1·0	6·9	86·4	10th & 13th.	73·2	6th	13·2
5	Arakan .	Akyab . .	20	29·627	−·074	29·590	29·755	21st	29·537	25th	·218	80·1	84·4	−1·6	77·6	−0·5	81·0	−1·1	6·8	90·9	4th	73·2	7th	17·7
3	Central Burma	Toungoo .	183	29·556	−·035	29·680	29·660	21st	29·481	14th	·179	79·3	86·9	−2·2	73·7	−1·8	80·3	−2·0	13·2	92·8	1st	72·1	28th	20·7
	II.—Burma Inland . .				−·030								89·0	−3·4	76·2	−0·9	82·6	−2·2	12·7					19·8
3	Central Burma.	Thayetmyo .	130	29·593	−·023	29·665	29·703	21st	29·533	13th	·170	80·0	87·9	−3·5	73·6	−3·2	80·9	−3·4	14·3	91·5	4 days	72·0	6th & 7th.	19·5
4	Upper Burma .	Minbu . .	*165*	29·536	−·030	29·645	29·639	21st	29·480	14th	·159	80·0	88·4	−4·6	77·2	−0·6	82·8	−2·6	11·2	93·2	4th	74·1	7th	19·1
		Yamethin .	657	29·056	−·037	29·665	29·157	21st	28·989	14th	·168	78·4	87·9	−4·0	75·0	−0·3	81·5	−2·2	12·9	91·3	3rd	73·7	18th	17·6
		Monywa .	*280*	29·427		29·616	29·528	21st	29·352	12th	·176	81·1	90·6		78·6		84·6		12·0	94·8	4th	75·2	5th & 6th.	19·6
		Mandalay .	250	29·447	−·023	29·645	29·553	21st	29·372	12th	·181	82·2	92·2	−2·8	78·7	+0·2	85·5	−1·3	13·5	95·5	20th	75·3	7th	20·2
		Myitkyina .	458	29·222		29·638	29·311	21st	29·121	25th	·190	79·4	87·3		76·2		81·8		11·1	93·5	15th	73·5	2nd	20·0
		Bhamo . .	*381*	29·297	−·030	29·634	29·413	21st	29·214	12th	·199	78·3	88·5	−2·0	74·3	−0·6	81·4	−1·3	14·2	94·5	4th	71·6	8th	22·9
4(*a*)	Burma Hill Stations.	Maymyo .	3,545			Bar. not	recorded.					71·0	77·6		67·7		72·7		9·9	81·7	5th	65·6	25th	16·1
		Lashio . .	*2,751*									73·7	83·0	−2·5	70·0	+0·7	76·5	−0·9	13·0	87·5	16th	64·0	8th	23·5
	III.—Assam				−·056								89·5	+2·2	76·1	+0·3	82·8	+1·3	13·5					24·9
7	Surma . .	Silchar . .	104	29·521	−·066	29·577	29·697	1st	29·381	12th	·316	81·4	91·6	+2·2	76·5	+0·3	84·1	+1·3	15·1	99·1	6th	72·8	13th	26·3
9	Brahmaputra .	Sibsagar . .	333	29·302	−·049	29·590	29·426	2nd	29·204	12th	·222	80·4	89·1	−0·2	76·6	+0·2	82·8	0	12·5	95·2	6th & 8 h.	73·0	2nd	22·2
		Dhubri . .	115	29·482	−·054	29·552	29·622	2nd	29·306	12th	·316	80·7	88·0	+2·3	76·4	0	82·1	+1·2	11·6	95·2	8th	70·7	1st & 2nd.	24·5
		Gauhati .	195	29·423		29·573	29·576	2nd	29·205	12th	·371	80·5	90·1		76·5		83·4		13·6	96·5	8th	72·0	1st & 3rd.	24·5
		Tezpur . .	252	29·372		29·582	29·522	2nd	29·231	12th	·291	79·6	89·5		76·7		83·2		12·8	96·2	8th	72·9	2nd & 13th.	23·3
		Dibrugarh .	353	29·297		29·609	29·419	1st	29·192	12th	·227	79·4	88·8		73·7		81·3		15·1	98·2	8th	69·5	2nd	28·7
	IV.—Bengal and Orissa .				−·059								90·2	−0·4	78·4	+0·1	84·3	−0·1	11·8					24·7
6	East Bengal .	Chittagong .	87	9·519	−·078	29·554	29·675	1st	29·397	25th	·278	81·9	87·4	+0·8	76·9	+0·3	82·2	+0·6	10·5	92·5	5th	72·1	14th	20·4
		Noakhali . .	43	29·550		29·539	29·702	2nd	29·423	11th	·279	81·5	87·2		77·6		82·4		9·6	93·2	7th	73·9	14th	19·3
		Comilla . .	36	29·562		29·546	29·724	1st	29·416	12th	·308	81·3	89·5		76·5		83·0		13·0	95·3	6th	72·8	14th	22·5
		Sirajganj .	49	29·539		29·538	29·709	1st	29·330	11th	·379	80·9	87·7		77·5		82·6		10·2	93·3	6th & 7th.	72·7	2nd	20·6
		Narayanganj .	26	29·564	−·050	29·538	29·730	1st	29·380	11th	·350	82·3	89·4	+0·4	78·6	+0·3	84·0	+0·4	10·8	95·1	6th & 7th.	74·3	1st & 2nd.	20·8
		Barisal . .	13	29·567	−·067	29·525	29·732	1st	29·432	11th	·300	82·5	88·3	−0·4	78·6	+0·4	83·5	0	9·7	95·3	7th	74·1	14th	21·2
		Mymensingh .	63	29·540	−·062	29·553	29·694	2nd	29·324	12th	·370	82·0	89·0	+1·8	78·0	+1·1	83·5	+1·5	11·0	94·7	6th & 7th.	71·1	1st	23·6
		Faridpur .	46	29·535		29·531	29·703	1st	29·310	11th	·393	81·8	89·0		77·6		83·3		11·4	94·8	6th & 7th.	73·4	1st	21·4
10	Deltaic Bengal.	Jessore . .	33	29·523	−·066	29·562	29·691	1st	29·347	11th	·344	82·8	90·1	−1·4	79·1	+0·3	84·6	−0·6	11·0	97·5	7th	77·2	4 days	20·3
		Calcutta .	21	29·526	−·061	29·492	29·692	2nd	29·412	30th	·280	82·6	90·7	−0·4	78·9	+0·4	84·8	0	11·8	101·0	7th	74·4	14th	26·6
		Saugor Island	25	29·510	−·073	29·478	29·688	1st	29·367	30th	·321	84·2	90·2	−0·2	81·1	−0·6	85·6	−0·4	9·1	97·4	7th	75·1	14th	22·3
		Krishnagar .	47	29·509		29·503	29·681	2nd	29·371	11th	·310	83·0	92·3‡		79·4		85·8‡		12·9	100·5	6 h	76·	2nd	24·5
		Midnapore .	149	29·393		29·487	29·555	2nd	29·275	30th	·280	82·9	92·0		78·9		85·4		13·1	100·3	5th & 6th.	74·7	2nd	25·6

† Mean of 28 days. ‡ Mean of 7 days.

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

Note 1.—When a query is inserted against any reading or in the returns of any station,

Note 2.—The data from which divisional means of the figure columns Nos. 41, 43 and 45

I.

in India, Burma, etc., in June, 1904.

WIND DIRECTION. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant,	Wind Velocity: Mean daily velocity in miles per hour instrumental errors uncorrected.	Normal (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	Hygrometry, 8 A.M.: Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Cloud: Mean cloud amount at 8 A.M.	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 1904.	Normal rainfall for period, 1st May to 30th June.	Departure from normal of period, 1st May to 30th June 1904.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
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	58
														91	+0·7	·903	−·025	8·4	+0·1				33·45	27·58	+8·81					I.—Burma Coast and Bay Islands.		
					1	4	21	2	S 39° W	7·6			7·6	87		·916		9·0		12			5·95			20·10			2·24	Car Nicobar	Tenasserim and Bay Islands.	1
					1	14	14	1	S 68° W	17·0	10·0	+70	19·1	88	−0·3	·923	−·028	8·8	+0·4	26			19·49	18·65	+ 0·84	31·48	35·74	− 4·26	2·47	Port Blair.		
12					3	11	1	3	S 52° W	3·0	1·9	+ 58	2·7	95	+4·3	·874	− ·020	6·3	−1·0	30	24·20	+5·80	44·76	30·29	+14·47	58·61	49·55	+ 9·06	4·35	Mergui.		
19					3	7		1	S 37° W	2·2				94	+2·3	·858	−·030	8·6	+1·0	30	25·80	+4·20	70·88	39·88	+31·00	83·57	65·93	+17·64	11·35	Tavoy.		
19				3	3	9	1		S 13° W	3·7	3·4	+ 9	4·1	88	−3·8	·827	−·063	8·9	+1·0	29	26·10	+2·90	38·74	36·36	+ 2·36	61·96	55·78	+ 6·18	4·10	Moulmein.		
	1	2	6	17	3		1		S 10° E	5·8	5·3	+ 9	4·9	91	−1·7	·915	−·013	9·1	+0·3	30	24·80	+5·20	19·29	17·52	+ 1·77	25·05	28·74	− 3·69	2·50	Rangoon .	Lower Burma.	2
	1	1	6	11	9	1	1		S 9° W	5·3	4·0	+ 33		93	+0·7	·925	−·014	5·3	−2·7	29	24·50	+4·50	28·86	23·42	+ 5·44	31·56	33·72	− 2·16	3·20	Bassein.		
	1	1	1	3	21	3			S 44° W	13·2	8·5	+ 55	13·2	87	+3·9	·920	?	9·0	+0·6	27	21·73	+5·27	39·03	23·17	+15·86	47·64	33·60	+14·04	4·61	Diamond Island.		
		2	14	9	4	1			S 20° E	3·1	3·9	− 21	3·0	94	+1·5	·957	−·005	9·1	+0·1	27	24·40	+2·60	48·18	44·79	+ 3·39	59·40	56·67	+2·73	6·56	Akyab .	Arakan.	5
5			23	2					S 42° E	9·4	4·8	+ 96	9·3	89	−0·7	·903	−·023	10·0	+1·1	26	20·80	+5·20	18·33	14·15	+ 4·18	24·10	20·43	+ 3·67	1·61	Tunngoo .	Central Burma.	3
	1													87	+4·9	·882	+ ·010	8·2	+1·3				7·62	6·65	+0·87					II.—Burma Inland.		
		3	6	19	1				S 17° E	5·4	8·2	− 34		88	+5·5	·898	+·024	8·7	+0·4	21	13·90	+7·10	16·52	6·34	+ 4·18	13·45	10·47	+ 2·98	1·52	Thayetmyo .	Central Burma.	3
2			23	4				1	S 38° E	9·7			11·5	86	+4·3	·891	+·001	7·2	+1·5	16	9·10	+6·90	7·45	4·54	+2·91	8·68	10·55	− 1·87	1·18	Minbu .	Upper Burma.	4
2	1		17	9	1				S 29° E	10·2			10·7	86	+5·0	·838	−·012	9·7	+4·5	13	7·40	+5·60	4·25	4·26	−0·01	6·37	11·02	− 4·65	0·65	Yamethin.		
6			4	19	1				S 5° E	4·2				84		·904		9·5		8	6·80	+1·20	7·31	5·26	+2·05	11·20	8·80	+ 2·40	1·52	Monywa.		
11				19					S	6·0			6·1	80	+4·9	·885	+·019	5·4	−1·2	7	6·50	+0·50	6·36	5·79	+0·57	12·39	11·54	+ 1·05	1·89	Mandalay.		
23	1	2	2		1				N 83° E	1·4			1·4	88		·854		8·4		18			8·22			11·80			1·34	Myitkyina.		
26		3	1						N 63° E	2·1			2·5	94	+4·9	·906	+·020	8·8	+1·2	17	19·10	−2·10	9·26	13·72	− 4·46	13·47	20·18	− 6·71	2·20	Bhamo.		
3		3	6	3	11	4			S 27° E	3·1				90		·681		9·0		14	11·80	+2·20	6·32	7·20	− 0·88	15·61	17·59	− 1·98	1·65	Maymyo .	Burma Hill Stations.	4(a)
	1	6	1	6	3	9		4	S 3° E	3·4				86	−1·2	·722	−·008	8·4	+0·2	19			13·32	10·70	+ 2·62	17·88	16·83	+ 1·05	2·00	Lashio.		
														89	−1·8	·921	+ ·019	7·0	−2·3				13·83	16·81	−2·98					III.—Assam.		
30									Calm	1·1	3·1	− 65	1·9	86	−3·3	·925	+·002	4·3	−4·7	20	21·10	−1·10	26·10	21·99	+ 4·11	39·71	38·23	+ 0·48	3·93	Silchar .	Surma .	7
9	4	12		3	1			1	N 44° E	1·9	2·6	− 27	1·7	91	−0·7	·954	+·016	8·2	−0·6	14	16·70	−2·70	6·78	13·59	− 6·81	17·76	26·21	− 8·45	1·12	Sibsagar .	Brahmaputra .	9
6	1	4	13	4	1			1	N 88° E	4·9	4·9	0	5·8	89	−1·5	·941	+·039	6·5	−1·6	13	18·10	−5·10	10·34	23·17	− 12·83	33·16	38·60	−5·44	2·09	Dhubri.		
13	4	7		1	2	2		1	N 33° E	1·8			2·0	88		·920		7·6		16	14·50	+1·50	18·37	11·22	+ 7·15	29·87	20·98	+ 8·89	3·90	Gauhati.		
9		7	11	3	2	3			S 85° E	3·2			3·4	91		·918		7·8		16	16·00	0	14·06	11·87	+ 2·19	31·62	21·99	+ 9·63	5·38	Tezpur.		
14		7	4	2	1	1		1	N 73° E	1·1			1·0	87		·869		7·5		16	18·10	−2·10	7·32	19·03	−11·71	17·32	33·63	−16·31	1·76	Dibrugarh.		
														86	—	·950	−·006	6·5	−0·6				11·07	13·55	−2·48					IV.—Bengal and Orissa.		
		3	2	14	7	1	2	1	S 36° E	8·6	6·9	+ 25	7·9	84	−2·2	·918	−·004	6·5	−1·3	18	16·74	+1·26	13·47	21·76	− 8·29	25·27	32·07	− 6·80	2·81	Chittagong.	East Bengal .	6
	2	1	10	13	1	2		1	S 66° E	7·3			7·8	88		·951		5·6		17	18·39	−1·39	20·79	23·29	− 2·50	38·95	33·35	+ 5·60	4·30	Noakhali.		
3	2	2	2	15	6				S 47° E	6·8			5·7	85		·906		4·9		11	17·39	−6·39	9·43	17·91	− 8·48	22·20	28·92	− 6·72	3·50	Comilla.		
5	2	2	11	7	3				S 74° E	3·5			3·7	90		·947		6·7		15	13·32	+1·68	10·89	11·57	− 0·68	26·25	19·52	+ 6·73	3·20	Sirajganj.		
	3	10	10	4	2		1		S 60° E	5·1	7·2	− 29	4·3	89	−0·4	·987	+·005	8·1	−0·4	17	15·39	+1·61	6·39	12·64	− 6·25	16·22	22·08	− 5·86	1·20	Narayanganj		
6	1	5	6	5	5	2			S 67° E	3·7				88	+0·7	·985	+·001	6·2	−1·9	17	16·52	+0·48	15·36	15·02	+ 0·34	25·23	24·21	+ 1·02	2·00	Barisal.		
9			9	10	1	1			S 59° E	4·3			3·8	86	−3·6	·945	+·008	6·4	−1·2	17	18·19	−1·19	15·52	17·34	− 1·82	38·02	30·30	+ 7·72	5·70	Mymensingh.		
4			7	12	5	1	1		S 45° E	4·6			3·9	89		·968		6·3		12	14·28	−2·28	7·13	12·75	− 5·62	15·82	21·05	− 5·23	1·85	Faridpur.		
9			10	7	2	1		1	S 63° E	2·2	4·9	− 55	2·1	89	−0·3	·892	−·017	7·4	−0·5	13	14·55	−1·55	13·78	12·56	+ 1·22	28·31	20·50	+ 7·81	3·91	Jessore .	Deltaic Bengal	10
3	1	3	8	5	2	7	1		S 49° E	2·9	6·2	− 53		87	+1·6	·972	0	7·6	+0·3	19	12·88	+6·12	10·25	11·35	− 1·10	20·09	17·03	+ 3·06	1·87	Calcutta.		
2	1	3	2	2	9	6	2	3	S 18° W	13·0	14·6	− 11		85	+0·4	1·001	−·013	8·0	−0·5	17	12·10	+4·90	18·94	10·02	+ 8·92	21·89	15·11	+ 6·78	3·41	Saugor Island.		
3		1	9	10	4		2	1	S 54° E	3·8			4·1	83		·972		6·4		14	12·19	+1·81	6·63	9·88	− 3·25	11·84	16·43	− 4·59	1·20	Krishnagar.		
4	7	5		5	5	3		1	N 76° E	2·9			2·5	86		·966		4·8		22	12·00	+10·00	11·72	10·51	+ 1·21	16·92	16·20	+ 0·72	1·52	Midnapore.		

the data for that station are not utilized in calculating the provincial departures from normal, are derived are incomplete.

Mean of 29 days

Table

Abstract of Observations taken at 8 A.M. at 231 Stations

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure, 8 A.M., in inches.								Temperature of air.											
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
11	Central Bengal	Bankura	298	29·220		29·465	29·392	2nd	29·124	30th	·268	83·5	92·6		79·3		86·0		13·3	103·1	5th & 6th.	75·9	28th	27·2
		Raniganj	334	29·213		29·497	29·375	2nd	29·133	30th	·242	82·4	93·1		79·0		86·0		14·1	102·9	7th	74·9	2nd	28·0
		Burdwan	99	29·416	−·062	29·492	29·621	2nd	29·348	26th	·273	82·7	92·1	−1·7	79·0	−0·3	85·6	−1·0	13·1	102·4	6th	75·3	14th	27·1
		Naya Dumka	489	29·060		29·503	29·220	2nd	28·960	13th	·260	82·2	90·8		77·8		84·3		13·0	99·0	6th	70·9	2nd	28·1
		Berhampore	67	29·491	−·054	29·506	29·662	2nd	29·369	11th	·293	82·9	91·3	−1·1	78·9	+0·4	85·1	−0·1	12·4	97·8	8th	74·8	1st	23·0
		Rampur Boalia.	70	29·497		29·516	29·661	2nd	29·313	11th	·318	82·9	90·3		78·8		84·5		11·5	95·1	4 days	70·1	2nd	25·0
		Malda	72	29·477		29·500	29·633	2nd	29·346	13th	·287	83·2	91·1		78·9		85·0		12·3	97·6	6th	70·0	1st	27·6
		Bogra	61	29·513	−·048	29·526	29·671	2nd	29·363	11th & 12th.	·308	81·7	89·2	−0·6	77·7	+0·5	83·5	−0·1	11·5	95·7	8th	69·2	1st	26·5
12	North Bengal	Dinajpur	123	29·462	−·040	29·539	29·612	2nd	29·346	12th	·266	82·5	90·1	+0·6	78·2	+0·7	84·2	+0·7	11·9	96·8	8th	70·5	1st	26·3
		Rangpur	123	29·484		29·562	29·640	1st	29·346	12th	·294	82·7	90·1		77·6		83·8		12·5	97·2	8th	70·8	1st	26·4
		Jalpaiguri	284	29·315	−·053	29·555	29·449	3rd	29·170	12th	·279	81·5	89·7	+1·8	76·8	+1·6	83·3	+1·7	12·9	96·4	8th	72·1	1st	24·3
		Cooch Behar	156	29·448		29·558	29·622	21st	29·296	12th	·326	81·6	89·9		77·8		83·9		12·1	95·9	8th	71·6	1st	24·3
17	North Bihar	Purnea	125	29·450	−·039	29·529	29·599	3rd	29·325	13th	·274	82·5	91·7	−0·4	78·3	+1·0	85·0	+0·3	13·4	98·3	8th	70·1	1st	28·2
14	Orissa	Balasore	50	29·495	−·068	29·487	29·664	2nd	29·357	30th	·307	83·3	91·2	−0·7	78·5	−0·1	84·9	−0·4	12·7	100·5	6th & 7th	75·7	17th	24·8
		False Point	21	29·535	−·066	29·497	29·692	2nd	29·430	19th	·262	82·1	88·3	−2·0	78·5	−1·6	83·5	−1·8	9·8	99·5	8th & 9th	72·6	30th	26·9
		Cuttack	80	29·477	−·055	29·500	29·620	3rd	29·359	19th	·261	82·3	92·3	−3·2	78·8	−1·3	85·6	−2·3	13·5	106·4	2nd	73·7	30 th	32·7
		Puri	24	29·546		29·509	29·670	1st	29·430	19th	·240	82·4	88·0		79·5		83·8		8·5	99·7	8th & 9th	73·1	30th	26·6
	V.—Gangetic Plain and Chota Nagpur.				−·035								95·5	−1·7	79·8	+0·1	87·7	−0·8	15·8					31·9
15	Chota Nagpur	Hazaribagh	2,007	27·560	−·047	29·495	27·720	2nd	27·469	27th	·251	79·1	89·8	−2·7	75·3	−0·5	82·6	−1·6	14·5	98·7	7th & 8th.	71·3	14th	27·4
		Ranchi	2,128	27·444	−·054	29·494	27·580	2nd	27·353	18th	·227	78·9	88·4	−2·7	74·4	−0·2	81·4	−1·5	14·0	98·2	7th	71·9	10th & 27th.	26·3
16	South Bihar	Daltonganj	*730*	28·813		29·491	28·935	2nd	28·744	19th	·191	83·3	97·2		79·6		88·5		17·6	107·6	6th	74·0	12th	33·6
15	Chota Nagpur	Purulia	*816*	28·728		29·484	28·869	2nd	28·625	18th	·264	82·0	92·6		77·2		84·9		15·4	102·7	6th	73·4	6th	29·3
		Chaibassa	*760*	28·774	−·057	29·478	28·918	3rd	28·655	18th	·263	82·2	93·3	−2·9	77·9	−0·9	85·6	−1·9	15·4	104·9	7th	73·5	9th	31·4
16	South Bihar	Gaya	375	29·167	−·035	29·491	29·295	2nd	29·075	13th	·220	85·0	90·8*	−8·8	80·0	−0·2	85·4*	−4·5	10·8	102·2	8th	74·8	14th	27·4
		Dehri	351	29·181		29·481	29·306	2nd	29·100	13th	·206	85·6	97·2		80·3		88·7		16·9	107·4	8th	64·0	16th	43·4
		Patna	183	29·377	−·026	29·511	29·504	3rd	29·256	13th	·248	84·5	94·3	−2·1	79·6	−0·4	87·0	−1·3	14·7	103·0	14th	74·2	1st	28·8
		Arrah	190	29·361		29·501	29·485	2nd	29·248	12th	·237	85·0	94·0		80·1		87·1		13·9	102·5	6th	73·1	1st	29·4
		Buxar	239	29·300		29·492	29·435	1st	29·192	12th	·243	85·1	96·3		80·1		88·2		16·2	103·0	6th & 8th.	69·6	1st	36·4
17	North Bihar	Bhagalpur	160	29·393		29·504	29·536	2nd	29·272	13th	·274	84·3	92·6		78·7		85·7		13·9	100·8	8th	70·6	1st	30·2
		Darbhanga	166	29·414	−·020	29·530	29·557	1st	29·279	13th	·278	83·9	92·3	−0·1	79·7	+0·5	86·1	+0·2	12·6	98·8	6th	73·5	1st	25·3
		Muzaffarpur	178	29·389		29·521	29·523	1st	29·260	13th	·263	84·0	93·0		79·2		86·1		13·8	99·7	14th	72·2	1st	27·5
		Motihari	224	29·359		29·541	29·493	1st	29·223	13th	·270	83·3	93·2		78·3		85·8		14·9	99·4	6th & 8th.	71·2	1st	28·1
		Chapra	181	29·368		29·501	29·507	1st	29·253	13th	·254	84·8	95·2		80·0		87·6		15·2	103·4	6th, 8th & 9th.	70·1	1st	33·3
18	United Provinces (East).	Benares	267	29·257	−·040	29·474	29·383	1st	29·167	13th	·216	87·8	99·5	−0·6	81·5	−0·4	90·5	−0·5	18·0	109·1	6th	74·7	12th	34·4
		Allahabad	309	29·214	−·038	29·471	29·361	1st	29·129	13th	·232	90·0	102·0	+0·3	84·2	+1·7	93·1	+1·0	17·8	111·1	15th	78·1	1st & 24th.	33·0
23	United Provinces (East Sub-montane).	Gorakhpur	257	29·297	−·018	29·508	29·443	1st	29·171	13th	·272	85·0	94·9	−2·0	79·2	−0·5	87·1	−1·3	15·7	103·6	6th	72·5	1st	31·1
19	South Oudh	Lucknow	368	29·161	−·032	29·482	29·297	1st	29·055	14th	·242	87·3	101·0	+0·5	81·9	+0·6	91·5	+0·6	19·1	110·8	15th	73·3	1st	37·5
20	North Oudh	Bahraich	401	29·138	−·040	29·494	29·278	16th	29·014	14th	·264	84·4	96·3	−1·1	78·3	−0·9	87·3	−1·0	18·0	107·1	6th	68·6	12th	38·5
21	United Provinces (Central).	Cawnpore	416	29·109	−·031	29·470	29·250	1st	29·011	11th	·239	89·5	102·9	+1·8	84·8	+2·8	93·9	+2·3	18·1	110·5	7th	77·3	16th	33·2
		Mainpuri	516	29·017	−·023	29·479	29·153	3rd	28·914	11th & 13th.	·239	89·9	105·2	?	84·7	+3·2	95·0	?	20·5	111·2	7th	74·7	22nd	36·5

* Mean of 29 days.

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

NOTE 1.—When a query is inserted against any reading or in the returns of any stations

NOTE 2.—The data from which divisional means of the figure columns Nos. 41, 42 and 45

I—*continued.*

in India, Burma, etc., in June, 1904—continued.

WIND DIRECTION. Number of winds from									Wind resultant.	Wind velocity.				Hygrometry, 8 A.M.				Cloud.		Rainfall.									Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
Calm	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.		Mean daily velocity in miles per hour instrumental errors uncorrected.	Normal. (uncorrected).	Percentage departure from normal.	Mean corrected velocity (where possible).	Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Mean cloud amount at 8 A.M.	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 1904.	Normal rainfall for period, 1st May to 30th June.	Departure from normal, period, 1st May to 30th June 1904.				
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	58
29			1						E	1·1			1·6	80		·905		5·4		14	11·89	+ 2·11	10·71	10·32	+ 0·39	17 04	14·21	+ 2·83	3·37	Bankura .	CENTRAL BENGAL	11
21		1	6	2					S 83° E	1·9				83		·925		6·0		15	12·21	+ 2·79	8 95	9·93	— 0·98	13·82	13·70	+ 0·12	1·72	Raniganj.		
6	1	8	5	3	1	1	1	4	N 2° E	3·3	4·9	—33	3·2	86	+3·7	·967	+·035	7·8	+0·3	15	12·71	+ 2·29	8·79	9·92	— 1·13	15·54	16·27	- 0·73	1·69	Burdwan.		
3	1	5	8	9	2	1	1		S 73° E	4·1			4·5	85		·933		7·6		20	12·03	+ 7·97	16·85	9·96	+ 6·89	23·04	13·56	+ 9·48	2·86	Naya Dumka		
1	1	1	18	4	4			1	S 79° E	4·7	5·5	—15	4·0	87	—1·7	·979	+·007	7·9	—0·2	14	12·00	+ 2·00	9·04	9·54	— 0·50	23·62	14·95	+ 8·67	2·89	Berhampore.		
25		1		3	1				S 56° E	2·3			2·4	85		·955		5·3		12	12·58	— 0·58	6·22	10·70	— 4·48	21·87	16·24	+ 5·63	1·18	Rampur Boalia.		
	1	8	5	12	2	2			S 74° E	7·3			6·7	87		·995		5·8		12	12·16	— 0·16	4·74	9·89	— 5·15	11·96	13·74	— 1·78	1·50	Malda.		
9			20					1	N 84° E	3·6			3·1	84	—3·5	·917	—·035	6·4	—0·3	13	14·35	— 1·35	7·16	12·90	— 5·74	18·93	20·94	— 2·04	1·36	Bogra.		
		9	11	6	4				S 85° E	4·1			3·9	85	—3·8	·942	+·014	6·8	—1·2	13	13·45	— 0·45	6·26	13·17	— 6·91	17 76	21 62	— 3·86	2·70	Dinajpur .	NORTH BENGAL .	12
20		2	7	1					N 84° E	1·6			1·7	86		·960		5·4		13	15·61	— 2·61	6·66	20·01	—13·35	31·20	30·32	+ 0·88	1·10	Rangpur.		
	5	7	5	7	5		1		E	1·3			1·6	87	—2·3	·935	+·028	4·4	—0·8	18	18·66	— 0·66	13·92	22·86	— 8·94	27·58	34·90	— 7·32	3·06	Jalpaiguri.		
13		1	10	5	1				S 74° E	2·1			2·2	86		·932		6·7		13	19·24	— 6·24	13 85	32·15	—18·30	36·81	47·41	—10·60	2·56	Cooch Behar		
3		11	9	7					N 82° E	3·9	3·3	+18	3·4	85	—0·6	·947	+·015	4·3	—2·5	13	11·50	+ 1·50	17 03	10·02	+ 7·01	22·80	14·79	+ 7·81	4·55	Purnea .	NORTH BIHAR .	17
5	2	3	1	1	3	12	1	2	S 45° W	5·0			3·7	82	—2·9	·934	—·048	6·9	—1·1	13	11·00	+ 2·00	9·90	11·32	— 1·42	12·99	17·29	— 4·30	2·85	Balasore .	ORISSA . .	14
1	1		1	1	1	9	15	1	S 73° W	10·7	11·5	— 7	11·1	86	+2·3	·952	—·044	9·0	+1·0	17	9·27	+ 7·73	14·17	8·30	+ 5·87	17·29	13·53	+ 3·76	3·23	False Point.		
9	1				2	8	9	1	S 68° W	3·6	4·0	—10		78	+0·3	·863	—·050	7·7	+0·7	15	11·26	+ 3·74	10·57	10·82	— 0·25	15·87	15·06	+ 0·81	2·59	Cuttack.		
8	1				1	11	6	3	S 69° W	15·3			15·0	86		·955		6·8		13	8·11	+4·89	6·97	7·99	— 1·02	9·01	10·88	— 1·87	1·35	Puri.		
														75	—0·7	·887	+·014	5·2	—0 2				8·23	7·36	+0·88					V.—Gangetic Plain and Chota Nagpur.		
1	2	5	4	3	5	4	1	5	S 63° E	8·7	8·9	— 2	7·7	75	+3·4	·741	+·002	8·6	+1·4	18	11·19	+ 6·81	12·32	9·11	+ 3·21	15·44	11·44	+ 4·00	2·25	Hazaribagh.	CHOTA NAGPUR.	15
	4	4	4	1	6	2	3	6	N 18° W	6·7			7·9	79	+3·4	·775	+·012	6·9	+1·0	17	12·47	+ 4·53	10·52	10·36	+ 0·16	15·90	12·44	+ 3·46	2·18	Ranchi.		
17	1	1	3	2	1	3		2	S 63° E	5·2			4·2	75		·845		4·2		11	8·45	+ 2·52	4·26	6·10	— 1·84	8·28	7·14	+ 1·14	0 74	Daltonganj.	SOUTH BIHAR .	16
1	2	6	4	6	1	1	5	4	N 53° E	4·3			5·2	82		·895		6·2		13	12·39	+ 0·61	14·38	10·07	+ 4·31	19·70	12·99	+ 6·71	3·15	Purulia .	CHOTA NAGPUR.	15
21	1	2	1				4	1	N 34° W	1·8			1·6	79	+3 3	·866	—·004	5·4	—0·4	18	11·29	+ 6·71	14·55	9 51	+ 5·04	21·28	12·85	+ 8·43	2·82	Chaibasa.		
2	2	12	3	5	2	2	2		N 72° E	3·7	3·4	+ 9	2·9	77	+2·4	·911	—·005	5·6	+ 0·2	12	8·32	+ 3·68	16·48	7·43	+ 9·05	21·08	8·41	+12·67	4·76	Gaya .	SOUTH BIHAR .	16
	1	1	14	3	5		4	2	S 70° E	9·2			8·2	74		·900		6·7		9	8·06	+ 0·94	7·59	6·55	+ 1·06	9·52	7·35	+ 2·17	1·92	Dehri.		
2		3	22	2			1		N 88° E	7·5	4·2	+79	8·4	80	+2·6	·919	+·038	7·4	+1·6	10	7·81	+ 2·19	9·82	8·54	+ 1·28	12·65	10·47	+ 2·18	3·74	Patna.		
8	1	10	4	4	1		1	1	N 67° E	3·1			3·0	78		·931		2·5		12	7·90	+ 4·10	11·90	6·95	+ 4·95	13·76	8·42	+ 5·34	3·89	Arrah.		
	2	5	20	1			2		N 77° E	5·5			5·2	75		·891		5·6		8	8·06	— 0·06	7·05	5·44	+ 1·61	7·28	6·26	+ 1·02	2·33	Buxar.		
9		9	7	3		2			N 78° E	3·3			3·0	80		·932		5·0		12	9·90	+ 2·19	8·66	8·28	+ 0·38	13·57	11·07	+ 2·50	1·31	Bhagalpur .	NORTH BIHAR .	17
6		1	11	11	1				S 68° E	3·8	3·3	+15		82	+0·2	·956	+·032	5·3	—0·1	7	8·43	— 1·43	1·70	8·14	— 6·44	7·53	11·21	— 3·68	0·45	Darbhanga.		
9		2	9	9				1	S 76° E	4·9				85		·957		3·2		12	8·06	+ 3·94	7·03	7·25	— 0·22	13·83	9·65	+ 4·18	3·76	Muzaffarpur		
3	1	7	17	1				1	N 75° E	5·1			4·9	82		·926		4·4		8	9·39	— 1·39	6·61	8·90	— 2·29	11·58	11·55	+ 0·03	1·67	Motihari.		
	2	6	18	2	1	1			N 83° E	4·9			4·4	80		·952		6·8		9	7·61	+ 1·39	7·16	6·40	+ 0·76	9·34	7·75	+ 1·59	1·95	Chapra.		
8		5	8	5		4			S 77° E	3·0	5·1	—41	3·4	70	—2·3	·918	+·071	5·1	‡	7	6·80	+ 0·20	3·38	6·23	— 2·85	3·51	6·87	— 3·36	0·95	Benares .	UNITED PROVINCES (EAST).	18
1	1	4	13	1				7	3 N 54° E	6·6	6·9	— 4	5·5	65	—0·9	·895	+·070	6·01	+0·2	3	6·20	— 3·20	1·00	6·42	— 5·42	1·06	6·71	— 5·65	0·47	Allahabad.		
2	2	14	8	1	1		1	1	N 57° E	2·0	3·6	—44		79	—0·3	·947	+·041	8·1	+3·2	7	7·70	— 0·70	9·83	9·09	+ 0·74	15·12	10·43	+ 4·69	5·45	Gorakhpur	UNITED PROVINCES (EAST SUB-MONTANE).	23
11		2	10	2	1	2	1	1	S 79° E	3·5	4·2	—17	3·8	64	—5·3	·822	—·015	3·5	—2·3	4	6·10	— 2·10	8·00	5·71	+ 2·29	8·52	6·72	+ 1·80	4·11	Lucknow .	SOUTH OUDH .	19
15		1	5	7	1			1	S 66° E	2·1			2·0	?	?	?	?	1·9	—2·9	13	7·30	+ 5·70	14·95	6·53	+ 8·42	16·55	8·48	+ 8·07	7·40	Bahraich .	NORTH OUDH .	20
4	1	5	7	2			3	6	2 N 45° E	5·4				61	—3·8	·835	—·001	4·6	—0·8	4	5·00	— 1·00	3·04	4·09	— 1·05	3·49	4·40	— 0·91	2·35	Cawnpore .	UNITED PROVINCES (CENTRAL).	21
5	3	1	3	3	2	5	5	3	S 68° W	4·8			4·8	54	—11·5	·750	—·071	1·3	—3·6	1	4·60	— 3·60	0·89	4·73	— 3·84	1·14	5·16	- 4·02	0·74	Mainpuri.		

the data for that station are not utilized in calculating the provincial departures from normal.
are derived are incomplete.

‡ Mean of 27 days.

Table

Abstract of Observations taken at 8 A.M. at 231 Stations

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure, 8 A.M., in inches.								Temperature of air.											
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
	VI.—Upper Sub-Himalayas.				−·032								104·0	+1·7	82·2	+2·6	93·1	+2·2	21·8					38·2
24	United Provinces (West Sub-montane).	Bareilly	568	28·957	−·033	29·480	29·095	1st	28·853	14th	·242	86·8	100·2	+0·5	82·0	+2·2	91·1	+1·4	18·2	109·0	15th	74·1	23rd	34·9
		Dehra Dun	2,233	27·358	−·035	29·501	27·481	3rd	27·223	12th	·258	81·5	93·8	+0·8	75·4	+1·0	84·6	+0·9	18·4	103·0	15th	66·1	12th	36·9
		Roorkee	899	28·633	−·030	29·482	28·765	3rd	28·500	13th	·265	86·8	101·3	+0·9	81·2	+2·6	91·3	+1·8	20·1	111·2	15th	72·1	23rd	39·1
22	United Provinces (West.)	Meerut	738	28·785	−·032	29·473	28·935	3rd	28·637	12th	·298	87·8	102·8	+2·2	82·0	+1·6	92·4	+1·9	20·8	108·2	11th	73·3	22nd & 23rd.	34·9
26	South-East Punjab.	Delhi	718	28·805	−·030	29·471	28·963	3rd	28·639	12th	·324	90·0	103·2	0	85·7	+2·4	94·5	+1·2	17·5	111·2	27th	73·8	22nd	37·4
28	Central Punjab.	Lahore	702	28·786	−·034	29·441	28·974	3rd	28·657	12th	·317	90·4	108·2	+0·8	83·2	+3·9	95·7	+2·4	25·0	114·4	29th	74·2	23rd	40·2
27	South Punjab	Sirsa	662	28·655	−·017	29·466	29·045	3rd	28·725	13th	·320	91·4	106·4	−0·3	85·0	+1·9	95·7	+0·8	21·4	112·3	20th	71·1	3rd	41·2
		Patiala	*818*	28·712		29·480	28·846	3rd	28·553	12th	·293	88·7	103·1		82·3		92·7		20·8	108·0	14th & 29th.	73·0	21st	35·0
29	Punjab (Sub-montane.)	Ludhiana	812	28·699	−·027	29·462	28·839	3rd	28·555	13th	·284	89·1	106·6	+1·8	83·0	+2·3	94·8	+2·1	23·6	111·9	7th	72·6	22nd	39·3
		Sialkot	830	28·665	−·034	29·442	28·847	3rd	28·524	12th	·323	91·8	109·9	+4·4	85·1	+4·6	97·5	+4·5	24·8	115·9	28th	76·6	21st	39·3
		Umballa	892	28·629	−·038	29·469	28·775	3rd	28·493	12th	·282	89·0	105·6	+4·2						113·4	15th			
		Rawalpindi	1,674	27·855	−·037	29·451	28·038	3rd	27·753	13th	·285	92·1	108·6	+5·3	78·9	+3·6	93·8	+4·7	29·7	115·5	29th	73·1	3rd	42·4
	VII.—Indus Valley and North-West Rajputana.				−·020								106·9	+1·1	83·4	+1·1	95·2	+1·2	23·5					36·2
32	North-West Frontier Province.	Peshawar	1,110	28·396	−·045	29·455	28·564	3rd	28·296	13th	·268	92·9	109·6	+3·7	78·0	+0·7	93·8	+2·2	31·6	116·0	28th & 29th.	70·9	21st	45·1
		D. I. Khan	590	28·877	−·052	29·403	29·085	3rd	28·749	20th	·336	91·2	109·3	+1·3	83·2	+2·0	96·3	+1·7	26·1	115·2	28th	76·6	13th	38·6
31	West Punjab	Khushab	612	28·868	−·032	29·433	29·076	3rd	28·762	12th	·314	94·1	110·0	+2·9	85·8	+3·4	97·9	+3·2	24·2	116·3	28th	77·8	23rd	38·5
		Montgomery	558	28·924	−·021	29·432	29·115	3rd	28·776	12th	·339	91·7	110·2	+0·2	86·5	+2·4	98·4	+1·3	23·7	116·3	21st	80·0	3rd	36·3
		Mooltan	420	29·038	−·041	29·413	29·212	3rd	28·902	12th	·310	91·4	109·3	+1·5	87·3	+3·6	98·3	+2·6	22·0	114·5	20th & 21st.	83·1	29th	31·4
47	Sind	Jacobabad	186	29·304	−·009	29·448	29·404	4th	29·191	13th	·213	90·7	115·3	+2·6	83·9	−0·5	99·6	+1·1	31·4	120·0	13th, 14th & 15th.	80·2	22nd	39·8
		Hyderabad	96	29·458	+·010	29·507	29·579	5th	29·343	20th	·236	86·8	103·0	−1·2	81·1	−0·6	92·1	−0·9	21·9	111·2	4th	79·0	29th	32·2
		Kurrachee	30	29·569	+·006	29·549	29·690	1st	29·401	20th	·289	85·7	93·6	−0·4	82·8*	+0·7*	88·3*	+0·2*	10·8	99·4	21st	73·2	5th	26·2
51	West Rajputana	Bikaner	*771*	28·776	0	29·498	28·891	1st	28·652	20th	·239	89·9	107·6	+1·1	85·1	−0·1	96·4	+0·5	22·5	112·4	21st	69·0	3rd	43·4
		Pachpadra	*380*	29·228	+·034	29·559	29·316	1st & 3rd.	29·109	20th	·237	87·4	105·4	−0·3	82·1	+0·9	93·7	+0·3	23·3	109·9	21st	75·0	22nd	34·9
		Jodhpur	782	28·828		29·580	28·977	3rd	28·703	20th	·274	85·3	103·0		81·7		92·4		21·3	107·2	11th, 12th & 21st.	75·3	22nd	31·9
	VIII.—East Rajputana, Central India and Gujarat.				+·009								99·2	+0·5	81·2	+0·6	90·2	+0·6	17·9					29·0
50	East Rajputana	Jaipur	1,431	28·175	0	29·541	28·331	3rd	28·067	12th	·264	87·5	103·6	+1·1	80·5	−0·6	92·1	+0·3	23·1	109·2	11th, 12th & 20th.	70·6	1st	38·6
		Bharatpur	585	28·952		29·484	29·105	3rd	28·818	12th	·287	91·4	105·6		85·0		95·3		20·6	110·3	7th, 8th & 12th.	76·1	1st	34·2
		Kotah	819	28·756		29·556	28·867	1st	28·627	20th	·240	90·0	104·1		84·8		94·5		19·3	109·6	11th	74·6	1st	35·0
		Sambhar	1,254	28·339	+·006	29·534	28·478	3rd	28·234	12th	·244	87·5	103·4	+1·1	81·9	−0·5	92·7	+0·3	21·5	109·5	11th & 12th.	71·9	1st	37·6
		Ajmer	1,611	28·019	+·005	29·565	28·127	3rd	27·923	12th	·204	85·1	99·1	−1·4	81·4	+0·6	90·3	−0·4	17·7	104·4	11th & 12th.	74·6	1st	29·8
		Udaipur	1,925	27·716		29·598	27·857	3rd	27·636	20th	·221	82·4	95·5		77·2		86·4		18·3	102·0	20th	69·3	1st	32·7
		Deesa	466	29·194	+·014	29·609	29·332	1st	29·077	20th	·255	86·0	103·6	+1·7	80·3	+0·2	92·2	+1·0	22·8	106·1	21st	76·0	1st	30·1
46	Kathiawar and Cutch.	Bhuj	395	29·249	+·016	29·590	29·384	1st	29·125	20th	·259	86·4	96·8	−0·8	79·8	0	88·3	−0·4	17·0	101·3	11th, 12th & 30th.	77·9	16th	23·4
		Jamnagar	61	29·598		29·604	29·749	1st	29·477	20th	·272	86·7	96·6		80·2		88·4		16·4	101·6	8th	76·7	12th	24·9
		Rajkot	429	29·251	+·023	29·627	29·464	1st	29·131	20th	·273	84·5	100·1	+0·3	78·1	+0·5	89·1	+0·4	22·0	103·9	9th	76·6	30th	27·3
		Veraval	*18*	29·686	+·026	29·646	29·820	1st	29·546	11th	·274	83·7	86·3	−0·1	81·8	+0·8	84·1	+0·4	4·5	87·6	16th, 17th & 18th.	79·3	30th	8·3
		Dwarka	37	29·634		29·617	29·776	1st	29·498	20th	·278	85·1	89·3		82·2		85·8		7·1	90·9	10th	80·8	30th	10·1
		Bhavnagar Para	55	29·650	P	29·649	29·804	1st	29·537	20th	·267	85·8	101·8	+3·4	81·1	+0·7	91·4	+2·1	20·7	104·6	3rd	78·5	17th	26·1
49	Central India	Nowgong	757	28·798	−·028	29·498	28·939	1st	28·704	11th	·235	88·1	101·5	−0·1	83·6	+1·2	92·6	+0·6	17·9	109·5	12th	73·5	12th	36·0
		Indore	1,823	27·863	+·017	29·626	27·958	3rd	27·753	20th	·205	79·8	91·3	−0·1	75·0	−0·3	84·7	−0·2	19·3	100·6	10th	69·1	1st	31·5
		Neemuch	1,630	28·028	+·009	29·602	28·138	3rd	27·913	20th	·225	81·7	97·2	−1·1	77·0	−0·3	87·1	−0·7	20·2	103·5	11th	62·8	1st	40·7
45	Gujarat	Surat	39	29·683	+·023	29·666	29·837	1st	29·560	20th	·277	85·5	93·6	P	80·4	+1·1	87·0	P	13·2	95·7	8th, 10th & 18th.	75·0	1st	20·7
		Ahmedabad	163	29·517	+·022	29·627	29·664	1st	29·399	20th	·265	87·3	102·8	+3·1	81·9	+1·2	92·4	+2·2	20·9	104·8	9th	78·6	1st	26·2

* Mean of 28 days.

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

Note 1.—When a query is inserted against any reading or in the returns of any station,

Note 2.—The data from which divisional means of the figure columns Nos. 41, 43 and 45

I—*continued.*

in India, Burma, etc., in June, 1904—continued.

WIND DIRECTION. Number of winds from										Wind resultant.	WIND VELOCITY.				HYGROMETRY, 8 A.M.				CLOUD.		RAINFALL.								Heaviest rainfall during month.	STATION.	METEOROLOGICAL PROVINCE OR DISTRICT.	Number of District.
Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.			Mean daily velocity in miles per hour, instrumental errors uncorrected	Normal (Uncorrected.)	Percentage departure from normal.	Mean velocity corrected (where possible).	Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Mean cloud amount at 8 A.M.	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 1904.	Normal rainfall for period, 1st May to 30th June.	Departure from normal of period, 1st May to 30th June 1904.				
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	58
														52	−7·1	·697	·027	2·2	−1·7				1·75	4·25	−2·41					VI.—Upper Sub-Himalayas		
15			11	2		1		1	S 84° E	2·91	4·9	−41	28‡	66	− 3·7	·836	+ ·012	3·7	−0·7	2	4·91	−2·91	3·77	5·96	−2·19	5·04	6·72	−1·68	2·02	Bareilly .	UNITED PROVINCES (WEST SUB-MONTANE).	24
8		1	1	9	2	2	4	3	S 4° E	2·0	1·6	+25		61	− 8·8	·664	−·014	2·8	−2·2	8	10·00	−2·00	3·73	10·26	−6·53	5·76	11·95	−6·19	1·19	Dehra Dun.		
7		1	1	18			1	2	S 47° E	5·2	3·9	+33		58	− 4·9	·704	−·024	1·9	−2·3	3	6·00	−3·00	3·97	5·31	−1·34	5·61	6·13	−0·52	1·96	Roorkee.		
13		1	5	4			2	4	1 S 41° E	1·4	2·6	−46	1·4	54	− 7·5	·719	−·028	4·5	+0·3	1	4·00	−3·00	1·49	3·49	−2·00	3·47	4·09	−0·62	1·46	Meerut .	UNITED PROVINCES (WEST).	22
2		2	5	1	1	2	10	7	N 72° W	5·5	4·9	+12	4·9	50	− 6·2	·700	−·022	3·6	−1·4	1	4·10	−3·10	1·82	3·41	−1·59	3·01	4·13	−1·12	1·75	Delhi .	SOUTH-EAST PUNJAB.	26
6		2	3	5	6	3	5		S 5° E	3·1	3·5	−11		53	+ 1·5	·760	+·067	0·8	−2·0	3	2·30	+0·70	0·99	2·09	−1·10	1·20	2·91	−1·71	0·43	Lahore .	CENTRAL PUNJAB	28
			2	3	1	15	7	2	S 51° W	7·5	5·2	+44	6·5	50	− 0·5	·718	+·008	0·8	−3·7	2	3·20	−1·20	1·99	1·79	+0·20	2·02	2·50	−0·48	1·03	Sirsa .	SOUTH PUNJAB.	27
																										2·08			0·44	Patiala.		
1	1		5	11	1	2	1	8	S 51° E	6·8			6·9	54		·721		2·9		3			0·82									
10		2		12		3	3		S 29° E	2·5	2·4	+ 4	2·2	45	−10·6	·626	−·100	1·3	−2·0	1	3·50	−2·50	0·74	3·02	−2·28	1·38	3·63	−2·25	0·68	Ludhiana .	PUNJAB (SUB-MONTANE).	29
3	3	4	8	6	3	1	1	1	S 85° E	3·1	2·4	+29		48†	− 4·3	·725†	+·026	0·6	−1·4	1	3·60	−2·60	0·66	3·08	−2·42	1·71	4·11	−2·40	0·66	Sialkot.		
13			3	10				4	S 60° E	2·1				54	−13·3	·722	−·077	1·4	−1·6	1	4·30	−3·30	1·07	6·29	−5·22	2·34	7·02	−4·68	1·00	Umballa.		
19		1	4	5	1				S 63° E	3·7	2·6	+42	3·4	31	−19·4	·471	−·116	1·5	−1·3	0	3·30	−3·30	0	2·01	−2·01	0·70	3·48	−2·78	0	Rawalpindi.		
														55	−0·4	·765	+·017	1·4	−1·1				0·33	0·93	−0·60					VII.—Indus Valley and North-West Rajputana.		
14	4	3	1	3		2	1	2	N 19° E	2·4	4·3	−44	2·6	35	− 8·5	·540	−·053	1·0	−0·9	0	0·90	−0·90	0	0·30	−0·30	0·31	1·05	−0·71	0	Peshawar .	NORTH-WEST FRONTIER PROVINCE.	32
12	1	6		5	3	2		1	S 70° E	2·3	2·4	− 4	2·4	63	+ 7·0?	·921	+·124	0·4	−1·0	0	1·30	−1·30	0	0·65	−0·65	0	0·99	−0·99	0	D. I. Khan.		
1	1	7	7	4	2	5	2	1	S 79° E	9·3			8·9	39	− 4·0	·626	+·032	0·8	−1·0	2	1·50	+0·50	0·75	1·72	−0·97	0·92	2·50	−1·58	0·65	Khushab .	WEST PUNJAB.	31
1			1	4	9	14	1		S 18° W	12·3			11·4	35	− 8·4	·566	−·101	0·2	−1·3	0	2·00	−2·00	0	1·14	−1·14	0·46	1·41	−0·95	0	Montgomery		
5		1		6	2	14		2	S 24° W	1·9	3·8	−50	2·3	52	+ 4·1	·757	+·055	0	−0·7	0	1·10	−1·10	0	0·62	−0·62	0	0·92	−0·92	0	Mooltan.		
9			4	12	5				S 43° E	4·8	4·7	+ 2	5·0	65	+13·7	·947	+·161	0·5	−0·6	1	0·30	+0·70	0·30	0·09	+0·21	0·30	0·25	+0·05	0·30	Jacobabad .	SIND.	47
				1		23	6		S 51° W	17·4	15·2	+14	18·0	62	+ 1·3	·795	+·003	1·5	−2·3	0	0·70	−0·70	0	0·38	−0·38	0	0·56	−0·56	0	Hyderabad.		
						4	26		S 84° W	17·2	18·5	− 7	15·1	73	− 3·8	·892	−·079	5·5	+0·3	0	0·50	−0·50	0	0·71	−0·71	0	0·71	−0·71	0	Kurrachee .		
			1		5	17	6	1	S 47° W	9·3	7·8	+19		53	+ 2·5	·786	+·012	0·4	−1·9	2	2·10	−0·10	1·09	1·70	−0·61	1·14	2·58	−1·44	0·73	Bikaner .	WEST RAJPUTANA	51
					10	18	2		S 33° W	19·0	12·0	+58	16·5	65	− 6·5 ?	·847	−·061?	2·4	−1·6	1	2·50	−1·50	0·27	1·46	−1·19	0·91	2·12	−1·21	0·27	Pachpadra.		
			1		2	19	8		S 53° W	10·5‡			9·5‡	60		·738		2·8		1	2·60	−1·60	1·23	1·49	−0·26	1·68	1·76	−0·08	1·23	Jodhpur.		
														66	−1·6	·816	−·003	3·9	−0·9				2·01	4·67	−2·50					VIII.—East Rajputana, Central India and Gujarat.		
1	1				1	7	19	1	S 80° W	6·7	7·3	− 8		52	− 4·6	·679	−·039	1·7	−2·5	2	4·40	−2·40	1·22	2·66	−1·44	1·85	3·15	−1·30	0·97	Jaipur .	EAST RAJPUTANA	50
1		1	1	1	1	2	20	3	S 85° W	4·7			4·3	67		·964		2·0		4			1·99			3·37			1·46	Bharatpur.		
	1					9	14	6	S 88° W	7·5			6·0	48		·672		1·5		6	6·20	−0·20	1·77	3·57	−1·80	2·88	4·68	−1·80	0·55	Kotah.		
2	1	1				21		5	N 77° W	11·6	11·2	+ 4		56	− 1·0	·730	+·005	1·3	−2·7	4	3·60	+0·40	3·67	1·58	+2·09	4·41	2·34	+2·07	1·96	Sambhar.		
1					1	3	25		S 84° W		8·3			67	+ 5·7	·803	+·053	2·4	−1·2	5	3·90	+1·10	2·07	2·48	−0·41	3·44	3·09	+0·35	0·82	Ajmer.		
3					2	11	13	1	S 67° W	8·0			7·0	63		·703		2·1		5	5·10	−0·10	3·40			5·24			1·46	Udaipur.		
					4	22	4		S 45° W	17·5	16·8	+ 4		63	− 4·6	·788	−·032	5·2	−0·7	1	2·18	−1·18	0·47	2·27	−1·80	0·47	2·52	−2·05	0·47	Deesa.		
						17	11	2	S 66° W	21·2	16·1	+32	17·8	78	+ 7·4	984	?	4·3	−0·7	0	2·40	−2·40	0	2·03	−2·03	0	2·12	−2·12	0	Bhuj .	KATHIAWAR AND CUTCH.	46
					4	15	11		S 56° W	23·9			28·9	67		·849		4·3		0			0·09			0·09			0·09	Jamnagar.		
						13	17		S 71° W	15·0	15·6	− 4	14·9	69	− 5·4	·821	−·054	5·8	+0·2	3	5·30	−2·30	1·05	5·12	−4·07	1·05	5·34	−4·29	0·63	Rajkot.		
			1		2	7	20		S 76° W	17·1	10·6	+61	17·1	83	− 1·2	951	−·013	5·2	−1·7	1	4·60	−3·60	0·44	5·23	−4·79	0·44	5·25	−4·81	0·34	Veraval.		
					2	16	12		S 61° W	20·9				78		·947		3·5		0			0·01			0·01			0·01	Dwarka.		
			1	1		20	7	1	S 55° W	12·6			15·0	63	−12·5	·808	?	6·4	+0·3	1	5·70	−4·70	0·28	5·02	−4·74	0·28	5·12	−4·84	0·28	Bhavnagar Para.		
3			2			1	21	3	N 86° W	3·7	4·4	−16	3·7	55	− 6·0	·713	−·043	7·2	+2·5	3	7·30	−4·30	6·44	8·15	−1·71	6·57	8·48	−1·91	3·52	Nowgong .	CENTRAL INDIA .	49
1							23	6	N 82° W	10·7	7·0	+53	8·7	77	+ 4·7	·791	+·033	6·6	+0·6	5	7·60	−2·60	3·75	6·35	−2·60	3·91	6·94	−3·03	1·94	Indore.		
						10	20		S 75° W	15·8	14·2	+11	13·3	79	+ 9·5	·855	+·072	2·6	−1·8	5	6·20	−1·20	4·76	4·95	−0·19	5·29	5·40	−0·11	1·79	Neemuch .		
		1			6	8	13	2	S 65° W	11·0	15·6	−29	10·3	72	− 6·5	·891	−·027	5·1	−1·8	3	8·70	−5·70	2·12	9·62	−7·50	2·12	9·75	−7·63	1·67	Surat .	GUJARAT.	45
		1			1	1	21	4	2 S 54° W	5·3			8·7	65	− 7·1	·829	−·047	6·1	−0·1	0	4·80	−4·80	0·02	6·76	−6·74	0·02	6·77	−6·75	0·01	Ahmedabad		

he data for that station are not utilized in calculating the provincial departures from normal.
are derived are incomplete.

‡ Mean of 29 days.
† ,, 20

Table

Abstract of Observations taken at 8 A.M. at 231 Stations

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 A.M., in inches.								Temperature of air.											
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
22	United Provinces (West).	Agra	555	28·953?	?	29·461?	29·089?	3rd	28·630	12th	·259?	90·4	103·9	−0·4	86·2	+1·7	95·1	+0·7	17·7	110·0	12th	77·4	22nd	32·6
21	United Provinces (Central).	Jhansi	858	28·709	−·022	29·505	28·850	1st & 3rd.	28·618	19th	·232	89·8	104·3	+1·5	85·9	+1·9	95·1	+1·7	18·4	111·8	12th	76·6	12th	35·2
	IX.—Deccan				+·001								94·6	−0·3	75·9	−0·2	85·3	−0·3	18·7					31·8
38	Bombay Deccan	Belgaum	2,539	27·280	+·026	29·761	27·360	28t	27·183	20th	·177	71·3	78·7	−2·1	66·9	−1·2	72·8	−1·7	11·8	89·3	1st	64·8	28th	24·5
		Sholapur	1,590	28·109	+·004	29·703	28·249	1st	28·056	19th	·193	79·4	91·4	−0·4	74·0	+0·8	84·2	+0·2	20·4	101·7	2nd	71·0	11th & 25th.	30·7
		Poona	1,840	27·928	+·017	29·709	28·020	1st	27·821	20th	·199	78·4	90·6	+1·4	73·0	+0·4	81·8	+0·9	17·6	98·0	6th	69·9	29th	28·1
		Bijapur	*1,948*	27·826	+·014	29·713	27·916	1st	27·725	20th	·191	77·3	91·3	+0·8		?	?	?	?	98·4	2nd & 3rd.	?	?	?
40	Khandesh	Malegaon	1,430	28·276	+·001	29·615	28·400	1st	28·174	20th	·226	83·1	97·5	+2·6	75·5	+0·5	86·5	+1·6	22·0	103·6	6th	72·0	1st	31·8
		Ahmednagar	2,154	27·618	+·024	29·703	27·726	1st	27·521	11th, 19th & 20th.	·205	78·4	92·0	+1·6	71·9	−0·4	82·0	+0·6	20·1	97·9	1st & 6th.	67·4	17th	30·5
41	Berar	Akola	930	28·755	+·010	29·626	28·869	1st	28·656	19th	·213	83·7	98·3	+0·1	77·9	+0·2	88·1	+0·2	20·4	105·7	9th	73·0	21st	32·7
		Amraoti	1,215	28·463	+·010	29·621	28·562	1st	28·349	20th	·213	82·4	96·9	−0·3	77·9	+1·1	87·4	+0·4	19·0	105·3	7th & 8th.	72·5	20th	32·8
42	Central Provinces, (West).	Khandwa	1,044	28·626	+·005	29·621	28·746	2nd	28·504	20th	·242	83·0	98·5	+0·9	79·3	+0·6	88·9	+0·8	19·2	104·7	6th, 7th, & 10th.	73·6	2nd & 22nd.	31·1
		Hoshangabad*	1,006	28·610	−·001	29·594	28·745	2nd	28·525	20th	·220	85·3	100·2	+2·1	80·5	+1·5	90·4	+1·8	19·7	105·9	10th & 12th.	74·2	23rd	31·7
		Nagpur	1,025	28·614	−·003	29·586	28·716	1st	28·500	20th	·216	83·0	97·8	−0·5	77·8	−0·7	87·8	−0·6	20·0	106·1	1st & 7th.	73·6	20th	32·5
43	Central Provinces, Central.	Chanda	634	29·037	+·014	29·612	29·130	1st	28·933	20th	·197	83·6	97·4	−1·1	78·4	−1·2	87·9	−1·2	19·0	107·2	1st & 6th.	73·0	17th & 27th.	34·2
		Seoni	2,033	27·613	−·011	29·569	27·715	1st	27·504	20th	·211	80·5	94·2	0	74·5	−1·0	84·4	−0·5	19·7	102·9	6th	71·0	24th & 28th.	31·9
		Jubbulpore	1,327	28·270	−·017	29·537	28·383	1st	28·164	19th	·219	83·1	97·2	+0·3	78·0	−0·4	87·6	−0·1	19·2	104·5	6th	72·1	12th	32·4
		Saugor	1,807	27·824	0	29·558	27·937	1st	27·724	19th	·213	83·2	98·0	+0·2	78·4	+0·8	88·2	+0·5	19·6	104·9	11th	71·1	24th	33·8
49	Central India	Sutna	1,040	28·504	−·032	29·484	28·626	1st	28·418	11th	·208	88·6	100·4	+1·7	83·9	+2·8	92·2	+2·3	16·5	108·6	7th	74·6	12th	34·0
44	Central Provinces, (East)	Raipur	970	28·622	−·029	29·537	28·731	1st	28·515	20th	·216	80·4	91·5	−5·7	75·5	−2·9	83·5	−4·3	16·0	104·8	9th	69·4	27th	35·4
		Pendra	2,123?	27·561?		29·508?	27·670	3rd	27·471	19th	·199	81·1	92·3		75·8		84·1		16·5	101·8	7th & 9th.	70·1	16th	31·7
		Sambalpur	486	29·081	−·048	29·513	29·190	1st	28·950	19th	·240	81·6	92·8	−4·5	77·4	−3·3	85·1	−3·9	15·4	105·1	4th & 5th.	72·6	27th	33·5
39	Hyderabad (North).	Aurangabad	1,905	27·827		29·663	27·930	st	27·730	20th	·200	79·1	94·8		72·7		83·7		22·1	99·9	6th	71·2	6 days	28·7
		Indur	1,260	28·460		29·668	28·572	13th	28·301	24th	·271	81·5	95·3		73·3		84·3		22·0	104·7	7th	67·2	20th	37·5
		Bidar	*2,165*	27·619		29·721	27·697	1st	27·506	19th	·191	76·6	91·1		75·1		83·1		16·0	99·7	1st	72·0	9th	27·7
53	Hyderabad (South).	Gulbarga	1,503	28·250	+·001	29·702	28·336	1st	28·129	20th	·207	78·1	95·0	+0·5	73·7	−0·1	84·4	+0·2	21·3	104·7	2nd	67·0	12th	37·7
		Raichur	1,326	28·445	+·022	29·720	28·512	1st	28·325	20th	·187	79·2	93·1	−1·6	73·7	−1·1	83·4	−1·4	19·4	100·1	1st & 3rd.	70·6	28th	29·5
		Hyderabad (Deccan).	1,690	28·046	+·008	29·677	28·121	1st	27·940	20th	·181	78·8	92·7	−1·6	74·9	+0·5	83·8	−0·6	17·8	100·9	1st	71·7	27th & 28th.	29·2
		Hanumkonda	871	28·809		29·620	28·880	1st	28·697	20th	·183	82·3	94·8		78·3		86·6		16·5	104·2	1st	71·8	23rd	32·4
	X.—West Coast				+·038								83·7	−1·8	75·7	−0·9	79·7	−1·4	8·0					17·7
37	Konkan	Bombay	37	29·723	+·014	29·699	29·834	1st	29·602	20th	·232	82·6	87·8	+0·2	79·6	+0·1	83·7	+0·2	8·2	92·5	7th & 8th.	74·5	16th	16·0
		Ratnagiri	110	29·693	+·033	29·742	29·774	28th	29·579	20th	·195	80·7	86·5	−0·1	76·7	−0·5	81·6	−0·3	9·8	92·3	6th	72·9	28th	19·4
		Mormugao	*60*	29·775	+·040	29·770	29·867	28th	29·661	20th	·206	80·0	84·6	−2·4	75·9	−2·0	80·3	−2·2	8·7	92·5	4th	71·9	28th	20·6
		Goa	199	29·639	+·033	29·774	29·749	28th	29·525	20th	·224	79·5	82·0	−3·2	77·7	−0·1	79·9	−1·7	4·3	88·0	5th	75·0	5 days	13·0
		Karwar	44	29·805	+·039	29·783	29·886	28th	29·698	20th	·188	79·1	83·4	−1·9	74·8	−1·3	79·1	−1·6	8·6	88·3	1st	71·5	9th	16·8
33	Malabar	Cochin	10	29·914	+·043	29·852	29·961	29th	29·840	20th	·121	78·1	84·2	−0·8	74·1	−0·6	79·2	−0·7	10·1	88·3	1st & 4th.	72·2	28th	16·1
		Calicut	27	29·886	+·048	29·843	29·934	29th	29·800	20th	·134	76·5	81·7	−2·9	74·0	−0·7	77·9	−1·8	7·7	87·8	1st	71·7	30th	16·1
		Mangalore	65	29·822	+·039	29·820	29·900	28th	29·729	20th	·171	77·6	82·9	−2·1	74·2	−0·8	78·6	−1·5	8·7	90·7	1st	70·0	20th	20·7
		Trivandrum	198	29·724	+·050	29·856	29·777	22nd	29·664	19th	·113	75·9	80·0	−2·9	74·0	−2·2	76·9	−2·6	6·0	85·5	1st	67·0	19th	18·5
	XI.—South India				+·015								92·2	−1·5	76·1	−0·4	84·1	−1·0	16·2					26·0
57	Madras (South)	Pamban	37	29·820	+·042	29·785	29·880	29th	29·759	19th	·121	82·9	89·5	−0·2	80·0	−0·3	84·8	−0·3	9·5	93·8	4th	78·2	11th & 20th.	15·6
		Tinnevelly	168	29·704	+·049	29·301	29·755	29th	29·618	19th	·107	83·4	93·1	−4·0	77·5	−2·1	85·3	−3·1	15·6	100·3	1st	72·4	20th	27·9
		Madura	447	29·400	+·044	29·781	29·456	28th	29·335	20th	·121	83·4	95·0	−3·2	76·6	−0·5	85·8	−1·9	18·4	98·5	22nd & 24th.	74·0	7th, 11th & 29th	24·5
		Periyakulam	945	28·908		29·795	28·967	29th	28·833	19th	·134	78·5	90·4		72·2		80·4		18·2	97·2	23rd	67·4	29th	29·8

* Mean of 29 days.

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

NOTE 1.—When a query is inserted against any reading or in the returns of any

NOTE 2.—The data from which divisional means of the figure columns Nos. 47,

I—*continued.*

in India, Burma, etc., in June, 1904—continued.

WIND DIRECTION. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	Wind velocity: Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal, (uncorrected.)	Percentage departure from normal.	Mean velocity corrected (where possible).	Hygrometry, 8 A.M.: Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Cloud: Mean cloud amount at 8 A.M.	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, 1904.	Normal rainfall for period, 1st May to 30th June.	Departure from normal of period, 1st May to 30th June 1904.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
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	58
1		4		2	19			4	S 53° W	6·3	5·7	+11	7·4	51	−6·1	·714	−·050	1·4	−2·4	1	3·90	−2·90	3·03	2·90	+ 0·13	3·34	3·46	− 0·12	2·87	Agra	United Provinces (West)	22
			1	1	9	7	12		N 86° W	7·2	5·8	+24	8·8	60	+4·1	·828	+·097	1·9	−1·6	5	5·30	−0·80	3·59	6·06	− 2·47	4·37	6·47	− 2·10	1·35	Jhansi	United Provinces (Central).	21
														68	−0·7	·713	·018	6·2	0				6·30	6·55	−0·51					IX.—Deccan.		
					11	17	2		S 76° W	20·3	24·3	−16		89	+2·2	·677	−·018	8·0	−0·2	19	14·00	+5·00	17·91	8·44	+ 9·47	21·39	10·93	+10·46	3·10	Belgaum	Bombay Deccan	33
					1	10	8		S 83° W	15·4	12·2	+26	18·6	65	−1·3	·649	−·021	6·8	+0·1	9	6·20	+2·80	5·16	4·36	+ 0·80	5·68	5·36	+0·32	1·38	Sholapur.		
					1	14	15		S 66° W	20·2	16·0	+26		68	−4·5	·658	−·048	7·3	0	0	8·50	−8·50	0·31	4·73	− 4·42	0·31	6·06	− 5·72	0·08	Poona.		
					1	15	10	4	S 70° W	15·1			14·8	74	−3·0?	·693	−·028	6·5	−0·5	5	6·20	− 1·20	3·08	3·55	− 0·47	3·61	5·34	- 1·73	1·27	Bijapur.		
		1				3	19	7	N 81° W	15·5	11·9	+30	17·8	64	−7·3	·735	−·022	2·9	−3·3	3	7·70	−4·70	3·38	4·44	− 1·06	3·71	5·17	- 1·46	1·94	Malegaon	Khandesh	40
		1				5	10	14	N 72° W	12·7			15·5	77	−0·7?	·753	+·018	5·9	−0·6	4	7·40	−3·40	2·64	5·14	− 2·50	2·68	6·02	- 3·34	1·59	Ahmednagar.		
						3	12	15	N 71° W	11·6	8·9	+30	11·4	65	−2·7	·735	−·023	7·4	+1·2	8	8·10	−0·10	3·33	5·20	− 1·87	3·49	5·63	− 2·14	0·63	Akola	Berar	4
					1	4	22	3	S 87° W	12·4	7·4	+68	11·0	66	−4·6	·721	−·033	5·8	−0·2	9	9·00	0	7·17	6·82	+ 0·35	7·15	7·45	0	3·49	Amraoti.		
					1		7	22	N 58° W	11·8	9·2	+28	11·2	63	−5·0	·700	−·049	4·8	−0·7	4	7·50	−3·50	3·75	5·81	− 2·06	4·47	6·16	− 1·69	1·64	Khandwa	Central Provinces (West).	42
						29			S 45° W	5·4	4·6	+17	5·5	60	−10·8	·730	−·078	4·9	−1·1	4	8·20	−4·20	2·89	6·78	− 3·89	3·22	7·33	- 4·11	1·60	Hoshangabad.		
			1		2	3	19	5	N 90° W	8·4	10·0	−16	6·6	68	+3·8	·754	+·002	6·2	−0·4	11	9·70	+1·30	8·52	8·52	0	9·03	9·24	- 0·21	3·10	Nagpur.		
5					1	5	19		S 78° W	4·8	6·3	−24	4·3	66	+2·4	·751	+·010	6·2	−0·4	11	9·40	+1·60	5·81	7·68	− 1·87	6·42	8·42	- 2·00	1·20	Chanda	Central Provinces, Central.	43
	5	1			1	5	8	10	N 65° W	7·8	5·7	+37	6·6	70	+3·2	·717	+·011	5·0	−0·1	16	12·30	+3·70	7·15	9·95	− 2·80	7·15	10·63	- 3·48	1·16	Seoni.		
		2				4	20	4	N 87° W	5·2	5·3	− 2	4·6	65	0	·731	+·009	4·8	−0·4	9	10·40	−1·40	3·93	9·50	− 5·57	4·04	10·05	− 6·01	0·88	Jubbulpore.		
					1	3	22	4	S 89° W	11·2	5·2	+115	10·0	60	−4·8	·668	−·039	4·5	−0·5	4	8·90	−4·90	4·31	8·79	− 4·48	4·74	9·29	−4·55	1·85	Saugor.		
1	1		2	1	1	5	15	4	S 86° W	6·3	9·6	−34	5·8	53	−6·7?	·692	−·022	8·5	+3·9	4	7·20	−3·20	4·12	7·32	− 3·20	4·44	7·70	- 3·26	1·88	Sutna	Central India	49
2						22	6		S 54° W	9·8	8·7	+13	11·8	78	+10·	·789	+·027	7·9	+1·5	17	10·40	+6·60	15·08	8·88	+ 6·20	18·67	9·82	+ 8·85	3·34	Raipur	Central Provinces (East).	44
3	1	1	1	2	3	3	6	10	N 80° W	8·4			7·1	65		·677		6·9		14			12·03			12·84			4·47	Pendra.		
				1	1	17	8	3	S 61° W	6·2	3·4	+82	6·1	78	+4·5	·837	−·022	8·6	+2·0	20	10·40	+9·60	19·50	11·35	+ 8·15	20·57	12·97	+7·60	2·39	Sambalpur.		
1						1	19	9	N 78° W	20·0			19·8	67		·673		5·2		7	8·10	−1·10	2·56	6·25	− 3·69	2·56	6·99	- 4·43	0·80	Aurangabad	Hyderabad (North).	39
4		4				2		20	N 39° W	0·0			5·5	60		·640		6·8		6	8·90	−2·90	5·29	4·65	+ 0·64	5·29	5·04	+ 0·25	1·88	Indur		
					2	13	12	3	S 69° W	8·8			7·3	77		·708		4·7		10	7·80	+2·20	3·84	5·74	− 1·90	4·33	6·74	- 2·36	0·87	Bidar.		
1	2					2	14	11	N 71° W	15·7			15·0	75	−0·5	·723	−·018	7·1	+0·8	5	7·40	−2·40	5·57	5·71	− 0·14	5·90	6·87	− 0·97	2·32	Gulbarga	Hyderabad (South).	53
						21	6	3	S 61° W	15·9			15·1	70	+0·2	·702	−·016	6·1	−0·3	9	6·20	+2·80	5·47	3·12	+ 2·35	5·71	3·84	+ 1·87	1·65	Raichur.		
1							27	2	N 87° W	9·7			9·4	72	+1·4	·703	−·010	5·9	−0·3	8			4·02	1·37	− 0·35	5·69	5·36	+ 0·33	1·28	Hyderabad (Deccan)		
1	1					2	18	8	N 75° W	13·3			11·3	65		·715		6·6		8	6·70	+1·30	7·02			7·47			2·23	Hanumkonda		
														87	+1·7	·865	−·022	8·6	+0·7				38·97	27·94	+11·04					X.—West Coast.		
		1	2	3	5	18	1		S 70° W	13·4	16·2	−17		82	−0·9	·925	−·004	7·5	−0·4	18	14·70	+3·30	14·46	19·63	−5·17	14·46	20·34	- 5·88	2·53	Bombay	Konkan	57
4	3	2		4	1	3	10	3	N 87° W	10·3	12·0	−14	10·2	85	+1·6	·880	−·021	7·9	+0·3	25	20·50	+4·50	42·99	30·20	+12·79	43·02	31·65	+11·37	8·78	Ratnagiri.		
12		1	1	1		2	11	2	W	7·5[1]				89	+4·1	·907	−·028	8·0	+1·2	26			42·21	2363	+18 58	42·84	26·20	+16·64	6·95	Mormugao.		
1	1	3	4	2	2	8	8	1	S 52° W	11·9				88	+3·2	·886	−·024	8·5	+0·4	25			48·79	28·72	+20·02	49·80	31·05	+18·75	6·24	Goa.		
		1		3	18	4	1		S 51° W	6·7				84	+0·6	·830	−·037	8·8	+0·8	28	23·30	+4·70	51·09	35·98	+15·11	52·28	39·26	+13·02	5·75	Karwar.		
6	1		3	4	1	4	7	4	S 66° W	7·7				87	−0·4	·851	−·011	8·2	+0·6	28	24·20	+3·80	36·66	28·99	+ 7·67	47·18	41·38	+ 5·80	4·27	Cochin	Malabar	3
4	5	5	4	2	1	2	4	3	N 12° E	6·9†			6·8†	91	+2·6	·833	−·025	9·5	+1·4	29	24·30	+4·70	41·64	35·61	+ 6·03	53·34	42·39	+ 9·95	5·25	Calicut.		
8	1		4	2	2	5	6	2	S 50° W	6·4	3·7	+73		91	+1·8	·860	−·013	9·1	+0·3	28	24·60	+3·40	47·77	36·22	+11·55	52·22	42 88	+9·34	6·64	Mangalore.		
3	9	1					3	14	N 32° W	6·1				90	+2·9	·809	−·031	9·7	+1·6	28	16·50	+11·50	25·20	12·45	+12·75	30·70	21·50	+ 9·20	2·02	Trivandrum.		
														72	+0·4	·763	−·007	7·0	+0·6				2·03	2·71	−0·68					XI.—South India.		
					18	12			S 72° W	22·5			23·9	78		·866		3·4		0	0·50	−0·50	0	0·12	− 0·12	0·13	0·67	- 0·54	0	Pamban	Madras (South)	57
	1	1			6	16	6		N 86° W	6·2			6·0	63	+1·0	·726	−·033	7·9	+1·4	2	1·20	+0·80	0·72	0·56	+ 0·16	3·53	1·93	+1·60	0·32	Tinnevelly.		
				3	8	9	10		S 86° W	10·7	4·8	+123	12·3	64	+0·5	·739	−·024	6·3	+0·9	1	2·50	−1·50	0·13	1·25	− 1·12	4·10	3·90	+ 0·20	0·11	Madura.		
9	9	6			1	1	1	3	N 4° E	3·4			3·7	74		·716		7·0		4	2·50	+1·50	0·76	1·05	−0·29	7·99	3·78	+4·21	0·14	Perivakulam.		

[1] Station the data for that station are not utilized in calculating the provincial departures from normal.

43 and 45 are derived are incomplete.

† Mean of 28 days.

Mean of 25 days.

Table

Abstract of Observations taken at 8 A.M. at 231 Stations

Number of District.	Meteorological Province or District.	Station.	Elevation of barometer cistern above sea-level, in feet.	Pressure, 8 A.M., in inches.								Temperature of air.											
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
34	Madras (South Central).	Salem	940	28·918	+·018	29·802	28·963	28th & 29th.	28·835	19th	·128	79·0	92·0	−3·2	73·5	−0·7	82·8	−2·0	18·5	96·2	23rd	72·4	6 days	23·8
		Coimbatore	1,348	28·502	+·027	29·802	28·553	28th & 29th	28·408	20th	·145	76·1	86·1	−3·8	71·3	−0·3	78·7	−2·1	14·8	90·4	30th	68·8	30th	21·6
35	Coorg	Mercara	3,781	26·197	+·039		26·255	28th	26·139	20th	·116	65·0	70·1	−2·8	61·9	−1·4	66·1	−2·1	8·2	78·0	1st	58·1	21st	19·9
36	Mysore	Chitaldroog	2,405	27·440	+·034	29·786	27·509	1st	27·348	20th	·161	72·9	84·0	−1·8	68·7	−0·8	76·4	−1·3	15·3	92·1	5th	65·9	5th	26·2
		Bangalore	3,021	26·869	+·019	29·811	26·926	1st	26·780	19th	·146	70·6	81·8	−2·9	65·8	−1·0	73·8	−2·0	16·0	86·3	1st	63·8	20th	22·5
		Hassan	3,091	26·819	+·034	29·825	26·872	28th	26·739	19th	·133	71·2	80·0	?	65·6	−0·5	72·8	?	14·4	86·1	1st	63·5	1st	22·6
		Mysore	2,518	27·375	+·030	29·835	27·430	1st	27·294	19th & 20th.	·136	72·3	82·2	−2·4	67·3	−0·9	74·8	−1·7	14·9	86·9	4th	65·5	30th	21·4
56	Madras, East Coast (South).	Negapatam	31	29·788	+·021	29·747	29·843	29th	29·725	19th	·118	85·4	97·6	+0·5	79·8	+0·6	88·7	+0·6	17·8	101·9	4th	78·0	7th & 22nd.	23·9
		Cuddalore	12	29·789	+·024	29·730	29·841	29th	29·705	19th	·136	86·0	98·6	+0·4	80·5	+1·1	89·6	+0·8	18·1	101·2	30th	76·7	1st & 24th.	24·5
		Trichinopoly	255	29·582	+·021	29·769	29·635	29th	29·516	20th	·119	83·6	96·6	−2·4	78·7	+0·3	87·7	−1·1	17·9	100·1	23rd	76·4	1st	23·7
		Madras	22	29·752	+·006	29·704	29·806	29th	29·674	19th	·132	86·9	99·8	+1·3	82·1	+1·4	91·0	+1·4	17·7	103·5	4th	79·0	28th	24·5
		Vellore	707	29·079		29·724	29·133	29th	28·992	20th	·141	82·5	95·1		77·7		86·4		17·4	99·4	9th	71·0	8th	28·4
55	Madras, East Coast (Central).	Nellore	52	29·694	+·017	29·679	29·738	29th	29·609	20th	·129	86·9	100·2	−1·6	81·6	−0·6	90·9	−1·1	18·6	105·3	4th	76·1	7th	29·2
		Masulipatam	15	29·687	−·004	29·636	29·729	1st	29·591	20th	·138	84·8	96·5	−1·2	80·1	−0·1	88·3	−0·7	16·4	106·7	2nd & 6th.	74·1	23rd	32·6
54	Madras, (Central).	Cuddapah	433	29·346	+·014	29·713	29·406	1st	29·244	20th	·162	84·8	100·0	−0·3	79·7	−0·9	89·9	−0·6	20·3	105·7	5th	72·7	8th	33·0
		Kurnool	923	28·839	+·007	29·705	28·892	28th	28·725	20th	·167	81·9	95·3	−1·4	76·3	−0·6	85·9	−1·0	19·0	102·2	2nd, 4th & 5th.	73·1	13th & 25th.	29·1
		Bellary	1,475	28·311	+·012	29·728	28·396	1st	28·199	20th	·197	80·0	92·9	−1·6	75·7	0	84·3	−0·8	17·2	99·5	5th	73·2	30th	26·3
52	Madras, East Coast (North)	Cocanada	26	29·638	−·028	29·600	29·703	1st	29·539	19th	·164	83·6	94·8	−0·4	79·9	−1·1	87·4	−0·8	14·9	106·6	3rd	74·5	4 days	32·1
		Waltair Vizag.	*226*	29·396	−·033	29·560	29·482	1st	29·293	19th	·185	83·6	91·2	?	79·7	?	85·5	?	11·5	99·4	14th	72·4	15th	27·0
		Gopalpur	72	29·506	−·049	29·519	29·617	3rd	29·382	19th	·235	83·2	88·8	−0·4	79·5	−1·1	84·2	−0·8	9·3	98·7	14th	72·0	30th	26·7
	XII.—Hill Stations.																							
48	Baluchistan	Pishin			Bar, not	recorded.							95·5		53·2		74·4		42·3	99·4	4 days	45·1	3rd	54·3
		Quetta	5,502	24·510	+·020		24·594	3rd	24·416	13th	·178	74·9	91·3	+0·7	56·2	−2·9	73·8	−1·1	35·1	95·1	28th	50·9	5th, 16th & 25th.	44·2
		Kalat	...									77·7	91·1	−1·0?	33·3	−15·6 ?	62·3	−8·3?	57·8	97·3	11th	27·6	3rd	69·7
		Chaman	4,311	25·502	+·015		25·627	3rd	25·390	13th	·237	82·1	97·8	−2·4	67·9	−3·7	82·9	−3·1	29·9	103·2	7th	62·1	12th	41·1
30	Punjab	Leh	11,503	19·676	−·004		19·770	6th	19·566	12th	·204	53·7	71·8	−1·3	43·7	−0·9	57·8	−1·1	28·1	78·6	7th, 8th & 29th.	38·4	24th	40·2
		Srinagar	5,204	24·715	−·016		24·816	3rd	24·630	29th	·186	67·7	84·4	+1·3	57·6	−1·2	71·0	+0·1	26·8	91·3	30th	52·7	23rd & 24th.	38·6
		Gulmarg	*8,569*	21·781			21·856	16th	21·693	13th	·163	61·0	67·8		44·1		56·0		23·7	76·6	29th	37·3	23rd	39·3
		Sonemarg	*8,764*	21·785			21·841	16th	21·694	12th	·147	49·6	69·8		40·2		55·0		29·6	77·2	7th	34·1	24th	43·1
		Skardu	*7,505*	22·749			22·826	5th	22·658	12th	·168	65·5	82·0		56·1		69·1		25·9	91·6	29th	45·2	23rd	46·4
		Dras	*10,059*	20·745			20·829	5th	20·610	12th	·189	59·2	77·0		43·4		60·2		33·6	84·0	29th	38·1	24th	45·9
		Gilgit	4,890	24·938			25·093	21st	24·806	30th	·287	77·0	94·1	−0·5	67·9	−2·1	81·0	−1·3	26·2	102·2	7th & 30th.	58·6	21st	43·6
		Chitral	*5,486*									80·6	95·5		63·3		79·4		32·2	101·2	7th	56·0	3rd	45·2
		Killa Drosh										80·9	95·1		71·2		83·2		23·9	101·4	28th	64·4	4th	37·0
		Murree	6,333	23·717	−·015		23·806	3rd	23·615	12th	·191	74·9*	85·8	+4·1	65·9	+1·4	75·9	+2·8	19·9	93·9	29th & 30th.	55·4	3rd	38·5
		Kailang	*10,087*	20·884			20·963	16th	20·796	13th	·167	53·5	72·0	+0·2	44·2	−1·2	58·1	−0·5	27·8	79·1	7th	39·4	16th & 23rd.	39·7
		Peo			Bar, not	recorded.							77·4		54·9		66·1		22·5	87·2	7th	48·5	1st	38·7
		Simla	7,224	23·009	+·004		23·088	2nd & 3rd.	22·908	12th	·180	65·2	73·2	−1·2	60·5	−0·5	66·9	−0·9	12·7	78·4	20th	52·5	23rd	25·9
		Sanam		23·031			23·128	3rd	22·934	13th	·194	65·7	74·4		57·1†		65·4†		17·3	78·9	30th	49·3	4th	29·6
	North-West Frontier Province.	Para Chinar	6,000	24·310			24·447	2nd	24·199	13th	·248													
		Cherat	*4,256*	25·476	−·032		25·599	3rd	25·379	12th	·220	83·5	97·9	+2·6	75·7	+3·6	87·3	+3·6	21·2	104·4	8th & 30th.	67·1	23rd	37·3

* Mean of 25 days. † Mean of 18 days.

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

Note 1.—When a query is inserted against any reading, or in the returns of any station,

Note 2.—The data from which divisional means of the figure columns Nos. 41, 43 and 45 are

I—*continued.*

in India, Burma, etc., in June, 1904—continued.

WIND DIRECTION. Number of winds from										Wind resultant.	WIND VELOCITY.				HYGROMETRY, 8 A.M.				CLOUD.		RAINFALL.								Heaviest rainfall during month.	STATION.	METEOROLOGICAL PROVINCE OR DISTRICT.	Number of District.
Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.			Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal. (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Mean cloud amount at 8 A.M.	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 1904.	Normal rainfall for period, 1st May to 30th June.	Departure from normal of period, 1st May to 30th June 1904.				
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	58
3					4	12	11		S 58° W	5·5	4·9	+12	4·8	77	+3·0	·769	−·012	7·7	+1·7	4	4·80	−0·80	3·65	2·97	+ 0·68	12·89	7·98	+ 4·91	3·00	Salem .	Madras (South Central).	34
						11	19		S 74° W	6·4	7·7	−17	5·7	85	+4·4	·776	+·012	5·1	−0·8	7	4·90	+2·10	1·79	1·65	+ 0·14	7·64	3·93	+ 3·71	0·35	Coimbatore.		
						1	23	6	N 83° W	6·4	9·0	−29	6·0	97	+4·1	·609	+·003	8·5	−0·5	30	24·80	+5·20	23·28	27·35	+ 5·93	39·40	33·13	+ 6·27	3·79	Mercara .	Coorg . .	35
						12	14	4	S 77° W	11·8			10·3	81	−0·6	·658	−·017	8·8	+0·2	11	6·00	+5·00	5·64	3·80	+ 1·84	7·87	7·54	+ 0·33	2·98	Chitaldroog.	Mysore . .	36
						13	16	1	S 72° W	14·2	8·4	+69	12·4	83	+2·2	·630	−·010	9·2	+2·3	5	5·70	−0·70	1·95	3·05	− 1·10	11·46	7·27	+ 4·19	0·69	Bangalore.		
						10	17	3	S 79° W	5·1			4·5	84	+0·9	·640	0	9·2	+0·5	10	10·40	−0·40	3·55	5·01	− 1·46	11·08	10·18	+ 0·90	1·23	Hassan.		
						16	14		S 66° W	13·6			14·7	87	+6·7	·686	+·029	9·5	+1·4	7	6·00	+1·00	1·39	3·81	− 2·42	13·62	7·18	+ 6·44	0·31	Mysore.		
1					2	12	15		S 66° W	8·8	8·3	+ 6	7·7	62	−2·2	·762	−·028	4·6	−0·2	4	3·20	+0·80	1·27	1·50	− 0·23	7·96	3·11	+ 4·85	0·40	Negapatam.	Madras East Coast (South)	56
22					1	5	2		S 50° W	3·4			4·2	60	−11·5	·750	−·132	6·5	+1·1	3	2·10	−0·10	0·96	2·00	− 1·04	2·24	2·28	− 0·04	0·42	Cuddalore.		
2					2	23	3		S 47° W	8·3	9·2	−10		62	−0·5	·713	−·019	6·0	0	0	1·90	−1·90	0	1·50	− 1·50	4·38	4·44	− 0·06	0	Trichinopoly.		
						4	24	2	S 87° W	9·2	9·0	+ 2		55	−8·2	·706	−·095	6·6	+0·4	4	8·10	−4·10	0·58	2·21	− 1·63	1·50	3·11	− 1·61	0·11	Madras.		
		10	2	4		4	1	9	N 14° E	7·0			7·0	66		·728		4·1		3	4·60	−1·60	0·87	2·62	− 1·75	5·25	5·61	− 0·39	0·45	Vellore.		
						9	2	19	N 77° W	9·3				60	−1·7	·767	−·055	6·5	−0·1	2	3·00	−1·00	0·47	1·20	− 0·73	3·30	1·59	+ 1·71	0·22	Nellore .	Madras East Coast (Central)	55
1							13	16	N 65° W		9·4			78	+0·9	·331	−·019	8·2	+1·6	8	6·00	+2·00	3·39	4·83	− 1·44	8·11	6·10	+ 2·01	0·80	Masulipatam.		
						5	19	6	N 89° W					61	−0·4	·733	−·025	7·6	+1·2	6	4·60	+1·40	2·02	3·35	− 1·32	2·97	5·15	− 2·18	0·98	Cuddapah.	Madras (Central)	54
						7	12	11	N 83° W	12·3				80	?	·864	+·138	5·5	−0·9	10	5·90	+4·10	3·50	3·36	+ 0·14	4·76	4·31	+ 0·45	0·88	Kurnool.		
	1					3	20	6	N 83° W	12·8	10·5	+22	13·6	68	+7·2	·702	+·062	7·0	−0·6	3	4·20	−1·20	2·57	1·78	+ 0·79	7·30	3·76	+ 3·54	1·29	Bellary.		
6						8	15	1	S 77° W	8·3			7·0	80	+7·7	·920	+·054	8·3	+1·3	8	6·20	+1·80	3·06	4·76	− 1·70	5·79	5·69	+ 0·10	0·77	Cocanada .	Madras East Coast (North).	52
			1			20	8	1	S 58° W	11·9				72	−2·0	·823	−·066	9·2	+1·8	6	5·70	+0·30	3·10	3·83	− 0·73	12·40	6·30	+ 6·10	1·48	(Waltair (Vizag.).		
3	3			1	8	13	1	1	S 36° W	11·3	11·6	− 3	11·1	83	−0·5	·939	−·024	6·4	−0·8	10	7·10	+2·90	5·31	6·14	− 0·83	8·59	8·24	+ 0·35	1·71	Gopalpur.		
																														XII.—Hill Stations.		
																				0	0·20	−0·20	0	0·03	− 0·03	0	0·22	− 0·22	0	Pishin.	Baluchistan .	48
30									Calm	1·2	4·7	−72	1·4	38	−11·1	·330	−·125	0	−0·6	0	0·80	−0·80	0	0·19	− 0·19	0	0·59	− 0·59	0	Quetta.		
	2		13		10		5		S 45° E					23		220				0	0·50	−0·50	0	0·46	− 0·46	0	0·72	− 0·72	0	Kalat.		
	1			1	8	13	6	1	S 43° W	7·3			8·0	25	−3·8	·268	−·094	0	−0·5	0	0·10	−0·10	0	0·09	− 0·09	0	0·14	− 0·14	0	Chaman.		
		2	4	5	12	2	4	1	S 11° E	3·0				40	−2·2	·168	−·016	3·4	−0·2	0	0·60	−0·60	0·13	0·17	− 0·04	0·27	0·39	− 0·12	0·09	Leh .	Punjab . .	30
16	1	2		3	2	3	1	2	S 25° W	3·3			3·1	80	−1·0	·544	−·030	1·7	−1·5	5	3·80	+1·20	1·49	1·79	− 0·30	5·44	4·39	+ 1·05	0·38	Srinagar.		
5	2	10	10	1	1			1	N 65° E	5·2			6·0	75		·412		1·5		8			1·87		6·44			0·42	Gulmarg.		
19		7	2				2		N 45° E	3·2			2·9	80		·287		1·8		8			2·27		9·83			0·67	Sonemarg.		
8		2	8	2	1	5	3	1	S 43° E	6·4			6·5	65		·413		2·4		1	1·10	−0·10	0·22	0·40	− 0·18	2·18	1·44	+ 0·74	0·15	Skardu.		
26		1	1				1	1	N	0·8			5·4	45		·228		2·0		0	1·70	−1·70	0·10	0·71	− 0·61	4·49	3·53	+ 0·96	0·04	Dras.		
24						3	3		S 68° W	4·9			4·4	32	−5·9	·350	−·005	2·3	−0·5	1	0·80	+0·20	0·13	0·35	− 0·22	1·56	0·92	+ 0·64	0·13	Gilgit.		
18	6		5		1				N 45° E	1·4			1·3	24		·240		0		0			0			0·56			0	Chitral.		
30									Calm					61		·645		0·6		1			0·12			0·86			0·12	Killa Drosh.		
19		1	3	1	2	1	2	1	S 27° E	5·9	6·6	−11	6·4	38*	−14·4	·330*	−·053	0·7	−2·8	0	8·00	−8·00	0·03	3·52	− 3·49	1·88	6·49	− 4·61	0·02	Murree.		
	2			3	14	8	3		S 66° W	0·8				68		·278		3·3		1			0·30	1·34	− 1·04	6·05	3·92	+ 2·13	0·18	Kailang		
23		2	1			2	2		W									3·6		0			0·11	0·27	− 0·16	1·62	0·98	+ 0·64	0·09	Poo.		
7	18	1		2	2				N 8° E	3·2	2·3	+39	3·1	61	−4·5	·373	−·029	2·2	−2·8	6	9·80	−3·80	5·61	7·85	− 2·24	8·64	10·91	− 2·27	1·66	Simla.		
13	1	2	1	1	7	3	2		S 8° W	3·0			2·9	56		·341		3·6		5			2·03			7·54			0·67	Sarain.		
25		1	2	1				1	N 72° E	3·4			3·1					2·5		3	3·40	−0·40	1·21	1·43	− 0·22	3·08	3·45	− 0·37	0·63	Para Chinar	North-West Frontier Province.	
6	15	1			5	1	1	1	N 10° W	6·4			6·0	28	−22·7	·322	−·181	0·7	−2·0	0			0·06	0·73	− 0·67	0·75	1·94	− 1·19	0·06	Cherat .		

the data for that station are not utilized in calculating the provincial departures from normal,
derived are incomplete.

Table

Abstract of Observations taken at 8 A.M. at 231 Stations

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 A.M., in inches.								Temperature of air.												
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
25	United Provinces	Chakrata	7,022	23·164	—·008		23·276	4th	23·062	12th	·214	66·3	73·9	−0·4	60·8	+0·8	67·4	+0·2	13·1	83·1	15th	54·8	23rd & 26th.	28·3
		Ranikhet	6,069	23·936	—·028		24·047	3rd	23·822	12th	·225	69·5	77·9	0	64·3	+1·3	71·1	+0·7	13·6	85·0	15th	56·0	23rd	29·0
		Muktesar	7,600	22·726*			22·819	3rd	22·615	12th	·204	62·7	73·3		58·8		66·1		14·5	79·9	20th	52·1	22nd	27·8
	Sikkim	Taugu																						
13	Bengal	Yatung	10,480										61·7							66·1	7th			
		Darjeeling	7,376	22·909	—·016		23·000	3rd	22·759	12th	·241	61·1	67·1	+1·9	56·8	+0·6	62·0	+1·3	10·3	72·2	8th	51·6	4th	20·6
8	Assam Hill Tracts.	Shillong	4,900	24·986			25·115	2nd	24·718	12th	·397	69·5	76·1		64·0		70·0		12·1	81·1	6th	57·0	2nd & 3rd.	24·1
		Cherra Poonjee	4,309	25·511			25·622	2nd	25·294	12th	·328	68·0	74·0		65·2		69·6		8·8	79·2	6th	62·0	1st	17·2
	Central India	Mount Abu	3,945	25·866	+·005		25·967	1st	25·785	20th	·182	70·6	83·7	+0·4	66·9	−1·2	75·4	−0·4	16·8	87·2	12th	64·3	4 days	22·9
		Pachmarhi	3,528	26·280	+·026		26·422	2nd	26·141	19th	·281	75·1	87·9	+2·0	71·6	−0·4	79·8	+0·8	16·3	89·2	9th	65·2	23rd	34·0
	South India	Wellington	6,200	24·195	+·011		24·245	1st	24·136	20th	·109	63·3	69·9	−2·3	57·3	−0·7	63·6	−1·5	12·6	75·2	4th	52·2	11th, 13th & 19th.	23·0
		Kodaikanal	7,688	22·783			22·831	1st	22·707	19th	·124	56·1	61·6		52·8		56·0		8·8	66·2	12th	50·6	11th	15·6
		Ootacamund	*7,322*	23·048			23·053	1st	22·953	19th & 20th.	·100	56·0	60·5		52·8		56·7		7·7	68·0	6th	50·3	30th	17·7
	XIII.—Extra India.																							
	Ceylon	Trincomalee	12	29·845	+·050	29·783	29·902	29th	29·791	20th	·111	81·1	90·5	−1·1	78·5	+0·1	84·5	−0·5	12·0	92·5	1st, 2nd & 10th.	77·0	18th	15·5
		Colombo	40	29·905	+·045	29·871	29·955	29th	29·853	19th	·102	80·2	84·6	−1·1	76·4	−1·1	80·5	−1·1	8·2	86·5	3rd & 10th.	72·0	19th	14·5
	Persia	Meshed	3,104									75·6			61·1	−2·3						53·8	20th	
		Teheran**†	*4,002*	25·769			25·850	4 days	25·680	14th	·170	80·3	93·3	+0·5	65·8	+0·1	79·6	+0·3	27·5	98·6	17th	54·0	6th	44·6
		Ispahan**	*5,817*	24·256			24·400	21st	24·130	14th	·270	77·1	93·2	−1·2	62·0	+0·1	77·7	−0·6	31·2	98·7	18th	54·3	5th	44·4
		Bushire	14	29·586	+·012	29·559	29·792	5th	29·483	14th	·309	85·4	90·9	−1·0	79·7	−0·8	85·3	−0·9	11·2	96·0	23rd	73·5	19th	22·5
		Bahrein*	30	29·616			29·829	6th	29·480	23rd	·349	87·2	94·3		81·6		88·0		12·7	101·9	26th	78·3	7th	23·6
		Jask	13	29·566	−·001	29·537	29·686	1st	29·454	30th	·232	89·1	96·0	+0·2	83·6	+0·5	89·9	+0·4	12·4	107·2	21st	79·2	2nd & 24th.	28·0
	Arabia	Muscat	20	29·562	+·009	29·529	29·657	1st	29·475	13th	·192	91·7	93·8	0	89·3	+1·2	91·6	+0·6	4·5	99·3	11th & 21st.	75·6	3rd	19·7
		Baghdad	220	29·574	−·005	29·764	29·816	4th & 5th.	29·441	30th	·375	86·7	108·1	+6·2	75·5	+0·1	91·8	+3·2	32·6	116·8	22nd	67·6	2nd	49·2
		Busrah	...																					
		Aden	94	29·681	+·034	29·706	29·794	2nd	29·562	25th	·232	88·3	95·2	+0·5	83·2	−0·5‡	89·2	0	12·0	96·8	4 days	80·8	17th	16·0
		Perim	201	29·667	+·130	29·799	29·793	5th	29·510	27th	·283	87·8	95·6	+0·4	84·1‡	+1·4‡	89·8‡	+0·9	11·5	100·5	19th	82·0	3rd	18·5
	Afghanistan	Kabul	...			Barr not recorded.						74·9	88·3	−1·0	54·5	−4·2	71·4	−2·6	33·8	95·1	6th & 7th.	42·4	13th	52·7
	Central Asia	Kashgar	4,255	25·460			25·640	8th & 10th.	25·200	30th	·440	75·5	89·4	−0·5	64·7	−0·9	77·0	−0·7	24·7	100·1	8th	55·3	12th, 14th & 22nd.	44·8
	Arabian Sea Islands.	Amini Divi	*13*	29·884	+·048	29·825	29·944	28th	29·825	20th	·119	82·3	87·5	+1·4	77·0	−1·1	82·2	+0·2	10·5	91·0	5th	73·7	18th & 25th.	17·3
		Minicoy	7	29·934		29·867	29·978	22nd	29·891	20th	·087	81·9	85·5	−0·1						87·7	3rd			
	Africa	Zanzibar	73	30·102	+·026	30·102	30·146	22nd	30·048	15th	·098	74·9	80·4	−1·1	73·0	−1·2	76·7	−1·2	7·4	83·0	th	70·6	6th	12·4
		Do. Dunga	*154*	30·023		30·108	30·052	22nd	29·982	14th	·070	73·0	81·7							84·8	18th			
	Straits Settlements.	Penang¶	20	29·904		29·849	29·932	14th	29·853	27th	·079	81·4	90·1		74·2		82·2		15·9	92·0	3rd, 5th & 8th.	72·0	13th, 19th & 21st.	20·0
		Singapore¶§	10	29·910		29·841	29·929	17th	29·868	13th	·061	84·5	87·6		75·1		81·4		12·5	91·6	6th	72·4	12th	19·2

* Mean of 25 days.
† Mean of 18 days.
‡ Mean of 29 days.
§ Mean of 17 days.
** Aneroid uncorrected.
¶ 9 hours observations.

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

I—*concluded.*

in India, Burma, etc., in June, 1904—concluded.

WIND DIRECTION. Number of winds from									Wind resultant.	WIND VELOCITY.				HYGROMETRY, 8 A.M.				CLOUD.		RAINFALL.								Heaviest rainfall during month.	STATION.	METEOROLOGICAL PROVINCE OR DISTRICT.	Number of District.
Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.		Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Mean cloud amount at 8 A.M.	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 1904.	Normal rainfall for period 1st May to 30th June.	Departure from normal of period, 1st May to 30th June 1904.			
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	58
5	4		1	8	11			1	S 27° E	9·1	5·7	+60	10·9	66	−5·4	·429	−·008	5·2	+1·2	10	10·60	−0·60	5·10	8·77	− 3·67	8·35	11·20	− 2·85	1·23	Chakrata .	UNITED PROVINCES	25
4		2	3			13	6	2	S 63° W	3·7	3·2	+16	4·2	70	−3·4	·507	+·009	3·8	−2·1	8	10·40	−2·40	6·16	6·47	− 0·31	9·06	8·75	+ 0·31	1·72	Ranikhet.		
1			1	2	3	4	19		S 70° W	9·9			9·1	78		·443		4·9		6			6·26			9·01			2·45	Muktesar.		
																														Taugu .	Sikkim.	
																				17	17·00	0	7·68	7·17	+ 0·51	12·67	12·05	+ 0·62	0·95	Yatung .	BENGAL . .	13
15	1	4	6	2			2		N 75° E	3·1	4·7	−34	2·8	93	−1·8	·500	+·002	7·5‖	−1·1	20	20·81	−0·81	19·00	23·77	− 4·77	31·63	32·55	− 0·92	4·93	Darjeeling.		
25	1		1	1	1	1			S 45° E	2·0			2·3	81		·589		6·9		14	20·40	−6·40	10·55	15·87	− 5·32	19·83	26·02	− 6·19	3·25	Shillong .	ASSAM HILL TRACTS.	8
1	1	6	6	3	6	5		2	S 56° E	7·1			6·2	90		·619		8·1		25	24·70	+0·30	58·15	101·56	−43·41	100·49	151·49	−51·00	19·78	Cherra Poonjee.		
				3	2	4	1		S 38° W	13·2	10·1	+31	13·3	82	+9·1	·609	+·038	5·7	+0·4	1	6·70	−5·70	0·97	6·21	− 5·24	1·44	7·20	− 5·76	0·97	Mount Abu	CENTRAL INDIA.	
	1	1				2	10	16	N 62° W	13·0	7·7	+69	13·1	69	−2·7	·593	−·028	5·6	−0·9	7	11·00	−4·00	4·07	10·92	− 6·85	4·47	11·42	− 6·95	1·38	Pachmarhi.		
2	1			1	1	22	1	2	S 50° W	5·9	5·1	+16		73	+3·3	·426	−·020	9·4	+2·9	8	2·00	0	3·05	3·61	− 0·56	6·70	7·37	− 0·67	0·89	Wellington	SOUTH INDIA.	
	1					1	14	14	N 68° W	22·8				85		·381		8·1		7	8·50	−1·50	2·60	4·01	− 1·41	10·24	10·48	− 0·24	0·64	Kodaikanal.		
2						10	16	2	S 76 W	8·0			7·5	88		·400		9·7		19	13·30	+5·70	6·53	6·18	+ 0·35	13·42	12·11	+ 1·31	0·64	Ootacamund		
																														XIII.—Extra India.		
						29	1		S 48° W	18·8				82	+5·8	·881	+·005	4·0	+0·5	0			0	1·51	− 1·51	3·35	3·97	−0·62	0	Trincomalee	CEYLON.	
					1	22	6		S 50° W	11·5	10·2	+13		85	+4·5	·872	−·011	7·5	+0·3	21			9·09	8·23	+ 0·86	19·02	19·35	−0·33	1·28	Colombo.		
														51		·454		0·6	−0·6	0			0	0·23	− 0·23	3·98	0·97	+3·01	0	Meshed .	PERSIA.	
9		1	1	1		5		1	S 31° W	2·1			2·8	29	−3·6	·303	−·025	0·7	−0·1	0			0	0·04	− 0·04	1·04	0·37	+0·67	0	Teheran.		
27	1		1					1	N 9° E	2·1			2·8	47	−4·3	·445	−·052	0	−0·1	0			0	0	0	0·05	0·11	−0·06	0	Ispahan.		
3	5	3		1	1	2	5	10	N 44° W	20·4	10·8	+89	22·4	61	−1·1	·743	−·042	0	−0·2	0			0	0	0	0	0	0	0	Bushire.		
	10	1			1		5	8	N 34° W					67		·865							0			0·25			0	Bahrein.		
1	1	1	14	2	1		5	5	N 70° E	10·7			8·9	70	+3·1	·956	+·019	0·3	−0·8	0			0	0·11	−0·11	0	0·11	−0·11	0	Jask.		
4	1			8			3	14	N 54° W	4·2			4·4	60	−6·9	·879	−·069	0·5	−1·0	0			0	0·36	−0·36	0	0·36	−0·36	0	Muscat .	ARABIA.	
11	8	1						10	N 21° W	3·4	5·3	−36	4·5	37	−2·9	·467	−·022	0	−0·1	0			0	0	0	0·98	0·24	+0·74	0	Baghdad .		
																														Busrah.		
1		7	8	4	1	4	4	1	S 83° E	5·3†	7·6	−30	4·3†	70	−1·6	·935	−·003	2·2	−0·8	0			0	0·01	−0·01	0·50	0·20	+0·30	0	Aden.		
	4	6	2	3	1	6	5	3	N 45° W	9·8			9·9	71	−1·7	·940	−·015	0·1	−3·4	0			0	0	0	0	0·37	−0·37	0	Perim.		
	8	8	2	2	1	3	3	3	N 10° E					88		·773		0·4	0	1			0·18	0·21	− 0·03	0·57	0·75	−0·18	0·18	Kabul .	AFGHANISTAN.	
22	5	1						2	N 8° W	4·8			4·3	39	+0·2	·340	−·016	2·5	0	2			0·85	0·31	+ 0·54	1·00	1·19	−0·19	0·75	Kashgar .	CENTRAL ASIA.	
2	1					10	15		S 75 W					1	−4·1	·896	−·049	9·8	+1·9	20			17·75			19·05	17·24	+1·81	4·74	Amini Divi.	ARABIAN SEA ISLANDS.	
																											15·00	+0·92	1·46	Minicoy.		
						4	25	1	S 86° W	18·1			19·3	83		·904		7·6		20			10·28	8·60	+ 1·68	15·92	11·69	+17·68	1·72	Zanzibar .	AFRICA.	
					15	11	1		S 24° W	9·1			8·6	88	+4·9	·762	+·034	5·9	+0·8	12			8·12	1·07	+7·05	29·37			1·89	Do, Dunga		
				4	12	14			S 16° W	5·5			5·3	94		·766		5·9		12			11·76			24·62			1·30	Penang .	STRAITS SETTLEMENTS.	
																		0·3		10			4·24			11·96			1·30	Singapore.		
8	4	5	2	3	7			1	S 83° E	4·0								4·8		7			3·56			7·08						
	1					15		1	S 52° W	7·1																						

† Wind direction for 25 days.

‖ Mean of 22 days.

Table II.—Abstract of Observations recorded at 10 A.M. and 4 P.M. at 66 Stations in India, Burma, etc., in June, 1904.

Table

Abstract of Observations recorded at 10 A.M. and 4 P.M.

Meteorological Province.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure. Mean at 10 hours.	Mean of 16 hours.	Mean daily range.	Mean of daily mean pressures.	Departure from normal.	Mean reduced to sea-level and for gravity, 45° Lat.	Temperature of Air. Mean maximum.	Mean minimum.	Mean daily range.	Highest maximum.	Lowest minimum.	Absolute range.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	Temperature, Wet-bulb. Mean minimum.	Mean 10 hours.	Mean 16 hours.	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
Burma Coast and Bay Islands.	Port Blair	61	29·764	29·686	·078	29·729	−·004	29·721	84·5	77·9	6·6	87·4	74·0	13·4	82·6	82·8	80·0	−0·7	75·2	79·1	79·1	77·8
	Rangoon	57	·713	·632	·081	·678	−·033	·672	84·7	76·5	8·2	88·1	74·1	14·0	80·9	80·2	78·6	−0·9	74·7	78·3	77·4	76·8
	Diamond Island	41	·711	·639	·072	·679	−·043	·655	83·4	75·9	7·5	86·6	73·2	13·4	80·5	80·3	79·7	−1·4	73·5	77·9	77·4	76·3
	Cocos Island	119	·653	·569	·084	·615		·666	84·1	76·0	8·1	87·8	71·7	16·1	81·4	81·8	78·9		74·2			
	Akyab	20	·634	·556	·078	·599	−·078	·562	84·5	77·6	6·9	90·9	73·2	17·7	80·8	81·9	81·1	−1·1		79·0	79·3	
Bengal and Orissa.	Chittagong	87	·523	·433	·090	·480	−·084	·514	87·4	76·9	10·5	92·6	72·2	20·4	83·7	83·9	82·1	+0·6	75·5	78·9	79·4	77·9
	Calcutta (Alipore)	21	·528	·430	·098	·485	−·064	·452	90·4	78·7	11·7	101·2	74·2	27·0	86·2	86·9	84·3	−0·2	76·8	80·4	80·8	79·3
	Saugor Island	25	·515	·429	·086	·479	−·074	·446	89·9	80·7	9·2	97·5	75·1	22·4	85·8	87·1	84·3	−0·7	78·0	81·2†	81·5	80·3
	False Point	21	·540	·450	·090	·502	−·070	·494	88·0	78·4	9·6	99·5	72·7	26·8	84·1	84·3	82·1	−2·0	76·3	79·6	80·0	78·6
Gangetic Plain and Chota Nagpur.	Hazaribagh	2,007	27·567	27·480	·087	27·526	−·046	·446	89·4	75·1	14·3	98·6	71·3	27·3	82·4	84·5	80·8	−1·9	71·8	74·2	74·5	73·5
	Darbhanga	166	29·422	29·304	·118	29·366	−·022	·483	92·4	79·7	12·7	98·8	73·5	25·3	87·0	91·0	84·3	+0·3	77·4	80·9	82·6	80·3
	Allahabad	309	·219	·111	·108	·168	−·032	·420	102·0	84·1	17·9	111·0	77·9	33·1	95·0	99·0	91·8	+1·0	77·4	81·7	82·9	80·7
Upper Sub-Himalayas.	Dehra Dun	2,232	27·356	27·273	·083	27·312	−·040	·439	93·3	75·0	18·3	102·3	66·1	36·2	85·2	89·6	82·7	+0·5	67·8	72·5	73·5	71·3
	Roorkee	899	28·638	28·526	·112	28·579	−·034	·413	101·1	80·8	20·3	111·5	68·9	42·6	91·0	99·5	89·9	+1·5	71·0	75·9	76·1	74·3
	Meerut	738	·793	·681	·112	·734	−·035	·408	102·9	81·6	21·3	108·1	73·3	34·8	93·8	101·1	91·2	+1·8	72·2	76·6	76·2	75·0
	Lahore	702	·789	·693	·096	·733	−·040	·370	108·2	83·2	25·0	114·4	71·2	40·2	97·7	105·5	95·3	+2·3	73·1	79·7	79·9	77·6
	Ludhiana	812	·711	·619	·092	·657	−·020	·402	106·6	83·0	23·6	111·9	72·5	39·4	95·0	105·1	94·0	+2·0	73·7	76·6	77·5	75·9
Indus Valley and N.-W. Rajputana.	Peshawar	1,110	·401	·290	·111	·338	−·048	·374	109·7	78·0	31·7	116·0	70·9	45·1	100·5	106·7	93·5	+2·3	62·8	74·0	75·1	70·6
	Jacobabad	186	29·307	29·186**	·121	29·250	−·013	·386**	115·0	83·9	31·1	120·2	80·1	40·1	98·7	113·1	98·6	+0·9	75·7	83·6	83·9	81·1
	Kurrachee	30	·568	·493	·075	·533	−·004	·513	93·5	85·0**	10·5	99·3	79·8	19·5	89·9	90·C	86·9	+0·1	77·5**	80·4	81·3	79·7
E. Rajputana, C. India and Gujarat.	Jaipur	1,431	28·181	28·078	·103	28·128	−·005	·465	103·7	80·6	23·1	109·3	70·6	38·7	93·0	100·7	90·9	+0·3	70·7	75·8	75·3	73·9
	Udaipur	1,925?	27·756	27·652	·098	27·705		·527	95·6	77·2	18·4	101·9	69·5	32·4	86·2	93·9	85·6		69·4	73·9	74·3	72·5
	Deesa	466	29·186	29·055	·131	29·124	0	·527	103·5	80·7	22·8	105·9	76·0	29·9	91·9	101·8	91·3	+0·8	74·6	76·5	76·9	76·0
	Jamnagar	61	·606	·513	·093	·561		·567	96·3	80·0	16·3	101·6	76·6	25·0	91·3	93·0	87·0		75·3	78·3	79·7	77·9
Deccan.	Belgaum	2,539	27·291	27·216	·075	27·257	+·025	·720	78·1	66·9	11·2	88·3	65·0	23·3	74·0	74·6	70·8	−2·0	66·2	69·8	70·0	68·7
	Sholapur	1,590	28·168	28·039	·129	28·111	−·002	·619	94·0	74·1	19·9	101·6	71·5	30·1	84·7	89·5	81·8	0	70·0	72·3	73·1	71·8
	Akola	930	·750	·615	·135	·689	−·003	·543	98·0	77·9	20·1	105·6	72·8	32·8	88·8	95·3	86·2	0	71·5	75·8	75·6	74·3
	Buldana	2,182	27·591	27·475	·116	27·534	−·015	·556	93·0	73·1	19·9	99·7	66·2	33·5	83·1	89·7	81·	+0·5	68·3	71·9	71·8	70·7
	Khandwa	1,044	28·628	28·502	·126	28·571	−·003	·546	98·4	79·1	19·3	104·7	73·1	31·6	88·0	95·7	87·5	+0·6	72·6	75·2	74·8	74·2
	Nagpur	1,025	·616	·495	·121	·562	−·008	·519	97·4	77·6	19·8	106·1	73·6	32·5	88·2	91·6	85·7	−0·9	72·6	76·3	76·0	74·8
	Do. (Sanitary Commr.'s Office)	1,013	·621	·497	·127	·567		·514	97·8	78·6	19·2	105·1	73·6	31·5	89·2	92·4	86·4		72·1	76·0	75·9	74·7
	Hyderabad (Deccan).	1,690	·052	27·932	·12	27·989	−·001	·604	92·3	74·8	17·5	100·5	71·6	28·9	83·9	88·9	81·8	−0·8	71·1†	73·6	75·5	73·4
West Coast.	Bombay	37	29·734	29·656	·078	29·696	+·023	·673	87·5	79·7	7·8	92·6	74·6	18·0	83·8	85·1	82·4	0	76·5	79·1	79·5	78·4
	Karwar	44	·818	·745	·073	·784	+·034	·762	83·2	74·7	8·5	88·0	71·5	16·5	81·0	80·6	77·7	−1·8	72·6	76·6	76·5	75·2

** Mean of 29 days.

† Mean of 27 days.

II.

at 66 Stations in India, Burma, etc., for June, 1904.

Vapour Tension.					Humidity.					Cloud.				Wind direction.										Wind Steadiness.		Wind Velocity.		Rainfall.		Station.	Meteorological Province.
From minimum.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	From minimum.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	Mean 10 hours.	Mean 16 hours.	Mean of two previous columns.	Departure from normal.	Total number of 10 hours and 16 hours 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.		
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
																									%	%						
·844	·948	·949	·930	—·005	88	85	84	88	0	8·5	8·0	8·3	+0·5						1	30	29		S 66° W	S 45° W	92	78	458*	250	19·49	2·47	Port Blair .	Burma Coast and Bay Islands.
·839	·934	·909	·911	—·010	92	89	88	94	+ 1	8·5	9·1	8·8	0			1	6	7	30	12	2	2	S 1° W	S 24° W	68	71	58*	122	19·29	2·50	Rangoon .	
·792	·924	·905	·890	—·018	89	88	88	90	+ 3	8·7	9·1	8·9	+0·7	1	2	1	1	1	5	34	12	3	S 55° W	S 36° W	72	76	326*	230	39·03	4·61	Diamond Island	
·824					92					9·5	9·4	9·5	+1·3						10	41	8	1	S 44° W	S 35° W	90	91			29·77	4·39	Cocos Island .	
	·975	·969				92	89			9·0	8·4	8·7	+0·4					7	13	34	2	4	S 31° W	S 3° E	77	58	73*	91	48·23	6·61	Akyab .	
·868	·925	·943	·929	+·034	94	80	82	86	— 1	7·0	6·9	7·0	—1·0		1	2	5	19	14	12	2	5	S 11° E	S 24° E	52	61	190*	168	13·47	2·81	Chittagong .	Bengal and Orissa.
·900	·961	·970	·955	—·016	92	77	77	84	+ 1	7·5	7·9	7·7	+0·2	7	1	6	6	21	8	7	3	1	S 37° E	S 3° W	46	59	67	142	10·25	1·87	Calcutta (Alipore)	
·923	1·010†	1·004	·994	—·030	88	82†	79	84	+ 1	8·1	8·3	8·2	+0·1	2	1	3	3	11	20	14	4	2	S 4° W	S 12° W	55	70	311	382	18·94	3·41	Saugor Island .	
·881	·953	·971	·950	—·040	91	82	82	86	+ 2	8·7	8·3	8·5	+1·2		3	1	1	2	12	18	21	2	S 57° W	S 36° W	63	65	267*	300	14·17	3·23	False Point .	
·741	·730	·720	·752	+·047	85	66	64	74	+ 9	8·6	9·3	9·0	+1·2	1	7	9	7	6	9	4	5	12	N 13° E	S 42° W	10	13	185*	223	12·32	2·25	Hazaribagh .	Gangetic Plain and Chota Nagpur.
·913	·975	1·003	·975	+·049	90	76	69	81	+ 3	5·5	4·0	4·8	0	7	1	2	25	23	1			1	S 71° E	S 84° E	73	65	92	144	1·70	0·45	Darbhanga .	
·853	·906	·910	·906	+·133	72	56	51	61	+ 5	5·5	5·9	5·7	+0·6	2	7	5	19	2	3	1	9	12	N 22° E	N 10° W	25	16	133*	192	1·00	0·47	Allahabad .	
·597	·647	·629	·638	+·002	69	55	48	60	— 2	6·0‡	6·9§	6·5	+2·3	2	2	3	2	9	8	9	21	4	S 55° W	S 51° W	40	14	46	41	3·73	1·19	Dehra Dun .	Upper Sub-Himalayas.
·635	·694	·590	·654	—·007	62	50	34	52	— 2	2·2	1·2	1·7	—1·4	4		3	1	19	6		7	20	S 58° W	S 12° E	10	17	106	86	3·97	1·96	Roorkee .	
·671	·688	·573	·658	—·041	63	44	30	49	— 6	5·1	5·0	5·1	+1·6	17	1	1	10	1		5	15	10	N 72° W	N 18° W	25	7	33*	65	1·49	1·46	Meerut .	
·683	·771	·679	·729	+·102	61	41	32	47	+ 3	0·4	0·8	0·6	—2·3	5	4	4	2	10	11	3	16	5	S 45° W	N 18° E	23	7	74	86	0·99	0·43	Lahore .	
·711	·682	·581	·674	+·021	64	42	26	46	— 3	1·3	1·4	1·4	—1·5	8		4		19		2	26	1	S 46° W	S 54° W	27	8	53*	67	0·74	0·68	Ludhiana .	
·390	·513	·483	·480	—·049	41	27	21	31	— 7	0·6	2·5	1·6	—0·7	10	10	17	10	2		4	2	5	N 35° E	N 36° E	43	31	64*	106	0	0	Peshawar .	Indus Valley and N.-W. Rajputana.
·788	·956	·787	·862	+·157	68	52	28	50	+ 9	0	0·1	0·1	—0·8	16			6	18	17	3			S 28° E	S 30° E	60	44	119*	127	0·30	0·30	Jacobabad .	
** ·869	·908	·950	·925	—·051	** 77	65	67	73	— 5	3·8	1·4	2·6	—1·6						2	32	26		S 48° W	S 63° W	91	87	365*	420	0	0	Kurrachee .	
·629	·674	·560	·628	—·028	61	44	29	46	— 6	1·5	3·7	2·6	—1·8	1	2	4			1	19	31	2	S 79° W	N 70° W	73	43	159	163	1·22	0·97	Jaipur .	E. Rajputana, C. India and Gujarat.
·626	·689	·605	·651		67	55	38	54		1·8	2·5	2·2		2	1			1	2	22	30	2	S 71° W		82		170*		3·40	1·46	Udaipur .	
·779	·709	·591	·704	—·031	74	47	29	51	— 3	3·8	1·7	2·8	—1·9						9	44	7		S 44° W	S 44° W	92	66	421	401	0·47	0·47	Deesa . .	
·515	·815	·834	·837		79	55	54	66		5·3	4·3	4·8							4	29	24		S 61° W		85		711*		0·09	0·09	Jamnagar ¶ .	
·628	·675	·678	·664	—·002	97	81	80	90	+ 4	8·2	7·7	8·0	+0·1				1			20	33	6	S 79° W	S 63° W	86	78	487	550	17·91	3·10	Belgaum .	Deccan.
·682	·639	·609	·655	+·014	81	54	46	63	+ 1	6·8	8·4	7·6	+0·3		1				1	16	24	18	N 88° W	S 84° W	80	76	153*	329	5·16	1·38	Sholapur .	
·687	·725	·628	·689	—·011	73	54	40	57	— 1	7·1	7·8	7·5	+1·0	1	1	1			1		10	46	N 52° W	N 69° W	89	68	290*	235	3·33	0·63	Akola .	
·638	·651	·563	·620	—·029	78	58	42	59	— 4	6·2	6·8	6·5	+0·2		3	1				3	22	31	N 27° W	N 75° W	85	70	271*	262	4·07	1·42	Buldana .	
·722	·709	·593	·684	—·027	73	55	38	56	— 3	5·3	5·8	5·6	—0·4		3		1	1		2	16	37	N 57° W	N 78° W	84	71	275*	247	3·75	1·64	Khandwa .	
·716	·763	·705	·737	+·019	76	59	51	63	+ 4	6·4	8·0	7·2	0	1	1		1	2	1	7	34	13	N 87° W	N 82° W	77	55	159*	216	8·52	3·10	Nagpur . .	
·709	·73	·690	·720		73	55	49	60		5·4	7·1	6·3		1		2		6		31		20	S 71° W		53		90*		7·24	2·09	Do. (Sanitary Commr.'s Office)	
·719†	·704	·716	·726	+·018	83†	61	54	68	+ 4	6·5	7·4	7·0	+0·7	2							55	3	N 88° W	N 84° W	95	72	228*	218	4·02	1·28	Hyderabad (Deccan).	
·872	·934	·936	·930	—·008	87	81	77	84	+ 1	7·5	7·1	7·3	+0·2		1		2	3	7	12	32	3	S 69° W	S 63° W	68	64	327	365	11·46	2·53	Bombay . .	West Coast.
·775	·861	·860	·848	—·015	90	81	83	87	+ 2	8·1	8·3	8·2	+1·1	1	3	1			1	35	14	5	S 66° W	S 88° W	75	72	162	144	51·09	5·75	Karwar . .	

‡ Mean of 18 days. § Mean of 21 days. ¶ Wind variable 3. * Corrected.

Table

Abstract of Observations recorded at 10 A.M. and 4 P.M. at 66 Stations

Meteorological Province.	Station.	Elevation of bar-cistern above sea-level, in feet	Pressure. Mean of 10 hours.	Mean of 16 hours.	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 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	Temperature, Wet-bulb. Mean minimum.	Mean 10 hours.	Mean 16 hours.	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
South India.	Periyakulam	945	28·918	28·805	·113	28·872		29·734	90·4	72·2	18·2	97·2	67·4	29·8	84·0	86·3	80·4		69·2	73·8	73·4	72·0
	Salem	940	·917	·801	·116	·871	+·018	·739	91·8	73·5	18·3	96·2	72·4	23·8	84·4	88·7	80·9	−2·0	70·4	75·4	76·2	74·0
	Chitaldroog	2,405	27·445	27·357	·088	27·409	+·040	·729	83·8	68·7	15·1	91·9	65·9	26·0	77·1	78·4	74·5	−1·4	66·7	70·1	69·9	68·9
	Bangalore	3,021	26·674	26·783	·091	26·836	+·013	·736	81·6	65·7	15·9	85·2	63·9	21·3	75·7	78·3	71·9	−2·1	64·6	68·5	69·0	67·4
	Hassan	3,091	·830	·759	·071	·802	+·052	·789	79·6	65·6	14·0	84·0	63·5	20·5	74·4	73·1	70·8	−0·2	64·3	68·7	68·0	67·0
	Mysore	2,518	27·385	27·302	·083	27·351	+·041	·785	82·0	67·3	14·7	86·8	65·7	21·1	76·7	77·3	72·9	−1·7	66·4	71·0	71·7	69·7
	Madras	22	29·753	29·632	·128	29·702	+·003	·651	99·8	82·0	17·8	103·5	78·9	24·6	91·8	94·7	85·1	+0·7		76·3	77·5	76·1
	Bellary	1,475	28·316	28·207	·109	28·270	−·003	·669	92·5	75·6	16·9	99·5	73·2	26·3	84·4	87·4	82·4	−1·0	69·8	74·1	75·5	73·1
	Waltair	*226*	29·397	29·309	·088	29·359	−·036	·522	91·0	79·6	11·4	99·2	72·2	27·0	86·3	87·6	84·1	−0·5	73·8	77·3	77·9	76·3
Hill Station, Baluchistan.	Quetta	5,502	24·511	24·442	·069	24·470	+·028		91·3	56·8	34·5	94·9	50·1	44·8	84·9	89·6	73·3	−0·8	47·0	58·4	59·7	55·0
Hill Stations, Northern India.	Leh	11,503	19·669	19·578	·091	19·626	−·012		71·9	43·7	28·2	78·4	38·2	40·2	62·6	69·6	56·7	−1·1	38·3	45·6	49·3	44·4
	Srinagar	5,204	24·712	24·634	·078	24·675	−·021		84·4	57·6	26·8	91·3	52·7	38·6	73·0	61·4	69·9	0	54·6	68·1	73·8	65·5
	Sarain		23·038	22·995	·043	23·011			74·6	57·0†	17·6	78·9	49·3	29·6	63·9	71·8	64·9†			56·7	58·7	
	Kalabagh		20·082	·0·056	·026	20·069			55·9	46·3	9·6	59·2	40·3	18·9	50·9	53·4	51·1			46·1	47·7	
	Simla (Ridge)	7,224	23·017	22·972	·045	22·989	−·004		73·5	60·2	13·3	78·4	52·5	25·9	68·0	70·7	66·1	−0·8	53·7	57·8	60·0	57·2
	Chakrata	7,022	·169	23·127	·042	23·146	−·011		73·7	61·1	12·6	83·1	54·8	28·3	69·8	70·0	66·6	+0·2	55·3	60·5	61·6	59·1
	Ranikhet	6,069	·914	·883	·061	·907	−·033		78·0	63·7	14·3	85·0	56·0	29·0	73·2	71·2	70·1	+0·4	59·0	64·2	64·7	62·6
	Muktesar	7,600	22·712‡	22·683‡	·059	22·706‡			73·5	58·8	14·7	80·0	52·1	27·9	66·1	69·1	65·4		55·1	59·8	62·2	59·0
	Katmandu	4,388	25·451	25·372	·079	25·408	+·005§		83·2	67·1	16·1	89·4	59·4	30·0	76·4	77·9	74·4	−0·3§	65·8	69·8	71·0	68·9
	Darjeeling	7,376	22·915	22·887	·028	22·897	+·001		67·3	56·9	10·4	72·4	51·5	20·9	61·0	65·4	61·3	+1·4	56·2	62·2	63·4	60·6
Hill Stations, Central India.	Mount Abu	3,945	25·875	25·807	·068	25·842	−·004		83·6	66·9	16·7	87·4	64·1	23·3	71·6	82·4	74·4	−0·5	64·1	67·9	68·3	66·8
	Pachmarhi	3,528	25·317	26·225‖	·092	26·271‖	+·040		87·3	71·6	15·7	95·4	65·2	30·2	78·5	84·8	78·7	+0·5	65·8	68·6	69·8	68·1
	Chikalda	3,612	·157	·064	·093	·112	−·015		83·1	68·0	15·1	90·2	63·0	27·2	74·6	81·6	74·8	−0·6	64·9	68·7	70·6	68·1
Hill Stations, South India.	Kodaikanal	7,688	22·797	22·736	·061	22·762			61·3	52·8	8·5	66·2	50·6	15·6	58·9	57·4	55·9		49·7	54·9	54·3	52·9
	Ootacamund	*7,323*	23·033	·972	·061	23·000			60·2	52·8	7·4	67·9	50·3	17·6	57·5	56·5	55·7		51·2	54·8	54·4	53·5
	Dodabetta	*8,529*	21·995	21·938	·057	21·964			53·5	46·2	7·3	61·9	43·7	18·2	51·5	50·6	49·1			49·6	49·1	
Extra India	Aden	94	29·693	29·564	·129	29·625	+·027	·648	95·3	83·2	12·1	96·8	80·6	16·2	91·1	93·4	88·7	+0·1	74·7	82·4	80·5	79·2
	Perim	201	·677	·560	·117	·615	+·137	·747	95·7	84·1‖	11·6	100·5	82·6	18·5	90·8	92·9	89·3	+0·9	75·7	79·8	79·5	78·3
	Minicoy	7	·949	·907	·042	·933		·865	85·5			87·7			82·9	82·4				78·4	78·0	
	Zanzibar	73	30·124	30·031	·093	30·083	+·040	30·083	80·5	73·0	7·5	83·0	76·6	12·4	76·3	79·0	76·2	−1·1		72·9	73·1	
	Port Victoria (Seychelles)	15	·051	29·974	·077	·015	+·068§	29·954	80·6	71·8	8·8	81·9	68·8	13·1	79·1	79·9	75·2	−3·5§	70·0	73·1	73·0	72·0
	Mauritius (Pamplemousses)	181				·038	+·062	30·170				76·6	54·5	22·1			67·7	−1·0				63·3

N. B.—Elevations in Italics indicate barometric determination.

† Mean of 18 days.
‡ Mean of 24 days.
§ Departures from old normals.
‖ Mean of 29 days.
¶ Mean of 27 days.

II —*concluded.*

in India, Burma, etc., for June, 1904—concluded.

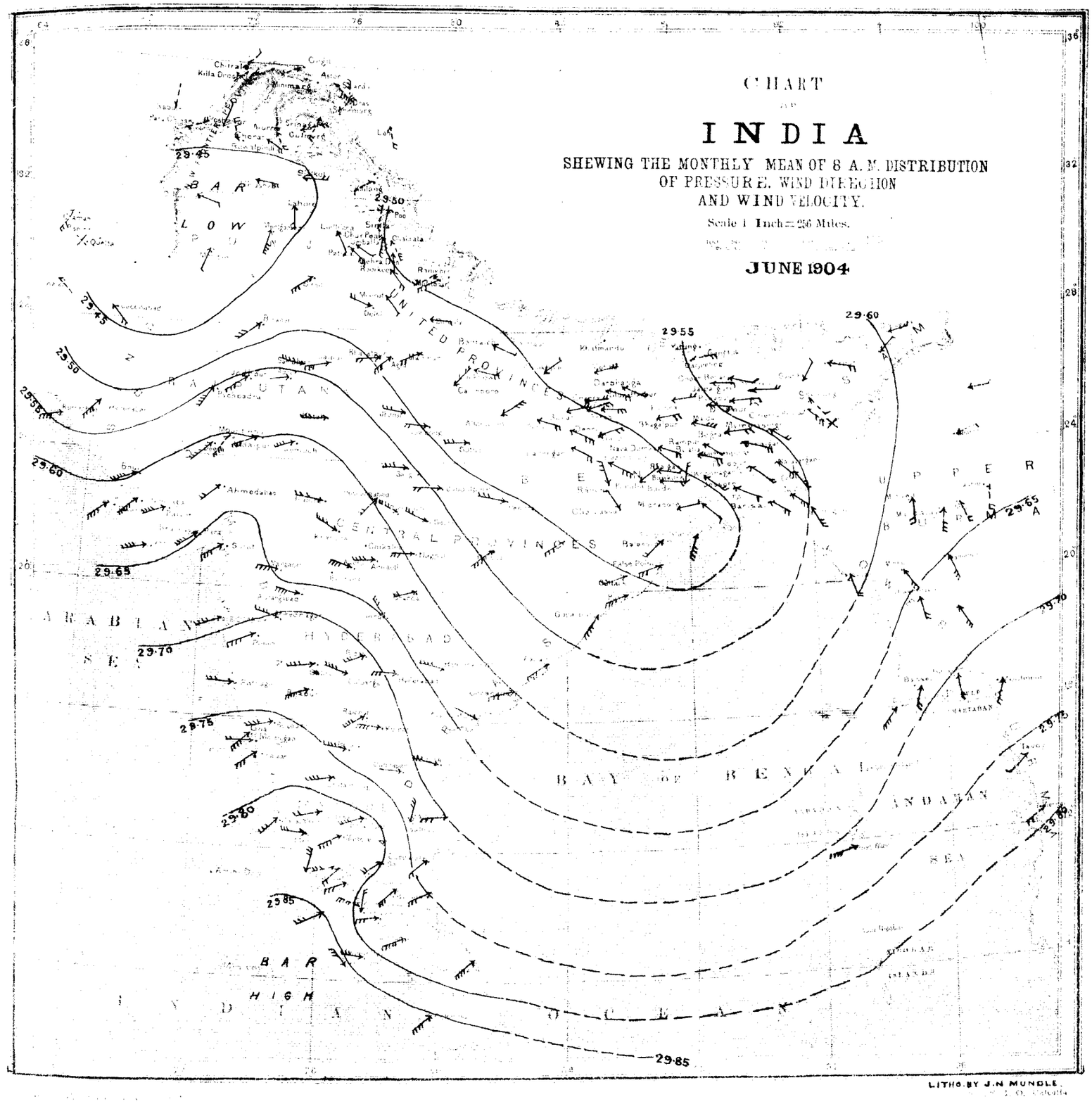
Vapour Tension.					Humidity.					Cloud.				Wind direction.									Wind Steadiness.		Wind Velocity.		Rainfall.			
														Total number of 10 hours and 16 hours winds from															
From minimum.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	From minimum.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	Mean 10 hours.	Mean 16 hours.	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.	Meteorological Province.
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
·678	·696	·652	·672		86	60	53	65		6·5	7·3	6·9		4	12	6	3	5	13	12	1	4	S 14° W		10		92*		0·76	0·11	Periyakulam	South India.
·701	·764	·743	·733	—·029	85	64	55	69	0	7·6	8·9	8·3	+2·0	3	1	1	1		3	15	35	1	S 76° W	S 54° W	77	73	110*	120	3·65	3·00	Salem	
·632	·647	·628	·643	—·004	90	70	66	77	+ 5	8·6	9·2	8·9	+1·0		1					21	28	10	S 82° W	S 75° W	84	76	245*	236	5·64	2·98	Chitaldroog	
·600	·616	·603	·613	—·010	94	69	63	77	+ 3	8·8	7·8	8·3							2	23	33	2	S 72° W	S 72° W	89	81	295*	233	1·95	0·69	Bangalore	
·592	·639	·628	·627	+·005	93	75	77	84	+ 4	9·4	9·4	9·4	+0·9							14	34	12	S 88° W	S 82° W	87	84	110*	120	3·55	1·23	Hassan	
·613	·693	·712	·690	+·054	95	75	76	84	+ 9	9·9	9·7	9·8	+1·3							24	35	1	S 73° W	S 75° W	92	79	352*	360	1·39	0·31	Mysore	
	·700	·716	·730	—·103		47	45	53	—13	5·8	7·5	6·7	+0·5				1	2		10	37	10	S 88° W	S 37° W	82	57	221	211	0·58	0·11	Madras	
·658	·721	·741	·723	+·076	74	61	57	67	+ 8	7·6	8·1	7·9	—0·2	1	1				1	12	36	9	S 88° W	S 85° W	85	80	324*	254	2·57	1·29	Bellary	
·762	·818	·829	·820	—·059	76	65	64	70	+ 1	9·0	8·7	8·9	+2·2						23	36	1		S 29° W	S 35° W	92	69	114		3·10	1·48	Waltair	
·224	·215	·202	·213	—·128	52	17	13	27	—12	0·2	0·2	0·2	—0·9	22	5	3			2	1	15	12	N 60° W	N 72° W	43	39	32*	72	0	0	Quetta	Hill Station Baluchistan.
·189	·164	·182	·174	+·006	66	29	24	41	+ 2	3·5	4·5	4·0	—1·0		3	4	4	2	9	14	20	4	S 64° W	S 81° W	45	31	72	62	0·13	0·09	Leh	Hill Stations, Northern India.
·405	·639	·751	·550	+·015	84	78	70	77	‡‡ − 2	1·1	3·1	2·1	—1·5	27	2	4		9	3	1	3	11	N 41° W	N 9° E	5	7	75*	91	1·19	0·49	Srinagar	
	·336	·350				49	46			3·4	3·7	3·6		9	1	3		1	13	28	3	2	S 36° W		60		70*		2·03	0·67	Sarain	
	·273	·281				73	70			4·8	5·2	5·0		2	2		3		1	32	20	N 71° W		77		++ 411*		2·55	0·91	Kalabagh	
·347	·376	·409	·376	—·021	68	55	55	59	− 2	2·8	4·0	3·4	—2·3	11	36			2	9		2		N 1° W	N 17° W	43	20	74*	108	5·61	1·06	Simla (Ridge)	
381	·433	·405	·425	+·015	72	60	64	65	− 1	4·9	7·2	6·1	+1·0	2	3			19	28	2		2	S 16° E	S 66° W	67	48	266*	178	5·10	1·23	Chakrata §§	
·455	·508	·515	·492	+·026	77	63	62	67	+ 2	4·6	4·1	4·4	—0·9	8	1	2		2	1	12	25	9	S 87° W	S 69° W	62	46	101*	91	6·16	1·72	Ranikhet	
·400	·452	·491	·448		80	71	70	74		6·2	6·6	6·4		2	1	3	1	3	2	9	37	2	S 82° W		67		219*		6·26	2·45	Muktesar	
·625	·658	·636	·655	+·015	93	72	72	79	+ 3	6·7	7·5	7·1	+0·9	5	2	9	9	1	1	4	13	16	N 36° W	N 87° W	32	20	27	31	16·72	2·40	Katmandu	
·446	·543	·567	·518	+·026	95	91	90	92	− 2	7·0‖	7·1	7·1	—1·7	12		1	2	6		17	15	7	S 67° W	S 15° W	45	8	66*	122	19·00	4·93	Darjeeling	
·571	·606	·529	·572	+·006	87	71	48	68	+ 2	4·9	2·6	3·8	—1·0					2	14	40	3	1	S 35° W	S 48° W	88	66	317*	274	0·97	0·97	Mount Abu	Hill Stations, Central India.
567	·585	·557	·573	—·041	71	62	49	62	− 3	3·8	5·8	4·8	—2·0		4	2				7	6	41	N 53° W	N 81° W	82	63	307*	221	4·07	1·38	Pachmarhi	
·584	·635	·621	·616	+·019	85	76	59	73	+ 3	6·3	6·7	6·5	—0·2	17	24	8					11		N 3° W	N 42° W	63	58	201*	242	10·83	2·03	Chikalda	
·328	·394	·393	·374		82	79	83	84		7·7	9·0	8·4			2				1		22	22	N 66° W		68		552		2·60	0·61	Kodaikanal	Hill Stations, South India.
·363	·403	·406	·387		91	85	89	88		9·6	9·9	9·8								15	40	5	S 82° W		92		173*		6·53	0·61	Ootacamund	
	·337	·335				88	91			7·9	7·6	7·8								11	39	10	S 89° W		90		541		8·41	0·72	Pollabetta	
·748	·885	·866	·904	+·025	66	68	55	65	+ 1	1·4	0·5	1·0	—0·7	5		10	8	15	5	14		3	S 40° E	S	35	57	** 91*	223	0	0	Aden	Extra India.
·783*	·875	·836	·819	—·073	64	60	51	62	− 6	0·3	0·1	0·2	—1·0		13	4	1	5	7	4	8	18	N 47° W	N 75° W	37	38	237*	322	0	0	Perim	
	·913	·901				81	82			7·7	8·1	7·9								9	47	4	S 86° W		94		470*		10·28	1·46	Minicoy	
	·797	·738				84	75			5·9	7·2	6·6	+1·3					17	26	16	1		S 1° W	S 4° E	82	87	265*	211	8·12	1·72	Zanzibar	
·716	·741	·726	·744	—·007	91	74	71	81	+ 28	5·3	4·2	4·8	—2·3	2			3	48	6	1			S 49° E	S 24° E	92	83	295	238	0·12	0·05	Port Victoria (Seychelles).	
			·517	—·021				76	0			5·1	+0·1										S 52° E	S 61° E			223	289	3·57	2·07	Mauritius (Pamplemousses).	

* Corrected.

** Mean of 28½ days.
++ Mean of 29½ days.
‡‡ Mean of three previous columns.

§§ Wind variable 4.
‖‖ Wind variable 13.

G. I. C. P. O.—No. 587 Meteor.—16-11-04—370.

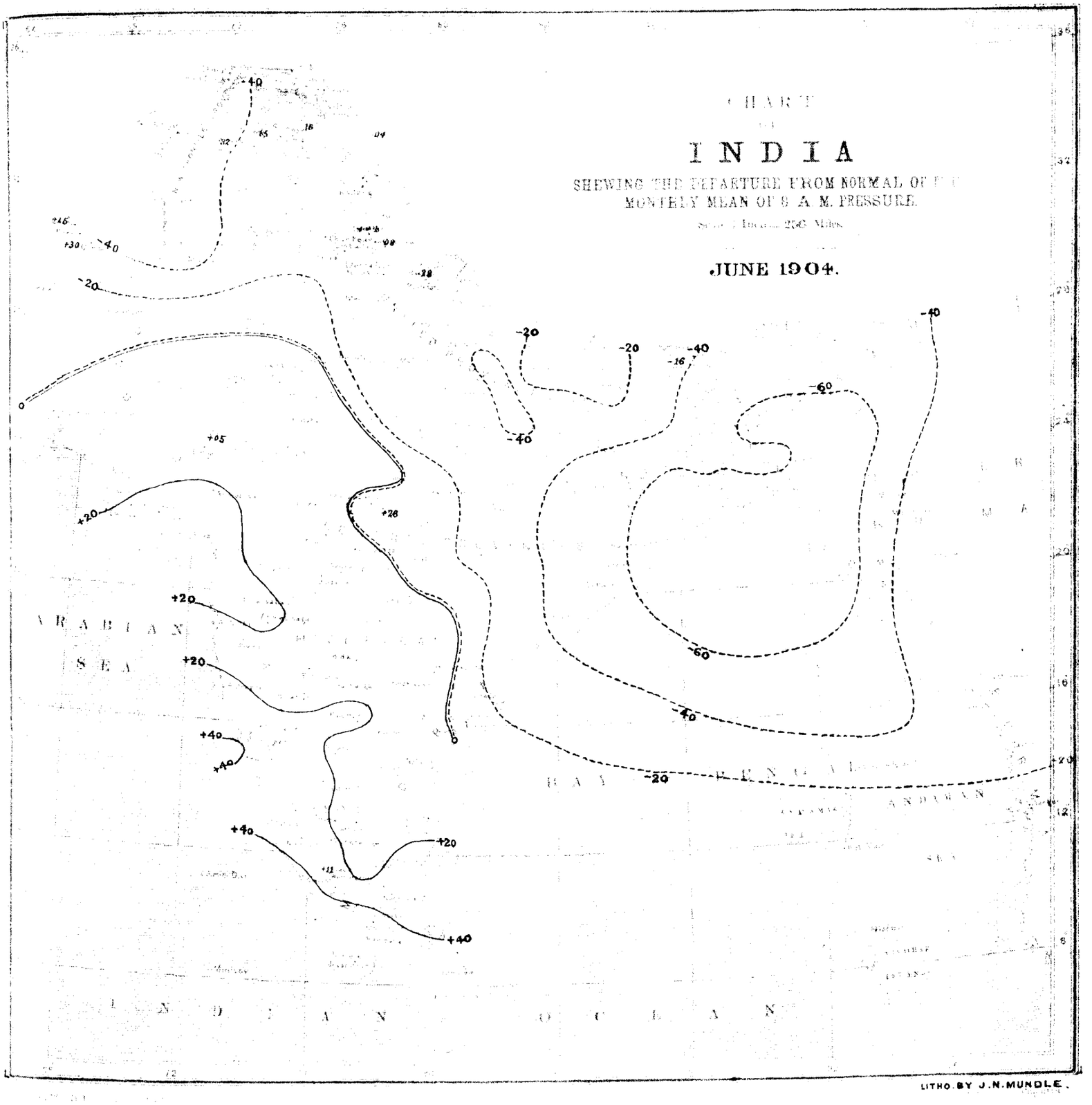


Explanation.

The lines of the above Chart represent isobars or lines of equal barometric pressure, and the numbers attached indicate the barometric pressure in inches and are 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 ordinary or normal distribution of pressure as given in the Charts of the Bay of Bengal prepared by Mr. Dallas, 1st Assistant Meteorological Reporter to the Government of India, and published by the Meteorological Department. Hence they have not the same validity as the isobars in the land area of India itself, but it is probable they deviate very little from the actual.

The mean 8 a.m. 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 I of the 8 a.m. 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	" " " " "



Explanation

The Chart shows the departure from the normal of the mean 8 a.m. pressure of the month by means of lines drawn for equal amounts of departure (of two hundredths of an inch or ·020″). 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.

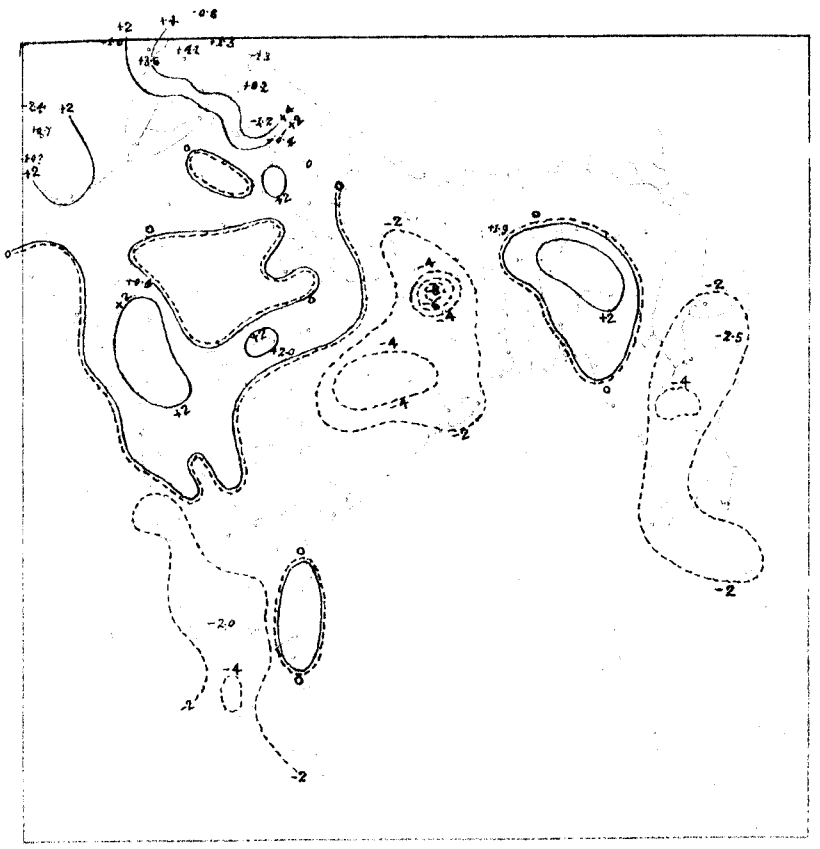


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MINIMUM TEMPERATURE.

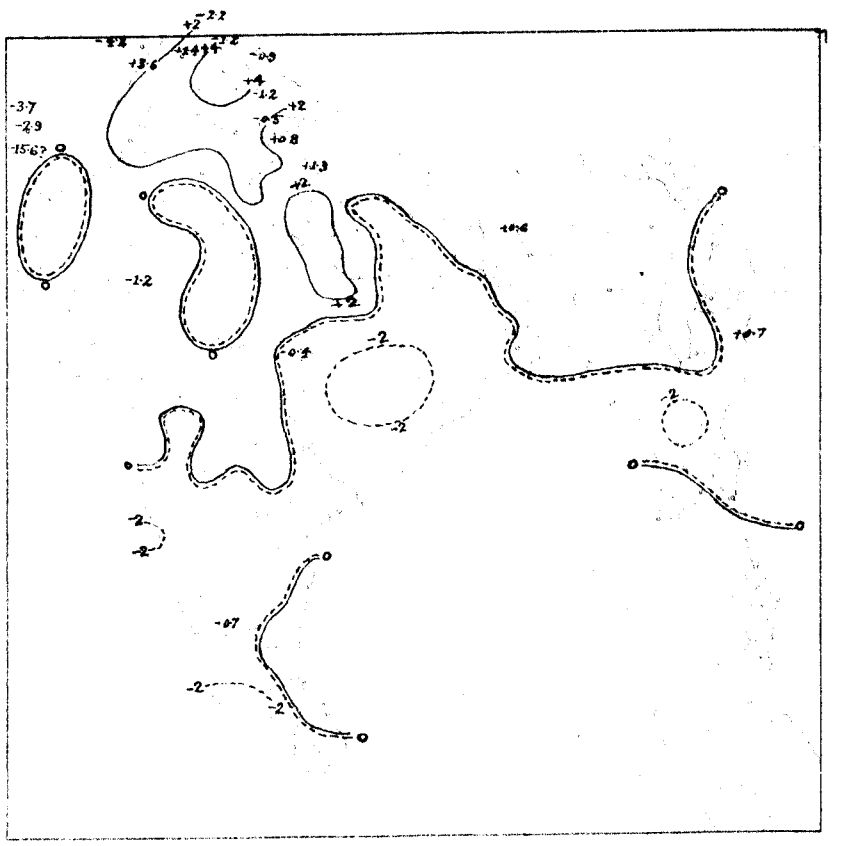


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MEAN TEMPERATURE.

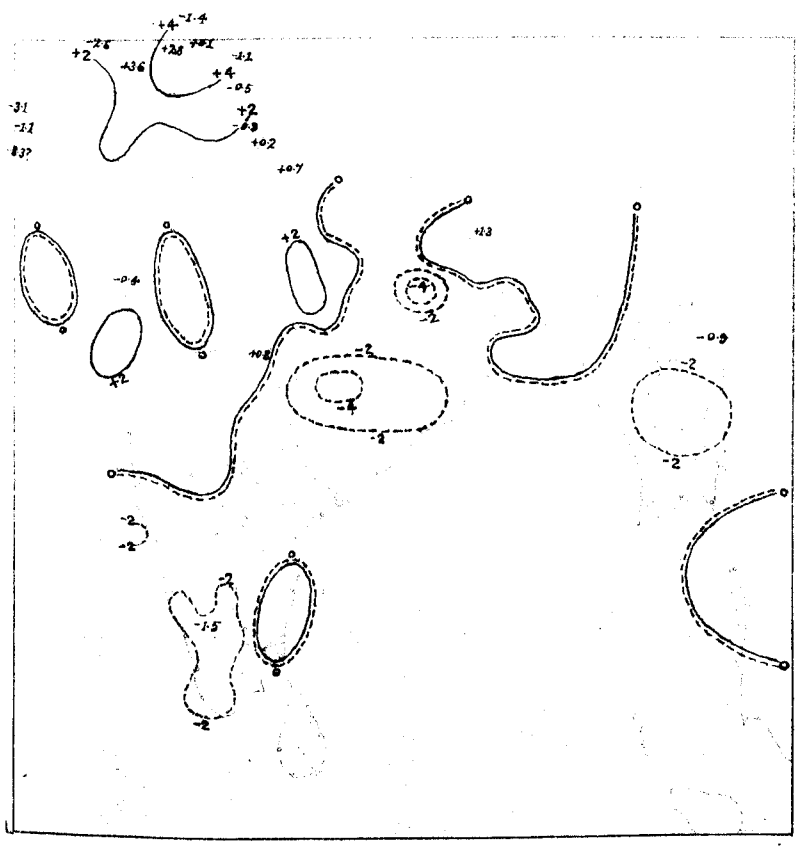
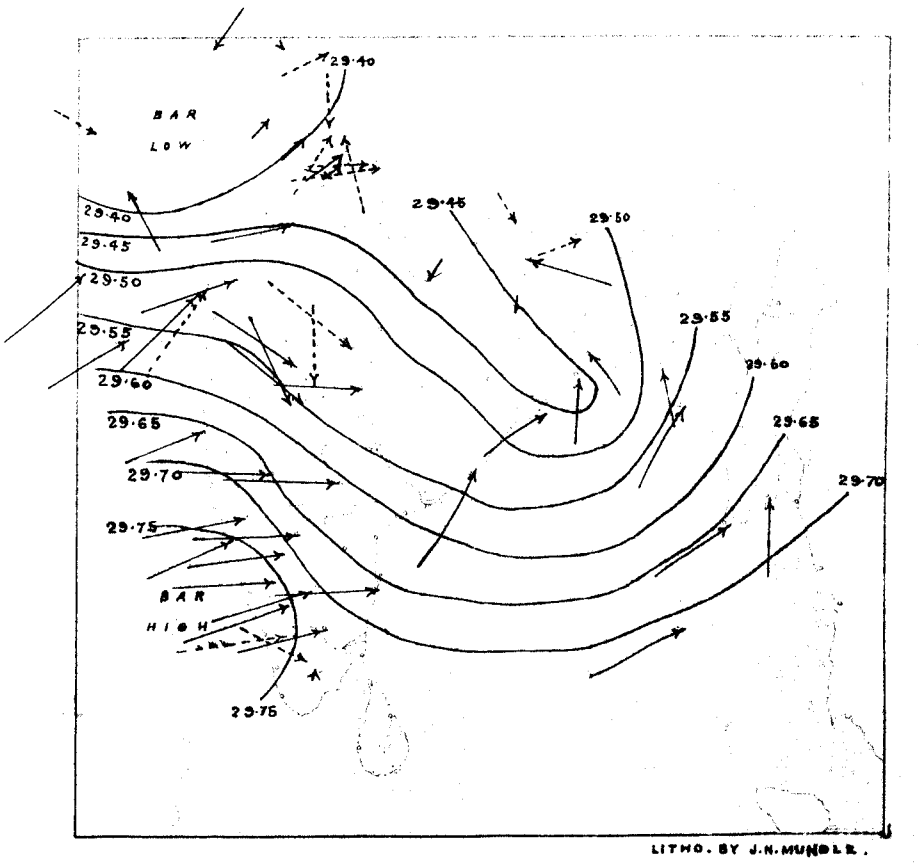


CHART SHEWING THE MONTHLY MEAN OF PRESSURE AND RESULTANT WIND DIRECTION



LITHO. BY J.N. MUNDLE.

Explanation.

Continuous lines indicate that the mean daily temperature of month was in excess by amounts indicated by the attached numbers; broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no departure, the broken line facing the area of deficient temperature.

The Chart is prepared in the same manner as the Monthly Charts which previously to 1890 appeared in the Annual Reports, the only alteration made being that pressures are reduced to constant gravity (45°). The isobars are given for each twentieth of an inch. The arrows show the directions of the resultants of the wind recorded at 10 and 16 hours, and by their lengths the percentage of the observations expressing the numerical value of the resultant; a length of $\frac{1}{8}$th of an inch being equal to 100 per cent.

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

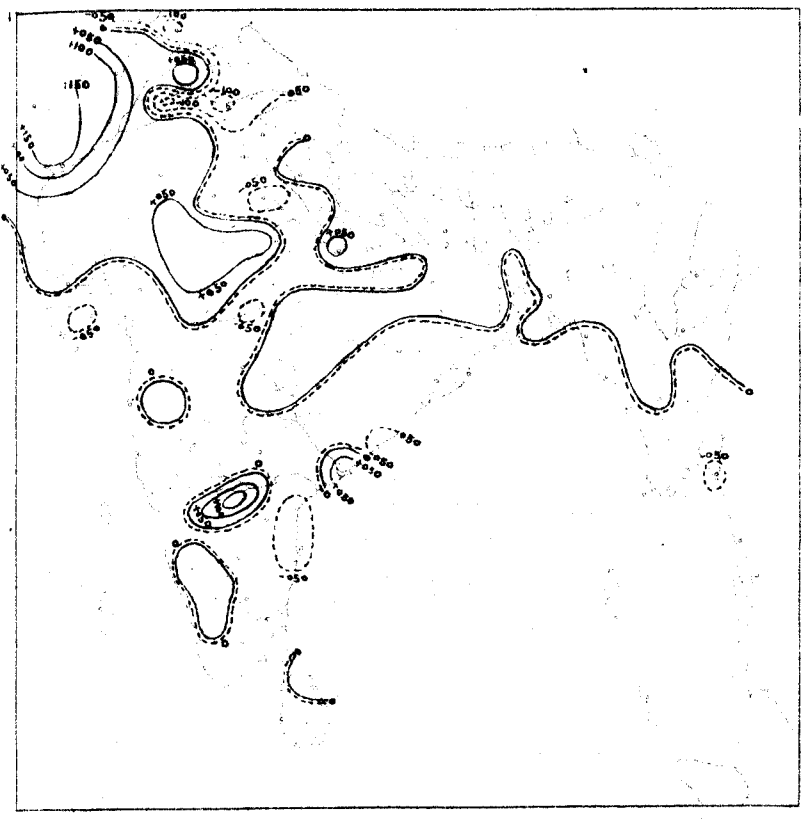
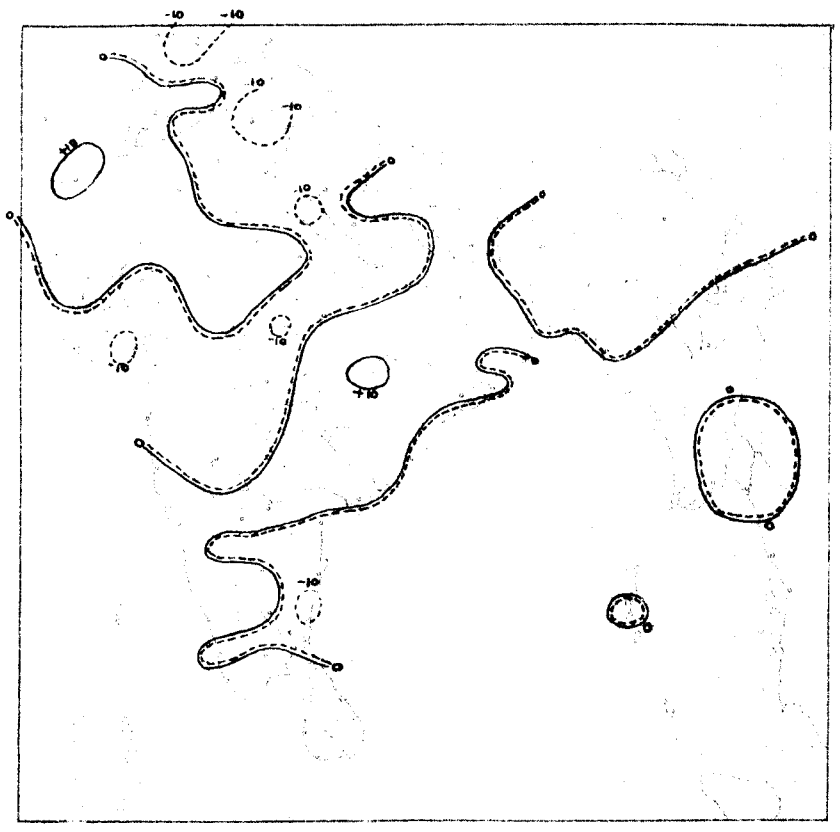


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF RELATIVE HUMIDITY AT 8 A.M.



Explanation.

Continuous lines indicate that the mean absolute humidity of month was in excess by amounts indicated by the attached numbers; broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no departure from the normal the broken line facing the area of deficient humidity.

Continuous lines indicate that the mean relative humidity of month was in excess by amounts indicated by the attached numbers; broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no departure from the normal, the broken line facing the area of deficient humidity.

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

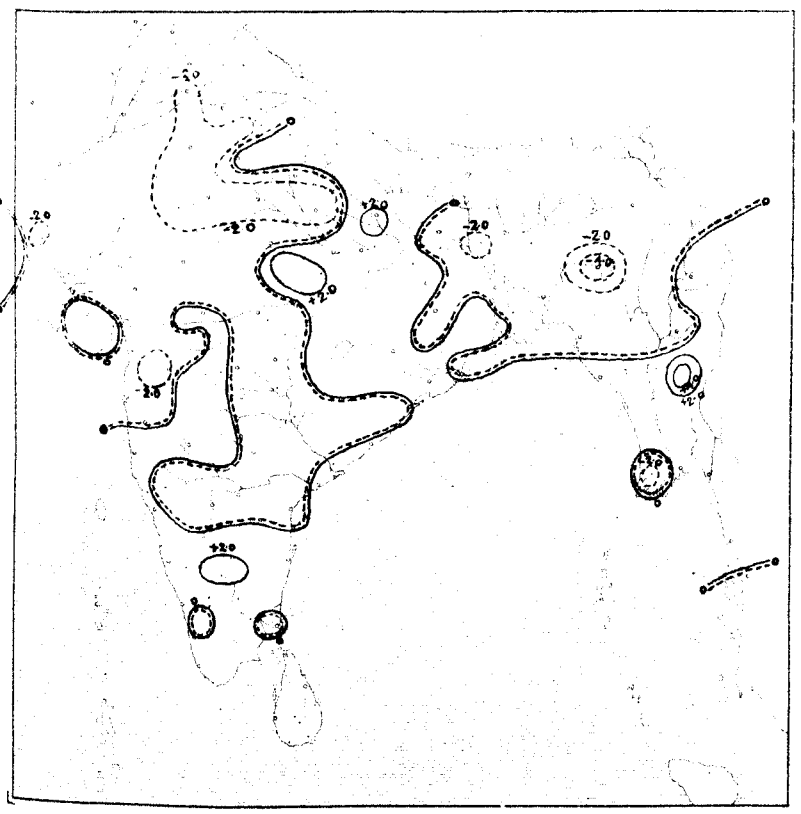
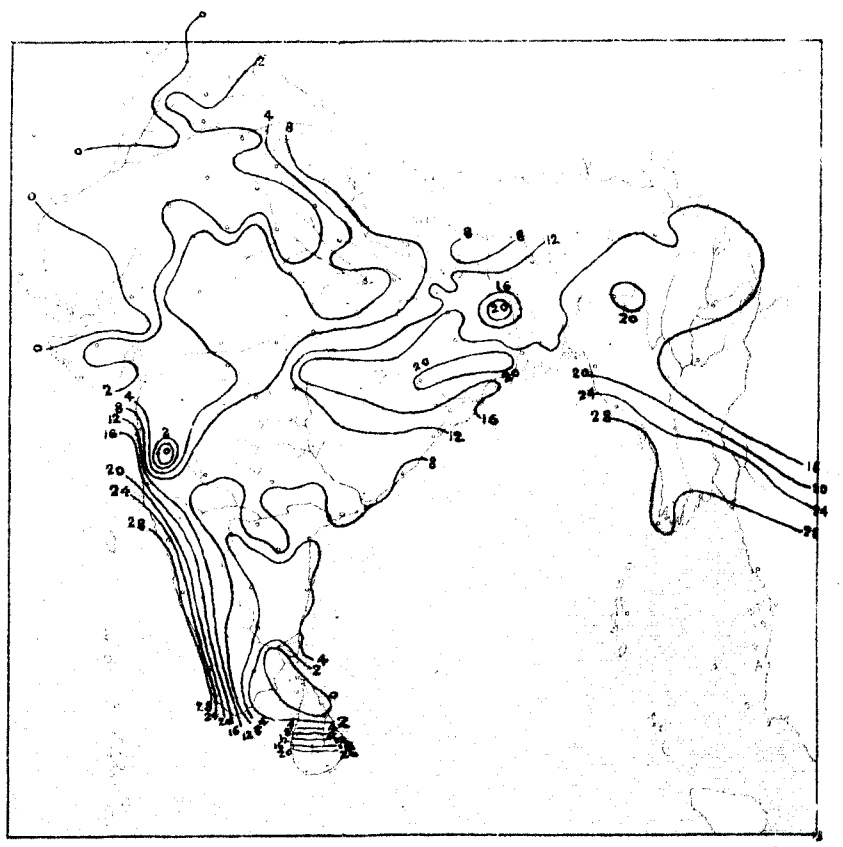


CHART SHEWING THE TOTAL NUMBER OF DAYS IN THE MONTH ON WHICH RAINFALL EXCEEDED 0·10 INCH.

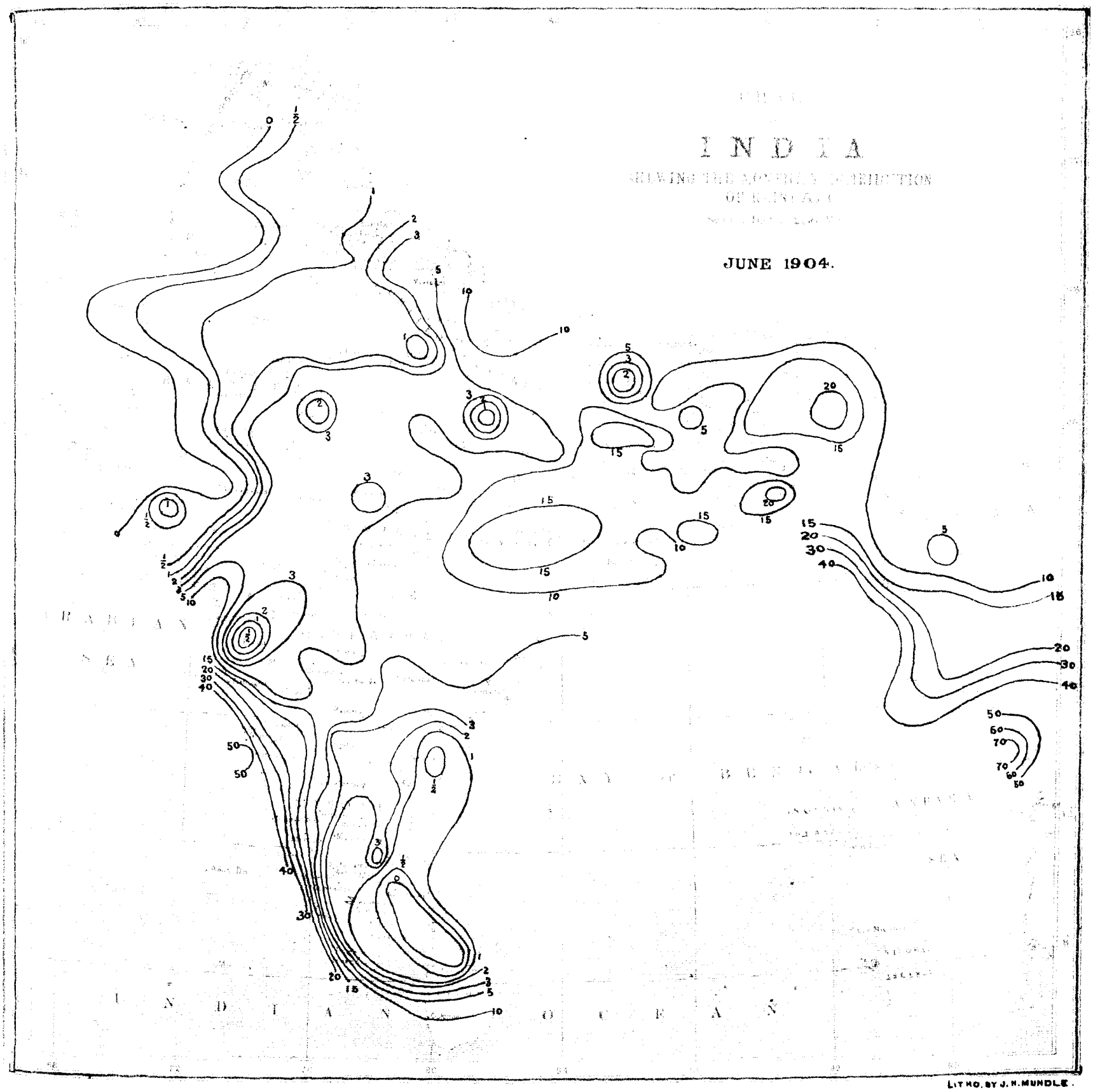


LITHO. BY J. N. MUNDLE

Explanation.

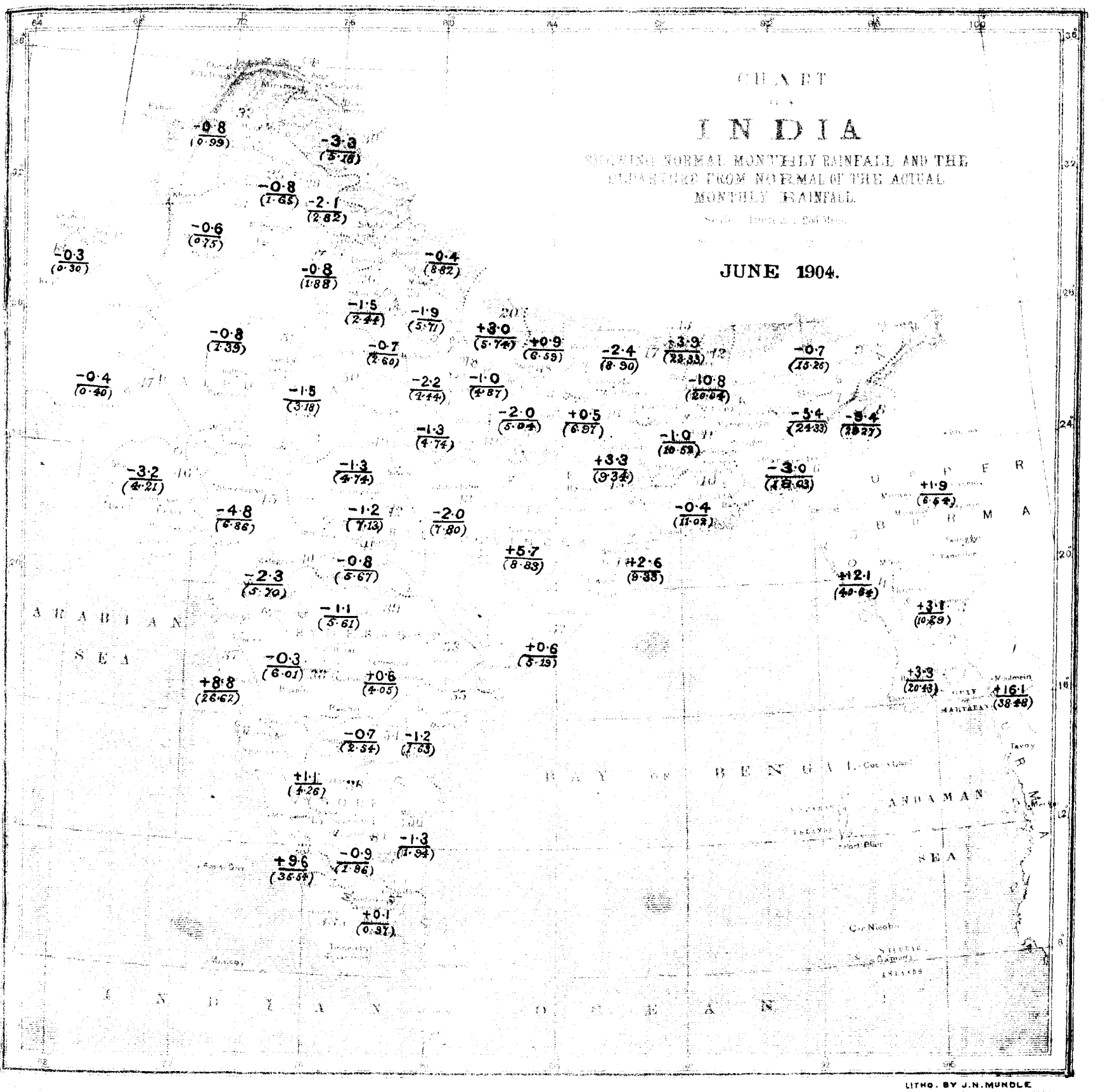
...tinuous lines indicate that the mean cloud amount of month was in ...ss by amounts indicated by the attached numbers; broken or dotted ... that it was in defect by amounts indicated by the attached numbers. ...le lines are the lines of no departure from the normal, the broken ...acing the area of deficient cloud.

A rainy day is one on which 0·10 inch or more of rain is received within 24 hours.



Explanation.

The Chart shows the distribution of the rainfall of the month by means of isohyetic lines or lines of equal amounts of rain. The data used in the preparation of this Chart are the rainfall returns of all the observatories in India except those at the Hill Stations over 3,500 feet in elevation (177 *in* number). The double line or line of no rainfall separates areas in which the rainfall exceeded a tenth of an inch from those where it was actually or practically *nil* (*i.e.* less than a tenth of an inch). The dotted line faces the area of no rainfall.



Explanation.

The Chart gives the departures of the rainfall of the month (to tenths of an inch) from the normal over the whole of India and Burma. The country is divided into 57 areas, over each of which the meteorological conditions are fairly uniform, and the staple crops similar in character; and the means (both actual and normal for the month) have been calculated, and the numbers given in the centre of each division (usually with a + or − sign attached) give the difference between the actual and normal mean rainfall of the district of the month. A plus sign indicates that the rainfall was in excess, and a negative sign that it was in defect by the amounts indicated by the numbers to which the signs are attached. The normal average rainfall is also given below in smaller figures enclosed within brackets so that the percentage departure from the normal can be at once estimated. The name of the district can be at once ascertained by referring in the following list to the number given near the right hand boundary of each district in small slanting red figures.

1. Tenasserim
2. Lower Burma Deltaic
3. Central do.
4. Upper do.
5. Arakan
6. East Bengal
7. Assam, Surma
8. Do., Hills
9. Do., Brahmaputra
10. Deltaic Bengal
11. Central do.
12. North do.
13. Bengal Hills
14. Orissa
15. Chota Nagpur
16. South Bihar
17. North Bihar
18. United Provinces, East
19. South Oudh
20. North do.
21. United Provinces, Central
22. Do. do., West
23. Do. do., East Submontane
24. Do. do., West do.
25. Do. do., Hills
26. South East Punjab
27. South do.
28. Central do.
29. Punjab, Submontane
30. Do., Hills
31. West Punjab
32. North West Frontier Province
33. Malabar
33a Travancore
34. Madras, South Central
35. Coorg
36. Mysore
37. Konkan
38. Bombay Deccan
39. Hyderabad, North
40. Khandesh
41. Berar
42. Central Provinces, West
43. Do., Central
44. Do., East
45. Gujarat
46. Kathiawar and Cutch
47. Sind
48. Baluchistan Hills
49. Central India, East
49a Do. do.
50. Rajputana East, Central India West
51. West Rajputana
52. Madras, East Coast, North
53. Hyderabad, South
54. Madras, Central
55. Madras, East Coast, Central
56. Do. East Coast, South
57. Madras, South

GOVERNMENT OF INDIA.

METEOROLOGICAL DEPARTMENT.

MONTHLY WEATHER REVIEW

PUBLISHED BY ORDER OF

THE GOVERNMENT OF INDIA.

CALCUTTA, JULY, 1904.

INTRODUCTION.

THIS review of the weather in India during the month of July 1904, is based on observations taken daily at 8 A.M. at 232 stations, and on additional observations taken at 10 A.M. and 4 P.M. at 66 stations. In the rainfall summary the rainfall data of the meteorological observatories and the rainfall statements of the month published by the Provincial Governments that had been received up to the date of the preparation of the review, are utilized. A summary of the weather in the Bay of Bengal and the Arabian Sea, derived from information extracted from the logs of vessels entering the ports of Calcutta and Bombay, is also given, and brief notes on Magnetic and Solar disturbances are supplied by the observatories.

Summary of the chief features of the weather in India during the month of July 1904.

Conditions departed to a considerable extent from the normal during the month of July 1904. The monsoon currents, as judged by the marine data, were stronger than usual over the Bay and lighter than usual over the Arabian Sea. Accompanying this condition there was increased disturbance on the eastern side of India. Several small storms formed at the head of the Bay or over the adjoining land area and progressed west-north-westward or north-westward up the Gangetic plain. Heavy and practically continuous rain fell over this disturbed area. On the other hand, on the opposite side of India, though rain was of daily occurrence along the coast of the Peninsula, the precipitation fell off quickly inland and in the Deccan and north Bombay was much lighter than usual.

The weather over a large part of India was more or less controlled by the small storms mentioned above. One of these storms was forming over the head of the Bay on the 1st. Heavyish rain accompanied its development and the mean temperature was relatively low over lower Bengal and the north-east of the Peninsula, while the temperature was excessive over the central and north-west districts, where the weather was fine. The storm passed right across the head of the Peninsula and broke up over Gujarat on the 7th. Most of the inflow to the storm area apparently came from the Arabian Sea and the greater part of the ascensional motion and rainfall took place to the south of the storm. In consequence the mean temperature was low over the Peninsula. The following gives temperature data for the Peninsular divisions from the 1st to the 7th :—

Province or Division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of						
	1st July.	2nd July.	3rd July.	4th July.	5th July.	6th July.	7th July.
	°	°	°	°	°	°	°
Berar	+2·0	+0·4	+0·5	−5·5	−3·1	−2·0	−0·4
West Coast	−2·8	−1·2	−3·0	−2·7	−1·6	−1·0	−0·2
Bombay Deccan	−1·4	−0·9	−2·9	−6·8	−2·8	−2·0	−1·2
Mysore	−2·6	−3·5	−4·6	−4·0	−1·9	−1·6	−1·4
Madras Coast	−2·5	−4·9	−4·0	−2·1	−1·1	−0·6	−0·5
Madras Deccan	−3·3	−5·6	−8·1	−6·2	−1·2	−0·9	+0·1
South India	−3·4	−2·8	−3·0	−3·2	−1·3	−1·2	−2·2

On the other hand, the easterly winds to the north of the depression gave relatively little rain and it was not

until the depression reached Gujarat and winds from the Arabian Sea passed around the east side of the storm into northern India, that any important rainfall occurred to the northward of the storm. In consequence the mean temperature of parts of northern India and the north of Central India was generally excessive until the 6th when a rapid fall occurred. The following gives comparative data of temperature from the 1st to the 7th for northern and central India :—

Province or Division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of						
	1st July.	2nd July.	3rd July.	4th July.	5th July.	6th July.	7th July.
	°	°	°	°	°	°	°
Bengal	−0·4	−0·7	−0·7	−0·8	−1·2	−1·2	−1·3
Orissa	−5·2	−3·5	−2·9	−1·8	−1·2	−1·5	−4·0
Bihar	+1·1	−0·3	−0·7	−0·8	−0·5	+0·2	+0·8
Chota Nagpur	−1·2	−2·0	−2·6	−1·3	−2·9	−0·4	−2·5
United Provinces of Agra and Oudh.	+2·9	+3·3	+3·4	+2·6	+2·0	+1·1	−0·3
Punjab	+3·5	+4·4	+1·4	−0·5	−0·1	+1·4	−0·5
North-west Frontier Province.	−0·5	+0·1	−2·6	−2·6	−4·3	+0·8	+0·4
Sind	−1·9	−1·4	−1·0	+0·1	+1·9	+2·2	+1·9
Rajputana	+2·4	+3·7	+5·7	+5·4	+1·9	−1·8	−2·5
Gujarat	+0·5	+1·2	+1·9	+0·4	−2·7	−6·7	−5·5
Central India	+4·4	+5·0	+4·1	+2·7	+0·4	−1·1	−2·5

Another storm formed over lower Bengal on the 7th and thence passed west-north-westward to eastern Rajputana. Moderate to heavy rain accompanied it in its march westward, and the mean temperature of Bengal, Orissa, Chota Nagpur, Bihar, the Central and United Provinces, Berar, Central India and Rajputana was generally lower than usual from the 8th to the 12th. The following gives data :—

Province or Division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of				
	8th July.	9th July.	10th July.	11th July.	12th July.
	°	°	°	°	°
Bengal	−2·4	−3·0	−0·4	+1·1	+2·4
Orissa	−3·6	−3·0	−0·7	+0·2	+2·1
Bihar	−0·3	−2·5	−1·9	−0·4	+0·8
Chota Nagpur	−5·0	−5·1	−3·7	−1·4	+1·1
United Provinces of Agra and Oudh.	−1·1	−1·4	−1·7	−3·4	−2·9
Rajputana	−1·9	−1·7	−1·2	−2·7	−4·6
Central India	−1·2	−0·6	−3·6	−5·9	−3·7
Central Provinces	−0·4	−2·3	−4·7	−4·4	+0·3
Berar	−0·8	−3·9	−2·3	−5·5	+2·5

In the meantime rain had almost ceased in other parts of the country and temperature had risen, so that on the 13th, 14th and 15th the mean temperature exceeded the normal over a large part of the country. The following gives data for all divisions for these three days :—

Province or Division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of		
	13th July.	14th July.	15th July.
	°	°	°
Burma	− 1·4	− 2·2	− 2·0
Assam	+ 1·0	+ 0·8	− 0·6
Bengal	+ 2·5	+ 0·9	− 1·0
Orissa	+ 2·6	+ 0·4	− 1·0
Bihar	+ 1·7	+ 1·1	− 1·2
Chota Nagpur	+ 2·0	+ 1·8	+ 1·9
United Provinces of Agra and Oudh	− 1·4	− 0·5	− 1·0
Punjab	+ 4·1	+ 5·5	+ 3·4
North-west Frontier Province	+ 4·1	+ 7·9	+ 6·9
Sind	+ 1·4	+ 2·0	+ 1·7
Rajputana	− 1·4	+ 0·2	− 0·9
Gujarat	+ 0·4	+ 1·0	+ 1·0
Central India	− 2·4	− 1·9	− 2·1
Central Provinces	+ 1·3	+ 1·1	− 1·0
Berar	+ 2·2	+ 2·1	+ 1·9
West Coast	+ 0·3	+ 0·4	+ 0·3
Bombay Deccan	+ 2·1	+ 2·2	+ 2·1
Mysore	+ 0·3	− 0·8	− 0·6
Madras Coast	+ 0·9	− 0·5	− 0·7
Madras Deccan	+ 2·4	+ 1·1	+ 2·0
South India	− 1·5	− 2·2	− 1·2

A third storm formed over Bengal on the 16th and rain again extended over north-east India, the Gangetic plain and part of Central India. This storm was very short-lived, but the accompanying rainfall reduced temperature to below the normal except over the Bombay Presidency and parts of the Deccan and of Madras, where it remained excessive.

Between the 19th and the 30th, though there was no storm of any importance, the weather was steadily rainy over the greater part of northern India, except the southern Punjab, western Rajputana, Sind and Gujarat which remained rainless, and in consequence the temperature was lower—in some places much lower—than usual over Bengal, the Gangetic plain and the adjacent parts of Central India. This is shown in the following

table which gives the departures from the normal for each alternate day from the 19th to the end of the month:—

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF						
	19th July.	21st July.	23rd July.	25th July.	27th July.	29th July.	31st July.
	°	°	°	°	°	°	°
Bengal	−0·5	−0·6	−2·1	−2·4	−1·5	−1·9	+0·8
Bihar	−2·0	−0·8	−2·6	−4·8	−4·4	−5·4	+0·7
Chota Nagpur	−1·1	+1·[illegible]	−1·8	+1·1	+0·6	−1·6	+1·4
United Provinces of Agra and Oudh.	−5·0	−1·3	−2·1	−3·0	−6·0	−5·3	−1·6
Central India	−2·3	−1·4	−1·9	−3·2	−2·0	−2·6	−2·1
Central Provinces	−1·2	−1·0	−	+0·3	+2·1	+0·5	+0·5

On the other hand, the monsoon rainfall was light or altogether absent over the greater part of north-west India and of the Peninsula, and the mean temperature was, on most days, more or less excessive over these areas, except the extreme south of the Peninsula. The following gives comparative temperature data for each alternate day from the 19th to the 29th:—

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF					
	19th July.	21st July.	23rd July.	25th July.	27th July.	29th July.
	°	°	°	°	°	°
Punjab	−1·0	+2·3	+2·8	+0·8	−0·6	−0·4
North-west Frontier Province.	−2·4	−1·3	+4·9	+4·2	+0·6	−0·9
Sind	−1·2	+0·5	−1·2	−1·7	−2·5	−1·4
Rajputana	+0·3	+2·6	+1·0	−2·5	−2·2	−1·4
Gujarat	+1·1	+2·0	+1·5	−0·9	−0·7	−0·6
Berar	+0·6	+1·8	+2·9	+2·8	+4·1	+4·2
West Coast	+0·7	−0·6	−0·4	+0·4	+0·7	+1·7
Bombay Deccan	−0·3	+0·9	+2·0	+2·1	+2·1	+1·5
Mysore	−0·3	−0·1	+0·3	+1·4	+0·7	−0·5
Madras Coast	+1·8	+2·7	+1·7	−0·2	−0·8	+0·4
Madras Deccan	+1·1	+0·9	+2·1	+2·2	+1·3	+1·7
South India	−0·2	−0·5	−0·7	−0·6	−1·6	−1·2

On the 30th and 31st showers extended into the Deccan and the mid-Madras coast districts and a sudden fall of temperature took place over those regions. This is shown below:—

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF	
	30th July.	31st July.
	°	°
Bombay Deccan	+1·8	+1·6
Mysore	−0·7	−1·1
Madras Coast	+1·2	−2·5
Madras Deccan	+1·7	−3·4
South India	−0·8	−0·7

Pressure:—The mean pressure of the Indian land area was below the normal by amounts averaging 0·012″. Compared with the geographical mean, pressure was in defect over upper Sind, the North-west Frontier Province, the Punjab, the Gangetic plain, north-east India and Burma and was in excess elsewhere. The deficiency was moderate at Dera Ismail Khan (−·034″); Lahore (−·032″); Multan (−·031″); Nowgong (−·028″) and Hazaribagh (−·027″); while the excess was moderate at Veraval and Chanda (each +·026″) and at Bhuj and Trincomalee (each +·025″).

At the Indian hill stations the mean pressure was in slight defect while on the Baluchistan hills there was some excess.

In the Gulf of Aden and in the south-east trades region the departures of pressure from the normal were irregular and small.

The following table gives the mean pressure departures and anomalies of the month for the eleven meteorological provinces:—

METEOROLOGICAL PROVINCE.	Departure from normal of mean 8 A.M. pressure of July 1904.	Pressure anomaly, July 1904.
	″	″
Burma Coast and Bay Islands	−·015	−·003
Burma Inland	−·009	+·003
Assam	−·027	−·015
Bengal and Orissa	−·019	−·007
Gangetic Plain and Chota Nagpur	−·025	−·013
Upper Sub-Himalayas	−·027	−·015
Indus Valley and North-West Rajputana	−·017	−·005
East Rajputana, Central India and Gujarat	−·007	+·005
Deccan	−·006	+·006
West Coast	0	+·012
South India	0	+·012

Temperature:—The departures of the mean temperature conditions of the month from the normal were generally moderate or slight.

The mean maximum temperature of the month generally exceeded the normal over the greater part of north-western India, over the northern half of the Peninsula and over north Bengal and was below the normal else-

where, more particularly over the United Provinces and Burma. The positive departures were generally moderate or small, but the negative departures were considerable over the United Provinces and the neighbouring parts of Central India and in some districts of Burma. The following shows the stations at which the departures from the normal exceeded 2°·0 :—

POSITIVE DEPARTURES.		NEGATIVE DEPARTURES.	
STATIONS.	Departure from normal, July 1904.	STATIONS.	Departure from normal, July 1904.
	°		°
Sialkot	+3·4	Nowgong	—4·8
Multan	+2·5	Yamethin	—4·0
Rawalpindi	+2·3	Mandalay	—3·5
Bikaner	+2·2	Tavoy	—3·4
Khandwa	+2·2	Jhansi	—3·4
Masulipatam	+2·2	Roorkee	—3·3
		Agra	—3·1
		Dehra Dun	—3·0
		Salem	—2·9
		Lucknow	—2·8
		Saugor	—2·8
		Cawnpur	—2·6
		Minbu	—2·3
		Allahabad	—2·2
		Moulmein	—2·1
		Akyab	—2·1
		Delhi	—2·1
		Sutna	—2·1

The highest maximum recorded during the month was 116·°6 at Jacobabad on the 15th.

The mean minimum temperature of the month was in excess of the normal over the Punjab and western Rajputana, the Bombay coast and Khandesh and at some stations on the Madras and Burma coasts, and was in defect of the normal elsewhere. The positive departures were moderate to considerable in parts of the north-west, but the negative departures were almost everywhere small or slight. This is shown below :—

POSITIVE DEPARTURES.		NEGATIVE DEPARTURES.	
STATIONS.	Departure from normal, July 1904.	STATIONS.	Departure from normal, July 1904.
	°		°
Lahore	+4·1	Thayetmyo	—3·2
Sialkot	+3·2	Tavoy	—2·3
Multan	+2·9	Gulbarga	—2·1
Sirsa	+2·1		

The mean temperature of the month was in slight to moderate excess of the average over parts of north-west India, the northern half of the Peninsula and north Bengal, and was in slight to moderate defect eslewhere. The following shows the stations at which the departures exceeded 2°·0 :—

POSITIVE DEPARTURES.		NEGATIVE DEPARTURES.	
STATIONS.	Departure from normal, July 1904.	STATIONS.	Departure from normal, July 1904.
	°		°
Sialkot	+3·3	Nowgong	—3·0
Lahore	+3·0	Tavoy	—2·9
Multan	+2·7	Thayetmyo	—2·5
		Yamethin	—2·3
		Dehra Dun	—2·3
		Agra	—2·3
		Jhansi	—2·3
		Roorkee	—2·2
		Saugor	—2·2

At all the hill stations the mean temperature of the month was below the average, generally by small amounts.

The following table gives the temperature departure data for the eleven meteorological provinces :—

METEOROLOGICAL PROVINCE.	DEPARTURE FROM NORMAL OF		
	Mean maximum temperature, July 1904.	Mean minimum temperature, July 1904.	Mean temperature, July 1904.
	°	°	°
Burma Coast and Bay Islands	—1·6	—0·4	—1·0
Burma Inland	—2·5	—1·0	—1·8
Assam	—0·6	—0·7	—0·7
Bengal and Orissa	—0·8	—0·7	—0·8
Gangetic Plain and Chota Nagpur	—1·5	—0·8	—1·2
Upper Sub-Himalayas	—0·3	+0·6	+0·1
Indus Valley and North-West Rajputana.	+1·1	+0·5	+0·8
East Rajputana, Central India and Gujarat	—0·9	—0·5	—0·7
Deccan	+0·1	—0·5	—0·2
West Coast	—0·4	—0·2	—0·3
South India	—0·4	—0·5	—0·5

Winds.—The monsoon winds were more westerly than usual over the Bay, and, at the well exposed stations of Port Blair, Diamond Island and Saugor Island, were steadier and stronger than usual. Over the greater part of northern India the wind was unusually steady and the velocity about the normal. The direction varied irregularly but generally slightly from the average. Over the Peninsula the wind's direction was generally about normal, but on the west coast the velocity was low, more particularly at Bombay. In the hills the winds were very irregular.

In the south-east trades region the winds blew from the normal direction, but the departures in velocity were irregular, the velocity having been greater than usual at the Seychelles and less than usual at Mauritius.

Humidity :—The absolute humidity was in defect of the average over the greater part of the country. The mean temperature was, however, lower than usual over the Gangetic plain, north-east India and Burma and the southern half of the Peninsula and over these regions the mean relative humidity of the month was in excess. The departures from the average were moderate or small except at Jhansi (+9); Bahraich (+7), Cocanada (+7), and Kurnool (+9). Over north-western India and across the head of the Peninsula the mean temperature was, on the contrary, higher than the average, and the mean relative humidity in defect, more particularly at Montgomery (—14); Ludhiana (—12); Amraoti (—11); and Sialkot (—8). In the south-east trades region the mean relative humidity was in trifling excess.

The following gives mean comparative data of the nine meteorological provinces :—

Meteorological Province.	Mean absolute humidity.		Mean relative humidity.	
	Average actual, July 1904.	Departure from normal, July 1904.	Average actual, July 1904.	Departure from normal, July 1904.
	"	"	%	
Burma Coast and Bay Islands	·884	—·019	89	0
Bengal and Orissa	·936	—·026	87	+1
Gangetic Plain and Chota Nagpur	·892	—·020	82	—1
Upper Sub-Himalayas	·871	—·012	76	+1
Indus Valley and North-West Rajputana.	·838	—·009	62	—1
East Rajputana, Central India and Gujarat.	·786	—·044	71	—3
Deccan	·710	—·030	74	—4
West Coast	·876	—·008	86	—2
South India	·693	+·002	76	+2

Cloud :—The departures of the mean cloud amount from the normal were large and irregular. The sky, on the mean of the month, was clearer than usual of cloud over the western desert (Pachpadra —5·2); over the centre and north of the Peninsula (Kurnool —2·6 and Chanda —2·9); over the Bengal coast (Barisal —2·0); the Burma coast (Mergui —2·1); upper Burma (Mandalay —3·2) and north Bengal (Jalpaiguri —2·8). On the other hand, the mean cloud amount exceeded the average over the north Punjab; the Gangetic plain (Gorakhpur +3·3); Central India (Sutna +2·8); west Ceylon (Colombo +2·5) and central Burma, (Yamethin +4·9). On the hills the departures from the normal were irregular.

The following gives departure data of the mean cloud amount of the nine meteorological provinces :—

Meteorological Province.	Mean cloud amount.	
	Average actual, July 1904.	Departure from normal, July 1904.
Burma Coast and Bay Islands	8·5	—0·1
Bengal and Orissa	8·5	+0·1
Gangetic Plain and Chota Nagpur	8·5	+0·5
Upper Sub-Himalayas	6·1	0
Indus Valley and North-West Rajputana	3·5	—0·5
East Rajputana, Central India and Gujarat	8·4	+0·7
Deccan	8·3	—0·2
West Coast	7·9	—0·5
South India	8·3	0

Rainfall :—The rainfall of the month was irregularly distributed. During the first week rain fell over the greater part of the Indian land area, determined largely by a shallow cyclonic storm which passed westward from the head of the Bay across the head of the Peninsula to Gujarat. After the 7th, however, the Arabian Sea current fell off, more particularly, in the northern portion of its field, and the total rainfall of the month was more or less below the normal over the Punjab, the Bombay Presidency and the Central Provinces. The Bay of Bengal monsoon current continued to blow fairly vigorously and a series of slight land formed depressions gave fairly steady rain to Burma, Bengal, the United Provinces, eastern Rajputana and Central India. The average actual fall for the month ranged from 0·49″ in Sind and 0·80″ in the west Punjab to 56·83″ in Tenasserim and 61·06″ in Arakan.

The following table gives comparative rainfall data of

the eleven meteorologial provinces or divisions for July 1904:—

Meteorological Province.	Rainfall.			
	Mean actual for July 1904.	Mean normal for July.	Mean of departures from normal, July 1904.	Percentage departure from normal, July 1904.
	Inches.	Inches.	Inches.	
Burma Coast and Bay Islands .	36·33	31·41	+7·94*	+25
Burma Inland	8·63	6·67	+0·58*	+ 9
Assam	16·83	16·03	+0·80	+ 5
Bengal and Orissa . . .	15·53	14·56	+0·96	+ 7
Gangetic Plain and Chota Nagpur	16·07	12·30	+3·77	+31
Upper Sub-Himalayas . .	8·22	10·73	—2·20*	—21
Indus Valley and North-West Rajputana.	0·78	3·02	—2·25	—75
East Rajputana, Central India and Gujarat.	8·88	10·08	—0·64*	— 6
Deccan	7·80	11·05	—3·37*	—30
West Coast	28·57	28·58	—0·01	0
South India	3·60	3·14	+0·45	+14

* A reference to table I will show that the means of columns 2 and 3 are derived from a smaller number of stations than the means in the first column. The sum of the figures in columns 2 and 3 will, therefore, not agree with the figures in column 1.

General remarks for the Indian monsoon area.

Large departures from the normal pressure and large barometric changes were shown in the records of the Russian stations. In the Caspian area there occurred a considerable deficiency of pressure on the 12th, a very large excess between the 15th and the 18th, a large deficiency on the 19th and 20th and a considerable deficiency on the 28th and 29th. Similar departures were in no case traceable in the Indian records. In western Siberia the pressure departures were irregular, but there was, in general, an excess between the 1st and the 9th; a fairly general deficiency between the 10th and the 20th (excepting the 12th); a general excess from the 21st to the 24th; a deficiency from the 25th to the 29th and an excess on the 30th and 31st. These departures exhibited no relation to the departures recorded over the Indian monsoon area. In Egypt the barometric pressure, on the mean of the month, was slightly below the average, but the weather was very settled throughout the month and no marked cyclonic depression affected the eastern Mediterranean. There was no rain during the month over Egypt, and though rain was general over the Sudan, the fall was much lighter than usual.

The following table gives the diurnal departures of barometric pressure from the normal throughout the month for certain selected stations in the monsoon area and the mean of the whole number of stations:—

DEPARTURE FROM NORMAL OF PRESSURE AT

Date.	Calcutta.	Lahore.	Madras.	Colombo.	Bombay.	Bushire.	Aden.	Zanzibar.	Seychelles.	Whole.
	"	"	"	"	"	"	"	"	"	"
1	—·184	—·082	—·031	+·004	—·049	—·098	—·082	+·054	—·004	—·052
2	—·135	—·065	—·050	—·005	—·074	—·019	+·013	+·030	+·017	—·032
3	—·060	—·011	—·092	—·007	—·102	—·007	—·065	+·019	+·032	—·033
4	—·040	+·012	—·029	—·001	—·231	—·005	—·055	—·015	+·005	—·041
5	—·012	+·002	+·001	+·058	—·114	—·039	+·060	—·016	+·014	—·005
6	—·109	—·062	+·014	+·028	—·079	0	+·025	—·023	+·018	—·021
7	—·179	—·074	—·004	+·002	—·040	+·017	+·066	—·032	+·025	—·024
8	—·140	—·022	+·009	+·038	—·028	—·023	—·049	—·027	+·012	—·026
9	—·316	—·009	+·007	+·001	+·020	+·020	—·043	—·011	+·014	—·035
10	+·037	—·121	—·006	+·003	+·010	—·093	+·029	—·029	—·012	—·020
11	+·047	—·026	—·003	—·003	+·003	—·017	+·081	—·062	—·010	+·001
12	+·070	—·043	—·009	—·009	+·053	+·007	+·058	—·050	+·006	+·021
13	+·018	—·053	—·022	+·001	+·060	—·018	+·032	—·026	+·003	—·001
14	—·023	—·161	—·035	—·020	+·001	—·014	—·073	—·004	—·026	—·039
15	—·077	—·131	—·043	—·015	+·001	—·100	—·050	—·014	—·032	—·051
16	—·074	—·116	+·012	+·021	+·033	—·045	—·049	—·014	—·005	—·026
17	—·111	—·066	—·002	—·007	+·030	?	—·037	+·001	—·006	—·025
18	—·068	—·072	—·023	—·016	+·012	—·024	—·005	—·013	—·030	—·027
19	—·061	—·038	—·016	—·002	—·007	—·025	—·068	—·016	—·052	—·032
20	—·097	—·043	—·029	—·018	—·005	+·008	+·093	—·008	—·033	—·015
21	—·032	—·096	—·045	—·023	—·012	+·042	—·027	—·041	—·036	—·032
22	—·030	—·030	—·030	—·015	—·005	+·007	—·056	—·051	—·024	—·025
23	+·059	—·008	—·029	—·028	+·006	—·007	+·067	—·008	—·025	+·003
24	+·117	—·034	+·038	—·006	+·028	—·021	—·053	—·002	—·021	+·005
25	+·123	—·027	+·010	—·022	+·054	—·016	—·049	—·034	—·026	+·001
26	+·145	+·009	+·091	+·040	+·105	+·010	+·023	+·014	+·017	+·050
27	+·076	—·025	+·054	+·031	+·082	+·005	+·033	+·018	+·019	+·033
28	+·024	—·124	—·022	—·024	+·030	—·061	—·017	+·017	+·001	—·020
29	—·001	—·027	—·043	—·046	0	—·048	—·085	—·015	—·012	—·031
30	+·032	+·052	—·024	—·004	+·028	+·013	—·022	+·024	—·008	+·010
31	+·057	+·033	—·038	—·031	—·001	+·028	+·026	+·039	+·015	+·014

The preceding data show that practically from the 1st to the 22nd the general pressure was below the normal, that on the 23rd a slight excess commenced, and that from that

date till the close of the month, with a temporary interruption on the 28th and 29th, the mean pressure ruled slightly above the normal. The principal feature of these data is the generally small extent of the departures, the only instances of moderate deficiency or excess having been on the 1st (−·052″), the 15th (−·051″) and the 26th (+·050″).

The following gives what information is available as to the abnormal conditions prevailing throughout the trades-monsoon circulation. The following gives data for the trades region :—

Departures from normal of :—	Mauritius.	Zanzibar.	Seychelles.
Mean Pressure	+·002	+·002	−·017
Mean wind direction (easterly deflection).	+2°	−5°	−5°
Mean wind velocity (in miles per diem)	−51	+12	+69
Mean rainfall	−0·01	−0·25	−2·31

The above shows (1) that there was a slightly greater pressure gradient than usual between Mauritius and the Seychelles; (2) that the trades were a few degrees more easterly than usual at Mauritius and less easterly at Zanzibar and the Seychelles; (3) that the wind was lighter than usual at Mauritius and was stronger than usual at Zanzibar and the Seychelles; and (4) that the month's rainfall was normal at Mauritius and Zanzibar and short of the average at the Seychelles. On the whole these departures from the normal do not appear to possess much importance.

For the Indian seas no information is available as to the wind's direction, but the force, on the mean of the month, was relatively low over the Arabian Sea and high over the Bay of Bengal. This is shown below :—

July.	Arabian Sea.	Bay of Bengal.
Mean force	4·5	4·3
Normal force	4·6	4·0

The following table shows (1) all that is known of the daily departures of the various meteorological elements from the normal over the Indian seas and (2) the daily departures of the rainfall over India derived from the meteorological observatories :—

Date of month (July 1904).	Diurnal departures of pressure gradient from normal between Mauritius and Seychelles.	Diurnal departures of pressure gradient from normal between Seychelles and Bombay.	Easterly deflection of wind at Mauritius.	Easterly deflection of wind at Seychelles.	Departure of hourly wind velocity from normal at Mauritius.	Departure of daily wind velocity from normal at Seychelles.	Departure of wind velocity over the Arabian Sea.	Departure of wind velocity over the Bay of Bengal.	Mean departure of rain over India.
1	2	3	4	5	6	7	8	9	10
	"	"	°	°	Miles.	Miles.	Miles.	Miles.	Inch.
1	+·030	+·062	−23	+12	+1·4	+ 54	−0·1	+1·1	−0·08
2	+·077	+·095	− 2	+12	+3·2	+115	+0·2	+1·2	−0·04
3	+·045	+·127	+ 7	+12	+2·1	+ 21	+1·0	+0·8	+0·26
4	+·047	+·180	+11	−33	+2·0	+ 42	+0·4	+0·6	+0·07
5	+·030	+·105	+10	−57	+0·9	+ 7	+0·7	+1·0	−0·03
6	+·015	+·087	+ 2	+12	+1·9	+ 21	+0·7	+1·0	+0·03
7	+·005	+·049	+16	+12	+3·7	+ 48	+0·5	+0·7	+0·05
8	+·014	+·009	+19	−33	0	+ 13	−0·1	+1·2	+0·11
9	+·024	−·027	+21	− 9	+1·4	+ 6	−0·2	+0·8	+0·02
10	+·028	−·030	0	− 9	−2·9	+ 80	0	+0·4	+0·04
11	+·013	−·037	− 7	+18	−4·5	+109	−0·2	+0·1	−0·19
12	+·025	−·058	− 3	+12	−1·7	+ 36	−0·6	−0·1	− 0·25
13	+·047	− 058	− 5	+12	−1·8	+104	−0·4	+0·3	−0·23
14	+·055	−·048	+ 8	− 9	+0·5	+ 56	−1·3	+0·2	−0·11
15	+·043	−·056	+27	− 9	+0·6	+115	−0·2	+0·6	−0·12
16	+·012	−·031	+19	+12	−4·3	+111	−0·1	+0·6	+0·04
17	0	−·030	−12	−33	−6·6	+ 95	−0·1	+0·6	+0·01
18	−·002	−·013	− 5	− 9	−5·6	+ 39	−0·3	+0·3	+0·02
19	+·007	−·024	+10	−33	−6·7	+ 52	−0·5	+0·3	−0·11
20	−·026	−·020	+37	− 9	−5·4	+132	−0·3	+0·4	−0·01
21	−·045	−·017	+38	− 9	−4·4	+ 53	−0·6	+0·9	−0·05
22	−·020	−·031	−10	−57	−4·9	+ 79	−0·5	−0·3	−0·06
23	−·001	−·049	−20	+12	−1·3	− 17	−0·3	+0·4	−0·02
24	+·021	−·083	−16	−33	−1·8	+ 53	+0·4	−0·7	+0·03
25	+·056	−·112	−10	+18	−1·3	+ 55	−0·4	−0·6	− 0·05
26	+·042	−·128	+ 5	+12	+0·4	+125	−0·6	−0·4	+0·04
27	−·044	−·084	+44	+12	−4·0	+ 44	−0·7	−0·2	+0·04
28	−·063	−·077	?	−57	−7·2	+ 98	−0·7	−0·4	+0·02
29	+·006	−·047	−48	− 9	+1·0	+160	−0·1	−0·2	−0·02
30	+·084	−·052	−15	− 9	−2·9	+ 53	−0·1	−0·2	−0·12
31	+·095	−·008	0	− 9	+2·1	+135	+0·1	−0·2	−0·04

From the 3rd to the 10th the rainfall was generally heavier than usual over India, while the pressure gradients were steeper and the winds stronger than usual throughout the trades-monsoon circulation. On the 9th the pressure gradient over the Arabian Sea fell to less than the average, and so

continued till the close of the month. This was accompanied with lighter winds than usual over this area. On the 11th the rainfall became lighter than the average over India, and this continued, with brief interruptions between the 16th and 18th, on the 24th, and between the 26th and 28th, till the close of the month. There appears to be nothing in the general conditions to account for these brief outbreaks of more rainy weather, and they may probably be attributed to local causes, *viz.*, the storms formed over the Bay area. At the Seychelles the wind was stronger than usual on every day of the month, except the 23rd, but no relation can be traced between these departures and the rainfall departures over India. Similarly no connexion can be traced between the departures of the wind directions at the Seychelles and Mauritius and the departures of Indian rainfall.

Magnetic and Solar disturbances.

Solar Physics Observatory, Kodaikanal:—The weather was more favourable for Solar observations than in June. There were only two days (3rd and 31st) on which the sun was not seen, and two other days on which it was seen only through clouds; there were 16 days fine enough for prominence work.

There was, during the month, a slight increase of disturbance over the previous month as indicated by the number of new spot groups, of which there were 15 against 12 in June, but the number still fell far below that for March, April, and May.

Of the 15 new groups no less than 9 formed on the visible face of the sun, and, with one exception, (No. 321) were very short-lived.

Only two groups, Nos. 308 and 314, can be classed as important. No. 308 appeared on the eastern limb on the 9th and continued visible till it reached the western limb on the 21st. It was a characteristic double group with two main centres, and a large number of small spots constantly changing in number and form and at one time covering some 13° of longitude. It lay between 11° and 17° of north latitude. Spectroscopically the group was a fairly quiet one.

No. 314 appeared at the east limb on the 16th as a group of spots with a large spot leading and a number of small spots following. During its passage across the disc the leader continued to grow in size while the followers disappeared one after another, and from the 24th, till its disappearance at the west limb on the 27th, only the large spot was left. This group lay between 17° and 20° of south latitude, and at its maximum covered about 17° of longitude. On its first appearance this group was young and vigorous. On the 15th (the day before it was first seen) the part of the limb preceding it was covered with a number of bright spike-like eruptive prominences showing D_1, D_2, b_1, b_2, and b_3 bright. On the 20th the C line was considerably disturbed, and between 9h. and 9h. 15m. the *dark* C indicated a velocity of approach of about 200 miles per second.

Of the 18 groups seen during the month (including 3 groups continued from June) 6 were in the northern and 12 in the southern hemisphere. The northern spot zone extended between latitude 7° and latitude 24°, the southern between—5° and—22°.

Faculæ were plentiful throughout the month, all appearing in the spot zones.

Prominences were not very numerous, and the only ones of importance were the metallic prominences seen on the 15th and referred to above in connection with group 314.

There were no "large" magnetic disturbances during the month, but there was a "moderate" disturbance on the 14th when group 308 was near the central meridian.

C. MICHIE SMITH, *Director*,
Kodaikanal & Madras Observatories.

Colaba Observatory, Bombay:—During the month the magnetic traces showed 14 calm days, 14 days of small and 3 days of moderate disturbances.

Movements suspected to be due to seismic causes occurred on the 13th at about 8 P. M., the strain apparently lasting for about 6 hours.

The selected quiet days of the month were the 4th, 9th, 18th, 21st, and 26th.

The mean observed absolute values of the several elements as also the ranges and "summed" ranges of the Horizontal Force and Declination for the month were as follow:—

Declination	0° 14′ 42″ East
Horizontal Force	0·37425 C. G. S. unit.
Dip	21° 49′·0
Horizontal Force range	·00047 C. G. S. unit.
„ „ Summed range	·00335 C. G. S. unit.
Declination range	4′ 80
„ Summed range	20′·26

(Summed range means sum without regard to signs of 24 ordinates of diurnal inequality.)

Three small seismic disturbances were recorded during the month on 18th, 24th and 27th.

MAGNETIC DISTURBANCES.

JULY 1904.

July 1904.		July 1904.		July 1904.	
1	S.	11	C.	21	C.
2	S.	12	C.	22	S.
3	C.	13	S.	23	C.
4	C.	14	M.	24	C.
5	C.	15	S.	25	S.
6	M.	16	S.	26	C.
7	M.	17	S.	27	S.
8	S.	18	C.	28	S.
9	C.	19	C.	29	C.
10	S.	20	S.	30	C.
				31	S.

The Magnitudes of the disturbances are determined from Horizontal Force traces. C = Calm ; S = Small ; M=Moderate ; G= Great, V G=Very great. Days are reckoned from midnight to midnight.

N. A. F. Moos,
Director,
Government Observatory.

Alipore (Calcutta) Observatory.—List of displacements recorded by the Seismograph at the Alipore Observatory during July 1904 :—

Number.	Date 1904.	P. T. commencement. G.M.T.	L. W. commencement.	Maxima. G.M.T.	End.	Maximum amplitude in M. M.	Duration.	REMARKS.
	July 23	H. M. s. 0 51·1	H. M.	H. M. s. 1 5·3	H. M. s. 1 17·5	1·25	H. M s. 0 26·4	Sensibility 111 mm.= 0·38 of tilt.
	„ 24	11 5·7	11 19·9	11 27·0	11 58·6	2·00	0 52·9	
	„ 27	5 39·4		5 41·9	5 57·7	2·50	0 18·3	
	„ „	12 55·6		12 56·6	13 0·7	0·50	0 5·1	

P. T=Preliminary. L. W=Large waves.

The local times of the commencement.

Date. 1904.	H. M.
July 23	6 44·4
„ 24	16 59·0
„ 27	11 32·7
„ „	18 48·9

G. W. KUCHLER,
Asst. Meteo. Reporter to the Govt. of India.

Royal Alfred Observatory, Mauritius :—Groups of spots were observed on the sun on every day of the month, and in addition single spots were seen on the 6th to 9th; the 11th ; the 14th ; the 17th ; the 21st ; the 25th to 27th, and the 30th and 31st.

Faculæ were observed on every day.

The magnetic disturbances recorded during the month were as follows :—

Day.	Hour.	Remarks.
1	15–23	Small fluctuations in H. F.
6 to 7	11 to 13	Fluctuations in H. F. 6th 17½ to 18h wave in H. F. (−·000081) 18½ to 20½h decrease of H. F. (·000362), followed by wave (+·000032) till 7th 0½h ; 7th 0½h to 1h rapid increase of H. F. (·000265). In declination 7th 0—2hr double wave (2″·1 W to 2″·2 E).
10	4½ to 6	Wave in H. F. (+·000210) ; in declination (3″·0E).
13	19½	Sudden increase of H. F. (·000145).
14	10 to 15½	Irregular wave in H. F. (+·000491).
„	20 to 23	Rapid Fluctuations in H. F. (±·000065).
20	9 to 13½	Fluctuations in H. F. (±·000065).

T. F. Claxton,
Director.

Atmospheric Pressure.

The general distribution of the actual mean pressure of the month is shown in Plate I. Pressure was low over the south-west Punjab and the south of the North-west Frontier Province, and high in Malabar and west Ceylon. The ordinary monsoon trough of low pressure over the Gangetic plain was fairly well marked. Pressure, on the mean of the month, was lower than usual over northern, north-eastern and central India, the interior of the Peninsula and Burma, and was higher than usual over Gujarat and the coasts of the Peninsula. The departures from the normal were small and unimportant over southern and central India, but were somewhat larger in the north and amounted

to over 0·04″ at the stations, for which comparative data are given below:—

STATION.	Departure from normal of mean 8 A.M. pressure of July 1904.
	″
Dera Ismail Khan	—·046
Lahore	—·044
Multan	—·043

The deficiency of pressure over north-west India did not extend into Baluchistan, but over Persia, northern Arabia, Asiatic Turkey, and indeed as far west as Egypt the mean pressure of the month was more or less in defect. At Aden and Perim the mean pressure varied slightly and irregularly from the average, as is shown below:—

STATION.	Departure from normal of pressure of July 1904.
	″
Aden	—·013
Perim	+·003

In the extreme south the pressure departures from the normal were also irregular, a trifling excess having been reported from Zanzibar and Mauritius, and a slight deficiency from the Seychelles. The following gives data:—

STATION.	Departure from normal of mean 8 A.M. pressure of July 1904.
	″
Zanzibar	+·002
Mauritius	+·002
Seychelles	—·017

The mean 8 A.M. pressure of the whole Indian land area was ·012″ below the normal. Compared with the geographical mean pressure was low over upper Sind, the Punjab, the North-west Frontier Province, the Gangetic plain, north-east India, and the greater part of Burma, and was generally high elsewhere. The following shows the departures equal to or exceeding ·020″:—

Positive departures.		Negative departures.	
STATIONS.	Pressure anomaly, July 1904.	STATIONS.	Pressure anomaly, July 1904.
	″		″
Pachpadra	+ 031?	Dera Ismail Khan	—·034
Bhuj	+·027	Lahore	—·032
Veraval	+·026	Multan	— 031
Ahmednagar	+·023	Ludhiana	—·021
Ratnagiri	+·021	Sialkot	—·020
Chanda	+·026	Nowgong	—·028
Amraoti	+·020	Jhansi	—·021
Nellore	+·022	Hazaribagh	—·027
Madura	+·020	Berhampore	—·021
Tinnevelly	+·020	Sibsagar	—·022
Trincomalee	+·025		

Pressure was in excess at the Baluchistan hill stations, but with the doubtful exception of Pachmarhi was in defect at all the Indian hill stations. The departures were slight in amount in the north-west and small in the west and south. The following gives data:—

HILL STATION.	Departure from normal of mean 8 A.M. pressure of July 1904.
	″
Cherat	—·026
Murree	—·020
Srinagar	—·022
Leh	—·009
Simla	—·008
Chakrata	—·021
Ranikhet	—·035
Darjeeling	—·018
Mount Abu	—·009
Wellington	—·006
Pachmarhi	+·019

The vertical pressure anomalies were in most places

slight, but were generally positive in the north-west. The following gives data for ten pairs of stations :—

HILL STATION.	Departure from normal pressure, July 1904.	PLAIN STATION.	Departure from normal pressure, July 1904.	Vertical pressure anomaly (Hill—Plain).
	"		"	"
Quetta	+·028	Jacobabad	—·026	+·054
Leh	—·009	Lahore	—·044	+·035
Murree	—·020	Peshawar	—·027	+·007
Simla	—·008	Ludhiana	—·033	+·025
Chakrata	—·021	Roorkee	—·020	—·001
Ranikhet	—·035	Bareilly	—·022	—·013
Darjeeling	—·018	Dhubri	—·023	+·005
Mount Abu	—·009	Deesa	+·004	—·013
Pachmarhi	+·019	Khandwa	—·007	+·026
Wellington	—·006	Coimbatore	—·003	—·003

Barometric depressions and cyclonic storms of the month.

There were no cyclonic storms over the Arabian Sea during the month of July 1904.

A series of depressions was formed over lower Bengal and the head of the Bay during the month.

Cyclonic storm of 1st to 6th July.—July 1st.—On the 1st a slight cyclonic storm lay over the head of the Bay, and strong south-westerly winds prevailed over the north of the Bay. The following gives marine data for this day :—

NAME OF VESSEL.	8 A.M. POSITION. Lat. N.	Long. E.	Barometer as corrected by Calcutta Office.	WIND Direction.	Force.	WEATHER.
	° ′	° ′	"			
S.S. *Den of Airlie*	15 49	85 40	...	W	6	High sea and terrific rain squalls.
S.S. *Sofala*	16 10	86 39	29·469	W	5	Rough confused sea and occasional rain squalls.
S.S. *Katherine Park.*	17 12	87 05	·505	SW by W	8	Rough beam sea and squally.
S.S. *Darothy*	17 14	86 13	·426	WNW	7	Squally.
S.S. *Bancoora*	17 31	92 14	·575	SW	5	High sea and dull rainy.
S.S. *Indrasomha*	17 41	91 36	...	SW	6	Heavy w.-s.-w. sea, squally and heavy rain.
S.S. *Vadala*	19 02	87 36*	·338	SW	7	High sea and violent squalls of wind and rain.
S.S. *Orissa*	19 11	87 23	·378	WSW	6	High sea ; noon thick with rain.
S S. *Venetia*	19 56	87 10	...	SW by W	8	High following sea and passing showers.
S.S. *Clan Colquhoun.*	20 43	87 45	·246	N	2	Moderate swell and dull cloudy; 4 A.M. passing showers.
S.S. *Maharani*	Hooghly River.		·333	...	...	Midnight threatening, occasional rain and lightning.
S.S. *Tara*	Calcutta.		310	...	...	Noon occasional showers.
S.S. *Nadir*	Calcutta.		·383	...	...	4P.M.rain squalls.
F.L.V. *Comet*	Long sands.		·327	NE	3	Overcast.
F.L.V. *Torch*	R'dge.		·346	N	4	Very heavy quick southerly swell and showery.

* Noon position.

The above shows that moderate to fresh south-west to west gales and heavy squalls prevailed over the north of the Bay and northerly to north-easterly moderate winds off the Bengal coast and at the Sandheads. The *Comet* floating light vessel at Saugor roadstead experienced a north-east wind at 8 A.M., an east-south-east wind at 10 A.M. and a south-east by east wind at 4 P. M. so that the centre apparently passed this vessel at about 10 A.M. The barometer was steady during the day. The *Torch* floating light vessel at the Sandheads had a north wind at 8 A.M. and a south-west wind at 10 A.M., a change which also marks the passage of the storm westward. The following gives the 8 A.M. observations at the stations around the head of the Bay :—

STATION.	PRESSURE. 8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	Change in past 24 hours.	Departure from normal.	WIND Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	REMARKS.
	"	"	"				inches.	
Akyab	29·517	—·019	—·143	S	2	8	0·80	
Chittagong	·472	+·014	—·148	SE	12	3	0·27	Showery.
Barisal	·428	—·006	—·050	SSE	5	6	0·44	Do.
Calcutta	·357	—·022	—·184	ENE	5	10	0·33	Do.
Saugor Island.	·281	—·055	—·262	NE	11	10	0·09	Sea smooth
Balasore	·329	—·022	—·215?	NNE	5	8	0·03	
False Point	·327	—·066	—·231	W	13	10	1·86	Drizzling.
Cuttack	·334	—·077	—·217	SW	5	8	0·21	Showery.
Gopalpur	·397	—·090	—·159	WSW	21	10	2·12	
Waltair	·510	—·056	—·087	SW	11	10	1·65	Sea rough.
Cocanada	·585	0	—·037	W	7	10	0·40	Sea slight.

Pressure was thus ·262" below the normal at Saugor Island, where at 8 A.M. the wind was north-easterly blowing at the rate of 14 miles per hour. At Gopalpur and

Waltair, there were strong south-westerly to west-south-westerly winds, and at Chittagong a strong south-east wind.

July 2nd:—The storm crossed the Orissa coast during the 1st and advanced in a westerly direction. It lay over the east of the Central Provinces on the morning of the 2nd, and had, apparently, decreased in intensity as the largest deficiency of pressure, which was reported from Sambalpur, was only ·216″ as compared with ·262″ on the 1st. General rain was reported within the storm area.

July 3rd.—The storm had continued to advance slowly in a westerly direction, and had further decreased slightly in intensity. The centre lay apparently to the north of Raipur, where pressure was ·171″ below the normal. The winds were cyclonic in direction and moderate to strong in force over the more central parts of the country. Heavyish rain was falling on the western and south-western quadrants of the storm.

July 4th.—The storm had continued to move westward, but was hardly distinguishable, as it formed part of a large diffused area of low pressure lying over Gujarat, Rajputana and Central India. The largest deficiency of pressure reported was ·177″ at Malegaon. Moderately heavy rain had, however, fallen in its neighbourhood, Indore and Khandwa reporting over 2·00″.

July 5th.—On this day the storm was apparently in the neighbourhood of Ahmedabad, but was very indistinctly marked. General, and in places heavy, rain had, however, fallen over Gujarat and Kathiawar.

July 6th.—There was still a slight residual depression over north Gujarat, and heavyish rain had fallen over this area, more particularly at Rajkot. By the following morning the barometer was rising briskly in Gujarat, and the depression had wholly disappeared.

The storm, though in its later stages it was very indistinct, had thus apparently passed from the north of the Bay right across the head of the Peninsula to the north of the Arabian Sea, and the positions of the centre were approximately as follows:—

DATE.	POSITION OF CENTRE.		Distance travelled during interval.	Average hourly rate of motion.
	Lat. N.	Long. E.		
	° ′	° ′	Miles.	Miles.
July 1st . . .	21 40	88 10	...	...
,, 2nd . . .	21 40	85 20	185	8
,, 3rd . . .	21 50	81 40	240	10
,, 4th . . .	22 30	77 10	290	12
,, 5th . . .	23 30	72 40	205	9
,, 6th . . .	24 0	70 30	145	6

Slight cyclonic storm of the 7th to 11th July.—As the above depression was breaking up over Gujarat the winds dre winto cyclonic directions over Bengal, and a shallow depression was developed over lower Bengal during the 6th.

July 7th.—The barometer had fallen slightly to briskly over Bengal, and pressure was 0·197″ below the normal at Jessore. The winds blew from cyclonic directions over Bengal and the west-south-west wind at Saugor Island was blowing at the rate of 30 miles per hour at 8 A.M. Heavy rain was falling in Chota Nagpur and in deltaic Bengal.

July 8th.—The depression over deltaic Bengal had been displaced slightly westward and lay over the borders of Chota Nagpur, where the barometer was falling briskly. The barometer read 0·204″ below the normal at Burdwan, and barometric gradients were steeper than on the 7th, mainly owing to changes outside the storm area. In consequence the winds had increased in strength, and the southerly wind at Saugor Island was blowing at the rate of 54 miles per hour at 8 A.M. Heavy rain had fallen over Bengal.

July 9th.—The storm had advanced in a north-westerly direction into south Bihar and the barometer read ·200″ below the normal at Gaya. Barometric gradients remained steep and the winds circulating around the depression were strong and squally. Heavy rain continued to fall over Bengal.

July 10th.—The storm had travelled in a westerly direction and was central over the eastern states of Central India, the barometer marking ·292″ below the normal at Nowgong. The storm had intensified somewhat, and the surrounding gradients remained steep. Gales were reported from the neighbourhood of the storm. Heavy rain was falling over the central districts, the heaviest amount reported having been 11·20″ at Saugor.

July 11th.—The storm had travelled slowly in a west-north-westerly direction, and was central between Jhansi and Jaipur. It had filled up considerably, and the largest deficiency of pressure was ·131″ at Jhansi. Gales, however, continued at several central stations, where also moderately heavy rain had fallen. The position of the centre on each day was approximately as follows:—

DATE.	POSITION OF CENTRE AT 8 A.M.		Distance travelled during interval.	Average hourly rate of motion
	Lat. N.	Long. E.		
	° ′	° ′	Miles.	Miles.
July 7th . . .	23 0	88 30	...	...
,, 8th . . .	23 30	86 20	130	5
,, 9th . . .	24 50	84 0	190	8
,, 10th . . .	25 10	79 30	285	12
,, 11th . . .	26 0	78 0	115	5

A shallow land-formed depression existed over Bihar and south-west Bengal between the 16th and 18th. It determined moderately heavy rain to parts of Bengal, but was at no time of any importance.

Another shallow land-formed depression appeared over the east of the United Provinces and west Bengal on the 22nd. It advanced west-north-westward into the centre of the United Provinces on the 23rd, into the west of the United Provinces on the 24th, and filled up in that position on the 25th. It was accompanied with general, moderately heavy rain over a large part of northern India. A third land-formed depression appeared over the United Provinces on the 30th and 31st and moderate to heavy rain fell in its neighbourhood.

Summary of the Reports of the Weather and Snowfall in the Mountain Districts to the North and North-West of India.

I.—KASHMIR AND PUNJAB HIMALAYAS.

(1) *Gilgit.*—The snowfall was slightly below the normal.

(2) *Leh.*—A few light falls of snow occurred on the higher hills around Leh during July, but the snow rapidly melted. Yarkandi traders reported that no snow was lying on the Karakorum pass in the middle of July.

(3) *Kashmir.*—July was an exceptionally dry month, and the snowfall much below the average on the higher mountains. Near Gulmarg light snow fell on the 2nd at an elevation of about 14,000 feet, and near Skardu fresh snow was seen on the 18th July. From Dras snow was noticed on the higher mountains on the 5th July.

(4) *Kulu:*—On the Hamta pass (14,200 feet) there was a storm of sleet which changed to snow and collected to a depth of 6 or 8 inches on the 7th July. Fresh snow fell over the mountains along the Chandra valley during the 8th to 11th, and snow fell on the Parang La (18,500 feet) in Spiti about the same dates. On the 21st, 22nd and 23rd there were fairly heavy showers of rain at Tabo and Po at the east end of the Spiti valley, and snow fell down to about 15,000 feet.

(5) *Bashahr, Simla:*—Snow occurred on the 7th, but was restricted to elevations above 16,000 feet.

The snow measured as follows on the under mentioned passes at the close of the month :—

Rupan Pass	6 feet.
Bruin do.	6 „
Harang do.	*Nil.*
Shatul do.	5 feet.
Buldar do.	6 „
Runang do.	*Nil.*

(6) *Chamba:*—Snow fell on the following dates on the Sach pass (14,000 feet):—

July 3rd	2 inches.
„ 10th	3 „
„ 11th	½ inch.
„ 12th	1 „
„ 13th	1½ inches.
„ 16th	1 inch.
„ 17th	2 inches.
	Total 11 inches.

II.—UNITED PROVINCES HIMALAYAS.

(1) *Almora.*—Snow fell as under during July :—

Martoli (14,000 feet)	1 fot.
Millam (16,000 feet)	1½ feet.
Pindari, Kaphini, Kantela	3 inches.
Malla Johar	2 feet.
Malla Danpur	4 inches.

The snowfall of the month was less than usual.

Summary of Special Storm Reports.

The weather was disturbed and local storms were numerous during the first half of the month. The following is a record of the storms reported by the observers :—

July 1st.—A duststorm of some intensity passed over Allahabad at 0-53 P.M. Thunder and rain (0·31″) accompanied the storm. The temperature was 97° at noon, 88° at 0-55 P.M. and 83° at 1-7 P.M.

A thunderstorm occurred at Gulmarg between 5 P.M. and 10 P.M. Rain fell in the valley and snow on the higher hills.

A thunderstorm with hail and rain was experienced at Srinagar between 6 P.M. and 10 P.M.

„ *2nd.*—A thunderstorm was felt at Gulmarg between 3 A.M. and 7 A.M. There was no rain.

A thunderstorm commenced at Simla at 12-40 P.M. and continued till about 4-30 P.M. Showers of rain fell.

A duststorm travelling from north-west passed over Lahore at 10-15 A.M. The wind was very violent and the temperature fell 11° in 45 minutes. There was no rain.

A strong duststorm with rain passed over Agra at 9 P.M.

July 3rd.—A thunderstorm came on at Simla from S. S. W. at 3 P.M. and continued till 4 P.M. Very light rain fell.

A nor'wester passed over Jodhpur at 5-37 P.M. (Railway time). It lasted till 5-56 P.M. A few drops of rainfell.

A duststorm with violent winds was experienced at Sambhar between 5 P.M. and 5-10 P.M.

A duststorm passed over Patiala between 3-40 P.M. and 4-10 P.M There was no rain.

„ *4th.*—A dust storm passed over Jodhpur at 4-10 P.M. (Railway time), coming from east. The storm lasted for 10 minutes and light rain fell.

A thunderstorm occurred at Simla between noon and 3-30 P.M. It came up from south-east. Showers fell and the rain amounted to 0·49 inch.

At 4-45 P.M. a duststorm commenced at Ajmer coming up from north-east and lasting 10 minutes. No rain fell.

„ *5th.*—A thunderstorm was experienced at Gulmarg between 1 P.M. and 6 P.M. Light rain fell.

July 6th.—A duststorm coming from north occurred at Lahore between 6 P.M. and 8 P.M. A few drops of rain fell and temperature decreased from 100° to 87°.

A very heavy thunderstorm passed over Hoshangabad between 8-30 and 9-15 P.M. The storm travelled from south-west to north-east.

A thunderstorm with strong winds and light rain passed over Gulmarg between noon and 4 P.M.

,, *7th.*—A duststorm was experienced at Srinagar between 5 P.M. and 6-50 P.M. There was no rain.

A thunderstorm and severe gale of wind passed over Gulmarg between 2 P.M. and 8 P.M. A few drops of rain fell.

A heavy duststorm passed over Jodhpur between 6-36 and 6-46 P.M.(Railway time). Light showers and a gale of wind accompanied the storm.

,, *9th.*—A gale of wind was experienced at Dras between 2 P.M. and 4 P.M.

A thunderstorm occurred at Pachmarhi in the early morning with violent wind and rain.

,, *10th.*—A duststorm passed over Lahore between 4 P.M. and 6 P.M. followed by light drizzling rain.

A thunderstorm with strong winds but no rain occurred at Gulmarg between 3 P.M. and 7 P.M.

,, *11th.*—A heavy storm was experienced at Hoshangabad between 4-10 and 4-30 P.M.

,, *16th.*—A duststorm and gale of wind were experienced at Dras between 3-30 P.M. and 5-30 P.M.

July 18th.—A thunderstorm and light rain passed over Gulmarg between 1 P.M. and 6 P.M. Temperature fell 10°·7.

A duststorm and severe gale of wind were experienced at Dras between 5 P.M. and 6-30 P.M. Rain fell on the higher hills.

,, *24th.*—A dust and thunderstorm passed over Dras between 3 P.M. and 3-30 P.M. A severe gale of wind was experienced.

,, *25th.*—A thunderstorm with hard squalls and gale of wind was experienced at Gulmarg between 8 P.M. and midnight. Nearly half an inch of rain fell.

A severe thunderstorm passed over Srinagar between 6 P.M. and 10 P.M. There was no rain.

A thunderstorm, accompanied with a violent hailstorm and heavy rain, passed from south-east over Dras and lasted twelve minutes.

,, *28th*—A thunderstorm occurred at Gulmarg between 8 P.M. of 28th and 2 A.M. of 29th. Light rain fell.

At Leh there was a heavy thunderstorm—a rare event—on the 22nd. Thunder and lightning began about 4-30 P.M. in the distance and passed over Leh at about 6. P.M. The rainfall measured 0·67″.

A lunar halo was observed at Gulmarg on the 22nd, a lunar and a solar corona on the 25th and 26th, and a solar halo on the 27th July. At the same station opal fringes to the clouds were observed on the 29th.

HAILSTORM REPORT.

There was a violent hailstorm with rain from the south-east at Dras at 4-45 P.M. on the 25th July. The storm lasted 12 minutes.

Brief Summary of the Weather in the Arabian Sea and Bay of Bengal during the month.

Arabian Sea.—The monsoon blew very steadily over the Arabian Sea throughout the month. The directions were generally southerly in the neighbourhood of Socotra, but drew into south-west and west over the centre and east of the sea.

South-east and south-west winds prevailed over the Gulf of Aden during the month, and variable winds over the Persian Gulf.

The mean force of the wind for the whole month was 4·5, the normal force being 4·6, so that the general strength of the monsoon current was very slightly below the average. The force was greatest on the 3rd, when, on the mean of 25 vessels it averaged 5·6 or 1·0 above the normal. It was lightest on the 14th, when the mean, determined from observations of 31 vessels, was only 3·3.

The reports of the mail steamers were as follows :—

Arabia left Aden on the 4th and experienced up to Long. 52° E. light variable winds and a moderate south-east swell; thence to Long. 68° E. a fresh to strong monsoon occasionally blowing with the force of a moderate gale with passing clouds and a high sea and swell; thence to arrival at Bombay (9th) a moderate to fresh monsoon, a moderate sea, passing clouds and passing showers near the coast.

Oceana left Aden on the 10th and up to Long. 53° E. experienced light to moderate south-westerly and variable winds and a confused swell; thence to Long. 62° E. a strong monsoon with passing clouds and a moderate to high sea; thence to arrival at Bombay (16th) a moderate to fresh monsoon, cloudy weather and a moderate sea.

Persia left Aden on the 18th and experienced up to Long. 52° E. light variable winds and considerable south-east swell; thence to Long. 63° E. a fresh monsoon occasionally blowing strongly and high sea and swell; thence to arrival at Bombay (23rd) a moderate to fresh monsoon, cloudy weather and moderate sea and swell.

Arabia left Aden on the 24th and experienced up to Long.

55° E. moderate to light southerly and south-westerly winds and a slight southerly swell; thence to Long. 69° E. a fresh monsoon with passing clouds, a moderate south-west sea, heavy dew and a light shower; thence to arrival at Bombay (30th) a gentle monsoon, cloudy weather and a moderate to slight sea.

Bay of Bengal—Strong cyclonic winds were blowing over the north of the Bay on the 1st, but on the 2nd the storm crossed the coast, and from that day onward to the 29th south-west winds prevailed over the whole surface of the Bay. Towards the close of the month the force of the wind diminished, and on the 30th and 31st the wind's direction became more or less variable.

The mean force of the wind for the month was 4·3, the normal force being 4·0, so that the monsoon was somewhat stronger than usual in this region. The mean force was highest, 5·2 on the 2nd and 8th, and was lowest, 3·3 on the 24th.

Equatorial Belt.—Steady south-east trades prevailed over the greater part of the belt during the greater part of the month, but on the 14th and again between the 22nd and 24th the wind drew into more southerly directions over this region.

The preceding data show that the monsoon was somewhat lighter than usual over the Arabian Sea and somewhat stronger than usual over the Bay area on the mean of the month, and that in both areas the current was, on the whole, steadier and stronger in the first than in the second half of the month.

Temperature of the Air.

The rainfall during the month of July 1904 was deficient over a considerable part of north-west India, north Bombay, the north Konkan and across the head of the Peninsula, and the mean temperature of the month was higher than usual over those areas.

The mean day or maximum temperature of the month exceeded the normal over the Punjab (except the south-east), the North-west Frontier Province, western Rajputana, upper Sind, Gujarat, the north Konkan, and thence across the head of the Peninsula to the mid-Madras coast. The excess within these areas was not very great, but exceeded 2° at the following stations:—

Station.	Mean maximum temperature.		
	Actual, July 1904.	Normal, July.	Departure from normal, July 1904.
	°	°	°
Sialkot	101·0	97·6	+3·4
Multan	106·3	103·8	+2·5
Rawalpindi	99·6	97·3	+2·3
Bikaner	102·6	100·4	+2·2
Khandwa	89·8	87·6	+2·2
Masulipatam	94·9	92·7	+2·2

In addition the maximum temperature, on the mean of the month, was normal or in trifling excess at one or two stations in the south of the Peninsula and in north Bengal.

In all other parts of the country the mean maximum temperature was in defect. The deficiency was, on the whole, more marked and larger than the excess, and amounted to over 2° at the following considerable number of stations:—

Station.	Mean maximum temperature.		
	Actual, July 1904.	Normal, July.	Departure from normal, July 1904.
	°	°	°
Nowgong	85·1	89·9	—4·8
Yamethin	86·0	90·0	—4·0
Mandalay	90·7	94·2	—3·5
Tavoy	79·9	83·3	—3·4
Jhansi	87·8	91·2	—3·4
Roorkee	88·8	92·1	—3·3
Agra	90·2	93·3	—3·1
Dehra Dun	82·5	85·5	—3·0
Salem	90·2	93·1	—2·9
Lucknow	89·4	92·2	—2·8
Saugor	82·4	85·2	—2·8
Cawnpore	89·9	92·5	—2·6
Minbu	89·0	91·3	—2·3
Allahabad	89·4	91·6	—2·2
Delhi	91·9	94·0	—2·1
Sutna	85·3	87·4	—2·1
Akyab	82·6	84·7	—2·1
Moulmein	80·9	83·0	—2·1

The following shows the highest temperature recorded during the month in each province or division with the

recording station, and gives the highest temperature previously recorded at that station :—

Province or Division.	Station.	Highest maximum temperature recorded in July 1904.	Date on which recorded.	Highest maximum temperature recorded in July previous to 1904.	Year in which recorded.
		°		°	
Burma	Monywa	99·8	11th	102·3	1903
Assam	Silchar	96·1	8th	103·6	1896
Bengal	Sirajganj	98·8	30th	99·3	1898
Orissa	Cuttack	94·4	13th and 27th.	104·4	1897
Bihar	Darbhanga	95·8	7th	98·2	1885
Chota Nagpur	Chaibassa	93·4	13th	103·7	1902
United Provinces.	Mainpuri	107·3	2nd	114·2	1903
Punjab	Multan	112·4	8th	119·5	1901
N.-W. F. Province.	Peshawar	114·0	14th	118·0	1900
Sind	Jacobabad	116·6	15th	126·0	1901
Rajputana	Bikaner	109·5	4th	116·9	1901
Gujarat	Ahmedabad	101·8	1st	108·3	1902
Central India	Sutna	102·0	2nd	109·6	1901 and 1902.
Central Provinces.	Hoshangabad	100·9	3rd	106·4	1900
Berar	Akola	97·8	3rd	103·0	1875
West Coast	Bombay	87·5	2nd and 3rd.	98·5	1902
Bombay Deccan	Sholapur	95·7	14th, 15th and 27th	99·7	1877, 1891 and 1895.
Mysore	Mysore	87·4	28th	92·1	1899
Madras Coast	Nellore	102·3	12th, 13th and 24th	107·9	1899
Madras Deccan	Indur	103·7	9th	101·4	1897
South India	Madura	103·0	9th	105·3	1884

The preceding data show that the highest maximum temperatures were recorded on varying dates during the month, and that the absolutely highest reading registered was 116°·6 at Jacobabad on the 15th.

At Pachmarhi the mean maximum temperature of the month was exactly normal, but at the remaining hill stations, with the exception of Cherat, Murree and Srinagar, it was lower than usual. At the following stations the deficiency was more than 2°:—

Hill Station.	Mean maximum temperature.		
	Actual, July 1904.	Normal, July.	Departure from normal, July 1904.
	°	°	°
Chaman	97·6	101·5	—3·9
Leh	74·7	78·2	—3·5
Chakrata	67·1	69·9	—2·8
Kailang	71·8	73·9	—2·1

The departures of the mean minimum or night temperature from the normal were small and unimportant, except in parts of the Punjab and of Burma. The mean minimum temperature was in some excess over the Punjab, the north Konkan, Khandesh, and at one or two stations around the Bay. The departures exceeded +2° only at the following places :—

Station.	Mean minimum temperature.		
	Actual, July 1904.	Normal, July.	Departure from normal, July 1904.
	°	°	°
Lahore	83·5	79·4	+4·1
Sialkot	82·7	79·5	+3·2
Multan	86·6	83·7	+2·9
Sirsa	83·9	81·8	+2·1

Over the whole of the remainder of the Indian area the mean night temperature was lower than usual, but the departures were small and only exceeded 2° at the stations for which comparative data are given below :—

Station.	Mean minimum temperature.		
	Actual, July 1904.	Normal, July.	Departure from normal, July 1904.
	°	°	°
Thayetmyo	73·1	76·3	—3·2
Tavoy	71·8	74·1	—2·3
Gulbarga	69·7	71·8	—2·1

At all the hill stations the mean minimum temperature was below the normal, and at the Afghanistan and Baluchistan stations the deficiency was considerable. This is shown below :—

Hill Station.	Mean minimum temperature.		
	Actual, July 1904.	Normal, July.	Departure from normal, July 1904.
	°	°	°
Chaman	70·4	75·1	—4·7
Kabul	57·0	61·5	—4·5
Quetta	61·5	64·7	—3·2
Murree	59·6	62·5	—2·9

Hill Station.	Mean minimum temperature. Actual, July 1904.	Normal, July.	Departure from normal, July 1904.
	°	°	°
Gilgit	71·7	73·3	—1·6
Mount Abu.	64·2	65·7	—1·5
Pachmarhi	66·8	68·0	—1·2
Srinagar	63·5	64·6	—1·1
Kailang	50·2	51·1	—0·9
Wellington	57·0	57·9	—0·9
Simla	59·3	60·1	—0·8
Chakrata	59·7	60·2	—0·5
Darjeeling.	57·4	57·7	—0·3
Leh	50·5	50·6	—0·1
Ranikhet	62·9	63·0	—0·1

The departures of the mean temperature from the normal were generally moderate or slight. There was some excess over the greater part of the Punjab, the North-West Frontier Province, western Rajputana, upper Sind, eastern Gujarat and the head of the Peninsula. The excess was more than 2° only at the following stations:—

Station.	Mean temperature. Actual, July 1904.	Normal, July.	Departure from normal, July 1904.
	°	°	°
Sialkot	91·9	88·6	+3·3
Lahore	93·0	90·0	+3·0
Multan	96·5	93·8	+2·7

In all other parts of the Indian region the mean temperature was normal or in defect. The deficiency was more than 2° at the foot of the Mussooree hills, over the south-east of the United Provinces and the neighbouring parts of Central India, and over parts of Burma and Tenasserim. The following gives data for the stations in these areas:—

Station.	Mean temperature. Actual, July 1904.	Normal, July.	Departure from normal, July 1904.
	°	°	°
Dehra Dun	77·6	79·9	—2·3
Roorkee	83·0	85·2	—2·2
Nowgong	81·1	84·1	—3·0
Agra	84·7	87·0	—2·3
Jhansi	82·3	85·1	—2·3
Saugor	77·4	79·6	—2·2
Tavoy	75·9	78·8	—2·9
Thayetmyo	80·1	82·6	—2·5
Yamethin	80·1	82·4	—2·3

At all the hill stations, except Cherat, the mean temperature was below the normal. This is shown below:—

Hill Station.	Mean temperature. Actual, July 1904.	Normal, July.	Departure from normal, July 1904.
	°	°	°
Chaman	84·0	88·3	—4·3
Kabul	75·2	77·0	—1·8
Leh	62·6	64·4	—1·8
Quetta	77·1	78·8	—1·7
Chakrata	63·4	65·1	—1·7
Gilgit	83·5	85·0	—1·5
Kailang	61·0	62·5	—1·5
Murree	68·4	69·8	—1·4
Simla	63·4	64·7	—1·3
Mount Abu	68·9	70·2	—1·3
Wellington	63·8	64·6	—0·8
Pachmarhi	71·3	71·9	—0·6
Ranikhet	68·2	68·5	—0·3
Darjeeling	61·7	62·0	—0·3
Srinagar	74·7	74·8	—0·1
Cherat	81·1	79·7	+1·4

The following summarises the chief abnormal features of the temperature conditions of the month:—

(1) The mean day and mean night temperatures and consequently also the mean temperature exceeded the normal over the greater part of north-west India.

(2) The mean day temperature was in excess, the mean night temperature about normal and the mean temperature in slight excess across the head of the Peninsula.

(3) The mean day, the mean night, and hence also the mean temperature were in defect elsewhere.

(4) The mean temperature was in defect at the hill stations.

The following table gives comparative temperature data of the month for the 57 meteorological divisions of the empire :—

Province.	Division.	Actual temperature.					Departure from normal of month of		
		Mean maximum.	Mean minimum.	Monthly mean of mean between maximum and minimum.	Mean daily range of temperature.	Absolute range.	Maximum.	Minimum.	Daily range.
		°	°	°	°	°	°	°	°
Burma	Tenasserim	82·8	74·6	78·7	8·2	15·2	−2·3	−0·7	−1·6
	Lower Burma (Deltaic)	83·6	76·2	79·9	7·4	14·5	−1·2	+0·5	−1·7
	Central do.	86·4	73·2	79·8	13·2	19·6	−1·4	−2·5	+1·1
	Upper do.	88·3	76·4	82·4	11·9	21·8	−2·7	−0·5	−2·2
	Arakan	82·6	76·6	79·6	6·0	11·7	−2·1	−0·9	−1·2
Bengal and Assam	Eastern Bengal	86·6	77·0	81·8	9·6	18·1	−0·5	−0·9	+0·4
	Assam (Surma)	89·3	76·4	82·9	12·9	21·8	−0·9	−0·8	−0·1
	Do. (Hills)	74·1	64·5	69·4	9·6	15·4	...	...	...
	Do. (Brahmaputra)	88·5	76·9	82·7	11·6	19·4	−0·5	−0·7	+0·2
	Deltaic Bengal	87·6	78·7	83·2	8·9	17·5	−1·1	−0·4	−0·7
	Central do.	88·2	77·9	83·0	10·3	19·8	−1·3	−0·7	−0·6
	North do.	88·7	77·4	83·1	11·4	20·0	0	−0·7	+0·7
	Bengal Hills	64·0	53·9	59·0	10·1	15·6	−0·2	−0·3	+0·1
	Orissa	87·2	78·1	82·6	9·2	17·7	−0·9	−0·8	−0·1
	Chota Nagpur	85·7	74·7	80·2	11·0	18·1	−1·1	−0·5	−0·6
	Bihar (South)	87·4	77·9	82·7	9·6	18·2	−1·2	−1·3	+0·1
	Do. (North)	89·5	78·5	84·0	11·0	19·6	−0·2	−0·6	+0·4
United Provinces of Agra and Oudh.	United Provinces (East)	89·4	78·2	83·8	11·2	23·2	−2·1	−1·3	−0·8
	Oudh (South)	89·4	78·4	83·9	11·0	22·5	−2·8	−0·9	−1·9
	Do. (North)	89·9	78·2	84·1	11·7	21·1	−1·4	−0·6	−0·8
	United Provinces (Central)	89·6	78·5	84·1	11·1	30·4	−2·5	−0·8	−1·7
	Do. (West)	90·9	79·4	85·1	11·5	31·3	−2·2	−0·6	−1·6
	Do. (East Submontane).	89·4	78·0	83·7	11·4	20·5	−1·7	−1·4	−0·3
	Do. (West Submontane).	87·1	75·9	81·5	11·2	24·8	−2·6	−1·1	−1·5
	Do. (Hills)	69·7	60·3	65·0	9·5	18·9	−1·7	−0·3	−1·4
Punjab	Punjab (South-East)	91·9	79·2	85·6	12·7	31·9	−2·1	−1·5	−0·6
	Do. (South)	96·8	81·4	89·1	15·5	32·9	+1·1	+2·1	−1·0
	Do. (Central)	102·4	83·5	93·0	18·9	33·2	+1·8	+4·1	−2·3
	Do. (Sub-montane)	99·1	80·3	89·7	18·7	36·8	+1·8	+1·5	+0·3
	Do. (Hills)	80·2	58·7	69·4	21·5	38·7	−1·3	−1·2	−0·1
	Do. (West)	105·2	85·1	95·2	20·1	37·3	+1·5	+1·8	−0·3
N.-W. F. Province	North-West Frontier Province	104·3	81·7	93·0	22·7	39·4	+1·2	+0·7	+0·5
Bombay and Malabar Coast Districts (Madras).	Malabar	82·0	73·7	77·9	8·3	13·9	−0·8	−0·7	−0·1
	Madras (South Central)	88·6	71·3	80·0	17·3	23·5	−2·0	−0·6	−1·4
	Coorg	68·4	61·0	64·7	7·4	11·9	−0·5	−1·2	+0·7
	Mysore	80·4	66·0	73·2	14·4	21·2	−1·1	−0·6	−0·5
	Konkan	83·4	76·3	79·8	7·1	13·0	−0·1	+0·2	−0·3
	Bombay Deccan	84·4	69·7	77·0	14·7	21·8	+0·9	−0·4	+1·3
	Hyderabad (North)	87·7	70·4	79·0	17·4	31·1	...	...	...
	Khandesh	87·8	71·6	79·8	16·2	24·7	+1·5	−0·3	+1·8
Central Provinces and Berar.	Berar	89·2	74·2	81·7	15·0	25·4	+1·1	+0·3	+0·8
	Central Provinces (West)	88·5	75·2	81·9	13·3	27·1	+1·1	0	+1·1
	Do. (Central)	85·0	73·2	79·1	11·7	27·9	−0·9	−1·0	+0·1
	Do. (East)	84·8	74·1	79·5	10·7	19·6	−1·2	−1·0	−0·2
Bombay (North)	Gujarat	90·1	78·1	84·1	12·0	23·0	+0·7	+0·4	+0·3
	Kathiawar and Cutch	88·8	78·1	83·5	10·7	20·7	+0·1	−0·3	+0·4
	Sind	99·8	81·1	90·4	18·7	27·3	+0·7	−0·8	+1·5
	Baluchistan Hills	95·4	63·3	79·4	32·1	46·7	−2·0	−4·0	+2·0
Rajputana and Central India.	Central India (East)	85·1	74·8	80·0	10·3	27·7	−2·2	−0·7	−1·5
	Rajputana (East), Central India (West)	91·3	77·1	84·2	14·2	32·2	−0·4	−0·6	+0·2
	Do. (West)	99·0	80·6	89·8	18·4	31·7	+1·3	+0·4	+0·9
Madras	East Coast (North)	89·2	78·6	83·9	10·6	23·3	−0·5	−0·6	+0·1
	Hyderabad (South)	88·7	72·7	80·7	16·0	28·4	−0·3	−0·5	+0·2
	Madras (Central)	93·2	75·1	84·2	18·1	26·3	+0·6	−0·7	+1·3
	East Coast (Central)	96·8	78·9	87·9	18·0	27·7	+1·8	0	+1·8
	Do. (South)	95·2	77·2	86·2	18·0	27·2	−0·7	−0·7	0
	Madras (South)	93·0	75·8	84·2	17·2	26·6	−0·7	−1·0	+0·3

The hottest area, within which the mean temperature varied between 93° and 95°·2 included the central and west Punjab and the North-West Frontier Province, while the coolest area on the plains was the Bombay Deccan with a mean temperature of 77°. The mean maximum temperature of the month exceeded 100° over the central Punjab, the west Punjab, and the North-West Frontier Province. The mean daily range of temperature was generally less than the normal except over the east of the Peninsula, the central districts and parts of north-west India and of Bengal.

The following gives a brief account of the principal temperature changes during the month :—

During the first four days of the month there were strong contrasts in the temperature conditions over the Indian region. The mean temperature was in moderate to large excess of the normal over the greater part of north-western and central India, where the weather was fine, and was in moderate to large defect of the normal over Burma, part of north-east India and the Peninsula, where the weather was rainy and unsettled owing to the passage of a depression from the Bay into the central parts of the country. The following gives data for all divisions for these four days :—

Province or Division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of			
	1st July.	2nd July.	3rd July.	4th July.
	°	°	°	°
Burma	—1·6	—1·7	—2·0	—3·7
Assam	+0·2	+0·6	+1·0	+1·6
Bengal	—0·4	—0·7	—0·7	—0·8
Orissa	—5·2	—3·5	—2·9	—1·8
Bihar	+1·1	—0·3	—0·7	—0·8
Chota Nagpur	—1·2	—2·0	—2·6	—1·3
United Provinces of Agra and Oudh.	+2·9	+3·3	+3·4	+2·6
Punjab	+3·5	+4·4	+1·4	—0·5
North-West Frontier Province	—0·5	+0·1	—2·6	—2·6
Sind	—1·9	—1·4	—1·0	+0·1
Rajputana	+2·4	+3·7	+5·7	+5·4
Gujarat	+0·5	+1·2	+1·9	+0·4
Central India	+4·4	+5·0	+4·1	+2·7
Central Provinces	+0·9	+1·6	+1·6	—1·3
Berar	+2·0	+0·4	+0·5	—5·5
West Coast	—2·8	—1·2	—3·0	—2·7
Bombay Deccan	—1·4	—0·9	—2·9	—6·8
Mysore	—2·6	—3·5	—4·6	—4·0
Madras Coast	—2·5	—4·9	—4·0	—2·1
Madras Deccan	—3·3	—5·6	—8·1	—6·2
South India	—3·4	—2·8	—3·0	—3·2

Both the excess and defect were most marked in the day temperatures which were more than 10° above or below the normal at the following stations on these four days :—

Date.	Station.	Departure from normal of Maximum of date.
		°
1st July	Sialkot	+11·2
	False Point	—10·9
2nd July	Ambala	+12·3
	Mainpuri	+12·3
	Sutna	+12·1
	Delhi	+11·2
	Jhansi	+11·0
	Meerut	+10·9
	Cocanada	—18·1
	Hyderabad Deccan	—13·8
	Masulipatam	—13·7
3rd July	Saugor	+11·4
	Hoshangabad	+11·3
	Jaipur	+10·7
	Jhansi	+10·4
	Raichur	—16·0
	Hyderabad Deccan	—16·0
	Sholapur	—15·3
	Kurnool	—14·2
	Cocanada	—12·3
	Bellary	—11·2
	Masulipatam	—11·1
	Bijapur	—10·4
4th July	Deesa	+10·2
	Mandalay	—15·1
	Sholapur	—15·1
	Ahmednagar	—13·2
	Bijapur	—13·2
	Raichur	—12·4
	Bellary	—12·0
	Akola	—11·0
	Yamethin	—10·6
	Kurnool	—10·6
	Chanda	—10·4
	Poona	—10·3

The weather was unsettled and showery over the north-west Himalayas during this interval and the changes of temperature in Kashmir and the extreme north-west of India were sudden and large.

On the 5th there occurred an increase of temperature except in Gujarat and the west Satpuras. The rise was greatest over the Peninsula and the temperature departures from the normal became much smaller than on the four preceding days.

Between the 6th and the 10th the weather was very unsettled and rainy in almost all parts of the country (except the western desert) and the mean temperature, relatively to the normal, showed an irregular distribution. The main features of the temperature conditions during this interval were (1) the low temperatures over Gujarat on the 6th and 7th. The following gives data for Rajkot and Ahmedabad for these two days :—

DATE.	STATION.	DEPARTURE FROM NORMAL OF		
		Maximum temperature of date.	Minimum temperature of date.	Mean temperature of date.
		°	°	°
6th July	Rajkot	−13·9	−4·7	−9·3
	Ahmedabad	−10·7	−3·8	−7·3
7th July	Rajkot	−14·5	−2·7	−8·6
	Ahmedabad	−12·6	−2·7	−7·7

(2) The high temperatures over the south-west Punjab and upper Sind. The following gives daily data for Multan in illustration :—

DATE.	STATION.	DEPARTURE FROM NORMAL OF		
		Maximum temperature of date.	Minimum temperature of date.	Mean temperature of date.
6th July	Multan	+4·7	+4·9	+4·8
7th ,,	Do.	+5·3	+7·5	+6·4
8th ,,	Do.	+7·9	+4·6	+6·3
9th ,,	Do.	+3·0	+4·6	+3·8
10th ,,	Do.	+5·1	+2·2	+3·7

and (3) the low temperatures in Bengal. This is shown below :—

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF				
	6th July.	7th July.	8th July.	9th July.	10th July.
	°	°	°	°	°
Bengal	−1·2	−1·3	−2·4	−3·0	−0·4
Orissa	−1·5	−4·0	−3·6	−3·0	−0·7
Bihar	+0·2	−0·8	−0·3	−2·5	−1·9
Chota Nagpur	−0·4	−2·5	−5·0	−5·0	−3·7

During the 11th and 12th rain fell off quickly, temperature rose generally, and on the 13th and 14th exceeded the normal over a large part of the country. The following gives data for all divisions for these two days:—

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF	
	13th July.	14th July.
	°	°
Burma	−1·4	−2·2
Assam	+1·0	+0·8
Bengal	+2·5	+0·9
Orissa	+2·6	+0·4
Bihar	+1·7	+1·1
Chota Nagpur	+2·0	+1·8
United Provinces of Agra and Oudh	−1·4	−0·5
Punjab	+4·1	+5·5
North-West Frontier Province	+4·1	+7·9
Sind	+1·4	+2·0
Rajputana	−1·4	+0·2
Gujarat	+0·4	+1·0
Central India	−2·4	−1·9
Central Provinces	+1·3	+1·1
Berar	+2·2	+2·1
West Coast	+0·3	+0·4
Bombay Deccan	+2·1	+2·2
Mysore	+0·3	−0·8
Madras Coast	+0·9	−0·5
Madras Deccan	+2·4	+1·1
South India	−1·5	−2·2

The day temperatures were very high in the extreme north-west on the 14th and were more than 10° above the normal at the following places:—

STATION.	Departure from normal of maximum temperature of 14th July.
	°
Peshawar	+11·2
Rawalpindi	+10·6

On the 15th rain began to extend again, and temperature to fall gradually, so that by the 18th, 19th and 20th the mean temperature was generally lower than usual except over the extreme north-west and parts of Madras.

The following gives data for all divisions for these three days :—

Province or Division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of		
	18th July.	19th July.	20th July.
	°	°	°
Burma	−0·6	−0·4	−1·1
Assam	−1·9	−0·4	−1·4
Bengal	−0·8	−0·5	−0·2
Orissa	−1·6	−0·5	+1·3
Bihar	−2·3	−2·0	−1·4
Chota Nagpur	−2·4	−1·1	+0·6
United Provinces of Agra and Oudh	−4·4	−5·0	−1·9
Punjab	−1·8	−1·0	−1·7
North-West Frontier Province	−2·3	−2·4	−6·0
Sind	−1·6	−1·2	+0·7
Rajputana	−0·6	+0·3	+1·7
Gujarat	+0·8	+1·1	+1·6
Central India	−1·6	−2·3	−2·6
Central Provinces	−1·4	−1·2	−1·6
Berar	+1·0	+0·6	+0·8
West Coast	−1·0	+0·7	−0·6
Bombay Deccan	+0·5	−0·3	+0·7
Mysore	−0·8	−0·3	−1·0
Madras Coast	−0·7	+1·8	+2·6
Madras Deccan	−0·8	+1·1	+1·0
South India	−0·5	−0·2	−1·5

The weather was unsettled around the north-west frontier at this time and in Baluchistan, Kashmir and the Punjab the temperature was changeable.

The following gives comparative data for these three areas from the 15th to the 20th :—

Province or Division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of					
	15th July.	16th July.	17th July.	18th July.	19th July.	20th July.
	°	°	°	°	°	°
Baluchistan	−2·2	+1·5	+1·6	−5·6	−8·0	−6·9
Kashmir	+1·4	+1·7	+4·3	−4·2	−8·8	−3·4
Punjab	+3·4	+2·5	+2·1	−1·8	−1·0	−1·7

On the 21st and 22nd the temperature was generally rising, and except at some central and north-eastern stations and in Burma, was generally above the average.

Between the 23rd and the 30th rain fell daily over north-east India, the Gangetic plain and neighbouring regions, and at the submontane stations of northern India, while the weather was fine or fairly fine, over the extreme north-west of India and the Peninsula. In consequence low temperatures prevailed steadily over Burma and northern India (except the north-west), while higher temperatures than usual prevailed generally over the Peninsular districts. The following gives comparative data for all divisions from the 23rd to the 30th :—

Province or Division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of							
	23rd July.	24th July.	25th July.	26th July.	27th July.	28th July.	29th July.	30th July.
	°	°	°	°	°	°	°	°
Burma	−1·2	−0·4	+0·5	−0·7	−1·7	−1·3	+0·4	+0·4
Assam	−1·8	−2·5	−3·3	−3·9	−6·1	−5·3	−2·0	0
Bengal	−2·1	−2·5	−2·4	−2·3	−1·5	−2·9	−1·9	+0·4
Orissa	−2·6	+0·9	+0·6	+0·7	+1·4	−0·2	+0·6	+1·1
Bihar	−2·6	−3·1	−4·8	−3·2	−4·4	−7·6	−5·4	−2·6
Chota Nagpur	−1·8	−0·1	+1·1	+1·2	+0·6	−3·4	−1·6	+0·5
United Provinces of Agra and Oudh.	−2·1	−1·5	−3·0	−3·5	−6·0	−4·1	−5·3	−3·6
Punjab	+2·8	+1·7	+0·8	+0·3	−0·6	+0·2	−0·4	−0·7
North-West Frontier Province.	+4·9	+2·7	+4·2	+2·2	+0·6	−0·8	−0·9	−1·9
Sind	−1·2	−1·3	−1·7	−1·2	−2·5	−1·3	−1·4	−1·4
Rajputana	+1·0	0	−2·5	−4·3	−2·2	−1·9	−1·4	−0·2
Gujarat	+1·5	+0·4	−0·9	−0·3	−0·7	−0·8	−0·6	+0·4
Central India	−1·9	−4·4	−3·2	−1·5	−2·0	−1·0	−2·6	−3·2
Central Provinces	−1·3	−0·8	+0·3	+1·5	+2·1	+2·3	+0·5	+0·2
Berar	+2·9	+2·6	+2·8	+3·2	+4·1	+3·9	+4·2	+2·1
West Coast	−0·4	−0·5	+0·4	+1·0	+0·7	+1·4	+1·7	+1·1
Bombay Deccan	+2·0	+1·3	+2·1	+1·9	+2·1	+1·8	+1·5	+1·8
Mysore	+0·3	+0·7	+1·4	+1·2	+0·7	+1·3	−0·5	−0·7
Madras Coast	+1·7	+1·4	−0·2	−0·4	−0·8	+1·1	+0·4	+1·2
Madras Deccan	+2·1	+2·6	+2·2	+2·2	+1·3	+2·8	+1·7	+1·7
South India	−0·7	+0·1	−0·6	−0·7	−1·6	+0·2	−1·2	−0·8

On the 31st heavy rain was falling over the west of the United Provinces and showers over Madras and Burma, while elsewhere light local falls only were reported. In consequence the mean temperature was

generally excessive except in the rainfall areas. The following gives data for all divisions for this day :—

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF		
	Mean maximum temperature, 31st July.	Mean minimum temperature, 31st July.	Mean temperature, 31st July.
	°	°	°
Burma	+0·8	−0·4	+0·2
Assam	−0·9	−0·8	−0·9
Bengal	+1·0	+0·6	+0·8
Orissa	+1·8	0	+0·9
Bihar	+0·4	+1·0	+0·7
Chota Nagpur	+1·9	+0·9	+1·4
United Provinces of Agra and Oudh	−2·7	−0·4	−1·6
Punjab	+2·0	+2·7	+2·4
North-West Frontier Province	−0·4	+1·8	+0·7
Sind	−0·1	−0·6	−0·4
Rajputana	+2·4	+1·7	+2·1
Gujarat	+0·2	+0·5	+0·4
Central India	−3·2	−1·0	−2·1
Central Provinces	+0·9	+0·1	+0·5
Berar	+4·4	+1·9	+3·2
West Coast	+0·5	+0·7	+0·6
Bombay Deccan	+2·7	+0·5	+1·6
Mysore	−1·6	−0·5	−1·1
Madras Coast	−3·7	−1·2	−2·5
Madras Deccan	−5·2	−1·5	−3·4
South India	−1·3	−0·1	−0·7

The following gives temperature data for the extra-Indian stations :—

STATION.	MEAN TEMPERATURE.		
	Actual, July 1904.	Normal, July.	Departure from normal, July 1904.
	°	°	°
Trincomalee	83·2	84·6	−1·4
Colombo	79·9	81·5	−1·6
Amini Divi	81·5	81·2	+0·3
Kabul	75·2	77·0	−1·8
Kashgar	80·7	80·1	+0·6
Teheran	85·9	85·5	+0·4
Ispahan	81·9	82·3	−0·4
Bushire	90·0	89·8	+0·2
Jask	92·7	90·3	+1·4
Muscat	91·4	89·5	+1·9
Baghdad	95·7	93·3	+2·4
Aden	88·0	87·7	+0·3
Perim	90·5	89·9	+0·6
Zanzibar	76·5	76·5	0
Seychelles	74·6	77·7	−3·1
Mauritius	66·5	67·5	−1·0

The preceding data show that the mean temperature of the month was below the normal in Ceylon and the south-east trades region, more particularly at the Seychelles and was higher than usual over Asiatic Turkey, the greater part of Persia and Arabia. At Kabul, as in Baluchistan, the mean temperature was lower than the normal.

Winds.

The monsoon was more westerly and steadier than usual over the east of the Bay, and both at Port Blair and Diamond Island the velocity exceeded the average. The following gives data for the stations in this area :—

STATION.	MEAN STEADINESS.			MEAN WIND DIRECTION.			MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, July 1904.	Normal percentage, July.	Departure from normal, July 1904.	Actual, July 1904.	Normal, July.	Westerly deflection.	Actual, July 1904.	Normal, July.	Departure from normal, July 1904.
Port Blair	92	86	+ 6	S 70° W	S 48° W	+22	393	278	+115
Rangoon	90	75	+15	S 23 W	S 36 W	−13	44	122	−78
Diamond Island	81	80	+ 1	S 52 W	S 42 W	+10	280	252	+28
Cocos Island	93	93	0	S 38 W	S 36 W	+ 2	...	...	...
Akyab	92	71	+21	S 17 W	S 6 E	+23	65	94	−29

At Calcutta and Saugor Island abnormal westing was also shown in the wind's direction, but at False Point the mean wind direction was exactly normal. The steadiness and velocity exceeded the normal in this area. The following gives data for Saugor Island as illustrative of the conditions in this region :—

STATION.	MEAN STEADINESS.			MEAN WIND DIRECTION.			MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, July 1904.	Normal percentage, July.	Departure from normal, July 1904.	Actual, July 1904.	Normal, July.	Westerly deflection.	Actual, July 1904.	Normal, July.	Departure from normal, July 1904.
				°	°				
Saugor Island	76	58	+18	S 41 W	S 19 W	+22	414	367	+47

In the Gangetic plain the wind directions varied irregularly from the normal, the steadiness was low and the velocity was generally below the average. In the upper sub-Himalayas, on the contrary, the winds were approximately normal as regards direction, steadiness and velocity.

The winds blew from about the normal directions in the Indus valley. They were less steady than usual at Peshawar, but more steady than the average at Jacobabad and Kurrachee.

In east Rajputana the wind was steadier and more southerly than the average, but the velocity was low, while in south Rajputana the wind blew from the normal direction and was stronger and steadier than the average.

The following gives mean comparative data of air movement for the different divisions of northern India and for Burma and the Bay Islands:—

Province or Division.	Mean steadiness.			Mean wind velocity in miles per diem.		
	Actual percentage, July 1904.	Normal percentage, July.	Departure from normal, July 1904.	Actual, July 1904.	Normal, July.	Departure from normal, July 1904.
Bay Islands	93	90	+ 3	393	278	+115
Burma	88	75	+13	130	156	—26
Bengal	72	63	+ 9	239	221	+18
Bihar	50	56	— 6	126	115	+11
Chota Nagpur	19	13	+ 6	194	209	—15
Orissa	81	63	+18	287	269	+18
United Provinces of Agra and Oudh.	30	18	+12	61	82	—21
Punjab	52	27	+25	83	70	+13
North-West Frontier Province.	39	47	— 8	52	98	—46
Rajputana	68	48	+20	269	249	+20
Sind	88	70	+18	262	274	—12

The preceding data show that the wind was steadier than usual except in Bihar and the North-West Frontier Province. The velocity varied irregularly from the normal, the most marked feature having been the increased velocity in the Bay Islands.

Over the Deccan the wind blew from about the normal direction, but was, on the whole, stronger and steadier than usual.

Along the west coast the wind, on the mean of the month, was lighter than usual, but was somewhat more westerly and steadier than the average. The following gives data for the two stations on this coast:—

Station.	Mean steadiness.			Mean wind direction.			Mean wind velocity in miles per diem.		
	Actual percentage, July 1904.	Normal percentage, July.	Departure from normal, July 1904.	Actual, July 1904.	Normal, July.	Westerly deflection.	Actual, July 1904.	Normal, July.	Departure from normal, July 1904.
				°	°				
Bombay	92	83	+ 9	S 82 W	S 75 W	+ 7	382	465	—84
Kaiwar	77	75	+ 2	N 89 W	S 75 W	+15	121	139	—18

In south India the wind's direction was approximately normal on the mean of the month, while the steadiness and velocity were generally below the normal. The departures from the average were not, however, important.

The following gives mean comparative data of the air movement over the Peninsula:—

Province or Division.	Mean steadiness.			Mean wind velocity in miles per diem.		
	Actual percentage, July 1904.	Normal percentage, July.	Departure from normal, July 1904.	Actual, July 1904.	Normal, July.	Departure from normal, July 1904.
Central Provinces	88	76	+12	228	218	+10
Berar	86	74	+12	273	221	+52
Bombay Deccan	90	89	+ 1	466	490	—24
Madras Deccan	90	88	+ 2	252	262	—10
West Coast	85	79	+ 6	252	303	—51
Mysore	88	91	— 3	226	244	—18
Madras Coast	72	72	0	165	190	—25
South India	64	71	— 7	101	113	—12

The preceding data show that the air movement, on the mean of the month, was stronger than usual in the Central Provinces and Berar, but was below the normal elsewhere, more particularly on the west coast.

In Baluchistan the wind was more northerly and steadier than the average but the velocity was low. The following gives data for Quetta:—

Hill Station.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, July 1904.	Normal percentage, July.	Departure from normal, July 1904.	Actual, July 1904.	Normal, July.	Actual, July 1904.	Normal, July.	Departure from normal, July 1904.
				°	°			
Quetta	39	29	+10	N 70 W	S 84 W	37	79	—42

In Kashmir the wind varied irregularly from the average, the only important feature having been the unusual lightness of the wind.

In the Kumaun Himalayas the wind directions were exceedingly irregular, but the steadiness was greater than usual. The following gives data for the stations in this region :—

Hill Station.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, July 1904.	Normal percentage, July.	Departure from normal, July 1904.	Actual, July 1904.	Normal, July.	Actual, July 1904.	Normal, July.	Departure from normal, July 1904.
				°	°			
Simla . . .	40	24	+16	N 1 W	N 15 E	60	86	—26
Chakrata . .	50	42	+ 8	S 10 E	S 66 W	174	149	+25
Ranikhet . .	43	25	+18	S 83 W	S 60 W	62	62	0

In the eastern Himalayas also the winds were very irregular, as is shown below :—

Hill Station.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, July 1904.	Normal percentage, July.	Departure from normal, July 1904.	Actual, July 1904.	Normal, July.	Actual, July 1904.	Normal, July.	Departure from normal, July 1904.
				°	°			
Katmandu . .	13	11	+ 2	N 9 W	S 63 W	26	21	+ 5
Darjeeling . .	19	32	—13	N 71 W	S 75 E	32	64	—32

At Mount Abu the wind blew from about the normal direction, but was steadier and stronger than usual, while at Pachmarhi and Chikalda the wind was more northerly than the normal, but varied irregularly from the average as regards velocity and steadiness. The following gives data :—

Hill Station.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, July 1904.	Normal percentage, July.	Departure from normal, July 1904.	Actual, July 1904.	Normal, July.	Actual, July 1904.	Normal, July.	Departure from normal, July 1904.
				°	°			
Mount Abu . .	84	68	+16	S 44 W	S 51 W	386	276	+110
Pachmarhi . .	77	75	+ 2	N 62 W	N 87 W	394	259	+135
Chikalda . .	43	67	—24	N 21 W	N 54 W	189	240	— 51

At Aden the wind was unusually easterly, unsteady and light, while at Perim the mean direction was about normal, the steadiness in excess of the average and the velocity low. The following gives data :—

Station.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, July 1904.	Normal percentage, July.	Departure from normal, July 1904.	Actual, July 1904.	Normal, July.	Actual, July 1904.	Normal, July.	Departure from normal, July 1904.
				°	°			
Aden . . .	40	73	—33	S 42 E	S 1 W	119	254	—135
Perim . . .	63	46	+17	N 69 W	N 60 W	281	367	— 86

In the south-east trades region the wind blew from about the normal directions and with the average steadiness, but the velocity was below the average at Mauritius and above at Zanzibar and the Seychelles. This is shown below :—

Station.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, July 1904.	Normal percentage, July.	Departure from normal, July 1904.	Actual, July 1904.	Normal, July.	Actual, July 1904.	Normal, July.	Departure from normal, July 1904.
				°	°			
Zanzibar . . .	82	83	— 1	S 1 E	S 6 E	209	197	+12
Seychelles . .	90	81	+ 9	S 28 E	S 33 E	356	287	+69
Mauritius . .	...	...	...	S 66 E	S 64 E	236	287	—51

Humidity and Cloud.

On the mean of the month there was less moisture than usual in the air over by far the greater part of the Indian area, more particularly over the south Punjab, lower Sind, the Central Provinces and central Bengal; but in parts of Madras, of north-east India and of Burma there was some excess. The distribution of the departures of the relative humidity from the normal was generally similar to that of the absolute humidity.

Over north-west India, where the absolute humidity was below the average and the temperature in excess, the relative humidity was in defect. The following gives data for those stations where the deficiency equalled or exceeded 5:—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, July 1904.	Normal, July.	Departure from normal, July 1904.	Actual, July 1904.	Normal, July.	Departure from normal, July 1904.
	"	"	"	%	%	
Montgomery	·694	·838	—·144	46·0	60·0	—14·0
Ludhiana	·766	·893	—·127	64·0	76·0	—12·0
Sialkot	·844	·885	—·041	66·0	74·0	— 8·0
Rawalpindi	·774	·808	—·034	66·0	72·0	— 6·0
Sirsa	·817	·857	—·040	61·0	67·0	— 6·0
Bikaner	·785	·844	—·059	61·0	66·0	— 5·0

Similar conditions prevailed across the head of the Peninsula, where also the absolute humidity was low and the mean temperature above the normal. The following gives data for the stations in this region:—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, July 1904.	Normal, July.	Departure from normal, July 1904.	Actual, July 1904.	Normal, July.	Departure from normal, July 1904.
	"	"	"	%	%	
Amraoti	·716	·794	—·078	75·0	86 o	—11·0
Bhavnagar Para	·796	?	?	72·0	80·0	— 8·0
Surat	·884	·913	—·029	80·0	86·0	— 6·0
Malegaon	·707	·755	—·048	72·0	78·0	— 6 o
Ahmednagar	·681	·716	—·035	76·0	82·0	— 6·0
Khandwa	·736	·786	—·050	75·0	81·0	— 6·0
Akola	·736	·782	—·046	73·0	79·0	— 6·0
Chanda	·751	·796	—·045	72·0	78·0	— 6·0

On the other hand, the mean temperature was lower than usual over the Gangetic plain, over Burma and Bengal, and over the south of the Peninsula, while the absolute humidity was higher than usual at several stations in these regions. In consequence the mean relative humidity was generally higher than the average. The following gives comparative data:—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, July 1904.	Normal, July.	Departure from normal, July 1904.	Actual, July 1904.	Normal, July.	Departure from normal, July 1904.
	"	"	"	%	%	
Mergui	·874	·875	—·001	97·0	92·0	+5·0
Yamethin	·820	·834	—·014	88·0	84·0	+4·0
Mandalay	·847	·843	+·004	80·0	75·0	+5·0
Burdwan	·952	·942	+·010	88·0	86·0	+2·0
Chaibassa	·882	·898	—·016	88·0	85·0	+3·0
Cocanada	·953	·834	+·119	84·0	77·0	+7·0
Kurnool	·805	·720	+·085	81·0	72·0	+9·0
Bellary	·687	·647	+·040	70·0	65·0?	+5·0?
Bangalore	·618	·619	—·001	87·0	84·0	+3·0
Salem	·771	·766	+·005	83·0	78·0	+5·0

The mean relative humidity of the month was below 65 per cent. at the following stations:—

STATION.	RELATIVE HUMIDITY.		
	Actual, July 1904.	Normal, July.	Departure from normal, July 1904.
	%	%	
Ludhiana	64·0	76·0	—12·0
Madura	64·0	64·0	0
Trichinopoly	64·0	62·0	+2 0
Cuddapah	64·0	68·0?	—4·0?
Hyderabad (Sind)	63·0	67·0	—4·0
Khushab	62·0	65·0	—3·0
Sirsa	61·0	67·0	—6.0
Bikaner	61·0	66·0	—5·0
Peshawar	60·0	63·0	—3·0
Multan	60·0	62·0	—2·0
Tinnevelly	57·0	59·0	—2·0
Montgomery	46·0	60·0	—14·0

The driest areas were hence the Punjab and parts of

Madras, and within these areas the following low humidities were recorded during the month:—

Station.	Date.	Hour.	Lowest humidity recorded during July 1904.
			%
Cuddapah	7th July	8 A.M.	55
"	10th	"	55
"	11th	"	55
Trichinopoly	8th	"	53
Madura	8th	"	52
Tinnevelly	9th	"	51
"	27th	"	51
Montgomery	1st	"	39
"	4th	"	39
Sirsa	2nd	"	39
Rawalpindi	7th	"	39
Montgomery	23rd	"	38
Sialkot	2nd	"	37
Montgomery	10th	"	36
"	2nd	"	33
"	3rd	"	31
Rawalpindi	10th	"	31

The mean relative humidity of the month was below the average over Baluchistan and at Cherat, Srinagar, Mount Abu and Darjeeling, but exceeded the normal at the remaining hill stations. At most places the departures from the average were unimportant though at Quetta, Leh Gilgit, Murree and Cherat they were moderate. The following gives comparative data:—

Hill Station.	Absolute Humidity.			Relative Humidity.		
	Actual, July 1904.	Normal, July.	Departure from normal, July 1904.	Actual, July 1904.	Normal, July.	Departure from normal, July 1904.
	"	"	"	%	%	
Quetta	·436	·537	—·101	48·0	57·0	—9·0
Chaman	·360	·428	—·068	31·0	34·0	—3·0
Leh	·282	·255	+·027	59·0	52·0	+7·0
Srinagar	·626	·642	—·016	83·0	85·0	—2·0
Gilgit	·502	·451	+·051	52·0	46·0	+6·0
Murree	·547	·517	+·030	84·0	77·0	+7·0
Simla	·493	·512	—·019	91·0	88·0	+3·0
Cherat	·587	·633	—·046	66·0	72·0	—6·0
Chakrata	·535	·537	—·002	94·0	91·0	+3·0
Ranikhet	·581	·577	+·004	89·0	88·0	+1·0
Darjeeling	·517	·524	—·007	96·0	97·0	—1·0
Mount Abu	·607	·645	—·038	95·0	96·0	—1·0
Pachmarhi	·634	·665	—·031	91·0	90·0	+1·0
Wellington	·419	·423	—·004	73·0	71·0	+2·0

At Aden the absolute and relative humidities were both in excess and at Perim both were in defect. This is shown below:—

Station.	Absolute Humidity.			Relative Humidity.		
	Actual, July 1904.	Normal, July.	Departure from normal, July 1904.	Actual, July 1904.	Normal, July.	Departure from normal, July 1904.
	"	"	"	%	%	
Aden	·885	·822	+·063	65·0	63·0	+2·0
Perim	·818	·873	—·055	56·0	60·0	—4·0

In the south-east trades region the departures of the absolute humidity from the normal were small and unimportant, but the mean temperature was lower than usual, and the mean relative humidity was hence in excess. The following gives data:—

Station.	Absolute Humidity.			Relative Humidity.		
	Actual, July 1904.	Normal, July.	Departure from normal, July 1904.	Actual, July 1904.	Normal, July.	Departure from normal, July 1904.
	"	"	"	%	%	
Zanzibar	·724	·717	+·007	78·0	77·0	+1·0
Seychelles	·736	·751	—·015	81·0	78·0	+3·0
Mauritius	·501	·507	—·006	77·0	76·0	+1·0

The departures of the mean cloud amount from the normal were large and irregular. Cloud, on the mean of the month, was less than usual over the western desert, the maximum defect having been reported from the following stations:—

Station.	Mean cloud amount.		
	Actual, July 1904.	Normal, July.	Departure from normal, July 1904.
Pachpadra	2·4	7·6	—5·2
Hyderabad (Sind)	3·1	6·0	—2·9
Sirsa	3·5	5·9	—2·4

The mean cloud amount was also less than the normal over the northern half of the Peninsula and neighbouring regions, including Orissa and the Bengal coasts. The defi-

ciency was greatest over the Deccan, and amounted to 1·0 or more at the following stations:—

Station.	Mean cloud amount.		
	Actual, July 1904.	Normal, July.	Departure from normal, July 1904.
Chanda	5·1	8·0	−2·9
Kurnool	5·5	8·1	−2·6
Gopalpur	6·1	8·3	−2·2
Barisal	6·9	8·9	−2·0
Seoni	6·6	8·2	−1·6
Amraoti	6·5	7·8	−1·3
Bellary	6·9	8·2	−1·3
Nellore	6·3	7·6	−1·3
Malegaon	6·5	7·7	−1·2
Ahmednagar	6·6	7·8	−1·2
Poona	7·7	8·8	−1·1
Ratnagiri	7·6	8·7	−1·1
Sholapur	7·1	8·1	−1·0

The sky was also clearer than usual over the interior of the south of the Peninsula. The following gives data:—

Station.	Mean cloud amount.		
	Actual, July 1904.	Normal, July.	Departure from normal, July 1904.
Trichinopoly	5·3	7·1	−1·8
Coimbatore	4·8	6·5	−1·7
Negapatam	4·5	5·8	−1·3

Finally the cloud amount, on the mean of the month, was less than the average over the Burma coast, upper Burma, part of Assam and north Bengal. The following gives the largest departures in this region:—

Division.	Station.	Mean cloud amount.		
		Actual, July 1904.	Normal, July.	Departure from normal, July 1904.
Burma Coast	Mergui	5·4	7·5	−2·1
	Tavoy	6·8	8·2	−1·4
Upper Burma	Mandalay	5·0	8·2	−3·2
Assam	Silchar	6·6	9·2	−2·6
North Bengal	Jalpaiguri	5·7	8·5	−2·8
	Purnea	5·3	7·2	−1·9

In other parts of the country the cloud amount, on the mean of the month, was generally in excess. The principal areas of excess were (1) the north Punjab, (2) the Gangetic plain, Central India, and neighbouring regions, (3) the southern coasts of the Peninsula and west Ceylon and (4) central Burma. The following shows the more important departures in the above divisions:—

Area.	Station.	Mean cloud amount.		
		Actual, July 1904.	Normal, July.	Departure from normal, July 1904.
First area	Rawalpindi	5·6	4·2	+1·4
Second area	Ambala	8·1	5·7	+2·4
	Delhi	8·0	6·3	+1·7
	Ajmer	7·0	5·6	+1·4
	Agra	8·5	7·0	+1·5
	Nowgong	9·4	7·0	+2·4
	Gorakhpur	9·2	5·9	+3·3
Third area	Cuddalore	7·5	6·5	+1·0
	Colombo	8·7	6·2	+2·5
Fourth area	Yamethin	9·9	5·0	+4·9

At the Himalayan hill stations the departures of the mean cloud amount from the normal were irregular, but in Baluchistan the sky was less cloudy than usual, and at the central and southern hill stations the mean cloud amount was in slight excess. The following gives data:—

Hill Station.	Mean cloud amount.		
	Actual, July 1904.	Normal, July.	Departure from normal, July 1904.
Quetta	0·6	1·1	−0·5
Chaman	0	0·6	−0·6
Leh	5·3	4·2	+1·1
Srinagar	4·5	4·6	−0·1
Gilgit	3·4	4·1	−0·7
Murree	6·4	4·7	+1·7
Simla	8·3	8·4	−0·1
Cherat	4·5	4·2	+0·3
Ranikhet	8·2	8·2	0
Darjeeling	9·5	9·6	−0·1
Mount Abu	9·4	9·0	+0·4
Pachmarhi	9·7	8·8	+0·9
Wellington	8·5	7·8	+0·7

The following table shows the stations at which the cloud amount, on the mean of the month, was less than 3·0 and more than 9·5, and defines the areas of clearest and cloudiest weather :—

GREATEST CLOUD AMOUNT.		LEAST CLOUD AMOUNT.	
STATIONS.	Actual, July 1904.	STATIONS.	Actual, July 1904.
Toungoo	9·9	Khushab	2·8
Yamethin	9·9	Bikaner	2·6
Sibsagar	9·9	Pachpadra	2·4
Hazaribagh	9·9	Dera Ismail Khan	1·5
Indore	9·9	Jacobabad	1·5
Sutna	9·9	Montgomery	1·2
Moulmein	9·6	Multan	0·9

At Aden and Perim the mean cloud amount was very small and less than the small normal amount. This is shown below :—

STATION.	MEAN CLOUD AMOUNT.		
	Actual, July 1904.	Normal, July.	Departure from normal, July 1904.
Aden	1·2	2·5	—1·3
Perim	1·2	2·5	—1·3

In the south-east trades region, on the contrary, the sky was more cloudy than usual on the mean of the month. The following gives data :—

STATION.	MEAN CLOUD AMOUNT.		
	Actual, July 1904.	Normal, July.	Departure from normal, July 1904.
Zanzibar	6·6	5·2	+ 1·4
Seychelles	6·3	5·6	+ 0·7
Mauritius	5·2	5·1	+ 0·1

Rainfall.

During the first week of the month there was rain over the greater part of the country, largely determined by a depression which passed from the head of the Bay across the head of the Peninsula into Gujarat. After the 7th, however, the rainfall, to a great extent, ceased over the Bombay Presidency from Bombay northward, as well as over the west of the Central Provinces and of Central India, Rajputana and the south Punjab. Shallow, land-formed depressions continued to advance from Bengal into the United Provinces, giving rain to Burma, Bengal, the United Provinces and the north Punjab, but their influence did not extend into the regions of north-west India mentioned above.

The distribution of rain during the month was thus mainly determined by the following features :—

(1) The storm of the first week of the month ;

(2) The subsequent feebleness of the Arabian Sea current in the northern portions of its field; and

(3) The succession of cyclonic storms which advanced from lower Bengal into the United Provinces or were formed over those areas.

The total rainfall of the month was more or less below the normal over—

(1) the Punjab,

(2) the Bombay Presidency, and

(3) the Central Provinces.

The deficiency was greatest and over 50 per cent. in the following divisions :—

DIVISION.	RAINFALL.			
	Average actual, July 1904.	Average normal, July.	Departure from normal, July 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
South Punjab	1·77	4·75	—2·98	—63
Central „	1·35	5·27	—3·92	—74
West „	0·80	2·47	—1·67	—68
Gujarat	7·20	16·48	—9·28	—56
Sind	0·49	2·40	—1·91	—80
Baluchistan Hills	0·05	0·85	—0·80	—93

On the other hand the rainfall was generally excessive over Burma, north-east India, the United Provinces, parts of Central India and of Rajputana and the south of the Peninsula. The excess was more than 50 per cent. in the following divisions :—

DIVISION.	RAINFALL.			
	Average actual, July 1904.	Average normal, July.	Departure from normal, July 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
United Provinces, Central	16·95	11·00	+5·95	+54
Madras, South Central	3·45	1·87	+1·58	+84
East Coast, South	4·01	2·64	+1·37	+52
Madras, South	1·36	0·86	+0·50	+58

The following table gives the mean actual, mean normal and departure data for the 57 meteorological divisions :—

Province.	Division.	Number of rainy days.		Rainfall.		
		Average actual, July, 1904.	Average normal, July.	Average actual, July, 1904.	Average normal, July.	Departure from normal, July, 1904.
				Inches.	Inches.	Inches.
Burma	Tenasserim	28·9	27·2	56·83	43·40	+13·43
	Lower Burma (Deltaic)	27·0	25·8	27·33	24·12	+3·21
	Central do.	17·9	19·5	13·16	12·44	+0·72
	Upper do.	10·2	9·4	6·11	6·66	−0·55
	Arakan	29·7	27·3	61·06	47·62	+13·44
Bengal and Assam	Eastern Bengal	20·4	18·9	18·85	17·98	+0·87
	Assam (Surma)	25·3	22·5	29·41	20·90	+8·51
	Do. (Hills)	22·5	22·1	23·01	27·54	−4·53
	Do. (Brahmaputra)	18·3	18·0	16·33	17·20	−0·87
	Deltaic Bengal	16·9	16·2	15·82	11·97	+3·85
	Central do.	18·3	15·6	16·54	12·22	+4·32
	North do.	17·6	17·4	18·22	21·56	−3·34
	Bengal Hills	25·0	24·6	27·31	28·85	−1·54
	Orissa	14·5	14·5	10·10	11·96	−1·86
	Chota Nagpur	19·6	16·9	19·63	14·38	+5·25
	Bihar (South)	18·1	14·2	16·51	12·74	+3·77
	Do. (North)	16·6	14·5	15·47	13·55	+1·92
United Provinces of Agra and Oudh.	United Provinces (East)	15·0	13·5	13·59	11·84	+1·75
	Oudh (South)	15·0	12·3	12·91	10·98	+1·93
	Do. (North)	16·1	12·5	11·32	12·36	−1·04
	United Provinces (Central)	16·2	12·0	16·95	11·00	+5·95
	Do. do. (West)	11·7	9·5	8·46	8·50	−0·04
	Do. do. (East Submontane)	17·1	13·4	16·17	12·93	+3·24
	Do. do. (West do.)	15·7	13·1	16·47	14·91	+1·56
	Do. do. (Hills)	19·4	18·0	18·73	17·73	+1·00
Punjab	Punjab (South-East)	6·7	7·4	5·03	6·43	−1·40
	Do. (South)	3·1	5·4	1·77	4·75	−2·98
	Do. (Central)	2·5	5·1	1·35	5·27	−3·92
	Do. (Submontane)	6·3	8·1	5·06	8·26	−3·20
	Do. (Hills)	18·1	14·1	17·12	15·64	+1·48
	Do. (West)	1·7	3·0	0·80	2·47	−1·67
North-West Frontier Province.	North-West Frontier Province	4·4	4·6	2·90	3·47	−0·57
Bombay and Malabar Coast Districts (Madras).	Malabar	29·8	26·8	36·83	35·45	+1·38
	Travancore	18·6	...	17·83	...	...
	Madras (South Central)	5·7	3·8	3·45	1·87	+1·58
	Coorg	24·2	...	31·12	...	...
	Mysore	10·7	9·1	6·63	6·47	+0·16
	Konkan	25·7	26·6	29·55	40·59	−11·04
	Bombay Deccan	9·5	11·7	5·82	8·80	−2·98
	Hyderabad (North)	7·5	12·3	5·68	8·39	−2·71
	Khandesh	8·5	11·7	4·61	8·70	−4·09
Central Provinces and Berar.	Berar	6·7	12·2	5·53	9·32	−3·79
	Central Provinces (West)	11·4	14·6	7·16	13·34	−6·18
	Do. (Central)	15·2	16·7	12·52	16·58	−4·06
	Do. (East)	15·3	16·3	11·21	16·21	−5·00
Bombay (North)	Gujarat	10·2	15·1	7·20	16·48	−9·28
	Kathiawar and Cutch	6·3	10·8	6·50	10·71	−4·21
	Sind	0·6	2·7	0·49	2·40	−1·91
	Baluchistan Hills	0·2	1·3	0·06	0·86	−0·80
Rajputana and Central India.	Central India (East)	15·0	13·1	15·73	11·22	+4·51
	Rajputana (East), Central India (West)	12·0	9·5	11·67	8·06	+3·61
	Do. (West)	3·0	4·7	2·00	3·88	−1·88
Madras	East Coast (North)	8·4	10·6	6·19	7·25	−1·06
	Hyderabad (South)	8·0	10·3	5·24	5·73	−0·49
	Madras (Central)	6·6	5·7	2·48	2·85	−0·37
	East Coast (Central)	4·3	4·7	1·84	2·29	−0·45
	Do. (South)	5·9	4·5	4·01	2·64	+1·37
	Madras (South)	2·5	1·8	1·36	0·86	+0·50

The preceding data show that rain was received in all divisions of India during the month, the average actual fall ranging from 0·49″ in Sind and 0·80″ in the west Punjab to 56·83″ in Tenasserim and 61·06″ in Arakan. In twenty five of the rainfall divisions the fall was in excess of the normal, in one it was normal and in thirty it was in defect, the departure for the whole country (omitting the hill districts) derived from the fifth figure column of the above table amounting to +0·11 inch.

Tenasserim, lower Burma, part of central Burma and Arakan received daily rain during the month and the total rainfall exceeded the normal in those divisions. The following falls exceeding 7 inches in 24 hours were recorded during the month :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Sandoway	Sandoway	7th July	13·75
	Taungup	,, ,,	11·92
Kyaukpyu	Ramree	,, ,,	10·80
	Myebon	,, ,,	8·06
Tavoy	Thayetchaung	,, ,,	7·69
Thaton	Pa-an	10th ,,	7·64
	Do.	11th ,,	8·56

In upper Burma the rainfall was unevenly distributed. The Chin hills, the upper Chindwin and Myitkyina districts received daily showers while in the remaining districts only scattered showers were experienced. The following gives comparative data of the different districts of upper Burma :—

District.	Rainfall. Average actual, July 1904.	Average normal, July.	Departure from normal, July 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Yamethin	4·49	5·38	−0·89	−17
Meiktila	1·27	3·35	−2·08	−62
Magwe	2·53	4·34	−1·81	−42
Minbu	3·41	3·59	−0·18	− 5
Pakokku	3·91	4·77	−0·86	−18
Myingyan	2·09	2·61	−0·52	−20
Lower Chindwin	3·25	3·19	+0·06	+ 2
Upper ,,	14·97	14·47	+0·50	+ 3
Chin Hills	10·19	12·64	−2·45	−19
Kyaukse	2·41	3·61	−1·20	−33
Sagaing	2·51	2·99	−0·48	−16
Mandalay	6·25	5·15	+1·10	+21
Ruby Mines	10·74	11·52	−0·78	− 7
Shwebo	4·71	4·85	−0·14	− 3
Katha	10·18	11·29	−1·11	−10
Bhamo	17·90	15·84	+2·06	+13
Myitkyina	18·24	20·45	−2·21	−11
Sandoway	67·76	51·02	+16·74	+ 3

The above shows that in parts of the dry zone as well as in Kyaukse the month's rainfall was in considerable to large defect while elsewhere it was approximately normal.

In Assam the rainfall was generally normal or above the normal. In the Surma valley rain fell daily and the following amounts exceeding 5 inches in 24 hours were registered during the month :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Sylhet	Sunamganj	10th July	5·75
	Sylhet	12th ,,	5·52
Cachar	Monierkhal	20th ,,	5·43
	Jatinga Valley	21st ,,	5·15
Sylhet	Sunamganj	24th ,,	7·40
	Sylhet	25th ,,	5·84
Cachar	Bikrampur	26th ,,	5·24
Sylhet	Lalakhal	27th ,,	5·70
	Sylhet	27th ,,	5·68
	Karimganj	27th ,,	5·46
	Sylhet	30th ,,	5·09

In the hill districts the rainfall was irregularly distributed. In the Khasi and Garo hills the fall was less, and in the Naga, Manipur and Lushai hills, greater than usual. The

following is a record of the falls exceeding 7 inches in 24 hours during the month :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Khasi and Jantia Hills.	Wahmaulin	10th July	12·34
	Do.	23rd ,,	14·08
	Do.	24th ,,	14·08
	Cherrapoonjee	,, ,,	8·22
	Mr. Shedwe l's House.		
	Cherrapoonjee Roman Catholic Mission House.	,, ,,	7·70
	Cherrapoonjee Welsh Mission House.	,, ,,	7·53
	Cherrapoonjee Police Station.	,, ,,	7·15
	Wahmaulin	31st ,,	7·81

In the Brahmaputra valley there was general rain on the 1st and 2nd and from the 14th to the end of the month, but from the 3rd to the 13th only scattered showers were experienced. The following falls exceeding 5 inches in 24 hours were registered during the month :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Goalpara	Kachugaon	14th July	5·06
Darrang	Kabira	22nd ,,	5·33
Darrang	Kerkeriya	27th ,,	7·00
Darrang	Orangajuli	,, ,,	6·84
Nowgong	Kulikuchi	30th ,,	5·34
Darrang	Gohpur	31st ,,	5·50

The following gives comparative data for the eight plains districts of the province :—

District.	Rainfall. Average actual, July 1904.	Average normal, July.	Departure from normal, July 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Cachar	31·86	19·82	+12·04	+61
Sylhet	27·18	21·88	+ 5·30	+24
Goalpara	17·57	4·37	— 6·80	—28
Kamrup	18·08	15·23	+ 2·85	+19
Darrang	18·48	15·74	+ 2·74	+17
Nowgong	13·96	14·34	— 0·38	—3
Sibsagar	11·52	15·03	— 3·51	—23
Lakhimpur	17·18	21·25	— 4·07	—19

The preceding data show that the month's rainfall was in large excess in Cachar, in slight excess in Sylhet, and in slight defect in Goalpara and Sibsagar.

In Bengal the distribution of rainfall was modified by the direction of movement of the various cyclonic storms of the month. There was a slight deficiency in north Bengal and Orissa and an excess elsewhere.

In south-west Bengal general rain fell from the 1st to the 9th, then a short break occurred between the 10th and the 14th after which rain recommenced and continued till the close of the month, though in some districts there was also a partial break between the 24th and the 26th. The excess was more than 50 per cent. in the districts for which comparative data are given below :—

District.	Rainfall. Average actual, July 1904.	Average normal, July.	Departure from normal, July 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Birbhum	19·72	12·49	+ 7·23	+58
Howrah	21·71	11·53	+10·18	+88
Calcutta	20·62	12·31	+ 8·31	+68
Murshidabad	16·51	10·90	+ 5·61	+51

The rainfall was heavy between the 6th and the 8th when the following amounts exceeding 5 inches in 24 hou s were recorded :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M of date.
			Inches.
24-Parganas	Diamond Harbour	6th July	7·99
24-Parganas	Budge Budge	,, ,,	6·55
Midnapore	Kukrahaty	,, ,,	5·53
Khulna	Kaliganj	,, ,,	5·50
Howrah	Mohesreka	,, ,,	5·08
24-Parganas	Budge Budge	7th ,,	6·35
Howrah	Ulubaria	,, ,,	6·05
Bankura	Bankura	8th ,,	6·66
24-Parganas	Alipore Observatory	,, ,,	6·23
Howrah	Howrah	,, ,,	·18
Khulna	Kalaroa	,, ,,	5·50
Howrah	Ulubaria	,, ,,	5·44
Hooghly	Arambagh	,, ,,	5·42
Midnapore	Midnapore	,, ,,	5·20
Khulna	Mollahat	,, ,,	5·12
Khulna	Khulna	,, ,,	·03

In north Bengal the rainfall was unsteady and scattered during the first half of the month, but was steady and continuous from the 15th onward. The month's fall exceeded the normal in Rajshahi, Bogra and Pabna, but was below the normal in the remaining districts, the total rainfall of the division having been somewhat less than usual. The following falls exceeding 5 inches in 24 hours were recorded during the month:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Jalpaiguri	Alipur Dwars	14th July	6·57
	Falakata	" "	6·42
	Buxa	15th "	5·36
Darjeeling	Kurseong	16th "	8·50
	Kalimpong	" "	5·21
Bogra	Sherpur	24th "	5·40
Rajshahi	Manda	" "	5·30
Jalpaiguri	Bhagatpur	25th "	9·55
Pabna	Sirajganj	" "	5·16
Jalpaiguri	Bhagatpur	26th "	8·29
Rangpur	Sunderganj	" "	5·16
Jalpaiguri	Jalpaiguri	27th "	7·16
	Falakata	" "	5·60
	Alipore Dwars	" "	5·12
Dinajpur	Atwari	" "	5·07
Darjeeling	Kurseong	28th "	5·48
Jalpaiguri	Jalpaiguri	" "	5·41
Cooch Behar	Mickliganj	" "	5·28
Rangpur	Peerganj	29th "	6·70

In east Bengal rain fell more or less steadily throughout the month, but, except in Chittagong and Noakhali, the falls were not very heavy and the total rainfall of the month was about normal. The following amounts exceeding 5 inches in 24 hours were recorded during the month:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Chittagong	Cox's Bazar	5th July	5·78
	Kodala	24th "	5·85
Noakhali	Harishpur	24th "	5·15
	Fenny	25th "	6·07
Chittagong	Satkania	26th "	7·30

Bihar received showers between the 1st and the 7th. On the 8th, 9th and 10th there was a general burst of rain after which there occurred a short break between the 11th and 13th. On the 14th general rain again set in and continued till the close of the month. The total rainfall of the month was normal or above the normal in all districts except Purnea where it was in slight defect and the following amounts exceeding 5 inches in 24 hours were recorded during the month:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Gaya	Daudnagar	18th July	8·40
	Aurangabad	" "	5·30
Shahabad	Monaharpur	" "	5·30
Saran	Basantpur	19th "	6·70
Gaya	Rajauli	24th "	6·10
Muzaffarpur	Mahua	28th "	6·91
Champaran	Burhurwa	" "	5·85
Muzaffarpur	Hajipur	" "	5·34
Saran	Gopalganj	" "	5·26

In Orissa the weather was showery throughout the month—less so between the 10th and the 13th than at other times—but no storm after the first passed through the division, and the total rainfall was slightly less than usual. The following amounts exceeding 5″ in 24 hours were recorded in the first week:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Angul	Bissipara	1st July	6·95
	Kumarkhole	" "	6·40
Orissa Tributary Mahals.	Baripada	8th "	6·50

In Chota Nagpur the rainfall was light and scattered between the 10th and 14th, but was steady and continuous at other times during the month. The heaviest and most general rain was between the 7th and 9th. All the storms of the month affected this area more or less, and the month's rainfall was in excess in all districts. The following

amounts exceeding 5″ in 24 hours were recorded during the month:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Singhbhum	Baharagura	7th July	5·12
		8th ,,	8·23
	Jaintigarh	,, ,,	7·54
Ranchi	Bano	,, ,,	6·75
Singhbhum	Gailkura	9th ,,	5·55
Ranchi	Ranchi	18th ,,	6·00

During the first four days of the month the weather was fine over the greater part of the United Provinces. On the 5th rain set in and with a brief interruption on the 12th, 13th and 14th continued more or less steadily till the close of the month. The total rainfall of the month was normal or in excess of the normal in all divisions. The excess was greatest in the central division, where it amounted to over 50%. The following gives data for the contained districts:—

Division.	District.	Rainfall			
		Average actual, July 1904.	Average normal, July.	Departure from normal, July 1904.	Percentage departure from normal.
		Inches.	Inches.	Inches	
United Provinces Central	Banda	19·97	12·67	+7·30	+58
	Fatehpur	13·49	10·57	+2·92	+28
	Hamirpur	21·64	11·63	+10·01	+86
	Cawnpore	16·02	10·43	+5·59	+54
	Jalaun	19·69	11·31	+8·38	+74
	Etawah	11·29	10·06	+1·23	+12
	Farrukhabad	12·13	10·38	+1·75	+17
	Mainpuri	10·31	9·91	+0·40	+ 4
	Etah	10·30	9·13	+1·17	+13

All the storms of the month, except the first, affected the United Provinces and rainfall amounts exceeding 6″ in 24 hours were registered at the following places on the following dates during the month:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Hamirpur	Maudha	10th July	6·32
Cawnpore	Bilhaur	16th ,,	8·45
Banda	Karwi	30th ,,	6·43
Hamirpur	Bela-Thal	31st ,,	7·30

On the Punjab hills rain fell daily during the month and the total rainfall was about normal. The following gives data for the Simla and Kangra hill districts:—

Hill District.	Rainfall			
	Average actual, July 1904.	Average normal, July.	Departure from normal, July 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Simla	12·91	10·99	+1·92	+17
Kangra	19·78	18·28	+1·50	+ 8

On the plains, on the contrary, the weather was only showery, the principal periods of rainfall having been the 5th to the 11th, the 13th to the 18th, and the 24th to the 30th. The showers were very irregularly distributed, but the total rainfall of the month was below the average in all the plains divisions, more particularly in the south, central and west. The following gives comparative data for the districts in these three divisions:—

Division.	District.	Rainfall			
		Average actual, July 1904.	Average normal, July.	Departure from normal, July 1904.	Percentage departure from normal.
		Inches.	Inches.	Inches.	
South Punjab	Hissar	1·93	4·33	—2·40	—55
	Ferozepore	0·61	4·12	—3·51	—85
	Gurgaon	5·02	6·56	—1·54	—23
	Rohtak	2·78	5·94	—3·16	—5
	Delhi	3·88	6·14	—2·26	—37
	Karnal	6·07	6·64	—0·57	— 9
Central Punjab	Lahore	0·56	5·12	—4·56	—89
	Gujranwala	1·06	5·25	—4·19	—80
	Jhelum	3·21	5·15	—1·94	—38
West Punjab	Mianwali	0·51	2·31	—1·80	—78
	Shahpur	2·31	3·65	—1·34	—37
	Jhang	0·29	2·87	—2·58	—90
	Montgomery	0·91	2·53	—1.62	—6
	Dera Ghazi Khan	0·22	1·76	—1·54	—88
	Muzaffargarh	0	1·81	—1·81	—100
	Multan	0	1·47	—1·47	—100

The rainfall was occasionally heavy at some of the hill and submontane stations, and amounts exceeding 4″ in 24

hours were measured at the following places on the following dates during the month:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Ambala	Dadupur	6th July	7·30
	Jagadhri	" "	6·87
Karnal	Thanesar	" "	4·63
	Karnal	" "	4·50
Gurgaon	Punahana	7th "	4·20
Kangra	Palampur	12th "	4·36
Gurdaspur	Dalhousie	13th "	5·69
Kangra	Dera	17th "	4·50
Gurdaspur	Dalhousie	22nd "	6·90
Kangra	Dharmsala	" "	4·80
	Palampur	23rd "	4·05
	Dharmsala	26th "	5·76
	Palampur	27th "	4·62
		29th "	4·50

Showers were received over the North-west Frontier Province, mainly between the 1st and 3rd, the 8th and 10th, the 16th and 19th, and the 24th and the 29th. The showers were not generally heavy, but the total rainfall was nearly normal. The following amounts exceeding 2″ in 24 hours were recorded during the month:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Hazara	Abbottabad	17th July	2·64
	Dunga Gali	" "	2·44
		26th "	3·92
		28th "	3·05
	Abbottabad	" "	2·71
Kohat	Banda Daud Shah	29th "	2·60

A few light scattered showers were received in parts of Baluchistan during the first week, but the average total rainfall was practically *nil*. Showery weather was experienced throughout the month in Kashmir, the periods of most general and heaviest rainfall having been from the 13th to the 18th and from the 22nd to the 28th. The total rainfall was not apparently heavier than usual, but heavy local falls were registered on the 22nd, 23rd, 26th, 27th and 28th. The following falls exceeding 3″ in 24 hours were recorded in the Jummoo division during the month:—

State.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Jummoo	Gulabgarh	17th July	4·40
	Kathua	22nd "	6·67
	Rampore Rajauri	" "	4·36
	Bisolee	" "	3·62
	Gulabgarh	23rd "	3·84
	Kotli	26th "	3·54
	Gulabgarh	" "	3·40
		27th "	4·80
		28th "	5·10

Western Rajputana received showers between the 4th and the 12th and on the 23rd and 25th, but only about half the normal amount of rain was recorded during the month. The showers were, however, moderately heavy on the 4th, 5th and 6th and 10th and 11th, when the following amounts exceeding 2″ in 24 hours were recorded:—

State.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Jodhpur	Sacher	4th July	3·05
	Didwana	5th "	3·25
	Sacher	" "	2·06
	Merta	6th "	2·77
	Sojat	10th "	3·55
	Desuri	11th "	5·90
	Pali	" "	2·83

In eastern Rajputana two periods of fairly general rain were experienced, the first lasting from the 5th to the 12th, and the second from the 19th to the 26th. During these

two periods the following falls exceeding 6·00″ in 24 hours were recorded :—

State.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Kotah	Khanpur	9th July	6·26
	Etawah	10th "	10·07
	Shergarh	" "	8·73
	Chipabarod	" "	8·60
	Khanpur	" "	8·40
	Sultanpur	" "	8·10
Jhalawar	Chaoni	" "	7·10
Kotah	Antah	" "	6·72
	Chechata	" "	6·44
	Manoharthana	" "	6·36
	Baran	11th "	8·49
	Atroo	" "	8·15
	Antah	23rd "	7·84
	Sangod	" "	7·60
	Khanpur	" "	6·92
Jhalawar	Jhalrapatan	" "	6·64
Kotah	Chipabarod	" "	6·62
Jhalawar	Chaoni	" "	6·50
Kotah	Etawah	24th "	9·30
	Baran	" "	9·19
	Sultanpur	" "	8·75
	Antah	" "	7·68
	Mangrol	" "	6·95
	Shergarh	" "	6·34
	Baran	25th "	9·18

The total rainfall of the area was nearly 50% in excess of the average, as is shown by the following comparative data for some of the larger states :—

State.	Rainfall.			
	Average actual, July 1904.	Average normal, July.	Departure from normal, July 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Jaipur	9·46	7·20	+ 2·26	+ 31
Alwar	9·00	6·39	+ 2·61	+ 41
Bharatpur	10·33	7·63	+ 2·70	+ 35
Dholpur	11·59	8·03	+ 3·56	+ 44
Karauli	15·87	8·27	+ 7·60	+ 92
Kotah	30·09	10·40	+ 19·69	+ 189
Jhalawar	28·86	14·06	+ 14·80	+ 105
Ajmer Merwara	6·23	7·10	— 0·87	— 12
Udaipur	5·49	9·31	— 3·82	— 41
Sirohi	6·24	11·73	— 5·49	— 47

The rainfall was thus especially heavy in the Kotah and Jhalawar states and on the 9th and 10th and 23rd and 24th when the second and fourth storms of the month were in the neighbourhood of eastern Rajputana.

In Central India the rainfall was more continuous than in Rajputana as, except on the first three days of the month there was steady daily rain. The total fall of the month was, except in Indore and Rutlam, more or less in excess of the normal, as is shown by the following data for some of the larger states :—

State.	Rainfall.			
	Average actual, July 1904.	Average normal, July.	Departure from normal, July 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Indore	6·20	9·76	— 3·56	— 36
Rutlam	7·27	10·83	— 3·56	— 33
Bhopal Agency	12·85	11·04	+ 1·81	+ 16
Gwalior	11·32	9·18	+ 2·14	+ 23
Rewah	18·13	14·50	+ 3·63	+ 25
Bundelkhand	27·03	12·71	+14·32	+113

The heaviest rainfall occurred in some states on the 9th, 10th and 11th and in others on the 29th and 30th. The

following is a record of the amounts exceeding 5·00″ in 24 hours during the month:—

State.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Bundelkhand	Ghoora	7th July	6·50
	Dharampur	9th ,,	6·51
	Orchha or Tikamgarh	,, ,,	6·21
	Deora	,, ,,	5·45
	Panna	10th ,,	12·80
	Ajaigarh	,, ,,	8·69
Gwalior	Mungaoli	,, ,,	6·40
Bundelkhand	Chhatarpur	,, ,,	6·27
Gwalior	Goona	11th ,,	9·99
Bundelkhand	Ghoora	,, ,,	5·68
Bhopal Agency	Kurwai	,, ,,	5·22
Rewah	Bardi	14th ,,	6·15
Bundelkhand	Deora	20th ,,	6·06
	Orchha or Tikamgarh	21st ,,	7·68
	Ghoora	,, ,,	6·40
Gwalior	Goona	24th ,,	8·66
Bundelkhand	Dharampur	29th ,,	9·24
	Deora	,, ,,	6·11
	Panna	30th ,,	10·05
	Ajaigarh	,, ,,	7·43
	Chandla	,, ,,	6·72
	Ghoora	,, ,,	5·24
	Nowgong	31st ,,	7·32
	Chhatarpur	,, ,,	5·23

In the Central Provinces the month's rainfall was everywhere below the normal as these provinces lay largely to the south of the tracks of all the depressions except the first. The deficiency of the rainfall increased in amount westward and was large in the west division and in Berar. The following gives comparative data for the districts in these two divisions:—

Division.	District.	Rainfall: Average actual, July 1904.	Rainfall: Average normal, July.	Rainfall: Departure from normal, July 1904.	Rainfall: Percentage departure from normal.
		Inches.	Inches.	Inches.	
Central Provinces West.	Hoshangabad	12·10	16·83	−4·73	−28
	Nimar	2·80	9·26	−6·46	−70
	Betul	6·24	12·43	−6·19	−50
	Chhindwara	8·00	11·40	−3·40	−30
	Wardha	5·08	12·52	−7·44	−59
	Nagpur	5·21	13·55	−8·34	−62
Berar	Amraoti	4·98	9·29	−4·31	−46
	Ellichpur	4·32	10·16	−5·84	−57
	Akola	5·61	8·41	−2·80	−33
	Buldana	5·09	7·91	−2·82	−36
	Wun	7·12	11·10	−3·98	−36
	Basim	6·46	9·85	−3·39	−34

There were some heavy falls in Berar in the first week in connexion with the first storm of the month and in different parts of the area on the 10th due to the second storm. The following gives the falls exceeding 5″ in 24 hours recorded during the month:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Akola	Balapur	3rd July	6·22
	Akola Civil Station	,, ,,	5·18

Showery weather prevailed during the month over the Nizam's dominions and the total rainfall was normal or in only slight defect. The showers were heavy during the first week when the following amounts exceeding 5″ in 24 hours were recorded:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Velgandal	Karimnagar	3rd July	6·35
Indur	Indur	,, ,,	5·85
Aurangabad	Aurangabad	4th ,,	5·20

The month's rainfall was lighter than usual over the whole of the Bombay Presidency. In the Konkan daily rain was received, but the total amount for the month was below the average. The only heavy burst of rain was on the 3rd, 4th and 5th when the following amounts exceeding 8″ in 24 hours were registered :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
North Kanara	Ankola	3rd July	10·30
Savantvadi	Banda	,, ,,	9·43
Ratnagiri	Rajapur	,, ,,	8·20
	Dapoli	4th ,,	11·06
	Sangameshvar	,, ,,	9·50
	Ratnagiri	,, ,,	8·39
Kolaba	Nagothna	,, ,,	8·20
Ratnagiri	Chiplun	5th ,,	11·43
Kolaba	Matheran	,, ,,	8·57

In the Karnatak there occurred a period of general showers between the 1st and the 9th, after which fair weather with occasional local rain was experienced up to the close of the month. There were no heavy falls, and the total rainfall was only about two-thirds of the normal.

In the south Deccan similar conditions prevailed. General rain fell between the 1st and the 10th, after which the weather changed and was fair with scattered showers till the end of the month. At the hill station of Malcolmpeth there was heavy rain on the 4th (6·44″) ; the 5th (11·17″) and the 6th (6·21″), when the heavy burst of rain occurred on the Konkan coast, but after the 6th the rainfall diminished and the total fall of the month was 80·27″ instead of 105·06″.

In Khandesh showery weather prevailed throughout the month, but the rainfall was at no time heavy, and the total fall was only about 50% of the average.

In Gujarat and Kathiawar the rainfall was heavy between the 4th and the 7th, when the first storm of the month lay over this neighbourhood, and the following amounts exceeding 4″ in 24 hours were recorded :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Rewa Kantha	Baria	4th July	5·35
Kathiawar	Jafrabad	5th ,,	5·13
	Manikvada (Jetalsar)	,, ,,	4·43
	Junagad	,, ,,	4·41
	Manikvada (Jetalsar)	6th ,,	8·07
	Morvi	,, ,,	5·61
	Gondal	,, ,,	5·30
Surat Agency	Dharampur	6th July	4·70
Surat	Pardi	,, ,,	4·56
Surat Agency	Bansda	,, ,,	4·38
Kathiawar	Rajkot	,, ,,	4·32
	Dhoraji	,, ,,	4·10
	Jasdan	,, ,,	4·05
Mahi Kantha	Mohanpur	7th ,,	4·73
Ahmedabad	Modasa	,, ,,	4·08

After the 7th, however, the rainfall rapidly diminished, and the total fall for the month over this area was only about 50 % of the normal.

In Sind there were some showers between the 3rd and the 7th, probably also attributable to the storm mentioned above, but after the 7th the rain ceased entirely and only one-fifth of the normal amount of rain was received during the month.

In the Shimoga and Kadur districts of Mysore steady rain was recorded during the month, but in the Bangalore, Kolar, Tumkur, Mysore, Hassan and Chitaldroog districts showers only were received. The total rainfall was, however, normal.

In the Malabar division of Madras rain fell daily and continuously, and the total fall was about normal. The heaviest burst of rain, as in the case of the Konkan coast, occurred on the 3rd, 4th and 5th, when the following amounts exceeding 5″ in 24 hours were recorded :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
South Canara	Udipi	3rd July	8·60
	Karkal	,, ,,	8·10
Malabar	Cannanore	,, ,,	7·55
South Canara	Baindur	,, ,,	6·08
	Puttur (Uppinangadi)	,, ,,	6·76
Malabar	Kuttiadi	,, ,,	6·58
	Irikkur	,, ,,	6·38
South Canara	Bantwal	,, ,,	6·10
	Mulki	,, ,,	6·00
	Mangalore	,, ,,	5·79
Malabar	Vayittiri	,, ,,	5·60
Travancore State	Mavelikarai	,, ,,	5·40

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Malabar	Tellicherry	3rd July	5·30
	Manantoddy	" "	5·08
	Vayittiri	4th "	9·00
Travancore State	Peermade	" "	7·35
Malabar	Manantoddy	" "	7·27
Travancore State	Kottayam Engineer's Office.	" "	5·53
Malabar	Vayittiri	5th "	5·70
Travancore State	Peermade	" "	5·20
	Thiruvellah	" "	5·04

Over the south of the Peninsula, including the divisions of south Madras, south-central Madras and the south of the east coast, the month's rainfall was between 50% and 80% in excess of the average, but the actual fall was not very heavy, and amounts exceeding 4″ in 24 hours were only recorded at a few places in the east coast (south) division. The following gives data of these falls:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Pudukkottai State.	Alangudi	26th July	4·63
South Arcot	Tittagudi	" "	4·34
Tanjore	Muttupet	" "	4·10
	Adirampatam	" "	4·05

In central Madras and in the central and north divisions of the east coast the total rainfall of the month was less than usual by small amounts. The only heavy burst of rain in these areas occurred over the north division of the east coast during the 1st and 2nd, during which the following amounts exceeding 5″ in 24 hours were recorded:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Ganjam	Balliguda	1st July	7·32
Vizagapatam	Nowrangapur	2nd "	8·23
	Malkanagiri	" "	6·55
	Jeypore	" "	6·36
Ganjam	Balliguda	" "	5·38

At other times the rainfall was generally light or moderate and the weather showery. The following gives comparative data of the 21 collectorates of the Presidency:—

Collectorate.	Rainfall. Average actual, July 1904.	Average normal, July.	Departure from normal, July 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Ganjam	7·70	7·81	−0·11	− 1
Vizagapatam	6·33	5·42	+0·91	+ 17
Godavari	4·09	6·51	−2·42	− 37
Kistna	2·89	5·36	−2·47	− 46
Nellore	1·84	2·29	−0·45	−20
Madras	6·21	3·86	+2·35	+ 61
Chingleput	5·51	3·60	+1·91	+ 53
North Arcot	4·58	2·99	+1·59	+ 53
South Arcot	4·79	2·92	+1·87	+ 64
Tanjore	2·38	1·98	+0·40	+ 20
Trichinopoly	2·23	1·61	+0·62	+ 39
Madura	1·96	1·07	+0·89	+ 83
Tinnevelly	0·68	0·61	+0·07	+ 11
Malabar	29·72	30·29	−0·57	− 2
South Canara	49·12	44·62	+4·50	+ 10
Salem	4·37	2·21	+2·16	+ 98
Coimbatore	2·04	1·15	+0·89	+ 77
Cuddapah	2·69	2·74	−0·05	− 2
Anantapur	1·84	2·02	−0·18	− 9
Bellary	3·11	2·52	+0·59	+ 23
Kurnool	2·32	4·05	−1·73	− 43

The following gives rainfall data of the extra-Indian stations:—

Station.	Rainfall. Average actual, July 1904.	Average normal, July.	Departure from normal, July 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Trincomalee	3·64	1·97	+1·67	+85
Colombo	9·43	4·83	+4·60	+95
Minicoy	10·08	6·66	+3·42	+51
Amini Divi	7·67	9·91	−2·24	− 23
Kashgar	0	0·29	−0·29	−100
Kabul	0	0·20	−0·20	−100
Meshed	0	0·01	−0·01	−100
Teheran	0	0·41	−0·41	−100
Ispahan	0	0·06	−0·06	−100
Bushire	0	0	0	0
Jask	0	0·02	−0·02	−100
Muscat	0	0·04	−0·04	−100
Baghdad	0	0	0	0
Aden	0	0·03	−0·03	−100
Perim	0	0·03	−0·03	−100
Zanzibar	2·49	2·74	−0·25	−9
Seychelles	0·30	2·61	−2·31	−89
Mauritius	2·27	2·28	−0·01	0

Ceylon and Minicoy like the south of the Peninsula received more rain than usual during the month, and Amini Divi like Malabar about the normal amount, but over Kashgaria, Afghanistan, Persia, Asiatic Turkey and Arabia the weather was rainless. At Zanzibar and Mauritius the normal amount was recorded, but at the Seychelles the fall was much lighter than usual.

Crop Report.

Madras.—At the close of the month the standing crops were in good condition but pasture was scanty in parts of Nellore, the Deccan and the southern districts. Harvests continued in parts with fair to normal outturn.

Bombay.—Heavy rain had fallen during the month in some districts, but at the close more rain was urgently needed in some places for autumn sowing or transplantation. Autumn seedings were suffering from want of moisture in parts of the upper Sind frontier, Surat, Nasik, Ahmednagar, Poona and Dharwar.

Bengal.—The rainfall during the month was general but unevenly distributed. Excessive rain had occasioned some damage to crops in Burdwan, Birbhum, the 24-Parganas, Nadia, Murshidabad, Patna, Gaya, Shahabad, Muzaffarpur, Monghyr and Ranchi, while more rain was wanted in Dinajpur, Darbhanga, Cuttack and Angul. Prospects were on the whole fair.

United Provinces.—Good rain fell throughout and in places agricultural operations had been retarded by excessive rain and a break was needed. The standing crops were, however, doing well and prospects were good.

Punjab.—At the close of the month more rain was required in Hissar, Ferozepore, Lahore, Amritsar, Shahpur and Mianwali. The sowing of autumn crops had been stopped at Mianwali and retarded at Amritsar and Lahore for want of rain. The standing crops were reported to be in good condition in Delhi, Ambala, Amritsar and Sialkot; below the average in Jullundur and Lahore; and in a precarious condition in Mianwali for want of rain and were withering in parts of Ferozepore.

North-west Frontier Province.—The standing crops, at the close of the month, were in fairly good condition, but more rain was wanted except in Hazara.

Burma.—The crop prospects at the close of the month were, on the whole, favourable but more rain was needed in Magwe, Meiktila, parts of Minbu, and the north-eastern portion of Yamethin.

Central Provinces.—The rainfall was unevenly distributed. At the close of the month the condition of the standing crops was generally good, but rain was much needed in Mandla, Seoni, Nimar, Wardha, Nagpur, Chanda, Bhandara, Bilaspur and throughout Berar, where a continuance of the break in the rains would cause anxiety.

Assam.—Rain had been general and the prospects of tea were good in Cachar and Nowgong and fair elsewhere. The prospects of sugarcane and cotton were generally fair and of jute, fair in Sylhet and the Garo Hills, and poor in Goalpara.

Mysore.—The standing crops were in good condition.

Hyderabad.—The crops at the close of the month were in good condition except in a few talukas.

Rajputana.—At the end of the month agricultural operations were generally satisfactory, but rain was badly needed in Bikaner, Marwar, Jaisulmer and the hilly tracts of Meywar.

Central India.—General rain fell during the month, but the amount was insufficient in parts of Indore and of Bhopawar. The crops were in good condition in Gwalior, Bhopal, Baghelkhand, Malwa and Bhopawar and fair in Indore.

Kashmir.—The condition of the standing crop was fair.

Nepal.—The standing crops were in good condition.

W. L. DALLAS.

TABLE I.—Abstract of Observations taken at 8 A.M. at 232 Stations in India, Burma, etc., in July, 1904.

Table

Abstract of Observations taken at 8 A.M. at 232

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 A.M., in inches.								Temperature of Air.											
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
	I—Burma Coast and Bay Islands.				−·015								83·3	−1·6	75·2	−0·4	79·2	−1·0	8·2					15·2
1	Tenasserim and Bay Islands.	Car Nicobar .	25	29·811		29·764	29·866	26th	29·757	29th	·109	79·1	85·8		76·8		81·3		9·0	88·7	23rd	74·0	15th	14·7
		Port Blair .	61	29·775	+·007	29·767	29·848	26th	29·724	18th & 20th.	·124	79·7	84·2	−1·2	77·1	−0·3	80·7	−0·8	7·1	86·4	24th & 26th.	73·4	30th	13·0
		Mergui . .	96	29·757	−·010	29·786	29·822	26th	29·697	28th	·125	76·7	83·2	−1·3	73·3	+0·8	78·2	−0·3	9·9	88·6	22nd	70·4	2nd	18·2
		Tavoy . .	26	29·823	−·016	29·779	29·892	26th	29·755	28th	·137	75·9	79·9	−3·4	71·8	−2·3	75·9	−2·9	8·1	85·2	22nd	70·1	4th	15·1
		Moulmein .	94	29·694	−·024	29·726	29·776	26th	29·625	29th	·151	76·0	80·9	−2·1	73·9	−0·5	77·4	−1·3	7·0	86·5	31st	71·3	9th	15·2
2	Lower Burma .	Rangoon‡ .	57	29·719	−·020	29·714	29·816	26th	29·650	29th	·166	77·7	84·2	−1·1	74·9	−0·9	79·5	−1·0	9·3	88·6	25th	72·9	4 days	15·7
		Bassein . .	27	29·737	−·010	29·702	29·838	26th	29·658	29th	·180	78·6	83·7	−1·0	77·0†	+1·2†	80·5†	+0·1	6·7	87·6	26th	71·9	23rd	15·7
		Diamond Island	41	29·728	−·018	29·704	29·830	26th	29·642	29th	·188	80·1	82·9	−1·4	76·8	+1·2	79·8	−0·1	6·1	85·4	10th, 25th & 26th.	73·2	29th	12·2
5	Arakan . .	Akyab . .	20	29·667	−·022	29·630	29·803	26th	29·554	1st	·249	78·7	82·6	−2·1	76·6	−0·9	79·6	−1·5	6·0	85·9	20th, 25th & 31st.	74·2	13th	11·7
8	Central Burma .	Toungoo .	183	29·570	−·019	29·695	29·679	26th	29·497	20th	·182	77·8	85·7	−1·0	73·3	−1·8	79·5	−1·4	12·4	91·3	29th	71·1	24th & 26th.	20·2
	II.—Burma Inland				−·009								88·2	−2·5	75·9	−1·0	82·1	−1·8	12·2					21·4
3	Central Burma .	Thayetmyo .	130	29·569	−·011	29·670	29·707	26th	29·519	1st	·188	79·6	87·1	−1·8	73·1	−3·2	80·1	−2·5	14·0	91·0	12th	72·0	5 days	19·0
4	Upper Burma .	Minbu . .	*165*	29·543	−·011	29·651	29·658	26th	29·461	20th	·197	80·3	89·0	−2·3	77·1	−0·1	83·1	−1·2	11·9	94·2	25th	75·1	4th & 8th.	19·1
		Yamethin .	657	29·064	−·022	29·674	29·181	26th	28·989	20th	·192	77·1	86·0	−4·0	74·1	−0·5	80·1	−2·3	11·9	91·3	31s	72·2	26th	19·1
		Monywa .	*280*	29·416		29·635	29·497	23rd	29·354	1st	·143	81·2	92·0		79·2		85·6		12·8	99·8	11th	77·1	17th	22·7
		Mandalay .	250	29·446	−·013	29·644	29·570	26th	29·380	1st & 6th	·190	81·2	90·7	−3·5	78·0	−0·4	84·1	−2·0	12·7	96·0	2nd & 10th.	75·3	26th & 27th.	20·7
		Myitkyina .	458	29·189		29·606	29·285	26th	29·113	19th	·172	78·0	85·7		75·9		80·8		9·8	94·1	8th	73·1	27th	21·0
		Bhamo ‡. .	*381*	29·303	−·005	29·639	29·400	26th	29·240	19th	·160	77·4	86·6	−1·1	74·1*	−1·0*	80·4*	−1·1*	12·5	93·5	8th	65·1	5th	28·4
4(a)	Burma Hill Stations.	Maymyo .	3,545									69·3	74·9		66·1		70·6		8·8	79·9	20th	64·0	27th	15·9
		Lashio . .	*2,751*									72·4	81·6	−2·0	70·6	+1·3	76·1	−0·4	11·0	88·5	12th	67·0	6th	21·5
	III.—Assam				−·027								88·6	−0·6	76·8	−0·7	82·8	−0·7	11·8					19·8
7	Surma .	Silchar . .	104	29·545	−·023	29·602	29·644	24th	29·432	7th	·212	79·6	89·3	−0·9	76·1	−0·8	82·9	−0·9	12·9	1	8th	74·3	4 days	21·6
9	Brahmaputra .	Sibsagar .	333	29·298	−·034	29·586	29·362	26th	29·210	6th	·172	80·1	88·3	−1·7	77·4	−0·5	82·9	−1·1	10·9	92·2	14th	74·0	27th	18·2
		Dhubri . .	115	29·486	−·023	29·556	29·574	26th	29·398	7th	·176	80·0	86·7	+0·9	77·5	−0·8	82·2	0	9·2	91·2	15th	74·8	26th	16·4
		Gauhati .	195	29·427		29·577	29·514	23rd	29·322	6th	·192	80·8	90·1		77·4		83·8		12·7	94·0	8th	73·5	30th	20·5
		Tezpur . .	252	29·376		29·585	29·454	31st	29·281	6th	·173	79·4	89·4		77·5		83·5		11·9	94·1	9th	74·4	20th	19·7
		Dibrugarh .	353	29·286		29·598	29·378	26th	29·208	6th	·170	78·9	87·9		74·6		81·3		13·3	93·2	8th	71·1	28th	22·1
	IV.—Bengal and Orissa				−·019								87·6	−0·8	77·8	−0·7	82·7	−0·8	9·9					18·6
6	East Bengal .	Chittagong .	87	29·557	−·021	29·594	29·702	26th	29·421	7th	·281	79·4	81·5	−1·2	76·0	−0·6	80·2	−0·9	8·5	88·0	20th	73·6	25th	14·4
		Noakhali .	43	29·578		29·568	29·701	26th	29·441	7th	·260	80·5	85·4		76·7		81·1		8·7	88·7	11th & 12th.	72·4	28th	16·3
		Comilla . .	36	29·586		29·570	29·702	26th	29·452	7th	·250	79·6	87·2		75·9		81·6		11·3	90·9	13th	72·8	25th & 28th.	18·1
		Sirajganj .	49	29·551		29·549	29·667	24th	29·433	7th	·234	79·6	87·3		77·3		82·3		10·0	98·8	30th	73·7	25th & 27th.	25·1
		Narayanganj .	26	29·588	−·010	29·562	29·711	26th	29·448	7th	·263	81·5	87·6	−0·7	78·0	−1·2	82·8	−1·0	9·6	92·1	12th	73·3	25th	18·8
		Barisal .	13	29·596	−·009	29·554	29·736	26th	29·458	7th	·278	81·6	86·9	−0·4	77·6	−1·0	82·2	−0·7	9·3	93·3	13th	75·1	28th	18·2
		Mymensingh .	62	29·556	−·013	29·569	29·649	26th	29·450	7th	·199	80·5	87·3	+0·2	77·6	−0·7	82·4	−0·3	9·7	91·2	13th	74·1	25th	17·1
		Faridpur .	46	29·555		29·550	29·681	26th	29·411	7th	·270	80·7	86·5		77·1		81·9		9·4	90·8	12th & 13th.	73·9	9th	16·9
10	Deltaic Bengal.	Jessore . .	33	29·543	−·029	29·523	29·686	26th	29·383	7th	·303	81·7	87·8	−1·4	78·5	−0·5	83·2	−1·0	9·3	93·5	13th	74·7	9th	18·8
		Calcutta . .	21	29·547	−·022	29·514	29·709	26th	29·390	1st	·319	81·3	87·1	−0·9	78·2	−0·3	82·7	−0·6	8·9	93·4	13th	74·9	8th	18·5
		Saugor Island.	25	29·531	−·029	29·503	29·703	26th	29·312	1st	·391	85·4	86·7	−1·1	80·1	−0·5	83·4	−0·8	6·6	90·4	31st	76·1	28th	14·3
		Krishnagar .	47	29·525		29·520	29·671	26th	29·368	7th	·303	81·5	88·7§		78·8		83·7§		9·9	92·6	17th	75·5	8th	17·1
		Midnapore .	149	29·413		29·508	29·569	26th	29·254	8th	·315	80·8	87·7		77·9		82·8		9·8	93·3	11th & 13th.	74·7	8th & 28th.	18·6

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

Note 1.—When a query is inserted against any reading or in the returns of any station, the data for that
Note 2.—The data from which divisional means of the figure columns Nos. 41, 43, and 45 are derived

* Mean of 29 days. Mean of 23 days. ‡ Mean of 30 days. § Mean of 16 days.

I.

Stations in India, Burma, etc., in July, 1904.

Wind Direction. Number of winds from: Calm	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	Wind Velocity. Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	Hygrometry, 8 A.M. Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Cloud. Mean cloud amount at 8 A.M.	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 1904.	Normal rainfall for period, 1st May to 31st July.	Departure from normal of period, 1st May to 31st July 1904.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
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	58
														92	+1	·889	−·016	8·1	−0·3				36·33	31·41	+7·94					**I. Burma Coast and Bay Islands.**		
				2	8	21			S 28° W	5·3			5·3	90		·891		9·2		18			9·11			29·21			1·44	Car Nicobar	Tenasserim and Bay Islands.	1
						14	16	1	S 72° W	14·7	11·0	+34	16·5	88	+1	·894	−·033	7·5	−1·0	25			19·76	15·68	+ 4·08	51·24	51·42	− 0·18	2·74	Port Blair.		
16	1				3	6	4	1	S 61° W	2·3	1·8	+28	2·0	97	+5	·874	−·001	5·4	−2·1	28	25·60	+2·40	45·99	31·50	+14·49	104·60	81·05	+23·55	4·12	Mergui.		
25						6			S 45° W	1·6				94	+2	·850	−·019	6·8	−1·4	30	28·00	+2·00	70·63	46·83	+23·80	154·20	112·76	+41·44	5·43	Tavoy.		
19					3	8	1		S 37° W	3·5	3·8	− 8	3·9	91	−2	·819	−·053	9·6	+1·1	30	28·20	+1·80	43·65	45·96	− 2·31	105·61	101·74	+ 3·87	3·80	Moulmein.		
1	1			1	13	12	2		S 24° W	5·6	5·5	+ 2	4·7	94	0	·899	−·014	8·9	−0·1	24	25·70	−1·70	26·11	20·98	+ 5·13	51·16	49 72	+ 1·44	4·21	Rangoon	Lower Burma	2
				4	9	11	5	2	S 30° W	4·0	4·0	0		93	−1	910	−·009	5·9	P	27	26·80	+0·20	28·41	25·46	+ 2·95	59·97	59·18	+ 0·79	4·31	Bassein.		
					1	21	7	2	S 58° W	10·2	8·9	+15	10·2	89	+3?	·912	+·015	8·4	−0·4	27	24·00	+3·00	36·58	25·80	+10·78	84·22	59·40	+24·82	6·06	Diamond Island.		
				10	14	7			S 5° E	2·5	3·8	−34	2·4	93	+2	·949	−·011	9·5	+1·2	30	27·80	+2·20	60·96	52·62	+ 8·34	120·36	109·29	+11·07	6·11	Akyab	Arakan	5
7				16	7	1			S 29° E	9·0	4·8	+88	8·9	92	0	·887	−·017	9·9	+0·6	30	25·00	+5·00	22·06	17·89	+ 4·17	46·16	38·32	+ 7·84	2·60	Toungoo	Central Burma.	3
														87	+3	·869	+·002	8·1	+0·4				8·68	6·67	+0·58					**II.—Burma Inland.**		
				2	29				S 3° E	1·6	6·7	−76		88	+3	·887	+·014	8·0	−0·1	16	15·20	+0·80	6·59	6·87	− 0·28	20·04	17·34	+ 2·70	1·89	Thayetmyo	Central Burma.	3
				27	4				S 40° E	8·9			10·6	86	+3	·890	+·017	7·0	+0·6	8	8 80	−0·80	3·03	4·34	− 1·31	11·71	14·89	− 3·18	0 99	Minbu	Upper Burma	4
3				19	9				S 31° E	11·1			11·7	88	+4	·820	−·014	9·9	+4·9	10	9 60	+0·40	2 38	4·12	− 1·74	8·75	15·14	− 6·39	0·33	Yamethin.		
				3	27	1			S 3° E	3·9			4·1	81		·863	·	9·2		4	3·60	+0·40	1·75	2·61	− 0·86	12·95	11·41	+ 1·54	0·82	Monywa.		
				2	28	1			S 1° E	10·1			10·2	80	+5	·847	+·004	5·0	−3·2	12	6·20	+5·80	8·78	3·05	+ 5·73	21·17	14·39	+ 6·78	3·65	Mandalay.		
														92		·888		9 1					17 34			29·14			3·51	Myitkyina.		
15			2	7	4	2	1		S 27° E	2·0			2·1	92		·888		9 1		25										Bhamo.		
26	1		1		1	1		1	W	1·7			2·0	94	+2	·887	−·009	8·5	−0·2	24	21·50	+2·50	20·92	19·01	+ 1·91	34·39	39 19	− 4·80	2·91	Bhamo.		
1				1	15	12	1		S 22° W	4·7				92		·657		9·0		17	12·10	+4·90	10·64	7·97	+ 2·67	26·25	25·56	+ 0·69	2 21	Maymyo	Burma Hill Stations.	4(a)
	1	2	2	4	8	12	1	1	S 16° E	4·5				90	0	·714	−·010	9·1	+0·2	24			16 88	14·71	+ 2·17	34·76	31·54	+ 3·22	2·13	Lashio.		
														91	−1	926	−·023	8·5	−0·6				16·83	16·03	+0·80					**III.—Assam.**		
21									Calm	1·1	3·1	−65	1·9	90	0	915	−·032	6·6	−2·6	27	22·50	+4·50	38·63	18·43	+20·20	78·34	57·66	+20·68	3·81	Silchar	Surma.	7
11			3	1	1	1	13		S 37° W	2·6	2·8	− 7	2·4	92	−1	·953	−·022	9·9	+1·0	17	19·20	−2·20	12·37	17·12	− 4·75	30·13	43·33	−13·20	2·62	Sibsagar	Brahmaputra	9
1			3	12	4	4	7		S 51° E	3·8	3·9	− 3	4 5	90	−1	·929	−·015	8·2	−0·2	17	15·80	+1·20	9·22	15·49	− 6·27	42·38	54·09	−11·71	1·72	Dhubri.		
21	3	2		1	1	1	1	1	N 7° W	1·7			1·9	88		·930		8·6		15	14·80	+0·20	13·63	10·83	− 2·80	43·50	31·81	+ 11·69	4·00	Gauhati.		
3	1	6	7	3	5	6			S 56° E	2·5			2·7	92		·921		8·8		15	17·20	−2·20	12·37	13·33	− 0·96	43·99	35·32	+ 8·67	1·92	Tezpur.		
12	2	1	3	1	6	3	1		S 1° W	1·2			1·1	92		·907		8·9		18	20·40	−2 40	14·77	21·00	− 6 23	32·09	54·63	−22·54	2·65	Dibrugarh.		
														89	0	·945	−·023	7·7	−0·4				15·53	14·56	+0·96					**IV.—Bengal and Orissa.**		
		2	1	17	10	1			S 24° E	9·3	7·2	+29	8·5	89	0	·897	−·023	8·6	+0·3	23	19·45	+3·55	21·60	19 94	+ 1·66	46·87	52·01	− 5·14	4·17	Chittagong	East Bengal	6
		1	5	13	11	1			S 35° E	7·0			7·6	90		·944		6·4		28	22·81	+5·19	28·98	22·10	+ 6·88	67·93	55·45	+12·48	4·16	Noakhali.		
			3	14	14				S 28° E	7·7			6·5	91		·914		7·3		20	19·07	+0·93	16·29	17·05	− 0·76	38·49	45·97	− 7·48	4·90	Comilla.		
10		1	8	7	2	2	1		S 54° E	3·3			3·4	94		·956		9·2		17	14·26	+2·74	17·74	11·30	+ 6·44	43·99	30·82	+13·17	5·16	Sirajganj.		
1	1		7	10	6	4	2		S 31° E	6·3	7·3	−14	5·4	91	+1	·983	+·002	8·9	+0·2	18	17·78	+0·22	11·17	12·31	− 1·14	27 39	34·39	− 7·00	2·22	Narayanganj.		
		1	3	8	11	6	2		S 9° E	?			?	91	+3	·988	+·009	6·9	−2·0	26	20·58	+5·42	15·12	15·02	+ 0·10	40·35	39·23	+ 1·12	2·02	Barisal.		
1			8	13	3	4	2		S 39° E	4·8			4·2	89	−2	·927	−·033	8·4	+0·5	19	19·65	−0·65	14·71	15·33	− 0·62	52·73	45·63	+ 7·10	1·76	Mymensingh.		
1			7	12	8	2		1	S 37° E	4·9			4·1	91		·964		7·6		22	17·13	+4·87	17·45	12·47	+ 4·98	33·27	33·52	− 0·25	2·52	Faridpur.		
8			6	8	8	1			S 38° E	4·1	4·6	−11	4·1	91	+1	·988	−·015	8·5	+0·1	19	17·52	+1·48	14·05	12·02	+ 2·03	42·36	32·52	+ 9·84	4·85	Jessore	Deltaic Bengal	10
7			5	1	5	10	3		S 17° W	4·2	5·3	−21		89	0	·955	−·012	9·0	+0·6	17	18·96	−1·96	20·62	12·27	+ 8·35	40·71	29·30	+11·41	6·23	Calcutta.		
	2	1		1	5	16	4	2	S 49° W	20·0	14·2	+41		88	0	·976	−·020	8·7	−0·6	11	16·74	−5·74	12·72	15·95	− 3·23	34·61	31·06	+ 3·55	2·48	Saugor Island.		
3	1		7	8	7	1	4		S 34° E	3·2			3 5	91		·979		7·9		18	15 87	+2·13	11·32	10·36	+ 0·96	23·16	26·79	− 3 63	2·32	Krishnagar.		
9	1	1		3	11	6			S 4° W	2·5			2 3	89		·943		6·5		17	15 95	+1·05	21·43	12·56	+8·87	38·35	28·76	+ 9·59	4 93	Midnapore.		

station are not utilized in calculating the provincial departures from normal.
are incomplete.

Table

Abstract of Observations taken at 8 A.M. at 232

Number of District.	Meteorological Province or District.	Station.	Elevation of barometer above sea-level, in feet.	Pressure, 8 A.M., in inches.								Temperature of air.											
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
11	Central Bengal	Bankura	298	29·229		29·475?	29·381	26th	29·021	8th	·360	81·0	87·9		77·7		82·8		10·2	94·6	13th	74·9	29th	19·7
		Raniganj	334	29·226		29·511	29·368	26th	29·004	8th	·364	79·9	88·7		77·2		83·0		11·5	93·9	13th	74·4	28th	19·5
		Burdwan	99	29·465	−·024	29·512	29·621	26th	29·292	8th	·329	81·5	88·3	−1·9	78·6	−0·8	83·4	−1·4	9·7	95·4	13th	75·8	20th & 24th.	19·6
		Naya Dumka	489	29·059		29·504	29·205	26th	28·880	8th	·325	80·5	87·3		76·9		82·1		10·4	94·0	14th	73·9	23rd	20·1
		Berhampore	67	29·496	−·033	29·512	29·627	26th	29·368	8th	·259	81·1	88·3	−1·1	78·3	−0·5	83·3	−0·8	10·0	93·8	13th	75·3	8th & 26th.	18·5
		Rampur Boalia.	70	29·504		29·523	29·628	26th	29·384	7th	·244	81·4	87·7		78·2		83·0		9·5	93·1	14th	74·1	24th 25th & 27th.	19·0
		Malda	72	29·481		29·504	29·598	26th	29·386	6th	·212	81·7	89·1		78·4		83·8		10·7	96·1	14th	74·0	27th	22·1
		Bogra	61	29·523	−·011	29·536	29·619	26th	29·420	7th	·199	80·2	88·2	−0·9	77·7	−0·8	82·9	−0·9	10·5	93·2	13th	73·7	24th	19·5
12	North Bengal	Dinajpur	123	29·456	−·020	29·534	29·549	26th	29·372	7th	·177	81·0	89·0	−0·1	77·6	−1·3	83·3	−0·7	11·4	95·8	14th	74·0	26th	21·8
		Rangpur	123	29·486		29·563	29·585	26th	29·399	7th	·186	81·8	89·0		77·3		83·2		11·7	94·7	13th	73·8	26th & 27th.	20·9
		Jalpaiguri	284	29·311	−·019	29·552	29·386	31st	29·234	6th	·152	80·1	88·3	+0·1	76·8	0	82·6	+0·1	11·5	92·4	14th	73·6	28th	18·8
		Cooch Behar	156	29·445		29·555	29·559	24th	29·355	6th	·204	80·7	88·6		77·8		83·2		10·8	92·9	14th	74·6	28th	18·3
17	North Bihar	Purnea	125	29·443	−·026	29·523	29·549	26th	29·366	8th	·183	81·1	89·2	−0·8	78·1	−0·6	83·6	−0·7	11·1	94·2	13th	75·7	24th, 26th & 28th.	18·5
14	Orissa	Balasore	50	29·524	−·016	29·516	29·694	26th	29·335	1st	·359	80·8	88·1	−0·4	77·6	−0·8	82·9	−0·6	10·5	93·4	13th	74·8	23rd	18·6
		False Point	21	29·576	−·011	29·539	29·739	26th	29·365	1st	·374	82·1	86·0	−1·6	78·0	−0·6	82·0	−1·1	8·0	90·5	20th & 21st.	74·1	16th	16·4
		Cuttack	80	29·511	−·010	29·534	29·674	26th	29·311	1st	·363	81·3	89·2	−0·6	77·6	−1·0	83·4	−0·8	11·6	94·4	13th & 27th.	74·2	1st	20·2
		Puri	24	29·585		29·547	29·751	26th	29·404	1st	·347	81·3	85·5		79·0		82·2		6·5	89·7	30th	74·1	1st	15·6
	V.—Gangetic Plain and Chota Nagpur.				−·025								88·3	−1·5	77·6	−0·8	83·0	−1·2	10·7					20·4
15	Chota Nagpur	Hazaribagh	2,007	27·555	−·039	29·502	27·687	26th	27·419	8th	·268	75·6	84·0	−0·6	73·4	−0·3	78·7	−0·5	10·6	88·2	15th & 26th.	71·3	4 days	16·9
		Ranchi	2,128	27·445	−·027	29·510	27·595	26th	27·304	8th	·291	75·2	82·5	−1·5	72·7	−0·2	77·6	−0·9	9·8	87·2	15th	69·9	10th & 27th.	17·3
16	South Bihar	Daltonganj	730?	28·810		29·494	28·941	26th	28·619	9th	·322	79·3	88·2		76·6		82·4		11·6	93·1	13th & 26th.	74·0	29th	19·1
15	Chota Nagpur	Purulia	816	28·734?		29·493?	28·889	26th	28·549	8th	·340	80·0	87·8		76·0		82·0		11·8	93·0	13th	73·9	10th	19·1
		Chaibassa	760	28·791	−·020	29·500	28·955	26th	28·632	8th	·323	79·1	88·4	−1·2	76·6	−0·9	82·5	−1·1	11·8	93·4	13th	74·5	4 days	18·9
16	South Bihar	Gaya	375	29·164	−·030	29·490	29·291	26th	29·001	9th	·290	81·7	84·6	?	77·8	−1·0	81·2	?	6·8	91·2	1st	73·8	28th	17·4
		Dehri	351	29·178		29·481	29·294	26th	28·981	9th	·313	81·4	87·6		78·3		83·0		9·3	92·8	5th	74·5	28th	18·3
		Patna	183	29·366	−·024	29·501	29·475	26th	29·236	9th	·239	82·1	88·9	−1·2	78·5	−1·3	83·7	−1·3	10·4	94·0	8th	74·2	28th	19·8
		Arrah	190	29·352		29·494	29·460	26th	29·199	9th	·261	81·7	87·6		78·5		83·1		9·1	91·5	13th	75·2	25th, 28th & 29th.	16·3
		Buxar	239	29·294		29·488	29·401	26th	29·130	9th	·271	81·0	87·6		77·5		82·6		10·1	92·5	14th	74·1	18th	18·4
17	North Bihar	Bhagalpur	160	29·390		29·502	29·516	26th	29·276	8th	·240	81·5	88·9		78·1		83·5		10·8	95·2	13th	74·6	25th	20·6
		Darbhanga	166	29·399	−·017	29·518	29·500	26th	29·332	9th	·168	82·6	90·0	+0·5	79·3	−0·5	84·7	0	10·7	95·8	7th	75·8	28th	20·0
		Muzaffarpur	178	29·377		29·510	29·479	26th	29·301	6th	·178	81·8	89·1		78·5		83·8		10·6	94·7	7th	75·2	28th	19·5
		Motihari	224	29·340		29·522	29·432	31st	29·270	6th	·162	81·9	90·4		78·3		84·4		12·1	95·4	7th	75·3	28th	20·1
		Chapra	181	29·358		29·493	29·458	26th	29·220	9th	·238	82·0	89·4		78·7		84·1		10·7	94·4	7th	75·6	28th	18·8
18	United Provinces (East).	Benares	267	29·258	−·029	29·479	29·373	26th	29·107	9th	·266	81·7	89·3	−1·9	78·0	−1·6	83·7	−1·8	11·3	96·6	2nd	74·7	30th	21·9
		Allahabad	309	29·218	−·027	29·480	29·331	26th	29·124	9th	·207	81·7	89·4	−2·2	78·4	−1·0	83·9	−1·6	11·0	99·6	1st	75·1	29th	24·5
22	United Provinces (East Submontane).	Gorakhpur	257	29·283	−·021	29·495	29·365	31st	29·201	9th	·164	81·8	89·4	−1·7	78·0	−1·4	83·7	−1·6	11·4	95·0	7th	73·5	21st	20·5
19	South Oudh	Lucknow	368	29·156	−·027	29·481	29·259	26th	29·065	6th	·194	81·7	89·4	−2·3	78·4	−0·9	83·9	−1·9	11·0	97·3	6th	74·8	27th & 28th.	22·5
20	North Oudh	Bahraich	401	29·128	−·028	29·487	29·208	23rd	29·056	6th	·152	81·7	89·9	−1·4	78·2	−0·6	84·1	−1·0	11·7	96·1	7th	75·0	28th	21·1
21	United Provinces (Central).	Cawnpore	416	29·104	−·017	29·472	29·188	26th	28·973	10th	·225	81·9	89·9	−2·6	78·7	−0·9	84·3	−1·8	11·2	101·4	2nd	75·4	4 days	26·0
		Mainpuri	516	29·006	−·021	29·479	29·111	26th	28·839	1st	·172	82·1	91·2	−1·5	79·1	−0·4	85·2	−1·0	12·1	107·3	2nd	74·7	11th	32·6

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

Note 1.—When a query is inserted against any reading

Note 2.—The data from which divisional means of the

I—*continued.*

Stations in India, Burma, etc., in July, 1904—continued.

Wind Direction. Number of winds from Calm	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	Wind Velocity. Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	Hygrometry, 8 A.M. Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Cloud. Mean cloud amount at 8 A.M.	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, 1904.	Normal rainfall for period, 1st May to 31st July.	Departure from normal of period, 1st May to 31st July, 1904.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
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	58
28		1		1		1			S 45° E	0·6			0·7	87		·921		7·6		17	16·46	+0·54	18·45	12·87	+5·58	35·49	27·08	+ 8·41	6·66	Bankura .	Central Bengal.	11
24	1	1	4	1					N 87° E	1·2				92		·941		7·1		22	16·39	+5·61	20·30	14·15	+6·15	34·12	27·85	+ 6·27	2·30	Raniganj.		
7	2	1	4	2	6	5	2	1	S 1° W	3·6	4·3	−16	3·6	88	+ 2	·952	+·010	8·5	+0·3	21	16·10	+4·90	14·13	12·48	+1·65	29·67	28·75	+ 0·92	2·70	Burdwan.		
10		4	7	5	3	2			S 67° E	3·5			3·9	88		·922		8·8		21	18·72	+2·28	15·39	14·14	+1·25	38·43	27·70	+10·73	2·15	Naya Dumka		
1	1	1	8	8	5	1	4	2	S 45° E	5·3	5·0	+ 6	4·5	92	0	·974	−·019	9·1	+0·3	23	15·71	+7·29	13·41	10 51	+2·90	37·03	25·46	+11·57	2·97	Berhampore.		
19		1		4	3	3	1		S 3° E	3·1			3·1	89		·957		7·2		16	15·15	+0·85	17·26	11·46	+5·80	39·13	27·70	+11·43	5·00	Rampur Boalia.		
		7	8	7	4	1	3	1	S 74° E	7·8			7·2	88		·949		8·0		16	15·45	+0·55	8·35	11·07	−2·72	20·31	24·81	− 4·50	2·08	Malda.		
6		3	15		6	1			S 73° E	3·9			3·3	89	0	·918	−·061	8·0	−0·2	16	15·94	+0·06	15·87	12·64	+3·23	34·77	33·58	+ 1·19	2·88	Bogra.		
		3	7	12	2	6	1		S 43° E	2·9			2·8	88	− 2	·937	−·033	8·0	−0·4	18	16·36	+1·64	14·98	14·38	+0·60	32·74	36·00	− 3·26	3·82	Dinajpur .	North Bengal .	12
6		3	11	6	3	2			S 66° E	?			?	87		·943		7·2		15	15·42	−0·42	10·54	16·01	−5·47	41·74	46·33	− 4·59	1·90	Rangpur.		
	1	9	9	7	2	2	1		S 87° E	1·3			1·6	90	− 2	·932	−·017	5·7	− 2·8	23	20·16	+2·84	25·66	33·38	−7·72	53·24	68·28	−15·04	5·38	Jalpaiguri.		
7			20	1		3			S 81° E	2·1			2·2	90		·945		8·6		19	18·79	+0·21	23·26	25·58	−2·32	60·07	72·99	−12·92	3·68	Cooch Behar		
1		7	6	10		5	2		S 65° E	4·6	2·9	+59	4·1	90	+ 1	·954	−·027	5·3	−1·9	15	17·13	−2·13	15·65	14·56	+1·09	38·25	29·35	+ 8·90	3·23	Purnea .	North Bihar .	17
2		1		3	1	19	5		S 45° W	6·4			4·8	84	− 4	·891	−·079	7·7	−0 5	18	14·94	+3·06	9·40	11·68	−2·28	22·39	28·97	− 6·58	1·53	Balasore .	Orissa . .	1
	1				1	16	12	1	S 65° W	11·5	10·5	+10	12·0	85	− 2	·935	−·031	7·9	−0·5	12	14·90	−2·90	8·91	11·89	−2·98	26·20	25·42	+ 0·78	1·86	False Point.		
8					1	14	7	1	S 61° W	3·8	3·2	+19		82	+ 1	·882	−·009	7·1	−0·4	12	16·13	−4·13	5·40	11·46	−6·06	21·27	26·52	− 5·25	1·00	Cuttack.		
3						23	3	2	S 54° W	18·4			18·0	90		·975		6·5		10	11·74	−1·74	5·67	9·96	−4·29	14·68	20·84	− 6·16	1·22	Puri.		
														87	+ 1	·914	−·015	7·2	−0·2				16·07	12·30	+3·77					V.—Gangetic Plain and Chota Nagpur.		
1	3	1	4	1	3	4	8	6	N 84° W	9·2	8·4	+10	8·2	84	− 3	·748	−·062	9·9	+0·5	23	18·74	+4·26	19·36	14·41	+4·95	34·80	25·85	+ 8·95	2·78	Hazaribagh	Chota Nagpur .	15
1	1	2	1	2	5	7	6	6	S 66° W	7·8			9·3	87	− 1	·766	−·030	8·9	+0·9	18	19·10	−1·10	28·24	15·81	+12·43	44·14	28·25	+15·89	6·15	Ranchi.		
16		2	2		3	4	3	1	S 14° W	5·8			4·7	87		·874		5·6		22	16·16	+5·84	12·71	12·51	+0·20	20·99	19 65	+ 1·34	2 06	Daltonganj .	South Bihar .	16
1		3	2	2	4	8	8	3	S 55° W	4·3			5·2	87		·883		7·4		21	17·42	+3·58	18·12	12·23	+5·89	37·82	25·22	+12·60	3·01	Purulia.	Chota Nagpur .	15
20		2	1			5	3		S 63° W	2·2			1·9	88	+ 3	·882	−·016	6·7	−1·0	13	16·68	−3·68	17·82	12·34	+5·48	39·10	25·19	+13·91	3·91	Chaibassa.		
6	1	8		3		5	8		N 76° E	3·5	2·9	+21	2·8	84	0	·910	−·019	7·1‡	−1·9	19	15·68	+3·32	18 54	13·67	+4·87	39·62	22·08	+17·54	4·48	Gaya . .	South Bihar .	15
2			10	1	3	9	4	2	S 6° W	6·2			5·5	85		·914		8·7		20	14·72	+5·28	19·06	11·64	+7·42	28·58	18·99	+ 9·59	4·41	Dehri.		
		3	17	2	1	1	5	2	N 88° E	8·1	3·6	+125	9·1	88	+ 2	·965	−·004	8·9	+0·3	18	14·16	+3·84	19·53	12·66	+6·87	32·18	23·13	+ 9·05	3·42	Patna.		
12		3	2	6	3	4	1		S 32° E	2·8			2·8	86		·931		3·9		20	15·13	+4·87	16·77	13·35	+3·42	30·53	21·77	+ 8·76	2 29	Arrah.		
1			16	4	3	3	4		S 58° E	6·2			5·8	87		·921		8·1		19	14·39	+4·61	17·00	11·78	+5·22	24·28	18·04	+ 6·24	4·12	Buxar.		
11		6	4	3	1	3	3		S 79° E	3·5			3·3	87		·929		7·5		18	15·39	+2·61	9·43	12·22	−2·79	23·00	23·29	− 0·29	1·63	Bhagalpur .	North Bihar .	17
3	1	1	11	9		1	4	1	S 69° E	4·6	5·0	− 8		86	− 2	·959	−·010	7·1	0	12	14·37	−2·37	8·87	11·81	−2·94	16·40	23·02	− 6·62	1·95	Darbhanga.		
10			10	9			1	1	S 68° E	4·2				91		·985		5·3		16	14·39	+1·61	12·83	11·90	+0·93	26·66	21·55	+ 5·11	3·44	Muzaffarpur.		
		2	20	1	2	2	3	1	S 83° E	5·8			5·6	85		·931		5·4		16	12·48	+3·52	14·17	12·49	+1·68	25·75	24·04	+ 1·71	3·11	Motihari.		
		2	15	7	2	2	2	1	S 71° E	3·5			3·1	88		·955		7·8		16	14·23	+1·77	16 34	11·29	+5·05	25·68	19·04	+ 6·64	2·80	Chapra.		
8	2	2	3	4	2	4	3	3	S 18° W	2·2	4·8	−54	2·5	85	− 1	·928	−·034	8·3	+0·3	16	14·60	+1·40	15·56	11·45	+4·11	19·07	18·32	+ 0·75	3·33	Benares .	United Provinces (East).	18
1	2	2	10	1	1	3	10	1	N 67° W	6·6	6·3	+ 5	5·5	87	+ 3	929	−·012	8·7	+0·5	15	13·30	+1·70	12·30	12·15	+0·15	13·36	18·86	− 5·50	3·60	Allahabad.		
2	3	11	6	2	1	3	3	1	N 49° E	1·9	2·8	−32		89	+ 3	·959	+·008	9·2	+3·3	19	14·70	+4·30	18·06	13·75	+4·31	33·18	24·18	+ 9·00	2·94	Gorakhpur .	United Provinces (East Submontane).	23
13		2	5	6	1	1	2	1	S 62° E	2·4	3·9	−38	2·6	84	0	·904	−·037	7·6	−0·3	13	14·10	−1·10	14·23	11·53	+2·70	22·75	18·25	+ 4·50	5·44	Lucknow .	South Oudh .	19
15		2	7	4		3			S 69° E	1·1			1·0	92	+ 7	1·000	+·043	3·3	−3·4	17	12·80	+4·20	10 52	11·86	−1·34	27·07	20·34	+ 6·73	2 08	Bahraich .	North Oudh .	
5	1	2	8	2	4	4	4	1	S 33° E	7·3				84	+ 2	·911	−·030	7·8	+0·4	20	12·10	+7·90	25·43	10·96	+14·47	28·92	15·36	+13·56	4·08	Cawnpore .	United Provinces (Central).	21
7	3	4	4	5	1	2	3	2	N 71° E	4·3			4·3	84	+ 2	·922	−·006	5·2	−1·8	16	10·20	+5·80	8·61	8·75	−0·14	9·75	13·91	− 4·16	1·57	Mainpuri.		

or in the returns of any station, the data for that station are not utilized in calculating the provincial departures from normal.
figure columns Nos. 41, 43 and 45 are derived are incomplete.

‡ Mean of 28 days.

Table

Abstract of Observations taken at 8 A.M. at 232

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 A.M., in inches.								Temperature of air.												
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
	VI.—Upper Sub-Himalayas.				−·027								94·4	−0·3	79·4	+0·6	86·9	+0·1	14·9					31·7
24	United Provinces (West Submontane).	Bareilly	568	28·957	−·022	29·486	29·039	30th	28·876	6th	·163	81·5	90·0	−1·6	78·0	+0·7	84·0	−1·2	12·0	97·9	5th	74·6	17th	23·3
		Dehra Dun	2,233	27·347	−·029	29·516	27·435	31st	27·279	6th	·156	75·1	82·5	−3·0	72·6	−1·5	77·6	−2·3	9·9	91·0	2nd	68·5	2nd	22·5
		Roorkee	899	28·633	−·020	29·498	28·726	31st	28·557	6th	·169	79·8	88·8	−3·3	77·1	−1·1	83·0	−2·2	11·7	102·2	2nd	73·6	2nd	28·6
22	United Provinces (West).	Meerut	738	28·782	−·021	29·479	28·876	30th	28·701	6th	·175	81·6	91·5	−1·3	79·5	+0·1	85·5	−0·6	12·0	105·7	2nd	73·3	8th	32·4
26	South-East Punjab.	Delhi	718	28·801	−·021	29·476	28·890	30th	28·734	6th	·156	82·9	91·9	−2·1	79·2	−1·5	85·6	−1·8	12·7	107·2	2nd	75·3	6th	31·9
28	Central Punjab.	Lahore	702	28·764	−·044	29·420	28·863	30th	28·649	15th	·214	88·5	102·4	+1·8	83·5	+4·1	93·0	+3·0	18·9	109·4	11th	76·2	29th	33·2
27	South Punjab	Sirsa	662	28·833	−·024	29·416	28·919	26th	28·749	14th	·170	88·6	101·6	+1·1	83·9	+2·1	92·8	+1·6	17·7	109·3	3rd	76·1	4th	33·2
		Patiala	*818*	28·695		29·473	28·777	31st	28·615	14th	·162	82·4	92·0		78·8		85·4		13·2	105·8	2nd	73·2	6th	32·6
29	Punjab (Submontane).	Ludhiana	812	28·686	−·033	29·456	28·766	12th & 31st	28·608	14th	·158	84·9	96·6	−0·4	80·5	+0·2	88·6	−0·1	16·1	107·0	2nd	74·1	4th	32·9
		Sialkot	830	28·657	−·032	29·443	28·761	31st	28·554	14th	·207	86·7	101·0	+3·4	82·7	+3·2	91·9	+3·3	18·3	111·8	1st	73·1	29th	38·7
		Ambala	892	28·632	?	29·435	28·705	31st	28·555	1st	·150	81·1	91·5	−1·8						107·5	2nd			
		Rawalpindi	1,674	27·845	−·026	29·464	27·942	30th	27·722	14th	·220	84·2	99·6	+2·3	77·8	+1·1	88·7	+1·7	21·8	109·0	1st	70·1	19th	38·9
	VII.—Indus Valley and North-West Rajputana.				−·017								101·9	+1·1	82·1	+0·5	92·0	+0·8	19·7					33·4
32	North-West Frontier Province.	Peshawar	1,110	28·387	−·027	29·459	28·490	19th	28·256	14th	·234	87·2	103·5	+0·6	79·1	−0·3	91·3	+0·2	24·4	114·0	14th	71·9	19th	42·1
		D. I. Khan	590	28·866	−·046	29·391	29·001	4th	28·717	14th	·284	89·1	105·1	+1·7	84·2	+1·7	94·7	+1·7	20·9	113·2	14th	76·6	4th	36·6
31	West Punjab	Khushab	612	28·862	?	29·433	28·991	4th	28·726	14th	·265	88·6	103·4	+0·8	82·8	+0·7	93·1	+0·8	20·6	111·3	14th	70·4	7th	40·9
		Montgomery	558	28·902	?	29·411	28·996	4th	28·800	14th	·196	92·4	105·9	+1·2	85·8	+1·9	95·9	+1·6	20·1	111·3	11th	70·5	8th	40·8
		Multan	420	29·017	−·043	29·392	29·131	30th	28·905	14th	·226	90·2	106·3	+2·5	86·6	+2·9	96·5	+2·7	19·7	112·4	8th	82·1	15th	30·3
47	Sind	Jacobabad	186	29·262	−·026	29·409	29·364	30th	29·151	15th	·213	88·0	109·8	+2·0	83·7	−0·6	96·8	+0·7	26·1	116·6	15th	80·2	22nd & 23rd.	33·4
		Hyderabad	96	29·416	+ 001	29·465	29·503	26th	29·334	7th	·169	84·2	106·0	+1·1	79·7	−1·1	89·9	0	20·3	108·2	6th & 8th	77·5	6th	30·7
		Kurrachee	30	29·533	+·002	29·514	29·613	30th	29·465	7th	·148	82·4	89·5	−1·1	79·8*	−0·8*	84·5*	−1·0*	9·7	92·4	6 days.	77·7	23rd & 27th.	14·7
51	West Rajputana	Bikaner	*771*	28·738	−·018	29·464	28·843	30th	28·654	7th	·189	87·1	102·6	+2·2	83·5	+0·7	93·1	+1·5	19·1	109·5	4th	79·0	5th	30·5
		Pachpadra	*380*	29·179	+·019	29·512	29·267	26th	29·101	6th	·166	84·0	98·1	+0·4	79·6	0	88·8	+0·2	18·5	108·1	5th	76·0	6th	32·1
		Jodhpur	782	28·782		29·538	28·870	26th	28·704	7th	·166	81·9	96·4		78·8		87·6		17·6	107·7	4th	75·3	8th & 28th.	32·9
	VIII.—East Rajputana, Central India and Gujarat.				−·007								89·3	−0·9	77·2	−0·5	83·2	−0·7	12·1					27·0
50	East Rajputana	Jaipur	1,431	28·140	−·010	29·524	28·232	26th	28·060	6th	·172	80·2	92·5	−1·0	77·0	−1·2	84·8	−1·1	15·5	106·2	3rd	72·1	5th	34·1
		Bharatpur	585	28·946		29·489	29·012	27th	28·857	11th	·155	81·2	93·7		77·3		85·5		16·4	107·9	2nd	70·1	12th	37·8
		Kotah	819	28·718		29·531	28·832	26th	28·616	4th	·216	81·3	90·5		78·6		84·6		11·9	106·0	3rd	73·6	9th	32·4
		Sambhar	1,254	28·310	?	29·518	28·408	26th	28·228	6th	·180	81·6	93·8	−0·5	78·1	−1·1	86·0	−0·8	15·7	106·5	3rd	74·4	25th	32·1
		Ajmer	1,611	27·976	−·006	29·534	28·062	26th	27·901	6th	·161	80·2	90·1	−1·2	77·7	+0·4	83·9	−0·4	12·4	102·9	3rd	73·6	25th	29·3
		Udaipur	1,925	27·695		29·560	27·799	26th	27·593	4th	·206	77·6	85·8		73·8		79·8		12·0	99·0	3rd	70·8	7th	28·2
		Deesa	466	29·140	+·004	29·559	29·235	26th	29·033	6th	·202	80·4	92·7	+1·0	77·1	−0·5	84·9	+0·3	15·6	105·6	4th	74·0	6th	31·6
46	Kathiawar and Cutch.	Bhuj	395	29·210	+·013	29·554	29·321	26th	29·116	6th	·205	81·9	90·4	+0·4	77·7	−0·4	84·1	0	12·7	100·3	4th	70·9	6th	29·4
		Jamnagar	61	29·553		29·559	29·628	26th	29·441	5th	·184	82·4	89·8		78·4		84·1		11·4	94·5	2nd & 4th	73·2	6th	21·3
		Rajkot	429	29·200	+·002	29·580	29·287	26th	29·067	4th	·220	79·6	90·8	+0·2	76·0	+0·2	83·4	+0·2	14·8	99·9	4th	71·8	6th	28·1
		Veraval	*18*	29·652	+·014	29·612	29·757	26th	29·512	5th	·245	79·7	82·2	−1·5	78·6	−0·6	80·4	−1·1	3·6	84·6	3rd	76·3	6th	8·3
		Dwarka	*37*	29·593		29·576	29·675	26th	29·491	5th	·184	81·6	85·3		79·5		82·4		5·8	88·9	2nd	77·2	24th	11·7
		Bhavnagar Para.	55	29·606	?	29·605	29·707	26th	29·461	4th	·246	82·6	91·4	+1·1	78·3	−0·5	86·3	+0·3	16·1	100·6	2nd	75·0	4th	25·6
49	Central India	Nowgong	757	28·771	−·040	29·484	28·905	26th	28·521	10th	·384	79·1	85·1	−4·8	77·0	−1·1	81·1	−3·0	8·1	101·5	2nd	72·0	11th	29·5
		Indore	1,823	27·829	?	29·601	27·954	26th	27·686	4th	·268	74·9	84·5		71·9	−0·7	78·2	−0·4	12·6	94·6	3rd	70·1	6 days.	24·5
		Neemuch	1,630	27·985	−·002	29·572	28·089	26th	27·880	4th	·209	76·4	85·6	−1·8	73·6	−0·5	79·6	−1·2	12·0	98·5	3rd	70·7	11th	27·8

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

* Mean of 28 days.

Note 1.—When a query is inserted against any reading or

Note 2.—The data from which divisional means of the figure

I—*continued.*

Stations in India, Burma, etc., in July, 1904 - continued.

Wind Direction. Number of winds from Calm	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W	Wind resultant.	Wind Velocity. Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	Hygrometry, 8 A.M. Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Cloud. Mean cloud amount at 8 A.M.	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, 1904.	Normal rainfall for period, 1st May to 31st July.	Departure from normal of period, 1st May to 31st July 1904.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
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	58
														76	− 2	·856	− ·024	6·0	+ 0·4				8·22	10·73	−2·20					VI.—Upper Sub-Himalayas.		
21			6	2		1		1	S 77° E	1·5	4·1	− 63	1·4	87	+ 2	·928	− ·004	7·2	+0·6	19	13·45	+5·55	11·20	15·47	−4·27	16·24	22·19	− 5·95	1·53	Bareilly .	United Provinces (West Sub-montane),	24
21				2	2	2	3	1	S 42° W	0·6	1·2	− 50		91	+ 3	·797	− ·010	9·0	+1·0	26	21·26	+4·80	35·07	28·58	+6·49	40·53	40·53	+ 0·30	4·88	Dehra Dun.		
8		1	1	17	2		1	1	S 43° E	3·1	2·9	+ 7		84	+ 2	·855	− ·024	7·5	+1·1	14	11·90	+2·10	12·48	12·61	−0·13	18·09	18·74	− 0·65	2·29	Roorkee.		
18			10	2		1			S 79° E	1·0	2·3	− 57	1·0	81	+ 2	·881	− ·005	7·8	+1·2	11	9·40	+1·60	7·18	9·35	−2·17	10·65	13·44	− 2·79	2·06	Meerut. .	United Provinces (West).	22
6			8	6	3	2	3	3	S 42° E	5·0	4·5	+ 11	4·5	78	+ 3	·867	− ·003	8·0	+1·7	8	9·20	−1·20	6·43	8·48	−2·05	9·44	12·61	− 3·17	2·24	Delhi . .	South-East Punjab.	26
5	1	1	4	14	4		2		S 46° E	4·2	3·3	+ 27		68	− 3	·927	+ ·050	3·7	−0·6	3	3·30	−0·30	0·76	5·96	−5·20	1·96	8·87	− 6·91	0·37	Lahore .	Central Punjab	28
2			3	5	1	16	3	1	S 29° W	5·9	4·8	+ 23	5·1	61	− 6	·817	− ·040	3·5	−2·4	1	5·00	−4·00	0·35	4·14	−3·79	2·36	6·64	− 4·28	0·30	Sirsa . .	South Punjab .	27
1		1	2	19	5	1	1	1	S 38° E	6·3			6·4	81		·902		3·4		8			4·70			6·78			1·24	Patiala.		
3		1		23	1	1	1	1	S 41° E	2·9	2·0	+ 45	2·6	64	−12	·766	−·127	4·8	−1·6	4	7·60	−3·60	1·66	9·27	−7·61	3·01	12·90	− 9·86	0·92	Ludhiana .	Punjab (Sub-montane),	29
7	2	1	15	5	1				S 84° E	3·3	2·5	+ 32		66	− 8	·844	− ·041	3·4	−0·5	4	9·00	−5·00	4·08	8·01	−3·93	5·79	12·12	− 6·33	2·50	Sialkot.		
27				4					S 45° E	0·9				88	+ 2	·909	− ·028	8·1	+2·4	14	9·80	+4·20	7·65	7·65	0	9·99	14·67	− 4·68	1·92	Ambala.		
10	1	5	2	6	4	1	1	1	S 63° E	4·2	2·1	+100	3·9	66	− 6	·774	− ·034	5·6	+1·4	7	9·10	−2·10	7·0	8·53	−1·49	7·74	12·01	− 4·27	2·17	Rawalpindi		
														65	− 4	·821	− ·042	3·2	− 1·3				0·78	3·02	−2·25					VII.—Indus Valley and North-West Rajputana.		
13	7	1	1				1	1	N 23° W	2·0	4·4	−55	2·2	60	− 3	·769	− ·029	4·3	+1·1	2	2·10	−0·19	0·83	1·66	−0·83	1·17	2·71	− 1·54	0·50	Peshawar .	North-West Frontier Province,	32
8	2	15		6					N 61° E	2·3	2·4	− 4	2·4	69	0	·935	+ ·023	1·5	−0·9	1	3·10	−2·10	0·34	2·38	−2·04	0·34	3·37	− 3·03	0·30	D. I. Khan.		
2		15	10	2	1		1		N 69° E	10·0			9·6	62	− 3	·834	− ·013	2·8	+0·1	6	3·50	+2·50	3·35	4·52	−1·17	4·27	7·02	− 2·75	1·05	Khushab .	West Punjab .	31
		1	1	7	9	11	2		S 8° W	10·9			10·1	46	−14	·694	− ·141	1·2	−1·7	2	3·20	−1·20	1·18	2·18	−1·30	1·64	3·89	− 2·25	0·87	Montgomery.		
6		1		2	8	13	1		S 24° W	1·6	3·4	−53	2·0	60	− 2	·845	− ·005	0·9	−1·2	0	2·50	−2·50	0	2·41	−2·41	0	3·33	− 3·33	0	Multan.		
4			5	13	9				S 38° E	5·6	5·3	+ 6	5·8	68	+ 3	·912	+ ·009	1·5	−1·1	0	1·60	−1·60	0	1·22	−1·22	0·30	1·47	− 1·17	0	Jacobabad .	Sind .	47
				1		29	1		S 45° W		13·9			63	− 4	·746	− ·069	3·1	−2·9	0	3·30	−3·30	0·09	2·70	−2·61	0·09	3·26	− 3·17	0·09	Hyderabad.		
						5	26		S 83° W	17·2	17·8	− 3	15·1	79	− 3	·868	− ·089	7·5	+0·2	0	3·00	−3·00	0	3·66	−3·66	0	4·37	− 4·37	0	Kurrachee.		
1				1	5	16	8		S 48° W	10·8	6·7	+61		61	− 5	·785	− ·059	2·6	−1·8	2	4·90	−2·90	0·43	3·39	−2·96	1·57	5·97	− 4·40	0·15	Bikaner .	West Rajputana	51
	2			9	16	3	1		S 40° W	14·8	9·8	+51	12·9	76	− 4	·885	− ·039†	2·4	−5·2	2	5·40	−3·40	0·73	4·63	−3·90	1·64	6·75	− 5·11	0·44	Pachpadra.		
		1		1	19	10			S 58° W	10·2			9·2	68		·756		7·1		4	5·30	−1·30	1·58	4·19	−2·61	3·26	5·95	− 2·69	0·65	Jodhpur.		
														80	0	·831	−·031	7·9	+0·6				8·88	10·08	−0·64					VIII.—East Rajputana, Central India and Gujara.		
3	1	3	1		1	7	13	2	S 85° W	5·1	6·2	− 18		76	0	·772	− ·066	7·8	+1·0	12	10·90	+1·10	7·70	8·66	−0·96	9·55	11·81	− 2·26	1·43	Jaipur .	East Rajputana	50
3	1		8	2	1	4	10	2	S 59° W	4·3			3·9	84		·891		7·9		13			10·63			14·00			4·60	Bharatpur.		
3	1				1	11	13	2	S 74° W	6·6			5·3	74		·778		6·8		10	10·90	−0·90	19·65	9·85	+9·80	22·53	14·53	+ 8·00	5·25	Kotah.		
2	2		1	1		2	17	6	N 79° W	8·7	9·1	− 4		72	*− 1	·773	−·048	7·0	+0·8	9	8·80	+0·20	4·99	7·23	−2·24	9·40	9·57	− 0·17	1·44	Sambhar.		
		2				5	20	4	N 88° W		6·9			78	− 2	·803	−·035	7·0	+1·4	10	9·50	+0·50	4·14	7·42	−3·28	7·58	10·51	− 2·93	1·05	Ajmer.		
6						11	12	2	S 73° W	7·9			7·0	76		·721		7·0		7	9·50	−2·50	5·94			11·18			1·96	Udaipur.		
	1			6	21	2	1		S 42° W	16·8†	14·5	+16		80	− 3	·830	−·036	9·1	+0·6	4	10·73	−6·73	4·07	10·16	−6·09	4·54	12·68	− 8·14	1·53	Deesa.		
					12	11	8		S 83° W	22·4	16·6	+41	19·7	81	+ 1	·878	+ ·002			2	6·20	−4·20	1·57	7·47	−5·90	1·57	9·59	− 8·02	0·98	Bhuj . .	Kathiawar and Cutch.	46
		1		3	15	12			S 58° W	25·2			30·5	71		·864		6·5		4			7·90			7·99			3·77	Jamnagar.		
			1		16	13	1		S 65° W	15·7	14·5	+ 8	15·5	82	− 1	·824	− ·049	9·4	+1·4	4	11·20	−7·20	9·96	13·31	−3·35	11·01	18·65	− 7·64	4·26	Rajkot.		
					16	15			S 67° W	17·5	14·8	+18	17·5	89	+ 1	·896	− ·036	8·5	−0·1	7	10·90	−3·90	5·45	7·24	−1·79	5·89	12·49	− 6·60	3·35	Veraval.		
	1				20	10			S 60° W	21·5				84		·908		8·4		1			2·13			2·14			1·82	Dwarka.		
	1				20	9	1		S 47° W	12·8			15·2	72	− 8	·796	?	8·4	+0·8	4	16·20	−6·20	2·60	4·73	−2·13	2·88	9·85	− 6·97	1·52	Bhavnagar Para.		
7	1	1	3		2	2	19	1	S 85° W	3·5	4·2	−17	3·5	87	+ 4	·861	− ·024	9·4	+2·4	17	14·80	+2·20	31·63	14·20	+17·43	38·20	22·68	+15·52	7·32	Nowgong .	Central India .	49
						4	24	5	N 89° W	10·2	6·8	+50	8·3	86	− 1	·748	− ·034	9·9	+1·2	10	12·50	−2·50	6·20	9·00	−2·80	10·11	15·94	− 5·83	2·75	Indore.		
1					14	16			S 69° W	15·2	12·2	+25	12·8	84	+ 2	·767	− ·033	7·8	+1·0	9	10·10	−1·10	6·78	8·96	−2·18	12·07	14·36	− 2·29	2·29	Neemuch.		

in the returns of any station, the data for that station are not utilized in calculating the provincial departures from normal.
columns Nos. 41, 43 and 45 are derived are incomplete.

† Mean of 29 days.

Table

Abstract of Observations taken at 8 A.M. at 232

Number of District.	Meteorological Province or District.	Station.	Elevation of barometer cistern above sea-level, in feet.	Pressure, 8 A.M., in inches.								Temperature of air.											
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
45	Gujarat	Surat	39	29·640	+·007	29·623	29·749	26th	29·487	5th	·262	82·4	87·8	+0·5	78·5	+1·2	83·2	+0·9	9·3	94·2	3rd	75·0	4th	19·2
		Ahmedabad	163	29·467	−·007	29·578	29·577	26th	29·299	4th	·278	82·0	92·3	+0·9	77·7	−0·5	85·0	+0·2	14·6	101·8	1st	75·1	4th, 6th & 28th.	26·7
22	United Provinces (West).	Agra	555	28·970	−·029	29·482	29·065	30th	28·882	7th	·183	81·8	90·2	−3·1	79·2	−1·2	84·7	−2·3	11·0	104·5	2nd	74·4	11th	30·1
21	United Provinces (Central).	Jhansi	858	28·680	−·033	29·494	28·807	26th	28·482	10th	·325	79·5	87·8	−3·4	77·7	−1·1	82·8	−2·3	10·1	105·3	2nd	72·6	11th	32·7
	IX.—Deccan				−·006								86·7	+0·1	72·8	−0·5	79·8	−0·2	13·9					25·7
38	Bombay Deccan	Belgaum	2,539	27·253	−·001	29·736	27·355	26th	27·145	4th	·210	70·2	75·2	−0·5	66·5	−0·4	70·9	−0·5	8·7	79·3	12th, 13th & 15th.	64·8	4 days.	14·5
		Sholapur	1,590	28·151	−·010	29·690	28·273	26th	28·027	4th	·246	77·6	91·1	+1·6	71·5	−0·2	81·3	+0·7	19·6	95·7	14th, 15th & 27th.	69·5	25th	26·2
		Poona	1,840	27·900	−·001	29·691	28·025	26th	27·763	4th	·262	74·9	83·9	+1·6	71·3	+0·5	77·6	+1·1	12·6	87·5	13th & 25th.	69·9	26th	17·6
		Bijapur	*1,948*	27·813	−·008	29·708	27·925	26th	27·699	4th	·226	74·9	87·2	+1·0	69·3	−1·5	78·3	−0·3	17·9	91·9	13th	63·2	19th	28·7
40	Khandesh	Malegaon	1,430	28·244	−·010	29·625	28·366	26th	28·086	4th	·280	78·3	89·1	+1·7	73·4	+0·1	81·3	+0·9	15·7	95·4	3rd	70·5	26th	24·9
		Ahmednagar	2,154	27·581	+·011	29·686	27·710	26th	27·454	4th	·256	75·7	86·5	+1·3	69·8	−0·7	78·2	+0·3	16·7	90·9	25th	66·4	24th & 27th.	24·5
41	Berar	Akola	930	28·733	−·004	29·610	28·871	26th	28·558	3rd	·313	80·0	90·2	+1·2	73·2	−1·0	82·2	+0·6	16·0	97·8	3rd	70·8	3rd & 25th.	27·0
		Amraoti	1,215	28·449	+·008	29·617	28·595	26th	28·281	3rd	·314	77·9	88·2	+0·9	73·2	+0·7	81·2	+0·8	14·0	94·7	27th	71·0	11th	23·7
42	Central Provinces (West).	Khandwa	1,044	28·595	−·007	29·595	28·728	26th	28·440	4th	·288	79·2	89·8	+2·2	75·9	+0·6	82·9	+1·4	13·9	98·2	3rd	69·6	7th	28·6
		Hoshangabad	1,006	28·617	−·005	29·587	28·763	26th	28·457	4th	·306	76·9	86·7	0	74·8	−0·4	80·8	−0·2	11·9	100·9	3rd	72·2	14th, 23rd & 29th.	28·7
		Nagpur	1,025	28·610	+·002	29·591	28·760	26th	28·429	3rd	·331	78·4	89·0	+1·2	75·0	−0·1	82·0	+0·6	14·0	95·6	2nd	71·6	11th	24·0
43	Central Provinces (Central)	Chanda	*634*	29·037	+·014	29·616	29·171	26th	28·857	3rd	·314	80·6	90·0	+1·4	75·4	−0·5	82·7	+0·5	14·6	95·7	14th & 15th.	70·0	16th	25·7
		Seoni	2,033	27·597	−·010	29·572	27·736	26th	27·452	3rd	·284	74·8	83·2	−0·6	71·4	−1·2	77·3	−0·9	11·8	90·8	2nd & 3rd	69·0	22nd	21·8
		Jubbulpore	1,327	28·249	−·022	29·532	28·390	26th	28·106	10th	·284	76·5	84·2	−1·7	73·7	−0·9	79·0	−1·3	10·5	97·5	3rd	71·1	10th & 22nd.	26·4
		Saugor	1,807	27·790	−·012	29·551	27·927	26th	27·593	10th	·334	74·7	82·4	−2·8	72·4	−1·5	77·4	−2·2	10·0	98·9	3rd	61·1	11th	37·8
49	Central India	Sutna	1,040	28·494	−·081	29·494	28·624	26th	28·337	10th	·287	78·4	85·3	−2·1	76·7	−0·3	81·0	−1·2	8·6	102·0	2nd	74·1	11th, 16th & 20th.	27·9
44	Central Provinces (East).	Raipur	970	28·637	−·005	29·557	28·793	26th	28·481	3rd	·312	78·4	85·2	−1·3	73·9	−1·0	79·6	−1·2	11·3	91·1	14th	70·9	15th	20·2
		Pendra	2,123?	27·557?		29·525?	27·709	26th	27·450	3rd	·259	75·2	82·6		72·1		77·4		10·5	87·8	3rd & 27th.	68·1	10th	19·7
		Sambalpur	486	29·103	−·017	29·537	29·277	26th	28·922	2nd	·355	79·5	86·5	−1·0	76·3	−1·0	81·4	−1·0	10·2	93·1	14th	74·1	18th	19·0
9	Hyderabad (North).	Aurangabad	1,905	27·798		29·648	27·917	26th	27·652	4th	·265	74·4	85·3		69·2		77·2		16·1	92·3	1st	64·7	16th	27·6
		Indur	1,260	28·475?		29·688?	28·576	30th	28·392	27th	·184	78·1	90·1		71·5		80·8		18·6	103·7	9th	69·2	4th	34·5
		Bidar	*2,165*	27·601?		29·710?	27·721	26th	27·450	3rd	·271	74·7	86·5							92·3	27th			
53	Hyderabad (South).	Gulbarga	1,503	28·242	−·007	29·698	28·356	26th	28·132	3rd & 4th,	·224	76·3	88·3	−1·5	69·7	−2·1	79·0	−1·8	18·6	89·8	12th	45·6	6th	44·2
		Raichur	1,326	28·428	0	29·715	28·552	26th	28·324	3rd	·228	77·5	89·8	−0·2	72·4	+0·7	81·1	−0·5	17·4	94·6	12th	70·1	3rd, 4th & 6th.	24·5
		Hyderabad (Dn.)	1,690	28·040	−·002	29·680	28·153	26th	27·886	3rd	·267	76·1	87·9	+0·8	72·9	+1·2	80·4	+1·0	15·0	92·9	13th	69·2	3rd	23·7
		Hanumkonda	871	28·815		29·630	28·940	25th	28·659	3rd	·281	79·6	88·8		75·8		82·3		13·0	93·0	12th	71·8	4th & 5th.	21·2
	X—West Coast				0								82·8	−0·4	75·1	−0·2	79·0	−0·3	7·6					13·4
37	Konkan	Bombay	37	29·696	−·006	29·679	29·814	26th	29·469	4th	·345	81·3	85·5	+1·1	78·2	+0·7	81·9	+0·9	7·3	87·5	2nd & 3rd.	75·5	5th	12·0
		Ratnagiri	110	29·676	+·009	29·725	29·779	26th	29·549	4th	·230	80·2	84·2	+0·3	76·6	+0·9	80·4	+0·6	7·6	86·3	12th & 15th.	71·9	4th & 17th.	14·4
		Mormugao	*60*	29·756	+·005	29·751	29·851	26th	29·647	4th	·204	79·0	83·3	−0·4	75·2	−1·0	79·3	−0·7	8·1	86·0	8th & 15th.	71·9	17th	14·1
		Goa	199	29·607	−·013	29·745	29·706	26th	29·494	4th	·212	78·7	81·0	−1·4	76·9	+0·9	78·9	−0·3	4·1	84·0	15th	75·0	6 days.	9·0
		Karwar	44	29·786	0	29·764	29·886	26th & 27th.	29·682	3rd	·204	78·4	82·8	−0·2	74·5	−0·6	78·7	−0·4	8·3	86·7	26th	71·0	3rd	15·7
33	Malabar	Cochin	10	29·897	+·002	29·835	29·933	26th	29·866	3rd & 4th,	·067	76·7	83·6	+0·1	73·5	−0·6	78·6	−0·3	10·1	87·3	19th	71·2	14th	16·1
		Calicut	27	29·863	−·002	29·820	29·938	26th	29·819	4th	·119	76·4	81·8	−0·7	73·7	−0·2	77·8	−0·5	8·1	85·8	29th	71·2	3rd & 14th.	14·6
		Mangalore	65	29·806	−·001	29·801	29·896	26th	29·717	3rd	·179	77·2	81·7	−1·3	73·4	−0·8	77·6	−1·1	8·3	85·2	30th	71·4	3rd	13·8
		Trivandrum	198	29·696	+·002	29·827	29·728	26th	29·654	29th	·084	76·0	81·0	−1·1	74·2	−1·0	77·6	−1·1	6·8	83·0	26th, 29th & 30th.	72·0	4th, 5th & 8th.	11·0

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

Note 1.—When a query is inserted against any reading or in the returns of any station

Note 2.—The data from which divisional means of the figure columns Nos. 41, 43

I—*continued.*

Stations in India, Burma, etc., in July, 1904—continued.

Wind Direction. Number of winds from Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	Wind Velocity. Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal (uncorrected).	Percentage departure from normal	Mean velocity corrected (where possible).	Hygrometry, 8 A.M. Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Cloud. Mean cloud amount at 8 A.M.	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, 1904.	Normal rainfall for period, 1st May to 31st July.	Departure from normal of period, 1st May to 31st July, 1904.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
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	58
	1	1			2	13	12	2	S 70° W	11·3	15·7	−28	10·6	80	− 6	·884	−·029	8·0	0	6	16·10	−10·10	4·75	17·68	−12·93	6·87	27·43	−20·56	1·47	Surat	Gujarat	45
					3	22	2	4	S 52° W	4·4			7·2	79	− 4	·849	−·041	8·2	−0·6	8	13·50	−5·50	6·66	12·59	−5·93	6·68	19·36	−12·68	1·97	Ahmedabad.		
2		8		8		8		5	S 45° E	5·2	5·0	+ 4	6·1	84	+ 5	·908	−·014	8·5	+1·5	16	10·80	+5·20	12·54	10·60	+1·94	15·88	14·06	+1·82	2·94	Agra	United Provinces (West).	22
	2	3	1	1	1	14	6	3	S 65° W	7·0	4·1	+71	8·5	87	+ 9	·875	+·005	4·2	−2·3	16	13·10	+2·90	22·31	12·12	+10·19	26·68	18·59	+8·09	3·16	Jhansi	United Provinces (Central).	21
														79	− 3	·732	—·034	7·4	− 0·3				7·80	11·05	−3·37					IX.—Deccan.		
1						15	15	2	S 73° W	21·8	27·9	−22		92	− 1	·678	−·004	8·8	−0·5	15	21·80	−6·80	9·76	15·46	−5·70	31·15	26·39	+4·76	1·61	Belgaum	Bombay Deccan	38
						19	11	1	S 63° W	14·6	12·3	+19	17·7	69	− 3	·655	−·026	7·1	−1·0	5	7·60	−2·60	2·84	4·19	−1·35	8·52	9·55	−1·03	1·91	Sholapur.		
						16	14	1	S 68° W	20·1†	16·9	+19		79	− 3	·684	—·025	7·7	−1·1	9	12·50	−3·50	3·57	7·05	−3·48	3·91	13·11	−9·20	0·83	Poona.		
				2	10	17	2		S 28° W	15·6			15·3	79	− 1	·688	−·010	8·0	−0·1	4	5·10	−1·10	0·82	2·02	−1·20	4·43	7·36	−2·93	0·28	Bijapur.		
1						12	15	3	S 76° W	15·9	11·8	+35	18·3	72	− 6	·707	−·048	6·5	−1·2	5	7·30	−2·30	2·23	5·00	−2·77	5·94	10·17	−4·23	0·74	Malegaon	Khandesh.	40
					1	8	19	3	S 81° W	14·7			17·9	76	− 6	·681	−·035	6·6	−1·2	4	6·40	−2·40	1·19	2·84	−1·65	3·87	8·86	−4·99	0·43	Ahmednagar.		
						3	12	16	N 70° W	13·9*	8·4	+65	12·2*	73	− 6	·736	−·046	8·5	+0·6	7	12·30	−5·30	6·83	10·57	−3·74	10·32	16·20	−5·88	5·18	Akola	Berar	41
						7	23	1	S 82° W	13·9	7·6	+83	12·4	75	− 1	·716	—·078	6·5	−1·3	5	12·30	−7·30	5·91	9·88	−3·94	13·39	17·33	−3·94	3·11	Amraoti.		
						1	19	11	N 75° W	11·0	8·4	+31	10·5	75	− 6	·736	—·050	7·9	+0·4	2	11·10	−9·10	3·07	8·99	−5·82	7·51	15·05	−7·51	2·11	Khandwa	Central Provinces (West).	42
						31			S 45° W	4·3	4·5	− 4	4·3	86	− 2	·793	−·059	8·7	+0·3	14	16·10	−2·10	11·34	16·82	−5·18	14·86	24·15	—9·29	4·32	Hoshangabad		
1						4	23	3	S 89° W	10·6	10·1	+ 5	8·4	80	− 3	·775	−·050	7·6	−0·8	10	15·80	−5·80	5·15	11·66	−9·51	14·18	23·90	−9·72	2·56	Nagpur.		
7						6	16	2	S 83° W	5·5	6·2	−11	4·9	72	− 6	·751	−·045	5·1	−2·9	13	16·80	−3·80	7·86	18·08	−10·22	14·28	26·50	−12·22	2·25	Chanda	Central Provinces (Central).	43
	1				1	9	13	7	S 87° W	10·2	6·2	+65	8·8	84	− 3	·727	−·062	6·6	−1·6	13	18·60	−5·60	7·61	17·09	−9·48	14·76	27·72	—12·96	1·27	Seoni.		
	1	1		1	2	7	14	5	S 84° W	6·0	5·0	+20	5·3	87	0	·797	−·031	8·4	+0·3	14	18·40	−4·40	15·11	20·15	−5·04	19·15	30·20	−11·05	3·91	Jubbulpore.		
		1		1		9	19	1	S 77° W	11·6	5·1	+127	10·3	87	0	·751	−·055	8·6	+1·4	16	16·50	−0·50	21·98	15·27	+6·71	26·72	24·56	+2·16	11·20	Saugor.		
5			3	1	2	9	14	1	S 58° W	6·7	9·4	−29	6·2	86	+ 3	·834	—·024	9·9	+2·8	18	15·00	+3·00	17·79	14·28	+3·51	22·23	21·98	+0·25	3·05	Sutna	Central India.	49
					2	24	5		S 50° W	10·0	11·6	−14	12·0	85	− 1	·822	−·019	8·2	−0·4	10	15·80	−5·80	7·24	15·89	−8·65	25·91	25·71	+0·20	2·41	Raipur	Central Provinces (East).	44
					6	8	6	4	S 69° W	7·6			6·5	85		·751		7·7		17			11·20			24·01			1·89	Pendra.		
3	3	1				20	8	1	S 56° W	6·0	3·6	+67	5·9	85	− 1	·859	−·031	8·5	+0·3	19	19·50	−0·50	19·30	22·82	−3·52	39·87	35·79	+4·08	2·73	Sambalpur		
				1	1		3	19	8	N 82° W	18·4			18·2	82		·695		7·5		11	11·60	−0·60	8·22	6·82	+1·40	10·78	13·81	−3·03	5·20	Aurangabad	Hyderabad (North).	39
1						1		15	N 39° W	5·6			4·3	68		·660		5·4		8	15·70	−7·70	9·89	11·11	−1·22	15·18	16·15	−0·97	5·85	Indur.		
12		2		1		1		15	N 39° W	5·6			4·3	68		·660		5·4		8	15·70	−7·70	9·89	11·11	−1·22	15·18	16·15	−0·97	5·85	Indur.		
	1				5	13	11	1	S 58° W	11·2			9·4	79		·685		3·2		11	12·60	−1·60	3·74	8·80	−5·06	8·12	15·54	−7·42	1·30	Bidar.		
						2	23	6	N 84° W	13·7			13·1	82	+ 3	·738	+·020	8·1	−0·1	8	9·10	−1·10	2·85	5·31	−2·46	8·75	12·18	−3·43	0·70	Gulbarga	Hyderabad (South).	53
						20	10	1	S 62° W	16·6			15·8	73	− 2	·686	−·027	6·6	0	8	9·20	−1·20	3·76	5·53	−1·77	9·47	9·37	+0·10	0·90	Raichur.		
							31		W	9·3			9·0	78	0	·702	−·006	6·5	−1·0	9			5·98	6·73	−0·75	11·67	12·09	− 0·42	3·09	Hyderabad (Dn.).		
						6	20	5	S 89° W	12·0			10·2	72		·725		6·3		11	12·50	−1·50	7·28			14·75			3·34	Hanumkonda		
														88	0	·852	—·012	8·5	0				28·57	28·58	−0·01					X.—West Coast.		
						7	23	1	S 82° W	15·9	19·1	−17		84	− 2	·906	−·005	8·1	− 0·9	14	23·00	−9·00	10·80	26·05	−15·25	25·26	46·39	−21·13	3·40	Bombay	Konkan	37
1						12	17	1	S 74° W	10·5	13·7	−23	10·4	85	− 3	·872	— 019	7·6	−1·1	22	25·90	−3·90	31·58	25·68	−4·10	24·60	67·33	+7·27	8·39	Ratnagiri.		
2					1	1	14	12	N 73° W	11·1‡				90	+ 1	·901	−·005	8·3	+0·7	24			32·86	31·88	+0·98	75 70	58·08	+17 62	7·08	Mormugao.		
1	4					5	11	10	N 70° W	8·9				90	+ 2	·882	−·005	9·2	+0·1	28			38·65	31·38	+5·97	88·45	63·73	+24·72	8·70	Goa.		
3	2	2		1	2	13	6	2	S 64° W	5·0				85	− 1	·817	−·025	8·0	0	29	27·40	+1·60	38·11	37·78	+0·33	90·39	77·04	+13·35	7·53	Karwar.		
4	3	5	4	3	1	1	4	6	N 6° E	6·4				87	− 1	·807	−·028	8·2	−0·1	26	23·40	+2·60	26·24	21·21	+5·03	73·42	62·59	+10·83	3·50	Cochin	Malabar	33
8	4	3	3	1	1	4	4	3	N 40° W	6·0			5·9	91	0	·825	−·007	9·1	+0·5	26	26·20	−0·20	29·60	29·05	+0·55	82·94	72·44	+10·50	4·07	Calicut.		
6		3	1	1	4	11	5		S 86° W	5·5	3·2	+72		92	+ 1	·863	+·002	8·6	−0·4	29	27·80	+1·20	41·90	36·03	+5·87	94·18	78·91	+15·27	5·78	Mangalore.		
1	10						4	16	N 6° W	7·6				88	0	·793	—·018	9·3	+0·8	16	13·10	+2·90	7·35	6·86	+0·49	38·05	28·36	+9·69	1·22	Trivandrum.		

the data for that station are not utilized in calculating the provincial departures from normal.

and 45 are derived are incomplete.

* Mean of 19 days. † Mean of 28 days. ‡ Mean of 22 days.

Table

Abstract of Observations taken at 8 A.M. at 232

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 A.M., in inches.								Temperature of air.											
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Mean of 8 A.M. 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	25
	XI.—South India.				0								90·8	-0·4	74·5	-0·5	82·6	-0·5	16·2					25·1
57	Madras (South)	Pamban	37	29·803	+·006	29·766	29·877	26th	29·759	31st	·118	82·7	89·4	+0·3	78·5	-1·0	84·0	-0·4	10·9	93·3	21st	74·2	29th	19·1
		Tinnevelly	168	29·679	+·008	29·776	29·788	26th	29·655	31st	·083	84·0	94·6	-1·2	78·4	-1·0	86·5	-1·1	16·2	100·3	28th	73·9	16th	26·4
		Madura	447	29·382	+·008	29·764	29·456	26th	29·337	3rd	·119	82·6	95·9	-1·3	75·4	-1·0	85·7	-1·2	20·5	103·0	9th	71·0	20th	32·0
		Periyakulam	945	28·896		29·782	28·958	26th	28·856	31st	·102	78·2	92·1		71·0		80·6		21·1	96·8	24th	67·9	29th	28·9
34	Madras (South-Central).	Salem	940	28·905	-·011	29·793	28·998	26th	28·842	3rd	·156	76·8	90·2	-2·9	72·2	-0·8	81·2	-1·9	18·0	94·2	8th	70·4	12th&29th	23·8
		Coimbatore	1,348	28·488	-·003	29·792	28·561	26th	28·424	3rd	·137	75·0	86·9	-1·1	70·4	-0·3	78·7	-0·7	16·5	91·9	19th	68·8	1st	23·1
35	Coorg	Mercara	3,781	26·175	+·008		26·259	26th	26·116	3rd & 4th	·143	64·0	68·4	-0·5	61·0	-1·2	64·7	-0·9	7·4	72·0	15th, 28th & 29th.	60·1	12 days.	11·9
36	Mysore	Chitaldroog	2,405	27·422	0	29·771	27·528	26th	27·333	3rd	·195	71·7	81·2	-0·7	68·2	-0·2	74·7	-0·5	13·0	85·1	12th, 26th & 27th	66·4	17th	18·7
		Bangalore	3,021	26·852	-·010	29·802	26·968	26th	26·779	3rd	·189	68·7	80·5	-1·4	64·9	-0·9	72·7	-1·2	15·6	84·8	13th	62·8	29th	22·0
		Hassan	3,091	26·798	-·004	29·810	26·904	26th	26·713	3rd	·191	69·6	78·2	P	64·5	-0·4	71·4	P	13·7	83·1	28th	62·1	13th	21·0
		Mysore	2,518	27·358	-·007	29·820	27·460	26th	27·284	3rd	·176	71·4	81·5	-1·	66·3	-0·6	73·9	-0·9	15·2	87·4	28th	64·5	19th, 27th, & 29th.	22·9
56	Madras, East Coast, South.	Negapatam	31	29·781	-·005	29·741	29·847	26th	29·733	3rd	·114	84·0	94·4	-1·5	73·3	+0·1	86·4	-0·7	16·1	99·9	21st	73·5	10th	26·4
		Cuddalore	12	29·789	+·004	29·730	29·877	26th	29·729	3rd	·148	82·4	95·4	-0·5	76·0	-1·7	85·7	-1·1	19·4	99·2	9th, 21st & 22nd	72·2	15th& 16th	27·0
		Trichinopoly	255	29·573	+·004	29·760	29·658	26th	29·528	3rd	·130	82·7	96·3	-1·2	77·6	-0·3	87·0	-0·8	18·7	101·6	9th	73·4	26th	28·2
		Madras	22	29·753	-·013	29·706	29·860	26th	29·670	3rd	·190	83·1	96·2	+0·5	77·8	-0·9	87·0	-0·2	18·4	101·0	8th	73·5	25th	27·5
		Vellore	707	29·079		29·727	29·198	26th	28·989	3rd	·209	80·8	93·9		76·4		85·1		17·5	98·4	31st	71·5	13th & 31st.	26·9
55	Madras, East Coast, Central.	Nellore	52	29·703	+·010	29·688	29·813	26th	29·620	3rd	·193	84·6	98·7	+1·4	78·7	-0·9	88·7	+0·3	20·0	102·3	12th, 13th & 24th	73·1	5th & 31st	29·2
		Masulipatam	15	29·703	+·001	29·653	29·824	26th	29·608	3rd	·216	81·2	94·9	+2·2	79·0	+0·9	87·0	+1·6	15·9	100·2	24th.	74·1	2nd, 14th & 31st.	26·1
54	Madras, Central	Cuddapah	433	29·347	+·001	29·719	29·491	26th	29·231	3rd	·260	83·1	97·0	+1·7	77·1	-0·9	87·1	+0·4	19·9	101·7	11th	72·7	31st	29·0
		Kurnool	923	28·836	-·006	29·704	28·969	26th	28·713	3rd	·256	79·3	91·9	+0·5	74·2	-0·5	83·1	0	17·7	96·2	11th, 12th & 13th	70·6	4th	25·6
		Bellary	1,475	28·303	-·005	29·724	28·409	26th	28·194	3rd	·215	78·3	90·6	-0·3	73·9	-0·7	82·3	-0·5	16·7	95·0	4th	70·7	6th	24·3
52	Madras, East Coast, North.	Cocanada	26	29·664	+·007	29·626	29·807	26th	29·563	3rd	·244	83·0	92·1	+0·4	79·4	+0·1	85·8	+0·3	12·7	97·1	13th	74·5	2nd	22·6
		Waltair (Vizag.)	226	29·431	+·002	29·597	29·587	26th	29·293	2nd	·294	82·4	89·4	P	78·4		83·9	P	11·0	97·9	20th	70·9	1st	27·0
		Gopalpur	72	29·545	+·007	29·559	29·702	26th	29·374	2nd	·328	81·4	86·0	-1·4	78·0	-1·2	82·0	-1·3	8·0	91·2	21st	71·0	1st	20·2
	XII.—Hill Stations.																							
													96·1		58·0		77·1		38·1	101·4	16th	48·1	21st	53·3
48	Baluchistan	Pishin																						
		Quetta	5,502	24·454	+·028		24·517	12th	24·397	15th	·120	75·8	92·6	-0·1	61·5	-3·2	77·1	-1·7	31·1	97·1	16th &24th	50·4	21st	46·7
		Kalat										78·2	94·2	+1·1†	37·2	-15·9	65·7	-7·4†	57·0	103·3	16th	30·3	20th	73·0
		Chaman	4,311	25·455	+·015		25·523	20th	25·384	1st	·139	83·2	97·6	-3·9	70·4	-4·7	84·0	-4·3	27·2	104·7	16th	64·6	21st	40·1
30	Punjab	Leh	11,503	19·634	-·009		19·686	11th	19·571	17th	·115	57·1	74·7	-3·5	50·5	-0·1	62·6	-1·8	24·2	83·2	21st	45·0	4th	38·2
		Srinagar	5,204	24·645	-·022		24·754	2nd&4th	24·530	14th	·224	70·7	85·9	+1·0	63·5	-1·1	74·7	-0·1	22·4	94·3	15th& 16th	55·7	2nd & 3rd	38·6
		Gulmarg	*8,569*	21·729			21·803	4th	21·654	14th & 28th	·149	62·2	69·9		49·2		59·6		20·7	77·6	15th	40·3	2nd	37·3
		Sonemarg	*8,764*	21·732			21·814	1st	21·656	28th	·158	55·9	70·9		49·0		60·0		21·9	80·2	16th	41·1	2nd	39·1
		Skardu	*7,505*	22·648			22·748	4th	22·520	17th	·228	71·2	86·3		62·1		74·2		24·2	108·8	25th	53·7	1st & 29th	55·1
		Dras	*10,059*	20·682			20·760	5th	20·591	28th	·169	63·8	80·5		51·2		65·9		29·3	90·0	25th	45·7	15th	44·3
		Gilgit	4,890	24·849			25·028	4th	24·687	17th	·341	79·6	95·3	-1·3	71·7	-1·6	83·5	-1·5	23·6	111·2	26th	61·1	4th	50·1
		Chitral	*5,486*									78·6	97·1		66·5		81·8		30·6	105·7	16th	56·5	5th	49·2
		Kilia Drosh										80·1	96·6		72·6		84·6		24·0	106·9	15th	62·2	3rd	44·7
		Murree	6,333	23·681	-·020		23·757	31st	23·597	28th	·160	66·1†	77·1	+0·1	59·6	-2·9	68·4	-1·4	17·5	88·0	1st	50·4	2nd	37·6

N, B—Elevations in italics indicate barometrical determinations.

† Mean of 17 days.

NOTE 1.—When a query is inserted against any reading or in the returns of any

NOTE 2.—The data from which divisional means of the figure columns Nos. 41,

I—*continued.*

Stations in India, Burma, etc., in July, 1904—continued.

Wind Direction. Number of winds from: Calm	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	Wind Velocity. Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	Hygrometry, 8 A.M. Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Cloud. Mean cloud amount at 8 A.M.	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, 1904.	Normal rainfall for period, 1st May to 31st July.	Departure from normal of period, 1st May to 31st July, 1904.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
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	58
														75	+2	·753	+·008	6·6	−0·6				3·60	3·14	+0·45					XI.—South India.		
4			1	1	4	11	9	1	S 53° W	13·4			14·2	76		·846		3·7		2	0·60	+1·40	0·27	0·17	+0·10	0·40	0·84	−0·44	0·14	Pamban	Madras (South)	57
					1	6	17	7	S 89° W	7·3			7·0	57	−2	·670	−·027	6·7	−0·1	0	0·60	−0·60	0·04	0·27	−0·23	3·57	2·20	+1·37	0·04	Tinnevelly.		
						7	12	12	N 82° W	7·6	4·6	+65	8·7	64	0	·715	−·010	5·8	+0·6	4	3·00	+1·00	3·28	2·06	+1·22	7·38	5·96	+1·42	1·72	Madura.		
14	7	1	3	1	2		1	2	N 18° E	3·6			4·0	71		·684		6·4		5	1·90	+3·10	2·72	0·69	+2·03	10·71	4·47	+6·24	0·97	Periyakulam.		
3					4	14	10		S 55° W	4·8	4·7	+2	4·2	83	+5	·771	+·005	7·3	+0·9	12	7·00	+5·00	7·36	3·48	+3·88	20·25	11·46	+8·79	1·04	Salem	Madras (South Central).	34
					2	21	8		S 53° W		8·2			86	+2	·754	+·006	4·8	−1·7	2	3·70	−1·70	1·90	1·23	+0·67	9·54	5·16	+4·38	1·45	Coimbatore.		
							28	3	N 86° W	6·6	11·3	−42	6·1	97	+1	·590	+·003	9·1	+0·3	29	29·10	−0·10	44·49	40·35	+4·14	83·29	73·48	+10·41	5·85	Mercara	Coorg	35
						11	15	5	S 81° W	11·4			9·9	84	+2	·654	−·005	8·9	−0·4	13	8·60	+4·40	4·63	2·79	+1·84	12·50	10·33	+2·17	0·68	Chitaldroog	Mysore	36
						16	15		S 67° W	12·2	8·6	+42	10·6	87	+3	·618	−·001	8·6	+0·4	11	8·20	+2·80	5·88	4·06	+1·82	17·34	11·33	+6·01	1·80	Bangalore.		
						6	18	7	N 88° W	5·0			4·4	87	+2	·629	+·006	9·2	+0·7	10	12·60	−2·60	3·46	3·85	−0·39	14·54	14·03	+0·51	1·16	Hassan.		
						20	11		S 61° W	12·0			13·0	83	+1	·635	+·003	8·3	−0·2	9	7·30	+1·70	2·80	2·32	+0·48	16·40	9·50	+6·90	0·68	Mysore.		
1						8	22		S 78° W	7·8	7·1	+10	6·9	65	−2	·771	−·006	4·5	−1·3	2	3·50	−1·50	0·80	1·88	−1·08	8·76	4·99	+3·77	0·48	Negapatam	Madras, East Coast, South.	56
28						1	2		S 75° W	2·7			3·3	70	−7?	·777	−·095?	7·5	+1·0	8	5·50	+2·50	5·65	3·53	+2·12	7·89	5·81	+2·08	2·42	Cuddalore.		
2					1	23	5		S 51° W	7·5	9·9	−24		64	+2	·708	+·010	5·3	−1·8	2	1·90	+0·10	1·21	1·31	−0·10	5·59	5·75	−0·16	0·72	Trichinopoly.		
					1	13	15	2	S 71° W	7·8*	8·3	−6		67	−2	·764	−·028	6·7	−0·7	9	12·70	−3·70	6·21	4·02	+2·19	7·71	7·13	+0·58	1·63	Madras.		
3	1	5	7	2	1	7	1	4	E	5·0			5·0	68		·704		4·0		9	6·30	+2·70	5·53	3·58	+1·95	10·78	9·22	+1·56	2·07	Vellore.		
					1	16	11	3	S 67° W	8·1				66	−2	·777	−·031	6·2	−1·2	6	4·80	+1·20	1·86	2·84	−0·98	5·16	4·43	+0·73	0·59	Nellore	Madras, East Coast, Central.	55
						4	15	12	N 78° W	10·9	9·7	+12	9·6	81	+2	·942	+·070	7·2	−0·8	9	9·40	−0·40	6·52	5·65	+0·87	14·63	11·75	+2·88	3·75	Masulipatam.		
						2	23	6	N 84° W					64	−4?	·724	−·029	7·2	−0·6	8	6·20	+1·80	3·47	3·72	−0·25	6·44	8·87	−2·43	0·64	Cuddapah	Madras, Central.	54
					1	16	9	5	S 70° W	13·9				81	+9	·805	+·085	5·5	−2·6	11	9·30	+1·70	3·72	4·95	−1·23	8·48	9·26	−0·78	0·81	Kurnool.		
						11	16	2	S 76° W	11·5	11·6	−1	12·2	70	+5?	·687	+·040	6·9	−1·3	5	3·70	+1·30	1·46	1·68	−0·22	8·76	5·44	+3·32	0·41	Bellary.		
8						9	14		S 73° W	6·5			5·5	84	+7	·953	+·119	7·2	−0·8	5	9·90	−4·90	3·74	5·94	−2·20	9·53	11·63	−2·10	1·33	Cocanada	Madras, East Coast, North.	52
						24	7		S 55° W	14·0				74	−2	·816	−·051	8·8	+0·5	8	7·70	+0·30	4·82	4·53	+0·29	17·22	10·83	+6·39	1·65	Waltair (Vizag.).		
3	2				10	14	2		S 33° W	15·7	11·3	+39	15·4	86	+1	·918	−·012	6·1	−2·2	7	9·40	−2·40	5·40	7·75	−2·35	13·99	15·99	−2·00	2·12	Gopalpur.		
																														XII.—Hill Stations.		
																				0	0·20	−0·20	0	0·08	−0·08	0	0·30	−0·30	0	Pishin	Baluchistan	48
28				2		1			S 18° E	1·5	5·1	−71	1·6	48	−9	·436	−·101	0·6	−0·5	1	0·60	−0·60	0·47	0·98	−0·51	0·47	1·57	−1·10	0·47	Quetta.		
									S 35° E					26		·256				0	1·00	−1·00	0	0·62	−0·62	0	1·34	−1·34	0	Kalat.		
	3		11		13		4		S 33° W	7·3			8·0	31	−3	·360	−·068	0	−0·6	0	0·30	−0·30	0	0·14	−0·14	0	0·28	−0·28	0	Chaman.		
	1			2	8	18	1	1	S 68° E	1·6·				59	+7	·282	+·027	5·3	+1·1	4	1·20	+2·80	1·33	0·40	+0·93	1·60	0·79	+0·81	0·67	Leh	Punjab	30
	4	1	11	2	4	3	5	1	S 33° E	3·9			3·6	83	−2	·626	−·016	4·5	−0·1	5	5·30	−0·30	2·84	2·97	−0·13	8·28	7·36	+0·92	1·02	Srinagar.		
11	1	2	2	6	4	3		2	N 67° E	3·6			4·1	79		·448		4·5		10			3·85			10·29			0·93	Gulmarg.		
6		11	13					1	N 61° E	3·2			2·9	83		·376		4·6		10			2·75			12·58			0·51	Sonemarg.		
22		7		2					S 3° W	6·3			6·4	58		·448		4·4		2	0·70	+1·30	0·31	0·32	−0·01	2·49	1·76	+0·73	0·17	Skardu.		
2		2	6	4	4	6	5	2	S 52° W	7·5			6·0	54		·315		4·2		2	0·90	+1·10	0·51	0·48	+0·03	5·00	4·01	+0·99	0·33	Dras.		
24		1	1		1	2	1	1	S 22° W	5·0			4·5	52	+6	·502	+·051	3·4	−0·7	1	2·00	−1·00	0·31	0·84	−0·53	1·87	1·76	+0·11	0·10	Gilgit.		
9	2		3	4	2	7		4	S 18° E	4·0			3·9	48		·475		0·3		1			0·10			0·66			0·10	Chitral.		
27			1		3				Calm					70		·720		2·0		1			0·21			1·07			0·20	Killa Drosh.		
31									S 32° E	6·0	5·7	+5	6·5	84†	+7	·547†	+·030	6·4	+1·7	10	16·20	−6·20	12·93	11·85	+1·08	14·81	18·34	−3·53	2·77	Murree.		
22		1	1	3	3	1																										

station, the data for that station are not utilized in calculating the provincial departures from normal.
43 and 45 are derived are incomplete.

* Mean of 30 days.

Table

Abstract of Observations taken at 8 A.M. at 232

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 A.M., in inches.								Temperature of air.											
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
30	Punjab—*concld.*	Kailang	*10,087*	20·830			20·893	8th	20·750	28th	·143	58·0	71·8	−2·1	50·2	−0·9	61·0	−1·5	21·6	79·3	17th	41·7	2nd	37·6
		Poo											78·4		58·4		68·4		20·0	83·7	13th	55·3	7th	28·4
		Simla	7,224	22·966	−·008		23·032	31st	22·914	28th	·118	61·3	67·4	−1·8	59·3	−0·8	63·4	−1·3	8·1	75·6	2nd	56·0	18th	19·6
		Sarain		22·998			23·072	31st	22·946	28th	·126	63·9	70·5		58·1		64·3		12·4	76·9	3rd	55·6	4th	21·3
	North-West Frontier Province.	Para Chinar	6,000	24·249			24·338	26th	24·169	28th	·169													
		Cherat	*4,256*	25·456	−·026		25·545	4th & 31st.	25·358	14th	·187	75·6	91·0	+2·4	71·1	+0·4	81·1	+1·4	19·9	92·4	11th	62·5	20th	39·9
25	United Provinces.	Chakrata	7,022	23·121	−·021		23·208	4th	23·054	28th	·154	62·0	67·1	−2·8	59·7	−0·5	63·4	−1·7	7·4	73·0	5th	57·8	7th	15·2
		Ranikhet	6,069	23·908	−·035		23·990	21st	23·858	14th & 28th.	·132	66·4	73·4	−0·5	62·9	−0·1	68·2	−0·3	10·5	80·0	2nd	60·0	4th	20·0
		Muktesar	7,600									61·3	68·7		58·2		63·5		10·5	77·3	2nd	55·8	12th & 22nd.	21·5
	Sikkim	Taugu																						
13	Bengal	Yatung	10,480										62·1		50·4		56·3		11·7	66·1	20th	48·0	4th & 6th	18·1
		Darjeeling	7,376	22·895	−·018		22·948	23rd	22·848	20th	·100	60·9	65·8	−0·2	57·4	−0·3	61·7	−0·3	8·4	69·2	2nd	56·1	22nd & 29th.	13·1
8	Assam Hill Tracts	Shillong	4,920	24·977			25·049	23rd	24·894	6th	·155	68·2	76·5		64·7		70·7		11·8	79·6	22nd & 23rd.	63·1	26th	16·5
		CherraPoonjee	4,309	25·516			25·607	23rd	25·436	6th	·171	66·0	71·6		64·3		68·0		7·3	76·7	8th	62·5	5th	14·2
	Central India	Mount Abu	3,945	25·808	−·009		25·889	26th	25·708	6th	·181	66·0	73·5	−1·1	64·2	−1·5	68·9	−1·3	9·3	85·2	4th	62·4	10th, 21st & 29th.	22·8
		Pachmarhi	3,528	26·237	+·019		26·437	26th	26·127	4th	·310	68·3	75·8	0	66·8	−1·2	71·3	−0·6	9·0	87·6	3rd	64·2	9th	23·4
	South India	Wellington	6,200	24·178	−·006		24·258	26th	24·121	3rd	·137	63·0	70·5	−0·6	57·0	−0·9	63·8	−0·8	13·5	75·2	11th	50·7	27th	24·5
		Kodaikanal	7,688	22·760			22·816	26th	22·705	3rd	·111	55·8	61·8		51·7		55·5		10·1	65·6	28th	49·6	19th & 26th.	16·0
		Ootacamund	*7,322*	23·002			23·097	26th	22·958	3rd	·139	55·6	60·9		51·8		56·3		9·1	65·0	27th& 28th	47·3	27th	17·7
	XIII.—Extra India.																							
	Ceylon	Trincomalee	12	29·825	+·013	29·763	29·876	5th	29·783	31st	·093	80·3	89·8	−1·8	76·6	−1·0	83·2	−1·4	13·2	92·5	12th& 13th	71·0	12th	21·5
		Colombo	40	29·873	−·002	29·839	29·933	5th	29·830	29th	·103	78·5	83·6	−1·8	76·2	−1·4	79·9	−1·6	7·4	85·0	7 days	72·0	5th	13·0
	Persia	Meshed	3,104									80·5			64·3	−1·2						53·8	19th	
		Teheran(b) **	*4,002*	25·763			25·900	16th	25·600	29th	·300	83·9	99·4	+1·0	72·4	−0·3	85·9	+0·4	27·0	104·8	14th	63·1	16th	41·7
		Ispahan(b)	*5,817*	24·185			24·300	13th & 16th.	24·020	29th	·280	79·7	97·3	−1·0	66·4	+0·2	81·9	−0·4	30·9	100·8	10th	62·1	19th	38·7
		Bushire§	14	29·464	−·017	29·437	29·517	21st	29·377	15th	·140	89·6	95·0	−0·3	84·9	+0·6	90·0	+0·2	10·1	101·5	18th	79·9	20th	21·6
		Bahrein§	30	29·486			29·547	21st	29·428	28th	·119	91·2	98·2		85·7		92·0		12·5	101·7	18th	79·3	1st	22·4
		Jask	13	29·504	−·026	29·474	29·575	27th	29·448	1st	·127	90·0	96·6	+0·8	86·7	+1·9	91·7	+1·4	9·9	105·2	8th	83·2	9th	22·0
	Arabia	Muscat	20	29·494	−·022	29·460	29·560	31st	29·429	29th	·131	91·2	93·0	+1·6	89·7	+2·2	91·4	+1·9	3·3	98·8	12th	84·5	1st	14·3
		Baghdad	220	29·439	−·006	29·627	29·527	22nd	29·268	29th	·159	90·0	112·7	+5·4	78·7	−0·7	95·7	+2·4	34·0	116·1	7th &17th	74·6	23rd	41·5
		Busrah		29·553			29·766	1st	29·466	23rd	·300		104·8		81·5		93·2		23·3	111·4	16th	74·9	3rd	36·5
		Aden	94	29·611	−·009	29·635	29·707	20th	29·539	29th	·168	86·7	93·8	+0·7	82·2	−0·1	88·0	+0·3	11·6	96·3	2nd	78·8	2nd	17·5
		Perim	201	29·523	−·002	29·653	29·586	21st	29·455	29th	·131	88·8	95·9	−0·5	85·0	+1·6	90·5	+0·6	10·9	101·7	20th	81·2	5th	20·5
	Afghanistan	Kabul										77·6	93·2	+0·9	57·0	−4·5	75·2	−1·8	36·2	98·1	25th& 26th	48·4	6th, 7th & 24th.	49·7
	Central Asia	Kashgar	4,255	25·385			25·580	15th	25·220	20th,27th & 28th	·360	77·4	93·0	+1·5	68·3	−0·3	80·7	+0·6	24·7	103·6	22nd	54·8	30th	48·8
	Arabian Sea Islands.	Amini Divi	*13*	29·870	+·002	29·811	29·950	26th	29·816	4th	·134	81·7	86·0	+1·0	77·1	−0·4	81·5	+0·3	8·9	88·8	17th	73·7	30th	15·1
		Minicoy	7	29·912		29·845	29·984	26th	29·879	3rd & 4th.	·105	80·9	85·3	+0·1						86·7	13th			
	Africa	Zanzibar	73	30·089	−·009	30·090	30·153	1st	30·039	11th	·114	73·9	80·5	+0·3	72·4	−0·3	76·5	0	8·1	82·3	18th	70·0	12th	12·3
		Do. Dunga*	*154*	30·007		30·092	30·045	1st & 31st.	29·940	22nd	·105	71·6	81·4		67·9		74·7		13·5	84·3	1st	64·5	22nd	19·8
	Straits Settlements.	Penang (a)	20	29·907		29·852	29·996	26th	29·857	12th	·139	80·9	89·1		73·4		81·3		15·7	91·0	8 days	71·0	26th	20·0
		Singapore (a)	10				Not recorded.										Not recorded.							

(a) 9 hours' observations
(b) Aneroid uncorrected.

* Mean of 30 days.
§ " 29 "
** " 21 "

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

I—*concluded.*

Stations in India, Burma, etc., in July, 1904—concluded.

Wind Direction. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	Wind Velocity. Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	Hygrometry, 8 A.M. Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Cloud. Mean cloud amount at 8 A.M.	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 1904.	Normal rainfall for period, 1st May to 31st July.	Departure from normal of period, 1st May to 31st July, 1904.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
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	58
	2	1		3	1	5	14	5	S 89° W	1·3				80		·388		5·6		7			2·16	1·30	+0·86	8·21	5·22	+2·99	0·55	Kailang	Punjab—*contd.*	3
						4	1	3	N 87° W									5·8		2			1·06	1·14	−0·08	2·68	2·12	+0·56	0·49	Poo.		
20	1	1		1																												
12	14	2		1	2				N 8° E	2·7	1·6	+69	2·6	91	+3	·493	−·019	8·3	−0·1	22	18·90	+3·10	25·81	16·84	+8·97	34·45	27·75	+ 6·70	3·05	Simla.		
20	2	4				5			N 45° W	1·9			1·8	83		·493		7·9		16			13·49			21·03			2·46	Sarain.		
24		1							N 45° E	3·5‡			3·2‡					7·2		8	7·80	+0·20	3·46	3·81	−0·35	6·54	7·26	− 0·72	1·10	Para Chinar	North-West Frontier Province.	
14	1	1			15				S 3° E	3·8				66	−6	·587	−·046	4·5	+0·3	7			3·83	4·88	−1·05	4·58	6·82	− 2·24	1·60	Cherat.		
15	5	1	1	3	6				S 57° E	6·2	4·6	+35	7·4	94	+3	·535	−·002	1·6?	−4·3?	26	19·80	+6·20	21·78	20·07	+1·71	30·13	31·27	− 1·14	2·90	Chakrata	United Provinces.	25
9	1	1	4	1		6	2	7	N 73° W	2·3	2·1	+10	2·6	89	+1	·581	+·004	8·2	0	18	18·30	−0·30	15·69	13·86	+1·83	24·75	22·61	+ 2·14	2·48	Ranikhet.		
6		2	3	6	2	2	8	2	S 22° W	6·3			5·8	94		·511		8·8		20			10·61			19·62			1·47	Muktesar.		
																														Taugu	Sikkim.	
																				22	23·86	−1·86	9·09	9·47	−0·38	21·76	21·52	+ 0·24	1·04	Yatung	Bengal	13
8		9	7	4				3	N 67° E	2·9	2·6	+12	2·6	96	−1	·517	−·007	9·5†	−0·1	26	22·94	+3·06	28·26	33·50	−5·24	59·89	66·05	− 6·16	3·21	Darjeeling.		
26			1		2	2			S 7° W	1·8			2·0	87		·599		8·5		21	18·00	+3·00	10·55	13·19	−2·64	30·38	39·21	− 8·83	1·62	Shillong	Assam Hill Tracts	8
1		6	4	7	4	5	4		S 34° E	8·6			7·6	98		·631		9·8		29	27·30	+1·70	70·94	96·70	−25·76	171·43	248·19	−76·76	7·05	Cherra Poonjee		
	1	1		1		27	1		S 46° W	16·0	10·5	+52	16·2	95	−1	·607	−·038	9·4	+0·4	11	17·60	−6·60	9·33	23·23	−13·90	10·77	30·43	−19·66	2·42	Mount Abu.	Central India.	
	1					4	11	15	N 70° W	16·0	9·5	+68	16·5	91	+1	·634	−·031	9·7	+0·9	20	22·00	−2·00	21·89	25·11	−3·22	26·36	36·53	−10·17	6·73	Pachmarhi.		
5		2		4	2	17	1		S 30° W	4·2	5·8	−28		73	+2	·419	−·004	8·5	+0·7	9	7·90	+1·10	2·75	3·78	−0·63	9·45	10·75	− 1·30	0·81	Wellington.	South India.	
					1	1	11	18	N 65° W	19·0				82		·365		7·1		9	8·40	+0·60	4·27	3·89	+0·38	14·51	14·37	+ 0·14	1·39	Kodaikanal.		
2						6	18	5	S 88° W	8·0			7·5	86		·382		9·0		14	12·30	+1·70	6·97	5·94	+1·03	20·39	18·05	+ 2·34	1·87	Ootacamund.		
																														XIII.—Extra India.		
						36	1		S 46° W	14·2				81	+3	·847	−·020	2·6	−0·6	4			3·64	1·97	+1·67	6·99	5·94	+ 1·05	2·54	Trincomalee.	Ceylon.	
						19	9																									
				1	2				S 54° W	9·9	9·0	+10		87	+8	·853	+·001	8·7	+2·5	12			9·43	4·83	+4·60	28·45	24·18	+ 4·27	3·02	Colombo.		
														50		·519		0·5	0	0			0	0·01	−0·01	3·98	0·98	+3·00	0	Meshed	Persia.	
																				0			0	0·41	−0·41	1·04	0·78	+0·26	0	Teheran.		
13		1	1			1	4	1	S 34° W	1·6†			2·0†	40	+3	·457	+·045	1·2	−0·2	0			0	0·06	−0·06	0·05	0·17	−0·12	0	Ispahan.		
27		3		1					N 72° E	2·3			3·0	50	+1	·519	−·007	1·5	+0·7	0			0	0	0	0	0	0	0	Bushire.		
2	5	1		1	1	2	2	16	N 44° W	17·7	9·2	+92	19·5	65	+1	·894	−·022	0·8	−1·1	0			0			0·25			0	Bahrein.		
	6	2	1			2	2	10	N 35° W					75‡		1·115 ‡‡				0			0	0·02	−0·02	0	0·13	− 0·13	0	Jask.		
1		11	13	1		4		1	N 74° E	12·8			10·6	78	+6	1·111	+·082	1·1	−0·6	0			0	0·04	−0·04	0	0·40	− 0·40	0	Muscat	Arabia.	
6	2	1	4	10			2	6	S 89° E	4·1			4·3	74	−2	1·088	+·057	1·8	−0·7	0			0	0	0	0·98 (a)	0·24	+ 0·74	0	Baghdad.		
9	3							19	N 39° W	3·7	4·8	−23	4·5	36	−6	·509	−·072	0	0				0			1·72			0	Busrah.		
	2	5	9	4	2	6	1	2	S 76° E	6·7§	9·4	−29	5·4§	72	+1	·921	+·043	2·6	+1·9	0			0	0·03	−0·03	0·50	0·23	+ 0·27	0	Aden.		
																														Perim.		
	5		3		3	8	7	5	S 89° W	11·5			11·7	62	−3	·846	−·040	1·3	−2·3	0			0	0·03	−0·03	0	0·40	− 0·40	0	Kabul	Afghanistan.	
	13		4	1	8	1	4		N					87		·831		0·8	+0·7	0			0	0·20	−0·20	0·57	0·95	− 0·38	0	Kashgar	Central Asia.	
26	2						1	2	N 34° W	3·8			3·5	42	−1	·402	−·009	2·3	−1·1	0			0	0·29	−0·29	1·00	1·48	− 0·48	0	Aminl Divi.	Arabian Sea Islands.	
						2	18	11	N 77° W					79	−6	·862	−·043	9·3	+1·8	17			7·67	9·91	−2·24	26·72	27·15	− 0·43	1·00			
	1					2	18	10	N 75° W	13·0			13·9	82	0	·861	−·012	7·8	+1·6	14			10·08	6·66	+3·42	26·00	21·66	+ 4·34	2·65	Minicoy.		
				3	14	14			S 17° W	9·3			8·7	88	+3	·741	+·025	6·5	+0·5	8			2·49	2·74	−0·25	31·86	14·43	+17·43	0·88	Zanzibar	Africa.	
										‡‡			‡‡																1·26	Do. Dunga.		
		1		3	10	15			S 20° W	5·1			5·0	94		·732		5·4		12			4·88			29·50			2·21	Penang	Straits Settlements.	
6	5	8	3	5	4				N 76° E	4·0								1·6		13				9·12			21·08		1·25	Singapore.		
										5·4										14				8·00			15·68					

† Mean of 17 days.
‡‡ Mean of 28 days.

‡ Mean of 25 days.
Para Chinar wind observations 25 days.
(a) Rainfall for May and July.

Table II.—Abstract of Observations recorded at 10 A.M. and 4 P.M. at 66 Stations in India, Burma, etc., in July, 1904.

Table

Abstract of Observations recorded at 10 A.M. and 4 P.M. at

Meteorological Province.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure.						Temperature of air.										Temperature, Wet-bulb.			
			Mean of 10 hours.	Mean of 16 hours.	Mean daily range.	Mean of daily mean pressures.	Departure from normal.	Mean reduced to S. L., and gravity, 45° Lat.	Mean maximum.	Mean minimum.	Mean daily range.	Highest maximum.	Lowest minimum.	Absolute range.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	Mean minimum.	Mean 10 hours.	Mean 16 hours.	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
Burma Coast and Bay Islands.	Port Blair	61	29·787	29·711	·076	29·753	+·012	29·745	84·2	77·0	7·2	86·4	73·4	13·0	81·7	81·9	79·1	−0·8	74·5	78·1	77·8	78·8
	Rangoon	57	·729	·655	·074	·695	−·016	·690	84·1	74·8	9·3	88·5	72·9	15·6	80·3	80·6	77·7	−1·1	73·2	77·2	77·1	75·8
	Diamond Island	41	·743	·671	·072	·711	−·013	·637	82·7	76·3	6·4	85·4	73·2	12·2	80·3	80·5	79·8	−0·4	73·4	77·7	77·8	76·3
	Cocos Island	119	·679	·594	·085	·641		·692	84·9	76·8	8·1	89·3	73·6	15·7	81·8	82·0	79·4		74·7			
	Akyab	20	·683	·606	·077	·648	−·016	·611	82·7	76·6	6·1	86·9	74·2	12·7	79·8	80·5	79·8	−1·5		78·4	78·6	
Bengal and Orissa.	Chittagong	87	·564	·480	·084	·527	−·023	·562	84·4	75·9	8·5	87·8	73·5	14·3	81·3	82·0	79·9	−1·0	74·8	78·0	78·4	77·1
	Calcutta (Alipore)	21	·558	·475	·083	·523	−·017	·489	87·1	79·3	8·8	93·2	75·0	18·2	83·1	84·5	82·4	−0·6	76·6	79·1	79·8	78·5
	Saugor Island	25	·548	·467	·081	·498	−·040	·482	86·8	80·1	6·7	90·6	77·1	13·5	83·5	84·9	81·9	−0·7	77·5	80·0	80·6	79·4
	False Point	21	·584	·494	·090	·545	−·015	·508	86·3	78·0	8·3	90·7	74·1	16·6	84·3	84·3	80·6	−0·9	76·4	79·4	79·8	78·5
Gangetic Plain and Chota Nagpur.	Hazaribagh	2,007	27·564	27·483	·081	27·527	−·035	·455	84·0	73·4	10·6	88·4	71·1	17·3	78·8	81·3	77·7	−0·4	71·7	73·5	74·4	73·2
	Darbhanga (*a*)	166	29·404	29·304	·100	29·360	−·022	·478	90·7	79·6	11·1	95·8	76·5	19·3	86·4	88·2‡	83·7	+0·5	77·1	80·5	81·3‡	79·6
	Allahabad	309	·227	·136	·091	·186	−·019	·444	89·4	78·3	11·1	99·5	75·1	24·4	84·2	86·4	82·8	−1·7	76·6	79·7	80·8	79·0
Upper Sub-Himalayas.	Dehra Dun	2,233	27·360	27·282	·078	27·318	−·042	·482	82·2	72·2	10·0	91·1	68·2	22·8	76·9	80·0	76·1	−2·6	70·9	73·8	75·4	73·4
	Roorkee	899	28·642	28·556	·086	28·596	−·021	·449	88·8	76·5	12·3	102·5	73·1	29·4	82·3	86·0	81·6	−2·5	74·4	77·1	78·6	76·7
	Meerut	738	·791	·705	·086	·745	−·020	·435	91·2	78·9	12·3	105·9	73·3	32·6	84·5	88·8	84·0	−1·0	76·1	78·1	79·7	78·0
	Lahore	702	·773	·684	·089	·724	−·044	·368	102·2	83·5	18·7	109·4	76·2	33·2	93·7	100·2	91·9	+2·8	77·1	82·1	82·9	80·7
	Ludhiana	812	·706	·611	·095	·655	−·020	·413	96·3	80·4	15·9	107·0	74·1	32·9	88·3	94·1	87·4	−0·3	75·7	77·3	78·6	77·2
Indus Valley and N.-W. Rajputana.	Peshawar	1,110	·390	·276	·114	·329	−·027	·379	103·3	79·1	24·2	114·0	71·8	42·2	93·5	100·7	90·3	0	71·1	78·3	78·0	75·8
	Jacobabad	186	29·261	29·152	·109	29·213	−·026	·351	109·8	83·7	26·1	116·6	80·1	36·5	95·7	107·7	95·7	+0·7	76·7	82·7	84·5	81·3
	Kurrachee	30	·531	·469	·065	·507	+·001	·487	89·4	80·3	9·1	92·5	77·6	14·9	85·5	86·2	83·5	−0·8	75·7	78·3	78·9	77·7
E. Rajputana, Central India and Gujarat.	Jaipur	1,431	28·148	28·061	·087	28·104	−·011	·466	92·2	77·0	15·2	106·1	72·3	33·8	84·1	88·7	83·4	−1·3	72·9	75·5	77·0	75·2
	Udaipur	1,925†	27·700	27·631	·069	27·665		·514	85·5	73·7	11·8	98·9	70·8	28·1	80·2	82·9	78·5		70·2	72·6	73·6	72·1
	Deesa	466	29·146	29·052	·094	29·098	0	·510	92·4	77·1	15·3	105·8	74·2	31·6	84·6	89·8	83·6	0	74·0	76·3	76·9	75·8
	Jamnagar	61	·557	·490	·067	·526		·532	89·7	78·2	11·5	94·6	72·8	21·8	85·8	87·3	82·5		74·2	77·7	77·8	76·6
Deccan.	Belgaum	2,539	27·265	27·202	·063	27·234	+·003	·704	75·4	66·5	8·9	79·2	64·8	14·4	72·2	72·8	69·7	−0·4	66·1	69·3	69·4	68·2
	Sholapur	1,590	28·151	28·049	·111	28·103	−·012	·617	91·2	71·5	19·7	95·9	69·7	26·2	82·8	87·5	79·6	+0·7	68·5	71·5	72·4	70·8
	Akola	930	·737	·623	·114	·682	−·009	·546	90·2	74·1	16·1	98·0	70·8	27·2	83·7	88·6	81·1	+0·5	70·8	74·7	75·4	73·6
	Buldana	2,132	27·565	27·474	·091	27·520	−·021	·568	84·9	70·2	14·7	91·7	68·2	23·5	78·4	81·3	76·1	+0·2	67·5	70·9	71·7	70·0
	Khandwa	1,044	28·601	28·496	·105	28·551	−·011	·538	89·5	75·8	13·7	98·0	72·1	25·9	82·2	88·1	81·6	+1·2	72·4	74·1	75·4	74·0
	Nagpur	1,025	·620	·515	·105	·570	+·004	·539	89·0	75·1	13·9	95·6	71·8	23·8	81·9	85·5	80·9	+0·5	72·2	75·1	76·2	74·5
	Do. (Sanitary Commr.'s Office)	1,013	·624	·515	·109	·572		·531	88·5	75·5	13·0	94·8	72·2	22·6	82·9	85·6	80·9		72·1	74·8	75·8	74·2
	Hyderabad (Deccan)	1,690	·045	27·938	·107	27·997	+·001	·612	87·8	72·9	14·9	92·9	69·0	23·9	80·5	85·7	78·9	+1·0	69·5	72·6	75·0	72·4
West Coast.	Bombay	37	29·709	29·650	·059	29·679	+·007	·656	85·4	78·1	7·3	87·3	75·3	12·0	82·9	83·1	80·3	+0·8	75·6	78·5	78·4	77·5
	Karwar	44	·798	·739	·059	·771	+·004	·750	82·7	74·5	8·2	86·0	71·0	15·0	79·9	80·9	77·1	−0·5	72·3	76·1	76·7	75·0

(*a*) Observation of 26 days.

‡ Mean of 6 days.

II.

66 Stations in India, Burma, etc., for July, 1904.

Vapour Tension.					Humidity.				Cloud.				Wind Direction. Total number of 10 hours and 16 hours winds from										Wind Steadiness.		Wind Velocity.		Rainfall.		Station.	Meteorological Province.
From minimum.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	From minimum.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	Mean 10 hours.	Mean 16 hours.	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 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
																									%	%						
.856	.913	.902	.895	−.022	89	85	83	87	+ 1	7·3	7·4	7·4	−0·7							29	32	1	S 70° W	S 48° W	92	86	393*	278	19·76	2·74	Port Blair.	Burma Coast and Bay Islands.
.799	.895	.863	.873	−.029	92	86	85	91	− 2	8·6	9·4	9·0	−0·1					1	30	29	2		S 23° W	S 36° W	90	75	44*	122	26·11	4·21	Rangoon.	
.777	.916	.923	.864	−.007	86	88	88	88	0	8·3	8·4	8·4	0	1	2	1		1	3	43	10	1	S 52° W	S 42° W	81	80	280*	252	36·58	6·06	Diamond Island.	
.836					91					8·7	8·8	8·8	+0·5						12	48	2		S 38° W	S 36° W	93	93			10·00	1·27	Cocos Island	
	.958	.957				94	92			8·8	8·5	8·7	−0·1					1	36	25			S 17° W	S 6° E	92	71	65*	94	60·96	6·11	Akyab.	
.850	.917	.924	.906	−.017	95	86	85	90	+ 2	8·8	8·6	8·7	+0·6					23	18	19	2		S 1° E	S 27° E	77	67	201*	175	21 60	4·17	Chittagong	Bengal and Orissa.
.898	.941	.954	.931	−.040	93	83	81	87	0	8·6	8·7	8·7	+0·1	8		1	2	6	15	23	7		S 25° W	S 1° W	62	63	101	120	20·62	6·23	Calcutta (Alipore).	
.909	.978	.988	.967	−.032	88	85	82	86	0	8·6	8·6	8·6	−0·1			1		5	10	34	10	2	S 41° W	S 19° W	76	58	414	367	12·72	2·48	Saugor Island.	
.890	.940	.960	.939	−.014	93	80	81	86	0	8·1	7·9	8·0	−0·3				1	2	6	32	20	1	S 54° W	S 54° W	81	63	287	269	8·91	1·86	False Point	
.758	.760	.766	.769	−.045	92	77	72	81	− 4	9·9	10·0	10·0	+0·5	4	5	3	6	6	8	6	10	14	N 88° W	S 6° E	19	13	194*	203	19·36	2·78	Hazaribagh	Gangetic Plain and Chota Nagpur.
.902	.962	.972§	.953	−.026	89	76	73§	80	− 5	6·7	6·0	6·4	0	4			19	19	1	3	5	1	S 57° E	S 78° E	50	56	126	115	3·83	1·09	Darbhanga	
.892	.957	.977	.955	+.010	92	82	79	86	+ 6	9·1	9·1	9·1	+1·0	1	1	5	15	5	5	7	18	5	S 39° W	N 75° E	11	6	132*	175	12·30	3·60	Allahabad.	
.749	.798	.827	.818	−.003	94	87	81	90	+ 4	8·6	8·8	8·7	+1·2	19		1		8	7	6	17	2	S 48° W	S 12° W	37	14	16†	26	3·07	4·88	Dehra Dun.	
.829	.862	.880	.884	−.011	90	79	72	83	+ 5	8·0†	6·3†	7·2	+0·9	5	3	4	2	28	9	2	2	7	S 39° E	S 36° E	40	32	73	70	12·48	2·29	Roorkee	Upper Sub-Himalayas.
.863	.880	.903	.909	−.041	88	75	68	80	+ 3	7·3	5·9	6·6	0	31		2	15	9		1	2	2	S 77° E	S 69° E	31	21	20*	55	7·18	2·06	Meerut	
.850	.944	.891	.913	+.050	74	60	46	61	− 4	3·8	2·2	3·0	−1·3	2	1	5	10	19	10	2	8	5	S 39° E	S 78° E	35	30	103	82	0·76	0·37	Lahore	
.831	.803	.782	.829	−.054	81	60	50	66	− 4	4·8	5·6	5·2	−0·6	6		2		47		2	2	3	S 43° E	S 36° E	69	23	63*	58	1·66	0·92	Ludhiana	
.671	.789	.685	.723	−.009	67	51	36	52	− 2	2·3	4·5	3·4	+0·5	12	10	17	9	2	3	2	4	3	N 40° E	N 48° E	39	47	52*	98	0·83	0·50	Peshawar	Indus Valley and N.-W. Rajputana.
.826	.946	.873	.900	+.051	72	57	36	56	+ 3	0·6	0·3	0·5	−1·7	1			9	25	26	1			S 30° E	S 43° E	84	56	148*	134	0	0	Jacobabad	
.827	.875	.893	.880	−.069	80	72	72	77	− 4	7·2	5·7	6·5	−0·2							32	30		S 67° W	S 69° W	92	84	376*	413	0	0	Kurrachee	
.761	.778	.781	.783	−.051	82	68	59	72	− 4	7·8	8·6	8·2	+0·8		4	8	2		1	21	22	4	S 84° W	N 78° W	52	30	119	130	7·70	1·43	Jaipur	E. Rajputana, N. C. India and Gujarat.
.695	.713	.718	.713		84	69	65	73		6·9	6·8	6·9		11		1	1		1	20	27	1	S 71° W		68		165*		5·94	1·96	Udaipur	
.802	.797	.753	.788	−.036	86	68	55	70	− 1	8·7	8·3	8·5	+0·5		2			1	7	41	8	1	S 47° W	S 45° W	84	66	418†	367	4·07	1·53	Deesa	
.791	.842	.828	.835		82	69	65	74		6·4	6·4	6·4							3	27	25		S 63° W		60		727*		7·90	3·77	Jamnagar¶	
.63	.680	.676	.670	−.006	98	86	84	92	0	8·7	9·1	8·9	−0·2							20	39	3	S 77° W	S 69° W	92	92	506†	634	9·76	1·61	Belgaum	Deccan.
.662	.634	.609	.635	−.026	86	57	49	65	− 3	8·2	9·1	8·7	+0·2		1					34	22	5	S 67° W	S 78° W	87	86	425*	346	2·84	1·91	Sholapur	
.708	.747	.707	.736	−.049	84	65	53	69	− 8	8·9	8·7	8·8	+0·3	1	1					6	31	23	N 76° W	N 75° W	85	72	‡ 253*	218	6·83	5·18	Akola	
.644	.668	.661	.669	−.044	87	69	63	73	− 5	8·6	8·8	8·7	+0·5							15	32	15	W	N 78° W	86	75	253*	223	5·51	1·73	Buldana	
.759	.736	.717	.752	−.044	85	68	55	71	− 7	7·9	7·1	7·5	−0·4		1					4	23	34	N 66° W	N 85° W	89	82	253*	226	3·07	2·11	Khandwa	
.752	.784	.791	.791	−.036	87	72	66	77	− 5	7·8	8·1	8·0	−0·9		1				1	6	40	14	N 84° W	S 89° W	87	69	202*	209	5·15	2·56	Nagpur	
.746	.760	.772	.774		84	68	64	74		7·5	7·4	7·5		2				2		55		3	S 46° W		89		72*		6·19	3·12	Do. (Sanitary Commr.'s Office).	
.682	.705	.738	.717	−.006	95	68	61	73	− 1	6·8	7·8	7·3	−0·7	1							60	1	N 89° W	N 85° W	98	86	214*	238	5·98	3·09	Hyderabad (Deccan).	
.856	.920	.910	.910	−.011	89	81	80	84	− 3	8·2	8·3	8·3	−0·4		1					14	45	2	S 82° W	S 75° W	92	83	382	466	10·80	3·40	Bombay	West Coast.
.764	.852	.865	.842	−.004	90	83	82	87	0	7·4	7·4	7·4	−0·5		5					19	25	13	N 89° W	S 75° W	77	75	121	139	38·11	7·53	Karwar	

* Corrected. † Mean of 29 days. ‡ Mean of 18½ days. § Mean of 25 days. ¶ Wind variable 7.

Table

Abstract of Observations recorded at 10 A.M. and 4 P.M. at

Meteorological Province.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure.						Temperature of air.										Temperature, Wet-bulb.			
			Mean of 10 hours.	Mean of 16 hours.	Mean daily range.	Mean of daily mean pressures.	Departure from normal.	Mean reduced to S. L. and for gravity 45° Lat.	Mean maximum.	Mean minimum.	Mean daily range.	Highest maximum.	Lowest minimum.	Absolute range.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	Mean minimum.	Mean 10 hours.	Mean 16 hours.	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
South India.	Periyakulam	944	28·900	28·786	·114	28·857		29·727	92·2	71·0	21·2	96·8	67·9	28·9	84·6	87·2	80·6		68·4	73·0	73·3	71·4
	Salem	940	·907	·789	·118	·860	−·004	·732	90·3	72·3	18·0	94·0	70·4	23·6	81·6	86·2	79·4	−1·8	70·3	74·7	75·8	73·6
	Chitaldroog	2,405	27·427	27·347	·080	27·395	+·005	·723	81·1	68·0	13·1	85·1	66·4	18·7	75·2	76·8	72·7	−0·6	66·4	69·5	70·1	68·7
	Bangalore	3,021	26·856	26·766	·090	26·819	−·009	·726	80·5	65·0	15·5	85·1	62·8	22·3	74·0	77·2	70·9	−1·1	64·3	68·0	69·1	67·1
	Hassan	3,091	·808	·740	·068	·782	+·011	·770	78·3	64·5	13·8	83·1	62·1	21·0	73·4	73·3	69·5	+0·5	63·6	68·4	67·9	66·6
	Mysore	2,518	27·363	27·282	·081	27·331	−·003	·776	81·7	66·3	15·4	87·2	64·7	22·5	75·8	77·0	72·1	−0·8	65·1	69·1	70·0	68·1
	Madras	22	29·755	29·645	·116	29·711	−·007	·661	96·0	77·7	18·3	101·0	73·3	27·7	88·3	89·9	84·8	−0·9		76·3	78·0	76·4
	Bellary	1,475	28·309	28·202	·107	28·264	−·018	·687	90·6	73·9	16·7	95·0	70·7	24·3	82·3	86·5	80·4	−0·5	69·1	73·0	74·3	72·1
	Waltair	*226*	29·450	29·343	·087	29·393	+·002	·557	89·5	78·4	11·1	97·9	70·9	27·0	85·6	85·6	82·5	−0·4	73·5	76·9	77·1	75·8
Hill Station, Baluchistan.	Quetta	5,502	24·455	24·373	·082	24·412	+·021		92·8	61·5	31·3	97·3	50·3	47·0	85·4	90·5	76·8	−1·5	53·6	61·2	61·6	58·8
Hill Stations, Northern India.	Leh(a)	11,503	19·630	19·527	·103	19·583	−·010		75·1	50·5	24·6	83·3	45·0	38·3	65·1	71·8	61·0	−1·6	45·6	52·5	55·6	51·2
	Srinagar	5,204	24·638	24·554	·081	24·593	−·037		86·1	63·5	22·6	94·5	55·7	38·8	76·0	83·9	73·0	0	60·9	71·0	76·5	69·5
	Sarain		23·006	22·957	·049	22·977			70·2	58·1	12·1	76·9	55·6	21·3	66·0	66·8	63·8			61·5	62·1	
	Kalabagh		20·058	20·023	·035	20·041			59·3	47·2	12·1	80·7	35·9	44·8	52·8	53·5	53·3			51·1	51·8	
	Simla (Ridge)	7,224	22·978	22·933	·045	22·953	−·012		67·1	59·3	7·8	75·6	56·0	19·6	63·3	64·5	62·8	−1·5	57·7	60·9	62·4	60·3
	Chakrata	7,022	23·128	23·093	·035	23·164	−·020		67·1	59·6	7·5	73·0	57·3	15·2	63·5	64·9	63·0	−1·7	59·1	62·2	63·5	61·6
	Ranikhet	6,069	·920	·858	·062	·887	−·037		73·3	62·8	10·5	79·9	60·0	19·9	68·5	69·8	67·7	−0·4	61·7	65·4	66·4	64·5
	Muktesar	7,600			Imperfect.				68·5	58·2	10·3	77·3	55·8	21·5	63·4	65·0	63·0		57·6	61·6	62·8	60·7
	Katmandu	4,388	25·431†	25·342	·089	25·385†	−·005§		81·9	68·5	13·4	85·2	65·9	19·3	77·0	77·6	74·8	−0·7§	67·2	71·2	71·4	69·9
	Darjeeling	7,376	22·899	22·870	·029	22·882	−·014		65·7	57·4	8·3	69·0	56·1	12·9	62·9	63·7	61·2	−0·3	57·4	62·0	62·8	60·7
Hill Stations, Central India.	Mount Abu	3,945	25·818	25·767	·051	25·792	−·012		73·2	64·2	9·0	85·2	62·4	22·8	68·0	71·3	68·3	−1·5	63·2	66·1	67·4	65·6
	Pachmarhi	3,528	26·263	26·190	·073	26·227	+·027		75·5	66·6	8·7	87·5	64·4	23·1	69·8	72·7	70·8	−0·7	65·7	67·7	69·2	67·5
	Chikalda	3,612	·119	·045	·074	·082	−·024		74·1	65·1	9·0	82·5	63·9	18·6	69·6	73·2	69·2	−0·5	61·4	67·4	69·5	67·1
Hill Stations, S. India.	Kodaikanal	7,688	22·776	22·719	·057	22·747			61·7	51·7	10·0	65·6	49·6	16·0	59·1	57·5	55·4		49·2	55·0	55·0	52·7
	Ootacamund	*7,322*	23·012	·954	·058	·982			61·0	51·6	9·4	65·1	47·5	17·6	58·6	56·9	55·9		50·0	51·9	54·7	53·2
	Dodabetta	*8,539*	21·989	21·941	·048	21·964			54·1	46·2	7·9	59·0	43·7	15·3	52·7	51·7	49·8		47·0	50·5	50·3	49·3
Extra India.	Aden	94	29·621	29·483	·138	29·547	−·013	·570	93·7	82·3	11·4	96·1	79·0	17·1	89·7	92·1	87·9	+0·3	75·2	81·4	79·7	78·8
	Perim	201	·529	·414	·115	·467	+·093	·597	95·9	85·0	10·9	101·7	81·2	20·5	92·1	92·9	90·4	+0·6	75·3	79·0	79·0	77·8
	Minicoy	7	·922	·867	·055	·902		·834	85·3			86·7			82·8	81·8				77·9	77·0	
	Zanzibar	73	30·107	30·014	·093	30·068	+·002	30·068	80·5	72·3	8·2	82·3	70·0	12·3	75·4	79·4	76·3	−0·1	68·6	72·1	72·4	71·0
	Port Victoria (Seychelles)	15	·011	29·939	·072	29·976	−·017§	29·915	79·9	71·7	8·2	81·6	69·5	12·1	78·3	78·9	74·6	−3·1§	69·5	72·6	72·8	71·6
	Mauritius (Pamplemouses)	181				30·017	+·002	30·149				76·2	51·3	24·9			66·5	−1·0				62·3

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

(*a*) Observation of 30 days. † Mean of 30 days. ‡ „ „ 29½ „

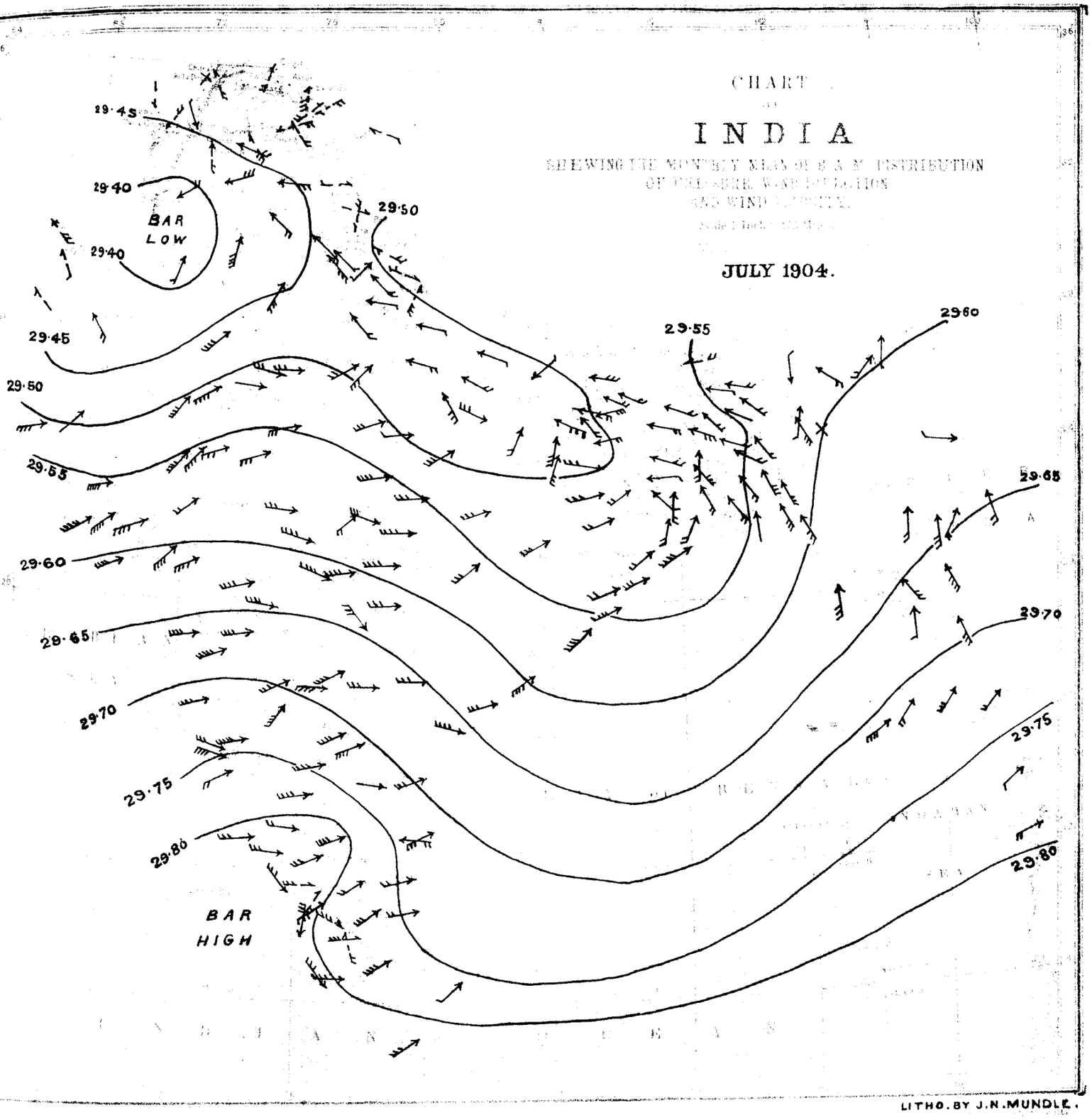
II—*concluded.*

66 Stations in India, Burma, etc., for July, 1904—concluded.

Vapour Tension.					Humidity.				Cloud.				Wind Direction.										Wind Steadiness.		Wind Velocity.		Rainfall.		Station.	Meteorological Province.
													Total number of 10 hours and 16 hours winds from																	
From minimum.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	From minimum.	Mean 10 hours.	Mean of daily means.	Departure from normal.	Mean 10 hours.	Mean 16 hours.	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 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
																									%	%						
·660	·658	·636	·648		87	56	50	62		5·6	7·5	6·6		6	9	6	4	2	14	11	5	5	S 45° W		14		93*		2·72	0·97	Periyakulam	South India.
·714	·774	·757	·746	+·002	91	71	61	75	+ 4	7·0	8·6	7·8	+1·0	13			1	1	8	26	13		S 48° W	S 51° W	64	71	191*	113	7·36	1·04	Salem	
·629	·649	·655	·645	+·002	92	75	72	81	+ 3	8·9	8·5	8·7	−0·4		1					21	30	10	S 82° W	S 75° W	84	93	238*	278	4·63	0·68	Chitaldroog	
·596	·619	615	·610	+·003	98	74	66	80	+ 3	8·4	6·8	7·6			1				1	18	37	5	S 80° W	S 72° W	87	88	251*	230	5·88	1·80	Bangalore	
·580	·638	·620	·613	+·001	95	78	76	84	+ 1	9·0	9·0	9·0	−0·3							11	37	11	N 88° W	S 89° W	89	91	107*	120	3·46	1·16	Hassan	
·607	·631	·651	·630	+·013	93	71	70	79	+ 3	9·5	9·3	9·4	+0·2							26	33	3	S 73° W	S 78° W	90	91	309*	346	2·80	0·68	Mysore	
	·744	·802	·800	−·012		52	58	67	− 1	5·7	6·9	6·3	−1·0		1		3	7	5	11	27	8	S 71° W	S 51° W	55	66	183	190	6·21	1·63	Madras	
·655	·701	·697	·687	+·042	78	63	56	67	+ 5	8·1	7·7	7·9	−0·9	1					2	17	31	11	S 83° W	S 87° W	82	90	289*	286	1·46	0·41	Bellary	
·762	·814	·823	·815	−·036	79	67	67	72	+ 1	8·7	8·7	8·7	+1·4				1	1	19	39	2		S 30° W	S 52° W	89	77	146		4·82	1·65	Waltair	
·335	·291	·250	·296	−·132	60	24	16	33	−12	0·4	1·5	1·0	−0·7	20	6	1	1	3	1	4	16	10	N 70° W	S 84° W	39	29	37*	79	0·47	0·47	Quetta	Hill Station, Baluchistan.
·269	·292	·309	·282	+·032	73	46	39	53	+ 7	4·7	5·1	5·4	+0·1		2	3	7	2	11	13	15	2	S 42° W	S 75° W	28	39	381	50	1·33	0·67	Leh	Hill Stations, Northern India.
·502	·711	·733	·628	−·011	85	78	72	78§	− 4	3·8	5·3	4·6	+0·6	10	5	4	2	8	5	2	10	16	N 60° W	N 48° W	23	15	82*	94	2·84	1·02	Srinagar	
	·502	·513				79	78			8·1	7·2	7·7		30		4	2		4	18	2	2	S 42° W		27		43*		13·49	2·46	Sarain	
	·365	·373				91	90			9·0	9·1	9·1		6	7		2	12	1		10	24	N 49° W		35		267*		23·78	2·84	Kalabagh	
·463	·511	·544	·510	−·020	91	88	90	90	+ 2	9·1	9·6	9·4	+0·6	25	28	1		2	3		2	1	N 1° W	N 15° E	40	24	60*	86	25·81	3·05	Simla (Ridge)	
·500	·550	·575	·546	+·020	98	93	92	94	+ 5	9·7	9·2	9·5	+1·2	8	10			9	34		1		S 10° E	S 66° W	50	42	174*	149	21·78	2·90	Chakrata	
·543	·593	·611	·586	+·001	95	85	84	88	+ 2	9·2	8·7	9·0	+0·5	28	1	1				11	17	4	S 83° W	S 60° W	43	25	62*	62	15·69	2·48	Ranikhet	
·473	·531	·551	·523		97	91	90	93		9·2	8·5	8·9		9		1	4	9	4	7	28		S 56° W		42		138*		10·61	1·47	Muktesar	
·655	·701	·704	·691	−·002	94	75	74	81	0	7·2	8·1	7·7	+0·9	2		5	18	3	3	4	10	17	N 9° W	S 63° W	13	11	26	21	13·92	1·70	Katmandu	
·472	·550	·565	·533	+·009	99	95	95	96	+ 1	9·2¶	9·2**	9·2	+0·2	24	1	9	1	3		7	12	5	N 71° W	S 75° E	19	32	64*	86	28·26	3·21	Darjeeling	
·570	·622	·629	·617	−·036	94	91	83	89	+ 1	9·2	8·7	9·0	+0·5			4		1	2	53	2		S 44° W	S 51° W	84	68	386*	276	9·33	2·12	Mount Abu	Hill Stations, Central India.
·622	·657	·676	·662	−·024	94	90	85	90	+ 2	8·6	9·1	8·9	−0·2		1	2		1		8	13	37	N 62° W	N 87° W	77	75	391*	259	21·89	6·73	Pachmarhi	
603	·646	·678	·652	−·014	97	89	84	90	− 1	8·3	8·1	8·2	−0·7	30	14	2				1		15	N 21° W	N 54° W	43	67	189	240	8·16	1·46	Chikalda	
·327	·392	·409	·371		85	78	86	84		7·1	8·6	7·9			5	2					17	36	N 52° W		84		458		4·27	1·39	Kodaikanal ††	Hill Stations, S. India.
·347	·394	·406	·379		90	80	87	86		8·8	9·4	9·1			1		1			15	35	10	S 87° W		84		187*		6·97	1·87	Ootacamund	
	·346	·352				87	91			4·6	2·9	3·8			1					2	45	14	N 80° W		92		470 †		13·15	3·25	Dodabetta	
·782	·958	·849	·885	+·063	71	69	57	65	+ 2	1·6	0·8	1·2	−1·3	1		11	8	19	7	10	4	2	S 42° E	S 1° W	40	73	110*	254	0	0	Aden	Extra India.
·750	·824	·815	·818	−·055	62	55	53	56	− 4	1·3	1·0	1·2	−1·5§		4	1	2	3	3	4	21	24	N 69° W	N 38° W	63	46	261*	267	0	0	Perim	
	·893	·862				80	80			7·6	7·9	7·8								6	33	23	N 77° W		89		330*		10·08	2·65	Minicoy	
·655	·747	·705	·724	+·007	82	85	70	78	+ 1	6·6	6·5	6·6	+1·4					18	27	16	1		S 1° E	S 6° E	82	83	200*	197	2·49	0·88	Zanzibar	
·698	·729	·730	·731	−·017	89	75	74	80	+ 2	6·1	6·4	6·3	+0·7§					40	19	3			S 28° E	S 33° E	90	81	353	287	0·30	0·12	Port Victoria (Seychelles).	
			·501	−·006				77	+ 1			5·2	+0·1										S 66° E	S 61° E			236	287	2·27	0·50	Mauritius (Pamplemouses)	

§ Departures from old normal.
¶ Mean of 18 days.
‖ Mean of three previous columns.
** Mean of 21 days.
* Corrected.
†† Wind variable 2.

G. I. C. P. O.—No. 701 Meteor.—3-1-1905—385.



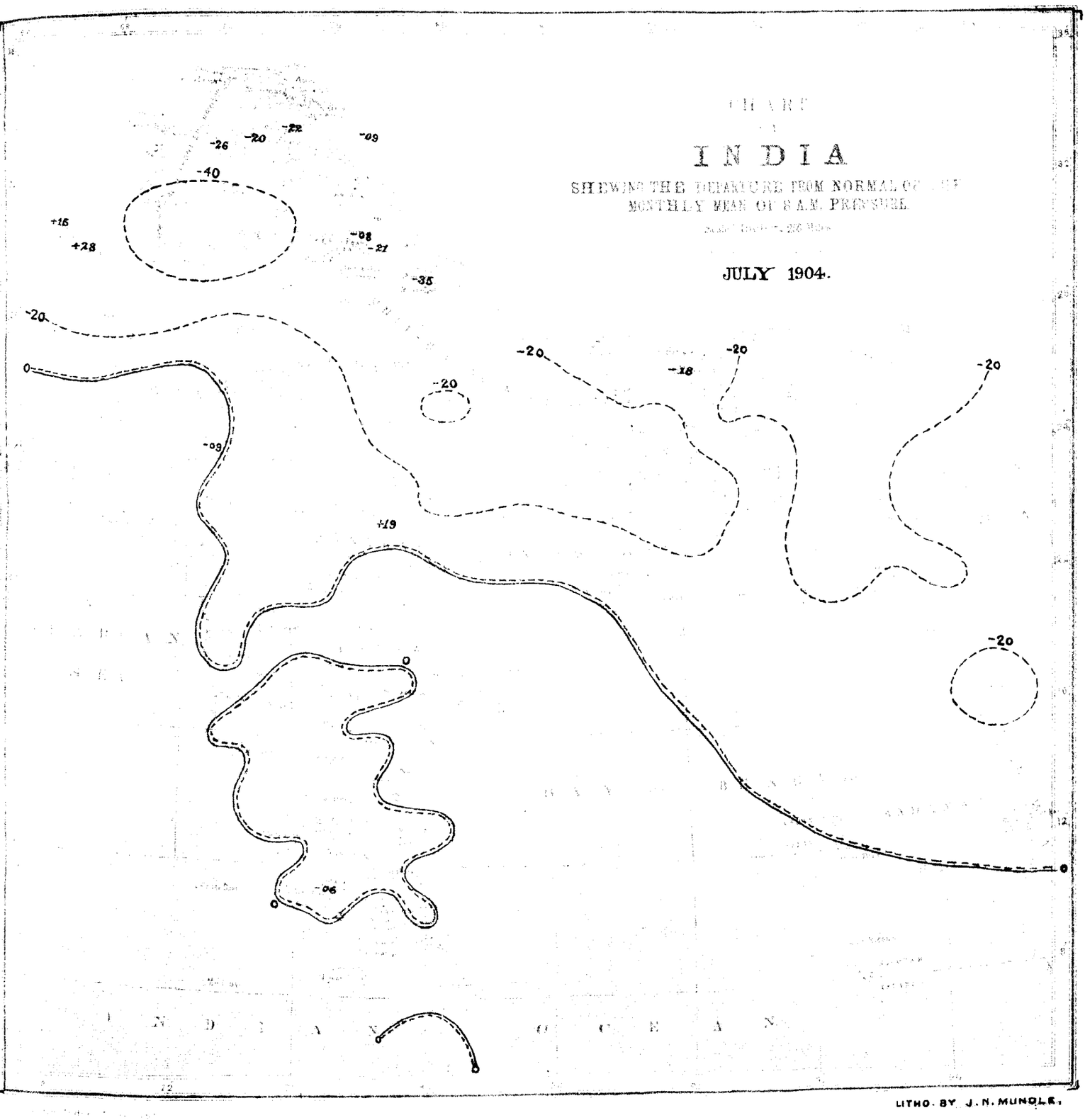
LITHO. BY J.N.MUNDLE.

Explanation.

The lines of the above Chart represent isobars or lines of equal barometric pressure, and the numbers attached indicate the barometric pressure in inches and are 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 ordinary or normal distribution of pressure as given in the Charts of the Bay of Bengal prepared by Mr. Dallas, 1st Assistant Meteorological Reporter to the Government of India, and published by the Meteorological Department. Hence they have not the same validity as the isobars in the land area of India itself, but it is probable they deviate very little from the actual.

The mean 8 a.m. 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 I of the 8 a.m. 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	„ „ „ „ „



LITHO. BY J. N. MUNDLE.

Explanation

The Chart shows the departure from the normal of the mean 8 a.m. pressure of the month by means of lines drawn for equal amounts of departure (of two hundredths of an inch or ·020″). 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.

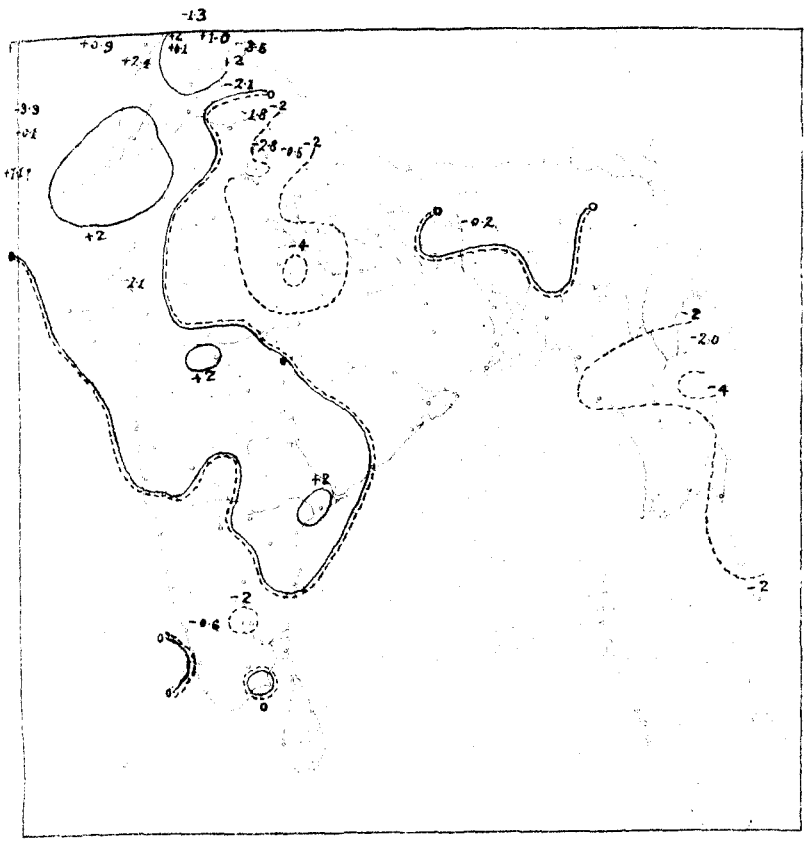
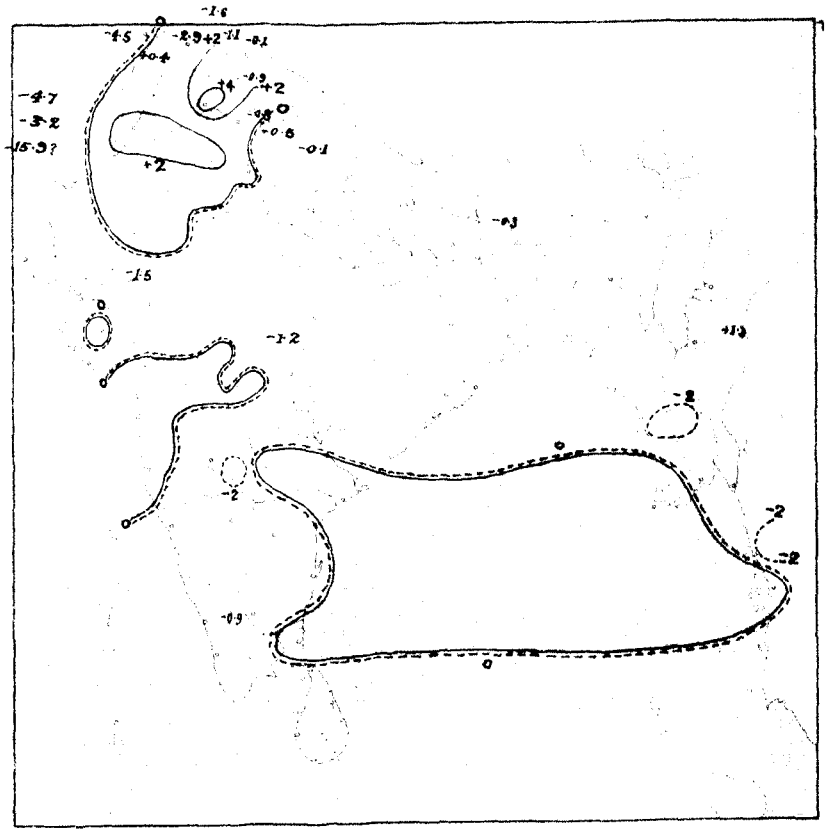


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MINIMUM TEMPERATURE.



Explanation.

Continuous lines indicate that the mean maximum of month was in excess by amounts indicated by the attached numbers; broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no departure, the broken line facing the area of deficient temperature.

Continuous lines indicate that the mean minimum of month was in excess by amounts indicated by the attached numbers; broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no departure, the broken line facing the area of deficient temperature.

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

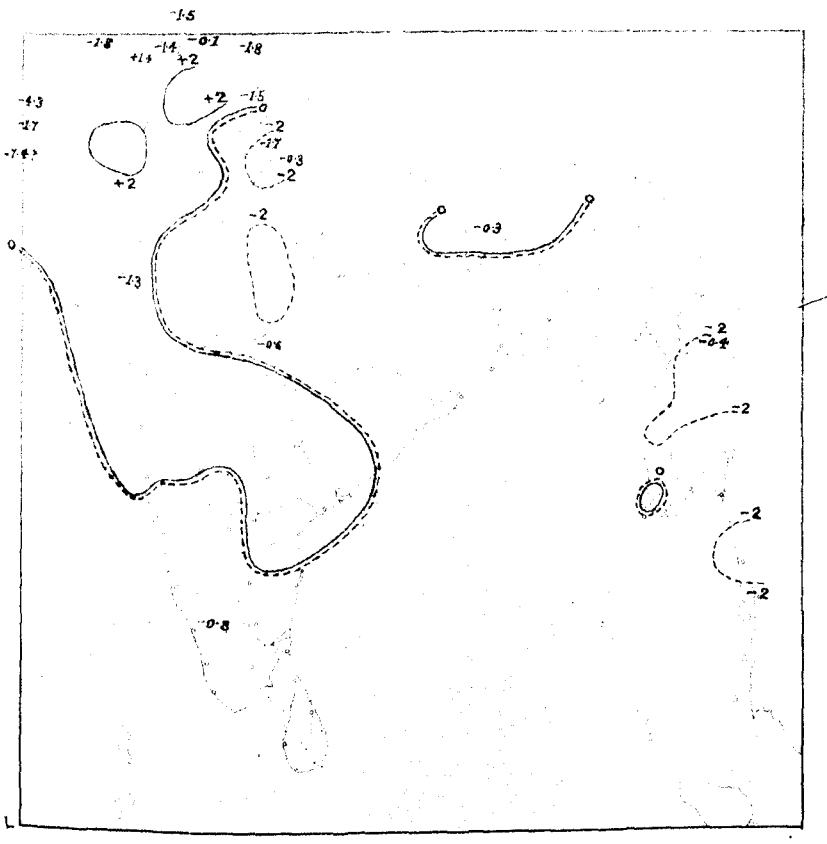
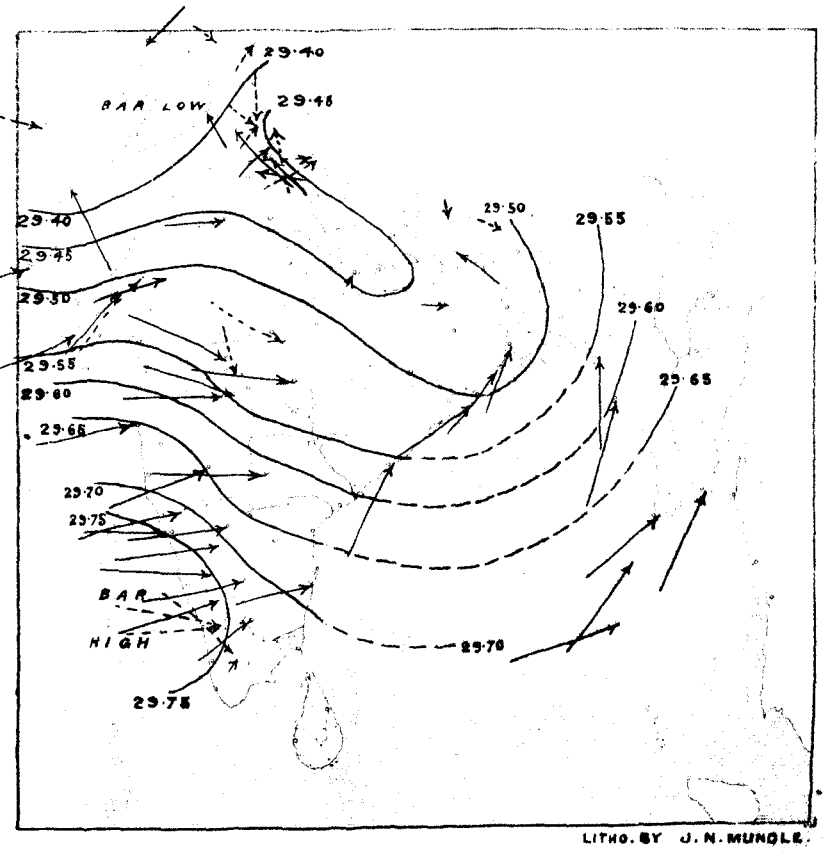


CHART SHEWING THE MONTHLY MEAN OF PRESSURE AND RESULTANT WIND DIRECTION.



LITHO. BY J. N. MUNGLE.

Explanation.

Continuous lines indicate that the mean daily temperature of month was in excess by amounts indicated by the attached numbers: broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no departure, the broken line facing the area of deficient temperature.

The Chart is prepared in the same manner as the *Monthly Charts* which previously to 1890 appeared in the Annual Reports, the only alteration made being that pressures are reduced to constant gravity (45°). The isobars are given for each twentieth of an inch. The arrows show the directions of the resultants of the wind recorded at 10 and 16 hours, and by their lengths the percentage of the observations expressing the numerical value of the resultant; a length of $\frac{1}{8}$th of an inch being equal to 100 per cent.

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

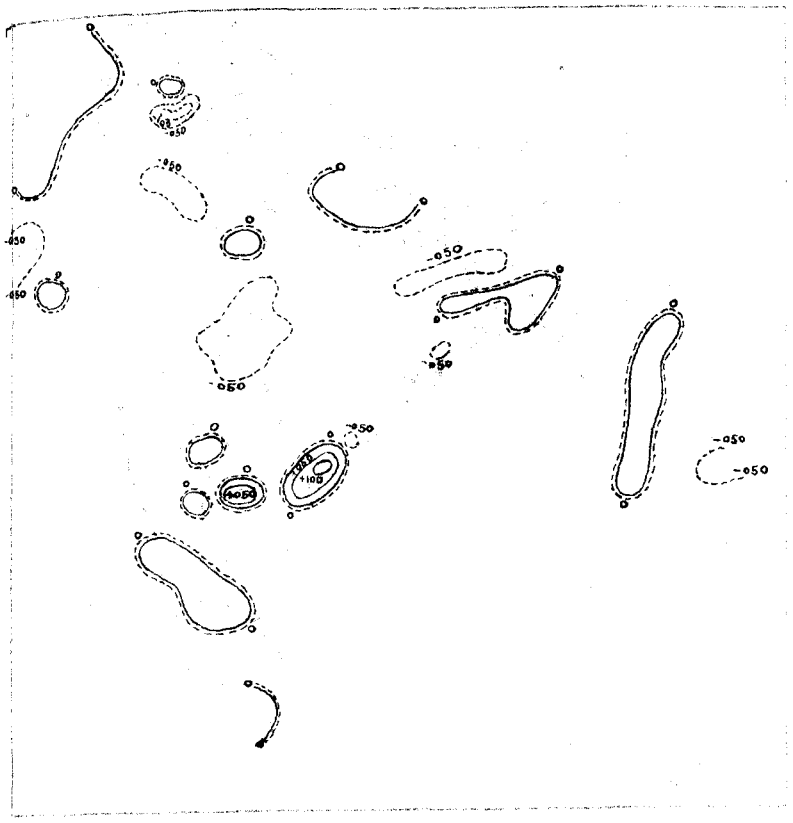
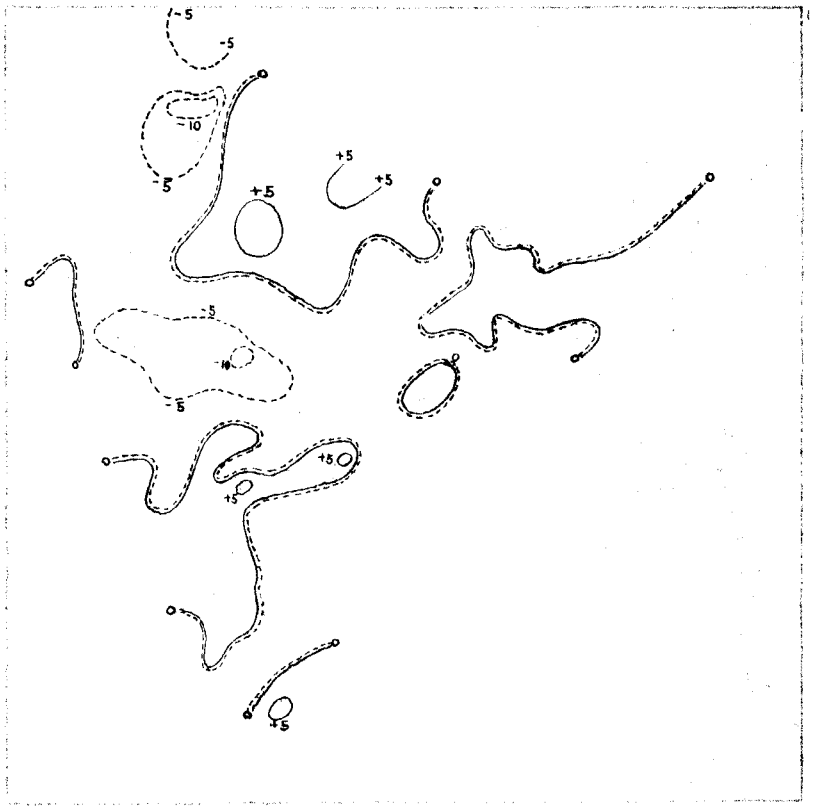
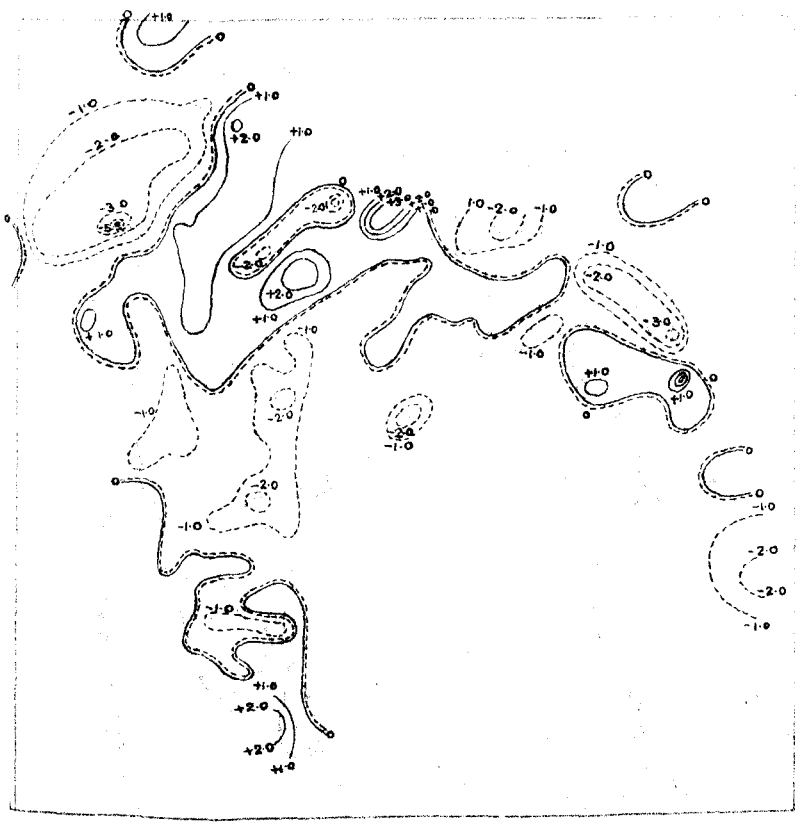
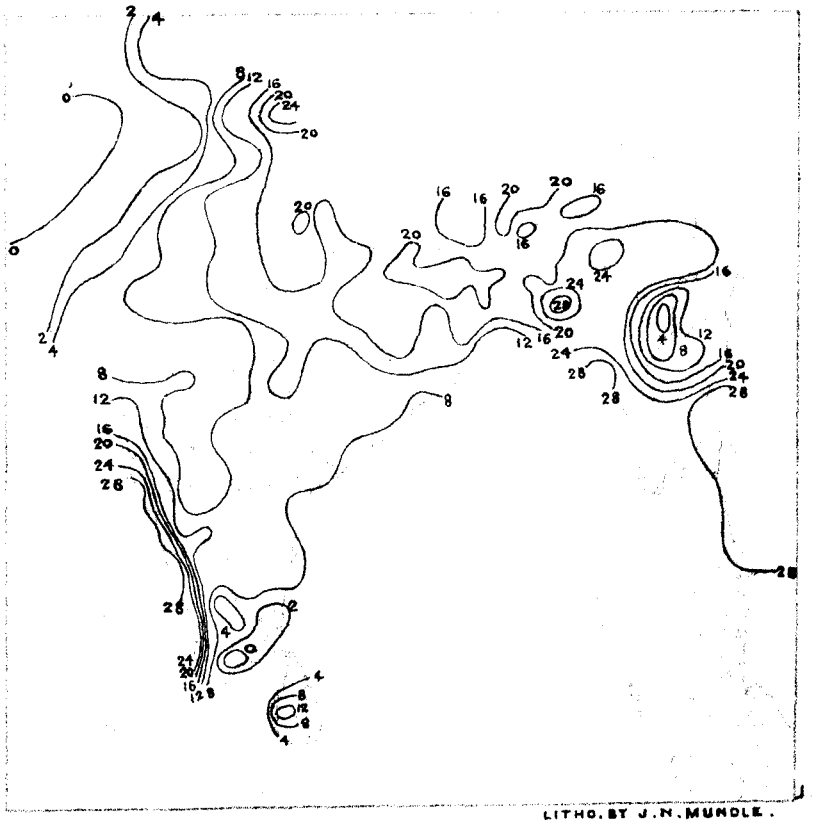


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF RELATIVE HUMIDITY AT 8 A. M.







LITHO. BY J. N. MUNDLE.

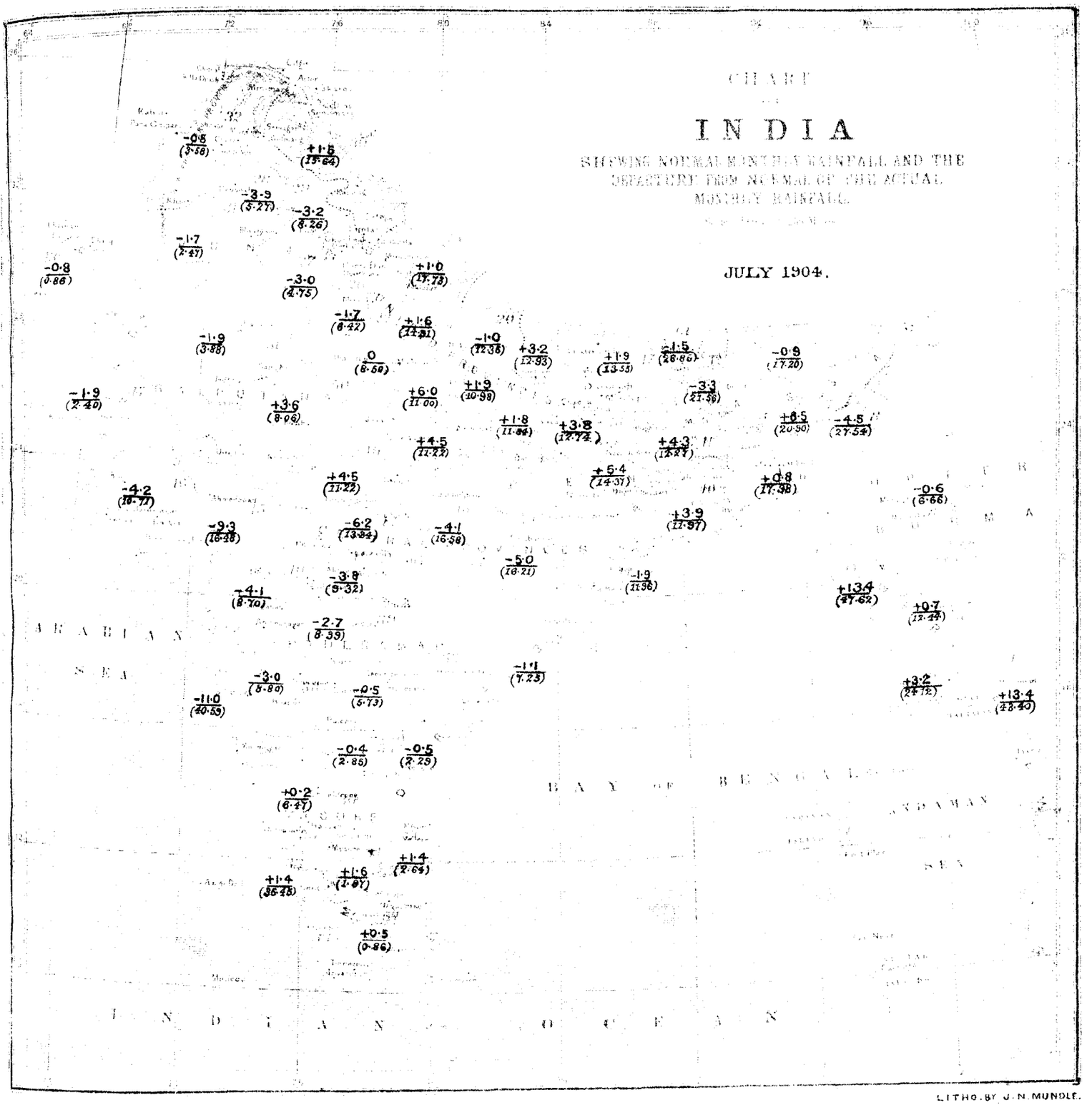
Explanation

Continuous lines indicate that the mean cloud amount of month was in excess by amounts indicated by the attached numbers; broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no departure from the normal, the broken line facing the area of deficient cloud.

A rainy day is one on which 0·10 inch or more of rain is received within 24 hours.

Explanation.

The Chart shows the distribution of the rainfall of the month by means of isohyetic lines or lines of equal amounts of rain. The data used in the preparation of this Chart are the rainfall returns of all the observatories in India except those at the Hill Stations over 3,500 feet in elevation (177 in number). The double line or line of no rainfall separates areas in which the rainfall exceeded a tenth of an inch from those where it was actually or practically *nil* (*i.e.* less than a tenth of an inch). The dotted line faces the area of no rainfall.



LITHO. BY J. N. MUNDLE.

Explanation.

The Chart gives the departures of the rainfall of the month (to tenths of an inch) from the normal over the whole of India and Burma. The country is divided into 57 areas, over each of which the meteorological conditions are fairly uniform, and the staple crops similar in character; and the means (both actual and normal for the month) have been calculated, and the numbers given in the centre of each division (usually with a + or − sign attached) give the difference between the actual and normal mean rainfall of the district of the month. A plus sign indicates that the rainfall was in excess, and a negative sign that it was in defect by the amounts indicated by the numbers to which the signs are attached. The normal average rainfall is also given below in smaller figures enclosed within brackets so that the percentage departure from the normal can be at once estimated. The name of the district can be at once ascertained by referring in the following list to the number given near the right hand boundary of each district in small slanting red figures.

1. Tenasserim
2. Lower Burma Deltaic
3. Central do.
4. Upper do.
5. Arakan
6. East Bengal
7. Assam, Surma
8. Do., Hills
9. Do., Brahmaputra
10. Deltaic Bengal
11. Central do.
12. North do.
13. Bengal Hills
14. Orissa
15. Chota Nagpur
16. South Bihar
17. North Bihar
18. United Provinces, East
19. South Oudh
20. North do.
21. United Provinces, Central
22. Do. do., West
23. Do. do., East Submontane
24. Do. do., West do.
25. Do. do., Hills
26. South East Punjab
27. South do.
28. Central do.
29. Punjab, Submontane
30. Do., Hills
31. West Punjab
32. North West Frontier Province
33. Malabar
33a. Travancore
34. Madras, South Central
35. Coorg
36. Mysore
37. Konkan
38. Bombay Deccan
39. Hyderabad, North
40. Khandesh
41. Berar
42. Central Provinces, West
43. Do., Central
44. Do., East
45. Gujarat
46. Kathiawar and Cutch
47. Sind
48. Baluchistan Hills
49. Central India, East
49a. Do. do.
50. Rajputana East, Central India West
51. West Rajputana
52. Madras, East Coast, North
53. Hyderabad, South
54. Madras, Central
55. Madras, East Coast, Central
56. Do. East Coast, South
57. Madras, South

GOVERNMENT OF INDIA.

METEOROLOGICAL DEPARTMENT.

MONTHLY WEATHER REVIEW

PUBLISHED BY ORDER OF

THE GOVERNMENT OF INDIA.

CALCUTTA, AUGUST, 1904.

INTRODUCTION.

THIS review of the weather in India, during the month of August 1904, is based on observations taken daily at 8 A.M. at 231 stations, and on additional observations taken at 10 A.M. and 4 P.M. at 65 stations. In the rainfall summary the rainfall data of the meteorological observatories, and the rainfall statements of the month, published by the Provincial Governments, that had been received up to the date of the publication of the review, are utilized. A summary of the weather in the Bay of Bengal and the Arabian Sea, derived from information extracted from the logs of vessels entering the ports of Calcutta and Bombay, is also given, and brief notes on magnetic and solar disturbances are supplied by the observatories.

Summary of the chief features of the weather in India during the month of August, 1904.

The weather conditions of the month of August departed very considerably from the normal over a large part of the country. The rainfall was lighter than usual over the greater part of the area ordinarily dominated by the Arabian Sea monsoon current, so that, on the mean of the month, there was a fairly general excess of temperature and deficiency of humidity over a large part of north-west India and of the Peninsula. On the other hand, the weather was more disturbed than usual over south-west and west Bengal and the Gangetic plain, so that the mean temperature was in defect and the mean humidity in excess over this region. In Burma the weather was about normal, but lower Bengal and Assam were, to a great extent, beyond the influence of the depressions noticed above, and the weather there was hence generally finer and warmer than the average.

Between the 1st and the 6th of the month the weather was quiet throughout the Indian area. No storm was developed within the Indian limits and the barometric gradients were slighter than usual. A fair monsoon was, however, blowing on both sides of India and the weather was showery in most parts of the country. These showers were most general over Burma, Bengal, the submontane districts of northern India and the west coast and were least general over Gujarat, Khandesh, the west of the Central Provinces and of Central India and the Deccan. As a result of this distribution of rain the mean temperature during most of this interval exceeded the normal over the greater part of north-west India, of Central India, and of the Deccan, and was generally lower than usual in Burma, north-east India, the submontane districts of Northern India and the south of the Peninsula. The departures from the average were not, however, generally large, but showers in Madras brought the day temperature to considerably below the normal on the 1st at several stations. This is shown below :—

Station.	Maximum temperature.		
	Actual, 1st August.	Normal, 1st August.	Departure from normal, 1st August.
	°	°	°
Nellore	82·3	96·2	−13·9
Masulipatam	83·5	91·9	−8·4
Cuddalore	86·6	94·6	−8·0
Cuddapah	86·2	94·1	−7·9
Negapatam	87·9	95·2	−7·3
Madras	88·5	95·1	−6·6
Madura	90·9	96·9	−6·0
Trichinopoly	92·2	97·4	−5·2

On the 7th and 8th a shallow barometric depression was shown over the United Provinces, and the rainfall on these two days was more or less concentrated over northern India, while it was very light over the Peninsula and the north-west. In the extreme north-west, however, *i.e.*, in the north of the North-west Frontier Province and of the Punjab, as well as on the neighbouring hills, local heavy rain was falling, and the mean temperature was in consequence reduced to below the normal in this region. The following gives data for Peshawar for the 7th and 8th, to illustrate the conditions prevailing:—

Station.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of	
	7th August.	8th August.
	°	°
Peshawar	−5·8	−8·1

In other parts of India the temperature departures from the normal were irregular. The following gives data for all divisions for these two days:—

Province or Division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of	
	7th August.	8th August.
	°	°
Burma	−0·9	+0·2
Assam	0	−1·3
Bengal	+0·7	−0·9
Orissa	−1·5	−2·6
Bihar	0	+0·5
Chota Nagpur	+1·1	+0·1
United Provinces of Agra and Oudh	−1·6	+0·1
Punjab	+1·0	−1·4
North-west Frontier Province	−1·1	−4·9
Sind	+1·2	+2·3
Rajputana	+0·3	0
Gujarat	+1·6	+0·3
Central India	−0·3	+0·3
Central Provinces	+0·1	−1·4
Berar	−1·2	−4·5
West Coast	+0·3	−0·2
Bombay Deccan	+0·4	−0·6
Mysore	−0·4	−0·8
Madras Coast	+0·7	−0·7
Madras Deccan	+1·3	−0·4
South India	+0·6	−0·5

On the 9th, showery weather prevailed in all parts of the country except north Bombay.

Between the 10th and the 16th the weather over Burma and over a considerable part of northern India was determined by a depression which passed from the head of the Bay north-westward to the neighbourhood of Cawnpore. The rainfall was general over Burma and over north-east India, the Gangetic plain and the north of the Central Provinces. The heaviest falls, exceeding 5 inches in 24 hours in Burma, north-east India and the Gangetic plain and exceeding 3″ in the Central Provinces, were as follows:—

	District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
				Inches.
Burma.	Thaton	Kyaikto	11th August	6·74
	Amherst	Amherst	13th ,,	7·20
	Thaton	Pa-an	,, ,,	6·99
	,,	Thaton	,, ,,	6·13
	Akyab	Maungdaw	15th ,,	7·25
North-East India.	Kamrup	Nalbari	10th ,,	5·84
	Khasi and Jaintia Hills.	Cherrapoonjee, Mr. Shadwell's house.	10th ,,	5·22
	Muzaffarpur	Muzaffarpur	,, ,,	13·20
	Chittagong Hill Tracts.	Rangamati	12th ,,	5·40
	Chittagong	Cox's Bazar	16th ,,	5·96
	Lakhimpur	Pathalipam	16th ,,	5·65
Gangetic Plain.	Dehra Dun	Raipur	11th ,,	6·20
	Mirzapur	Robertsganj	14th ,,	6·13
	Agra	Bhikapur	15th ,,	8·00
	Etah	Jalesar	16th ,,	6·09
Central Provinces.	Feudatory States	Deogarh	14th ,,	4·94
	Bilaspur	Korba	,, ,,	3·50
	Jubbulpore	Sihora	15th ,,	3·70
	Mandla	Marpha	,, ,,	3·58

This heavy rainfall kept temperature low over the affected areas and the following day temperatures 8° or more below the average were recorded during this period:—

Date.	Station.	Maximum temperature.		
		Actual, of date.	Normal, of date.	Departure from normal, of date.
		°	°	°
10th August	Meerut	81·5	91·0	−9·5
	Delhi	83·2	91·7	−8·5
	Roorkee	82·3	90·8	−8·5
11th ,,	Gaya	81·9	89·9	−8·0

Date.	Station.	Maximum temperature. Actual, of date.	Normal, of date.	Departure from normal, of date.
		°	°	°
13th August . .	Jhansi	78·1	88·8	—10·7
14th ,, . .	Jaipur . . .	81·2	91·1	—9·9
	Jhansi . . .	80·1	88·8	—8·7
15th ,, . .	Sambhar . . .	80·4	90·7	—10·3
	Jubbulpore . . .	74·9	84·3	—9·4
	Jaipur . . .	82·2	91·1	—8·9
	Ajmer	79·4	87·9	—8·5
	Raipur . . .	77·6	85·8	—8·2
16th ,, . .	Neemuch . . .	76·0	85·0	—9·0
	Nowgong . . .	79·0	87·7	—8·7
	Saugor . . .	75·4	83·6	—8·2

Almost the whole rainfall of the country at this time was, however, concentrated around the depression area. Over the Peninsula, beyond a few showers along the west coast, there was hardly any rain, while the west of the Central Provinces, of Central India and the greater part of north-west India were practically rainless. In consequence the mean temperature was generally higher than usual over these areas and the following day temperatures more than 7° above the normal were recorded :—

Date.	Station.	Maximum temperature. Actual, of date.	Normal, of date.	Departure from normal, of date.
		°	°	
13th August . .	Hyderabad (Sind) .	105·1	95·0	+10·1
14th ,, . .	Hyderabad (Sind) .	104·1	94·9	+ 9·2
15th ,, . .	Hyderabad (Sind) .	103·1	94·9	+ 8·2
	Jacobabad . .	110·8	103·5	+ 7·3
	Rajkot . . .	95·9	88·8	+ 7·1
16th ,, . .	Hyderabad (Sind) .	103·1	94·9	+ 8·2

The weather, except over Burma and north-east India, was quiet and fine on the 17th and 18th and the mean temperature exceeded the normal over the extreme north-west of India and the Peninsula. This is shown below :—

Province or Division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of 17th August.	18th August.
	°	°
Punjab	+4·3	+4·7
North-west Frontier Province	+3·9	+5·8
West Coast	+1·0	+1·4
Bombay Deccan	+1·4	+1·7
Mysore	+0·6	+0·2
Madras Coast	+2·4	+2·9
Madras Deccan	+2·4	+3·1
South India	+1·0	+0·7

The following high maxima were recorded in the Punjab on these two days:—

Station.	Maximum temperature. Actual, 17th August	Actual, 18th August.
	°	°
Montgomery	108·8	106·8
Khushab	107·3	109·3
Multan	106·4	102·4
D. I. Khan	105·7	107·2
Peshawar	104·0	106·0
Lahore	102·4	104·4
Sialkot	102·2	99·7
Sirsa	101·3	103·8

Between the 19th and 25th another cyclonic storm passed from the head of the Bay to the west of the United Provinces, moderate to heavy rain fell over Burma, north-east India and along the track of the storm and the mean temperature was lower than usual over those areas. The effect of the rainfall was most shown in the day temperature, which was largely below the normal over the United

Provinces and Rajputana on the 23rd, 24th and 25th, as is shown below :—

DATE.	STATION.	MAXIMUM TEMPERATURE. Actual, of date.	Normal, of date.	Departure from normal, of date.
		°	°	°
23RD AUGUST	Mainpuri	79·3	90·7	−11·4
	Bareilly	78·8	89·6	−10·8
24TH „	Agra	80·0	91·1	−11·1
	Gorakhpur	78·4	89·4	−11·0
25TH „	Jaipur	78·2	92·0	−13·8
	Sambhar	80·4	91·6	−11·2

As was the case during the existence of the previous storm, practically the whole rainfall of the country was concentrated around the depression area and hardly any fell over the Peninsula and North-west India, where the mean temperature during this interval was more or less excessive.

Between the 19th and the 22nd disturbed showery weather occurred over Kashmir and the mean temperature was low over Kashmir and the North-west Frontier Province from the 21st to the 24th. This is shown below :—

PROVINCE.	DEPARTURE FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF 21st August.	22nd August.	23rd August.	24th August.
	°	°	°	°
Kashmir	−4·7	−5·0	−5·2	−0·4
North-West Frontier Province	−2·2	−0·7	−4·6	−2·8

Between the 26th and the end of the month a shallow local depression existed at the head of the Bay. Rain was general in Burma and the mean temperature low. The following gives data :—

PROVINCE.	DEPARTURE FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF 26th August.	27th August.	28th August.	29th August.	30th August.	31st August.
	°	°	°	°	°	°
Burma	−0·1	−0·7	−0·8	−0·3	+0·4	+0·7

Light local rain fell during this interval over north-east India and the mean temperature, though unsteady, was generally in excess of the average. Elsewhere there was practically no rain and the mean temperature was higher than usual. The excess was most marked in the day or maximum temperature, which was largely above the normal over Madras, the Deccan and the Punjab on the last three days of the month. The following gives data :—

DATE.	STATION.	MAXIMUM TEMPERATURE. Actual, of date.	Normal, of date.	Departure from normal, of date.
		°	°	°
29TH AUGUST	Cuddapah	102·7	93·1	+9·6
	Nellore	103·8	95·2	+8·6
	Madras	101·5	92·9	+8·6
	Deesa	98·1	90·0	+8·1
	Masulipatam	98·7	90·7	+8·0
30TH „	Sialkot	92·7	94·5	+8·2
31ST „	Khandwa	94·7	85·7	+9·0

Pressure :—Pressure was higher than usual over the Peninsula and the southern half of north-west India, but was lower than usual over the Punjab, north-east India and Burma. The mean departure of the whole area from the average was +·002″ Compared with the geographical mean, pressure was generally high in the south and low in the north, the principal departures having been as follows :—

POSITIVE DEPARTURES. STATION.	Pressure anomaly, August, 1904	NEGATIVE DEPARTURES. STATION.	Pressure anomaly, August, 1904.
	″		″
Chanda	+·026	Sibsagar	−·030
Bhuj	+·023	Chittagong	−·025
Indore	+·022	Berhampore	−·024
Karwar	+·022	Darbhanga	−·024
Nagpur	+·021	Akyab	−·022
Amraoti	+·021	Calcutta	−·021
Akola	+·020	Lucknow	−·021
		Moulmein	−·020
		Lahore	−·020
		Dera Ismail Khan	−·020

The pressure departures at the level of the hills were similar in character to those on the neighbouring plains and the vertical pressure anomalies, except in the Baluchistan—Sind region, were generally unimportant.

The following table gives the mean pressure departures and anomalies of the month for the eleven meteorological provinces of India:—

METEOROLOGICAL PROVINCE.	Departure from normal of mean 8 A.M. pressure of August, 1904.	Pressure anomaly, August, 1904.
	"	"
Burma Coast and Bay Islands	—·012	—·014
Burma Inland	—·003	—·005
Assam	—·019	—·021
Bengal and Orissa	—·012	—·014
Gangetic Plain and Chota Nagpur	—·012	—·014
Upper Sub-Himalayas	—·008	—·010
Indus Valley and North-West Rajputana	—·001	—·003
East Rajputana, Central India and Gujarat	+·009	+·007
Deccan	+·012	+·010
West Coast	+·018	+·016
South India	+·013	+·011

Temperature:—The general temperature conditions, relatively to the normal, of the month of August were, on the whole, similar to those of July.

The mean maximum temperature of the month was lower than usual over the greater part of Burma and within an area which covered west and south-west Bengal, the east and north of the Central Provinces, the greater part of Central India, the United Provinces and the east of Rajputana and of the Punjab. The deficiency was greatest within an area represented by the stations of Nowgong (—3°·0); Jhansi (—2°·7); Agra (—2°·8); Jaipur (—3°·7); Sambhar (—2°·9); Ajmer (—2°·5) and Neemuch (—2°·5). Over the remainder of the country the mean maximum temperature was normal or generally higher than usual, the excess having been greatest and between 2°·0 and 4°·8 within a broad band which stretched from the south-west Punjab, western Rajputana and Sind south-eastward through Gujarat, Khandesh and the Deccan to the Madras coast.

The departures of the mean minimum temperature from the normal were generally smaller and less regular than those of the maximum temperature, but the general distribution was very similar.

The mean temperature departed generally by only small amounts from the normal. It was lower than usual over the greater part of Burma, as well as over the Gangetic plain and the neighbouring districts of the Punjab, Rajputana, Central India, the Central Provinces and Bihar, while it was generally higher than the average elsewhere. The only considerable departures were as follows:—

DEPARTURE OF MEAN TEMPERATURE OF MONTH FROM NORMAL.

STATION.	Positive departures.	STATION.	Negative departures.
	°		°
Deesa	+·0	Jaipur	—2·5
Cuddapah	+2·8	Sambhar	—2·4
Multan	+2·6		
Lahore	+2·6		
Malegaon	+2·2		
Hyderabad Deccan	+2·1		
Montgomery	+2·0		
Khandwa	+2·0		

The mean temperature of the month was below the normal at all the hill stations, except Darjeeling (+0°·5). The departures were generally slight or small.

The following table gives mean comparative data of temperature for the eleven meteorological provinces or divisions into which India is divided:—

METEOROLOGICAL PROVINCE.	DEPARTURE FROM NORMAL OF		
	Mean maximum temperature, August, 1904.	Mean minimum temperature, August, 1904.	Mean temperature, August, 1904.
	°	°	°
Burma Coast and Bay Islands	—0·5	—0·1	—0·3
Burma Inland	—0·8	—0·2	—0·5
Assam	+0·2	—0·1	0
Bengal and Orissa	+0·6	+0·5	+0·6
Gangetic Plain and Chota Nagpur	—0·7	—0·2	—0·5
Upper Sub-Himalayas	—0·7	+0·3	—0·2
Indus Valley and North-West Rajputana.	+1·6	+0·6	+1·1
East Rajputana, Central India and Gujarat.	—0·4	—0·2	—0·3
Deccan	+0·8	+0·1	+0·5
West Coast	+0·6	+0·6	+0·6
South India	+1·2	+0·3	+0·8

Winds:—Over the Bay area, the Gangetic plain, as well as on the eastern Himalayas, the wind, on the mean of the month, was more westerly than the normal and the steadiness generally above the average. In upper India the wind

blew from about the normal direction and this was likewise the case over the Peninsula. In the south-east trades region there was slightly increased southing at Zanzibar and the Seychelles and increased easting at Mauritius.

Humidity:—The mean relative humidity of the month was below the normal over the greater part of the area dominated by the Arabian Sea monsoon current, including the Punjab (Montgomery —10); west Rajputana (Bikaner —5); north Bombay (Deesa —12); the Central Provinces (Amraoti —14); the Deccan (Sholapur —10); the west coast (Karwar —2) and Madras (Cuddapah —12). It was also in trifling defect over Bengal, but this was largely a temperature effect as the mean absolute humidity was in excess. Elsewhere the mean relative humidity generally exceeded the normal, but the departures from the average were small.

The following table gives departure data of the mean aqueous vapour pressure and of mean humidity of the nine meteorological provinces for the month of August 1904:—

Meteorological Province.	Mean absolute humidity.		Mean relative humidity.	
	Average actual, August, 1904.	Departure from normal, August, 1904.	Average actual, August, 1904.	Departure from normal, August, 1904.
	"	"	%	
Burma Coast and Bay Islands.	·900	+·004	86	—2
Bengal and Orissa . .	·953	—·003	85	—1
Gangetic Plain and Chota Nagpur.	·889	+·011	88	+3
Upper Sub-Himalayas .	·834	+·002	80	0
Indus Valley and North-West Rajputana.	·865	+·019	67	0
East Rajputana, Central India, and Gujarat.	·763	—·052	71	—6
Deccan	·689	—·041	75	—6
West Coast . . .	·858	—·004	85	—3
South India . . .	·690	—·008	74	—1

Cloud:—The mean cloud amount of the month was in excess of the average along the foot of the eastern and central Himalayas, as well as over Bihar, the greater part of the United Provinces, Central India and parts of Gujarat and of the west coast. The sky was also abnormally cloudy over the eastern districts of Burma. Elsewhere the mean cloud amount was generally less than the average—more particularly on the Burma coast (Mergui—3·1); deltaic Bengal (Barisal—2·1); the Deccan (Kurnool—3·1); Sind (Hyderabad—2·6) and the east Punjab (Ludhiana —2·1). At the hill stations the departures of the mean cloud amount from the normal were generally small and irregular.

The following table gives departure data of the mean cloud amount of the nine meteorological provinces of India for the month of August 1904:—

Meteorological Province.	Mean cloud amount.	
	Average actual August, 1904.	Departure from normal, August, 1904.
Burma Coast and Bay Islands . . .	7·9	—0·5
Bengal and Orissa	8·3	—0·1
Gangetic Plain and Chota Nagpur . .	9·4	+0·5
Upper Sub-Himalayas	5·9	—0·1
Indus Valley and North-West Rajputana .	2·8	—1·2
East Rajputana, Central India, and Gujarat	7·5	—0·3
Deccan	8·0	—0·1
West Coast	7·4	—0·4
South India	7·7	—0·2

Rainfall:—The Arabian Sea monsoon was, on the whole, weak. The rainfall was moderate at the commencement of the month, but decreased as the month advanced, and at its close was less than the normal over nearly the whole of the Peninsula, the west of the central districts of India and the greater part of north-west India. The Bay monsoon, on the contrary, was stronger than usual, and the Burma rainfall was normal or in trifling excess. Over north-east India the distribution of the rainfall was largely controlled by the cyclonic storms which developed over that region. Within and near the track of the storms, *i.e.*, over west Bengal, the east, centre and west of the United Provinces, the west of Central India and the east of Rajputana the month's rainfall was in excess of the normal, while in other parts it was normal or below the normal.

The following table gives comparative rainfall data for the eleven meteorological provinces:—

Meteorological Province.	Rainfall.			
	Mean actual for August, 1904.	Mean normal for August.	Mean departure from normal.	Percentage departures from normal.
	Inches.	Inches.	Inches.	
Burma Coast and Bay Islands .	30·42	30·63	—0·21	— 1
Burma Inland	9·17	7·18	+0·44*	+ 6
Assam	16·87	15·51	+1·37	+ 9
Bengal and Orissa . . .	11·56	13·67	—2·11	— 15
Gangetic Plain and Chota Nagpur	14·36	12·09	+2·26	+ 19
Upper Sub-Himalayas . .	8·41	10·72	—2·19*	— 20
Indus Valley and North-West Rajputana.	0·69	2·57	—1·88	— 73
East Rajputana, Central India and Gujarat.	5·62	7·32	—1·85*	— 25
Deccan	5·92	8·92	—3·18*	— 36
West Coast	9·13	17·08	—7·95	— 47
South India	1·92	4·25	—2·33	— 55

* A reference to Table I will show that the means of columns 2 and 3 are derived from a smaller number of stations than the means in the first column. The sums of the figures in columns 2 and 3 will, therefore, not agree with the figures in column 1.

General Remarks for the monsoon area:—During the month of August the weather was quiet and pressure generally high over the Mediterranean area. One or two depressions formed to the west of Italy, but passed away to the north-east. In Egypt the pressure was generally slightly above the normal, the excess being greatest in the Sudan. There was, however, a slight fall a out the middle of the month. Continuous fine weather prevailed and the wind directions were normal throughout—from north and north-west in Egypt and from south-west in the Sudan. The rainfall was *Nil* in Egypt as is usual during August. In the Sudan the good rainfall of July fell off from the beginning of August at many stations and some places had practically no rain. In Abyssinia, judging by the Blue Nile gauges, the defect must have been great as the river fell 2 metres at Roseires between the 1st and 13th of August. Normally the August rainfall is heavier than that of July, but in the season under review the Abyssinian and eastern Sudan rains were markedly short and as a consequence the Nile gauge readings at Wadi Halfa were below the average.

Further to the eastward over Asiatic Turkey, Persia and as far east as Afghanistan and Baluchistan the weather was very quiet and even the small normal rainfall was not received. In Kashgaria also there was no rain during the month, though at Kashgar the normal fall during August is 1·10." In western Siberia pressure gave way quickly and was below the normal on the 2nd, the 8th, 9th and 10th, the 12th to the 15th, the 18th to the 20th, and the 29th to the 31st, while the rainfall and unsettled weather during the month in further Kashmir occurred on the 2nd and 3rd; the 9th and 10th; the 12th to 14th; the 19th to the 21st and the 28th to the 31st. There was thus a certain amount of correspondence between the occurrence of unsettled weather over the inner Kashmir Himalayas and the pressure changes over western Siberia.

The following table gives the daily departures of pressure from the normal for certain selected stations in the monsoon area and the mean of the whole number:—

DEPARTURE FROM NORMAL.

DATE.	Calcutta.	Madras.	Colombo.	Bombay.	Lahore.	Bushire.	Aden.	Zanzibar.	Seychelles.	Whole.
1	+·044	—·067	—·051	—·032	+·053	+·008	+·040	+·029	+·011	+·004
2	+·063	—·044	—·014	—·043	+·046	+·020	+·014	+·022	+·037	+·011
3	+·080	+·024	+·022	—·013	+·101	—·018	+·017	+·056	+·059	+·036
4	+·008	—·003	+·011	—·038	+·008	—·001	+·028	+·031	+·043	+·010
5	—·029	—·019	—·006	—·038	—·072	—	+·077	+·011	+·040	—·005
6	+·005	—·012	+·013	—·031	—·061	+·035	+·063	—·002	+·032	+·005
7	+·028	+·024	+·026	—·012	+·092	+·014	+·027	+·026	+·042	+·030
8	+·087	+·050	+·075	+·008	+·058	+·007	+·021	+·059	+·041	+·045
9	—·006	—·024	+·028	—·014	—·047	—·035	+·060	+·044	+·035	+·010

DEPARTURE FROM NORMAL.

DATE.	Calcutta.	Madras.	Colombo.	Bombay.	Lahore.	Bushire.	Aden.	Zanzibar.	Seychelles.	Whole.
10	—·070	+·003	+·030	—·035	—·103	—·019	+·007	—·006	+·024	—·019
11	—·048	+·027	+·028	+·004	—·058	+·063	+·007	+·022	+·043	+·010
12	—·104	—·017	+·037	+·021	0	+·052	+·034	+·059	+·053	+·015
13	—·239	—·016	+·020	+·002	—·025	+·014	+·016	+·047	+·004	—·020
14	—·056	—·015	+·013	—·008	+·020	+·052	+·006	+·019	—·015	+·002
15	+·020	+·023	+·047	—·002	+·007	+·052	+·042	+·013	+·025	+·025
16	+·047	+·064	+·056	+·062	—·021	+·065	+·045	+·035	+·039	+·044
17	—·047	—·003	—·002	+·039	—·142	+·033	+·036	+·032	—·003	—·006
18	—·056	—·006	0	+·010	—·124	—·001	+·048	+·007	—·007	—·014
19	—·042	—·012	—·004	+·018	—·063	0	+·007	+·001	+·001	—·008
20	—·060	+·031	+·019	+·022	—·014	—·016	—·003	+·001	—·009	—·003
21	—·161	+·011	+·010	+·059	+·022	+·001	+·017	+·012	—·006	—·004
22	—·045	+·007	+·014	+·053	+·015	+·024	+·036	+·022	0	+·015
23	+·036	—·003	+·007	+·051	+·038	+·020	+·014	+·025	0	+·021
24	+·035	—·001	+·010	+·047	—·021	+·036	+·033	+·046	+·034	+·024
25	+·043	—·002	+·006	+·043	+·015	+·084	+·014	+·019	+·015	+·026
26	+·006	+·005	—·018	+·004	—·043	+·002	—·072	—·025	—·019	—·018
27	—·011	+·007	+·014	+·028	—·020	—·042	—·092	—·004	—·007	—·013
28	—·001	+·042	+·054	+·095	+·009	+·042	—·012	—·022	+·020	+·024
29	—·021	+·061	+·059	+·095	—·057	+·116	+·104	+·003	+·032	+·044
30	—·056	+·039	+·052	+·037	—·091	—·015	+·014	—·015	+·015	—·002
31	—·037	+·057	+·074	+·029	—·079	—·045	—·011	—·003	+·017	+·001

The above shows that pressure was generally above the normal from the 1st to the 16th. From the 17th to the 21st there was a slight deficiency, after which, from the 22nd to the close of the month, pressure was again generally in excess. These conditions appear to have extended as far as the Nile valley, where it is stated pressure fell somewhat in middle and upper Egypt during the middle of the month, but rose towards the end.

In the south-east trade wind region meteorological conditions were as follows:—

August.	Mauritius.	Zanzibar.	Seychelles.
Pressure departure	+·033	+·025	+·019
Actual mean wind direction	S77°E	S5°E	S28°E
Normal mean wind direction	S68°E	S9°E	S33°E
Actual mean wind velocity (miles per diem).	236	164	341
Normal mean wind velocity (miles per diem).	256	166	325
Rainfall departure	—1·65	—1·57	+1·37

The above shows that there was some excess of pressure over this region, the amount of the excess decreasing northwards. The wind direction was nearly normal, though there was slightly more easting at Mauritius and slightly more southing at Zanzibar and the Seychelles than is usually the case. The velocity was below the normal at Mauritius, normal at Zanzibar and above at the Seychelles, while the rainfall was in defect, except at the Seychelles.

For the Indian Seas no information is available as to the mean direction of the winds, but the departures of the mean force from the normal were as follows:—

August.	Arabian Sea.	Bay of Bengal.
Mean force (Beaufort scale) . . .	4·0	4·1
Normal force (Beaufort scale) . .	4·3	4·0

The wind, on the mean of the month, was weaker than usual over the Arabian Sea and stronger than usual over the Bay.

The following table shows the daily abnormal features of the pressure and wind conditions so far as they are known and the mean daily rainfall departures over India derived from the records of the meteorological observatories:—

Day of month, August.	Diurnal departure of pressure gradient from normal between Mauritius and Seychelles.	Diurnal departure of pressure gradient from normal between Seychelles and Bombay.	Easterly deflection of wind at Mauritius.	Easterly deflection of wind at Seychelles.	Departure of hourly wind velocity at Mauritius	Departure of daily wind velocity at Seychelles.	Departure from normal of wind force in the Arabian Sea.	Departure from normal of wind force in the Bay of Bengal.	Mean rainfall departure of India.
	"	"			Miles.	Miles.	Miles.	Miles.	Inch.
1	+·048	+·087	+4	—57	+4·1	+83	+0·1	—0·3	—0·16
2	+·044	+·109	+14	—9	+6·7	+102	—0·1	—0·4	0
3	+·080	+·084	+12	—33	+1·6	—6	—0·4	0	+0·05
4	+·015	+·121	+1	—9	—2·3	+23	—0·1	0	—0·07
5	—·052	+·105	—2	—33	—5·4	+35	+0·3	—0·1	—0·03
6	—·081	+·082	+13	—33	—4·2	—75	+0·1	—0·1	+0·04
7	—·057	+·069	+23	—57	—4·8	—7	+0·6	—0·3	+0·13
8	—·010	+·062	—3	—33	—4·0	—40	+0·2	+0·4	+0·01
9	—·022	+·062	+19	—9	—2·3	—59	+0·2	+0·5	+0·02
10	—·001	+·052	+21	+12	—1·3	—45	—0·2	+0·7	—0·03
11	+·027	+·043	+26	+12	+2·2	—71	+0·1	+0·6	+0·06
12	+·054	+·063	+10	+12	+2·9	—30	—0·3	+1·3	—0·06
13	+·074	+·017	+1	—9	—1·2	+63	0	+1·5	—0·10
14	+·033	+·004	+12	—9	—3·9	+96	—0·1	+1·0	—0·14
15	+·022	+·003	+13	—33	—3·4	—13	—0·2	+0·7	—0·70
16	+·013	—·020	+9	...	—4·1	+25	—0·1	+0·1	—0·16
17	+·046	—·025	0	—9	—2·7	+14	—0·1	—0·5	—0·16
18	+·010	—·013	+2	—9	—1·6	+53	—0·3	+0·1	—0·04
19	—·011	—·025	+3	—33	—3·7	+28	—0·6	—0·1	—0·10
20	+·009	—·055	+15	+12	—2·5	—18	+0·2	+0·1	—0·02
21	+·010	—·069	+20	—9	—4·2	+23	+0·1	+0·2	—0·06
22	+·027	—·063	+28	+12	+0·7	+56	—0·6	—0·2	—0·06
23	+·048	—·051	+11	—9	+1·7	—10	—1·0	—0·6	+0·02
24	+·039	—·020	+4	+12	+0·4	—36	—1·0	—0·9	—0·19
25	+·071	—·039	—2	+12	—2·1	+29	—0·8	—0·6	—0·18
26	+·041	—·047	+6	+12	—0·3	—26	—1·0	—0·3	—0·17
27	—·010	—·057	+11	—57	—3·8	—35	—0·6	+0·1	—0·19
28	—·027	—·104	+10	—9	—4·7	—6	—0·8	—0·1	—0·11
29	—·011	—·075	—4	+12	—2·8	—62	—1·6	+0·3	—0·16
30	+·029	—·038	—2	+12	—1·4	—44	—1·0	+0·3	—0·11
31	+·057	—·042	+7	+12	—1·6	+21	—0·9	0	—0·08

The above data show that rainfall of India was normal or below the normal between the 1st and the 5th, during which interval the pressure gradient was steeper than usual over the equatorial belt and the Arabian Sea and the winds stronger than the normal in the south-east trades region, but lighter than usual over the Indian seas. Between the 6th and the 11th there occurred the only heavy burst of rain over India. During this interval the pressure gradient was greater than usual over the Arabian Sea, but generally less than usual over the equatorial belt, where also the winds were below the normal. On the other hand, the winds were generally slightly above the average over the Indian seas. From the 12th onward the rainfall was below the normal over the Indian area. During the greater part of this period the pressure gradient exceeded the average over the equatorial belt and was less than usual over the Arabian Sea. The velocity of the south-east trade winds and the force of the south-west monsoon over the Bay of Bengal varied irregularly from the normal, while the force of the south-west monsoon over the Arabian Sea was almost continuously below the normal.

Magnetic and Solar Disturbances.

Solar observations, August, 1904.

SOLAR PHYSICS OBSERVATORY, KODAIKANAL.

August was, on the whole, a favourable month for solar observations. The sun was visible every day for a long enough period to permit of the examination for spots and faculæ, and there were only two days, the 4th and 31st, on which it could not be projected. There were 21 days fine enough for prominence observations.

There was a considerable increase in the number of new groups appearing, as 24 appeared in August against 15 in July and 12 in June, but of these nearly one-half were small and temporary, not lasting more than three days. During the first three weeks of the month the only groups of any importance were No. 321, which was seen first on July 21st, and No. 326, which appeared at the eastern limb on August 5th—both were scattered groups of small spots with no large nucleus. From the 17th to the 23rd the daily spotted area was very small, but on the 22nd there appeared the first small spots of a large group (No. 339), the whole of which came into sight next day, and this was followed by a series of similar groups in almost the same latitude (14° to 21° S.), till on the 30th there was a series of four large groups extending nearly across the sun's disc. The leader of these was the largest and contained one large irregularly-shaped spot and a number of smaller spots. There were during the month an equal number of spots in the northern and southern hemispheres, but almost all the most important groups were southern ones. The spot zones in both hemispheres lay between latitudes 9° and 24°.

Most of the groups showed the C line of hydrogen reversed at one time or another, and several displacements of the dark C line were observed. On two days, the 9th and 27th, these displacements were large. On the 9th at 9 A.M., in spot 329, the dark C line was observed to be suddenly displaced to an extent indicating an approaching velocity of about 100 miles per second. This disturbance lasted for only 8 minutes. On the 27th, at a point in the sun's south-west quadrant, where there was no visible spot, a very striking disturbance was observed. At 8 hours 45 minutes the dark C line was displaced to an extent showing an approaching velocity of about 200 miles per second. Soon after a slight displacement was observed in the opposite direction, and by 9 hours 20 minutes the whole disturbance had ceased. In the same region, though perhaps not exactly at the same point, slight reversals of the C line were observed. There was no magnetic disturbance on that day. Faculæ were, as usual, observed in connection with all spots near the limb and in some other cases. A few were observed with a greater latitude than 30°.

No very large or tall prominences were observed during the month. Two metallic prominences were seen, in which the sodium and magnesium lines were very bright. One of these was on August 5th at 10 hours 15 minutes and was in latitude 21° north. The other was on the 9th at 9 hours 10 minutes in latitude 14° south. On the 24th a prominence at latitude 18° north showed strong displacement towards the red end of the spectrum.

There were no large magnetic disturbances during the month, but several of the minor ones seemed to be connected with spot groups near the central meridian.

C. Michie Smith, *Director,*

Kodaikanal and Madras Observatories.

Note on the Colaba Magnetic record.

Colaba Observatory, Bombay:—During the month the traces showed 13 calm days, 16 days of small and 2 days of moderate disturbances.

The selected quiet days of the month were the 8th, 12th, 14th, 19th and 25th.

The mean observed absolute values of the several elements, as also the ranges and summed ranges of the Horizontal Force and Declination for the month were as follows:—

Declination	0° 12′ 43″ E.
Horizontal Force	0·37408 C. G. S. unit.
Dip	21° 48′·5.
Horizontal Force range	·00043 C. G. S. unit.
Horizontal Force summed range	·00277 C. G. S. unit.
Declination range	5′·11.
Declination summed range	20′·43.

(Summed range means sum without regard to signs of 24 ordinates of diurnal inequality.)

Five seismic disturbances were recorded during the month on the 9th, 18th, 25th, 28th and 30th, the amplitudes of the two largest being 4·1 m.m. on the 28th, and 3·4 m.m. on the 30th.

The following is the daily record of magnetic disturbance:—

August, 1904.		August, 1904.		August, 1904.	
1	C.	11	S.	21	S.
2	S.	12	C.	22	S.
3	M.	13	C.	23	S.
4	M.	14	C.	24	C.
5	S.	15	S.	25	C.
6	S.	16	S.	26	C.
7	C.	17	S.	27	C.
8	C.	18	S.	28	C.
9	C.	19	C.	29	S.
10	S.	20	S.	30	S.
				31	S.

The Magnitudes of the disturbances are determined from Horizontal Force traces.

C = Calm; S = Small; M = Moderate; G = Great; V G = Very great. Days are reckoned from mid-night to mid-night.

N. A. F. Moos *Director,*

Government Observatory, Bombay.

Alipore Calcutta Observatory:—List of displacements recorded by the Seismograph at the Alipore Observatory during August 1904.

Number.	Date. 1904.	P. T. Commencement. G. M. T.	L. W. Commencement.	Maxima. G. M. T.	End. G. M. T.	Maxm. Amplitude in m. m.	Duration.	REMARKS.
		H. M.	H. M.	H. M.	H. M. 9-8-04		H. M.	
	Aug. 8	23-11·5	23-57·7	23-58·8	0-19·1	0·75	1-7·6	
	„ 24	7-9·2		7-29·6	8-10·2	2·50	1-1·0	Sensibility
		21-8·5		21-25·8	22-46·1 28-8-04	?	1-37·6	1 m. m. =0″·38 of tilt.
	„ 27	22-9·3	22-19·5	22-42·9	1-53·5	6·00	3-44·2	
	„ 30	11-49·5		11-52·6	13-19·0	17·50	1-29·5	

The local times of the commencement.

Date, 1904.	H. M.
August 9th	5-4·8
„ 24th	13-2·5
„ 25th	3-1·8
„ 28th	4-2·6
„ 30th	17-42·8

G. W. Küchler,

Asstt. Meteo. Reporter to the Govt. of India.

Royal Alfred Observatory, Mauritius, August, 1904:—

The magnetic disturbances recorded during August were as follows:—

Day.	Hours.	Disturbances.
2	4 to 18	Long waves in H. F. (+·000400) with superposed fluctuations and waves 6 hours to 8½ hours (—·000250) 8¾ hours to 10 hours (—·000122) 12 hours to 14½ hours (+·000192).
3	17¾ to 18	Increase of H. F. (·000192); 18 hours to 20¼ hours decrease of H. F. (·000710); 20¼ hours to 21½ hours increase of H. F. (·000394).
4	4 to 6½	Wave in H. F. (+·000294). Small fluctuations in H. F. from 3rd 20 hours to 4th 6 hours; occasional small fluctuations in Declination.
8	8½ to 13	Wave in H. F. (—·000288). Diurnal westerly wave in Declination larger than usual on August 7th and 8th.
18	2¾ to 4¾	Wave in H. F. (+·000224) followed by small fluctuations 18th 9 hours.
22	9½ to 10	Decrease of H. F. (·000128).
22	10½ to 22	Long double wave in H. F. (+·000288 to ·000192).
23	8 to 13	Wave in H. F. (—·000224).
28	11 to 16	Wave in H. F. (+·000342).
29 to 30	18 to 23	Small fluctuations in H. F. 30th 1 hour to 4 hours wave in H. F. (—·000144); 4 to 7½ hours wave in H. F. (—·000192). 7½ hours to 31st 11 hours long wave in H. F. (—·000768) with superposed wave; 30th 16¾ hours to 20½ hours (+·000256). Small superposed fluctuations from 30th hour to 19 hour.

Sunspots:—Solar photographs were taken on every day of the month, except August 21st, when the weather was cloudy. Spots were, however, observed on every day. The largest group appeared on the eastern limb on the 23rd, steadily developing as it approached the meridian. The principal spot was largest on the 28th. Faculæ were observed on every day throughout the month.

T. F. Claxton, *Director*,

Royal Alfred Observatory, Mauritius.

Atmospheric Pressure.

The mean 8 A. M. pressure of the Indian land area for the month of August was about the average, the mean departure from the normal having been + ·002″. There had thus been an increase in the general pressure since the preceding month of ·014″ as the mean departure of July, 1904, was —·012″.

The actual mean pressure of the month of August, 1904, is shown on Plate I. Pressure was highest in Malabar and west Ceylon and was lowest over the south-west Punjab. The position of the monsoon arm of low pressure over the Gangetic plain was about the normal, but within this arm there existed a small area of abnormally low pressure in the neighbourhood of Cawnpore and Lucknow. The mean actual pressure was somewhat higher than usual over Malabar and somewhat lower than usual over the south-west Punjab, so that barometric gradients were steeper than the average.

The mean pressure of the month was higher than usual over Ceylon, the Peninsula, Gujarat, lower Sind, west of Central India and Rajputana and was lower than usual elsewhere. The relative deficiency over the Punjab did not extend westward into Baluchistan, where, on the contrary, pressure was in excess of the average, but the deficiency re-appeared over Asiatic Turkey, where the mean barometer was in trifling defect.

Relatively to the geographical mean, pressure, on the mean of the month, was in excess over the Peninsula, Gujarat, lower Sind, Rajputana and the west of Central India and was in defect over other parts of the Indian land area. The departures were generally moderate or small,

but amounted to or exceeded 0·020″ at the following stations :—

Positive departures.		Negative departures.	
Stations.	Pressure departure from normal.	Stations.	Pressure departure from normal.
	″		″
Mercara	+·029	Sibsagar	—·028
Chanda	+·028	Chittagong	—·023
Bhuj	+·025	Berhampore	—·022
Indore	+·024	Darbhanga	—·022
Karwar	+·024	Akyab	—·020
Nagpur	+·023		
Amraoti	+·023		
Akola	+·022		
Surat	+·021		
Trivandrum	+·021		
Colombo	+·020		
Cochin	+·020		
Pamban	+·020		

At all the Himalayan hill stations, except Simla, the mean pressure was lower than usual by small amounts, while at the central and southern hill stations it was higher. The departures from the normal were hence similar in character at the level of the hills to those on the neighbouring plains, and, except in the Baluchistan—Sind region, the vertical pressure anomalies were small and unimportant. The following gives data for ten pairs of stations :—

Hill Station.	Departure from normal pressure, August, 1904.	Plain Station.	Departure from normal pressure, August, 1904.	Vertical pressure anomaly (Hill—Plain).
	″		″	″
Quetta	+·035	Jacobabad	—·010	+·045
Leh	—·001	Lahore	—·018	+·017
Murree	—·008	Peshawar	—·001	—·007
Simla	+·009	Ludhiana	—·011	+·020
Chakrata	—·007	Roorkee	—·006	—·001
Ranikhet	—·016	Bareilly	—·011	—·005
Darjeeling	—·009	Dhubri	—·014	+·005
Mount Abu	+·008	Deesa	+·017	—·009
Pachmarhi	+·015	Khandwa	+·012	+·003
Wellington	+·013	Coimbatore	+·017	—·004

The following summarises the chief abnormal features of the pressure distribution of the month :—

(1) The mean pressure was in slight excess over the Peninsula and the southern half of north-west India.

(2) The mean pressure was in slight defect over the Punjab, north-east India and Burma.

(3) The mean departure of the whole area was +·002″.

(4) The vertical pressure anomalies were generally slight and unimportant.

Barometric depressions and cyclonic storms of the month.

The weather was generally quiet over the Indian seas during August, but slight or small depressions formed at different times during the month over the head of the Bay and adjacent coasts or over the Gangetic plain. The following gives a brief account of these disturbances :—

Shallow land-formed depression of the 6th to 8th :—Between the 5th and 6th the monsoon trough of low pressure over the Gangetic plain was displaced southward, permitting of a flow of easterly winds up the Gangetic plain, while south-westerly winds continued at Jhansi, Nowgong, and over the Central Provinces. The interaction between these two currents resulted in the development of a feeble depression, which was shown over the region represented by the stations of Lucknow, Cawnpore, Nowgong, Sutna and Allahabad on the morning of the 7th. The reports of the 8th showed that the depression had extended eastward into Bihar, but that it was filling up. By 8 A. M. on the 9th it had practically disappeared.

Slight cyclonic storm of the 11th to 16th :—On the morning of the 10th pressure was giving way briskly over and around the head of the Bay, but the winds were blowing from the normal directions, a strong south-westerly wind being reported from Saugor Island. On the following morning, the 11th, pressure was apparently uniform over the Bay, north of Lat. 18° N, but the barometer was falling slowly and the winds had drawn into cyclonic directions. The reports of the 12th showed that the barometer had continued to fall over the north of the Bay, and that the cyclonic circulation of the winds on the surrounding coasts was better defined, but that in other respects no important change had occurred. The log of the F. L. V. *Torch* at the Sandheads shows that the weather was as follows at

the head of the Bay during these two days:—"11th a long quick south swell, wind veering between north, north-west and west. Sky overcast with light to moderate rain and threatening cyclonic appearance to south. During the night lightning to south-west, south-east and north-west; 12th commenced with fresh north-east breeze and threatening appearance to south-east. All through the day passing rain squalls, wind veering between west and north. During the night continuous vivid lightning to south, south-east and north-west. Between 8-30 and 9 P. M. fresh to strong northerly breeze and clear all round horizon and over head." Between 8 A. M. of the 12th and the same hour of the 13th the barometer fell very rapidly over the head of the Bay and a moderate cyclonic storm had developed within the area of uniform pressure noticed on the two preceding days. The following gives 8 A M. data for the stations at the head of the Bay for the 13th:—

Station.	Pressure.			Wind		Cloud.	Rainfall.	Remarks.
	8 A. M reduced to sea-level and constant gravity at Lat. 45°.	Change in past 24 hours.	Departure from normal.	Direction at 8 A. M.	Average hourly velocity in miles during past 24 hours.			
	"	"	"				Inches	
Akyab	29·591	+·072	−·095	SSW	4	10	2·61	Showery.
Cnittagong	·531	+·031	−·118	SE	10	9		Thunder.
Barisal	·450	−·042	−·145	SSE	6	8	0·92	Dust storm.
Jessore	·442	−·045	−·147	SE	6	10	0·66	Raining.
Calcutta	·333	−·131	−·239	ENE	5	8	0·14	
Saugor Island	·197	−·247	−·380	NNE	13	10	0·36	Showery.
Balasore	·334	−·137	−·232	NW	3	10	1·25	Raining.
False Point	·407	−·079	−·174	WSW	10	10	1·07	
Cuttack	·414	−·092	−·165	WSW	4	10	1·34	Drizzling.
Gopalpur	·492	−·030	−·086	SW	13	10	0·67	
F. I. V. *Torch*	...	−·150	...	W	8 to 9*	10	...	Passing heavy rain squalls.

*Force.

The barometer had thus fallen nearly one quarter of an inch at Saugor Island, where pressure was 0·38″ below the normal. There was a well-marked circulation of the winds around the storm, but the velocity was not very high. On board the *Torch* the wind in the early morning was northerly with heavy rain squalls. At sunrise the wind was inclined to veer towards north-west and the barometer was lowest at 6 A.M. At 8 A.M. there was a fresh westerly and at noon a fresh south-west gale, so that the centre of the disturbance apparently passed the Sandheads between 6 A.M. and 8 A.M. Moderate to strong gales were reported by the ships traversing the Bay on this day.

The reports of the next day, the 14th, showed that the depression from the head of the Bay had advanced west-north-westward and was central over Chota Nagpur and surrounding districts. The storm had decreased considerably in intensity, the largest deficiency of pressure having been 0·161″ at Ranchi. There was a fairly distinct, though light, circulation of the winds around the central area, but the strongest winds were reported from the head of the Bay, where, at Saugor Island, the velocity at 8 A.M. was at the rate of 32 miles per hour. The storm had reached the neighbourhood of Allahabad by the morning of the 15th and the greatest deficiency of pressure was 0·148″, so that the intensity of the disturbance was little changed. Heavy rain was falling in the southern quadrants of the storm. The storm continued to progress north-westward and the centre lay near Cawnpore, where the barometer marked 0·073″ below the normal on the morning of the 16th. In this position the storm filled up.

The following table shows the positions and movements of the storm from the 13th to the 16th:—

Date.	Position of centre at 8 A. M.				Distance travelled during interval.	Average hourly rate of motion.
	Lat. N.		Long. E			
	°	′	°	′	Miles	Miles.
13th August	21	27	88	03	—	—
14th "	22	50	85	05	212	9
15th "	24	55	81	50	258	11
16th "	25	55	80	15	118	5

Slight cyclonic storm of the 19th to the 25th:—On the morning of the 18th the barometer was steady with a slight downward inclination over the head of the Bay, but the winds were steady from the southward and exhibited no cyclonic tendency. On the 19th the barometer was rising generally, but the rise was less at the head of the Bay than in other parts of the Indian area and a slight depression was beginning to form over the Sunderbuns and the head of the Bay. The winds in the neighbourhood had taken up a feeble cyclonic circulation and rain was falling fairly generally over the greater part of Bengal. The depression intensified slowly during the day, but without moving, and the centre was apparently close to Saugor Island, where the barometer marked 0·123″ below the normal at 8 A.M. on the 20th. A moderate cyclonic circulation of the winds prevailed over Bengal and the north of the Bay and rain was general in the neighbourhood of the storm. The storm hardly moved during the day and at 8 A.M. on the 21st the centre was still close to Saugor Island. The storm had, however, intensified and at Saugor Island the barometer marked 0·214″ below the normal. The winds exhibited a well-marked circulation around the depression and general, though not very heavy, rain was falling in the neighbourhood of the storm. During the day the

storm crossed the coast and travelling in a north-westerly direction was central over Chota Nagpur and south Bihar at 8 a.m. on the 22nd, the greatest depression of the barometer was 0·154″ at Hazaribagh, so that the storm was of less intensity than on the preceding day. The rain in the neighbourhood of the storm was, however, heavier. The depression advanced in a west-north-westerly direction during the day and at 8 A.M. on the 23rd was central near Cawnpore. The depression had continued to decrease in intensity, but a good deal of heavy rain was reported in its neighbourhood. At 8 A.M. on the 24th the storm lay near Agra, having continued to advance in a north-westerly direction. Rain was becoming lighter and more restricted and by the following morning, the 25th, the storm had almost filled up, only a small residual depression being shewn. The following shows the positions and rate of movement of the depression between the 19th and the 24th:—

Date.	Position of Centre at 8 A.M.		Distance travelled during interval.	Average hourly rate of motion.
	Lat. N.	Long. E.		
	° ′	° ′	Miles.	Miles.
19th August .	21 27	88 03	—	—
20th „ .	21 27	88 03	0	0
21st „ .	21 27	88 3	0	0
22nd „ .	23 25	84 30	266	11
23rd „ .	25 15	80 40	275	11
24th „ .	26 55	78 05	200	8

A shallow depression appeared over the north-west of the Bay and neighbouring land areas on the morning of the 25th. It hung about this region until the 29th, when it filled up and was never of any consequence or intensity.

Summary of the Reports of the weather and snowfall in the Mountain Districts to the North and North-West of India.

I.—Kashmir and Punjab Himalayas.

Kashmir,—The observer at Minimarg reported that snow fell down to about 12,500 feet during the last week of August.

(2). *Simla:—Bashahr Forest Division.*—No snow fell during the month. The following were the depths of snow on the various passes:—

Rupan Pass	4 feet.
Bruin „	4 „
Harang „	*Nil.*
Shatul „	3 feet.
Buldar „	4 „
Runang „	*Nil.*

All the passes were open at the end of the month.

II.—United Provinces Himalayas.

Almora.—The snowfall reports are as under:—

		ft.	ins.
Malla Johar	1st to 16th . . .	2	0
	17th to 31st . . .	4	0
Byans	13th	1	0
	22nd	0	6
Malla Danpur		*Nil.*	

The following was the depth of snow on the various peaks and passes at the end of August:—

	ft.	ins.
Unt dhura	3	0
Ralam dhura	1	6
Martoli dhura	1	0
Millam Range	1	6
Lipu Pass	4	6
Nirwe „	6	0
Limba „	7	4

The snowfall was less than in the previous year.

Summary of Special Storm Reports.

The following notices of storms have been received from the meteorological observers during the month:—

August 2nd.—A severe gale of wind with drizzling rain was experienced at Dras between 2 P.M. and 3 P.M.

A thunderstorm with light rain prevailed at Srinagar between 11 A.M. and 1 P.M.

„ *4th.*—A thunderstorm with heavy showers was experienced at Lahore between 2 P.M. and 4-20 P.M. The rainfall (1·00″) was very local, as two miles away from the observatory, at Anarkali, only light drizzling rain was received.

August 10th.—Duststorms with rain were experienced at Dras between 1-30 and 2 P.M. and again between 4-30 and 6 P.M. The storms came up from west and north-west.

„ *11th.*—A thunderstorm passed over Gulmarg between 2 P.M. and 6 P.M. The rainfall measured 0·90.″

„ *13th.*—Disturbed conditions prevailed at the upper Gasper Light Vessel with showers and lightning.

„ *14th.*—A severe thunderstorm passed over Srinagar between 4 A.M. and 7 A.M. Light rain fell. Another wind storm occurred between 2 P.M. and 6 P.M.

August 20th.—A thunderstorm with drizzling rain was experienced at Gulmarg between 10 P.M. of 20th and 3 A.M. of 21st.

" *21st.*—Squally disturbed weather prevailed at the upper Gasper Light Vessel. At 11-10 A.M. a squall from north-east, force 10, was experienced. A water spout lay close to the ship travelling to north-west at a great rate. A thunderstorm with rain passed over Srinagar between 2 A.M. and 5 A.M.

" *22nd.*—A thunderstorm and a severe gale of wind were experienced at Gulmarg between 3 P.M. and 9 P.M. Light rain fell at 5 P.M.

" *25th.*—A thunderstorm coming up from south passed over Kalabagh (Chur Peak) between 3-45 A.M. and 5-15 A.M. The rainfall measured 2·80 inches.

August 29th.—A severe gale of wind with heavy rain was experienced at Raipur between 8-30 and 9-45 P.M.

A thunderstorm and a gale of wind were experienced at Gulmarg between 11 P.M. of the 29th and 4 A.M. of 30th. Very light rain fell.

" *30th.*—A thunderstorm was experienced at Srinagar between 2 A.M. and 4 A.M.

Earthquake Report.

A slight shock of earthquake was felt at Gulmarg at 1-13 P.M. (Madras time) on the 17th August and lasted about 3 seconds. There was no damage.

Brief Summary of the weather in the Arabian Sea and Bay of Bengal during the month.

Arabian Sea:—South-westerly winds prevailed over the Arabian Sea as far east as Long. 68°E. and westerly winds from Long. 68°E. to the coasts of India from the 1st to the 9th. Between the 10th and the 13th the wind was south-westerly and west-south-westerly throughout practically the whole sea, but on the 14th westerly and west-north-westerly winds re-appeared in the east of the sea and continued till the 24th. On the 25th the wind fell lighter and over the east of the sea calms and variable winds prevailed till the 30th. On the 31st westerly winds were re-established. Over the west and centre of the sea south-south-westerly and south-westerly winds prevailed steadily throughout the month. In the Persian Gulf and the Gulf of Aden the wind directions were variable or between south and east.

The mean force of the wind for the whole month was 4·0, the normal force being 4·3. The force exceeded the normal on the 1st, from the 5th to the 9th and on the 11th, 20th and 21st, and was normal or below the normal at other times. The force was lowest on the 29th, when the average for the whole sea was only 2·7. The decrease of force after the 21st was very marked.

The following steamer reports have been received referring to the weather over the Arabian Sea during the month:—

The *Victoria* left Aden on the 1st and experienced up to Long. 52° E. moderate to light variable winds and considerable confused swell; thence to Long. 67° E. a fresh to strong monsoon, cloudy weather and high sea and swell; thence to arrival at Bombay on the 6th moderate to fresh south-westerly and westerly winds, cloudy weather, occasional light showers and considerable sea and swell.

The *Bengal* left Aden on the 8th and experienced up to Long. 52° E. light variable winds and a south-east swell; thence to Long. 67° E. a fresh to strong monsoon, cloudy weather, heavy dew and high sea and swell; thence to arrival at Bombay on the 13th a moderate monsoon, cloudy weather and moderate sea.

The *Caledonia* left Aden on the 15th and experienced up to Long. 54° E. light variable winds and southerly swell; thence to Long. 64° E. a moderate to fresh monsoon occasionally blowing strongly and high sea and swell; thence to arrival at Bombay, on 20th, a moderate to gentle monsoon, cloudy weather and high, but decreasing sea and swell.

The *Victoria* left Aden on the 22nd and experienced up to Long. 52° E. light variable winds and southerly swell; thence to Long. 60° E. a moderate to strong monsoon and considerable sea and swell; thence to arrival at Bombay on the 27th a moderate to gentle monsoon, passing clouds and moderate sea and swell.

The *Oriental* left Aden on the 29th and experienced up to Long. 52° E. light southerly and easterly winds and south-east swell; thence to Long. 69°E. a moderate to fresh monsoon, considerable sea and swell and occasional passing showers; thence to arrival at Bombay, on 3rd September, a moderate to light monsoon and moderate decreasing sea.

The preceding extracts show that a strong monsoon prevailed as far east as Long. 67° E. up to the 10th of August; by the 17th of August the limits of the strong monsoon had retreated westward to Long. 64° E. and by the 24th of August to Long. 60° E., while by the 31st the monsoon was no longer strong in any part of the sea.

Bay of Bengal:—Winds were unusually southerly over the Bay area between the 1st and the 4th, but thereafter southerly and south-south-westerly winds set in and continued till the 16th. On the 17th and 18th the wind's direction was abnormally westerly, while on the 19th, 20th and 21st the directions were modified by the presence of a cyclonic storm at the head of the Bay. During the 23rd and 24th the winds were somewhat variable and generally light, while between the 25th and the close of the month the winds blew from about the normal directions over the south and centre of the Bay and were variable or irregularly cyclonic in the north.

The mean force of the wind for the month for the whole Bay was 4·1, the normal being 4·0. The mean force exceeded the normal between the 8th and the 16th, on the 18th, the 20th and 21st, the 27th and 29th and 30th and was greatest, 5·5, on the 13th. At other times the mean force was normal or below the normal and was lowest, 3·1, on the 24th.

Equatorial Belt.—Ordinary south-east trade winds prevailed over the west of the belt between the 1st and the 4th, but on the 5th the direction veered to south and south-west and so continued till the 9th. Ordinary south-east winds again set in on the 10th and prevailed more or less continuously till the close of the month.

Temperature of the Air.

The temperature conditions of the month of August were generally similar to those of the previous July, but the rainfall of the month under review was somewhat less heavy over Bengal and the Gangetic plain than that in July and the depression of temperature in that area somewhat less marked.

The mean maximum or day temperature ranged below the normal over the east of the Punjab, the east of Rajputana, the United Provinces, the west of Bengal, Orissa, the east and north of the Central Provinces and the greater part of Central India. The deficiency within this area was generally moderate or small, but exceeded 2° at the stations for which comparative data are given below :—

Station.	Mean maximum temperature.		
	Actual, August, 1904.	Normal, August.	Departure from normal, August, 1904.
	°	°	°
Jaipur	87·9	91·6	−3·7
Nowgong	84·9	87·9	−3·0
Sambhar	88·4	91·3	−2·9
Agra	88·3	91·1	−2·8
Jhansi	86·2	88·9	−2·7
Neemuch	82·5	85·0	−2·5
Ajmer	85·7	88·2	−2·5
Delhi	89·4	91·8	−2·4
Mainpuri	88·5	90·8	−2·3

The mean maximum temperature was also lower than usual over a considerable part of Burma, over the extreme south of the Peninsula and west Ceylon, and over the north of the North-west Frontier Province and the adjacent districts of the Punjab. In these areas, however, the deficiency was generally unimportant and amounted to 2° only at Mandalay (−2°·1).

Over the whole of the remainder of the Indian region the mean day temperature of the month exceeded the average The excess was most marked within a broad band which extended from the south Punjab, western Rajputana and Sind south-eastward through Gujarat, Khandesh, and the Deccan to the Madras coast. Within this band the excess amounted to 2°·5 or more at the stations for which comparative data are given below :—

Station.	Mean maximum temperature.		
	Actual, August, 1904.	Normal, August.	Departure from normal, August, 1904.
	°	°	°
Deesa	93·7	88·9	+4·8
Cuddapah	97·7	93·7	+4·0
Malegaon	90·0	86·6	+3·4
Jacobabad	107·0	103·8	+3·2
Hyderabad (Sind)	98·6	95·5	+3·1
Sholapur	91·9	88·8	+3·1
Multan	103·7	100·7	+3·0
Rajkot	91·9	88·9	+3·0
Ahmedabad	93.1	90·1	+3·0
Khandwa	88·5	85·5	+3·0
Raichur	91·3	88·5	+2·8
Kurnool	92·6	89·8	+2·8
Ahmednagar	87·5	84·8	+2·7
Bhuj	91·4	88·7	+2·7
Bikaner	99·7	97·1	+2·6
Poona	84·5	81·9	+2·6
Bijapur	88·7	86·1	+2·6
Cuddalore	96·2	93·7	+2·5

The excess was thus greatest at Deesa and Cuddapah.

The highest maximum temperatures of the month were generally recorded during the second week over northern India and during the last week of the month over the Peninsula.

The following are the highest maximum temperatures recorded in the different divisions:—

Province or division.	Station.	Highest maximum temperature recorded in August, 1904.	Date on which recorded.	Highest maximum temperature recorded in August previous to 1904.	Year in which recorded.
		°		°	
Burma	Monywa	97·8	9th & 10th	102·3	1903
Assam	Tezpur	97·1	13th	93·1	1901 & 1902
Bengal	Dinajpur	94·8	13th	96·8	1899
Orissa	Cuttack	92·4	4 days	99·4	1880
Bihar	Patna	98·0	15th	102·3	1870
Chota Nagpur	Chaibassa	92·9	29th & 30th	95·1	1902
United Provinces.	Meerut	94·6	29th	108·5	1877
Punjab	Khushab	109·3	18th	111·4	1899
North-West Frontier Province.	Dera Ismail Khan.	108·2	7th	113·5	1828
Sind	Jacobabad	112·2	5th	116·6	1902
Rajputana	Bikaner	104·6	1st	110·0	1899
Gujarat	BhavnagarPara	99·1	15th	101·6	1902
Central India	Indore	89·6	29th	94·7	1899
Central Provinces.	Chanda	95·2	26th	99·2	1899
Berar	Amraoti	94·2	28th	98·2	1902
West Coast	Cochin	88·3	31st	89·5	1899
Bombay Deccan	Sholapur	97·2	25th & 26th	101·0	1877
Mysore	Mysore	87·9	24th	92·6	1899
Madras Coast	Nellore	103·8	29th	105·4	1899
Madras Deccan	Cuddapah	102·7	29th	104·2	1899
South India	Madura	102·4	31st	105·5	1877

The preceding data show that, except in Assam, higher maxima than those recorded during August 1904 have been registered in previous years. The absolutely highest maximum registered was 112°·2 at Jacobabad on the 5th.

The departures of the mean minimum or night temperature from the normal were generally small. The mean minimum temperature was generally below the average over Bihar, the greater part of the United Provinces, east Rajputana, the north and east of the Central Provinces, the inland districts of the south-west of the Peninsula, the extreme south of the Peninsula, the Sind and Kathiawar coast districts, the north of the North-west Frontier Province, the Brahmaputra valley, and parts of central and lower Burma. In other parts of the country the mean minimum temperature exceeded the normal. The departures from the average were generally moderate or small. The following gives data:—

Areas of greatest excess of minimum temperature.		Areas of greatest defect of minimum temperature.	
Stations.	Departure.	Stations.	Departure.
	°		°
Lahore	+3·9	Thayetmyo	−2·6
Multan	+2·2	Sambhar	−1·8
Sialkot	+2·1	Toungoo	−1·7
Hyderabad Deccan	+2·1	Tavoy	1·5
Goa	+2·0	Raipur	−1·4
		Jaipur	−1·2
		Jubbulpore	−1·1
		Gorakhpur	−1·0

At the hill stations the mean minimum temperature was lower than usual. The amount of the deficiency increased westward and was moderate to considerable over Baluchistan and Afghanistan.

As the departures of the mean minimum temperature from the normal were generally small, the distribution of the departures of the mean temperature of the month was largely determined by the departures of the maximum temperature and the two charts were very similar. The following table shows the principal features of the distribution:—

Areas of greatest excess of temperature.		Areas of greatest defect of mean temperature.	
Station.	Departure.	Station.	Departure.
	°		°
Deesa	+3.0	Jaipur	−2·5
Cuddapah	+2·8	Sambhar	−2·4
Multan	+2·6	Delhi	−1·7
Lahore	+2·6	Nowgong	−1·7
Malegaon	+2·2	Agra	−1·7
Hyderabad Deccan	+2·1	Neemuch	−1·6
Montgomery	+2·0	Jhansi	−1·5
Khandwa	+2·0		

At all the hill stations, except Darjeeling, the mean temperature of the month was below the average.

The following gives mean temperature data for the extra-Indian stations :—

Station.	Mean temperature. Actual, August 1904.	Normal, August.	Departure from normal, August 1904.
	°	°	°
Trincomalee	85·0	84·6	+ 0·4
Colombo	81·3	81·6	— 0·3
Amini Divi	82·2	81·4	+ 0·8
Kashgarh	79·6	76·7	+ 2·9
Kabul	73·4	76·0	— 2·6
Teheran	83·6	84·0	— 0·4
Ispahan	78·8	78·3	+ 0·5
Bushire	89·3	90·6	— 1·3
Jask	90·5	89·2	+ 1·3
Muscat	86·9	86·1	+ 0·8
Baghdad	95·3	93·6	+ 1·7
Aden	87·8	85·5	+ 2·3
Perim	90·7	89·8	+ 0·9
Zanzibar	76·9	76·7	+ 0·2
Seychelles	75·4	78·1	— 2·7
Mauritius	67·1	68·0	— 0·9

The preceding data show that the mean temperature of August 1904 was generally below the normal over Afghanistan, the head of the Persian Gulf and the Seychelles, above the normal in Kashgaria, Asiatic Turkey and Arabia, and about the average elsewhere.

The following table gives the mean temperature data for the month for the 57 meteorological divisions of the empire :—

Province.	Division.	Actual temperature. Mean maximum.	Mean minimum.	Monthly mean of mean between maximum and minimum.	Mean daily range of temperature.	Absolute range during month.	Departure from normal of month of Maximum.	Minimum.	Daily range.
		°	°	°	°	°	°	°	°
Burma	Tenasserim	82·6	73·2	78·0	9·4	17·3	—0·7	—0·3	—0·4
	Lower Burma (Deltaic)	83·7	76·1	79·9	7·6	12·9	—0·9	+0·4	—1·3
	Central do.	88·0	73·4	80·7	14·6	21·9	+0·2	—2·2	+2·4
	Upper do.	89·4	76·7	83·1	12·7	20·2	—1·1	+0·4	—1·5
	Arakan	84·9	77·7	81·3	7·2	12·6	+0·5	+0·4	+0·1
Bengal and Assam	Eastern Bengal	87·5	78·2	82·9	9·2	15·6	+1·0	+0·6	+0·4
	Assam (Surma)	89·9	77·2	83·5	12·7	21·3	+0·4	+0·4	0
	Do. (Hills)	74·2	64·3	69·3	9·9	18·7	...	...	...
	Do. (Brahmaputra)	87·9	76·9	82·4	11·0	20·8	+0·1	—0·3	+0·4
	Deltaic Bengal	89·2	79·4	84·3	9·7	15·4	+1·1	+0·6	+0·5
	Central do.	89·1	79·1	84·1	10·1	15·6	+0·6	+0·8	—0·2
	North do.	88·7	78·0	83·3	10·7	19·0	+0·3	+0·3	0
	Bengal Hills	63·9	53·9	58·9	10·1	16·9	+1·1	—0·2	+1·3
	Orissa	87·5	78·3	83·0	9·3	15·9	—0·1	—0·1	0
	Chota Nagpur	86·2	75·0	80·6	11·2	16·6	+0·2	+0·3	—0·1
	South Bihar	87·3	78·3	82·8	8·9	17·1	—0·8	—0·4	—0·4
	North do.	88·7	78·7	83·8	10·0	17·3	+0·2	—0·1	+0·3
United Provinces of Agra and Oudh.	United Provinces (East)	88·5	78·4	83·5	10·2	17·7	—1·2	—0·4	—0·8
	Oudh (South)	88·6	77·9	83·3	10·7	20·0	—1·7	—0·7	—1·0
	Do. (North)	90·4?	77·4	83·9?	13·0?	20·1?	+0·5?	—0·6	+1·1?
	United Provinces (Central)	87·8	78·0	82·9	9·8	17·4	—2·1	+0·1	—2·2
	Do. (West)	89·0	78·1	83·5	10·9	19·5	—2·1	—0·5	—1·6
	Do. (Submontane, East)	89·2	77·8	83·5	11·4	19·5	—0·6	—1·0	+0·4
	Do. (Submontane, West)	86·9	75·5	81·2	11·4	18·5	—1·3	—0·5	—0·8
	Do. (Hills)	68·8	59·6	64·2	9·2	16·3	—1·2	—0·2	—1·0

Province.	Division.	Actual temperature. Mean maximum.	Mean minimum.	Monthly mean of mean between maximum and minimum.	Mean daily range of temperature.	Absolute range during month.	Departure from normal of month of Maximum.	Minimum.	Daily range.
		°	°	°	°	°	°	°	°
Punjab	Punjab (South-East)	89·4	78·4	83·9	11·0	20·4	−2·4	−0·9	−1·5
	Do. (South)	94·9	79·5	87·2	15·4	26·0	−0·3	+0·7	−1·0
	Do. (Central)	99·4	81·7	90·6	17·7	28·1	+1·2	+3·9	−2·7
	Do. (Submontane)	94·4	77·9	86·2	16·5	28·8	−0·2	+0·6	−0·8
	Do. (Hills)	79·4	57·4	68·4	22·0	36·2	−1·0	−1·4	+0·4
N.-W. F. Province	Do. (West)	102·7	83·2	93·0	19·6	31·9	+1·8	+1·7	+0·1
	N.-W. F. Province	100·2	79·3	89·8	21·0	35·6	+0·1	−0·2	+0·3
Bombay and Malabar Coast Districts (Madras).	Malabar	83·4	74·6	79·0	8·7	13·9	+0·5	+0·2	+0·3
	Madras (South Central)	90·1	72·0	81·0	18·1	23·2	−0·4	+0·4	−0·8
	Coorg	70·2	61·0	65·6	9·2	13·9	+0·5	−1·0	+1·5
	Mysore	82·4	65·5	74·0	16·9	24·0	+0·4	−0·6	+1·0
	Konkan	83·6	76·6	80·1	7·0	12·2	+0·5	+0·9	−0·4
	Bombay Deccan	85·2	69·2	77·2	16·0	23·5	+2·8	+0·3	+2·5
	Hyderabad (North)	87·4	70·0	78·7	17·4	25·5	...	...	...
	Khandesh	88·8	70·8	79·8	18·0	27·4	+3·1	+0·6	+2·5
Central Provinces and Berar.	Berar	87·4	73·4	80·4	14·0	23·4	+0·7	+0·4	+0·3
	Central Provinces (West)	86·5	74·5	80·5	12·0	20·2	+0·6	+0·3	+0·3
	Do. (Central)	84·0	72·7	78·4	11·4	20·4	−0·7	−0·7	0
	Do. (East)	84·1	74·1	79·2	10·0	18·8	−1·4	−1·0	−0·4
Bombay (North)	Gujarat	90·2	77·4	83·9	12·8	18·9	+1·7	+0·6	+1·1
	Kathiawar and Cutch	88·8	76·7	82·7	12·1	19·0	+1·3	−0·2	+1·5
	Sind	98·0	79·2	88·6	18·8	27·1	+2·2	−0·4	+2·6
	Baluchistan Hills	93·8	60·8	77·3	33·0	47·9	−0·6	−2·5	+1·9
Rajputana and Central India.	Central India (East)	83·8	74·0	78·9	9·9	17·2	−1·6	−0·2	−1·4
	Rajputana (East), Central India (West)	87·8	75·6	81·7	12·2	20·7	−1·1	−0·4	−0·7
	Do. (West)	96·7	79·1	87·9	17·6	24·6	+1·9	+0·9	+1·0
Madras	East Coast (North)	89·3	78·4	83·9	10·9	21·8	+0·6	−0·1	+0·7
	Hyderabad (South)	89·6	73·2	81·4	16·4	23·7	+2·4	+0·9	+1·5
	Madras (Central)	94·3	75·5	84·9	18·8	26·1	+2·8	+0·8	+2·0
	East Coast (Central)	95·6	79·0	87·3	16·7	28·4	+2·2	+0·8	+1·4
	Do. (South)	95·7	77·5	86·7	18·2	25·7	+1·8	+1·0	+0·8
	Madras (South)	96·2	75·0	85·4	21·2	28·4	+0·2	−0·1	+0·3

The hottest area outlined by the isotherm of 90° included the central and west divisions of the Punjab, while the coolest plains division was the Bombay Deccan with a mean temperature of 77.°2. The mean maximum temperature exceeded 100° over the west Punjab and the North-West Frontier Province. The mean daily range of temperature was greater than usual over north-west India and the Peninsula. It amounted to 33° in Baluchistan and to over 20° in the Punjab hills, the North-West Frontier Province and South Madras, while it was only about 7° in the Konkan and Arakan.

The following summarises the principal temperature changes during the month under review :—

Between the 1st and the 6th the weather over India was undisturbed by any storm and showery weather prevailed over the greater part of the country. These showers were most general over Burma, Bengal, and the submontane districts of northern India and were least general (in places altogether absent) over the north-west dry area, Gujarat and the adjoining districts of the west of Central India, the west of the Central Provinces, Khandesh and the Deccan. In consequence while the mean temperature was generally high over the north-west, central and Deccan districts, it was generally low elsewhere. The following gives comparative data for all districts from the 1st to the 6th :—

Province or Division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of 1st August.	2nd August.	3rd August.	4th August.	5th August.	6th August.
	°	°	°	°	°	°
Burma	−0·4	−0·1	+0·7	+0·3	−0·4	−1·3
Assam	−1·8	−1·2	−1·2	+0·4	−0·2	−1·1
Bengal	−0·4	−0·8	−1·1	+0·6	+0·4	−0·4
Orissa	+1·4	−0·7	+0·1	−0·2	+0·9	+0·5
Bihar	−0·2	−1·7	−1·7	−0·6	−1·8	−1·9
Chota Nagpur	+1·5	+0·6	+0·7	+1·7	+1·6	+0·6
United Provinces of Agra and Oudh.	−0·1	−0·4	−1·6	−0·8	+0·6	−0·2
Punjab	+1·3	−1·7	−2·9	−1·4	+1·7	+3·7
N.-W. F. Province	+1·7	−0·6	−3·6	−2·9	+1·8	+4·3

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF					
	1st August.	2nd August.	3rd August.	4th August.	5th August.	6th August.
	°	°	°	°	°	°
Sind	+0·3	+0·3	+ 1·9	+ 1·9	+2·1	−0·3
Rajputana	+2·4	+0·2	+ 0·7	−1·9	0	+2·8
Gujarat	+1·2	+1·4	+ 1·4	+ 1·1	+1·4	+0·7
Central India	−1·0	−0·4	+ 0·3	+ 0·5	+1·4	+1·1
Central Provinces	+1·7	+1·2	+ 0·3	+ 0·8	+2·0	+1·3
Berar	+4·5	+1·3	+ 0·7	+ 2·4	+3·5	+4·0
West Coast	−0·3	−1·1	− 1·1	− 0·3	−0·9	−0·2
Bombay Deccan	+1·8	+1·2	+ 1·9	+ 1·3	+2·0	+2·1
Mysore	−1·4	−1·3	− 0·5	− 0·1	−0·7	−0·3
Madras Coast	−3·7	−1·1	− 0·8	− 0·4	+0·6	+1·6
Madras Deccan	−2·0	−0·7	− 0·1	+ 0·2	+1·2	+1·5
South India	2·4	−1·7	− 2·7	− 1·6	−1·0	−0·6

The departures from the normal were not generally large but in Madras on the 1st the day temperature was more than 5° below the normal at the following stations:—

STATION.	MAXIMUM TEMPERATURE.		
	Actual, 1st August.	Normal, 1st August.	Departure from normal, 1st August.
	°	°	°
Nellore	82·3	96·2	−13·9
Masulipatam	83·5	91·9	−8·4
Caddalore	86·6	94·6	−8·0
Cuddapah	86·2	94·1	−7·9
Negapatam	87·9	95·2	−7·3
Madras	88·5	95·1	−6·6
Madura	90·9	96·9	−6·0
Trichinopoly	92·2	97·4	−5·2

During the 7th and 8th a shallow low pressure area appeared over the United Provinces and rain was more or less concentrated over northern India, leaving north-west India and the Peninsula with fine weather. The departures of the mean temperature from the normal were, however, generally unimportant, and the only area where the departures were large was the extreme north-west, in which region heavy local rain had fallen. The following gives data for the stations of Peshawar, Rawalpindi and Murree for the 6th, 7th, and 8th and shows the extent of the change:—

STATION.	DEPARTURE FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF		
	6th August.	7th August.	8th August.
	°	°	°
Peshawar	+3·9	−6·8	−8·1
Rawalpindi	+4·0	−2·0	−6·3
Murree	+0·9	−2·3	−5·4

Between the 10th and the 16th the weather was largely influenced by a storm which developed at the head of the Bay and thence progressed north-westward to Cawnpore. Rain was general in Burma, but over India was concentrated around the disturbed area leaving the weather fine over north-west India and the Peninsula. The mean temperature was consequently low over Burma, Bengal, the United and Central Provinces and Rajputana, but was high over Assam which province lay outside the influence of the storm. The following gives comparative data for the above divisions for each alternate day from the 10th to the 16th:—

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF			
	10th August.	12th August.	14th August.	16th August.
	°	°	°	°
Burma	−1·1	−0·7	−0·4	−0·3
Bengal	−0·5	+2·0	−0·3	+1·2
United Provinces of Agra and Oudh.	−1·7	−3·1	+0·1	−0·6
Central Provinces	−1·3	−0·6	−2·1	−3·0
Rajputana	−2·0	+0·4	−1·7	−1·0
Assam	−2·9	+3·3	+0·2	+0·3

On the other hand, over the greater part of north-west India and of the Peninsula the mean temperature was generally excessive. The following gives data:—

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF			
	10th August.	12th August.	14th August.	16th August.
	°	°	°	°
North-West Frontier Province.	−2·6	−0·8	−2·7	+2·3
Punjab	−2·0	−0·6	+0·5	+2·3
Sind	+0·5	+1·8	+2·5	+2·9
Gujarat	−0·7	+1·1	+1·0	+0·6
West Coast	−0·2	+1·1	+1·6	+1·2
Bombay Deccan	+0·1	+0·6	+2·6	+1·8
Mysore	0	−0·6	−0·4	−0·3
Madras Coast.	+1·5	+1·1	+0·9	+2·5
Madras Deccan	+1·1	+0·4	+1·2	+2·6
South India	−0·8	+0·6	−0·2	+0·6

During this period the largest departures from the normal were shown in the maximum temperatures which were more than 7° above or below the normal at the following places on the following dates:—

MAXIMUM TEMPERATURE.

Date.	Station.	Positive departures.	Date.	Station.	Negative departures.
		°			°
13th	Hyderabad (Sind) .	+10·1	10th	Meerut . . .	— 9·5
14th	Hyderabad (Sind) .	+ 9·2	„	Ludhiana . .	— 9·1
15th	Patna . . .	+ 9·0	„	Delhi . . .	— 8·5
„	Hyderabad (Sind) .	+ 8·2	„	Roorkee . .	— 8·5
„	Jacobabad . .	+ 7·3	11th	Gaya . . .	— 8·0
„	Rajkot . . .	+ 7·1	12th	Jhansi . . .	— 7·7
16th	Hyderabad (Sind) .	+ 8·2	„	Agra . . .	— 7·4
			13th	Jhansi . . .	—10·7
			„	Khushab . .	— 9·3
			„	Agra . . .	— 7·9
			14th	Jaipur . . .	— 9·9
			„	Jhansi . . .	— 8·7
			„	Cuttack . .	— 7·6
			15th	Sambhar . .	—10·3
			„	Jubbulpore . .	— 9·4
			„	Jaipur . . .	— 8·9
			„	Ajmer . . .	— 8·5
			„	Raipur . . .	— 8·2
			16th	Neemuch . .	— 9·0
			„	Nowgong . .	— 8·7
			„	Saugor . .	— 8·2
			„	Nagpur . .	— 7·8
			„	Allahabad . .	— 7·2

The weather was quiet during the 17th and 18th with little rain except over Burma, Assam and the Gangetic plain. The mean temperature was low in these areas but was high elsewhere. The day temperature was high in the extreme north-west on these two days, the departures from the normal exceeding 8° at the following stations:—

Date.	Station.	MAXIMUM TEMPERATURE. Actual of date.	Normal of date.	Departure from normal of date.
		°	°	°
17TH . . .	Jacobabad . .	111·8	103·4	+8·4
18TH . . .	Khushab . . .	109·3	99·8	+9·5
	Cherat . . .	95·4	86·9	+8·5

Between the 19th and the 25th a fresh depression passed from the head of the Bay to the neighbourhood of Agra. Rain fell over Burma and in the neighbourhood of the track of the storm and temperature was low in those regions, but, as was the case with the previous storm, the temperature conditions over Assam were not much affected. A brisk recovery of temperature occurred over Burma and Bengal as the storm passed westward.

The following gives comparative temperature data for the affected areas:—

Province or division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of 19th August.	20th August.	21st August.	22nd August.	23rd August.	24th August.	25th August.
	°	°	°	°	°	°	°
Burma . .	—0·1	—0·5	—0·9	—1·1	—1·1	+0·6	+1·0
Assam . .	—2·3	—0·5	+2·0	+1·9	+0·8	+1·4	+2·1
Bengal . .	+1·0	+1·3	+0·8	+0·1	0	+1·6	+2·8
Orissa . .	+1·1	—2·0	—3·0	—4·7	+0·1	+1·3	+1·3
Bihar . .	—1·8	—2·5	—2·7	—0·6	—1·0	+0·2	+0·5
Chota Nagpur.	—1·1	—2·4	—0·7	—1·2	—2·7	—0·2	+1·9
United Provinces of Agra and Oudh.	—1·6	—1·4	—2·2	—2·4	—2·4	—2·2	—2·0
Central India .	—1·8	—1·3	—0·4	—1·1	—1·8	—1·0	—0·9
Rajputana .	—0·9	—0·7	+0·5	+0·4	+1·6	—0·9	+3·2

Practically no rain fell over the north-west dry area and the Peninsula during the existence of this storm and temperature was higher than usual throughout. This is shown below:—

Province or division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of 19th August.	20th August.	21st August.	22nd August.	23rd August.	24th August.	25th August.
	°	°	°	°	°	°	°
Sind . .	—1·3	+0·3	+0·7	—0·1	+0·3	+1·7	+2·0
Gujarat . .	+1·4	+1·2	+1·6	+1·0	+0·5	—0·2	+1·1
Central Provinces.	+0·4	—0·3	—0·1	+0·2	—1·4	—0·1	+1·1
Berar . .	—0·3	+0·1	+0·3	+2·5	+1·2	—0·2	+1·8
West Coast .	+1·5	+1·3	+1·6	+1·5	+1·2	+0·7	+0·8
Bombay Deccan	+1·0	+1·0	+0·5	+1·6	+1·1	+0·8	+1·7
Mysore . .	+0·2	—0·3	—1·6	—0·3	—0·8	+0·4	+0·5
Madras Coast	+3·0	+1·5	+2·2	+1·8	+1·9	+3·0	+2·0
Madras Deccan	+3·2	+2·2	+2·0	+1·5	+1·6	+4·1	+4·1
South India .	+0·5	+0·5	+0·9	+1·1	+1·3	+1·6	+1·3

The day temperatures were very low at some stations on the 23rd, 24th, and 25th. The following shows the places at which the departures were more than 10°:—

Date.	Station.	Maximum temperature. Actual of date.	Normal of date.	Departure from normal of date.
		°	°	°
23rd	Mainpuri	79·3	90·7	−11·4
	Bareilly	78·8	89·6	−10·8
24th	Agra	80·0	91·1	−11·1
	Gorakhpur	78·2	89·4	−11·0
25th	Jaipur	78·2	92·0	−13·8
	Sambhar	80·4	91·6	−11·2

Disturbed weather occurred over Kashmir and the north-west Himalayas between the 19th and the 22nd and the mean temperature was low in the extreme north-west. The following gives comparative data from the 19th to 25th.

Province or division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of 19th August.	20th August.	21st August.	22nd August.	23rd August.	24th August.	25th August.
	°	°	°	°	°	°	°
Kashmir	+3·4	−1·0	−4·7	−5·0	−5·2	−0·4	0
Punjab	+2·4	+1·4	+0·1	−1·0	−0·4	+0·3	+2·0
North-West Frontier Province.	+3·4	+0·5	−2·2	−0·7	−4·6	−2·8	+1·5

From the 26th to the end of the month the weather was generally quiet. Rain fell daily over Burma and the mean temperature of that province was low. This is shown below:—

Province or division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of 26th August.	27th August.	28th August.	29th August.	30th August.	31st August.
	°	°	°	°	°	°
Burma	−0·1	−0·7	−0·8	−0·3	+0·4	+0·7

Local but generally light rain was received over north-east India during this interval and the mean temperature was high or varied irregularly from the normal. The following gives comparative data:—

Province or division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of 26th August.	27th August.	28th August.	29th August.	30th August.	31st August.
	°	°	°	°	°	°
Assam	−0·3	−0·5	+ 0·8	+0·7	+0·7	0
Bengal	+1·1	+1·3	+ 2·3	+1·6	+1·6	−0·1
Orissa	+0·9	+0·8	+ 0·1	−0·3	0	−0·2
Bihar	−0·5	−1·8	+ 0·8	−0·4	−2·5	−3·2
Chota Nagpur	+1·6	+0·8	+ 1·4	+2·8	+1·5	+0·2
United Provinces of Agra and Oudh.	−0·9	−0·7	− 0·1	+1·3	−0·3	−0·1

Over Rajputana and Central India there occurred irregular changes of temperature during this time while in the Central Provinces the mean temperature was low over the eastern and high over the western districts. Comparative data for these areas are given below:—

Province or division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of 26th August.	27th August.	28th August.	29th August.	30th August.	31st August.
	°	°	°	°	°	°
Rajputana	−1·7	+0·4	+ 0·8	+1·2	−0·6	−1·7
Central India	−1·4	−2·1	+ 0·4	+1·2	+0·8	−0·1
Central Provinces	+1·4	+0·8	+ 1·4	+0·3	−2·0	−1·9

Over north-west India and the Peninsula the weather was fine and the mean temperature more or less in excess of the normal. This is shown below:—

Province or division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of 26th August.	27th August.	28th August.	29th August.	30th August.	31st August.
	°	°	°	°	°	°
Punjab	+1·9	+1·7	+ 2·6	+3·9	+3·5	+1·2
N.-W. Frontier Province	+3·2	+2·8	+ 2·1	+2·8	+1·8	−2·6
Sind	+0·5	+0·4	− 0·5	−0·5	−0·8	+0·1
Gujarat	+0·8	+0·4	+ 1·0	+1·6	+1·0	+0·6
Berar	+2·5	+2·0	+ 4·8	+4·7	−0·3	+2·3

Province or Division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of					
	26th August.	27th August.	28th August.	29th August.	30th August.	31st August.
	°	°	°	°	°	°
West Coast . .	+1·0	+0·6	+1·2	+1·7	+1·5	+1·5
Bombay Deccan . .	+1·9	+1·4	+3·1	+2·2	+1·0	+2·0
Mysore . . .	+1·4	+0·3	+1·3	+1·2	+0·1	+1·7
Madras Coast . .	+1·6	−0·5	+1·2	+2·8	+1·0	+1·5
Madras Deccan . .	+4·1	+2·9	+5·0	+4·6	+2·8	+3·2
South India . .	+1·4	+0·6	+1·7	+2·1	+1·8	+2·0

The day temperature was more than 8° above the normal at the following stations in north-west India and the Peninsula during this period.

Date.	Station.	Maximum temperature.		
		Actual of date.	Normal of date.	Departure from normal of date.
		°	°	°
26th	Sholapur . . .	97·2	89·0	+8·2
	Cuddapah . .	101·2	93·1	+8·1
28th	Cuddapah . .	101·7	93·1	+8·6
	Malegaon . . .	95·9	87·4	+8·5
	Madras . . .	101·0	92·9	+8·1
29th	Cuddapah . .	102·7	93·1	+9·5
	Nellore . . .	103·8	95·2	+8·6
	Madras . . .	101·5	92·9	+8·6
	Deesa . . .	98·1	90·0	+8·1
30th	Sialkot . . .	102·7	94·5	+8·2
31st	Khandwa . . .	94·7	85·7	+9·0

Wind

The winds were more westerly than usual at most of the Bay stations and at the majority were stronger and steadier than usual. The following gives data:—

Station.	Mean steadiness.			Mean wind direction.			Mean wind velocity in miles per diem.		
	Actual percentage, August 1904.	Normal percentage, August.	Departure from August normal, 1904.	Actual, August 1904.	Normal, August.	Westerly deflection.	Actual, August 1904.	Normal, August.	Departure from August normal, 1904.
				°	°				
Port Blair .	90	81	+ 9	S 68 W	S 51 W	+17	367	259	+108
Cocos Island	90	93	− 3	S 31 W	S 42 W	−11	714	...	...
Rangoon .	69	66	+ 3	S 41 W	S 39 W	+ 2	35	106	−71
Diamond Island.	85	77	+ 8	S 55 W	S 44 W	+11	242	214	+28
Akyab .	85	64	+21	S 26 W	S 5 E	+31	62	82	−20

At Chittagong and Calcutta, however, this increased westing was not observable. At the former station the wind's direction was more southerly and at the latter more easterly than the normal while at Calcutta both the steadiness and velocity were below the average. This is shown below:—

Station.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, August 1904.	Normal percentage, August.	Departure from August normal, 1904.	Actual, August 1904.	Normal, August.	Actual, August 1904.	Normal, August.	Departure from August normal, 1904.
				°	°			
Chittagong . .	63	59	+9	S 5 E	S 24 E	175	151	+24
Calcutta . .	54	56	−2	S 28 E	S 2 E	74	113	−39

In the Gangetic plain and Chota Nagpur the increased westing in the wind's direction was as noticeable as over the Bay. The velocity in these regions was lower than usual while the mean steadiness, though very low, exceeded the small normal amount. The following gives data:—

Station.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, August 1904.	Normal percentage, August.	Departure from August normal, 1904.	Actual, August 1904.	Normal, August.	Actual, August 1904.	Normal, August.	Departure from August normal, 1904.
				°	°			
Hazaribagh . .	14	9	+5	N 87 W	S 9 W	166	185	−19
Allahabad . .	25	5	+20	N 81 W	N 6 E	100	158	−58

In the upper Sub-Himalayas the wind blew from about the normal directions *i.e.* between south-by-east and east-south-east while the steadiness and velocity varied irregularly from the average.

In the Indus valley similar conditions prevailed. The wind's direction was approximately normal, the steadiness slightly exceeded the average while the velocity varied irregularly from the normal.

At Jaipur the wind, as in the Gangetic plain, was unusually westerly while in Gujarat the direction was somewhat more southerly than the average. The following gives data for Jaipur and Deesa :—

Station.	Mean wind direction.	
	Actual, August 1904.	Normal, August.
	°	°
Jaipur	N 82 W	N 69 W
Deesa	S 47 W	S 54 W

The following gives comparative data of air movement for the Bay Islands, Burma and the different divisions of northern India for the month :—

Province or division.	Mean steadiness.			Mean wind velocity in miles per diem.		
	Actual percentage, August 1904.	Normal percentage, August.	Departure from normal, August 1904.	Actual, August 1904.	Normal, August.	Departure from normal, August 1904.
Bay Islands	90	87	+ 3	367	259	+108
Burma	80	69	+11	113	134	—21
Bengal	58	58	0	203	195	+ 8
Chota Nagpur	14	9	+ 5	166	185	—19
Orissa	64	54	+10	231	235	— 4
United Provinces of Agra and Oudh.	22	13	+ 9	45	72	—27
Punjab	38	18	+20	55	55	0
North-West Frontier Province.	52	47	+ 5	36	86	—50
Rajputana	73	59	+14	215	201	+14
Sind	85	71	+14	241	248	—7

The preceding data show that over almost the whole area the winds were steadier than the average while the mean velocity varied irregularly from the normal. At the Bay Islands the velocity was in considerable excess.

Over the Deccan the mean wind direction was about normal but the steadiness was considerably in excess of the average while the velocity departed irregularly and generally slightly from the normal.

At Bombay the wind, as in Gujarat, was slightly more southerly than the normal direction while at Karwar the mean wind direction was normal. The steadiness was high at both stations while the velocity was less than usual at Bombay and about normal at Karwar. This is shown below :—

Station.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, August 1904.	Normal percentage, August.	Departure from normal August 1904.	Actual, August 1904.	Normal, August.	Actual, August 1904.	Normal, August.	Departure from normal, August 1904.
				°	°			
Bombay	92	79	+13	S 75 W	S 81 W	331	370	—39
Karwar	91	74	+17	N 83 W	N 84 W	110	103	+7

In south India there were no important departures from the average, on the mean of the month, except at Madras where, as at the other Bay stations, the direction was unusually westerly. The following gives data for this station :—

Station.	Mean wind direction.		
	Actual, August 1904.	Normal, August.	Westerly deflection.
	°	°	
Madras	S 68 W	S 36 W	+32

The following gives comparative data of air movement over the Peninsular divisions :—

Province or division.	Mean steadiness.			Mean wind velocity in miles per diem.		
	Actual percentage, August 1904.	Normal percentage, August.	Departure from normal, August 1904.	Actual, August 1904.	Normal, August.	Departure from normal, August 1904.
Central Provinces	88	74	+14	187	191	— 4
Berar	89	80	+ 9	221	206	+15
Bombay Deccan	89	84	+ 5	443	412	+31
Madras Deccan	87	86	+ 1	248	236	+12
West Coast	92	77	+15	221	237	—16
Mysore	86	87	— 1	216	216	0
Madras Coast	62	62	0	161	166	— 5
South India	76	75	+ 1	117	96	+21

At Quetta the wind was somewhat more northerly, steadier and lighter than usual. At the Himalayan hill stations the directions were very variable while the steadiness was normal or in excess and velocity departed irregularly from the average. This is shown below:—

Hill Station.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, August 1904.	Normal percentage, August.	Departure from August normal, 1904.	Actual, August 1904.	Normal, August.	Actual, August 1904.	Normal, August.	Departure from August normal, 1904.
				°	°			
Leh	47	42	+ 5	S 45 W	S 72 W	27	43	—16
Srinagar	10	9	+1	N 15 W	N 48 W	70	86	—16
Simla	23	19	+ 4	N 6 W	N 33 E	50	86	—36
Chakrata	77	42	+35	S 8 E	S 65 W	178	130	+48
Ranikhet	32	26	+ 6	S 73 W	S 60 W	59	55	+ 4
Katmandu	2	2	0	N 9 W	N 66 W	20	18	+2
Darjeeling	32	28	+ 4	N 87 W	S 84 E	64	89	—25

At Darjeeling the wind blew from a direction the opposite of the normal and appeared to show that the increased westing in the wind which was so noticeable over the Gangetic plain and the Bay prevailed up to the level of Darjeeling in the eastern Himalayas.

At Mount Abu the wind blew from south-west on the mean of the month, and, as at Deesa on the neighbouring plains, was more southerly, steadier and stronger than usual. The following gives data:—

Hill Station.	Mean steadiness.			Mean wind direction.			Mean wind velocity in miles per diem.		
	Actual percentage, August 1904.	Normal percentage, August.	Departure from normal, August 1904.	Actual, August 1904.	Normal, August.	Southerly deflection.	Actual, August 1904.	Normal, August.	Departure from normal, August 1904.
				°	°				
Mount Abu	92	75	+17	S44W	S57W	+13	300	269	+31

At the central and southern hill stations the wind's direction varied between north-north-west and west-north-west and was perhaps somewhat more northerly than the average.

At Aden the wind was more easterly and at Perim more northerly than usual. While both steadiness and velocity were below the average. This is shown below:—

Station.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, August 1904.	Normal percentage, August.	Departure from normal, August 1904.	Actual, August 1904.	Normal, August.	Actual, August 1904.	Normal, August.	Departure from normal, August 1904.
				°	°			
Aden	42	70	—28	S 35 E	S 3 E	115	257	—142
Perim	34	41	—7	N 33 W	N 88 W	235	331	—96

At Zanzibar and the Seychelles the mean wind direction was more southerly and at Mauritius more easterly than the average while at Mauritius the mean velocity was below the normal. The following gives data:—

Station.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, August 1904.	Normal percentage, August.	Departure from August normal, 1904.	Actual, August 1904.	Normal, August.	Actual, August 1904.	Normal, August.	Departure from normal, August 1904.
				°	°			
Zanzibar	66	77	—11	S 5 E	S 9 E	164	166	— 2
Seychelles	89	85	+ 4	S 28 E	S 33 E	341	323	+18
Mauritius	...	...	...	S 77 E	S 68 E	236	296	—60

Humidity and Cloud.

Both the absolute and relative humidities were in trifling excess over parts of the upper Indus valley. This is shown below :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, August 1904.	Normal, August.	Departure from normal, August 1904.	Actual, August 1904.	Normal, August.	Departure from normal, August 1904.
	"	"	"	%	%	
Jacobabad . .	·917	·885	+·032	73	71	+2

The mean relative humidity of the month exceeded the normal over the south-east of the Punjab, the United Provinces and the adjacent districts of Rajputana, Central India and Bihar. Over the northern and eastern parts of this area the absolute humidity was greater than usual but in the southern parts the air was drier than usual and the excessive relative humidity was due to low temperature conditions. This is shown below :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, August 1904.	Normal, August.	Departure from normal, August 1904.	Actual, August 1904.	Normal, August.	Departure from normal, August 1904.
	"	"	"	%	%	
Jhansi . . .	·885	?	?	90	82	+8
Meerut . . .	888	·783	+·105?	85	81	+4
Delhi . . .	·858	·861	—·003	82	78	+4
Agra . . .	·901	·913	—·012	86	82	+4
Allahabad . .	·963	·954	+·009	90	87	+3
Patna . . .	·996	·969	+·027	90	87	+3
Jaipur . . .	·799	·813	—·014	81	79	+2
Sambhar . .	·785	·795	—·010	79	77	+2
Ajmer . . .	·788	·799	—·011	84	82	+2
Neemuch . .	·753	·776	—·023	87	85	+2
Nowgong . .	·869	·882	—·013	89	87	+2
Sutna . . .	·859	·871	—·012	89	87	+2
Gorakhpur . .	·962	·955	+·007	90	88	+2
Gaya . . .	·950	·931	+·019	88	86	+2

Over Bengal the absolute humidity, on the mean of the month, exceeded the normal, but the mean temperature was higher than usual and the mear relative humidity in slight defect. The following gives data:—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, August 1904.	Normal, August.	Departure from normal, August 1904.	Actual, August 1904.	Normal, August.	Departure from normal, August 1904.
	"	"	"	%	%	
Balasore . .	·925	·974	—·049	84	89	—5
Hazaribagh . .	·777	·803	—·026	86	89	—3
Berhampore . .	·998	·987	+·011	89	92	—3
Mymensingh . .	·964	·955	+·009	88	91	—3
Chittagong . .	·913	·912	+·001	86	89	—3
Calcutta . .	·973	·964	+·009	87	89	—2
Bogra . . .	·950	?	?	87	89	—2

Over Burma the mean absolute humidity was generally in excess and the mean temperature below the normal, so that the mean relative humidity was in excess. This is shown below:—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, August 1904.	Normal, August.	Departure from normal, August 1904.	Actual, August 1904.	Normal, August.	Departure from normal, August 1904.
	"	"	"	%	%	
Mandalay . .	·868	·858	+·010	82	79	+3
Diamond Island .	·914	·890	+·024	89	86	+3
Mergui . . .	·881	·794	+·087	94	92	+2
Minbu . . .	·908	·872	+·036	87	85	+2

Both the absolute and relative humidities were, on the mean of the month, in excess of the normal over parts of Malabar, Mysore, the Madras Deccan and the Madras coast. The mean temperature was, however, greater than usual over a considerable part of this area, so that the

excess of the relative humidity was moderate or small. The following gives data:—

Station.	Absolute Humidity.			Relative Humidity.		
	Actual, August 1904.	Normal, August.	Departure from normal, August 1904.	Actual, August 1904.	Normal, August.	Departure from normal, August 1904.
	"	"	"	%	%	
Coimbatore	·766	·743	+·023	86	84	+2
Mysore	·652	·642	+·010	84	81	+3
Kurnool	·802	·715	+·087	79	75	+4
Cocanada	·944	·850	+·094	85	81	+4
Hassan	·634	·614	+·020	85	83	+2

Over the whole of the remainder of the country both the absolute and relative humidities were lower than usual. The departures from the normal were considerable to large over the south Punjab, western Rajputana, Sind, Gujarat, the west of Central India and of the Central Provinces and the Deccan.

The following gives comparative data for those stations at which the mean relative humidity was 5 or more below the normal:—

Station.	Absolute Humidity.			Relative Humidity.		
	Actual, August 1904.	Normal, August.	Departure from normal, August 1904.	Actual, August 1904.	Normal, August.	Departure from normal, August 1904.
	"	"	"	%	%	
Amraoti	·698	·782	—·084	75	89	—14
Deesa	·754	·840	—·086	72	84	—12
Cuddapah	·718	·773	—·055	61	73	—12
Khandwa	·704	·768	—·064	74	85	—11
Montgomery	·736	·831	—·095	53	63	—10
Ahmedabad	·784	·859	—·075	73	83	—10
Sholapur	·608	·670	—·062	65	75	—10
Raichur	·661	?	?	69	78	— 9
Hyderabad (Dn.)	·672	·716	—·044	73	82	— 9
Rajkot	·767	·838	—·071	76	84	— 8
Malegaon	·678	·720	—·042	69	77	— 8
Akola	·719	·768	—·049	75	83	— 8
Madras	·779	·826	—·047	67	75	— 8
Nellore	·758	·816	—·058	64	72	— 8
Ahmednagar	·668	?	?	76	83	— 7
Kurrachee	·809	·902	—·093	77	83	— 6
Indore	·712	·766	—·054	83	89	— 6
Hyderabad (Sind)	·731	·774	—·043?	65	70	— 5
Bikaner	·777	·830	—·053	64	69	— 5
Surat	·861	·889	—·028	80	85	— 5
Poona	·653	·693	—·040	78	83	— 5
Chanda	·770	·799	—·029	77	82	— 5
Seoni	·731	·786	—·055	85	90	— 5

The air was thus driest over the Deccan, the west of the Central Provinces, Gujarat and the western desert and within these areas and the east and south of the Peninsula the following low humidities were recorded during the month:—

Station.	Date.	Hour.	Lowest humidity recorded during August 1904.
			%
Jacobabad	14th August.	8 hr.	53
Nellore	15th "	"	53
"	18th "	"	53
Bikaner	28th "	"	52
Ludhiana	30th "	"	52
"	29th "	"	51
Nellore	28th "	"	51
Khushab	31st "	"	50
Nellore	" "	"	50
Montgomery	11th "	"	49
"	7th "	"	48
Tinnevelly	15th "	"	48
"	20th "	"	48
"	29th "	"	47
Montgomery	" "	"	46
"	12th "	"	45
"	24th "	"	45
"	26th "	"	45
"	27th "	"	45
"	31st "	"	45
Tinnevelly	18th "	"	45
"	24th "	"	44
Khushab	30th "	"	44
Montgomery	28th "	"	44
"	17th "	"	42
"	22nd "	"	40
"	6th "	"	39

At practically all the hill stations the mean absolute humidity was in defect of the normal, but the mean temperature was also low and the departures of the mean relative humidity from the average were generally small and unimportant except in Baluchistan. The following gives data :—

Hill Station.	Absolute Humidity.			Relative Humidity.		
	Actual, August 1904.	Normal, August.	Departure from normal, August 1904.	Actual, August 1904.	Normal, August.	Departure from normal, August 1904
	"	"	"	%	%	
Quetta	·382	·479	—·097	45	58	—13
Chaman	·277	·369	—·092	26	33	—7
Leh	·281	·282	—·001	60	59	+1
Srinagar	·591	·625	—·034	84	86	—2
Gilgit	·509	·494	+·015	55	50	+5
Murree	·513	·514	—·001	82	82	0
Simla	·494	·506	—·012	90	91	—1
Cherat	·608	·588	+·020	74	73	+1
Chakrata	·523	·531	—·008	92	93	—1
Ranikhet	·567	·571	—·004	90	90	0
Darjeeling	·510	·514	—·004	95	96	—1
Mount Abu	·585	·609	—·024	95	96	—1
Pachmarhi	·633	·651	—·018	93	92	+1
Wellington	·407	·432	—·025	68	71	—3

At Aden and Perim the humidity departures were irregular. At the former station the absolute humidity was in considerable excess, so that notwithstanding the high temperature prevailing the mean relative humidity was in slight excess. At the latter station the absolute humidity was in defect of the normal, the temperature in slight excess and the mean relative humidity in moderate defect. The following gives data :—

Station.	Absolute Humidity.			Relative Humidity.		
	Actu August 1904.	Normal, August.	Departure from normal, August 1904.	Ac ual, August 1904.	Normal, August.	Departure from normal, August 1904.
	"	"	"	%	%	
Aden	·928	·838	+·090	73	72	+1
Perim	·842	·889	—·047	62	66	—4

In the south-east trades region the departures were irregular. At Zanzibar the absolute humidity, the mean temperature and the relative humidity were all normal; at the Seychelles the absolute humidity was in trifling excess, the mean temperature in marked defect and the mean relative humidity in some excess while at Mauritius the absolute and relative humidities were about normal :—

Station.	Absolute Humidity.			Relative Humidity.		
	Actual, August 1904.	Normal, August.	Departure from normal, August 1904.	Actual, August 1904.	Normal, August.	Departure from normal, August 1904.
	"	"	"	%	%	
Zanzibar	·718	·717	+·001	78	78	0
Seychelles	·760	·747	+·013	81	78	+3
Mauritius	·504	·508	—·004	76	75	+1

The departures of the mean cloud amount from the normal exhibited an irregular distribution. The mean cloud amount was greater than usual along the foot of the central and eastern Himalayas, as well as over the eastern districts of Burma, Bihar, the greater part of the United Provinces, the west of Central India, part of Gujarat and the north Konkan. Within this large area the departures from the average were generally small and equalled or exceeded 1·0 only at the following places :—

Station.	Mean cloud amount.		
	Actual, August 1904.	Normal, August.	Departure from normal, August 1904.
Yamethin	9·1	5·0	+4·1
Gorakhpur	9·3	5·9	+3·4
Sutna	9·5	7·4	+2·1
Ambala	7·0	5·5	+1.5
Waltair	9·0	7·8	+1.2
Dinajpur	9·0	8·0	+1·0
Rahchi	9.0	8.0	+1·0
Dehra Dun	9·3	8.3	+1·0

Over practically the whole of the remainder of the country the sky, on the mean of the month, was clearer than usual of cloud. This was particularly marked over the west of the United Provinces, deltaic Bengal, the Burma coast, the Deccan districts and north-west India. The

deficiency amounted to 2·0 or more at the following large number of stations :—

Station.	Mean cloud amount. Actual, August 1904.	Normal, August.	Departure from normal August 1904.
Trichinopoly	3·7	6·9	−3·2
Mergui	4·5	7·6	−3·1
Kurnool	4·4	7·5	−3·1
Chanda	5·4	8·4	−3·0
Jhansi	3·7	6·7	−3·0
Mandalay	4·8	7·6	−2.8
Hyderabad (Sind)	2·5	5·1	−2·6
Bahraich	3·5	6·0	−2·5
Hyderabad (Dn.)	5·1	7·6	−2·5
Silchar	6·9	9·3	−2·4
Seoni	6·1	8·5	−2·4
Tavoy	6·1	8·4	−2·3
Bassein	6·4	8·6	−2·2
Gulbarga	5·4	7·6	−2·2
Ahmednagar	5·0	7.2	−2·2
Barisal	6·5	8·6	−2·1
Ludhiana	4·2	6·3	−2·1

The mean cloud amount of the month was more than 9·0 and less than 2·0 at the following stations which hence define the areas of greatest and least cloudiness during the month :—

Station.	Mean cloud amount more than 9·0.	Station.	Mean cloud amount less than 2·0.
Hazaribagh	9·7	Montgomery	1·9
Indore	9·6	Pachpadra	1·4
Sutna	9·5	Dera Ismail Khan	1·2
Mercara	9·5	Jacobabad	1·2
Sibsagar	9·4	Multan	0·8
Naya Dumka	9·4		
Toungoo	9·3		
Lashio	9·3		
Gorakhpur	9·3		
Dehra Dun	9·3		
Allahabad	9·2		
Yamethin	9·1		
Patna	9·1		

At the hill stations the mean cloud amount, relatively to the normal, varied irregularly but generally by small amounts. This is shown below :—

Hill Station.	Mean cloud amount. Actual, August 1904.	Normal, August.	Departure from normal, August 1904.
Quetta	0·5	1·1	−0·6
Chaman	0·3	0·6	−0·3
Leh	4·7	4·2	+0·5
Srinagar	4·7	4·6	+0·1
Gilgit	4·2	4·2	0
Murree	5·2	4·8	+0·4
Simla	8·5	8·0	+0·5
Cherat	3·8	3·9	−0·1
Ranikhet	8·7	8·4	+0·3
Mount Abu	9·5	8·7	+0·8
Shimarhi	9·4	9·1	+0·3
Wellington	6·3	6·4	−0·1

At Aden and Perim the mean cloud amount of the month was very small and less than the average. The following gives data :—

Station.	Mean cloud amount. Actual, August 1904.	Normal, August.	Departure from normal, August 1904.
Aden	1·8	3·7	−1·9
Perim	1·2	3·7	−2·5

In the south-east trades region the sky was generally more cloudy than the average, but the departures from the normal were irregular. This is shown below :—

Station.	Mean cloud amount. Actual, August 1904.	Normal, August.	Departure from normal, August 1904.
Zanzibar	6·3	4·9	+1·4
Seychelles	6·7	6·4	+0·3
Mauritius	5·6	5·5	+0·1

Rainfall.

The rainfall of the month of August 1904 was mainly connected with the various cyclonic storms of the month, and as most of these storms passed from the head of the Bay through west Bengal into the Gangetic plain, it was only along and in the neighbourhood of this track that the rainfall of the month was in excess of the normal. The Arabian sea monsoon current was weak and practically the whole of the area dominated by this branch of the monsoon received considerably less rain than usual.

The general distribution of rain was hence largely determined by the following conditions:—

(1) The weakness of the Arabian sea monsoon current, and

(2) The path of the storms which formed over the head of the Bay and thence advanced north-westward up the Gangetic plain.

The principal periods of rainfall over India were:—

(1) The 1st to the 6th when showers occurred over most parts of the country.

(2) The 10th to the 16th when general rain fell over Burma, north-east India and the Gangetic plain in connexion with the second storm of the month, and

(3) The 19th to the 25th when another depression passed from the head of the Bay as far north-west as Agra and occasioned general rain in the north-east and north.

The actual distribution of rain as shown by the meteorological observatories is given in Plate IV. Practically no rain fell over the western desert, parts of Gujarat, and the extreme south of the Peninsula; very little over the Deccan and Khandesh; and only moderate rain over the dry district of Burma. From these regions the rainfall amount increased and amounted to 32·23″ at Dehra Dun, to 26·18″ at Cooch Behar, to 55·05″ at Moulmein and to 15·23″ at Mercara.

The following table gives comparative rainfall data for the 57 meteorological divisions of the empire:—

Province.	Division.	Number of rainy days.		Rainfall.		
		Average actual, August 1904.	Average normal, August.	Average actual, August 1904.	Average normal, August.	Departure from normal, August 1904.
				Inches.	Inches.	Inches.
Burma	Tenasserim	27·7	26·9	42·85	42·56	+0·29
	Lower Burma (Deltaic)	26·3	24·9	25·54	22·25	+3·29
	Central do.	17·3	17·9	9·96	10·71	−0·75
	Upper do.	10·4	10·3	7·37	7·29	+0·08
	Arakan	27·3	26·0	36·85	39·76	−2·91
Bengal and Assam	Eastern Bengal	18·4	15·7	13·28	16·46	−3·18
	Assam (Surma)	23·0	21·6	19·73	20·82	−1·09
	Do. (Hills)	22·0	21·4	20·59	23·05	−2·46
	Do. (Brahmaputra)	18·1	16·2	17·17	14·61	+2·56
	Deltaic Bengal	14·2	16·0	8·29	12·11	−3·82
	Central do.	14·7	15·0	9·94	11·27	−1·33
	North do.	17·3	16·0	17·08	17·45	−0·37
	Bengal Hills	25·0	23·5	23·03	22·69	+0·34
	Orissa	15·4	15·2	12·16	11·94	+0·22
	Chota Nagpur	17·7	16·7	15·02	13·79	+1·23
	Bihar (South)	16·8	13·4	14·89	11·52	+3·37
	Do. (North)	16·1	13·4	13·44	12·29	+1·15
United Provinces of Agra and Oudh.	United Provinces (East)	16·5	13·1	13·76	11·38	+2·38
	Oudh (South)	15·3	12·3	11·90	11·23	+0·67
	Do. (North)	14·1	12·4	10·00	11·70	−1·70
	United Provinces (Central)	14·2	12·0	14·72	10·56	+4·16
	Do. do. (West)	12·1	9·3	12·42	7·78	+4·64
	Do. do. (East Submontane)	16·5	12·7	13·80	11·71	+2·09
	Do. do. (West do.)	13·3	12·8	13·00	14·13	−1·13
	Do. do. (Hills)	18·3	18·0	17·42	17·59	−0·17
Punjab	Punjab (South-East)	9·4	7·3	7·75	6·44	+1·31
	Do. (South)	5·9	5·0	4·34	4·18	+0·16
	Do. (Central)	4·3	5·2	3·40	4·88	−1·48
	Do. (Submontane)	7·5	8·1	6·63	8·21	−1·58
	Do. (Hills)	15·3	14·7	12·97	16·35	−3·38
	Do. (West)	2·0	2·9	1·27	2·12	−0·85
N.W.F. Province	North-West Frontier Province	5·5	4·6	4·37	3·62	+0·75

Province.	Division.	Number of rainy days. Average actual, August, 1904.	Number of rainy days. Average normal, August.	Rainfall. Average actual, August 1904.	Rainfall. Average normal August.	Rainfall. Departure from normal, August 1904.
				Inches.	Inches.	Inches.
Bombay and Malabar Coast Districts (Madras).	Malabar	17·3	21·4	15·35	20·32	−4·97
	Travancore	8·9	...	7·26	...	...
	Madras (South, Central)	2·5	5·7	1·22	3·61	−2·39
	Coorg	17·7	...	10·13	...	...
	Mysore	5·7	8·3	2·50	5·13	−2·63
	Konkan	20·6	24·7	14·07	24·84	−10·77
	Bombay Deccan	5·9	9·8	2·82	5·93	−3·11
	Hyderabad (North)	6·7	11·4	2·68	7·92	−5·24
	Khandesh	5·6	10·3	2·34	6·30	−3·96
Central Provinces and Berar.	Berar	6·0	10·3	3·87	6·94	−3·07
	Central Provinces (West)	9·5	13·0	5·28	10·57	−5·29
	Do. (Central)	13·6	15·1	10·41	13·81	−3·32
	Do. (East)	17·0	15·0	16·18	13·90	+2·28
Bombay (North)	Gujarat	4·4	13·3	2·96	9·80	−6·84
	Kathiawar and Cutch	1·9	8·4	0·91	6·77	−5·86
	Sind	0·1	2·2	0·04	2·21	−2·17
	Baluchistan Hills	0·2	1·3	0·09	0·81	−0·72
Rajputana and Central India.	Central India (East)	11·5	13·0	10·41	11·43	−1·02
	Rajputana (East), Central India (West)	11·6	9·1	10·79	7·41	+3·38
	Do. (West)	4·0	4·3	2·15	3·32	−1·17
Madras	East Coast (North)	10·0	11·0	6·41	7·51	−1·10
	Hyderabad (South)	4·4	10·4	1·67	6·43	−4·76
	Madras (Central)	3·0	6·6	0·98	4·12	−3·14
	East Coast (Central)	3·3	5·8	1·32	3·47	−2·15
	Do. (South)	4·0	7·2	2·14	4·99	−2·85
	Madras (South)	1·3	2·8	0·62	1·62	−1·00

The preceding data show that the average actual rainfa l of the month was less than one tenth of an inch over Baluchistan and Sind and less than one inch over Kathiawar, Cutch, central Madras, and south Madras, while it was over 20″ in Tenasserim (42·85″); deltaic Burma (25·54″); Arakan (36·85″); the Assam hills (20·59″); and the Bengal hills (23·03″).

In seven out of the 56 divisions for which data are available the month's rainfall was in excess of the normal; in twenty five it was normal and in twenty four it was less than the normal. The following gives comparative data for those divisions in which the percentage departure from the normal exceeded 40%:—

Division.	Rainfall. Average actual, August 1904.	Average normal, August.	Departure from normal, August 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
United Provinces, West	12·42	7·78	+4·64	+60
Rajputana, East, Central India, West.	10·79	7·41	+3·38	+46
Madras, South-Central	1·22	3·61	−2·39	−66
Mysore	2·50	5·13	−2·63	−51
Konkan	14·07	24·84	−10·77	−43
Bombay Deccan	2·82	5·93	−3·11	−52
Hyderabad, North	2·68	7·92	−5·24	−66

District.	Rainfall. Average actual, August 1904.	Average normal, August.	Departure from normal, August 1904	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Khandesh	2·34	6·30	−3·96	−63
Berar	3·87	6·94	−3·07	−44
Central Provinces West	5·28	10·57	−5·29	−50
Gujarat	2·96	9·80	−6·84	−70
Kathiawar and Cutch	0·91	6·77	−5·86	−87
Sind	0·04	2·21	−2·17	−98
Baluchistan hills	0·09	0·81	−0·72	−89
Hyderabad, South	1·67	6·43	−4·76	−74
Madras Central	0·98	4·12	−3·14	−76
East Coast, Central	1·32	3·47	−2·15	−62
East Coast, South	2·14	4·99	−2·85	−57
Madras, South	0·62	1·62	−1·00	−62

The preceding data show that the greatest excess of rain was received over the west of the United Provinces, the west of Central India and the east of Rajputana, a region which formed the goal of the various cyclonic storms which appeared during the month. The greatest

deficiency was reported from north Bombay and was attributable to the weakness and want of extension of the Arabian Sea monsoon current.

From the fifth figure column of the table on pages 273 and 274 it would appear that the rainfall of the whole country (excluding the hill districts) was 1·05″ below the normal.

Daily rain was received during the month over Tenasserim, lower Burma, parts of central Burma, Arakan and the hill districts of upper Burma but in the Prome district of central Burma and in most of the districts of upper Burma scattered showers only were reported. The general rainfall of the whole province was about normal. The following amounts exceeding 6″ in 24 hours were recorded in Tenasserim and Arakan during the month :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Sandoway	Taungup	5th August	8·82
Tavoy	Launglon	9th "	7·15
Thaton	Kyaikto	11th "	6·74
Amherst	Amherst	13th "	7·20
Thaton	Pa-an	" "	6·99
	Thaton	" "	6·13
Akyab	Maungdaw	15th "	7·25

In Burma proper the daily amounts were not remarkable and there were no heavy outbursts.

Rain fell daily in the Surma valley of Assam between the 1st and the 10th and the 14th and the 20th while showers were experienced at other times. In the Brahmaputra valley the rainfall was less continuous and scattered but moderately heavy rain was received over the greater part of this region during the greater part of the month. The heaviest rainfall occurred about the middle of the month when the following amounts exceeding 5″ in 24 hours were recorded :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Kamrup	Nalbari	10th August	5·84
Lakhimpur	Pathalipam	16th "	5·65
Darrang	Charduar	17th "	5·31
	Boreli	18th "	6·22
	Balipara	" "	5·71
	Barpukhuri	" "	5·62
Lakhimpur	Pathalipam	29th "	5·70
	"	30th "	5·03

The month's rainfall was less than usual in the Surma valley and greater than usual in the Brahmaputra valley, as is shown by the following comparative data for the eight plains districts of the province.—

District.	Rainfall.			
	Average actual, August 1904.	Average normal, August.	Departure from normal, August 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Cachar	19·38	19·34	+0·04	0
Sylhet	20·05	22·15	−2·15	−10
Goalpara	17·41	16·0	+1·11	+ 7
Kamrup	11·78	12·33	−0·55	− 4
Darrang	16·15	13·33	+2·82	+21
Nowgong	20·33	13·40	+6·93	+52
Sibsagar	15·17	14·49	+0·68	+ 5
Lakhimpur	25·32	18·75	+6·57	+35

On the hills the rainfall was somewhat less than usual. At Cherrapoonjee only 69·38″ were received instead of 76·50″ and the only amounts exceeding 5″ in 24 hours at the hill stations were as follows :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Khasi and Jaintia Hills.	Wahmaulien	1st August	5·64
	"	3rd "	9·52
	Cherrapoonjee, Mr. Shadwell's house.	4th "	5·50
	Wahmaulien	" "	5·22
	Cherrapoonjee, Mr. Shadwell's house.	5th "	8·80
	Cherrapoonjee, Police Station.	" "	6·08
	Do.	9th "	11·00
	Cherrapoonjee, Welsh Mission house.	" "	10·98
	Cherrapoonjee, Mr. Shadwell's house.	" "	10·78
	Cherrapoonjee, Roman Catholic Mission house.	" "	10·68
	Wahmaulien	" "	5·75
	Cherrapoonjee, Mr. Shadwell's house.	10th "	5·22
	Wahmaulien	17th "	6·42
	Cherrapoonjee, Mr. Shadwell's house.	18th "	5·90
	Wahmaulien	30th "	7·62
	Cherrapoonjee, Mr. Shadwell's house.	31st "	13·05
	Laitlyngkot	" "	13·00
	Cherrapoonjee, Police Station.	" "	9·76
	Wahmaulien	" "	9·73
	Cherrapoonjee, Welsh Mission house.	" "	9·05
	Cherrapoonjee, Roman Catholic Mission house.	" "	8·69
	Mauphlang	" "	6·91

In Bengal the rainfall of the month was short of the normal except in Orissa, Bihar and Chota Nagpur. The number of days on which rain fell was greater than the normal except in two divisions but the daily falls were lighter than usual. This lightness was very noticeable as regards the rainfall which accompanied the storms and which was seldom heavy.

In east Bengal the rainfall was everywhere deficient and in south-west Bengal in all districts except one. This is shown below:—

Division.	District.	Rainfall. Average actual, August 1904.	Average normal, August.	Departure from normal, August 1904.	Percentage departure from normal.
		Inches.	Inches.	Inches.	
East Bengal	Dacca	11·13	12·59	−1·46	−12
	Mymensingh	12·30	14·96	−2·66	−18
	Faridpur	9·32	11·49	−2·17	−19
	Backergunge	12 33	16·21	−3·88	−24
	Tippera	11·19	12·80	−1·61	−13
	Noakhali	20·78	23·92	−3·14	−14
	Chittagong	15·39	21·89	−6·50	−30
South-West Bengal.	Burdwan	8·20	11·76	−3·56	−30
	Birbhum	13·09	10·93	+2·16	+20
	Bankura	9·21	11·88	−2·67	−22
	Midnapur	9·88	12·82	−2·94	−23
	Hooghly	7·95	12·53	−4·58	−37
	Howrah	7·56	11·40	−3·84	−34
	24 Parganas	9·40	13·29	−3·89	−29
	Calcutta	10·11	12·69	−2·58	−20
	Nadia	6·64	10·96	−4·32	−39
	Murshidabad	9·15	10·45	−1·30	−12
	Jessore	6·35	10·67	−4·32	−40
	Khulna	8·05	12·32	−4·26	−35

In Bihar on the other hand, all districts except Purnea, Malda and the Sonthal Parganas reported an excess. The following gives data:—

District.	Rainfall. Average actual, Aug. 1904.	Average normal, August.	Departure from normal, Aug. 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Patna	16·61	11·21	+5·40	+48
Gava	14·79	11·72	+3·07	+26
Shahabad	13·46	11·66	+1·80	+15
Saran	12·49	11·00	+1·49	+14
Champaran	14·35	12·81	+1·54	+12
Muzaffarpur	15·09	11·00	+4·09	+37
Darbhanga	17·65	12·49	+5·16	+41
Monghyr	15·61	11·41	+4·20	+37
Bhagalpur	12·55	11·66	+0·89	+8
Purnea	10·11	14·98	−4·87	−33
Malda	9·69	11·07	−1·38	−12
Sonthal Parganas	10·72	11·66	−0·94	−8

In the remaining divisions the district departures from the normal were irregular. The storms of the month, as mentioned above, all passed through south-west and west Bengal only influencing the weather in the east or north to a moderate extent. In consequence few heavy downpours were experienced but the following amounts exceeding 5 inches in 24 hours were recorded during the month:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Dinajpur	Thakurgaon	2nd August	5·10
	Birganj	4th „	5·30
Muzaffarpur	Muzaffarpur	10th „	13·20
Chittagong Hill Tracts.	Rangamati	12th „	5·40
Chittagong	Cox's Bazar	16th „	5·96
Noakhali	Harishpur	18th „	6·05
Monghyr	Chakai Bamda	19th „	6·00
	Jamalpur	„ „	5·61
Bhagalpur	Banka	„ „	5·45
Champaran	Burhuwa	„ „	5·05
Darjeeling	Kurseong	„ „	5·04
Bankura	Vishnupur	20th „	5·04
Balasore	Baliapal	22nd „	5·10
Darjeeling	Kurseong	26th „	8·32
	Mongpoo	„ „	7·92
Muzaffarpur	Mahua	30th „	5·07
Noakhali	Fenny	31st „	5·15

A very heavy fall of rain was received in parts of north Bihar on the 10th and 11th and this heavy rain resulted in a flood on the Ganges, the water breaching the bund and flowing over the surrounding country near Monghyr on the 17th. The flood was not as serious as at first believed and the loss of life was small. The depth of flood water was about 5 feet. The Ganges gauge at Monghyr shows that the river rose to 25 feet above zero on the 14th, attained its maximum height, 27 feet 3 inches, at noon on the 19th and on the 25th still read 25 feet 9 inches. The river had thus on the 25th been for twelve days above 25 feet. The highest recorded reading on the gauge was 28 feet above zero at 6 P.M. on the 8th September 1901, but during the 1901 flood, the water was over 25 feet for six days only.

More or less daily rain fell over the United Provinces from the 1st to the 25th or 26th after which the weather cleared and only scattered showers were experienced. Three barometric depressions passed through this area during the month. The first on the 7th and 8th occasioned only moderate rain; the second between the 14th and 16th gave general, but in most places moderate, rain, while the third between the 22nd and the 25th gave general rain to all districts and heavy rain to the west. The following shows the falls equalling or exceeding 6·00 inches in 24 hours recorded during the month:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M of date.
			Inches.
Dehra Dun	Mussooree	5th August	6·55
Ghazipur	Ghazipur	9th ,,	6·25
Dehra Dun	Raipur	11th ,,	6·20
Mirzapur	Robertsganj	14th ,,	6·13
Agra	Bhikapur	15th ,,	8·00
Etah	Jalesar	16th ,,	6·09
Gonda	Utraula	19th ,,	7·19
Almora	Lohaghat	21st ,,	6·54
Cawnpore	Derapur	23rd ,,	8·46
Hamirpur	Maudha	,, ,,	7·81
Etawah	Auraiya	,, ,,	6·64
Muttra	Basaunti	,, ,,	6·00
Dehra Dun	Rajpur	26th ,,	6·71

The total rainfall of the month exceeded the normal in the east, central, and west divisions and was normal elsewhere. The excess was greatest in the central and west divisions and the following gives comparative district data for these two divisions:—

Province or Division.	District.	Rainfall. Average actual, August 1904.	Average normal, August.	Departure from normal, August 1904.	Percentage departure from normal.
		Inches.	Inches.	Inches.	
United Provinces, Central.	Banda	13·72	11·89	+1·83	+ 15
	Fatehpur	14·70	10·29	+4·41	+ 43
	Hamirpur	17·21	10·67	+6·54	+ 61
	Cawnpore	16·73	10·35	+6·38	+ 62
	Jalaun	15·58	10·30	+5·28	+ 51
	Etawah	15·72	10·07	+5·65	+ 56
	Furrukhabad	13·60	9·92	+3·68	+ 37
	Mainpuri	16·30	10·10	+6·20	+ 61
	Etah	15·86	9·01	+6·85	+ 76
	Jhansi	10·90	11·30	—0·40	— 4
United Provinces, West.	Agra	14·86	8·24	+6·62	+ 80
	Muttra	16·06	7·42	+8·64	+116
	Aligarh	14·01	7·81	+6·20	+ 79
	Bulandshahr	8·48	7·89	+0·59	+ 6
	Meerut	8·61	7·56	+1·05	+ 14

The rainfall was thus heaviest in the Muttra, Agra, Aligarh and Etah districts.

The rainfall in the Punjab was irregularly distributed, but on the whole the periods of most general rain were between the 2nd and the 4th; the 6th and the 10th; the 14th and the 16th; and the 22nd and the 26th. Even in the west division where the rainfall was exceedingly light these periods were faintly indicated while in some submontane and hill districts, where the rainfall was fairly continuous, the falls were heavier during the above periods than at other times. The heaviest falls exceeding 3″ in 24 hours were recorded at the following places during the month:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Gurdaspur	Madhopur	2nd August	4·30
Kangra	Dharmsala	,, ,,	3·90
Rawalpindi	Kahuta	3rd ,,	3·66
Rohtak	Gohana	,,	3·43

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Ferozepore	Zira	3rd August	3·41
Jullundur	Phillaur	,, ,,	3·30
Karnal	Thanesar	,, ,,	3·02
Hoshiarpur	Hoshiarpur	4th ,,	3·29
Kangra	Kangra	6th ,,	3·93
	Dharmsala	7th ,,	5·20
Rawalpindi	Murree	,, ,,	3·23
Kangra	Dharmsala	8th ,,	3·97
Attock	Talagang	,, ,,	3·80
Jhelum	Pind Dadan Khan	,, ,,	3·55
Hoshiarpur	Una	9th ,,	5·30
Gujranwala	Ramnagar	,, ,,	3·31
Kangra	Kangra	10th ,,	3·26
Hissar	Hissar	,, ,,	3·23
Kangra	Palampur	11th ,,	6·48
	Dera	12th ,,	5·10
Gurdaspur	Batala	,, ,,	3·90
Gurgaon	Jatusana	13th ,,	3·55
	Khol	14th ,,	3·36
	Rewari	,, ,,	3·20
Kangra	Kangra	17th ,,	4·06
Simla	Simla	,, ,,	3·13
Kangra	Kangra	th ,,	3·04
Gurgaon	Punahana	24th ,,	3·70
	Firozpur	,, ,,	3·50
Patiala State	Gujran	25th ,,	5·80
Kangra	Kangra	,, ,,	4·75
Ambala	Kharar	,, ,,	3·65
Karnal	Karnal	,, ,,	3·20
Ambala	Rupar	,, ,,	3·05
Gurgaon	Palwal	26th ,,	3·23
Kangra	Dharmsala	29th ,,	4·25

In the south and south-east Punjab the month's rainfall, though irregularly distributed, was normal or in excess of the normal. The following gives data for the contained districts:—

Division.	District.	Rainfall			
		Average actual, August 1904.	Average normal, August.	Departure from normal, August 1904.	Percentage departure from normal.
		Inches.	Inches.	Inches.	
South Punjab	Hissar	5·60	3·82	+1·78	+47
	Ferozepore	2·23	3·64	−1·41	−39
South-East Punjab	Gurgaon	10·07	6·96	+3·11	+45
	Rohtak	6·30	5·29	+1·01	+19
	Karnal	3·87	5·72	−1·85	−32
	Delhi	7·51	6·95	+0·56	+8

In all other parts of the province the rainfall was short of the normal, more particularly in the centre and west. The following gives data for the districts in the west division:—

District.	Rainfall			
	Average actual, August 1904.	Average normal, August.	Departure from normal, August 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Montgomery	0·95	2·03	−1·08	−53
Mianwali	1·44	1·37	+0·07	+5
Shahpur	2·86	3·07	−0·21	−7
Jhang	1·20	2·29	−1·09	−48
D. G. Khan	0·46	1·66	−1·20	−72
Muzaffargarh	0·18	1·81	−1·63	−60
Multan	0·35	1·35	−1·00	−74

No rain whatever fell during the month at the stations of Shujabad, Lodhran, Muzaffargarh, Alipur, Rajanpur, Jampur, and Shorkot in the west division or at Mian Mir in the central division.

In the North-west Frontier Province fairly general rain fell between the 1st and the 3rd, the 7th and the 13th, the 19th to the 23rd, and the 27th to the 30th. The total fall for the month was in excess of the normal owing to heavy

rain in Peshawar and Hazara. The following gives ata for the contained districts:—

District.	Rainfall. Average actual, August 1904.	Average normal, August.	Departure from normal, August 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Peshawar	4·69	3·15	+1·54	+ 49
Hazara	9·88	7·30	+2·58	+ 35
Kohat	4·22	4·36	−0·14	— 3
Bannu	1·95	2·73	−0·78	— 28
Dera Ismail Khan	1·41	1·77	−0·36	— 20

Light, very scattered local rain occurred in Baluchistan on the 1st, 2nd, 3rd, 8th, 14th, 21st, 22nd, and 23rd but the rainfall amounts were small and the average actual rainfall for the province was practically *nil*.

Kashmir experienced showery weather more or less throughout the month though the showers were most general between the 1st and 3rd, the 5th and the 12th, the 18th and 21st; and the 25th and the 30th. Falls exceeding 3″ in 24 hours were registered at the following places on the following dates:—

State.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Jammoo	Kotli	2nd August	3·60
„	Bisolee	5th „	3·72
„	Sambha	5th „	3·69
„	Bhimber	6th „	3·20
„	Punch	18th „	3·35
„	Bisolee	24th „	3·93

As far as can be judged the general rainfall was not heavier than usual though Srinagar, Domel, Gilgit and Ramban received more than the average.

In western Rajputana there were four showery periods, *viz.*, between the 1st and the 4th, the 7th and the 9th, the 14th and the 16th and the 23rd and the 26th. A few stations in Jodhpur and Jaisalmer received actually or practically no rain and the general rainfall of the division was less than usual. In east Rajputana similar conditions prevailed, the periods of most general rainfall having occurred between the 1st and the 4th, the 6th and the 10th, the 13th and the 16th and the 23rd and the 26th. The rainfall was heavy on the 10th, the 13th and 14th and the 23rd and 24th when the storms from the Bay were in the neighbourhood of this region. The following amounts exceeding 5″ in 24 hours were registered at the following places on the following dates:—

State.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Kotah	Antah	6th August	6·40
Bharatpur	Biana	12th „	6·65
„	Rupbas	„ „	5·10
Dholpur	Sirmathra	13th „	8·16
„	Angai	„ „	7·25
„	Bansrai	„ „	6·65
Jaipur	Hindaun	„ „	5·76
Dholpur	Gajpura	„ „	5·25
Bharatpur	Wair	„ „	5·14
Alwar	Alwar	24th „	11·39
„	Ramgarh	„ „	7·00
„	Gobindgarh	„ „	6·62
„	Narayanpur	„ „	6·47
„	Bansur	„ „	5·50

The month's rainfall was irregularly distributed, as is shown by the following data for some of the larger states:—

State.	Rainfall. Average actual, August 1904.	Average normal August.	Departure from normal, August 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Jaipur	11·55	6·85	+4·70	+ 69
Alwar	14·63	5·48	+9·15	+167
Bharatpur	15·36	7·27	+8·09	+111
Dholpur	17·72	8·28	+9·44	+114
Karauli	13·46	9·09	+4·37	+ 48
Kotah	8·79	9·90	−1·11	— 11
Ajmer Merwara	5·77	5·63	+0·14	+ 2
Udaipur	4·56	8·36	−3·80	— 45
Sirohi	2·61	10·78	−8·17	— 76

In Central India the general conditions were generally similar to those in Rajputana except that in the eastern states the rainfall during the first three weeks was somewhat more continuous. Falls exceeding 5″ in 24 hours were recorded at the following places on the following dates:—

State.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Bhopal Agency	Narsinghgarh	3rd August	5·10
	Kurwai	6th ,,	5·50
Gwalior	Gwalior Residency	13th ,,	5·60
Rewah	Rewah	15th ,,	7·60
Gwalior	Gwalior Residency	16th ,,	7·30
	Gird Gwalior	,, ,,	6·30
	Bhind	23rd ,,	6·45
Bundelkhand	Kadaura	,, ,,	6·02
Gwalior	Ambah	,, ,,	5·90
	Gird Gwalior	,, ,,	5·50
Bundelkhand	Sarila	,, ,,	5·15

In this area also the distribution of rain was irregular, as is shown by the following data for some of the larger states:—

State.	Rainfall			
	Average actual, August 1904.	Average normal, August.	Departure from normal, August 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Bhopal Agency	8·43	12·82	−4·39	−34
Gwalior	7·78	9·50	−1·72	−18
Rewah	16·64	13·51	+3·13	+23
Bundelkhand	14·99	12·88	+2·11	+16

The eastern division of the Central Provinces received fairly general rain between the 1st and the 8th; the 11th and the 15th; the 19th and the 23rd; and the 27th and the 31st. In the remaining divisions fair showers were received up to the middle of the month after which the rainfall diminished and became light and scattered. This was more particularly the case in the west and Berar divisions where there was very little rain after the 12th. The rainfall was normal in the east division and lighter than usual elsewhere. The following gives district data for the west division:—

Station.	Rainfall			
	Average actual, August 1904.	Average normal, August.	Departure from normal, August 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Hoshangabad	7·02	14·73	−7·71	−52
Nimar	2·46	5·45	−2·99	−55
Betul	4·53	7·79	−3·26	−42
Chindwara	5·31	3·92	+1·39	+35
Wardha	3·90	8·64	−4·74	−55
Nagpur	6·52	10·47	−3·95	−38

Amounts of 5″ or more in 24 hours were registered at the following places on the following dates:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Bilaspur	Bilaspur	8th August	5·15
Feudatory States	Jagdalpur	25th ,,	5·04
Balaghat	Lanji	28th ,,	5·85
Raipur	Drug	29th ,,	5·58

Over the Bombay Presidency the rainfall was everywhere light and in some northern districts failed almost completely. In the Konkan fairly general daily rain fell up to the 24th after which showers were experienced. The rainfall was, however, only heavy during the first ten days and the total rainfall of the month was only about half the normal. The following gives the falls exceeding 4″ in 24 hours which, as will be seen, all occurred early in the month:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
North Kanara	Bhatkal	2nd August	4·32
Ratnagiri	Mandangad	5th ,,	6·75
	Dapoli	,, ,,	5·35
Kolaba	Matheran	,, ,,	5·13
	Nagothna	,, ,,	4·65
	Roha	,, ,,	4·65
	Mangaon	,, ,,	4·45
	Mahad	,, ,,	4·42
Ratnagiri	Khed	,, ,,	4·20

In the Karnatak there was no heavy or general rain, but scattered and generally light showers were received throughout the month. The total rainfall was less than half the average. In the south Deccan moderately general rain was received between the 1st and the 10th after which date occasional light scattered showers fell up to the close of the month. Khandesh received even less rain than the Deccan, but in this division also there were fairly general showers up to the 10th after which the weather was fine with occasional local rain.

Gujarat reported fairly general showers between the 8th and the 10th and a few light scattered showers at other times. The total rainfall of the month was less than one-third of the normal and the only heavy rainfall reported was in the Surat district. In the Kathiawar and Cutch states light scattered showers occurred between the 2nd and the 5th; the 8th and 10th; the 17th and 19th; and the 24th and the 30th, but the amounts were small and the total average actual fall was only one-seventh of the normal. At Rajkot, Morvi, Jasdan, Chuda and Nalia no rain whatever fell throughout the month and at several other stations only a few cents.

In Sind there were a few light showers in Thar and Parkar and none elsewhere.

The Malabar coast districts of Madras received about three-fourths of their normal fall during the month. In south Canara there was daily rain throughout, in Malabar up to the 18th and in Travancore up to the 10th. Most of the heavy rain occurred during the first few days when the following falls exceeding 4″ in 24 hours were recorded:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Malabar	Payyanur	3rd August	7·20
South Canara	Baindur	4th ,,	4·48
Travancore	Peermade	5th ,,	4·75
South Canara	Baindur	6th ,,	4·63
Malabar	Vayittiri	7th ,,	5·40
South Canara	Coondapoor	,, ,,	4·09
Malabar	Cherpulcherry	9th ,,	5·48
	Vayittiri	,, ,,	4·80
	Angadipuram	,, ,,	4·60
	Pounani	,, ,,	4·21
	Ottapalam	,, ,,	4·20
	Tirurangadi	,, ,,	4·12

In south Madras there were a few showers during the first four days and again at the close of the month, the intervening days having been almost rainless. In South Central Madras similar conditions prevailed and the total rainfall of the month was only one-third of the normal. Central Madras received showers between the 1st and the 3rd, the 7th and the 13th and on the 29th, but very little at other times. There were no heavy falls and the total rainfall was less than one quarter of the normal.

The north division of the east coast was more or less affected by the various storms which developed at the head of the Bay and fairly general rain was received on the 1st and 2nd, the 7th and 8th, the 12th and 13th; and the 25th to the 28th. The total rainfall of the division was about normal and the following amounts exceeding 3″ in 24 hours were registered during the month.

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Vizagapatam	Vizagapatam	2nd August	3·50
Godavari	Prattipadu	4th ,,	3·48
	Amalapuram	,, ,,	3·10
Vizagapatam	Parvatipuram	25th ,,	3·28
Ganjam	Chicacole	,, ,,	3·10
Vizagapatam	Bobbili	26th ,,	3·24
Ganjam	Daringabadi	,, ,,	3·20
	Surada	27th ,,	4·31
	Ramagiri	,, ,,	4·05
	Aska	,, ,,	3·75
	Russellkonda	,, ,,	3·33
	Tekkali	,, ,,	3·24
	Parlakimedi	,, ,,	3·17
	Gumma	,, ,,	3·16

The central division of the east coast received only light scattered showers and the total fall was only about one-third of the normal. The south division like other parts of the south of the Peninsula received moderately general showers during the first ten days and scattered local rain at the close of the month, the intervening period having been fine. The total fall was only about half the average and there were only a few showers which exceeded 2″ in 24 hours. The following gives comparative data for the 22 collectorates of the Presidency:—

Collectorate.	Rainfall.			
	Average actual, August 1904.	Average normal, August.	Departure from normal, August 1904.	Percentage departure from normal
	Inches.	Inches.	Inches.	
Ganjam	9·35	8·23	+1·12	+ 14
Vizagapatam	5·50	6·26	—0·73	— 12
Godavari	4·27	6·35	—2·08	— 33
Kistna	3·40	5·80	—2·40	— 41
Nellore	1·32	3·47	—2·15	— 62

Collectorate.	Rainfall. Average actual, August 1904.	Average normal, August.	Departure from normal, August 1904.	Percentage parture from normal.
	Inches.	Inches.	Inches.	
Madras	2·55	4·67	—2·12	— 45
Chingleput	2·19	5·82	—3·63	— 62
North Arcot	1·41	5·08	—3·67	— 72
South Arcot	3·28	5·62	—2·34	— 42
Tanjore	2·05	4·31	—2·26	— 52
Trichinopoly	1·44	4·11	—2·67	— 65
Madura	0·85	2·28	—1·43	— 63
Tinnevelly	0·18	0·85	—0·67	— 79
Malabar	14·00	16·23	—2·23	— 14
South Canara	18·77	27·00	—8·23	— 30
Salem	1·49	4·51	—3·02	— 67
Coimbatore	0·48	2·12	—1·64	— 77
Nilgiris	9·71	9·34	+0·37	+ 4
Cuddapah	0·55	4·34	—3·79	— 87
Anantapur	0·62	3·50	—2·88	— 82
Bellary	1·28	3·54	—2·26	— 64
Kurnool	1·53	4·95	—3·42	— 69

The following gives rainfall data for the extra-India stations:—

Station.	Rainfall. Average actual, August 1904.	Average normal, August.	Departure from normal, August 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Trincomalee	1·42	4·64	—3·22	— 69
Colombo	0·36	3·90	—3·54	— 91
Minicoy	1·53	6·49	—4·96	— 76
Amini Divi	3·46	5·04	—1·58	— 31
Kabul	0	0·18	—0·18	—100
Kashgar	0	1·10	—1·10	—100
Meshed	0	0·01	—0·01	—100
Teheran	0	0·05	—0·05	—100
Ispahan	0	0	0	0
Bushire	0	0	0	0
Jask	0	0	0	
Muscat	0	0	0	0
Baghdad	0	0·09	—0·09	—100
Aden	0	0·14	—0·14	—100
Perim	0·36	0·43	—0·07	— 16
Zanzibar	0·33	1·90	—1·57	—83
Seychelles	4·57	3·20	+1·37	+ 43
Mauritius	1·08	2·73	—1·65	— 60

In Afghanistan, Kashgaria, Persia, Asiatic Turkey and Arabia there was no rain reported. In Ceylon and at Minicoy and Amini Divi the total fall was much below the normal while at Perim it was about the average. In the south-east trade wind region the rainfall was much less than usual at Zanzibar and Mauritius, while at the Seychelles, on the contrary, it was in some excess.

Crop Report.

Madras:—The rainfall was generally light and at the end of the month though the crops were generally in good condition, they required rain in parts of the Circars, the Deccan, Chingleput, the central districts and Tinnevelly.

Bombay:—The rainfall was light generally and was very scanty in the northern districts. The standing crops, at the close of the month, were suffering from want of rain in parts of Larkana, Thar and Parkar, Gujarat, the Deccan, the Carnatic and Kathiawar. More rain was urgently needed everywhere.

Bengal:—The rainfall was general during the month and prospects were fair. Floods had done damage in several districts.

United Provinces:—The prospects were favourable, a break in the rains having benefited agricultural operations.

Punjab:—At the close of the month the standing crops were in good condition in Delhi and part of Sialkot and on irrigated soils in Hissar, Ferozepore, and Amritsar; average in Multan and Jullundur, the remainder of Sialkot, Rawalpindi, and Mianwali and below the average in Lahore, Shahpur and on unirrigated land in Amritsar. The crops on unirrigated soils were withering for want of rain in Ambala, Ferozepore, Sialkot and in parts of Mianwali and were in very bad condition in Lahore. All districts except parts of Ambala and Rawalpindi wanted more rain at the close of the month.

North-west Frontier Province:—The prospects of the standing crops were fair at the close of the month, but more rain was wanted everywhere.

Burma:—Crop prospects were mostly favourable.

Central Provinces:—At the close of the month more rain was urgently needed in parts of Mandla, Seoni and all the districts of the Nerbudda, Nagpur and Berar divisions and owing to the deficient fall crops on light soils in

Nimar and on high lands in Wardha had begun to wither and in parts of Seoni and Betul had suffered and were stunted in growth. Rice had withered in Hoshangabad.

Assam :—The prospects of early rice were indifferent in lower Assam and fair in other districts. Tea was thriving. The prospects of late rice, sugarcane and cotton were fair, and of jute, poor

Mysore :—The standing crops were in fair condition but more rain was much wanted everywhere.

Hyderabad :—The standing crops were withering in 91 out of 113 talukas and an almost total failure of the crop was anticipated if rain held off.

Rajputana :—Agricultural operations were generally satisfactory and sowing and weeding of autumn crops were in progress but rain was urgently wanted in Marwar-Jaisalmer, Mewar, Mewar hill tracts and in parts of Bikaner, Sirohi, and Ajmer-Merwara.

Central India :—Agricultural operations were in progress everywhere, but the crops had been slightly damaged by excessive rain in parts of Gwalior, Bundelkhand and Baghelkhand, were withering for want of rain or injured by insects in parts of Indore and in Malwa and Bhopawar, were good in Bhopal and average elsewhere.

Kashmir, Jummoo :—The condition of the standing crops was fair.

Nepal :—The standing crops were flourishing.

W. L. DALLAS.

TABLE I.—Abstract of Observations taken at 8 A.M. at 232 Stations in India, Burma, etc., in August, 1904.

Table

Abstract of Observations taken at 8 A.M. at 232

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 A.M., in inches.								Temperature of air.												
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
	I.—Burma Coast and Bay Islands.				—·009								84·0	−0·5	75·3	+0·1	79·7	−0·2	8·7					15·6
1	Tenasserim and Bay Islands.	Car-Nicobar.	25																					
		Port Blair .	61	29·801	+·016	29·793	29·876	31st	29·742	12th	·134	81·1	85·1	−0·2	78·5	+1·3	81·8	+0·6	6·6	87·1	3rd	74·3	10th	13·7
		Mergui .	96	29·778	−·008	29·806	29·848	7th	29·699	10th	·149	77·7	84·6	+0·4	73·6	+1·0	79·1	+0·7	11·0	88·6	27th & 28th.	70·4	12th	18·2
		Tavoy .	26	29·848	—·009	29·805	29·924	7th	29·747	10th	·177	76·4	81·6	−1·2	72·3	−1·5	77·0	−1·4	9·3	87·7	25th & 30th,	68·1	23rd	19·6
		Moulmein .	94	29·720	—·018	29·751	29·796	29th	29·601	10th	·195	76·4	81·7	−1·3	73·8	−0·3	77·8	−0·8	7·9	86·0	31st	71·8	11th, & 22nd,	14·2
2	Lower Burma .	Rangoon .	57	29·748	−·017	29·743	29·832	29th	29·626	10th	·206	78·3	83·8	−1·3	75·0	−0·7	79·4	−1·0	8·8	87·6	17th	73·9	13 days.	13·7
		Bassein .	27	29·774	0	29·738	29·878	7th	29·674	10th	·204	78·8	83·8	−0·7	76·3	+0·6	80·1	−0·1	7·5	88·2	30th & 31st.	74·8	8 days.	13·4
		Diamond Island,	41	29·761	—·011	29·737	29·862	7th	29·660	10th	·202	79·8	83·6	−0·7	77·0	+1·4	80·3	+0·4	6·6	85·9	30th & 31st.	74·2	6th, 23rd, & 27th	11·7
	Arakan . .	Akyab .	20	29·712	−·020	29·675	29·786	7th	29·556	12th	·230	80·1	84·9	+0·5	77·7	+0·4	81·3	+0·5	7·2	88·9	26th	76·3	5 days.	12·6
3	Central Burma.	Toungoo .	183	29·604	−·011	29·729	29·701	29th	29·479	10th	·222	78·4	86·9	+0·2	73·3	−1·7	80·1	−0·8	13·6	93·4	25th	70·1	24th	23·3
	II.—Burma, Inland.				—·001								89·3	−0·8	76·2	−0·2	82·8	0·5	13·1					20·2
3	Central Burma.	Thayetmyo*.	130	29·638	−·005	29·709	29·728	29th	29·516	11th	·212	80·4	89·1	+0·2	73·5	−2·6	81·3	−1·2	15·6	92·5	1st	72·0	24th & 29th.	20·5
4	Upper Burma .	Minbu .	*165*	29·581	−·001	29·690	29·655	28th	29·478	10th	·177	80·2	90·1	−0·5	77·3	+0·3	83·8	−0·1	12·8	93·7	6th, 10th, & 17th.	76·1	4 days.	17·6
		Yamethin .	657	29·107	—·001	29·718	29·169	28th	28·993	10th	·17	78·2	88·8	−1·0	74·9	+0·6	81·9	−0·2	13·9	92·3	3rd & 25th.	71·7	29th	20·6
		Monywa .	*280*	29·471		29·690	29·561	7th	29·377	10th	·184	80·9	91·7		78·0		85·0		13·7	97·8	9th & 10th.	75·3	27th	22·5
		Mandalay .	250	29·496	+·001	29·695	29·579	7th	29·387	10th	·192	81·6	91·2	−2·1	77·9	+0·3	84·6	−0·9	13·3	95·0	10th	75·3	10th	19·7
		Myitkyina .	458	29·236		29·652	29·345	7th	29·142	17th	·263	79·0	86·9		76·4		81·7		10·5	94·9	12th	74·7	2nd & 19th	20·2
		Bhamo .	*381*	29·347	+·002	29·681	29·450	7th	29·255	11th	·195	78·1	87·4	−0·7	75·6	+0·2	81·5	−0·3	11·8	93·5	5 days	73·1	22nd	20·4
4(a)	Burma Hill Stations.	Maymyo .	3,545									69·6	76·4		66·6		71·6		9·8	82·9	25th	65·0	7th & 15th	17·9
		Lashio .	*2,751*									72·3	82·6	−0·5	71·2	+2·1	76·9	+0·8	11·4	88·5	24th	68·0	13th & 14th,	20·5
	III.—Assam.				—·019								88·3	+0·2	77·0	−0·1	82·6	0	11·3					20·9
7	Surma . .	Silchar .	104	29·602	−·019	29·659	29·690	23rd	29·485	12th	·205	80·4	89·9	+0·4	77·2	+0·4	83·5	+0·4	12·7	96·1	13th	74·8	23rd	21·3
9	Brahmaputra .	Sibsagar .	333	29·355	−·028	29·644	29·465	7th	29·234	17th	·231	80·0	88·3	−0·9	77·3	−0·4	82·8	−0·7	11·0	95·7	13th	75·0	18th	20·7
		Dhubri .	115	29·549	−·011	29·620	29·632	23rd	29·428	12th	·204	80·8	87·0	+1·0	78·1	−0·2	82·6	+0·4	8·9	92·7	13th	75·8	20th	16·9
		Gauhati .	195	29·486		29·636	29·570	23rd	29·381	12th	·189	81·5	90·9?		78·1		84·5?		12·8?	96·5?	13th	75·5	19th	21·0?
		Tezpur .	252	29·421		29·634	29·512	7th	29·323	17th	·189	79·6	88·6		76·9		82·7		11·7	97·1	13th	74·9	18th	22·2
		Dibrugarh .	353	29·339		29·652	29·426	7th	29·210	17th	·216	78·6	87·7		75·3		81·5		12·4	95·2	13th	72·0	10th	23·2
	IV.—Bengal and Orissa.				−·012								88·4	+0·6	78·6	+0·5	83·6	+0·6	9·8					16·1
6	East Bengal .	Chittagong .	87	29·604	−·023	29·639	29·694	8th	29·461	12th	·233	81·0	86·9	+1·4	76·7	+0·6	81·8	+1·0	10·2	90·0	25th	75·1	4 days	14·9
		Noakhali .	43	29·630		29·620	29·695	8th	29·515	12th	·180	81·5	86·3		77·4		81·9		8·9	89·2	25th	70·9	3rd	18·3
		Comilla .	36	29·641		29·625	29·710	23rd	29·525	12th	·185	80·4	88·0		76·5		82·2		11·5	93·3	25th	74·3	15th	19·0
		Sirajganj .	49	29·610		29·609	29·684	28th	29·487	12th	·197	81·3	87·2		79·2		83·2		8·0	90·3	4 days	76·2	8th	14·1
		Narayanganj	26	29·647	0	29·621	29·717	23rd, 25th & 28th.	29·530	12th	·187	82·2	88·4	+0·9	79·2	+0·2	83·9	+0·6	9·2	91·6	13th & 25th.	76·8	10th & 11th.	14·8
		Barisal .	13	29·649	−·003	29·607	29·729	25th	29·523	13th	·206	82·2	87·6	+0·8	78·6	+0·4	83·1	+0·6	9·0	91·3	26th	76·1	2nd & 3rd	15·2
		Mymensingh	63	29·616	−·009	29·629	29·691	23rd	29·499	12th	·192	81·8	88·0	+1·1	79·2	+1·1	83·6	+1·1	8·8	91·7	13th	77·0	1st	14·7
		Faridpur .	46	29·615		29·611	29·698	25th	29·495	12th	·203	81·9	87·5		78·9		83·2		8·6	89·8	17th & 25th.	75·9	1st	13·9
10	Deltaic Bengal	Jessore .	33	29·608	−·017	29·588	29·712	25th	29·462	13th	·250	82·6	89·1	+0·5	79·4	+0·7	84·3	+0·6	9·7	92·0	26th	78·2	7 days	13·8
		Calcutta .	21	29·605	—·019	29·572	29·708	25th	29·366	13th	·342	82·6	88·9	+1·8	79·0	+0·7	84·0	+1·3	9·9	92·4	19th	76·9	6th	15·5
		Saugor Island	25	29·576?	?	29·545?	29·680	25th	29·229	13th	·451	82·4	88·3	+1·1	80·3	+0·5	84·3	+0·8	8·0	91·9	20th	77·6	3rd, 7th & 8th.	14·3
		Krishnagar .	47	29·591		29·586	29·682	25th	29·433	13th	·249	82·4	90·3		79·5		85·0		10·8	93·1	26th & 28th,	76·5	9th	16·6
		Midnapore	149	29·471		29·566	29·560	25th	29·250	13th	·310	82·3	89·2		78·9		84·1		10·3	93·3	30th	76·7	20th	16·6

* Mean of 30 days.

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

Note 1.—When a query is inserted against any reading or in the returns

Note 2.—The data from which divisional means of the figur column

I.

Stations in India, Burma, etc., in August 1904.

Wind Direction. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	Wind Velocity. Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	Hygrometry, 8 A.M. Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Cloud. Mean cloud amount at 8 A.M.	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 1904.	Normal rainfall for period, 1st May to 31st August.	Departure from normal of period, 1st May to 31st August 1904.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
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	58
														92	−1	·902	+·023	7·5	−1·1				27·65	28·79	−1·31					I.—Burma Coast and Bay Islands.		
					1	15	14	1	S 66° W	13·7	9·6	+33	15·3	87	−2	·927	+0·7	7·2	−1·2	13			6·30	14·06	−7·76	57·54	65·48	−7·94	0·94	Car-Nicobar.	Tenasserim and Bay Islands.	1
12	2				5	6	5	1	S 65° W	2·6	1·6	+62	2·3	94	+2	·881	+·087	4·5	−3·1	28	25·00	+3·00	28·56	29·97	−1·41	133·16	111·02	+22·14	2·70	Port Blair.		
20					2	8	1		S 41° W	1·6				93	0	·852	P	6·1	−2·3	28	27·40	+0·60	44·90	47·29	−2·39	199·10	160·05	+39·05	5·40	Mergui.		
20					2	9			S 37° W	3·3	3·2	+3	3·7	91	−3	·829	P	8·9	+0·9	29	27·10	+1·90	55·05	40·63	+14·42	160·66	142·37	+18·29	9·18	Tavoy.		
6				2	10	11	1	1	S 24° W	4·6	4·7	−2	3·9	94	0	·914	+·003	8·3	−0·9	27	23·90	+3·10	25·06	19·85	+5·21	71·30	69·57	+1·73	1·98	Moulmein.		
	1			3	11	12	3	1	S 27° W	2·0	3·4	−41		93	−1	·928	+·013	6·4	−2·2	27	25·40	+1·60	23·98	23·17	+0·81	83·95	82·35	+1·60	3·00	Rangoon.	Lower Burma.	2
				1	2	19	8	1	S 54° W	10·1	6·7	+51	10·1	89	+3?	·914	+·024	8·4	−0·2	22	22·10	−0·10	22·09	23·45	−1·36	106·31	82·85	+23·46	3·30	Bassein.		
		1	2	15	7	6			S 23° E	2·6	3·2	−19	2·5	94	0	·973	+·024	8·4	−0·6	28	26·60	+1·40	27·76	42·00	−14·24	148·12	151·29	−3·17	3·24	Diamond Island.		
12				13	6				S 31° E	11·1	3·9	+19.	11·3	91	−1	·993	+·002	9·3	0	24	24·30	−0·30	15·19	18·68	−3·49	61·35	57·00	+4·35	1·8.	Akyab.	Arakan.	5
														87	+1	·889	+·014	7·7	+0·2				9·17	7·18	+0·44					Toungoo.	Central Burma.	3
			1	1	27	1			S 2° E	2·7	5·9	−54		86	+1	·897	+·024	7·3	−1·4	16	13·20	+2·80	8·08	6·43	+1·65	28·12	23·77	+4·35	2·39	II.—Burma Inland.		
			1	25	5				S 40° E	7·3			8·7	87	+2	·908	+·036	7·0	+0·8	9	8·60	+0·40	6·48	5·10	+1·38	18·19	19·99	−1·80	1·90	Thayetmyo*	Central Burma	3
5				21	5				S 37° E	9·4			9·9	87	0	·845	0	9·1	+4·1	8	11·50	−3·50	5·72	6·49	−0·68	14·47	21·54	−7·07	1·39	Minbu.	Upper Burma.	4
1				2	24	4			S 3° W	2·0			2·1	84		·893		8·4		5	7·70	−2·70	3·05	4·62	−1·57	16·00	16·03	−0·03	0·95	Yamethin.		
3				6	17	5			S 2° E	7·0			7·1	82	+3	·868	+·010	4·8	−2·8	7	7·00	0	4·02	3·99	+0·03	25·19	18·38	+6·81	1·20	Monywa.		
18			9	8	1				S 55° E	1·6			1·7	92		·916		8·9*		18			18·48			47·62			2·61	Mandalay.		
20	1				1	3			S 45° W	1·5			1·6	93	+1	·899	+·001	8·3	+0·1	19	19·60	−0·60	18·35	16·55	+1·80	52·74	55·74	−3·00	4·90	Myitkyina. Bhamo.		
	1	1	1	1	12	10	5		S 29° W	2·8				92		·670		8·6		14	16·20	−2·20	8·66	9·66	−1·00	34·91	35·22	−0·31	1·85	Maymyo.	Burma Hill Stations.	4(a)
	1	9	2		3	11		5	N 88° W	5·8				92	+1	·739	−·012	9·3	+0·3	24			20·45	12·84	+7·61	55·21	44·38	+10·83	4·24	Lashio.		
														92	0	·948	+·018	8·2	−0·7				16·87	15·51	+1·37					III.—Assam.		
31									Calm	0·7	3·0	−77	1·2	90	−1	·935	P	6·9	−2·4	22	21·50	+0·50	22·92	20·26	+2·66	101·26	77·92	+23·34	4·18	Silchar.	Surma.	7
18	2	2		2		7			S 27° W	1·9	2·7	−30	1·7	95	+1	·980	+·016	9·4	+0·3	20	17·70	+2·30	15·39	16·54	−1·15	45·52	59·87	−14·35	2·21	Sibsagar.	Brahmaputra.	3
		4	14	5	3	4	1		S 68° E	4·3	3·2	+34	5·1	91	0	·961	+·020	8·5	0	19	14·50	+4·50	8·86	13·29	−4·43	51·24	67·38	−16·14	1·69	Dhubri.		
10	4	4	1	2	1	3	3	3	N 25° W	1·9			2·1	88		·960		8·3		11	13·30	−2·30	10·12	10·56	−0·44	53·62	42·37	+11·25	3·68	Gauhati.		
11		3	3		3	6			S 49° E	3·6			3·8	92		·945		7·6		19	15·50	+3·50	18·14	13·14	+5·00	62·13	48·46	+13·67	5·39	Tezpur.		
12	1	4	4	2	6			2	S 72° E	1·0			1·0	93		·903		8·6		20	18·40	+1·60	25·80	19·25	+6·55	57·99	73·88	−15·99	2·41	Dibrugarh.		
														89	−1	·964	+·005	7·1	0·8				11·58	13·67	−2·09					IV.—Bengal and Orissa.		
		3	2	17	8	1			S 38° E	8·1	6·1	+33	7·5	86	−3	·913	+·001	6·5	−1·7	16	17·91	−1·91	11·65	16·86	−5·21	58·52	68·87	−10·35	2·20	Chittagong.	East Bengal.	6
			9	9	11	2			S 36° E	7·3			7·9	89		·955		5·9		25	22·58	+2·42	22·12	23·93	−1·81	90·05	79·38	+10·67	2·38	Noakhali.		
			4	15	11	1			S 32° E	6·6			5·6	89		·917		4·7		19	17·14	+1·86	15·89	15·80	+0·09	54·38	61·77	−7·39	2·36	Comilla.		
17		3	3	4	3	1			S 60° E	2·2			2·3	93		·998		8·0		13	13·87	−0·87	7·27	10·86	−3·59	51·26	41·68	+9·58	2·29	Sirajganj.		
2			9	10	5	4	1		S 39° E	6·1	6·0	+2	5·2	90	0	1·000	+·028	8·1	−0·6	20	17·83	+2·17	11·30	12·01	−0·71	38·69	46·40	−7·71	1·61	Narayanganj		
2		2	3	8	10	4	1	1	S 21° E	4·5†			3·9†	88	−1	·975	+·010	6·5	−2·1	20	18·74	+1·26	8·23	12·29	−4·06	49·58	51·52	−2·94	0·98	Barisal.		
			9	15	7				S 48° E	3·6			3·2	88	−3	·964	+·009	8·2	+0·2	14	18·90	−4·90	4·99	14·34	−9·35	57·72	59·97	−2·25	0·85	Mymensingh.		
2			3	13	10	2	1		S 25° E	5·2			4·4	89		·982		6·6		19	16·22	+2·78	8·18	12·08	−3·90	41·45	45·60	−4·15	1·24	Faridpur.		
14			1	13	3				S 40° E	3·3	4·1	−20	3·3	90	−1	1·002	+·004	6·7	−1·7	15	17·03	−2·03	9·51	10·55	−1·04	51·87	43·07	+8·80	3·25	Jessore.	Deltaic Bengal.	10
6		2	8	3	4	8			S 31° E	3·1	5·3	−42		87	−2	·973	+·009	7·3	−1·2	16	18·88	−2·88	10·11	12·38	−2·27	50·82	41·68	+9·14	3·94	Calcutta.		
2	1	5	1	1	7	11	1	2	S 27° W	15·1	12·4	+22		89	0	·988	−·002	8·4	−0·7	17	17·00	0	14·71	15·68	−0·97	49·32	46·74	+2·58	3·44	Saugor Island		
5		1	7	10	4	2	2		S 43° E	2·9			3·2	90		·909		6·8		15	14·26	+0·74	6·23	10·25	−4·02	29·39	37·04	−7·65	1·70	Krishnagar.		
3	7	2	1	3	9	5		1	S 87° E	3·1			2·8	88		·966		4·4		13	16·00	−3·00	9·54	12·51	−2·97	47·89	41·27	+6·62	1·78	Midnapore.		

of any station, the data for that station are not utilized in calculating the provincial departures from normal.

Nos. 41, 43, and 45 are derived are incomplete,

* Mean of 30 days except the rainfall of the month.

† Mean of 26 days.

Table

Abstract of Observations taken at 8 A.M. at 232 Stations

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure, 8 A.M., in inches.								Temperature of Air.												
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
11	Central Bengal.	Bankura	298	29·295?		29·543?	29·381	25th	29·121	13th	·260	81·6	89·1		78·6		83·9		10·5	93·1	6th	76·9	5 days	16·2
		Raniganj	334	29·295		29·581	29·387	25th	29·150	13th	·237	80·6	89·9		78·1		84·1		11·8	92·9	18th & 25th.	75·9	13th	17·0
		Burdwan	99	29·531?	—·016?	29·577	29·631	25th	29·349	13th	·282	82·8	89·8	+0·6	79·6	+0·5	84·7	+0·6	10·2	92·4	29th	76·8	9th	15·6
		Naya Dumka	489	29·136		29·580	29·223	25th	29·031	13th	·192	81·4	88·4		77·7		83·1		10·7	91·5	18th	75·9	8th & 21st.	15·6
		Berhampore	67	29·564	—·022	29·580	29·659	23rd	29·430	13th	·229	82·7	89·3	+0·7	79·9	+1·2	84·6	+1·0	9·4	91·8	23th	77·3	10th	14·5
		Rampur Boalia	70	29·571		29·590	29·652	23rd	29·445	12th	·207	83·3	88·6		80·2		84·4		8·4	91·1	29th	77·1	10th	14·0
		Malda	72	29·553		29·578	29·652	23rd	29·446	12th	·206	82·3	89·0		79·3		84·2		9·7	93·1	29th	76·0	10th	17·1
		Bogra	61	29·586	—·005	29·599	29·673	23rd	29·454	12th	·219	81·9	88·9	+0·6	79·0	+0·6	84·0	+0·6	9·9	92·2	25th	77·2	10th, 11th & 17th.	15·0
12	North Bengal	Dinajpur	123	29·533	P	29·611	29·627	23rd	29·419	12th	·208	81·6	89·1	+0·3	78·7	+0·1	83·8	+0·2	10·4	94·8	13th	75·0	10th	19·8
		Rangpur	123	29·556		29·628	29·640	23rd	29·424	12th	·216	81·8	89·1		78·0		83·6		11·1	93·2	12th & 13th.	74·3	3rd	18·9
		Jalpaiguri	284	29·374	—·014	29·616	29·474	23rd	29·266	12th	·208	80·3	88·4	+0·3	77·1	+0·4	82·7	+0·4	11·3	93·4	13th	74·1	26th	19·3
		Cooch Behar	156	29·509		29·620	29·601	23rd	29·366	17th	·235	80·7	88·2		78·1		83·2		10·1	94·4	13th	76·6	5 days	17·8
17	North Bihar	Purnea	125	29·512	—·013	29·592	29·605	23rd	29·406	12th	·199	82·0	89·2	0	79·1	+0·7	84·2	+0·4	10·1	94·2	13th	76·7	31st	17·5
14	Orissa	Balasore	50	29·577	—·016	29·569	29·660	25th	29·340	13th	·320	82·0	88·5	+0·6	78·3	+0·3	83·5	+0·5	10·2	91·9	19th	76·2	8th	15·7
		False Point	21	29·623	—·011	29·586	29·718	29th	29·445	13th	·273	81·2	86·6	−0·4	78·3	+0·1	82·5	−0·2	8·3	90·5	19th	75·6	7th & 22nd.	14·9
		Cuttac	80	29·562	—·007	29·585	29·649	31st	29·391	13th	·258	81·1	88·6	−0·5	77·7	−0·6	83·2	−0·6	10·9	92·4	4 days	75·2	20th & 22nd.	17·2
		Puri	24	29·635		29·593	29·722	31st	29·482	13th	·240	81·6	86·4		78·8		82·6		7·6	90·7	25th	75·1	20th	15·6
	V.—Gangetic Plain and Chota Nagpur.				—·012								87·8	−0·7	77·7	−0·3	82·8	−0·5	10·0					17·4
15	Chota Nagpur	Hazaribagh	2,007	27·624	—·017	29·575	27·721	28th	27·473	14th	·248	75·9	84·1	+0·4	73·7	+0·5	78·9	+0·5	10·4	87·2	5 days	72·3	5 days	14·9
		Ranchi	2,128	27·508	—·011	29·576	27·618	28th	27·346	14th	·272	75·7	83·0	−0·3	73·1	+0·5	78·1	+0·1	9·9	87·7	29th	71·4	14th 15th & 23rd.	16·3
16	South Bihar	Daltonganj	*730?*	28·875		29·560	28·986	25th	28·698	14th	·288	79·5	88·0		76·4		82·3		11·6	92·6	3rd	74·5	11th	18·1
15	Chota Nagpur	Purulia	*816*	28·799		29·559	28·885	25th	28·661	13th	·224	80·6	88·3		76·2		82·3		12·1	92·0	25th	74·4	14th & 31st	17·6
		Chaibassa	*760*	28·853	—·007	29·562	28·934	28th	23·707	13th	·227	79·9	89·2	+0·6	77·0	0	83·2	+0·3	12·2	92·9	29th & 30th.	75·5	14th, 26th & 31st.	17·4
16	South Bihar	Gaya	375	29·240	—·009	29·568	29·331	28th	29·117	14th	·214	81·3	84·8	P	77·8	−0·6	81·3	P	7·0	91·2	8th	74·8	31st	16·4
		Dehri	351	29·245?		29·549?	29·343	28th	29·116	14th	·227	81·9	87·3		78·9		83·1		8·4	90·8	1st	76·0	21st	14·8
		Patna	183	29·437	—·013	29·572	29·521	28th	29·336	14th	·185	82·3	88·3	−0·8	79·1	−0·4	83·7	−0·6	9·2	98·0	15th	76·2	21st	21·8
		Arrah	190	29·522		29·564	29·524	28th	29·290	10th	·234	82·0	87·5*		79·2		83·4*		8·3	91·0	13th	75·7	19th	15·3
		Buxar	239	29·363		29·557	29·456	28th	29·233	10th	·223	81·6	87·6		78·5		83·0		9·1	91·0	13th	75·1	11th, 21st & 22nd.	15·9
17	North Bihar	Bhagalpur	160	29·461		29·573	29·540	27th	29·356	13th	·184	82.5	88·9		79·2		84·1		9·7	92·2	13th & 29th.	76·1	21st	16·1
		Darbhanga	166	29·451	—·022	29·569	29·537	23rd	29·344	10th	·193	81·7	88·9	+0·4	78·4	−0·9	83·7	−0·3	10·5	94·1	13th	75·3	21st	18·8
		Muzaffarpur	178	29·443		29·576	29·519	27th	29·324	10th	·195	81·7	87·9		78·5		83·2		9·4	92·7	13th	76·2	20th & 31st.	16·5
		Motihari	224	29·410		29·595	29·500	23rd	29·290	10th	·210	81·5	89·0		77·9		83·5		11·1	94·4	13th	75·3	5 days	19·1
		Chapra	181	29·426		29·561	29·529	28th	29·294	10th	·235	82·4	88·4		79·2		83·8		9·2	92·9	13th	77·1	19th	15·8
18	United Provinces (East).	Benares	267	29·335	—·011	29·556	29·436	27th	29·223	14th	·213	81·7	88·9	−0·6	78·2	−0·6	83·6	−0·6	10·7	93·6	31st	74·2	3rd	19·4
		Allahabad	308	29·289	—·014	29·552	29·401	27th	29·152	15th	·249	81·4	88·1	−1·8	78·5	−0·1	83·3	−1·0	9·6	91·6	1st	75·6	21st	16·0
23	United Provinces (East Submontane.)	Gorakhpur	257	29·353	—·008	29·565	29·435	27th	29·247	10th	·188	81·6	89·2	−0·6	77·8	−1·0	83·5	−0·8	11·4	93·0	14th	73·5	3rd	19·5
19	South Oudh	Lucknow	368	29·223	—·019	29·548	29·331	28th	29·140	10th	·191	81·6	88·6	−1·7	77·9	−0·7	83·3	−1·2	10·7	92·3	31st	72·3	11th	20·0
20	North Oudh	Bahraich	401	29·193?	—·014	29·552	29·282	28th	29·083	10th	·199	82·0	90·4?	+0·5?	77·4	−0·6	83·9?	−0·1?	13·0?	93·1?	5 days	73·0	31st	20·1?
21	United Provinces (Central).	Cawnpore	416	29·179	—·012	29·547	29·285	28th	29·086	12th & 13th.	·199	81·3	88·6	−1·3	78·1	−0·2	83·4	−0·7	10·5	92·3	15th & 31st.	75·0	25th	17·3
		Mainpuri	516	29·081	—·001	29·553	29·181	28th	28·985	13th	·196	81·2	88·5	−2·3	78·3	−0·1	83·4	−1·2	10·2	93·3	9th	74·7	44 days	18·6

* Mean of 30 days.

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

Note 1.—When a query is inserted against any reading or in the returns of any

Note 2.—The data from which divisional means of the figure columns Nos. 41,

I—*continued.*

in India, Burma, etc., in August 1904—continued.

Wind Direction. Number of winds from Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	Wind Velocity. Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	Hygrometry, 8 A.M. Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Cloud. Mean cloud amount at 8 A.M.	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 1904.	Normal rainfall for period, 1st May to 31st August.	Departure from normal of period, 1st May to 31st August 1904.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
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	58
		27	3		1				N 72° E	1·0			1·2	86		·935		7·1		16	16·66	− 0·66	11·25	11·66	− 0·41	46·74	38·74	+ 8·00	2·78	Bankura	Central Bengal	11
		24	1	3	3	.			N 79° E	1·6				92		·965		6·5		17	16·00	+ 1·00	10·41	13·01	−2·60	44·53	40·86	+ 3·67	2·31	Raniganj.		
		4	5	6	3	5	6	2	S 32° E	3·0	3·6	− 17	3·0	88	+ 1	·991	+·048	7·2	−1·5	16	16·48	− 0·48	8·83	11·25	− 2·42	33·50	40·00	− 1·50	1·41	Burdwan.		
		13	2	5	5	4	2		S 48° E	2·8			3·1	88		·952		9·4		18	18·23	− 0·23	10·45	13·41	− 2·96	48·88	41·11	+ 7·77	1·57	Naya Dumka.		
		2		7	8	8	5		1 S 25° E	4·9	4·2	+ 17	4·2	89	− 3	·998	+·011	8·4	−0·5	17	16·39	+ 0·61	10·09	11·71	− 1·62	47·12	37·17	+ 9·95	2·85	Berhampore.		
		22	1		4	2	1	1	S 39° E	1·9			2·0	87		1·000		5·2		11	14·68	− 3·68	3·43	10·53	− 7·10	42·56	35·23	+ 4·33	0·86	Rampur Boalia.		
			8	5	10	3	5		S 60° E	7·0			6·4	88		·977		7·1		15	14·48	+ 0·52	9·77	10·27	− 0·50	30·08	35·08	− 5·00	2·40	Malda.		
				15		1			S 86° E	2·5			2·2	87	− 2	·950	P	7·5	+0·3	17	15·90	+ 1·10	10·78	11·62	− 0·84	45·55	45·20	+ 0·35	3·10	Bogra.		
		15	1	4	11	8	4	1	1 S 71° E	4·0			3·8	89	− 1	·985	+·022	9·0	+1·0	19	15·71	+ 3·29	11·17	14·01	− 2·84	43·91	50·01	− 6·10	1·63	Dinajpur	North Bengal	12
			2	10	4	5	1		S 63° E	2·2			2·0	89		·964		7·4		13	13·35	− 0·35	15·18	13·02	+ 2·16	56·92	59·35	— 2·43	3·60	Rangpur.		
		9	2	5	8	7	5	3	1 N 73° E	1·0			1·3	92	0	·921	P	5·4	P	22	18·38	+ 3·62	24·56	24·87	− 0·31	77·89	93·15	−15·35	2·78	Jalpaiguri.		
		2	4	10	5	1			S 83° E	1·7			1·8	92		·962		9·0		21	16·72	+ 7·28	26·18	20·42	+ 5·76	86·25	93·41	− 7·16	4·44	Cooch Behar.		
		11	8	6	7				N 87° E	3·1	2·3	+ 35	2·8	91	+ 1	·993	+·013	6·7	−0·9	17	16·57	+ 0·43	9·73	14·40	− 4·67	47·98	43·75	+ 4·23	4·12	Purnea	North Bihar	17
		10	4	2	2	1		3	3 S 60° W	5·1			3·8	84	− 5	·925	−·049	6·4	−1·9	14	16·03	− 2·03	11·53	11·34	+ 0·19	33·92	40·31	− 6·39	2·18	Balasore	Orissa	14
		4	2	1	1		3	13	3 S 76° W	9·2	9·5	− 3	9·6	88	0	·935	−·024	8·0	−0·3	14	16·16	− 2·16	8·67	13·68	− 5·01	34·87	39·10	− 4·23	1·94	False Point.		
		2	1	1			4	6	15 2	S 67° W	2·9	2·6	+ 12		83	0	·888	−·008	7·0	−0·6	15	16·19	− 1·19	13·17	13·20	− 0·03	34·44	39·72	− 5·28	2·55	Cuttack.		
		14					9	8	S																							
		13	3			1	8	4	2 S 20° W	13·1			12·8	88		·955		7·0		17	12·85	+ 4·15	12·37	12·13	+ 0·24	27·05	32·97	− 5·92	4·53	Puri.		
														89	+ 1	·947	+·002	7·2	+0·2				14·36	12·09	+2·26					V.—Gangetic Plain and Chota Nagpur.		
	2	5	1	3	1	5	5	3	6 N 31° W	7·6	7·5	+ 1	6·8	86	− 3	·777	−·026	9·7	+0·9	22	17·77	+ 4·23	16·69	12·60	+ 4·09	51·49	38·45	+13·04	3·07	Hazaribagh.	Chota Nagpur	15
	1	7	1	3	1	5	6	2	5 N 79° W	6·1			7·2	P	P	P	P	9·0	+1·0	17	17·84	− 0·84	9·45	11·27	− 1·82	53·59	39·52	+14·07	1·35	Ranchi.		
	21		1	1		1	2	4	1 S 76° W	4·5			3·7	88		·892		5·4		22	15·74	+ 6·26	19·86	12·11	+ 7·75	40·85	31·76	+ 9·09	3·85	Daltonganj.	South Bihar	16
		9	3	5	1	6	2	4	4 2	N 45° E	3·0			3·8	87		·914		5·6		18	16·52	+ 1·48	9·22	12·30	− 3·08	47·04	37·52	+ 9·52	0·92	Purulia	Chota Nagpur	15
		23		1			1	2	3	1 S 76° W	1·2			1·0	88	+ 1	·889	−·004	6·0	−1·7	16	16·94	− 0·94	10·83	11·77	− 0·94	49·93	36·96	+12·97	2·52	Chaibassa.		
		9	1	6	2	4	2	4	4 1	S 85° W	3·5	2·6	+ 35	2·8	83	+ 2	·950	+·019	7·6	−0·4	18	14·26	+ 3·74	15·86	13·18	+ 2·68	55·48	35·26	+20·22	2·71	Gaya	South Bihar	16
		5	1		6	2	5	6	6	S 17° W	6·5			5·8	87		·930		8·4		13	14·44	− 1·44	12·93	12·92	+ 0·01	41·51	31·91	+ 9·60	3·57	Dehri.		
		8		3	11	3	1		5	S 84° E	3·9	3·2	+ 22	4·4	90	+ 3	·996	+·027	9·1	+0·2	20	13·52	+ 6·48	26·07	12·58	+13·49	58·25	35·71	+22·54	4·84	Patna.		
		16		3	1	8	1	1	1	S 54° E	2·2			2·2	88		·962		3·3		13	12·87	+ 0·13	13·17	10·50	+ 2·67	43·70	32·27	+11·43	3·20	Arrah.		
		2	1		12	1	1	6	8	S 11° E	4·8			4·5	90		·965		7·5		16	13·35	+ 2·65	11·75	11·29	+ 0·46	36·03	29·33	+ 6·70	2·28	Buxar.		
		23		4	2	2				N 81° E	2·1			2·0	89		·886		8·5		17	13·32	+ 3·68	11·24	11·26	− 0·02	34·24	34·55	− 0·31	2·41	Bhagalpur	North Bihar	17
		4		4	18		1	1	2	1 N 83° E	2·8	4·4	− 36	2·5	90	+ 1	·971	+·002	7·7	+0·9	19	14·07	+ 4·93	19·38	13·66	+ 5·72	25·73	36·68	— 0·90	3·90	Darbhanga.		
		19		1	6	5				S 73° E	3·1				93		1·007		5·6		13	13·03	− 0·03	19·72	10·64	+ 9·08	46·38	32·19	+14·19	9·96	Muzaffarpur.		
		4	2	7	13	2	1	2		N 81° E	4·8			4·6	88		·949		4·8		17	12·97	+ 4·03	17·43	12·23	+ 5·20	43·18	36·27	+ 6·91	4·47	Motihari.		
		1		3	13	6	1	3	3 1	S 70° E	2·8			2·5	89		·984		7·5		14	12·61	+ 1·39	7·10	9·73	− 2·63	32·78	28·77	+ 4·01	1·35	Chapra.		
		7	1	2	1	5	3	5	5 2	S 33° W	2·1	4·2	− 50	2·4	89	0	·976	+·013	8·5	+0·5	16	13·40	+ 2·60	9·49	12·06	− 2·56	28·56	30·37	− 1·81	1·78	Benares	United Provinces (East).	18
		2	1	5	4	3	2	4	8 2	S 63° W	4·9	5·6	− 13	4·1	90	+ 3	·963	+·009	9·2	+0·5	17	11·80	+ 5·20	17·61	12·03	+ 5·58	30·97	30·89	+ 0·08	2·77	Allahabad.		
		10	4	8	4	2	1	1	1	N 55° E	1·	2·3	— 57		90	+ 2	·962	+·007	9·3	+3·4	23	14·10	+ 8·90	16·83	13·24	+ 3·59	50·01	37·42	+12·59	2·46	Gorakhpur	United Provinces (East Submontane)	22
		9		4	6	5	2	2	2 1	S 67° E	2·8	3·0	− 7	3·1	87	− 1	·939	−·013	7·7	+0·8	16	14·20	+ 1·80	10·43	11·83	− 1·40	33·18	30·08	+ 3·10	2·38	Lucknow	South Oudh	19
		17		1	9	3		1		S 80° E	0·9			0·8	89	+ 1	·967	+·012	3·5	−2·5	14	12·70	+ 1·30	12·90	16·80	− 3·90	39·97	37·14	+ 2·83	2·94	Bahraich	North Oudh	20
	3	2	4	8	1	1	5	6	1 N 75° E	4·4				88	+ 1	·947	−·007	8·2	+0·7	16	12·30	+ 3·70	15·34	11·96	+ 3·38	44·26	27·32	+16·94	3·85	Cawnpore	United Provinces (Central).	21
	9	2	3	4	4	3	4	4	3 S	4·4			4·4	86	+ 1	·923	−·010	5·5	−1·3	15	10·90	+ 4·10	12·55	10·13	+ 2·42	22·30	24·04	− 1·74	2·44	Mainpuri.		

station, the data for that station are not utilized in calculating the provincial departures from normal.

42 and 45 are derived are incomplete.

Table

Abstract of Observations taken at 8 A.M. at 232 Stations

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 A.M., in inches.								Temperature of air.												
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
	VI.—Upper Sub-Himalayas.				−·008								92·0	−0·7	77·9	+0·3	85·0	−0·2	14·1					24·1
24	United Provinces (West Submontane).	Bareilly	568	29·025	−·011	29·558	29·097	22nd & 28th.	28·926	10th	·171	80·9	88·2	−1·7	77·6	−0·4	82·9	−1·1	10·6	92·4	16th & 31st.	73·6	20th	18·8
		Dehra Dun	2,233	27·414	−·010	29·590	27·481	25th	27·301	10th	·180	74·8	83·4	−0·6	72·4	−0·7	77·9	−0·7	11·0	87·5	16th	69·5	22nd	18·0
		Roorkee	899	28·705	−·006	29·569	28·781	22nd	28·586	10th	·195	80·4	89·0	−1·7	76·5	−0·5	82·8	−1·1	12·5	92·2	14th	73·6	22nd & 31st.	18·6
22	United Provinces (West).	Meerut	738	28·854	−·011	29·555	28·619	22nd & 23rd.	28·757	5th & 10th.	·162	80·2	89·6	−1·3	77·8	−0·5	83·7	−0·9	11·8	94·6	29th	72·3	11th & 20th.	22·3
26	South-East Punjab.	Delhi	718	28·875	−·009	29·555	28·955	28th	28·784	18th	·171	80·9	89·4	−2·4	78·4	−0·9	83·9	−1·7	11·0	95·2	29th	74·8	23rd	20·4
28	Central Punjab.	Lahore	702	28·855	−·018	29·518	28·947	23rd	28·734	17th	·213	86·0	99·4	+1·2	81·7	+3·9	90·6	+2·6	17·7	104·9	29th	76·8	21st	28·1
27	South Punjab	Sirsa	662	28·922	0	29·543	29·031	28th	28·816	9th	·215	85·1	98·1	−0·3	80·9	+0·7	89·5	+0·2	17·2	103·8	18th	75·1	25th & 26th.	28·7
		Patiala	*818*	28·767		29·547	28·893	25th	28·643	16th	·250	82·8	91·6		78·0		84·8		13·6	95·9	30th	72·6	12th	23·3
29	Punjab (Submontane).	Ludhiana	812	28·766	−·011	29·541	28·881	25th	28·635	10th	·246	83·0	93·5	−1·5	79·4	+0·4	86·5	−0·6	14·1	99·0	29th	73·5	13th	25·4
		Sialkot	830	28·743	−·010	29·537	28·839	27th	28·618	17th	·221	83·1	96·3	+1·6	79·8	+2·1	88·1	+1·9	16·5	102·7	6th, 25th & 30th.	72·1	22nd	30·6
		Ambala	892	28·703	+·009	29·558	28·803	25th	28·589	10th	·214	81·1	92·0	−0·8						97·0	29th & 30th.			
		Rawalpindi	1,674	27·924	−·007	29·559	28·019	23rd	27·807	10th & 17th.	·212	80·8	93·3	−0·6	74·4	−0·8	83·9	−0·7	18·9	99·5	18th & 19th.	69·1	20th & 23rd.	30·4
	VII.—Indus Valley and North-West Rajputana.				−·001								99·3	+1·6	80·3	+0·6	89·8	+1·1	19·1					29·3
32	N.-W. Frontier Province.	Peshawar	1,110	28·478	−·001	29·558	28·913	23rd	28·350	6th & 17th.	·263	83·8	98·2	−1·0	77·0	−0·8	87·6	−0·9	21·2	106·5	19th	68·9	23rd	37·6
		D. I. Khan	590	28·960	−·018	29·492	29·116	23rd	28·832	10th	·284	86·7	102·2	+1·1	81·5	+0·5	91·9	+0·8	20·7	108·2	7th	74·6	8th	33·6
31	West Punjab	Khushab	612	28·948	P	29·524	29·072	23rd	28·822	17th	·250	85·8	100·5	+0·3	81·7	+0·9	91·1	+0·6	18·8	109·3	18th	73·9	21st	35·4
		Montgomery	558	28·997	−·004	29·512	29·112	23rd	28·872	10th	·240	89·5	104·0	+2·0	83·5	+1·9	93·8	+2·0	20·5	108·8	7th & 17th	77·0	23rd	31·8
		Multan	420	29·115	−·017	29·493	29·249	23rd	28·989	10th	·260	87·8	103·7	+3·0	84·3	+2·2	94·0	+2·6	19·4	107·9	3rd & 26th.	79·5	18th & 30th.	28·4
47	Sind	Jacobabad	186	29·356	−·010	29·501	29·520	28th	29·247	10th	·273	86·2	107·0	+3·2	81·5	+0·1	94·3	+1·7	25·5	112·2	5th	76·7	30th	35·5
		Hyderabad	96	29·504	+·011	29·553	29·683	28th	29·379	10th	·304	82·3	98·6	+3·1	78·0	−0·7	88·3	+1·2	20·6	105·1	13th	76·0	13th & 18th.	29·1
		Kurrachee	30	29·616	+·008	29·597	29·783	28th	29·490	10th	·293	80·9	88·4	+0·2	78·2	−0·5	83·3	−0·2	10·2	90·9	8th	74·2	28th	16·7
51	West Rajputana	Bikaner	*771*	28·825	+·003	29·556	28·973	28th	28·715	10th	·258	85·0	99·7	+2·6	81·7	+1·1	90·7	+1·9	18·0	104·6	1st	78·5	18th	26·1
		Pachpadra	*380*	29·262	+·019	29·597	29·426	28th	29·160	10th	·266	82·2	96·0	+1·2	78·0	+0·7	87·0	+1·0	18·0	100·3	3rd	75·5	22nd & 31st.	24·8
		Jodhpur	782	28·864		29·628	29·016	28th	28·763	10th	·253	80·3	94·3		77·6		86·0		16·7	98·1	1st	75·3	18th & 22nd.	22·8
	VIII.—East Rajputana, Central India and Gujarat.				+·009								87·7	−0·4	75·9	−0·2	81·8	−0·3	11·7					19·2
50	East Rajputana	Jaipur	1,431	28·219	+·004	29·610	28·339	28th	28·109	14th	·230	78·6	87·9	−3·7	74·9	−1·2	81·4	−2·5	13·0	93·2	1st & 23rd.	72·1	10th, 30th & 31st.	21·1
		Bharatpur	585	29·001?		29·547?	29·109	28th	28·881	18th	·228	80·1	89·8		77·1		83·5		12·7	94·5	6th	73·6	11th	20·9
		Kotah	819	28·801		29·619	28·941	28th	28·701	10th	·240	79·4	86·3		76·9		81·6		9·4	92·0	6th	73·6	10th & 24th.	18·4
		Sambhar	1,254	28·385	+·013	29·003	28·509	28th	28·298	14th	·211	79·0	88·4	−2·9	75·4	−1·8	81·9	−2·4	13·0	95·5	1st	71·4	30th	24·1
		Ajmer	1,611	28·055	+·010	29·626	28·183	28th	27·966	10th	·217	77·5	85·7	−2·5	75·6	+0·3	80·7	−1·1	10·1	90·9	1st	72·1	10th	18·8
		Udaipur	1,925	27·772		29·650	27·911	28th	27·688	10th	·223	75·7	82·8		72·5		77·7		10·3	87·5	29th	70·3	18th, 19th & 20th.	17·2
		Deesa	466	29·228	+·017	29·648	29·383	28th	29·138	10th	·245	80·6	93·7	+4·8	76·8	+1·2	85·3	+3·0	16·9	98·1	29th	73·5	18th & 23rd.	24·6
46	Kathiawar and Cutch.	Bhuj	395	29·295	+·025	29·641	29·448	28th	29·177	10th	·271	81·3	91·4	+2·7	76·2	0	83·8	+1·4	15·2	95·3	4th	69·9	22nd	25·4
		Jamnagar	61	29·637		29·643	29·778	28th	29·543	10th	·235	81·5	89·8		77·2		83·5		12·6	94·0	20th	74·2	3rd & 29th.	19·8
		Rajkot	429	29·283	+·009	29·665	29·417	28th	29·194	10th	·223	79·4	91·9	+3·0	74·7	+0·2	83·3	+1·6	17·2	95·9	15th & 17th.	70·3	23rd	25·6
		Veraval	*18*	29·725	+·001	29·685	29·857	28th	29·631	5th	·226	78·4	81·1	−1·6	77·3	−0·4	79·2	−1·0	3·8	83·6	1st	74·8	23rd & 24th.	8·8
		Dwarka	37	29·672		29·657	29·814	28th	29·575	10th	·239	80·3	84·8		77·9		81·4		6·9	86·4	3rd	77·2	7 days.	9·2
		Bhavnagar Para.	55	29·686	?	29·685	29·826	28th	29·599	5th & 9th.	·227	82·2	93·7	+0·9	76·7*	−0·4	85·1*	+0·3	17·0	99·1	15th	74·0	27th	25·1
49	Central India	Nowgong	757	28·853	−·017	29·570	28·975	28th	28·578	12th & 13th.	·217	78·4	84·9	−3·0	76·4	−0·3	80·7	−1·7	8·5	89·0	31st	74·0	22nd	15·0
		Indore	1,823	27·901	+·024	29·685	28·032	26th	27·802	10th	·230	74·3	83·2	+0·3	71·0	−0·3	77·1	0	12·2	89·6	29th	68·6	19th & 28th.	21·0

* Mean of 30 days.

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

Note 1.—When a query is inserted against any reading or in the returns

Note 2.—The data from which divisional means of the figure columns

I—*continued.*

in India, Burma, etc., in August, 1904—continued.

Wind Direction. Number of winds from Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	Wind Velocity. Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	Hygrometry, 8 A.M. Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Cloud. Mean cloud amount at 8 A.M.	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 1904.	Normal rainfall for period, 1st May to 31st August.	Departure from normal of period, 1st May to 31st August 1904.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
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	58
														81	0	·875	—·009	5·7	—0·1				8·41	10·72	—2·19					VI.—Upper Sub-Himalayas.		
17		1	7	1	1		4		S 76° E	0·6	3·6	—83	0·6	89	+ 0·1	·937	+·010	7·6	+0·7	10	12·18	—2·18	8·37	14·43	- 6·06	24·61	36 62	—12·01	1·54	Bareilly .	United Provinces (West Submontane).	24
23			2	2	1	3			S 16° E	0·5	1·1	—55		92	+ 0·2	·800	0	9·3	+1·0	21	21·30	—0·30	2·28	30·68	+ 1·55	73·06	71·21	+ 1·85	6·32	Dehra Dun.		
13				15	1	1	1		S 36° E	2·7*	2·5	+ 8		85	— 0·1	·881	+·003	6·2	—0·5	10	12·10	—2·10	6·03	13·09	- 7·06	24·12	31 83	- 7·71	1·98	Roorkee.		
17		1	3	4		1	5		S 17° E	0·8	2·1	- 62	0·8	85	+ 0·4	·888	+·105?	7·4	+0·5	9	9·40	-0·40	10·77	9·30	+ 1·47	21·42	22·74	- 1·32	3·80	Meerut .	United Provinces (West).	22
16		1	3	2		1	7	1	S 78° W	3·8	4·1	- 7	3·4	82	+ 0·4	·858	—·003	7·5	+0 8	12	9·30	+2·70	7·79	8·52	— 0·73	17·23	21·13	— 3·90	1·55	Delhi .	South-East Punjab,	26
3	1	1	3	11	6	2	4		S 25° E	3·0	2·9	+ 3		71	— 0·4	·892	P	2·7	—1·1	2	5·20	—3·20	2·55	5·30	— 2·75	4 51	14·17	— 9·66	1·35	Lahore .	Central Punjab	28
		1	4	6	2	16	1	1	S 14° W	8·1	4·6	+76	7·0	71	0	·837	—·018	3·3	—1·4	5	4·80	+0·20	1·41	3·87	- 2·46	3·77	10·51	- 6·74	0·47	Sirsa .	South Punjab .	27
1	1		7	10	5		3	4	S 45° E	6·1			6·2	81		·912		5·5		9			7·00			13·78			1·58	Patiala.		
15				13			2	1	S 37° E	1·7	1·4	+21	1·5	76	— 0·3	·851	—·041	4·2	—2·1	7	7·30	—0·30	6·62	6·35	+ 0·27	9·66	19·25	— 9·59	2·45	Ludhiana .	Punjab (Submontane,)	29
9	2	2	10	4	2			2	E	1·8	2·3	-22		78	— 0·1	·890	—·002	3·9	—0·3	11	8·40	+2·60	5·85	9·69	- 3·84	11·64	21·81	—10·17	1·71	Sialkot.		
27				4					S 45° E	0·5				87	— 0·1	·923	—·018	7·0	+1·5	6	7·90	—1·90	2·65	8·03	— 5·38	12·64	22·70	—10·06	0·63	Ambala.		
19		3	3	3	1	2			S 68° E	2·8	1 6	+75	2·6	79	— 0·1	·827	—·012	4·3	+0·1	10	8·00	+2·00	9·59	8·70	+ 0·89	17·33	20·71	- 3·38	2·90	Rawalpindi.		
														69	—0·3	·818	—·030	2·9	—1·5				0·69	2·57	—·188					VII.—Indus Valley and North-West Rajputana.		
19	4	1	1		1		1	5	N 18° W	1·4	4·0	-65	1·5	72	+ 0·1	·837	+·014	3·0	—0·3	3	2·30	+0·70	1·14	2·36	- 1·22	2·31	5·07	- 2·76	0·57	Peshawar .	N.-W. Frontier Province,	32
20	1	7	1	1			1		N 47° E	1·7	2·1	—19	1·8	73	— 0·1	·923	+·001?	1·2	—1·0	1	2·40	—1·40	0·68	1·63	- 0·95	1·02	5·00	- 3·98	0·60	D. I. Khan.		
1		15	10	2	1	1	1		N 70° E	9·5			9·1	68	— 0·1	·834	—·025	2·5	—0·3	5	2·80	+2·20	1·90	2·73	- 0·83	6·17	9·75	— 3·58	0·85	Khushab .	West Punjab .	31
		3	5	5	7	10	1		S 9° E	10·7			10·0	53	— 1·0	·736	—·095	1·9	—0·7	1	3·20	—2·20	0·36	2·99	— 2·63	2·00	6·88	— 4·88	0·32	Montgomery.		
7		2	2	3	4	13			S 14° W	1·5	3·2	—53	1·8	65	— 0·3	·852	—·016	0·8	—1·3	1	2·30	—1·30	0·28	2·02	- 1·74	0·28	5 35	- 5·07	0·28	Multan.		
			5	16	10				S 37° E	5·5	4·0	+68	5·7	73	+ 0·2	·917	+·032	1·2	—0·9	0	1·90	—1·90	0	1·13	- 1·13	0·30	2·60	- 2·30	0	Jacobabad.	Sind . . .	17
					2	26	3		S 46° W	16·9	13·8	+ 22	15·0	65	— 0·5	·731	—·043?	2·5	—2·6	0	2·40	—2 40	0	2·40	— 2 40	0·09	5·66	- 5·57	0	Hyderabad.		
1						7	21	2	S 83° W	16·1	17·2	- 6	14·2	77	— 0·6	·809	—·093	7·1	—0·7	0	1·90	—1·90	0	1·77	— 1·77	0	6·14	— 6·14	0	Kurrachee.		
				1	1	7	17	5	S 38° W	11·0	6·2	+77		64	— 0·5	·777	—·053	3·1	—1·4	3	4·90	—1·90	1·43	3·12	- 1·69	3·00	9·09	- 6·09	0·95	Bikaner .	West Rajputana	51
						7	19	4	S 43° W	15·2	9·7	+57	13·2	77	— 0·2	·850	—·005	1·4	—6·1	2	4·90	—2·90	0·90	3·56	— 2·66	2·54	10·31	— 7·77	0·48	Pachpadra.		
					2	19	10		S 57° W	8·5			7·7	70		·727		7·0		3	5·90	—2·90	0·90	4·56	- 3·66	4·16	10·51	- 6·35	0·46	Jodhpur.		
														81	—0·2	·808	—·031	7·1	0				5 62	7·32	—1·85					VIII. East Rajputana, Central India and Gujarat.		
4	2	2				8	11	4	N 88° W	4·0	5·5	-27		81	+ 0·2	·799	—·014	6·4	—0·5	11	11·60	—0·60	10·91	8·89	+ 2·02	20·46	20·70	- 0·24	3·18	Jaipur .	East Rajputana	50
8	1		3	2	1	12	2		N 88° W	3·8			3·5	87		·897		6·9		16			18·47			32·47			4·70	Bharatpur.		
2					11	14	4		S 78° W	5·9			4·7	79		·791		6·6		10	10·60	—0·60	7·72	8·92	- 1·20	30·25	23·45	+ 6 80	2·18	Kotah.		
2	5		1		1	11	11	10	N 60° W	5·9	8·1	—27		79	+ 0·2	·785	—·010	6·1	—0·2	12	9 40	+2·60	5·49	6·77	- 1·28	14·89	16·34	- 1·45	0·91	Sambhar.		
					5	22	4		S 89° W	9·3	5·5	+69	8·1	84	+ 0·2	·788	—·011	6·5	+0·2	13	8·30	+4·10	6·83	7·25	— 0·42	14·41	17·76	- 3·35	1·90	Ajmer.		
5				1	11	13	1		S 0° W	5·4			4·8	78		·694		7·5		10	8·70	+1·30	5·62			16 80			1·26	Udaipur.		
				7	20	4			S 41° W	13·8	12·0	+15		72	— 1·2	·754	—·086	8·5	+0·4	2	10·09	—8·09	0·73	6·67	- 5·94	5·27	19·35	—14·08	0·43	Deesa.		
					15	12	4		S 73° W	19·5	14·9	+31	16·4	78	— 0·4	·830	—·007	5·2	P	1	3·70	—2·70	0·28	2·44	- 2·16	1·85	12·03	—10·18	0·22	Bhuj .	Kathiawar and Cutch,	46
				4	16	10	1		S 56° W	19·7			23 8	75		·808		5·5		1			0·71			8·70			0·71	Jamnagar.		
					20	11			S 61° W	13·7	11·6	+18	13·6	76	— 0·8	·767	—·071	8·2	+0·7	0	6·60	—6·60	0	4·52	— 4·52	11·01	23·17	—12·16	0	Rajkot.		
1				2	15	11	2		S 61° W	14·0	13·9	+ 1	14·0	89	+ 0·1	·854	—·026	8·3	+0 1	2	8·10	—6·10	0·76	2·30	- 1·54	6·65	14·79	- 8·14	0·38	Veraval.		
					20	11			S 61° W	17·3				83		·865		7·9		0			0·12			2·26			0·03	Dwarka.		
					21	7			S 55° W	12·0†			14·2†	69	P	·754	P	7·1	0	3	8·80	—5·80	1·68	4·42	- 2·74	4·56	14·27	- 9·71	1·56	Bhavnagar Para.		
6			1		4	19	1		S 85° W	2·5	3·4	—26	2·5	89	+ 0·2	·869	—·013	8·9	+0·9	17	14·10	+2·90	14·25	13·51	+ 0·74	52·45	36·19	+16·26	2·03	Nowgong .	Central India	49
1					1	13	6		N 83° W	8 6	6·1	+41	7·0	83	— 0·6	·712	—·054	9·6	+0·7	4	10·60	—6·60	1·42	7·56	- 6·14	11·53	23·50	—11·97	0·44	Indore.		

of any station, the data for that station are not utilized in calculating the provincial departures from normal.

Nos. 41, 43 and 45 are derived are incomplete.

† Mean of 29 days.

Table

Abstract of Observations taken at 8 A.M. at 232 Stations

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level, in feet	Pressure, 8 A.M., in inches.								Temperature of air.											
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8A.M. 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 A.M. 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	25
49	Central India	Neemuch	1,630	28·062	+·012	29·658	28·202	28th	27·973	10th	·229	74·8	82·5	-2·5	71·9	−0·6	77·2	−1·6	10·6	88·0	29th	70·2	18th	17·8
5	Gujarat	Surat	39	29·720	+·021	29·707	29·859	28th	29·628	2nd	·231	81·3	87·3	+0·3	77·4	+0·9	82·4	+0·6	9·9	91·1	3rd & 5th.	75·0	9th & 31st.	16·1
		Ahmedabad	163	29·556	+·013	29·668	29·701	28th	29·464	10th	·237	81·7	93·1	+3·0	77·4	+0·3	85·3	+1·7	15·7	96·7	28th & 29th.	75·1	21st	21·6
23	United Provinces (West).	Agra	555	29·043	?	29·562	29·145	28th	28·970	9th	·175	80·8	88·3	-2·8	78·3	-0·5	83·3	−1·7	10·0	92·5	30th	75·9	5 days	13·6
21	United Provinces (Central).	Jhansi	858	28·761	—·010	29·578	28·881	28th	28·643	13th	·238	78·6	86·2	−2·7	76·8	−0·3	81·5	−1·5	9·4	91·2	31st	74·1	25th	17·1
		IX.—Deccan.			+·012								86·3	+0·8	72·4	+0·1	79·4	+0·5	13·9					22·2
39	Bombay Deccan.	Belgaum	2,539	27·304	+·015	29·795	27·351	28th & 29th.	27·227	1st	·154	69·6	75·5	?	65·8	−0·4	70·7	?	9·7	80·3	28th	62·9	26th	17·4
		Sholapur	1,590	28·211	+·011	29·755	28·304	28th	28·128	1st	·176	77·2	91·9	+3·1	71·3	+0·7	81·6	+1·9	20·6	97·2	25th & 26th.	69·0	19th, 23rd & 24th.	28·2
		Poona	1,840	27·965	+·016	29·765	28·065	29th	27·889	2nd	·176	73·8	84·5	+2·6	70·0	+0·5	77·3	+1·6	14·5	88·5	28th	66·4	27th	22·1
		Bijapur	*1,948*	27·869	+·011	29·767	27·958	29th	27·788	1st	·170	75·0	88·7	+2·6	69·5	−0·4	79·1	+1·1	19·2	92·9	24th, & 26th.	66·8	23rd, 24th & 29th.	26·1
40	Khandesh	Malegaon	1,430	28·317	+·005	29·701	28·435	28th	28·231	5th	·204	78·6	90·0	+3·4	72·4	+0·9	81·2	+2·2	17·6	95·9	28th	69·0	25th & 26th.	26·9
		Ahmednagar	2,154	27·652	+·016	29·754	27·757	28th	27·583	2nd	·174	75·1	87·5	+2·7	69·2	+0·2	78·4	+1·5	18·3	91·9	28th & 29th.	64·0	24th	27·9
41	Berar	Akola	930	28·811	+·022	29·691	28·921	28th	28·725	5th	·196	78·4	87·7	+0·5	73·2	−0·1	80·5	+0·2	14·5	92·9	29th & 31st.	69·8	19th	23·1
		Amraoti	1,215	28·512	+·023	29·685	28·618	28th	28·439	12th	·179	76·9	87·0	+0·9	73·5	+0·9	80·3	+0·9	13·5	94·2	28th	70·5	8th & 19th.	23·7
42	Central Provinces (West).	Khandwa	1,044	28·671	+·012	29·676	28·792	29th	28·585	5th	·207	78·2	88·5	+3·0	75·1	+1·0	81·8	+2·0	13·4	94·7	31st	72·1	26th	22·6
		Hoshangabad	1,006	28·695	+·017	29·670	28·826	28th	28·604	10th	·222	75·6	84·1	−0·9	74·0	+0·2	79·1	−0·4	10·1	88·2	4th	71·7	15th, 24th & 26th.	16·5
		Nagpur	1,025	28·679	+·023	29·665	28·793	29th	28·601	12th	·192	77·3	86·8	−0·2	74·4	−0·2	80·6	−0·2	12·4	94·1	1st	72·6	5 days	21·5
43	Central Provinces (Central)	Chanda	*634*	29·100	+·028	29·682	29·203	30th	29·024	12th	·179	79·3	88·4	+0·8	74·9	−0·1	81·7	+0·4	13·5	95·2	26th	72·5	5th	22·7
		Seoni	2,033	27·663	+·011	29·646	27·775	28th	27·570	14th	·205	74·7	82·7	−0·4	70·7	−0·9	76·7	−0·7	12·0	89·8	26th	65·5	9th	24·3
		Jubbulpore	1,327	28·327	+·005	29·617	28·440	28th	28·234	14th	·206	75·7	83·3	−1·4	72·8	−1·1	78·1	−1·3	10·5	87·9	6th	70·6	15th	17·3
		Saugor	1,807	27·859	+·002	29·625	27·979	28th	27·778	10th	·201	74·3	81·7	−1·9	72·3	−0·5	77·0	−1·2	9·4	87·4	6th	70·1	15th & 16th	17·3
49	Central India	Sutna	1,040	28·570	—·012	29·573	28·698	28th	28·453	15th	·245	78·2	84·7	−1·2	76·5	+0·6	80·6	−0·3	8·2	89·4	3rd & 8th.	74·6	15th, 16th & 22nd.	14·8
44	Central Provinces (East).	Raipur	970	28·702	+·013	29·626	28·805	31st	28·601	14th	·204	77·3	84·6	-1·3	73·5	−1·4	79·1	−1·4	11·1	91·1	26th	70·4	29th	20·7
		Pendra	2,123	27·623P		29·696P	27·726	28th	27·485	14th	·241	75·1	82·1		72·2		77·2		9·9	86·8	25th	69·6	15th	17·2
		Sambalpur	486	29·163	—·007	29·599	29·270	31st	29·028	13th	·242	79·5	85·7	-1·5	76·7	−0·5	81·2	-1·0	9·0	92·1	26th	73·6	31st	18·5
39	Hyderabad (North).	Aurangabad	1,905	27·866 ‡		29·721 ‡	27·983	28th	27·789	5th	·194	74·4	85·1		68·5		76·8		16·6	90·3	26th	64·2	19th	26·1
		Indur	1,260	28·445P		29·659P	28·515	24th	28·378	8th	·137	77·7	89·6		71·5		80·6		18·1	93·0	26th	68·2	8th	24·8
		Bidar	*2,165*	27·658P		29·770P	27·759	29th	27·574	1st	·185	75·1	86·5		P		P		P	91·0	24th			
53	Hyderabad (South).	Gulbarga	1,503	28·294	+·008	29·753	28·383	31st	28·221	1st	·162	76·4	89·1	?	71·3	+0·2	80·2	?	17·8	92·6	19th	68·4	10th	24·2
		Raichur	1,326	28·488	+·018	29·766	28·571	31st	28·399	2nd	·172	78·2	91·3	+2·8	72·1	−0·4	81·7	+1·2	19·2	95·6	28th & 29th,	68·1	20th	27·5
		Hyderabad (Deccan).	1,696	28·093	+·014	29·732	28·187	31st	28·008	1st	·179	77·0	88·1	+2·0	73·2	+2·1	80·7	+2·1	14·9	93·9	29th	71·2	10th & 12th.	22·7
		Hanumkonda.	871	28·869		29·685	28·955	29th	28·775	1st	·180	80·0	89·8		76·1		83·0		13·7	94·0	25th	73·8	1st, 2nd & 7th,	20·2
		X.—West Coast.			+·018								83·5	+0·6	75·6	+0·6	79·6	+0·6	7·8					13·0
37	Konkan	Bombay	37	29·772	+·015	29·749	29·886	29th	29·677	2nd	·209	79·8	84·9	+0·9	77·8	+0·8	81·4	+0·9	7·1	87·0	1st & 2nd.	75·0	25th	12·0
		Ratnagiri	110	29·739	?	29·789	29·824	28th	29·644	2nd	·180	78·8	83·8	+0·1	75·8	+0·6	79·8	+0·4	8·0	85·8	1st & 27th	72·9	27th & 8th.	12·9
		Mormugao	*60*	29·815	+·019	29·810	29·891	28th	29·717	1st & 2nd	·174	80·0	84·3	+0·9	76·4	+0·6	80·4	+0·8	7·9	86·0	19th, 27th & 31st	73·9	5th & 10th.	12·1
		Goa	199	29·660	+·005	29·800	29·740	29th	29·563	1st	·177	79·8	82·2	+0·3	77·8	+2·0	80·0	+1·2	4·4	85·0	31st	73·5	16th	11·5
		Karwar	44	29·843	+·024	29·821	29·913	28th	29·736	1st & 2nd.	·177	78·4	82·9	+0·4	75·3	+0·7	79·1	+0·6	7·6	85·2	31st	72·5	8th	12·7
33	Malabar	Cochin	10	29·927	+·020	29·865	29·979	31st	29·870	1st	·109	78·3	85·0	+1·3	74·9	+0·6	80·0	+1·0	10·1	88·3	31st	71·7	1st	16·6
		Calicut	27	29·899	+·019	29·856	29·954	31st	29·828	1st	·126	77·3	83·4	+0·6	74·8	+0·5	79·0	+0·6	8·8	86·3	31st	71·7	1st & 11th.	14·6
		Mangalore	65	29·850	+·017	29·847	29·917	31st	29·754	1st	·163	78·2	82·8	0	74·5	+0·5	78·7	+0·3	8·3	84·7	13th, 16th & 17th,	72·4	1st & 2nd,	12·3
		Trivandrum	198	29·726	+·021	29·857	29·777	31st	29·662	1st	·115	77·1	82·2	-0·1		−0·9	78·4	−0·5	7·7	84·5	30th	72·5	2nd & 3rd,	12·0

‡ Mean of 26 days.

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

Note 1.—When a query is inserted against any reading or in the returns

Note 2.—The data from which divisional means of the figure columns

i—continued.

in India, Burma, etc., in August 1904—continued.

Wind Direction. Number of winds from: Calm	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	Wind Velocity. Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	Hygrometry, 8 A.M. Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Cloud. Mean cloud amount at 8 A.M.	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 1904.	Normal rainfall for period, 1st May to 31st August.	Departure from normal of period, 1st May to 31st August 1904.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
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	58
					14	16	1		S 71° W	13·8	11·9	+16	11·6	87	+ 2	·753	−·023	7·6	+0·8	7	10·50	− 3·50	6·01	9·22	− 3·21	18·08	23·53	− 5·50	2·02	Neemuch .	Central India	49
				6	10	15			S 59° W	10·3	13·6	−21	9·7	80	− 5	·861	−·028	7·8	+0·2	5	12·30	− 7·30	1·74	7·29	− 5·55	8·61	34·72	−26·11	0·48	Surat .	Gujarat .	45
				1	8	19	2	1	S 36° W	2·8			4·6	73	−10	·784	−·075	6·8	−1·5	1	10·90	− 9·90	0·46	7·66	− 7·20	7·14	27·02	−19·88	0·31	Ahmedabad		
		5		7		4		15	N 38° W	5·2	4·4	+18	6·1	86	+ 4	·901	−·012	7·4	+0·8	17	10·00	+ 7·00	15·25	8·14	+ 7·11	31·13	22·20	+ 8·93	2·90	Agra . .	United Provinces, (West).	22
1	1	1		2		13	8	5	S 74° W	5·8	3·9	+49	7·1	90	+ 8	885	P	3·7	−3·0	13	12·70	+ 0·30	14·00	11·61	+ 2·39	40·63	30·20	+10·48	2·93	Jhansi .	United Provinces, (Central)	21
														79	− 5	·724	−·034	6·8	−0·9				5·92	8·92	−3·18					IX.—Deccan.		
					11	19	1		S 75° W	19·0	20·7	− 8		91	− 1	·665	−·033	8·7	0	13	17·40	− 4·40	7·78	8·67	− 0·89	38·93	35·06	+ 3·87	1·95	Belgaum .	Bombay Deccan.	38
					12	10	7		S 78° W	14·7	11·0	+34	17·8	65	−10	·608	−·062	5·9	−1·8	4	8·00	− 4·00	1·21	6·09	− 4·88	9·73	15·64	− 5·91	0·34	Sholapur.		
					17	13	1		S 66° W	16·8*	14·0	+20		78	− 5	·653	−·040	6·9	1·5	2	8·60	− 6·60	0·76	3·31	− 2·55	4·67	16·42	−11·75	0·26	Poona.		
				2	9	18	2		S 29° W	14·7			14·4	78	− 4	·676	−·019	6·4	−1·1	1	5·60	− 4·60	0·24	2·47	− 2·23	4·67	9·83	− 5·16	0·19	Bijapur.		
					11	18	2		S 77° W	15·2	10·0	+52	17·5	60	− 8	·678	−·042	5·5	−1·8	2	5·80	− 3·80	0·39	3·55	− 3·16	6·33	13·72	− 7·39	0·13	Malegaon .	Khandesh .	40
					11	11	5		S 73° W	13·2			17·3	76	− 7	·668	P	5·0	−3·2	2	5·20	− 3·20	0·64	2·29	− 1·65	4·51	11·15	− 6·64	0·41	Ahmednagar.		
						2	12	17	N 67° W	10·7	7·9	+35	9·4	75	− 8	·719	−·019	8·5	+0·7	6	8·90	− 2·90	5·52	6·28	− 0·76	15·84	22·48	− 6·64	1·76	Akola .	Berar .	41
						10	21		S 76° W	11·5	6·1	+89	10·2	75	−14	·698	−·084	7·6	−0·3	4	10·00	− 6·00	2·16	6·44	− 4·28	15·55	23·77	− 8·22	0·75	Amraoti.		
							17	14	N 70° W	9·5	7·6	+25	9·0	74	−11	·704	−·064	7·0	−0·7	5	10·70	− 5·70	1·03	7·05	− 6·02	8·57	22·10	−13·53	0·30	Khandwa .	Central Provinces, (West)	42
						31			S 45° W	3·2	3·4	− 6	3·3	90	− 1	·802	−·034	8·5	−0·1	10	15·00	− 5·00	6·72	14·68	− 7·96	21·58	38·83	−17·25	1·52	Hoshangabad.		
					4	21	6		N 87° W	8·6	8·0	+ 8	6·8	81	− 4	·765	−·045	7·9	−0·8	11	12·60	− 1·60	9·22	11·06	− 1·84	23·40	34·96	−11·56	1·82	Nagpur.		
4					8	17	2		S 80° W	3·8	5·4	−30	3·4	77	− 5	·770	−·029	5·4	−3·0	11	13·60	− 2·60	5·34	13·90	− 8·56	19·62	40·40	−20·78	1·53	Chanda .	Central Provinces, (Central)	43
	2	1			8	12	8		N 83° W	6·9	4·8	+44	5·8	85	− 5	·731	−·055	6·1	2·4	13	16·40	− 3·40	11·28	12·49	− 1·21	26·04	40·21	−14·17	3·29	Seoni.		
1					8	17	5		S 86° W	4·7	4·6	+ 2	4·1	91	+ 1	·810	−·018	8·2	−0·1	15	16·30	− 1·30	12·26	16·48	− 4·22	31·41	46·68	−15·27	2·35	Jubbulpore		
					11	19	1		S 75° W	9·6	4·3	+123	8·5	88	− 2	·754	−·045	8·3	+0·7	11	15·40	− 4·40	7·46	12·97	− 5·51	34·18	37·53	− 3·35	2·27	Saugor.		
7					10	13	1		S 73° W	5·3	7·9	−33	4·9	89	+ 2	·859	−·012	9·5	+2·1	19	14·40	+ 4·60	18·72	12·47	+ 6·25	40·95	34·45	+ 6·50	4·35	Sutna .	Central India	49
3					1	21	6		S 52° W	7·8	7·3	+ 7	9·4	89	0	·829	−·013	8·3	−0·4	15	14·20	+ 0·80	14·44	13·02	+ 1·42	40·35	38·73	+ 1·62	5·00	Raipur .	Central Provinces, (East)	44
2	3	1			7	4	3	11	N 83° W	6·3			5·4	87		·762		8·1		21			14·41			38·45			2·71	Pendra.		
				1	2	17	10	1	S 58° W	5·9	3·0	+97	5·8	85	− 1	·870	−·016	8·2	+0·1	19	17·10	+ 1·90	14·86	17·63	− 2·77	54·73	53·42	+ 1·31	2·49	Sambalpur.		
	1					6	22	2	S 86° W	16·8			16·6	79		·675		7·4		9	9·50	− 0·50	2·86	5·25	− 2·39	13·64	19·06	− 5·42	0·56	Aurangabad.	Hyderabad (North).	39
4						3		23	N 52° W	5·0			4·2	69		·653		5·0		10	14·50	− 4·50	6·24	10·61	− 4·37	21·42	26·76	− 5·34	2·75	Indur.		
	2	2	1		3	9	10	4	S 80° W	7·8			6·5	82		·716		3·6		7	12·50	− 5·50	3·06	8·39	− 5·33	11·18	23·93	−12·75	1·15	Bidar.		
					2	18	11		N 77° W	12·4			11·9	79	− 1	·724	+·020	5·4	−2·2	5	8·10	− 3·10	1·20	4·75	− 3·55	9·95	16·93	− 6·98	0·40	Gulbarga .	Hyderabad (South).	53
					15	12	4		S 73° W	14·9			14·2	69	− 9	·661	P	5·7	−1·9	8	8·70	− 0·70	3·37	6·52	− 3·15	12·84	15·89	− 3·05	1·44	Raichur.		
						29	2		N 87° W	8·3			8·1	73	− 9	·672	−·044	5·1	−2·5	5			0·99	7·61	− 6·62	12·66	19·70	− 7·04	0·25	Hyderabad (Deccan).		
2	1						16	10	N 72° W	10·3			8·8	69		·708		3·6		6	12·00	− 6·00	1·63			16·38			0·39	Hanumkonda.		
														87	− 1	·857	+·001	7·3	−0·5				9·13	17·08	−7·95					X.—West Coast.		
				1		8	21	1	S 78° W	13·9	15·8	−13		85	− 1	·868	−·013	9·0	+0·1	9	19·50	−10·50	5·64	14·07	− 8·43	30·90	60·46	−29·56	1·56	Bombay .	Konkan .	37
2	1		1	1	1	11	13	1	S 69° W	8·8	10·3	−15	8·7	88	0	·861	−·014	8·8	+0·8	19	23·70	− 4·70	10·01	22·29	−12·28	84·61	89·62	− 5·01	2·40	Ratnagiri.		
3	1						6	21	N 52° W	9·1				89	− 1	·904	+·006	6·0	−1·0	12			5·37	18·59	−13·22	81·07	76·67	+ 4·40	1·39	Mormugao.		
2	3		1		1	7	15	2	S 85° W	6·8				87	− 2	·890	+·010	7·8	−0·7	17			9·42	19·14	− 9·72	97·87	82·87	+15·00	2·40	Goa.		
3	1				1	9	14	3	S 79° W	4·6				86	− 2	·830	−·004	6·4	−0·9	20	24·00	− 4·00	12·75	23·91	−11·16	103·14	100·95	+ 2·19	1·75	Karwar.		
6	2	7	2	1	2		7	4	N 17° W	6·8				87	+ 1	·849	+·008	6·2	−0·9	11	18·60	− 7·60	11·54	13·47	− 1·93	83·52	76·06	+ 7·46	3·82	Cochin .	Malabar .	33
14	3	2				2	3	7	N 45° W	5·1			5·0	89	− 2	·839	+·005	6·7	−0·6	13	18·80	− 5·80	13·09	15·80	− 2·71	96·03	88·24	+ 7·79	3·03	Calicut.		
11		1	2	1		5	7	4	S 86° W	4·7	2·9	+62		90	− 2	·877	+·022	7·6	−0·9	21	24·40	− 3·40	13·18	22·26	− 9·08	107·36	101·17	+ 6·19	2·58	Mangalore.		
	11						11	19	N 30° W	9·8				84	− 2	·793	−·014	6·9	−0·5	5	9·30	− 4·30	1·15	4·15	−3·00	39·20	32·51	+ 6·69	0·31	Trivandrum.		

of any station, the data for that station are not utilized in calculating the provincial departures from normal.
Nos. 41, 43 and 45 are derived are incomplete.

* Mean of 27 days.

† Mean of 29 days.

Agra wind directions for 29 days.

Table

Abstract of Observations taken at 8 A.M. at 231 Station

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 A.M., in inches.								Temperature of Air.											
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
	XI.—South India.				+·013								91·8	+1·2	74·5	+0·3	83·1	+0·8	17·3					25·3
57	Madras (South)	Pamban	37	29·833	+·020	29·797	29·930	31st	29·757	1st	·173	82·4	P	P	78·8	+0·2	P	P	P	P		76·2	23rd, 25th & 26th.	P
		Tinnevelly	168	29·702	+·016	29·799	29·766	31st	29·640	1st	·126	85·4	96·4	−0·3	78·4	−0·7	87·4	−0·5	18·0	102·4	31st	75·9	25th & 26th.	26·5
		Madura	447	29·408	+·017	29·790	29·479	31st	29·336	1st	·143	82·8	97·3	+0·7	76·3	+0·5	86·8	+0·6	21·0	100·5	24th	73·5	13th	27·0
		Periyakulam	945	28·929		29·813	28·996	31st	28·849	1st	·147	79·9	94·8		70·2		82·0		24·6	98·9	13th	67·1	24th	31·8
34	Madras (South Central)	Salem	940	28·943	+·009	29·827	29·017	31st	28·859	1st	·158	78·8	92·5	+0·3	73·1	+0·6	82·8	+0·5	19·4	97·7	29th	71·4	4th	28·3
		Coimbatore	1,348	28·526	+·017	29·831	28·599	31st	28·453	1st	·146	75·6	87·6	−1·1	70·8	+0·2	79·2	−0·5	16·8	89·9	21st	69·8	4 days	20·1
35	Coorg	Mercara	3,781	26·210	+·029		26·270	31st	26·146	1st & 2nd.	·124	64·1	70·2	+0·5	61·0	−1·0	65·6	−0·3	9·2	74·0	28th	60·1	12 days	13·9
36	Mysore	Chitaldroog	2,405	27·467	+·018	29·818	27·537	28th	27·392	2nd	·145	72·0	82·5	+0·4	67·8	−0·2	75·2	+0·1	14·7	87·1	28th	66·4	23rd & 24th.	20·7
		Bangalore	3,021	26·894	+·011	29·847	26·957	31st	26·810	1st	·147	69·2	82·1	+0·3	64·8	−0·8	73·5	−0·3	17·3	87·8	31st	62·8	23rd	25·0
		Hassan	3,091	26·842	+·015	29·855	26·913	31st	26·765	1st	·148	70·4	80·4	P	63·8	−0·7	72·1	P	16·6	85·4	29th & 31st.	59·7	23rd	25·7
		Mysore	2,518	27·398	+·014	29·863	27·461	31st	27·319	1st & 2nd.	·142	72·0	84·4	+0·4	65·6	−0·9	75·0	−0·3	18·8	87·9	24th	63·5	23rd & 24th.	24·4
56	Madras, East Coast, (South)	Negapatam	31	29·810	+·004	29·770	29·877	16th	29·725	1st	·152	84·1	95·3	+1·6	78·5	+1·2	86·9	+1·4	16·8	98·9	17th & 23rd.	75·0	6th & 24th.	23·9
		Cuddalore	12	29·823	+·014	29·764	29·891	31st	29·733	1st	·158	83·5	96·2	+2·5	77·3	+1·0	86·8	+1·8	18·9	99·7	25th	72·7	31st	27·0
		Trichinopoly	255	29·604	+·017	29·791	29·677	31st	29·520	1st	·157	82·5	97·8	+1·2	77·7	+1·0	87·8	+1·1	20·1	100·6	29th	75·9	1st & 30th.	24·7
		Madras	22	29·800	+·010	29·753	29·872	31st	29·706	1st	·166	83·6	95·8	+2·0	78·2	+0·9	87·0	+1·5	17·6	101·5	29th	75·0	4th	26·5
		Vellore	707	29·119		29·765	29·197	31st	29·029	1st	·168	82·2	93·6		75·9		84·9		17·7	97·9	31st	71·5	23rd	26·4
55	Madras, East Coast, (Central)	Nellore	52	29·748	P	29·733	29·825	31st	29·654	1st	·171	84·5	97·7	+2·1	79·0	+0·3	88·4	+1·2	18·7	103·8	29th	73·6	1st	30·2
		Masulipatam	15	29·747	+·013	29·696	29·830	30th	29·656	1st	·174	83·4	93·5	+2·2	78·9	+1·3	86·2	+1·8	14·6	98·7	29th	72·1	30th	26·6
54	Madras, (Central)	Cuddapah	433	29·392	+·011	29·761	29·482	31st	29·299	1st	·183	84·2	97·7	+4·0	78·3	+1·5	88·0	+2·8	19·4	102·7	29th	71·8	1st	27·9
		Kurnool	945	28·883	+·005	29·751	28·981	31st	28·790	1st & 2nd.	·191	79·9	92·6	+2·8	74·3	+0·6	83·5	+1·7	18·3	97·7	29th	72·1	2nd & 11th.	25·6
		Bellary	1,475	28·354	+·013	29·778	28·439	31st	28·265	2nd	·174	78·1	92·6	+1·8	74·0	+0·4	83·3	+1·1	18·6	97·0	29th	72·2	24th & 27th.	24·8
52	Madras, East Coast, (North)	Cocanada	26	29·707	+·014	29·669	29·805	31st	29·603	1st	·202	82·3	91·7	+2·0	79·2	+0·7	85·5	+1·4	12·5	96·6	24th	74·0	7th & 28th.	22·6
		Waltair (Vizag.)	*226*	29·480	+·010	29·647	29·579	31st	29·380	13th	·199	81·8	89·7	P	78·0	P	83·9	P	11·7	97·9	15th	70·9	26th	27·0
		Gopalpur	72	29·594	+·014	29·607	29·692	31st	29·479	13th	·213	81·2	86·5	−0·9	77·9	−0·9	82·2	−0·9	8·6	90·7	19th	75·0	20th & 21st.	15·7
	XII.—Hill Stations.																							
48	Baluchistan	Pishin											94·1		56·0		75·1		38·1	99·4	2nd & 8th	46·1	29th & 30th.	53·3
		Quetta	5,502	24·514	+·035		24·634	28th	24·385	10th	·249	73·5	91·6	+1·1	58·8	−2·3	75·2	−0·6	32·8	96·1	1st	47·9	30th	48·2
		Kalat										74·2	91·9	+1·5?	34·9	−13·3?	63·4	−5·9?	57·0	98·8	8th	24·8	30th	74·0
		Chaman	4,311	25·512	+·025		25·629	24th	25·382	5th	·247	80·3	95·7	−2·3	67·7	−2·6	81·7	−2·5	28·0	101·7	2nd	59·6	31st	42·1
30	Punjab	Leh	11,503	19·663	−·001		19·734	25th	19·585	10th	·149	56·4	74·2	−3·2	49·1	−0·7	61·7	−2·0	25·1	79·1	19th	42·0	23rd	37·1
		Srinagar	5,204	24·681	−·026		24·814	23rd	24·574	10th	·240	68·4	84·0	+0·1	62·4	−0·5	73·2	−0·2	21·6	90·8	6th	53·7	12th	37·1
		Gulmarg	*8,569*	21·776			21·866	28th	21·667	10th	·199	59·9	67·2		48·6		57·9		18·6	73·6	7th	41·8	24th	31·8
		Sonemarg	*8,764*	21·776			21·866	28th	21·666	10th	·200	53·8	68·2		47·6		57·9		20·6	76·2	6th	41·7	28th	34·5
		Skardu	*7,505*	22·695			22·784	23rd	22·560	10th	·224	69·1	85·6		59·3		72·5		26·3	95·1	6th	51·2	25th	43·9
		Dras	*10,059*	20·724			20·809	28th	20·621	10th	·188	61·7	79·4		49·7		64·6		29·7	86·5	7th	43·7	24th, 25th & 28th.	42·8
		Gilgit	4,890	24·892			25·040	14th	24·728	10th	·312	77·5	95·5	+1·3	70·5	−1·6	83·0	−0·2	25·0	106·7	7th	60·1	31st	46·6
		Chitral	*5,486*									74·7	94·5		65·1		79·8		29·4	103·7	7th	54·0	24th	49·7
		Killa Drosh										77·3	94·3		70·4		82·4		23·9	101·6	7th	62·2	14th & 31st.	39·4
		Murree	6,333	23·735	−·008		23 818	23rd	23·628	10th	·190	64·8	72·8	−1·6	57·8	−3·2	65·3	−2·4	15·0	79·8	19th	49·9	30th	29·9

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

Note 1.—When a query is inserted against any reading or in the returns

Note 2.—The data from which divisional means of the figure columns

I – *continued.*

in India, Burma, etc., in August, 1904—continued.

Wind Direction. Number of winds from: Calm.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Wind resultant.	Wind Velocity. Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	Hygrometry, 8 A.M. Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Cloud. Mean cloud amount at 8 A.M.	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 1904.	Normal rainfall for period 1st May to 31st August.	Departure from normal of period, 1st May to 31st August 1904.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
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	58
														74	−1	·757	+·002	6·0	−0·9				1·92	4·25	−2·33					XI.—South India.		
4	1			6	4	4	6	5	1 S 7° W	9·7			10·3	78		·855		2·4		0	0 60	− 0·60	0	0·81	− 0·81	0·40	1·65	− 1·25	0	Pamban	Madras (South)	57
					2	6	14	9	N 90° W	8·6			8·3	55	−4	·671	−·029	4·4	−1·1	0	1·00	− 1·00	0·04	0·48	− 0·44	3·61	2·68	+ 0·93	0·02	Tinnevelly.		
1	3						6	21	N 49° W	6·0	3·7	+ 62	6·9	66	0	·741	+·007	3·6	−1·7	5	6·20	− 1·20	1·65	3·69	− 2·04	9·03	9·65	− 0·62	0·44	Madura.		
16	4	2	1	1	3	4			S 15° E	4·1			4·5	64		·658		3·8		0	3·80	− 3·80	0·08	1·88	− 1·80	10·79	6·35	+ 4·44	0 05	Periyakulam.		
	1				6	13	10	1	S 57° W	5·4	4·2	+ 29	4·8	76	−3	·750	−·021	6·6	+0·2	4	9·50	− 5·50	1·86	7·47	− 5·61	22·11	18·93	+ 3·18	1·04	Salem	Madras, (South Central).	34
			1		5	19	6		S 45° W	9·7*	7·4	+ 31	8·9*	86	+2	·766	+·023	4·3	−1·5	2	3·00	− 1·00	0·34	1·12	− 0·78	9·88	6·28	+ 3·60	0·18	Coimbatore.		
						1	28	2	N 89° W	6·2	8·9	− 30	5·8	96	+1	·590	+·013	9·5	+0·9	22	26 70	− 4·70	15·23	26·36	−11·13	99·12	99·84	− 0·72	1·49	Mercara	Coorg	35
					1	10	15	5	S 80° W	11·2			9·7	82	0	·650	+·003	8·1	−0·8	5	7·80	− 2·80	1·04	2·68	− 1·64	13·54	13·01	+ 0·53	0·23	Chitaldroog	Mysore	36
						13	17	1	S 72° W	11·4	7·6	+ 50	9·9	86	+1	·615	−·001	8·6	+0·4	6	10·40	− 4·40	2·12	5·36	− 3·24	19·46	16·69	+ 2·77	0·63	Bangalore.		
						6	18	7	N 88° W	4·8			4·2	85	+2	·634	+·020	8·8	+0·1	5	9·60	− 4·60	1·40	3·37	− 1·97	15·94	17·40	− 1·46	0·27	Hassan.		
						19	12		S 62° W	11·3			12·2	84	+3	·652	+·010	8·5	+0·6	3	6·40	− 3·40	1·20	2·93	− 1·73	17·62	12·43	+ 5·19	0·35	Mysore.		
						13	18		S 72° W	7·8	5·7	+ 37	6·9	67	−4	·797	?	4·8	−0·0	2	5·70	− 3·70	1·51	3·66	− 2·15	10·27	8·65	+ 1·62	1·26	Negapatam	Madras, East Coast, (South).	56
27					1	1	1	1	S 67° W	2·3			2·9	74	−6?	·854	−·026?	6·2	−0·5	6	8·00	− 2·00	2·29	5·33	− 3·04	10·18	11 14	− 0·96	1·10	Cuddalore.		
10						13	8		S 62° W	6·3	8·2	− 23		65	−2	·719	−·007	3·7	−3·2	1	5·40	− 4·40	0·55	4·35	− 3·80	6·14	10·10	− 3 96	0·35	Trichinopoly		
				1	8	14	8		S 43° W	6·6	7·3	− 10		67	−8	·779	−·047	5·6	−1·7	5	12·60	− 7·60	2·55	5·34	− 2·79	10·26	12·47	− 2·21	1·61	Madras.		
	1	1	4	7		2	8	8	N 79° W	4·0			4·0	65		·707		3·4		4	7·90	− 3·90	1·81	5·31	− 3·50	12·59	14·53	− 1·94	1·03	Vellore.		
						14	11	6	S 80° W	7·0				64	−8	·758	−·058	6·9	−0·8	4	5·40	− 1·40	3·36	4·03	− 0·67	8·52	8·46	+ 0·06	1·71	Nellore	Madras, East Coast, (Central).	55
1	1					4	14	11	N 77° W	9·0	7·8	+ 15	7·9	83	0	·945	+·054	7·8	0	6	9 80	− 3·80	4·63	6·89	− 2·26	19·26	18·64	+ 0·62	1·35	Masulipatam		
		1	1	2		6	17	4	S 85° W					61	−12	·718	−·055	6·3	−1·5	1	8·00	− 7·00	0·19	6·15	− 5·96	6·63	15·02	− 8·39	0·10	Cuddapah	Madras, (Central)	54
						11	6	14	N 85° W	14·9				79	+4	·802	+·087	4·4	−3·1	6	9·20	− 3·20	1·23	5·94	− 4·71	9·71	15·20	− 5·49	0·34	Kurnool.		
	1					5	19	6	N 87° W	12·0	10·7	+ 12	12·7	69	+1?	·669	+·021	6·5	−1·4	1	4·10	− 3·10	0·36	2·32	− 1·97	9·13	7·74	+ 1·38	0·11	Bellary.		
9						10	11	1	S 71° W	6·2			5·2	85	+4	·944	+·094	7·2	−0·4	4	9·70	− 5·70	2·50	5·40	− 2·90	12·03	17·03	− 5·00	1·04	Cocanada	Madras, East Coast, (North).	52
1	1					12	15	2	S 76° W	10·7†				74	−5?	·807	−·054	9·0	+1·2	9	8·40	+ 0·60	6·42	5·32	+ 1·10	23·64	16·15	+ 7·49	1·35	Waltair (Vizag.).		
2	4				8	12	3	2	S 50° W	10·1	9·1	+ 11	9·9	87	+2	·919	−·006	6·5	−1·0	17	10·60	+ 6·40	7·10	7·96	− 0·86	21·09	23·95	− 2 86	1·49	Gopalpur.		
																														XII.—Hill Stations.		
																				0	0·20	− 0·20	0	0·15	− 0·15	0	0·45	− 0·45	0	Pishin	Baluchistan	48
29				1	1				S 24° E	1·4	4·5	− 69	1·5	45	−3	·382	−·097	0·5	−0·6	0	0·70	− 0·70	0	0·62	− 0·62	0·47	2·19	− 1·72	0	Quetta.		
	2		7		21		1		S 18° E					31		·262				0	0·50	− 0·50	0	0·31	− 0·31	0	1·65	− 1·65	0	Kalat.		
		1	2		7	18	2	1	S 35° W	7·1			7·8	26	−7	·277	−·092	0·3	−0·3	0	0	0	0	0	0	0	0·28	− 0·28	0	Chaman.		
		8	8	3	7	3	2		S 64° E	1·0				60	+1	·281	−·001	4·7	+0·5	1	1·70	− 0·70	0·21	0·54	− 0·33	1·81	1·33	+ 0·48	0·13	Leh	Punjab	0
14	1	3	1	4	2	3	1	2	S 31° E	3·0			2·8	84	−2	·591	−·034	4·7	+0·1	7	4·70	+ 2·30	4·73	1·94	+ 2·79	13·01	9·30	+ 3·71	0·95	Srinagar.		
18	2	3	6	1		1			N 69° E	2·5			2·9	82		·427		5·0		9			3·75			14·04			0·90	Gulmarg.		
19		1		9		2			S 39° E	3·4			3·1	87		·366		5·0		12			3 29			15·87			0·78	Sonemarg.		
6	1	1	9	4	1	6	3		S 40° E	5·8			5·9	60		·426		4·9		0	1·10	− 1·10	0·08	0·96	− 0·88	2·57	2·72	− 0·15	0·03	Shardu.		
27				1			2		W	7·5			6·0	55		·304		4·1		0	1·40	− 1·40	0·15	0·58	− 0·43	5·15	4·59	+ 0·56	0·05	Dras.		
21		1	1	1	1	3	2	1	S 45° W	5·5			4·9	55	+5	·509	+·015	4·2	0	4	1·80	+ 2·20	0·90	0·34	+ 0·56	2·77	2·10	+ 0·67	0·29	Gilgit.		
27	1				3				S					57		·486		0		0			0			0·66			0	Chitral.		
31									Calm					72		·678		1·3		4			1·62			2·69			0·88	Killa Drosh.		
23	2		1	2	1	1		1	N 45° E	5·3	4·8	+ 10	5·7	82	0	·513	−·001	5·2	+0·4	14	15·60	− 1·60	17·10	13·62	+ 3·48	31·91	31·96	− 0·05	3·23	Murree.		

of any station, the data for that station are not utilized in calculating the provincial departures from normal.

* Mean of 23 days.

† Mean of 30 days.

Nos. 41, 43, and 45 are derived are incomplete.

Table

Abstract of Observations taken at 8 A.M. at 232 Stations

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 A.M., in inches.								Temperature of Air.											
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
30	Punjab—*concld.*	Kailang	*10,087*	20·894			20·982	25th	2·795	31st	·187	57·0	72·1	−1·7	48·6	−1·6	60·4	−1·7	23·5	78·3	18th	43·9	23rd	34·4
		Poo											78·1		58·0		68·1		20·1	81·6	18th	51·6	14th	30·0
		Simla	7,224	23·018	+·009		23·092	23rd	22·910	10th	·182	61·3	66·2	−0·9	53·8	−0·7	62·5	−0·8	7·4	68·6	16th	55·7	31st	12·9
		Sarain		23·053			23·126	23rd	22·972	29th	·154	63·4	69·8		56·7		63·3		13·1	73·7	16th	50·5	31st	23·2
	North-West Frontier Province.	Para Chinar	6,000	24·318			24·411	22nd	24·217	10th	·194	73·9	84·6		53·8		74·2		20·8	91·1	7th	57·2	13th	33·9
		Cherat	*4,256*	25·521	−·001		25·623	23rd	25·404	10th	·219	73·6	86·7	−0·2	69·9	−1·2	77·9	−0·7	17·7	95·4	18th & 19th.	57·0	23rd	38·4
25	United Provinces.	Chakrata	7,022	23·171	−·007		23·232	23rd	23·060	10th	·172	61·8	67·0	−1·8	59·3	−0·2	63·2	−1·0	7·7	71·0	25th	56·3	31st	14·7
		Ranikhet	6,069	23·963	−·016		24·021	28th	23·860	10th	·161	65·3	71·9	−0·5	62·0	−0·2	67·0	−0·4	9·9	76·0	4 days.	59·0	22nd	17·0
		Muktesar	7,600	22·732			22·791	23rd & 28th	22·633	10th	·158	60·0	67·5		57·4		62·5		10·1	72·7	18th	55·6	30th	17·1
	Sikkim	Taugu																						
13	Bengal	Yatung	10,480										61·2		50·7		56·0		10·5	65·1	14th	47·0	19th & 23rd	18·1
		Darjeeling	7,376	22·942	−·009		23·009	23rd	22·853	17th	·156	60·8	66·6	+1·1	57·0	−0·2	61·8	+0·5	9·6	71·2	13th	55·6	28th, 29th & 30th.	15·6
8	Assam Hill Tracts	Shillong	4,900	25·033			25·105	24th	24·962	12th	·143	68·5	75·7		63·7		69·8		12·0	81·7	13th	60·0	24th	21·7
		Cherra Poonjee	4,309	25·569			25·643	23rd	25·495	12th	·148	67·5	72·6		64·9		68·8		7·7	78·7	13th	63·0	4th	15·7
	Central India	Mount Abu	3,945	25·874	+·008		26·015	28th	25·792	10th	·223	64·9	72·7	+0·7	63·3	−0·9	68·0	−0·1	9·4	76·1	6th & 29th.	61·4	7 days	14·7
		Pachmarhi	3,528	26·291	+·015		26·402	28th	26·227	9th, 10th & 12th	·175	67·7	73·9	−0·8	66·2	−0·9	70·1	−0·9	7·7	77·6	27th & 29th.	64·2	21st	13·4
	South India	Wellington	6,200	24·211	+·013		24·271	31st	24·148	1st	·123	64·1	72·0	+0·6	56·1	−1·0	64·1	−0·2	15·9	76·7	15th	49·2	20th	27·5
		Kodaikanal	7,688	22·797			22·855	31st	22·722	1st	·133	57·3	61·0		51·6		56·3		12·4	67·2	13th	49·0	22nd	18·2
		Ootacamund	*7,322*	23·021			23·075	28th	22·96·	1st	·112	56·6	62·9		51·1		57·0		11·8	67·0	16th	46·7	24th	20·3
	XIII.—Extra India.																							
	Ceylon	Trincomalee	12	29·848	+·016	29·786	29·929	29th	29·779	1st	·150	80·3	92·7	+0·6	77·2	+0·2	85·0	+0·4	15·5	96·0	28th	74·0	1st	22·0
		Colombo	40	29·905	+·020	29·871	29·967	31st	29·826	1st	·141	80·4	85·2	−0·4	77·3	−0·2	81·3	−0·3	7·9	97·5	30th	76·0	24th	11·5
												77·1			60·2	−0·2						49·9	30th	
	Persia	Meshed	3,104																					
		Teheran(*b*) §	*4,002*	25·830			25·940	12th	25·710	15th	·230	81·8	96·8	−0·1	70·3*	−0·7	83·6	−0·4	26·5	104·7	2nd	61·9	17th	42·3
		Ispahan(*b*) †	*5,817*	24·262			24·350	12th	24·170	15th	·180	75·9	91·5	−0·9	63·2*	+1·9*	78·8*	+0·5	31·3	99·5	1st	57·8	31st	41·7
		Bushire *	14	29·564	+·018	29·537	29·739	29th	29·469	9th	·270	89·3	95·8	−1·2	82·7	−1·3	89·3	−1·3	13·1	109·5	14th	78·4	7th	31·1
		Bahrein‡	30	29·558			29·658	29th	29·433	2nd	·225	90·7	98·7		85·0		91·9		13·7	102·7	28th	81·6	18th	21·1
		Jask	*13*	29·591	−·014	29·564	29·731	28th	29·472	10th	·262	89·6	95·8	+1·3	85·2	+1·2	90·5	+1·3	10·6	105·2	15th	79·7	25th	25·5
	Arabia	Muscat	20	29·602	+·008	29·569	29·759	29th	29·488	5th	·271	86·9	88·1	+0·2	85·7	+1·4	86·9	+0·8	2·4	91·8	8th	81·5	28th & 29th.	13·3
		Baghdad	220	29·503	−·025	29·691	29·670	29th	29·384	9th	·286	88·0	112·4	+4·0	78·2	−0·6	95·3	+1·7	34·2	117·6	21st	73·6	5th	44·0
		Aden	94	29·670	+·021	29·695	29·781	29th	29·580	27th	·201	86·7	93·5	+2·0	82·1	+2·5	87·8	+2·3	11·4	96·8	13th	78·3	27th	18·5
		Perim	201	29·565	+·025	29·695	29·637	25th	29·488	27th	·149	88·9	96·2	0	85·2	+1·8	90·7	+0·9	11·0	100·3	10th	82·6	29th	17·7
	Afghanistan	Kabul										77·9	91·7	−0·7	55·0	−4·4	73·4	−2·6	36·7	98·1	6th	49·4	31st	48·7
	Central Asia	Kashgar	4,255	25·448			25·549	28th	25·310	9th	·239	75·6	93·7	+5·6	65·5	+0·1	79·6	+2·9	28·2	99·9	5th	55·2	22nd	44·7
	Arabian Sea Islands.	Amini Divi	*13*	29·921	+·030	29·862	29·977	28th & 31st.	29·838	1st	·139	81·9	86·4	+1·1	77·9	+0·5	82·2	+0·8	8·5	87·8	14th, 15th & 16th.	75·0	28th	12·8
		Minicoy	7	29·791		29·884	30·003	31st	29·883	1st	·120	82·2	86·6	+1·2						89·4	16th			
	Africa	Zanzibar	73	30·104	+·018	30·105	30·144	3rd & 8th.	30·063	26th	·081	74·5	81·1	+0·4	72·7	0	76·9	+0·2	8·4	82·9	20th	71·5	3rd & 8th.	11·4
		Do. Dunga	*154*	30·024		30·109	30·069	12th	29·978	30th	·091	72·4	82·7		66·6		74·6		16·1	85·3	21st	61·5	23rd	23·8
	Straits Settlements.	Penang(*a*)	20	29·961		29·905	29·959	16th & 28th	29·851	5th	·108	80·8	88·7		73·2		81·0		15·5	91·0	7 days	72·0	7 days	19·0
		Singapore(*a*)	10	29·950		29·881	30·014	30th	29·906	22nd	·108	82·7	88·1		71·1		79·6		17·0	91·2	18th	67·9	20th	23·3

(*a*) 9 hours' observations.
(*b*) Aneroid uncorrected.
N.B.—Elevations in italics indicate barometric determinations.

* Mean of 30 days.
† " " 29 "
‡ " " 25 "
§ " " 28 "

I—*concluded.*

in India, Burma, etc., in August, 1904—concluded.

Wind Direction. Number of winds from Calm.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Wind resultant.	Wind Velocity. Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal (uncorrected.)	Percentage departure from normal.	Mean velocity corrected (where possible).	Hygrometry, 8 A.M. Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Cloud. Mean cloud amount at 8 A.M.	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 1904.	Normal rainfall for period, 1st May to 31st August.	Departure from normal of period, 1st May to 31st August 1904.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
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	58
				2	2	11	8	8	S 73° W	1·8				78		·368		6·2		3			1·51	1·43	+0·08	9·72	6·65	+ 3·07	0·73	Kailang .	Punjab—*concld.*	30
																		5·5		0			0·21	0·45	— 0·24	2·89	2·57	+ 0·32	0·09	Poo.		
20			1			5	1	4	S 81° W																							
12	12			1	6				N 8° E	2·1	1·6	+31	2·0	90	— 1	·494	—·012	8·5	+0·5	20	18·90	+1·10	14·48	17·67	— 3·19	48·93	45·42	+ 3·51	3·13	Simla.		
22	1	2	1		2	1	1		S 75° E	1·5			1·5	81		·472		7·4		15			7·49			28·52			1·36	Sarain .		
27		1	1	1	1				S 63° E	4·3			3·9	59		·497		0·7		6	6·40	—0·40	2·32	2·57	— 0·25	8·86	9·83	— 0·97	1·12	Para Chinar.	North-West Frontier Province.	
14	5			2	7	1	1	1	S 59° W	5·6			5·2	74	+ 1	·608	+·020	3·8	—0·1	7			5·13	3·21	+ 1·92	9·71	10·03	— 0·32	2·20	Cherat.		
18	1			2	10				S 7° E	6·0	4·3	+40	7·2	92	— 1	·523	—·008	0·7?	—5·2?	18	20·10	—2·10	27·22	19·18	+ 8·04	57·35	50·45	+ 6·90	5·20	Chakrata .	United Provinces.	25
18			1	2		4	4	2	S 63° W	2·1	1·9	+11	2·4	90	0	·567	—·004	8·7	+0·3	18	18·50	—0·50	13·85	14·33	— 0·48	38·60	36·94	+ 1·66	1·69	Ranikhet.		
8		1	4	7	1	2	8		S 1° E	7·3			6·7	96		·509		9·3		16			18·19			37·81			2·87	Muktesar.		
																														Taugu .	Sikkim.	
																				24	24·43	—0·43	7·41	9·68	— 2·27	29·17	31·20	— 2·03	0·79	Yatung .	Bengal . .	13
16	1	4	3	3		1	2	1	N 68° E	2·9	3·4	—15	2·7	95	— 1	·510	—·004	?	?	27	24·13	+2·87	23·02	26·83	— 3·81	82·91	92·88	— 9·97	2·64	Darjeeling.		
25		2		2	1	1			S 50° E	1·7			1·9	86		·603		7·9		22	18·50	+3·50	15·59	12·70	+ 2·89	45·97	51·91	— 5·94	2·80	Shillong .	Assam Hill Tracts.	8
		1		3	7	11	3	1	S 24° W	5·9			5·2	95		·644		9·1		28	25·70	+2·30	71·47	71·79	— 3·32	242·90	322·98	—80·08	11·18	Cherra Poonjee.		
					1	28	2		S 47° W	12·2	10·8	+13	12·3	95	— 1	·585	—·024	9·5	+0·8	7	17·20	—10·20	2·26	20·21	—17·95	13·03	50·64	—37·61	0·47	Mount Abu	Central India.	
						1	7	23	N 57° W	12·4	7·5	+65	12·8	93	+ 1	·633	—·018	9·4	+0·3	18	21·80	—3·80	13·81	20·68	— 6·87	40·17	57·21	—17·04	2·04	Pachmarhi.		
10	2	2	1			10	4	2	S 78° W	3·2	3·8	—16		68	— 3	·407	—·025	6·3	—0·1	9	8·90	+0·10	3·85	4·13	— 0·28	13·30	14·88	— 1·58	0·88	Wellington .	South India.	
				2	3	1	11	14	N 76° W	14·0				76		·359		5·4		4	11·30	—7·30	2·53	5·99	— 3·46	17·04	20·36	— 3·32	0·82	Kodaikanal.		
	1		1	1		3	17	8	N 80° W	8·0			8·0	82		·376		6·5		9	11·30	—2·30	2·81	4·70	— 1·89	23·20	22·75	+ 0·45	0·88	Ootacamund.		
																														XIII.—Extra India.		
						28	3		S 49° W	12·9				80	+ 2	·832	—·037	2·3	—0·6	2			1·42	4·64	— 3·22	8·41	10·58	— 2·17	1·18	Trincomalee	Ceylon.	
					5	22	4		S 44° W	8·8	8·7	+ 1		83	+ 6	·865	+·019	6·3	+0·2	1			0·36	3·90	— 3·54	28·81	28·08	+ 0·73	0·32	Colombo.		
														48		·445		0·4		0			0	0·01	— 0·01	3·98	0·99	+ 2·99	0	Meshed .	Persia.	
18	1	1			3	4	1		S 37° W	1·6‖			2·0‖	41		·450		1·2		0			0	0·05	— 0·05	1·04	0·83	+ 0·21	0	Teheran §		
24	1	1	1				1	2	N 18° W	2·4¶			3·1¶	53		·480		0·5		0			0	0	0	0·05	0·17	— 0·12	0	Ispahan.*		
	1	6	2	10	1	3		7	E	12·9	7·8	+65	14·2	71	+ 4	·979	—·010	0·6		0			0	0	0	0	0	0	0	Bushire.		
	2		1	4	4	2	5	8	S 86° W					71		1·017				0			0			0·25			0	Bahrein.‡		
		6	20	3			2		N 85° E	12·0			8·7	79	+ 3	1·102	+·081	3·5	+1·4	0			0	0	0	0	0·13	—0·13	0	Jask.		
11	2	1	3	13				1	S 64° E	3·4			3·5	81	— 1	1·044	+·042	2·0	—0·2	0			0	0	0	0	0·40	—0·40	0	Muscat .	Arabia.	
13	3						2	13	N 43° W	3·8	3·2	+19	5·0	41		·551		0·4		0			0	0·09	— 0·09	0·98	0·33	+0·65	0	Baghdad		
	1	6	11	7		3	2	1	S 86° E	5·9	10·8	—45	4·8	73	+ 1	·928	+·090	1·8	—1·9	0			0	0·14	— 0·14	0·50	0·37	+ 0·13	0	Aden.		
	6	3	3	1	1	4	9	4	N 56° W	9·6			9·7	62	— 4	·842	—·047	1·2	—2·5	1			0·36	0·43	— 0·07	0·36	0·83	— 0·47	0·35	Perim.		
	1	4	2	1		1	18	4	N 73° W					86		·829		0·3	+0·1	0			0	0·18	— 0·18	0·57	1·13	— 0·56	0	Kabul .	Afghanistan.	
26			3	1	1				S 14° E	2·1			1·9	44		·383		2·1		0			0	1·10	— 1·10	1·00	2·58	— 1·58	0	Kashgar .	Central Asia.	
1						17	13		N 71° W					79		·859		9·4		8			3·46	5·04	— 1·58	30·18	32·19	— 2·01	0·80	Amini Divi.	Arabian Sea Islands.	
													9·3	78	— 3	·851	—·005	5·5	+0·3	5			1·53	6·49	— 4·96	27·53	28·15	— 0·62	0·63	Minicoy.		
	1					11	19		N 69° W	8·7			6·9	87		·740		6·4		0			0·33	1·90	— 1·57	32·19	16·33	+15·86	0·09	Zanzibar .	Africa.	
			1	4	14	11	1		S 11° W	7·3			4·8	92		·733		5·3		3			1·02			30·52			0·30	Do. Dunga.		
12			5	5	9				S 11° W	5·0								3·5		16			26·33			47·41			4·37	Penang .	Straits Settlements.	
5	4	6	3	4	9				S 70° E	6·1																						
						3	21	4	S 53° W	6·7								6·2		15			12·38			23·06			2·25	Singapore.		

‡ Mean of 25 days.
§ „ „ 28 „
‖ Mean of 27 days.
¶ Winds of 30 days.

TABLE II.—Abstract of Observations recorded at 10 A.M. and 4 P.M. at 65 Stations in India, Burma, etc., in August, 1904.

Table

Abstract of Observations recorded at 10 A.M. and 4 P.M. at 65

Meteorological Province.	Station.	Elevation of barometer cistern above sea-level in feet.	Pressure. Mean of 10 hours.	Mean of 16 hours.	Mean daily range.	Mean of daily mean pressures.	Departure from normal.	Mean reduced to S. L. and gravity 45° Lat.	Temperature of Air. Mean maximum.	Mean minimum.	Mean daily range.	Highest maximum.	Lowest minimum.	Absolute range.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	Temperature, Wet-bulb. Mean minimum.	Mean 10 hours.	Mean 16 hours.	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
Burma Coast and Bay Islands.	Port Blair	61	29·813	29·727	·086	29·772	+·016	29·764	85·1	78·3	6·8	87·1	73·3	13·8	83·1	83·6	80·6	+ 0·4	75·6	78·8	78·9	77·8
	Rangoon	57	·760	·677	·083	·722	−·009	·717	83·8	75·0	8·8	87·4	73·7	13·7	80·6	80·6	77·7	− 1·0		77·8	77·6	
	Diamond Island	41	·776	·693	·083	·737	−·009	·713	83·8	76·7	7·1	85·9	74·2	11·7	81·6	81·1	80·5	+ 0·3	73·5	78·6	78·1	76·7
	Cocos Island	119	·713	·611§	·099	·665		·715§	85·2§	76·9§	8·3	88·8	73·7	15·1	82·5	82·5§	80·0‖		74·7§			
	Akyab	20	·726	·633	·093	·685	−·013	·648	85·0	77·6	7·4	88·9	76·3	12·6	81·5	82·5	81·5	+ 0·4		79·6	79·7	
Bengal and Orissa.	Chittagong	87	·618	·517	·101	·573	−·022	·605	86·7	76·7	10·0	89·8	75·1	14·7	83·4	83·1	81·3	+ 0·9	75·5	78·9	79·1	77·8
	Calcutta (Alipore)	21	·617	·516	·101	·569	−·022	·535	88·8	79·1	9·7	92·4	76·9	15·5	85·3	85·9	83·7	+ 1·3	77·5	80·4	80·5	79·4
	Saugor Island	25	·588	·500	·088	·549	−·039	·518	88·2	80·3	7·9	91·9	77·3	14·6	84·8	85·9	83·2	+ 0·7	78·1	81·0	81·2	80·1
	False Point	21	·630	·535	·095	·588	−·022	·550	86·6	78·2	8·4	90·5	75·6	14·9	83·9	84·5	81·5	− 0·1	76·8	79·3	79·8	78·6
Gangetic Plain and Chota N'gpur.	Hazaribagh	2,007	27·637	27·542	·095	27·592	−·021	·526	84·0	73·6	10·4	87·2	72·1	15·1	78·7	80·6	77·5	+ 0·3	72·2	74·0	74·8	73·7
	Allahabad	309	29·304	29·206	·098	29·258	−·008	·518	88·2	78·5	9·7	92·0	75·8	16·2	83·5	85·5	82·3	− 0·9	77·3	80·1	81·1	79·5
Upper Sub-Himalayas.	Dehra Dun	2,233	27·426	27·352	·074	27·387	−·017	·556	83·4	72·4	11·0	87·7	69·5	18·2	77·4	79·6	76·6	− 0·7	71·2	74·2	75·4	73·6
	Roorkee	899	28·719	28·626	·093	28·671	−·007	·524	89·0	76·4	12·6	92·5	73·7	18·8	83·4	86·3	81·4	− 1·1	75·3	77·8	79·0	77·4
	Meerut	738	·869	·775	·094	·820	−·012	·513	89·7	77·9	11·8	94·6	72·3	22·3	83·8	87·8	82·4	− 0·8	75·8	75·3	79·8	78·0
	Lahore	702	·870	·777	·093	·815	−·019	·465	99·6	81·7	17·9	104·8	76·7	28·1	91·4	96·0	89·7	+ 2·6	76·4	80·4	80·3	79·0
	Ludhiana	812	·785	·695	·090	·732	−·007	·497	93·5	79·0	14·5	99·0	73·5	25·5	86·4	91·5	85·0	− 0·8	75·5	78·6	79·8	78·0
Indus Valley and N.-W. Rajputana.	Peshawar	1,110	·490	·373	·117	·424	−·002	·484	98·5	77·0	21·5	106·5	68·9	37·6	90·0	95·8	86·9	− 0·7	72·0	79·2	79·1	76·8
	Jacobabad	186	29·363	29·247	·116	29·309	−·014	·449	106·9	81·5	25·4	112·1	76·7	35·4	94·7	104·5	93·2	+ 1·6	76·2	83·3	85·1	81·5
	Kurrachee	30	·627	·552	·075	593	+·011	·574	88·5	78·2	10·3	91·1	76·4	14·7	84·3	85·2	82·2	− 0·2	74·1	76·7	77·3	76·0
East Rajputana, Central India and Gujarat.	Jaipur	1,431	28·229	28·141	·088	28·185	+·006	·559	87·8	74·9	12·9	93·4	71·9	21·5	82·0	85·7	79·7	− 2·6	72·6	75·6	77·2	75·1
	Udaipur	1,925?	27·784	27·710	·074	27·745		·609	82·8	72·5	10·3	87·5	70·1	17·4	78·1	80·6	77·1		69·4	71·6	73·2	71·4
	Deesa	466	29·232	29·127	·105	29·177	+·007	·589	93·9	76·7	17·2	98·0	73·5	24·5	85·2	91·6	84·7	+ 3·0	72·0	74·5	75·1	73·9
	Jamnagar	61	·647	·565	·082	·607		·613	89·9	77·0	12·9	94·0	74·0	20·0	85·7	87·0	82·3		72·7	76·3	77·0	75·3
Deccan.	Belgaum	2,539	27·316	27·247	·069	27·281	+·020	·757	75·4	65·8	9·6	80·2	63·1	17·1	72·0	72·3	69·1	− 0·6	65·5	69·0	69·0	67·8
	Sholapur	1,590	28·213	28·082	·131	28·156	+·004	·670	91·9	71·4	20·5	97·3	68·9	28·4	82·7	89·4	79·6	+ 1·9	67·5	70·5	71·8	69·9
	Akola	930	·815	·697	·118	·759	+·013	·629	87·6	73·2	14·4	93·1	69·8	23·3	82·4	86·2	79·0	+ 0·1	70·2	74·1	74·5	72·9
	Buldana	2,132	27·635	27·538	·097	27·585	−·008	·639	84·1	69·3	14·8	89·4	66·6	22·8	78·1	81·6	75·0	+ 0·9	66·7	70·2	70·9	69·3
	Khandwa	1,044	28·622	28·570	·112	28·629	+·007	·621	88·6	75·0	13·6	94·6	71·7	22·9	81·4	86·9	80·8	+ 2·0	71·5	73·1	74·1	72·9
	Nagpur	1,025	·691	·581	·107	·641	+·024	·617	86·6	74·5	12·1	93·1	72·6	20·5	80·7	83·0	79·2	− 0·2	71·6	74·5	75·3	73·8
	Do. (Sanitary Commr.'s Office)	1,013	·691	·576	·115	·637		·602	86·7	74·5	12·2	93·6	72·8	20·8	81·4	83·8	79·3		71·5	74·7	75·8	74·0
	Hyderabad (Deccan)	1,690	·998	27·985	·113	·048	+·017	·662	88·6	73·2	15·4	94·1	71·0	23·1	81·6	86·8	79·5	+ 2·4	69·2‡	72·4	74·3	72·0
West Coast.	Bombay	37	29·783	29·716	·067	29·748	+·019	·725	84·8	77·6	7·2	86·8	75·0	11·8	81·7	82·2	80·1	+ 0·7	74·6	77·4	77·3	76·4
	Karwar	44	·856	·781	·072	·823	+·028	·801	82·9	75·3	7·6	85·0	72·7	12·3	80·5	81·2	78·0	+ 0·5	73·1	76·5	76·9	75·5

§ Mean of 30 days.

‡ Mean of 28 days.

II.

Stations in India, Burma, etc., in August, 1904.

Vapour Tension.					Humidity.					Cloud.				Wind Direction.										Wind steadiness.		Wind velocity.		Rainfall.		Station.	Meteorological Province
														Total number of 10 hours and 16 hours winds from																	
From minimum.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	From minimum.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	Mean 10 hours.	Mean 16 hours.	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
																									%	%						
·853	·931	·928	·912	+·006	88	82	81	85	−2	7·4	6·6	7·0	−0·9						1	30	30	1	S 68° W	S 51° W	90	81	367*	259	6·30	0·91	Port Blair	Burma Coast and Bay Islands.
	·920	·909				88	87			8·7	9·3	9·0	0	5			1	4	13	24	15		S 41° W	S 39° W	69	66	35*	106	25·07	1·98	Rangoon	
·778	·942	·921	·888	+·002	85	87	87	87	−1	7·5	8·1	7·8	−0·4		1			1	4	39	15	2	S 55° W	S 44° W	85	77	242*	214	22·09	3·30	Diamond Island.	
·837§					90§					7·5	8·3§	7·9	−0·4						22	35	3		S 31° W	S 42° W	90	93	714‡		13·87	1·97	Cocos Island,	
	·990	·975				92	88			7·9	7·5	7·7	−0·7			1	1	3	19	38			S 26° W	S 5° E	85	64	62*	82	27·76	3·24	Akyab	
·859	·928	·940	·920	+·001	94	81	83	87	0	7·7	8·1	7·9	−0·1			1	1	24	17	13	5	1	S 5° E	S 24° E	68	59	175*	151	11·65	2·20	Chittagong	Bengal and Orissa.
·921	·973	·968	·956	−·011	92	80	78	84	−4	7·9	8·7	8·3	−0·4	9		1	15	12	13	12			S 28° E	S 2° E	54	56	74	113	10·11	3·94	Calcutta (Alipore).	
·934	1·011	1·003	·991	+·002	90	81	81	86	−1	8·2	8·7	8·5	−0·1	1	1	5	3	7	19	21	3	2	S 77° W	S 12° W	53	59	361	322	14·71	3·44	Sagor Island,	
·904	·941	·959	·944	−·005	94	81	81	86	0	8·5	8·4	8·5	+0·4			1	2	4	10	18	24	3	S 56° W	S 48° W	64	54	231*	235	8·67	1·94	False Point	
·774	·781	·792	·795	−·015	93	80	76	85	−1	10·0	10·0	10·0	+0·4	2	9	4	5	5	12	6	7	12	N 87° W	S 9° W	14	9	166*	185	16·69	3·07	Hazaribagh	Gangetic Plain and Chota Nagpur.
·922	·984	1·005	·982	+·036	94	86	82	91	+7	8·7	8·7	8·7	+0·6	2	5	5	7	5	4	7	18	9	N 81° W	N 6° E	25	5	100*	158	17·61	2·77	Allahabad	
·754	·807	·833	·825	+·003	95	86	82	93	+2	8·7	8·4	8·6	+1·0	22			6	7	2	14			S 4° E	S 23° W	27	13	11	24	32·23	6·32	Dehra Dun	Upper Sub-Himalayas.
·868	·882	·892	·908	+·014	95	77	72	86	+5	7·2†	6·1†	6·7	+0·5	9	3		3	24	6	3	7	7	S 19° E	S 27° E	29	21	59	58	6·03	1·98	Roorkee	
·867	·898	·914	·929	+·010	91	77	70	84	+3	6·7	6·0	6·4	0	34	1		8	5	2	3	7	2	S 12° E	S 48° E	8	11	18*	46	10·77	3·80	Meerut	
·839	·890	·824	·875	−·009	78	61	50	64	−7	3·0	3·5	3·3	−0·7	5	7	4	17	6	6	2	12	3	S 88° E	S 78° E	13	24	73	67	2·55	1·35	Lahore	
·840	·882	·870	·890	−·007	85	70	59	74	−1	4·5	4·9	4·7	−1·1	8				45			8	1	S 27° E	S 60° E	63	11	36*	43	6·62	2·45	Ludhiana	
·729	·870	·796	·822	+·026	78	62	48	64	+3	1·9	3·6	2·8	−0·1	14	16	17	8	1		2	2	2	N 30° E	N 39° E	52	47	36*	86	1·14	0·57	Peshawar	Indus Valley and N.-W. Rajputana.
·836	·990	·946	·918	+·093	78	61	43	62	+3	0·6	0	0·3	−1·9	8			4	23	25	2			S 24° E	S 43° E	76	56	135*	101	0	0	Jacobabad	
·789	·817	·831	·824	−·062	82	69	68	76	−5	6·2	4·1	5·2	−1·5							25	37		S 72° W	S 69° W	93	86	346*	394	0	0	Kurrachee	
·776	·802	·831	·816	0	89	73	68	79	+1	6·8	7·2	7·0	−0·6	1	4	7	1	1		14	25	9	N 82° W	N 69° W	56	42	95	113	10·91	3·18	Jaipur	East Rajputana, Central India and Gujarat.
679	·701	·731	·717		85	73	70	78		6·9	6·7	6·8		8					1	29	22	2	S 66° W		77		114*		5·62	1·28	Udaipur	
·723	·711	·653	·709	−·103	79	59	45	63	−13	8·3	7·6	8·0	0		1				6	48	6	1	S 47° W	S 54° W	90	76	334	288	0·73	0·43	Deesa	
·749	·780	·794	·784		81	63	62	71		5·8	5·7	5·8			1				4	24	24	5	S 69° W		77		574*		0·71	0·71	Jamnagar†	
·627	·673	·667	·657	−·002	98	86	85	92	+2	9·1	9·0	9·1	+0·4							22	36	4	S 76° W	S 72° W	94	87	458	516	7·78	1·95	Belgaum	Deccan.
·625	·595	·559	·599	−·062	81	54	41	63	−8	7·8	8·5	8·2	−0·1							25	25	12	S 80° W	S 89° W	84	81	428*	307	1·21	0·34	Sholapur	
·701	·736	·705	·729	−·041	86	67	57	74	−6	8·6	8·8	8·7	+0·5		1					4	13	44	N 58° W	N 66° W	89	84	232*	206	5·52	1·76	Akola	
·627	·649	·630	·641	−·057	87	67	59	72	−9	8·7	8·9	8·8	+0·8							9	35	18	N 83° W	N 66° W	89	75	209*	206	2·43	1·49	Buldana	
·735	·706	·678	·721	−·059	84	66	55	72	−10	7·3	6·3	6·8	−0·9								29	33	N 66° W	N 78° W	92	84	212*	209	1·03	0·30	Khandwa	
·739	·779	·784	·782	−·030	87	74	71	81	−2	8·0	8·6	8·3	−0·4		2			1	1	5	37	16	N 81° W	N 78° W	84	64	161*	73	9·22	1·82	Nagpur	
·737	·777	·797	·785		86	73	70	80		8·0	7·9	8·0		9				2	1	44		6	S. 49° W		72		50*		6·15	1·60	Do. (Sanitary Commr.'s Office).	
·668‖	·681	·694	·692	−·039	82‖	63	55	70	−10	5·6	6·9	6·3	−1·3		2						51	9	N 82° W	N 85° W	93	85	191*	202	0·99	0·25	Hyderabad (Deccan).	
·820	·888	·874	·869	−·016	86	82	79	83	−4	8·7	8·3	8·5	+0·1						1	20	40	1	S 75° W	S 81° W	92	79	331	370	5·64	1·56	Bombay	West Coast.
·785	·859	·869	·846	+·009	89	83	82	87	−1	5·9	6·6	6·3	−0·9							7	39	16	N 83° W	N 84° W	91	74	110	103	12·75	1·75	Karwar	

‖ Mean of 29 days. † Wind variable 4. * Corrected.

Table

Abstract of Observations recorded at 10 A.M. and 4 P.M. at 65

Meteorological Province	Station	Elevation of barometer cistern above sea-level, in feet.	Pressure. Mean of 10 hours.	Mean of 16 hours.	Mean daily range.	Mean of daily mean pressures	Departure from normal.	Mean reduced to S. L. and gravity 45° Lat.	Temperature of Air. Mean maximum.	Mean minimum.	Mean daily range.	Highest maximum.	Lowest minimum.	Absolute range.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	Temperature, Wet-bulb. Mean minimum.	Mean 10 hours.	Mean 16 hours.	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
South India.	Periyakulam	944	28·928	28·806	·122	28·881		29·733	95·1	70·2	24·9	98·9	67·1	31·8	87·3	89·9	82·1		67·3	73·6	73·6	71·2
	Salem	940	·939	·808	·131	·888	+·006	·751	92·7	73·1	19·6	97·7	71·6	26·1	83·8	90·4	80·7	+0·5	70·4	75·0	77·1	74·2
	Chitaldroog	2,405	27·471	27·379	·092	27·434	+·025	·757	82·8	67·8	15·0	87·1	66·3	20·8	75·6	79·5	73·4	+0·2	66·2	69·1	69·7	68·3
	Bangalore	3,021	26·897	26·792	·105	26·854	+·010	·752	82·4	64·8	17·6	88·2	62·9	25·3	74·8	80·5	71·7	−0·1	63·9	68·2	69·2	67·1
	Hassan	3,091	·853	·772	·081	·822	+·032	·801	80·7	63·8	16·9	85·4	59·7	25·7	75·1	75·7	70·3	+0·8	62·8	68·7	68·8	66·8
	Mysore	2,518	27·403	27·306	·097	27·364	+·018	·790	84·6	65·7	18·9	87·8	63·4	24·4	77·7	79·7	73·3	−0·1	65·0	70·4	72·2	69·2
	Madras	22	29·797	29·669	·134	29·743	−·003	·692	96·0	78·4	17·6	101·4	75·3	26·1	88·8	90·0	85·3	+0·8		76·1	78·3	76·5
	Bellary	1,475	28·357	28·240	·117	28·308	+·003	·710	92·8	74·0	18·8	97·0	72·2	24·8	83·2	88·6	81·8	+1·2	68·7	73·1	74·2	72·0
	Waltair	*226*	29·485	29·380	·105	29·438	+·010	·602	89·8	77·8	12·0	97·8	71·0	26·8	85·2	85·6	82·7	−0·1	73·1	76·8	77·5	75·8
Hill Station, Baluchistan.	Quetta	5,502	24·529	24·447	·082	24·486	+·041		91·3	58·8	32·5	95·7	47·7	48·0	83·6	88·9	74·6	−0·7	51·9	59·0	59·6	56·8
Hill Stations, Northern India.	Leh	11,503	19·665	19·554	·111	19·617	−·006		74·0	49·1	24·9	78·9	42·0	36·9	65·2	70·7	59·0	−2·0	45·3	52·9	56·4	51·5
	Srinagar	5,204	24·710	24·631	·079	24·667	−·001		83·8	62·6	21·2	90·6	56·0	34·6	73·6	81·2	70·6	−0·2	60·1	69·1	74·7	68·0
	Sarain		23·064	23·010	·054	23·034			69·9	56·7	13·2	73·7	50·5	23·2	66·0	66·4	62·8			60·8	61·8	
	Kalabagh		20·105	20·060	·045	20·082			58·1	48·1	10·0	72·5	43·1	29·1	52·6	52·7	53·1			51·2	51·2	
	Simla (Ridge)	7,224	23·034	22·985	·049	23·007	+·003		66·2	58·8	7·4	68·6	55·7	12·9	62·9	63·7	62·1	−0·7	57·6†	60·9	62·5	60·3
	Chakrata	7,022	·186	23·143	·043	·160	−·001		67·0	59·4	7·6	71·0	56·3	14·7	63·5	64·6	62·7	−1·0	59·2	62·2	63·6	51·7
	Ranikhet	6,069	·982	·912	·070	·945	−·019		72·1	62·1	10·0	76·1	59·1	17·0	67·2	68·5	66·6	−0·2	61·3	64·5	65·6	63·8
	Muktesar	7,600	22·752	22·688	·064	22·718			67·6	57·4	10·2	72·7	55·6	17·1	61·8	63·7	62·0		57·1	60·5	61·8	59·8
	Katmandu	4,388	25·389	25·386	·103	25·436	−·001‡		82·2	67·9	14·3	87·4	66·3	21·1	76·3	78·5	74·6	−0·4‡	66·6	70·5	72·2	69·8
	Darjeeling	7,376	22·946	22·916	·030	22·929	−·005		66·7	57·0	9·7	71·0	55·5	15·5	63·6	64·7	61·4	+0·5	56·9	62·2	63·4	60·8
Hill Stations, Central India.	Mount Abu	3,945	25·889	25·831	·058	25·858	+·005		72·8	63·3	9·5	76·3	61·2	15·1	67·0	71·5	67·5	−0·1	62·2	65·2	66·6	64·6
	Pachmarhi	3,528	26·318	26·246	·072	26·280	+·036		74·2	66·3	7·9	77·6	64·8	12·8	68·9	72·1	69·8	−0·6	65·3	67·0	69·0	67·1
	Chikalda	3,642	·188	·105	·083	·145	−·004		73·2	64·3	8·9	78·5	62·6	15·9	68·7	72·2	68·3	−0·1	63·5	66·9	69·0	66·5
Hill Stations, S. India	Kodaikanal	7,688	22·811	22·749	·062	22·778			64·2	51·6	12·6	67·2	49·0	18·2	61·0	59·2	56·4		48·3	55·3	56·0	52·9
	Ootacamund	*7,322*	23·036	·973	·063	23·004			63·0	51·1	11·9	67·0	46·5	20·5	60·0	59·2	56·6		49·5	55·4	55·9	53·6
	Dodabetta	*8,639*	21·998	21·942	·056	21·969			56·3	47·1	9·2	61·4	44·5	16·9	54·7	53·4	51·2			51·4	50·9	
Extra India.	Aden	94	29·682	29·547	·135	29·611	+·027	·634	93·6	82·1	11·5	95·9	78·3	18·6	89·6	91·9	88·2	+2·3	75·0	81·7	79·3	78·7
	Perim	201	·567	·455	·112	·507	+·033	·635	96·1	85·2	10·9	100·3	82·6	17·7	91·8	93·3	91·0	+0·9	75·3	79·1	79·8	78·1
	Minicoy	7	·960	·903 *a*	·057	·939		·871 (*a*)	86·7			88·4			84·4	84·0				77·8	77·5	
	Zanzibar	73	30·122	30·020	·102	30·078	+·025	30·078	81·1	72·6	8·5	82·9	71·3	11·6	76·4	80·0	77·2	+0·1	68·8	72·4	72·2	71·1
	Port Victoria (Seychelles).	15	·0·7	29·951	·076	29·992	+·019‡	29·931	81·3	72·5	8·8	83·1	70·1	13·0	79·5	80·3	75·4	−2·7‡	71·1	73·6	73·8	72·8
	Mauritius (Pamplemousses).	181				30·054	+·033	30·185				78·5	55·1	23·4			67·1	−0·9				62·7

† Mean of 30 days. (*a*) Mean of 24 days.

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

‡ Departures from old normals.

II.—*concluded.*

Stations in India, Burma, etc., in August, 1904 —concluded.

Vapour Tension.					Humidity.					Cloud.				Wind direction.										Wind steadiness.		Wind velocity.		Rainfall.		Station.	Meteorological Province.
														Total number of 10 hours and 16 hours winds from																	
From minimum.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	From minimum.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	Mean 10 hours.	Mean 16 hours.	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
																									%	%						
																									35		109*		0·08	0·05	Periyakulam	South India.
·632	·646	·610	·619		85	50	44	56		3·8	6·4	5·1		2	6	5	4	3	22	12	5	3	S. 16° W.								
·708	·755	·756	·741	−·013	87	65	53	70	− 4	6·4	7·2	6·8	+0·2	7	1				3	20	30	1	S. 71° W.	S. 57° W.	76	75	117*	96	1·86	1·04	Salem.	
·628	·632	·608	·627	−·009	92	72	61	77	0	8·2	7·8	8·0	−0·5		1					19	31	11	S. 85° W.	S. 81° W.	85	85	235*	257	1·04	0·23	Chitaldroog.	
·587	·613	·583	·598	−·015	96	72	57	77	− 2	7·6	6·2	6·9			2					11	37	12	N. 87° W.	S. 81° W.	85	88	239*	199	2·12	0·63	Bangalore.	
·567	·632	·623	·611	+·005	94	73	70	81	− 1	8·3	8·4	8·4	−0·3		1					12	32	17	N. 85° W.	W	85	90	100*	106	1·40	0·27	Hassan.	
·610	·654	·702	·659	+·034	96	69	69	80	+ 4	8·8	9·1	9·0	+0·2		1					16	39	6	S. 81° W.	S. 84° W.	89	86	288*	300	1·20	0·35	Mysore.	
	·731	·812	·797	−·039		54	58	66	− 7	4·9	7·1	6·0	−0·9		1		5	10	2	9	29	5	S. 68° W.	S. 36° W.	47	56	161	166	2·55	1·61	Madras.	
·639	·691	·668	·672	+·024	76	60	50	64	0	6·8	7·3	7·1	−1·3					1	2	14	30	15	S. 88° W.	N. 87° W.	81	87	305*	269	0·38	0·11	Bellary.	
·754	·810	·810	·812	−·051	79	67	59	73	0	8·3	9·3	8·8	+1·5			1	1		19	30	8	3	S. 38° W.	S. 49° W.	77	67	116		6·42	1·35	Waltair.	
·323	·239	·207	·260	−·114	64	21	14	34	−10	0·2	1·2	0·7	−0·8	16	7		1	2	2	3	17	14	N. 67° W	N. 78° W.	47	33	34*	65	0	0	Quetta.	Hill Station, Baluchistan.
·275	·300	·338	·301	+·036	78	48	45	60	+ 9	3·9	5·3	4·6	−0·7		2	3	5	2	14	18	13	5	S. 45° W.	S. 72° W.	47	42	27	43	0·21	0·13	Leh.	
·502	·056	·790	·601	−·012	87	80	74	80§	0	4·5	4·7	4·6	+0·8	17	7	8	1	6	6	5	2	10	N. 15° W.	N. 48° W	10	9	70*	86	4·73	0·95	Srinagar.	
	·484	·505				76	78			7·7	7·3	7·5		30		4			8	13	5	2	S. 44° W.		29		36*		7·49	1·36	Sarain.	
	·368	·366				92	91			1·1	3·3	2·2		20	3	1	3	8			13	14	N. 56° W.		29		216*		17·82	2·80	Kalabagh.	
·464†	·515	·536	·506	−·020	93†	90	90	92	+ 1	9·2	9·3	9·3	+0·4	28	22			2	7		3		N. 6° W.	N. 33° E	23	19	50*	86	14·48	3·13	Simla (Ridge).	Hill Stations, Northern India.
·503	·547	·580	·543	+·001	99	93	94	96	+ 4	9·8	9·5	9·7	+1·1	7	2			10	42	1			S. 8° E	S. 66° W.	77	42	178*	130	27·47	5·20	Chakrata.	
·538	·580	·601	·573	−·001	96	87	86	91	+ 2	9·2	9·2	9·2	+0·5	34		1	1		1	11	11	3	S. 73° W.	S. 60° W.	32	26	59*	55	13·85	1·69	Ranikhet.	
·467	·517	·533	·506		98	93	90	95		8·9	9·0	9·0		6	2	1	10	9	1	6	26	1	S. 59° W.		26		162*		18·19	2·87	Muktesar.	
·467	·517	·533	·506		98	93	90	95		8·9	9·0	9·0		6	2	1	10	9	1	6	26	1	S. 59° W.		26		162*		18·19	2·87	Muktesar.	
·645	·683	·721	·684	+ 002	94	76	71	82	0	7·0	7·5	7·3	+0·2	4	3	4	18		7	7	9	10	N. 9° W	N. 66° W.	2	2	20	18	14·61	2·64	Katmandu.	
·463	·541	·571	·525	+·014	99	93	93	96	0	7·9¶	7·9¶	7·9	−1·0	24	1	2	3	1		10	12	9	N. 87° W.	S. 84° E.	32	28	64*	89	23·02	2·64	Darjeeling.	
·549	602	·598	·589	−·027	94	91	78	98	− 3	9·3	7·8	8·6	+0·2		1			1	4	52	4		S. 41° W.	S. 57° W.	92	75	300*	269	2·26	0·47	Mount Abu.	Hill Stations, Central India.
·615	·644	·672	·650	−·018	95	91	86	92	+ 1	9·3	8·8	9·1	0		1					2	22	37	N. 63° W.	N. 84° W.	90	73	303*	223	13·88	2·04	Pachmarhi.	
·581	·609	·673	·637	−·014	96	91	86	92	− 3	8·1	7·7	7·9	−1·0	23	20	2				1		16	N. 18° W.	N. 36° W.	55	74	138*	274	9·10	2·58	Chikalda.	
·312	·384	·418	·368		81	72	63	81		6·5	8·7	7·6			6	2	4	3	6	2	9	30	N. 52° W.		50		28		2·53	0·82	Kodaikanal	Hill Stations, S. India.
·341	·393	·414	·378		90	76	82	83		7·2	8·5	7·9			5	3	2			4	32	16	N. 69° W.		72		184*		2·81	0·88	Ootacamund	
	·347	·348				81	85			6·7	7·8	7·3		4	3	3				2	32	18	N. 70° W.		77		389		4·80	1·29	Dodabetta.	
·775	·978	·978	832	+·071	70	71	56	67	+ 2	1·3	0·6	1·0	−1·0	1			11	9	15	9	14	2	1	S. 35° E.	S. 3° E.	42	70	11b*	257	0	0	Aden.	Extra India.
·746	·830	·811	893	−·048	61	56	54	58	− 4	0·7	0·4	0·6	−2·0‡		14	1	5	8	4	3	6	21	N. 33° W.	N. 88° W	34	41	235*	331	0·36	0·35	Perim.	
	·603	·656				73	74			5·3	5·9	5·6			3						22	37	N 59° W.		92		223*		1·53	0·63	Minicoy.	
·653	·748	·688	·718	+ 001	82	82	67	78	0	5·7	6·9	6·3	+1·4		2	3	2	16	23	15	1		S. 5° E.	S. 9° E.	66	77	161*	166	0·33	0·09	Zanzibar.	
·749	·[illegible]	·754	·760	+·013	93	76	73	81	+ 3	7·0	6·4	6·7	+0·5‡		1			38	21	2			S. 28° E.	S 33° E.	89	85	325	313	1·57	0·90	Port Victoria (Seychelles).	
			·504	−·001				76	+ 1			5·6	+0·1										S. 77° E.	S. 68° E.			236	296	1·08	0·39	Mauritius (Pamplemousses).	

* Corrected. § Mean of three previous columns. ‖ Mean of 29½ days. ¶ Mean of 17 days.

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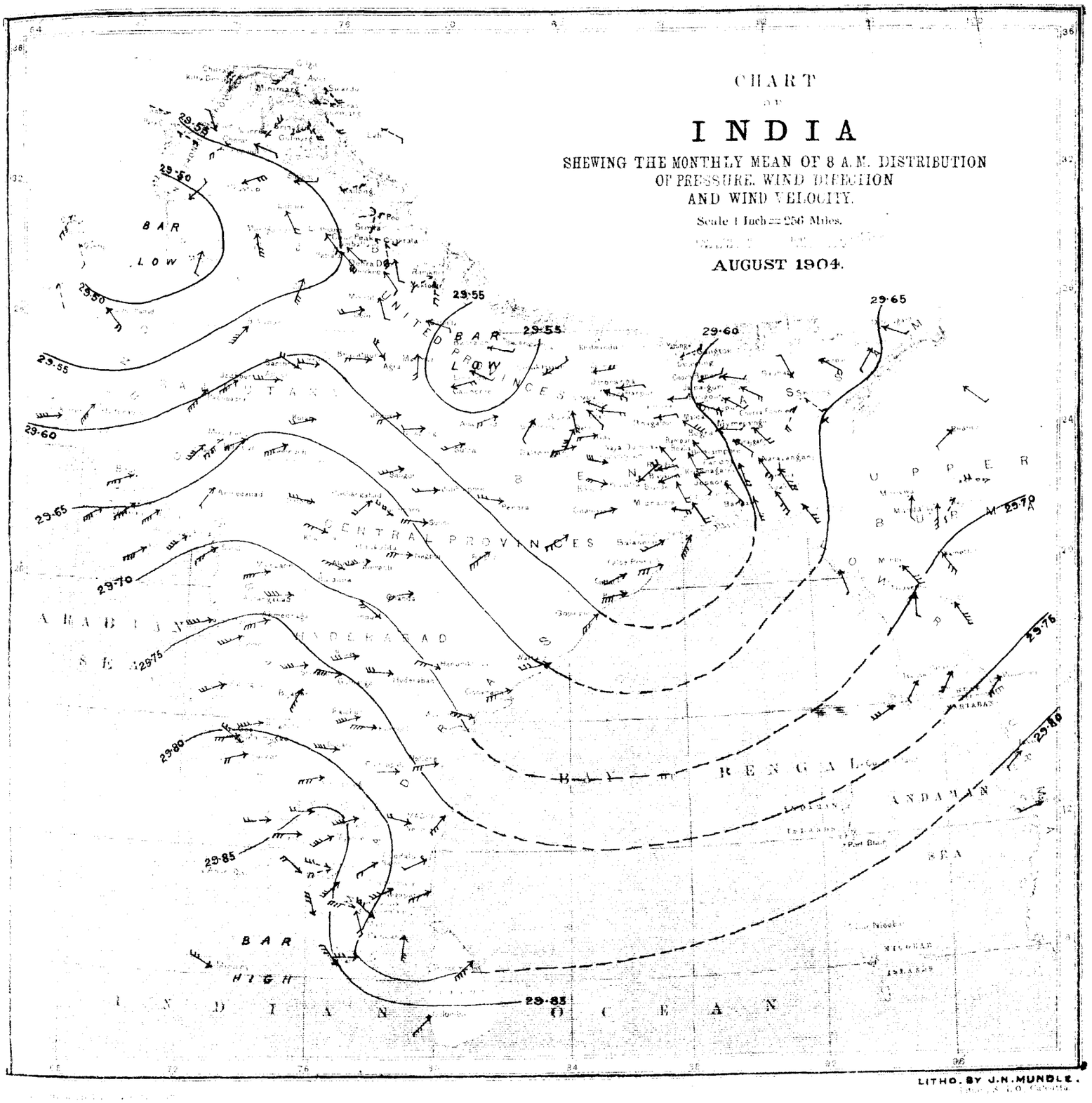
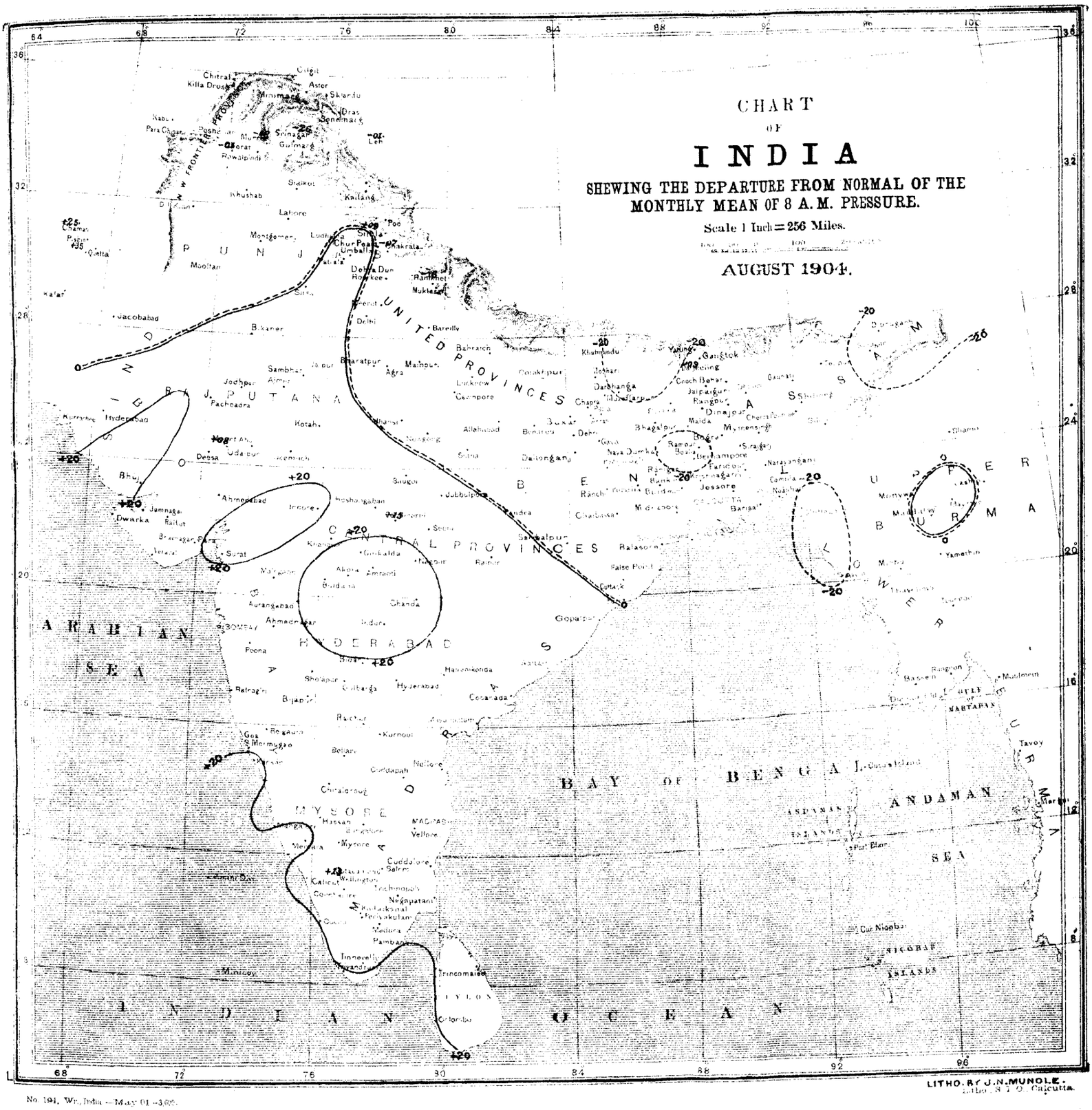


Explanation.

The lines of the above Chart represent isobars or lines of equal barometric pressure, and the numbers attached indicate the barometric pressure in inches and are 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 ordinary or normal distribution of pressure as given in the Charts of the Bay of Bengal prepared by Mr. Dallas, 1st Assistant Meteorological Reporter to the Government of India, and published by the Meteorological Department. Hence they have not the same validity as the isobars in the land area of India itself, but it is probable they deviate very little from the actual.

The mean 8 a.m. 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 I of the 8 a.m. 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	„ „ „ „ „



No. 194, Wr., India—May 01—3,600.

Explanation.

The Chart shows the departure from the normal of the mean 8 a.m. pressure of the month by means of lines drawn for equal amounts of departure (of two hundredths of an inch or ·020″). 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.

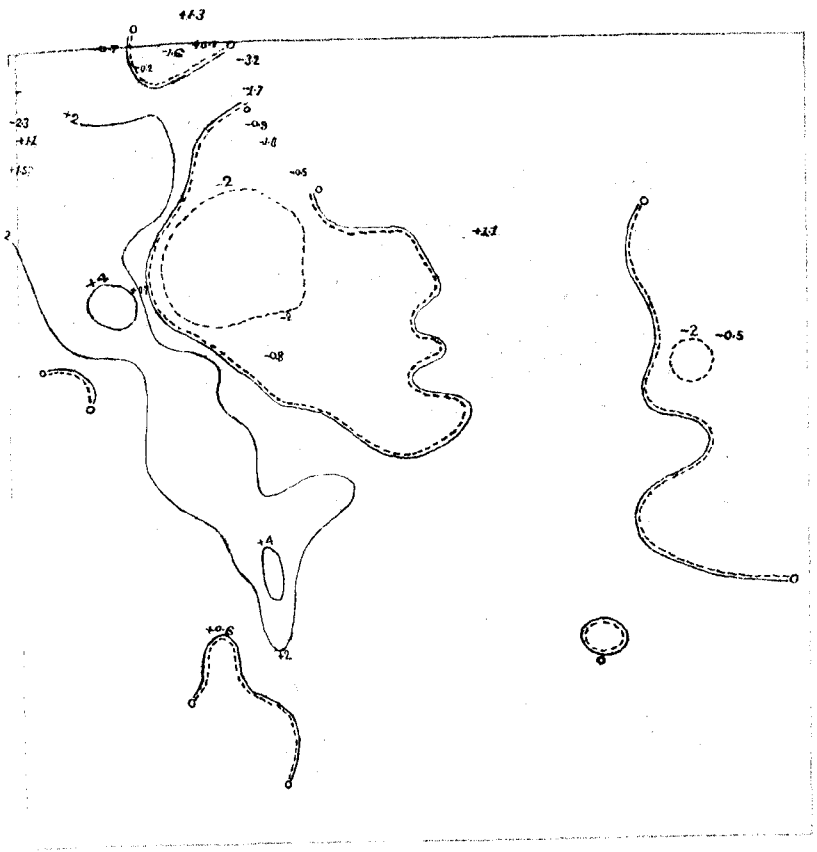


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MINIMUM TEMPERATURE.

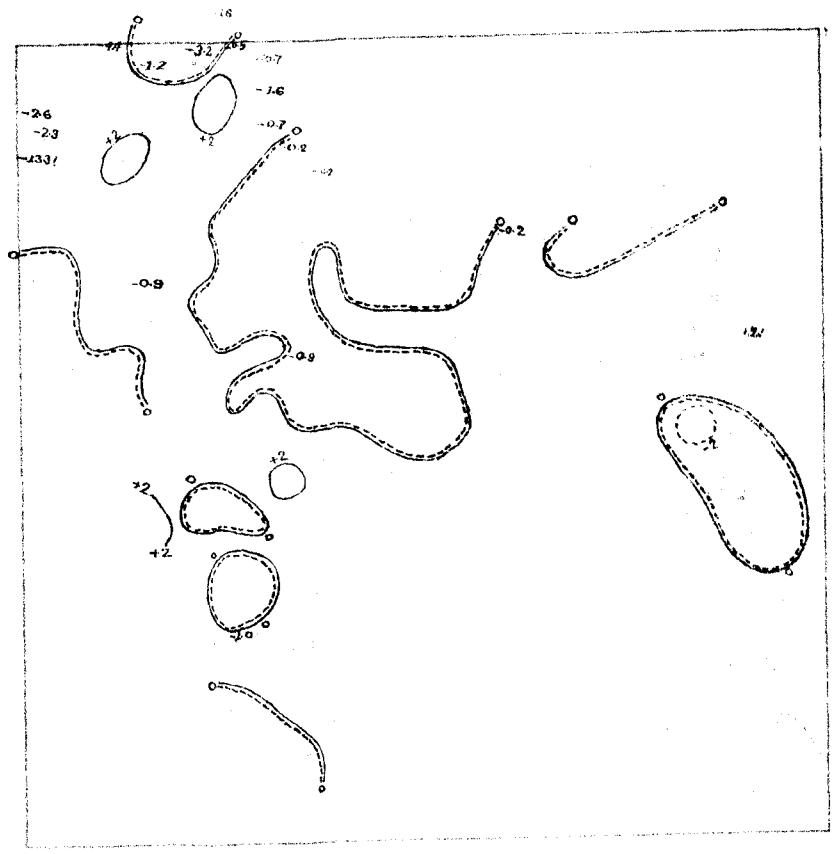


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MEAN TEMPERATURE.

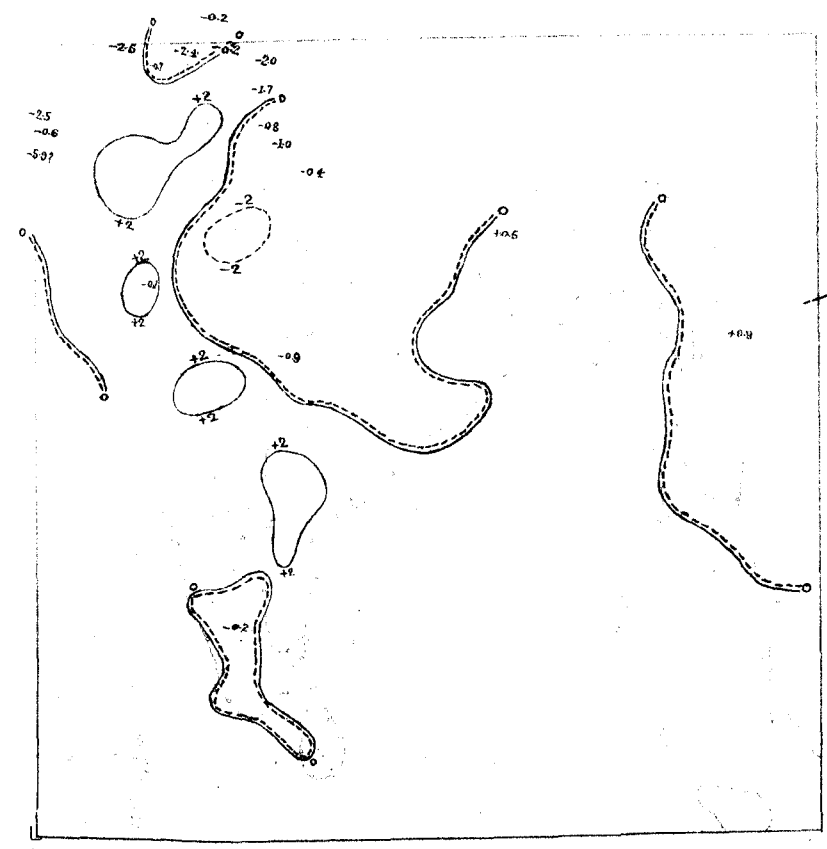
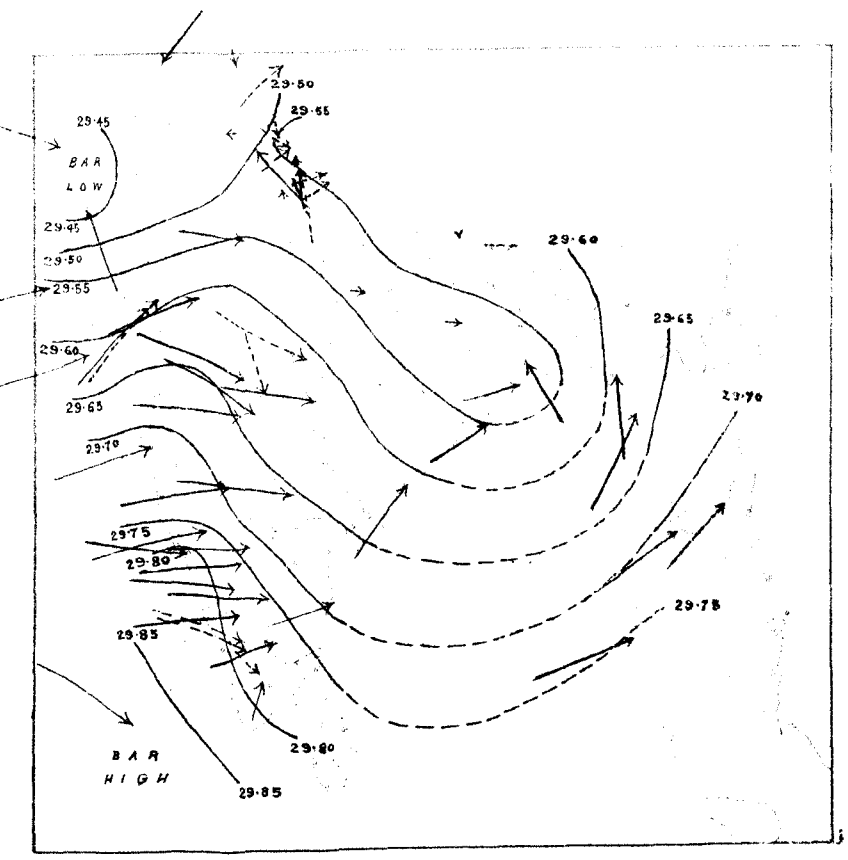


CHART SHEWING THE MONTHLY MEAN OF PRESSURE AND RESULTANT WIND DIRECTION.



Explanation.

Continuous lines indicate that the mean daily temperature of month was in excess by amounts indicated by the attached numbers; broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no departure, the broken line facing the area of deficient temperature.

The Chart is prepared in the same manner as the Monthly Charts which previously to 1890 appeared in the Annual Reports, the only alteration made being that pressures are reduced to constant gravity (45°). The isobars are given for each twentieth of an inch. The arrows show the directions of the resultants of the wind recorded at 10 and 16 hours, and by their lengths the percentage of the observations expressing the numerical value of the resultant; a length of $\frac{5}{8}$th of an inch being equal to 100 per cent.

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

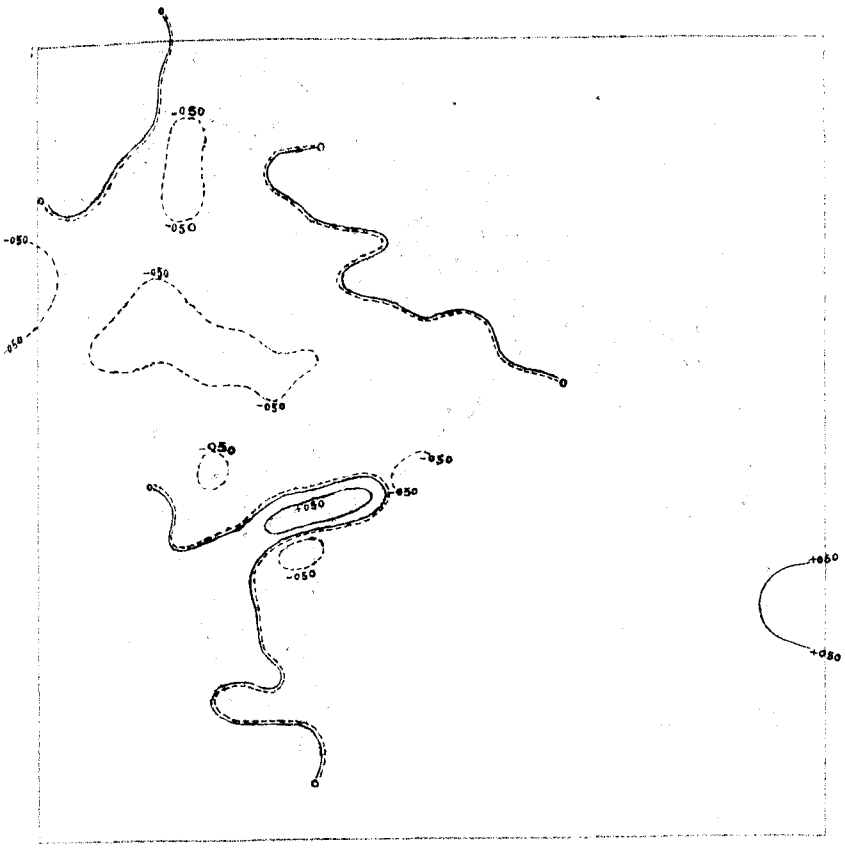
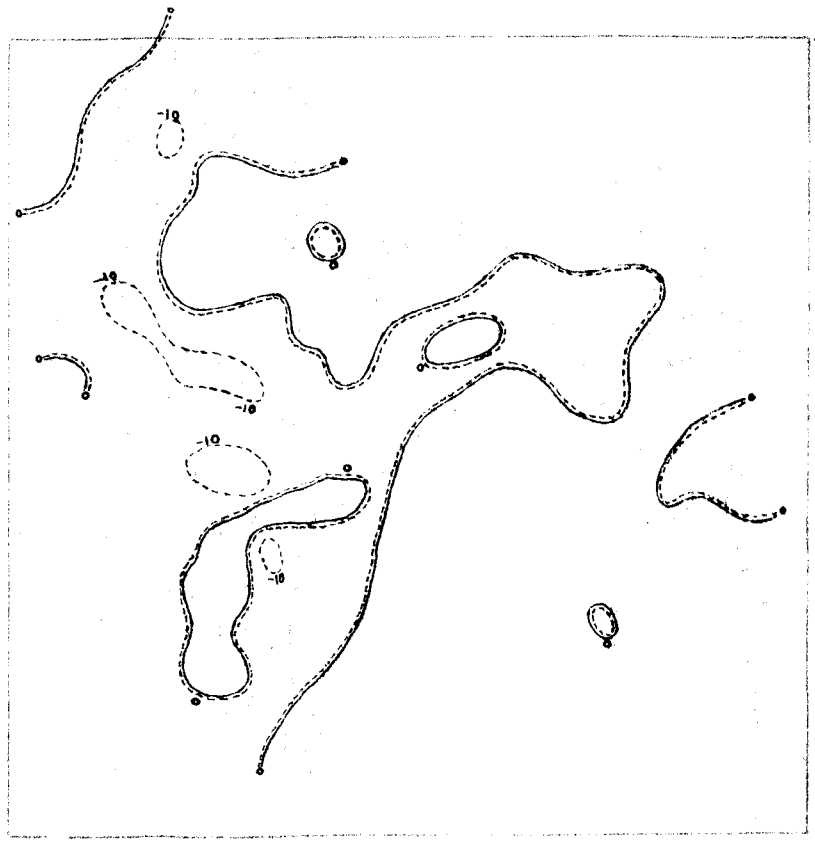


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF RELATIVE HUMIDITY AT 8 A. M.



Explanation.

Continuous lines indicate that the mean absolute humidity of month was in excess by amounts indicated by the attached numbers; broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no departure from the normal, the broken line facing the area of deficient humidity.

Continuous lines indicate that the [illegible] humidity of month was in excess by amounts indicated by the attached numbers; broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no departure from the normal, the broken line facing the area of deficient humidity.

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

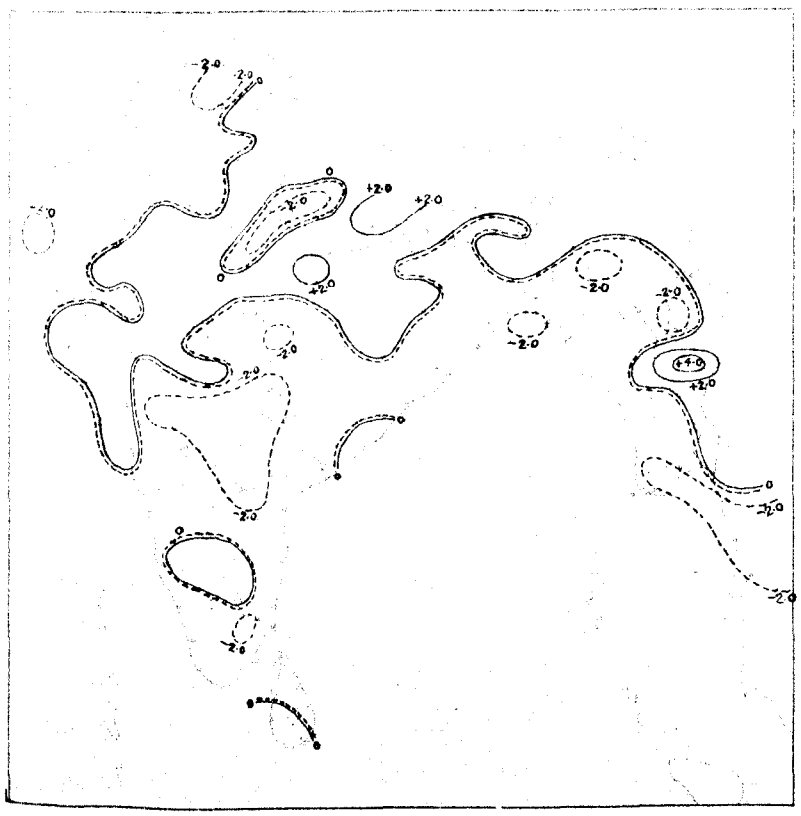
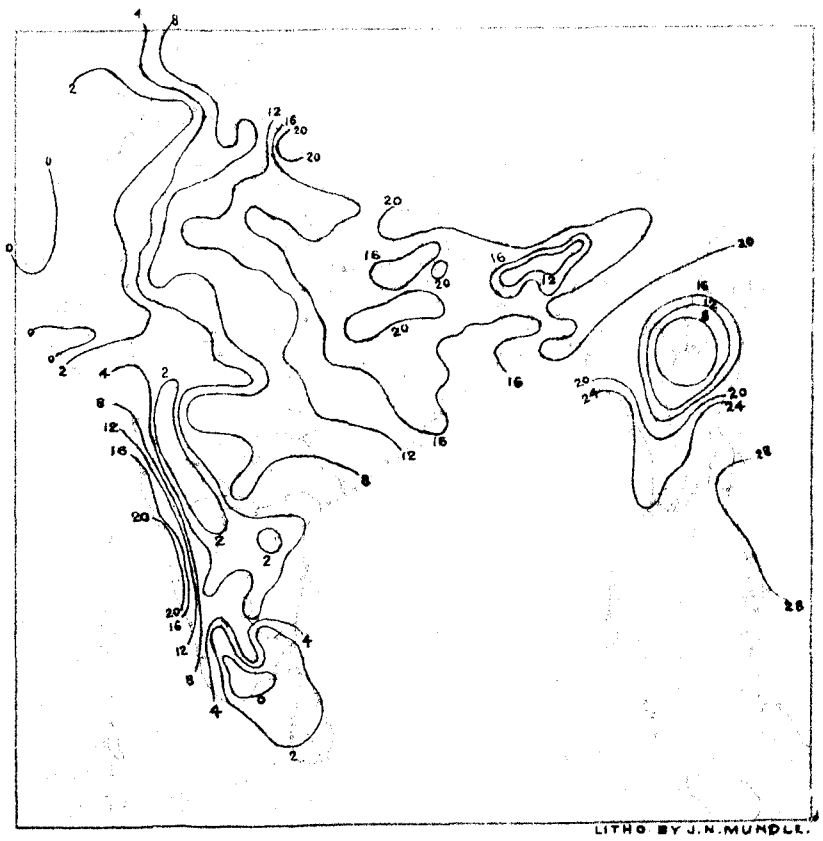


CHART SHEWING THE TOTAL NUMBER OF DAYS IN THE MONTH ON WHICH RAINFALL EXCEEDED 0·10 INCH

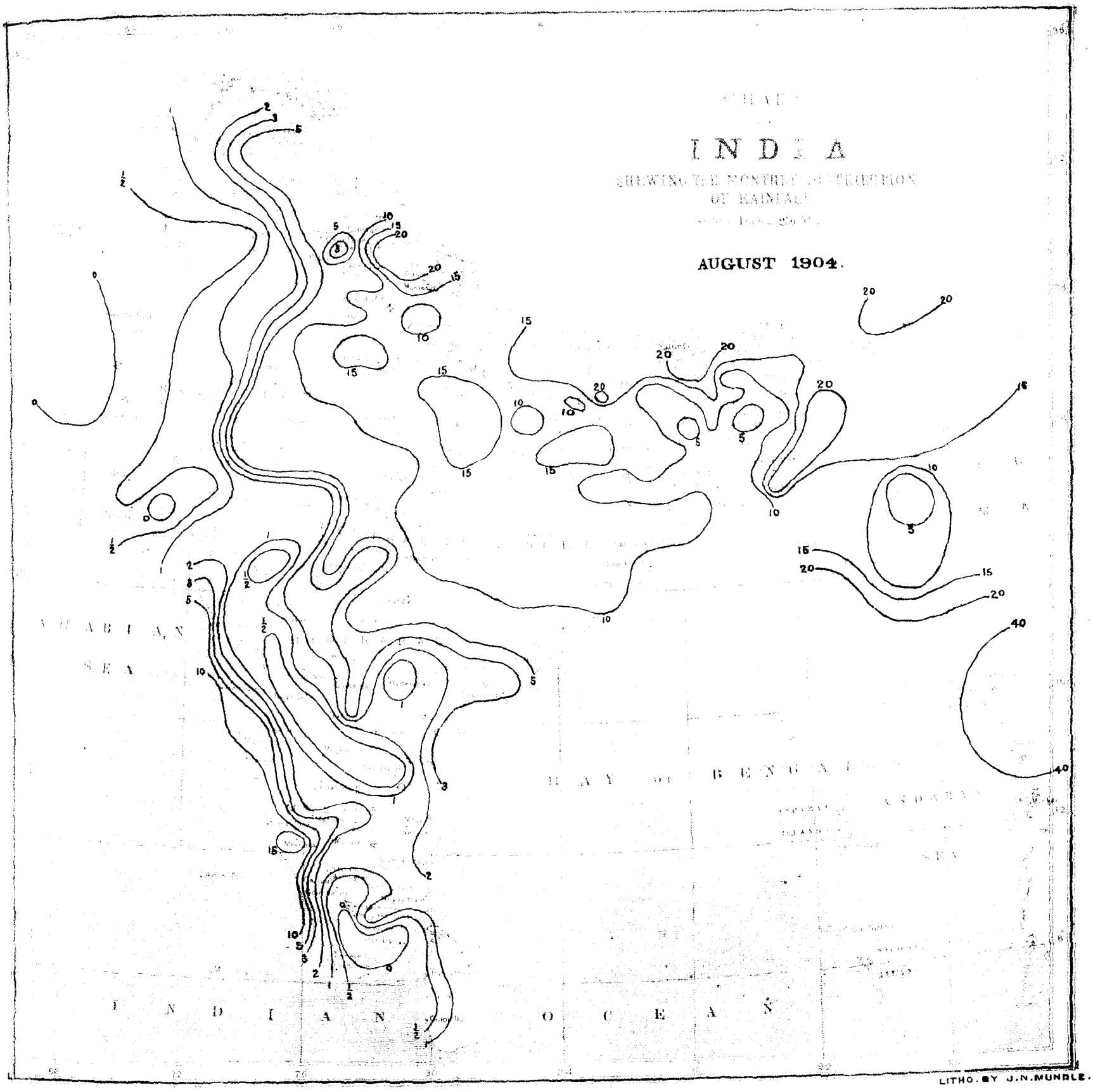


LITHO. BY J. N. MUNDLE.

Explanation.

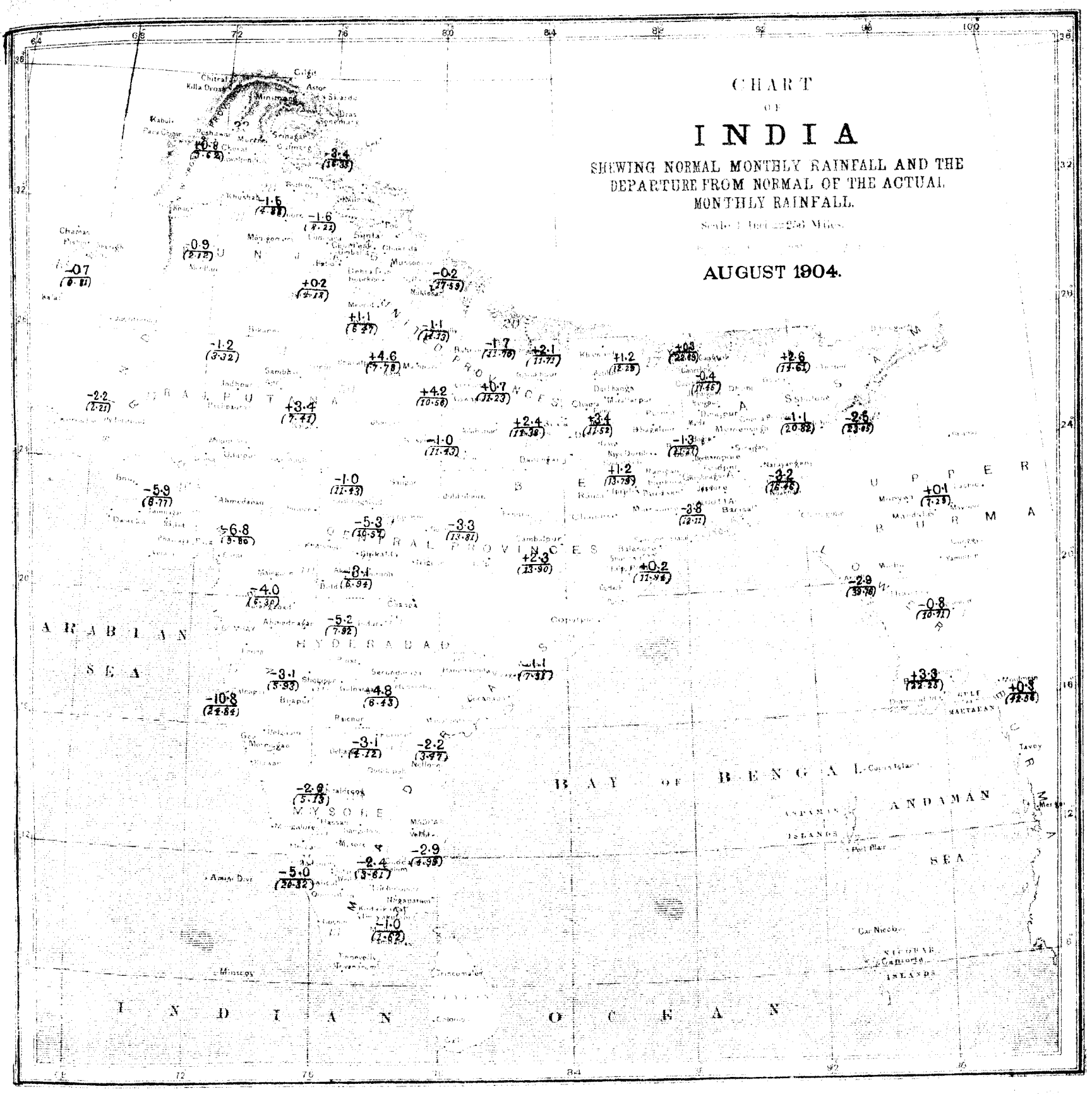
Continuous lines indicate that the mean cloud amount of month was in excess by amounts indicated by the attached numbers; broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no departure from the normal, the broken line facing the area of deficient cloud.

A rainy day is one on which 0·10 inch or more of rain is received within 24 hours.



Explanation.

The Chart shows the distribution of the rainfall of the month by means of isohyetic lines or lines of equal amounts of rain. The data used in the preparation of this Chart are the rainfall returns of all the observatories in India except those at the Hill Stations over 3,500 feet in elevation (177 in number). The double line or line of no rainfall separates areas in which the rainfall exceeded a tenth of an inch from those where it was actually or practically *nil* (*i.e.* less than a tenth of an inch). The dotted line faces the area of no rainfall.



Explanation.

The Chart gives the departures of the rainfall of the month (to tenths of an inch) from the normal over the whole of India and Burma. The country is divided into 57 areas, over each of which the meteorological conditions are fairly uniform, and the staple crops similar in character; and the means (both actual and normal for the month) have been calculated, and the numbers given in the centre of each division (usually with a + or − sign attached) give the difference between the actual and normal mean rainfall of the district of the month. A plus sign indicates that the rainfall was in excess, and a negative sign that it was in defect by the amounts indicated by the numbers to which the signs are attached. The normal average rainfall is also given below in smaller figures enclosed within brackets so that the percentage departure from the normal can be at once estimated. The name of the district can be at once ascertained by referring in the following list to the number given near the right hand boundary of each district in small slanting red figures.

1. Tenasserim
2. Lower Burma Deltaic
3. Central do.
4. Upper do.
5. Arakan
6. East Bengal
7. Assam, Surma
8. Do., Hills
9. Do., Brahmaputra
10. Deltaic Bengal
11. Central do.
12. North do.
13. Bengal Hills
14. Orissa
15. Chota Nagpur
16. South Bihar
17. North Bihar
18. United Provinces, East
19. South Oudh
20. North do.
21. United Provinces, Central
22. Do. do., West
23. Do. do., East Submontane
24. Do. do., West do.
25. Do. do., Hills
26. South East Punjab
27. South do.
28. Central do.
29. Punjab, Submontane
30. Do., Hills
31. West Punjab
32. North West Frontier Province
33. Malabar
33a Travancore
34. Madras, South Central
35. Coorg
36. Mysore
37. Konkan
38. Bombay Deccan
39. Hyderabad, North
40. Khandesh
41. Berar
42. Central Provinces, West
43. Do., Central
44. Do., East
45. Gujarat
46. Kathiawar and Cutch
47. Sind
48. Baluchistan Hills
49. Central India, East
49a Do. do.
50. Rajputana East, Central India West
51. West Rajputana
52. Madras, East Coast, North
53. Hyderabad, South
54. Madras, Central
55. Madras, East Coast, Central
56. Do. East Coast, South
57. Madras, South

GOVERNMENT OF INDIA.

METEOROLOGICAL DEPARTMENT.

MONTHLY WEATHER REVIEW.

PUBLISHED BY ORDER OF

THE GOVERNMENT OF INDIA.

CALCUTTA, SEPTEMBER, 1904.

INTRODUCTION.

THIS review of the weather in India during the month of September, 1904, is based on observations taken daily at 8 A.M. at 232 stations, and on additional observations taken at 10 A.M. and 4 P.M. at 65 stations. In the rainfall summary the rainfall data of the meteorological observatories and the rainfall statements of the month published by the Provincial Governments that had been received up to the date of the publication of the review are utilized. A summary of the weather in the Bay of Bengal and the Arabian Sea, derived from information extracted from the logs of vessels entering the ports of Calcutta and Bombay, is also given, and brief notes on Magnetic and Solar disturbances are supplied by the Observatories.

Summary of the chief features of the weather in India during the month of September, 1904.

The general conditions over the Indian region were in favour of a drier and finer month than usual. The monsoon was lighter than usual over the Arabian Sea, the wind was more westerly than the average over northern India and more northerly than usual along the West Coast and over the Deccan, while the absolute humidity was less than the normal over almost the whole country. These conditions favouring dry weather were disturbed on three occasions by cyclonic storms which, developing over the Bay, passed inland and, drawing the monsoon currents into their circulations, occasioned much needed rain over a large part of the country.

From the 1st to the 4th quiet weather with westerly winds prevailed over the greater part of the country, showers occurred along the West Coast and moderately general rain over Burma and north-east India, while elsewhere generally rainless weather prevailed. In consequence the mean temperature was excessive over the greater part of the country, but particularly so over the Peninsula, the west of the Central Provinces and north Bombay. The following gives comparative temperature data for these divisions for these four days:—

Province or Division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of			
	1st Sept.	2nd Sept.	3rd Sept.	4th Sept.
	°	°	°	°
Sind	−0·2	−0·2	+1·1	+0·3
Gujarat	+1·6	+1·7	+1·7	+1·5
Berar	+1·5	+2·7	+2·9	+2·9
West Coast	+0·2	+1·0	+1·6	+1·7
Bombay Deccan	+0·2	+1·4	+2·1	+2·3
Mysore	+1·0	+0·9	−0·6	+0·7
Madras Coast	+2·9	+2·3	+1·8	+2·
Madras Deccan	+4·3	+2·4	+3·1	+4·7
South India	+0·9	+0·9	+0·8	+1·5

On the 5th a slight depression appeared at the head of the Bay and thence advanced westward into the east of the Central Provinces, where it filled up during the 9th. It occasioned a considerable extension of rainfall over Burma, north-east India and the north-east of the Peninsula and resulted in a rapid decrease of temperature over those areas. The following gives temperature data for these five days :—

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF				
	5th Sept.	6th Sept.	7th Sept.	8th Sept.	9th Sept.
	°	°	°	°	°
Burma	−1·6	−0·7	−0·3	−0·9	−1·3
Assam	+0·7	−0·2	+0·4	−1·6	−0·9
Bengal	−0·3	−2·3	−0·9	−0·5	+0·4
Orissa	−2·9	−4·2	−2·1	−1·3	−0·7
Bihar	+0·7	−1·4	−2·2	−2·4	−0·5
Chota Nagpur	+1·8	−1·7	−3·3	−3·1	−2·3
Central Provinces	+1·4	+0·8	−0·5	−3·0	−2·0
Madras Coast	+2·6	+0·9	−1·6	+0·8	+2·0

The rainfall did not extend into western and north-western India and the mean temperature over those areas remained very excessive.

On the 10th a fresh and more important depression was shown off the north Madras coast. This depression crossed the coast near Vizagapatam during the early morning of the 12th and thence passed slowly through the Deccan into the west of the Central Provinces, the west of Central India, the east of Rajputana and the west of the United Provinces, where it filled up on the 18th. The storm occasioned heavy rain over its track and general rain over nearly the whole country. The following falls exceeding 10″ in 24 hours were recorded during its existence :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
CHINDWARA	Tamia	8th Sept.	10·90
HOSHANGABAD	Pachmarhi	,, ,,	10·25
KHANDESH	Ahwa	14th ,,	14·66
SURAT	Mandvi	15th ,,	12·85
	Valod	,, ,,	11·62
BIJNOR	Nagina	17th ,,	15·50
	Dhampur	,, ,,	10·16

The above rainfall occasioned large temperature changes. The following gives comparative data for all divisions for each alternate day from the 11th to the 19th :—

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF				
	11th Sept.	13th Sept.	15th Sept.	17th Sept.	19th Sept.
	°	°	°	°	°
Burma	−0·7	−0·4	−0·8	+0·3	−1·7
Assam	+2·4	+2·2	+3·5	−0·1	+2·1
Bengal	+0·2	+1·0	+2·0	+1·3	+2·6
Orissa	−2·2	−2·9	−0·6	+2·1	+3·1
Bihar	+0·6	−0·4	+2·1	−1·9	+1·2
Chota Nagpur	−1·5	−2·8	−0·1	−0·5	+2·1
United Provinces of Agra and Oudh.	−1·7	+0·6	+1·1	−5·0	−3·5
Punjab	+4·5	−4·8	−1·1	−2·7	−1·7
North-west Frontier Province.	+0·7	−0·3	−0·7	−0·3	−2·6
Sind	−0·2	+4·0	+3·8	+2·8	+0·5
Rajputana	+5·2	+2·3	+1·5	−3·6	+0·9
Gujarat	+2·7	+2·8	+0·7	+1·1	−0·6
Central India	+3·2	+3·1	−0·7	−4·4	−2·1
Central Provinces	−0·3	−0·7	−3·0	−3·7	−0·3
Berar	+0·6	+1·3	−6·4	−2·4	−0·5
West Coast	+0·3	−1·6	−1·1	−0·6	−0·1
Bombay Deccan	+0·4	−1·5	−5·3	−1·3	+2·3
Mysore	+1·0	−1·8	0	+0·9	+2·4
Madras Coast	+0·9	+0·4	+2·0	+3·0	+2·8
Madras Deccan	−1·5	−4·8	−2·9	+1·3	+2·2
South India	+1·7	+1·0	+0·4	+1·2	0

The fall of temperature was most marked in the day or maximum temperature which was 12° or more below the normal at the following places on the following dates :—

DATE.	STATION.	MAXIMUM TEMPERATURE.		
		Actual of date.	Normal of date.	Departure from normal of date.
		°	°	°
13th Sept., 1904	Lahore	80·3	99·0	−18·7
	Sialkot	81·5	96·2	−14·7
	Ludhiana	81·1	94·8	−13·7
	Hyderabad Deccan	73·8	86·3	−12·5
	Raichur	75·1	87·3	−12·2
14th ,,	Ludhiana	77·1	94·8	−17·7
	Sholapur	71·9	87·9	−16·0
	Bijapur	70·3	85·1	−14·8
	Sirsa	84·3	99·0	−14·7
	Poona	70·6	83·9	−13·3
	Raichur	75·1	87·3	−12·2
	Peshawar	84·1	96·3	−12·2

DATE.	STATION.	MAXIMUM TEMPERATURE. Actual of date.	Normal of date.	Departure from normal of date.
		°	°	°
15th Sept., 1904	Ludhiana	73·1	94·8	−16·7
	Malegaon	73·8	87·2	−13·4
16th ,,	Sirsa	81·3	99·0	−17·7
	Seoni	72·8	85·5	−12·7
	Mandalay	80·5	92·7	−12·2
	Amraoti	76·0	88·1	−12·1
	Khandwa	75·7	87·7	−12·0
17th ,,	Delhi	74·2	93·2	−19·0
	Roorkee	74·8	91·3	−16·5
	Meerut	76·5	91·9	−15·4
	Agra	78·0	93·0	−15·0
	Sirsa	84·3	99·0	−14·7
	Saugor	72·4	86·8	−14·4
	Dehra Dun	71·0	84·1	−13·1
	Nowgong	77·5	90·6	−13·1
	Mainpuri	80·8	93·3	−12·5
	Ambala	81·5	93·7	−12·2
18th ,,	Delhi	75·2	93·2	−18·0
	Meerut	76·0	92·0	−16·0
	Sirsa	83·3	99·0	−15·7
	Lucknow	78·7	92·4	−13·7
	Ambala	80·5	93·8	−13·3
	Jaipur	81·7	94·4	−12·7
19th ,,	Meerut	78·0	92·0	−14·0
	Delhi	81·2	93·3	−12·1

After the 19th a recovery of temperature took place with the cessation of rain, but generally between the 20th and 26th the mean temperature over the greater part of the country was unsteady. On the 22nd and 23rd showers occurred over the north-west Himalayas and were followed by a brisk fall of temperature in the extreme north-west. The following gives comparative data for the Punjab from the 20th to the 26th :—

PROVINCE.	DEPARTURE FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF						
	20th Sept.	21st Sept.	22nd Sept.	23rd Sept.	24th Sept.	25th Sept.	26th Sept.
	°	°	°	°	°	°	°
Punjab	−0·2	−0·2	−0·5	−3·8	−3·7	−2·0	−1·2

The weather over Burma and north-east India during this period was largely controlled by a slight, irregular, low pressure area which developed over Lower Bengal and the head of the Bay on the 21st and hovered about that region until the 24th and then moved northward into central Bengal. Scattered rain accompanied the disturbance and the mean temperature was generally below the normal at this time over Burma and north-east India. The following gives data :—

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF						
	20th Sept.	21st Sept.	22nd Sept.	23rd Sept.	24th Sept.	25th Sept.	26th Sept.
	°	°	°	°	°	°	°
Burma	−1·8	−1·7	−2·0	−2·1	−1·2	0	+0·7
Assam	−0·2	−0·1	−2·5	−1·6	−1·3	+0·1	−0·5
Bengal	+2·1	+0·4	+0·1	−0·3	−1·8	−·1	−0·3
Bihar	+1·4	+0·7	−1·0	+0·6	+0·6	−1·3	−2·2
Chota Nagpur	+2·5	+1·8	−0·1	+0·8	−0·3	−0·1	0

Between the 27th and the close of the month conditions were very quiet over the Indian region and the weather generally rainless, though in Burma and Assam there were occasional showers. The mean temperature was normal or exceeded the normal except over the United Provinces, the central parts of India and Burma, where it was in some defect. The following gives comparative data for all divisions from the 26th to the 30th :—

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF				
	26th September.	27th September.	28th September.	29th September.	30th September.
	°	°	°	°	
Burma	+0·7	+0·7	−1·6	− 1·5	−0·4
Assam	−0·5	+1·6	+1·3	+ 0·2	+0·1
Bengal	−0·3	+1·0	+1·5	+ 1·4	+0·9
Orissa	+1·7	+1·5	+1·7	+ 1·3	+1·2
Bihar	−2·2	−1·6	−0·7	+ 0·1	+0·1
Chota Nagpur	0	−0·1	+1·3	− 0·5	+0·9
United Provinces of Agra and Oudh.	−1·9	−1·4	−1·1	− 1·3	−0·7
Punjab	−1·2	−0·1	+0·9	+ 1·8	+2·5
North-west Frontier Province.	−2·4	−0·7	−0·6	+ 1·1	+3·0
Sind	−2·1	−0·3	+0·5	+ 1·7	+2·3
Rajputana	−0·4	+1·0	+3·0	+ 1·4	+1·4
Gujarat	−0·4	+1·3	+1·7	+ 0·1	0
Central India	−0·9	−1·0	−0·3	− 1·0	−0·9
Central Provinces	−1·5	−2·0	−2·2	− 0·9	−1·3
Berar	−1·1	−0·8	−1·9	− 0·4	−0·5
West Coast	+0·3	+0·9	+1·8	+ 1·8	+1·1
Bombay Deccan	+1·2	+1·7	+1·3	+ 1·6	+2·4
Mysore	+1·0	+1·8	+2·3	+ 1·5	+1·6
Madras Coast	+0·4	+0·4	+1·4	+ 0·8	+1·5
Madras Deccan	+2·8	+3·1	+2·5	+ 1·5	+2·7
South India	−0·7	+0·2	+0·6	+ 1·3	+0·7

Pressure:—The mean pressure of the Indian land area was ·017″ above the normal. Relatively to the geographical mean, pressure was higher than usual over the Peninsula, Ceylon, the central parts of the country, Rajputana, the west of Central India and north Bombay, while it was lower than usual over the Punjab, the Gangetic Plain, north-east India and Burma. The positive departures exceeded 0·020″ along the West Coast and over the extreme south of the Peninsula and west Ceylon, and the negative departures over Assam, east and south-east Bengal and Burma. At the level of the hill stations pressure was generally in slight excess, except at Darjeeling. The excess of pressure noticed over the greater part of India extended westward over Persia, Arabia, Asiatic Turkey, etc., and southward and south-westward to the south-east Trades region and east Africa.

The following table gives the mean pressure departures and anomalies of the month for the eleven meteorological divisions of India:—

METEOROLOGICAL PROVINCE OR DIVISION.	Departure from normal of mean 8 A.M. pressure of September, 1904.	Pressure anomaly, September, 1904.
	″	″
Burma Coast and Bay Islands	−·004	−·021
Burma Inland	−·002	−·019
Assam	−·009	−·026
Bengal and Orissa	−·001	−·018
Gangetic Plain and Chota Nagpur	+·015	−·002
Upper Sub-Himalayas	+·012	−·005
Indus Valley and North-west Rajputana	+·018	+·001
East Rajputana, Central India and Gujarat	+·024	+·007
Deccan	+·024	+·007
West Coast	+·035	+·018
South India	+·031	+·014

Temperature:—The mean maximum temperature of the month was lower than usual over Burma and upper Assam, over part of west Bengal, the Central Provinces, the Gangetic Plain and the east Punjab and over the west coast of the Peninsula. Elsewhere the mean maximum temperature was generally in excess, the departures having been considerable to large over Gujarat, considerable over the Madras Coast and the Deccan and moderate in north Bengal and north Bihar. At Deesa the mean maximum was 7° and at Ahmedabad and Cuddapah 5° higher than usual.

The mean minimum temperature exceeded the normal across the centre of the Peninsula, on the south Madras Coast, over parts of Rajputana and of Gujarat and at a few northern stations. Generally speaking, the departures were moderate or slight, but in central Burma (Thayetmyo −3°·6) and the Central Provinces (Chanda −2°·9) the deficiency and in eastern Rajputana (Ajmer +2°·7) the excess were moderate. At all the hill stations, except Mount Abu, the mean minimum temperature was below the normal.

The departures of the mean temperature from the normal were generally moderate or small, except in three areas, *viz.*, Gujarat and Rajputana and parts of the Madras Deccan and of the Madras Coast, where the mean temperature was in moderate to considerable excess, and central Burma where it was in moderate defect. The mean temperature was slightly lower than usual over the upper Indus valley, the east Punjab, the United and Central Provinces, east of Central India and south-west Bengal, the south-west of the Peninsula and Burma and elsewhere was in slight excess.

The mean temperature exceeded the normal at Darjeeling and Mount Abu, but was lower than usual at the remaining hill stations.

The following table gives the mean departure data of the month for the eleven meteorological divisions:—

METEOROLOGICAL PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF		
	Mean maximum temperature, Sept., 1904.	Mean minimum temperature, Sept., 1904.	Mean temperature, Sept., 1904.
	°	°	°
Burma Coast and Bay Islands	−0·9	+0·2	−0·4
Burma Inland	−1·7	−1·0	−1·3
Assam	+0·7	−0·2	+0·3
Bengal and Orissa	+0·9	−0·1	+0·4
Gangetic Plain and Chota Nagpur.	+0·4	−1·1	−0·4
Upper Sub-Himalayas	−0·4	−0·6	−0·5
Indus Valley and North-west Rajputana.	+1·3	−0·3	+0·5
East Rajputana, Central India and Gujarat.	+1·9	−0·5	+0·7
Deccan	+0·3	−0·9	−0·3
West Coast	−0·2	+0·4	+0·1
South India	+2·1	+0·2	+1·2

Winds.—The winds, on the mean of the month, were more westerly than usual over a considerable part of northern India and the Bay area and in many places both the steadiness and velocity were in excess of the average. Over the west coast of the Peninsula and over the Deccan the direction was unusually northerly, while in southern India it was approximately normal.

Humidity.—The absolute humidity was, on the mean of the month, less than usual over the greater part of the country and the relative humidity was lower than the normal, except over upper Sind and the south Punjab, the south-west of the United Provinces, Malabar, Ceylon and the greater part of Burma where it was in trifling excess. In all other places the relative humidity was in defect—more especially in the Punjab, Rajputana, Gujarat, Khandesh, the Deccan, the Madras Coast and part of Bengl, where the departures were considerable to large.

At the hill stations the departures of the mean relative

humidity from the normal were generally negative, but were generally smaller than on the neighbouring plains.

The following table gives the mean monthly data of the aqueous vapour pressure and relative humidity for the nine meteorological divisions:—

Meteorological Province or Division.	Mean Absolute Humidity.		Mean Relative Humidity.	
	Average actual, Sept., 1904.	Departure from normal, Sept., 1904.	Average actual, Sept., 1904.	Departure from normal, Sept., 1904.
	"	"	%	
Burma Coast and Bay Islands	·881	—·019	88	—2
Bengal and Orissa	·918	—·033	84	—3
Gangetic Plain and Chota Nagpur	·773	—·051	76	—8
Upper Sub-Himalayas	·724	—·025	72	0
Indus Valley and North-west Rajputana.	·729	+·001	64	0
East Rajputana, Central India and Gujarat.	·628	—·087	59	—10
Deccan	·674	—·051	75	—5
West Coast	·842	—·006	84	—4
South India	·678	—·027	72	—4

Cloud.—The sky was, on the mean of the month, more cloudy than usual over the upper Indus valley (Peshawar +0·8) and part of Burma (Yamethin+4·7), while elsewhere it was unusually clear of cloud. The departures from the normal were generally greater in the north-east and east than in the west and south and were greatest at Purnea (−3·7); Gopalpur (—3·3); Jalpaiguri(—3·1); Bogra (—3·0) and Cocanada (—2·8).

In the Kashmir Himalayas the sky was, on the mean of the month, slightly more cloudy than usual, while at the remaining hill stations it was exceptionally clear.

The following table gives comparative data of the mean cloud amount for the nine meteorological divisions:—

Meteorological Province or Division.	Mean Cloud Amount.	
	Average actual, Sept., 1904.	Departure from normal, Sept., 1904.
Burma Coast and Bay Islands	7·0	—0·6
Bengal and Orissa	6·8	—0·7
Gangetic Plain and Chota Nagpur	5·9	—1·1
Upper Sub-Himalayas	2·2	—1·1
Indus Valley and North-west Rajputana	1·4	—0·7
East Rajputana, Central India and Gujarat	2·7	—2·1
Deccan	6·0	—0·9
West Coast	5·3	—1·1
South India	6·7	—0·6

Rainfall.—The general meteorological conditions over India during September, 1904, were generally unfavourable, for rainfall and most of the precipitation during the month was more or less connected with three slight storms which formed over the Bay area and affected considerable portions of the Indian land area. These storms existed during the following periods, *viz.*, the first storm from the 5th to the 9th, the second from the 10th to the 18th and the third from the 20th to the 26th. The rainfall from the first and third storms was more or less local and confined mainly to the north-east, while that from the second was more wide-spread and fell over the greater part of the country. The total rainfall of the month was heavier than usual over Burma, the South and South-East Punjab, Malabar, the north of the Nizam's dominions, Khandesh and Berar; it was normal in South Hyderabad and was deficient elsewhere—more particularly in parts of Sind, Rajputana, the Punjab, the United Provinces and Bihar, where less than half the usual amount fell.

The following table gives comparative rainfall data for the eleven meteorological divisions:—

Meteorological Province or Division.	Rainfall.			
	Mean actual, for Sept., 1904.	Mean normal, for Sept.,	Departure from normal.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Burma Coast and Bay Islands	27·38	21·08	+6·30	+ 30
Burma Inland	7·93	6·57	+1·67*	+ 25
Assam	8·69	11·92	—3·22	— 27
Bengal and Orissa	7·29	11·33	—4·04	— 36
Gangetic Plain and Chota Nagpur	3·58	7·22	—3·64	— 50
Upper Sub-Himalayas	4·16	4·49	—0·40*	— 9
Indus Valley and North-west Rajputana.	0·62	0·76	—0·13	— 17
East Rajputana, Central India and Gujarat.	1·64	4·36	—2·54*	— 58
Deccan	7·09	7·63	—0·35*	— 5
West Coast	7·59	9·20	—1·61	— 18
South India	2·97	4·89	—1·92	— 39

*A reference to Table I will show that the means of columns 2 and 3 are derived from a smaller number of stations than the means in the first column. The sum of the figures in columns 2 and 3 will, therefore, not agree with the figures in column 1.

General Remarks for the monsoon area:—The general conditions were, on the whole, quiet over the monsoon area. The barometer fell and was generally below the normal over western Siberia between the 8th and the 12th, the 16th and 17th, the 22nd and 24th and the 26th and the close of the month. These changes were apparently unfelt over the northern districts of India, but the barometric changes which took place over the Caspian area at the stations of Tiflis and Baku showed some signs of being transmitted

eastward as in some instances they appeared to be traceable in the records of Baghdad and Bushire. There was, however, so far as can be judged, scarcely any connexion between the changes over India and those occurring over the countries to the northward and westward of India during September. The most marked feature of the pressure conditions of the monsoon area was the steady excess which prevailed.

The following table shows the daily departures of pressure from the normal for various selected stations in the monsoon area and the mean departure derived from the whole number of stations:—

DEPARTURE FROM NORMAL OF

DATE.	Calcutta.	Lahore.	Madras.	Colombo.	Bombay.	Bushire.	Aden.	Zanzibar.	Seychelles.	Whole.
	"	"	"	"	"	"	"	"	"	"
1	—·033	—·099	+·053	+·063	+·039	+·001	—·041	+·023	+·052	+·006
2	—·025	—·061	+·050	+·035	+·024	—·021	+·091	+·014	+·025	+·015
3	—·036	—·008	+·032	+·032	+·025	—·009	—·035	0	+·019	+·002
4	—·036	—·036	+·006	+·022	+·036	—·014	—·036	—·007	+·021	—·005
5	—·036	+·005	+·010	+·025	+·048	+·004	—·002	—·007	+·018	+·007
6	—·035	+·039	+·020	+·050	+·076	+·040	·024	+·006	+·025	+·022
7	—·019	+·051	+·030	+·060	+·071	+·010	+·067	+·076	+·065	+·046
8	—·011	+·019	—·012	+·052	+·038	—·017	+·064	+·033	+·035	+·022
9	—·003	+·009	—·029	+·026	+·026	+·006	+·075	—·015	+·026	+·013
10	—·029	+·012	—·051	+·011	+·008	+·089	+·055	+·017	+·052	+·018
11	—·016	+·045	—·079	0	—·011	+·040	+·058	+·018	+·061	+·013
12	+·053	+·119	—·108	+·007	—·043	+·079	+·064	+·054	+·070	+·033
13	+·081	+·165	—·065	+·028	—·061	+·074	+·064	+·062	+·101	+·050
14	+·047	+·075	—·003	+·058	—·068	+·061	+·075	+·067	+·048	+·040
15	+·033	+·007	+·024	+·043	—·051	—·027	+·061	+·062	+·058	+·023
16	+·040	—·024	+·052	+·076	—·038	—·021	+·021	+·061	+·042	+·023
17	+·048	—·025	+·043	+·079	+·011	—·016	+·040	+·103	+·073	+·040
18	+·034	+·047	+·029	+·069	+·033	—·003	+·052	+·083	+·037	+·042
19	—·033	—·001	+·064	+·063	+·034	+·019	+·058	+·065	+·032	+·033
20	—·050	—·051	+·018	+·056	+·041	+·042	+·006	+·086	+·037	+·021
21	—·113	—·084	+·014	+·051	+·025	+·014	+·023	+·071	+·012	+·001
22	—·095	—·101	—·018	+·049	+·034	+·017	—·005	+·054	+·010	—·006
23	—·017	—·039	+·024	+·056	+·078	+·042	—·010	+·062	+·047	+·027
24	+·039	+·095	+·066	+·058	+·114	+·048	+·002	+·048	+·037	+·056
25	+·079	+·097	+·080	+·063	+·114	+·090	—·013	+·032	+·028	+·063
26	+·143	+·127	+·131	+·085	+·131	+·107	+·084	+·057	+·059	+·103
27	+·105	+·078	+·129	+·096	+·120	+·172	+·089	+·055	+·057	+·100
28	+·004	—·039	+·065	+·059	+·087	+·115	+·053	+·019	+·028	+·043
29	+·013	—·074	+·037	+·021	+·068	+·034	+·111	+·028	—·025	+·024
30	+·062	—·023	+·032	—·004	+·066	—·008	+·083	—·005	—·032	+·019

The above shows that the mean pressure ruled above the normal on all days during the month, except the 4th and the 22nd, when it was in trifling defect. The excess was greatest on the 7th, 13th, 18th, and 26th, and was, on the whole, more marked and more continuous in the south than in the north. At the Seychelles the pressure was excessive on all days, except the 29th and 30th; at Zanzibar on all days, except the 3rd, 4th, 5th, 9th and 30th, and at Colombo on all days, except the 11th and 30th. The following tables and statements exhibit the departures from normal of the various elements over the Trades—monsoon circulation:—

September.	Seychelles.	Zanzibar.	Mauritius.
Departure from normal of mean pressure	+·037	+·047	+·043
Actual mean wind direction . .	S 36° E	S 11° E	S 63° E
Normal mean wind direction . .	S 39° E	S 6° E	S 72° E
Actual mean wind velocity (miles per diem).	288	180	242
Normal mean wind velocity (miles per diem).	292	134	288
Departure from normal of rainfall .	+2·02	—0·38	—0·21

The preceding data show that pressure, on the mean of the month, exceeded the normal at all three stations, that the mean wind was more southerly than usual at the Seychelles and Mauritius and more easterly at Zanzibar and that the velocity was normal at the Seychelles, less than the average at Mauritius and above the normal at Zanzibar. The rainfall was heavier than usual at the Seychelles and light at both the other stations.

For the Indian seas there is no information available as to the prevailing direction of the winds but the force departed as follows from the normal:—

September.	Arabian Sea.	Bay of Bengal.
Actual mean force (Beaufort Scale) . . .	3·2	3·8
Normal do. do. . . .	3·5	3·7

The wind, on the mean of the month, was hence weaker than usual over the Arabian Sea and stronger than usual over the Bay of Bengal. The following table shows the abnormal features of the pressure conditions, etc., over the Equatorial Belt and the Arabian Sea and the daily depar-

tures of rain from the normal over the Indian region as determined from the meteorological observatories:—

Date of month September, 1904.	Diurnal departure of pressure gradient from normal between Mauritius and Seychelles.	Diurnal departure of pressure gradient from normal between Seychelles and Bombay.	Easterly deflection of wind at Mauritius.	Easterly deflection of wind at Seychelles.	Departure of hourly wind velocity from normal at Mauritius.	Departure of daily wind velocity from normal at Seychelles.	Departure of wind force over the Arabian Sea.	Departure of wind force over the Bay of Bengal.	Mean departure of rain over India.
1	2	3	4	5	6	7	8	9	10
	"	"	°	°	Miles.	Miles.	Miles.	Miles.	Inch.
1	+·071	+·021	+ 8	+ 6	—0·3	+127	—0·1	+0·3	—0·15
2	+·071	+·010	— 2	+ 6	0	+125	—0·4	+0·3	—0·15
3	+·069	—·013	+ 6	+ 6	+0·4	+ 46	—0·4	+0·4	—0·21
4	+·068	—·016	+ 9	+ 6	+2·2	+ 89	+0·6	—0·1	—0·17
5	+·046	—·025	+25	+ 6	+2·3	+ 81	+0·5	+0·6	—0·09
6	+·022	—·031	+29	+ 6	—0·4	+ 28	—0·1	+1·1	—0·07
7	—·027	+·019	— 1	+27	—7·9	— 98	—0·1	+0·7	—0·08
8	—·041	+·008	+283	+ 6	—8·6	— 84	—0·3	+1·0	—0·03
9	—·039	+·007	—30	+ 6	+0·2	+ 17	—0·2	+0·6	—0·06
10	—·053	+·069	—43	+ 6	—5·7	— 44	—0·3	+0·8	—0·11
11	—·045	+·065	—53	+ 6	—6·3	+ 36	+0·3	+0·6	+0·08
12	—·040	+·128	—16	—15	—4·8	— 33	+0·3	+1·1	+0·05
13	—·012	+·157	— 8	—39	—2·1	— 62	+0·1	+0·6	+0·14
14	+·023	+·137	— 6	—15	+0·8	— 48	+0·6	+0·3	+0·01
15	+·003	+·113	+ 6	—39	+0·4	—115	+0·2	—0·1	—0·06
16	+·002	+·069	— 2	+ 6	—0·7	— 24	+0·3	—0·1	+0·06
17	—·034	+·034	—32	—39	—5·7	—131	—0·3	+0·1	—0·01
18	—·013	—·017	—50	—39	—2·7	+126	—0·3	+0·1	—0·11
19	+·016	—·003	—39	—63	+2·4	+137	—0·5	+0·6	—0·15
20	+·040	0	—21	—63	+3·2	+ 52	—0·3	+0·6	—0·08
21	+·068	—·005	—27	—63	+0·1	+ 47	—0·2	+1·3	—0·02
22	+·055	—·034	—12	...	+0·1	—186	—0·4	+1·3	—0·07
23	+·043	—·058	— 4	...	+0·4	—243	—0·3	+0·1	—0·04
24	+·056	—·094	— 3	+ 6	—0·2	+ 62	—0·6	—0·7	—0·05
25	+·012	—·097	— 5	+ 6	—2·3	+ 82	—1·2	—1·1	—0·04
26	—·021	—·069	—14	+ 6	—3·0	— 63	—1·2	—1·5	—0·15
27	+·018	—·095	0	+ 6	—0·1	— 33	—1·3	—1·3	—0·15
28	+·001	—·072	0	+ 6	—0·3	— 17	—0·9	—1·0	—0·11
29	+·031	—·103	— 5	—15	+2·3	— 17	—0·5	—1·2	—0·13
30	+·003	—·110	— 6	+ 6	—0·1	+ 20	—0·4	—1·7	—0·11

The rainfall of India was lighter than usual from the 1st to the 10th, it then increased and was above the normal from the 11th to the 16th. After the latter date the rain fell off and was lighter than usual from the 17th to the close of the month. The pressure gradient over equatorial regions was less than usual between the 7th and the 13th, but was generally steeper than the average at other times during the month. This feature apparently exhibited no relation to the departures of Indian rainfall from the normal. The pressure gradient over the Arabian Sea exceeded the normal on the 1st and 2nd and from the 7th to the 17th and was less than the normal at other times. The period of greatest excess of the pressure gradient coincided with the period of excess of rain. The wind was generally less easterly than usual at Mauritius throughout the month and at the Seychelles from the 12th to the 21st. Over the Arabian Sea the wind was stronger than usual from the 11th to the 16th, at which time the Indian rainfall was in some excess.

Magnetic and Solar Disturbances.

The following reports have been received regarding the magnetic and solar disturbances of the month:—

SOLAR PHYSICS OBSERVATORY, KODAIKANAL.

Solar Observations.—September, 1904.—Sunspots and faculæ were observed on all days of the month, but on two days, the 14th and 21st, the observations were made through cloud and on eleven other days the weather was not good enough for prominence work.

The solar activity was distinctly less marked than in August. Only 17 new groups appeared during the month as against 24 in August, while the mean daily number of groups was only 2·7 as against 4·1. The great majority of the new groups formed on the visible hemisphere and were very uninteresting, being formed either of single small spots or of groups of mere dots lasting only a few days.

The most important groups of the month were Nos. 354, 356 and 357. Of these, group 354 appeared on the 18th as a single small spot in latitude 18° S. and far from the limb. It developed very rapidly into a considerable group of small spots with a leader of moderate size showing a distinct penumbra. It disappeared round the western limb on the 26th and a number of small bright eruptive prominences were seen on that day near the place of its disappearance. Group 356 when first seen, on the morning of the 22nd, consisted of 4 or 5 minute dots, a little to the east of group 354 and in latitude 23° S. By the morning of the 23rd it had developed into an important group, the leading and rear spots of which were of considerable size

with clearly marked penumbras. On this day the spot showed much disturbance. The C line was brilliantly reversed and displaced in both directions while D_3 showed very dark. Before it disappeared round the limb on the 27th it had decreased considerably in size. Group 357 was the only one which completed the transit of the sun's disc. It appeared on the 22nd as three small dots and developed into a fairly large group with, as usual, the largest spot leading. This group was in a higher latitude than usual, being in 31° N.

The spots were equally divided between the two hemispheres and the chief spot zone in each lay between 13° and 24°.

Faculæ were also less numerous than in August and none were seen in a latitude higher than 30°.

Prominences were few in the early part of the month but became more numerous later on. A number were observed near the poles. On the 7th at about 10 A.M. a group of eruptive prominences which changed their shape very rapidly was observed between 10° and 17° S. latitude. One of them showed a receding velocity of about 90 miles per second. The sodium and magnesium lines were very bright, while the iron line 6678·235 was bright enough to make it possible to observe the prominence itself quite clearly in it. On the 16th at 8-30 A.M. the eastern limb was covered with a number of prominences extending 20° north from the equator.

Though the spots were, for the most part, small, yet the spectroscope showed many of them to be very active, and in most cases in which the C line was strongly disturbed the helium line D_3 appeared dark.

There were no large magnetic disturbances during the month, but there were moderate disturbances on the 16th and 25th. On the former of these days the large group of prominences, referred to above, formed the most conspicuous object on the sun's surface. On the 25th it was not possible to observe the prominences, but there was no spot near the central meridian.

The general trend of recent observations indicates that the rise towards maximum is less pronounced than might have been expected and there are some reasons to doubt whether the next maximum will be an intense one.

C. Michie Smith,

Director of Kodaikanal and Madras Observatories.

Colaba Observatory, Bombay:—Note on the Magnetic Record, September, 1904.

During the month the traces showed 15 calm days, 13 days of small and 2 days of moderate disturbances.

The selected quiet days of the month were the 3rd, 10th, 14th, 20th and 28th.

The mean observed absolute values of the several elements as also the ranges and summed ranges of the Horizontal Force and Declination for the month were as follows :—

Declination	0° 12′ 38″ E.
Horizontal Force	0·37414 C. G. S. unit
Dip	21° 48′·8
Horizontal Force range	·00039 C. G. S. unit.
„ „ summed range	·00242 C. G. S. unit.
Declination range	5′·13
„ summed range	18′·41

(Summed range means sum without regard to signs of 24 ordinates of diurnal inequality.)

Only one small seismic disturbance was recorded during the month on the 11th :—

Magnetic Disturbances, September, 1904.

September, 1904.		September, 1904.		September, 1904.	
1	C.	11	S.	21	C.
2	C.	12	S.	22	C.
3	C.	13	S.	23	C.
4	S.	14	C.	24	C.
5	S.	15	S.	25	M.
6	S.	16	M.	26	S.
7	S.	17	C.	27	C.
8	S.	18	C.	28	C.
9	S.	19	C.	29	S.
10	C.	20	C.	30	S.

The magnitudes of the disturbances are determined from Horizontal Force traces.

C = calm; S = small; M = moderate; G = great, and VG = ver great.

Days are reckoned from midnight to midnight.

N. A. F. Moos,

Director, Govt. Observatory, Bombay.

Alipore Calcutta Observatory.—List of displacements recorded by the Seismograph at the Alipore Observatory during September, 1904.

Number.	Date, 1904.	P. T. Commencement. G.M.T.	L. W. com.	Maxima. G. M. T.	End. G. M. T.	Maximum amplitude in m. m.	Duration.	Remarks.
		H. M.	H. M.	H. M.	H. M.		H. M.	
	Sept. 4	8-5·1	8-17·3	8-38·7	9-22·4	2·50	1-17·3	Sensibility 1 m. m. = 0″·42 of tilt.
	„ 8	2-46·8	2-50·8	3-2·0	3-28·5	2·00	0-41·7	Sensibility 1 m. m. = 0″·38 of tilt.
	„ 10	3-32·2	3-46·4	4-7·7	5-0·6	1·50	1-28·4	
	„ 11	5-51·7		5-57·8	8-12·1	6·00	2-20·4	
	„ 22	6-27·1	6-40·3	6-55·5	7-14·9	1·00	0-47·8	
	„ 28	5-43·1		5-45·7	6-1·9	3·00	0-18·8	

P. T. = Preliminary tremors. L. W. = Large waves.

The local times of the commencement :—

Date, 1904.	H. Ms.
September 4	13-58·4
„ 8	8-40·1
„ 10	9-25·5
„ 11	11-45·0
„ 22	12-20·4
„ 28	11-36·4

G. W. Küchler,

Asst. Metl. Reporter to the Govt. of India.

Royal Alfred Observatory, Mauritius.—Magnetic Observations, September, 1904.

The solar activity decreased from small groups on the 1st to none on the 14th and 15th. The weather was cloudy on the 16th; one group appeared on the 17th; no observations were possible on the 18th and 19th; three groups were observed on the 20th, 22nd, 24th and 26th, two groups on the 21st, 25th, 27th, 29th and 30th and one group on the 28th.

The disappearance of a group of three moderately large spots at the sun's western limb was marked by a large magnetic disturbance.

Faculæ were observed on all days on which observations were made, except the 14th and 15th.

The following were the magnetic disturbances during September, 1904 :—

Day.	Hours.	Magnetic disturbance.
4	2-13½	Long wave in H. F. (+·000363).
6	1-16½	Long wave in H. F. (+·000370).
8	8-10½	In H. F. wave (—·000129).
	11½-13	Wave (—·000082).
	11-23	Frequent small fluctuations.
9	10-13¾	Wave in H. F. (+·000330) with superposed fluctuations.
11	13 to	Occasional fluctuations in H. F.; 18½—19½.
12	7	Increase of force (·000106) followed by decrease (·000247) till 21 hours and a further increase (·000495) till 12th, 1½ hours.
16	9½-11½	Rapid fluctuations in H. F. followed till 12½ hours by sharp wave (+·000352).
25	1-3	Wave in H. F. (—·000208).
	3-15½	Decrease of force (·000896).
	6½-15½	Wave (+·000560).
	15½-17½	Wave (+·000224).
	18¾-21	Wave (+·000288) followed by increase of force (·000579) till 26th, 10 hours. In Declination occasional small fluctuations from 4 hours to 20 hours.
29 and 30	16-7	Small fluctuations in H. F.

T. F. Claxton,

Director.

Atmospheric Pressure.

The mean atmospheric pressure of the Indian land area was ·017″ above the normal. The period of small general anomalies thus continues, the general departures of the past few months having been as follows :—

1904.				
May.	June.	July.	August.	September.
″	″	″	″	″
—·004	—·013	—·012	+·002	+·017

The distribution of the mean actual barometric pressure of the month is shown in Plate I. Pressure was highest (29·90″) over Malabar, west Ceylon and the south-east of the Arabian Sea and thence decreased slowly to a small low pressure area (29·70″) over the head of the Bay and to another low pressure area over the western desert and the south Punjab. The total range of pressure was 0·258″, the normal range being 0·219″.

The mean pressure of the month exceeded the normal except over Burma, Assam, the delta of Bengal and along the foot of the eastern Himalayas where pressure was in trifling defect. The excess was great on the Kathiawar coast, over the extreme south of the Peninsula and in west Ceylon where it exceeded 0·040″. The excess of pressure was general over the monsoon area, except the north-east, as the barometer, on the mean of the month, was higher than usual over Baluchistan, Persia, Arabia, Asiatic Turkey, the east of Africa, the Seychelles and Mauritius.

Relatively to the geographical mean, the mean pressure was high over the Peninsula, west Ceylon, the central parts of the country and north Bombay, the departures exceeding +·020″ at the following stations :—

Area.	Station.	Departure from normal of mean 8 A.M. pressure of September, 1904.	Pressure anomaly, September, 1904.
		″	″
Peninsula	Madura	+·054	+·037
	Tinnevelly	+·047	+·030
	Pamban	+·047	+·030
	Trivandrum	+·042	+·025
	Calicut	+·040	+·023
	Karwar	+·039	+·022
West Ceylon	Colombo	+·046	+·029
Central Provinces	Chanda	+·038	+·021
North Bombay	Surat	+·045	+·028
	Bhuj	+·045	+·028
	Veraval	+·040	+·023

Over northern and north-eastern India and Burma, on the contrary, the mean pressure was generally low. The deficiency amounted to ·020″ at the stations for which comparative data are given below:—

Area.	Station.	Departure from normal of mean 8 A.M. pressure of September, 1904.	Pressure anomaly September 1904.
		″	″
North-east India	Chittagong	—·024	—·041
	Barisal	—·011	—·028
	Dhubri	—·010	—·027
	Silchar	—·010	—·027
	Sibsagar	—·008	—·025
	Saugor Island	—·007	—·024
	Jessore	—·007	—·024
	Mymensingh	—·006	—·023
	Darbhanga	—·005	—·022
	Jalpaiguri	—·004	—·021
	Bogra	—·003	—·020
Burma	Moulmein	—·021	—·038
	Akyab	—·016	—·033
	Yamethin	—·016	—·033
	Toungoo	—·011	—·028
	Bassein	—·006	—·023
	Diamond Island	—·006	—·023
	Rangoon	—·005	—·022
	Minbu	—·004	—·021
	Bhamo	—·004	—·021

Over the Punjab and the central districts of the United Provinces the departures of pressure were small and unimportant.

The mean pressure of the month at the level of the hill stations was generally higher than usual. At Darjeeling there was a slight deficiency and at Leh and Pachmarhi there was no departure, but at all the remaining stations (with the doubtful exception of Chaman) there was an excess. The departures, except in the case of Quetta, were generally small, but in most districts the vertical pressure anomalies were slightly negative. The following gives data for ten pairs of stations:—

Hill Station.	Departure from normal pressure, September, 1904.	Plain Station.	Departure from normal pressure, September, 1904.	Vertical pressure anomaly (Hill—Plain).
	″		″	″
Quetta	+·052	Jacobabad	+·009	+·043
Leh	0	Lahore	+·011	—·011
Murree	+·011	Peshawar	+·008	+·003
Simla	+·021	Ludhiana	+·008	+·013
Chakrata	+·009	Roorkee	+·015	—·006
Ranikhet	+·002	Bareilly	+·013	—·011
Darjeeling	—·014	Dhubri	—·010	—·004
Mount Abu	+·018	Deesa	+·030	—·012
Pachmarhi	0	Seoni	+·026	—·026
Wellington	+·021	Coimbatore	+·035	—·014

The chief features of the pressure conditions of the month were hence:—

(1) The mean pressure of the whole Indian land area slightly exceeded the normal.

(2) Relatively to the geographical mean, pressure was in excess over the Peninsula, west Ceylon, the central parts of the country and north Bombay.

(3) Relatively to the geographical mean, pressure was in defect over northern and north-eastern India and Burma.

(4) The mean pressure was normal or slightly above the normal at the level of the hill stations, except in Sikhim.

(5) Pressure exceeded the normal over the south-east Trades region as well as over the countries to the westward of India.

(6) The vertical pressure anomalies were generally feebly negative, except in the Baluchistan—Sind area.

Barometric depressions and cyclonic storms of the month.

The barometric depressions of the month were few and in no case severe. They were all developed within the Bay area:—

Slight depression of the 5th to the 9th:—On the 3rd the weather became feebly unsettled at the head of the Bay and the wind at the Sandheads, which had previously been south-westerly, became north-westerly and northerly with a southerly swell. Saugor Island reported 1·70″ of rain and the F. L. V. *Planet* 2·19″. By the morning of the 4th the depression had developed and irregular cyclonic winds were reported around the head of the Bay. The barometric changes were, however, very slight, and variable breezes between west and north-east were reported on board the *Torch* at the Ridge Station. Saugor Island reported a rainfall of 1·50″ and the F. L. V. *Planet* of 3·55″. On the morning of the 5th the depression still lay over the head of the Bay and the barometric changes around the head of the Bay were still slight. There had been some recovery of pressure over Burma and Bengal and a slight decrease over Orissa, so that, apparently, a slight movement to the westward had been developed. The wind became easterly at the Sandheads at 4 P.M. The observations at 8 A.M. on the 6th showed that the depression had moved slowly westward during the previous 24 hours

and that the centre of the depression lay off False Point, where the barometer continued to fall slowly. The storm was, however, of very slight intensity and the depression of the barometer at False Point was only—0·085″. The winds were irregularly cyclonic but were nowhere strong. The storm crossed the coast during the day and advanced a short distance into Orissa. The winds had returned to south-east and south-west directions at the head of the Bay, and a very irregular circulation was shown around the centre of the depression. Rain had increased over north-east India but was nowhere very heavy. The storm moved more quickly during the 7th and the observations at 8 A.M. on the 8th showed that the centre had advanced about 250 miles to the neighbourhood of Raipur and Jubbulpore, but the intensity of the storm was unaltered. Rain had become much heavier over the central parts of the country and Pachmarhi reported a fall of 10·25″ in 24 hours. By the morning of the 9th the depression had almost filled up.

Moderate cyclonic storm of the 10th to the 18th :—The marine observations of the 9th gave very little indication of the development of a fresh depression over the Bay. The *Ismailia* in Lat. 19°24′N and Long. 87°43′E reported a light north-east by east wind and cloudy weather and the *Goorkha* in Lat. 18°38′N and Long 85°49′E variable breezes and light rain, and it was apparently in about this region that the depression was formed.

September 10th.—The following gives marine data for the north of the Bay :—

Name of vessel.	8 A.M. position. Lat. N.	8 A.M. position. Long. E.	Barometer, as corrected by Calcutta office.	Wind. Direction.	Wind. Force.	Weather.
	° ′	° ′	″			
S.S. *Maharaja* .	12·22	85·45	·663	SW by S	7	Cloudy.
S.S. *Itinda* .	12·57	84·55	29·545	WSW	5	Moderate sea ; 4 A.M. light showers.
S.S. *Syria* .	13·32	84·48	·638	SW by S	6	Cloudy.
S.S. *Bangala* .	14·50	90·00	·592	SW	4	Moderate high sw sea and cloudy ; 4 A.M light showers.
S.S. *Nam Sang* .	16·55	91·20	·686	SW	3	Moderate sw sea and light rain.
S.S. *Gwalior* .	17·19	89·24	·554	SSW	2	Occasional rain squalls.
S.S. *Caspian* .	17·55	83·56	·600	Var.	4	Passing showers.
S.S. *Zibenghla* .	18·46	90·36	·580	S	2	Smooth sea and over cast; 8 P.M. distant rain.
S.S. *Waroonga* .	19·40	89·40	·545	ESE	5	South swell and fine; 8 P.M. occasional squalls and light rain.
S.S. *Venetia* .	20·05	87·42	·525	NE	4	Moderate sea and cloudy; noon heavy rain squalls.
S.S. *Maharani* .	21·10	89·50	·643	ESE	4	Squally and rainy.
S.S. *Goorkha* .	Saugor Island.		·587	NE	5	Slight sea and fine; noon, dull rainy.
S.S. *Begonia* .	21·32	87·52	·545	NE	5	Squally with heavy rain.

The winds exhibited a fairly well-marked cyclonic circulation around a centre in about Lat. 16°50′N and Long. 87°10′E. The force was not strong but moderate gales were reported by the *Maharaja* in Lat. 12°22′N and Long. 85°45′E and fresh north-east winds by the *Goorkha* and *Begonia* at the head of the Bay.

The following gives 8 A.M. observations at the ports around the north of the Bay for this day:—

Station.	Pressure. 8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	Pressure. Change in past 24 hours.	Pressure. Departure from normal.	Wind. Direction at 8 A.M.	Wind. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Remarks.
	″	″	″				Inch.	
Masulipatam.	29·661	—·021	—·059	WNW	10	10	0·13	
Cocanada	·614	—·028	—·093	W	7	7		Sea slight.
Waltair	·608	0	—·076	ENE	4	9		Sea rising.
Gopalpur .	·613	0	—·057	N	8	2	0·30	Sea slight.
Cuttack .	·625	+·003	—·036	ENE	2	9	0·11	
False Point.	·609	—·008	—·059	ENE	7	8	0·20	Showery.
Balasore .	·640	—·002	—·025	N	4	5	0·29	Squally.
Saugor Island.	·620	—·009	—·048	NE	9	8	0·03	
Calcutta .	·650	—·024	—·029	Calm	2	10		
Jessore .	·662	—·014	—·027	NE	1	8		
Chittagong.	·671	—·024	—·061	NE	3	9	0·04	Thunder.
Akyab .	·686	—·002	—·060	SE	3	5	0·20	

The barometric changes were slight, but there had been a slight decrease over the north and west and a slight increase over the east of the Bay. The winds were irregularly cyclonic and rain had fallen all round the Bay.

September 11th.—The following gives marine data for the north of the Bay :—

Name of vessel.	8 A.M. Position. Lat. N.	8 A.M. Position. Long. E.	Barometer as corrected by Calcutta Office.	Wind. Direction.	Wind. Force.	Weather.
	′	′	″			
S. S. *Itinda* .	Madras.*		29·635	W	5	Moderate sea and cloudy ; 4 A.M. hard squalls of wind and rain.
S. S. *Asia* .	13·46	85·01	·733	SW	7	High following sea ; noon heavy rain.
S. S. *Caspian* .	15·00	82·29	·630	W	5	Rough, confused sea; 4 A.M. rainy.
S. S. *Nisam* .	Near Cocanada.		·549	W	3	Frequent rain showers.
S. S. *Syria* .	17·32	86·49	·492	SSW	2	Cloudy.
S. S. *Gwalior* .	19·08	85·30	·464	N	4	Light rain squalls

Name of vessel.	8 A.M. Position. Lat. N.	Long. E.	Barometer as corrected by Calcutta Office.	Wind. Direction.	Force.	Weather.
S. S. *Nam Sang*	9·49	89·14	29·626	SE by E	4	Moderate confused sea and passing squalls.
S. S. *Zibenghla*.	Saugor	Island.	·610	E	5	Moderate sea and passing showers; noon frequent heavy rain squalls.
S. S. *Venetia* .	Diamond	Harbour		E	6	Moderate sea and squally; noon passing rain squalls.
S. S. *Catherine Apcar*.	Calcutta.		·702			Noon squally.

* Noon position.

The centre of the storm was apparently near the *Syria* in Lat. 16° 50′N and Long. 86° 0′E. The winds were cyclonic over the northern half of the Bay and rain squalls were frequent and occasionally heavy, but the wind at 8 A.M. was not generally strong.

The following gives 8 A.M. data for the ports around the head of the Bay:—

Station.	Pressure. 8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	Change in past 24 hours.	Departure from normal.	Wind. Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Remarks.
	"	"	"				Inches.	
Masulipatam.	29·622	—·039	—·099	NW	12	10		Thunder.
Cocanada	·565	—·049	—·144	W	6	10	0·29	Sea rising.
Waltair .	·555	—·053	—·132	W	6	10	2·87	Sea rising and continuous rain.
Gopalpur.	·517	—·096	—·156	NNW	8	9	2·06	Drizzling.
Cuttack .	·549	—·076	—·113	ENE	4	9	2·19	Showery.
False Point.	·547	—·062	—·122	E	11	10	0·65	Squally.
Balasore	·619	—·021	—·049	ENE	9	9	2·17	Squally.
Saugor Island.	·611	—·009	—·060	ENE	15	9	0·97	Sea slight and showery
Calcutta .	·664	+·014	—·016	E	4	7	1·03	Thunderstorm.
Jessore .	·680	+·018	—·011	ESE	1	3	0·19	
Chittagong.	·718	+·047	—·015	ENE	4	6	0·14	Showery.
Akyab .	·717	+·031	—·030	E	3	2		

The depression had concentrated somewhat. The barometer had fallen about 0·10″ on the Circars coast and was 0·156″ below the normal at Gopalpur, to the northwest of the storm centre. The wind was gradually increasing in strength and was blowing at 8 A.M. at the rate of about 20 miles per hour at False Point.

September 12th.—The following gives marine information for the north of the Bay:—

Name of vessel.	8 A.M. Position. Lat. N.	Long. E.	Barometer as corrected by Calcutta office.	Wind. Direction.	Force.	Weather.
	° ′	° ′	"			
S.S. *Caspian* .	12 15	82 03	29·730	SSW	6	High head sea; 4 A.M. hard squalls of wind and rain.
S.S. *Maharaja* .	Madras.		·653			Midnight lightning to NW.
S.S. *City of Madrid*.	13 12	84 56	·596	SW	5	High sea and fine.
S.S. *Bharata* .	14 10	85 45	·607	SW	5	Moderate sea and fine.
S.S. *Asia* . .	17 23	86 38	·787	S	6	Rough sea and squally, rainy.
S.S. *Nizam* .	17 50	83 23	·551	WSW	4	Smooth sea and rainy appearance.
S.S. *Rajah* .	18 09	90 28	·610	SW	3	Moderate swell and fine.
S.S. *Gwalior* .	Kalingapatam.		·534			4 A.M. dull showery.
S.S. *Nam Sang* .	21 20	88 02	·676	SSE	3	Moderate S. E. sea and fine.
S.S. *Syria* . .	Upper Gasper.		·626	ESE	6	Frequent rain squalls.
S.S. *Bihara* .	Calcutta.		·660			4 P.M. squally looking.
S.S. *Taroba* .	Calcutta.		·769			Noon fine.

South-westerly winds prevailed over the south of the Bay, southerly winds over the centre, and south-easterly winds in the north. The force was fresh to strong and there were occasional rain squalls, but the weather was improving.

The following gives 8 A.M. information for the storm area:—

Station.	Pressure. 8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Departure from normal.	Wind. Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours	Cloud.	Rainfall.	Remarks.
	"	"	"				Inches.	
Masulipatam	29·584	—·038	—·139	WSW	12	10	0·42	Thunder.
Cocanada .	·540	—·025	—·170	SSW	6	8	0·21	Sea slight.
Waltair .	·548	—·007	—·140	SW	4	10	0·40	Sea rising.
Gopalpur .	·541	+·024	—·134	SE	11	8	1·66	Showery.
Cuttack .	·603	+·054	—·060	SE	6	10	1·68	Drizzling.
False Point	·635	+·088	—·035	SE	21	10	0·65	Showery.
Balasore .	·683	+·064	+·111	ESE	11	7	1·34	Wind variable.
Saugor Island.	·687	+·076	+·014	ESE	19	9	0·58	Showery.
Hanumkonda.	·587	—·050	0	NW	17	5	0·90	
Hyderabad (Deccan).	·622	—·063	—·158	W	8	10	2·40	Raining.
Chanda .	·617	—·054	—·093	NNE	1	5	0·76	Showery.
Raipur .	·567	—·055	—·114	NE	10	9	0·20	

STATION.	PRESSURE. 8 A.M. reduced to sea-level and constant gravity at Lat 45°.	PRESSURE. Change in past 24 hours.	PRESSURE. Departure from normal.	WIND. Direction at 8 A.M.	WIND. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	REMARKS.
							Inch.	
Sambalpur.	29·581	—·014	—·103	E	9	6	0·03	
Nagpur .	·612	—·056	—·093	N	6	9	0·93	Thunder.
Akola .	·645	—·064	—·088	NW	8	10	0·21	
Amraoti .	·630	—·064	—·090	NW	4	8	0·30	Showery.

The storm had apparently crossed the coast and pressure was giving way briskly over the Deccan. The winds were cyclonic and the velocity at 8 A.M. was at the rate of 20 miles per hour at Saugor Island, 26 miles at False Point, 30 miles at Belgaum, and 32 miles at Kodaikanal. Rain was falling generally over the Peninsula.

September 13th.—The following gives 8 A.M. data for the storm area:—

STATION.	PRESSURE. 8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	PRESSURE. Change in past 24 hours.	PRESSURE. Departure from normal.	WIND. Direction at 8 A.M.	WIND. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	REMARKS.
	"	"	"				Inches	
Cocanada .	29·629	+·089	—·082	Calm	5	9	0·48	Sea smooth.
Waltair .	·633	+·085	—·056	SW	16	10	3·32	Sea smooth and continuous rain.
Hanumkonda.	·531	—·056	0	N	9	7	1·78	
Hyderabad (Deccan).	·588	—·034	—·197	W	11	10	2·45	Continuous rain.
Chanda .	·532	—·085	—·182	Calm	3	10	0·60	Showery.
Akola .	·602	—·043	—·139	N	6	10	2·13	
Amraoti .	·570	—·060	—·150	NNE	9	10	0·55	Showery.
Nagpur .	·571	—·041	—·140	ENE	9	10	0·36	Thunder.
Raipur .	·589	+·022	—·096	ENE	11	8	0·02	
Seoni .	·629	—·013	—·086	NNE	12	10	0·82	Showery.
Khandwa .	·601	—·065	—·135	NE	6	9	0·12	Thunder.
Hoshangabad.	·637	—·037	—·091	SW	6	10	0·09	
Jubbulpore.	·640	—·011	—·060	NE	7	10	0·15	

Pressure had increased over the east and south of the Peninsula and had decreased over the Deccan. The storm had travelled slowly west-north-westward and was central over the Nizam's dominions, where the barometer read 0·197″ below the normal. The winds over the Peninsula were strong to a gale and moderate to heavy rain had fallen over nearly the whole of that region.

September 14th.—The following gives 8 A.M. data for the storm area:—

STATION.	PRESSURE. 8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	PRESSURE. Change in past 24 hours.	PRESSURE. Departure from normal.	WIND. Direction at 8 A.M.	WIND. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	REMARKS.
	"	"	"				Inches	
Chanda .	29·594	+·062	—·125	SSE	1	8	0·72	Showery.
Akola .	·533	—·069	—·209	Calm	4	10	1·79	
Amraoti .	·513	—·057	—·213	E	5	10	1·85	Showery.
Nagpur .	·569	—·002	—·148	SE	9	10	1·11	Continuous rain.
Seoni . .	·603	—·026	—·117	SSW	11	10	1·56	Showery.
Malegaon .	·613	—·055	—·168	W	19	9	2·80	Raining.
Khandwa .	·524	—·077	—·216	NE	9	10	0·47	Showery.
Indore .	·589	—·058	—·148	NE	10	10	0·56	Thunder.
Hoshangabad.	·564	—·073	—·173	SW	9	10	1·40	Continuous rain.
Saugor .	·596	—·060	—·114	ENE	19	8	0·21	
Jubbulpore	·583	—·052	—·108	ESE	5	8	0·11	

The storm had travelled in a north-westerly direction and was central over Berar, Khandwa reporting a deficiency of pressure of ·216." The cyclonic winds were very strong over the head of the Peninsula and at Bombay the velocity at 8 A.M. was at the rate of 32 miles per hour and at Belgaum 66 miles per hour. Rain had extended into east Gujarat and had continued to fall over the centre and west of the Peninsula.

September 15th.—The following gives 8 A.M. data for the storm area:—

STATION.	PRESSURE. 8 A.M. reduced to sea-level and constant gravity at Lat 45°.	PRESSURE. Change in past 24 hours.	PRESSURE. Departure from normal.	WIND. Direction at 8 A.M.	WIND. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	REMARKS.
	"	"	"				Inches	
Akola .	29·605	+·072	—·148	SW	12	10	0·93	
Amraoti .	·620	+ 107	—·119	S	16	10	0·94	Showery.
Nagpur .	·662	+·093	—·601	S	16	9	0·30	Gale.
Seoni . .	·673	+·070	—·067	SSW	13	10	0·12	Showery.
Hoshangabad	·571	+·007	—·168	SW	6	10	0·36	
Saugor .	·593	—·003	—·125	SSE	...	9	0·10	
Malegaon .	·633	+·020	—·150	W	16	10	3·75	Continuous rain.
Khandwa .	·497	—·027	—·249	SE	4	10	2·85	
Indore .	·529	—·060	—·211	NE	9	10	1·26	Showery.
Surat . .	·639	—·027	—·135	S	10	10	2 16	
Ahmedabad .	·588	—·040	—·179	NW	4	9	0·66	
Neemuch .	·576	—·060	— 156	NNE	9	7	0·44	
Kotah .	·592	—·052	...	NNE	6	10	0·60	Thunderstorm.

The storm had continued to advance in a north-westerly direction, but the movement had been very slow and the centre apparently lay between Khandwa and Indore, where the pressure was 0·249″ below the normal. Strong, squally cyclonic winds continued within the storm area where also moderate to heavy rain had continued to fall.

September 16th.—The following gives 8 A.M. data for the storm area :—

Station.	Pressure.			Wind.		Cloud.	Rainfall.	Remarks.
	8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	Change in past 24 hours.	Departure from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
							Inches	
Indore	29·658	—·129	—·108	SW	9	10	2·92	Continuous rain.
Hoshangabad.	·690	+·119	—·005	SW	10	10	2·15	Do.
Saugor	·624	+·031	—·115	SSW	...	10	0·15	
Nowgong	·582	—·024	—·117	SSE	8	10	...	Gale.
Jhansi	·559	—·062	—·152	SE	11	8	0·08	Showery.
Neemuch	·597	+·021	—·149	NW	8	10	0·13	Do.
Kotah	·548	—·044	...	W	5	10	1·37	Thunderstorm and raining.
Ajmer	·595	—·022	—·135	NE	7	8	0·30	Thunder.
Sambhar	·579	—·046	—·140	NNE	9	8	0·16	Showery.
Jaipur	·568	—·053	—·172	N	8	10	0·84	
Agra	·567	—·056	—·126	SE	6	10	0·22	Do.
Cawnpore	·612	—·025	—·067	ESE	4	4	....	
Mainpuri	·590	—·044	—·096	ESE	3	10	0·21	
Delhi	·607	—·043	—·088	NE	10	10	6·95	Continuous rain.
Meerut	·606	—·057	—·086	E	2	10	3·24	

The storm had travelled north-north-eastward and lay between Kotah and Jhansi. The greatest barometric depression was 0·172″ at Jaipur. The winds exhibited a well-defined indraught towards the depression area and in places were strong to a gale in velocity. Rain had fallen along the West Coast and all over the storm area. The rainfall was heaviest over the south-east Punjab and the west of the United Provinces, where the following large amounts were registered :—

District.	Station.	Rainfall during 24 hours preceding 8 A.M. of 16th.
		Inches.
Gurgaon	Firozpur	8·24
Delhi	Delhi	6·95
Meerut	Hapur duplicate station	6·70
Naini-Tal	Haldwani	6·50
Gurgaon	Punahana	6·19
Meerut	Hapur	6·08
	Mawana	5·42
	Ghaziabad duplicate station	5·42
Gurgaon	Palwal	5·23
Naini Tal	Kashipur	5·15
Meerut	Ghaziabad	5·10

September 17th.—The following gives 8 A.M. data for the storm area :—

Station.	Pressure.			Wind.		Cloud.	Rainfall.	Remarks.
	8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	Change in past 24 hours.	Departure from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
							Inches	
Nowgong	29·647	+·065	—·055	WSW	6	7	0·07	Showery.
Jhansi	·631	+·072	—·072	SW	12	2	0·10	Do.
Cawnpore	·625	+·013	—·064	SSW	6	10	1·70	Do.
Lucknow	·639	—·031	—·056	S	6	10	1·44	Raining.
Mainpuri	·580	—·010	—·108	Calm	2	10	0·38	
Agra	·581	+·014	—·120	W	8	10	0·26	Showery.
Bareilly	·609	—·003	—·083	E	2	10	0·74	
Meerut	·599	—·007	—·097	NE	2	10	4·04	
Roorkee	·678	+·013	—·029	NE	4	10	4·04	Continuous rain.
Delhi	·591	—·016	—·105	Calm	3	10	1·38	Showery.
Ranikhet	...	+·008	—·066	NE	3	10	4·44	Continuous rain.

The storm had continued to move north-north-eastward and was central over the area represented by the stations of Meerut, Delhi, Agra and Mainpuri, where pressure was between ·105″ and ·120″ below the normal. The storm was thus filling up, but the winds in its neighbourhood

remained cyclonic in direction and strong to a gale in velocity. Further heavy rain had been received, more particularly to the north and east of the storm. The following heavy amounts had been recorded over the United Provinces :—

District.	Station.	Rainfall during 24 hours preceding 8 A.M. of 17th.
		Inches.
Bijnor	Nagina	15·50
	Dhampur	10·16
Naini Tal	Naini Tal	8·80
Bijnor	Bijnor	7·75
Naini Tal	Haldwani	7·00
Bijnor	Najibabad	6·56
Almora	Champawat	6·28
Meerut	Mawana	5·16
Muzaffarnagar	Jaolijansath	5·10

September 18th.—The storm had almost filled up, but a small residual depression continued to be shown over the Meerut district. Moderate rain continued to be received in the neighbourhood of the depression.

The following table shows the positions and rate of movement of the storm from the 10th to the 18th of September :—

Date.	Position of centre at 8 A.M.		Distance travelled during interval.	Average hourly rate of motion.
	Lat. N.	Long. E.		
	° ′	° ′	Miles.	Miles.
10th	16 50	87 10		
11th	16 50	86 00	80	3
12th	17 20	82 10	255	11
13th	19 00	80 00	185	8
14th	21 20	76 40	272	11
15th	22 15	76 00	80	3
16th	25 20	76 30	219	9
17th	27 50	78 10	190	8
18th	28 40	78 40	62	3

This storm was of immense economic importance as it traversed the districts over which the rainfall of the season had been uniformly deficient and where the crops, at the time of its appearance, were in a critical condition. The storm gave wide-spread rain and at the same time moved very slowly during the greater part of its course, so that the districts passed over benefited in a marked degree from the disturbance. The heaviest rainfall in most cases occurred on the northern or advancing side of the storm.

Slight depression of the 20th to the 26th.—A shallow low pressure area formed over Lower Bengal and the head of the Bay on the 20th. The depression hovered about this area occasioning moderate to heavy local falls of rain until the 24th, after which date it moved northward into central Bengal and filled up.

Summary of the reports of the weather and Snow-fall in the Mountain districts to the North and North-West of India.

I.—Kashmir and Punjab Himalayas.

(1) *Kashmir :—Gulmarg.* Very light snow fell on the Afferwata mountain on the 2nd and 3rd.

Light snow fell on the mountains surrounding Gulmarg on the 6th.

Further light snow was observed on Afferwata on the 14th.

Light snow fell on the higher mountains surrounding Gulmarg on the 17th and heavy snow on the same mountains on the 19th and again on the 22nd.

(2) *Sonemarg :*—On the morning of the 30th the peaks of the mountains round the observatory were covered with snow.

(3) *Minimarg :*—Snow fell down to about 11,500 feet on the night of 2-3 Sept.

(4) *Simla :—Kilba.* Snow fell on the 16th, the fall descending to 11,000 ft. where it was half an inch in depth. Snow fell again on the 27th down to about the same elevation.

The snow measured as follows on the principal passes at the close of the month :—

Rupan Pass	5 feet.
Bruin do	5 do.
Shatul do	4 do.
Buldar do	5 do.
Runang do	1 do.
Harang do	*Nil.*

The snowfall was heavier than in the corresponding month of the previous year.

II.—UNITED PROVINCES HIMALAYAS.

(1) *Almora :*—The snow fall was as follows :—

		Ft.	Ins.
Malla Johar	West Dhura 16th to 17th	3	0
	Ralam do.	2	0
Byans and Darma		*Nil*	
Malla Danpur	9th and 10th	0	2
	16th to 18th	0	6
	20th to 21st	0	3

The snow fall was confined to the high peaks. The snowline descended to Milam (Johar), where three inches of snow was registered.

The accumulated snow was reported as follows:—

	Ft.	Ins.
Unt Dhura	3	0
Ralam Dhura	2	0
Lipu Pass	6	0
Limpa do.	7	6
Nirwe do.	9	0
Pindari, Kaphini and Kaunela Peaks	0	11

The snowfall this year was about the same as last year.

Summary of Special Storm Reports.

The following reports of storms have been received from the meteorological observers :—

September 2nd.—A severe storm passed over Cherat between 16 hrs. and 17·15 hrs. Light rain fell.

" *6th.*—A gale of wind and light rain occurred at Gulmarg between noon and 18 hrs. Snow fell on the neighbouring mountains.

A thunderstorm came up from west over Pachmarhi at 15 hrs. and lasted about 50 minutes. Rain accompanied the storm.

" *9th.*—A thunderstorm was experienced at Waltair between 8 hrs. and 20 hrs. There was no rain.

" *10th.*—A thunderstorm passed over Pachmarhi from north. The storm commenced at 13 hrs. and lasted twenty minutes.

" *11th.*—A thunderstorm and a severe hurricane prevailed at Dodabetta during the day. The storm was most severe a little after 22 hrs.

" *13th.*—At 19-45 hrs. a heavy storm passed over Hoshangabad from north-east to south-west. It abated in about fifteen minutes.

" *14th.*—A thunderstorm with strong winds and rain passed over Gulmarg between 14 hrs. and 18 hrs. Light snow fell on the higher hills.

September 14th.—A nor'wester with drizzling rain occurred at Srinagar between 16 hrs. and 19 hrs.

" *17th and 18th.*—A slight storm with strong winds and light rain was experienced at Gulmarg between 21 hrs. on the 17th and 1 hr. on the 18th.

" *19th.*—A thunderstorm with light rain passed over Gulmarg between 18 hrs. and 22 hrs. Fresh snow fell on the surrounding hills.

A duststorm with rain passed over Lahore at 2 hrs.

" *21st.*—A nor'wester with rain was experienced at Srinagar between 15 hrs. and 18 hrs. Fresh snow fell on the hills.

" *27th.*—A very severe thunderstorm prevailed at Kalabagh between 15 hrs. and 16 hrs.

A solar corona was observed at Gulmarg on the 14th, 15th, 16th and 18th and a lunar corona on the 18th and 19th A lunar halo appeared at Srinagar at 21 hrs. on the 21st

EARTHQUAKE REPORT.

At Nowgong (Central India) an earthquake occurred at 9-15 hrs. lasting two minutes. No damage was done.

Brief Summary of the weather in the Arabian Sea and Bay of Bengal during the month.

Arabian Sea:—The winds were unusually southerly over the west and centre of the Arabian Sea from the 1st to the 11th, but blew from the normal westerly and west-north-westerly directions along the west coast of the Peninsula. The wind though fresh was more variable than usual between the 12th and the 14th, after which ordinary south-west winds prevailed over the greater part of the sea for two days. Between the 18th and the 26th the wind fell lighter and became more or less variable over the west and centre of the sea though in the east westerly winds continued. On the 27th and 28th north-east winds appeared temporarily in the centre and north of the sea, but they more or less disappeared on the 29th on which day and on the 30th the directions were very variable.

The winds over the Persian Gulf were variable, blowing from north-west in the upper part and from east at the mouth, till the 10th. From the 11th to the 24th the winds were fairly steadily north-westerly but on the 26th, 27th and 28th the direction was south-easterly. On the two last days of the month north-westerly winds re-appeared.

On the mean of the whole month the air movement over the whole of the Arabian Sea averaged 3·3, the normal force

being 3.5. The mean air movement was above the average on the 4th and 5th and from the 11th to the 16th, and was lighter than usual on other days. The air movement was strongest (4·1) on the 4th and 14th and was lightest (2·2) on the 27th.

The following accounts of the weather experienced over the Arabian Sea by the mail steamers have been received:—

The mail steamer *Caledonia* left Aden on the 5th and experienced up to Long. 52·E° light southerly and variable winds and a southerly swell; thence to Long. 69·E° a moderate to gentle monsoon, passing clouds and a moderate sea and swell; thence to arrival at Bombay on the morning of the 10th, light north-westerly and south-westerly winds and occasional passing showers.

The mail steamer *Arcadia* left Aden on the 12th and experienced up to Long. 58°E fresh to light south-easterly winds and moderate southerly swell; thence to Long. 64°E fresh monsoon occasionally blowing strongly and considerable sea and swell; thence to arrival at Bombay on the morning of the 17th, moderate to gentle monsoon and moderate sea and swell.

The mail Steamer *Oriental* left Aden on the 19th and experienced up to Long 52°E. light easterly and south-easterly winds and fine weather; thence to Long 64°E. a moderate to gentle monsoon, passing clouds and moderate sea and swell; thence to arrival at Bombay on the 24th light west-north-westerly and north-easterly winds, passing clouds and fine weather.

Bay of Bengal:—The wind was generally south-westerly throughout the Bay from the 1st to the 3rd. After the latter date storms appeared over the north and north-west of the Bay and the directions were cyclonic in those regions though they remained south-westerly in the south. On the 13th the disturbed conditions disappeared and south-westerly and westerly winds prevailed generally from the 14th to the 25th. After the 25th the force of the wind diminished and the directions were more or less variable till the close of the month.

The air movement, on the mean of the month, over the Bay of Bengal averaged 3·8, the normal being 3·7. So that, as in previous month, the Bay branch of the monsoon was slightly more vigorous than usual. The mean air movement exceeded the normal from the 1st to the 14th and from the 17th to the 23rd, while it was lower than usual on the remaining days. The air movement was strongest (5·0) on the 21st and 22nd and was weakest (2·0) on the 30th.

Equatorial Belt:—South-easterly winds backing on some days towards east and on other days veering towards south, prevailed over the west Equatorial Belt from the 1st to the 20th. Between the 21st and the 25th the directions were variable but on the 26th, 27th and 28th the winds were again south-easterly. On the 29th and 30th variable breezes re-appeared.

Temperature of the Air.

Over the greater part of the country the mean temperature conditions departed by only small amounts from the normal. The principal abnormal departures were the excess of temperature over Gujarat and over the Carnatic and its deficiency over part of central Burma.

The mean maximum or day temperature was in defect of the normal over (1) the greater part of the West Coast and west Ceylon, (2) over Burma and upper Assam (3) over the east and centre of the Central Provinces, the east of Central India, the greater part of the United Provinces, and the east of the Punjab, and (4) over the west Punjab and part of the North-west Frontier Province. The departures in these areas were generally slight or small and exceeded 1°·5 only at the stations for which comparative data are given below:—

Provinces or Division.	Station.	Mean maximum temperature.		
		Actual, September 1904.	Normal, September.	Departure from normal, September 1904.
		°	°	°
Burma	Yamethin	88·3	91·7	—3·4
	Mandalay	91·0	92·8	—1·8
East of Central India	Nowgong	88·3	90·4	—2·1
United Provinces	Cawnpore	90·4	92·4	—2·0
East Punjab	Ludhiana	92·9	94·9	—2·0
	Sirsa	97·1	98·9	—1·8
	Delhi	91·3	93·0	—1·7
North-West Frontier Province	Peshawar	94·3	96·0	—1·7

Over the whole of the remainder of the Indian land area the mean maximum temperature of the month was higher than usual. The excess was considerable to large in two areas, viz.; (1) the Carnatic and (2) the western desert and Gujarat. The departures amounted to more than +2°·0 at the following places:—

Area.	Station.	Mean maximum temperature.		
		Actual, September 1904.	Normal September.	Departure from normal, September 1904.
		°	°	°
Carnatic	Cuddapah	97·5	92·5	+5·0
	Cuddalore	95·5	91·9	+4·6
	Nellore	99·1	94·6	+4·5
	Cocanada	93·0	89·2	+3·8
	Madras	96·0	93·0	+3·0
	Masulipatam	3·0	90·7	+2·3
Western Desert and Gujarat	Deesa	100·2	92·8	+7·4
	Ahmedabad	97·2	92·1	+5·1
	Rajkot	96·0	91·4	+4·6
	Pachpadra	100·8	97·2	+3·6
	Hyderabad (Sind)	100·7	97·5	+3·2
	Multan	103·0	100·3	+2·7
	Jacobabad	106·1	103·5	+2·6
	Bhavnagar	95·8	93·1	+2·7
	Malegaon	90·3	87·9	+2·4
	Neemuch	90·3	87·9	+2·4
	Indore	87·5	85·4	+2·1

The excess was moderate along the foot of the eastern Himalayas and amounted to +2° or more at the following stations :—

STATION.	MEAN MAXIMUM TEMPERATURE.		
	Actual, September 1904.	Normal, September.	Departure from normal, September 1904.
	°	°	°
Gorakhpur	93·2	90·5	+2·7
Darbhanga	90·5	88·3	+2·2
Dinajpur	90·2	88·2	+2·0
Dhubri	87·1	85·1	+2·0
Mymensingh	89·1	87·1	+2·0

Elsewhere the departures were inconsiderable and generally less than +1°·0.

The following table gives the highest maximum temperature recorded in each division or province of India during the month with the date and station together with the highest temperatures previously recorded at these stations during September :—

PROVINCE OR DIVISION.	STATION.	Highest maximum temperature recorded in September 1904.	Date on which recorded.	Highest maximum temperature recorded in September previous to 1904.	Year in which recorded.
		°		°	
Burma	Mandalay	95·5	15th	102·0	1892
Assam	Silchar	98·6	13th	101·3	1887
Bengal	Jessore	99·0	5th	97·6	1878
Orissa	False Point	94·5	29th	95·0	1901
Bihar	Gaya	94·4	30th	100·7	1877
Chota Nagpur	Purulia	95·0	16th	96·6	1901
United Provinces	Gorakhpur	99·1	11th	104·4	1877
Punjab	Multan	109·4	12th	111·4	1898
N. W. F. Province	D. I. Khan	107·2	12th	110·5	1883
Sind	Jacobabad	112·2	13th	115·3	1877
Rajputana	Pachpadra	107·5	11th	110·8	1887
Gujarat	Ahmedabad	102·3	28th	105·3	1896 and 1901.
Central India	Neemuch	97·0	11th	101·0	1899
Central Provinces	Chanda	95·2	29th	98·7	1899
Berar	Akola	94·9	30th	104·2	1899
West Coast	Cochin	88·3	4 days	91·0	1900
Bombay Deccan	Sholapur	97·2	4th	98·7	1899
Mysore	Chitaldroog	90·1	30th	91·1	1901
Madras Coast	Nellore	102·8	22nd	106·4	1899
Madras Deccan	Cuddapah	102·2	18th	103·2	1899
South India	Tinnevelly	101·4	2nd	103·4	1899

The above data show that in Bengal the highest temperature recorded *viz.*, 99°·0 at Jessore was higher than the previously recorded temperatures in September, but that in all other divisions higher temperatures than those registered in 1904 had been recorded in previous years.

The mean maximum temperature of the month was lower than usual at all the north-western hill stations. At the following places the deficiency exceeded 2°·0 :—

HILL STATION.	MEAN MAXIMUM TEMPERATURE.		
	Actual, Sept. 1904.	Normal, Sept.	Departure from normal, Sept. 1904.
	°	°	°
Leh	66·4	70·3	—3·9
Kailang	65·9	69·3	—3
Gilgit	83·8	86·7	—2·9
Murree	71·5	73·8	—2·3
Chaman	89·1	91·6	—2·5

At the eastern, central and southern hill stations, on the contrary, the mean maximum temperature was in some excess. The following gives data :—

HILL STATION.	MEAN MAXIMUM TEMPERATURE		
	Actual Sept, 1904.	Normal Sept.	Departure from normal, Sept. 1904.
	°	°	°
Darjeeling	66·0	64·1	+1·9
Mount Abu	78·2	75·3	+2·9
Pachmarhi	77·3	77·2	+0·1
Wellington	71·5	71·3	+0·2

The distribution of the departures of the mean minimum temperature from the normal was irregular. There was some excess across the centre and over the south-east of the Peninsula, Ceylon, on the south Burma coast, over parts of Assam and Bengal, over parts of the Punjab and over parts of Rajputana and of Gujarat. The departures in these areas were generally small and exceeded +1°·5 only at the two following stations.

STATION.	MEAN MINIMUM TEMPERATURE.		
	Actual, Sept. 1904	Normal, Sept.	Departure from normal Sept. 1904.
	°	°	°
Ajmer	76·3	73·6	+2·7
Lahore	74·3	72·6	+1·7

Elsewhere the mean minimum temperature was lower

than usual and at some stations in the Central Provinces, in central Burma and at the foot of the Kumaun Himalayas the deficiency was considerable. The following gives comparative data of those stations where the departures exceeded —2°·0 :—

Province or Division.	Station.	Mean minimum temperature. Actual, Sept. 1904.	Normal, Sept.	Departure from normal, Sept. 1904.
		°	°	°
Central Provinces.	Chanda	71·6	74·5	—2·9
	Jubbulpore	70·4	72·8	—2·4
	Seoni	68·4	70·6	—2·2
Central Burma	Thayetmyo	72·4	76·0	—3·6
	Toungoo	73·2	75·6	—2·4
Foot of Kumaun Himalayas.	Dehra Dun	67·3	70·0	—2·7

At all the hill stations except Mount Abu the minimum temperature, on the mean of the month, was lower than usual. This is shown below :—

Hill Station.	Mean minimum temperature. Actual, Sept. 1904.	Normal, Sept.	Departure from normal, Sept. 1904.
	°	°	°
Quetta	45·4	49·5	—4·1
Chaman	59·8	62·3	—2·5
Kailang	38·4	42·1	—3·7
Murree	55·3	58·8	—3·5
Gilgit	61·6	64·5	—2·9
Srinagar	50·9	53·0	—2·1
Chakrata	55·0	57·0	—2·0
Leh	39·8	41·5	—1·7
Ranikhet	58·9	60·0	—1·1
Simla	55·7	56·4	—0·7
Cherat	65·6	65·9	—0·3
Darjeeling	55·0	45·5	—0·5
Pachmarhi	64·6	66·3	—1·7
Mount Abu	65·1	64·6	+0·5
Wellington	54·7	55·8	—1·1

The mean temperature of the month was lower than usual over the North-west Frontier Province, over the east Punjab, the Gangetic Plain and the east of the central districts, over the Malabar coast and over the greater part of Burma and upper Assam. Elsewhere it was higher than usual, though except over the Carnatic and over Gujarat and Rajputana the departures were generally moderate or small. This is shown below :—

Mean temperature. Positive departures. Station.	Departure from normal.	Negative departures. Station.	Departure from normal.
	°		°
Deesa	+4·3	Thayetmyo	—2·2
Pachpadra	+2·5	Yamethin	—2·1
Ahmedabad	+2·4	Nowgong	—1·9
Ajmer	+2·3	Chanda	—1·7
Cuddapah	+3·2	Cawnpore	—1·5
Cuddalore	+3·0	Lucknow	—1·5
Nellore	+2·1	Delhi	—1·5
Cocanada	+2·0	Roorkee	—1·5
Madras	+1·7		

At all the hill stations with the exception of Darjeeling and Mount Abu, the mean temperature of the month was below the normal and in the north-west the departures ranged between —0°·5 and —3°·6.

The following table gives mean temperature data for the month for the 57 meteorological divisions of the empire :—

Province.	Division.	Actual temperature. Mean maximum.	Mean minimum.	Monthly mean of mean between maximum and minimum.	Mean daily range.	Absolute range.	Departures from normal of month of Maximum.	Minimum.	Daily range.
		°	°	°	°	°	°	°	°
Burma	Tenasserim	83·1	74·0	78·6	9·2	16·0	—1·2	+0·3	— 1·5
	Lower Burma (Deltaic)	84·6	76·2	80·5	8·4	13·6	—0·7	+0·4	— 1·1
	Central do.	89·3	72·8	81·0	16·4	23·4	—0·7	—3·6	+ 2·9
	Upper do.	89·6	75·5	82·6	14·2	22·0	—1·9	—0·3	— 1·6
	Arakan	86·0	77·6	81·8	8·4	13·7	—0·6	—0·4	— 0·2

Province.	Division.	Actual temperature.					Departure from normal of month of		
		Mean maximum.	Mean minimum.	Monthly mean of mean between maximum and minimum.	Mean daily range.	Absolute range.	Maximum.	Minimum.	Daily range.
		°	°	°	°	°	°	°	°
Bengal and Assam.	Eastern Bengal	88·5	77·4	83·0	11·1	18·3	+0·9	−0·2	+ 1·1
	Assam (Surma)	91·1	76·1	83·6	15·0	26·3	+1·3	−0·3	+ 1·6
	Do. (Hills)	75·1	62·7	68·9	12·4	20·7	...	...	...
	Do. (Brahmaputra)	88·2	75·6	81·9	12·7	20·4	+0·5	−0·2	+ 0·7
	Deltaic Bengal	89·5	78·3	83·9	11·1	19·0	+0·8	−0·2	+ 1·0
	Central do.	90·0	78·0	84·0	12·1	19·6	+1·0	+0·3	+ 0·7
	North do.	89·2	77·2	83·2	12·0	20·0	+1·7	+0·4	+ 1·3
	Bengal Hills	63·0	50·5	56·8	12·5	22·6	+1·9	−0·5	+ 2·4
	Orissa	89·2	77·8	83·5	11·5	19·3	+0·5	−0·7	+ 1·2
	Chota Nagpur	87·4	73·0	80·2	14·4	23·2	+0·4	−0·8	+ 1·2
	South Bihar	89·9	76·8	83·4	13·1	21·4	+0·8	−1·0	+ 1·8
	North do.	90·8	77·5	84·2	13·3	20·7	+1·7	−0·7	+ 2·4
United Provinces of Agra and Oudh.	United Provinces (East)	91·6	75·9	83·8	15·7	25·7	+0·4	−1·3	+ 1·7
	Oudh (South)	90·7	74·9	82·8	15·8	26·5	−1·4	−1·6	+ 0·2
	Do. (North)	92·0	75·5	83·8	16·5	29·1	+1·0	+0·7	+ 0·3
	United Provinces (Central)	91·4	74·9	83·2	16·4	26·8	−1·0	−1·2	+ 0·2
	Do. do. (West)	91·8	74·6	83·3	17·2	27·5	−0·7	−1·1	+ 0·4
	Do. do. (East Submontane).	93·2	77·2	85·2	16·0	27·6	+2·7	−0·5	+ 3·2
	Do. do. (West Submontane)	88·3	71·0	79·7	17·4	27·6	−0·4	−2·1	+ 1·7
	Do. do. (Hills)	69·2	56·1	62·7	13·1	22·4	−0·5	−1·6	+ 1·1
Punjab	Punjab (South-East)	91·3	75·8	83·6	15·5	26·4	−1·7	−1·2	− 0·5
	Do. (South)	95·0	74·3	84·7	20·7	34·4	−1·8	−0·2	− 1·6
	Do. (Central)	99·1	74·3	86·7	24·8	37·7	+0·2	+1·7	− 1·5
	Do. (Submontane)	95·2	73·0	84·1	22·2	36·5	+0·4	+0·5	− 0·1
	Do. (Hills)	70·9	48·4	59·7	22·5	39·0	−2·3	−2·4	+ 0·1
	Do. (West)	101·7	76·3	89·0	25·4	39·6	+1·1	−0·2	+ 1·3
N.-W. F. Province	North-west Frontier Province	97·6	71·7	84·7	25·9	39·6	−0·7	−0·8	+ 0·1
Bombay and Malabar Coast Districts (Madras).	Malabar	83·7	74·4	79·0	9·3	14·1	−0·1	−0·2	+ 0·1
	Madras (South Central)	91·4	71·9	81·6	19·5	25·0	+0·9	+0·6	+ 0·3
	Coorg	71·0	60·8	66·0	10·2	19·9	−1·2	−1·1	− 0·1
	Mysore	84·2	65·6	74·9	18·6	25·5	+1·2	−0·3	+ 1·5
	Konkan	83·3	76·0	79·7	7·3	12·4	−0·2	+1·0	− 1·2
	Bombay Deccan	84·8	68·6	76·7	16·3	27·3	+0·4	+0·1	+ 0·3
	Hyderabad (North)	86·4	69·4	77·9	17·0	26·5	...	...	...
	Khandesh	88·7	68·3	78·5	20·4	31·4	+2·1	−0·9	+ 3·0
Central Provinces and Berar.	Berar	88·9	71·5	80·2	17·5	29·9	+0·2	−1·0	+ 1·2
	Central Provinces (West)	89·5	71·8	80·7	17·7	30·1	+0·8	−1·8	+ 2·6
	Do. do. (Central)	86·7	70·1	78·4	16·6	27·5	−0·5	−2·3	+ 1·8
	Do. do. (East)	87·0	73·3	80·2	13·8	22·1	−0·5	−1·2	+ 0·7
Bombay (North)	Gujarat	93·5	75·7	84·6	17·9	28·7	+3·2	−0·2	+ 3·4
	Kathiawar and Cutch	90·6	74·3	82·4	16·4	24·5	+2·9	−0·9	+ 3·8
	Sind	98·7	75·7	87·2	23·0	35·2	+2·1	−0·7	+ 2·8
	Baluchistan Hills	86·4	50·1	68·3	36·4	51·6	−1·9	−3·3	+ 1·4
Rajputana and Central India.	Central India (East)	88·5	71·6	80·1	16·8	28·4	+0·5	−1·0	+ 1·5
	Rajputana (East), Central India (West)	94·2	74·1	84·2	20·0	32·0	+2·4	+0·1	+ 2·3
	Do. (West)	99·6	77·3	88·4	22·3	34·7	+2·4	+0·6	+ 1·8
Madras	East Coast (North)	90·2	77·5	83·9	12·8	22·3	+2·2	−0·6	+ 2·8
	Hyderabad (South)	88·0	72·2	80·1	15·9	26·5	+0·4	+0·4	0
	Madras (Central)	93·6	74·5	84·1	19·1	28·3	+2·9	+0·7	+ 2·2
	East Coast (Central)	96·1	77·3	86·7	18·8	29·4	+3·4	−0·3	+ 3·7
	Do. (South)	95·5	76·7	86·1	18·7	27·1	+2·6	+0·7	+ 1·9
	Madras (South)	94·2	74·8	84·1	19·4	26·2	+1·4	+0·1	+ 1·3

The mean maximum temperature of the month averaged over 100° in the West Punjab (101°·7), over 99° in the Central Punjab and West Rajputana and over 95° in the Submontane Punjab, the North-west Frontier Province, Sind and the central and south divisions of the East Coast. The mean temperature of the month was highest (89°0)

over the West Punjab and lowest (on the plains) over the Bombay Deccan (76°·7). The mean daily range of temperature was very generally greater than usual.

The chief features of the mean temperature conditions of the month were as follows:—

(1) Largely excessive temperature by day and slightly excessive temperatures by night over Gujarat and neighbouring districts.

(2) Excessive temperature, both by day and night, over the Deccan and Madras.

(3) Slightly excessive temperature by day and normal temperature by night over north-east India.

(4) Deficient temperature, both by day and night, over Burma and the central parts of India.

(5) Large daily range of temperature over a considerable part of the Indian area.

The following gives a brief summary of the chief temperature changes during the month under review:—

Between the 1st and the 4th the weather was quiet over the Indian area. South-westerly and westerly winds prevailed very generally and, except over Burma and north-east India, the greater part of the country was rainless. The mean temperature was, on the whole, higher than usual—more particularly over the Submontane Punjab, Gujarat, Khandesh, the Deccan and the Madras Coast. The excess in these areas was mainly attributable to high day temperatures which were more than 7°·0 above the normal at the following places on the following dates:—

Date.	Station.	Maximum temperature.		
		Actual of date.	Normal of date.	Departure from normal of date.
		°	°	°
1st September	Cuddapah	101·7	93·1	+8·6
	Raichur	96·1	88·5	+7·6
	Cocanada	96·6	89·1	+7·5
	Ahmedabad	97·1	90·0	+7·1
2nd ,,	Cocanada	97·6	89·1	+8·5
	Khandwa	94·2	86·1	+8·1
	Cuddapah	100·7	93·1	+7·6
	Deesa	97·6	90·4	+7·2
	Madras	100·0	92·9	+7·1
3rd ,,	Khandwa	94·7	86·3	+8·4
	Cocanada	97·1	89·1	+8·0
	Hyderabad (Sind)	103·6	96·5	+7·1
	Sholapur	96·2	89·1	+7·1
4th ,,	Cocanada	97·6	89·1	+8·5
	Sholapur	97·2	88·9	+8·3
	Cuddapah	101·2	93·0	+8·2
	Khandwa	94·7	86·5	+8·2
	Masulipatam	98·2	90·7	+7·5
	Ambala	100·0	92·6	+7·4
	Malegaon	94·9	87·5	+7·4

Between the 2nd and 3rd local showers occurred over parts of the north-west Himalayas and the Punjab and subsequently a brisk fall of temperature occurred on the hills and plains of the north-west. The following gives data for the 2nd, 3rd and 4th:—

Area.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of		
	2nd Sept.	3rd Sept.	4th Sept.
West Himalayas	+0·5	+0·2	—2·6
Further Kashmir	—3·5	—4·3	—11·5
Baluchistan	— 2·3	—4·3	—7·1
N.-W. F. Province	+1·1	—0·4	—2·1

Between the 5th and the 10th the temperature conditions over India were largely controlled and modified by the rainfall which accompanied a shallow depression which passed from the head of the Bay westward into the Central Provinces. Lower temperatures than usual appeared over Burma and around the head of the Bay on the 5th, thence they extended to the north-east of the Peninsula on the 6th, to north-east India and the east of the Peninsula on the 7th, and to the Central Provinces and Gangetic Plain on the 8th, 9th and 10th. The following gives comparative data for each day from the 5th to the 10th and shows the extension of the low temperature area:—

Province or division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of					
	5th September.	6th September.	7th September.	8th September	9th September.	10th September.
	°	°	°	°	°	°
Burma	—1·6	—0·7	—0·3	—0·9	—1·3	—1·9
Assam	+0·7	—0·2	+0·4	—1·6	—0·9	+2·4
Bengal	—0·3	—2·3	—0·9	—0·5	+0·4	+1·2
Orissa	—2·9	—4·2	—2·1	—1·3	—0·7	—1·9
Bihar	+0·7	—1·4	—2·2	—2·4	—0·5	+0·9
Chota Nagpur	+1·8	—1·7	—3·3	—3·1	—2·3	—1·0
United Provinces of Agra and Oudh.	+1·9	+1·9	+0·4	—0·4	—0·2	—0·4
Central Provinces	+1·4	+0·8	—0·5	—3·0	—2·0	—0·3
Madras Coast	+2·6	+0·9	—1·6	+0·8	+2·0	+2·0

The rainfall principally affected the day or maximum

temperature which was more than 6° below the average at the following places on the following days:—

Date.	Station.	Maximum temperature.		
		Actual of date.	Normal of date.	Departure from normal of date.
		°	°	°
5th September	Mandalay	86·0	93·4	— 7·4
6th "	Cuttack	82·3	90·2	— 7·9
	False Point	80·4	87·9	— 7·5
	Burdwan	82·3	89·8	— 7·5
	Bogra	82·3	88·8	— 6·5
7th "	Gaya	80·4	91·0	—10·6
	Masulipatam	81·0	90·6	— 9·6
	Chanda	79·6	88·4	— 8·8
	Jessore	83·1	89·4	— 6·3
	Ranchi	78·6	84·8	— 6·2
8th "	Chanda	76·6	88·5	—11·9
	Gaya	82·4	91·1	— 8·7
	Nagpur	81·1	88·6	— 7·5
	Raipur	80·6	87·7	— 7·1
	Chaibassa	83·4	90·4	— 7·0
	Sibsagar	8·23	88·4	— 6·1
	Pachmarhi	70·1	76·2	— 6·1
9th "	Chanda	80·1	88·5	— 8·4
	Jubbulpore	78·9	86·7	— 7·8
	Sibsagar	81·3	88·4	— 7·1
	Rangoon	79·1	85·6	— 6·5
10th "	Tavoy	76·7	83·5	— 6·8
	Cuttack	83·3	90·1	— 6·8
	Diamond Island	78·3	84·9	— 6·6
	Toungoo	82·3	88·8	— 6·5

Over the remainder of the country the mean temperature remained excessive. The following gives data:—

Province or division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of					
	5th September.	6th September.	7th September.	8th September.	9th September.	10th September.
	°	°	°	°	°	°
Punjab	+2·3	+2·4	+2·3	+1·5	+2·4	+3·3
North-west Frontier Province.	—1·1	+0·7	—0·4	—1·0	+0·5	+0·3
Sind	+0·1	—0·8	—0·5	+1·1	+0·2	+0·7
Rajputana	+1·0	+1·1	+2·4	+3·0	+4·6	+4·6
Gujarat	+1·0	+1·2	+1·9	+1·1	+2·0	+2·4
Central India	+1·4	+1·8	+1·8	—0·8	+0·1	+1·7
Berar	+3·5	+3·2	+0·5	+0·2	—2·9	—2·0
West Coast	+1·7	+1·3	+0·8	—0·3	+0·2	+0·6
Bombay Deccan	+2·1	+1·2	+1·9	+1·0	+2·2	+2·0
Mysore	+1·4	—0·2	—0·7	—1·3	+0·3	+0·4
Madras Deccan	+4·4	+2·4	—0·5	+2·4	+3·0	+2·4
South India	+0·8	+0·1	+0·8	+0·4	—0·1	+1·0

The above shows that the mean temperature remained fairly steadily above the average in these divisions though it was not altogether unaffected by the changes taking place in the north-east and east.

On the 9th and 10th the day temperatures were very excessive in eastern Gujarat. The following gives data for Deesa:—

Date.	Station.	Maximum temperature.		
		Actual of date.	Normal of date.	Departure from normal of date.
		°	°	°
9th September	Deesa	101·6	91·3	+10·3
10th Do.	Do.	103·6	91·5	+12·1

Between the 11th and the 19th the weather was influenced by another depression which passed slowly from the Bay through the Deccan and the central parts of the country into north-west India. Heavy rain occurred over the track of the storm and light to moderate rain in most other parts of the country. On the 11th and 13th a large area of relatively low temperature covered the north-east and centre of the Peninsula, while temperature was very high over north-west India and the south of the Peninsula. On the 13th and 14th there was not much change in the conditions over the Peninsula, but showers had occurred over the Punjab and the north-west Himalayas occasioning a sudden large fall of temperature to considerably below the normal. On the 15th the storm and the heaviest rainfall were reported from the west of the Central Provinces and the mean temperature was very low over that

neighbourhood as well as over the Punjab. On the 16th there was no important change as regards the Punjab low temperature area, but the storm and the low temperature area in the Central Provinces had moved northward into Central India. The reports of the 17th showed that the storm and accompanying rainfall had continued to move northward, and that the two low temperature areas had coalesced and covered the Central Provinces, Central India, the Gangetic Plain and the greater part of the Punjab. During the next two days comparatively little change occurred. The following gives comparative data of all divisions for each alternate day from the 11th to the 19th :—

Province or Division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of				
	11th September.	13th September.	15th September.	17th September.	19th September.
	°	°	°	°	°
Burma	—0·7	—0·4	—0·8	+0·3	—1·7
Assam	+2·4	+2·2	+3·5	—0·1	+2·1
Bengal	+0·2	+1·0	+2·0	+1·3	+2·6
Orissa	−2·2	—2·9	—0·6	+2·1	+3·1
Bihar	+0·6	—0·4	+2·1	—1·9	+1·2
Chota Nagpur	—1·5	—2·8	—0·1	—0·5	+2·1
United Provinces of Agra and Oudh.	—1·7	+0·6	+1·1	—5·0	—3·5
Punjab	+4·5	—4·8	—1·1	—2·7	—1·7
North-west Frontier Province	+0·7	—0·3	—0·7	—0·3	—2·6
Sind	—0·2	+4·0	+3·8	+2·8	+0·5
Rajputana	+5·2	+2·3	+1·5	−3·6	+0·9
Gujarat	+2·7	+2·8	+0·7	+1·1	—0·6
Central India	+3·2	+3·1	—0·7	—4·4	—2·1
Central Provinces	—0·3	—0·7	—3·0	—3·7	—0·3
Berar	+0·6	+1·3	—6·4	—2·4	—0·5
West Coast	+0·3	—1·6	—1·1	—0·6	—0·1
Bombay Deccan	+0·4	—1·5	—5·3	—1·3	+2·3
Mysore	+1·0	—1·8	0	+0·9	+2·4
Madras Coast	+0·9	+0·4	+2·0	+3·0	+2·8
Madras Deccan	—1·5	—4·8	—2·9	+1·3	+2·2
South India	+1·7	+1·0	+0·4	+1·2	0

The preceding data show (1) that the mean temperature was steadily excessive during this period over Sind, Gujarat, Rajputana, the Madras Coast, South India, Assam and Bengal (2) the extension of the area of low temperature northward with the extension of rain and (3) the sudden fall of temperature in the north-west on the 13th.

During this time the departures of temperature from the normal were large and important in the case of the day or maximum temperature. During the first four days the maxima were largely above the normal, while throughout the whole period the maxima were very low within the rainfall areas. This is shown below :—

Maximum temperature.

Positive departures.			Negative departures.		
Date.	Station.	Departure from normal.	Date.	Station.	Departure from normal.
		°			°
11th September.	Deesa	+13·4	15th September.	Ludhiana	—16·7
	Indore	+11·1		Malegaon	—13·4
12th "	Deesa	+12·7	16th "	Sirsa	—17·7
	Ahmedabad	+9·5		Seoni	—12·7
	Multan	+9·0		Khandwa	—12·0
13th "	Deesa	+13·5		Ludhiana	—11·7
	Indore	+8·9	17th "	Delhi	—19·0
	Jacobabad	+8·3		Roorkee	—16·5
14th "	Deesa	+10·8		Meerut	—15·4
	Ahmedabad	+9·9		Agra	—15·0
	Cuddalore	+7·2		Saugor	—14·4
			18th "	Delhi	—18·0
				Meerut	—16·0
				Sirsa	—15·7
			19th "	Meerut	—14·0
				Delhi	—12·1

Between the 20th and the 26th the weather was generally quiet over the Indian area. A feeble depression occasioning some rain and a slight fall of temperature passed from the head of the Bay into Bengal and showers in the extreme north-west brought about a sudden decrease of temperature in that region, but, on the whole, the period was one of quiet weather and of small departures of temperature from the normal. The following gives data of all divisions for each alternate day during the period :—

Province or Division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of			
	20th September.	22nd September.	24th September.	26th September.
	°	°	°	°
Burma	—1·8	—2·0	—1·2	+0·7
Assam	—0·2	—2·5	—1·3	—0·5
Bengal	+2·1	+0·1	—1·8	—0·3
Orissa	+2·8	+2·1	+1·4	+1·7
Bihar	+1·4	—1·0	+0·6	—2·2
Chota Nagpur	+2·5	—0·1	—0·3	0
United Provinces of Agra & Oudh	—1·7	—1·5	—1·0	—1·9
Punjab	—0·2	—0·5	—3·7	—1·2
North-west Frontier Province	—2·1	—1·8	—3·7	—2·4

Province or division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of			
	20th September.	22nd September.	24th September.	26th September.
	°	°	°	°
Sind	+0·7	+0·8	−1·3	−2·1
Rajputana	+2·1	+0·6	−1·2	−0·4
Gujarat	−0·5	−0·1	−1·7	−0·4
Central India	−1·1	−1·2	−2·0	−0·9
Central Provinces	−0·5	−1·1	−1·7	−1·5
Berar	+1·4	−1·5	−1·3	−1·1
West Coast	+0·5	−0·2	−0·1	+0·3
Bombay Deccan	+2·8	+1·7	−1·3	+1·2
Mysore	+2·3	−0·3	−1·8	+1·0
Madras Coast	+1·3	+1·7	+1·4	+0·4
Madras Deccan	+1·4	+1·6	+0·3	+2·8
South India	+0·6	−1·3	−0·6	−0·7

From the 27th to the end of the month the weather was showery over Burma and the mean temperature of that province was below the normal. This is shown below:—

Province.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of			
	27th September.	28th September.	29th September.	30th September.
	°	°	°	°
Burma	+0·7	−1·6	−1·5	−0·4

Over India hardly any rain fell and the mean temperature generally exceeded the average, except over the Central Provinces and the Gangetic Plain where it was in slight to moderate defect.

The following gives temperature data for the extra-Indian stations:—

Station.	Mean Temperature.		
	Actual, September 1904.	Normal, September.	Departure from normal, September 1904.
	°	°	°
Trincomalee	84·8	83·9	+0·9
Colombo	81·5	81·6	−0·1
Amini Divi	81·5	81·1	+0·4
Kabul	66·4	69·2	−2·8
Kashgar	69·7	69·3	+0·4
Teheran	76·4	77·9	−1·5
Ispahan	71·3	72·7	−1·4
Bushire	84·6	86·7	−2·1
Jask	87·5	87·2	+0·3
Muscat	86·4	85·3	+1·1
Baghdad	87·4	87·0	+0·4
Aden	88·6	87·9	+0·7
Perim	89·7	89·0	+0·7
Zanzibar	77·5	77·7	−0·2
Mauritius	67·7	69·6	−1·9
Seychelles	76·0	79·0	−3·0

The mean temperature of the month exceeded the normal at Muscat and was lower than usual at Kabul, Teheran, Ispahan, Bushire, Mauritius and the Seychelles while at the remaining stations the departures from the average were small.

Winds.

The wind's direction, on the mean of the month, was more westerly than usual at the Bay Islands and along the Burma coast except at Rangoon. The following gives data:—

Station.	Mean wind direction.		
	Actual, September 1904.	Normal, September.	Westerly deflection.
	°	°	
Port Blair	S 70 W	S 54 W	+16
Cocos Island	S 53 W	S 42 W	+11
Rangoon	S 11 W	S 24 W	−13
Diamond Island	S 81 W	S 45 W	+36
Akyab	S 8 W	S 3 E	+11

The winds were also more steady than usual in this area, but the velocity except at Port Blair was everywhere below the average.

Increased westing in the wind's direction was as noticeable at the head of the Bay as on the Burma coast, but the increased steadiness was less marked and the velocity, as in the preceding region, was generally below the normal. The following gives comparative data for the stations around the head of the Bay:—

Station.	Mean steadiness.			Mean wind direction.			Mean wind velocity in miles per diem.		
	Actual percentage, September 1904.	Normal percentage, September.	Departure from normal, September 1904.	Actual, September 1904.	Normal, September.	Westerly deflection.	Actual, September 1904.	Normal, September.	Departure from normal, September 1904.
				°	°				
Chittagong	37	37	0	S 20 W	S 21 E	+41	93	106	−13
Calcutta	17	46	−29	S 30 W	S 9 W	+21	61	98	−37
Saugor Island	23	48	−25	S 41 W	S 3 W	+38	253	264	−11
False Point	42	36	+ 6	S 54 W	S 18 W	+36	194	204	−10

In Chota Nagpur and the lower Gangetic Plain the wind, on the mean of the month, was unusually westerly and unusually steady.

In the upper Sub-Himalayas the wind was very irregular in direction and was generally light and unsteady.

In the Indus valley, on the other hand, the wind's direction was approximately normal. In the lower part of the valley the steadiness exceeded the average and at Jacobabad the velocity was higher than usual. The following gives data for this region :—

Station.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, September 1904.	Normal percentage, September.	Departure from normal, Sep. 1904.	Actual, Sep. 1904.	Normal, September.	Actual, Sep. 1904.	Normal, September.	Departure from normal, Sept. 1904.
				°	°			
Peshawar . .	33	49	—16	N 38 E	N 36 E	22	67	—45
Jacobabad . .	59	44	+15	S 23 E	S 33 E	97	70	+27
Kurrachee . .	93	87	+ 6	S 79 W	S 66 W	305	350	—45

The wind blew from west-south-west over Gujarat and south Rajputana and from west-north-west at Jaipur. The directions were generally approximately normal while both the steadiness and the velocity exceeded the average. This is shown below :—

Station.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage Sep. 1904.	Normal percentage September.	Departure from normal, Sep. 1904.	Actual, Sep. 1904.	Normal, September.	Actual, Sep. 1904.	Normal, Sep. 1904.	Departure from normal, Sep. 1904.
				°	°			
Jaipur . .	47	43	+ 4	N 71 W	N 42 W	104	101	+ 3
Deesa . . .	74	53	+21	S 66 W	S 72 W	248	193	+49

The following gives comparative data of the mean air movement and steadiness over northern India, Burma and the Bay Islands for the month under review :—

Province or Division.	Mean steadiness.			Mean wind velocity in miles per diem.		
	Actual percentage, Sep. 1904.	Normal percentage, Sep.	Departure from normal, Sep. 1904.	Actual, Sep. 1904.	Normal, Sep.	Departure from normal, Sep. 1904.
Bay Islands . . .	84	71	+13	365	228	+137
Burma . . .	67	49	+18	88	115	— 27
Bengal . . .	26	44	—18	136	156	— 20
Chota Nagpur . .	27	8	+19	178	178	0
Orissa . . .	42	36	+ 6	194	204	— 10
United Provinces of Agra and Oudh.	21	15	+ 6	51	64	— 13
Punjab . . .	38	36	+ 2	42	42	0
North-West Frontier Province.	33	49	—16	22	67	— 45
Rajputana . . .	61	48	+13	176	150	+ 26
Sind	76	66	+10	201	210	— 9

The preceding data show that except over Bengal and the North-west Frontier Province, the wind was generally steadier than usual, but that, except at the Bay Islands and in Rajputana, the velocity was generally low.

Over the Deccan the wind was more northerly than usual at the majority of stations and the steadiness and velocity were both in fairly general excess. At Sholapur the velocity was largely above the normal. The following gives data for the stations in this division :—

Station.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, Sep. 1904.	Normal percentage, September.	Departure from normal, Sep. 1904.	Actual Sep. 1904.	Normal Sep. 1904.	Actual Sep. 1904.	Normal, Sep.	Departure from normal, Sep. 1904.
				°	°			
Belgaum . .	70	74	— 4	N 88 W	S 78 W	315	377	— 62
Sholapur . .	63	65	— 2	N 62 W	N 69 W	319	202	+117
Akola . . .	81	68	+13	N 49 W	N 60 W	173	156	+ 17
Buldana . .	78	64	+14	N 69 W	N 48 W	223	194	+ 29
Khandwa . .	73	67	+ 6	N 46 W	N 63 W	161	154	+ 7
Nagpur . .	53	36	+17	N 39 W	N 52 W	141	127	+ 14
Hyderabad (Deccan)	77	53	+24	N 83 W	N 75 W	150	134	+ 16

Along the West Coast, as in the Deccan, the wind was

more northerly and stronger and steadier than usual. This is shown below :—

STATION.	MEAN STEADINESS.			MEAN WIND DIRECTION.			MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, September 1904.	Normal percentage, September.	Departure from normal, Sep. 1904.	Actual, Sep. 1904.	Normal, Sep.	Northerly Deflection.	Actual, Sep. 1904.	Normal, Sep.	Departure from normal, Sep. 1904.
				°	°				
Bombay . .	59	52	+ 7	N78W	N84W	+ 6	260	259	+ 1
Karwar . .	81	77	+ 4	N67W	N78W	+11	94	70	+24

In South India the wind, on the mean of the month, blew from about the normal direction, but the steadiness was generally somewhat less than usual though the velocity was normal or above the normal. On the north Madras Coast the wind was more southerly and steadier than usual.

The following gives comparative data of the mean air movement and steadiness over the Peninsular divisions :—

PROVINCE OR DIVISION.	MEAN STEADINESS.			MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, Sep. 1904.	Normal percentage, Sep.	Departure from normal, Sep. 1904.	Actual, Sep. 1904.	Normal, Sep.	Departure from normal, Sep. 1904.
Central Provinces .	63	52	+11	151	141	+10
Berar . . .	80	66	+14	198	175	+23
Bombay Deccan .	67	70	— 3	317	290	+27
Madras Deccan .	68	63	+ 5	192	178	+14
West Coast . .	70	65	+ 5	177	165	+12
Mysore . .	65	75	—10	186	176	+10
Madras Coast .	48	53	— 5	153	144	+ 9
South India . .	62	67	— 5	106	82	+24

The preceding data show an increased velocity of the wind in all divisions.

In Baluchistan the wind was about normal as regards direction and, though light, was steadier than usual. The following gives data :—

HILL STATION.	MEAN STEADINESS.			MEAN WIND DIRECTION.		MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, September 1904.	Normal percentage, September.	Departure from normal, Sep. 1904.	Actual, Sep. 1904.	Normal, Sep.	Actual, Sep. 1904.	Normal, Sep.	Departure from normal, Sep. 1904.
				°	°			
Quetta . .	52	40	+12	N 70 W	N 60 W	32	53	—21

In Kashmir similar conditions prevailed, but over the outer Himalayas the directions varied irregularly from the average. At Simla, Ranikhet and Darjeeling there was more westing than usual in the wind's direction while, on the contrary, at Chakrata, the wind was unusually easterly on the mean of the month. At Mount Abu, as on the plains of Gujarat, the wind conditions were approximately normal while at the central hill stations, as on the Deccan plains, the mean direction was unusually northerly.

At Aden and Perim the wind was somewhat more easterly than usual while both the steadiness and velocity were below the normal. This is shown below :—

STATION.	MEAN STEADINESS.			MEAN WIND DIRECTION.			MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, Sep. 1904.	Normal percentage, Sep.	Departure from normal, Sep. 1904.	Actual, Sep. 1904.	Normal, Sep.	Easterly Deflection.	Actual, Sep. 1904.	Normal, Sep.	Departure from normal, Sep. 1904.
				°	°				
Perim .	7	25	—18	N 65 E	N 23 E	+42	266	288	— 22
Aden .	27	53	—26	S 35 E	S 24 E	+11	220	230	— 10

In the south-east Trades region the departures of the mean wind direction from the normal were irregular. At Zanzibar the wind was both steadier and stronger than usual while the mean direction was a few degrees more easterly than the average. At the Seychelles and Mauritius the steadiness and velocity were below the normal and the wind direction was a few degrees more southerly and less easterly than usual. The following gives data :—

STATION.	MEAN STEADINESS.			MEAN WIND DIRECTION.		MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage September 1904.	Noma per centage September.	Departure from normal, Sep. 1904.	Actual, September 1904.	Normal, Sep.	Actual, Sep, 1904.	Normal, September.	Departure from normal, Sep. 1904.
				°	°			
Zanzibar . .	82	62	+20	S 11 E	S 6 E	180	134	+46
Seychelles . .	80	89	— 9	S 36 E	S 39 E	288	292	— 4
Mauritius . .	—	—	—	S 63 E	S 72 E	242	288	—46

Humidity and Cloud.

The absolute humidity, on the mean of the month, was lower than usual over nearly the whole country. The only exceptions were a few stations in north Bengal, on the Burma coast, in the centre and south of the Peninsula and in the extreme north-west.

The distribution of the departures of the mean relative humidity from the normal differed somewhat from the above. The mean temperature was low over a large part of Burma, so that, though the absolute humidity was generally in defect, the relative humidity was in slight excess. The following gives data for the stations at which this was the case :—

Station.	Absolute humidity.			Relative humidity.		
	Actual, September 1904.	Normal, September.	Departure from normal, September 1904.	Actual, September 1904.	Normal, September.	Departure from normal, September 1904.
	"	"	"	%	%	
Mergui . .	·865	·858	+·007	96	92	+ 4
Yamethin . .	·860	·864	—·004	90	87	+ 3
Thayetmyo . .	·885	·876	+·009	86	84	+ 2
Mandalay . .	·885	·893	—·008	85	83	+ 2
Bhamo . . .	·878	·879	—·001	91	90	+ 1
Akyab . .	·960	·959	+·001	93	92	+ 1

The mean relative humidity was also in slight excess at a few places in Ceylon and the south-west of the Peninsula. This is shown below :—

Station.	Absolute humidity.			Relative humidity.		
	Actual, September 1904.	Normal, September.	Departure from normal, September 1904.	Actual, September 1904.	Normal, September.	Departure from normal, September. 1904.
	"	"	"	%	%	
Colombo . . .	·849	·852	—·003	80	78	+ 2
Calicut . . .	·839	·832	+·007	90	88	+ 2
Mercara . . .	·584	·574	+·010	94	92	+ 2

The mean relative humidity was also in slight excess at a few places in Gujarat and the south-west of the United Provinces but the departures were small and unimportant. The mean relative humidity was also in excess over parts of upper Sind and of the south Punjab, due in some places to an excess of vapour and in others to lower temperatures than usual. The following gives data :—

Station.	Absolute humidity.			Relative humidity.		
	Actual, September 1904.	Normal, September.	Departure from normal September 1904.	Actual, September 1904.	Normal, September.	Departure from normal, September 1904.
	"	"	"	%	%	
Jacobabad . .	·826	·783	+·043	75	69	+ 6
Sirsa . . .	·692	·723	—·031	66	64	+ 2
Delhi . . .	·708	·745	—·037	70	69	+ 1

Over the whole of the remainder of the country the mean relative humidity was lower than usual. The areas of greatest departure were (1) the west and central Punjab. The following gives data :—

Station.	Absolute humidity.			Relative humidity.		
	Actual, September 1904.	Normal, September.	Departure from normal, September 1904.	Actual, September 1904.	Normal, September.	Departure from normal, September 1904.
	"	"		%	%	
Rawalpindi . .	·593	·665	—·072	57	72	—15
Montgomery . .	·560	·702	—·142	45	59	—14
Mooltan . .	·673	·749	—·076	59	65	— 6

(2) Rajputana, Gujarat, the west Satpuras and part of the Deccan. The following gives data :—

Station.	Absolute humidity.			Relative humidity.		
	Actual, September 1904.	Normal, September.	Departure, from normal, September 1904.	Actual, September 1904.	Normal, September.	Departure from normal, September 1904.
	"	"		%	%	
Deesa . . .	·692	·778	—·086	65	76	—11
Bhavnagar Para .	·725	?	?	71	82	—11
Amraoti . . .	·688	·778	—·090	75	85	—10
Ajmer . . .	·670	·734	—·064	66	75	— 9
Ahmedabad . .	·736	·814	—·078	69	78	— 9
Jaipur . . .	·661	·722	—·061	65	73	— 8
Raichur . . .	·672	·725	—·053	72	80	— 8
Hyderabad (Deccan)	·686	·734	—·048	76	83	— 7
Sholapur. . .	·621	·675	—·054	71	78	— 7

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, September 1904.	Normal, September.	Departure from normal, September 1904.	Actual, September 1904.	Normal, September.	Departure from normal, September 1904.
	"	"		%	%	
Rajkot	·733	·811	—·078	75	82	— 7
Sambhar	·656	·729	—·073	62	69	— 7
Surat	·820	·861	—·041	77	83	— 6
Malegaon	·651	·709	—·058	71	77	— 6
Khandwa	·697	·756	—·059	76	82	— 6
Seoni	·654	?	?	78	84	— 6
Ahmednagar	·662	·685	—·023	77	82	— 5
Indore	·709	·748	—·039	81	86	— 5
Bikaner	·657	·739	—·082	58	63	— 5
Saugor	·682	·763	—·081	78	83	— 5

(3) The Madras Coast and the Madras Deccan. The following gives data:—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, September 1904.	Normal, September.	Departure from normal, September 1904.	Actual, September 1904.	Normal, September.	Departure from normal, September 1904.
	"	"	"	%	%	
Nellore	·739	?	?	62	76	—14
Madras	·768	·842	—·074	67	78	—11
Cuddapah	·729	·772	—·043	65	74	— 9
Negapatam	·777	·820	—·043	67	75	— 8
Waltair	·812	·882	—·070	74	81	— 7
Salem	·759	·771	—·012	75	80	— 5

and (4) a few districts in west and central Bengal. The following gives data:—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, September 1904.	Normal, September.	Departure from normal, September 1904.	Actual, September 1904.	Normal, September.	Departure from normal, September 1904.
	"	"		%	%	
Hazaribagh	·681	·765	—·084	74	84	—10
Ranchi	·671	·750	—·079	76	83	— 7
Dinajpur	·936	·943	—·007	83	90	— 7

The largest departures from the normal were thus reported from the Punjab, Gujarat and Madras. The following low humidities were recorded in different parts of the country during the month:—

STATION.	Date.	Hour.	Lowest humidity recorded during September 1904.
			%
Madras	9th Sep.	8 A.M.	51
Nellore	16th "	"	50
Bidar	30th "	"	45
Bhavnagar Para	27th "	"	45
Do.	28th "	"	45
Bidar	29th "	"	44
Sholapur	30th "	"	41
Sambhar	28th "	"	41
Do.	29th "	"	41
Khushab	22nd "	"	41
Sirsa	28th "	"	41
Ahmedabad	28th "	"	40
Do.	27th "	"	39
Ajmer	28th "	"	36
Khushab	19th "	"	35
Jodhpur	28th "	"	33
Udaipur	29th "	"	32
Bikaner	27th "	"	32
Udaipur	28th "	"	31
Montgomery	9th "	"	31
Bikaner	11th "	"	31
Deesa	28th "	"	30
Montgomery	27th "	"	30
Bikaner	26th "	"	30
Montgomery	10th "	"	28
Bikaner	28th "	"	28
Lahore	23rd "	"	26
Montgomery	26th "	"	26
Do.	28th "	"	25
Deesa	27th "	"	23
Jodhpur	27th "	"	22
Udaipur	21st "	"	21

At most of the hill stations the mean relative humidity

was lower than usual but at Leh, Gilgit and Chaman there was some excess. This is shown below:—

Hill Station.	Absolute Humidity.			Relative Humidity.		
	Actual, September 1904.	Normal, September.	Departure from normal, September 1904.	Actual, September 1904.	Normal, September.	Departure from normal, September 1904.
	"	"	"	%	%	
Mount Abu	·464	·551	—·087	64	80	—16
Quetta	·240	·330	—·090	39	50	—11
Simla	·331	·397	—·066	66	76	—10
Chakrata	·374	·450	—·076	75	83	— 8
Murree	·338	·381	—·043	57	65	— 8
Cherat	·399	·468	—·069	52	58	— 6
Leh	·200	·176	+·024	56	48	+ 8
Gilgit	·555	·385	+·170	55	51	+ 4
Chaman	·307	·269	+·038	38	30	+ 8

At Aden the mean absolute humidity was in trifling excess but the mean temperature was slightly higher than usual and the mean relative humidity in trifling defect while at Perim the absolute humidity was in defect, the temperature in slight excess and the relative humidity in defect. The following gives data:—

Station.	Absolute Humidity.			Relative Humidity.		
	Actual, September 1904.	Normal, September.	Departure from normal, September 1904.	Actual, September 1904.	Normal, September.	Departure from normal September 1904.
	"	"	"	%	%	
Aden	·935	·932	+·003	71	75	— 4
Perim	·942	·964	—·022	71	74	— 3

At Zanzibar and Mauritius both the absolute and relative humidities were in defect while at the Seychelles both were in excess, as is shown below:—

Station.	Absolute Humidity.			Relative Humidity.		
	Actual, September 1904.	Normal, September.	Departure from normal, September 1904.	Actual, September 1904.	Normal, September.	Departure from normal, September 1904.
	"	"		%	%	
Zanzibar	·708	·738	—·030	76	78	— 2
Seychelles	·807	·767	+·040	86	80	+ 6
Mauritius	·469	·522	—·053	69	72	— 3

The mean cloud amount of the month was in excess of the normal over the upper Indus valley and over parts of Assam and Burma, but except at Yamethin (+4·7) and Moulmein (+1·2) the departures were small and unimportant. In practically all other parts of the country the sky, on the mean of the month, was clearer than usual of cloud. The deficiency, though so widespread, was generally small in amount, but at the stations for which comparative data are given below the departures amounted to —2 or more:—

Province or Division.	Station.	Mean Cloud Amount.		
		Actual, September 1904.	Normal, September.	Departure from normal September 1904.
North-East India.	Purnea	2·3	6·0	—3·7
	Jalpaiguri	3·9	7·0	—3·1
	Bogra	4·0	7·0	—3·0
	Barisal	4·7	7·2	—2·5
	Jessore	4·7	7·1	—2·4
	Silchar	6·3	8·7	—2·4
	Gaya	3·7	5·8	—2·1
	Chaibassa	3·7	5·8	—2·1
United Provinces.	Mainpuri	2·1	4·2	—2·1
	Allahabad	3·5	5·5	—2·0
East coast	Gopalpuri	3·3	6·6	—3·3
	Cocanada	4·6	7·4	—2·8
Central Provinces	Chanda	3·9	6·1	—2·2
Bombay Deccan	Malegaon	2·9	5·6	—2·7
	Poona	5·0	7·2	—2·2
Gujarat	Surat	3·7	5·7	—2·0
Madras Deccan	Bellary	5·2	7·4	—2·2
South India	Coimbatore	3·2	5·3	—2·1
	Madura	3·2	5·2	—2·0

The actual deficiency of cloud was thus greatest over the north-east of India and the north-east of the Peninsula, but the actually clearest region was the north-west. The following gives data for those stations at which the mean cloud amount of the month exceeded 8·0 and was less than 1·0 and defines the areas of greatest and least cloudiness:—

Station.	Mean cloud amount exceeding 8·0.	Station.	Mean cloud amount less than 1·0.
Sibsagar	8·9	D. I. Khan	0·8
Yamethin	8·7	Arrah	0·6
Toungoo	8·5	Montgomery	0·6
Moulmein	8·4	Jacobabad	0·6
Mercara	8·4	Multan	0·4
		Hyderabad (Sind)	0

At Kabul, Murree and at the Kashmir hill stations the mean cloud amount exceeded the normal, but at the remaining hill stations the sky was clearer than usual. The departures exceeded 1·0 at the following places:—

Hill Station.	Mean cloud amount.		
	Actual, September 1904.	Normal, September.	Departure from normal, September 1904.
Leh	5·2	3·6	+1·6
Darjeeling	6·1	8·5	—2·4
Ranikhet	3·1	4·9	—1·8
Chakrata	2·1	3·7	—1·6
Pachmarhi	5·2	6·6	—1·4
Mount Abu	3·4	4·6	—1·2

In southern Arabia the mean cloud amount—more particularly at Perim—was less than usual. The following gives data:—

Station.	Mean cloud amount.		
	Actual, Sept. 1904.	Normal, Sept.	Departure, from normal, Sept. 1904.
Aden	2·5	3·9	—1·4
Perim	1·2	3·8	—2·6

In the south-east Trades region the departures of the mean cloud amount from the normal were unimportant, as is shown below:—

Station.	Mean cloud amount.		
	Actual, Sept. 1904.	Normal, Sept.	Departure from normal, Sept. 1904.
Zanzibar	5·6	4·8	+0·8
Seychelles	5·9	5·6	+0·3
Mauritius	6·1	5·6	+0·5

Rainfall.

The general meteorological conditions during the month of September 1904, were unfavourable for rain over the greater part of the Indian land area. The monsoon current over the Arabian Sea was weaker than usual, the absolute humidity was below the average in nearly all parts of the country, abnormal westerly winds of land origin prevailed over considerable portions of northern India, while along the West Coast and over the Deccan the wind, on the mean of the month, was more northerly than usual. On the other hand, two slight storms and one moderate cyclonic storm were developed during the month occasioning widespread rainfall within the areas passed over, and practically all the rainfall of the month fell in connexion with these storms. The cyclonic rainfall—and more particularly that of the second storm of the month—was of the greatest economic importance, as it broke up the long continued break in the rains which had prevailed over the Deccan and parts of western and north-western India. It was not, however, sufficiently heavy to compensate for the light rainfall at other times during the month, and the general rainfall of India for the month, was largely below the average.

The following were the periods of most general rain:—

1st:—The 5th to the 9th, when Burma, north-east India and the eastern half of the Peninsula received rain from the first storm of the month.

2nd:—The 11th to the 18th, when rain was received over most parts of the country, except portions of the western desert, from the second storm of the month.

3rd:—The 20th to 26th, when Burma and north-east India received rain from the third storm.

The following table gives comparative rainfall data for the 57 meteorological divisions of the empire:—

Province.	Division.	Number of rainy days.		Rainfall.		
		Average actual, September 1904.	Average normal, September.	Average actual, September 1904.	Average normal, September.	Departure from normal, September 1904.
				Inches.	Inches.	Inches.
Burma	Tenasserim	23·6	22·8	35·05	30·67	+4·38
	Lower Burma (Deltaic)	20·2	19·7	17·16	15·77	+1·39
	Central do.	16·3	13·9	8·96	8·53	+0·43
	Upper do.	10·9	10·0	7·76	7·47	+0·29
	Arakan	20·0	18·6	20·07	18·93	+1·14

Province.	Division.	Number of rainy days.		Rainfall.		
		Average actual, September 1904.	Average normal, September.	Average actual, September 1904.	Average normal, September.	Departure from normal, September 1904.
				Inches.	Inches.	Inches.
Bengal and Assam	Eastern Bengal	12·7	13·2	9·05	11·40	—2·34
	Assam (Surma)	13·9	15·5	11·99	15·72	—3·73
	Do. (Hills)	16·8	17·0	14·08	18·09	—4·01
	Do. (Brahmaputra)	10·8	12·9	8·08	11·24	—3·16
	Deltaic Bengal	10·7	11·7	6·15	9·24	—3·09
	Central do.	8·1	11·5	5·63	10·10	—4·47
	North do.	13·5	13·4	9·24	17·64	—8·40
	Bengal Hills	15·0	16·6	13·23	16·59	—3·36
	Orissa	11·1	12·1	9·17	9·93	—0·76
	Chota Nagpur	7·6	10·4	4·05	8·30	—4·25
	Bihar (South)	5·0	8·7	3·01	7·61	—4·60
	Do. (North)	5·1	9·3	3·25	10·43	—7·18
United Provinces of Agra and Oudh.	United Provinces (East)	5·0	8·0	3·13	6·81	—3·68
	Oudh (South)	6·2	7·3	4·92	6·46	—1·54
	Do. (North)	5·5	7·2	3·16	7·54	—4·38
	United Provinces (Central)	4·6	6·6	3·14	5·53	—2·39
	Do. (West)	3·3	4·7	3·67	4·34	—0·67
	Do. (Submontane, East)	4·4	7·7	2·52	8·07	—5·55
	Do. (Do. West)	4·6	6·3	5·80	6·91	—1·11
	Do. (Hills)	6·5	8·8	7·42	7·83	—0·41
Punjab	Punjab (South-East)	4·2	3·7	5·18	3·88	+1·30
	Do. (South)	4·0	2·9	2·79	2·40	+0·39
	Do. (Central)	1·9	2·3	0·61	1·92	—1·31
	Do. (Submontane)	3·4	3·6	2·55	3·44	—0·89
	Do. (Hills)	4·9	6·6	3·02	6·09	—3·07
	Do. (West)	0·7	1·1	0·22	0·79	—0·57
North-west Frontier Province.	North-west Frontier Province	2·7	2·4	1·17	1·53	—0·36
Bombay and Malabar Coast Districts (Madras).	Malabar	15·9	14·0	9·55	9·30	+0·25
	Travancore	11·0	...	6·57	...	...
	Madras (South Central)	4·6	6·6	2·30	4·71	—2·41
	Coorg	15·0	...	8·59	...	...
	Mysore	5·9	7·4	3·49	4·83	—1·34
	Konkan	12·0	16·0	8·37	13·50	—5·13
	Bombay Deccan	7·7	8·6	4·85	5·89	—1·04
	Hyderabad North	9·5	10·5	11·66	8·24	+3·42
	Khandesh	6·7	8·9	9·27	6·59	+2·68
Central Provinces and Berar.	Berar	10·3	8·0	8·49	5·93	+2·56
	Central Provinces (West)	12·0	9·8	7·30	8·67	—1·37
	Do. do. (Central)	9·0	10·0	5·71	8·17	—2·46
	Do. do. (East)	7·2	9·9	4·19	7·78	—3·59
Bombay (North)	Gujarat	3·5	7·4	5·03	6·61	—1·58
	Kathiawar and Cutch	2·0	5·0	2·61	4·41	—1·80
	Sind	0·2	0·7	0·07	0·47	—0·40
	Baluchistan Hills	0·3	0·3	0·09	0·14	—0·05
Rajputana and Central India.	Central India (East)	5·3	7·9	4·49	6·35	—1·86
	Rajputana (East), Central India (West)	3·0	5·0	2·23	4·03	—1·80
	Rajputana (West)	1·2	2·3	0·60	2·08	—1·48
Madras	East Coast (North)	8·3	10·0	5·88	7·59	—1·71
	Hyderabad South	8·0	10·3	6·80	6·80	0
	Madras (Central)	5·1	7·5	3·18	5·30	—2·12
	East Coast (Central)	2·9	6·8	2·31	4·43	—2·12
	East Coast (South)	5·2	6·8	4·19	5·34	—1·15
	Madras (South)	3·1	3·5	1·94	2·15	—0·21

The preceding data show that in forty four of the rainfall divisions, for which data are available, the month's fall was lighter than usual, in one it was exactly normal and in eleven it was heavier than the average. The areas of more or less excessive rain included Burma, the South and South-east Punjab, Malabar, the north of the Nizam's dominions, Khandesh and Berar. The excess was slight and unimportant over Burma, but was more than 30% over

the divisions, for which comparative data are given below :—

Division.	Rainfall.			
	Average actual, September 1904.	Average normal, September.	Departure from normal, September 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Punjab South-East	5·18	3·88	+1·30	+34
Hyderabad North	11·66	8 24	+3·42	+42
Khandesh	9·27	6·59	+2·68	+41
Berar	8·49	5·93	+2·56	+43

The month's rainfall was exactly normal over the south of the Nizam's dominions. The deficiency, which prevailed in other parts of the Indian land area, was most marked in Bihar, the eastern divisions of the United Provinces, the Central and West Punjab, Sind, Western Rajputana and parts of Madras, and amounted to over −50% in the following divisions :—

Station.	Rainfall.			
	Average actual, September 1904.	Average normal, September.	Departure from normal, September 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Chota Nagpur	4·05	8·30	−4·25	−51
Bihar South	3·01	7·61	−4·60	−60
Bihar North	3·25	10·43	−7·18	−69
United Provinces East	3·13	6·81	−3·68	−54
Oudh North	3·16	7·54	−4·38	−58
United Provinces East Sub-montane.	2·52	8·07	−5·55	−69
Punjab Central	0·61	1·92	−1·31	−68
Punjab West	0·22	0·79	−0·57	−72
Madras South-Central	2·30	4·71	−2·41	−51
Sind	0·07	0·47	−0·40	−85
Rajputana West	0·60	2·08	−1·48	−71

The general rainfall of the whole Indian land area, as determined from the fifth figure column of the table on pp. 314 and 315 was (excluding the hill divisions) 1·56 below the normal.

In the Tenasserim and Arakan divisions of Burma rain was of almost daily occurrence, except during the last week, during the month, and in both divisions the average actual fall slightly exceeded the normal. The heaviest and most general rain occurred in Tenasserim on the 1st, 5th, 6th, 7th, 10th, 12th, 13th and 21st, and falls exceeding 5 inches in 24 hours were registered at the following places on the following dates :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Amherst	Moulmein	1st September	5·06
Mergui	Maliwun	5th „	6·20
Mergui	Victoria Point	6th „	5·40
Amherst	Kawkareik	7th „	5·70
Tavoy	Tavoy	10th „	5·21
Tavoy	Launglon	12th „	10·40
Tavoy	Tavoy	13th „	6·04
Tavoy	Launglon	21st „	6·59

In Arakan the heaviest and most general rain fell on the 1st, 3rd, 9th, 13th, 14th, 19th, 20th, 23rd and 27th, and the following amounts, exceeding 3 inches in 24 hours, were recorded at the following places :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Sandoway	Taungup	1st September	6·50
Kyaukpyu	Kyaukpya	3rd „	3·28
Sandoway	Gwa	13th „	3·95
Kyaukpyu	An	„ „	3·20
Kyaukpyu	Ramree	14th „	3·58
Sandoway	Gwa	„ „	3·55
Akyab	Maungdaw	19th „	3·75
Akyab	Akyab	20th „	3·69
Kyaukpyu	Myebon	23rd „	7·14
Akyab	Rathedaung	„ „	4·48
Kyaukpyu	Myebon	27th „	3·65

In Lower Burma the rainfall diminished markedly both in amount and extent after the 25th, but previous to that date fairly steady daily showers occurred. The total rainfall for the month slightly exceeded the normal, and the following amounts, exceeding 4″ in 24 hours, were recorded during the month :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Ma-Ubin	Danubyu	2nd September	6·14
Pegu	Nyaunglebin	5th „	5·62
Hanthawaddy	Kyauktan	13th „	7·53
Bassein	Bassein	21st „	4·78

In Central Burma the weather was showery throughout the month, but the rainfall was less continuous than in the lower and coast divisions. The total fall for the month, however, slightly exceeded the average, and the following amounts, exceeding 2″·00 in 24 hours, were recorded during the month:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Tharrawaddy	Gyobingauk	2nd September.	2·50
Do.	Minhla	5th ,,	2·30
Do.	Tharrawaddy	,, ,,	2·04
Do.	Gyobingauk	,, ,,	2·04
Prome	Shwedaung	9th ,,	2·02
Tharrawaddy	Monyo	13th ,,	3·33
Do.	Tharrawaddy	14th ,,	2·69
Do.	Tapun	16th ,,	2·61
Prome	Paungde	19th ,,	2·30

In Upper Burma the rainfall was irregularly distributed. The principal periods of rainfall in this division were the 4th to the 7th, the 10th to the 12th, the 18th to the 22nd and the 27th and the 28th, and the heaviest amounts, exceeding 3 inches in 24 hours, during the month, were as follows:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Katha	Tigyaing	4th September	3·50
Chin Hill	Fort White	5th ,,	3·09
Do.	Do.	6th ,,	3·98
Shwebo	Ye-u	7th ,,	5·00
Lower Chindwin	Kani	12th ,,	3·05
Kyaukse	Paleik	19th ,,	5·92
Do.	Taungdaw	,, ,,	4·19
Upper Chindwin	Tamu	,, ,,	4·00
Mandalay	Mandalay	,, ,,	3·92
Sagaing	Tada-u	,, ,,	3·79
Mandalay	Amarapur	,, ,,	3·34
Upper Chindwin	Tamu	20th ,,	3·05
Yamethin	Yindaw	26th ,,	3·51
Do.	Pyawbwe	27th ,,	3·65
Katha	Wuntho	28th ,,	3·22
Bhamo	Shwegu	29th ,,	3·80

In the Surma valley of Assam there were three periods of fairly general rain, *viz.*, the 1st and 2nd, the 6th to 9th, and the 19th to the 25th. At other times the weather was fair with occasional showers. The largest amounts, exceeding 3 inches in 24 hours, were as follows:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Sylhet	Lalakhal	1st September	7·11
Sylhet	Sunamganj	,, ,,	3·25
Sylhet	Lalakhal	2nd ,,	3·30
Cachar	Bikrampur	21st ,,	3·84
Sylhet	Lalakhal	22nd ,,	3·98
Cachar	Barkhola	24th ,,	3·81
Cachar	Silchar	,, ,,	3·20

In the Brahmaputra valley very similar conditions prevailed and the following falls, exceeding 4 inches in 24 hours, were registered at the following places on the following dates:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Lakhimpur	North Lakhimpur	7th September	4·39
Goalpara	Kachugaon	17th ,,	5·03
Kamrup	Ramgaon	20th ,,	4·26
Darrang	Kerkeriya	21st ,,	6·95
Darrang	Orangajuli	,, ,,	6·18
Darrang	Attarikhat	,, ,,	5·11
Goalpara	Bijni	24th ,,	7·10
Goalpara	Kachugaon	25th ,,	5·59

The total rainfall of the month was lighter than usual in all parts of the province, as is shown by the following comparative data for the eight plains districts:—

District.	Rainfall.			
	Average actual, September 1904.	Average normal, September.	Departure from normal, September 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Cachar	12·48	14·64	−2·16	−15
Sylhet	11·55	16·71	−5·16	−31
Goalpara	14·31	16·63	−2·32	−14
Kamrup	5·95	8·63	−2·68	−31
Darrang	7·20	10·62	−3·42	−32
Nowgong	6·00	10·18	−4·18	−41
Sibsagar	8·59	10·42	−1·83	−18
Lakhimpur	9·14	13·31	−4·67	−34

On the hills also, the rainfall was lighter than usual. On the Naga, Manipur and Lushai Hills showers were fairly continuous during the month, but on the Khasi and Jaintia and the Garo Hills the fall was much interrupted, and at Cherrapoonjee the total fall was only one-third of the normal. The following gives comparative data for that station :—

Hill Station.	Rainfall.			
	Average actual, September 1904.	Average normal, September.	Departure from normal, September 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Cherrapoonjee . .	17·76	53·25	—35·49	—67

The force of the monsoon over the Bay of Bengal was slightly above the average, but the rainfall over Bengal was deficient in all divisions, and was due almost wholly to the two depressions of the first half of the month and to the shallow low pressure area of the 18th to the 26th.

Over South-West Bengal there were three periods of general rain, *viz.*, between the 3rd and the 9th, the 11th and the 13th, and the 21st and the 25th. The total rainfall was short of the normal in all districts, the deficiency amounting to —45 % or more in the districts, for which comparative data are given below :—

District.	Rainfall.			
	Average actual, September 1904.	Average normal, September.	Departure from normal, September 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Burdwan . . .	3·46	8·40	—4·94	—59
Hooghly . . .	4·46	8·83	—4·37	—49
Bankura . . .	4·63	8·70	—4·07	—47
Calcutta . . .	5·72	10·40	—4·68	—45
Khulna . . .	5·30	9·55	—4·25	—45

Falls of 3 inches or more in 24 hours were recorded during the month at the following places on the following dates :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Khulna . .	Tala	4th September	3·15
Midnapore . .	Contai	5th ,, .	3·36
Bankura . .	Gangajalghati . .	6th ,, .	4·94
Murshidabad .	Lalbagh . . .	,, ,, .	3·75
Birbhum . .	Suri	,, ,, .	3·30
Murshidabad .	Berhampore . .	24th ,, .	3·24

In North Bengal, only two periods of general rain were recorded, *viz.*, between the 1st and the 6th and the 21st to the 26th, this division having been more or less outside the influence of the storm of the middle of the month. The total fall was even more deficient than in South-West Bengal, and was more than 50% in defect over the two districts, for which data are given below :—

District.	Rainfall.			
	Average actual, September 1904.	Average normal, September.	Departure from normal, September 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Dinajpur	4·51	13·03	—8·52	—65
Rangpur	6·04	14·10	—8·06	—57

The rainfall was heavy at the commencement of the month and again on the 25th and 26th and the following amounts, exceeding 4 inches in 24 hours, were recorded during the month :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			nches.
Jalpaiguri . .	Bhagatpur . . .	1st September.	4·90
Darjeeling . .	Siliguri	2nd ,, .	6·28
Jalpaiguri . .	Bhagatpur . .	,, ,, .	5·00
Darjeeling . .	Kurseong . . .	,, ,, .	4·06
Jalpaiguri . .	Bhagatpur . . .	3rd ,, .	4·55
Dinajpur . .	Nithpur . . .	23rd ,, .	4·59
Darjeeling . .	Kurseong . . .	24th ,, .	5·70
Cooch Behar . {	Dinhatta . . .	25th ,, .	5·05
	Cooch Behar . .	26th ,, .	6·30
Jalpaiguri . .	Alipur Dua . . .	,, ,, .	5·03
Cooch Behar .	Dinhatta . . .	,, ,, .	4·54

Fairly continuous showers were received over East Bengal between the 1st and the 25th, but after the latter date the rainfall became light and scattered. The total rainfall was in trifling excess over the Dacca district, and was fairly normal in Chittagong, Noakhali and Tippera, though it was in defect in Backergunj, Faridpur, and Mymen-

singh. The following amounts, exceeding 3 inches in 24 hours, were recorded during the month:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Mymensingh	Netrokona	2nd September 1904.	3·50
Dacca	Narayanganj	5th "	3·28
Tippera	Laksam	" "	3·08
Noakhali	Ramganj	10th "	3·50
Dacca	Manikganj	16th "	3·80
Noakhali	Hatya	21st "	4·08
Chittagong	Kutubdia	" "	3·42
Mymensingh	Sherpur Town	" "	3·10
Chittagong	Mirsarai	22nd "	3·98
Tippera	Brahmanbaria	" "	3·28
Noakhali	Hatya	23rd "	4·03

In Bihar the rainfall was very short of the average. The only days of fairly general rain were the 6th to the 8th, the 12th, the 20th to the 22nd and in Bhagalpur the 24th to the 26th. At other times scattered showers were reported, but in the Patna division, from the 1st to the 5th and from the 23rd to the 30th, there was practically no rain. The total rainfall was more than 50% in defect in all districts, as is shown below:—

District.	Rainfall.			
	Average actual, September 1904.	Average normal, September.	Departure from normal, September 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Patna	2·18	7·20	—5·02	—70
Gaya	2·19	6·55	—4·36	—67
Shahabad	3·09	6·96	—3·87	—56
Saran	2·06	8·20	—6·14	—75
Champaran	1·12	9·89	—8·77	—89
Muzaffarpur	1·69	8·17	—6·48	—79
Darbhanga	3·82	10·06	—6·24	—62
Monghyr	4·15	9·57	—5·42	—57
Bhagalpur	4·61	10·19	—5·58	—55
Purnea	5·12	15·44	—10·32	—67
Malda	4·45	11·54	—7·09	—61
Sonthal Parganas	5·42	11·10	—5·68	—51

There was no heavy rainfall during the month, but amounts of 3 inches or more in 24 hours were recorded at the following places on the following dates:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Sonthal Parganas	Barkope	5th September	3·35
Do.	Assenboni	" "	3·16
Bhagalpur	Colgong	" "	3·10
Sonthal Parganas	Mohespur	6th "	4·00
Do.	Barharwa	" "	3·80
Darbhanga	Ladonia	" "	3·20
Shahabad	Mohanea	" "	3·15
Monghyr	Jamui	20th "	3·79
Bhagalpur	Supaul	22nd "	3·25
Purnea	Kishanganj	" "	3·00
Do.	Kaliaganj	24th "	3·05

Orissa lay more in the track of the two cyclonic storms of the earlier half of the month than other portions of Bengal and hence received general, moderately heavy rain between the 2nd and the 14th, but after the latter date the fall practically ceased. The total rainfall was, however, less deficient in this than in the other divisions. The following amounts, exceeding 3 inches in 24 hours, were recorded during the month:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Angul	Tikerpara	5th September	3·14
Orissa Tributary Mahals.	Boad	6th "	5·85
	Dhenkanal	" "	3·83
Balasore	Akhyapada	11th "	3·65
Orissa Tributary Mahals.	Kampur	12th "	4·10
	Nayagarh	" "	4·02
Puri	Kanas	" "	3·98
Balasore	Akhyapada	" "	3·45

Chota Nagpur had one period of fairly general rain, *viz.*, from the 5th to the 13th, the weather at other times having been fine to showery. From the 23rd to the end of the month no rain whatever was received over this division.

The total rainfall was more than 50% in defect over the following districts :—

District.	Rainfall. Average actual, September 1904.	Average normal, September.	Departure from normal, September 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Hazaribagh	3·09	8·37	−5·28	−63
Ranchi	3·30	8·30	−5·00	−60
Palamau	2·23	7·65	−5·42	−71
Manbhum	3·90	8·52	−4·62	−54

Over the greater part of the United Provinces there were two periods of general rain agreeing with the two cyclonic storms of the earlier part of the month. The first lasted from the 7th to the 12th; the second from the 16th to the 20th. In the submontane and hill divisions these periods were prolonged and there were, likewise, some local showrrs during the first and lasts weeks, but over the greater part of the United Province the rainfall of the month was confined to the two aboevementioned periods. Heavy to very heavy rain was exp rienced over parts of Oudh and of the central division when the first storm of the month was breaking up over the Central Provinces, and still heavier falls were registered in the west and submontane divisions on the 16th and 17th, when the second storm was breaking up over that region. The following large number of falls, exceeding 5″ in 24 hours, were recorded during the month:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Cawnpore	Bilhaur	10th September	7·84
	Shiurajpur	,, ,,	7·60
Hardoi	Bilgram	,, ,,	5·50
Meerut	Hapur] Duplicate Station.	16th ,,	6·70
Naini Tal	Haldwani	,, ,,	6·50
Meerut	Hapur	,, ,,	6·08
	Mawana	,, ,,	5·42
	Ghaziabad Duplicate Station.	,, ,,	5·42
Naini Tal	Kashipur	,, ,,	5·15
Meerut	Ghaziabad	,, ,,	5·10
Bijnor	Nagina	17th ,,	15·50
	Dhampur	,, ,,	10·16
Naini Tal	Naini Tal	,, ,,	8·80
Bijnor	Bijnor	,, ,,	7·75
Naini Tal	Haldwani	,, ,,	7·00
Bijnor	Najibabad	,, ,,	6·56
Almora	Champawat	,, ,,	6·28
Meerut	Mawana	,, ,,	5·16
Muzaffarnagar	Jaoli-Jansath	,, ,,	5·10

Notwithstanding these large amounts, the total fall of the month was less than usual in all divisions, and in the case of the east and east submontane and the North Oudh divisions the mean deficiency was more than 50%. The following gives data for the districts in these divisions:—

Province or Division.	District.	Rainfall. Average actual, September 1904.	Average normal, September.	Departure from normal September 1904.	Percentage departure from normal.
		Inches.	Inches.	Inches.	
United Provinces, East.	Ghazipur	2·42	6·60	−4·18	−63
	Benares	4·30	6·76	−2·46	−36
	Jaunpur	2·73	7·58	−4·85	−64
	Mirzapur	2·44	7·10	−4·66	−66
	Allahabad	3·71	6·30	−2·59	−41
United Provinces, East Submontane.	Gorakhpur	2·06	8·54	−6·48	−76
	Basti	3·18	8·67	−5·49	−63
	Azamgarh	3·08	7·50	−4·42	−59
	Ballia	1·42	7·11	−5·69	−80
North Oudh	Fyzabad	2·44	7·66	−5·22	−68
	Gonda	3·15	8·67	−5·52	−64
	Bara Banki	4·22	7·43	−3·21	−43
	Bahraich	4·29	7·72	−3·43	−44
	Sitapur	3·03	6·40	−3·37	−53
	Kheri	1·98	7·75	−5·77	−74

Over parts of the Punjab a few local showers occurred during the first week of the month, due apparently to febly disturbed conditions over the hills. On the 12th a period of more or less general showers commenced and continued till the 20th, due principally to the action of the second storm. The weather in most parts of the province was only indirectly influenced by the storm, but the south, central and submontane divisions came directly under its influence when the disturbance was breaking up over the Meerut district. In consequence, the rainfall was locally very heavy over those areas and the following amounts, exceeding 4 inches in 24 hours, were recorded:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Ferozepore	Zira	13th September	4·52
Ludhiana	Jagraon	,, ,,	4·48
Nabha State	Dadahur	,, ,,	4·2
Gurgaon	Firozpur	16th ,,	8·24

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Delhi	Delhi	16th September	6·95
Gurgaon	Punahana	" "	6·19
	Palwal	" "	5·23
Delhi	Ballabgarh	" "	5·00
Gurgaon	Hattin	" "	4·50
Delhi	Mahrauli	" "	4·50
Gurgaon	Khol	" "	4·40

The total rainfall of the month exceeded the average over the south-east and south divisions, but was deficient elsewhere. The deficiency was greatest over the central and west divisions, and the following gives comparative data for the districts contained :—

Division.	District.	Rainfall: Average actual, September 1904.	Rainfall: Average normal, September.	Rainfall: Departure from normal, September 1904.	Rainfall: Percentage departure from normal. September 1904.
		Inches.	Inches.	Inches.	
Central Punjab	Lahore	0·48	1·91	—1·43	— 75
	Gujranwala	0·32	1·72	—1·40	— 81
	Gujrat	0·78	2·39	—1·61	— 67
	Jhelum	1·44	1·92	—0·48	— 25
West Punjab	Montgomery	0·37	0·98	—0·61	— 62
	Mianwali	0·03	0·77	—0·74	— 96
	Shahpur	0·47	1·21	—0·74	— 61
	Jhang	0·37	0·85	—0·48	— 56
	D. G. Khan	0·07	0·34	—0·27	— 79
	Muzaffargarh	0	0·45	—0·45	—100
	Multan	0	0·63	—0·63	—100

There were showers over the Peshawar, Hazara, Kohat and Bannu districts of the North-west Frontier Province during the month, principally on the 1st, 2nd, 3rd, 13th, 18th, 22nd and 23rd, but there was no rain in the Tochi or Dera Ismail Khan districts. The daily falls were generally moderate or slight, but the total rainfall of the province for the month was approximately normal.

A few light showers fell in parts of Baluchistan on the 13th and 14th, and the total rainfall for the month was less than usual.

In Kashmir the weather was showery between the 1st and the 4th, the 11th and the 22nd, and on the 30th. Amounts exceeding 2 inches in 24 hours were recorded at the following places on the following dates during the month :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Jummoo	Kathua	11th Sept.	3·06
	Bisolee	" "	2·97
	Udumpur	12th "	2·90
	Gulabgarh	29th "	2·40
	Ditto	30th "	2·30

The total fall for the month was generally less than usual.

Rajputana had a burst of rainy or showery weather between the 13th and 19th. The showers were heavy and general in the north-east, over the states of Jaipur and Alwar, but generally dimini shed towards the south and west and were very light in Jaisalmer, Udaipur, etc. The heaviest rainfall was reported on the 16th, when the second storm of the month was passing close to eastern Rajputana. The following shows the falls, exceeding 3 inches in 24 hours recorded during this period :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Bharatpur	Paharee	15th September	4·00
	Bhasawar	" "	3·17
Alwar	Alwar	16th "	6·42
	Kishangarh	" "	5·60
	Tijara	" "	5·00
	Ramgarh	" "	4·55
Jaipur	Mahwa	" "	4·26
Alwar	Mandawar	" "	3·80
	Lachmangarh	" "	3·55
	Thana Ghazi	" "	3·31
	Malakhera	" "	3·22

The rainfall of the month was irregularly distributed, as

is shown by the following comparative data for some of the larger states :—

STATE.	RAINFALL.			
	Average actual, September 1904.	Average normal, September.	Departure from normal, September 1904.	Percentage departure from normal, September 1904.
	Inches.	Inches.	Inches.	
Jaisalmer	0·21	0·83	—0·62	— 75
Jodhpur	0·57	2·25	—1·68	— 75
Bikaner	2·68	1·08	+1·60	+148
Jaipur	2·15	3·17	—1·02	— 32
Alwar	4·62	3·77	+0·85	+ 23
Bharatpur	3·02	4·59	—1·57	— 34
Dholpur	0·83	4·61	—3·78	— 82
Karauli	1·39	4·31	—2·92	— 68
Kotah	2·04	3·84	—1·80	— 47
Jhalawar	1·47	5·70	—4·23	— 74
Ajmer-Merwara	0·79	3·71	—2·92	— 79
Udaipur	0·97	5·40	—4·43	— 82
Sirohi	0·39	5·39	—5·00	— 93

There were two periods of rainfall over Central India: the first between the 5th and the 9th; the second between the 12th and the 17th, corresponding with the two cyclonic storms. In the east, the heaviest rainfall occurred during the first, and in the west during the second rainy period. The principal falls, exceeding 3 inches in 24 hours, recorded during the month, were as follows :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
BUNDELKHAND	Dharampur	8th September	3·20
	Do.	9th "	7·00
	Panna	" "	4·28
REWAH	Sutna	" "	3·27
GWALIOR	Ali Rajpur	14th "	4·80
	Sirdarpore	" "	4·11
BHOPAL AGENCY	Bhopal	" "	3·30
GWALIOR	Barwani	" "	3·27
BHOPAL AGENCY	Sehore	" "	3·25
GWALIOR	Sirdarpore	15th "	8·42
	Barwani	" "	4·81
	Ali Rajpur	" "	4·22
	Dhar	" "	3·61
	Jobat	" "	3·40
BHOPAL AGENCY	Bjaora	16th "	4·96

As in Rajputana, the total rainfall of the month was irregularly distributed and was generally deficient. The following gives data for the larger states :—

STATE.	RAINFALL.			
	Average actual, September 1904.	Average normal, September.	Departure from normal, September 1904.	Percentage departure from normal, September 1904.
	Inches.	Inches.	Inches.	
Bhopal Agency	5·62	7·01	—1·39	—20
Gwalior	4·86	5·40	—0·54	—10
Rewah	4·06	7·14	—3·08	—43
Bundelkhand	3·90	6·86	—3·96	—58
Indore	5·98	7·46	—1·48	—20
Rutlam	2·35	7·65	—5·30	—69

Practically all the rainfall of the Central Provinces was determined by the two cyclonic storms. In the eastern division the rainfall commenced on the 1st and ceased about the 16th, while in the central and west divisions it commenced about the 6th and ceased on the 17th, and in Berar commenced on the 8th and ceased on the 17th.

In the east division the rainfall was heaviest on the 5th and 6th when the first storm was crossing the Orissa coast, in the central and west divisions on the 8th and 9th, and in the Berar division on the 14th and 15th. The following amounts, exceeding 4 inches in 24 hours, were recorded :—

DISTRICT.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
CHHINDWARA	Tamia	8th September	10·90
HOSHANGABAD	Pachmarhi	" "	10·25
SEONI	Lakhnadon	" "	9·10
NARSINGHPUR	Mohpani	" "	8·50
CHHINDWARA	Harrai	9th "	5·30
NARSINGHPUR	Narsinghpur	" "	4·64
BULDANA	Chikhli	13th "	5·59
Do	Buldana civil station	" "	5·51
WUN	Digras	14th "	5·22
BASIM	Mangrul	" "	4·95
BULDANA	Chikhli	" "	4·81
AMRAOTI	Murtazapur	" "	4·75
AKOLA	Telhara	" "	4·50
Do	Balapur	" "	4·42
BULDANA	Donegaon	" "	4·07
NIMAR	Burhanpur	15th "	4·66

The total rainfall of the month was heavier than usual in Berar, normal in the west division, and in defect in the central and east divisions.

In the Nizam's dominions there occurred a general burst of rain between the 5th and the 14th, after which the weather cleared and only local rain was received up to the close of the month. The rainfall was heaviest on the 12th, 13th and 14th, when the second cyclonic storm was travelling over the Peninsula. The following shows the falls exceeding 4″ in 24 hours:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Ibrahimpatam	Shamshabad	11th September	4·45
Bidar	Bidar	13th „	5·35
Naldrug	Dharasheo	„ „	5·26
Gulbarga	Gulbarga	„ „	4·70
Aurangabad	Aurangabad	14th „	5·60
Naldrug	Dharasheo	„ „	4·46
Parbhani	Parbhani	„ „	4·46

The total rainfall of the month was normal over the southern and in excess over the northern division of Hyderabad.

The rainfall in Mysore was somewhat lighter than usual, and fell generally between the 11th and the 14th and the 19th and the 23rd. The following amounts, exceeding 4 inches in 24 hours, were recorded during the month:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Kolar	Sidlaghatta	19th September	4·86
Bangalore	Hoskote	21st „	5·05
Tumkur	Tumkur	„ „	4·40
Bangalore	Nelomangala	„ „	4·33

In the Konkan division of Bombay rain fell fairly steadily up to the 18th. The fall then began to take off and was light until the 23rd, after which date only local rain was experienced. The rainfall was heavy to very heavy on the 13th and 14th, when the storm of that period was passing through the Deccan. The following falls, exceeding 4 inches in 24 hours, were recorded during the month:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
North Kanara	Honavar	12th September	4·82
Kolaba	Nagothna	„ „	4·11
Kolaba	Matheran	14th „	7·46
Kolaba	Khalapur	„ „	5·90
Kolaba	Karjat	„ „	4·34
Thana	Mokhada	15th „	5·70
Kolaba	Matheran	„ „	5·10

The total fall of the month was about two-thirds of the average.

Over the Karnatak division the weather was fine with a few scattered showers up to the 10th, when a general burst of moderate rain commenced and continued till the 14th. After the latter date the weather was showery till the close of the month. The total rainfall was about normal, but the only moderately heavy falls, exceeding 2 inches in 24 hours, were as follows:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Belgaum	Athni	12th September	2·90
Bijapur	Muddebihal	„ „	2·41
Belgaum	Athni	13th „	2·70
Bijapur	Bijapur	„ „	2·25
Kolhapur, etc.	Jamkhandi	„ „	2·08
Bijapur	Bilgi	20th „	3·22
Kolhapur, etc.	Jamkhandi	22nd „	3·75

In the South Deccan the rainfall conditions were similar to those in the Karnatak, *viz.*, fine weather up to the 10th, a burst of rain lasting till the 15th, and thereafter local showers till the close of the month. The storm rainfall was, however, heavier over the Deccan than over the Karnatak division, and the following falls, exceeding 3 inches in 24 hours, were recorded during the month:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Sholapur	Lanoli	13th September	4·42
Satara	Malcolmpeth	„ „	4·10
Sholapur	Lanoli	14th „	8·34
Satara	Malcolmpeth	„ „	6·60
Sholapur	Barsi	„ „	3·12
Sholapur	Sholapur	„ „	3·11
Satara	Malcolmpeth	15th „	3·06
Poona	Talegaon Dabhada	27th „	3·05

In the North Deccan practically all the rainfall was determined by the storm, as there was very little rain except between the 11th and the 15th. The fall during that period was, however, considerably heavier than in either the Karnatak or the South Deccan, and the following amounts, exceeding 5 inches in 24 hours, were registered during the month:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Khandesh	Ahwa	14th September	14·66
	Parola	" "	6·02
	Pachora	" "	5·92
	Chopda	" "	5·20
Nasik	Igatpuri	15th "	7·62
Khandesh	Chopda	" "	6·80
Nasik	Trimbak	" "	6·67
Khandesh	Jalgaon	" "	6·52
Nasik	Peint	" "	6·17
Khandesh	Edalabad	" "	6·00
Nasik	Kalvan	" "	5·83
Khandesh	Erandol	" "	5·50
	Dhulia	" "	5·38
	Taloda	16th "	5·75

The total rainfall of the month was nearly 50% heavier than usual.

Gujarat received a few light showers during the first few days of the month and a burst of heavy rain between the 14th and the 16th, but at other times the weather was rainless. The principal falls, exceeding 5 inches in 24 hours, were as follows:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Surat	Mandvi	15th September	12·85
Do.	Valod	" "	11·62
Surat-Agency	Bansda	" "	8·68
Panch Mahals	Halol	16th "	6·04
Broach	Jambusar	" "	5·24

The total rainfall of the month was nearly normal.

Kathiawar also came under the influence of the storm and a burst of rain occurred between the 14th and the 16th, in an otherwise rainless month. The following amounts, exceeding 5 inches in 24 hours, were recorded:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Rewa Kantha	Baria	15th September	5·51
Kathiawar	Bhavnagar	" "	5·41
Rewa Kantha	Chhota Udepur	" "	5·15

The total rainfall was only about half the normal, and in Sind there was practically no rain.

In Malabar the rainfall of the month was normal, but in all the remaining divisions of Madras it was in defect.

In Malabar the weather was showery during the first six days. A burst of general rain then set in and lasted till the 23rd, after which date rain practically ceased. The rain was heavy between the 11th and 14th and on the 22nd, and the following falls, exceeding 3·50″ in 24 hours, were recorded during the month:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
South Canara	Bantwal	12th September	3·63
Travancore State	Peermade	14th "	3·60
Do.	Quilon	21st "	4·00
Do.	Peermade	" "	3·85

As mentioned above, the total fall of the division was about normal.

In Madras, South, local showers were reported at different times during the month, but the only falls, exceeding 2 inches in 24 hours, were as follows:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Madura	Sivaganga	21st September	2·53
Do.	Tiruchuli	25th "	2·95
Tinnevelly	Sivakasi	26th "	2·30
Do.	Do.	29th "	3·15
Do.	Watrap	30th "	2·48

The total rainfall was in trifling defect.

In South Central Madras moderately general rain fell

between the 18th and the 23rd, and a few scattered showers at other times. The only falls, exceeding 2 inches in 24 hours, were as follows:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Salem	Rasipuram	2nd September	2·63
	Rayakotta	21st ,,	2·50
	Vaniyambadi	22nd ,,	2·29
	Tathiangarpettai	26th ,,	3·97

The total rainfall was much lighter than usual.

In Central Madras there were three showery periods, *viz.*, the 11th to the 14th, the 18th to the 23rd, and the 26th to the 29th, but the total fall was less than usual. The only heavy falls, exceeding 3 inches in 24 hours, were as follows:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Cuddapah	Pulivendla	18th September	4·60
	Proddatur	,, ,,	3·40
Bellary	Siruguppa	20th ,,	3·75

In the north division of the East Coast there was general rain up to the 14th, due to the two cyclonic storms of the month, but after the 14th only local showers occurred up to the close of the month. The total fall was below the average. Moderately heavy falls occurred about the 12th, when the second storm was crossing the coast. The following gives the amounts, exceeding 3 inches in 24 hours, which were recorded during the month:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Godavari	Bhadrachalam	12th September	6·03
Vizagapatam	Malkanagiri	,, ,,	4·00
	Palkonda	,, ,,	3·58
	Bissemcuttack	,, ,,	3·32
	Balacheruvu	13th ,,	4·35
	Waltair	,, ,,	3·55

The central division of the East Coast received heavy rain on the 19th, but only scattered showers at other times.

The following shows the falls exceeding 3 inches in 24 hours:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Nellore	Kandukur	19th September	5·93
	Addanki	,, ,,	4·12
	Iskapalle	,, ,,	4·11
	Kavali	,, ,,	3·57
	Kanuparti	,, ,,	3·20

In the south division of the East Coast moderately general rain occurred between the 22nd and the 24th and on the 29th, and the total fall of the month was only slightly less than usual. Falls exceeding 3 inches in 24 hours were recorded in the extreme south as follows:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
North Arcot	Tiruvettiyur	19th September	4·50
South Arcot	Gingee	,, ,,	4·04
North Arcot	Puttur	21st ,,	3·50
	Tirupati	,, ,,	3·08
	Palmaner	,, ,,	3·07
	Tiruvettiyur	22nd ,,	3·90
South Arcot	Manambadi	23rd ,,	3·71
	Panruti	,, ,,	3·47
	Tindivanam	,, ,,	3·17
North Arcot	Walajah	25th ,,	3·61

The following gives comparative data of rainfall for the 21 collectorates for the month of September:—

Collectorate.	Rainfall.			
	Average actual, September 1904.	Average normal, September.	Departure from normal, September 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Ganjam	9·01	7·88	+1·13	+14
Vizagapatam	6·35	7·63	−1·28	−17
Godavari	2·72	7·29	−4·57	−63
Kistna	3·56	6·04	−2·48	−41

COLLECTORATE.	RAINFALL. Average actual, September 1904.	Average normal, September.	Departure from normal, September 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Nellore	2·31	4·43	−2·12	−48
Madras	3·51	4·84	−1·33	−27
Chingleput	3·50	5·54	−2·04	−37
North Arcot	4·63	5·95	−1·32	−22
South Arcot	5·44	5·92	−0·48	− 8
Tanjore	2·86	4·44	−1·58	−36
Trichinopoly	5·24	4·89	+0·35	+ 7
Madura	2·64	2·97	−0·33	−11
Tinnevelly	1·19	1·19	0	0
Malabar	7·70	7·66	+0·04	+ 1
South Canara	12·47	12·23	+0·24	+ 2
Salem	2·93	5·88	−2·95	−50
Coimbatore	1·32	3·01	−1·69	−56
Cuddapah	2·97	5·20	−2·23	−43
Anantapur	2·97	5·01	−2·04	−41
Bellary	3·57	5·19	−1·62	−31
Kurnool	3·37	5·80	−2·43	−42

The following gives a comparative statement of the rainfall of September 1904, at the extra-Indian stations. The month's rainfall was normal or in excess of the normal at the insular stations of Minicoy and Amini Divi, but was in large defect in Ceylon. Light rain fell at Teheran on the 26th, 28th and 29th, and a few drops at Perim on the 8th, but with these exceptions, Kashgaria, Afghanistan, Persia, Asiatic Turkey and Arabia were rainless during the month. The anticipated rainfall over these areas in September is, however, exceedingly light. In the south-east Trades region the rainfall was in excess at the Seychelles and was in slight defect at Mauritius and Zanzibar:—

STATION.	RAINFALL. Average actual, September 1904.	Average normal, September.	Departure from normal, September 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Trincomalee	0·59	4·56	−3·97	− 87
Colombo	1·73	4·82	−3·09	− 64
Minicoy	8·66	5·97	+2·69	+ 45
Amini Divi	5·52	5·54	−0·02	0
Kashgar	0	0·43	−0·43	−100
Kabul	0	0·03	−0·03	−100
Meshed	0	0·02	−0·02	−100
Teheran	0·24	0·14	+0·10	+ 71
Ispahan	0	0	0	0
Bushire	0	0	0	0
Jask	0	0	0	0
Muscat	0	0	0	0
Baghdad	0	0	0	0
Aden	0	0·13	−0·13	−100
Perim	0·04	0·01	+0·03	+300
Seychelles	7·39	5·37	+2·02	+ 38
Zanzibar	1·65	2·03	−0·38	− 19
Mauritius	1·10	1·31	−0·21	− 16

Crop Report.

Madras.—During the first half of the month more rain was required generally for the crops. About the middle of the month rain fell, and, at the close, the standing crops were in fair condition though requiring more rain in parts of the Circars, the Deccan, Chingleput, and the central and southern districts.

Bombay.—At the commencement of the month more rain was generally needed for the standing autumn crops and for operations for the spring crops. Rain occurred during the second week, generally improving agricultural prospects, but at the close of the month more rain was generally needed and crops were suffering from insufficient moisture in parts of Sind, Ahmedabad, Kaira, Belgaum, Wadhwan and Baroda. Fodder was generally sufficient.

Bengal.—More or less rain was needed almost everywhere, at the close of the month, in Bihar, Orissa and Chota Nagpur, and also in the districts of Burdwan, Birbhum, Bankura, Midnapore, Hooghly, Murshidabad, Dinajpur and Jalpaiguri. Elsewhere the prospects were good.

United Provinces.—Heavy rain fell in most districts during the month, but, at the close, rain was still generally wanted and irrigation was being resorted to. The standing crops were doing well, but slight damage for want of rain was reported in Allahabad and Jaunpur.

Punjab.—At the close of the month the condition and prospects of the standing irrigated crops were good to average, and those of unirrigated below the average or

poor. Crops dependent on rain were mostly withering in Lahore, Sialkot, and Shahpur.

North-west Frontier Province.—Rain at the close of the month was badly wanted to mature the autumn crops and to prepare the land for spring sowings.

Burma.—Agricultural operations were in progress.

Central Provinces.—The standing crops, at the close of the month, were in fair to good condition, but required an early fall of rain to prevent deterioration. The break in the rains was causing anxiety in the rice districts, where a fall was very urgently needed. Rain was also required to prepare the lands for winter sowings.

Assam.—More rain was wanted for tea and late rice in Kamrup and Lakhimpur. Tea prospects were generally fair and the prospects of late rice fair and of jute poor.

Mysore.—More rain was generally wanted, but the prospects of the season were generally fair.

Hyderabad.—The autumn crops were generally in good condition.

Rajputana.—Rain was badly wanted in Jaisalmer, parts of Marwar, the Mewar hill tracts, Sirohi, Shahpura, Tonk, Kishengarh, and Ajmer-Merwara. The standing crops and present prospects were generally fair, but the outlook for spring crops was bad in many parts for want of water in tanks and wells.

Central India.—The rainfall was sufficient except in Malwa and parts of Bhopawar. Crops were in good condition in Bhopawar, average in Bundelkhand and fair elsewhere.

Kashmir, Jummoo.—The condition of the standing crops was fair.

Nepal.—The standing crops were in good condition.

W. L. DALLAS.

G. I. C. P. O. M 905.—No. 83 Meteo.—13-3-05.—385.

Table I.—Abstract of Observations taken at 8 A.M. at 232 Stations in India, Burma, etc., in September, 1904.

Table

Abstract of Observations taken at 8 A.M. at 232 Stations

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure, 8 A.M., in inches.								Temperature of air.												
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
	I.—Burma Coast and Bay Islands.				−·004								84·6	−0·9	75·0	+0·2	79·8	−0·4	9·6					15
1	Tenasserim and Bay Islands.	Car Nicobar	25																					
		Port Blair	61	29·845	+·027	29·837	29·956	26th	29·782	10th	·174	78·7	83·4	−1·7	76·2	−0·2	79·8	−1·0	7·2	87·1	25th	73·4	7th & 18th	13·7
		Mergui	96	29·813	+·004	29·842	29·898	27th	29·720	13th	·178	76·5	83·4	−1·0	73·6	+1·4	78·6	+0·2	9·8	87·9	30th	71·4	4th	16·5
		Tavoy	26	29·885	−·002	29·842	29·987	27th	29·764	13th	·223	75·8	81·7	?	71·9	−1·8?	76·8	?	9·8	87·7	30th	70·1	29th	17·6
		Moulmein	94	29·758	−·021	29·791	29·873	25th	29·653	13th	·220	76·8	83·9	−0·9	74·1	−0·4	79·0	−0·7	9·8	87·5	4 days	71·3	3rd	16·2
2	Lower Burma	Rangoon*	57	29·801	−·005	29·796	29·909	25th	29·732	9th	·177	78·3	85·0	−0·7	75·1	−0·8	80·1	−0·8	9·9	88·6	17th	73·4	5th, 8th & 22nd.	15·2
		Bassein	27	29·810	−·006	29·775	29·936	25th	29·573?	20th	·363?	79·0	85·3†	−0·2†	76·3	+0·5	80·9†	+0·2	9·0	88·2	17th,26th & 27th.	74·8	6th	13·4
		Diamond Island	41	29·806	−·006	29·782	29·930	26th	29·729	9th	·201	80·1	83·5	−1·3	77·2	+1·4	80·4	+0·1	6·3	85·9	3rd & 30th.	73·7	14th	12·2
5	Arakan	Akyab	20	29·782	−·016	29·745	29·935	26th	29·674	4th	·261	80·0	86·0	−0·6	77·6	−0·4	81·8	−0·5	8·4	88·9	12th & 13th.	75·2	2nd	13·7
8	Central Burma	Toungoo	183	29·651	−·011	29·776	29·763	25th	29·569	13th	·194	79·1	89·3	?	73·2	−2·4	81·2	?	16·1	92·3	12th	70·1	12th	22·2
	II.—Burma Inland				−·002								89·6	−1·7	75·0	−1·0	82·3	−1·3	14·5					22·4
3	Central Burma.	Thayetmyo	130	29·701	0	29·774	29·832	25th	29·623	4th	·209	80·1	89·2	−0·7	72·4	−3·6	80·8	−2·2	16·8	93·0	14th	68·5	12th	24·5
4	Upper Burma	Minbu	*165*	29·662	−·004	29·771	29·785	25th	29·565	4th	·220	79·8	89·4	−1·5	76·6	−0·3	83·0	−0·9	12·8	95·2	1st	75·1	5 days	20·1
		Yamethin	657	29·169	−·016	29·782	29·297	25th	29·091	4th & 22nd,	·206	77·7	88·3	−3·4	74·0	−0·8	81·2	−2·1	14·3	93·8	25th	71·2	12th	22·6
		Monywa	*280*	29·558		29·777	29·684	25th	29·473	21st	·211	80·0	90·7		75·8		83·3		14·9	95·3	9th, 10th & 15th,	71·2	12th	24·1
		Mandalay	250	29·577	+·003	29·776	29·702	25th	29·487	1st	·215	80·5	91·0	−1·8	76·8	−0·1	83·9	−1·0	14·2	95·5	15th	74·3	8th	21·2
		Myitkyina	458	29·348		29·765	29·477	25th	29·220	1st	·257	79·4	89·2		75·1		82·1		14·1	94·3	10th	73·1	30th	21·2
		Bhamo	*381*	29·444	+·008	29·783	29·569	25th	29·334	1st	·235	78·3	89·2	−0·9	74·5	0	81·8	−0·5	14·7	94·5	15th	71·6	15th	22·9
4(a)	Burma Hill Stations.	Maymyo	3,545									70·5	78·4		65·3		71·9		13·1	83·3	9th & 10th.	61·6	10th	21·7
		Lashio	*2,751*									72·0	84·1	−0·7	67·7	−0·1	76·0	−0·4	16·4	89·5	12th	64·0	13th	25·5
	III.—Assam				−·009								88·7	+0·7	75·7	−0·2	82·2	+0·3	13·1					21·4
7	Surma	Silchar	104	29·693	−·010	29·750	29·872	26th	29·584	21st	·288	80·6	91·1	+1·3	76·1	−0·3	83·6	+0·5	15·0	98·6	13th	72·3	14th	26·3
9	Brahmaputra	Sibsagar	333	29·472	−·008	29·764	29·637	26th	29·316	1st	·321	77·9	87·0	−1·1	75·5	−0·7	81·3	−0·9	11·5	92·2	15th,16th & 19th.	73·0	9th & 22nd.	19·2
		Dhubri	115	29·659	−·010	29·730	29·834	26th	29·509	1st	·325	80·7	87·1	+2·0	77·4	+0·4	82·2	+1·2	9·7	91·7	15th	73·9	26th	17·8
		Gauhati	195	29·601		29·752	29·770	26th	29·448	1st	·322	80·1	90·1		75·8		82·9		14·3	94·5	3rd	72·5	14th	22·0
		Tezpur	252	29·540		29·751	29·697	26th	29·385	1st	·312	79·4	89·2		75·7		82·6		13·5	94·1	16th	73·4	30th	20·7
		Dibrugarh	353	29·459		29·774	29·624	26th	29·298	1st	·326	77·5	87·8		73·4		80·6		14·4	93·2	11th	71·0	30th	22·2
	IV.—Bengal and Orissa				−·001								89·3	+0·9	77·7	−0·1	83·6	+0·4	11·6					19·2
6	East Bengal	Chittagong	87	29·691	−·024	29·726	29·858	26th	29·574	21st	·284	81·0	87·0	+0·2	75·9	−0·4	81·5	−0·1	11·1	90·5	15th	73·1	15th	17·4
		Noakhali	43	29·730		29·720	29·896	26th	29·627	21st & 22nd.	·269	81·9	87·5		77·0		82·3		10·5	91·7	15th	73·9	12th	17·8
		Comilla	36	29·739		29·723	29·906	26th	29·628	22nd	·278	80·2	89·5		76·0†		82·7†		13·5	93·3	12th	73·8	12th & 20th.	19·5
		Sirajgaaj	49	29·726		29·727	29·896	26th	29·613	21st	·283	81·4†	88·4		78·2		83·4		10·2	93·8	17th	73·7	17th	20·1
		Narayanganj	26	29·755	+·004	29·729	29·923	26th	29·644	22nd	·279	82·3	89·3	+0·8	78·7	−0·2	84·0	+0·3	10·6	93·1	15th	75·3	1st	17·8
		Barisal	13	29·757	−·011	29·715	29·832	26th	29·623	22nd	·309	82·7	89·1	+0·6	77·9	−0·4	83·5	+0·1	11·2	93·3	15th & 19th.	74·1	15th & 21st.	19·2
		Mymensingh	63	29·721	−·006	29·735	29·892	26th	29·602	1st	·290	81·5	89·1	+2·0	77·8	+0·3	83·5	+1·2	11·3	93·7	15th	75·6	10th, 17th & 22nd.	18·1
		Faridpur	46	29·735		29·731	29·907	26th	29·624	21st	·283	81·6	88·2		77·8		83·0		10·4	91·8	15th	75·4	17th	16·4
10	Deltaic Bengal	Jessore	33	29·726	−·007	29·706	29·909	26th	29·619	21st	·290	82·5	89·5	+0·1	78·3	−0·2	83·9	−0·1	11·2	99·0	5th	75·2	21st	23·8
		Calcutta	21	29·740	+·006	29·707	29·928	26th	29·625	21st	·303	82·3	89·1	+1·4	77·6	−0·4	83·4	+0·5	11·5	93·4	19th	74·9	11th & 24th.	18·5
		Saugor Island	25	29·715	−·007	29·684	29·914	26th	29·613	6th	·301	83·1	89·1	+0·9	79·7	0	84·4	+0·5	9·4	91·4	19th	76·1	25th	15·3
		Krishnagar	47	29·718		29·713	29·904	26th	29·594	21st	·310	81·5	90·0		78·5		84·2		11·5	94·1	19th	76·5	6th, 23rd & 24th.	17·6
		Midnapore	149	29·606		29·702	29·796	26th	29·502	21st	·294	81·3	89·6		77·6		83·6		12·0	94·3	19th	74·7		19·6

* Mean of 28 days. † Mean of 29 days.

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

Note 1.—When a query is inserted against any reading or in the returns of any station,

Note 2.—The data from which divisional means of the figure columns Nos. 41, 43 and 45

I.

in India, Burma, etc., in September, 1904.

WIND DIRECTION. Number of winds from										Wind velocity.				Hygrometry, 8 A.M.				Cloud.		Rainfall.									Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	Mean daily velocity in miles per hour instrumental errors uncorrected.	Normal (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Mean cloud amount at 8 A.M.	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 1904.	Normal rainfall for period, 1st May to 30th September.	Departure from normal of period, 1st May to 30th September 1904.				
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	58
														91	0	·887	−·016	6·8	−0·3				27·38	21·08	+6·30					I.—Burma Coast and Bay Islands.		
					1	1	12	14	2	S 69° W	13·6	9·3	+ 46	15·3	91	+ 1	·850	−·035	7·4	−0·7	22			32·29	19·42	+12·87	89·83	84·90	+ 4·93	7·01	Car Nicobar	Tenasserim and Bay Islands.	1
17	1				1	4	4	3		S 86° W	2·0	1·5	+ 33	1·8	96	+ 4	·865	+ 007	5·4	−1·7	25	23·40	+1·00	27·86	28·07	− 0·21	161·02	139·09	+21·93	3·40	Port Blair.		
24					2	1	2	1		S 59° W	1·0				93	0	·837	−·029	5·7	−1·8	24	24·10	−0·10	60·31	31·88	+28·43	259·41	191·93	+67·48	6·04	Tavoy.		
19	1				2	4	3		1	S 14° W	2·9	2·8	+ 4	3·2	89	− 3	·818	−·062	8·4	+1·2	25	21·90	+3·10	28·98	27·52	+ 1·46	189·64	169·89	+19·75	5·06	Moulmein.		
5		2			5	1	11	3	1	S 33° W	4·6	3·8	+ 21	3·9	93	− 1	·897	−·018	6·9	−0·1	18	19·70	−1·70	13 84	15·84	− 2·00	90·86	85·41	+ 4·65	2·80	Rangoon* .	Lower Burma.	2
	1	1			4	9	9	5	1	S 29° W	4·7	3·4	+ 38		93	0	·929	+·007	5·3	−1·6	22.	20·80	+1·20	18·41	15·89	+ 2·52	102·36	98·24	+ 4·12	4·78	Bassein.		
2					1	3	9	7	8	S 76° W	7·4	6·8	+ 9	7·4	86	0?	·894	+·003	6·9	−0·5	17	18·90	−1·90	23 83	17·33	+ 6·50	130·14	100·18	+29·96	7·81	Diamond Island.		
			10	3	8	3	3	1	2	S 79° E	2·6	3·0	− 13	2·5	93	+ 1	·960	+·001	6·4	−1·4	19	13·80	+5·20	23·14	22·18	+ 0·96	171·26	173·47	− 2·21	3·69	Akyab .	Arakan.	5
17		1			10	1			1	S 47° E	11·2	2·8	+300	11·1	89	− 2	·897	−·017?	8·5	+0·3	17	17·50	−0·50	17·75	11·56	+ 6·19	79·10	68·56	+10·54	2·92	Toungoo .	Central Burma.	3
														87	+ 2	·879	− 002	6·8	+0 8				7·93	6·57	+ 1·67					II.—Burma Inland.		
	2		1	1	24			1	1	S	2·4	4·7	− 49		86	+ 2	·885	+·009	6·9	−0·6	16	11·70	+4·30	6·10	6·07	+ 0·03	34·22	29·84	+ 4·38	1·62	Thayetmyo.	Central Burma.	3
3		1			23	2			1	S 44° E	6·3			7·5	85	0	·875	−·006	6·2	+0·6	8	9·30	−1·30	5·43	5·46	−0·03	23·62	25·45	− 1·83	1·58	Minbu .	Upper Burma.	4
10	1				12	7				S 30° E	10·4			10·9	90	+ 3	·860	−·004	8·7	+4·7	14	10·30	+3·70	11·10	6·65	+4·45	25·57	28·19	− 2·62	2·65	Yamethin.		
8					2	14	1	4	1	S 15° W	1·4			1·5	87		·901		7·1		11	8·90	+2·10	5·85	6·31	−0·46	21·85	22·34	− 0·49	1·00	Monywa.		
16					3	10	1			S 6° E	4·1			4·1	85	+ 2	·885	−·008	4·7	−1·6	13	8·80	+4·20	11·09	5·62	+5·47	36·28	24·00	+12·28	3·92	Mandalay.		
12	2	3	8	3	2					E	1·7			1·8	87		·869		6·5		10			6·11			53·73			1·43	Myitkyina.		
19	6	2			1	2				N 24° E	2·1			2·5	91	+ 1	·878	−·001	7·4	+0·8	15	11·50	+3·50	9·14	9·51	+ 0·53	62·58	65·05	− 2·47	2·37	Bhamo.		
10	1	4	6	1	3	3	1	1		S 81° E	2·3				89		·665		6·7		15	15·20	−0·20	9·03	9·06	− 0·03	43·94	44·28	− 0·34	1·62	Maymyo .	Burma Hill Stations.	6
	7	10	3	4	1	3	1	6		N 37° E	2·1				90	− 2	·710	−·022	7·3	−0·7	14			6·61	6·92	− 0·31	61·82	51·30	+10·52	1·54	Lashio.		4)
															90	− 3	·904	+ 001	6·8	−1·2				8 69	11·92	−3·22					III.—Assam.		
29					1					S 45° E	0·5	2·7	− 81	0·9	86	− 5	·904	−·020	6·3	−2·4	17	15·30	+1·70	19·18	13·95	+ 5·23	120·44	91·87	+28·57	3·20	Silchar .	Surma .	7
12		15			2				1	N 49° E	2·4	2·5	− 4	2·2	94	− 1	·916	−·015	8·9	+0·2	14	14·50	− 0·50	9·75	11·95	− 2·20	55·27	71·82	−16·55	1·90	Sibsagar .	Brahmaputra .	8
8		4	11	4	2	1				N 81° E	4·3	3·2	+ 34	5·1	90	− 2	·948	+ ·037	6·0	−1·5	10	11·90	−1·90	5·12	14·61	− 9·49	56·36	81·99	−25·63	1·05	Dhubri.		
9	5	5	1	2	2	4	1	1		N 24° E	2·2			2·5	88		·902		6·8		9	10·00	−1·00	4·50	7·49	− 2·99	58·11	49·86	+ 8·25	1·83	Gauhati.		
4		10	7		2	4	2	1		N 70° E	2·6			2·8	89		·905		5·0		7	12·50	−5·50	4·21	8·58	− 4·37	66·34	57·04	+ 9·30	1·03	Tezpur.		
10		8	6	2	2					N 72° E	1·0			1·0	90		·847		7·5		13	14·90	−1·90	9·40	14·91	− 5·51	67·29	88·79	−21·50	1·57	Dibrugarh.		
															86	− 2	·936	−·019	4·9	−1·7				7·29	11·33	−4·04					IV.—Bengal and Orissa.		
		12	4	12		1				N 89° E	4·3	4·5	− 4	4·0	87	− 1	·923	−·004	6·4	−0·9	15	13·06	+1·94	9·66	11·08	− 1·42	67·56	79·95	−12·39	2·63	Chittagong.	East Bengal .	
	2	2	7	4	9	1	3	2		S 37° E	3·3			3·6	89		·940		4·8		18	15·48	+2·52	15·01	15·54	− 0·53	105·06	94·92	+10·14	2·58	Noakhali.		
4		1	2	13	10					S 32° E	3·7			3·1	89		·917		4·3*		13	13·28	−0·28	7·06	11·11	− 4·11	61·38	72·88	−11·50	1·54	Comilla.		
24		1		2	2	1				S 18° E	1·0			1·0	91*		·975*		6·0		8	11·61	−3·61	8·09	9·08	− 0·99	59·35	50·76	+ 8·59	3·72	Sirajganj.		
7		2	6	3	5	4	2	1		S 27° E	3·4	4·6	− 26	2·9	88	0	·970	−·001	6·5	−1·3	13	11·83	+1·17	10·80	8·57	+ 2·23	49·49	54·97	− 5·48	2·73	Narayanganj		
2	1	5	3	2	4	6	3	4		S 45° W	2·5			2·2	86	− 2	·970	−·007	4·7	−2·5	16	14·35	+1·65	7·36	10·74	− 3·38	55·94	62·26	− 6·32	1 01	Barisal.		
14	1	2	7	4	1	1				S 80° E	2·1			1·8	88	− 3	·942	−·025	6·3*	−0·8	12	15·03	−3·03	6·95	12·83	− 5·88	64·67	72·80	− 8·13	1·48	Mymensingh.		
6	1	1	4	6	5	4	3			S 17° E	2·3			1·9	88		·956		4·4		9	11·78	−2·78	5·53	9·09	− 3·56	46·98	54·69	− 7·71	1·46	Faridpur.		
14		1	3	4	2	4	1	1		S 18° E	1·3	3·4	− 62		88	− 2	·978	−·023	4·7	−2·4	13	11·94	+1·06	6·60	8·28	− 1·68	58·47	51·35	+ 7·12	1·80	Jessore .	Deltaic Bengal	10
7	1	1	5	2		7	3	4		S 13° W	2·6	4·5	− 42		85	− 2	·936	−·021	5·7	−1·0	12	13 38	−1·38	5·72	8·91	− 3·19	56·54	50·59	+ 5·95	1·10	Calcutta.		
1	3	4	2	4		7	4	5		N 68° W	10·5	10·1	+ 4		86	− 2	·974	−·010	6·6	−1·6	11	13·29	−2·29	8·22	11·30	− 3·08	57·54	58·04	− 0·50	1 70	Saugor Island.		
6		1	5	3	1	2	8	4		S 76° W	2·1			2·3	89		·955		5·2		8	10·45	−2·45	7·38	7·97	− 0·59	36·77	45·01	− 8·24	2·86	Krishnagar.		
4	7	4	1	1	2	6	3	2		N 45° W	2·1			1·9	86		·921		3·4		12	12·13	−0·13	6·58	9·39	− 2·81	54·47	50·66	+ 3·81	1·40	Midnapore.		

the data for that station are not utilized in calculating the provincial departures from normal.

are derived are incomplete

* Mean of 25 days.

Table

Abstract of Observations taken at 8 A.M. at 232 Stations

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure, 8 A.M., in inches.								Temperature of air.											
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. pressure reduced to sea-level and to mean 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 A.M. 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	25
11	Central Bengal	Bankura	298	29·433		29·697	29·629	26th	29·315	21st	·314	81·4	90·6		77·4		84·0		13·2	94·6	19th & 27th.	74·4	30th	20·2
		Raniganj	334	29·433		29·721	29·631	26th	29·317	21st	·314	80·1	91·0		77·0		84·0		14·0	94·4	19th	73·9	26th	20·5
		Burdwan	99	29·665	+·003	29·713	29·853	26th	29·547	21st	·306	81·9	90·5	+0·8	78·4	−0·5	84·5	+0·2	12·1	94·4	18th & 20th.	75·8	24th & 25th.	18·6
		Naya Dumka	489	29·266		29·712	29·458	26th	29·147	1st	·311	81·6	90·1		76·4		83·2		13·7	95·0	12th	72·9	29th	22·1
		Berhampore	67	29·693	0	29·709	29·876	26th	29·579	21st	·297	82·7	89·9	+1·0	79·3	+0·8	84·6	+0·9	10·6	93·3	19th	75·3	6th & 24th.	18·0
		Rampur Boalia.	70	29·695		29·714	29·869	26th	29·572	21st	·297	83·4	89·2		78·6		83·9		10·6	92·1	6 days	71·6	2nd	20·5
		Malda	72	29·680		29·703	29·854	26th	29·564	1st	·290	83·4	89·3		78·6		84·0		10·7	93·1	4th & 12th.	75·0	6th	18·1
		Bogra	61	29·697	−·003	29·710	29·856	26th	29·579	1st	·277	81·5	89·6	+1·2	78·0	+0·5	85·1	+0·9	11·6	93·2	4 days	74·2	5th	19·0
12	North Bengal	Dinajpur	123	29·651	+·006	29·729	29·876	26th	29·503	1st	·323	82·9	90·2	+2·0	77·9	+0·5	83·9	+1·3	12·3	93·8	12th, 15th & 20th.	74·5	29th	19·2
		Rangpur	123	29·660		29·738	29·837	26th	29·515	2nd	·322	82·8	89·2		77·4		83·3		11·8	94·2	14th	73·8	25th & 26th.	20·4
		Jalpaiguri	284	29·489	−·004	29·732	29·667	26th	29·314	1st	·353	80·3	88·6	+1·4	75·6	+0·3	82·1	+0·9	13·0	92·9	11th	72·1	25th & 26th.	20·8
		Cooch Behar	156	29·618		29·730	29·801	26th	29·467	1st	·334	80·5	88·8		77·9		83·5		10·9	93·4	12th 14th 15th.	74·1	25th	19·3
17	North Bihar	Purnea	125	29·638	+·006	29·719	29·831	26th	29·489	1st	·342	82·0	90·0	+1·1	77·0	−0·4	83·5	+0·4	13·0	94·2	15th	72·6	8th	21·6
14	Orissa	Balasore	50	29·707	+·001	29·699	29·907	26th	29·600	7th	·307	81·5	89·3	+0·4	77·0	−0·8	83·2	−0·2	12·3	93·4	19th	75·3	4 days	18·1
		False Point	21	29·739	+·013	29·702	29·938	26th	29·583	11th	·355	82·3	88·9	+1·0	77·8	−0·3	83·4	+0·4	11·1	94·5	29th	75·	5th	19·4
		Cuttack	80	29·675	+·014	29·699	29·878	26th	29·525	11th	·353	81·6	90·2	0	77·2	−0·9	83·7	−0·5	13·0	94·4	20th, 26th & 27th.	74·2	5th & 29th.	20·2
		Puri	24	29·739		29·702	29·949	26th	29·545	11th	·404	82·4	88·5		79·1		83·8		9·4	93·7	22nd	74·1	5th	19·6
	V.—Gangetic Plain and Chota Nagpur.				+·015								90·2	+ 0·4	75·9	−1·1	83·1	−0·4	14·3					23·3
15	Chota Nagpur	Hazaribagh	2,007	27·763	+·016	29·722	27·947	26th	27·672	1st	·275	76·6	85·9	+ 1·2	71·4	−0·8	78·7	+0·2	14·5	89·2	20th & 30th.	67·8	28th	21·4
		Ranchi	2,128	27·646	+·017	29·725	27·832	26th	27·553	7th	·274	75·3†	84·3	−0·1	71·2	−0·5	77·7	−0·3	13·1	88·7	20th	65·4	29th	23·3
16	South Bihar	Daltonganj	*730*	29·029		29·720	29·237	26th	28·928	8th	·309	78·7	90·7		73·7		82·2		17·0	94·1	29th	66·5	29th	27·6
15	Chota Nagpur	Purulia	*816*	28·941		29·706	29·137	26th	28·841	? 1st	·296	80·1	89·5		74·5		82·0		15·0	95·0	16th	70·4	26th	24·6
		Chaibassa	*760*	28·991	+·014	29·704	29·187	26th	28·883	7th	·304	79·5	89·9	0	75·0	−1·1	82·5	−0·6	14·9	93·9	26th & 30th.	70·5	29th	23·4
18	South Bihar	Gaya	375	29·387	+·026	29·716	29·592	26th	29·265	1st	·327	82·0	87·5	?	77·0	−0·8	82·3	?	10·5	94·4	30th	72·8	29th & 30th.	21·6
		Dehri	351	29·396		29·702	29·604	26th	29·287	1st	·317	82·0	90·6		77·2		83·9		13·4	93·3	28th & 30th.	72·0	12th	21·3
		Patna	183	29·578	+·015	29·714	29·792	26th	29·449	1st	·343	82·8	90·7	+0·8	78·1	−1·0	84·4	−0·1	12·6	93·5	30th	74·2	29th	19·3
		Arrah	190	29·564		29·706	29·770	26th	29·443	1st	·327	82·1	89·0		77·5		83·3		11·5	91·5	4 day	73·1	29th & 30th	18·4
		Buxar	239	29·514		29·710	29·724	26th	29·387	1st	·337	81·4	90·9		77·3		84·1		13·6	93·0	6th, 29th & 30 th.	73·1	29th & 30th.	19·9
17	North Bihar	Bhagalpur	160	29·595		29·708	29·792	26th	29·463	st	·329	83·0	90·4		77·6		84·0		12·8	94·2	20th	73·6	28th	20·6
		Darbhanga	166	29·580	−·005	29·699	29·782	26th	29·423	1st	·359	82·4	90·5	+2·2	77·9	−0·9	84·2	+0·7	12·6	93·1	4 days	73·8	26th	19·3
		Muzaffarpur	178	29·581		29·714	29·787	26th	29·419	1st	·368	83·0	90·2		77·7		84·0		12·5	92·7	5th, 15th & 16th.	72·7	30th	20·0
		Motihari	224	29·549		29·734	29·762	26th	29·384	1st	·378	82·9	91·8		76·9		84·4		14·9	93·9	11th & 15th.	72·3	28th & 30th	21·6
		Chapra	181	29·563		29·698	29·785	26th	29·436	1st	·349	82·6	91·8		77·8		84·9		14·0	93·9	5th, 16th & 30th.	72·6	30 th	21·3
18	United Provinces (East).	Benares	267	29·489	+·025	29·711	29·690	26th	29·381	1st	·309	81·4	91·9	+0·9	75·7	−1·7	83·8	−0·4	16·2	96·1	6th	69·2	27th	26·9
		Allahabad	309	29·440	+·018	29·705	29·638	26th	29·345	1st	·295	81·5	91·3	−0·2	76·1	−0·8	83·7	−0·5	15·2	95·6	6th	71·1	4 days	24·5
23	United Provinces (East Sub-montane),	Gorakhpur	257	29·489	+·012	29·703	29·701	26th	29·339	1st	·362	83·3	93·2	+2·7	77·2	−0·5	85·2	+1·1	16·0	99·1	11th	71·5	29th	27·6
19	South Oudh	Lucknow	368	29·364	+·002	29·702	29·577	26th	29·252	1st	·325	81·2	90·7	−1·4	74·9	−1·6	82·8	−1·5	15·8	95·3	6th	68·8	28th	26·5
20	North Oudh	Bahraich	401	29·339	+·013	29·702	29·542	26th	29·180	2nd	·362	81·9	92·0	+1·0	75·5	−0·7	83·8	+0·2	16·5	96·1	6th	67·0	25th	29·1
21	United Provinces (Central),	Cawnpore	416	29·330	+·020	29·705	29·535	26th	29·228	2nd	·307	80·1	90·4	−2·0	74·8	−1·8	82·6	−1·9	15·6	69·5	6th	70·3	29th	26·3
		Mainpuri	516	29·227	+·017	29·704	29·432	26th	29·102	17th	·330	79·3	92·2	−0·9	74·6	−1·3	83·4	−1·1	17·6	96·8	28th & 29th.	67·7	26th	29·1

* Mean of 29 days.

† „ 27 „

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

Note 1.—When a query is inserted against any reading or in the returns of any stations

Note 2.—The data from which divisional means of the figure columns Nos. 41 43 and 45

I—*continued.*

in India, Burma, etc., in September 1904—continued.

WIND DIRECTION. Number of winds from									Wind resultant.	Wind velocity.				Hygrometry, 8 A.M.				Cloud.		Rainfall.								Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
Calm	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.		Mean daily velocity in miles per hour instrumental errors uncorrected.	Normal (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Mean cloud amount at 8 A.M.	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, 1904.	Normal rainfall for period, 1st May to 30th September.	Departure from normal of period, 1st May to 30th September, 1904.				
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	58
27		1			1			1	N 45° E	0·9			1·0	82		·883		4·0		7	12·53	- 5·53	3·95	8·77	— 4·82	50·69	47·51	+ 3·18	1·71	Bankura .	Central Bengal	11
17	2	1	3	3			1	3	N 15° E	2·3				87		·897		3·7		6	11·61	- 5·61	2·98	7·60	— 4·62	47·51	48·46	— 0·95	1·88	Raniganj.		
6	1	1	6	1	2	5	5	3	S 56° W	2·3	3·1	−26	2·2	86	+1	·933	P	5·9	−1·1	8	12·10	— 4·10	3·62	8·59	— 4·97	42·12	48·59	— 6·47	0·82	Burdwan.		
23		1	3	2			1		S 76° E	1·1			1·2	83		·896		4·4		9	13·30	- 4·30	3·70	10·01	— 6·31	52·58	51·12	+ 1·46	1·11	Naya Dumka		
13	1		2	3		3	7	1	S 63° W	2·7	3·7	−27	2·3	87	−3	·970	—·006	6·1	−1·3	7	12·48	- 5·48	6·39	9·72	— 3·33	53·51	46·89	+ 6·62	3·24	Berhampore.		
28					1	1			S 27° W	0·9			0·9	84		·968		2·8		10	12·36	— 2·36	8·56	10·38	— 1·82	51·12	48·61	+ 2·51	1·77	Rampur Boalia.		
	2	6	2	2	2	3	6	7	N 40° W	4·3			3·9	85		·993		3·6		6	11·45	- 5·45	4·09	10·86	— 6·77	34·17	45·94	—11·77	1·44	Malda.		
23			6		1				S 81° E	1·5			1·3	87	−2	·936	−·026	4·0	−3·0	12	12·10	— 0·10	7·23	12·11	- 4·88	52·78	57·31	— 4·53	2·00	Bogra.		
	1	9	7	2	6	3	1	1	S 80° E	1·8			1·7	83	−7	·936	−·007	4·9	−1·9	7	12·56	- 5·56	3·98	14·00	−10·02	47·89	61·01	—16·12	1·44	Dinajpur .	North Bengal .	12
15	2	2	4	1	5		1		S 68° E	1·8			1·6	86		·965		4·3		5	13·55	- 8·55	3·17	14·16	−10·99	60·09	73·51	—13·42	1·20	Rangpur.		
	3	7	7	8	2	1	1	1	N 89° E	1·0			1·2	89	−2	·922	+·019	3·9	−3·1	11	14·75	— 3·75	10·76	20·03	— 9·27	88·56	113·18	- 24·62	2·73	Jalpaiguri.		
14		6	4	6					E	1·6			1·6	89		·928		6·1		11	14·34	— 3·34	18·33	21·82	— 3·49	104·58	115·23	—10·65	6·30	Cooch Behar		
4	3	4	7	5	1	2	1	3	N 77° E	2·9	2·0	+45	2·5	87	—	·947	—·007	2·3	−3·7	10	11·40	— 1·40	5·16	14·82	— 9·66	53·14	58·57	— 5·43	1·25	Purnea .	North Bihar .	17
5	4	2	2	1		8	4	4	N 76° W	3·8			2·8	83	−5	·894	—·080	5·3*	−1·7	12	13·87	— 1·87	9·02	12·08	— 3·06	42·94	52·39	— 9·45	2·17	Balasore .	Orissa . .	14
	1	1	2	2	2	5	13	4	S 82° W	7·8	7·9	— 1	7·5	84	−1	·929	—·031	6·9	—0·2	11	12·90	— 1·90	4·96	11·11	- 6·15	39·83	50·21	—10·38	1·22	False Point.		
10		2	2	2		4	8	2	S 82° W	2·4	8·4	−71		79	−3	·835	—·059	4·8	−1·2	10	13·00	— 3·00	9·58	9·97	— 0·39	44·02	49·69	— 5·67	2·19	Cuttack.		
13	2	1		1	1	3	4	5	N 76° W	10·6			10·4	84		·933		4·8		9	12·18	— 3·18	8·41	10·07	— 1·66	35·46	43·04	— 7·58	2·24	Puri.		
														80	−4	·849	−·044	3·3	−1·4				3·58	7·22	3·64					V.—Gangetic Plain and Chota Nagpur.		
		4		6	1	3	2	6	N 50° W	3·4	7·0	+20	7·5	74	−10	·681	—·084	6·8	+0·1	6	11·97	- 5·97	4·47	8·88	- 4·41	55·96	47·33	+ 8·63	1·89	Hazaribagh.	Chota Nagpur	15
		1	1	4	4	2	1	7	N 67° W	8·2			9·6	76†	— 7	·671†	—·079	4·8	−0·9	6	13·66	— 7·66	3·58	9·01	- 5·43	57·17	48·53	+ 8·64	1·52	Ranchi.		
11			4	7		1	5	2	S 63° E	6·0			4·2	80		·791		1·7		6	10·48	— 4·48	2·75	7·54	- 4·79	43·60	39·30	+ 4·30	0·65	Daltonganj.	South Bihar .	16
			4	4	1	1		14	N 66° W	3·2			3·9	82		·839		4·1		9	11·61	— 2·61	4·60	8·14	- 3·54	51·64	45·66	+ 5·98	0·78	Purulia .	Chota Nagpur.	15
19	2	4	1			1	3		N 2° E	1·6			1·4	2	— 3	·831	—·055	3·7	−2·1	10	12·00	— 2·00	7·49	7·36	+ 0·13	57·42	44·32	+ 3·10	1·82	Chaibassa.		
1		4	6	2	1	5	11		S 53° W	3·7	2·3	+61	2·9	80	— 2	·879	—·007	3·7	−2·1	3	9·13	— 6·13	2·07	6·98	- 4·91	57·55	42·24	+15·31	1·42	Gaya .	South Bihar .	16
1			8	2	3	14	2		S 12° W	7·0			6·3	76		·831		4·8		5	8·94	- 3·94	2·52	6·46	- 3·94	44·03	38·37	+ 5·66	0·76	Dehri.		
5	1	2	6	3	1	4	8		S 14° W	2·5	2·9	−14	2·8	80	— 3	·899	—·031	4·2	−1·9	6	9·29	- 3·29	2·26	6·93	- 4·67	60·51	42·64	+17·87	0·76	Patna.		
9		3	2	7	1	8			S 17° E	2·3			2·3	80		·878		0·6		4	9·29	- 5·29	3·32	8·23	- 4·91	47·02	40·50	+ 6·52	2·16	Arrah.		
	1	9	2	2	9	7			S 13° W	6·9			6·5	81		·871		3·5		4	9·03	- 5·03	2·36	6·93	- 4·57	38·39	36·26	+ 2·13	0·87	Buxar.		
15		2	2	1	3	2	3	2	S 45° W	3·1			3·0	81		·918		2·7		6	9·39	- 3·39	3·73	8·48	- 4·75	37·97	43·03	- 5·06	1·59	Bhagalpur .	North Bihar .	17
4			10	3		5	7	1	S 11° E	2·7	3·6	−25	2·4	83	— 3	·918	—·023	3·2	−1·9	4	9·27	- 5·27	3·89	8·70	- 4·81	39·67	45·38	— 5·71	1·68	Darbhanga.		
15			4	4			4	3	S 45° E	2·1				84		·954		1·7		5	8·94	- 3·94	0·93	8·17	- 7·24	47·31	40·36	+ 6·95	0·20	Muzaffarpur		
8		3	8	3		6	2		S 56° E	4·3			4·2	81		·919		1·1		1	8·97	- 7·97	0·24	9·62	- 9·38	43·42	45·89	— 2·47	0·11	Motihari.		
		4	8	3	4	8	3		S 24° E	2·5			2·3	81		·903		3·3		3	8·35	- 5·35	1·90	7·22	- 5·32	34·68	35·99	— 1·31	0·73	Chapra.		
1		3	5	4	1	12	4		S 14° W	3·3	3·9	−15	3·8	80	− 4	·865	—·044	3·4	−1·8	4	8·40	- 4·40	3·65	6·03	- 2·38	32·21	36·40	- 4·19	2·02	Benares .	United Provinces (East).	18
		4	5	1	2	3	12	3	N 89° W	6·6	5·3	+25	5·5	80	0	·856	—·033	3·5	−2·0	5	7·40	- 2·40	2·56	5·16	- 2·60	33·53	36·05	— 2·52	0·80	Allahabad.		
8	2	5	1	3	2	3	3	3	N 25° W	1·5	2·1	−29		80	− 4	·904	—·001	3·7	−0·8	4	8·60	- 4·60	1·65	8·08	- 6·43	51·63	45·50	+ 6·16	0·88	Gorakhpur	United Provinces (East Sub-montane).	23
5	1	2	6	2	2	2	7	3	S 79° W	2·3	2·8	−16	2·5	79	— 2	·832	—·045	3·0	−1·9	7	8·10	— 1·10	6·76	5·39	+ 1·37	39·94	35·47	+ 4·47	1·44	Lucknow .	South Oudh .	19
11	1	1	8	4	2		3		S 70° E	1·2			1·1	79	— 3	·881	—·024	3·0	−1·0	5	7·40	- 2·40	4·79	6·58	- 1·79	44·76	43·72	+ 1·04	3·10	Bahraich .	North Oudh .	20
1	1	1	6	3		9	8	1	S 45° W	3·9				78	— 2	·805	—·070	3·6	−0·4	5	6·70	- 1·70	12·18	5·14	+ 7·04	55·44	32·46	+23·98	5·66	Cawnpore .	United Provinces (Central).	21
11		3	4	2		3	5	2	W	2·7			2·7	75	— 3	·760	—·073	2·1	−2·1	3	8·70	- 6·70	0·96	3·74	- 2·78	23·26	27·78	- 4·52	0·38	Mainpuri.		

the data for that station are not utilized in calculating the provincial departures from normal.
are derived are incomplete.

† Mean of 27 days.
* Mean of 29 days.

Table

Abstract of Observations taken at 8 A.M. at 232 Stations

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure, 8 A.M., in inches.								Temperature of air.												
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
					+·012								92·9	−0·4	73·1	−0·6	83·0	−0·5	19·9					32·3
24	United Provinces (West Sub-montane).	Bareilly	568	29·164	+·013	29·700	29·375	26th	29·035	1st	·340	79·4	90·6	+0·1	74·2	−1·6	82·4	−0·8	16·4	94·4	4 days	68·1	25th & 28th.	26·3
		Dehra Dun	2,233	27·545	+·014	29·741	27·744	26th	27·389	1st	·355	72·5	84·2	−0·1	67·3	−2·7	75·8	−1·4	16·9	88·0	4th, 6th, & 8th.	61·0	30th	27·0
		Roorkee	899	28·843	+·015	29·716	29·051	26th	28·678	1st	·373	77·6	90·2	−1·1	71·4	−1·9	80·8	−1·5	18·8	94·7	5th, 6th, & 14th.	65·2	25th & 29th.	29·5
22	United Provinces (West.)	Meerut	738	28·990	+·007	29·698	29·193	26th	28·847	1st	·346	77·8	91·4	−0·4	73·3	−1·3	82·4	−0·9	18·1	96·1	5th & 6th	66·3	29th	29·8
26	South-East Punjab.	Delhi	718	29·010	+·005	29·696	29·202	26th	28·869	1st	·333	79·5	91·3	−1·7	75·8	−1·2	83·6	−1·5	15·5	97·2	6th	70·8	16th & 17th.	26·4
28	Central Punjab.	Lahore	702	29·016	+·011	29·689	29·190	26th	28·845	1st	·345	81·5	99·1	+0·2	74·3	+1·7	86·7	+1·0	24·8	104·4	7th, 10th & 11th.	66·7	24th	37·7
27	South Punjab.	Sirsa	662	29·068	+·013	29·697	29·259	26th	28·921	1st	·338	81·3	97·1	−1·8	75·5	−0·2	86·3	−1·0	21·6	104·8	8th & 10th.	70·1	24th	34·7
		Patiala	*818*	28·914		29·703	29·114	26th	28·759	1st	·355	79·6	92·8		73·1		83·0		19·7	99·8	6th	65·7	24th	34·1
29	Punjab (Sub-montane.)	Ludhiana	812	28·916	+·008	29·703	29·101	26th	28·764	1st	·337	78·1	92·9	−2·0	74·8	0	83·9	−1·0	18·1	102·0	7th	67·1	24th	34·9
		Sialkot	830	28·898	+·018	29·704	29·078	26th	28·747	1st	·331	79·2	97·5	+1·8	74·8	+1·0	86·2	+1·4	22·7	102·7	11th	67·1	23rd	35·6
		Ambala	892	28·847	+·020	29·710	29·057	26th	28·681	1st	·376	78·8	94·5	+0·8						102·0	6th			
		Rawalpindi	1,674	28·076	+·008	29·727	28·241	26th	27·917	1st	·324	78·3	95·1	+1·5	69·3	+0·4	82·2	+1·0	25·8	99·5	11th & 12th.	60·6	26th	38·9
					+·018								99·5	+1·3	75·6	−0·3	87·6	+0·5	24·0					37·0
32	North-West Frontier Provinces.	Peshawar	1,110	28·640	+·008	29·738	28·813	26th	28·488	1st	·325	78·2	94·3	−1·7	69·3	−0·8	81·8	−1·3	25·0	100·0	9th & 12th.	62·5	28th & 29th.	37·5
		D. I. Khan	590	29·135	+·015	29·676	29·309	26th	28·985	1st	·354	81·3	100·9	+0·1	73·1	−0·8	87·5	−0·2	26·8	107·2	12th	65·6	28th	41·6
31	West Punjab	Khushab	612	29·116	P	29·700	29·292	26th	28·956	1st	·336	82·6	99·5	−0·1	75·6	−0·2	87·6	−0·2	23·9	105·9	11th	68·4	26th	37·5
		Montgomery	558	29·159	+·017	29·682	29·343	26th	28·999	1st	·344	85·8	102·5	+0·8	75·5	−0·6	89·0	+0·1	27·0	108·8	11th	67·0	27th	41·8
		Multan	420	29·279	+·007	29·664	29·466	26th	29·129	1st	·337	83·0	103·0	+2·7	77·7	+0·1	90·4	+1·4	25·3	109·4	12th	70·0	25th	39·4
47	Sind	Jacobabad	186	29·524	+·009	29·672	29·742	25th	29·390	2nd	·352	82·3	106·1	+2·6	74·4	−1·6	90·3	+0·5	31·7	112·2	13th	66·4	27th	45·8
		Hyderabad	96	29·665	+·032	29·715	29·903	26th	29·523	2nd	·380	82·0	100·7	+3·2	75·9	−0·3	88·3	+1·5	25·8	105·6	13th & 17th.	70·0	25th	35·6
		Kurrachee	30	29·785	+·035	29·766	30·009	26th	29·649	15th	·360	80·8	89·2	+0·4	76·8	−0·1	83·0	+0·2	12·4	95·9	16th	71·7	26th	24·2
51	West Rajputana	Bikaner	*771*	28·974	+·013	29·712	29·183	26th	28·866	1st	·317	83·3	99·7	+1·2	79·1	−0·1	89·4	+0·6	20·6	107·1	11th	74·0	14th & 16th.	33·1
		Pachpadra	*380*	29·407	+·030	29·744	29·614	26th	29·252	15th	·362	82·9	100·8	+3·6	76·5	+1·3	88·6	+2·5	24·3	107·5	11th	71·5	28th	36·0
		Jodhpur	782	29·007		29·771	29·209	26th	28·865	16th	·344	80·8	98·2		76·3		87·3		21·9	104·7	12th	69·8	29th	34·9
					+·024								92·0	+1·9	74·0	−0·5	83·0	+0·7	18·0					28·4
50	East Rajputana	Jaipur	1,431	28·355	+·012	29·751	28·550	26th	28·169	16th	·381	79·3	93·6	−0·6	71·9	−1·7	82·8	−1·2	21·7	99·2	11th	65·1	27th	33·1
		Bharatpur	585	29·161		29·711	29·352	28th	28·986	16th	·366	79·8	92·7		74·2		83·5		18·5	96·5	6th	67·1	30th	29·4
		Kotah	819	28·930		29·749	29·136	26th	28·726	16th	·410	82·1	93·5		76·6		85·1		16·9	99·0	30th	72·6	26th	26·4
		Sambhar	1,254	28·520?	+·021?	29·739?	28·719	26th	28·359	16th	·360	80·7	94·7	+1·0	73·4	−1·7	84·1	−0·4	21·3	100·5	10th	66·0	26th	34·5
		Ajmer	1,611	28·188	+·021	29·761	28·380	26th	28·025	16th	·355	79·5	92·6	+1·8	76·3	+2·7	84·5	+2·3	16·3	97·4	10th	67·1	26th	30·3
		Udaipur	1,925	27·899		29·771	28·089	26th	27·723	16th	·366	79·8	91·8		71·4		81·6		20·4	97·5	28th	64·3	23rd & 27th.	33·2
		Deesa	466	29·365	+·030	29·786	29·551	26th	29·165	15th	·386	81·3	100·2	+7·4	75·0	+1·1	87·6	+4·3	25·2	105·6	13th	68·5	29th	37·1
6	Kathiawar and Cutch.	Bhuj	395	29·142	+·045	29·791	29·637	26th	29·267	15th	·370	79·9	93·5	+1·4	74·6	0	84·1	+0·7	18·9	98·3	28th	71·1	25th	27·2
		Jamnagar	61	29·782		29·788	29·976	26th	29·601	15th	·375	80·9	91·2		73·9		82·5		17·3	97·6	28th	70·2	5 days	27·4
		Rajkot	429	29·397*	+·021*	29·781*	29·538*	28th	29·243	15th	·295	78·5	96·0	+4·6	70·7	−1·7	83·4	+1·5	25·3	100·9	28th	64·9	18th	36·0
		Veraval	*18*	29·862	+·040	29·822	30·023	26th	29·728	15th	·295	78·0	82·8	P	75·0	−1·3	78·8	P	7·8	86·6	27th	71·3	25th, 26th & 28th.	15·3
		Dwarka	37	29·824		29·808	30·012	26th	29·672	15th	·340	79·6	84·5		76·9		80·7		7·6	86·4	4th, 5th & 7th.	74·7	26th	11·7
		Bhavnagar Para	55	29·816	+·016	29·815	29·987	26th	29·628	15th	·359	80·3	95·8	+2·7	73·5	−1·0	85·1	+0·9	21·3	100·6	12th & 13th.	71·9	16th	29·6
49	Central India	Nowgong	757	28·998	+·013	29·72	29·196	26th	28·862	16th	·334	77·4	88·3	−2·1	73·3	−1·7	80·8	−1·9	15·0	92·5	6th & 30th.	67·0	30th	25·5
		Indore	1,823	28·007	+·034	29·797	28·199	26th	27·753	15th	·446	74·9	87·5	+2·1	68·5	−1·6	78·0	+0·3	19·0	95·6	11th	62·1	29th & 30th.	33·5
		Neemuch	1,630	28·179	+·021	29·778	28·374	26th	27·993	15th	·381	76·5	90·3	+2·4	70·8	−0·1	80·6	+1·2	19·5	97·0	11th	66·7	24th	30·3
45	Gujarat	Surat	39	29·845	+·045	29·829	30·005	26th	29·655	15th	·350	81·5	89·8	+1·3	75·4	−0·1	82·6	+0·6	14·4	98·2	28th	70·0	25th	28·2
		Ahmedabad	163	29·683	+·019	29·796	29·857	26th & 27th.	29·476	15th	·381	81·7	97·2	+5·1	75·9	−0·3	86·6	+2·4	21·3	102·3	28th	73·1	20th & 22nd.	29·2

* Mean of 26 days.

N.B.—Elevations in italics indicate barometrical determinations

NOTE 1.—When a query is inserted against any reading or in the returns of any station.

NOTE 2.—The data from which divisional means of the figure columns Nos. 41, 43 and 45

I—*continued.*

in India, Burma, etc., in September, 1904—continued.

WIND DIRECTION. Number of winds from									Wind resultant.	WIND VELOCITY.				HYGROMETRY, 8 A.M.				CLOUD.		RAINFALL.								Heaviest rainfall during month.	STATION.	METEOROLOGICAL PROVINCE OR DISTRICT.	Number of District,
Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.		Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal. (uncorrected.)	Percentage departure from normal.	Mean velocity corrected (where possible).	Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Mean cloud amount at 8 A.M.	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 1904.	Normal rainfall for period, 1st May to 30th September.	Departure from normal of period, 1st May to 30th September 1904.			
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	58
														72	−3	·713	·042	2·5	−0·4				4·16	4·49	− 0·40					VI.-Upper Sub-Himalayas		
20			4	1			5		S 23° W	1·1	3·0	−63	1·0	82	0	·816	−·030	2·9	−0·9	4	6·73	−2·73	3·12	7·01	−3·89	27·73	43·63	−15·90	0·98	Bareilly .	UNITED PROVINCES (WEST SUB-MONTANE).	24
25						2	2	1	S 80° W	0·6	1·1	−45		80	− 3	·644	−·053	4·1	−0·7	6	10·20	−4·20	6·03	9·74	−3·71	79·09	80·95	− 1·86	2·25	Dehra Dun.		
12	1	2	1	9	1	1		3	S 42° E	2·1	2·0	+ 5		78	− 3	·741	−·044	2·3	−1·3	3	5·70	−2·70	5·29	6·04	−0·75	29·41	37·87	− 8·46	4·04	Roorkee.		
16	1	2	3	2	2	1	3		S 67° E	0·9	2·1	−57	0·9	79	+ 3	·768	−·001	2·2	−0·8	4	5·00	−1·00	7·75	5·30	+2·45	29·17	28·04	+ 1·13	4·04	Meerut .	UNITED PROVINCES (WEST).	22
5		2	3	3	1	1	12	3	S 88° W	3·7	3·8	− 3	3·3	70	+ 1	·708	−·037	2·5	−0·7	4	4·10	−0·10	10·15	3·61	+6·54	27·38	24·74	+ 2·64	6·95	Delhi .	SOUTH-EAST PUNJAB.	26
11		3	3	9	2		1	1	S 60° E	2·3	2·0	+15		63	− 4	·677	−·057	1·7	+0·3	2	2·30	−0·30	0·49	1·99	−1·50	5·00	16·16	−11·16	0·24	Lahore .	CENTRAL PUNJAB	28
9		1	3	2	4	5	6		S 28° W	2·7	3·6	−25	2·3	65	+ 2	·692	−·031	1·8	−0·3	4	3·20	+0·80	3·73	1·74	+1·99	7·50	12·25	− 4·75	1·81	Sirsa .	SOUTH PUNJAB.	27
1	5	1	6	7	1		6	3	N 63° E	4·0			4·0	74		·758		3·0		5			4·91			18·69			2·22	Patiala.		
18	1			7			4		S 13° E	1·5	1·1	+36	1·3	75	0	·728	−·026	2·3	−0·8	6	3·40	+2·60	3·17	3·61	−0·44	12·83	22·86	−10·03	1·00	Ludhiana .	PUNJAB (SUB-MONTANE).	29
11	1	9	4	3			1	1	N 61° E	1·1	1·6	−31		66	− 4	·683	−·057	1·6	−0·6	3	3·30	−0·30	1·77	2·83	−1·06	13·41	24·64	−11·23	1·04	Sialkot.		
28				2					S 45° E	0·8				76	− 6	·744	−·058	3·2	+0·5	6	3·90	+2·10	2·88	4·24	−1·36	15·52	26·94	−11·42	1·80	Ambala.		
17	2	1	4	1	1	1		3	N 48° E	2·6	1·3	+100	2·4	57	−15	·593	−·072	2·5	+0·6	2	4·20	−2·20	0·61	3·23	−2·62	17·94	23·94	− 6·00	0·40	Rawalpindi.		
														63	− 4	·696	−·033	1·5	−0·5				0·62	0·76	−0·13					VII.— Indus Valley and North-West Rajputana.		
26	1	1						2	N 13° W	0·8	3·1	−74	0·9	61	− 2	·594	−·039	1·9	+0·8	1	1·40	−0·40	1·06	0·52	+0·54	3·37	5·59	−2·22	1·06	Peshawar .	NORTH-WEST FRONTIER PROVINCE.	32
26	1	1	1	1					N 67° E	0·8	1·7	−53	0·8	67	− 1	·732	+·001	0·8	+0·2	0	1·00	−1·00	0	0·28	−0·28	1·02	5·28	−4·26	0	D. I. Khan.		
3		11	12			3	1		N 68° E	6·6			6·3	57	− 3	·638	−·041	1·0	−0·1	2	1·60	+0·40	0·60	0·54	+0·06	6·77	10·29	−3·52	0·35	Khushab .	WEST PUNJAB.	31
1		2	4	4	9	7	1	2	S 4° E	8·1			7·5	45	−14	·560	?	0·6	−0·6	0	1·30	−1·30	00·5	0·87	−0·82	2·05	7·75	−5·70	0·05	Montgomery		
13	1	1	1	1	8	4		1	S 6° W	1·1	2·8	−61	1·4	59	− 6	·673	−·076	0·4	−0·2	0	0·70	−0·70	0	0·32	−0·32	0·28	5·67	−5·39	0	Multan.		
9	1	1	3	8	5	1	1	1	S 38° E	3·8	3·1	+23	4·0	75	+ 6	·826	+·043	0·6	0	0	0·50	−0·50	0	0·07	−0·07	0·30	2·67	−2·37	0	Jacobabad.	SIND.	47
	3				6	21			S 40° W	12·8	12·5	+ 2	11·4	64	− 4	·704	−·013	0	−1·6	0	0·80	−0·80	0	0·41	−0·41	0·09	6·07	−5·98	0	Hyderabad.		
2					1	26	1		W	14·6	14·9	− 2	12·8	76	− 5	·791	−·060	3·2	−1·8	0	0·60	−0·60	0	0·51	−0·51	0	6·65	−6·65	0	Kurrachee .		
1		2	1	2	4	10	7	3	S 54° W	8·5	5·6	+52		58	− 5	·657	−·082	1·6	−0·8	2	1·90	+0·10	2·68	0·94	+1·74	5·68	10·03	−4·35	1·63	Bikaner .	WEST RAJPUTANA	51
1	1	1	1	1	6	10	5	4	S 53° W	11·8	6·1	+93	10·3	73	− 3	·819	+·008?	2·4	−1·1	2	2·50	−0·50	0·61	2·11	−1·50	3·15	12·42	−9·27	0·41	Pachpadra.		
2		3	2			6	16	1	S 86° W	7·3			6·6	62		·657		3·8		2	2·50	−0·50	1·84	1·75	+0·09	6·00	12·26	−6·26	1·36	Jodhpur.		
														73	−4	·737	−·048	3·4	−0·9				1·64	4·36	−2·54					VIII.—East Rajputana, Central India and Gujarat		
3	2	4	2			3	9	7	N 56° W	4·4	5·2	−15		65	− 8	·661	−·061	2·9	−0·7	3	4·90	−1·90	1·50	3·56	−2·06	21·96	24·26	−2·30	0·84	Jaipur .	EAST RAJPUTANA	50
4			5	1	1		17	1	S 85° W	3·5			3·2	78		·799		2·8		6			2·72			35·19			1·70	Bharatpur.		
2	1	1	1	2		7	11	5	S 86° W	5·3			4·2	62		·670		1·7		2	5·10	−3·10	2·04	5·16	−3·12	22·29	28·61	+3·68	1·37	Kotah.		
3	2	2	3			1	14	5	N 66° W	6·8	7·2	− 6		62	− 7	·656	−·073	1·9	−1·0	1	3·80	−2·80	0·34	2·80	−2·46	15·23	19·14	−3·91	0·16	Sambhar.		
		4		2		5	18	1	S 86° W	8·8	5·0	+76	7·7	66	− 9	·670	−·064	2·6	−0·5	1	4·10	−3·10	0·31	2·33	−2·02	14·72	20·09	−5·37	0·30	Ajmer.		
5	1	2	1			7	9	5	N 86° W	4·2			3·7	59		·603		2·1		3	6·10	−3·10	0·87			17·67			0·40	Udaipur.		
		1		1	4	12	9	3	S 61° W	10·3	8·5	+21		65	−11	·692	−·086	3·5	−1·5	1	3·73	−2·73	0·41	3·98	−3·57	5·68	23·33	−17·65	0·32	Deesa.		
						13	7	10	S 85° W	16·0	11·3	+42	13·4	79	+ 4	·818	+·032	4·0	−0·4	2	2·00	0	2·17	1·68	+0·49	4·02	13·71	−9·69	1·97	Bhuj .	KATHIAWAR AND CUTCH.	46
	1			1	14	13	1		S 56° W	18·0			21·8	73		·775		3·9		0			0·03			8·73			0·03	Jamnagar.		
				1	10	17	2		S 75° W	10·7	8·5	+26	10·6	75	− 7	·733	−·078	4·4	−0·4	1	5·10	−4·10	0·33	3·96	−3·63	11·34	27·13	−15·79	0·33	Rajkot.		
	1			1	1	5	17	5	S 88° W	9·2	8·6	+ 7	8·6	86	+ 1	·823	−·029	4·1	−1·6	0	4·60	−4·60	0	1·99	−1·99	6·65	16·78	−10·13	0	Veraval.		
	1				1	11	15	2	S 75° W	13·8				83		·812		4·5		0			0·01			2·27			0·01	Dwarka.		
						12	4	14	N 86° W	10·1			12·0	71	−11	·725	?	4·4	−1·3	2	7·80	−5·80	6·43	4·43	+2·00	10·99	18·70	− 7·71	4·13	Bhavnagar Para.		
3	1	2	4	1	2	5	12		S 68° W	2·8	2·4	+17	2·8	81	0	·772	−·049	4·6	−0·3	3	7·00	−4·00	1·12	5·24	−4·12	53·57	41·43	+12·14	0·34	Nowgong .	CENTRAL INDIA .	49
2		3				2	11	12	N 64° W	7·7	4·8	+60	6·2	81	− 5	·709	−·039	5·9	−0·4	7	8·80	−1·80	5·98	7·68	−1·70	17·51	31·18	−13·67	2·92	Indore.		
		3	1			10	15	1	S 78° W	11·0	10·2	+ 8	9·2	78	0	·720	−·021	2·8	−0·6	5	6·50	−1·50	1·28	5·11	−3·83	19·36	28·69	− 9·33	0·44	Neemuch .		
4	3		1		3	5	9	5	W	7·2	9·2	−22	6·8	77	− 6	·820	−·041?	3·7	−2·0	3	7·00	−4·00	3·91	7·01	−3·10	12·52	41·73	−29·21	2·16	Surat .	GUJARAT.	45
	4			2	6			18	N 59° W	2·7			4·4	69	− 9	·736	−·078	4·3	−1·5	3	5·80	−2·80	1·41	4·77	−3·36	8·55	31·79	−23·24	0·66	Ahmedabad		

the data for that station are not utilized in calculating the provincial departures from normal.
are devided are incomplete.

Table

Abstract of Observations taken at 8 A.M. at 232 Stations

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 A.M., in inches.								Temperature of air.											
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
22	United Provinces (West).	Agra	555	29·184	+·005	29·704	29·377	26th	29·048	16th	·329	80·0	92·2	−0·9	75·9	−0·8	84·1	−0·9	16·3	96·0	28th	70·9	29th	25·1
21	United Provinces (Central).	Jhansi	858	28·906	+·016	29·726	29·109	26th	28·731	16th	·378	79·5	91·5	−0·2	75·4	−0·4	83·5	−0·3	16·1	96·2	28th, 29th & 30th.	71·1	22nd	25·1
	IX.—Deccan				+·024							79·0	87·2	+0·3	70·7	−0·9	79·0	−0·3	16·5					27·1
38	Bombay Deccan	Belgaum	2,539	27·370	+·031	29·864	27·486	27th	27·265	12th	·221	70·0	78·6	−0·3	65·4	+0·1	72·0	−0·1	13·2	85·3	27th & 30th.	60·4	24th	24·9
		Sholapur	1,580	28·284	+·023	29·837	28·434	27th	28·107	13th	·327	75·7	88·9	+0·5	70·8	+0·4	79·9	+0·5	18·1	97·2	4th	67·1	16th	30·1
		Poona	1,840	28·055	+·032	29·863	28·193	27th	27·933	14th	·260	73·1	85·3	+0·9	69·0	+0·4	77·2	+0·7	16·3	91·0	20th & 21st.	64·4	23rd	26·6
		Bijapur	*1,948*	27·937	+·022	29·844	28·078	27th	27·788	13th	·290	74·2	86·5	+0·6	69·1	−0·5	77·8	+0·1	17·4	93·4	5th & 6th.	65·8	16th	27·6
40	Khandesh	Malegaon	1,430	28·413	+·019	29·807	28·590	26th	28·212	14th	·378	76·5	90·3	+2·4	69·2	−1·0	79·8	+0·7	21·1	96·9	29th	64·1	25th, 26th & 27th.	32·8
		Ahmednagar	2,154	27·736	+·033	29·818	27·887	27th	27·535	14th	·352	74·4	87·0	+1·8	67·3	−0·7	77·2	+0·6	19·7	91·9	4th & 30th.	62·0	1st	29·9
41	Berar	Akola	930	28·900	+·030	29·778	29·081	27th	28·649	14th	·432	77·3	88·8	−0·3	71·1	−1·6	80·0	−1·0	17·7	94·7	30th	62·8	30th	32·1
		Amraoti	1,215	28·598	+·029	29·776	28·790	27th	28·343	14th	·447	76·6	89·0	+0·6	71·8	−0·3	80·4	+0·2	17·2	94·2	5th, 29th & 30th.	66·5	22nd	27·7
42	Central Provinces, (West).	Khandwa	1,044	28·767	+·018	29·778	28·957	26th	28·492	15th	·465	76·8	89·8	+1·7	71·7	−1·5	80·8	+0·1	18·1	94·7	4 days	64·6	30th	30·1
		Hoshangabad	1,006	28·806	+·030	29·785	29·004	26th	28·591	14th	·413	75·3	86·1?	−2·0?	71·7?	−1·6?	78·9?	−1·8?	14·4?	90·2	7th	63·7	30th	26·5
		Nagpur	1,025	28·770	+·031	29·760	28·969	26th	28·579	14th	·390	77·2	89·1	−0·2	71·8	−2·0	80·5	−1·1	17·3	95·1	29th	65·1	30th	30·0
43	Central Provinces, Central.	Chanda	*634*	29·185	+·038	29·771	29·384	26th	28·950	13th	·434	78·3	88·6	−0·5	71·6	−2·9	80·1	−1·7	17·0	95·2	29th	65·0	28 t	30·2
		Seoni	2,033	27·770	+·026	29·763	27·974	26th	27·612	14th	·362	74·0	85·2	−0·4	68·4	−2·2	76·8	−1·3	16·8	90·8	22nd, 29th & 30th.	61·5	28th	29·3
		Jubbulpore	1,327	28·448	+·022	29·742	28·646	26th	28·305	14th	·341	76·3	87·1	−0·3	70·4	−2·4	78·8	−1·4	16·7	90·9	29th	64·2	28th	26·7
		Saugor	1,807	27·979	+·017	29·750	28·177	26th	27·827	15th	·350	73·9	85·8	−0·8	70·0	−1·5	77·9	−1·2	15·8	90·4	29th & 30th.	66·6	23rd & 24th.	23·8
49	Central India	Sutna	1,040	28·712	+·017	29·720	28·907	26th	28·620	8th	·287	78·3	87·7	0·3	73·9	−0·7	80·8	−0·5	13·6	91·9	6th & 7th.	68·1	29th	23·8
44	Central Provinces, (East).	Raipur	970	28·801	+·020	29·726	29·004	26th	28·646	12th	·358	78·8	87·8	−0·4	73·8	−1·0	80·8	−0·7	14·0	92·6	25th & 30th.	69·4	8th	23·2
		Pendra	2,123?	27·745?		29·729?	27·943	26th	27·615	8th	·328	75·2	84·6		70·0		77·3		14·6	87·8	30th	66·1	25th	21·7
		Sambalpur	486	29·284	+·010	29·721	29·485	26th	29·147	12th	·338	80·4	88·7	−0·6	76·0	−1·3	82·4	−1·0	12·7	93·1	30th	71·6	28th & 29th.	21·5
39	Hyderabad (North).	Aurangabad*	1,905	27·945		29·806	28·133	26th	27·751	14th	·382	74·5	86·7		67·6†		77·1†		19·1	93·4	30th	63·2	28th	30·2
		Indur	1,260									78·6	88·5		70·9		79·7		17·6	92·2	3rd	68·2	12th & 29th	24·0
		Bidar	*2,165*	27·729		29·846	27·862	27th	27·532	13th	·350	75·1	83·9		69·7		76·8		14·2	91·3	1st	66·1	14th	25·2
58	Hyderabad (South).	Gulbarga	1,503	28·363	+·020	29·827	28·525	27th	28·151	13th	·374	76·0	87·5	0	71·0	+0·2	79·3	+0·1	16·5	90·5	30th	65·8	16th	24·7
		Raichur	1,326	28·546	+·027	29·828	28·069	27th	28·385	13th	·284	77·3	89·0	+1·3	72·1	−0·1	80·6	+0·6	16·9	96·1	1st	69·1	15th & 16th.	27·0
		Hyderabad (Deccan).	1,690	28·158	+·018	29·804	28·310	26th	27·931	13th	·379	76·2	86·6	−0·1	71·8	+1·0	79·2	+0·5	14·8	93·4	1st & 4th.	67·2	4 days	26·2
		Hanumkonda	871	28·937		29·760	29·121	26th	28·709	13th	·412	78·8	89·1		73·7		81·4		15·4	95·0	4th & 5th.	66·8	30th	28·2
					+·035								83·5	−0·2	75·3	+0·4	79·4	+0·1	8·2					13·2
	X.—West Coast											79·9	85·5	+1·0	77·9	+1·4	81·7	+1·2	7·6	88·0	28th 29th & 30th.	75·5	25th	12·5
37	Konkan	Bombay	37	29·869	+·036	29·846	29·998	26th	29·757	14th	·241	78·8	83·9	−0·3	74·9	+0·5	79·4	+0·1	9·0	86·3	4th, 28th & 30th.	71·9	25th	14·4
		Ratnagiri	110	29·814	?	29·865	29·920	27th	29·726	13th	·194	78·5	82·8	−0·7	75·6	+0·5	79·2	−0·1	7·2	85·5	1st	73·4	1st, 13th & 16th.	12·1
		Mormugao	*60*	29·881	+·036	29·876	29·978	27th	29·787	13th	·191	79·2	81·8	−0·8	77·5	+2·0	79·7	+0·6	4·3	84·0	4th, 29th & 30th.	75·0	5 days	9·0
		Goa	199	29·728	+·020	29·865	29·821	27th	29·639	12th & 13th.	·182	77·5	82·5	−0·2	74·2	+0·4	78·4	+0·1	8·2	85·2	3rd & 28th.	71·0	24th	14·2
		Karwar	44	29·900	+·039	29·878	29·994	27th	29·811	13th	·183	78·2	86·0	+1·4	74·6	0·1	80·3	+0·8	11·4	88·3	4 days	73·2	8th, 15th & 22nd.	15·1
33	Malabar	Cochin	10	29·966	+·035	29·904	30·034	27th	29·917	12th	·117	77·3	84·0	−0·3	74·1	·0·3	79·1	−0·3	9·9	86·8	2nd	72·2	14th, 25th & 26th.	14·6
		Calicut	27	29·947	+·040	29·904	30·025	27th	29·891	12th	·134	77·1	82·1	−1·2	73·9	−0·2	78·0	−0·7	8·2	85·7	28th	70·5	9th	15·2
		Mangalore	65	29·900	+·034	29·898	29·981	27th	29·844	13th	·137	77·1	82·6	−0·3	74·8	−0·5	78·7	−0·4	7·8	84·0	14th, 29th & 30th.	72·5	22nd	11·5
		Trivandrum	198	29·772	+·042	29·902	29·831	27th	29·717	4th	·114	77·5	82·6	−0·3	74·8	−0·5	78·7	−0·4	7·8	84·0				
					+·031								92·0	+2·1	73·9	+0·2	2·9	+1·2	18·2					26·2
	XI.—South India											81·6	91·2	+2·0‡	78·4	+0·1	84·9‡	+1·1	12·8	95·3	18th	76·2	2nd	19·1
57	Madras (South)	Pamban	37	29·894	+·047	29·858	29·993	27th	29·812	12th	·181	84·8	91·5	?	74·4	−4·2?	84·5	?	20·1‡	101·4	2nd	72·9	2nd	28·5
		Tinnevelly	168	29·764	+·047	29·861	29·850	26th	29·700	11th	·150	82·2	96·0	+0·7	75·4	+0·1	85·7	+0·4	20·6	99·0	17th	72·5	20th	26·5
		Madura	447	29·475	+·054	29·859	29·588	27th	29·383	12th	·205	79·6	94·9		70·8		81·4		24·1	98·3	5th & 9th.	67·5	9th	30·8
		Periyakulam	945	28·972		29·859	29·088	26th	28·879	12th	·179													

* Mean of 29 days. † Mean of 28 days. ‡ Mean of 24 days.

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

Note 1.—When a query is inserted against any reading or in the returns of any

Note 2.—The data from which divisional means of the figure columns No. 4 [illegible]

I—*continued.*

in India, Burma, etc., in September, 1904—continued.

WIND DIRECTION. Number of winds from										Wind resultant.	WIND VELOCITY.				HYGROMETRY, 8 A.M.				CLOUD.		RAINFALL.									Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.			Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal, (uncorrected.)	Percentage departure from normal.	Mean velocity corrected (where possible).	Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Mean cloud amount at 8 A.M.	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 1904.	Normal rainfall for period, 1st May to 30th September.	Departure from normal of period, 1st May to 30th September 1904.				
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	58
		3		6		13	1	7	S 56° W	5·7	4·1	+39	6·7	73	− 1	·745	−·062	3·1	−0·4	4	4·80	−0·80	0·84	4·23	− 3·39	31·97	26·43	+ 5·54	0·26	Agra	United Provinces (West).	22
1			2	4	1	9	8	5	S 63° W	6·3	3·2	+97	7·7	77	+ 2	·775	−·027	1·7	−1·3	3	6·80	−3·80	1·03	5·89	− 4·86	41·71	36·09	+ 5·62	0·38	Jhansi	United Provinces (Central).	21
														− 4	·699	−·047	4·9	−1·2						7·09	7·63	− 0·35			IX.—Deccan.	
11						9	12	3	S 88° W	13·3	16·7	−20		88	− 1	·656	−·001	6·9	−0·6	7	9·10	−2·10	2·28	4·83	− 2·55	41·21	39·89	+ 1·32	0·62	Belgaum	Bombay Deccan	38
1	1	2				5	10	11	N 72° W	11·1	9·9	+12	13·4	71	− 7	·621	−·054	6·7	−0·6	7	9·50	−2·50	8·05	8·77	− 0·72	17·78	24·41	− 6·63	3·11	Sholapur.		
						8	19	3	S 83° W	12·3‡	11·4	+ 8		80	− 1	·651	−·028	5·0	−2·2	7	8·10	−1·10	4·42	5·00	− 0·58	9·09	21·42	−12·33	1·45	Poona.		
2	3	1	4	6	8	1	5		S 43° W	9·3			9·1	83	− 1	·706	+·006	7·1	−0·2	9	9·70	− 0·70	5·30	7·61	− 2·31	9·97	17·44	− 7·47	1·96	Bijapur.		
	1				4	18	7		N 83° W	10·5	7·6	+38	12·1	71	− 6	·651	−·058	2·9	−2·7	8	7·80	+ 0·20	8·88	6·90	+ 1·98	15·21	20·62	− 5·41	3·75	Malegaon	Khandesh	40
	8				1	9	1	11	N 61° W	9·3			11·3	77	− 5	·662	−·023	4·3	−1·6	7	9·80	−2·80	6·81	6·98	− 0·17	11·32	18·13	− 6·81	2·05	Ahmednagar.		
3	2					3	5	17	N 58° W	7·9	5·8	+36	7·0	78	− 3	·722	−·039	5·9	+0·1	9	8·40	+ 0·60	8·18	6·52	+ 1·66	24·02	29·00	− 4·98	2·13	Akola	Berar	41
	2	2	1		1	6	15	3	N 86° W	7·7	4·5	+75	6·9	75	−10	·688	−·090	5·1	−0·9	6	7·30	−1·30	4·62	6·26	− 1·64	20·17	30·03	− 9·86	1·85	Amraoti.		
3	1	2		1		1	12	10	N 66° W	7·2	6·2	+16	6·8	76	− 6	·697	−·059	4·4	−0·8	9	7·70	+ 1·30	7·71	6·58	+ 1·13	16·28	28·68	−12·40	2·85	Khandwa	Central Provinces (West).	42
						30			S 45° W	2·6	2·5	+ 1	2·7	87	0	·759	−·055	5·2	−0·9	8	10·56	− 2·50	8·13	9·66	− 1·53	29·71	48·49	−18·78	2·15	Hoshangabad.		
	7	3	1	1	1	1	6	10	N 36° W	7·1	6·1	+21	5·8	78	− 2	·731	−·061	4·8	−1·6	10	10·30	− 0·30	6·74	9·04	− 2·30	30·14	44·00	−13·86	1·76	Nagpur.		
11	1	1			2	2	9	4	N 85° W	2·1	4·1	− 41	2·1	80	0	·775	−·035	3·9	−2·2	11	11·30	− 0·30	7·63	9·48	− 1·85	27·25	49·88	−22·63	3·10	Chanda	Central Provinces, Central.	43
	7	4			1	4	7	7	N 47° W	6·4	3·9	+64	5·4	78	− 6	·654	?	3·7	−0·8	9	11·90	− 2·90	5·54	9·51	− 3·97	31·58	49·72	−18·14	1·56	Seoni.		
	3	2	2	3	2	3	10	5	N 81° W	3·9	3·4	+15	3·4	84	0	·764	?	3·9	−1·6	10	9·10	+ 0·20	5·00	7·90	− 2·90	36·41	54·58	−18·17	2·05	Jubbulpore.		
	2	2	2	1	1	8	11	3	S 83° W	8·8	3·3	+167	7·8	78	− 5	·682	−·081	4·0	−1·5	8	9·70	−1·70	2·59	7·31	− 4·72	36·77	44·84	− 8·07	0·54	Saugor.		
5		2	3	1	1	8	9	1	S 63° W	3·6	6·5	−45	3·3	78	− 2	·760	−·057	5·4	−0·5	8	8·70	− 0·70	9·25	6·10	+ 3·15	50·20	40·55	+ 9·65	3·27	Sutna	Central India	49
6	1	2	2	1	1	12	4	1	S 52° W	6·4	5·9	+ 8	7·7	80	− 4	·774	−·064	4·8	−1·7	5	10·60	− 5·60	3·17	7·39	− 4·22	43·52	46·12	− 2·60	1·34	Raipur	Central Provinces (East).	44
6	5	2	2	1	2	1	2	9	N 28° W	5·7			4·8	78		·683		4·4		7			4·75		43·20			2·32	Pendra.		
	1	1	3	4	3	15	2	1	S 25° W	4·7	2·2	+114	4·6	79	− 3	·831	−·057	4·3	−1·7	10	11·80	−1·80	6·04	8·76	− 2·72	60·77	62·18	− 1·41	1·78	Sambalpur.		
4	1					7	15	2	S 83° W	12·4			12·3	77		·660		4·5		8	9·60	−1·60	15·09	7·24	+ 7·85	28·73	26·30	+ 2·43	5·60	Aurangabad	Hyderabad (North).	39
2		5						23	N 33° W	4·5			3·8	65		·636		5·6		11	10·30	+ 0·70	8·39	8·29	+ 0·10	29·81	35·05	− 5·24	1·75	Indur		
	6	2	1		1	6	7	7	N 63° W	6·7			5·6	76		·658		4·0		12·0	11·90	+ 0·10	18·72	9·21	+ 9·51	29·90	33·14	− 3·24	5·35	Bidar.		
1	3	2	1			2	7	14	N 51° W	9·6			9·3	77	− 3	·693	−·018	6·2	−0·6	6	11·20	− 5·20	11·34	9·33	+ 2·01	21·29	26·26	− 4·97	4·70	Gulbarga	Hyderabad (South).	53
1		1					9	19	N 57° W	12·0			11·4	72	− 8	·672	−·053	5·4	−1·3	8	9·80	− 1·80	4·17	8·44	− 4·27	17·01	24·33	− 7·32	1·43	Raichur.		
5			1				24		S 86° W	6·6			6·4	76	− 7	·686	−·048	5·6	−0·9	8			6·70	6·04	+ 0·66	19·36	25·74	− 6·38	2·45	Hyderabad (Deccan).		
	3				2	3	10	12	N 71° W	8·9			7·6	72		·709		3·2		6	10·30	− 4·30	4·72			21·10			1·78	Hanumkonda		
														86	− 1	·839	−·010	6·3	−0·4										X.—West Coast.		
	1	5	2	4	1	1	12	4	N 69° W	10·9	11·7	− 7		83	− 4	·856	−·124	6·9	−0·4	4	14·00	−10·00	7·59	9·20	−1·61							
																							1·88	11·75	− 9·87	32·78	72·21	−39·43	0·73	Bombay	Konkan	37
3	5	3	6	3		2	5	3	N 17° E	8·7	·2	+ 6	8·6	86	−	·841	−·018	6·3	−0·2	7	15·60	−8·60	8·16	12·52	− 4·36	92·77	102·14	− 9·37	2·54	Ratnagiri.		
1	8	2	1		4		1	13	N 28° W	9·5				90	− 1	·881	−·004	6·0	+0·2	12			8·22	8·34	− 0·12	89·29	85·01	+ 4·28	2·50	Mormugao.		
2	6	4	4		3	2	1	8	N 7° W	7·8				85	− 4	·866	−·014	7·6	+0·2	12			10·76	8·37	+ 2·39	108·63	91·24	+17·39	3·12	Goa.		
2	2	6	8	2		1	8	1	N 41° E	4·0				87	− 3	·815	−·008	5·6	−0·5	16	15·10	+0·90	7·48	12·76	− 5·28	110·62	113·71	− 3·09	2·60	Karwar.		
4	4	8	8	2	1	1		2	N 58° E	5·7				86	0	·837	−·008	5·7	−0·3	12	14·20	−2·20	5·56	8·98	− 3·42	89·08	85·04	+ 4·04	1·08	Cochin	Malabar	33
13	4	3		1	1	1	1	6	N 21° W	4·6			4·6	90	+ 2	·839	+·007	6·2	−0·1	14	12·20	+1·80	10·85	6·13	+ 4·72	106·88	94·37	+12·51	2·25	Calicut.		
7	2	3	6	1	3	2	1	5	N 50° E	4·4	2·4	+83		89	− 1	·840	−·005	7·0	−0·6	19	16·90	+2·10	11·92	10·32	+ 1·60	119·28	111·49	+7·79	3·36	Mangalore.		
4	6						2	18	N 38° W	6·5				82	− 2	·788	−·015	5·3	−1·5	11	7·10	+3·90	3·51	3·63	− 0·12	42·71	36·14	+ 6·57	0·91	Trivandrum.		
														74	− 4	·756	−·008	5·0	−1·5				2·97	4·89	−1·92					XI.—South India.		
1			1		11	11	6		S 34° W	15·5			16·4	80		·855		3·0		0	2·20	−2·20	0·09	1·31	− 1·22	0·49	2·96	− 2·47	0·05	Pamban	Madras (South)	57
	1				3	7	11	8	S 86° W	7·7			7·4	59	− 1	·703	−·014	4·2	−1·2	1	2·00	−1·00	0·44	1·30	− 0·86	4·05	3·98	+ 0·07	0·33	Tinnevelly.		
2	2	6				1	6	13	N 39° W	6·0	3·4	+76	6·9	67	− 1	·742	+·005	3·2	−2·0	6	6·10	−0·10	3·18	4·99	− 1·81	12·21	14·64	− 2·43	1·66	Madura.		
18	4	3	1	2				2	N 27° E	4·0			4·3	67		·672		4·4		7	4·50	+2·50	1·58	2·57	− 0·99	12·37	8·92	+3·45	0·31	Periyakulam.		

station the data for that station are not utilized in calculating the provincial departures from normal.

43 and 45 are derived are incomplete.

‡ Mean of 25 days.

Table

Abstract of Observations taken at 8 A.M. at 232 Stations

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level, in feet	Pressure, 8 A.M., in inches.								Temperature of air.											
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
34	Madras (South Central).	Salem	940	28·995	+·027	29·881	29·089	27th	28·900	12th	·189	79·4	93·1	+1·8	72·8	+0·9	82·9	+1·4	20·3	96·2	29th & 30th.	69·4	8th	26·8
		Coimbatore	1,348	28·576	+·035	29·878	28·666	27th	28·490	12th	·176	76·9	89·6	0	70·9	+0·2	80·3	+0·1	18·7	91·9	27th & 30th.	68·8	9th & 26th.	23·1
35	Coorg	Mercara	3,781	26·249	+·038		26·333	27th	26·200	11th, 12th & 13th.	·133	64·5	71·0	−1·2	60·8	−1·1	66·0	−1·2	10·2	78·0	26th & 27th.	58·1	25th	19·9
36	Mysore	Chitaldroog	2,405	27·525	+·030	29·879	27·627	27th	27·423	12th	·204	72·8	84·6	+1·1	67·8	+0·3	76·2	+0·7	16·8	90·1	30th	64·9	24th	25·2
		Bangalore	3,021	26·943	+·024	29·857	27·035	27th	26·852	12th	·183	69·9	83·9	+2·0	64·8	−0·5	74·4	+0·8	19·1	87·3	19th	62·4	7th & 15th.	24·9
		Hassan	3,091	26·891	+·033	29·906	26·981	27th	26·814	12th	·167	71·1	83·1	?	63·8	−0·4	73·5	?	19·3	86·4	27th	60·4	24th	26·0
		Mysore	2,518	27·447	+·031	29·913	27·524	27th	27·370	13th	·154	72·3	85·1	+0·6	65·8	−0·6	75·5	0	19·3	88·4	27th & 28th.	62·5	24th	25·9
56	Madras, East Coast (South).	Negapatam	31	29·867	+·027	29·827	29·933	27th	29·765	12th	·218	83·6	94·2	+1·7	77·4	+0·9	85·8	+1·3	16·8	97·9	15th	75·5	24th & 25th.	22·4
		Cuddalore	12	29·878	+·034	29·819	30·010	27th	29·759	12th	·251	83·7	96·5	+4·6	77·0	+1·3	86·8	+3·0	19·5	99·7	13th & 14th.	72·7	23rd	27·0
		Trichinopoly	255	29·656	+·035	29·845	29·763	27th	29·554	12th	·209	81·5	96·7	+1·2	76·1	+0·4	86·4	+0·8	20·6	100·6	11th & 17th.	70·9	25th	29·7
		Madras	22	29·849	+·022	29·801	29·981	27th	29·710	12th	·271	83·4	96·0	+3·0	77·3	+0·3	86·7	+1·7	18·7	100·5	15th & 19th.	72·5	22nd	28·0
		Vellore	707	29·173		29·820	29·297	27th	29·043	12th	·254	82·1	93·9		75·8		84·9		18·1	98·9	18th	70·5	30th	28·4
55	Madras, East Coast (Central).	Nellore	52	29·805	+·035	29·791	29·952	27th	29·656	12th	·296	84·5	99·1	+4·5	77·3	−0·4	88·2	+2·1	21·8	102·8	22nd	71·1	20th	31·7
		Masulipatam	15	29·818	+·032	29·768	29·925	26th	29·634	12th	·361	83·2	93·0	+2·3	77·3	−0·1	85·2	+1·1	15·7	98·2	4th	71·1	7th	27·1
4	Madras, (Central).	Cuddapah	433	29·445	+·022	29·817	29·568	27th	29·297	12th	·271	83·0	97·5	+5·0	77·2	+1·4	87·4	+3·2	20·3	102·2	18th	72·7	14th, 20th & 21st.	29·5
		Kurnool	945	28·942	+·022	29·816	29·073	27th	28·774	13th	·299	78·3	91·0	+1·8	73·1	0	82·1	+0·9	17·9	97·2	30th	68·6	30th	28·6
		Bellary	1,475	28·416	+·031	29·844	28·542	28th	28·277	13th	·265	77·5	92·4	+1·8	73·3	+0·6	82·9	+1·2	19·1	96·5	5th	69·7	20th	26·8
52	Madras, East Coast (North).	Cocanada	26	29·786	+·024	29·748	29·979	26th	29·578	12th	·401	82·5	93·0	+3·8	78·3	+0·2	85·7	+2·0	14·7	98·6	23rd	74·0	7th	24·6
		Waltair (Vizag.)	*226*	29·563	+·022	29·730	29·763	26th	29·380	12th	·383	82·1	89·1	?	77·1	?	83·1	?	12·0	93·9	23rd	72·9	11th & 21st.	21·0
		Gopalpur	72	29·694	+·015	29·708	29·900	26th	29·504	1th	·396	81·7	88·6	+0·3	77·0	−1·3	82·8	−0·5	11·6	93·7	22nd & 23rd.	72·5	29th & 30th.	21·2
	XII.—Hill Stations.																							
48	Baluchistan	Pishin											86·0		45·0		65·5		41·0	91·4	11th, 12th & 13th.	34·0	23rd	57·4
		Quetta	5,502	24·655	+·052		24·817	27th	24·546	2nd	·271	64·7	84·2	−1·2	45·4	−4·1 ?	64·8	−2·7	38·8	90·1	12th	37·8	22nd	52·3
		Kalat	...									65·7	82·9	−2·3?	25·6	−13·9	54·3	−8·1?	57·3	90·3	10th	17·1	24th	73·2
		Chaman	4,311	25·643	−·006		25·802	27th	25·526	2nd	·276	73·3	89·1	−2·5	59·8	−2·5	74·5	−2·5	29·3	96·2	1st & 12th.	51·1	23rd	45·1
30	Punjab	Leh	11,503	19·730	0		19·816	26th	19·616	22nd	·230	48·5	66·4	−3·9	39·8	−1·7	53·1	−2·8	26·6	75·6	12th	31·9	14th	43·7
		Srinagar	5,204	24·859	+·013		25·013	26th	24·729	2nd	·284	57·5	78·6	−0·8	50·9	−2·1	64·8	−1·5	27·7	87·2	12th	42·2	25th & 26th.	45·0
		Gulmarg	*8,569*	21·871			22·005	26th	21·760	22nd	·245	52·1	61·3		39·3		50·3		22·0	68·6	12th	30·7	24th	37·9
		Sonemarg	*8,764*	21·873			22·015	26th	21·761	22nd	·254	43·9	62·9		37·8		50·4		25·1	71·7	12th	30·1	23rd, 25th & 27th.	41·6
		Skardu	*7,505*	22·833			22·988	26th	22·712	22nd	·276	58·5	75·6		50·3		63·0		25·3	87·1	11th & 12th.	42·2	24th	44·9
		Dras	*10,059*	20·810			20·941	26th	20·683	22nd	·258	51·1	69·3		39·2		54·3		30·1	79·9	12th	28·6	24th	51·3
		Gilgit	4,890	25·081			25·295	25th	24·911	22nd	·384	65·3	83·8	−2·9	61·6	−2·9	72·7	−2·9	22·2	97·3	11th & 12th.	54·1	30th	43·2
		Chitral	*5,486*	25·234†			25·315	28th	25·140	22nd	·175	61·3	85·5		54·7		70·1		30·8	97·2	12th	47·0	28th	50·2
		Killa Drosh										68·4	86·6		61·8		74·2		24·8	96·4	11th	54·1	23rd	42·3
		Murree	6,333	23·841	+·011		23·981	26th	23·737	22nd	·244	62·5	71·5	−2·3	55·3	−3·5	63·4	−2·9	16·2	76·2	10th	43·9	22nd	32·3
		Kailang	*10,087*	20·933			20·993	14th	20·862	0th	·131	49·3	65·9	−3·4	38·4	−3·7	52·2	−3·6	27·5	79·2	11th	31·9	24th	47·9
		Poo*											71·6		49·9		60·8		21·7	79·0	10th	42·5	30th	36·5
		Simla	7,224	23·118	+·021		23·260	26th	23·002	1st	·258	58·9	65·8	−0·3	55·7	−0·7	60·8	−0·5	10·1	69·9	6th	51·3	24th	18·6
		Sarain		23·149			23·285	26th	23·038	1st	·247	57·5	67·7		49·2		58·5		18·5	72·7	6th	41·6	30th	31·1
		Kalabagh	...	20·143			20·257	26th	20·043	1st	·214	45·7	51·3		42·5		46·9		8·8	57·3	10th	37·7	24th	19·6
	North-West Frontier Province.	Para Chinar	6,000	24·423			24·557	26th	24·308	1st	·249	67·7	79·4		57·3		68·4		22·1	87·1	11th	51·0	23rd	36·1
		Cherat	*4,256*	25·653	+·010		25·806	26th	25·531	1st	·275	71·1	84·8	−1·0	65·8	−0·3	75·2	−0·7	19·2	92·4	11th	60·0	4 days	32·4

* Mean of 28 days.

† „ 20 „

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

Note 1.—When a query is inserted against any reading, or in the returns of any station

Note 2.—The data from which divisional means of the figure columns Nos. 41, 43 and 45 are

I—*continued.*

in India, Burma, etc., in September, 1904—continued.

Wind direction. Number of winds from: Calm	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	Wind velocity. Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal, (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	Hygrometry, 8 A.M. Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Cloud. Mean cloud amount at 8 A.M.	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 1904.	Normal rainfall for period, 1st May to 30th September.	Departure from normal of period, 1st May to 30th September 1904.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
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	58
	1					9	16	4	S 84° W	4·8	3·7	+30	4·2	75	− 5	·759	−·012	4·7	−1·2	8	8·70	−0·70	5·52	6·55	− 1·03	27·63	25·48	+ 2·15	2·63	Salem	Madras (South Central).	34
					7	15	8		S 46° W	10·0	6·6	+52	9·2	84	0	·778	+·030	3·2	−2·1	1	3·20	−2·20	1·02	1·32	− 0·30	10·90	7·60	+ 3·30	1·02	Coimbatore.		
							20	10	S 75° W	5·6	7·9	−29	5·2	94	+ 2	·581	+·010	8·4	−0·1	21	18·00	+3·00	17·29	10·48	+ 6·81	116·41	110·32	+ 6·09	3·00	Mercara	Coorg	35
						10	13	6	S 83° W	9·2			8·0	78	− 4	·632	−·011	6·7	−1·4	4	6·90	−2·90	1·23	4·71	− 3·48	14·77	17·72	− 2·95	0·43	Chitaldroog.	Mysore	36
1						9	18	3	S 81° W	9·8	6·7	+46	8·5	83	− 3	·604	−·028	7·1	−0·8	7	9·60	−2·60	4·98	6·23	− 1·25	24·44	22·92	+ 1·52	1·81	Bangalore.		
						3	14	7	N 71° W	3·9			3·5	82	0	·622	+·017	7·0	−1·2	3	7·40	−4·40	2·06	4·68	− 2·62	18·00	22·08	− 4·08	0·97	Hassan.		
1	3	2				3	14	7	N 71° W	3·9			3·5	82	0	·622	+·017	7·0	−1·2	3	7·40	−4·40	2·06	4·68	− 2·62	18·00	22·08	− 4·08	0·97	Hassan.		
		1				15	12	2	S 76° W	10·3			11·1	82	− 1	·642	+·007	7·5	0	4	7·70	−3·70	2·74	5·60	− 2·86	20·36	18·03	+ 2·33	1·65	Mysore.		
1						12	16	1	S 73° W	8·0	5·2	+54	7·0	67	− 8	·777	−·013	4·8	−0·9	4	5·60	−1·60	1·31	3·45	− 2·14	11·58	12·10	− 0·52	0·59	Negapatam.	Madras East Coast (South).	56
25							4	1	N 81° W	2·9			3·6	79	− 3?	·912	+·032?	4·8	−1·2	3	6·60	−3·60	3·45	6·21	− 2·76	13·63	17·35	− 3·72	2·25	Cuddalore.		
14						10	5	1	S 64° W	4·8	7·1	−32		69	− 3	·736	−·014	4·1	−1·9	6	5·90	+0·10	4·69	3·91	+ 0·98	11·03	14·01	− 2·98	1·94	Trichinopoly.		
1					1	11	15	2	S 73° W	6·6	6·5	+ 2		67	−11	·768	−·071	4·9	−1·8	4	10·70	−6·70	3·51	5·01	− 1·50	13·77	17·48	− 3·71	1·86	Madras.		
3		6	1	6		4		10	N 7° W	4·0			4·0	66		·723		2·3		5	8·30	−3·30	3·59	6·14	− 2·55	16·18	20·67	− 4·49	1·37	Vellore.		
	1		1	2	4	4	9	9	S 87° W	7·3				62	−14	·739	P	5·8	−1·4	2	5·60	−3·60	1·30	4·35	− 3·05	9·82	12·81	− 2·99	0·95	Nellore	Madras East Coast (Central)	55
1					1	5	10	13	N 78° W	8·5	6·4	+33	7·5	83	− 1?	·341	+·034	5·7	−1·3	8	9·40	−1·40	2·59	5·89	− 3·30	21·85	24·53	− 2·68	0·78	Masulipatam.		
						6	18	6	W					65	− 9	·729	−·043	6·0	−1·2	4	8·30	−4·30	1·11	5·93	− 4·82	7·74	20·95	−13·21	0·46	Cuddapah.	Madras (Central)	54
4						7	7	12	N 80° W	1?·8				78	0	·757	+·023	5·8	−1·1	7	9·20	−2·20	2·30	6·69	− 4·30	12·01	21·80	− 9·79	0·52	Kurnool.		
3	1					3	10	13	N 69° W	10·4	9·3	+12	11·0	68	− 2	·651	−·001	5·2	−2·2	4	6·90	−2·90	2·78	4·62	− 1·84	11·92	12·38	− 0·46	1·86	Bellary.		
8						9	12	1	S 73° W	5·4			4·5	84	+ 4	·950	+·090	4·6	−2·8	5	9·00	−4·00	1·77	5·89	− 4·12	13·80	22·92	− 9·12	0·48	Cocanada	Madras East Coast (North).	52
1			2		1	15	10	1	S 61° W	8·9				74	− 7	·812	−·070	6·1	−1·2	7	8·80	−1·80	9·71	8·01	+ 1·70	33·35	24·16	+ 9·19	3·32	Waltair (Vizag.).		
1	12		1	1	3	3	3	6	N 36° W	8·7	7·2	+21	8·5	82	− 3	·881	−·018	5·3	−3·3	9	9·90	−0·90	7·08	7·14	− 0·06	28·17	31·09	− 2·92	2·06	Gopalpur.		
																														XII.—Hill Stations.		
																				0	0·10	−0·10	6	0·01	− 0·01	0	0·46	− 0·46	0	Pishin.	Baluchistan	
30									Calm	1·3	3·5	−63	1·4	39	−11	·240	−·090	0·1	−0·1	0	0·20	−0·20	0	0·13	− 0·13	0·47	2·32	− 1·85	0	Quetta.		
	2		4		23			1	S 8° E					28		·181				0	0·10	−0·10	0	0	0	0	1·65	− 1·65	0	Kalat.		
				5	6	14	4	1	S 33° W	6·2			6·8	38	+ 8	·307	+·038	0·1	−0·1	0	0	0	0	0	0	0	0·28	− 0·28	0	Chaman.		
		5	7	3	10	4	1		S 38° E	1·6				56	+ 8	·200	+·024	5·2	+1·6	0	0·50	−0·50	0·05	0·20	− 0·15	1·86	1·53	+ 0·33	0·02	Leh	Punjab	0
12	1			6	2	2	2	5	S 42° W	3·1			2·9	85	− 2	·407	−·061	3·5	+0·2	3	3·30	−0·30	0·82	1·11	− 0·29	13·87	10·41	+ 3·42	0·28	Srinagar.		
20		2	4	2	1		1		S 81° E	2·7			3·1	79		·314		3·2		6			1·63			15·67			0·30	Gulmarg.		
19	1			5	3		1	1	S 22° E	3·5			3·2	92		·270		4·4		6			1·39			17·26			0·19	Sonemarg.		
6	1	4	6	1	2	6	3	1	S 34° E	5·7			5·8	63		·310		4·4		0	0·40	−0·40	0·09	0·21	− 0·12	2·66	2·93	− 0·27	0·09	Skardu.		
25	1	1		1		1	1		N 45° W	7·3			5·8	54		·201		3·2		0	2·00	−2·00	0·06	0·87	− 0·81	5·21	5·46	− 0·25	0·04	Dras.		
24						2	4		S 75° W	3·8			3·4	55	+ 4	·555	+·170	3·8	+0·3	0	1·10	−1·10	0·11	0·25	− 0·14	2·88	2·35	+ 0·53	0·07	Gilgit.		
28					2				S	6·3			5·5	68		·366		1·5		2			0·46			1·12			0·34	Chitral.		
20				5		3	2		S 45° E					56		·397		1·6		0			0·14			2·83			0·05	Killa Drosh.		
21	2				4	2		1	S 45° E	6·7	5·4	+24	7·2	57	− 8	·338	−·043	2·8	+0·3	6	8·00	−2·00	3·13	5·62	− 2·49	35·04	37·58	− 2·54	0·95	Murree.		
			2	2	9	7	6	4	S 38° W	1·0				64		·228		4·3		2			0·80	1·67	− 0·87	10·52	8·32	+ 2·20	0·57	Kailang		
21		1	1	1		3		1	S 15° W									4·7		2			0·64	0·45	+ 0·19	3·53	3·02	+ 0·51	0·43	Poo.		
7	17			1	5				N 4° E	2·5	1·7	+47	2·4	66	−10	·331	−·066	3·9	−0·1	5	8·70	−3·70	2·00	5·87	− 3·87	50·93	51·29	− 0·36	1·02	Simla.		
17		3	1		5	4			S 3° E	2·5 ††			2·5 ††	68		·324		3·3		6			2·31			30·83			0·62	Sarain.		
6		1	2	6	3			3	S 85° W	10·3			10·0	71		·221		3·4		8			4·73						1·33	Kalabagh.		
25	1	1	1	1	1				E	6·2			5·7	49		·333		0·7		7	5·30	+1·70	3·19	2·63	+ 0·56	12·05	12·46	− 0·41	1·50	Para Chinar	North-West Frontier Province.	
11	2		1			8	1	7	N 83° W	5·1			4·7	52	− 6	·399	−·069	1·9	0	3			0·74	1·80	− 1·06	10·45	11·83	− 1·28	0·40	Cherat		

†† Mean of 29 days.

the data for that station are not utilized in calculating the provincial departures from normal.
derived are incomplete.

Table

Abstract of Observations taken at 8 A.M. at 232 Stations

Number of District.	Meteorological Province or District.	Station.	Elevation of barometer above sea-level, in feet.	Pressure, 8 A.M., in inches.								Temperature of air.											
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
25.	United Provinces	Chakrata	7,022	23·268	+·009		23·407	26th	23·146	1st	·261	58·7	68·1	−0·6	55·0	−2·0	61·6	−1·3	13·1	70·5	4 days	48·8	30th	21·7
		Ranikhet	6,069	24·064	+·002		24·211	26th	23·946	1st	·265	63·6	72·2	−0·4	58·9	−1·1	65·6	−0·8	13·3	77·0	5th	55·0	17th	22·0
		Muktesar	7,600	22·821			22·965	26th	22·707	1st	·258	59·1	67·3		54·5		60·9		12·8	74·9	6th	51·4	30th	23·5
	Sikkim	Taugu											60·0		46·0		53·0		14·0	66·1	20th	37·0	30th	20·1
13	Bengal	Yatung	10,480																					
		Darjeeling*	7,376	23·015	−·014		23·145	26th	22·879	21st	·266	59·4	66·0	+1·9	55·0	−0·5	60·5	+0·7	11·0	68·2	5 days	52·1	29th & 30th.	16·1
8	Assam Hill Tracts.	Shillong	4,900	25·121			25·270	26th	24·991	1st	·279	68·2	75·5		61·1		68·3		14·4	79·6	13th	57·0	16th & 30th.	22·6
		Cherra Poonjee	4,309	25·654			25·802	26th	25·540	1st & 21st.	·262	69·0	74·6		64·2		69·4		10·4	80·2	12th	61·5	3.th	18·7
	Central India	Mount Abu	3,945	26·001	+·018		26·199	26th	25·844	15th	·355	70·2	78·2	+2·9	65·1	+0·5	71·7	+1·7	13·1	82·7	12th	61·4	4 days	21·3
		Pachmarhi	3,528	26·364	0		26·550	26th	26·170	14th	·380	69·3	77·3	+0·1	64·6	−1·7	71·0	−0·8	12·7	81·6	28th & 29th.	57·2	30th	24·4
	South India	Wellington	6,200	24·253	+·021		24·340	27th	24·176	12th	·164	63·4	71·5	+0·2	54·7	−1·1	63·1	−0·5	16·8	74·2	17th & 30th.	50·7	24th	23·5
		Kodaikanal	7,688	22·834			22·912	27th	22·756	13th	·156	56·3	62·8		51·3		55·7		11·5	67·0	27th	43·5	25th	18·5
		Ootacamund	*7,322*	23·059			23·131	26th	22·983	12th	·148	56·7	63·5		50·2		56·8		13·3	68·0	6th	44·7	24th	23·3
	XIII.—Extra India.																							
	Ceylon	Trincomalee	12	29·880	+·026	29·818	29·966	26th	29·792	13th	·174	80·3	92·6	+1·4	76·9	+0·3	84·8	+0·9	15·7	95·5	29th	72·5	17th	23·0
		Colombo	40	29·956	+·046	29·922	30·016	27th	29·907	11th	·109	81·0	85·6	−0·4	77·3	+0·3	81·5	−0·1	8·3	87·5	10th & 14th.	75·0	18th, 19th & 23rd.	12·5
	Persia	Meshed	3,101									65·7			51·4	−2·8						44·9	18th	
		Teheran(b)*	*4,002*	25·903			26·060	12th	25·780	9th	·280	75·4	89·5	−1·2	63·2	−1·7	76·4	−1·5	26·3	96·7	9th	53·9	29th	42·8
		Ispahan(b)	*5,817*	24·325			24·460	12th	24·190	3rd	·270	68·6	87·5	−2·8	55·0	0	71·3	−1·4	32·5	92·9	11th	50·3	22nd	42·6
		Bushire	14	29·761	+·032	29·734	29·978	27th	29·628	2nd	·350	83·8	92·2	−2·1	77·0	−2·1	84·6	−2·1	15·2	98·5	27th	72·0	21st	26·5
		Bahrein*	30	29·734			29·950	27th	29·447	20th	·503	86·4	95·1		80·6		87·9		14·5	100·7	2nd	75·8	23rd	24·9
		Jask	13	29·753	+·005	29·723	29·966	27th	29·615	3rd	·351	87·2	93·8	+0·3	81·2	+0·3	87·5	+0·3	12·6	102·2	14th	75·2	27th	27·0
	Arabia	Muscat	20	29·783	+·028	29·750	30·029	27th	29·631	3rd	·398	86·5	87·7	+0·5	85·1	+1·7	86·4	+1·1	2·6	92·3	30th	83·5	5 days	8·8
		Baghdad*	220	29·691	+·020	29·685	29·794	28th	29·554	1st	·240	80·8	103·2†	+1·0†	71·6†	−0·3†	87·4†	+0·4	31·6	111·4	1st	65·6	30th	45·8
		Busrah	...																					
		Aden	94	29·775	+·038	29·800	29·910	29th	29·645	1st	·265	87·8	94·5	+0·9	82·7	+0·5	88·6	+0·7	11·8	97·3	18th	77·8	29th	19·5
		Perim	201	29·664	+·056	29·796	29·751	28th	29·590	3rd	·161	87·8	95·2	+0·4	84·1	+1·0	89·7	+0·7	11·1	99·3	15th	79·8	8th	19·5
	Afghanistan	Kabul	...									73·2	85·7	−1·6	47·0	−4·0	66·4	−2·8	38·7	96·6	14th	35·9	23rd	60·7
	Central Asia	Kashgar	4,255	25·592			25·800	3rd	25·410	1st, 20th, & 21st.	·390	63·9	83·1	+1·5	56·2	−0·7	69·7	+0·4	26·9	92·6	12th	49·3	24th	43·3
	Arabian Sea Islands.	Amini Divi	*13*	29·966	+·040	29·907	30·049	27th	29·913	12th	·136	81·5	86·2	+1·2	76·3	−0·5	81·5	+0·4	9·4	88·8	1st, & 2nd.	73·5	25th	15·3
		Minicoy	7	29·998		29·931	30·050	27th	29·954	11th & 12th.	·096	80·7	85·8	+0·5						88·3	1st			
	Africa	Zanzibar	73	30·105	+·041	30·106	30·168	17th	30·039	30th	·129	75·6	82·3	+0·3	72·7	−0·7	77·5	−0·2	9·6	85·1	30th	71·7	3rd	13·4
		Do. Dungat	*154*	30·021		30·106	30·063	19th	29·971	29th	·092	73·4	84·2		66·6		75·4		17·6	87·7	30th	64·2	8th	23·5
	Straits Settlements.	Penang(a)	20	29·920		29·865	29·973	4th	29·870	8th	·103	80·0	88·1		73·7		80·9		14·4	90·0	10 days	72·0	1st	18·0
		Singapore(a)	10	29·976		29·907	30·057	1st	29·925	11th	·132	83·6	88·3		72·9		80·6		15·4	91·9	23rd	70·6	11th	21·3

† Mean of 28 days.
* Mean of 29 days.
N.B.—Elevations in italics indicate barometrical determinations.

(a) 9 hours observations.
(b) Aneroid uncorrected.

I—*concluded.*

in India, Burma, etc., in September, 1904—concluded.

WIND DIRECTION. Number of winds from										WIND VELOCITY.				HYGROMETRY, 8 A.M.				CLOUD.		RAINFALL.									STATION.	METEOROLOGICAL PROVINCE OR DISTRICT.	Number
Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Mean cloud amount at 8 A.M.	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 1904.	Normal rainfall for period 1st May to 30th September.	Departure from normal, 1st May to 30th September 1904.	Heaviest rainfall during month.			
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	58
17	11				2			3	N	4·6	4·7	− 2	5·5	75	− 8	·374	−·076	2·1	−1·6	6	8·30	−2·30	4·22	6·10	− 1·88	61·57	56·55	+ 5·02	1·51	Chakrata .	UNITED PROVINCES	
13		2	3	1		5	3	3	S 79° W	2·4	1·9	+26	2·7	79	− 3	·430	−·055	3·1	−1·8	6	8·20	−2·20	7·81	7·00	+ 0·81	46·44	43·94	+ 2·50	4·44	Ranikhet.		
8	1	2	5	5		1	8		S 27° E	7·6			7·0	77		·389		2·8		6			11·23			49·04			5·74	Muktesar.		
																														Taugu .	SIKKIM.	
																				14	14·43	−0 43	5·63	6·68	− 1·05	31·80	37·88	− 3·08	1·09	Yatung .	BENGAL .	13
12	2	4	2	4		2	2	1	N 76° E	2·9†	3·0	− 3	2·6†	90	− 4	·167	−·007	6·1‡	−2·4	15	17·71	−2·71	10·34	18·95	− 8·61	93·25	111·83	−18 58	1·94	Darjeeling.		
4			4	1		1			S 71° E	1·1			1·2	81		·562		5·3		15	17·50	−2·50	7·98	13·67	− 5·69	53·95	65·58	−11·63	1·20	Shillong .	ASSAM HILL TRACTS.	8
	1	12	5	1	1	2	6	2	N 35° E	5·4			4·8	85		·593		6·8		12	18·80	−6·80	18·53	51·49	−32·91	261·48	374·47	−112 99	4·62	Cherra Poonjee.		
1	2	2		1	2	15	5	2	S 60° W	10·4	7·3	+42	10·5	64	−16	·464	−·087	3·4	−1·2	5	8·00	−3·00	1·07	9·12	− 8·05	14·10	59·76	−45·66	0·32	Mount Abu	CENTRAL INDIA.	
	3	1	3	1	1	2	5	14	N 48° W	8·4	5·6	+50	8·7	81	− 2	·576	−·051	5·2	−1·4	11	13·80	−2·80	18·82	14·09	+ 4·73	58·99	71·30	−12·31	10·25	Pachmarhi.		
17	1	3				6	3		S 75° W	2·8	3·5	−20		71	0	·418	−·011	5·1	−0·5	12	10·10	+1·90	4·92	5·40	− 0·48	18·22	20·28	− 2·06	2·09	Wellington	SOUTH INDIA.	
	2	1	1	2	2	1	8	13	N 62° W	14·0				78		·357		5·2		13	12·40	+0·60	6·51	6·70	− 0·19	23·55	27·06	− 3·51	0·93	Kodaikanal.		
4		2	3	2	2	1	9	7	N 77° W	7·0			6·6	81		·370		6·1		9	10·19	−1·10	3·52	4·44	− 0·86	23·78	27·19	− 0·41	0·71	Ootacamund		
																														XIII.—Extra India.		
						27	3		S 45° W	13·5				80	0	·826	−·039	2·7	−0·3	2			0·59	4·56	− 3·97	9·00	15·14	−6·14	0·34	Trincomalee	CEYLON.	
					3	21	6		S 49° W	11·2	8·7	+29		80	+ 2	·849	−·003	6·0	0	8			1·73	4·82	− 3·09	30·54	32·90	−2·36	0·26	Colombo.		
														51		·325		0·3		0			0	0·02	− 0·02	3·98	1·01	+2·97	0	Meshed .	PERSIA.	
26		3							N 45° E	1·3‖			1·6‖	48		·418		1·5		2			0·24	0·14	+ 0·10	1·28	0·97	+0·31	0·10	Teheran*		
24	1			1			1	3	N 45° W	1·6			2·0	53		·372		0·4		0			0	0	0	0·05	0·17	−0·12	0	Ispahan.		
4	1	3	2	8	1	1		10	N 36° E	10·8	7·7	+40	11·9	80	+17	·926	+·100	0·4		0			0	0	0	0	0	0	0	Bushire.		
2	7	1	3	3	1	1	3	8	N 22° W					72		·915				0			0			0·25			0	Bahrein.		
1	2	7	15					5	N 58° E	11·6			9·6	77	+ 4	·989	+·034	1·9	+0·4	0			0	0	0	0	0·13	−0·13	0	Jask.		
11	3	1	4	6	1		1	3	N 81° E	3·3			3·4	74	− 3	·903	−·027	2·6	+1·6	0			0	0	0	0	0·40	−0·40	0	Muscat .	ARABIA.	
16	3	1		1			1	7	N 32° W	2·7†	2·5	+ 8	3·6†	45	− 3	·481	−·026	0·3	+0·1	0			0	0	0	0·98	0·33	+0·65	0	Baghdad		
																														Busrah.		
			6	11	4		5	1	E	11·2	8·5	+32	9·1	71	− 4	·935	+·003	2·5	−1·4	0			0	0·13	− 0·13	0·50	0·50	0	0	Aden.		
		4	3	6	4	3	5	4	S 45° E	11·0			11·1	71	− 3	·942	−·022	1·2	−2·6	0			0·04	0·01	+ 0·03	0·40	0·94	−0·44	0·04	Perim.		
			3	7	1			16	N 69° W					87		·729		0·3	+0 3	0			0	0·03	− 0·03	0·57	1·16	−0·59	0	Kabul .	AFGHANISTAN.	
																				0			0	0·43	− 0·43	1·00	3·01	−2·01	0	Kashgar .	CENTRAL ASIA.	
28							1		W	2·1			1·9	51		·308		0													
5	2						8	15	N 56° W					78	− 5	·843	−·039	8·3	+2·0	11			5·52	5·54	− 0·02	35·70	37·73	−2·03	2·26	Aminl Divi.	ARABIAN SEA ISLANDS.	
	2					2	9	17	N 61° W	8·2			8·8	81		·849		5·5		13			8 66	5·97	+ 2·69	36·19	34·12	+2·07	1·48	Minicoy.		
				6	15	9			S 4° W.	8·0			7·5	83	0	·738	−·006	6·5	+0·6	3			1·65	2·03	− 0·38	33·84	18·36	+15·48	0·85	Zanzibar .	AFRICA.	
				10	9	3			S 16° E	5·9§			5·8§	89		·736		5·0		8			2·14			32 66			0·43	Do. Dunga		
6																		3·0		19			14·73			62 14			2·32	Penang .	STRAITS SETTLEMENTS.	
3	5	10	2	6	1			3	N 55° E	7·9								4·8		8			5·77			33·83			2·44	Singapore.		
	2				5	17	3	3	S 53° W	6·0																						

‖ Mean of 26 days. § Mean of 27 days. ‡ Mean of 22 days. Kabul wind observations of 29 days

Table II.—Abstract of Observations recorded at 10 A.M. and 4 P.M. at 65 Stations in India, Burma, etc., in September, 1904.

Table

Abstract of Observations recorded at 10 A.M. and 4 P.M.

Meteorological Provinces.	Station.	Elevation of bar-ometer above sea-level in feet.	Pressure. Mean of 10 hours.	Mean of 16 hours.	Mean daily range.	Mean of daily mean pressures.	Departure from normal.	Mean reduced to sea-level and for gravity, 45° Lat.	Temperature of Air. Mean maximum.	Mean minimum.	Mean daily range.	Highest maximum.	Lowest minimum.	Absolute range.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	Temperature, Wet-bulb. Mean minimum.	Mean 10 hours.	Mean 16 hours.	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
Burma Coast and Bay Islands.	Port Blair	61	29·859	29·764	·095	29·814	+·028	29·806	83·5	76·1	7·4	87·1	73·3	13·8	81·1	81·3	78·7	−1·0	73·9	77·8	77·6	76·4
	Rangoon	57	·801	·712	·089	·760	−·012	·754	84·7	75·1	9·6	88·6	73·4	15·2	81·2	82·2	78·3	−0·8	73·5	77·6	78·3	76·5
	Diamond Island	41	·823	·724	·099	·776	−·007	·752	83·5	76·8	6·7	86·2	73·6	12·6	81·3	81·4	80·0	−0·1	73·4	77·8	77·5	76·2
	Cocos Island	119	·757	·658	·099	·710		·761	85·0	76·0	9·0	90·1	72·1	18·0	81·6	81·8	79·5		73·8			
	Akyab	20	·793	·682	·111	·744	−·024	·707	86·1	77·6	8·5	89·0	75·4	13·6	83·1	83·5	81·7	−0·4		80·2	79·5	
Bengal and Orissa.	Chittagong	87	·702	·586	·116	·649	−·032	·684	87·0	75·9	11·1	90·5	72·9	17·6	83·7	84·0	80·9	−0·1	74·6	79·1	79·2	77·6
	Calcutta (Alipore)	21	·749	·647	·102	·699	+·007	·666	89·3	77·6	11·7	93·4	74·9	18·5	85·4	86·1	83·1	+0·5	75·8	79·5	79·2	78·1
	Saugor Island	5	·728	·627	·101	·674	−·013	·642	89·2	79·7	9·5	91·6	76·3	15·3	85·3	86·3	83·3	+0·5	76·7	80·5	80·0	79·1
	False Point	21	·749	·646	·103	·694	0	·656	88·9	77·8	11·1	94·5	75·1	19·4	85·5	86·4	82·2	+0·4	76·1	78·7	79·5	78·1
Ganegis Plain and Chota Nagpur.	Hazaribagh	2,007	27·771	27·675	·096	27·725	+·012	·662	85·9	71·4	14·5	89·2	67·8	21·4	80·8	82·4	77·6	+0·2	68·8	71·6	71·7	70·7
	Allahabad	309	29·453	29·344	·109	29·400	+·020	·660	91·4	76·1	15·3	95·6	70·9	24·7	86·0	89·9	82·5	−0·5	73·8	78·6	79·2	77·2
Upper Sub-Himalayas.	Dehra Dun	2,233	27·561	27·480	·081	27·515	+·007	·690	84·1	67·4	16·7	88·1	61·1	27·0	78·4	80·9	74·7	−1·4	64·7	70·9	71·5	69·0
	Roorkee	899	28·857	28·758	·099	28·802	+·013	·659	90·2	71·3	18·9	94·9	65·1	29·8	83·5	87·4	79·3	−1·5	70·0	74·5	75·5	73·3
	Meerut	738	29·007	·910	·097	·953	+·004	·648	91·4	73·3	18·1	96·3	66·5	29·8	83·8	89·6	80·9	−0·8	70·9	75·1	77·1	74·4
	Lahore	702	·035	·940	·095	·979	+·007	·631	99·1	74·3	24·8	104·8	66·7	38·1	89·5	96·8	85·7	+0·9	68·6	74·6	75·6	73·0
	Ludhiana	81	28·928	·845	·083	·879	+·007	·651	92·7	75·2	17·5	102·0	67·1	34·9	83·2	91·7	82·7	−0·9	70·4	76·3	78·9	75·2
Indus Valley and N.W. Rajputana.	Peshawar	1,110	·658	·554	·104	·598	+·015	·674	94·0	69·3	24·7	100·0	62·4	37·6	85·7	91·4	80·7	−1·4	63·2	71·3	72·0	68·8
	Jacobabad	186	29·532	29·433	·099	29·484	+·011	·625	106·0	74·2	31·8	112·1	63·1	49·0	94·0	102·8	89·2	+0·4	69·2	81·1	81·9	77·4
	Kurrachee	30	·796	·707	·089	·750	+·033	·732	89·2	76·9	12·3	96·1	71·8	24·3	85·2	85·8	82·1	+0·1	73·5	76·9	77·6	76·0
E. Rajputana, C. India and Gujarat.	Jaipur	1,431	28·369	28·271	·098	28·317	+·013	·685	93·9	71·9	22·0	99·1	66·1	33·0	85·5	91·5	81·4	−1·0	67·2	72·9	73·1	71·1
	Udaipur	1,925?	27·908	27·819	·089	27·862		·707	92·0	71·4	20·6	97·5	64·5	33·0	85·4	88·0	81·1		66·5	70·9†	71·0	69·5
	Deesa	466	29·367	29·240	·127	29·301	+·018	·711	100·2	74·9	25·3	105·9	68·7	37·2	88·5	97·4	86·8	+4·1	69·7	73·6	73·7	72·3
	Jamnagar	61	·791	·690	·101	·739		·746	91·3	73·8	17·5	97·7	76·0	27·7	86·0	88·0	81·4		70·2	75·5	76·5	74·1
Deccan.	Belgaum	2,539	27·379	27·283	·096	27·332	+·029	·800	79·2	65·4	13·8	87·3	60·4	26·9	74·1	75·2	70·6	+0·2	65·1	68·8	69·0	67·6
	Sholapur	1,590	28·281	28·152	·132	28·227	+·020	·752	88·9	70·8	18·1	97·0	66·9	30·1	80·8	85·9	7·8	+0·5	67·7	70·2	70·7	69·5
	Akola	930	·904	·775††	·129	·844	+·021	·714††	89·0	71·1	17·9	95·1	62·7	32·4	82·3	87·0††	78·9	−0·8	68·6	74·0	73·6††	72·1
	Buldana	2,132	27·723	27·615	·108	27·669	+·005	·705	84·2	68·4	15·8	89·9	66·5	23·4	77·4	82·1	74·6	+0·1	65·7	69·5	69·7	68·3
	Khandwa	1,044	28·779	28·659	·120	28·723	+·015	·718	89·7	71·6	18·1	94·7	64·5	30·2	81·8	87·4	79·7	0	69·6	73·2	73·7	72·2
	Nagpur	1,025	·780	·665	·115	·727	+·037	·701	89·3	71·8	17·5	96·0	65·1	30·9	82·1	86·2	79·4	−1·0	69·5	74·1	74·4	72·7
	Do. (Sanitary Commr.'s Office)	1,013	·782	·665	·117	·728		·693	89·4	72·3	17·1	95·8	64·3	31·5	82·9	86·4	79·6		69·2	73·9	74·5	72·5
	Hyderabad (Deccan)	1,690	·161	·053	·108	·114	+·029	·738	86·7	71·8	14·9	93·4	67·0	26·4	81·0	84·0	77·8	+0·4	68·7	72·3	72·8	71·3
West Coast.	Bombay	37	29·880	29·786	·094	29·831	+·040	·808	85·6	77·8	7·8	88·1	75·4	12·7	81·9	83·3	80·6	+1·2	74·7	77·0	77·2	76·3
	Karwar	44	·910	·819	·091	·866	+·038	·844	82·6	74·2	8·4	85·4	71·0	14·4	80·4	81·4	77·3	+0·1	72·6	76·0	76·5	75·0

†† Mean of 29 days.

† Mean of 28 days.

II.

at 65 Stations in India, Burma, etc., for September, 1904.

Vapour Tension.					Humidity.					Cloud.				Wind direction.										Wind Steadiness.		Wind Velocity.		Rainfall.		Station.	Meteorological Province.
From minimum.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	From minimum.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	Mean 10 hours.	Mean 16 hours.	Mean of two previous columns.	Departure from normal.	Total number of 10 hours and 16 hours winds from								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.		
														Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.									
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
																									%	%					
·813	·910	·902	·882	−·023	90	86	84	89	0	7·5	7·6	7·6	−0·2	1					2	25	29	3	S 70° W	S 54° W	87	73	365*	228	32·29	7·01	Port Blair	Burma Coast and Bay Islands.
·807	·904	·916	·891	−·019	92	85	84	90	— 2	7·1	7·9	7·5	−0·7	2			2	19	10	16	9	2	S 11° W	S 24° W	57	51	30*	84	13·84	2·80	Rangoon	
·777	·907	·896	·869	−·016	84	85	84	86	— 3	6·6	6·3	6·5	−1·0				1	2	2	22	15	18	S 81 W	S 45° W	68	54	171*	190	23·83	7·81	Diamond Island	
·809					90					7·7	7·9	7·8	+0·2		1				10	26	16	1	S 53° W	S 42° W	80	68	500‡		18·91	2·19	Cocos Island	
	·997	·956				88	83			6·1	5·5	5·8	−1·2					17	19	20	4		S 8° W	S 3° E	77	42	62*	72	23·14	3·69	Akyab	
·843	936	·937	·916	−·013	94	81	80	88	0	7·1	6·4	6·8	−0·3		1	6	3	11	9	19	5	6	S 20° W	S 21° E	37	37	93*	106	9·66	2·63	Chittagong	Bengal and Orissa.
·869	·929	·905	·907	−·045	92	76	74	82	— 4	6·0	6·6	6·3	−1·6	7	3	3	8	9	2	15	6	7	S 30° W	S 9° W	17	46	61	98	5·72	1·10	Calcutta (Alipore)	
·881	·978	·940	·944	−·035	87	80	75	84	— 3	6·8	6·7	6·8	−1·0		4	3	9	7	4	18	8	7	S 41° W	S 3° W	23	48	253	264	8·22	1·70	Saugor Island	
·679	·890	·914	·905	−·040	82	73	73	82	— 4	6·9	7·2	7·1	0	1		3	4	7	9	11	18	7	S 51° W	S 18° W	42	36	194*	204	4·96	1·22	False Point	
·677	·664	·646	·679	−·087	87	63	59	74	−12	7·4	8·0	7·7	−0·7	2	10	1	7	5	6	2	12	15	N 50° W	S 46° E	27	8	178*	178	4·47	1·89	Hazaribagh	Gangetic Plain and Central Provinces.
·808	·884	·858	·807	−·014	89	71	62	78	— 3	3·6	4·5	4·1	−1·4	1	1	8	8	3	2	5	23	9	N 73° W	N 15° W	30	13	129*	142	2·56	0·80	Allahabad	
·586	·671	·661	·659	−·053	86	69	64	78	— 4	3·2	3·4	3·3	−1·5	29					3	13	12	3	S 66° W	N 76° W	42	20	13	24	6·03	2·25	Dehra Dun	
·721	·735	·726	·747	−·035	94	64	57	77	+ 1	2·6	2·5	2·6	−1·0	13	2	3	4	16	4		3	15	S 82° E	S 15° W	7	7	41	46	5·29	4·04	Roorkee	Upper Sub-Himalayas.
·732	·763	·769	·775	−·005	89	66	56	75	+ 1	1·7	2·2	2·0	−1·3	26	1	5	6	2	2	7	5	6	N 83° W	N 54° W	5	20	20*	43	7·75	4·04	Meerut	
·630	·661	·607	·644	−·074	74	48	36	56	— 5	0·9	1·0	1·0	−0·9	11	2	13	10	12	3	1	5	3	N 87° E	N 46° E	33	59	58	50	0·49	0·24	Lahore	
·689	·828	·827	·797	+·035	79	73	57	74	+ 5	2·0	2·2	2·1	−0·9	6				16			22	6	S 75° W	N 44° W	43	13	28*	34	3·17	1·00	Ludhiana	
·512	·596	·553	·565	−·045	71	48	38	55	— 2	1·3	3·4	2·4	+0·6	29	10	12	5	1		3			N 38° E	N 36° E	33	49	22*	67	1·06	1·06	Peshawar	Indus Valley and N.-W. Rajputana.
·654	·890	·811	·796	+·079	76	56	39	60	+ 4	0·4	0·1	0·3	−0·4	4	2	2	4	20	21	3	2	2	S 23° E	S 33° E	59	44	97*	70	0	0	Jacobabad	
·762	·817	·835	·825	−·030	85	67	68	77	— 3	2·3	0·4	1·4	−2·3							16	13	1	S 79° W	S 66° W	93	87	305*	350	0	0	Kurrachee	
·616	·657	·592	·639	−·053	77	54	42	63	— 6	2·6	3·8	3·2	−1·3	3	3	8	4		1	8	23	10	N 71° W	N 42° W	47	43	104	101	1·50	0·84	Jaipur	E. Rajputana, C. India and Gujarat.
·593	·590†	·556	·594		77	49†	44	60		2·4	3·5	3·0		4		5	3		1	15	25	7	S 85° W		57		89*		0·87	0·40	Udaipur	
·662	·631	·518	·617	−·120	76	48	30	54	−14	2·1	2·1	2·1	−2·8		2	1	1		2	33	14	7	S 66° W	S 72° W	74	53	248	199	0·41	0·32	Deesa	
·693	·746	·762	·745		83	60	58	70		3·7	2·3	3·0			1					21	23	3	S 73° W		69		522*		0·03	0·03	Jamnagar ¶	
·618	·640	·635	·640	−·015	98	77	74	86	— 2	7·1	7·5	7·3	−0·2	3	1	2	2			12	30	10	N 88° W	S 78° W	70	74	315	377	2·28	0·62	Belgaum	Deccan.
·641	·609	·563	·613	−·054	85	59	48	66	— 6	6·9	8·4	7·7	−0·3		4	7				12	13	24	N 62° W	N 69° W	63	65	319*	262	8·05	3·11	Sholapur	
·672	·734	·659††	·708	−·051	88	67	53††	73	— 4	6·1	6·3	6·2	−0·3	4	4	1				4	4	42	N 49° W	N 60° W	81	68	173*	156	8·18	2·13	Akola	
·604	·628	·576	·615	−·072	87	68	55	74	— 7	5·4	4·8	5·1	−1·6		5	1	1			5	27	21	N 69° W	N 48° W	78	64	223*	194	15·38	5·51	Buldana	
·707	·709	·661	·712	−·049	91	66	54	74	— 4	4·1	4·9	4·5	−1·4		6	4	2			4	9	35	N 46° W	N 63° W	73	67	161* §	154	7·71	2·85	Khandwa	
·699	·746	·707	·737	−·052	88	69	59	76	— 3	4·1	5·8	5·0	−2·3	2	9	8	2	1	1	4	11	22	N 39° W	N 52° W	53	36	141*	127	6·74	1·76	Nagpur	
·681	·728	·707	·725		85	66	59	74		4·7	5·6	5·2		19		4		5		15		17	N 87° W		27		44*		6·13	1·80	Do. (Sanitary Commr.'s Office)	
·672	·685	·669	·691	−·064	86	66	59	73	— 8	5·6	6·7	6·2	−0·4	10	1		1				42	6	N 83° W	N 75° W	77	53	150*	134	6·70	2·45	Hyderabad (Deccan)	
·820	·864	·857	·854	−·018	86	79	75	81	— 5	6·5	5·3	5·9	−1·0		3	2	2	3	3	6	24	17	N 78° W	N 84° W	59	52	260	259	1·88	0·73	Bombay	West Coast.
·780	·841	·848	·830	+·006	92	81	79	86	— 2	4·3	5·0	4·7	−1·1		3		1	1	1	1	28	25	N 67° W	N 78° W	81	77	94	70	7·48	2·60	Karwar	

†† Mean of 29 days. ‡ Mean of 24½ days. § Mean of 29½ days. ¶ Wind variable 12. * Corrected.

Table

Abstract of Observations recorded at 10 A.M. and 4 P.M. at 65 Stations

Meteorological Province.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure. Mean of 10 hours.	Mean of 16 hours.	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 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	Temperature, Wet-bulb. Mean minimum.	Mean 10 hours.	Mean 16 hours.	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
South India.	Periyakulam	945	28·969	28·836	·133	28·920		29·771	94·8	70·8	24·0	98·3	57·5	30·8	86·9	88·3	81·3		67·3	73·4	73·4	71·4
	Salem	940	·987	·842	·145	·927	+·012	·794	93·1	72·7	20·4	96·0	67·6	28·4	84·1	90·2	80·8	+1·3	70·1	75·4	76·7	74·1
	Chitaldroog	2,405	27·521	27·412	·112	27·477	+·029	·794	85·0	67·8	17·2	91·1	64·8	26·3	77·9	81·5	74·6	+0·9	65·9	69·0	69·9	68·3
	Bangalore	3,021	26·947	26·823	·124	26·893	+·019	·793	83·9	64·8	19·1	87·4	62·5	24·9	75·7	80·7	72·6	+0·8	63·8	68·0	68·5	66·8
	Hassan	3,091	·899	·798	·101	·857	+·044	·833	83·1	63·8	19·3	85·4	60·4	26·0	76·4	77·1	71·7	+1·5	62·8	68·5	68·1	66·5
	Mysore	2,518	27·447	27·333	·114	27·398	+·027	·826	85·2	65·8	19·4	89·5	62·7	26·8	78·4	80·1	73·7	0	55·1	70·1	71·2	68·8
	Madras	22	29·848	29·723	·132	29·793	+·016	·743	95·7	77·0	18·7	100·5	72·6	27·9	88·7	89·3	84·7	+0·8		75·9	77·7	76·2
	Bellary	1,475	28·419	28·287	·132	28·362	+·017	·768	92·4	73·3	19·1	96·8	69·8	27·0	82·9	88·4	81·4	+1·2	68·2	71·7	72·3	70·7
	Waltair	*226*	29·567	29·461	·106	29·517	+·016	·682	89·0	77·0	12·0	94·0	72·7	21·3	86·0	85·3	81·9	−0·6	72·3	76·6	77·3	75·4
Hill Station, Baluchistan.	Quetta	5,502	24·662	24·591	·071	24·619	+·060		84·1	45·5	38·6	90·1	37·8	52·3	76·8	80·7	64·1	−2·7	41·1	53·4	54·5	49·7
Hill Stations, Northern India.	Leh	11,503	19·732	19·627	·105	19·682	−·001		66·2	39·8	26·4	75·8	31·9	43·9	56·3	63·1	50·8	−2·9	35·9	43·6	47·0	42·2
	Srinagar	5,204	24·863‡	24·770‡	·093	24·816	+·013		78·4	50·9	27·5	87·0	42·2	44·8	64·9	75·2	62·4	−1·6	48·6	60·6	69·0	59·4
	Sarain		23·162	23·105	·057	23·126			67·6	49·2	18·4	72·7	41·6	31·1	63·3	63·7	58·0			53·5	55·5	
	Kalabagh		20·168	20·129	·039	20·142			51·1	42·5	8·6	57·3	37·7	19·6	48·0	48·6	46·4			42·8	44·1	
	Simla (Ridge)	7,224	23·138	23·087	·051	23·105	+·016		65·7	55·7	10·0	69·9	51·3	18·6	61·4	62·4	60·3	−0·6	51·1‡	54·3	55·9	53·8
	Chakrata	7,022	·284	·240	·044	·256	+·016		68·2	55·0	13·2	71·5	48·8	22·7	63·0	63·7	61·2	−1·3	51·5	57·5	58·7	55·9
	Ranikhet	6,069	24·084	24·012	·072	24·040	−·003		72·0	58·9	13·1	76·8	55·0	21·8	67·4	69·3	65·1	−0·3	55·2	60·6	61·7	59·2
	Muktesar	7,600	22·810	22·774	·066	22·799			67·2	54·5	12·7	74·9	51·4	23·5	61·7	63·8	60·5		51·1	56·8	58·5	55·5
	Katmandu	4,386	25·585‖	25·486‖	·099	25·533	+·010††		82·1	65·3	16·8	84·4	61·0	23·4	76·2	77·2	73·3	†† −0·3	64·2	69·1	70·2	67·8
	Darjeeling	7,376	23·019‡	22·978‡	·041	22·995	−·009		66·0‡	54·9‡	11·1	68·4	51·9	16·5	62·6‡	63·7‡	60·1‡	+0·7	51·2‡	60·1‡	61·6‡	58·8
Hill Stations, Central India.	Mount Abu	3,945	26·020	25·953	·067	25·986	+·018		78·5	65·1	13·4	82·7	61·4	21·3	72·9	76·3	71·4	+1·8	59·3	63·4	64·0	62·2
	Pachmarhi	3,528	·373	26·294	·079	26·333	−·005		77·6	64·7	12·9	82·1	57·2	24·9	70·4	74·5	70·8	−0·6	62·7	65·9	68·4	65·7
	Chikalda	3,612	·275	·188	·087	·232	+·002		75·6	64·1	11·5	81·4	60·0	21·4	70·8	74·1	69·5	−0·2	62·2	66·7	68·6	65·8
Hill Stations, South India.	Kodaikanal	7,688	22·848	22·774	·074	22·809			62·8	51·3	11·5	67·0	48·5	18·5	59·9	57·8	55·7		48·3	55·0	54·7	52·6
	Ootacamund	*7,322*	23·075	23·001	·071	23·035			63·3	50·1	13·2	67·5	44·9	22·6	60·1	58·6	56·3		48·8	55·0	55·2	53·0
	Dodabetta	*8,539*	22·044	21·984	·060	22·011			56·2	46·6	9·6	60·1	43·0	17·1	54·0	52·8	51·0			51·4	50·9	
Extra India	Aden	94	29·791	29·656	·135	29·718	+·036	·741	94·3	82·7	11·6	97·1	77·7	19·4	90·3	92·7	87·8	+0·6	74·8	81·9	79·9	78·9
	Perim	201	·666	·552	·114	·603	+·052	·736	95·1	84·1	11·0	99·3	79·8	19·5	90·9	92·7	88·9	+0·6	76·4	80·2	79·7	78·8
	Minicoy	7	30·004	·939	·065	·978		·910	85·7			87·7			82·3	82·1				77·1	76·6	
	Zanzibar	73	·121‡	30·011	·110	30·072	+·047	30·072‡	82·5	72·7	9·8	86·2	71·7	13·5	77·1‡	81·1	76·9	−0·1	68·8	72·6‡	72·3	71·2
	Port Victoria (Seychelles)	15	·056	29·962	·094	·017	†† +·037	29·957	81·9	72·7	9·2	85·0	69·7	15·3	80·1	80·6	76·0	−3·0††	71·4	75·4	75·6	74·1
	Mauritius (Pamplemouses)	181				·047	+·043	30·179				78·8	50·9	27·9			67·7	−1·9				61·8

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

† Mean of 28 days.
‡ Mean of 29 days.
§ Mean of 29½ days.
‖ Mean of 27 days.

II—*concluded.*

in India, Burma, etc., for September, 1904—concluded.

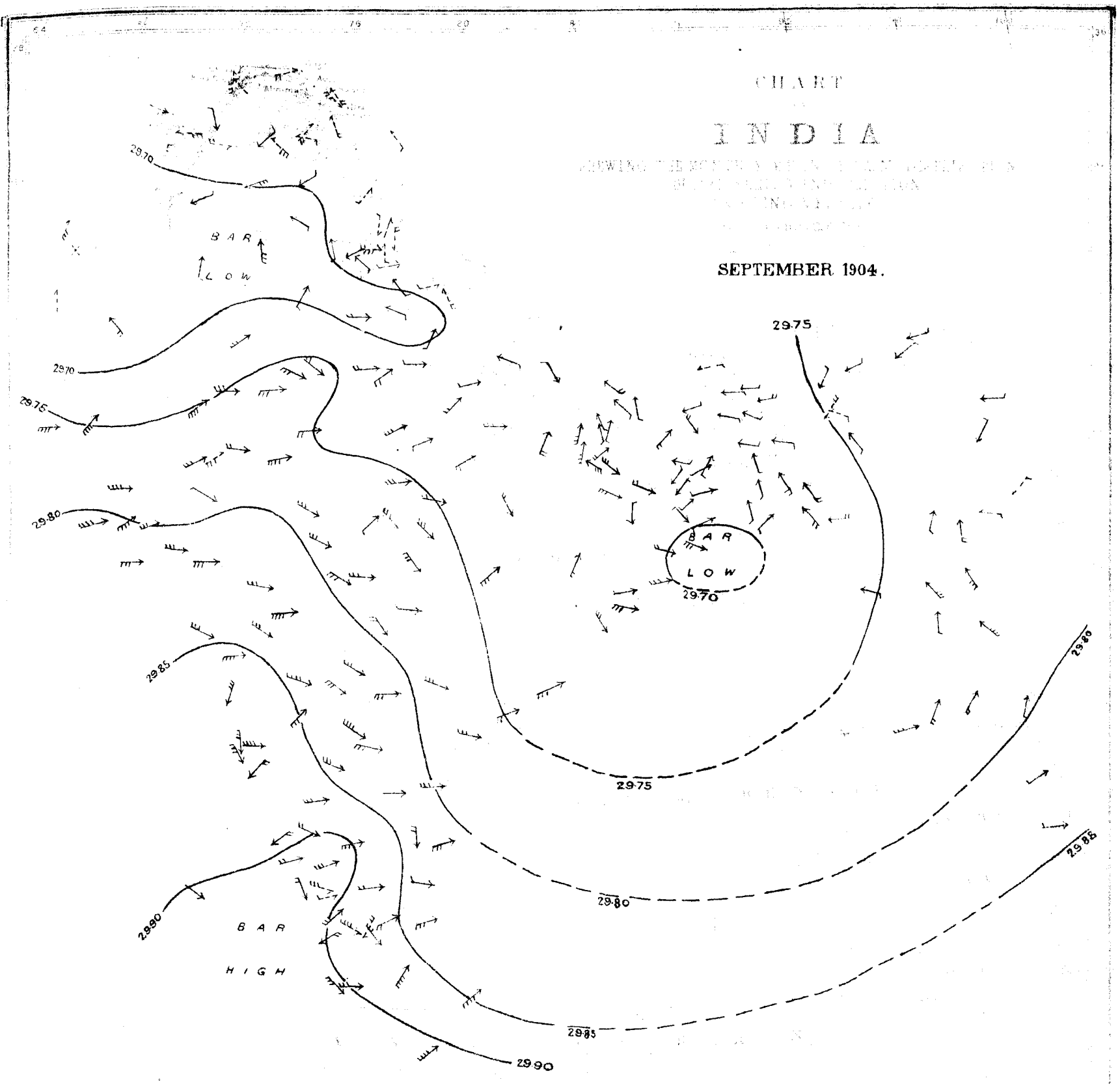
Vapour Tension.					Humidity.					Cloud.				Wind direction. Total number of 10 hours and 16 hours winds from										Wind Steadiness.		Wind Velocity.		Rainfall.		Station.	Meteorological Province.
From minimum.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	From minimum.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	Mean 10 hours.	Mean 16 hours.	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 hour.	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
																									%	%						
·626	·643	·630	·636		83	51	49	60		4·2	6·9	5·6		6	7	5	4	6	14	9	7	2	S 13° W		22		102*		1·58	0·31	Periyakulam	South India.
·699	·768	·744	·748	—·016	88	65	52	71	− 5	5·0	7·1	6·1	+0·1	5	2	1	4		2	9	30	7	S 89° W	S 66° W	62	67	105*	82	5·52	2·63	Salem	
·616	·597	·590	·613	—·020	90	63	56	73	− 2	6·2	6·1	6·2	−1·5	1	4	2	1	1	1	9	23	18	N 76° W	N 89° W	67	75	189*	211	1·23	0·43	Chitaldroog	
·584	·596	·555	·590	—·033	95	67	54	75	− 5	6·9	5·0	6·0		3	2	2	1	1		13	29	9	S 89° W	S 84° W	69	83	205*	168	1·98	1·81	Bangalore	
·561	·607	·585	·596	—·015	94	67	64	78	− 3	7·7	8·0	7·9	−0·3	2	2	5	1			15	25	10	N 87° W	N 81° W	63	74	82*	84	2·06	0·97	Hassan	
·615	·637	·659	·619	+·019	95	65	65	78	+ 1	8·0	7·9	8·0	−0·2		4	4	2	2	1	15	29	3	S 83° W	S 85° W	60	63	265*	240	2·74	1·65	Mysore	
	·722	·794	·790	—·058		54	59	67	—10	4·4	5·7	5·1	−1·2				7	15	3	7	21	7	S 44° W	S 36° W	32	53	153	141	3·51	1·86	Madras	
·629	·644	·596	·636	—·018	76	57	46	63	− 2	6·0	6·9	6·5	−1·4		6	2	5		1	8	24	14	N 72° W	N 75° W	59	73	233*	221	2·78	1·86	Bellary	
·735	·793	·833	·738	—·075	79	64	69	73	− 2	6·2	7·5	6·9	+0·3		1		6	10	10	28	5		S 18° W	S 40° W	63	52	104		9·71	3·32	Waltair	
·217	·165	·155	·181	—·071	70	18	14	36	− 4	0·1	0·5	0·3	−0·2	20	2	1				6	14	17	N 7° W	N 69° W	52	40	32*	53	0	0	Quetta	Hill Station, Baluchistan.
·183	·180	·191	·188	+·013	72	39	33	51	+ 7	4·6	5·1	4·9	+0·6		1	2	3	2	13	20	17	2	S 47° W	S 66° W	60	42	41	46	0·05	0·02	Leh	Hill Stations, Northern India.
·323	·490	·636	·453	—·045	85	78	73	79	− 1	3·2	4·7	4·0	+0·7	18	4	4		5	3		6	20	N 43° W	N 33° W	33	17	67*	79	0·82	0·23	Srinagar	
	·314	·361				55	62			3·7	4·5	4·1		23		4	2		14	13	3	1	S 22° W		35		57*		2·31	0·62	Sarain	
	·235	·256				69	74			4·0	6·0	5·0		8	5	1	2	14	3	1	12	14	N 78° W		17		249*		4·73	1·33	Kalabagh	
·332‡	·353	·382	·358	—·076	74‡	61	68	71	− 9	4·2	4·7	4·5	−1·3	21	27				7		2	3	N 10° W	N 8° E	38	35	61*	98	2·00	1·02	Simla (Ridge)	
·352	·422	·447	·409	—·060	81	73	76	79	− 7	3·7	5·9	4·8	−1·4	14	4			13	29				S 15° E	S 63° W	60	36	133*	144	4·22	1·51	Chakrata	
·403	·462	·477	·449	—·057	80	70	67	74	− 8	4·8	4·3	4·6	−1·4	20		5	1			13	14	7	S 88° W	S 59° W	40	38	64*	58	7·34	4·44	Ranikhet	
·346	·417	·438	·402		80	76	74	79		5·2	5·6	5·4		16	2	3	5	4	2	9	18	1	S 67° W		27		167*		11·23	5·71	Muktesar	
·594	·635	·663	·633	0	94	70	71	80	− 1	4·5	7·1	5·8	−0·5	1	1	4	21	1	2	4	23	3	N 82° W	N 87° W	5	11	17	17	6·81	1·53	Katmandu	
·416‡	·504‡	·528‡	·485	+·005	96‡	88‡	89‡	93	− 3	6·8‖	7·5‡	7·2	−1·1	20	1	3	3	5	1	7	10	8	N 87° W	S 85° E	21	39	69*	89	10·31	1·91	Darjeeling	
·444	·482	·459	·473	—·086	72	61	52	66	−15	3·3	3·5	3·4	−2·1		4	7	1	1	7	27	8	5	S 59° W	S 66° W	47	40	250*	190	1·07	0·32	Mount Abu	Hill Stations, Central India.
·555	·590	·625	·602	—·037	89	80	74	85	− 1	5·0	5·0	5·0	−2·2		5	8	1	2	2	6	12	24	N 51° W	N 69° W	53	44	214*	149	18·82	10·25	Pachmarhi	
·544	·608	·636	·608	—·035	90	83	77	87	− 5	6·3	6·0	6·2	−1·2	29	12	8				4		7	N 6° W	N 21° W	33	62	139*	242	11·86	3·20	Chikalda	
·312	·387	·400	·369		82	75	84	83		6·3‡	8·0†	7·2		2	8	2	8	2	2		12	20	N 37° W		42		334		6·51	1·27	Kodaikanal§§	Hill Stations, South India.
·335	·383	·401	·365		92	74	81	82		7·4	9·0	8·2		3	5	2	5	3	2	2	21	17	N 63° W		48		160*		3·58	0·71	Ootacamund	
	·354	·356				85	89			5·1	6·0	5·6		1	10	4	1	2			13	19	N 47° W		64		313		7·96	0·98	Dodabetta	
·757	·377	·851	·877	+·018	68	69	56	65	− 1	1·6	3·6	1·1	−1·3 ††	3		11	8	12	6	13	3	4	S 35° E	S 21° E	27	53	** 220*	230	0	0	Aden	
·811	·898	·842	·865	−·044	69	62	55	63	− 4	0·5	0·3	0·4	−2·4		5	3	13	11	4	4	7	13	N 65° E	N 23° E	7	25	265*	238	0·04	0·04	Perim	Extra Insls.
	·859	·843				78	77			5·9	5·9	5·9			5					2	22	31	N 61° W		87		209*		8·56	1·48	Minicoy	
·655	·745‡	·679	·708	—·030	81	80‡	64	76	− 2	6·1‡	5·1‡	5·6	+0·8 ††			1	1	21	26	10			S 11° E	S 6° E	82	62	180*	134	1·65	0·85	Zanzibar	
·756	·821	·824	·807	+·040	94	79	78	86	+ 6	5·7	6·1	5·9	+0·2 ††	4			3	40	9	3		1	S 35° E	S 33° E	80	89	288	292	7·39	2·18	Port Victoria (Seychelles). Mauritius (Pamplemousses).	
			·469	—·053				69	− 3			6·1	+0·5										S 63° E	S 72° E			242	288	1·10	0·23		

* Corrected.

‖ Mean of 25 days.
** Mean of 28½ days.
†† Departures from old normals.

‡‡ Mean of three previous columns.
§§ Wind variable 4.

G. I. C. P. O.—No. 587 Meteor.—3-3-05—570.

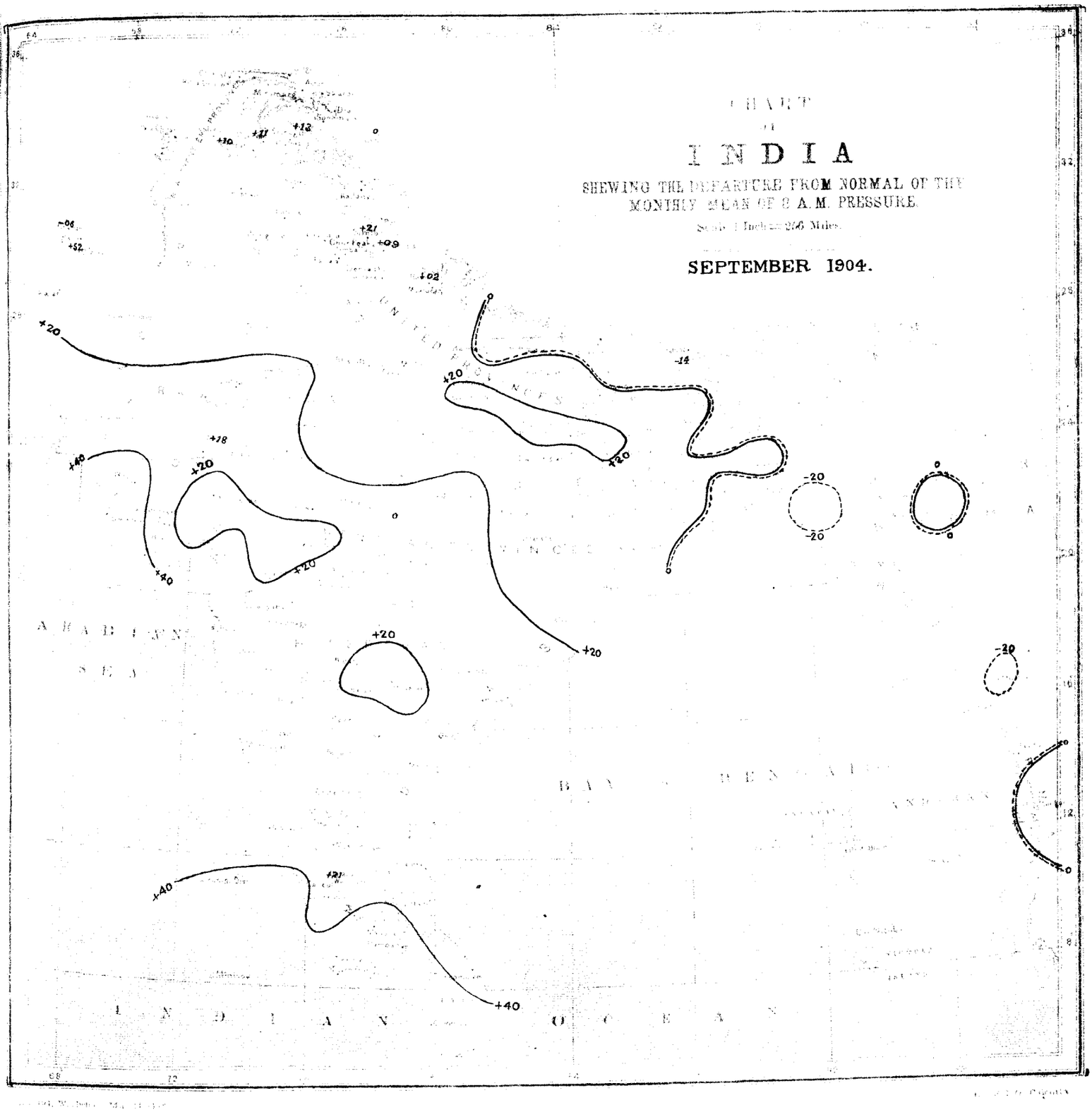


Explanation.

The lines of the above Chart represent isobars or lines of equal barometric pressure, and the numbers attached indicate the barometric pressure in inches and are shown for differences on pressure of 0.05 inch. The isobars in the Bay of Bengal are filled in by means of the sparse observations, and by comparison with the ordinary or normal distribution of pressure as given in the Charts of the Bay of Bengal prepared by Mr. Dallas, 1st Assistant Meteorological Reporter to the Government of India and published by the Meteorological Department. Hence they have not the same validity as the isobars in the land area of India itself, but it is probable that they vary little from the actual.

The mean 8 a.m. wind directions of the month are shown 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 I of the 8 a.m. 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 shown by the following notations:—

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 " " " " "



Explanation

The Chart shows the departure from the normal of the mean 8 a.m. pressure of the month by means of lines drawn for equal amounts of departure (of two hundredths of an inch or ·020″). 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.

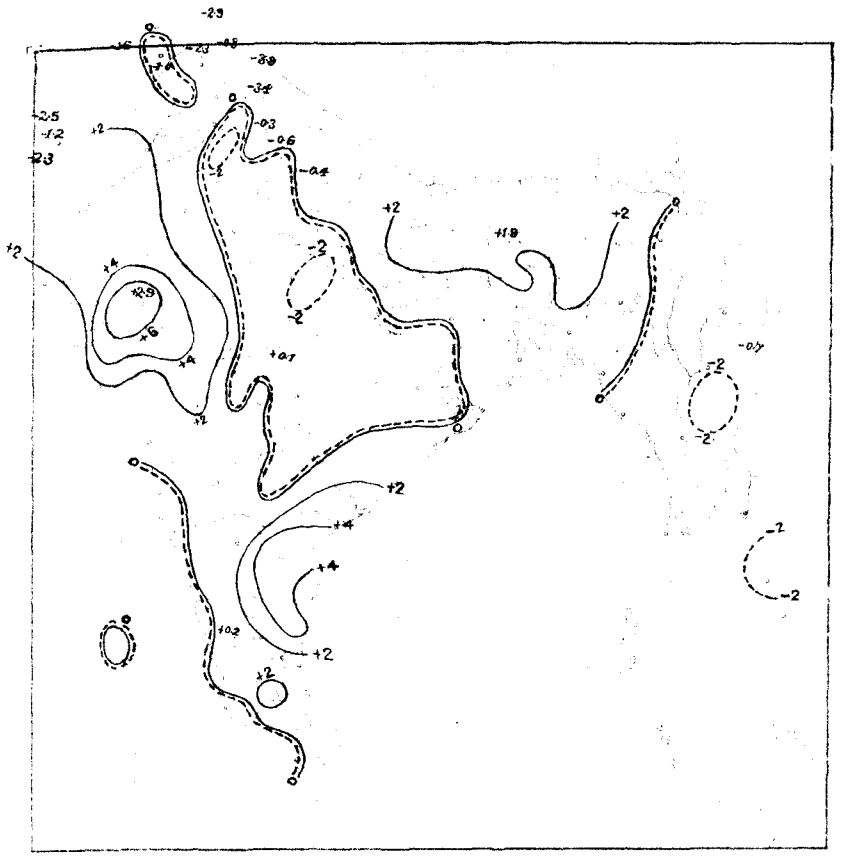
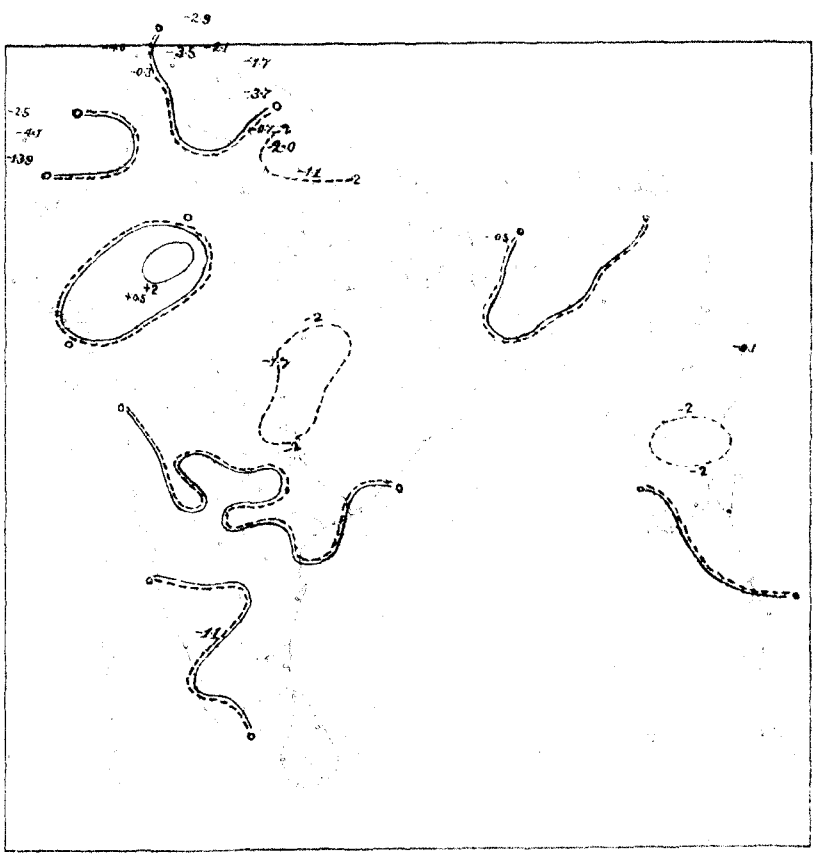


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MINIMUM TEMPERATURE.



Explanation.

Continuous lines indicate that the mean maximum of month was in excess by amounts indicated by the attached numbers; broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no departure, the broken line facing the area of deficient temperature.

Continuous lines indicate that the mean minimum of month was in excess by amounts indicated by the attached numbers; broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no departure, the broken line facing the area of deficient temperature.

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

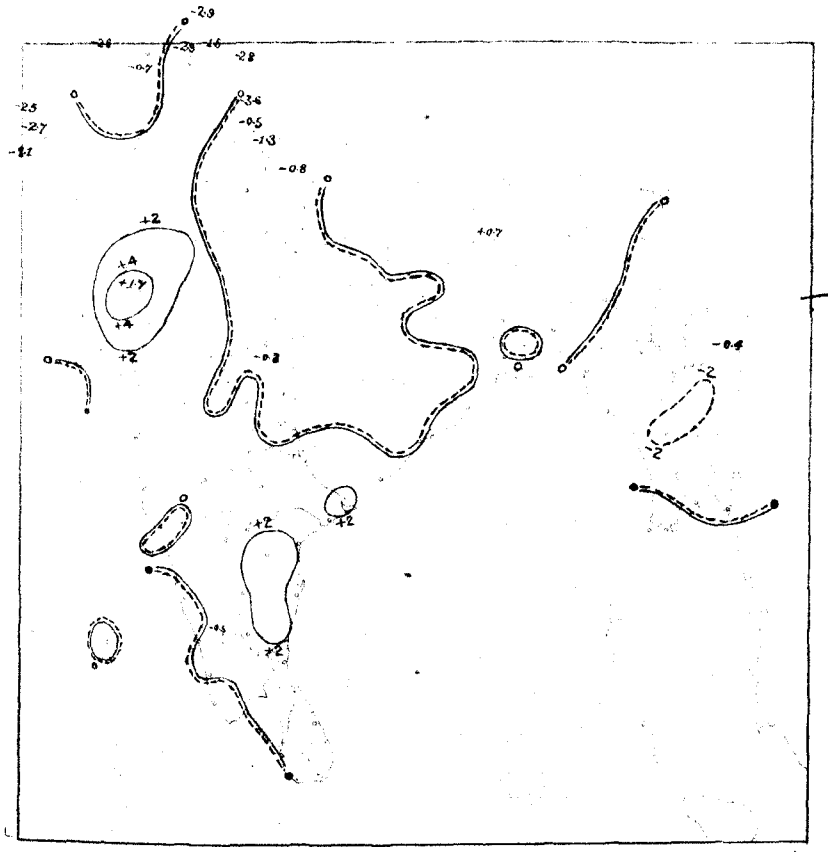
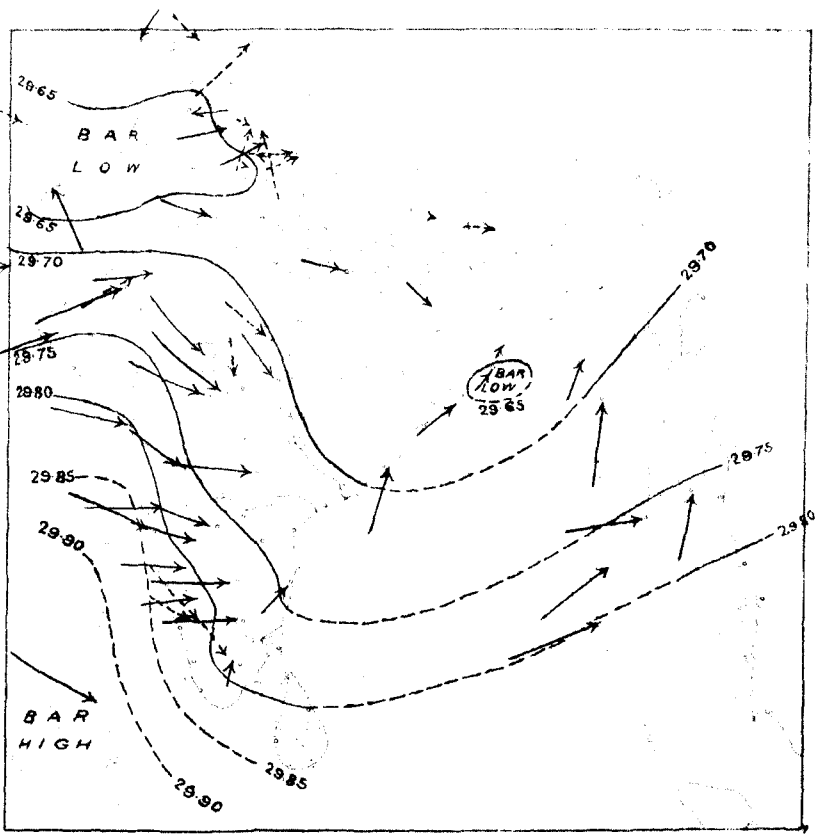


CHART SHEWING THE MONTHLY MEAN OF PRESSURE AND RESULTANT WIND DIRECTION.



Explanation.

Continuous lines indicate that the mean daily temperature of month was in excess by amounts indicated by the attached numbers; broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no departure, the broken line facing the area of deficient temperature.

The Chart is prepared in the same manner as the Monthly Charts which previously to 1890 appeared in the Annual Reports, the only alteration made being that pressures are reduced to constant gravity (45°). The isobars are given for each twentieth of an inch. The arrows show the directions of the resultants of the wind recorded at 10 and 16 hours, and by their lengths the percentage of the observations expressing the numerical value of the resultant; a length of $\frac{1}{8}$th of an inch being equal to 100 per cent.

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

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

Explanation.

Continuous lines indicate that the mean absolute humidity of month was in excess by amounts indicated by the attached numbers; broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no departure from the normal the broken line facing the area of deficient humidity.

Continuous lines indicate that the mean relative humidity of month was in excess by amounts indicated by the attached numbers, broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no departure from the normal the broken line facing the area of deficient humidity.

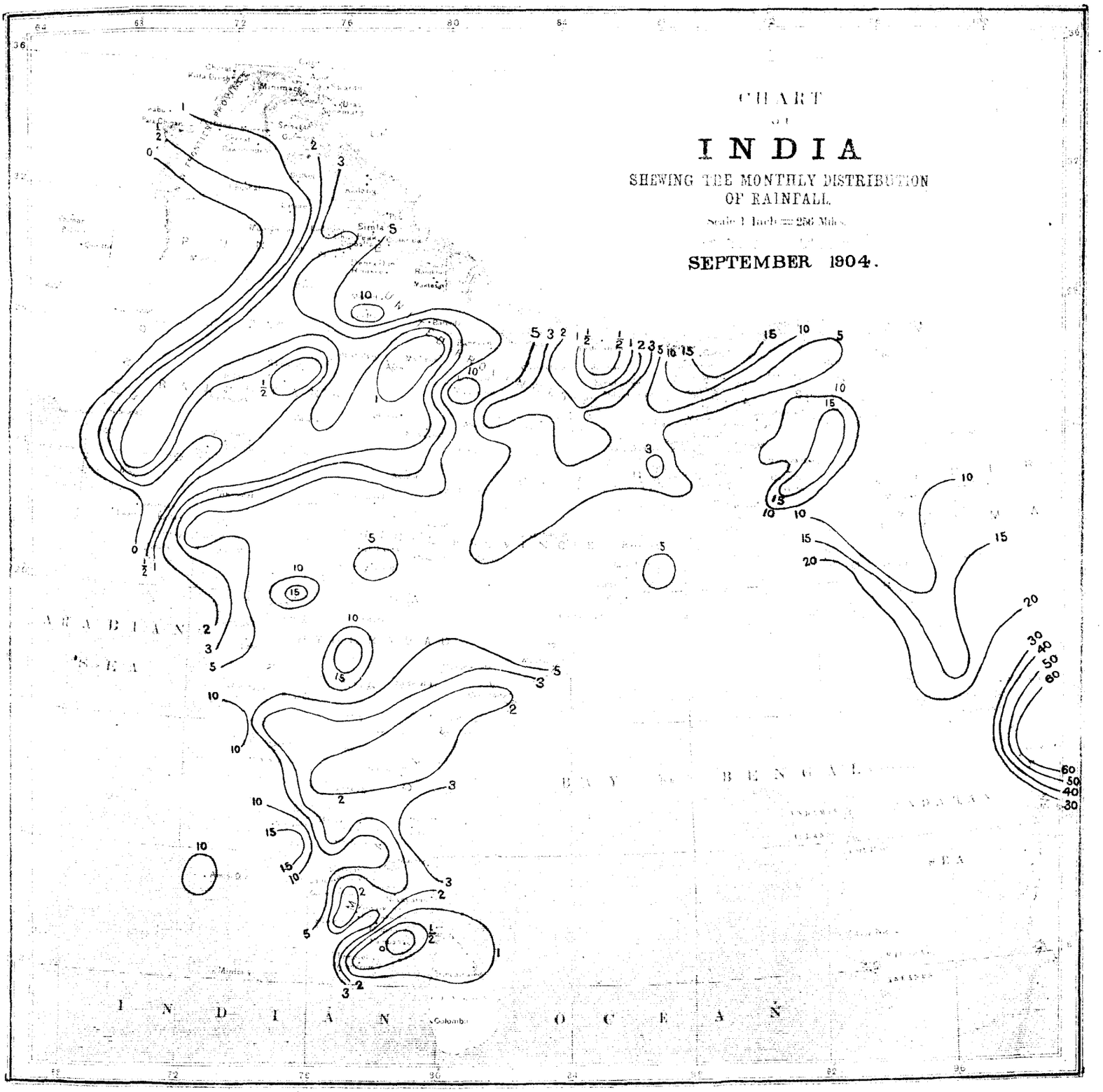
CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF CLOUD AMOUNT AT 8 A. M.

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

Explanation.

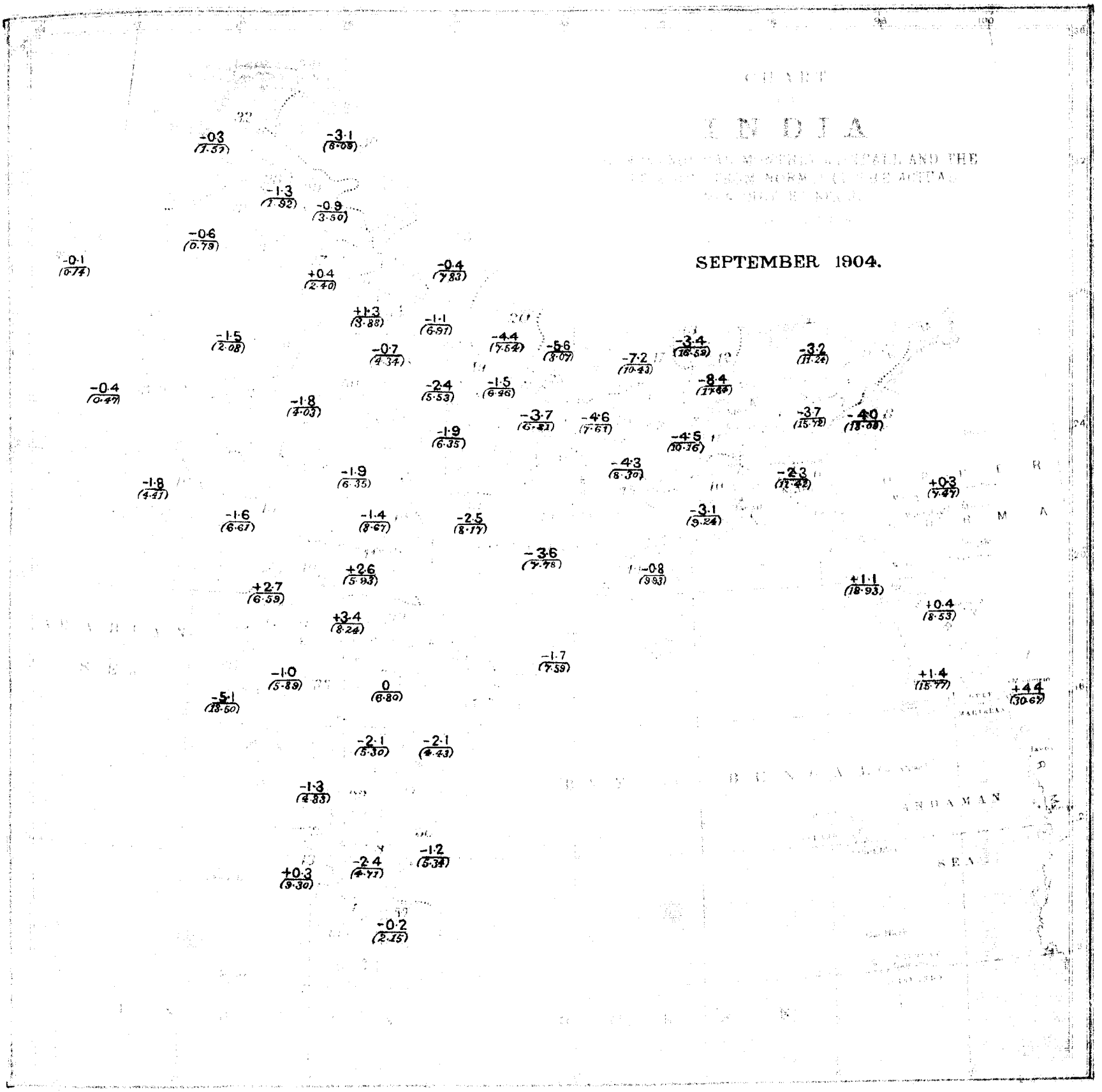
Continuous lines indicate that the mean cloud amount of month was in excess by amounts indicated by the attached numbers; broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no departure from the normal, the broken line facing the area of deficient cloud.

A rainy day is one on which 0·10 inch or more of rain is received within 24 hours.



Explanation.

The Chart shows the distribution of the rainfall of the month by means of isohyetic lines or lines of equal amounts of rain. The data used in the preparation of this Chart are the rainfall returns of all the observatories in India except those at the Hill Stations over 3,500 feet in elevation (177 in number). The double line or line of no rainfall separates areas in which the rainfall exceeded a tenth of an inch from those where it was actually or practically *nil* (*i.e.* less than a tenth of an inch). The dotted line faces the area of no rainfall.



Explanation

The Chart gives the departure of the rainfall for the month of September from the normal over the whole of India and Burma. The country is divided into districts, in each of which the meteorological conditions are fairly uniform, and the staple crops under cultivation the same, and for each district the rainfall has been calculated, and the numbers given in the chart. Each district is separately shaded according to the scale given below, so that the actual and normal mean rainfall for the whole of the month is given approximately for each district. The figures given underneath the name of the district indicate the departure of the rainfall for the month in inches, and hundredths of an inch, from the normal. A positive sign that it was in excess, and a negative sign that it was in defect by the amount indicated by the figures. The number of years on which the means are founded is also given below in smaller figures enclosed within brackets, so that the percentage departure from the normal can be at once estimated. The name of the district can be at once ascertained by referring to the following list to the number given near the right hand boundary of each district by small figures as 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 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 49a 50 51 52 53 54 55 56 57.

1. Peninsular
2. Lower Burma Delta
3. Central do.
4. Upper do.
5. Arakan
6. East Bengal
7. Assam, Surma
8. Do., Hills
9. Do., Brahmaputra
10. Deltaic Bengal
11. Central do.
12. North do.
13. Bengal Hills
14. Orissa
15. Chota Nagpur
16. South Bihar
17. North Bihar
18. United Provinces, East
19. Oudh South
20. Oudh North
21. United Provinces, Central
22. Do. do., West
23. Do. do., East Submontane
24. Do. do., West do.
25. Do. do., Hills
26. South East Punjab
27. South do.
28. Central do.
29. Punjab, Submontane
30. Do., Hills
31. West Punjab
32. North West Frontier Province
33. Mandalay
33a. Pegu and do.
34. Madras, South Central
35. Coorg
36. Mysore
37. Konkan
38. Bombay Deccan
39. Hyderabad, North
40. Khandesh
41. Berar
42. Central Provinces, West
43. Do., Central
44. Do., East
45. Gujarat
46. Kathiawar and Cutch
47. Sind
48. Baluchistan Hills
49. Central India, East
49a Do. do.
50. Rajputana East, Central India West
51. West Rajputana
52. Madras, East Coast, North
53. Hyderabad, South
54. Madras, Central
55. Madras, East Coast, Central
56. Do. East Coast, South
57. Madras, South

GOVERNMENT OF INDIA.

METEOROLOGICAL DEPARTMENT.

MONTHLY WEATHER REVIEW

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CALCUTTA, OCTOBER, 1904.

INTRODUCTION.

THIS review of the weather in India during the month of October 1904, is based on observations taken daily at 8 A.M. at 232 stations, and on additional observations taken at 10 A.M. and 4 P.M. at 65 stations. The rainfall summary is based on the rainfall data of the meteorological observatories and the rainfall statements of the month published by the Provincial Governments that had been received up to the date of the publication of the review. A summary of the weather in the Bay of Bengal and the Arabian Sea, based on information extracted from the logs of vessels entering the ports of Calcutta and Bombay, is also given, and brief notes on Magnetic and Solar disturbances are supplied by the observatories.

Summary of the chief features of the weather in India during the month of October, 1904.

October is pre-eminently a month of transition, during which the south-west monsoon winds begin to retreat from the north of the Bay, and cold-weather conditions begin to establish themselves over northern India. The direction of movement of the cyclonic storms of the month is affected by these changes, and there is generally a marked difference in the trajectories of the storms of October and those of the three preceding months of the rains. At the same time cold-weather storms, advancing from the westward, ordinarily begin to appear in north-west India, and the first falls of snow ordinarily take place over the higher peaks of the north-west Himalayas during this month.

During the first two days of the month under review showers occurred over the north-west Himalayas and temperature fell briskly in the North-West Frontier Province and the Punjab, while it rose briskly over upper Sind. The following gives data for these areas:—

Province or division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of	
	1st October.	2nd October.
	°	°
N.-W. Frontier Province	+1·8	—4·0
Punjab	+1·9	—0·1
Upper Sind	+1·7	+6·3

Elsewhere the departures of the mean temperature were irregular, and except over the Madras Deccan, where the mean temperature considerably exceeded the normal, were generally moderate or small.

Showers occurred over Burma, Cachar and the south of the Peninsula from the 3rd to the 7th, while elsewhere the weather was fine. Temperature was low over Burma throughout this period. This is shown below :—

PROVINCE.	DEPARTURE FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF				
	3rd October.	4th October.	5th October.	6th October.	7th October.
	°	°	°	°	°
Burma . .	+0·2	+0·5	—0·3	—0·8	—1·7

Temperature was also lower than usual over the United and Central Provinces and the north Deccan—more particularly on the 6th. The following gives data :—

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF				
	3rd October.	4th October.	5th October.	6th October.	7th October.
	°	°	°	°	°
United Provinces .	—0·1	—1·6	—1·6	—0·6	+0·3
Central Provinces .	—1·2	—0·6	—1·8	—2·6	—1·4
North Deccan . .	+0·6	—0·8	+0·6	—0·3	—0·8

In all other parts of the country the mean temperature was higher than usual, more especially over north-west India and the interior of the south of the Peninsula. The following gives data :—

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF				
	3rd October.	4th October.	5th October.	6th October.	7th October.
	°	°	°	°	°
Assam . . .	+1·3	+1·0	+0·4	+1·1	+0·3
Bengal . . .	+0·3	0	+0·3	+0·3	+0·4
Orissa . . .	+0·5	+1·8	+0·9	+0·7	+1·3
Bihar . . .	+0·4	+0·6	+0·3	+0·7	+1·1
Chota Nagpur . .	+1·2	+1·3	+1·8	+1·9	+2·3
Punjab . . .	—1·2	—0·3	+1·9	+3·7	+4·2
N.-W. Frontier Province	—2·0	+0·3	+2·4	+4·0	+5·2
Sind	+0·5	+0·3	+0·4	—0·1	+1·1
Rajputana . .	+1·2	+1·5	+2·0	+2·1	+2·9
Gujarat . . .	0	+1·5	+0·5	+2·6	+2·2
Berar . . .	+2·0	+0·4	+1·1	+1·3	—0·8
West Coast . .	+1·3	+1·7	+0·8	+0·6	+0·6
Bombay Deccan . .	+1·2	+0·8	+1·2	+1·2	+0·8
Mysore . . .	+2·0	+3·5	+3·5	+2·1	+3·0
Madras Coast . .	+0·7	+1·8	+1·8	+1·4	+1·4
Madras Deccan .	+2·4	+2·4	+2·5	+2·2	+1·4
South India . .	+1·1	+1·2	+0·4	—0·1	—0·1

Between the 8th and the 14th the weather was unsettled and showery over Burma, north-east India and the Peninsula generally, and throughout these areas the mean temperature gradually fell and ranged below the normal, though generally by small amounts. The following gives comparative data for Burma, Assam and the Peninsular divisions :—

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M.						
	8th Oct.	9th Oct.	10th Oct.	11th Oct.	12th Oct	13th Oct.	14th Oct.
Burma	—1·8	—2·4	—1·5	—1·2	—0·6	—0·6	—0·2
Assam	+2·3	+2·3	—0·1	—1·2	—0·5	—2·5	—1·3
West Coast . . .	+0·2	+0·9	+0·9	—0·1	—0·3	—0·4	+0·1
Bombay Deccan . . .	+0·8	+1·6	+3·2	—1·4	+0·2	—1·7	—1·5
Mysore	+2·0	—0·6	0	—0·5	—0·1	—1·5	—1·1
Madras Coast . . .	+0·2	—2·4	—1·0	—1·1	—1·2	—0·7	+0·3
Madras Deccan . . .	+3·6	+2·8	+1·6	—1·4	—3·6	—2·0	—0·4
South India . . .	+0·1	—0·7	0	—1·2	—0·4	+0·5	+0·4

In all other parts of the country the mean temperature was more or less excessive but was unsteady—more particularly in the extreme north-west, where, accompanying showers in the north-west Himalayas, a considerable oscillation occurred during the 8th, 9th, and 10th. The temperature was very excessive over Gujarat and neighbouring regions from the 11th to the 14th. The following gives comparative data for all north-western, northern and central divisions :—

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF						
	8th Oct.	9th Oct.	10th Oct.	11th Oct.	12th Oct.	13th Oct.	14th Oct.
	°	°	°	°	°	°	°
Bengal	+0·5	+0·8	—0·7	—0·9	—0·3	+1·1	+1·2
Orissa	—0·8	—1·3	—3·0	—0·5	—0·9	+0·1	+0·8
Bihar	+2·0	+2·0	+2·1	+2·3	+2·9	+0·6	+1·1
Chota Nagpur . . .	+2·8	+1·6	+1·3	+1·3	+2·3	+2·3	+4·2
United Provinces of Agra and Oudh.	+0·7	+1·6	+1·6	+0·7	—0·2	+0·3	+0·1
Punjab	+4·4	+2·9	+2·0	+1·6	+1·3	+1·9	+2·3
North-west Frontier Province.	+5·1	—1·0	0	+0·8	+0·9	+1·2	+0·3
Sind	+2·8	+2·2	+2·2	+2·0	+4·7	+3·1	+3·4
Rajputana	+2·7	+2·9	+2·5	+2·9	+3·1	+4·4	+4·4
Gujarat	+2·9	+2·8	+2·5	+3·8	+4·6	+4·4	+3·1
Central India . . .	+0·1	+1·1	+1·4	+1·5	+1·2	+1·7	+2·3
Central Provinces . .	—0·1	+1·6	+2·2	+2·0	+1·6	+1·7	+2·2
Berar	—0·7	+4·6	+2·2	+0·8	+0·7	+1·2	—1·8

From the 15th to the 18th the weather, over a large part of the country, was controlled by the cyclonic storm. This storm crossed the Madras Coast near Cocanada on the evening of the 15th, thence moved north-westward into North Hyderabad (16th), thence north-north-eastward to the east of the Central Provinces (17th), and thence north-eastward to the foot of the Nepal Himalayas (18th). The storm occasioned heavy rain over and near its track, the largest amounts in 24 hours in the different divisions having been as follows:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Hyderabad Deccan. — Nanded	Nanded	14th October.	2·70
Hyderabad Deccan. — Indur	Indur	„ „	2·30
Hyderabad Deccan. — Medak	Sangareddypett	„ „	2·18
Hyderabad Deccan. — Bidar	Bidar	„ „	2·17
East Coast North. — Kistna	Gannavaram	15th „	5·30
East Coast North. — Vizagapatam	Pattanghi	16th „	9·83
East Coast North. — Kistna	Ellore	„ „	6·90
East Coast North. — Kistna	Kykalur	„ „	6·50
East Coast North. — Kistna	Gudivada	„ „	6·18
East Coast North. — Kistna	Masulipatam	„ „	5·75
East Coast North. — Vizagapatam	Saluru	„ „	5·16
East Coast North. — Vizagapatam	Chodavaramu	17th „	12·70
East Coast North. — Vizagapatam	Srungavarapukota.	„ „	5·57
Central Provinces, Central. — Balaghat	Lanji	16th „	4·77
Central Provinces, Central. — Mandla	Marpha	17th „	4·39
Central Provinces, East. — Feudatory States	Khairagarh	16th „	9·35
Central Provinces, East. — Feudatory States	Dongargarh	„ „	4·63
Central Provinces, East. — Feudatory States	Chhuikhadan	17th „	5·08
Central Provinces, East. — Raipur	Drug	„ „	4·96
United Provinces, East. — Allahabad	Soraon	„ „	5·77
United Provinces, East. — Allahabad	Allahabad	„ „	4·80
United Provinces, East. — Ghazipur	Ghazipur	18th „	5·40
United Provinces, East. — Jaunpur	Kirakat	„ „	4·35
Bihar — Darbhanga	Khutauna	„ „	10·12
Bihar — Saran	Amnour	„ „	9·85
Bihar — Darbhanga	Laukahi	„ „	9·80
Bihar — Saran	Chapra	„ „	7·50
Bihar — Muzaffarpur	Sitamarhi	„ „	6·63
Bihar — Purnea	Forbesganj	„ „	6·50
Chota Nagpur — Hazaribagh	Kharagdiha	„ „	2·96
North Bengal. — Dinajpur	Ramganj	18th October.	8·16
North Bengal. — Cooch Behar	Mickliganj	„ „	7·32
North Bengal. — Darjeeling	Mongpoo	„ „	6·04
North Bengal. — Jalpaiguri	Jalpaiguri	„ „	6·00
North Bengal. — Jalpaiguri	Debiganj	„ „	5·72
North Bengal. — Darjeeling	Kurseong	„ „	5·65
North Bengal. — Darjeeling	Siliguri	„ „	5·64
North Bengal. — Dinajpur	Thakurgaon	„ „	5·50
North Bengal. — Darjeeling	Darjeeling	„ „	5·48

While the storm was advancing, scattered showers of rain fell over north-west India occasioning a fall of temperature, while the cyclonic rainfall due to the storm occasioned a fairly general decrease of temperature over the eastern half of India. The following gives data for all divisions from the 15th to the 18th:—

Province or division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of			
	15th October.	16th October.	17th October.	18th October.
	°	°	°	°
Burma	—0·3	+0·1	+0·4	+0·3
Assam	—1·6	—0·9	+0·7	—1·2
Bengal	+1·4	+0·1	+1·7	+1·6
Orissa	+1·6	+1·2	+1·8	+1·4
Bihar	+2·6	+2·4	+3·0	—2·0
Chota Nagpur	+4·8	+3·5	+0·9	—1·2
United Provinces of Agra and Oudh.	+1·0	+3·5	—2·3	—3·9
Punjab	+2·5	+1·1	—3·0	—2·4
North-west Frontier Province	+0·7	+0·1	—2·7	—1·9
Sind	+2·3	—0·6	+1·6	—0·3
Rajputana	+5·7	+4·3	—0·3	—1·1
Gujarat	+1·5	+1·5	+2·7	+2·4
Central India	+3·1	+4·2	+0·4	—3·4
Central Provinces	+1·6	+3·2	—0·9	—2·6
Berar	—1·8	—0·1	—1·2	—2·0
West Coast	0	+0·5	+0·4	+0·1
Bombay Deccan	—1·0	—1·1	+1·2	+0·6
Mysore	—0·9	0	+2·2	—0·6
Madras Coast	—1·7	—0·7	+1·4	+1·1
Madras Deccan	—0·5	—1·7	+2·6	+1·3
South India	0	+0·8	+0·8	+1·9

Temperature gradually rose between the 19th and the 23rd but remained below the normal over the United and

Central Provinces and Central India, as is shown by the following comparative data:—

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF				
	19th October.	20th October.	21st October.	22nd October.	23rd October.
	°	°	°	°	°
United Provinces . . .	−2·7	−1·9	−2·0	−1·8	−2·7
Central Provinces . . .	−3·1	−1·8	−1·4	−0·9	−0·4
Central India	−4·2	−3·3	−2·0	−0·7	−0·6

Between the 24th and the 28th, though there was no rain or none of any importance, the mean temperature was low over Burma and north-east India and early cold weather conditions appear to have been established over that region. The following gives data for the contained divisions:—

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF				
	24th October.	25th October.	26th October.	27th October.	28th October.
	°	°	°	°	°
Burma . . .	−0·1	−0·6	+0·3	+0·3	+0·2
Assam . . .	−2·4	−2·5	−1·5	−1·4	−1·0
Bengal . . .	−1·4	−2·3	−2·8	−3·0	−2·5
Orissa . . .	+0·5	+0·2	−1·6	−3·2	−3·3
Bihar . . .	−3·3	−3·2	−3·3	−2·9	−2·1
Chota Nagpur . .	−0·3	−1·3	−2·1	−2·4	−0·8

During these five days excessive temperatures prevailed in practically all other parts of the country, though in the extreme south of the Peninsula showers kept the mean temperature locally low. This is shown below:—

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF				
	24th October.	25th October.	26th October.	27th October.	28th October.
	°	°	°	°	°
United Provinces of Agra and Oudh.	−1·7	−0·8	0	+1·0	+1·7
Punjab . . .	+0·8	+0·9	+1·9	+3·3	+3·7
North-west Frontier Province.	+0·5	+0·1	+2·2	+2·7	+3·2
Sind . . .	+2·1	+1·5	+1·9	+1·4	+1·5
Rajputana . . .	+0·3	+1·7	+2·4	+2·5	+3·1
Gujarat . . .	+1·7	−0·3	+1·2	+0·4	−0·1
Central India . .	+0·1	+0·7	+2·2	+2·6	+3·1
Central Provinces .	+1·2	+1·2	+2·1	+2·0	+1·8
Berar . . .	+1·0	+3·3	+3·6	+0·4	+2·2
West Coast . .	+0·3	+0·9	+0·7	+0·8	+1·2
Bombay Deccan .	+1·7	+3·0	+2·9	0	+2·1
Mysore . . .	+1·1	+2·4	+2·1	+0·9	−0·3
Madras Coast . .	+1·0	+1·5	+1·5	+0·9	−0·1
Madras Deccan . .	+2·1	+2·4	+2·0	+0·9	+1·6
South India . .	−1·6	+1·4	+0·1	−1·5	−0·9

During the 29th, 30th and 31st there was not much change to record. Showers in the north-west Himalayas occasioned a local fall of temperature over the North west Frontier Province, but elsewhere there was little or no rain. The mean temperature remained low, relatively to the normal, over Burma, north-east India and the east of the Peninsula, while elsewhere, and more particularly over the Gangetic Plain and the central parts of the country, it was more or less excessive. The following gives comparative data for all divisions for the last three days of the month:—

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF		
	29th October.	30th October.	31st October.
	°	°	°
Burma	+0·2	+0·2	+0·9
Assam	−1·6	−1·3	−1·8
Bengal	−1·8	−0·9	−0·5
Orissa	−2·2	−2·6	−2·9
Bihar	−1·5	−1·1	−0·8
Chota Nagpur	−0·3	−0·5	−0·2
United Provinces of Agra and Oudh .	+3·5	+1·0	+0·9
Punjab	+2·3	+0·5	+0·4
North-west Frontier Province .	−0·9	−0·2	−3·6
Sind	+2·5	+0·3	+0·9
Rajputana	+3·9	+3·0	+3·0
Gujarat	−1·1	−1·2	+1·6
Central India	+3·4	+3·5	+3·9
Central Provinces	+2·1	+1·9	+1·4
Berar	+2·0	+3·1	+3·2
West Coast	+0·7	+0·8	+1·3
Bombay Deccan	+2·0	+2·0	+1·1
Mysore	−0·3	+0·2	−0·9
Madras Coast	−0·2	+0·2	+0·2
Madras Deccan	+0·9	+1·6	−0·7
South India	−1·6	−0·7	−0·6

Pressure.—Pressure was as usual very uniform over the Indian Land area during the month. Slight high pressure areas were shown over the North-west Frontier Province, at the foot of the Kumaun Himalayas, over north-east India and over the central parts of the country and parts of Rajputana, of Mysore and of the Deccan, while pressure was lowest over the south-west of the Bay. The mean pressure was higher than usual except over the Indus valley, along the West Coast, over the south of the Bay and Tenasserim, but the departures were generally small and the departure from normal of the geographical mean of the whole country was only +·006″. At most of the hill stations

the departures from the average were small and the vertical pressure gradient was, in most of the mountain districts, about normal. In the south-east Trades region the mean pressure was lower than usual, the deficiency having been somewhat greater in that area than over the south of the Indian region.

The following gives the mean pressure departures and anomalies of the month for the eleven meteorological provinces:—

METEOROLOGICAL PROVINCE.	Departure from normal of mean 8 A.M. pressure, Oct. 1904.	Pressure anomaly, Oct. 1904.
	"	"
Burma Coast and Bay Islands	+·001	—·005
Burma Inland	+·018	+·012
Assam	+·014	+·008
Bengal and Orissa	+·020	+·014
Gangetic Plain and Chota Nagpur	+·012	+·006
Upper Sub-Himalayas	+·007	+·001
Indus Valley and North-West Rajputana	—·001	—·007
East Rajputana, Central India and Gujarat	0	—·006
Deccan	+·007	+·001
West Coast	—·005	—·011
South India	+·004	—·002

Temperature.—The mean maximum temperature of the month exceeded the normal over the greater part of north-western and northern India and the interior of the Peninsula but the departures were generally slight except over west Bengal, the submontane Punjab, the lower Indus valley and at a few places in Madras, where the excess was moderate and in Gujarat and surrounding district where it was considerable. Over northern Burma, Assam, the south Punjab and most of the coasts of the Peninsula the mean maximum temperature was lower than usual.

The highest temperature recorded during the month was 106°·6 at Deesa on the 11th and the mean maximum temperature of the month exceeded 100° at Deesa (102°·0), Ahmedabad (100°·8) and Jacobabad (100°·6).

The mean minimum temperature was lower than usual over the northern half of Burma, north-east and part of Central India, lower Sind and the south of the Peninsula. The deficiency was slight except in the submontane districts of Bengal and of the United Provinces and at Barisal where it ranged between 2° and 3°. The mean minimum temperature exceeded the normal over the remainder of the Indian region, and the excess was moderate and more than 2°·0 over the Punjab and parts of Rajputana and of Gujarat. The greatest excess was 4°·4 at Lahore.

The mean temperature was normal or slightly below the normal over the eastern half of India, in the extreme south of the Peninsula and the northern districts of Burma, while it was in excess of the average over the western half of India, the interior of the Peninsula and lower Burma. The departures were generally unimportant except over the central Punjab and parts of Gujarat, Rajputana and Khandesh, where the mean temperature was between 2° and 4° in excess of the normal.

The following table gives temperature departure data for the eleven meteorological provinces:—

METEOROLOGICAL PROVINCE.	DEPARTURE FROM NORMAL OF		
	Mean maximum temperature, October 1904.	Mean minimum temperature, October 1904.	Mean temperature, October 1904.
	°	°	°
Burma Coast and Bay Islands	+0·4	+0·3	+0·4
Burma Inland	—1·2	—1·0	—1·1
Assam	+0·1	—1·2	—0·6
Bengal and Orissa	+0·4	—1·1	—0·4
Gangetic Plain and Chota Nagpur	+0·9	—1·0	—0·1
Upper Sub-Himalayas	0	+0·9	+0·5
Indus Valley and North-West Rajputana.	+0·7	+1·4	+1·1
East Rajputana, Central India and Gujarat	+2·3	+1·0	+1·7
Deccan	+0·7	+0·6	+0·7
West Coast	+0·2	+0·4	+0·3
South India	+0·9	0	+0·4

Winds.—The wind blew from the normal direction at Port Blair, but was more northerly and easterly than usual at most stations on the Burma coast and at the head of the Bay. On the other hand, in the Gangetic Plain and over the interior of Bengal the mean direction was unusually westerly. In eastern Rajputana also the mean wind direction was unusually westerly, but generally over upper India the wind directions were irregular. Increased westing was also noticeable along the West Coast of the Peninsula, while over the Deccan and South India, as at the Bay stations, the wind was generally more easterly than the average. At the hill stations the directions were very irregular. In the south-east Trades region the wind was more easterly than usual.

Humidity.—The departures of the mean relative humidity were, on the whole, moderate or small. Generally speaking, the mean relative humidity was lower than usual over the interior districts, and in excess over the coast districts but some excess was also shown over the south Punjab and parts of the Central and United Provinces, of Central India and of west Bengal. The deficiency was moderate at Deesa (—14) and Montgomery and Rawalpindi (each—12), while the excess was moderate or slight at Sirsa (+8), Poona (+9), Cocanada (+8), Jhansi (+8), Chanda (+8) and Gaya (+8).

The following table gives mean humidity data of the nine meteorological provinces:—

Meteorological Province.	Mean absolute humidity.		Mean relative humidity.	
	Average actual, October 1904.	Departure from normal, October 1904.	Average actual, October 1904.	Departure from normal, October 1904.
	"	"	%	
Burma Coast and Bay Islands	·906	+·002	86	—1
Bengal and Orissa	·820	—·019	80	—2
Gangetic Plain and Chota Nagpur	·560	—·028	63	—4
Upper Sub-Himalayas	·468	0	60	+1
Indus Valley and North-West Rajputana.	·515	+·018	55	0
East Rajputana, Central India and Gujarat.	·362	—·064	37	—10
Deccan	·569	+·003	63	—1
West Coast	·854	+·013	81	—2
South India	·680	—·003	74	—1

Cloud:—The mean cloud amount of the month was generally in slight defect over the western desert and parts of Gujarat, of Khandesh and of the west and east of the United Provinces, but the departures in this area were everywhere small and less than —1·0. The cloud amount was also less than usual over Burma, north-east India and within a band which covered the east and south of the Peninsula, with the exception of the coast stations. Within this region the departures were larger than in the north-west and exceeded —2·0 at Tavoy (—2·1); Rangoon (—2·1); Akyab (—3·3); Silchar (—2·5); Chitaldroog (—2·1); and Madura (—2·7). In other parts of the Indian region the sky was more cloudy than usual, but the excess was small except at Sutna (+1·8); Saugor (+1·0); Khandwa (+1·1); Akola (+1·0); Ahmednagar (+1·2); Bombay (+1·3); Trincomalee (+1·5); False Point (+1.0); Sambalpur (+1·0); and Peshawar (+1·0). At Gilgit the sky was more cloudy (+2·4) than usual and at Darjeeling (—2·0) less, but at the other hill stations the departures were unimportant. At Perim the sky was cloudless throughout and at Aden the mean amount was less than usual. On the other hand, the sky was unusually cloudy in the south-east Trades region.

The following table gives comparative data of the mean cloud amount for the nine meteorological provinces:—

Meteorological Province.	Mean cloud amount.	
	Average actual, October 1904.	Departure from normal, October 1904.
Burma Coast and Bay Islands	4·7	—0·9
Bengal and Orissa	5·1	+0·2
Gangetic Plain and Chota Nagpur	3·1	—0·3
Upper Sub-Himalayas	0·7	—0·3
Indus Valley and North-West Rajputana	0·9	0
East Rajputana, Central India and Gujarat	1·1	—0·6
Deccan	4·3	+0·3
West Coast	3·4	—0·4
South India	6·0	—0·2

Rainfall:—The month was actually or practically rainless over Baluchistan, Sind, the west and south-east of the Punjab, the west of the United Provinces, Rajputana, the west of Central India, Kathiawar and Cutch. From this area of light rain the amount increased and was large over Travancore, Malabar and the north division of the East Coast. The weather was more disturbed than usual in the extreme north-west and the total rainfall of the North-west Frontier Province and of the submontane Punjab and of the Punjab hills was in excess of the average. The rainfall of the month was also in excess of the average within the path of the cyclonic storm which formed over the Bay about the middle of the month, the north division of the East Coast, North Hyderabad, the east and central divisions of the Central Provinces, the east divisions of the United Provinces, Bihar and the north division of Bengal all showing an excess of rain. In all other parts of the country the total rainfall of the month was lighter than usual, the greatest actual deficiency having been reported from parts of Burma, of north-east India and of the East Coast, where the usual rainfall of the north-east or retreating south-west, monsoon current, to a large extent, failed.

Meteorological Province.	Rainfall.			
	Mean actual for October 1904.	Mean normal for October.	Departure from normal, October 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Burma Coast and Bay Islands	5·31	9·03	—3·72	—41
Burma Inland	4·29	4·42	—0·72*	—16
Assam	3·76	4·41	—0·66	—15
Bengal and Orissa	3·30	5·02	—1·72	—34
Gangetic Plain and Chota Nagpur	3·10	2·63	+0·47	+18
Upper Sub-Himalayas	0·17	0·37	—0·20	—54
Indus Valley and North-West Rajputana.	0·08	0·04	+0·04	+100
East Rajputana, Central India and Gujarat.	0·08	0·63	—0·54*	—86
Deccan	2·52	2·73	—0·22*	— 8
West Coast	5·61	7·47	—1·87	—25
South India	6·66	7·59	—0·93	—12

* A reference to Table I will show that the means of columns 2 and 3 are derived from a smaller number of stations than the means in the first column. The sum of the figures in columns 2 and 3 will, therefore, not agree with the figures in column 1.

General remarks for the Indian monsoon area.—As is usually the case at this season of the year, conditions were generally quiet over the Trades-monsoon area. There was more rain than usual over Asiatic Turkey and northern and central Persia, which apparently pointed to earlier cold weather conditions than usual over the countries to the north-west of India, but over Afghanistan and Kashgaria there was no rain throughout the month, and the weather was fine over the Persian Gulf region and Arabia. The European charts showed that pressure was low over the Mediterranean region from the 1st to the 17th, shallow depressions passing during this period eastward along the Mediterranean and apparently into Asia Minor. From the 18th to the 26th pressure was more or less high over the Mediterranean and the succession of depressions ceased, but during the last five days of the month the former conditions were established and shallow depressions again travelled along the Mediterranean and apparently into Syria. The reports from Egypt show that the weather was generally free from disturbances. Several depressions formed in the neighbourhood of Sicily, but none had any marked effect on the weather in Egypt except that of the 21st to 24th, which reversed the normal northerly winds and gave slight rain to the Delta. The mean atmospheric pressure was about normal in Egypt, but was in slight defect in the Sudan. Temperature was generally higher than usual, while the rainfall was in defect on the north coasts, and in some excess over the Sudan. The Nile was lower than usual.

In the Caspian area, represented by the stations of Tiflis and Baku, the principal downward movements of the barometer occurred on the 6th and 7th, the 19th to the 21st and on the 29th to the 31st. These changes do not appear to have been propagated eastward as no similar changes can be traced in the barometric curves of the stations in Persia or Asiatic Turkey, while the periods of rainfall at Meshed, Teheran, Ispahan and Baghdad were as follows:—Meshed, the 4th and 14th; Teheran, the 5th, 6th, 19th and 21st; Ispahan, the 4th and 6th, and Baghdad, the 25th. In western Siberia the principal downward movements of pressure occurred on the 5th and 6th, the 10th and 11th, the 21st and 22nd, and the 30th and 31st and the periods of disturbed weather and of rainfall over Kashmir and the extreme north-west of India were reported on the 1st and 2nd, the 9th, the 16th and 17th, and the 28th to the 31st. It is hence difficult to trace any connexion between the pressure movements over Central Asia and the weather over the north-west of the Indian empire.

In the south-east Trades region the different meteorological elements differed considerably from the normal. This is shown below:—

Element.	Mauritius.	Zanzibar.	Seychelles.
Pressure departure	" −·029	" −·016	0
Mean wind direction (easterly deflection).	° +12	° +4	° +4
Mean wind velocity departure (in miles per hour.)	−38	+5	+23
Rainfall departure	−0·21	+2·33	−2·47

The preceding data show that pressure was below the normal at Mauritius and Zanzibar, but that the deficiency disappeared on proceeding northwards and disappeared at the Seychelles, and that the winds were more easterly generally and though light at Mauritius were stronger than the average at Zanzibar and the Seychelles.

The month's rainfall was lighter than the normal at Mauritius and the Seychelles and heavy at Zanzibar.

The preceding data appear to show that the barometric gradient was somewhat slighter than usual over the Trades monsoon area as pressure exceeded the normal over north-east and central India; was normal over the West Coast and over the Arabian Sea and north Indian Ocean and below the normal over the south of the Trades region.

The following table shows the daily departures of pressure from the normal for various selected stations within the monsoon area and the mean departures of the whole number of stations:—

Date.	DEPARTURE FROM NORMAL OF Calcutta.	Madras.	Colombo.	Bombay.	Lahore.	Bushire.	Aden.	Zanzibar.	Seychelles.	Whole.
October 1904.	"	"	"	"	"	"	"	"	"	"
1	+·06	+·045	−·005	+·035	+·042	−·011	−·030	−·032	−·075	+·004
2	+·089	+·078	−·014	+·078	+·131	+·032	+·037	−·036	−·047	+·038
3	+·078	+·082	+·020	+·075	+·088	+·112	+·046	−·007	−·023	+·052
4	+·051	+·054	−·018	+·035	+·027	+·002	+·045	−·013	−·055	+·014
5	+·041	+·009	−·023	+·005	−·002	+·033	+·048	−·012	−·048	+·005
6	+·076	+·037	−·010	+·024	+·050	+·118	+·010	+·039	+·005	+·039
7	+·105	+·050	+·018	+·019	+·070	+·167	+·050	+·057	+·032	+·066
8	+·104	+·032	+·023	+·014	+·057	+·135	+·160	+·039	+·031	+·056
9	+·065	+·004	+·003	−·014	+·087	+·058	+·066	+·022	+·044	+·037
10	+·021	−·005	−·022	−·031	+·014	−·004	+·017	−·014	−·011	−·004
11	+·056	+·014	−·002	−·010	+·042	+·077	−·003	−·062	−·003	+·013
12	+·063	−·003	+·037	+·021	+·038	+·105	+·032	−·041	+·040	+·032
13	+·006	−·027	0	−·013	−·063	+·023	+·025	−·032	−·010	−·010
14	−·030	−·105	−·034	−·082	−·082	−·034	−·031	−·012	−·024	−·048
15	+·002	−·133	−·039	−·097	−·102	−·040	−·075	−·045	−·031	−·063
16	0	−·10	−·023	−·111	+·059	+·033	−·031	+·003	−·017	−·020
17	−·066	−·104	−·077	−·121	−·044	+·056	−·014	+·005	−·013	−·042
18	−·086	−·070	−·073	−·084	−·077	−·014	−·025	−·032	−·017	−·054
19	+·036	+·037	−·003	−·003	+·029	+·054	−·013	−·021	−·023	+·011
20	+·068	+·050	−·021	+·033	+·042	+·017	+·020	−·029	−·022	+·020
21	+·050	+·034	−·022	+·038	+·029	+·032	+·028	−·049	−·033	+·013
22	−·042	−·001	−·046	−·002	−·072	+·031	+·012	−·048	−·011	−·020
23	−·008	+·012	−·004	−·034	−·121	−·030	−·017	−·023	−·023	−·027
24	+·018	+·011	−·007	−·025	−·108	−·079	−·016	−·005	−·050	−·029
25	+·039	+·013	−·017	−·025	−·080	−·056	−·024	−·013	−·048	−·023
26	+·074	+·012	−·001	+·015	−·067	−·032	0	−·036	−·011	−·002
27	+·027	+·039	+·010	+·021	−·040	−·029	−·041	−·045	−·021	−·009
28	−·029	+·017	−·010	+·010	−·119	0	−·001	−·053	−·046	−·026
29	−·015	−·004	−·034	+·014	+·019	−·083	−·037	−·064	−·056	−·029
30	+·014	+·016	−·030	+·040	+·083	−·050	−·047	−·083	−·041	−·011
31	−·014	+·013	+·007	+·038	+·092	+·02	−·039	+·002	−·029	+·011

The preceding data show that pressure generally exceeded the normal from the 1st to the 12th, was below the normal from the 13th to the 18th, above from the 19th to the 21st, below from the 22nd to the 30th and above on the 31st.

Magnetic and Solar disturbances.

The following reports on Magnetic and Solar disturbances have been received from the observatories:—

SOLAR PHYSICS OBSERVATORY, KODAIKANAL,
SOLAR OBSERVATIONS,—OCTOBER 1904.

Observations were made on the sun on all days except the 16th, 22nd and 23rd. There were 19 days fine enough for work on prominences.

During the month there were 20 new groups of spots, as against 24 in August and 17 in September, and some of them were larger than any that have been seen for two months. The most important groups were Numbers 363, 365, 367, 368, and 376, all but the last appearing in the first half of the month.

Spot No. 363 belonged to the class of spot which forms and decays with great rapidity. It appeared as three small dots in a group of faculæ, a little distance from the eastern limb on the 3rd: by the 4th it had formed into a considerable group of small spots and the spectrum indicated great disturbance, the C line being displaced and reversed and the helium line d_3 showing very dark. By the morning of the 5th the leading and rear spots of the group showed distinct penumbras, but by the 9th the whole group had completely disappeared.

Spot No. 365 formed near the centre of the disc on the 5th. Near the spot, and for some distance north and south of it, the C line was brilliantly reversed, and both the dark and bright lines were displaced towards the less refrangible end of the spectrum. Near the rear of group at 9-30 A.M. the displacement showed movement away from the observer of about 100 miles per second. By $10^h\ 10^m$ the spectrum had about changed greatly, but large motions were still shown in parts. Next day the leader was large enough to show a penumbra. During the subsequent days the leader increased in size at the expense of the other spots, and on the 12th it disappeared round the western limb.

No. 367 came round the eastern limb on the 6th and consisted of only 3 small dots till the 9th when the leader began to grow rapidly in size, the other spots increased slightly for a time and then diminished and by the 17th only the leader remained.

No. 368 belonged to the class of quiet spots. It traversed the disc as a round spot of regular outline from the 8th to the 21st.

No. 376 appeared first on the 24th as a very insignificant group lying between two other groups. By the next day the rear group appeared to have closed up with 376 and the combined group rapidly grew till the 28th when it had become the largest group of the month, covering nearly 18° of Longitude and 6° of Latitude. The C line was frequently seen reversed in this group.

Of the 20 new groups appearing during the month 13 were in the north and 9 in the south hemisphere. The spot zones were 10° to 20° north Latitude and 15° to 20° south Latitude.

Large prominences were more numerous than in the previous month. In four prominences the lines of sodium and magnesium were seen bright, some distance from the base. From the 1st to the 7th prominences were seen every day at and near the north and east points of the limb. The northern group covered about 10° of the limb and was very bright. Both groups showed metallic eruptions on the 4th. A small prominence seen on the 13th, showed displacements in the C line corresponding to a motion away from the observer of about 43 miles per second. On the 27th a metallic prominence was observed which showed displacements in both directions. Sodium, magnesium and iron lines were seen in this prominence.

There were moderate magnetic disturbances on the 7th, 8th, and 21st. On the 7th and 8th spot No. 363 was near the central meridian. On the 21st spot No. 371 was a few degrees beyond the central meridian.

C. Michie Smith, *Director,*
Kodaikanal and Madras Observatories.

Colaba Observatory, Bombay:—Note on the Colaba Magnetic Record.

During the month the traces showed 14 calm days, 14 days of small and three days of moderate disturbances.

The selected quiet days of the month were the 6th, 11th, 16th, 19th, and 24th.

The mean observed absolute values of the several elements as also the ranges and summed ranges of the Horizontal Force and Declination for the month are as follow:—

Declination	0° 13′ 15″
Horizontal Force	0·37399 C. G. S. unit.
Dip	21° 49′·9
Horizontal Force range	·00044 C. G. S. unit.
„ „ summed range	·00256 C. G. S. unit.
Declination range	2′·10
„ summed range	7′·54

(Summed range means sum without regard to signs of 24 ordinates of diurnal inequality.)

A very great seismic disturbance was recorded on the 3rd, which commenced at $3^h\ 9^m$ G. M. T. that day. The time of maximum by Milne's seismograph as also the amplitude of movement cannot be determined as the traces overlap; but the Colaba seismograph No. (1 E. W.) gives $3^h\ 13^m{\cdot}8$ and 28 mm as the time of maximum and the amplitude of movement, respectively. For the first time the vertical seismograh gave excellent records. The actual tilt of the ground as calculated from the "float" record was 3″·6 seconds of arc, while the amplitude as recorded by the E. W. Colaba seismograph was 28mm corresponding to a tilt of 7″·3 seconds of arc. Three other small disturbances were recorded during the month; two on the 9th and one on the 28th.

MAGNETIC DISTURBANCES.

OCTOBER 1904.

October 1904.		October 1904.		October 1904.	
1	C.	11	C.	21	M.
2	S.	12	C.	22	S.
3	S.	13	S.	23	S.
4	C.	14	S.	24	C.
5	C.	15	S.	25	S.
6	C.	16	C.	26	S.
7	M.	17	C.	27	S.
8	M.	18	C.	28	S.
9	S.	19	C.	29	S.
10	C.	20	C.	30	C.
				31	S.

The magnitudes of the disturbances are determined from Horizontal Force traces. C = Calm; S = Small; M=Moderate; G= Great; V G=Very great. Days are reckoned from midnight to midnight.

N. A. F. Moos,
Director,
Government Observatory, Bombay.

Royal Alfred Observatory, Mauritius.—With the exception of October 3rd, 10th and 23rd when the weather was cloudy at Mauritius spots and faculæ were observed on every day.

1 group was observed on the 4th.
2 groups were " " 5th, 6th, 22nd and 30th.
3 " " " " 1st, 2nd, 19th, 24th to 27th, 29th and 31st.
4 " " " " 7th, 11th to 18th, 20th, 21st and 28th.
5 " " " " 8th and 9th.

Magnetic disturbances:—

Day.	Hours.	Disturbances.
7	4 — 6	Small rapid fluctuations in H.F.
	10½—17½	Decrease of H.F. ('000787).
	11½—13½	Waves (—'000256).
	13½—17½	Do. (+'000256).
	6 — 9	In declination small rapid fluctuations.
8	1 — 3	Wave in H.F. (+'000272).
	18 —22	Irregular wave in H.F. (—'000256) steep at end.
	6 — 9	In declination small rapid fluctuations.
	21½—22	Wave (3'·8 W).
13 to 14	21 to 6	Small fluctuations in H.F. 13d 13h to 14h very small fluctuations in declination; 14d 5½h to 10h small fluctuations in declination.
21	13 —21	Decrease of H.F. ('001120).
	22½—23¼	Increase of H.F. ('000704) 21d 23h to 22d 0½h wave in declination (3'·0 E).
23	5 —17	Long wave in H.F. (+'000416).
27	3 —19	General but irregular decrease in H.F. ('000406) followed by increase till 28d 7h ('000464).
28	7 —14	General but irregular decrease in H.F. ('000374) in the form of a double wave (—'000128 to +'000128).
	6 — 9	Small fluctuations in declination.
31	6 — 9	Small fluctuations in declination.

T. F. Claxton,
Director.

Alipore.—List of displacements recorded by the Seismograph at the Alipore Observatory during October 1904.

Number.	Date 1904.	P. T. Commencement. G. M. T.	L. W. Commencement.	Maxima. G. M. T.	End.	Maximum amplitude in mm.	Duration.	REMARKS.
		H. M.	H. M.	H. M.	H. M.		H. M.	
	Oct. 1	10·27'2	10·30'8	10·42'5	10·57'7	1·00 (a)	0·30'5	
	" 3	3·11'6	3·16'6	3·23'8	5·7'5	17·00	1·55'9	
	" 8	18·47'9	18·55'1	19·1'7	19·32'7	2·25	0·44'8	
	" 9	14·17'4	14·34'7	14·36'7			0·49'9	Sensibility 1 mm. = 0″·38 of tilt.
					15·7'3	1·25		
	" 28	14·0'8	14·16'0	14·23'7	15·0'8	5·00	1·0'0	Sensibility 1 mm. = 0″·42 of tilt.

(a) As the boom moved throughout the entire breadth of the trace the maximum amplitude has been measured from the base line.

P. T.=Preliminary. L. W.=Large waves.

The local times of the commencement:—

Date 1904.	H. M.
October 1	16·20'5
" 3	9·4'9
" 9	0·41'2
" 9	20·10'7
" 28	19·54'1

G. W. Küchler,
Asst. Meteorological Reporter to the Govt. of India.

Atmospheric Pressure.

The mean pressure of the Indian land area for the month of October 1904, was nearly normal, the departure amounting to only +·006″. The departure was thus in marked contrast with that of October 1903 (—·054″) and October 1902 (+·077″). The years with similarly small departures in this month were 1898 when the mean difference was —·006″ and 1895 when the mean difference was +·002″.

The actual distribution of pressure, on the mean of the month, of October 1904, is shown on Pl. I. Pressure was low over the south-west of the Bay and relatively low over the western desert while it was high over Assam, north Bengal and upper Burma, over parts of the Deccan, of Mysore, of the Central Provinces and of Rajputana, over the north of the North-west Frontier Province and of the Punjab, and at the foot of the Kumaun Himalayas. Pressure was lower than usual over the east of the Bay, Ceylon, the west of the Peninsula and the Indus valley, and was higher than usual elsewhere. The departures from the normal, particularly in the area of deficiency, were small, except at a few stations in the centre and north-east, where they exceeded 0·020″. The following gives data :—

Province or division.	Station.	Departure from normal of mean 8 A.M. pressure of October 1904.
		″
Central Provinces	Chanda	+·031
	Nagpur	+·021
Bihar	Purnea	+·021
Orissa	False Point	+·021
Bengal	Narayanganj	+·036
	Calcutta	+·028
	Barisal	+·028
	Burdwan	+·026
	Jessore	+·024
	Bogra	+·023
Assam	Silchar	+·026
Burma	Mandalay	+·023
	Thayetmyo	+·023

The deficiency of pressure which prevailed over the Indus valley extended westward into Baluchistan, and in Persia and north Arabia, and even as far west as the Sudan the mean pressure of the month was lower than usual.

Similarly the low pressures reported from the south of the Indian area apparently extended southward over the Indian Ocean as at Zanzibar and Mauritius, the mean pressure of the month was below the normal.

Relatively to the geographical mean pressure was lower than usual over the greater part of north-western, western, and southern India, Ceylon, the south of the Bay and Tenasserim, and was higher than usual elsewhere. The departures were small and unimportant generally, and only exceeded 0·020″ at the stations, for which comparative data are given below:—

Station.	Pressure anomaly, October 1904.
	″
Narayanganj	+·030
Barisal	+·022
Calcutta	+·022

Pressure, on the mean of the month, was in trifling excess at most of the north-western hill stations, but was in defect over the eastern, central and southern hill districts. The departures of the vertical pressure gradients from the normal were generally slight and unimportant, but in the extreme north-west the gradients were in general slight defect. The following gives data for nine pairs of stations:—

Hill Station.	Departure from normal pressure, October 1904.	Plain Station.	Departure from normal pressure, October 1904.	Vertical pressure gradient.
	″		″	″
Chaman	—·025	Jacobabad	—·010	+·015
Leh	—·004	Lahore	0	+·004
Murree	+·003	Peshawar	—·001	—·004
Simla	+·021	Ludhiana	—·001	—·022
Chakrata	+·017	Roorkee	+·015	—·002
Ranikhet	+·013	Bareilly	+·009	—·004
Darjeeling	—·004	Dhubri	+·010	+·014
Mount Abu	—·004	Deesa	—·003	+·001
Wellington	—·005	Coimbatore	—·004	+·001

At Quetta owing to the condition of the barometer the mean atmospheric pressure value was doubtful, and the station of Chaman has been substituted for Quetta in the above statement.

The following is a brief summary of the chief abnormal

features of the pressure distribution during the month under review :—

(1) The departure from normal of the geographical mean of the whole country was +·006.

(2) Relatively to this, pressure was in trifling defect over the greater part of north-western, western and southern India, Ceylon, the south of the Bay and Tenasserim.

(3) Pressure was in relative excess elsewhere—most so over east and deltaic Bengal.

(4) Pressure was in trifling excess at most of the north-western hill stations and in trifling defect at those in the east, centre and south. The vertical pressure gradients were in slight defect in the north-west.

Barometric depressions and cyclonic storms of the month.

Easterly winds and rain prevailed over the south of the Arabian Sea between the 26th and the 30th October, but the disturbed conditions never developed and this was the only period of unsettled weather over this sea.

In the Bay the weather was almost as quiet. On the 6th calms were reported over the centre of the Bay and the winds drew into cyclonic directions near the surrounding coasts. These conditions continued till the 9th and rainy and squally weather prevailed both over the Bay and on the coasts, but the disturbed conditions never developed into a storm and on the 10th the wind had settled down into southerly directions over the greater part of the Bay.

October 12th.—On the 12th cyclonic conditions reappeared over the Bay, the centre of the circulation lying apparently immediately to the westward of the Andamans. The *Byculla* in Lat. 11° 24′ N and Long. 88°58′ E reported a strong north-west wind and continuous heavy rain, and the *Arratoon Apcar* in Lat. 12° 40′ N and Long. 94° 41′ E a strong east-south-east wind. On this day, if a centre had been formed, it probably lay to the west of the Andamans in about Lat. 12° 30′ N and Long. 91° E.

The following gives marine data for the centre of the Bay for this day :—

Name of Vessel.	8 A.M. Position.		Barometer as corrected by Calcutta Office.	Wind		Weather.
	Lat. N.	Long. E.		Direction.	Force.	
	° ′	° ′	″			
S.S. *City of Benares.*	10 12	83 29	29·536	W	4	Rough sea and cloudy ; 8 P.M. frequent showers.
S.S. *Byculla* .	11 24	88 58	·858	NW	6	Continuous heavy rain.
S.S. *Arratoon Apcar.*	12 40	94 41	·808	ESE	6	Moderate sea and fine.
S.S. *Shirala* .	13 38	83 11	·788	W by S	2	Fine ; 8 P.M. occasional rain squalls.
S.S. *Liebenfels* .	13 48	92 02	·788	N	4 to 5	
S.S. *Bangala* .	15 35	94 20	·839	SE	6	Rising sea and cloudy.
S.S. *Shahzada* .	16 00	94 04	·751	...	...	Fine and clear ; 4 P.M. passing rain squalls.

October 13th.—The following gives marine data for the centre of the Bay for this day :—

Name of Vessel.	8 A.M. Position.		Barometer as corrected by Calcutta Office.	Wind		Weather.
	Lat. N.	Long. E.		Direction.	Force.	
	° ′	° ′	″			
S.S. *Border Knight*	8 21	82 43	29·782	SW	2	Constant rain.
S.S. *Reichenfels.*	8 48	81 35	·845	W	3	
S.S. *Byculla*	10 04	87 03	·757	WNW	6	High sea, and squally ; 8 P.M frequent rain squalls.
S.S. *Maharaja* .	Port Blair.		30·003	...	...	8 P.M. passing squalls.
S.S. *Bihara* .	Madras.		29·710	...	...	8 P.M. cloudy.
S.S. *Trautenfels.*	Near Madras.		·759	NW	4	
S.S. *Orwell* .	14 32	84 11	·740	Var.	2	Fine ; 4 P.M. constant rain squalls.
S.S. *City of Benares.*	14 44	85 35	·736	NE	5	Heavy rain squalls.
S.S. *Nadir* .	15 03	81 27*	·759	S	2	Fine.
S.S. *Ujina* .	15 21	85 37	·716	NE	4	Light rain; noon frequent rain squalls.
Port Blair .			·811	SSE	7	Fine.

* Noon position.

There was very little information available. The wind at Port Blair had shifted to south-south-east ; the *City of Benares* and the *Ujina* reported moderate to fresh north-east winds and rain squalls, while the *Byculla* in Lat. 10° 4′N. and Long 87° 3′E. again reported a strong west-north-west wind and frequent squalls. The storm had hence probably moved westward, and the centre lay approximately in Lat. 12° 30′ N. and Long. 88° E.

October 14th.—The following gives marine data for the centre of the Bay for this day:—

NAME OF VESSEL.	8 A.M. POSITION.		Barometer as corrected by Calcutta Office.	WIND.		WEATHER.
	Lat. N.	Long. E.		Direction.	Force.	
	° ′	° ′	″			
S.S. *Byculla*	8 21	85 48	29·719	SW by W	6	High head sea.
S.S. *Border Knight.*	10 38	84 00	·582	W	8	Very high sea and frequent terrific squalls.
S.S. *Orwell*	11 17	83 24	·561	W	4	Squally with rain.
S.S. *Reichenfels.*	11 58	80 30	·767	W	3	
S.S. *Ujina*	12 38	84 32	·456	W	8	High sea and heavy squalls with rain.
S.S. *Bancoora*	13 06	80 23*	·711	Var.	2	Fine.
S.S. *Bihara*	13 32	83 22	·542	NE	6	High sea and frequent heavy squalls.
S.S. *Gwalior*	17 58	88 31	·764	E	5	Moderate head sea and fine.
S S. *Florican*	18 55	87 05	·784	ESE	2	South swell and fine; midnight terrific squalls with rain.

* Noon position.

The information was again very scanty, and it was very difficult to locate the centre of the storm. The *Ujina* in Lat. 12° 38′ N. and Long. 84° 32′ E. reported a westerly gale with heavy squalls, and the barometer on board that vessel had fallen 0·26″. The *Border Knight* in Lat. 10° 38′ N. and Long. 84° 0′ E. also reported a westerly gale with frequent terrific squalls and a barometer 0·20″ lower than on the preceding day. It consequently appeared that the centre had continued to move westward and lay close to the *Ujina* in about Lat. 13° N. and Long. 84° 30′ E.

October 15th.—The following gives marine information for the centre of the Bay for this day:—

NAME OF VESSEL.	8 A.M. POSITION.		Barometer as corrected by Calcutta Office.	WIND.		WEATHER.
	Lat. N.	Long. E.		Direction.	Force.	
	° ′	° ′	″			
S.S. *Byculla*	7 39	84 10	29·168	SW	6	High head sea.
S.S. *Nowshera*	8 25	81 29*	·814	SW	5	Slight sea and fine.
S.S. *Orwell*	8 49	83 04	·726	SW	4	Moderate sea and fine.
S.S. *Ujina*	9 25	84 01	·745	WSW	6	Rough sea and fine.
S.S. *Border Knight.*	12 21	84 57	·682	SW	5	Heavy sea and cloudy; 4 A.M occasional heavy squalls.
S.S. *Bihara*	14 51	89 03	·775	SSW	4	Moderate south swell and cloudy; noon occasional showers.
S.S. *Florican*	16 47	85 57	·654	E by S	6	Rough beam sea and heavy squalls; noon occasional rain squalls.
S.S. *Zibenghla*	18 00	85 51	·782	SSE	5	Moderate sea and fine.
S.S. *Flamingo*	19 03	87 00*	·730	SE	5	Nasty head sea and passing showers.

* Noon position.

Apparently the direction of movement of the storm changed after 8 A.M. of the 14th and the centre was shown, on the morning of the 15th, off Cocanada. There was very little information for the storm area and the only vessel in its neighbourhood reporting a strong wind was the *Florican* in Lat. 16° 47′ N. and Long. 85° 57′ E. which experienced an east by south wind of force 6 and heavy squalls.

The following gives 8 A.M. data for the Madras Coast ports:—

STATION.	PRESSURE.			WIND.		Cloud.	Rainfall.	REMARKS.
	8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	Change in past 24 hours.	Departure from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	″	″	″				Inches.	
Gopalpur	29·765	—·026	—·077	E	18	4	0·72	Strong wind.
Waltair	·651	—·087	—·192	NE	28	10	0·23	Sea rough.
Cocanada	·610	—·127	—·228	NNE	17	9	3·07	Sea very rough.
Masulipatam	·644	—·092	—·193	NNW	9	10	2·50	Sea rough.
Nellore	·693	—·041	—·139	WNW	4	10	0·81	Drizzling.
Madras	·712	—·026	—·133	WNW	2	10	0·11	Sea slight.
Cuddalore	·721	—·036	—·114	Cm	1	7	—	
Negapatam	·733	—·022	—·109	SW	3	4	—	

The barometer had fallen 0·127″ at Cocanada and the storm was apparently about 100 miles to the south-east of that station. The winds were strong, the sea rough and the rainfall heavy at Masulipatam and Cocanada. At Waltair according to Dine's Pressure Tube Anemometer there occurred a gust at the rate of 58 miles per hour and at Cocanada of 84 miles per hour during this day.

The lowest reading of the barometer at Masulipatam occurred at 8-30 P.M. when the barometer read 29·464 inches showing a fall of nearly 0·20″ since 8 A.M. The observer estimates that the wind velocity at that hour was at the rate of between 70 and 80 miles per hour. The storm centre apparently lay in about Lat. 16° N. and Long. 83° E.

October 16th:—The storm had crossed the coast during the 15th and strong southerly winds were reported at the Madras ports on the morning of the 16th, but cyclonic winds had disappeared from the centre of the Bay. The storm

lay over the east Deccan and the following gives 8 A.M. data for the storm area :—

STATION.	PRESSURE. 8 A.M. reduced to sea-level and constant gravity at Lat. 4°.	PRESSURE. Change in past 24 hours.	PRESSURE. Departure from normal.	WIND. Direction at 8 A.M.	WIND. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	REMARKS.
	"	"	"				Inches.	
Waltair	29·694	+·043	—·153	S	35	10	0·93	Severe gale.
Cocanada	·679	+·069	—·162	S	35	10	0·63	Sea rough.
Masulipatam	·672	+·028	—·169	SSW	24	10	5·75	Severe gale.
Nellore	·708	+·015	—·126	S	7	8	1·09	Showery.
Cuddapah	·719	—·009	—·133	NE	—	7	0·22	Showery.
Kurnool	·719	—·012	—·135	W	7	8	0·12	
Bellary	·743	—·007	—·124	WNW	6	7	—	
Hanumkonda.	·559	—·179	—	WNW	19	8	0·46	Drizzling.
Raichur	·743	—·020	—·116	SW	5	6	—	
Hyderabad (Dn.)	·679	—·084	—·192	Calm	8	10	0·12	
Chanda	·650	—·132	—·220	N	2	10	0·04	
Akola	·741	—·056	—·146	NW	3	8	0·08	
Amraoti	·726	—·077	—·162	NNW	4	7	—	
Nagpur	·702	—·094	—·174	NE	7	10	—	
Raipur	·737	—·061	—·143	ENE	9	9	0·07	
Sambalpur	·755	—·054	—·118	E	5	9	0·03	
Seoni	·757	—·064	—·137	ENE	6	8	—	Drizzling.

The barometer had risen slightly to briskly on the Madras Coast and fallen briskly to rapidly over the Deccan and the south of the Central Provinces. The wind circulation around the storm was fairly well-marked and moderate to heavy rain had fallen in the storm area.

October 17th :—The following gives 8 A.M. data for the storm area :—

STATION.	PRESSURE. 8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	PRESSURE. Change in past 24 hours.	PRESSURE. Departure from normal.	WIND. Direction at 8 A.M.	WIND. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	REMARKS.
	"	"	"				Inches.	
Gopalpur	29·721	—·040	—·129	S	29	8	0·06	Strong wind.
Cuttack	·752	—·059	—·105	SSE	3	8	0·07	
False Point	·753	—·086	—·106	S	15	9	—	
Balasore	·773	—·067	—·101	Calm.	4	7	0·23	Showery.
Raipur	·608	—·129	—·273	SW	21	9	2·25	Severe gale.
Sambalpur	·647	—·108	—·228	SW	6	10	0·23	
Pendra	·438?	—·358?	—	SE	8	10	3·47	Continuous rain.
Chaibassa	·722	—·109	—·149	ENE	5	8	0·59	Showery.
Ranchi	·729	—·126	—·153	SSE	11	10	0·05	Showery.
Hazaribagh	·709	—·134	—·162	SSE	11	10	—	
Gaya	·703	—·142	—·164	NE	6	8	—	
Benares	·692	—·122	—·185	NNE	4	10	1·17	Raining.
Allahabad	·715	—·080	—·165	NNE	9	10	4·86	
Sutna	·679	—·107	—·221	ENE	9	10	1·29	Showery.
Hoshangabad.	·780	+·003	—·146	NE	2	6	—	
Pachmarhi	...	—·048	—·229	NNE	13	10	0·41	
Seoni	·690	—·067	—·222	NNW	15	8	0·70	
Nagpur	·705	+·003	—·176	NW	10	5	0·75	Thunder.
Amraoti	·736	+·010	—·156	NNW	6	0	0·09	
Chanda	·734	+·084	—·139	WNW	7	2	0·75	Showery.

The storm had advanced in a north-north-east direction and at 8 A.M. on the 16th its centre lay near Pendra in the north-east of the Central Provinces. There was a well-marked cyclonic circulation of the winds around the storm centre, and moderate to heavy rain had fallen in its neighbourhood.

The disturbed weather due to this storm was felt on the Thibetan highlands. The escort of the Thibet Mission on the 17th of October were marching southward from the Tang-la to Chumbi, when the storm was advancing quickly north-eastward from the east of the Central Provinces towards Darjeeling. The troops experienced cloudy weather, which eventually turned to snow, and a severe gale from the southward. On the Tang-la (15,700 ft.), in about Lat. 27° 50′ N. and Long. 89° 10′ E., snow commenced at 7-20 A.M. and lasted till 5 P.M. Snow recommenced at 9 P.M. and lasted all night, and during the 18th snow fell steadily at the rate of 1 inch per hour. On the 18th the troops halted at Phari, unable to proceed on account of the heavy snow which had fallen.

This account is interesting as it has been previously held that hills of moderate elevation appear to prove an effective and insuperable barrier to the progress of October storms, and that the Eastern Ghâts, the Orissa hills, or even the Chota Nagpur tableland, will break up a storm of the transition period. In the present instance the storm surmounted the Eastern Ghâts and the hills of Chota Nagpur, and its effects were felt at Darjeeling (7,376 ft.) and on the Tang-la (15,700 ft.), and hence it exhibited the general

characteristics of a storm of the rains rather than those of a storm of the transition period.

The storm subsequently travelled in a north-easterly direction, and at 8 A.M. on the 18th was entering the eastern Himalayas, over which area it was occasioning extremely unsettled weather. Very heavy rain fell over Bihar and north Bengal during the 17th and morning of the 18th. The following are the amounts exceeding 6″ in 24 hours:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Darbhanga	Khutauna	18th October	10·12
Saran	Amnour	" "	9·85
Darbhanga	Laukahi	" "	9·80
Dinajpur	Ramganj	" "	8·16
Saran	Chapra	" "	7·50
Cooch Behar	Mickliganj	" "	7·32
Muzaffarpur	Sitamarhi	" "	6·63
Purnea	Forbesganj	" "	6·50
Saran	Basantpur	" "	6·38
Muzaffarpur	Muzaffarpur	" "	6·35
Purnea	Araria	" "	6·10
Darbhanga	Darbhanga	" "	6·08
Darjeeling	Mongpoo	" "	6·04

There is a certain amount of doubt as to whether the storm which the *Ujina* encountered in about Lat. 13° N and Long. 85° E. at 8 A.M. on the 14th was a continuation of the disturbed conditions which passed along Lat. 13° N. from the west of the Andamans to the west of the Bay. If it were then the course of the storm was that shown in the following statement:—

Date.	Position of centre.		Distance travelled during interval.	Average hourly rate of motion.
	Lat. N.	Long. E.		
	° ′	° ′	Miles.	Miles.
12th October	12 30	91 0	—	...
13th "	12 30	88 0	210	9
14th "	13 0	84 30	250	10
15th "	16 0	83 0	209	9
16th "	18 15	81 0	235	10
17th "	22 30	82 0	310	13
18th "	26 30	87 20	440	18

After the 17th the weather remained quiet and settled throughout the Indian area till the close of the month.

Summary of the Reports of the Weather and Snowfall in the Mountain Districts to the North and North-West of India.

I.—Afghan Mountain Districts.

(1) *Mahaban.*—The Inspector General of Education, North-west Frontier Province and Baluchistan, reports that on the night of October 29th-30th, while camping on the top of Mahaban (7,400 ft.) a fall of snow between 4 and 5 inches deep was experienced.

(2) *Chitral.*—A slight snowfall occurred on the north-western ranges of mountains on the 14th of October.

Light falls of snow also occurred between the 15th and 19th and on the 30th of October, but they were unimportant.

II.—Kashmir and Punjab Himalayas.

(1) *Leh.*—No snow of measurable depth fell in Leh during October, but there were very slight falls on the nights of the 26th-27th and 27th-28th.

On the night of the 26th-27th there was a fall of about 18 inches on the Kardong Pass, but traffic had not been stopped at the end of the month.

The surrounding hills were covered with snow down to about 13,000 feet at the close of the month.

There was about 1½ foot of snow on the Kardong Pass at the end of the month.

(2) *Kailang.*—There occurred a heavy snow fall during the period from the night of the 24th to the 29th October with only brief interruptions, but as the temperature was high a good deal melted. The following were the amounts:—

	Feet.	Inches.
October 25th	0	4
" 26th	1	1
" 27th	0	6
" 28th	0	11
" 29th	0	10

(3) *Simla.*—In the Bashahr Division, Simla, the following falls of snow occurred during the month:—

16th	snow descended to	9,000 ft.	depth 1 inch.
17th	ditto	9,000 "	1 "
26th	ditto	9,000 "	½ "
29th	ditto	9,000 "	1 "

The accumulation of snow on the different passes at the close of the month was as follows:—

Rupan Pass	5 feet.	
Bruin "	5 "	
Harang "	0 "	6 ins.
Shatúl "	4 "	
Buldar "	5 "	
Runang "	1 "	

The snowfall was heavier than in the corresponding month of 1903.

(4) *Chamba.*—The Deputy Conservator of Forests, Chamba, reports that snow mixed with rain fell on the 1st, 16th and between the 26th and 29th October in various parts of the division and amounted to 5 feet 5 inches, but did not accumulate. The fall between the 26th and 29th was unusually heavy for October.

III.—UNITED PROVINCES HIMALAYAS.

(1) *Almora.*—The reports received show that the snowfall of October was as follows:—

		feet.	inches.
Malla Johar	15th	1	6
	17th	1	0
	25th	0	6
	20th	1	6
	27th	1	3
	28th	2	0
Byans and Chandans.	15th	1	0
	16th	4	0
	25th	2	0
	26th	4	0
	27th	3	0
	28th	4	0
Malla Danpur	5th to 9th	0	6
	20th	0	3
	29th	0	6

The accumulated snow on the higher peaks and passes at the close of the month was:—

	feet.	inches.
Untdhura	6	0
Ralamdhura	6	0
Millam Range	4	6
Limba Pass	8	0
Nirwe „	9	6
Pindari „	1	3
Kapini „	1	3
Kaunela „	1	3

The snowfall during the month is reported to have been rather earlier and heavier than in the corresponding months of previous years.

Summary of Special Storm Reports.

The following accounts of local storms were received during the month under review:—

October 6th.—A thunderstorm occurred at Ootacamund between 21-30 hrs. and 22-40 hrs. Rainfall measured 1·22″.

„ *8th.*—A duststorm passed over Lahore between 16-35 hrs. and 17-15 hrs. There was no rain.

„ *13th.*—At Raipur a thunderstorm giving a few drops of rain commenced at 18-30 hrs. (railway time) and continued during the whole night.

„ *15th.*—A thunderstorm passed over Lahore between 14 hrs. and 14-40 hrs: only a few drops of rain fell.

A thunderstorm passed over Jodhpur commencing at 14-26 hrs. (railway time). The storm lasted only 8 minutes, but the dust was very thick and the wind very strong. Light rain fell.

A severe thunderstorm passed over Ootacamund between 23 hrs. and midnight. Light rain fell.

October *16th.*—A storm of wind and rain passed over Raipur commencing at about 18 hrs. and lasting all night. The rainfall measured 2·25″.

„ *20th.*—A thunderstorm was experienced at Ootacamund commencing at 18 hrs. The rainfall measured 0·46″ and the wind blew at the rate of about 45 miles per hour.

„ *25th.*—A thunderstorm with rain was experienced at Nagpur at 17 hrs.

„ *28th.*—A thunderstorm lasting from 20-30 hrs. to 23 hrs. passed over Kalabagh (Chur Peak). Some snow fell.

A thunderstorm lasting 40 minutes occurred at Pachmarhi, commencing at 14-30 hrs.

A thunderstorm occurred at Simla. It commenced from south-west at 19-20 hrs. and lasted about one hour. Rain and hail fell during the storm and snow on the surrounding hills.

Hail Storm Report.

A slight hail storm occurred in the Charkhari State (Central India) on the afternoon of the 27th October. The storm travelled from south to north.

Brief Summary of the weather in the Arabian Sea and Bay of Bengal during the month.

Arabian Sea.—On the 1st the marine observations showed light variable winds prevailing over the greater part of the Arabian Sea. On the 2nd northerly winds appeared over the east and centre of the sea and easterly winds in the neighbourhood of Socotra and up the Gulf of Aden. These general conditions continued until the 8th when the winds veered in the west and southerly breezes were established there. Over the centre and east of the sea the northerly winds at the same time died down and were replaced by variable breezes. This lasted till the 12th. Between the 13th and the 16th variable winds were reported from all parts of the sea. On the 17th the usual north-east winds of the cold weather set in and continued till the 22nd. These north-east winds died down over the south of the sea on the 23rd, and on the 25th easterly and south-easterly winds set in over the south of the sea with rainy weather. These conditions continued from the 26th to the 30th, and this formed the only unsettled period over the Arabian Sea during the month. On the 31st north-east winds were extending and the usual cold weather conditions were becoming established.

The winds over the Arabian Sea were of the normal strength (2·7 Beaufort scale) on the mean of the month. The mean force was above the normal on the 2nd, 3rd, 5th to 7th, 13th, 15th, 17th, 21st, 22nd, 27th, 28th, 30th and 31st and was normal or below the normal at other times. The wind was strongest on the 21st when, on the mean of 31 vessels, it averaged 3·3. The wind was lightest on the 10th when, on the mean of 26 vessels, it averaged 1·9.

Bay of Bengal.—Light variable winds prevailed over this area on the 1st and 2nd. On the 3rd north-west and north-east winds appeared, but did not continue, as, on the 4th, variable breezes reappeared, and from the 5th to the 9th irregular cyclonic winds were reported over the centre of the Bay. On the 11th very variable winds prevailed and between the 12th and the 16th an irregular cyclonic circulation reappeared. The storm which had occasioned these winds, crossed the Madras Coast during the 15th, and on the 16th, 17th and 18th southerly winds prevailed over a large part of the Bay. As these winds died down variable breezes appeared and continued until the 24th. On the 25th northerly winds commenced and gradually extended, but it was not until the 31st that the north-easterly winds of the cold weather were fairly established.

On the mean of the month the wind was lighter than usual over the Bay, the mean actual force having been 2·6, while the normal force is 3·1. The force exceeded the normal only on the 12th, 14th, 15th, 16th, 29th, and 31st, and was normal or below the normal at other times. The force was greatest on the 15th, when the only cyclonic storm of the month was approaching the Madras Coast, when, on the mean of 14 vessels, it averaged 4·4. The force was lowest on the 1st and 23rd when, on the mean of 24 and 25 vessels respectively, it averaged 1·4.

Equatorial Belt.—The winds were apparently steady over this region. They blew from the south-eastward from the 1st to the 16th. On the 17th they veered and became more southerly than usual, but on the 18th they returned to south-east and blew from that quarter until the 24th. From the 25th to the 31st the directions, so far as can be determined, were more easterly than the normal.

Temperature of the Air.

There was little or comparatively little rain over a large part of north-western, western and southern India during the month, while, on the contrary, the weather was somewhat more disturbed than usual over Burma and the eastern half of India. These variations in the normal weather affected the temperature conditions as follows:—

The mean maximum temperature of the month was lower than usual over the North-west Frontier Province, the greater part of the Punjab, the central districts of the United Provinces, the southern districts of the Central Provinces, the Bombay coast, the north of the East Coast, part of the extreme south of India, Assam and the greater part of Burma. The departures were generally small and only exceeded 1°0 at the following stations:—

Province or Division.	Station.	Mean Maximum Temperature.		
		Actual, Oct. 1904.	Normal. Oct.	Departure from normal Oct. 1904.
		°	°	°
N.-W. F. Province	Peshawar	87·0	88·4	−1·4
Punjab	Delhi	90·7	92·1	−1·4
	Ludhiana	90·8	91·9	−1·1
East Coast, North	Gopalpur	85·8	87·6	−1·8
Extreme South of India	Madura	90·2	91·3	−1·1
Burma	Yamethin	89·4	92·5	−3·1
	Mandalay	90·4	91·8	−1·4
	Bhamo	87·3	88·5	−1·2

Elsewhere the mean maximum temperature was more or less in excess of the average. The excess was moderate or slight in most parts of the country and was moderate at some stations in the Indus valley, in west Bengal, and in the south of the Peninsula, while it was considerable to large over Gujarat and the neighbouring parts of Central India, of the Central Provinces, and of Rajputana. The following gives data for the stations at which the excess was more than 2°:—

Province or division.	Station.	Mean maximum temperature. Actual. Oct. 1904.	Normal. Oct.	Departure from normal Oct. 1904.
		°	°	°
West Bengal	Darbhanga	88·8	86·7	+2·1
South of the Peninsula	Cuddapah	94·6	91·9	+2·7
	Hassan	83·7	81·3	+2·4
	Pamban	89·5	87·1	+2·4
Gujarat	Deesa	102·0	96·9	+5·1
	Ahmedabad	100·8	96·7	+4·1
	Rajkot	98·6	95·3	+3·3
	Surat	95·5	93·0	+2·5
Central India	Indore	91·5	87·9	+3·6
	Neemuch	93·2	90·4	+2·8
Rajputana	Sambhar	96·1	93·3	+2·8
	Ajmer	94·5	92·0	+2·5
Central Provinces	Khandwa	94·9	91·1	+3·8
	Saugor	89·7	87·6	+2·1

Relatively hot periods were generally recorded during the first week over the Peninsula, the United Provinces and Bengal; during the second week over Central and north-west India; and during the third week over Burma, and the highest maximum temperatures recorded in the different provinces and divisions during the month were as follows:—

Province or division.	Station.	Highest maximum temperature recorded in Oct. 1904.	Date on which recorded.	Highest maximum temperature recorded in Oct. previous to 1904.	Year in which recorded.
		°		°	
Burma	Minbu	94·2	20th, 22nd and 24th	99·2	1856
Assam	Tezpur	97·1	9th	91·1	1903
Bengal	Bankura	94·6	1st	98·1	1886 and 1901
Orissa	Cuttack	94·9	4th and 5th.	101·8	1886
Bihar	Gaya	95·9	12th	100·0	1877
Chota Nagpur	Chaibassa	95·9	3rd	95·9	1896
United Provinces.	Mainpuri	98·3	3rd	105·3	1896
Punjab	Multan	105·4	8th	106·4	1901
N.-W. F. Province.	D. I. Khan	102·2	7th and 8th.	105·5	1881
Sind	Jacobabad	105·9	9th	109·3	1903
Rajputana	Pachpadra	104·8	7th	109·5	1895 and 1896
Gujarat	Deesa	106·6	11th	108·1	1899
Central India	Neemuch	96·5	6th, 7th and 8th	102·5	1899
Central Provinces.	Khandwa	97·7	10th	105·2	1899
Berar	Akola	96·9	5th	104·2	1899
West Coast	Ratnagiri	97·3	6th	99·1	1888
Bombay Deccan	Malegaon	95·9	6th	104·3	1899
Mysore	Chitaldroog	92·1	2nd	92·6	1902
Madras Coast	Nellore	99·3	1st	102·8	1900
Madras Deccan	Cuddapah	102·2	5th	102·2	1896 and 1899
South India	Tinnevelly	99·3	8th and 19th.	102·4	1894, 1897 1899 & 1900

The preceding data show that the highest maxima were in no way remarkable, and except in Assam, Chota Nagpur and the Madras Deccan, had been exceeded in previous years.

The mean maximum temperatures of the month exceeded 100° at Deesa (102°·0), Ahmedabad (100°·8), and Jacobabad (100°·6).

The distribution of the departures of the mean minimum temperatures of the month from the normal was, on the whole, similar to that of the mean maximum, except that there was no deficiency over the Punjab, and that the area of deficiency in the north-east was more extensive. The mean minimum temperature was in excess of the normal over north-west India, the west of the Peninsula, the Deccan districts, lower Burma and Tenasserim. The excess was greatest over the Punjab, Rajputana, and Gujarat, and was more than 2° at the stations, for which comparative data are given below:—

Province or division.	Station.	Mean minimum temperature. Actual. Oct. 1904.	Normal. Oct.	Departure from normal, Oct. 1904.
		°	°	°
Punjab	Lahore	63·5	59·1	+4·4
	Sialkot	65·8	61·9	+3·9
	Rawalpindi	58·6	55·8	+2·8
	Multan	66·8	64·4	+2·4
	Khushab	64·0	61·9	+2·1
Rajputana	Ajmer	66·2	63·2	+3·0
	Pachpadra	67·2	64·9	+2·3
Gujarat	Deesa	69·8	66·8	+3·0
	Bhuj	73·6	70·9	+2·7
Bombay Deccan	Ahmednagar	66·8	64·6	+2·2
Lower Burma	Diamond Island	78·9	76·7	+2·2

Over north-east India, the greater part of Burma, and the south and east of the Peninsula the mean minimum temperature was lower than usual, but the deficiency was generally small and exceeded 2° only at the following places:—

Province or division.	Station.	Mean minimum temperature.		
		Actual, Oct. 1904.	Normal, Oct.	Departure from normal, Oct. 1904.
		°	°	°
North-east India	Bahraich	64·1	67·1	−3·0
	Dinajpur	69·3	72·0	−2·7
	Purnea	68·6	71·2	−2·6
	Barisal	72·0	74·6	−2·6
	Gorakhpur	67·7	70·0	−2·3
	Darbhanga	71·0	73·1	−2·1

On the hills the departures of the mean minimum temperatures from the normal were irregular and generally unimportant.

The mean ature of the month generally exceeded the average over the western and was in defect of the average over the easten half of India. The departures were generally unimportant except over the central and submontane Punjab and parts of Rajputana and of Gujarat where there was some excess. The following gives comparative data for the stations at which the excess was more than 2°.

Province.	Station.	Mean temperature.		
		Actual, Oct. 1904.	Normal, Oct.	Departure from normal, Oct. 1904.
		°	°	°
Punjab	Sialkot	80·1	77·1	+3·0
	Lahore	79·3	77·1	+2·2
Rajputana	Ajmer	80·4	77·6	+2·8
Gujarat	Deesa	85·9	81·8	+4·1
	Ahmedabad	87·0	84·4	+2·6
	Bhuj	85·6	83·5	+2·1
Central Provinces	Khandwa	80·9	78·7	+2·2

At the north-western hill stations the mean temperature was generally in defect of the normal.

The following gives temperature data for the extra-Indian stations:—

Station.	Mean temperature.		
	Actual, October 1904.	Normal, October.	Departure from normal, October 1904.
	°	°	°
Trincomalee	82·2	81·9	+0·3
Colombo	80·4	80·6	−0·2
Kashgar	55·3	55·5	−0·2
Kabul	58·2	58·4	−0·2
Teheran	63·6	66·2	−2·6
Ispahan	59·4	61·0	−1·6
Bushire	78·7	79·5	−0·8
Jask	82·0	83·1	−1·1
Muscat	83·8	83·4	+0·4
Baghdad	73·5	73·8	−0·3
Aden	83·0	84·0	−1·0
Perim	84·5	85·8	−1·3
Zanzibar	79·1	79·3	−0·2
Seychelles	75·9	79·1	−3·2
Mauritius	71·6	72·1	−0·5

The departures of temperature from the normal at these stations were irregular. In Ceylon the mean temperature was in slight excess in the east and in defect in the west. At Muscat the mean temperature was slightly higher than usual. At all the remaining stations the mean temperature was below the normal, and at the Seychelles the departure was large.

The following summarises the chief abnormal features of the temperature conditions of the month:—

(1) The mean day temperature, the mean night temperature, and consequently also the mean temperature were in considerable excess over Gujarat and the neighbouring regions.

(2) The mean day temperature was generally below, the mean night temperature above, and the mean temperature also above the normal over the Punjab.

(3) The mean day, the mean night, and the mean temperature were slightly above the normal over the Deccan districts.

(4) The mean day temperature was above, the mean night temperature below and the mean temperature about normal over north-east India.

(5) The mean day, the mean night and consequently also the mean temperature were above the normal over lower Burma and Tenasserim.

(6) The mean temperature was generally below the normal at the north-west hill stations.

The following table gives comparative temperature data of the month for the 57 meteorological divisions of the empire :—

Province.	Division.	Actual temperature.					Departure from normal of month of		
		Mean maximum.	Mean minimum.	Monthly mean of mean between maximum and minimum.	Mean daily range of temperature.	Absolute range during the month.	Maximum.	Minimum.	Daily range.
		°	°	°	°	°	°	°	°
Burma	Tenasserim	88·1	74·7	81·5	13·4	19·1	+0·5	+0·4	+0·1
	Lower Burma (Deltaic)	87·7	77·2	82·5	10·5	15·3	+0·5	+1·4	−0·9
	Central do.	90·9	71·1	81·1	19·8	25·4	+0·5	−3·4	+3·9
	Upper do.	88·9	72·6	80·8	16·3	25·5	−1·7	−0·1	−1·6
	Arakan	87·6	76·2	81·9	11·4	16·7	−0·2	−0·5	+0·3
Bengal and Assam	Eastern Bengal	87·3	72·7	80·0	14·6	25·1	+0·5	−1·1	+1·6
	Assam (Surma)	88·5	71·5	80·0	17·0	28·1	−0·2	−0·8	+0·6
	Do. (Hills)	72·0	57·1	64·6	15·0	29·4	...	...	...
	Do. (Brahmaputra)	85·7	70·0	77·9	15·7	31·4	+0·3	−1·4	+1·7
	Deltaic Bengal	88·3	73·4	80·9	14·8	27·5	+0·4	−1·1	+1·5
	Central do.	88·8	71·7	80·3	17·2	30·1	+0·8	−1·0	+1·8
	North do.	86·5	69·9	78·3	16·6	30·5	0	−2·0	+2·0
	Bengal Hills	59·7	41·4	50·6	18·3	30·6	+1·5	−1·1	+2·6
	Orissa	88·0	74·8	81·4	13·2	27·8	0	−0·1	+0·1
	Chota Nagpur	88·0	67·3	77·7	20·6	34·5	+1·5	−0·1	+1·6
	Bihar (South)	90·1	70·6	80·3	19·5	32·3	+0·9	−0·9	+1·8
	Do. (North)	88·6	69·5	79·1	19·2	32·1	+1·1	−2·4	+3·5
United Provinces of Agra and Oudh.	United Provinces (East)	90·9	66·8	78·8	24·1	36·8	+0·7	−1·2	+1·9
	Oudh (South)	90·2	64·1	77·2	26·1	38·6	−1·0	−1·4	+0·4
	Do. (North)	92·6?	64·1	78·2?	28·5?	37·1	+2·2?	−3·0	+5·2?
	United Provinces (Central)	93·4	66·4	79·9	27·0	37·7	+0·9	−0·1	+1·0
	Do. (West)	92·0	65·5	78·8	26·5	37·7	+0·1	+0·5	−0·4
	Do. (East Submontane).	89·7	67·7	78·7	22·0	33·9	+1·0	−2·3	+3·3
	Do. (West Submontane).	87·0	61·1	74·1	25·9	39·1	0	−1·3	+1·3
	Do. (Hills)	67·1	51·8	59·5	15·4	30·2	+0·4	+0·1	+0·3
Punjab	Punjab (South-East)	90·7	67·6	79·2	23·1	38·3	−1·4	−0·3	−1·1
	Do. (South)	93·3	63·2	78·3	30·2	43·1	−0·4	+1·4	−1·8
	Do. (Central)	95·1	63·5	79·3	31·6	48·8	0	+4·4	−4·4
	Do. (Sub-montane)	91·3	62·9	77·1	28·5	44·6	+0·5	+2·6	−2·1
	Do. (Hills)	62·7	40·7	51·7	22·0	44·4	−2·1	−0·8	−1·3
	Do. (West)	95·5	65·0	80·3	30·5	48·4	+0·2	+2·2	−2·0
N.-W. F. Province	North-West Frontier Province	90·4	65·5	75·5	30·0	46·8	−0·8	+1·6	−2·4
Bombay and Malabar Coast Districts (Madras).	Malabar	85·2	74·8	80·0	10·5	14·8	0	0	0
	Madras (South Central)	90·0	71·0	80·5	19·0	30·2	+1·0	+0·1	+0·9
	Coorg	77·5	60·9	69·2	16·6	23·9	+1·7	−1·3	+3·0
	Mysore	84·8	65·7	75·3	19·1	29·0	+2·0	−0·4	+2·4
	Konkan	86·7	76·2	81·5	10·4	18·8	+0·4	+0·7	−0·3
	Bombay Deccan	88·1	68·0	78·1	20·1	29·5	+0·7	+1·2	−0·5
	Hyderabad (North)	86·8	68·3	77·6	18·5	28·2	...	...	...
	Khandesh	89·5	67·2	78·4	22·4	32·1	+0·2	+2·0	−1·8
Central Provinces and Berar.	Berar	91·9	67·7	79·8	24·2	34·6	+0·6	+1·5	−0·9
	Central Provinces (West)	91·9	67·2	79·6	24·7	35·4	+1·7	0	+1·7
	Do. (Central)	88·1	64·9	76·5	23·2	33·4	+0·9	+0·3	+0·6
	Do. (East)	87·3	68·2	77·8	19·2	30·8	+0·3	−0·8	+1·1
Bombay (North)	Gujarat (East)	99·4	71·7	85·6	27·7	40·6	+3·9	+1·8	+2·1
	Kathiawar and Cutch	95·4	72·2	83·8	23·2	35·2	+2·1	+1·2	+0·9
	Sind	97·8	68·2	83·0	29·6	47·1	+1·8	+0·4	+1·4
	Baluchistan Hills	76·0	41·8	58·9	34·3	54·3	−0·2	−0·5	+0·3
Rajputana and Central India.	Central India (East)	90·7	64·3	77·5	26·4	37·0	+1·5	−0·5	+2·0
	Rajputana (East), Central India (West)	94·6	65·3	80·0	29·3	41·5	+2·1	+1·2	+0·9
	Do. (West)	98·5	69·1	83·8	29·4	45·2	+1·5	+1·4	+0·1
Madras	East Coast (North)	86·7	75·5	81·1	11·2	24·4	−1·3	+0·3	−1·6
	Hyderabad (South)	89·4	70·4	79·9	19·1	30·1	+0·5	+0·5	0
	Madras (Central)	92·8	72·8	82·8	20·1	34·5	+2·0	+0·6	+1·4
	East Coast (Central)	90·2	75·6	83·0	14·7	25·9	+0·2	−0·4	+0·6
	Do. (South)	89·7	74·4	82·0	15·3	27·0	+1·2	−0·1	+1·3
	Madras (South)	90·7	74·5	82·4	16·2	25·5	+0·6	−0·2	+0·8

The mean temperature of the plains was comparatively uniform, the hottest area having been East Gujarat with a mean temperature of 85°·6 and the coolest, the West Submontane division of the United Provinces with a mean temperature of 74°·1, giving for the whole Indian land area a range of mean temperature of 11°·5. The mean daily range of temperature varied from only 10·4 in the Konkan and 10°·5 in Malabar and Deltaic Burma to 30° in the North-west Frontier Province, 30°·5 in the West Punjab and to 34°·3 in the Baluchistan Hills. The range was generally greater than usual, except along the West Coast and over the Punjab and North-west Frontier Province. The mean maximum temperature exceeded 95° in East Gujarat (99°·4), Sind (97°·8), West Rajputana (98°·5), the West Punjab (95°·5), Kathiawar and Cutch (95°·4) and the Central Punjab (95°·1).

The following gives a brief account of the principal temperature changes during the month under review:——

At the commencement of the month the departures of the temperature conditions from the normal were very irregular. The mean temperature was generally lower than usual over Burma and across the head of the Peninsula, and was generally higher than usual elsewhere. Showers were falling in the extreme north-west, and temperature fell fast in Kashmir, the west Himalayas and the North-west Frontier Province during the next 24 hours. The following gives data for these divisions for the 1st and 2nd:—

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF	
	1st October.	2nd October.
	°	°
Kashmir	—5·0	—6·8
West Himalayas	+0·4	—2·8
N.-W. Frontier Province	+1·8	—4·0

Between the 3rd and the 7th rain was confined mainly to Burma and Assam, though a few showers fell in the south of the Peninsula. The departures of the mean temperature from the normal remained irregular, but on most days there was a deficiency over Burma, part of the Gangetic Plain and the central districts of India, and an excess elsewhere. The following gives data for all divisions for these five days:—

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF				
	3rd October.	4th October.	5th October.	6th October.	7th October.
	°	°	°	°	°
Burma	+ 0·2	+ 0·5	— 0·3	— 0·8	— 1·7
Assam	+ 1·3	+ 1·0	+ 0·4	+ 1·1	+ 0·3
Bengal	+ 0·3	0	+ 0·3	+ 0·3	+ 0·4
Orissa	+ 0·5	+ 1·8	+ 0·9	+ 0·7	+ 1·3

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF				
	3rd October.	4th October.	5th October.	6th October.	7th October.
Bihar	+ 0·4	+ 0·6	+ 0·3	+ 0·7	+ 1·1
Chota Nagpur	+ 1·2	+ 1·3	+ 1·8	+ 1·9	+ 2·3
United Provinces of Agra and Oudh.	— 0·1	— 1·6	— 1·6	— 0·6	+ 0·3
Punjab	— 1·2	— 0·3	+ 1·9	+ 3·7	+ 4·2
North-West Frontier Province.	— 2·0	+ 0·3	+ 2·4	+ 4·0	+ 5·2
Sind	+ 0·5	+ 0·3	+ 0·4	— 0·1	+ 1·1
Rajputana	+ 1·2	+ 1·5	+ 2·0	+ 2·1	+ 2·9
Gujarat	0	+ 1·5	+ 0·5	+ 2·6	+ 2·2
Central India	— 0·7	— 0·3	— 1·0	— 0·7	— 1·0
Central Provinces	— 1·2	— 0·6	— 1·8	— 2·6	— 1·4
Berar	+ 2·0	+ 0·4	+ 1·1	+ 1·3	— 0.8
West Coast	+ 1·3	+ 1·7	+ 0·8	+ 0·6	+ 0·6
Bombay Deccan	+ 1·2	+ 0·8	+ 1·2	+ 1·2	+ 0·8
Mysore	+ 2·0	+ 3·5	+ 3·5	+ 2·1	+ 3·0
Madras Coast	+ 0·7	+ 1·8	+ 1·8	+ 1·4	+ 1·4
Madras Deccan	+ 2·4	+ 2·4	+ 2·5	+ 2·2	+ 1·4
South India	+ 1·1	+ 1·2	+ 0·4	— 0·1	— 0·1

During this period high maximum temperatures were recorded at some of the inland stations of the Peninsula and in parts of Gujarat. At the following places the day temperature was more than 7°·0 above the normal:—

DATE.	STATION.	MAXIMUM TEMPERATURE.		
		Actual of date.	Normal of date.	Departure from normal of date.
		°	°	°
3RD OCTOBER	Cuttack	98·9	91·5	+ 7·4
4TH ,,	Ratnagiri	97·3	85·6	+11·7
	Deesa	105·1	96·7	+ 8·4
	Surat	98·7	91·5	+ 7·2
5TH ,,	Cuddapah	102·2	93·2	+ 9·0
	Deesa	105·1	96·9	+8·2
	Surat	99·2	91·8	+7·4
6TH ,,	Surat	100·7	92·2	+8·5
	Deesa	105·6	97·1	+8·5
	Ahmedabad	104·8	97·6	+7·2
	Cuddapah	100·2	93·1	+7·1
7TH ,,	Deesa	106·1	97·3	+8·8
	Cuddapah	101·2	93·1	+8·1
	Veraval	95·6	87·9	+7·7
	Surat	100·2	92·6	+7·6

At the same time the night temperatures were low in some central districts, and at the following places were more than 7°·0 below the average :—

DATE.	STATION.	MINIMUM TEMPERATURE.		
		Actual of date.	Normal of date.	Departure from normal of date.
		°	°	°
3rd October . .	Chanda . . .	65·0	72·3	—7·3
5th " . .	Allahabad . .	63·6	72·6	—9·0
	Chanda . . .	63·5	71·7	—8·2
	Jubbulpore . .	60·8	68·2	—7·4
	Lucknow . .	63·8	71·2	—7·4
	Akola . . .	62·3	69·6	—7·3
	Seoni . . .	60·0	67·2	—7·2
6th " . .	Chanda . .	60·0	71·4	—11·4
	Jubbulpore . .	59·3	67·8	—8·5

From the 8th to the 14th showers occurred over Burma, the Bay area and the greater part of the Peninsula, and the mean temperature was consequently low over Burma, Bengal, Assam, Orissa and the Peninsular divisions. This is shown below :—

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF						
	8th October.	9th October.	10th October.	11th October.	12th October.	13th October.	14th October.
	°	°	°	°	°	°	°
Burma . .	—1·8	—2·4	—1·5	—1·2	—0·6	—0·6	—0·2
Assam . .	+2·3	+2·3	—0·1	—1·2	—0·5	—2·5	—1·3
Bengal . .	+0·5	+0·8	—0·7	—0·9	—0·3	+1·1	+1·2
Orissa . .	—0·8	—1·3	—3·0	—0·5	—0·9	+0·1	+0·8
West Coast .	+0·2	+0·9	+0·9	—0·1	—0·3	—0·4	+0·1
Bombay Deccan	+0·8	+1·6	+3·2	—1·4	+0·2	—·7	—1·5
Mysore .	+2·0	—0·6	0	—0·5	—0·1	—1·5	—1·1
Madras Coast .	+0·2	—2·4	—1·0	—1·1	—1·2	—0·7	+0·3
Madras Deccan	+3·6	+2·8	+1·6	—1·4	—3·6	—2·0	—0·4
South India .	+0·1	—0·7	0	—1·2	—0·4	+0·5	+0·4

On the other hand, temperature exceeded the normal over northern and central India. The following gives data:—

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF						
	8th October.	9th October.	10th October.	11th October.	12th October.	13th October.	14th October
	°	°	°	°	°	°	°
Bihar . .	+2·0	+2·0	+2·1	+2·3	+2·9	+0·6	+1·1
Chota Nagpur	+2·8	+1·6	+1·3	+1·3	+2·3	+2·3	+4·2
United Provinces of Agra and Oudh.	+0·7	+1·6	+1·6	+0·7	—0·2	+0·3	+0·1
Punjab .	+4·4	+2·9	+2·0	+1·6	+1·3	+1·9	+2·3
North-west Frontier Province.	+5·1	—1·0	0	+0·8	+0·9	+1·2	+0·3
Sind . .	+2·8	+2·2	+2·2	+2·0	+4·7	+3·1	+3·4
Rajputana .	+2·7	+2·9	+2·5	+2·9	+3·1	+4·4	+4·4
Gujarat .	+2·9	+2·8	+2·5	+3·8	+4·6	+4·4	+3·1
Central India .			+1·4	+1·5	+1·2	+1·7	+2·3
Central Provinces . .	—0·1	+1·6	+2·2	+2·0	+1·6	+1·7	+2·2
Berar . .	—0·7	+4·6	+2·2	+0·8	+0·7	+1·2	—1·8

The preceding data show that the excess was most strongly marked in Gujarat and in lower Sind. The excess was due to high temperatures, both by day and night, and at the following places either the day or the night temperature was more than 8° above the normal during this interval :—

DATE.	STATION..	Departure from normal of maximum of date.	Departure from normal of minimum of date.
		°	°
8th October . .	Rawalpindi . . .	+5·3	+12·4
	Sialkot. . . .	+3·6	+9·2
	Lahore. . . .	+5·0	+8·3
	Deesa	+8·5	+2·2
9th " . .	Lahore . . .	+3·8	+9·8
	Multan . . .	+4·3	+9·2
	Deesa	+8·4	+3·5
11th " . .	Malegaon . . .	+1·7	+8·9
	Deesa	+8·7	+4·2
12th " . .	Kurrachee . . .	+10·9	+3·0
	Bhuj	+5·9	+8·1
13th " . .	Bhuj	+3·9	+9·2
	Surat	—0·9	+8·8
	Veraval . . .	—3·9?	+8·6
	Kurrachee . . .	+12·8	+0·2
14th " . .	Deesa	+7·6	+11·4
	Bhuj	+5·9	+8·4
	Kurrachee . . .	+11·7	+3·9

Between the 15th and the 17th the weather, over a considerable part of the country, was influenced by a slight cyclonic storm which struck the Madras Coast near Cocanada on the 15th and thence passed through the Deccan, and the east of the Central Provinces to the east of the United Provinces. A good deal of rain accompanied the storm—more particularly on its western side—and the temperature fell over the area passed over. The following gives data:—

Province or division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of		
	15th October.	16th October.	17th October.
	°	°	°
Madras Coast	−1·7	−0·7	+1·4
Madras Deccan	−0·5	−1·7	+2·6
Central Provinces	+1·6	+3·2	−0·9

The greatest effect was produced on the day temperature and at the following places in Madras, and the Central and United Provinces, the day temperature was more than 10° below the normal during this interval:—

Date.	Station.	Maximum temperature.		
		Actual of date.	Normal of date.	Departure from normal of date.
		°	°	°
16th October	Nellore	78·3	91·5	−13·2
	Cuddapah	81·7	92·3	−10·6
17th "	Lucknow	76·2	91·4	−15·2
	Mainpuri	81·3	93·2	−11·9
	Agra	83·0	93·7	−10·7
	Sirsa	86·3	96·6	−10·3
	Jhansi	86·3	96·5	−10·2

In the meantime a brisk fall of temperature apparently passed through Baluchistan on the 15th, advanced into the Punjab on the 16th and spread over the United Provinces on the 17th. The following shows the extension of this cold wave:—

Province or division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of		
	15th October.	16th October.	17th October.
	°	°	°
Baluchistan	−3·3	−6·8	−8·3
Kashmir	+1·9	−4·3	−5·7
N.-W. F. Province	+0·7	+0·1	−2·7
Punjab	+2·5	+1·1	−3·0
Rajputana	+5·7	+4·3	−0·3
United Provinces	+1·0	+3·5	−2·3

In consequence of the above fall and of the fall introduced by the rainfall due to the slight cyclonic storm mentioned above, the mean temperature was reduced to below the normal over the greater part of the country on the 18th. The following gives data for all divisions for this day:—

Province or division.	Departure from normal of		
	Mean maximum temperature, 18th October.	Mean minimum temperature, 18th October.	Mean temperature, 18th October.
	°	°	°
Burma	+1·1	−0·5	+0·3
Assam	−1·9	−0·5	−1·2
Bengal	+0·6	+2·6	+1·6
Orissa	−0·9	+3·6	+1·4
Bihar	−2·0	−1·9	−2·0
Chota Nagpur	−3·3	+1·0	−1·2
United Provinces of Agra and Oudh	−7·3	−0·5	−3·9
Punjab	−4·1	−0·6	−2·4
North-west Frontier Province	−2·1	−1·7	−1·9
Sind	+1·9	−2·5	−0·3
Rajputana	−2·3	+0·2	−1·1
Gujarat	+1·5	+3·3	+2·4
Central India	−6·6	−0·1	−3·4
Central Provinces	−5·3	+0·2	−2·6
Berar	−4·4	+0·5	−2·0
West Coast	−1·1	+1·2	+0·1
Bombay Deccan	+0·1	+1·0	+0·6
Mysore	−1·1	−0·1	−0·6
Madras Coast	+2·2	0	+1·1
Madras Deccan	+2·5	0	+1·3
South India	+3·1	+0·7	+1·9

The greatest deficiency was shown over the Gangetic Plain, the Central Provinces and Central India and at the following places in this area the day temperature was more than 10° below the normal:—

Date.	Station.	Maximum temperature.		
		Actual of date.	Normal of date.	Departure from normal of date.
		°	°	°
18th October	Allahabad	74·7	90·5	−15·8
	Benares	74·5	89·8	−15·3
	Gorakhpur	74·3	88·6	−14·3
	Sutna	74·8	88·3	−13·5
	Seoni	75·8	86·9	−11·1
	Lucknow	80·7	91·3	−10·6
	Jubbulpore	76·9	87·4	−10·5
	Nowgong	80·0	90·4	−10·4

On the 19th and 20th the general conditions were unchanged and the mean temperature was, on the whole, lower than usual. On the 20th the temperature was beginning to rise over the greater part of the country and from the 21st to the 23rd the mean temperature was higher than usual over the Peninsula (except the extreme south where rain was falling), though it still remained low over the greater part of northern India.

The departures from the normal were not, however, large or important in any part of the country.

During the period from the 24th to the 28th, the only rainfall of importance occurred in the south of the Peninsula where thunder-showers were reported. In this region the mean temperature was generally below the normal, but the most important area of deficient temperature was shown over north-east India where the night temperature was very considerably below the normal. The following gives data for South India and for the different divisions of north-east India :—

Province or division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of				
	24th October.	25th October.	26th October.	27th October.	28th October.
	°	°	°	°	°
South India	—1·6	+1·4	+0·1	—1·5	—0·9
Assam	—2·4	—2·5	—1·5	—1·4	—1·0
Bengal	—1·4	—2·3	—2·8	—3·0	—2·5
Orissa	+0·5	+0·2	—1·6	—3·2	—3·3
Bihar	—3·3	—3·2	—3·3	—2·9	—2·1
Chota Nagpur	—0·3	—1·3	—2·1	—2·4	—0·

In Burma the mean temperature was about normal during this time. This is shown below :—

Province.	Departure form normal of mean temperature of 24 hours preceding 8 A.M. of				
	24th October.	25th October.	26th October.	27th October.	28th October.
	°	°	°	°	°
Burma	—0·1	—0·6	+0·3	+0·3	+0·2

Over other parts of the Indian land area the mean temperature was higher than usual. The following gives data for the remaining divisions :—

Province or division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of				
	24th Oct.	25th Oct.	26th Oct.	27th Oct.	28th Oct.
	°	°	°	°	°
United Provinces	—1·7	—0·8	0	+1·0	+1·7
Punjab	+0·8	+0·9	+1·9	+3·3	+3·7
N.-W. Frontier Province	+0·5	+0·1	+2·2	+2·7	+3·2
Sind	+2·1	+1·5	+1·9	+1·4	+1·5
Rajputana	+0·3	+1·7	+2·4	+2·5	+3·1
Gujarat	+1·7	—0·3	+1·2	+0·4	—0·1
Central India	+0·1	+0·7	+2·2	+2·6	+3·1
Central Provinces	+1·2	+1·2	+2·1	+2·0	+1·8
Berar	+1·0	+3·3	+3·6	+0·4	+2·2
West Coast	+0·3	+0·9	+0·7	+0·8	+1·2
Bombay Deccan	+1·7	+3·0	+2·9	0	+2·1
Mysore	+1·1	+2·4	+2·1	+0·9	—0·3
Madras Coast	+1·0	+1·5	+1·5	+0·9	—0·1
Madras Deccan	+2·1	+2·4	+2·0	+0·9	+1·6

The greatest excess was thus in the north-west and centre and in these regions it was at night that the excess was most marked. At the following places the minimum temperature was more than 7° above the normal :—

Province.	Station.	Minimum temperature.		
		Actual of date.	Normal of date.	Departure from normal of date.
		°	°	°
25th Oct.	Akola	71·3	63·9	+7·4
	Sialkot	64·6	57·4	+7·2
26th ,,	Khandwa	72·1	62·8	+9·3
	Sialkot	66·1	56·9	+9·2
	Rawalpindi	59·1	50·9	+8·2
	Lahore	61·7	54·4	+7·3
	Indore	67·6	60·5	+7·1
27th ,,	Rawalpindi	64·1	50·4	+13·7
	Sialkot	67·1	56·4	+10·7
	Peshawar	61·0	52·1	+8·9
	Nowgong	68·5	59·7	+8·8
	Lahore	62·2	53·9	+8·3
28th ,,	Lahore	63·7	53·4	+10·3
	Rawalpindi	59·6	49·9	+9·7
	Khushab	65·9	56·2	+9·7
	Sialkot	65·1	55·9	+9·2

On the 29th the showers in the south of the Peninsula ceased, but there was no change in the general conditions of temperature. On the 30th and 31st light showers fell over the north-west Himalayas and the neighbouring sub-montane districts and temperature fell considerably over Kashmir, Baluchistan and north-west India. The following gives data for these divisions for these two days :—

Province or division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of	
	30th Octr.	31st Octr
	°	°
Kashmir	−3·3	−6·4
Baluchistan	−4·2	−6·3
Punjab	+0·5	+0·4
North-west Frontier Province	−0·2	−3·6

Over the western desert, the central parts of the country and the Deccan the mean temperature remained steadily high, as is shown below :—

Province or division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of	
	30th Oct.	31st Oct.
	°	°
Sind	+0·3	+0·9
Rajputana	+3·0	+3·0
Central India	+3·5	+3·9
Central Provinces	+1·9	+1·4
Berar	+3·1	+3·2
Bombay Deccan	+2·0	+1·1
Madras Deccan	+1·6	−0·7

Elsewhere the departures of the mean temperature from the average were small and unimportant.

Winds.

On the Burma coast and at the Bay Islands the wind was generally slightly steadier but lighter than usual. The mean directions, on the contrary, varied considerably from the normal in different parts of the area. At Port Blair the mean direction was exactly normal while at Rangoon, Diamond Island and Cocos Island the winds were more northerly and easterly and at Akyab more southerly than usual. The following gives direction data :—

Station.	Mean wind direction.	
	Actual, October 1904.	Normal, October.
	°	°
Port Blair	S 1 W	S 1 W
Cocos Island	N 65 E	S 51 E
Rangoon	N 68 E	S 36 E
Diamond Island	N 81 E	S 57 E
Akyab	S 10 E	S 66 E

On the Orissa and Bengal coasts the wind was more easterly than the normal and the steadiness and velocity about the average while at Chittagong and Calcutta the direction was somewhat more westerly than usual and the velocity low. This is shown below :—

Station.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, October 1904.	Normal percentage, October.	Departure from normal, October 1904.	Actual, October 1904.	Normal, October.	Actual, October 1904.	Normal, October.	Departure from normal, October 1904.
				°	°			
False Point	29	24	+ 5	N 77 E	N 51 E	146	144	+ 2
Chittagong	26	13	+13	N 17 W	N 12 W	60	67	− 7
Calcutta	11	11	0	N 50 W	N 18 W	36	67	−31
Saugor Island	14	14	0	N 28 E	N 9 W	200	178	+22

In the Gangetic Plain the wind was westerly instead of north westerly and the velocity lower than usual. The following gives data for Allahabad : —

Station.	Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual, October 1904.	Normal, October.	Actual, October 1904.	Normal, October.	Departure from normal, October 1904.
	°	°			
Allahabad	W	N 48 W	55	74	−19

In the Upper sub-Himalayas the wind direction varied irregularly from the normal, but, on the whole, was somewhat more southerly than usual. The winds were generally unsteady and light except at Lahore where the mean velocity was at the rate of 66 miles per diem instead of the normal 38. The following gives comparative direction data:—

STATION.	MEAN WIND DIRECTION.	
	Actual, October 1904.	Normal, October.
	°	°
Dehra Dun	S 36 W	N 42 W
Roorkee	S	S 6 E
Meerut	N 38 W	N 53 W
Lahore	N 62 E	N 9 W
Ludhiana	S 84 W	N 41 W

The wind was about normal at Kurrachee, but varied irregularly from the average at the other stations in the Indus valley. In eastern Rajputana the wind, as in the Gangetic Plain, was more westerly, less steady and lighter than usual, while at Deesa the direction was more northerly and the steadiness and velocity greater than the average. The following gives data for Jaipur and Deesa:—

STATION.	MEAN STEADINESS.			MEAN WIND DIRECTION.		MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, October 1904.	Normal percentage, October.	Departure from normal, October 1904.	Actual, October 1904.	Normal, October.	Actual, October 1904.	Normal, October.	Departure from normal, October 1904.
				°	°			
Jaipur	26	38	—12	N 73 W	N 27 W	61	74	—13
Deesa	16	12	+ 4	N 17 E	N 78 E	189	158	+31

The following gives mean comparative data of the air movement for the different divisions of northern India, and for Burma and the Bay Islands:—

PROVINCE OR DIVISION.	MEAN STEADINESS.			MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, October 1904.	Normal percentage, October.	Departure from normal, October 1904.	Actual, October 1904.	Normal, October.	Departure from normal, October 1904.
Bay Islands	26	22	+ 4	121	151	—30
Burma	28	19	+ 9	89	103	—14
Bengal	17	13	+ 4	99	104	—5
Chota Nagpur	11	24	—13	118	125	—7
Orissa	29	24	+ 5	146	144	+2
United Provinces of Agra and Oudh.	19	19	0	34	41	—7
Punjab	29	17	+12	44	32	+12
North-west Frontier Province.	13	27	—14	15	55	—40
Rajputana	26	38	—12	61	74	—13
Sind	38	36	+ 2	110	138	—28
Gujarat	16	12	+ 4	189	158	+31

The preceding data show that, except in Gujarat, the United Provinces and Orissa, the velocity was lower than usual, while, on the contrary, the steadiness in most divisions exceeded the average.

Over the Deccan the wind varied between east-south-east and north-east, and was generally more easterly than the normal. The steadiness and velocity varied irregularly from the normal. The following gives data:—

STATION.	MEAN STEADINESS.			MEAN WIND DIRECTION.		MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, October 1904.	Normal percentage, October.	Departure from normal, October 1904.	Actual, October 1904.	Normal, October.	Actual, October 1904.	Normal, October.	Departure from normal, October 1904.
				°	°			
Belgaum	25	12	+13	S 83 E	N 51 E	129	230	—101
Sholapur	79	29	+50	N 72 E	N 57 E	204	197	+ 7
Akola	14	30	—16	N 38 E	N 18 E	62	84	—22
Buldana	39	50	—11	N 48 E	N 24 E	103	125	—22
Khandwa	18	35	—17	N 61 E	N 24 E	65	74	— 9
Nagpur	50	50	0	N 35 E	N 39 E	95	94	+ 1
Hyderabad (Deccan)	27	32	— 5	S 88 E	S 81 E	73	94	—21

Along the West Coast the mean direction of the wind was slightly more westerly than usual while the steadiness

and velocity were below the normal at Bombay and above at Karwar. The following gives data :—

STATION.	MEAN STEADINESS.			MEAN WIND DIRECTION.			MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, October 1904.	Normal percentage, October.	Departure from normal, October 1904.	Actual, October 1904.	Normal, October.	Westerly deflection.	Actual, October 1904.	Normal, October.	Departure from normal, October 1904.
				°	°				
Bombay . .	26	32	— 6	N 4 W	N 9 E	+13	181	218	—37
Karwar . .	82	66	+16	N 79 W	N 75 W	+ 4	83	60	+23

Conditions over South India were similar to those over the Deccan. The following direction data exhibit the increased easting of the winds over this region :—

STATION.	MEAN WIND DIRECTION.		
	Actual, October 1904.	Normal, October.	Easterly deflection.
	°	°	
Salem	S 69 W	S 51 W	+ 18
Chitaldroog	N 42 E	N 39 E	+ 3
Bangalore	N 39 E	N	+39
Hassan	N 52 E	N 48 E	+ 4
Mysore	S 62 E	N 63 E	— 1
Madras	N 60 E	N 54 E	+ 6
Bellary	N 67 E	N 40 E	+27

The following gives mean comparative data of the air movement for the different divisions of the Peninsula :—

PROVINCE OR DIVISION.	MEAN STEADINESS.			MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, October 1904.	Normal percentage, October.	Departure from normal, October 1904.	Actual, October 1904.	Normal, October.	Departure from normal, October 1904.
Central Provinces . .	34	43	—9	80	84	— 4
Berar	27	40	—13	83	105	—22
Bombay Deccan . .	52	21	+31	167	214	—47
Madras Deccan . .	24	23	+ 1	90	99	— 9
West Coast . . .	54	49	+ 5	132	139	— 7
Mysore . . .	26	19	+ 7	115	121	— 6
Madras Coast . .	49	15	+34	109	115	— 6
South India . .	10	26	—16	84	60	+24

The winds were very variable and differed irregularly from the normal at the Himalayan stations. At Mount Abu the mean wind direction was more westerly and at Pachmarhi and Chikalda more easterly than the average. This is shown below :—

HILL STATION.	MEAN WIND DIRECTION.	
	Actual, October 1904.	Normal, October.
	°	°
Mount Abu	N 72 W	N 46 W
Pachmarhi	N 67 E	N 30 E
Chikalda	N 73 E	N 3 E

At Aden the wind blew from the normal direction. The velocity was low, though the steadiness was greater than usual. At Perim the mean wind was unusually southerly, the steadiness about normal, and the velocity less than usual. The following gives data :—

1904 STATION.	MEAN STEADINESS.			MEAN WIND DIRECTION.		MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, October 1904.	Normal percentage, October.	Departure from normal, October 1904.	Actual, October 1904.	Normal, October.	Actual, October 1904.	Normal, October.	Departure from normal, October 1904.
				°	°			
Aden . . .	66	55	+11	S 78 E	S 78 E	243	307	—64
Perim . . .	87	80	+7	S 34 E	S 85 E	410	444	—34

The wind was a few degrees more easterly and slightly stronger than the average at Zanzibar and the Seychelles, and was both more easterly and more northerly than usual at Mauritius.

The following gives comparative data of the stations in the south-east Trades region :—

STATION.	MEAN STEADINESS.			MEAN WIND DIRECTION.		MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, October 1904.	Normal percentage, October.	Departure from normal, October 1904.	Actual, October 1904.	Normal, October.	Actual, October 1904.	Normal, October.	Departure from normal, October 1904.
				°	°			
Zanzibar . .	45	47	—2	S 10 E	S 6 E	125	120	+5
Seychelles . .	81	54	+27	S 43 E	S 39 E	210	187	+23
Mauritius . .	...	...	...	N 84 E	S 78 E	226	264	—38

Humidity and Cloud.

The air was damper than usual, or the absolute humidity was in excess of the normal over a large part of north-western India, over the West Coast districts, over the extreme south of the Peninsula, over the Burma coast and within a band which covered west Bengal, the east of the Central and United Provinces, the east Deccan and part of the Madras Coast. In most places the excess was small. The mean absolute humidity was in defect over upper Burma, north-east India, and within a band which extended from the west of the United Provinces roughly southward through the west of the Central Provinces, Gujarat, and the west Deccan to the south of the Madras Coast. In these areas also the departures were generally small.

The mean relative humidity exhibited a somewhat different distribution. Over the North-west Frontier Province and the south Punjab the air was generally damper than usual, the mean day temperature below the normal and the mean relative humidity above the normal. The following gives data for the stations in this region:—

Station.	Absolute humidity.			Relative humidity.		
	Actual, October 1904.	Normal, October.	Departure from normal, October 1904.	Actual, October 1904.	Normal, October.	Departure from normal, October 1904
	"	"	"	%	%	
Peshawar . . .	·430	·383	+·047	61	59	+2
Dera Ismail Khan . .	·456	·407	+·049	57	57	0
Sirsa	·457	·400	+·057	58	50	+8
Delhi	·455	·422	+·033	56	50	+6

Over the remainder of north-west India the mean temperature was generally above the normal, the absolute humidity below the normal, and the mean relative humidity in defect. The following gives data for those stations at which the deficiency equalled 5 or more:—

Station.	Absolute humidity.			Relative humidity.		
	Actual, October 1904.	Normal, October.	Departure from normal, October 1904.	Actual, October 1904.	Normal, October	Departure from normal, October 1904.
	"	"	"	%	%	
Rawalpindi . .	·364	·391	—·027	50	62	—12
Montgomery . .	·305	?	?	34	46	—12
Ambala . . .	·468	·510	—·042	60	70	—10
Deesa . . .	·394	·487	—·093	36	50	—14
Ahmedabad . .	·527	·561	—·034	48	56	— 8
Bhavnagar . .	·577	·650	—·073	56	64	— 8
Bikaner . . .	·389	·449	—·060	40	47	— 7
Sambhar . . .	·397	·424	—·027	46	51	— 5
Saugor . . .	·481	·510	—·029	52	60	— 8
Khandwa . . .	·511	·541	—·030	57	62	— 5

Along the West Coast the mean temperature was about normal, the absolute humidity slightly greater than usual, and the mean relative humidity departures irregularly distributed. The following gives data:—

Station.	Absolute humidity.			Relative humidity.		
	Actual, October 1904.	Normal, October.	Departure from normal, October 1904.	Actual, October 1904.	Normal, October.	Departure from normal, October 1904.
	"	"	"	%	%	
Bombay . . .	·848	·845	+·003	82	82	0
Ratnagiri . . .	·813	·805	+·008	79	78?	+1?
Calicut . . .	·839	·836	+·003	88	86	+2
Goa	·859	·853	+·006	82	85	—3
Karwar . . .	·823	·813	+·010	87	89	—2
Mangalore . . .	·851	·844	+·007	85	87	—2

Over the interior of the Peninsula the mean temperature was slightly higher than usual, the absolute humidity generally in defect and the relative humidity in slight to moderate defect. This is shown below:—

Station.	Absolute humidity.			Relative humidity.		
	Actual, October 1904.	Normal, October.	Departure from normal, October 1904.	Actual, October 1904.	Normal, October.	Departure from normal, October 1904.
	"	"	"	%	%	
Cuddapah . . .	·722	·778	—·056	67	75	—8
Raichur . . .	·656	·673	—·017	66	71	—5
Belgaum . . .	·613	·625	—·012	75	80	—5
Sholapur . . .	·564	·581	—·017	60	63	—3
Ahmednagar . .	·579	·600	—·021	65	68	—3
Chitaldroog . . .	·635	·645	—·010	73	76	—3
Salem	·786	·781	+·005	78	81	—3
Bangalore . . .	·631	·627	+·004	81	83	—2
Gulbarga . . .	·638	·643	—·005	68	70	—2
Waltair . . .	·764	·810	—·046	72	75	—3

Over north-east India the mean temperature of the month was about normal and the absolute humidity in defect, while the relative humidity was also in defect at the

majority of the stations in this area. The following gives data:—

STATION.	NEGATIVE DEPARTURE FROM NORMAL OF		STATION.	POSITIVE DEPARTURE FROM NORMAL OF	
	Absolute humidity, October 1904.	Relative humidity, October 1904.		Absolute humidity, October 1904.	Relative humidity, October 1904.
	"			"	
Hazaribagh	—·037	—8	Gaya	+·085	+8
Ranchi	—·016	—6	Narayanganj	?	+5
Balasore	—·049	—4	Cuttack	+·017	+2
False Point	—·016	—2			
Chaibassa	—·038	—2			
Mymensingh	—·026	—3			
Dhubri	—·009	—3			
Dinajpur	—·019	—2			
Bogra	—·075	—2			
Berhampore	—·024	—2			
Chittagong	—·010	—3			

In the northern half of Burma the mean temperature was in defect and the absolute humidity also in defect, while in the southern half the mean temperature was in excess and the absolute humidity also generally in excess, so that the departures from the normal of the mean relative humidities were generally small and irregular. The following gives data:—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, October 1904.	Normal, October.	Departure from normal, October 1904.	Actual, October 1904.	Normal, October.	Departure from normal, October 1904.
	"	"	"	%	%	
Moulmein	·840	·876	—·036	85	88	—3?
Toungoo	·887	·887	0	86	89	—3
Minbu	·830	·843	—·013	82	84	—2
Rangoon	·904	·907	—·003	90	92	—2
Bhamo	·761	·774	—·013	91	87	+4?
Mergui	·888	·855	+·033	92	87	+5
Tavoy	·870	·868	+·002	90	88	+2
Thayetmyo	·866	·850	+·016	86	84	+2
Mandalay	·842	·860	—·018	84	83	+1?
Yamethin	·847	·857	—·010	87	86	+1?
Diamond Island	·922	·899	+·023	84	83	+1
Akya	·925	·913	+·012	92	91	+1

The following table shows the stations at which the mean relative humidity of the month exceeded 90 per cent. and was below 40 per cent., and outlines the areas of greatest and least relative humidity on the mean of the month:—

STATION.	Relative humidity over 90%.	STATION.	Relative humidity less than 40%.
	%		%
Sibsagar	96	Jodhpur	36
Sirajganj	93	Deesa	36
Lashio	93	Mount Abu	35
Maymyo	92	Montgomery	34
Akyab	92		
Mergui	92		
Bassein	91		
Bhamo	91		

The highest relative humidities were hence reported from Burma and Assam and the lowest from Rajputana and south Punjab, and within the latter areas the following low readings were reported during the month.

STATION.	Date.	Hour.	Lowest humidity recorded during October 1904.
			%
Dera Ismail Khan	18th October	8 A.M.	23
Montgomery	20th	"	23
Do.	24th	"	23
Jodhpur	6th	"	23
Do.	24th	"	23
Mount Abu	24th	"	23
Jodhpur	22nd	"	22
Deesa	21st	"	22
Jodhpur	21st	"	21
Deesa	20th	"	21
Do.	22nd	"	20
Do.	23rd	"	20
Montgomery	13th	"	18
Mount Abu	22nd	"	18
Do.	23rd	"	10

At several of the hill stations the mean relative humidity was below the normal. The following gives data:—

HILL STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, October 1904.	Normal, October.	Departure from normal, October 1904.	Actual, October 1904.	Normal, October.	Departure from normal, October 1904.
	"	"	"	%	%	
Chaman . . .	·249	·181	+·068	43	31	+12
Quetta	·184	·191	—·007	42	44	— 2
Srinagar . . .	·285	·282	+·003	86	88	— 2
Simla . . .	·189	·208	—·019	45	49	— 4
Chakrata . . .	·265	·284	—·019	59	60	— 1
Darjeeling . . .	·361	·380	—·019	83	89	— 6
Mount Abu . . .	·296	·337	—·041	35	44	— 9
Wellington . . .	·430	·443	—·013	77	78	— 1
Gilgit	·250	·228	+·022	55	47	+ 8
Cherat . . .	·244	·224	+·020	43	36	+ 7
Murree . . .	·207	·204	+·003	44	42	+ 2
Ranikhet . . .	·335	·332	+·003	69	67	+ 2
Pachmarhi . . .	·477	·424	+·053	64	55	+ 9

At Aden both the mean absolute and mean relative humidities were in excess, while at Perim both were in defect, of the normal. This is shown below:—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, October 1904.	Normal, October.	Departure from normal, October 1904.	Actual, October 1904.	Normal, October	Departure from normal, October 1904.
	"	"	"	%	%	
Aden . . .	·826	·762	+·064	77	69	+8
Perim . . .	·797	·845	—·048	70	71	—1

In the south-east Trades region the mean absolute humidity was slightly below the average at Zanzibar and Mauritius, but at both places the mean temperature was a triflie lower than usual, and the mean relative humidity was normal or in trifling excess, while at the Seychelles both the absolute and relative humidities were in slight excess. The following gives data:—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, October 1904.	Normal, October.	Departure from normal, October 1904.	Actual, October 1904.	Normal, October.	Departure from normal, October 1904.
	"	"	"	%	%	
Zanzibar . .	·797	·810	—·013	83	83	0
Seychelles . .	·825 ?	·794	+·031 ?	86 ?	81	+5 ?
Mauritius . .	·548	·552	—·004	71	70	+1

The mean cloud amount of the month was less than usual over Burma, north-east India and within a broad band covering the east and south of the Peninsula, with the exception of the coast stations. The deficiency was most marked in Burma, but was, likewise, considerable in Cachar, Mysore and the Madura district. At the following stations the departures from the normal exceeded—1·5:—

PROVINCE OR DIVISION.	STATION.	MEAN CLOUD AMOUNT.		
		Actual, October 1904.	Normal, October.	Departure from normal, October 1904.
BURMA	Akyab . . .	2·6	5·9	—3·3
	Rangoon . . .	3·5	5·6	—2·1
	Tavoy . . .	2·7	4·8	—2·1
	Bassein . . .	3·2	5·2	—2·0
	Minbu . . .	2·8	4·5	—1·7
NORTH-EAST INDIA.	Silchar . . .	3·6	6·1	—2·5
	Sibsagar . . .	5·6	7·2	—1·6
	Bogra . . .	1·7	3·5	—1·8
	Purnea . . .	1·0	2·6	—1·6
SOUTH OF THE PENINSULA.	Madura . . .	3·1	5·8	—2·7
	Chitaldroog . .	4·0	6·1	—2·1
MADRAS COAST	Gopalpur . . .	2·8	4·5	—1·7

The mean cloud amount was also below the average over the west of the United Provinces, the western desert and parts of Gujarat and of Khandesh. The departures in this area were generally small and unimportant, and exceeded —0·5 only at the following places:—

STATION.	MEAN CLOUD AMOUNT.		
	Actual, October 1904.	Normal, October.	Departure from normal, October 1904.
Malegaon	1·8	3·1	—1·3
Pachpadra	0·2	1·1	—0·9
Veraval	1·5	2·3	—0·8
Kurrachee	0·5	1·2	—0·7
Deesa	0·6	1·3	—0·7
Rajkot	0·6	1·2	—0·6

In other parts of the Indian region the mean cloud amount of the month exceeded the average and at some central stations the excess was moderate. The following gives comparative data for those stations at which the departure from the normal exceeded +0·6:—

Station.	Mean cloud amount. Actual, October 1904.	Normal, October.	Departure from normal, October 1904.
Sutna	3·4	1·6	+1·8
Bombay	4·7	3·4	+1·3
Trincomalee	4·9	3·4	+1·5
Ahmednagar	3·9	2·7	+1·2
Khandwa	3·0	1·9	+1·1
Peshawar	1·9	0·9	+1·0
False Point	5·6	4·6	+1·0
Sambalpur	3·6	2·6	+1·0
Saugor	2·5	1·5	+1·0
Akola	3·5	2·5	+1·0
Goa	4·9	4·0	+0·9
Dera Ismail Khan	1·3	0·5	+0·8
Cuddalore	6·8	6·0	+0·8
Cuttack	4·4	3·6	+0·8
Nowgong	2·6	1·8	+0·8
Sialkot	1·4	0·7	+0·7
Calicut	6·4	5·7	+0·7
Waltair	5·5	4·8	+0·7
Indore	2·1	1·4	+0·7

At most of the north-western, western and southern hill stations the mean cloud amount exceeded the normal. This is shown below:—

Hill Station.	Mean cloud amount. Actual, October 1904.	Normal, October.	Departure from normal, October 1904.
Gilgit	5·8	3·4	+2·4
Srinagar	3·2	2·4	+0·8
Leh	3·3	2·6	+0·7
Ranikhet	1·6	1·0	+0·6
Simla	0·9	0·8	+0·1
Chakrata	0·9	1·0	−0·1
Murree	1·2	1·3	−0·1
Cherat	1·2	0·9	+0·3
Wellington	6·4	5·9	+0·5

On the other hand, over the eastern and central hills the sky was clearer than usual. The following gives data:—

Hill Station.	Mean cloud amount. Actual, October 1904.	Normal, October.	Departure from normal, October 1904.
Darjeeling	3·7	5·7	−2·0
Pachmarhi	2·2	2·6	−0·4
Mount Abu	0·9	1·1	−0·2

The following table gives the stations at which the mean cloud amount of the month was 5·5 or above and was less than 0·7, and hence indicates the areas of greatest cloudiness and serenity on the mean of the month:—

Station.	Mean cloud amount over 5·4.	Station.	Mean cloud amount less than 0·7.
Cuddalore	6·8	Ambala	0·6
Negapatam	6·5	Hyderabad Sind	0·6
Calicut	6·4	Sambhar	0·6
Mysore	6·1	Deesa	0·6
Hassan	6·0	Rajkot	0·6
Trivandrum	5·8	Kurrachee	0·5
Mangalore	5·7	Jacobabad	0·5
Nellore	5·7	Sirsa	0·4
Sibsagar	5·6	Bharatpur	0·3
False Point	5·6	Pachpadra	0·2
Salem	5·5	Arrah	0·2
Waltair	5·5		

At Perim the sky was cloudless during the month, and at Aden there was less cloud than the small normal amount. The following gives data:—

Station.	Mean cloud amount. Actual, October 1904.	Normal, October.	Departure from normal, October 1904.
Perim	0	1·2	−1·2
Aden	1·0	−1·7	−0·7

At Zanzibar and Mauritius the sky was more cloudy than the normal, while at the Seychelles it was less cloudy than usual. This is shown below:—

Station.	Mean cloud amount. Actual, October 1904.	Normal, October.	Departure from normal, October 1904.
Zanzibar	5·6	5·1	+0·5
Seychelles	5·4	6·2	−0·8
Mauritius	6·7	5·7	+1·0

Rainfall.

The rainfall of the month of October 1904, exhibited irregular but in places considerable to large departures from the average. In most years dry land winds set in over north-western and central India during this month, and the average rainfall is less than two inches over these areas and diminishes to less than two-tenths of an inch over the Indus valley and the western desert. Most of the rainfall of this month is ordinarily attributable to the retreating south-west monsoon, and is received over the Peninsula and the Bay area where the rainfall is occasionally heavy.

During the month under review the retreating south-west monsoon current was apparently less extensive than usual, and the rainfall was generally short of the normal over Burma, lower Bengal and the east of the Peninsula. Most of the rainfall of the month was due to the cyclonic storm of the middle of the month, and hence was largely confined to the path of that depression.

The chief periods of rainfall were as follows:—

(1) The 1st and 2nd when showers fell over the north-west Himalayas.

(2) The 3rd to the 7th when showers occurred in Burma, Assam and the south of the Peninsula.

(3) The 8th to the 14th when showers fell over the Peninsula.

(4) The 15th to the 18th when rain fell over the east of India in connexion with the storm of that period.

(5) The 19th and 20th when scattered showers occurred except in the north-west and centre, and

(6) The 30th and 31st when showers fell in the north-west Himalayas.

The distribution of the actual rainfall of the month according to the meteorological observatories, is shown on Plate IV. This plate shows that actually or practically no rain fell during the month over the greater portion of north-west and part of central India, and comparatively little over west Bengal and parts of the Deccan. From these areas of light rainfall the amount increased and reached 21·73″ at Colombo, 15·51″ at Jalpaiguri and 13·58″ at Cocanada.

The following table gives the mean actual, mean normal and departure data for the 57 meteorological divisions:—

Province.	Division.	Number of rainy days.		Rainfall.		
		Average actual, October 1904.	Average normal, October.	Average actual, October 1904.	Average normal, October.	Departure from normal, October 1904.
				Inches.	Inches.	Inches.
Burma	Tenasserim	9·0	12·2	5·77	9·95	−4·18
	Lower Burma (Deltaic)	6·0	9·9	3·94	6·26	−2·32
	Central do.	3·9	7·5	2·17	4·60	−2·43
	Upper do.	6·4	6·1	4·66	4·43	+0·23
	Arakan	3·9	9·0	2·11	8·76	−6·65
Bengal and Assam	Eastern Bengal	4·1	5·8	3·10	5·81	−2·71
	Assam (Surma)	6·0	6·8	5·21	6·57	−1·36
	Do. (Hills)	7·8	8·4	5·08	7·52	−2·44
	Do. (Brahmaputra)	5·8	6·0	3·96	4·57	−0·61
	Deltaic Bengal	3·1	5·3	1·86	4·51	−2·65
	Central do.	1·9	4·1	1·16	3·46	−2·30
	North do.	4·0	4·3	7·08	4·75	+2·33
	Bengal Hills	3·4	5·0	7·77	4·00	+3·77
	Orissa	6·4	6·2	4·34	5·73	−1·39
	Chota Nagpur	1·7	3·7	1·06	2·81	−1·75
	Bihar (South)	1·6	2·8	2·93	2·50	+0·43
	Do. (North)	1·6	2·7	4·95	2·65	+2·30
United Provinces of Agra and Oudh.	United Provinces (East)	1·9	2·1	4·30	2·39	+1·91
	Oudh (South)	1·2	1·5	1·31	1·65	−0·34
	Do. (North)	1·3	1·5	0·89	1·78	−0·89
	United Provinces (Central)	0·5	1·1	0·34	1·06	−0·72
	Do. do. (West)	0	0·5	0·03	0·38	−0·35
	Do. do. (East Submontane)	2·0	2·1	3·43	2·94	+0·49
	Do. do. (West do.)	0·3	0·7	0·12	0·75	−0·63
	Do. do. (Hills)	0·8	1·3	0·22	1·38	−1·16
Punjab	Punjab (South-East)	0·1	0·4	0·02	0·22	−0·20
	Do. (South)	0·5	0·3	0·13	0·17	−0·04
	Do. (Central)	0·5	0·5	0·11	0·26	−0·15
	Do. (Submontane)	1·4	0·6	0·49	0·37	+0·12
	Do. (Hills)	3·5	1·1	1·42	0·74	+0·68
	Do. (West)	0	0·2	0·01	0·07	−0·06

Province.	Division.	Number of rainy days.		Rainfall.		
		Average actual, October 1904.	Average normal, October.	Average actual, October 1904.	Average normal, October.	Departure from normal, October 1904.
				Inches.	Inches.	Inches.
North-west Frontier Province.	North-west Frontier Province	2·0	0·7	0·93	0·29	+0·64
Bombay and Malabar Coast Districts (Madras).	Malabar	12·7	11·7	10·04	9·34	+0·70
	Travancore	13·0	...	11·33	...	...
	Madras (South Central)	7·9	8·6	5·17	6·24	−1·07
	Coorg	10·0	...	6·35	...	...
	Mysore	6·4	8·1	4·66	5·50	−0·84
	Konkan	5·4	6·1	3·59	4·49	−0·90
	Bombay Deccan	6·1	6·3	4·31	4·42	−0·11
	Hyderabad (North)	4·6	3·7	3·27	2·60	+0·67
	Khandesh	3·7	3·0	2·55	1·92	+0·63
Central Provinces and Berar.	Berar	3·5	2·3	2·13	1·76	+0·37
	Central Provinces (West)	2·3	2·5	1·13	1·78	−0·65
	Do. (Central)	2·3	2·3	2·01	1·70	+0·31
	Do. (East)	2·2	2·8	2·68	2·06	+0·62
Bombay (North)	Gujarat	0·5	1·4	0·28	1·04	−0·76
	Kathiawar and Cutch	0·1	0·7	0·03	0·58	−0·55
	Sind	0	0	0	0·02	−0·02
	Baluchistan Hills	0	0·2	0	0·06	−0·06
Rajputana and Central India.	Central India (East)	0·6	1·2	0·55	0·98	−0·43
	Rajputana (East), Central India (West)	0·1	0·3	0·03	0·20	−0·17
	Do. (West)	0·2	0·1	0·06	0·07	−0·01
Madras	East Coast (North)	8·6	7·2	8·56	7·04	+1·52
	Hyderabad (South)	4·1	4·6	2·79	2·98	−0·19
	Madras (Central)	5·6	6·3	4·72	4·84	−0·12
	East Coast (Central)	6·6	8·2	5·14	8·84	−3·70
	Do. (South)	8·1	9·4	6·26	8·27	−2·01
	Madras (South)	9·4	8·6	6·96	6·80	+0·16

The preceding data show that some rain was received in all divisions except Sind and Baluchistan during the month, but that the total amount was less than one-tenth of an inch over the west of the United Provinces, the south-east Punjab, the west Punjab, Kathiawar and Cutch, Rajputana, and the west of Central India. From these areas of very light rain the amount increased and equalled 11·33″ in Travancore, 10·04″ in Malabar, and 8·56″ in the north division of the East Coast.

The distribution of the rainfall during the month was largely determined by the unsettled weather in the extreme north-west, and by the path of the storm which formed over the Bay about the middle of the month. The total rainfall was consequently in excess of the average over the north of the East Coast, North Hyderabad, the east and central divisions of the Central Provinces, Berar, Khandesh, the east divisions of the United Provinces, Bihar and the northern divisions of Bengal, as well as the North-west Frontier Province and the neighbouring parts of the Punjab. The excess was more than 50% in the divisions, for which comparative data are given below:—

Division.	Rainfall.			
	Average actual, October 1904.	Average normal, October.	Departure from normal, October 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Bengal Hills	7·77	4·00	+3·77	+ 94
North Bihar	4·95	2·65	+2·30	+ 87
United Provinces East	4·30	2·39	+1·91	+ 80
Punjab Hills	1·42	0·74	+0·68	+ 92
North-west Frontier Province	0·93	0·29	+0·64	+221

In other parts of India the rainfall was lighter than usual,

and the deficiency was more than 80% in the following divisions:—

DIVISION.	RAINFALL.			
	Average actual, October 1904.	Average normal, October.	Departure from normal, October 1904.	Percentage departure from normal.
	Inch.	Inches.	Inches.	
United Provinces, West	0·03	0·38	—0·35	— 92
United Provinces, West Sub-montane.	0·12	0·75	—0·63	— 84
„ „ Hills	0·22	1·38	—1·16	— 84
South-east Punjab	0·02	0·22	—0·20	— 91
West Punjab	0·01	0·07	—0·06	— 86
Kathiawar and Cutch	0·03	0·58	—0·55	— 96
Sind	0	0·02	—0·02	—100
Baluchistan Hills	0	0·06	—0·06	—100
Rajputana East and Central India West.	0·03	0·20	—0·17	— 85

The total rainfall of the month was in defect of the normal in thirty-eight and in excess in eighteen divisions, and the mean departure for the whole country (excluding the hill divisions) derived from the fifth column of the table on pp. 359 and 360 was —0·58″.

In Burma fairly general daily showers occurred during the first ten or twelve days of the month. After the 12th rain practically ceased for the remainder of the month over Central and Upper Burma, but in Lower Burma and Tenasserim occasional, scattered rain continued to fall till the close of the month. The showers were moderately heavy at times, more particularly on the 1st, 5th and 9th, and the following amounts equalling or exceeding 3″ in 24 hours were recorded during the month:—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
BASSEIN	Kyoupyaw	2nd October.	3·28
KYAUKPYU	Kyaukpyu	3rd „	3·00
LOWER CHINDWIN	Pale	5th „	3·51
CHIN HILLS	Haka	6th „	3·87
SAGAING	Myotha	„ „	3·15
SHWEBO	Taze	„ „	3·12
MAGWE	Satthwa	7th „	3·45
SAGAING	Myotha	8th „	3·65
MYINGYAN	Popa	9th „	3·00
SHWEBO	Kyunhla	10th „	3·25
MYITKYINA	Myitkyina	11th „	3·53
THATON	Bilin	21st „	3·63
SOUTHERN SHAN STATES.	Lailem	28th „	3·10
MERGUI	Maliwun	31st „	5·40

The total fall for the month was considerably below the normal except in Upper Burma, and was very light in Arakan, where only 2·11″ instead of 8·76″ was received.

In Assam, as in Burma, the month's rainfall was lighter than the average, but the deficiency was less pronounced. In the Surma valley there were showers between the 1st and the 6th, on the 10th and 11th, and on the 19th and 20th, while after the 20th the weather was fine. The rainfall was heavy during the third rainy period, and the following amounts exceeding 3″ in 24 hours were recorded:—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
SYLHET	Lalakhal	19th October	4·01
	Samanbagh	19th „	3·64
	Sylhet	19th „	3·47
	Adamtila	19th „	3·16

In the Brahmaputra valley there was no rain during the first week, but in other respects the falls were similar to those in the Surma valley, the rainfall periods lasting from the 10th to the 14th and from the 18th to the 20th. After the 20th the weather was fine. Amounts exceeding 3″ in 24 hours were recorded at the following places on the following dates during the month:—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
GOALPARA	Marnai	12th October	4·97
	Kachugaon	18th „	3·84
	Damra	19th „	3·90
LAKHIMPUR	Sadiya	22nd „	3·93

On the hills the weather was showery during the first three weeks and fine thereafter. The total rainfall was only about two-thirds of the average, and no very heavy falls

were recorded. The following were the falls exceeding 3″ in 24 hours during the month:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Lushai Hills	Damagiri	7th October	3·86
Khasi and Jaintia Hills.	Wahmaulien	10th ,,	3·18
Garo Hills	Dalu	15th ,,	5·10
Khasi and Jaintia Hills.	Wahmaulien	19th ,,	4·35
Garo Hills	Tura	,, ,,	3·88
Khasi and Jaintia Hills.	Wahjain	,, ,,	3·60
	Cherrapoonjee, Mr. Shadwell's house.	,, ,,	3·48
	Cherrapoonjee Police station.	,, ,,	3·37
	Cherrapoonjee, Welsh Mission house.	,, ,,	3·13

The following gives comparative data of the eight plains districts of the province:—

District.	Rainfall.			
	Average actual, October 1904.	Average normal, October.	Departure from normal, October 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Cachar	5·17	6·49	−1·32	−20
Sylhet	5·25	6·64	−1·39	−21
Goalpara	7·11	4·83	+2·28	+47
Kamrup	2·89	3·59	−0·70	−19
Darrang	3·77	4·87	−1·10	−23
Nowgong	2·81	4·12	−1·31	−32
Sibsagar	4·23	4·62	−0·39	−8
Lakhimpur	4·16	5·47	−1·31	−24

In Bengal the rainfall was, for the most part, deficient. In south-west Bengal only about one-third of the average was received and the rainfall was particularly short in Burdwan (−84%), Hooghly (−77%) and Nadia (−82%). Practically all the rain in this division fell between the 8th and the 11th and the 17th and 19th. The latter was the only important fall, and during it the following amounts exceeding 1·50″ in 24 hours were recorded:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
24-Parganas	Canning Town	17th October	1·76
Birbhum	Rampur Hât	,, ,,	1·52
24-Parganas	Saugor Island	18th ,,	1·90
Murshidabad	Lalbagh	,, ,,	1·60
	Lalgola	,, ,,	1·52

In North Bengal there were two periods of rainfall, *viz.*, the 10th to the 13th and the 18th to the 20th. The latter was much the more important, as during that period there occurred the heavy rainfall due to the cyclonic storm of that time. The total rainfall was considerably heavier than usual, and the following amounts exceeding 4″ in 24 hours were recorded during the month:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Cooch Behar	Cooch Behar	12th October	6·30
	Fulbari	,, ,,	6·16
Dinajpur	Ramganj	18th ,,	8·16
Cooch Behar	Mickliganj	,, ,,	7·32
Darjeeling	Mongpoo	,, ,,	6·04
Jalpaiguri	Jalpaiguri	,, ,,	6·00
	Debiganj	,, ,,	5·72
Darjeeling	Kurseong	,, ,,	5·65
	Siliguri	,, ,,	5·64
Dinajpur	Thakurgaon	,, ,,	5·50
Darjeeling	Darjeeling	,, ,,	5·48
Cooch Behar	Mathabhanga	,, ,,	4·91
	Dinhatta	,, ,,	4·77
Dinajpur	Atwari	,, ,,	4·75
Darjeeling	Kalimpong	,, ,,	4·58
Dinajpur	Raiganj	,, ,,	4·55
Rangpur	Peerganj	,, ,,	4·45
	Ulipur	,, ,,	4·25
Cooch Behar	Cooch Behar	,, ,,	4·24

In East Bengal the weather was showery from the 1st to the 11th and there occurred a slight fall of rain on the 19th in connexion with the storm mentioned above, while fine weather prevailed from the 20th onward. The total rain-

fall was little more than half the average, but the following amounts exceeding 2″ in 24 hours were recorded during the month:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Tippera	Daudkandi	5th October	3·73
Noakhali	Lakhmipur	6th ,,	2·78
Dacca	Dacca	,, ,,	2·72
Noakhali	Hatya	,, ,,	2·23
Chittagong	Kodala	7th ,,	2·40
Chittagong Hill Tracts.	Rangamati	8th ,,	3·30
Noakhali	Noakhali	10th ,,	2·90
Tippera	Comilla	,, ,,	2·86
Dacca	Dacca	,, ,,	2·35
Noakhali	Hatya	,, ,,	2·01
Mymensingh	Sherpur Town	h ,,	2·30
	Nalitabari	18th ,,	2·42
	Durgapur	19th ,,	2·50

In Bihar there were local showers on the 15th and 16th but the only important fall of rain was on the 17th and 18th in connexion with the cyclonic storm. The total rainfall exceeded the average in both divisions of Bihar, but particularly in the north, and the following amounts exceeding 6″ in 24 hours were recorded during the month:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Darbhanga	Khutauna	18th October	10·12
Saran	Amnour	,, ,,	9·85
Darbhanga	Laukahi	,, ,,	9·80
Saran	Chapra	,, ,,	7·50
Muzaffarpur	Sitamarhi	,, ,,	6·63
Purnea	Forbesganj	,, ,,	6·50
Saran	Basantpur	,, ,,	6·38
Muzaffarpur	Muzaffarpur	,, ,,	6·35
Purnea	Araria	,, ,,	6·10
Darbhanga	Darbhanga	,, ,,	6·08

The following gives comparative data for the different districts of North Bihar and shows the copious rainfall occasioned by the storm:—

Division.	District.	Rainfall. Average actual, October 1904.	Average normal, October.	Departure from normal, October 1904.	Percentage departure from normal.
		Inches.	Inches.	Inches.	
North Bihar.	Saran	7·29	2·67	+ 4·62	+ 173
	Champaran	3·97	3·28	+ 0·69	+ 21
	Muzaffarpur	4·52	2·61	+ 1·91	+ 73
	Darbhanga	4·75	2·16	+ 2·59	+ 120
	Bhagalpur	4·74	2·58	+ 2·16	+ 84
	Purnea	4·30	2·86	+ 1·44	+ 50

Rainfall conditions in Chota Nagpur were the same as those in Bihar, in that practically the whole of the rainfall of the month occurred on the 17th and 18th. The rainfall in Chota Nagpur was, however, much lighter than in Bihar and much lighter than usual and the only amounts exceeding 2″ in 24 hours were as follows:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Hazaribagh	Kharagdiha	18th October	2·96
Palamau	Monatu	,, ,,	2·25
Hazaribagh	Hazaribagh	,, ,,	2·23

In Orissa there were general showers between the 8th and the 18th and scattered showers up to the 24th, after which the weather cleared. The total rainfall was about two-thirds of the normal, and the only falls exceeding 2″ in 24 hours during the month were as follows:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Cuttack	Jagatsingpur	8th October	2·15
Balasore	Chandbali	12th ,,	2·45
Orissa Tributary Mahals.	Baramba	,, ,,	2·41
Cuttack	Banki	,, ,,	2·29
Orissa Tributary Mahals.	Ranpur	16th ,,	2·70
Cuttack	Cuttack	,, ,,	2·12
Sonthal Parganas	Sahibganj	18th ,,	2·14
Puri	Khurda	23rd ,,	2·50

Both divisions of Oudh and the eastern and central divisions of the United Provinces came under the influence of the cyclonic storm and received general, moderate to heavy, rain on the 17th and 18th, while showers were received in the west and submontane divisions during the last week. These were the only falls of rain during the month, but the fall during the earlier rainy period was so heavy in the eastern districts that the average of the month was largely exceeded. The following gives comparative data for the districts in the east and east-submontane divisions:—

Division.	District.	Rainfall. Average actual, October 1904.	Average normal, October.	Departure from normal, October 1904.	Percentage departure from normal.
		Inches.	Inches.	Inches.	
United Provinces, East.	Ghazipur	5·37	2·54	+2·83	—111
	Benares	3·69	2·19	+1·50	+68
	Jaunpur	4·35	2·91	+1·44	+49
	Mirzapur	3·09	2·40	+0·69	+29
	Allahabad	4·82	2·09	+2·73	+131
United Provinces, East Submontane.	Gorakhpur	3·05	3·20	—0·14	— 4
	Basti	1·56	2·91	—1·35	—46
	Azamgarh	4·80	2·62	+2·18	+83
	Ballia	5·05	3·02	+2·03	+67

In other parts of the United Provinces the rainfall was considerably short of the normal. The following amounts exceeding 5″ in 24 hours were recorded during the month:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Allahabad	Saraon	17th October	5·77
Ghazipur	Ghazipur	18th ,,	5·40
Azamgarh	Deogaon	,, ,,	5·28

In the Punjab showers fell on the 1st and 2nd, on the 16th and 17th and on the 28th and 29th. In the south-east and west divisions there was practically no rain throughout the month, and in the south and central divisions exceedingly little, but in the submontane division the total rain was in moderate and in the hill division in large excess. The only falls equalling one inch or more in amount in 24 hours during the month were as follows:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Rawalpindi	Murree	1st October	1·30
Simla	Kilba	16th ,,	1·00
Jullundur	Jullundur	29th ,,	1·05

In the North-west Frontier Province there were, as in the Punjab, three showery periods, *viz.*, on the 1st and 2nd, on the 8th and 9th and on the 28th, 29th and 30th. The falls during the first and third periods were the most important, the rainfall extending over the greater part of the province. The total fall was about three times as heavy as usual, and the following amounts exceeding 1·00″ in 24 hours were recorded during the month:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Kohat	Hangu	1st October	2·12
Hazara	Abbottabad	29th ,,	1·40
Malakand	Malakand	,, ,,	1·28
Peshawar	Katlang	30th ,,	1·11
Hazara	Oghi	,, ,,	1·17

Baluchistan was rainless throughout the month. Kashmir received showers on the 1st and 2nd, the 7th and 8th, the 14th to the 17th, and the 27th to the 30th. The last fall was the most important and widely spread, but there were a few heavyish showers on the 1st. The following gives the falls exceeding 1·00″ in 24 hours during the month:—

State.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Kashmir	Gulmarg	1st October	1·45
	Srinagar	,, ,,	1·10
Jummo	Pader	14th ,,	1·02
Kashmir	Karnah	26th ,,	1·52
	Baramula	27th ,,	1·84
	Sri Protap Singh Pora.	,, ,,	1·53
	Utar Machhipore	,, ,,	1·50
	Kolgam	,, ,,	1·10
Jummoo	Punch	28th ,,	1·64
Kashmir	Srinagar	,, ,,	1·62
	Uri	,, ,,	1·42

So far as can be judged from the scanty data available, the month's fall was considerably heavier than usual.

Rajputana received a few scattered showers on the 15th and 16th, but the greater part of the province was rainless. The following gives data for some of the larger states :—

STATE.	RAINFALL.			
	Average actual, October 1904.	Average normal, October.	Departure from normal, October 1904.	Percentage departure from normal.
	Inch.	Inch.	Inch.	
Jaisalmer	0	0	0	0
Jodhpur	0·06	0·07	—0·01	— 14
Bikaner	0·11	0·09	+0·02	+ 22
Jaipur	0	0·10	—0·10	—100
Alwar	0	0·29	—0·29	—100
Bharatpur	0	0·15	—0·15	—100
Dholpur	0	0·15	—0·15	—100
Karauli	0	0·07	—0·07	—100
Kotah	0	0·13	—0·13	—100
Ajmer-Merwara	0	0·14	—0·14	—100
Udaipur	0·21	0·47	—0·26	— 55

In the Bhopal and Gwalior states of Central India the weather was practically rainless throughout the month, but the more eastern states were affected by the cyclonic storm and received heavy rain on the 16th and 17th. The following shows the falls exceeding 2·00″ in 24 hours :—

STATE.	STATION.	DATE.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
REWAH	Sohagpur	16th October	5·30
	Bardi	17th „	4·45
	Tyonthar	„ „	2·49

The total rainfall of Central India was, except in Rewah, short of the normal, as is shown by the following data for the larger states :—

STATE.	RAINFALL.			
	Average actual, October 1904.	Average normal, October.	Departure from normal, October 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Bhopal Agency	0·18	0·75	—0·57	—76
Gwalior	0·04	0·68	—0·64	—94
Rewah	3·20	2·13	+1·07	+50
Bundelkhand	0·16	1·17	—1·01	—86

In the Central Provinces there were three showery periods, *viz.*, between the 8th and the 10th, the 14th and the 17th, and the 26th and the 30th. These showers were generally light in the west division, but were moderate to heavy in the east and central divisions, which came under the influence of the cyclonic storm. In Berar also the total rainfall exceeded the normal, due to moderately heavy local showers on the 14th. The only heavy amounts reported were in the east and central divisions, where the following falls exceeding 4·00″ in 24 hours, were measured :—

DISTRICT.	STATION.	DATE.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
FEUDATORY STATES	Khairagarh	16th October	9·35
BALAGHAT	Lanji	„ „	4·77
FEUDATORY STATES	Dongargarh	„ „	4·63
	Raj-Nandgaon	„ „	4·45
	Chhuikhadan	17th „	5·08
RAIPUR	Drug	„ „	4·96
MANDLA	Marpha	„ „	4·39

Over the Peninsular divisions of the Bombay Presidency the month's rainfall was about normal, but in north Bombay the fall was exceedingly scanty, and in Sind the weather was rainless. In the Konkan division fairly general showers were experienced on the 11th and 12th, the 16th to 19th, and the 21st to the 26th. The showers were moderately heavy on the 11th, 16th and 18th, and though light or moderate at other times, the total rainfall of the month was almost normal. The following falls exceeding 2·00″ in 24 hours were recorded during the month :—

DISTRICT.	STATION.	DATE.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
RATNAGIRI	Rajapur	11th October	3·67
NORTH KANARA	Honavar	„ „	3·34
RATNAGIRI	Guhagar	12th „	2·82
	Dapoli	„ „	2·65
THANA	Mokhada	14th „	3·45
KOLABA	Panvel	16th „	2·13
NORTH KANARA	Siddapur	18th „	2·82
KOLABA	Roha	23rd „	2·15

In the Karnatak showers occurred between the 10th and 12th, and the 18th and 26th, the weather having been fine at other times. The total fall of the month was

normal, and the following falls exceeding 3·00″ in 24 hours were recorded during the month:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Belgaum	Gokak	11th October	3·61
Dharwar	Haveri	18th ,,	4·31
	Savnur	,, ,,	3·51
	Ranebenur	,, ,,	3·21

In the Deccan there were two more or less showery periods, *viz.*, from the 10th to the 17th and from the 21st to the 27th. The showers were heaviest on the 21st, and the following amounts exceeding 3″ in 24 hours were recorded:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Sholapur	Madha	20th October	3·37
	Pandharpur	21st ,,	7·22
Satara	Pusesavli	,, ,,	3·20

The total rainfall of the month was about normal.

In Khandesh the rainfall was less than in the Deccan, but there was a fairly general showery period between the 11th and the 16th. As was the case in Berar there were heavyish falls of rain over this division on the 14th, and the total fall exceeded the normal. Falls exceeding 2·00″ in 24 hours were recorded at the following places during the month:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Nasik	Peint	12th October	2·45
Ahmednagar	Akola	13th ,,	3·40
	Nevasa	14th ,,	4·75
Khandesh	Sakri	,, ,,	3·15
Ahmednagar	Rahuri	,, ,,	2·81
Nasik	Malegaon	,, ,,	2·22
Ahmednagar	Kopargaon	,, ,,	2·15
Nasik	Kalvan	,, ,,	2·11
Ahmednagar	Perner	15th ,,	2·25

There were a few showers in Gujarat between the 11th and the 16th, but the total rainfall of the month was unimportant and much below the normal. In Kathiawar and Sind there was practically no rain throughout the month.

In Hyderabad (Deccan) the weather was showery between the 9th and the 16th, and the total rainfall of the month was normal or above the normal. The rainfall was moderately heavy on the 9th and 10th, but the principal rainfall was connected with the cyclonic storm and fell on the 14th. The following amounts exceeding 2·00″ in 24 hours were recorded during the month:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Mahbubnagar	Palmur	9th October	2·45
Medak	Sangareddypett	10th ,,	2·80
Lingsugur	Lingsugur	,, ,,	2·54
Hyderabad	Bolarum	13th ,,	2·82
Gulbarga	Gulbarga	,, ,,	2·30
Nanded	Nanded	14th ,,	2·70
Indur	Indur	,, ,,	2·30
Medak	Sangareddypett	,, ,,	2·18
Bidar	Bidar	,, ,,	2·17

In Mysore general rain fell between the 8th and the 12th, the 17th and 21st, and the 23rd and the 25th. The total rainfall was about normal, and the following falls exceeding 3·00″ in 24 hours were recorded during the month:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Kolar	Kolar	10th October	3·15
	Malur	,, ,,	3·05
Bangalore	Hoskote	13th ,,	4·10
Tumkur	Tumkur	,, ,,	3·30
Kolar	Malur	18th ,,	4·03
Hassan	Hole Narsingpur	20th ,,	4·00
Chitaldroog	Molakalmuru	,, ,,	3·30
Bangalore	Magadi	25th ,,	5·02

The rainfall over the Madras Presidency was normal or below the normal except in the East Coast (north) which division came under the influence of the cyclonic storm.

In Malabar the weather was more or less showery up to the 28th when it cleared and was fine till the close of the month. The total rainfall was normal, but the following

falls exceeding 4·00″ in 24 hours were recorded during the month:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
South Canara	Puttur	1st October	4·33
Cochin State	Trichur	15th "	4·24
Travancore State	Parur	16th "	4·50
	Thadupuzha	17th "	4·58
	Shertalley	18th "	4·22
South Canara	Karkal	" "	4·18
Travancore State	Thadupuzha	21st "	4·04
	Quilon	27th "	5·70
	Kottayam Engineer's Office.	28th "	4·66

In Madras South, where also the total rainfall of the month was normal, a few scattered showers were experienced up to the 17th and a general burst of rain between the 18th and the 28th, when the weather cleared. The only heavy falls were in the extreme south where the following amounts exceeding 3·00″ in 24 hours were registered during the month:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Tinnevelly	Kuttanguli	16th October	3·57
	Tenkasi	21st "	3·26
	Watrap	27th "	3·18
	Palamcottah	" "	3·15
	Srivilliputtur	28th "	4·23

In South Central Madras there occurred two showery periods, *viz.*, between the 5th and the 13th and the 18th and 27th. The total fall was nearly normal and the following amounts exceeding 3·00″ in 24 hours were recorded during the month:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Coimbatore	Aravakurchi	7th October	4·42
Salem	Paramathi	9th "	4·08
Coimbatore	Satyamangalam	21st "	3·03
	Pallachi	28th "	3·25

In Central Madras general rain fell between the 10th and 12th and between the 16th and 20th and the total fall was about normal. The heaviest falls were recorded on the 18th and the following amounts exceeding 4·00″ in 24 hours were measured during the month:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Kurnool	Pattikonda	11th October	4·88
Bellary	Bellary	12th "	4·01
	Hadagalli	18th "	4·55
	Bellary	" "	4·38

Over the north division of the East Coast there occurred more or less general rain between the 8th and the 18th and showers from the 19th to the 24th. The heaviest falls were on the 15th, 16th and 17th, when the cyclonic storm was affecting the weather in that part of the country, and the following amounts exceeding 4·00″ in 24 hours were recorded:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Kisina	Gannavaram	15th October	5·30
Godavari	Cocinga	" "	4·95
	Kottapetta	" "	4·25
Vizagapatam	Pottanghi	16th "	9·83
Kistna	Ellore	" "	6·90
	Kykalur	" "	6·50
	Gudivada	" "	6·18
	Masulipatam	" "	5·75
Vizagapatam	Saluru	" "	5·16
Kistna	Manginapudi	" "	4·80
	Chintalapudi	" "	4·68
Vizagapatam	Parvatipuram	" "	4·44
	Narasapatnam	" "	4·18
Ganjam	Gumma	" "	4·15
Kisina	Pandraka	" "	4·10
Vizagapatam	Chodavaramu	17th "	12·70
	Srungavarapukota	" "	5·57
Ganjam	Gumma	" "	4·05

In the central division of the East Coast the rainfall, though occurring about the same time, was much lighter than that in the more northern division, and little more than half the normal. The only heavy falls in 24 hours were 4·40″ at Suberpeta on the 18th and 3·07″ at Kavali on the 10th.

In the south division there were two showery periods, *viz.*, the 8th to the 13th and the 18th to the 28th. The total fall was slightly short of the average, and the fall was irregularly distributed. The following amounts exceeding 4·00″ in 24 hours were recorded during the month:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Chingleput	Cheyur	8th October	4·15
South Arcot	Markanam	10th ,,	4·41
Chingleput	Uttramerur	,, ,,	4·14
	Kovelong	,, ,,	4·01
South Arcot	Tindivanam	12th ,,	4·89

The following gives comparative data of the 22 collectorates of the Madras Presidency:—

Collectorate.	Rainfall. Average actual, October 1904.	Average normal, October.	Departure from normal, October 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Ganjam	8·59	7·96	+0·63	+ 8
Vizagapatam	10·06	7·64	+2·42	+ 32
Godavari	10·19	7·95	+2·24	+ 28
Kistna	8·61	6·23	+2·38	+ 38
Guntur	4·62	6·36	—1·74	— 27
Nellore	5·14	8·84	—3·70	— 42
Madras	2·33	11·03	—8·70	— 79
Chingleput	5·17	9·42	—4·25	— 45
North Arcot	5·93	6·80	—0·87	— 13
South Arcot	8·78	8·58	+0·20	+ 2
Tanjore	5·55	8·86	—3·31	— 37
Trichinopoly	5·85	7·49	—1·64	— 22
Madura	6·19	7·32	—1·13	—15
Tinnevelly	7·24	6·18	+1·06	+ 17
Malabar	11·97	9·25	+2·72	+ 29
South Canara	6·77	9·49	—2·72	— 29
Salem	4·72	5·88	—1·16	— 20
Coimbatore	5·49	6·37	—0·88	— 14
Cuddapah	3·78	5·79	—2·01	— 35
Anantapur	6·29	4·72	+1·57	+ 33
Bellary	4·60	4·30	+0·30	+ 7
Kurnool	4·51	4·34	+0·17	+ 4

The following shows the rainfall recorded at the extra-Indian stations during October 1904:—

Station.	Rainfall. Average actual October 1904.	Average normal, October.	Departure from normal, October 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Trincomalee	7·24	7·14	+0·10	+ 1
Colombo	21·73	14·80	+6·93	+47
Minicoy	6·05	7·46	—1·41	—19
Kashgar	0	0·05	—0·05	—100
Kabul	0	0·32	—0·32	—100
Meshed	0·74	0·42	+0·32	+ 76
Teheran	0·27	0·10	+0·17	+170
Ispahan	0·04	0·21	—0·17	— 81
Bushire	0	0·08	—0·08	—100
Jask	0	0·04	—0·04	—100
Muscat	0	0·02	—0·02	—100
Baghdad	0·50	0·04	+0·46	+1,150
Aden	0	0·01	—0·01	—100
Perim	0	0·07	—0·07	—100
Seychelles	2·82	5·29	—2·47	—83
Zanzibar	5·32	2·99	+2·33	+ 78
Mauritius	1·02	1·23	—0·21	—17

In northern and central Persia as well as in Asiatic Turkey light to moderate rain was received, and at

Meshed, Teheran and Baghdad the small normal fall was largely exceeded. In Kashgaria, Afghanistan, at the Persian Gulf stations as well as at Aden and Perim no rain fell, though ordinarily a few cents are received. In Ceylon the rainfall was heavier than usual, and at Minicoy as in Malabar, the total rainfall was about the average. In the south-east Trades region the rainfall was irregularly distributed. At Zanzibar there was a considerable excess at Mauritius a slight and at the Seychelles a large deficiency.

Crop Report.

Madras.—The rainfall increased during the month, and while at the commencement more rain was required in parts of the Circars, the Deccan, Chingleput and the central and southern districts, at the close of the month the only areas in need of more rain were parts of Anantapur, Cuddapah and Tanjore. In all other places the standing crops were generally in fair condition and harvests continued with fair outturn. Pasture was scanty in parts of Cuddapah and Madura, but fodder was generally procurable.

Bombay.—At the beginning of the month more rain was required generally for the crops, but during the month fair rain fell generally, and at the close of the month the only places where more rain was required were parts of Gujarat, Thana, Khandesh, Carnatic and Baroda. The standing crops had been slightly damaged by rats in parts of Kurrachee, by locusts in parts of Colaba and Ratnagiri, and were suffering from insufficient moisture in parts of Gujarat and Baroda; elsewhere they were generally in good condition.

Bengal.—The rainfall during the month was generally light and unevenly distributed, and at the close of the month more rain was needed in the Burdwan, Hooghly, Malda, Hazaribagh, Manbhum, and Singhbhum districts, and in parts of Birbhum, Bankura, Midnapore, 24-Parganas, Murshidabad, Sonthal Parganas, Angul and Puri. The prospects elsewhere were generally good.

United Provinces.—The harvesting and threshing of the autumn and the sowing of spring crops were in progress at the close of the month and supplies and fodder were sufficient.

Punjab.—At the close of the month the condition and prospects of standing crops were good to fair on irrigated and average to poor on unirrigated lands. The outturn of autumn crops was fair in Delhi, good in Ferozepore, and average in Sialkot and Rawalpindi, while the outturn of unirrigated crops was very poor in Sialkot. The autumn crops had been totally spoilt in Mianwali and parts of Ferozepore owing to drought.

North-west Frontier Province.—At the close of the month more rain was badly wanted for the preparation of unirrigated lands. Autumn crops had been reaped and had given a good harvest everywhere except in Dera Ismail Khan.

Burma.—Crop prospects were generally favourable, but at the close of the month more rain was needed in Akyab, Prome, Myitkyina, Meiktilla, and Myingyan.

Central Provinces.—At the close of the month the harvesting of autumn and the sowing of spring crops were in progress. Cotton picking had commenced in some districts, but the crops had been slightly damaged by rain in Akola. The standing crops were deteriorating in Saugor, Seoni, and Narsinghpur owing to the prolonged drought, but elsewhere prospects were fair to good. Scarcity of fodder was reported from Nimar and Amraoti and of water from Amraoti.

Assam.—The harvesting of jute was completed by the end of the month; the outturn was poor. The plucking and manufacture of tea and the ploughing for and sowing of mustard progressed during the month. The prospects of tea were generally fair, of late rice and cotton good, and of sugarcane good in Sylhet and fair elsewhere.

Mysore.—At the end of the month more rain was wanted in Kolar, Mysore, Shimoga, and Chitaldroog. The standing crops were in fair condition.

Hyderabad.—The autumn crops were harvested during the month, while early rice was in good condition at the close of the month.

Rajputana.—The harvesting of autumn and the sowing of spring crops progressed during the month. The standing crops and the prospects at the end of the month were generally fair, but the outlook for spring crops was bad in many parts for want of water in tanks and wells. Agricultural stock was in a satisfactory condition.

Kashmir.—The autumn crops had been harvested by the end of the month. In Jummoo the condition of the standing crops was fair.

Nepal.—The harvest had been concluded and the outturn was good.

W. L. DALLAS.

TABLE I.—Abstract of Observations taken at 8 A.M. at 232 Stations in India, Burma, etc., in October, 1904.

Table

Abstract of Observations taken at 8 A.M. at 232

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 A.M., in inches.								Temperature of Air.											
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
	I.—Burma Coast and Bay Islands.				+·001								88·2	+0·4	75·5	+0·8	81·9	+0·6	12·8					18·1
1	Tenasserim and Bay Islands.	Port Blair	61	29·863	+·007	29·855	29·925	8th	29·761	29th	·164	79·7	86·8	−0·1	77·1	−0·1	82·0	−0·1	9·7	89·4	25th	75·2	12th	14·2
		Mergui	96	29·829	−·007	29·858	29·916	8th	29·748	28th	·168	78·8	87·1	−0·1	74·0	+1·9	80·6	+0·9	13·1	90·9	18th	72·4	6 days.	18·5
		Tavoy	26	29·915	−·004	29·872	30·001	8th	29·834	29th	·167	78·2	88·4	+0·4	72·5	−0·8?	80·5	−0·2?	15·9	91·7	18th	70·1	25th	21·6
		Moulmein	94	29·828	−0·7	29·861	29·934	8th	29·750	29th	·184	79·1	90·2	+1·8	75·2	+0·5	82·7	+1·2	15·0	93·5	30th	71·3	12th	22·2
		Rangoon	57	29·873	−·002	29·868	29·975	8th	29·803	28th	·172	79·2	88·4	+0·7	76·1	+0·5	82·3	+0·6	12·3	91·1	4 days	74·4	28th	16·7
2	Lower Burma	Bassein	27	29·900	+·007	29·865	29·997	8th	29·839	17th	·158	80·0	88·7	+1·3	76·6	+1·4	82·8	+1·4	12·2	92·2	21st	74·8	25th	17·4
		Diamond Island	41	29·880	−·001	29·856	29·953	8th	29·807	29th	·146	82·0	85·9	−0·6	78·9	+2·2	82·4	+0·8	7·0	87·9	27th	76·2	21st	11·7
5	Arakan	Akyab	20	29·905	+·007	29·868	29·978	8th	29·850	31st	·128	79·4	87·6	−0·2	76·2	−0·5	81·9	−0·4	11·4	89·9	13th & 31st.	73·2	26th & 27th.	16·7
3	Central Burma	Toungoo	183	29·750	+·007	29·872	29·817	8th	29·687	28th	·160	79·6	90·8	+0·5	72·5	−2·3?	81·7	−0·9?	18·3	93·4	4 days	69·1	25th	24·3
	II.—Burma Inland				+·018								89·2	−1·7	72·3	−0·2	80·8	−0·9	16·9					25·6
	Central Burma	Thayetmyo	130	29·812	+·023	29·884	29·907	8th	29·758	17th	·149	79·5	90·9	+0·5	69·7	−4·4?	80·4	−2·0	21·2	93·5	19th & 24th.	67·0	26th & 31st.	26·5
4	Upper Burma	Minbu	*165*	29·782	+·015	29·892	29·875	8th	29·721	17th	·154	79·0	90·4	−0·9	74·7	−0·3	82·6	−0·6	15·7	94·2	20th, 22nd & 24th.	70·6	24th	23·6
		Yamethin	657	29·275	?	29·890	29·366	7th & 8th.	29·217	17th	·149	78·5	89·4	−3·1	73·5	−0·3	81·5	−1·7	15·9	93·3	21st & 22nd.	71·2	5 days	22·1
		Monywa	*280*	29·662		29·900	29·781	7th	29·611	22nd	·170	78·8	89·9		73·4		81·7		16·5	93·8	20th	68·2	24th & 30th.	25·6
		Mandalay	250	29·691	+·023	29·893	29·783	8th	29·625	17th	·158	79·2	90·4	−1·4	74·9	+0·1	82·7	−0·7	15·5	93·5	21st	72·8	4 days	20·7
		Myitkyina	458	29·482		29·906	29·577	7th	29·377	3rd	·260	75·3	86·1		70·7		78·4		15·4	91·7	4th	60·3	31st	31·4
		Bhamo	*381*	29·556	+·010	29·896	29·648	7th	29·483	17th	·165	74·1	87·3	−1·2	69·5	−0·1	78·4	−0·7	17·8	91·5	4th & 19th	62·1	29th & 30th.	29·4
4(a)	Burma Hill Stations.	Maymyo	3,545									69·1	77·8		60·5		69·2		17·3	82·9	31st	54·6	26th	28·3
		Lashio	*2,751*									68·1	81·9	−1·6	63·0	−0·5	72·5	−1·1	18·9	85·5	1st & 2nd.	57·0	23rd	28·5
	III.—Assam				+·014								86·2	+0·1	70·3	−1·2	78·2	−0·6	15·9					30·9
7	Surma	Silchar	104	29·851	+·026	29·910	29·910	8th	29·794	18th	·116	76·3	88·5	−0·2	71·5	−0·8	80·0	−0·5	17·0	92·0	8th & 9th.	63·9	25th	28·1
9	Brahmaputra	Sibsagar	333	29·627	+·007	29·924	29·700	26th	29·523	22nd	·177	73·1	81·1	−0·7	70·0	−0·8	77·0	−0·8	14·1	90·2	8th & 9th.	59·9	31st	30·3
		Dhubri	115	29·823	+·010	29·896	29·906	26th	29·697	18th	·209	75·9	85·7	+1·2	70·9	−1·9	78·3	−0·4	14·8	91·2	8th & 9th.	62·2	31st	29·0
		Gauhati	135	29·768		29·922	29·837	26th	29·669	22nd	·168	75·1	87·0		69·8		78·4		17·2	92·5	9th	62·5	30th	30·0
		Tezpur	252	29·696		29·912	29·766	30th	29·600	22nd	·166	73·9	86·3		70·1		78·3		16·2	97·1	9th	60·9	31st	36·2
		Dibrugarh	353	29·615		29·935	29·688	26th	29·521	22nd	·167	73·7	85·4		69·2		77·3		16·2	91·2	6th, 8th & 9th.	59·5	31st	31·7
	IV.—Bengal and Orissa				+·020								87·9	+0·4	72·3	−1·1	80·1	−0·4	15·5					28·1
6	East Bengal	Chittagong	87	29·831	+·013	29·877	29·904	8th	29·783	17th	·121	78·4	86·5	0	72·5	−0·9	79·5	0·5	14·0	89·5	16th & 17th	66·1	26th, 27th & 28th.	23·4
		Noakhali	43	29·889		29·879	29·948	26th	29·830	17th	·118	79·1	86·5		72·7		79·6		13·8	89·2	17th	64·0	27th	25·2
		Comilla	36	29·895		29·879	29·954	8th	29·833	17th & 18th.	·121	77·7	88·2		71·8		80·0		16·4	91·3	3rd & 17th.	64·9	5 days	26·4
		Sirajganj	49	29·691		29·890	29·953	26th	29·770	18th	·183	76·5	86·7		72·8		79·8		13·9	90·3	15th	64·3	25th	26·0
		Narayanganj	26	29·919	+·036	29·894	29·976	8th & 26th.	29·839	18th	·137	78·0	88·4	+0·5	74·4	−0·9	81·4	−0·2	14·0	91·6	3rd	66·8	31st	24·8
		Barisal	13	29·928	+·029	29·846	29·993	26th	29·866	17th	·127	80·1	87·4	−0·2	72·0	−2·6	80·1	−1·4	15·4	90·3	15th	64·1	26th, 28th & 29th.	26·2
		Mymensingh	63	29·884	+·019	29·858	29·943	8th	29·785	18th	·158	78·3	87·8	+1·6	73·2	0	80·5	+0·8	14·6	90·7	4 days	65·6	30th & 31st.	25·1
		Faridpur*	46	29·901		29·898	29·967	26th	29·805	18th	·162	78·5	86·9		72·6		79·8		14·3	89·3	17th	65·5	25th & 31st.	23·8
10	Deltaic Bengal	Jessore	33	29·904	+·024	29·884	29·976	26th	29·793	18th	·183	78·8	87·7	−0·6	72·9	−1·7	80·3	−1·2	14·8	90·5	3rd, 5th & 6th.	64·2	28th	26·3
		Calcutta	21	29·916	+·028	29·883	30·006	26th	29·814	18th	·192	78·8	88·2	+1·5	73·3	−1·0	80·8	+0·3	14·9	92·4	2nd	62·9	27th	29·5
		Saugor Island	25	29·892	+·012	29·862	29·981	26th	29·801	17th	·180	79·2	87·2	+0·3	75·5	−0·7	81·4	−0·2	11·7	90·9	4 days	67·0	29th	23·9
		Krishnagar	47	29·898		29·895	29·989	26th	29·779	18th	·210	76·9	89·5		72·3		80·9		17·2	92·6	1st	62·5	25th & 27th.	30·1
		Midnapore	149	29·781		29·878	29·869	26th	29·671	18th	·198	77·8	88·7		73·2		81·0		15·5	92·3	1st, 4th & 5th.	64·7	27th & 30th.	27·6

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

* Mean of 29 days.

Note 1.—When a query is inserted against any reading or in the returns of any station, the data for that

Note 2.—The data from which divisional means of the figure columns Nos. 41, 43, and 45 are derived

I.

Stations in India, Burma, etc., in October, 1904.

Wind Direction. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	Wind Velocity. Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	Hygrometry, 8 A.M. Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Cloud. Mean cloud amount at 8 A.M.	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 1904.	Normal rainfall for period, 1st May to 31st October.	Departure from normal of period 1st May to 31st October 1904.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
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	58
														89	0	·898	+·003	4 0	—1·7				5·31	9·03	−3·72					I.—Burma Coast and Bay Islands.		
	1		2	8	4	3	4	9	S 51° W	4·5	6·4	−30	5·1	90	+1	·908	−·027	5·5	—0·9	13			8·75	11·76	− 3·01	98·58	96·66	+ 1·92	2·45	Port Blair.	Tenasserim and Bay Islands.	1
	3	1	1	1	1		2		N 11° E	2·2	1·5	+47	2·0	92	+5	·888	+·033	3·4	—1·5	12	116·10	−4·10	8·22	12·74	− 4·52	169·24	151·83	+17·41	2·38	Mergui.		
22	3								N	1·0				90	+2	·870	+·002	2·7	—2·1	12	12·30	−0·30	7·57	9·45	− 1·88	266·98	201·38	+65·60	2·17	Tavoy.		
28		1	2	3	1	1	1	3	S 45° E	1·8	1·7	+ 6	2·0	85	−3	·840	−·036	5·2	P	7	10·70	−3·70	3·93	7·97	− 4·04	133·57	177·86	+15·71	1·09	Moulmein.		
19	1	3	6	2	1		3	5	N 36° E	4·6	3·2	+44	3·9	90	−2	·904	−·003	3·5	—2·1	4	8·50	−4·50	1·23	6·39	− 5·16	91·30	91·80	− 0·50	0·57	Rangoon .	Lower Burma .	2
10	6	6	5	5	2	3	3	1	N 65° E	3·5	2·5	+40		91	0	·940	+·025	3·2	—2·0	6	12·10	−6·10	3·99	8·13	− 4·14	106·35	106·37	− 0·02	1·12	Bassein.		
	2	10	8	3	1			2	N 65° E	7·9	6·4	+23	7·9	84	+1	·922	+·023	5·3	—0·4	9	11·60	−2·60	4·90	8·00	− 3·10	135·04	108·18	+26·86	1·30	Diamond Island.		
5	11	16						4	N 19° E	2·1	2·3	− 9	2·0	92	+1	·925	+·012	2·6	—3·3	4	8·30	−4·30	1·93	10·28	− 8·35	173·01	183·75	−10·74	1·22	Akyab .	Arakan .	5
28			2		1				S 18° E	5·2	1·8	+189	5·1	86	−3	·887	0	4·3	−1·2	7	9·60	−2·60	7·31	6·56	+ 0·75	86·41	75·12	+11·29	2·30	Toungoo .	Central Burma.	3
														86	+1	·824	−·008	3·9	—1·4				4·29	4·42	−0·72					II.—Burma Inland.		
1	8		2	1	15		3	1	S 8° W	6·3	3·1	+103		86	+2	·856	+·016	4·5	—1·2	5	6·90	−1·90	1·18	4·00	− 2·82	35·40	33·64	+ 1·55	0·36	Thayetmyo .	Central Burma.	3
12	1		1	4	1	1	1	10	N 54° W	3·1			3·7	82	−2	·830	−·013	2·8	—1·7	7	5·20	+1·80	5·32	4·41	+ 0·91	28·94	29·86	− 0·92	1·60	Minbu .	Upper Burma .	4
18	2	1		5	3			2	S 49° E	7·5			7·9	87	+1	·847	−·010	4·0	P	6	6·60	−0·60	4·88	5·72	− 0·84	30·45	33·91	− 3·46	1·99	Yamethin.		
17					3	1	8	2	S 77° W	1·1			1·1	87		·865		3·5		5	5·50	−0·50	3·35	3·95	− 0·60	25·20	26·29	− 1·09	1·06	Monywa.		
14	6			5	4	1		1	S 55° E	1·8			1·8	84	+1	·842	−·018	2·8	—1·3	9	5·60	+3·10	3·88	4·98	− 1·10	40·16	28·98	+11·18	1·50	Mandalay.		
9	1	7	10	4					N 81° E	1·5			1·5	86		·760		5·0		8			7·82			61·55			3·53	Myitkyina.		
11	9	6	3			1	1		N 24° E	9·1			10·6	91	+4	·763	−·011	4·8	0	8	5·70	+2·30	3·62	3·47	+ 0·15	66·20	68·52	− 2·32	0·94	Bhamo.		
17	1	5	5				2	1	N 50° E	1·4				92		·655		4·4		9	11·20	−2·20	9·25	7·71	+ 1·54	53·19	51·99	+ 1·20	2·08	Maymyo .	Burma Hill Stations.	4(a)
	6	17	2	1				5	N 52° E	1·6				93	+1	·645	−·002	6·6	−1·0	12			7·06	3·68	+ 3·38	68·88	54·98	+13·90	2·22	Lashio.		
														89		·773	−·015	4·4	—1·6				3·76	4·41	−0·66					III.—Assam.		
31									Calm	0·2	2·1	−90	0·3	88	−1	·801	−·027	3·6	−2·5	8	7·00	+1·00	3·39	6·03	− 1·64	124·83	97·90	+26·93	2·16	Silchar .	Surma.	7
23	1	4		2	1				N 71° E	1·4	2·0	−30	1·3	96	0	·793	−·009	5·6	—1·6	5	4·20	+0·80	4·02	4·99	− 0·97	59·29	76·81	−17·52	1·31	Sibsagar .	Brahmaputra .	9
		4	14	4	5	3		1	S 69° E	3·9	2·9	+34	4·6	86	−3	·782	−·009	3·1	−0·7	6	4·10	+1·90	5·97	3·48	+ 2·49	62·33	85·47	−23·14	2·14	Dhubri.		
10	9	2	3	1	4	2			N 41° E	1·6			1·8	89		·779		5·3		4	1·10	−0·10	3·38	2·92	+ 0·46	61·49	52·78	+ 8·71	1·31	Gauhati.		
	6	16	10	2		1	1	1	N 71° E	1·9			2·0	89		·751		3·6		7	5·50	+1·50	3·33	3·66	− 0·33	69·67	60·70	+ 8·97	1·56	Tezpur.		
7	4	9	5	2	1	2	1		N 87° E	0·8			0·8	87		·726		5·2		5	7·70	−2·70	1·46	5·40	− 3·94	68·75	94·19	−25·44	0·41	Dibrugarh.		
														84	−1	·814	−·024	2·9	−0·6				3·30	5·02	−1·72					IV.—Bengal and Orissa.		
		22	2	4	1	2			N 62° E	2·6	3·0	−13	2·4	87	−3	·854	−·010	4·4	−0·6	5	6·81	−1·81	1·79	6·37	− 4·58	69·97	86·32	−16·35	0·82	Chittagong .	East Bengal .	6
	2	8	6	2	3	1	6	3	N 39° E	1·6			1·8	86		·857		3·7		6	7·13	−1·13	4·03	7·92	− 3·89	109·09	102·84	+ 6·25	2·90	Noakhali.		
7	5	3	2	8	4		2		S 69° E	1·8			1·5	87		·830		2·3*		4	5·62	−1·62	5·59	5·43	+ 0·16	66·97	78·31	−11·34	2·86	Comilla.		
27						2	1	1	S 34° W	0·9			0·9	93		·856		3·0		1	4·77	−3·77	0·95	4·37	− 3·42	60·30	55·13	+ 5·17	0·92	Sirajganj.		
10	5	2	3	4			1	1	N 1° W	2·0	2·3	−13	1·7	89	+5	·863		4·6	?	4	5·06	−1·06	3·62	4·48	− 0·86	53·11	59·45	− 6·34	1·43	Narayanganj		
7	5	5	2	3	3	3	1	2	N 45° E	1·8			1·5	84	0	·864	−·021	3·1	−0·6	4	5·94	−1·94	1·82	6·69	− 4·87	57·76	68·95	−11·19	0·70	Barisal.		
18			5	5	1			2	S 67° E	1·6			1·4	85	−3	·824	−·026	?	P	2	5·58	−3·58	2·57	5·12	− 2·55	67·24	77·92	−10·68	1·79	Mymensingh.		
7	5	2	3	4	3	3	1	2	S 72° E	1·5			1·3	87		·855		2·5		4	5·31	−1·31	2·66	4·49	− 1·83	49·64	59·18	− 9·54	1·51	Faridpur.		
22	2		1	3	2				S 72° E	1·1	2·1	−48	1·1	86	0	·850	−·026	3·3†	−0·6	3	5·74	−2·74	2·12	4·38	− 2·26	60·59	55·73	+ 4·86	1·46	Jessore .	Deltaic Bengal.	13
12	3	1	5	1	2	2	1	4	N 27° E	1·5	3·2	−53		84	0	·845	?	3·3	−0·1	3	5·33	−2·33	0·98	4·12	− 3·14	57·52	54·71	+ 2·81	0·41	Calcutta.		
	6	9	4	2	3	1	4	2	N 34° E	8·3	6·5	+28		87	+1	·876	−·012	4·8	−0·6	9	7·90	+1·10	7·61	8·64	− 1·03	65·15	66·68	− 1·53	2·19	Saugor Island.		
12	2	1	1	3	3		4	5	N 76° W	1·2			1·3	89		·835		3·3		0	4·97	−4·97	0·22	4·20	− 3·98	36·99	49·21	−12·22	0·09	Krishnagar.		
4	13	3	5		4	1		1	N 29° E	1·8			1·5	81		·787		2·2		0	5·27	−2·27	0·86	4·51	− 3·65	55·33	55·17	+ 0·16	0·63	Midnapore.		

station are not utilised in calculating the provincial departures from normal.
are incomplete.

† Mean of 30 days.

Table

Abstract of Observations taken at 8 A.M. at 232

Number of District.	Meteorological Province or District.	Station.	Elevation of barometer above sea-level, in feet.	Pressure, 8 A.M., in inches.								Temperature of air.											
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
11	Central Bengal	Bankura	298	29·608		29·877	29·703	26th	29·489	18th	·214	77·6	89·6		71·5		80·5		18·1	94·6	1st	62·3	26th	32·3
		Raniganj	334	29·610		29·905	29·703	26th	29·491	18th	·212	75·2	90·5		70·5		80·5		20·0	93·9	1st, 5th & 13th	61·6	31st	32·3
		Burdwan	99	29·842	+·026	29·891	29·939	26th	29·718	18th	·221	78·2	89·9	+1·2	73·0	−1·6	81·5	−0·2	16·9	93·9	4th	64·8	25th & 27th.	29·1
		Naya Dumka	489	29·442		29·897	29·540	26th	28·319	18th	·221	77·2	89·0		68·9		79·0		20·1	92·5	13th & 14th.	59·0	25th	33·5
		Berhampore	67	29·868	+·019	29·886	29·954	26th	29·735	18th	·219	77·9	88·2	+0·7	73·3	−1·0	80·7	−0·2	14·9	92·3	1st	65·7	25th, 26th & 27th.	26·6
		Rampur Boalia.	70	29·868		29·888	29·957	26th	29·729	18th	·228	78·6	88·0		72·9		80·5		15·1	92·6	1st	64·1	25th & 28th.	28·5
		Malda	72	29·850		29·875	29·942	26th	29·714	18th	·228	78·8	87·8		70·9		79·4		16·9	92·6	13th	62·0	25th	30·6
		Bogra	61	29·864	+·073	29·878	29·941	26th	29·737	18th	·204	77·1	87·7	+0·5	72·2	−0·5	80·0	0	15·5	91·7	8th & 15th.	64·2	24th & 25th.	27·5
12	North Bengal	Dinajpur	123	29·816	+·017	29·897	29·910	26th	29·654	18th	·256	77·1	87·5	+0·1	69·3	−2·7	78·5	−1·3	18·2	92·3	2nd	60·4	31st	31·9
		Rangpur	123	29·830		29·911	29·902	26th	29·697	18th	·205	77·8	86·6		70·4		78·6		16·2	92·2	2nd	61·8	31st	30·4
		Jalpaiguri	284	29·656	+·012	29·904	29·734	30th	29·537	18th	·197	74·8	85·7	−0·1	68·6	−1·2	77·1	−0·7	17·1	89·4	1st, 3rd & 9th.	60·1	30th & 31st.	29·3
		Cooch Behar	156	29·788		29·902	29·874	26th	29·694	18th	·180	75·1	86·3		71·4		78·9		14·9	90·9	2nd	60·7	31st	30·2
13	North Bihar	Purnea	125	29·811	+·021	29·894	29·913	26th	29·640	18th	·273	75·0	87·5	+0·1	68·6	−2·6	78·1	−1·3	18·9	91·7	8th & 9th.	60·1	26th	31·6
14	Orissa	Balasore	50	29·886	+·009	29·879	29·986	26th	29·775	18th	·211	77·6	88·0	0	72·6	−0·5	80·3	−0·3	15·4	93·4	4th	62·7	27th	30·7
		False Point	21	29·907	+·021	29·870	30·001	26th	29·789	17th	·212	80·2	87·2	−0·2	74·4	−0·2	80·8	−0·2	12·8	94·5	4th	65·0	27th	29·5
		Cuttack	80	29·841	+·016	29·866	29·924	26th	29·728	17th	·196	78·6	89·9	+0·2	75·0	+0·4	82·5	+0·3	14·9	94·9	4th & 5th	66·2	28th	28·7
		Puri	24	29·902		29·865	30·000	26th	29·775	17th	·225	80·4	87·0		77·1†		82·0*		9·9	91·7	5th	69·6	30th & 31st.	22·1
	V.—Gangetic Plain and Chota Nagpur.				+·012								89·6	+0·9	68·1	−1·0	78·9	−0·1	21·5					34·4
15	Chota Nagpur	Hazaribagh.	2,007	27·906	+·009	29·885	27·989	26th	27·740	17th	·249	74·3	85·3	+2·0	66·7	−0·1	76·1	+1·0	18·6	89·7	9th	58·2	26th	31·5
		Ranchi	2,128	27·795	+·011	29·894	27·876	26th	27·637	17th	·241	73·6	84·0	+1·0	65·7	+0·1	74·9	+0·6	18·3	88·2	15th	57·0	27th	31·2
16	South Bihar	Daltonganj	*730?*	29·200		29·904	29·304	25th	28·951	17th	·353	72·8	90·8		65·3		78·1		25·5	95·6	15th	55·0	26th	30·6
15	Chota Nagpur	Purulia	*816*	29·104		29·880	29·203	26th	28·976	17th	·227	76·7	89·4		69·1		79·3		20·3	93·0	4th	60·8	27th & 30th.	32·2
		Chaibassa	*760*	29·161	+·018	29·884	29·259	26th	29·005	17th	·254	75·5	90·3	+1·6	69·9	−0·4	80·1	+0·6	20·4	95·9	3rd	59·0	27th	36·9
16	South Bihar	Gaya	375	29·553	+·020	29·888	29·659	26th	29·373	17th	·286	77·1	90·4	+0·8	70·1	−0·9	80·3	−0·1	20·3	95·9	12th	61·2	25th	34·7
		Dehri	351	29·563		29·876	29·662	26th	29·382	17th	·280	76·5	90·6		70·7		80·6		19·9	95·3	11th & 12th.	63·0	25th	32·3
		Patna	183	29·746	+·013	29·886	29·853	26th	29·598	17th	·255	78·0	89·1	+0·9	71·6	−0·9	80·3	0	17·5	94·5	13th	64·3	25th	30·2
		Arrah	190	29·729		29·876	29·836	26th	29·566	17th	·270	77·4	?		69·9		?		?	?	?	63·1	25th & 26th.	
		Buxar	239	29·681		29·881	29·777	30th	29·500	17th	·277	77·0	90·2		69·9		80·1		20·3	95·0	11th, 12th & 13th.	63·0	24th & 25th.	32·0
17	North Bihar	Bhagalpur	160	29·769		29·884	29·873	26th	29·610	18th	·263	78·4	88·8†		69·3†		79·1†		19·5	93·7	13th	60·7	24th & 25th.	33·0
		Darbhanga	166	29·753	+·003	29·875	29·862	26th	29·596	18th	·266	77·4	88·8	+2·1	71·0	−2·1	80·0	0	17·8	93·6	12th	63·3	30th	30·3
		Muzaffarpur	178	29·757		29·894	29·862	26th	29·623	17th	·239	78·5	87·7		69·9		78·8		17·8	92·2	1st, 4th & 13th.	62·3	23rd	29·9
		Motihari	228	29·714		29·901	29·823	26th	29·555	18th	·268	76·5	89·1		68·0		78·6		21·1	94·4	1st	59·2	31st	35·2
		Chapra	181	29·732		29·871	29·827	26th	29·575	17th	·252	77·6	89·9		70·1		80·0		19·8	95·4	12th	63·1	25th	32·3
18	United Provinces (East).	Benares	267	29·653	+·014	29·880	29·747	30th	29·464	17th	·283	76·9	90·7	+0·8	66·7	−1·6	78·7	−0·4	24·0	95·6	12th	58·1	24th	37·5
		Allahabad	309	29·609	+·012	29·879	29·701	30th	29·442	17th	·259	76·3	91·0	+0·5	66·8	−0·8	78·9	−0·2	24·2	95·1	6 days	59·1	24th	36·0
22	United Provinces (East Sub-montane).	Gorakhpur	257	29·660	+·016	29·878	29·765	26th	29·496	18th	·269	77·5	89·7	+1·0	67·7	−2·3	78·7	−0·7	22·0	94·5	2nd & 10th.	60·6	23rd	33·9
19	South Oudh	Lucknow	368	29·539	+·008	29·874	29·630	30th	29·398	18th	·232	74·9	90·2	−1·0	64·1	−1·4	77·2	−1·2	26·1	94·3	4 days	55·7	24th	38·6
20	North Oudh	Bahraich†	401	29·512?	?	29·877?	29·660	30th	29·365?	18th	·295	75·1	92·6?	+2·2?	64·1	−3·0	78·2?	−0·4?	27·5?	95·1	10 days	58·0	28th, 29th & 31st.	37·1
21	United Provinces (Central).	Cawnpore	416	29·498	+·011	29·882	29·589	30th	29·385	18th	·214	75·3	91·2	−0·3	64·2	−1·6	77·7	−1·0	27·0	94·3	4 days	55·0	24th	39·3
		Mainpuri	516	29·401	?	29·859	29·513	30th	29·298	18th	·215	73·2	94·2	+1·3	64·4	−0·2	79·3	+0·6	29·8	98·3	3rd	56·7	23rd & 24th	41·6

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

* Mean of 29 days.

† Mean of 30 days.

Note 1.—When a query is inserted against any reading

Note 2.—The data from which divisional means of the

I—*continued.*

Stations in India, Burma, etc., in October, 1904—continued.

Wind Direction. Number of winds from: Calm	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	Wind Velocity. Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	Hygrometry, 8 A.M. Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Cloud. Mean cloud amount at 8 A.M.	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, 1904.	Normal rainfall for period, 1st May to 31st October.	Departure from normal of period, 1st May to 31st October, 1904.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
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	58
									N	P			P	79		·757		1·4		3	4·81	−1·81	1·74	4·08	−2·34	52·43	51·59	+ 0·84	1·01	Bankura	Central Bengal	11
			1	1		2	2	3	W	1·8				82		·735		1·2		2	4·23	−2·23	0·39	3·22	−2·83	47·90	51·68	− 3·78	0·29	Raniganj.		
		2	2	1	2	3		2	N 27° E	1·5	2·1	−29	1·5	81	+ 1	·798	P	3·2‡	−0·5	0	4·10	−4·10	0·05	3·27	−3·22	42·17	51·86	− 9·69	0·03	Burdwan.		
				2		1	1		S 8° W	1·4			1·6	74		·703		1·2		1	4·70	−3·70	0·17	3·94	−3·77	52·75	55·06	− 2·31	0·17	Naya Dumka		
					3	4	2	2	S 72° W	1·5	2·1	−29	1·3	84	− 2	·811	−·024	3·0	− 0·7	2	5·04	−3·04	0·60	3·95	−3·35	54·11	50·84	+ 3·27	0·48	Berhampore.		
						1			N 45° W	1·2			1·3	82		·806		1·5		1	4·90	−3·90	0·51	4·49	−3·98	51·63	53·10	− 1·47	0·51	Rampur Boalia.		
			1	6	1	6	3	10	N 77° W	3·6			3·3	81		·810		1·6		3	4·39	−1·39	3·98	4·18	−0·20	38·15	50·12	−11·97	1·43	Malda.		
			1	1					E	2·0			1·8	84	− 2	·790	−·075	1·7	−1·8	3	4·84	−1·84	1·37	4·21	−2·84	54·15	61·52	− 7·37	0·93	Bogra.		
		3	5	4	5	6	4	3	S 45° E	1·4			1·3	83	− 2	·789	−·019	2·3†	−0·8	3	3·64	−0·64	2·97	3·02	−0·05	50·86	67·03	−16·17	1·80	Dinajpur	North Bengal	12
									S 56° E	1·7			1·5	83		·793		2·5		5	4·03	+0·97	5·29	4·94	+0·35	65·38	78·45	−13·07	2·25	Rangpur.		
									N 43° E	0·7			0·8	87	− 1	·758	−·019	2·5	− 0·8	4	4·71	−0·71	7·39	3·82	+3·57	95·95	117·00	−21·05	3·83	Jalpaiguri.		
									N 72° E	1·4			1·4	87		·766		3·0†		4	4·17	−0·17	15·51	4·79	+10·72	120·09	120·02	+ 0·07	6·16	Cooch Behar.		
									N 27° W	1·6	1·4	+14	1·4	87	− 1	·768	−·032	1·0	−1·6	1	3·39	−2·39	3·40	3·44	−0·04	56·54	62·01	− 5·47	3·38	Purnea	North Bihar	17
									N 26° W	2·7			2·0	82	− 4	·791	−·049	3·7	−0·9	8	6·32	+1·68	4·90	5·74	−0·84	47·84	58·13	−10·29	1·72	Balasore	Orissa	14
									N 23° W	4·5	6·1	−26	6·0	82	− 2	·861	−·016	5·6	+1·0	7	7·74	−0·74	5·15	8·58	−3·43	44·98	58·79	−13·81	1·84	False Point.		
									S 72° E	1·8	1·9	− 5		81	+ 2	·804	+·017	4·4	+0·8	5	6·06	−1·06	2·15	5·24	−3·09	46·17	54·93	− 8·76	1·05	Cuttack.		
									N 5° E	9·5			9·3	84		·886		4·4		13	7·62	+5·38	8·63	8·98	−0·35	44·09	52·02	− 7·93	2·50	Puri.		
														74	— 2	·675	−·009	1·4	− 0·6				3·10	2·63	+ 0·47					V.—Gangetic Plain and Chota Nagpur.		
									S 49° W	5·5	5·0	+10	4·9	62	− 8	·542	−·037	3·3	−0·2	1	4·48	− 3·48	2·23	3·14	−0·91	58·19	50·47	+ 7·72	2·23	Hazaribagh	Chota Nagpur	15
									N 41° W	4·7†			5·5†	66	− 6	·570	−·016	2·8	−0·3	3	4·35	−1·35	0·85	2·92	−2·07	58·02	51·45	+ 6·57	0·41	Ranchi.		
									S 72° E	3·2			2·6	78		·638		1·3		2	3·06	−1·06	1·89	2·40	−0·60	45·40	41·70	+ 3·70	1·29	Daltonganj	South Bihar	16
									N 83° W	2·4			3·0	73		·682		1·6†		1	3·80	− 2·80	0·21	3·17	−2·96	51·85	48·83	+ 3·02	0·15	Purulia.	Chota Nagpur	15
									N 45° E	1·0			0·9	78	− 2	·701	−·038	2·1†	−1·1	2	4·19	−2·19	0·88	2·29	−1·41	58·30	46·61	+11·69	0·59	Chaibassa.		
									S 5° W	3·3	1·5	+ 120	2·6	82	+ 8	·769	+·085	2·3	−0·7	1	2·90	−1·90	1·72	2·20	−0·48	59·27	44·44	+14·83	1·72	Gaya	South Bihar	16
									S 17° W	4·1			3·3	73		·661		2·4		2	2·78	−0·78	2·07	2·49	−0·42	46·10	40·86	+ 5·24	1·90	Dehri.		
									S 5° E	1·9	1·9	0	2·2	73	0	·715	−·016	1·0	−1·4	1	3·13	−2·13	3·51	3·26	+0·25	64·02	45·90	+18·12	3·47	Patna.		
									S 23° E	1·5			1·5	73		·687		0·2		3	3·48	−0·48	4·43	2·77	+1·66	51·45	43·27	+ 8·18	4·05	Arrah.		
									S 4° E	3·6			3·4	70		·668		1·4		2	2·84	− 0·84	4·37	2·96	+1·41	42·76	39·22	+ 3·54	3·01	Buxar.		
									S 4° W	1·3			1·2	77		·753		1·1		2	3·03	−1·03	4·09	3·54	+0·55	42·06	46·57	− 4·51	2·15	Bhagalpur	North Bihar	17
									S 31° E	1·5	2·2	−32	1·3	83	0	·789	+·006	1·1	−0·9	1	3·03	−2·03	6·13	3·24	+2·89	45·80	48·62	− 2·82	6·08	Darbhanga.		
									W	1·0				82		·803		0·7		1	2·87	−1·87	7·35	2·92	+4·43	54·66	43·28	+11·38	7·32	Muzaffarpur.		
									N 78° E	2·8			2·6	82		·754		0·7		1	2·71	−1·71	5·25	3·38	+1·87	48·67	49·27	− 0·60	5·17	Motihari.		
									S 81° E	1·3			1·2	78		·790		1·1		2	2·81	−0·81	7·99	2·63	+5·36	42·67	38·62	+ 4·05	7·50	Chapra.		
									S 36° W	1·5	2·6	−42	1·7	73	− 4	·686	+·007	1·1	−1·1	2	2·20	−0 20	4·43	2·56	+1·87	36 64	38·96	− 2·32	3·26	Benares	United Provinces (East).	18
									S 61° W	2·6	2·8	−.7	2·2	71	+ 2	·643	+·009	1·5	− 0·5	2	1·10	+0·10	5·64	2·57	+3·07	39 17	38·62	+ 0·55	4·86	Allahabad.		
									N 24° E	0·4	1·3	−69		75	− 2	·720	+·006	1·0	−0·6	2	2·10	−0·10	3·80	4·19	−0·39	55·46	49·69	+ 5·77	2·11	Gorakhpur	United Provinces (East Submontane).	23
									N 16° W	0·9	1·9	−53	1·0	69	− 3	·604	−·024	1·1	−0·3	2	1·60	+0·40	0·66	1·16	−0·50	40·60	36·63	+ 3·97	0·50	Lucknow	South Oudh	19
									S 66° E	4·3			4·0	77	+ 1	·657	−·034	1·0	−0·3	1	1·40	−0·40	0·76	1·55	−0·79	45·52	45·27	+ 0·25	0·76	Bahraich	North Oudh	20
									N 86° W	1·5				64	− 2	·569	−·083	1·7	+0·6	0	1·50	−1·50	0	1·42	−1·42	56·44	33·88	+22·56	0	Cawnpore	United Provinces (Central).	21
									N 75° W	1·1			1·1	61	− 4	·504	−·028	0·7	−0·4	0	0·80	−0·8	0	1·12	−1·12	23·26	28·90	− 5·64	0	Mainpuri.		

or in the returns of any station, the data for that station are not utilized in calculating the provincial departures from normal.
figure columns Nos. 41, 43 and 45 are derived are incomplete.

‡ Mean of 28 day.

Table

Abstract of Observations taken at 8 A.M. at 232

Number of District.	Meteorological Province or District.	Station.	Elevation of barometern above sea-level, in feet.	Pressure, 8 A.M., in inches.								Temperature of air.												
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
	VI.—Upper Sub-Himalayas.				+·007								90·7	0	62·9	+0·9	76·8	+0·5	27·9					42·2
24	United Provinces (West Submontane).	Bareilly	568	29·333	+·009	29·881	29·431	30th	29·200	18th	·231	71·3	89·8	+0·3	63·7	−1·6	76·8	−0·7	26·1	96·4	14th	54·1	23rd	42·3
		Dehra Dún	2,233	27·691	+·013	29·923	27·787	30th	27·557	18th	·230	66·9	82·9	+0·6	59·2	−1·4	71·1	−0·4	23·7	86·0	3rd	51·0	31st	35·0
		Roorkee	890	29·007	+·015	29·903	29·106	30th	28·879	18th	·227	68·3	88·3	−1·0	60·3	−1·0	74·3	−1·0	28·0	91·7	3rd	51·8	22nd & 23rd.	39·9
22	United Provinces (West).	Meerut	738	29·157	+·006	29·884	29·272	30th	29·047	18th	·225	68·4	90·6	+0·1	62·3	−0·1	76·5	0	28·3	94·6	3rd	54·3	23rd	40·3
26	South-East Punjab.	Delhi	718	29·179	+·003	29·879	29·304	30th	29·085	15th	·219	72·7	90·7	−1·4	67·6	−0·3	79·2	−0·9	23·1	95·2	3rd	56·9	25th	38·3
28	Central Punjab.	Lahore	702	29·182	0	29·875	29·345	31st	29·070	15th	·275	71·1	95·1	0	63·5	+4·4	79·3	+2·2	31·6	102·9	7th & 8th	54·1	23rd	48·8
27	South Punjab	Sirsa	662	29·234	+·006	29·880	29·381	31st	29·131	14th & 15th.	·250	71·9	95·7	−0·4	64·0	+1·4	79·9	+0·5	31·7	101·3	6th, 7th & 8th.	55·1	23rd	46·2
		Patiala	*818*	29·083		29·890	29·185	31st	28·983	18th	·202	72·0	90·9		62·3		76·6		28·6	95·0	3rd	55·0	20th	40·0
29	Punjab (Submontane).	Ludhiana	812	29·073	−·001	29·883	29·223	30th	28·967	18th	·256	69·0	90·8	−1·1	64·2	+1·2	77·5	+0·1	26·6	95·1	9th	55·2	23rd	39·9
		Sialkot	830	29·060	+·009	29·889	29·238	30th	28·973	15th	·265	70·8	94·3	+2·0	65·8	+3·9	80·1	+3·0	28·5	101·2	1st	57·1	31st	44·1
		Ambala	892	29·010	+·019	29·893	29·122	30th	28·905	18th	·217	71·5	93·4	+0·2						98·0	3rd			
		Rawalpindi	1,674	28·233	0	29·923	28·408	30th	28·128	15th	·280	69·2	88·9	+0·7	58·6	+2·8	73·8	+1·8	30·3	98·0	7th	49·1	31st	49·9
	VII.—Indus Valley and North-West Rajputana.				−·001								96·0	+0·7	66·2	+1·4	81·1	+1·1	29·8					46·9
32	North-West Frontier Province.	Peshawar	1,110	28·819	−·001	29·946	29·065	30th	28·693	14th	·372	68·5	87·0	−1·4	59·1	+1·9	73·1	+0·3	27·9	96·0	6th & 7th	52·5	29th & 31st.	43·5
		D. I. Khan	590	29·314	−·004	29·870	29·518	31st	29·181	14th	·337	71·9	93·8	−0·2	61·8	+1·2	77·8	+0·5	32·0	102·2	7th & 8th	52·1	22nd & 23rd.	50·1
31	West Punjab	Khushab	612	29·292	P	29·890	29·474	31st	29·175	14th	·299	73·5	93·1	−0·7	64·0	+2·1	78·6	+0·7	29·1	101·9	6th & 7th	55·0	22nd & 23rd.	46·9
		Montgomery	558	29·332	+·004	29·869	29·534	31st	29·210	14th	·324	76·4	96·5	−0·1	64·2	+2·0	80·4	+1·0	32·3	105·3	6th	55·5	22nd	49·8
		Multan	420	29·458	−·012	29·854	29·696	31st	29·822	14th	·374	73·8	96·8	+1·3	66·8	+2·4	81·8	+1·9	30·0	105·4	8th	56·9	22nd	48·5
37	Sind	Jacobabad	186	29·701	−·010	29·852	29·932	31st	29·565	14th	·367	75·6	100·6	+2·0	64·0	+1·5	82·3	+1·8	35·6	105·9	9th	53·5	22nd	52·4
		Hyderabad	96	29·816	+ 007	29·867	30·015	31st	29·683	14th	·332	73·1	99·4	+1·4	69·9	−0·1	84·7	+0·7	29·5	105·1	1st & 9th	60·5	22nd	44·6
		Kurrachee	30	29·895	−·008	29·876	30·062	31st	29·781	14th & 15th.	·281	78·3	93·5	+1·9	70·7	−0·2	82·1	+0·9	22·8	104·9	13th	60·7	22nd	44·2
51	West Rajputana	Bikaner	*771*	29·125	+·015	29·874	29·279	31st	28·987	15th	·292	78·4	97·1	+1·2	71·9	+0·5	84·5	+0·9	25·2	102·1	9th & 10th	61·1	20th	41·0
		Pachpadra	*380*	29·539	+·004	29·881	29·662	31st	29·391	14th	·271	79·5	100·4	+1·7	67·2	+2·3	83·8	+2·0	33·2	104·8	7th	55·6	23rd	49·2
		Jodhpur	782	29·133		29·907	29·254	31st	28·990	14th	·264	77·7	98·0		58·3		83·2		29·7	103·2	7th	57·7	23rd	45·5
	VIII.—East Rajputana, Central India and Gujarat.				0								95·0	+2·3	68·3	+1·0	81·7	+1·7	26·7					38·4
50	East Rajputana	Jaipur	1,431	28·503	+·005	29·913	28·614	31st	28·408	15th	·206	76·8	95·2	+0·9	64·5	+0·5	79·9	+0·7	30·7	99·2	4 days.	55·5	23rd	43·7
		Bharatpur	585	29·311		29·871	29·433	31st	29·103	25th	·330	74·2	93·4		64·9		79·1		28·5	97·9	6th	60·1	7 days.	37·8
		Kotah	819	29·083		29·913	29·201	31st	28·976	14th	·225	77·8	95·0		69·4		82·2		25·6	98·5	1st & 2nd	62·0	24th	36·5
		Sambhar	1,254	28·667	+·009	29·909	28·784	31st	28·560	14th	·224	74·1	96·1	+2·8	63·8	+0·2	80·0	+1·5	32·3	100·5	1st	55·9	22nd & 24th.	44·6
		Ajmer	1,611	28·328	+·003	29·927	28·446	31st	28·215	14th	·231	73·7	94·5	+2·5	66·2	+3·0	80·4	+2·8	28·3	97·9	14th	56·2	23rd	41·7
		Udaipur	1,925	28·021		29·921	28·126	31st	27·905	14th	·221	74·6	93·5		63·0*		78·3*		30·5	98·0	5th	53·2	23rd	44·8
46	Kathiawar and Cutch.	Bhuj	395	29·528	0	29·879	29·630	30th	29·425	14th	·205	81·2	97·5	+1·4	73·6	+2·7	85·6	+2·1	23·9	103·3	12th & 14th.	67·1	26th & 29th.	36·2
		Jamnagar	61	29·860		29·866	29·962	31st	29·747	14th	·215	81·5	96·3		71·4		83·7		24·9	101·6	12th	66·2	28th & 29th.	35·4
		Rajkot	429	29·483‡	−·020	29·868	29·568	31st	29·377	16th	·191	79·2	98·6 †	+3·3 †	68·6 *	+0·5 *	83·7 *	+1·9	30·0	101·9	8th, 11th, & 12th.	60·9	25th	41·0
		Veraval	*18*	29·911	−·002	29·871	29·999	31st	29·799	7th	·200	79·9	87·2‡	−2·1‡	73·1‡	+0·8‡	80·2‡	−0·7‡	14·1‡	95·6	7th	68·3	27th	27·3
		Dwarka	37	29·895		29·878	29·996	31st	29·791	17th	·205	80·7	87·2		74·9		81·1		12·3	97·9	18th	70·7	20th & 22nd.	27·2
		Bhavnagar Para.	55	29·878	P	29·877	29·979	31st	29·761	15th	·218	80·6	97·7	+1·6	72·6*	+0·5*	85·1*	+1·1	25·1	103·1	7th	67·0	25th	36·1
43	Central India	Nowgong	757	29·154	P	29·888	29·254	31st	29·022	17th	·232	72·3	89·7	−0·6	64·9	−0·2	77·3	−0·4	24·8	94·0	3rd	56·0	23rd	38·0
		Indore	1,823	28·119	+·011	29·910	28·208	31st	27·999	17th	·219	76·5	91·5	+3·6	63·1	−0·5	77·3	+1·6	28·4	94·1	5th & 7th	56·1	19th	38·0
		Neemuch	1,630	28·308	+·003	29·916	28·420	31st	28·200	15th	·220	75·9	93·2	+2·8	63·3	−1·2	78·3	+0·8	29·9	96·5	6th, 7th, & 8th.	56·3	23rd	40·2
45	Gujarat (East).	Surat	39	29·898	+·001	29·882	29·982	30th	29·773	17th	·209	80·4	95·5	+2·5	72·2	+1·4	83·9	+2·0	23·3	100·7	6th & 8th	66·5	30th	34·2

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

* Mean of 30 days.
† " 29 "
‡ " 28 "

Note 1.—When a query is inserted against any reading or
Note 2.—The data from which divisional means of the figure

I—*continued.*

Stations in India, Burma, etc., in October, 1904 —continued.

Wind Direction. Number of winds from Calm	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	Wind Velocity. Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	Hygrometry, 8 A.M. Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Cloud. Mean cloud amount at 8 A.M.	Departure from	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, 1904.	Normal rainfall for period, 1st May to 31st October.	Departure from normal of period, 1st May to 31st October 1904.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
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	58
														62	− 1	·467	+ ·001	0·9	+ 0·1				0·17	0·37	−0·20					VI.—Upper Sub-Himalayas.		
26	1		2				1	1	N 11° E	0·9	1·9	− 53	0·9	73	− 2	·561	− ·044	0·8	0	0	0·91	−0·91	0	1·00	−1·00	27·73	44·63	−16·90	0	Bareilly .	United Provinces (West Sub-montane).	24
29			1	1					S 66° E	0·8	1·7	− 53		66	− 2	·447	+ ·004	1·0	−0·2	1	1·10	−0·10	0·53	0·92	−0·39	79·62	81·87	− 2·25	0·51	Dehra Dun,		
22			2	5				2	S 63° E	2·0	1·4	— 43		74	0	·519	− ·006	0·7	0	1	0·80	+ 0·20	0·13	0·38	−0·25	29·54	38·25	− 8·71	0·13	Roorkee,		
15	1	2	4				6	2	N 41° W	0·8	1·4	− 43	0·8	70	+ 4	·499	+ ·015	0·9	+0·3	0	0·50	− 0·50	0·03	0·35	−0·32	29·20	28·39	+ 0·81	0·03	Meerut, .	United Provinces (West).	22
5	1	2	3	2	2		13	3	N 83° W	2·3	2·4	− 4	2·0	56	+ 6	·455	+ ·033	0·8	0	0	0·60	− 0·60	0	0·06	−0·06	27·36	24·80	+ 2·58	0	Delhi .	South-East Punjab.	26
11	1	2	4	11				2	S 71° E	2·8	1·6	+ 75		61	+ 4	·468	+ ·035	1·0	+0·5	0	0·40	− 0·40	0·04	0·20	−0·16	5·04	16·36	−11·32	0·04	Lahore .	Central Punjab	28
21	1		1	2	1	2	3	0	S 36° W	1·2	2·5	− 52	1·0	58	+ 8	·457	+ ·057	0·4	−0·3	1	0·40	+ 0·60	0·27	0·11	+0·16	7·77	12·36	− 4·59	0·27	Sirsa . .	South Punjab .	27
3	3	1	4	13		2	2	3	S 58° E	4·3			4·4	61		·490		0·8		1			0·19			18·88			0·19	Patiala,		
21				5			3	2	S 24° W	1·2	0·9	+ 33	1·1	61	0	·455	− ·003	0·8	−0·2	1	0·50	+0·50	0·38	0·33	+0·05	13·21	23·19	− 9·98	0·35	Ludhiana .	Punjab (Sub-montane).	29
5	4	9	10	1			1	1	N 56° E	3·5	1·4	+150	3·0	55	− 4	·425	− ·609	1·4	+0·7	1	1·00	0	0·30	0·25	+0·05	13·71	24·89	−11·18	0·21	Sialkot,		
29				2					S 35° E	0·7				60	−10	·468	− ·042	0·6	+0·1	0	0·40	−0·40	0·02	0·03	−0·01	15·54	26·97	−11·43	0·02	Ambala,		
27	1	1	2						N 56° E	2·7	1·2	+125	2·5	50	−12	·364	− ·027	1·6	0·6	1	1·30	−0·3	0·18	0·44	−0·26	18·12	24·38	− 6·26	0·11	Rawalpindi		
														50	− 2	·448	+ ·017		0·2				0·08	0·04	+0·04					VII.—Indus Valley and North-West Rajputana.		
29			2						E	0·5	2·5	−80	0·5	61	+ 2	·430	+ ·047	1·9	+1·0	1	0·40	+0·60	0·47	0·09	+0·38	3·84	5·68	− 1·84	0·92	Peshawar .	North-West Frontier Province.	32
19	4	5						3	N 9° E	1·0	1·2	−17	1·1	57	0	·456	+ ·049	1·3	+0·8	0	0·20	−0·20	0	0·04	−0·04	1·02	5·32	− 4·30	0	D. I. Khan,		
5	1	13	8			2	2		N 66° E	7·1			6·8	47	+ 2	·395	+ ·044	0·9	+0·6	0	0·20	− 0·20	0	0·01	−0·01	6·77	10·30	− 3·53	0	Khushab .	West Punjab .	31
2	2	5	2	9	7	2	1	1	S 46° E	7·4			6·9	34	−12	·305	?	0·9	+0·3	0	0·10	−0·10	0	0·03	−0·03	2·05	7·78	− 5·73	0	Montgomery,		
21	4	1		1	2	2			N	1·1	2·0	−45	1·0	54	− 2	·458	− ·009	0·8	+0·4	0	0	0	0	0	0	0·28	5·67	− 5·39	0	Multan,		
6	6		3	5	5	1	1	4	S 79° E	2·7	2·2	+23	2·8	52	0	·470	+ ·032	0·5	+0·2	0	0	0	0·01	0	+0·01	0·31	2·67	− 2·36	0·01	Jacobabad .	Sind .	47
4	8	1			3	13		2	S 79° W	6·9	7·8	− 1	6·1	53	0	·503	+ ·0·8	0·6	0	0	0	0	0	0	0	0·09	6·07	− 5·98	0	Hyderabad,		
5	5	8	1		1		6	5	N 13° W	7·1	9·7	−27	6·2	67	− 3	·644	− ·015	0·5	−0·7	0	0	0	0	0	0	0	6·65	− 6·65	0	Kurrachee.		
3		1	2	4	8	6	5	2	S 22° W	6·3	4·0	+58		40	− 7	·389	− ·060	0·8	−0·1	1	0·30	+0·7	0·11	0·09	+0·02	5·79	10·12	− 4·33	0·11	Bikaner .	West Rajputana	51
5	2	2	5	4	4	5	2	2	S 22° E	1·3	3·7	+16	3·7	53	− 1	·537	+ ·059	0·2	−0·9	0	0·20	−0·20	0·02	0·07	−0·05	3·17	12·49	− 9·32	0·02	Pachpadra,		
14	3	7	1			1	3	2	N 5° E	3·2			2·9	36		·345		1·0		1	0·30	+0·70	0·29	0·17	+0·12	0·29	12·43	− 6·14	0·29	Jodhpur,		
														58	−3	·552	−·003	1·2	0·1				0·08	0·63	−0·54					VIII.—East Rajputana, Central India and Gujarat.		
18	3	1	1	1	1	2	1	3	N 38° W	2·6	3·7	−30		48	− 2	·448	+ ·003	1·3	+0·2	0	0·50	−0·50	0	0·22	−0·22	21·96	24·48	− 2·52	0	Jaipur .	East Rajputana	50
16					1	13	1		W	1·7			1·5	62		·528		0·3		0			0			35·19			0	Bharatpur.		
20	3	2	1	1			1	3	N	1·7			1·4	48		·455		1·0		0	0·60	−0·60	0	0·50	−0·50	32·29	29·11	+ 3·18	0	Kotah.		
27		1	1				1	1	N	3·2	4·7	−32		46	− 5	·397	− ·027	0·6	−0·3	0	0·40	−0·40	0	0·13	−0·13	15·23	19·27	− 4·04	0	Sambhar,		
18		2		1		5	3	2	S. 76° W	3·5	2·6	+35	3·0	53	−6?	·446	− ·018	1·1	+0·1	0	0·60	−0·60	0	0·29	−0·29	14·72	20·38	− 5·66	0	Ajmer,		
30	1								N	1·9			1·7	45		·397		1·0		0	0·80	− 0·80	0·09			17·76			0·09	Udaipur.		
2	1	9		1		7	3	8	N 46° W	7·0	6·0	+17	5·9	60	0	·626	+ ·021	1·4	+0·3	0	0·50	− 0·50	0	0·28	−0·28	4·02	13·99	− 9·97	0	Bhuj . .		
	2	4	4	2	4	8	6	1	S 37° W	11·0			13·3	63		·664		1·7		0			0			8·73			0	Jamnagar.	Kathiawar and Cutch.	46
6	4	2				7	5	7	N 68° W	4·9	5·6	−13	4·9	64	− 3	·635	− ·023	0·6	−0·6	0	0·90	−0·90	0·05	0·49	−0·44	11·39	27·62	−16·23	0·05	Rajkot.		
	10	6	1	2	3		2	7	N 1° W	7·8	2·4	+225	7·8	68	+ 2	·690	+ ·028	1·5	−0·8	0	0·10	−0·10	0	0·77	−0·77	6·65	17·55	−10·90	0	Veraval.		
	8	3	1	2	1	5	3	8	N 38° W	9·5				78		·816		1·8		0			0			2·27			0	Dwarka.		
1	5	4			1	3	4	13	N 42° W	5·2*			4·7*	56	− 8	·577	− ·073	1·7	+0·2	0	0·90	− 0·90	0	0·29	−0·29	10·99	18·99	− 8·00	0	Bhavnagar Para.		
12	2		4		2	6	4	1	S 54° W	1·3	1·5	−13	1·3	70	+ 1?	·559	− ·003	2·6	+0·8	1	1·70	−0·70	0·47	1·25	−0·78	54·04	42·68	+11·36	0·45	Nowgong .		
16	1	4	4		2		1	2	N 43° E	2·9	2·3	+26	2·3	61	− 1	·565	+ ·023	2·1	+0·7	0	2·40	−2·40	0	1·43	− 1·43	17·51	32·61	−15·10	0	Indore,	Central India	
14	1	2			1	5	7	1	S 81° W	5·1	7·9	−35	4·3	56	+ 7?	·503	+ ·048	0·8	−0·3	0	0·90	−0·90	0	0·41	−0·41	19·36	29·10	− 9·74	0	Neemuch,		
4	2	1	11	4	7	1			S 62°	3·5	5·1	−31	3·3	73	0	·759	+ ·041	1·5	−0·5	2	2·20	−0·20	0·88	2·00	−1·12	13·40	43·73	−30·33	0·76	Surat . .		

in the returns of any station, the data for that station are not utilized in calculating the provincial departures from normal.
columns Nos. 41, 43 and 45 are derived are incomplete.

* Mean of 30 days.

Table

Abstract of Observations taken at 8 A.M. at 232

Number of District.	Meteorological Province or District.	Station.	Elevation of barometer above sea-level, in feet.	Pressure, 8 A.M., in inches.								Temperature of air.												
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
		Ahmedabad*	163	29·762	−·011	29·875	29·853	31st	29·645	15th	·208	82·0	100·8	+4·1	73·2	+1·1	87·0	+2·6	27·6	105·3	8th	66·1	23rd	39·2
		Deesa . .	466	29·456	−·003	29·878	29·556	31st	29·327	15th	·219	82·2	102·0	+5·1	69·8	+3·0	85·9	+4·1	32·2	106·6	11th	58·1	23rd	48·5
22	United Provinces (West).	Agra . .	555	29·349	P	29·880	29·464	30th	29·257	14th	·207	74·9	93·4	+0·1	68·6	+1·0	81·0	+0·6	24·8	97·0	3rd 6th, & 12th.	61·9	23rd	35·1
21	United Provinces (Central).	Jhansi .	858	29·067	+·009	29·896	29·172	31st	28·968	17th	·204	77·6	94·7	+1·8	70·6	+1·5	82·7	+1·7	24·1	97·2	5 days	65·1	20th & 25th.	32·1
					+·007								88·8	+0·7	67·8	+0·6	78·3	+0·7	21·0					31·3
	IX.—Deccan .																							
38	Bombay Deccan .	Belgaum .	2,539	27·391	0	29·872	27·450	31st	27·280	17th	·170	73·4	84·2	+1·1	65·8	+0·8	75·0	+1·0	18·4	89·3	5th & 6th.	62·4	13th	26·9
		Sholapur .	1,590	28·339	0	29·888	28·413	26th	28·213	16th	·200	77·9	90·4	+0·5	69·5	+1·4	80·0	+1·0	20·9	95·7	4th & 5th.	64·6	31st	31·1
		Poona .	1,840	28·106	+·003	29·919	28·179	3rd	27·987	16th & 17th.	·192	73·0	89·3	+0·8	68·2	+1·7	78·8	+1·3	21·1	95·5	7th	64·4	5th	31·1
		Bijapur .	*1,948*	27·981	+·001	29·884	28·043	31st	27·867	16th	·176	76·0	88·6	+0·4	68·6	+0·8	78·6	+0·6	20·0	92·4	5th	63·7	31st	28·7
40	Khandesh . .	Malegaon .	1,430	28·498	−·010	29·896	28·573	31st	28·272	16th	·200	76·8	91·3	+0·7	67·5	+1·7	79·4	+1·2	23·8	95·9	6th	63·1	1st	32·8
		Ahmednagar	2,154	27·894	+·007	29·914	27·874	31st	27·698	15th & 16th.	·176	76·0	87·7	−0·4	66·8	+2·2	77·3	+0·9	20·9	92·9	5 days.	61·5	2nd	31·4
41	Berar . .	Akola .	930	29·009	+·011	29·901	29·088	26th	28·854	16th	·234	77·0	91·9	+0·6	67·7	+1·5	79·8	+1·1	24·2	96·9	5th	62·3	5th	34·6
		Amraoti .	1,215	28·720	+·014	29·900	28·800	31st	28·55[illegible]	16th	·250	78·1	90·1	−0·5	69·5?	+1·3?	79·8?	+0·4?	20·6?	96·2	5th	65·5	22nd	30·7
42	Central Provinces (West).	Khandwa (a)	1,044	28·876	−·003	29·893	28·962	31st	28·745	16th	·217	76·1	94·9	+3·8	66·9	+0·6	80·9	+2·2	28·0	97·7	10th	59·1	19th	38·6
		Hoshangabad	1,006	28·939	+·009	29·926	29·030	31st	28·794	17th	·236	73·7	90·3	+0·7	66·8	−0·1	78·6	+0·3	23·5	93·3	11th	59·3	20th	34·0
		Nagpur .	1,025	28·907	+·021	29·904	28·988	31st	28·715	16th	·273	75·8	90·6	+0·5	67·9	−0·5	79·3	0	22·7	96·1	1st	62·6	21st & 22nd.	33·5
43	Central Provinces (Central)	Chanda .	*634*	29·313	+·031	29·904	29·405	26th	29·064	16th	·341	76·4	89·2	−0·9	66·8?	−1·7?	78·0?	−1·3?	22·4?	93·2	1st	60·0	6th	32·2
		Seoni .	2,033	27·907	+·012	29·910	27·982	31st	27·684	17th	·298	74·0	87·0	+0·4	64·2	0	75·6	+0·2	22·8	91·3	1st	56·5	21st	34·8
		Jubbulpore .	1,327	28·595	+·006	29·910	28·678	31st	28·378	17th	·300	71·2	87·6	+0·2	63·3	−0·7	75·5	−0·3	24·3	90·9	1st & 4th	56·4	21st	34·5
		Saugor .	1,807	28·118	+·001	29·893	28·203	31st	27·964	17th	·239	76·7	89·7	+2·1	67·2	+1·5	78·5	+1·8	22·5	91·9	4th & 13th	61·1	19th & 20th.	30·8
49	Central India .	Sutna .	1,040	28·873	+·005	29·896	28·963	31st	28·656	17th	·307	74·0	88·2	+0·3	65·7	0	77·0	+0·2	22·5	91·9	3rd & 12th.	60·2	19th, 20th & 23rd.	31·7
44	Central Provinces (East).	Raipur .	970	28·948	+·006	29·883	29·029	26th	28·679	17th	·350	76·3	87·8	−0·5	69·0	−0·7	78·4	−0·6	18·8	92·6	1st, 4th & 5th.	62·4	27th & 31st.	30·2
		Pendra .	2,123?	27·892?		29·900?	27·981	26th	27·609	17th	·372	72·2	84·3		64·5		74·4		19·3	88·3	8th	57·1	27th	31·2
		Sambalpur .	486	29·445	+·013	29·887	29·541	26th	29·211	17th	·330	77·5	89·9	+1·1	71·0	−0·9	30·5	+0·1	18·9	93·6	2nd	62·6	27th, 28th & 30th.	31·0
39	Hyderabad (North).	Aurangabad†	1,905	28·036		29·893	28·103	2nd	27·918	17th	·185	77·1	87·3		66·7		77·0		20·6	90·8	4 days	61·2	8th	29·6
		Indur . .	1,260									77·1	88·0		69·0		78·5		19·0	90·8	5th	62·4	23rd	28·4
		Bidar . .	*2,165*	27·794		29·912	27·870	31st	27·662	16th	·208	76·0	85·2		69·3		77·3		15·9	89·8	5th	63·3	14th	26·5
53	Hyderabad (South).	Gulbarga .	1,503	28·425	−·002	29·887	28·507	27th	28·278	16th	·229	77·4	90·1	+0·1	69·0	0	79·6	+0·1	21·1	92·1	10th & 30th.	60·7	31st	31·4
		Raichur .	1,326	28·595	+·010	29·875	28·668	27th	28·468	16th	·200	79·2	90·0	+1·0	72·4	+0·2	81·2	+0·6	17·6	94·6	1st & 5th.	65·1	31st	29·5
		Hyderabad (Dn.)	1,690	28·237	+·008	29·890	28·214	26th	28·038	16th	·275	75·7	88·0	+0·4	69·3	+1·2	78·7	+0·8	18·7	93·4	5th	63·2	31st	30·2
		Hanumkonda	871	29·035		29·862	29·123	26th	28·735	16th	·388	77·4	89·6		70·7		80·1		18·9	94·0	5th	64·7	6th, 28th & 31st.	29·3
					−·005								86·0	+0·2	75·5	+0·4	80·8	+0·3	10·5					17·0
	X.—West Coast																							
37	Konkan . .	Bombay .	37	29·894	−·004	29·871	29·962	30th	29·777	17th	·185	80·2	89·2	+1·7	77·7	+1·2	83·5	+1·5	11·5	93·0	5th	75·0	21st & 29th.	18·0
		Ratnagiri .	110	29·814	+·010	29·864	29·868	31st	29·704	17th	·164	80·2	87·9	−0·3	74·2	+0·2	81·1	−0·1	13·7	97·3	4th	69·9	4th	27·4
		Mormugao .	*60*	29·870	−·002	29·865	29·922	20th	29·760	15th	·162	76·1	85·7	−0·3	76·2	+0·6	81·0	+0·2	9·5	89·0	31st	73·4	11th	15·6
		Goa . .	199	29·718	−·017	29·857	29·775	20th	29·604	17th	·171	80·8	94·6	−0·7	79·0	P	81·8	P	5·6	88·5	31st	76·0	11th & 12th.	12·5
		Karwar .	44	29·883	−·003	29·861	29·945	21st	29·776	15th	·169	74·5	86·0	+0·6	74·1	+0·7	80·1	+0·7	11·9	90·8	31st	70·5	31st	20·3
33	Malabar . .	Cochin .	10	29·923	−·011	29·861	29·982	7th	29·332	17th	·150	79·8	87·3	+1·1	75·3	+0·7	81·3	+0·9	12·0	89·3	14th	73·7	4 days	15·6
		Calicut .	27	29·912	−·003	29·869	29·955	21st	29·799	17th	·156	77·8	85·8	−0·4	74·4	−0·1	80·1	−0·3	11·4	87·8	14th & 26th.	72·2	22nd	15·6
		Mangalore .	65	29·873	−·005	29·871	29·936	21st	29·755	16th	·181	79·0	85·0	−0·7	74·4	−0·2	79·7	−0·5	10·6	88·7	10th	72·4	8th & 9th	16·3
		Trivandrum .	198	29·727	−·013	29·857	29·777	7th	29·656	17th	·121	78·3	82·8	+0·1	74·9	−0·3	78·9	−0·1	7·9	84·0	5 days	72·5	31st	11·5

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

Note 1.—When a query is inserted against any reading or in the returns of any station

Note 2.—The data from which divisional means of the figure columns Nos. 41, 43

* Mean of 30 days. † Mean of 28 days.

(a) Thermometers were removed to the temporary glass but after 4 P.M. of 16th October 1904.

I—*continued.*

Stations in India, Burma, etc., in October, 1904—continued.

Wind Direction. Number of winds from Calm	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	Wind Velocity. Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	Hygrometry, 8 A.M. Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Cloud. Mean cloud amount at 8 A.M.	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 1904.	Normal rainfall for period, 1st May to 31st October.	Departure from normal of period, 1st May to 31st October, 1904.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
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	58
	2	7	5	4		5		7	N 38° E	2·1			3·4	48	− 8	·527	−·034	1·3	−0·4	0	0·80	−0·80	0	0·77	−0·77	8·55	32·56	−24·01	0	Ahmedabad.	Gujarat	45
	5	6	8	7	3		1	1	N 82° E	7·7	6·7	+15		36	−14	·394	−·053	0·6	−0·7	0	0·45	−0·45	0	0·28	−0·28	5·68	23·61	−17·93	0	Deesa.		
2	1	3		5		19		1	S 33° W	3·4	3·0	+13	4·0	56	− 1	·487	−·010	0·7	−0·1	0	0·60	−0·60	0	0·38	−0·38	31·97	26·81	+5·16	0	Agra	United Provinces (West).	22
10	2	1			3	12	2	1	S 52° W	3·6	2·6	+38	4·4	60	+ 8	·572	+·075	0·7	−0·2	0	0·90	−0·90	0·02	0·62	−0·62	41·73	36·73	+5·00	00·1	Jhansi.	United Provinces (Central).	21
														69	0	·615	+·004	3·1	+0·3				2·52	2·73	−0·22					IX.—Deccan.		
22	1	3	2	1	1		1		N 69° E	5·0	10·5	−52		75	− 5	·613	−·012	4·4	−0·1	6	8·70	−2·70	3·49	5·96	−2·47	44·70	45·85	−1·15	1·65	Belgaum	Bombay Deccan.	8
1	2	15	4	6			1	2	N 59° E	7·0	7·4	− 5	8·5	60	− 3	·564	−·017	5·0	+0·6	5	4·70	+0·30	4·94	4·16	+0·78	22·72	28·57	−5·85	2·81	Sholapur.		
	5	2	2	1	3	2	10	6	N 64° W		5·8			80	+ 9	·652	+·051	3·8	−0·1	6	5·60	+0·40	3·72	4·40	−0·68	12·81	25·82	−13·01	1·56	Poona.		
6	2	5	5	5	2	2	1	3	N 85° E	3·4			3·3	74	0?	·658	−·002	4·3	+0·3	4	6·60	−2·60	3·47	4·50	−1·03	13·44	21·94	−8·50	2·01	Bijapur.		
3	2	2	1			2	14	7	N 69° W	4·6	4·5	+ 2	5·3	62	− 1	·577	−·003	1·8	−1·3	3	3·00	0	3·75	2·42	+1·33	18·96	23·04	−4·08	2·22	Malegaon	Khandesh.	40
2	5	4	1	7		1	1	10	N	4·5			5·5	65	− 3	·579	−·021	3·9	+1·2	6	5·20	+0·80	2·84	2·14	+0·70	14·16	20·27	−6·11	1·40	Ahmednagar.		
15		3	4	3	1	1		4	N 77° E	2·9	3·3	−12	2·6	68	+ 4	·630	+·060	3·5	+1·0	5	2·70	+2·30	1·88	2·74	−0·86	25·90	31·74	−5·84	0·96	Akola	Berar	41
	6	10	9	2		2	1	1	N 53° E	4·5	2·9	+55	4·1	58	− 3	·558	−·004	2·7	+0·2	5	2·40	+2·60	4·08	2·33	+1·75	24·25	32·36	−8·11	1·50	Amraoti.		
22	3	1	1	2		1		1	N 37° E	2·8	2·9	− 3	2·7	57	− 5	·511	−·030	3·0	+1·1	0	2·00	−2·00	0·06	1·45	−1·39	16·34	30·13	−13·79	0·05	Khandwa	Central Provinces (West).	42
		19	1			8		3	N 34° E	1·2	1·5	−20	1·2	70	− 1?	·582	−·007	2·1	0	0	2·10	−2·10	0·02	1·75	−1·73	29·73	50·24	−20·51	0 02	Hoshangabad		
6	14	5	5					1	N 23° E	5·0	4·3	+16	4·0	70	+ 5	·627	+·032	2·5	−0·3	4	3·10	+0·90	1·92	2·13	−0·51	32·06	46·43	−14·37	0·75	Nagpur.		
29	1							1	N 24° W	0·6	2·3	−74	0·5	80	+ 8	·736	+·073	1·9	−0·7	4	2·70	+1·30	3·77	2·00	+1·77	21·02	51·88	−30·86	2·12	Chanda	Central Provinces (Central).	43
	5	8	4	2	1	4	3	4	N 17° E	4·5	3·1	+45	3·8	65	− 1	·545	−·020	1·6	−0·7	5	2·80	+2·20	1·89	2·03	−0·14	33·47	51·75	−18·28	0·70	Seoni.		
1	3	2	1	9	12	2		1	S 25° E	2·1	2·1	0	1·8	81	+ 6?	·624	+·018	1·6	−0·4	3	2·20	+0·80	2·64	1·86	+0·78	39·05	56·44	−17·39	1·79	Jubbulpore.		
										5·4	2·7	+100	4·8	52	− 8	·481	−·029	2·5	+1·0	0	2·10	−2·10	0·02	1·27	−1·25	36·79	46·11	−9·32	0·02	Saugor.		
11		2	3	1	1	3	7	3	S 87° W	2·1	4·3	−51	1·9	69	+ 3	·580	+·010	3·4	+1·8	2	2·10	−0·10	1·98	2·45	−0·47	52·18	43·00	+9·18	1·29	Sutna	Central India.	49
11		6	9			2		3	N 63° E	3·2	3·8	−16	3·8	76	+ 4	·682	+·028	3·1	−0·3	3	3·10	−0·10	3·18	2·09	+1·09	46·70	48·21	−1·51	2·25	Raipur	Central Provinces (East).	44
18	2		1	3	1	1		5	N 34° W	3 0			2·6	70	·	·560		2·1		3			3·88			47·08			3·47	Pendra.		
	3	4	8	6	4	2	1	1	S 71° E	4·3	2·0	+115	4·2	76	− 2	·734	−·015	3·6	+1·0	1	3·60	−2·60	0·46	1·92	−1·46	61·23	64·10	−2·87	0·23	Sambalpur		
24	1		3					2	N 33° E	5·3*			5·2*	58		·544		4·1		5	3·40	+1·60	2·34	2·36	−0·02	31·07	28·66	+2·41	0·80	Aurangabad.	Hyderabad (North).	39
23	2					1	1	4	N 51° W	4·8?			4·0?	70		·659		3·6		4	2·90	+1·10	3·15	2·09	+1·06	32·96	37·14	−4·18	2 30	Indur.		
	2	9	6	7	3	3	1		S 82° E	8·0			6·8	69		·624		3·3		4	4·40	−0·40	3·05	3·07	−0·02	32·95	36·21	−3·26	2·17	Bidar.		
6	1	6	8	7		2		1	S 88° E	9·9			9·5	68	− 2	·638	−·005	4·1	+0·5	2	5·00	−3·00	2·56	3·09	−0·53	23·85	29·35	−5·50	2·30	Gulbarga	Hyderabad (South).	53
2	2	13	6	1		1	1	5	N 3° E	7·3			6·9	66	− 5	·656	−·017	3·8	+0·4	5	4·20	+0·80	2·67	4·31	−1·64	19·68	28·64	−8·96	1·21	Raichur.		
25			4	2					S 75° E	3·3			3·2	74	− 1	·657	−·011	3·7	+0·1	6			2·41	2·71	−0·30	21·77	28·45	−6·68	0·99	Hyderabad (Dn.)		
9	3	1		3	4	1		10	N 51° W	4·5			3·9	76		·714		2·3		5	4·10	+0·90	1·34			22·44			0·46	Hanumkonda		
														85	−1	·845	+·006	5·0	+0·2				5·61	7·47	−1·87					X.—West Coast.		
	3	12	9	4	2			1	N 70° E	7·6	9·8	−22		82	0	·848	+·003	4·7	+1·3	2	2·70	−0·70	0·56	2·24	−1·68	33·34	74·45	−41·11	0·26	Bombay	Konkan	37
5	1	3	15	6	1				S 85° E	8·0	7·7	+ 4	7·9	79	+ 1?	·813	+ 008	4·1	+0·4	4	5·00	−1·00	3·43	4·47	−1·04	96·20	106·61	−10·41	1·96	Ratnagiri.		
6	1	2	3	11	6		1	1	S 44° E	6·1				90	0	·894	+·004	4·3	+0·3	5			3·05	6·17	−3·12	92·34	91·18	+1·16	1·15	Mormugao.		
3		9	16	2				1	N 76° E	4·6				82	− 3	·859	+·006	4·9	+0·9	6			2·40	5·42	−3·02	111·03	96·66	+14·37	1·60	Goa.		
3		14	10	2	1	1			N 72° E	3·4				87	− 2	·823	+·010	4·1	+0·1	5	8·50	−3·50	1·92	7·26	−5·34	112·54	120·97	−8·43	0·69	Karwar.		
5	2	7	10	5		1		1	N 79° E	4·7				84	− 1	·860	+·009	5·3	−0·4	11	14·80	−3·80	11·56	13·92	−2·36	100·64	98·96	+1·68	3·60	Cochin	Malabar	33
6	3	10	10	1				1	N 60° E	5·5			5·4	88	+ 2	·839	+·003	6·4	+0·7	13	11·80	+1·20	11·61	9·75	+1·86	118·49	104·12	+14·37	2·44	Calicut.		
8		2	19	1		1			E	4·6	2·7	+70		85	− 2	·851	+·007	5·7	−0·2	12	10·30	+2·70	9·03	7·55	+1·48	128·31	119·04	+9·27	1·81	Mangalore.		
16	7						1	7	N 27° W	3·7				84	0	·818	+·008	5·8	−1·0	10	11·90	−1·90	6·89	10·49	−3·60	49·60	46·63	+2·97	1·56	Trivandrum.		

the data for that station are not utilized in calculating the provincial departures from normal.
and 45 are derived are incomplete.

* Mean of 29 days.

Table

Abstract of Observations taken at 8 A.M. at 232

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 A.M., in inches.								Temperature of air.												
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Mean of 8 A.M. 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	25
					+·004								89·1	+0·9	72·6	0	80·8	+0·4	16·5					27·9
	XI.—South India.																							
57	Madras (South)	Pamban	37	29·886	+·005	29·850	29·938	3rd	29·796	15th	·142	82·3	89·5	+2·1	77·8	+0·5	83·7	+1·5	11·7	93·8	4th	74·2	31st	19·6
		Tinnevelly	168	29·760	+·006	29·858	29·814	27th	29·650	17th	·164	81·8	94·1	+0·4	76·0	−0·6	85·1	−0·1	18·1	99·3	8th & 19th.	71·6	27th	27·7
		Madura	447	29·483	+·019	29·869	29·547	3rd	29·376	15th	·171	80·2	99·2	−1·1	73·6	−0·4	82·0	−0·8	16·6	94·4	19th	70·0	19th&28th	24·4
		Periyakulam	945	28·984		29·876	29·051	26th	28·878	17th	·173	76·9	89·1		70·7		78·6		18·4	95·1	2nd	65·0	31st	30·1
34	Madras (South-Central).	Salem	940	29·001	−·006	29·888	29·048	20th	28·897	15th	·151	79·0	91·1	+1·5	71·6	+0·5	81·4	+1·0	19·5	97·7	5th	64·4	29th	33·3
		Coimbatore	1,348	28·574	−·004	29·879	28·617	3rd	28·473	17th	·144	75·9	88·6	+0·3	70·3	−0·3	79·5	0	18·3	93·9	3rd, 4th & 5th.	66·8	21st & 30th	27·1
35	Coorg	Mercara	3,781	26·240	+·004		26·287	7th	26·148	15th	·139	66·1	77·5	+1·7	60·9	−1·3	69·2	+0·2	16·6	82·0	4th, 7th & 8th	58·1	19th	23·9
36	Mysore	Chitaldroog	2,405	27·538	0	29·880	27·586	31st	27·439	15th	·147	75·4	86·4	+1·8	67·9	+0·1	77·2	+1·0	18·5	92·1	2nd	62·9	31st	29·2
		Bangalore	3,021	26·952	−·004	29·896	27·001	26th & 27th.	26·843	15th	·158	71·5	83·1	+1·7	65·2	0	74·1	+0·9	17·9	87·3	4th	59·4	30th	27·9
		Hassan	3,091	26·892	+·003	29·901	26·947	27th	26·793	15th	·154	71·6	83·7	+2·4	63·2	−1·1	73·5	+0·7	20·5	87·4	4th	56·1	31st	31·3
		Mysore	2,518	27·438	−·006	29·900	27·481	3rd	27·339	15th	·142	73·2	86·0	+1·9	66·5	−0·5	76·3	+0·7	19·5	89·4	4 days.	62·0	30th	27·4
56	Madras, East Coast, South.	Negapatam	31	29·674	−·009	29·834	29·924	26th	29·773	15th	·151	82·3	90·3	+1·9	76·8	+0·9	83·6	+1·4	13·5	96·4	4th	74·0	4 days	22·4
		Cuddalore	12	29·905	+·007	29·846	29·958	27th	29·780	15th	·178	80·0	89·9	+1·8	74·3	−0·4	82·1	+2·7	15·6	98·7	10th	69·7	29th	29·0
		Trichinopoly	255	29·667	+·003	29·856	29·717	27th	29·560	15th	·157	80·0	90·7	−0·3	74·0	−0·3	82·4	−0·3	16·7	96·1	7th	69·4	29th& 30th	26·7
		Madras	22	29·898	+·004	29·851	29·956	26th	29·759	15th	·197	81·4	90·2	+1·2	74·5	−0·6	82·4	+0·3	15·7	94·5	5th	67·0	29th	27·5
		Vellore	707	29·205		29·860	29·269	27th	29·074	15th	·195	78·5	87·2†		72·2		79·7†		15·0	93·9	5th	61·5	29th	29·1
55	Madras, East Coast, Central.	Nellore	52	29·862	+·013	29·848	29·943	26th	29·706	15th	·237	80·2	91·8	+0·6	74·8	−1·0	83·3	−0·2	17·0	99·3	1st	70·1	29th	29·2
		Masulipatam	15	29·905	+·017	29·855	29·999	26th	29·694	15th	·305	81·5	88·6	−0·3	76·3†	+0·3	82·6†	0	12·3	94·6	7th	72·1	29th&31st	22·5
54	Madras, Central	Cuddapah	433	29·483	+·001	29·855	29·561	27th	29·347	16th	·214	81·8	94·6	+2·7	75·0	+0·8	84·8	+1·8	19·6	102·2	5th	69·6	30th&31st	32·6
		Kurnool	945	28·988	−·002	29·861	29·075	27th	28·853	16th	·222	79·2	92·2	+1·3	71·5	+0·5	81·9	+0·9	20·7	98·7		60·5	31st	38·2
		Bellary	1,475	28·443	0	29·874	28·509	27th	28·319	15th	·190	77·4	91·6	+1·9	71·7	+0·6	81·7	+1·3	19·9	97·0	5 days	61·2	31st	32·8
52	Madras, East Coast, North.	Cocanada	26	29·892	+·013	29·854	29·987	26th	29·648	15th	·339	80·5	87·2	−0·7	75·6	−0·2	81·4	−0·5	11·6	94·6	5th	69·0	31st	25·6
		Waltair (Vizag.)	*226*	29·688	+·010	29·856	29·794	26th	29·484	15th	·310	81·0	87·1	P	76·0	P	81·6	P	11·1	92·4	5th	69·4	28th	23·0
		Gopalpur	72	29·852	+·020	29·866	29·953	26th	29·707	17th	·246	78·7	85·8	−1·8	74·9	+0·7	80·4	−0·6	10·9	90·7	5th & 6th	66·0	30th	24·7
	XII.—Hill Stations.																							
		Pishin											75·2		37·2		56·2		38·0	84·4	4 days	28·0	20th	56·4
48	Baluchistan	Quetta	5,502	24·770	+·043		24·868	31st	24·678	14th	·190	54·5	74·9	+0·3	38·3	0	56·6	+0·2	36·6	84·2	5th & 6th	28·8	20th	55·4
		Kalat										56·6	73·0	−0·8	18·3	−11·3	45·7	−6·1	54·7	84·5	5th	4·6	20th	79·9
		Chaman	4,311	25·774	−·025		25·877	31st	25·681	24th	·196	62·1	78·0	−0·7	49·8	−0·9	63·9	−0·8	28·2	89·7	5th	38·6	17th	51·1
30	Punjab	Leh	11,503	19·776	−·004		19·934	9th	19·617	24th	·317	37·7	55·7	−2·9	30·5	+0·6	43·1	−1·2	25·2	69·6	7th	18·4	31st	51·2
		Srinagar	5,204	24·997	+·012		25·142	31st	24·862	23rd	·280	47·4	68·4	−1·3	41·3	+1·5	54·9	+0·1	27·1	78·6	8th	34·6	22nd	44·0
		Sonemarg	*8,764*	21·947			22·055	8th	21·837	23rd	·218	34·8	55·0		30·0		42·5		25·0	68·2	5th	13·1	31st	55·1
		Skardu	*7,505*	22·948			23·113	31st	22·758	23rd	·355	47·1	62·8		40·4		51·7		22·4	77·0	6th	34·1	27th	42·9
		Dras	*10,059*	20·872			21·019	3rd	20·711	26th	·308	36·7	54·3		28·7		41·5		25·6	65·3	7th	17·1	31st	48·2
		Gilgit	4,890	25·234			25·439	31st	25·027	23rd	·412	57·2	72·1	−1·8	51·5	−1·6	61·8	−1·7	20·6	82·3	6th & 7th	40·6	31st	41·7
		Chitral	*5,486*	25·304			25·400	8th	25·190	23rd	·210	49·1	72·8		45·8		59·3		27·0	85·1	6th	37·0	31st	48·1
		Killa Drosh										54·9	73·5		50·7		62·1		22·8	87·6	5th	39·7	30th	47·9
		Murree	6,333	23·922	+·003		24·007	8th	23·832	18th	·175	57·1	66·3	−3·0	49·5	−3·8	57·9	−3·4	16·8	76·2	7th	35·0	30th	41·2

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

† Mean of 28 days.

Note 1.—When a query is inserted against any [illegible] or in the returns of any

Note 2.—The data from which divisional means of the figure columns Nos. 45,

I—*continued.*

Stations in India, Burma, etc., in October, 1904—continued.

Wind Direction. Number of winds from: Calm	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	Wind Velocity. Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	Hygrometry, 8 A.M. Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Cloud. Mean cloud amount at 8 A.M.	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, 1904.	Normal rainfall for period, 1st May to 31st October.	Departure from normal of period, 1st May to 31st October, 1904.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
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	58
														79	0	·780	+·008	4·8	−0·8				6·66	7·59	−0·93					XI.—South India.		
4	4	1	3		2	4	9	4	N 76° W	11·6			12·3	81		·884		4·0		6	9·50	−3·50	3·26	8·63	−5·37	3·75	11·59	−7·84	1·03	Pamban	Madras (South)	
	6	3	1	2	4	3	2	10	N 41° W	4·0			3·8	72	0	·787	+·011	4·6	−1·2	11	8·40	+2·60	7·73	6·30	+1·43	11·78	10·28	+1·50	3·15	Tinnevelly.		
3	5	7	1				1	1	N 15° W	3·8	2·9	+31	4·4	76	+2	·788	+·032	3·1	−2·7	11	11·40	−0·40	9·30	8·61	+0·69	21·51	23·25	−1·74	2·66	Madura.		
20	1	1			2	4	1	2	S 68° W	2·2			2·3	79		·736		4·4		19	10·60	+8·40	7·59	7·55	+0·04	19·96	16·47	+3·49	1·76	Periyakulam.		
4		6	7	1	4	3	4	2	S 75° E	3·8	2·8	+36	3·3	78	−3	·786	+·005	5·5	−0·4	9	9·50	−0·50	3·84	6·72	−2·88	31·47	32·20	−0·73	1·04	Salem	Madras (South Central).	34
	1	4	3		8	9	6		S 34° W	5·5	3·5	+57	5·2	88	+1	·792	+·018	5·3	−0·4	12	9·40	+2·60	5·02	5·98	−0·96	15·92	13·58	+2·34	1·06	Coimbatore.		
5	12	6	5			2	1		N 25° E	5·4	3·6	+50	5·0	90	+2	·571	−·012	5·4	−1·2	11	13·00	−2·00	6·22	8·61	−2·39	122·63	118·93	+3·70	1·35	Mercara	Coorg	35
2	1	1	8	5	1	5	7	1	S 10° E	4·2			3·7	73	−3	·635	−·010	4·0	−2·1	6	7·70	−1·70	7·25	3·28	+3·97	22·02	21·00	+1·02	2·88	Chitaldroog	Mysore	36
1	1	4	4	7	1	4	6	3	S 16° E	6·4	4·0	+60	5·6	81	−2	·631	+·004	4·9	−1·2	8	9·30	−1·30	6·19	6·36	−0·17	30·61	29·28	+1·33	1·43	Bangalore.		
2		9	9	3	1			5	N 66° E	2·5			2·3	81	−1	·630	+·004	6·0	−1·1	9	9·50	−0·50	8·64	6·64	+2·00	26·64	28·72	−2·08	2·02	Hassan.		
1	3	5	4	4	1	6	5	2	S 72° W	7·3			7·9	82	−1	·662	+·003	6·1	−0·9	9	9·40	−0·40	2·22	6·98	−4·76	22·58	25·01	−2·43	0·66	Mysore.		
7		4		1	1	3	5	10	N 60° W	7·0	3·7	+89	6·2	75	−6	·837	−·025	6·5	+0·1	6	11·00	−5·00	4·86	11·65	−6·79	16·44	23·75	−7·31	1·92	Negapatam	Madras, East Coast, South.	56
31									Calm	1·5			1·9	85	−3?	·878	−·031?	6·8	+0·8	16	10·00	+6·00	9·78	11·66	−1·88	23·41	29·01	−5·60	1·52	Cuddalore.		
28	1			1				1	N	2·7	3·8	−29		80	0	·816	+·013	5·2	−1·1	9	9·70	−0·70	7·80	7·15	+0·65	18·83	21·16	−2·33	2·07	Trichinopoly.		
	3	1	1		7	6	6	7	S 79° W	4·4	5·0	−12		79	−4	·852	−·021	4·8	−0·9	11	12·50	−1·50	2·33	11·45	−9·12	16·10	28·93	−12·83	0·60	Madras.		
18		2	4	2	2		1	2	S 76° E	3·0			3·0	82		·795		3·0		8	9·30	−1·30	6·00	7·51	−1·51	22·18	28·18	−6·00	1·35	Vellore.		
	3	3	5	6	4	2	1	7	N 84° E	3·1			3·1	83	+2	·857	−·023	5·7	+0·2	8	8·70	−0·70	3·78	7·33	−3·55	13·60	20·14	−6·54	1·09	Nellore	Madras, East Coast, Central.	55
10	8	4	1	2	2	1	1	2	N 15° E	5·7	4·4	+30	5·0	88	+4	·947	+·065	5·1	−0·1	7	8·60	−1·60	11·65	8·42	+3·23	33·50	32·95	+0·55	5·75	Masulipatam.		
		11	4	8		1	1	6	N 63° E					67	−8	·722	−·056	3·7	−1·2	4	6·70	−2·70	2·78	5·78	−3·00	10·52	26·73	−16·21	1·26	Cuddapah	Madras, Central.	
9		2	6	4	1	2	2	5	S 85° E	4·0				77	+1	·765	+·058	3·1	−0·7	6	5·90	+0·10	2·89	4·01	−1·12	14·90	25·81	−10·91	1·16	Kurnool.		
5	2	1	4	5	2		5	7	N 39° W	4·2	4·3	−2	4·5	71	+3	·663	+·028	4·8	−0·3	7	6·70	+0·30	10·96	4·27	+6·69	22·87	16·65	+6·22	4·38	Bellary.		
11	10	5			1			1	N 12° E	7·6			6·4	85	+8	·892	+·092	4·4	−0·4	9	9·40	−0·40	13·58	8·72	+4·86	27·38	31·64	−4·26	3·43	Cocanada	Madras, East Coast, North.	52
1	10	6	3	2	2	4	2	1	N 19° E	9·7				72	−3	·764	−·046	5·5	+0·7	12	8·20	+3·80	6·69	10·23	−3·54	40·04	34·39	+5·65	1·61	Waltair (Vizag.).		
1	15	1	1	1	1			11	N 14° W	8·8	6·3	+40	8·6	83	+1	816	−·003	2·8	−1·7	11	7·90	+3·10	9·09	9·41	−0·32	37·26	40·50	−3·24	4·42	Gopalpur.		
																														XII.—Hill Stations.		
																				0	0·20	−0·20	0	0·09	−0·09	0	0·55	−0·55	0	Pishin	Baluchistan	48
27			1	2				1	S 66° E	1·4	3·0	−53	1·5	42	−2	·184	−·007	0·1	−0·3	0	0·20	−0·20	0	0·09	−0·09	0·47	2·41	−1·94	0	Quetta.		
	12		8		9		2		N 63° E					26		·128				0	0·30	−0·30	0	0·08	−0·08	0	1·73	−1·73	0	Kalat.		
			2	9	8	7	4	1	S 9° E	6·2			6·8	43	+12	·249	+·068	0·8	+0·2	0	0·10	−0·10	0	0·04	−0·04	0	0·32	−0·32	0	Chaman.		
		12	9	2	5	3			S 90° E	2·0				53	0	·118	+·004	3·3	+0·9	0	0·10	−0·10	0	0·22	−0·22	1·86	1·75	+0·11	0	Leh	Punjab	30
15	1	2	1	4	2	1		5	N 68° E	2·9			2·7	86	−2	·285	−·003	3·2	−0·8	5	2·70	+2·30	3·58	0·84	+2·74	17·41	11·25	+6·16	1·62	Srinagar.		
18			1	2	3	4	1	2	S 26° W	3·2			2·9	85		·172		3·8		9			3·85			21·11			0·95	Sonemarg.		
11	1	6	4	1	1	4	3		N 77° E	5·2			5·3	69		·221		4·2		1	0·10	+0·90	0·45	0·02	+0·43	3·11	2·95	+0·16	0·12	Skardu.		
27						2	2		S 71° W	4·3			3·4	68		·150		3·5		4	3·10	+0·90	1·70	0·99	+0·71	6·91	6·45	+0·46	0·53	Dras.		
28	2			1					N 30° E	2·6			2·3	55	+8	·250	+·022	5·8	+2·4	0	0·30	−0·30	0·16	0·20	−0·04	3·04	2·55	+0·49	0·08	Gilgit.		
31									Calm	3·5*			3·1*	80		·282		2·9		6			1·51			2·63			0·50	Chitral.		
15	1	1	10	1	2	1			S 80° E					65		·279		3·0		4			1·56			4·39			0·58	Killa Drosh.		
7	7		2	5	5	2		3	S 68° E	5·8	5·7	+ 2	6·3	44	+2	·207	+·003	1·2	−0·1	4	3·30	+0·70	1·93	1·32	+0·61	36·97	38·90	−1·93	1·30	Murree.		

station, the data for that station are not utilized in calculating the provincial departures from normal.
43 and 45 are derived are incomplete.

* Mean of 30 days.

Table

Abstract of Observations taken at 8 A.M. at 232

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 A.M., in inches.								Temperature of air.											
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
20	Punjab—*contd.*	Kailang	*10,087*	20·939			21·029	30th	20·891	21st	·138	37·9	56·9	−3·5	30·4	−1·0	43·7	−2·3	26·5	71·6	7th	16·0	31st	55·6
		Poo											65·2		41·4		53·4		23·8	78·7	7th	33·3	27th	45·4
		Simla	7,224	23·198	+·021		23·293	7th	23·090	17th	·203	54·2	62·3	−0·1	50·6	−0·4	56·5	−0·3	11·7	67·1	5th	37·2	29th	29·9
		Saraln		23·238			23·317	7th	23·133	17th	·184	48·0	64·3		40·9		52·6		23·4	71·7	5th	34·8	31st	36·9
		Kalabagh*		20·186			20·290	8th	20·080	17th	·210	42·5	50·2		38·8		44·5		11·4	57·6	5th	32·1	27th&28th	25·5
	North-West Frontier Province.	Para Chinar	6,000	24·514			24·617	31st	24·405	23rd	·212	60·5	72·5		48·6		60·6		23·9	80·1	7th	41·0	30th&31st	39·1
		Cherat	*4,256*	25·766	+·013		25·892	30th	25·655	23rd	·237	63·4	76·8	−1·8	58·2	+1·0	67·5	−0·4	18·6	87·4	6th & 7th	45·0	30th	42·4
25	United Provinces.	Chakrata	7,022	23·357	+·017		23·465	7th	23·245	18th	·220	55·3	67·5	+1·3	50·6	−0·3	59·1	+0·5	16·9	71·5	1st, 3rd & 4th.	37·9	29th	33·6
		Ranikhet	6,069	24·167	+·013		24·257	7th	24·042	18th	·215	59·0	68·6	−0·6	54·6	+0·4	61·6	−0·1	14·0	73·5	4th, 9th & 10th.	46·0	29th	27·5
		Muktesar	7,600	22·869			23·001	7th	22·783	18th	·218	54·9	65·3		50·1		57·7		15·2	71·5	10th	41·9	29th	29·6
13	Bengal	Yatung	10,480										57·4		34·1		45·8		23·3	62·1	7th, 8th & 9th.	26·1	31st	36·0
		Darjeeling	7,376	23·087	−·004		23·185	8th	22·958	18th	·227	54·7	62·0	+1·5	48·7	(−1·1	55·3	+0·2	13·3	67·7	4th	42·6	26th	25·1
8	Assam Hill Tracts	Shillong	4,900	25·223			25·305	8th	25·142	22nd	·163	63·6	72·2		54·0		63·1		18·2	76·6	4th & 8th	43·0	24th	33·6
		CherraPoonjee	4,309	25·761			25·827	8th	25·696	22nd	·131	66·1	71·8		60·1		66·0		11·7	78·2	4th	53·0	24th	25·2
	Central India	Mount Abu.	3,945	26·108	−·004		26·192	3rd	26·008	14th	·184	73·8	80·7	+1·8	65·4	+1·1	73·1	+1·5	15·3	85·2	9th	59·4	29th	25·8
		Pachmarhi	3,528	26·451	?		26·531	3rd & 19th	26·273	17th	·258	70·7	80·5	+2·4	59·2	−0·5	69·9	+1·0	21·3	83·1	4 days.	51·2	20th	31·9
	South India	Wellington	6,200	24·257	−·005		24·298	3rd	24·166	15th	·132	61·9	70·6	+1·5	54·4	−0·4	62·5	+0·6	16·2	73·7	14th & 16th	49·2	30th& 31st	24·5
		Kodaikanal	7,688	22·832			22·871	7th	22·761	15th	·110	55·4	62·4		51·1		55·3		11·3	67·2	20th	45·3	31st	21·9
		Ootacamund	*7,392*	23·054			23·099	2nd&7th	22·969	15th	·130	57·4	64·4		51·3		57·8		13·1	70·0	27th	47·8	31st	22·2
	XIII.—Extra India.																							
	Ceylon	Trincomalee		29·890	−·001	29·828	29·946	27th	29·778	14th	·168		88·8	+0·4	75·6	+0·1	82·2	+0·3	13·2	94·0	1st	72·5	21st	21·5
		Colombo	12	29·903	−·013	29·869	29·956	12th	29·839	17th	·117	78·4	85·5	−0·2	75·2	-0·2	80·4	−0·2	10·3	87·5	3rd	72·0	5 days.	15·5
	Persia	Meshed	40									80·3			41·8	−2·8						32·0	19th	
		Teheran(a) †	3,104	26·017			26·140	10th	25·850	25th	·290	52·7	75·4	−2·5	51·8	−2·7	63·6	−2·6	23·6	87·3	10th	42·9	19th	44·4
		Ispahan(a)	*4,002*	24·411			24·540	12th	24·290	26th	·250	61·3	73·9	−3·6	44·8	+0·4	59·4	−1·6	29·1	82·9	1st & 2nd	40·2	26th	42·7
		Bushire	*5,817*	29·965	+·020	29·942	30·059	7th	29·837	1st	·222	55·8	66·6	−1·2	70·8	−0·4	78·7	−0·8	15·8	95·5?	11th	66·1	30th	29·4
		Bahrein†	14	29·936			30·056	7th	29·794	1st	·262	76·9	88·8		75·9		82·4		12·9	100·0	3rd	70·4	30th	29·6
		Jask	30	29·918	−·018	29·888	29·995	22nd	29·829	1st	·166	80·7	89·3	−1·4	74·7	−0·8	82·0	−1·1	14·6	94·3	1st	67·2	21st	27·1
	Arabia	Muscat	18	29·948	−·002	29·915	30·056	31st	29·851	1st	·205	81·5	85·9	+0·1	81·7	+0·6	83·8	+0·4	4·2	90·8	8th	73·1	19th	17·7
		Baghdad‡	20	29·840	+·014	30·040	29·995	8th	29·665	22rd	·330	83·9	92·0†	−0·6†	62·0†	0†	73·5†	−0·3†	30·2	101·0	11th	54·5	27th	46·5
		Busrah	220	29·966			30·074	7th	29·828	1st	2·46	68·9	88·1		64·3		76·2		23·8	98·4	1st & 2nd	56·0	29th & 30th.	42·4
		Aden		29·877	+·004	29·903	30·011	8th	29·788	1st	·223	81·6	88·7†	−1·5†	77·1†	−0·6†	82·9†	−1·1	11·6	92·8	30th	73·9	24th	18·9
		Perim	94									83·6	89·7	−1·4	79·3	−1·2	84·5	−1·3	10·4	92·1	30th	77·4	24th	14·7
	Afghanistan	Kabul	201	29·745	+·011	29·878	29·817	8th	29·662	15th	·155	65·3	77·1	+1·9	39·2	−2·2	58·2	−0·2	37·9	92·1	4th	32·4	26th 29th & 30th.	59·7
	Central Asia	Kashgar	4,255	25·681			25·940	29th	25·450	14th	·490	48·4	69·3	+0·6	41·2	−1·0	55·3	−0·2	28·1	88·1	3rd	27·5	26th	60·6
	Arabian Sea Islands.	Amini Divi	*13*	29·927	−·003	29·868	29·993	7th	29·810	15th	·183	82·0	86·9	+1·8§	76·8	+0·3	81·9	+1·1	10·1	90·4	12th	71·9	6th	18·5
		Minicoy	7	29·943		29·876	29·996	7th	29·873	17th	·123	81·5	85·8	+0·2						88·3	12th			
	Africa	Zanzibar	73	29·994	−·021	29·994	30·090	7th	29·903	30th	·187	77·5	83·4	+0·2	74·7	−0·6	79·1	−0·2	8·7	92·1	31st	71·9	2nd	15·2
		Do. Dunga	*154*	29·921		30·005	30·019	7th	29·853	29th	·166	75·5	84·4		68·4		76·4		16·0	89·1	14th	64·6	4th	24·5
	Straits Settlements.	Penang (b)	20	29·898		29·843	29·937	2nd	29·862	16th	·075	80·1	89·0		73·8		81·4		15·2	91·0	8th & 22nd	72·0	14th	19·0
		Singapore(b)	10	29·923		29·854	29·981	11th	29·875	28th	·106	83·0	87·7		73·8		80·8		13·9	90·0	7th & 23rd	72·0	14th	18·0

(a) Aneroid uncorrected.
(b) 9 hours' observations.

* Mean of 30 days.
† " 29 "
‡ " 30 "

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

I—*concluded.*

Stations in India, Burma, etc., in October, 1904—concluded.

Wind Direction. Number of winds from Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	Wind Velocity. Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	Hygrometry, 8 A.M. Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Cloud. Mean cloud amount at 8 A.M.	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 1904.	Normal rainfall for period, 1st May to 31st October.	Departure from normal of period, 1st May to 31st October, 1904.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
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	58
	1			7	9	7	3	4	S 22° W	3·4				57		·128		3·0		7			3·26	0·45	+2·81	13·78	8·77	+ 5·01	0·67	Kailang	Punjab—*concld.*	30
21	1		6	3					S 83° E									2·8		2			0·66	0·75	−0·09	4·19	3·77	+0·42	0·43	Poo,		
7	16			2	4				N 8° E	2·8	2·5	+12	2·7	45	−4	·189	−·019	0·9	+0·1	2	1·30	+0·70	0·99	0·98	+0·01	51·92	52·27	− 0·35	0·56	Simla,		
13				12	6				S 14° W	2·6			2·5	67		·229		1·2		3			1·08			31·91			0·56	Sarain,		
9	3		2	3			1	10	N 27° W	8·3			8·1	49		·132		1·2		3			1·21						0·60	Kalabagh,		
27		1		1			1	1	N 20° W	5·5			5·0	45		·236		1·1		4	1·00	+3·00	2·09	0·37	+1·72	14·14	12·83	+ 1·31	0·70	Para Chinar	North-West Frontier Province.	
4	15			2	4	1	1	4	N 15° W	7·7			7·2	43	+7	·244	+·020	1·2	+0·3	2			1·14	0·09	+1·05	11·59	11·92	− 0·33	0·95	Cherat,		
16	10	1		1	2			1	N 4° E	5·0	5·1	−2	6·0	59	−1	·265	−·019	0·9	−0·1	2	1·20	+0·80	0·77	0·78	−0·01	62·34	57·33	+ 5·01	0·64	Chakrata	United Provinces.	25
24		1	1	1		2	2		S 38° W	1·8	1·7	+6	2·1	69	+2	·335	+·003	1·6	+0·6	1	1·50	−0·50	0·31	1·49	−1·18	46·75	45·43	+ 1·32	0·21	Ranikhet,		
14	1	2	1			3	8	2	N 77° W	6·3			5·8	55		·245		2·1		1			0·45			49·49			0·37	Muktesar,		
																				2	5·43	−3·43	0·62	2·60	−1·98	35·42	40·48	− 5·06	0·45	Yatung	Bengal	13
11		9	6	3		1		1	N 73° E	3·6	2·6	+38	3·3	83	−6	·361	−·019	3·7*	−2·0	4	4·87	−0·87	8·40	4·35	+4·05	101·65	116·18	−14·53	5·48	Darjeeling,		
19			5	3		4			S 41° E	1·2			1·4	78		·465		3·6		5	9·10	−4·10	2·63	5·05	−3·02	56·58	71·23	−14·65	1·04	Shillong	Assam Hill Tracts.	8
3	1	14	3		2	6	2		N 55° E	4·5			4·0	76		·493		4·5		8	8·20	−0·20	7·84	13·59	−5·75	269·32	388·06	−118·74	3·66	Cherra Poonjee		
3		10	1	8	3	2	3	1	S 74° E	5·6	4·0	+40	5·7	35	−9	2·96	−·041	0·9	−0·2	2	0·50	+1·50	1·48	0·69	+0·79	15·58	60·15	−44·87	0·80	Mount Abu	Central India.	
	3	5	1	9	1	9	3		S 12° E	3·9	2·9	+34	4·0	64	+9	·477	+·053	2·2	−0·4	2	3·30	−1·30	0·64	2·18	−1·54	59·63	73·48	−13·85	0·41	Pachmarhi,		
16	2	7	4	1		1			N 58° E	2·3	2·6	−12		77	−1	·430	−·013	6·4	+0·5	15	14·80	+0·20	7·76	11·06	−3·30	25·98	31·34	− 5·36	1·18	Wellington	South India.	
	9	2	5	3	2		6	4	N 2° W	13·1				85		·373		5·4		20	16·20	+3·80	12·29	12·49	−0·20	35·84	39·55	− 3·71	1·53	Kodaikanal,		
4		5	11	4	3	1	2	1	S 82° E	6·0			5·6	79		·374		5·7		11	13·70	−2·70	5·20	8·57	−3·37	31·98	35·76	− 3·78	1·22	Ootacamund,		
																														XIII.—Extra India.		
11	1				1	12	6		S 60° W	4·3				88	+4	·856	−·030	4·9	+1·5	13			7·24	7·14	+0·10	16·24	22·28	− 6·04	1·44	Trincomalee	Ceylon,	
	5		9	3	2	6	4	2	S 38° E	7·3	7·3	0		84	+4	·872	+·017	5·4	−0·8	18			21·73	14·80	+6·93	52·27	47·70	+ 4·57	6·86	Colombo,		
														59		·237		2·0	+0·1	2			0·74	0·42	+0·32	4·72	1·43	+3·29	0·38	Meshed	Persia,	
20		1	1	1	1	5			S 11° W	1·5§			1·9§	48	+8	·254	+·018	3·0	+1·4	2			0·27	0·10	+0·17	1·55	1·07	+0·48	0·14	Teheran,		
26	3			1			1		N 10° W	1·0			1·3	62	+7	·279	+·013	2·2	+0·7	0			0·04	0·21	−0·17	0·09	0·38	−0·29	0·03	Ispahan,		
3		6	8	7	1		2	4	N 85° E	15·0	6·5	+131	16·5	64	+2	·595	−·028	1·5	+0·5	0			0	0·08	−0·08	0	0·08	−0·08	0	Bushire,		
	7	6	2	2	2	1	1	7	N 5° E					75		·783		0					0			0·25			0	Bahrein,		
2	2	9	13	1		1	1	2	N 64° E	10·4			7·8	69	+4	·745	+·006	2·0	+1·5	0			0	0·04	−0·04	0	0·17	− 0·17	0	Jask,		
20	1		1	1	1		2	5	N 53° W	2·8			2·9	59	−7	·693	−·062	0·8	+0·5	0			0	0·02	−0·02	0	0·42	− 0·42	0	Muscat	Arabia.	
26	3							1	N 14° W	1·5	2·3	−35	1·9	53	−2	·374	−·029	2·2	+1·6	1			0·50	0·04	+0·46	1·48	0·37	+ 1·11	0·50	Baghdad,		
																				0			0			1·72 (c)			0	Busrah,		
1		17	8	4	1				N 74° E	12·6	12·2	+3	1·2	76	+8	·816	+·075	2·2	+0·1	0			0	0·01	−0·01	0·50	0·51	− 0·01	0	Aden,		
		1	10	14	6				S 54° E	16·9			17·0	70		·809	−·015	0·5	−1·6	0			0	0·07	−0·07	0·40	0·91	− 0·51	0	Perim,		
														83	+1	·540		0·6	+0·3	0			0	0·32	−0·32	0·57	1·48	− 0·91	0	Kabul	Afghanistan,	
2	1	2	4				6	12	N 86° W																					Kashgar	Central Asia,	
27		1	1		2				S 63° E	1·2			1·1	56‡	−3	·211‡	+·011	1·3	−1·7	0			0	0·05	−0·05	1·00	3·06	− 2·06	0	Amini Divi,	Arabian Sea Islands,	
18	3	4					2	4	N 9° W					79	−4‡	·864	−·25	8·9‡	+2·8	10			9·08	6·01	+3·07	44·78	43·74	+ 1·04	4·40	Minicoy,		
	3	1	1	2	1	1	10	12	N 61° W	6·8			7·2	80	−2	·857	0	5·6	+0·2	11			6·05	7·46	−1·41	42·24	41·58	+ 0·66	2·02	Zanzibar	Africa,	
		1	4	10	10	5	1		S 19° E	5·5			5·2	83	+1	·783	−.101	6·9	+0·9	4			5·32	2·99	+2·33	39·16	21·35	+17·81	3·24	Do. Dunga,		
15		1	5	6	3	1			S 53° E	4·6			4·5	88		·782		6·1		9			4·16			36·82			1·40			
9	3	6	1	6	5			1	S 81° E	4·9								2·3		18			21·30			83·44			3·48	Penang	Straits Settlements.	
		2		2	3	8	7	9	S 82° W	5·6								5·7		13			8·29			42·12			2·04	Singapore,		

§ Mean of 29 days.

(c) Rain fall for June and September not included.

Table II.—Abstract of Observations recorded at 10 A.M. and P.M. at 65 Stations in India, Burma, etc., in October, 1904.

Table

Abstract of Observations recorded at 10 A.M. and 4 P.M. at

Meteorological Province.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure.						Temperature of air.										Temperature, Wet-bulb.			
			Mean of 10 hours.	Mean of 16 hours.	Mean daily range.	Mean of daily mean pressures.	Departure from normal.	Mean reduced to S. L. and gravity, 45° Lat.	Mean maximum.	Mean minimum.	Mean daily range.	Highest maximum.	Lowest minimum.	Absolute range.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	Mean minimum.	Mean 10 hours.	Mean 16 hours.	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
Burma Coast and Bay Islands.	Port Blair	61	29·877	29·772	·105	29·827	+·009	29·818	86·7	77·0	9·7	89·4	74·9	14·5	83·6	84·4	80·6	−0·2	75·0	79·8	79·5	78·1
	Rangoon	57	·874	·759	·115	·821	−·010	·815	88·5	76·1	12·4	91·1	74·6	16·5	81·2	83·3	80·6	+0·6	74·0	78·0	79·4	77·1
	Diamond Island	41	·890	·776	·114	·835	−·010	·811	85·9	78·9	7·0	88·6	76·2	11·8	84·0	83·8	81·7	+0·8	75·0	78·9	77·8	77·2
	Cocos Island	119	·809	·700	·109	·757		·808	86·9	78·0	8·9	90·1	75·1	15·6	84·0	83·7	81·2		74·8			
	Akyab	20	·915	·801	·115	·860	−·003	·822	87·7	76·2	11·5	90·1	73·2	16·9	83·5	85·0	81·3	−0·3		79·5	79·2	
Bengal and Orissa.	Chittagong	87	·847	·734	·113	·789	+·001	·823	86·4	72·5	13·9	89·5	66·1	23·4	82·6	83·9	79·0	−0·5	71·7	77·4	77·1	75·4
	Calcutta (Alipore)	21	·927	·810	·117	·865	+·025	·831	88·0	73·4	14·6	92·4	63·1	29·3	83·4	86·1	80·2	+0·2	71·8	75·7	75·8	74·4
	Saugor Island	25	·903	·799	·104	·846	+·013	·815	87·0	75·4	11·6	91·0	67·0	24·0	83·2	84·0	80·0	−0·4	73·1	77·7	76·7	75·8
	False Point	21	·916	·806	·110	·856	+·010	·819	87·0	74·4	12·6	91·3	65·0	29·3	84·2	85·1	79·6	−0·2	73·2	77·3	77·2	75·9
Gangetic Plain and Chota Nagpur.	Hazaribagh	2,007	27·920	27·821	·099	27·878	+·016	·827	85·0	66·7	18·3	89·2	58·2	31·0	80·1	82·2	75·1	+0·8	62·0	66·4	66·3	64·9
	Allahabad	309	29·620	29·514	·106	29·560	+·004	·822	91·0	66·8	24·2	95·1	59·3	35·8	84·0	89·2	77·4	−0·2	64·6	72·6	73·1	70·1
Upper Sub-Himalayas.	Dehra Dun	2,233	27·698	27·619	·079	27·649	−·003	·844	82·7	59·3	23·4	86·0	51·0	35·0	75·4	79·8	70·2	−0·5	56·0†	64·1	65·9	62·0
	Roorkee	899	29·023	28·919	·104	28·961	+·006	·830	88·2	60·3	27·9	91·7	51·6	40·1	79·9	84·9	72·5	−1·0	58·6	67·6	67·1	64·4
	Meerut	738	·176	29·080	·093	29·118	0	·823	90·4	62·4	28·0	94·6	54·3	40·3	78·8	88·0	74·6	−0·1	59·2	66·8	69·2	65·1
	Lahore	702	·199	·112	·087	·144	−·005	·811	94·7	63·5	31·2	103·2	54·1	49·1	83·2	92·0	77·7	+2·0	58·2	68·0	70·5	65·6
	Ludhiana	812	·081	·006	·075	·033	−·009	·818	90·5	64·2	26·3	95·1	55·2	39·9	75·4	89·4	75·8	−0·1	60·6	65·0	66·7	64·1
Indus Valley and N.-W. Rajputana.	Peshawar	1,110	28·834	28·737	·097	28·775	+·001	·873	86·6	59·0	27·6	96·1	52·4	43·7	79·0	83·3	71·5	+0·1	53·2	64·5	65·9	61·2
	Jacobabad	186	29·712	29·612	·100	29·660	−·010	·805	100·2	64·1	36·1	105·9	53·5	52·4	90·0	95·6	80·8	+1·6	57·1	69·9	72·0	63·3
	Kurrachee	30	·903	·817	·086	·858	−·005	·838	93·7	70·7	23·0	105·1	60·8	41·3	88·5	88·6	80·8	+0·8	66·2	73·0	75·4	71·5
E. Rajputana, Central India and Gujarat.	Jaipur	1,431	28·516	28·419	·097	28·461	+·002	·832	95·0	64·7	30·3	99·3	55·5	43·8	87·3	92·7	78·5	+0·6	56·6	66·6	67·4	63·5
	Udaipur	1,925?	·029	27·925	·104	27·972		·818	93·4	63·1†	30·3	97·9	53·0	44·9	87·2	90·8	78·2†		55·9	65·3	64·6	61·9
	Deesa	466	29·463	29·345	·118	29·399	−·018	·807	102·0	69·8	22·2	106·4	57·9	48·5	92·7	99·4	85·8	+4·0	58·0	68·3	68·7	65·0
	Jamnagar	61	·872	·759	·113	·812		·818	96·3	71·0	25·3	101·9	66·0	35·9	88·8	93·2	82·3		65·4	72·3	70·9	69·5
Deccan.	Belgaum	2,539	27·396	27·288	·108	27·343	−·003	·787	84·0	65·8	18·2	89·3	62·6	26·7	78·6	81·1	73·7	+0·8	64·6	68·5	69·2	67·5
	Sholapur	1,590	28·342	28·214	·128	28·281	−·001	·802	90·3	69·7	20·6	95·9	64·8	31·1	83·6	88·0	78·7	+1·0	65·2	69·4	70·1	68·2
	Akola	930	29·010	·890	·120	·951	+·005	·823	91·8	67·7	24·1	96·8	62·4	34·4	85·1	89·0	78·8	+0·9	64·1	72·2	71·4	69·2
	Buldana	2,132	27·817	27·708	·109	27·757	−·015	·813	85·9	67·8	18·1	90·4	64·2	26·2	81·5	83·2	75·8	+0·1	62·3	68·5	67·8	66·2
	Khandwa	1,044	28·888	28·762	·126	28·826	−·010	·816	94·8	66·9	27·9	97·7	59·1	38·6	86·4	91·8	80·4	+2·2	61·9	70·2	68·6	67·2
	Nagpur	1,025	·914	·791	·123	·854	+·019	·830	90·5	67·9	22·6	95·1	62·6	32·5	83·7	87·7	78·3	−0·1	64·7	71·7	71·7	69·4
	Do. (Sanitary Commr.'s Office)	1,013	·918	·794	·124	·857		·825	90·4	68·1	22·3	95·6	62·4	33·2	83·9	88·3	78·4		64·2	71·2	71·4	68·9
	Hyderabad (Deccan)	1,690	·239	·126	·113	·185	+·009	·810	88·0	69·2	18·8	93·4	63·0	30·4	82·1	84·9	77·5	+0·7	66·7	71·9	71·5	70·0
West Coast.	Bombay	37	29·898	29·790	·108	29·841	−·006	·818	89·3	77·6	11·7	93·1	75·1	18·0	83·6	86·0	82·2	+1·5	73·8	77·5	78·7	76·7
	Karwar	44	892	·784	·108	·839	−·003	·817	86·3†	74·2	12·1	91·0	70·3	20·4	82·4	84·7	80·6*	+2·5	72·8	76·7	78·1	75·9

* Mean of 30 days.

II.

65 Stations in India, Burma, etc., for October, 1904.

Vapour Tension.					Humidity.					Cloud.				Wind Direction. Total number of 10 hours and 16 hours winds from											Wind Steadiness.		Wind Velocity.		Rainfall.		Station.	Meteorological Province.
From minimum.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	From minimum.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	Mean 10 hours.	Mean 16 hours.	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
																									%	%						
·839	·965	·941	·928	+·001	90	84	79	86	− 2	5·4	5·5	5·5	−0·9	1	1	1	3	23	8	7	9	9	S 1° W	S 1° W	34	26	121*	151	8·75	2·45	Port Blair	Burma Coast and Bay Islands.
·812	·923	·954	·912	+·007	90	86	84	92	+ 3	5·2	4·6	4·9	−1·0	11	3	9	10	10	3	3	2	11	N 68° E	S 36° E	21	30	30*	70	1·23	0·57	Rangoon	
·810	·923	·876	·877	−·003	82	79	75	81	− 4	4·7	4·5	4·6	−1·3	2	5	8	10	17	3	2	4	11	N 81° E	S 57° E	24	20	186*	190	4·90	1·30	Diamond Island, Cocos Island	
·822					86					5·5	6·2	5·9	+0·5	3	17	8	3	12	9	3	3	2	N 65° E	S 51° E	18	17	183†		2·36	1·05		
	·958	·918			83	77				3·2	2·4	2·8	−2·0			8	8	15	4	22	3	2	S 10° E	S 66° E	39	8	51*	60	1·93	1·22	Akyab	
·774	·876	·846	·833	−·019	96	78	73	83	− 2	5·0	4·1	4·6	−0·1		4	19	3	3	1	10	2	20	N 17° W	N 12° W	26	13	60*	67	1·79	0·82	Chittagong	
·769	·792	·758	·793	−·023	92	69	61	77	− 5	4·6	4·6	4·6	0	12	6	1	5	9	6	3	3	17	N 50° W	N 18° W	11	11	36	67	0·98	0·41	Calcutta (Alipore),	Bengal and Orissa.
·794	·882	·828	·822	−·031	89	77	70	80	− 1	5·3	4·9	5·1	−0·3		16	6	6	10	8	4	5	7	N 28° E	N 9° W	14	14	200	178	7·61	2·19	Saugor Island.	
·807	·847	·832	·830	−·004	94	72	69	79	− 1	6·1	5·9	6·0	+1·1		13	7	15	7	11	1	4	4	N 77° E	N 51° E	29	24	146*	144	5·15	1·84	False Point	
·507	·484	·454	·505	−·053	76	46	41	59	− 8	4·3	4·9	4·6	+0·1	7	10	4	5	6	10	3	3	14	N 24° W	N 30° W	11	24	118*	125	2·23	2·23	Hazaribagh	Gangetic Plain and Chota Nagpur.
·584	·654	·602	·614	−·003	89	56	44	66	0	1·3	1·9	1·6	−0·6	6	4	4	10	4	4	7	16	7	W	N 48° W	17	19	55*	74	5·64	4·86	Allahabad	
·416†	·463	·471	·453	+·002	80†	52	45	64	− 2	0·5	1·2	0·9	−0·4	28			2	3	13	2	11	3	S 36° W	N 42° W	29	19	17	31	0·53	0·51	Dehra Dun	Upper Sub-Himalayas.
·482	·519	·432	·481	−·012	90	50	36	64	+ 1	0·5	0·3	0·4	−0·5	14		1	3	19	2	2	3	18	S	S 6° E	6	7	43	31	0·13	0·13	Roorkee	
·473	·501	·473	·485	−·004	82	50	36	61	0	0·7	0·7	0·7	0	33	4	1	6				9	9	N 38° W	N 58° W	23	32	19*	29	0·03	0·03	Meerut	
·422	·488	·463	·465	+·020	72	43	31	53	+ 1	0·8	0·9	0·9	+0·1	6	9	7	7	16	1	2	7	7	N 62° E	N 9° W	18	11	66	38	0·04	0·04	Lahore	
·490	·497	·371	·458	0	81	55	26	59	+ 3	0·4	0·6	0·5	−0·5	22				8			28	4	S 84° W	N 41° W	40	22	21*	26	0·38	0·35	Ludhiana	
·339	·438	·429	·409	+·036	67	45	38	54	+ 3	1·3	2·7	2·0	+0·5	46	5	3	3	1	1		1	2	N 27° E	N 54° E	13	27	15*	55	0·47	0·42	Peshawar	Indus Valley and N.-W. Rajputana.
·386	·474	·479	·453	+·028	63	34	29	46	0	0·5	0·2	0·4	0	18	8	1	4	8	9	5	2	7	S 1° W	S 17° E	8	7	69*	50	0·01	0·01	Jacobabad	
·597	·629	·708	·683	−·009	79	47	54	66	− 2	0·4	0·2	0·3	−0·5	1	1	6			1	22	26	5	S 79° W	S 69° W	67	64	150*	226	0	0	Kurrachee	
·365	·397	·357	·378	−·024	59	30	23	41	− 5	0·9	1·9	1·4	−0·3	5	6	7	3	3	7	9	9	13	N 73° W	N 27° W	26	38	61	74	0	0	Jaipur	
·366†	·361	·288	·351		63†	28	20	41		0·8	1·5	1·2		20	1	5	11	7	2	3	12	1	S 52° E		10		40*		0·09	0·09	Udaipur	E. Rajputana, C. India and Gujarat.
·332	·372	·292	·345	−·103	45	25	16	32	−14	0·6	0·9	0·8	−0·9		15	11	5	6	7	8	5	5	N 17° E	N 78° E	16	12	189†	158	0	0	Deesa	
·555	·575	·459	·556		73	43	30	53		1·3	2·2	1·8		5	10	11	2	1		13	15	5	N 57° W		33		316*		0	0	Jamnagar	
·597	·575	·573	·593	−·006	93	60	55	74	− 2	4·8	6·3	5·6	+0·2	11	3	7	16	5	4	5	5	2	S 83° E	N 51° E	25	12	1296	230	3·49	1·65	Belgaum	Deccan.
·574	·546	·519	·562	−·011	78	49	40	59	− 2	4·5	6·2	5·4	−0·2	2	3	27	9	14		1	1	5	N 72° E	N 57° E	79	29	204*	197	4·94	2·81	Sholapur	
·559	·627	·542	·578	+·024	81	52	42	61	0	3·0	4·0	3·5	+0·4	22	4	10	2	10		4	1	9	N 38° E	N 18° E	14	30	62*	84	1·88	0·96	Akola	
·499	·540	·497	·513	+·013	72	51	45	59	0	3·7	4·5	4·1	+0·5	2	15	12	11	7	6	1	2	6	N 48° E	N 24° E	39	50	103*	125	2·50	0·91	Buldana	
·500	·533	·444	·494	−·036	75	43	31	53	− 5	2·8	3·8	3·3	+0·8	17	8	11	5	6	5	5	2	3	N 61° E	N 21° E	18	35	65*	74	0·06	0·05	Khandwa	
·575	·633	·584	·599	+·029	83	55	45	64	+ 3	2·6	4·6	3·6	−0·1	3	16	16	11	8	4	2		2	N 35° E	N 39° E	59	50	95*	94	1·92	0·75	Nagpur	
·560	·608	·564	·579		81	53	43	62		2·6	4·6	3·6		28		7		8			19		N 13° W		21		27*		2·59	0·78	Do. (Sanitary Commr.'s Office).	
·636‖	·662	·609	·645	+·011	89‖	61	52	71	+ 2	4·2	4·9	4·6	+0·4	36		1	18	3			3	1	S 88° E	S 31° E	27	32	73*	94	2·41	0·99	Hyderabad (Deccan).	
·783	·862	·889	·858	+·006	83	75	71	78	− 3	4·0	2·9	3·5	+0·4		1	12	11	5	3	1	10	19	N 4° W	N 9° E	26	32	181	218	0·56	0·26	Bombay	West Coast.
·791	·843	·876	·849	+·020	94	76	73	84	− 1	3·4	3·1	3·3	−1·1		4	1	1			4	41	11	N 79° W	N 75° W	82	66	83	60	1·92	0·69	Karwar	

* Corrected. § Mean of 28 days. ‖ Mean of 29 days.

Table

Abstract of Observations recorded at 10 A.M. and 4 P.M. at

Meteorological Province.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure.						Temperature of air.										Temperature, Wet-bulb.			
			Mean of 10 hours.	Mean of 16 hours.	Mean daily range.	Mean of daily mean pressures.	Departure from normal.	Mean reduced to S. L. and for gravity 45° Lat.	Mean maximum.	Mean minimum.	Mean daily range.	Highest maximum.	Lowest minimum.	Absolute range.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	Mean minimum.	Mean 10 hours.	Mean 16 hours.	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
South India.	Periyakulam	944	28·984	28·858	·126	28·938		29·798	89 0	70·7	18·3	95·1	65·0	30·1	82·1	84·9	78·4		69·3	74·3	74·5	72·4
	Salem	940	·997	·869	·128	·941	−·010	·814	91·0	71·5	19·5	97·7	64·4	33·3	83·7	86·2	79·7	+0·9	69·7	75·6	76·5	73·9
	Chitaldroog	2,405	27·538	27·422	·116	27·482	−·003	·750	86·2	68·0	18·2	92·2	62·8	29·4	80·2	83·7	75·6	+0·9	64·5	69·8	69·3	67·9
	Bangalore	3,021	26 958	26·835	·123	26·898	−·009	·798	83·0	65·1	17·9	87·2	59·4	27·8	76·6	80·1	72·6	+0·8	64·0	68·9	68·9	67·3
	Hassan	3,091	·900	·787	·113	·845	+·005	·812	83·5	63·2	20·3	87·4	56·1	31·3	77·7	78·5	71·9	+0·6	62·4	68·8	67·8	66·3
	Mysore	2,518	27·440	27·316	·124	27·379	−·015	·800	85·9	66·5	19·4	89·4	62·1	27·3	78·5	82·4	74·7	+0·6	65·7	70·1	71·2	69·0
	Madras	22	29·901	29·782	·128	29·844	−·001	·796	90·2	74·5	15·7	94·5	67·2	27·2	85·6	85·7	81·4	+0·6		77·0	77·2	76·3
	Bellary	1,475	28·451	28·314	·137	28·386	−·013	·793	91·4	71·7	19·7	97·0	64·2	32·8	83·2	87·0	80·3	+1·2	66·7	72·7	72·3	70·6
	Waltair	*226*	29·695	29·593	·102	29·640	+·009	·807	87·1	75·9	11·2	92·6	69·4	23·2	84·1	83·8	80·2	−1·0	71·9	74·8	75·0	73·9
Hill Station, Baluchistan.	Quetta	5,502	24·777	24·704	·073	24·732	+·043		74·5	38·3	36·2	84·2	28·9	55·3	66·4	69·2	56·4	−0·1	35·3	48·3	49·0	44·2
Hill Stations, Northern India.	Leh	11,503	19·783	19·689	·094	19·737	+·004		55·1	30·5	24·6	69·6	18·4	51·2	44·8	52·0	41·3	−1·4	26·9	34·0	38·2	33·0
	Srinagar	5,204	25·006	24·922	·084	24·962	+·027		67·8	41·5	26·3	76·7	34·6	44·1	55·9	65·3	53·1	−0·1	39·6	52·3	59·6	50·5
	Sarain		23·247	23·191	·056	23·211			64·1	40·9	23·2	71·7	34·8	36·9	58·1	56·1	52·5			47·1	47·5	
	Kalabagh †		20·212	20·174	·038	20·193			49·9	38·7	11·2	57·6	32·1	25·5	45·6	45·7	44·3			37·4	39·3	
	Simla (Ridge)	7,224	23·217	23·166	·051	23·183	+·014		61·9	50·6	11·3	67·1	37·2	29·9	57·0	58·8	56·3	−0·4	43·1	46·2	47·9	45·7
	Chakrata	7,022	·367	·325	·042	·340	+·005		67·4	50·8	16·6	71·5	37·9	33·6	62·9	60·6	59·1	+0·5	44·6	52·6	51·1	49·4
	Ranikhet	6,069	24·184	24·112	·072	24·140	+·008		68·4	54·6	13·8	73·4	44·2	29·2	61·2	65·2	61·5	−0·2	48·1	51·1	51·9	52·4
	Muktesar	7,500	22·922	22·859	·063	22·881			65·2	50·0	15·2	71·5	38·9	32·6	58·3	61·4	57·6		42·9	49·4	53·1	48·5
	Katmandu	4,388	25·706	25·606	·100	25·653	+·016‖		78·0	55·1	22·9	83·7	46·3	37·4	69·4	73·3	66·6	−0·3	54·0	62·7	64·7	60·5
	Darjeeling	7,376	23·089	23·049	·040	23·066	−·002		61·9	48·7	13·2	67·9	42·4	25·5	58·1	59·8	55·3	+0·1	46·8	55·0	57·1	53·0
Hill Stations, Central India.	Mount Abu	3,945	26·121	26·047	·074	26·078	−·012		80·7	65·4	15·3	85·2	59·4	25·8	77·2	78·1	73·0	+1·4	54·2	58·2	58·4	56·9
	Pachmarhi	3,528	·461	·379	·082	·414	−·051		80·5	59·0	21·5	83·1	51·2	31·9	72·5	77·3	69·8	+0·9	55·6	63·2	64·2	61·0
	Chikalda	3,642	·388	·293	·095	·335	−·015		79·5	64·6	14·9	84·2	61·9	22·3	75·7	77·5	72·1	+0·9	58·6	64·2	65·7	62·8
Hill Stations, S. India.	Kodaikaral	7,688	22·812	22·769	·073	22·802			62·2	51·1	11·1	67·2	45·3	21·9	58 9	57·0	55·2		48·9	51·9	54·6	52·7
	Ootacamund	7,382	23·067	·993	·074	23·028			61·1	51·2	12·9	66·7	47·7	19·0	60·9	59·4	57·7		49·9	55·2	55·2	53·4
	Dodabetta	*8,539*	22 063	21·987	·076	22·023			56·8	46·7	10·1	62·1	40·5	21·6	54·6	53·5	51·7			51·2	51·2	
Extra India.	Aden	94	29·888	29·780	·108	29·836	+·006	·861	89·2	76·7	12·5	92·7	73·9	18·8	84·3	86·5	81·4	−1·0	72·2	77·7	76·1	75·3
	Perim	201	·750	·639	·111	·697	+·004	·831	89·7	79·3	10·4	92·1	77·4	14·7	83·4	87·6	82·9	−1·3	72·6	76·3	76·5	75·1
	Minicoy	7	·956	·579	·077	·923		·855	85 8			88·3			83·2	82·8				77·4	76·9	
	Zanzibar	73	30·007§	·885	·122	·951	−·016	·953	83·4	74·6	8·8	87·2	71·9	15·3	78·6‡	82·6	77·4	−0·3	70·8	71·3‡	74·8	73·3
	Port Victoria (Seychelles)	15	29·985	·903	·082	·955	0‖	·894	82·5	72·0	10·5	84·5	69·6	14·9	80·9	81·2	75·9	−3·2‖	72·2‡	75·8	75·6	74·5‡
	Mauritius (Pamplemouses).	181				·924	−·029	30·053				87·1	54·6	32·5			71·6	−0·5				65·8

N.B.—Elevations in italics indicate barometric determinations. † Observation of 28 days. ‡ Wind variable 1.

II—*concluded.*

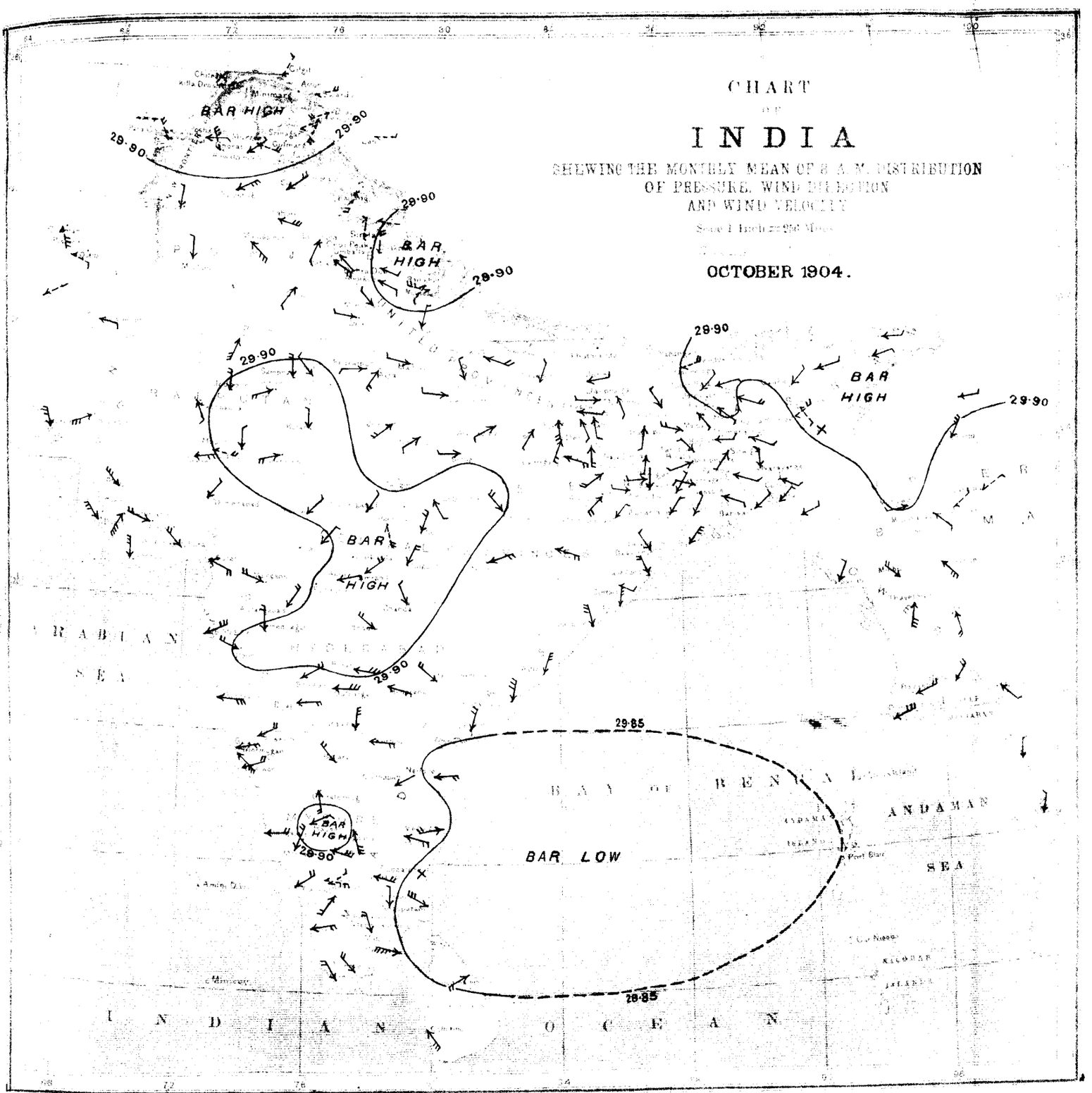
65 Stations in India, Burma, etc., for October, 1904—concluded.

Vapour Tension.					Humidity.					Cloud.				Wind Direction.										Wind Steadiness.		Wind Velocity.		Rainfall.		Station.	Meteorological Province.
														Total number of 10 hours and 16 hours winds from																	
From minimum.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	From minimum.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	Mean 10 hours.	Mean 16 hours.	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
																									%	%						
·699	·744	·716	·718		93	68	61	74		4·1	7·1	5·6		8	7	4	4	10	11	5	8	5	S 9° W		13		56*		7·59	1·76	Periyakulam	South India.
·700	·781	·790	·769	+·004	91	67	64	76	− 2	6·1	7·8	7·0	+0·9	9	2	12	5	2	9	6	14	3	S 69° W	S 51° W	10	26	81*	60	3·84	1·04	Salem	
·570	·602	·541	·585	−·013	83	59	48	66	− 3	4·4	4·8	4·6	−1·3	1	6	10	17	7	1	1	9	10	N 42° E	N 39° E	29	15	89*	134	7·25	2·88	Chitaldroog	
·587	·621	577	·609	+·001	91	68	57	76	− 2	5·5	4·7	5·1		1	7	16	16	2	1	4	13	2	N 39° E	N	29	8	135*	113	6·17	1·70	Bangalore	
·559	·603	·560	·583	−·010	96	64	59	76	− 1	5·9	7·2	6·6	−0·4	2	1	21	14	4	1	5	9	5	N 52° E	N 48° E	32	42	55*	60	8·64	2·02	Hassan	
·626	·635	·630	·644	+·016	95	65	58	76	+ 1	6·3	6·9	6·6	−0·7		5	11	11	10	3	10	11	1	S 62° E	N 63° E	13	12	181*	175	2·22	0·63	Mysore	
	·813	·824	·843	−·013		67	67	79	− 4	5·8	5·7	5·8	−0·2		7	15	16	6	3	4	4	6	N 60° E	N 51° E	37	20	109	115	2·33	0·60	Madras	
·600	·674	·614	·644	+·021	77	60	49	66	+ 1	4·9	5·7	5·3	−1·4	2	5	8	17	7	4	3	8	8	N 67° E	N 40° E	21	13	136*	103	10·96	4·38	Bellary	
·734	·745	·756	·760	−·032	82	65	66	73	0	6·1	6·2	6·2	+1·4	1	10	22	16	7	4	1	1		N 66° E	N 82° E	61	10	109		6·69	1·61	Waltair	
·180	·157	·143	·158	−·024	76	24	20	41	− 1	0·3	1·0	0·7	+0·1	10	6			2		3	19	22	N 63° W	N 60° W	64	42	33*	46	0	0	Quetta	Hill Station, Baluchistan.
·120	·109	·118	·114	+·010	38	40	35	38	− 4	3·8	5·2	4·5	+0·5		3	1			19	24	10	5	S 46° W	S 60° W	66	45	49	48	0	0	Leh	
·226	·359	·466	·305	+·063	85	79	73	79¶	− 1	2·9	4·1	3·5	+0·8	11	5	7	3	7	3	1	8	17	N 30° W	N 23° W	24	18	66*	72	3·58	1·62	Srinagar	Hill Stations, Northern India.
	·214	·244				44	55			1·5	2·2	1·9		24	1		3	4	11	17	1	1	S 18° W		40		60*		1·08	0·53	Sarain	
	·156	·191				52	61			1·5	2·9	2·2		21	8		3	6			3	15	N 24° W		28		189*		1·21	0·60	Kalabagh	
·203	·204	·224	·208	−·028	55	44	45	49	− 4	0·9	1·4	1·2	−0·2	16	25			1	18	1		1	N 7° W	N 24° W	10	16	66*	108	0·99	0·56	Simla (Ridge)	
·235	·294	·282	·268	−·011	65	53	54	58	− 2	1·4	2·2	1·8	+0·1	12	4			2	43			1	S 1° E	S 51° W	64	32	143*	149	0·77	0·64	Chakrata	
·273	·319	·331	·306	−·018	64	53	52	57	− 5	1·7	1·1	1·4	−0·4	32		1		1		13	12	3	S 72° W	S 57° W	37	50	49*	53	0·31	0·21	Ranikhet	
·209	·267	·324	·265		57	54	59	58		2·8	3·3	3·1		10	1	1		3	1	16	29	1	S 72° W		64		138*		0·45	0·37	Muktesar	
·412	·498	·508	·471	−·005	94	69	59	75	0	3·1	3·0	3·1	−0·9		2	3	17	3	4		21	12	N 51° W	S 86° W	18	34	11	16	2·56	1·88	Katmandu	
·303	·405	·441	·382	+·012	87	83	86	86	+ 1	5·3	5·8	5·6	−0·4	11		15	5	11	1	5	4	10	N 54° E	S 88° W	14	15	82*	79	8·40	5·48	Darjeeling	
·295	·271	·264	·277	−·056	47	29	28	38	− 8	1·1	1·5	1·3	−0·5	2	5	16	1	12	9	5	2	10	N 72° W	N 46° W	12	13	136*	118	1·48	0·80	Mount Abu	Hill Stations, Central India.
·411	·473	·449	·445	+·016	81	60	49	66	+ 4	2·9	3·0	3·0	−0·4		6	19	4	12	3	9	4	5	N 67° E	N 30° E	21	28	97*	77	0·64	0·41	Pachmarhi	
·430	468	·498	·466	+·008	70	54	54	62	− 1	3·6	4·5	4·1	+0·7	41	2	8		5	1	4		1	N 73° E	N 3° E	10	40	170*	146	2·34	1·41	Chikalda	
·330	·396	·401	·375		88	79	87	86		6·3	7·3	6·8		1	20	4	5	5	7	1	4	14	N 9° W		35		315		12·29	1·53	Kodaikanal ‡	Hill Stations, S. India.
·346	·380	·396	·369		91	71	78	80		6·0	8·0	7·0		4	6	11	16	5	3	3	7	7	N 53° E		27		133*		5·20	1·22	Ootacamund	
	·344	·354				80	86			5·0	5·4	5·2		3	13	16	12	4	2	4	4	4	N 49° E		42		368		7·30	1·42	Dodabetta	
·737	·859	·761	·830	+·068	80	73	60	77	+ 8	1·4	0·5	1·0	−0·7	1		16	17	22	2	3	1		S 78° E	S 78° E	66	55	243*	307	0	0	Aden	Extra India.
·715	·776	·767	·797	−·048	71	61	59	70	− 1	0	0	0	−1·2‖				8	32	22				S 31° E	S 85° E	87	80	410*	444	0	0	Perim	
	·861	·843				76	76			5·5	6·3	5·9			9	2	4	4	1	2	22	18	N 57° W		53		173*		6·05	2·02	Minicoy	
·706	·792§	·761	·797	−·013	82	81§	68	83	0	6·3§	4·8	5·6	+0·5		5	6	4	11	19	13	2		S 10° E	S 6° E	45	47	125*	120	5·32	3·24	Zanzibar	
·791?	·828	·817	·825?	+·031?	99?	78	76	86?	+ 5?	5·2	5·6	5·4	−0·8‖	5			9	37	10	1			S 43° E	S 39° E	81	54	210	187	2·82	1·10	Port Victoria (Seychelles).	
			·548	−·004				71	+ 1			6·7	+1·0										N 84° E	S 78° E			226	264	1·02	0·29	Mauritius (Pamplemouses)	

§ Mean of 29 days.
‖ Departures from old normal.

* Corrected.
¶ Mean of three previous columns.

G. I. C. P. O.—No. 701 Meteor.—3-3-1905—385.

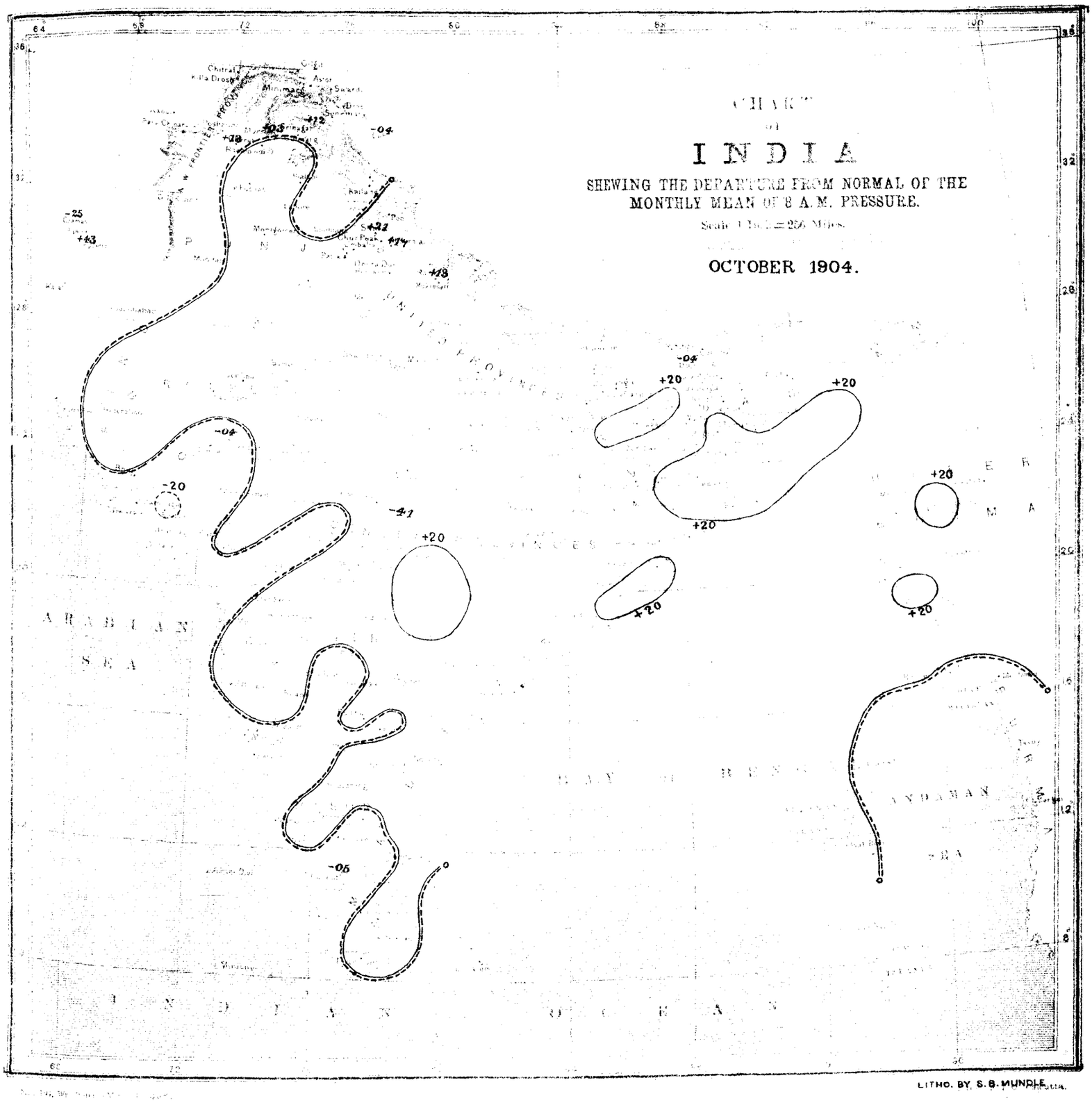


Explanation.

The lines of the above Chart represent isobars or lines of equal barometric pressure, and the numbers attached indicate the barometric pressure in inches and are 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 ordinary or normal distribution of pressure as given in the Charts of the Bay of Bengal prepared by Mr. Dallas, 1st Assistant Meteorological Reporter to the Government of India, and published by the Meteorological Department. Hence they have not the same validity as the isobars in the land area of India itself, but it is probable they deviate very little from the actual.

The mean 8 a.m. 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 I of the 8 a.m. 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 „ „ „ „ „



LITHO. BY S. B. MUNDLE, CAL.

Explanation

The Chart shows the departure from the normal of the mean 8 a.m. pressure of the month by means of lines drawn for equal amounts of departure (of two hundredths of an inch or ·020″). 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.

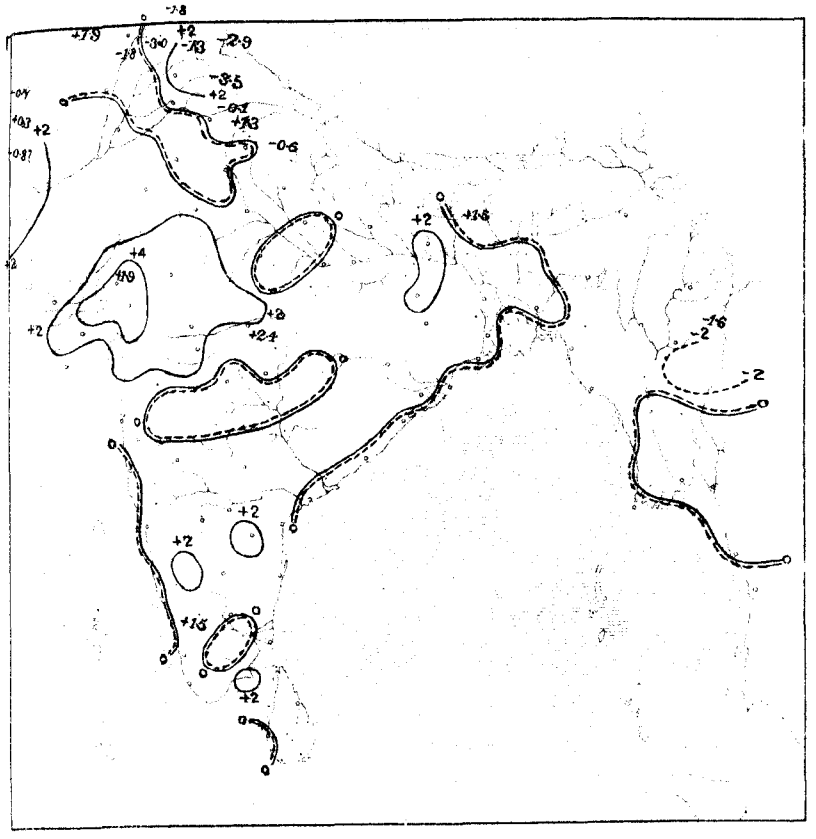
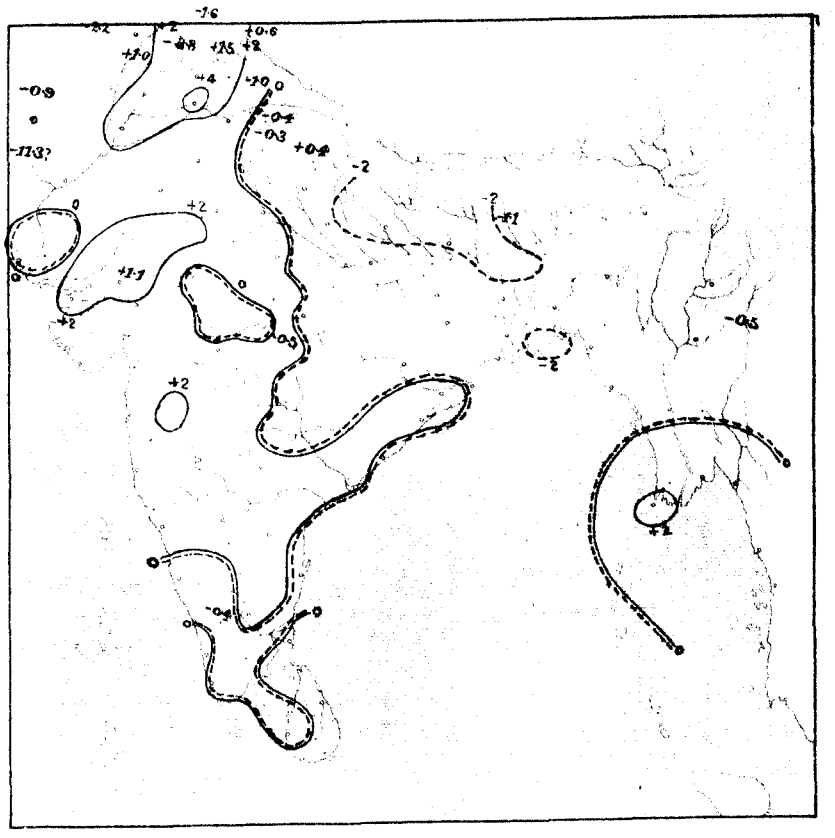


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MINIMUM TEMPERATURE.



Explanation.

Continuous lines indicate that the mean maximum of month was in excess by amounts indicated by the attached numbers; broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no departure, the broken line facing the area of deficient temperature.

Continuous lines indicate that the mean minimum of month was in excess by amounts indicated by the attached numbers; broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no departure, the broken line facing the area of deficient temperature.

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

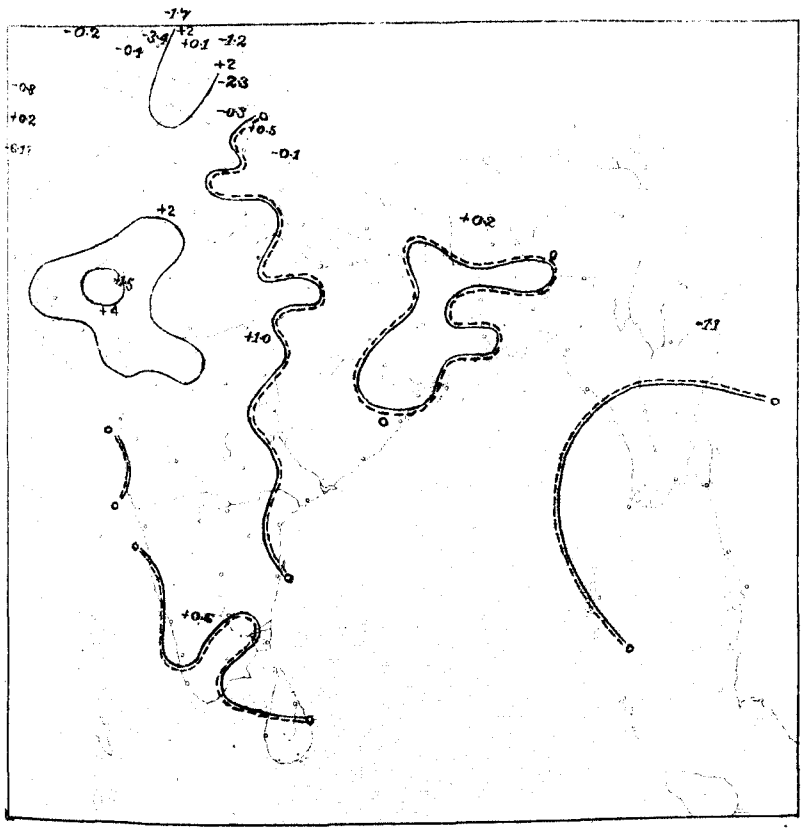
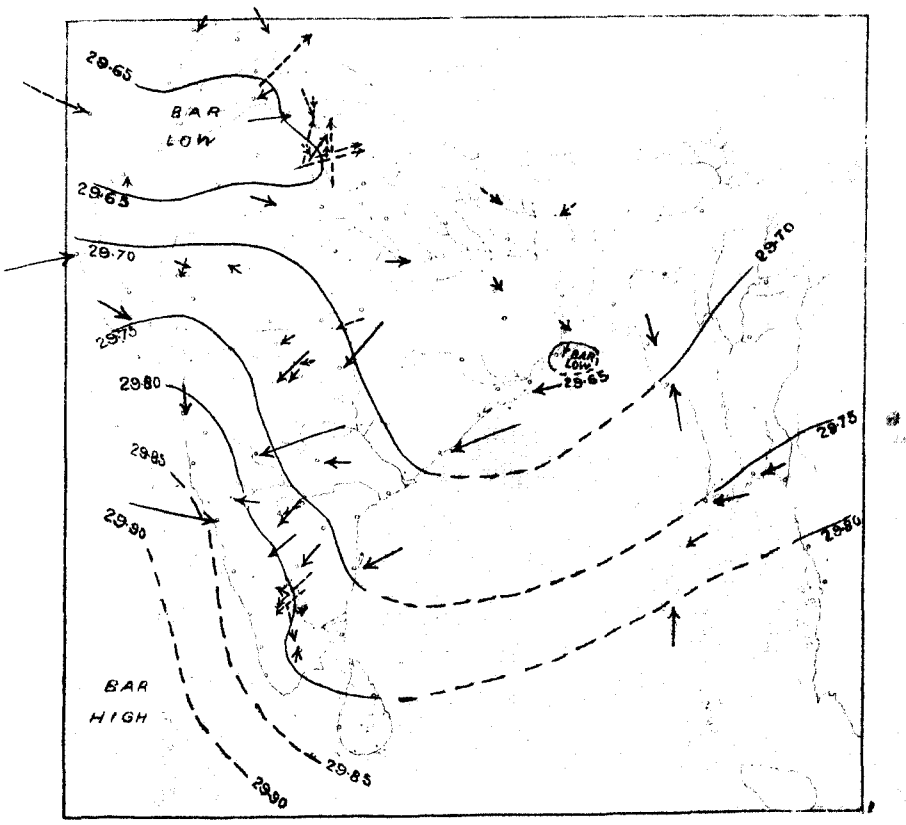


CHART SHEWING THE MONTHLY MEAN OF PRESSURE AND RESULTANT WIND DIRECTION.



LITHO. BY S.B. MUNDLE

Explanation.

Continuous lines indicate that the mean daily temperature of month was in excess by amounts indicated by the attached numbers: broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no departure, the broken line facing the area of deficient temperature.

The Chart is prepared in the same manner as the Monthly Charts which previously to 1890 appeared in the Annual Reports, the only alteration made being that pressures are reduced to constant gravity (45°). The isobars are given for each twentieth of an inch. The arrows show the directions of the resultants of the wind recorded at 10 and 16 hours, and by their lengths the percentage of the observations expressing the numerical value

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

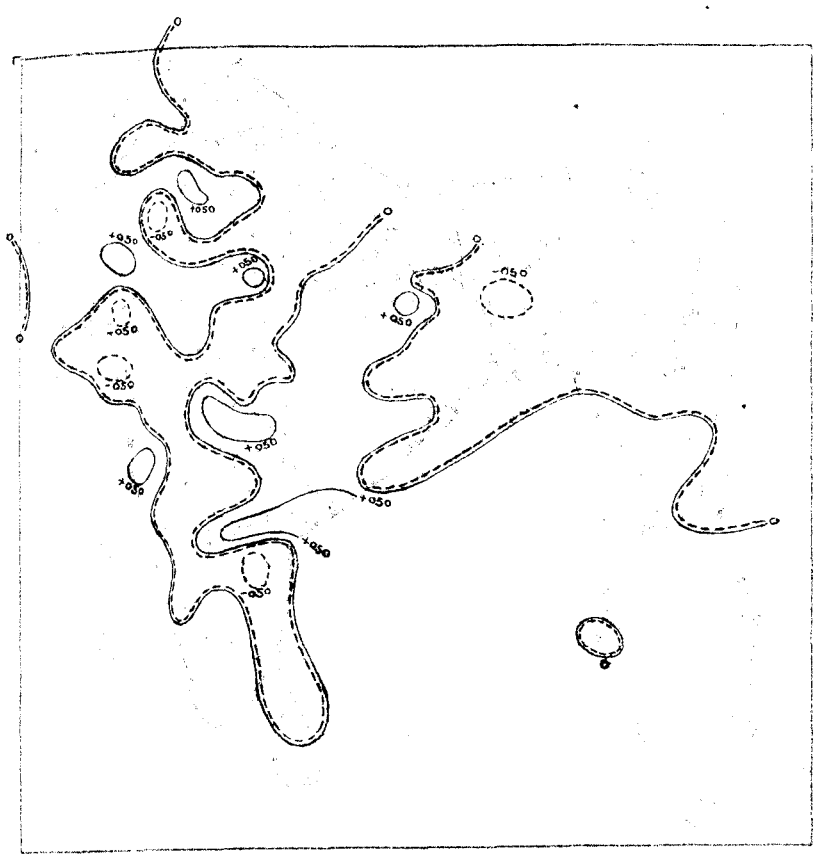
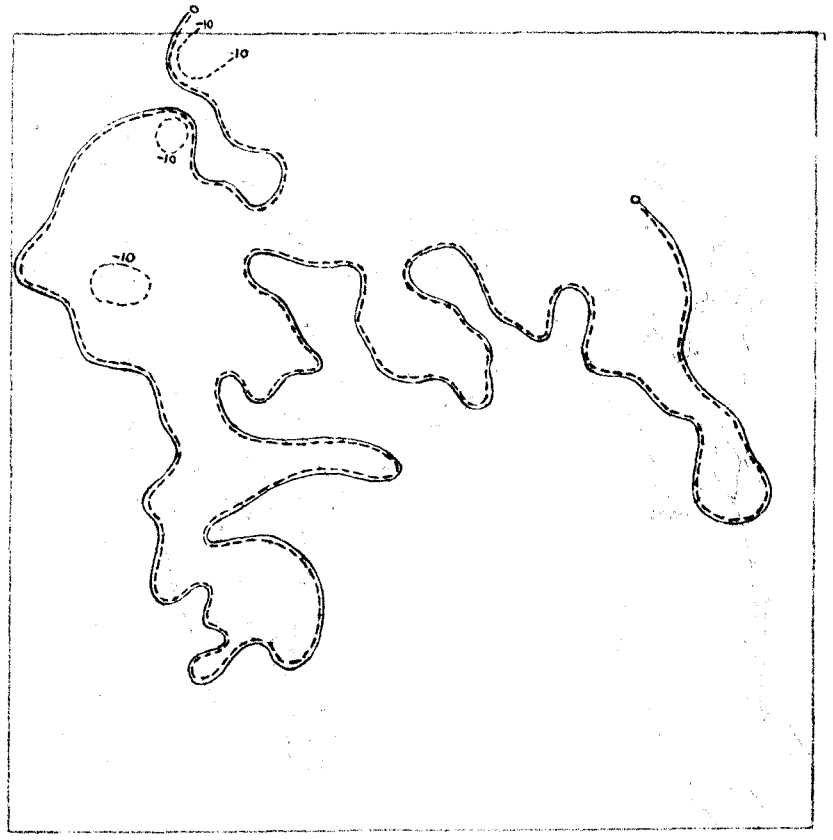


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF RELATIVE HUMIDITY AT 8 A. M.



Explanation.

Continuous lines indicate that the mean absolute humidity of month was in excess by amounts indicated by the attached numbers; broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no departure from the normal the broken line facing the area of deficient humidity

Continuous lines indicate that the mean relative humidity of month was in excess by amounts indicated by the attached numbers; broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no departure from the normal, the broken line facing the area of deficient humidity

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

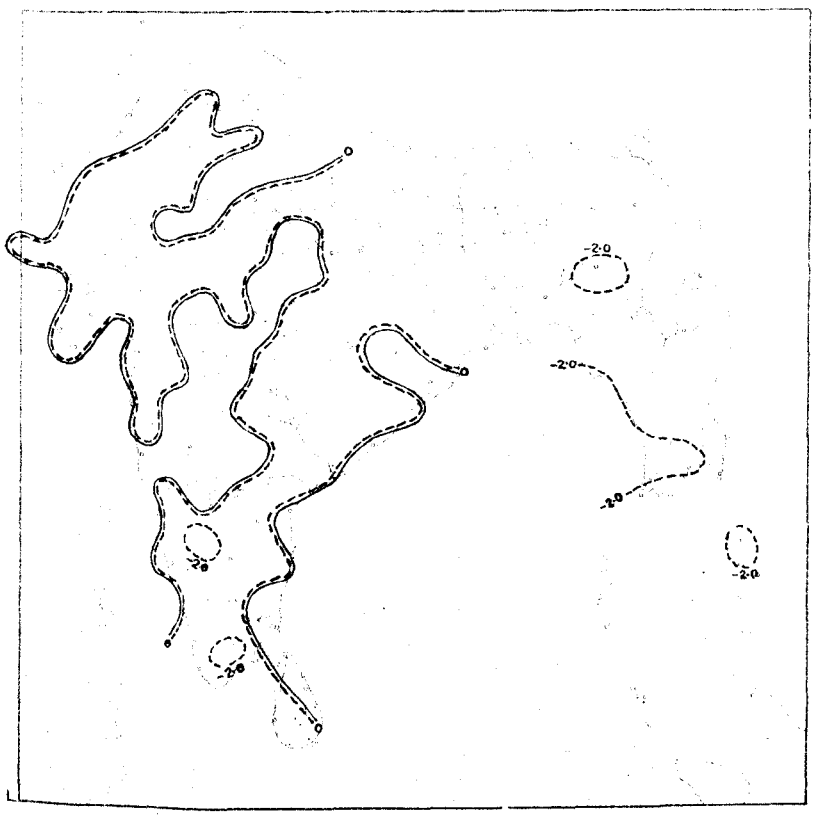
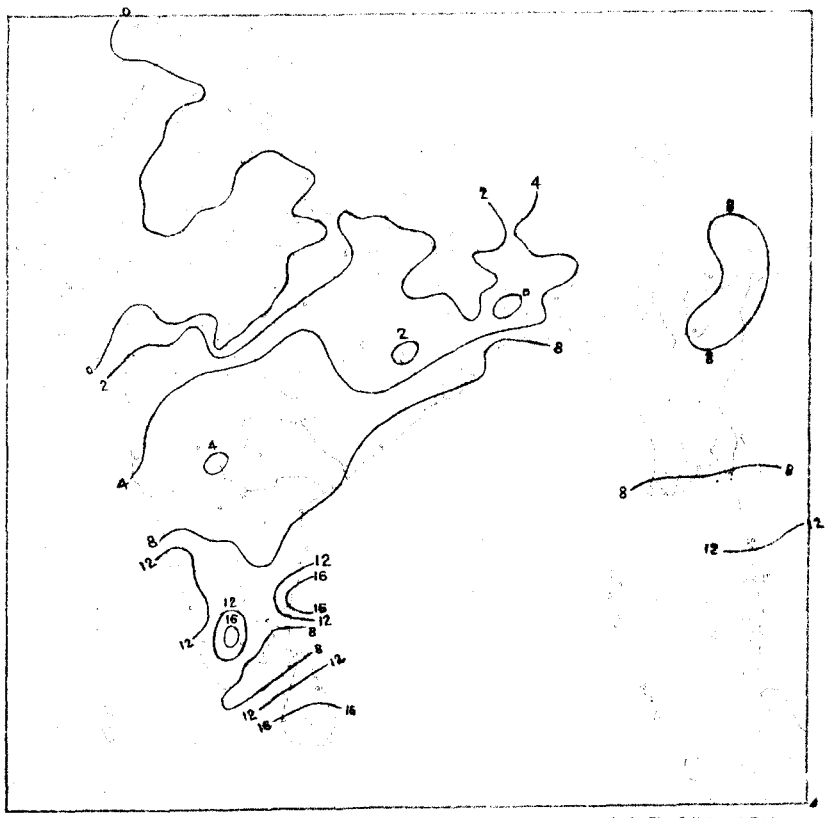


CHART SHEWING THE TOTAL NUMBER OF DAYS IN THE MONTH ON WHICH RAINFALL EXCEEDED 0·10 INCH.

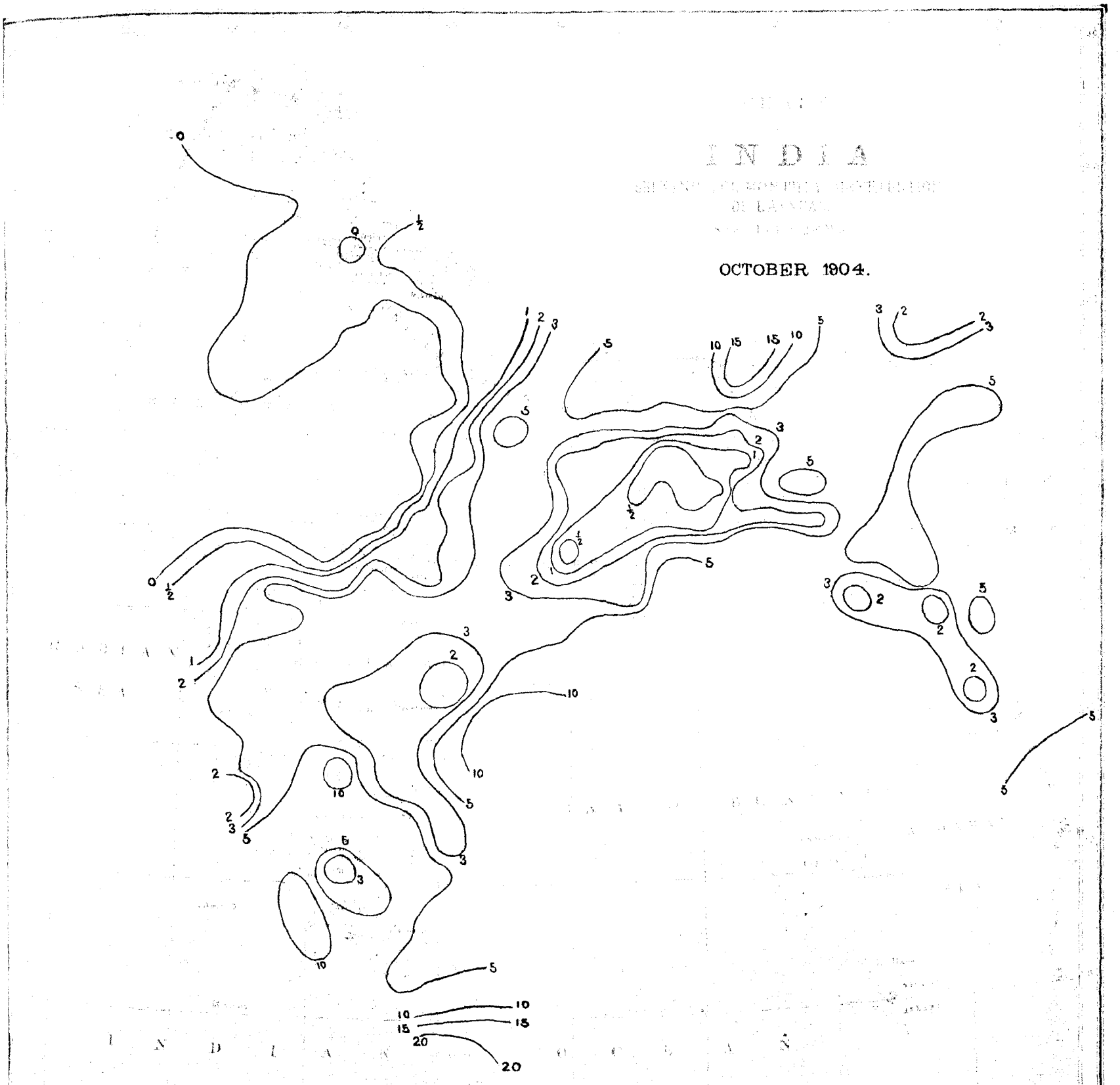


LITHO. BY S.B.MUNDLL.

Explanation.

Continuous lines indicate that the mean cloud amount of month was in excess by amounts indicated by the attached numbers; broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no departure from the normal, the broken line facing the area of deficient cloud.

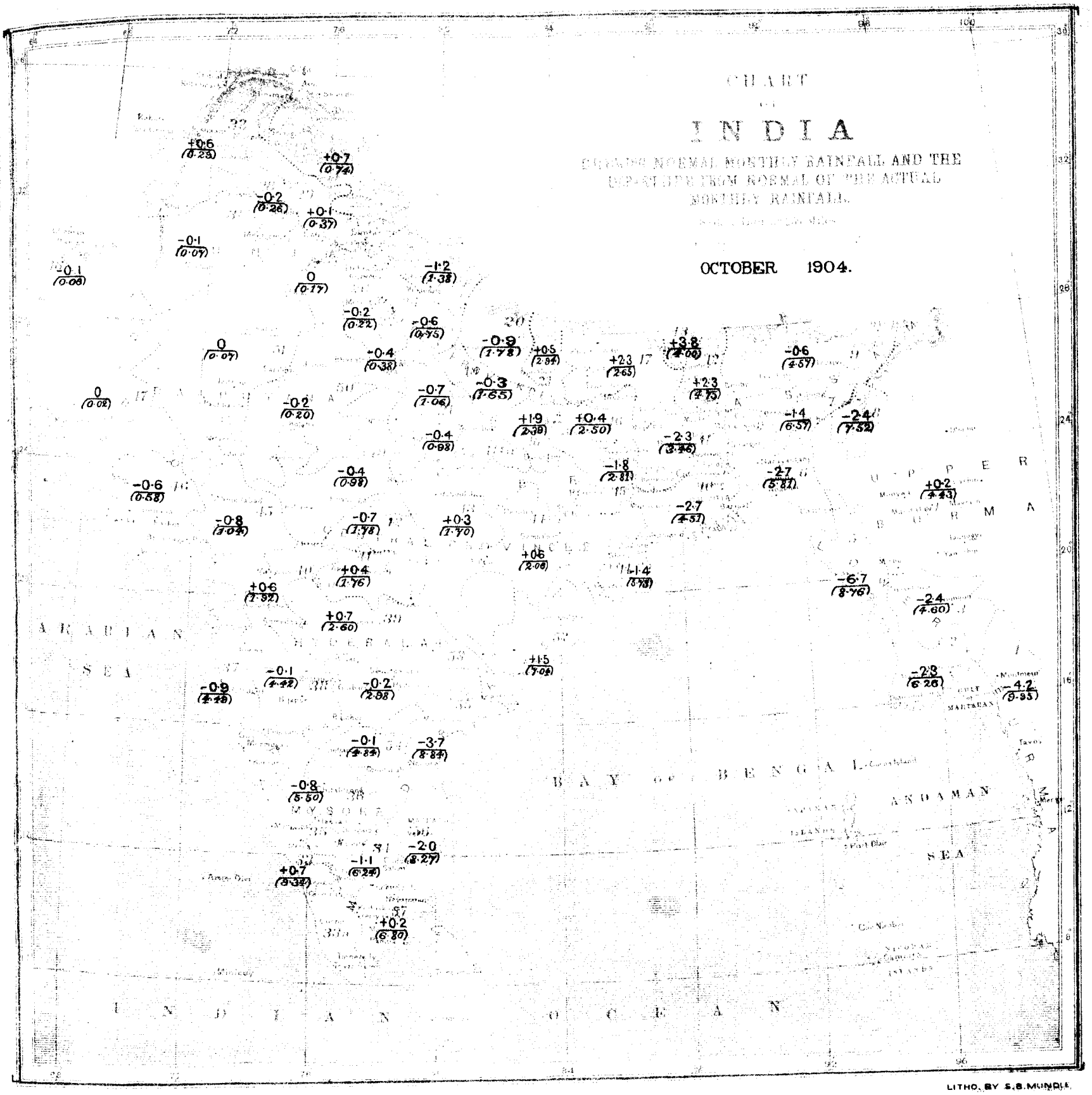
A rainy day is one on which 0·10 inch or more of rain is received within 24 hours



LITHO. BY S.B. MUNDLE.

Explanation.

The Chart shows the distribution of the rainfall of the month by means of isohyetic lines or lines of equal amounts of rain. The data used in the preparation of this Chart are the rainfall returns of all the observatories in India except those at the Hill Stations over 3,500 feet in elevation (177 in number). The double line or line of no rainfall separates areas in which the rainfall exceeded a tenth of an inch from those where it was actually or practically *nil* (*i.e.* less than a tenth of an inch). The dotted line faces the area of no rainfall.



LITHO. BY S.B.MUNDLE.

Explanation.

The Chart gives the departures of the rainfall of the month (in tenths of an inch) from the normal over the whole of India and Burma. The country is divided into 57 areas, over each of which the meteorological conditions are fairly uniform, and the staple crops similar in character; and the means (both actual and normal for the month) have been calculated, and the numbers given in the centre of each division (usually with a + or − sign attached) give the difference between the actual and normal mean rainfall of the district of the month. A plus sign indicates that the rainfall was in excess, and a negative sign that it was in defect by the amounts indicated by the numbers to which the signs are attached. The normal average rainfall is also given below in the amounts indicated by the numbers to which the signs are attached. The normal average rainfall is also given below in the amounts indicated by the numbers to which the signs are attached. The name of smaller figures enclosed within brackets so that the percentage departure from the normal can be at once estimated. The name of the district can be at once ascertained by referring in the following list to the number given near the right hand boundary of each district in small slanting red figures.

1. Tenasserim
2. Lower Burma Deltaic
3. Central do.
4. Upper do.
5. Arakan
6. East Bengal
7. Assam, Surma
8. Do., Hills
9. Do., Brahmaputra
10. Deltaic Bengal
11. Central do.
12. North do.
13. Bengal Hills
14. Orissa
15. Chota Nagpur
16. South Bihar
17. North Bihar
18. United Provinces, East
19. South Oudh
20. North do.
21. United Provinces, Central
22. Do. do., West
23. Do. do., East Submontane
24. Do. do., West do.
25. Do. do., Hills
26. South East Punjab
27. South do.
28. Central do.
29. Punjab, Submontane
30. Do., Hills
31. West Punjab
32. North West Frontier Province
33. Malabar
33a. Travancore
34. Madras, South Central
35. Coorg
36. Mysore
37. Konkan
38. Bombay Deccan
39. Hyderabad, North
40. Khandesh
41. Berar
42. Central Provinces, West
43. Do., Central
44. Do., East
45. Gujarat
46. Kathiawar and Cutch
47. Sind
48. Baluchistan Hills
49. Central India, East
49a. Do. do.
50. Rajputana East, Central India West
51. West Rajputana
52. Madras, East Coast, North
53. Hyderabad, South
54. Madras, Central
55. Madras, East Coast, Central
56. Do. East Coast, South
57. Madras, South

GOVERNMENT OF INDIA.

METEOROLOGICAL DEPARTMENT.

MONTHLY WEATHER REVIEW

PUBLISHED BY ORDER OF

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CALCUTTA, NOVEMBER, 1904.

INTRODUCTION.

THIS review of the weather in India during the month of November 1904, is based on observations taken daily at 8 A.M. at 231 stations, and on additional observations taken at 10 A.M. and 4 P.M. at 64 stations. In the rainfall summary the rainfall data of the meteorological observatories, and the rainfall statements of the month, published by the Provincial Governments, that had been received up to the date of the publication of the review are utilized. A summary of the weather in the Bay of Bengal and the Arabian Sea, derived from information extracted from the logs of vessels entering the ports of Calcutta and Bombay, is also given, and brief notes on Solar and Magnetic disturbances are supplied by the observatories.

Summary of the chief features of the weather in India during the month of November, 1904.

During November the weather is almost invariably fine over northern and central India with clear skies and light winds, but is often disturbed in the Bay area. The month is practically rainless over India to the north of Lat. 21° N., except in Assam and Bengal, which receive rain from the cyclonic storms over the Bay. These storms usually originate over the south of the Bay and travel westward or north-westward to the Madras Coast. The Peninsula to the south of Lat. 15° N. receives moderate to heavy rain due to the retreating south-west monsoon current in the Bay. The rainfall is usually heaviest in the Coromandel coast districts south of Madras, and in Mysore, the Nilgiris, Palnis, and other hills of southern India.

The principal features of the weather of the month of November 1904, were the unusual unsettledness over Burma and the east of the Bay and upper India and the failure of the autumnal rains over the east and south of the Peninsula.

At the commencement of the month the weather was showery and unsettled over Burma and the east of the Bay. A slight cyclonic storm or storms affected this region between the 1st and the 6th, during which period rain was general over Burma and Assam and the mean temperature generally below the normal. The following gives comparative data for these two provinces for these six days:—

Province or Division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of					
	1st November.	2nd November.	3rd November.	4th November.	5th November.	6th November.
Burma . . .	+0°5	+0°3	−0°3	+0°7	−2°7	−2°2
Assam . . .	−2°2	−2°4	−1°0	+0°9	+0°5	−1°9

During these days the mean temperature was excessive over Bombay and the greater part of north-west India,

where both the day and night temperatures were above the average. This is shown below :—

Province or Division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of					
	1st November.	2nd November.	3rd November.	4th November.	5th November.	6th November.
	°	°	°	°	°	°
Sind	+0·2	+1·8	+ 2·9	+3·6	+1·3	+3·3
Rajputana	+3·0	+1·3	+ 2·0	+2·3	+2·4	+ 0·6
Gujarat	+2·9	+3·0	+ 2·2	+2·1	+1·4	+0·1

In most other parts of the country, though fine dry weather prevailed, cool northerly winds were reported and the mean temperature was considerably lower than usual. This, however, was not the case on the Madras Coast and over the southern districts of that presidency where, owing to the absence of rain, the heat was greater than usual. The following gives data for the Peninsular and central divisions :—

Province or Division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of					
	1st November.	2nd November.	3rd November.	4th November.	5th November.	6th November.
	°	°	°	°	°	°
Central India	+1·7	+0·1	— 1·1	— 1·6	—1·9	—2·5
Central Provinces	—0·2	—1·5	— 2·5	— 3·3	—3·5	—3·6
Berar	+1·1	—1·4	— 2·4	— 1·7	—2·5	—3·6
West Coast	+0·5	—0·1	+ 0·4	— 0·3	—1·0	—1·5
Bombay Deccan	+1·3	—0·2	— 0·1	— 1·2	—2·7	—3·5
Mysore	—1·2	—1·2	— 0·7	— 1·8	—2·6	—4·0
Madras Coast	+0·2	+0·8	+ 0·5	+ 1·0	+0·1	+1·1
Madras Deccan	—0·3	—0·8	— 1·9	— 2·5	—3·9	—4·0
South India	+0·1	+0·8	+ 1·1	+ 1·5	+1·6	+0·2

Between the 8th and the 12th there were again showers over Burma and Assam and relatively low temperatures were registered. This is shown below :—

Province or Division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of				
	8th November.	9th November.	10th November.	11th November.	12th November.
	°	°	°	°	°
Burma	—0·5	—1·0	—0·1	—0·2	—0·5
Assam	+1·1	+1·3	+0·2	+0·8	—2·2

Over India, on the contrary, with the exception of a few showers in the south, the weather was steadily fine. The heat was very excessive at this time over north-west India. In Sind the excess was about equal by day and night, but over the Punjab very high night temperatures were recorded at this time. The following gives data for north-west India and the Gangetic Plain :—

Province or Division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of				
	8th November.	9th November.	10th November.	11th November.	12th November.
	°	°	°	°	°
Bihar	—1·1	—2·9	—2·2	—0·4	+1·6
United Provinces of Agra and Oudh.	—0·6	+1·4	+2·4	+3·0	+4·7
Punjab	+4·1	+3·6	+5·5	+4·6	+6·7
N.-W. Frontier Province	+4·1	+2·4	+5·9	+3·9	+5·8
Sind	+4·4	+7·3	+4·7	+5·3	+5·4
Rajputana	+3·2	+5·5	+5·4	+5·1	+5·4
Gujarat	+0·7	+0·5	+0·5	+1·4	+1·3

Notwithstanding some showers the mean temperature remained higher than usual in Madras. This is shown below :—

Province or Division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of				
	8th November.	9th November.	10th November.	11th November.	12th November.
	°	°	°	°	°
Madras Coast	+2·1	+1·9	+2·4	+1·0	+0·1
Madras Deccan	+2·2	+2·0	+0·6	+2·0	+2·9
South India	+2·5	+2·6	+3·4	+1·0	+1·7

On the 12th, an important change took place in the north-west. Unsettled, showery weather appeared over Kashmir and a small shallow depression advanced into Sind from the westward. This depression passed quickly eastward during the 12th and was shown over the western districts of the United Provinces on the morning of the 13th. The storm was of very feeble intensity as measured by the barometer, but there was a large excess of moisture in the air over north-west India and the precipitation, which accompanied and followed the storm, was

heavy and extensive. The following were the falls of rain exceeding 2" in 24 hours:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Multan	Kabir Wala	13th November	2·34
Bareilly	Oganpur	14th ,,	2·60
	Baheri	,, ,,	2·45
	Karor	15th ,,	3·25
	Nawabganj	,, ,,	2·25

This precipitation was succeeded by a well-marked cold wave which passed across northern India. As this wave advanced eastward temperature rose briskly over Baluchistan and the extreme north-west of India. The following gives comparative data from the 14th to the 18th for all divisions of northern India:—

Province or division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of				
	14th November.	15th November.	16th November.	17th November.	18th November.
	°	°	°	°	°
Bengal	+1·8	+ 0·5	+0·4	−0·1	−1·2
Orissa	+2·9	+ 2·5	+1·9	+1·6	−1·9
Bihar	+2·4	− 3·8	−0·8	−2·5	−2·5
Chota Nagpur	+4·9	+ 1·5	+0·1	−2·4	−2·7
United Provinces of Agra and Oudh.	+1·8	− 4·7	−5·2	−3·1	−2·6
Punjab	−4·5	−2·2	−2·4	−1·2	+0·7
North-west Frontier Province	+0·3	+1·7	+1·1	+3·4	+5·0
Sind	+1·0	+2·4	+4·6	+4·2	+2·5
Rajputana	−5·0	−4·0	−1·2	−1·9	−0·3
Gujarat	−0·9	−2·1	+0·4	+1·5	+2·3
Central India	+2·3	−2·1	−2·2	−3·1	−2·6
Central Provinces	+2·7	+0·	−1·0	−3·4	−3·5

From the 19th to the 22nd conditions were quiet over the Indian area. There was practically no rain and the mean temperature was higher than usual over the Indus Valley, the Bombay Presidency and the south and south-east of the Peninsula, while it was lower than usual elsewhere. The departures were not generally large or important, but in Sind the excess and in the Deccan the deficiency were greater than in other parts of the Indian area. The following gives comparative data for these divisions:—

Province or division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of			
	19th November.	20th November.	21st November.	22nd November.
	°	°	°	°
Sind	+3·5	+2·9	+4·2	+4·1
Bombay Deccan	0	−1·2	−3·4	−4·8
Madras Deccan	+1·5	−1·3	−2·8	−3·2

On the morning of the 23rd a slight cyclonic storm passed from the Bay into north-east India crossing the coast near Chittagong. The storm occasioned a good deal of rain over north-east India, and temperature fell fast over that area. The following gives data for Burma, Assam and Bengal from the 22nd to the 26th:—

Province or division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of				
	22nd November.	23rd November.	24th November.	25th November.	26th November.
	°	°	°	°	°
Burma	−1·1	+0·3	+0·6	+0·5	−0·5
Assam	−1·9	−3·0	−6·3	−3·1	−2·4
Bengal	−0·7	−3·5	−3·1	−2·6	−2·2

The only other important departures of mean temperature from the normal were shown in Sind and Gujarat and the Deccan, where the excess and deficiency, previously referred to, still continued. The following gives data for these areas:—

Province or division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of				
	22nd November.	23rd November.	24th November.	25th November.	26th November.
	°	°	°	°	°
Sind	+4·1	+6·0	+8·4	+3·3	+1·1
Gujarat	−0·5	0	+1·6	+1·9	+2·2
Bombay Deccan	−4·8	−5·9	−4·7	−3·1	−2·0
Madras Deccan	−3·2	−3·9	−4·0	−2·6	−1·8

From the 27th to the end of the month the weather was quiet and rainless over the Indian area. The mean temperature was steadily excessive over north-western and part of central India and was lower than usual over

north-east India, Burma, and the greater part of the Peninsula. The following gives data for all divisions for this period :—

Province or division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of			
	27th November.	28th November.	29th November.	30th November.
	°	°	°	°
Burma	−0·7	−2·5	−3·0	−2·3
Assam	−4·5	−3·6	−4·3	−4·0
Bengal	−3·0	−2·9	−2·6	−2·0
Orissa	+0·2	−2·3	−2·4	−2·5
Bihar	−2·5	−2·9	−2·3	−1·8
Chota Nagpur	−1·1	−2·4	−2·0	−1·4
United Provinces of Agra and Oudh	−0·8	−1·2	+1·1	+2·1
Punjab	+0·9	+2·4	+5·0	+0·9
North-west Frontier Province	+3·8	+1·4	+2·2	+1·4
Sind	+4·8	+5·7	+4·6	+3·6
Rajputana	+2·2	+2·2	+4·2	+3·2
Gujarat	+3·2	+3·0	+2·0	+2·5
Central India	+0·9	+1·0	+1·7	+2·7
Central Provinces	+0·6	−1·2	−0·8	0
Berar	+1·8	−0·2	−0·7	−0·3
West Coast	−1·2	−1·3	−1·9	−1·2
Bombay Deccan	−0·5	−0·1	−1·1	−1·6
Mysore	−2·4	−1·3	−0·7	−1·0
Madras Coast	−0·7	−0·3	−0·6	−1·4
Madras Deccan	−0·7	+0·1	−0·7	−0·9
South India	−1·6	−1·3	−0·6	−0·6

Pressure :—The mean pressure of the month was in excess over the whole Indian region by amounts averaging 0·038″. The excess was small on the Burma coast, over west Bengal and over the Indus Valley and was greatest and more than 0·060″ over the west and south of the Peninsula. Pressure, on the mean of the month, was highest over the north of the North-west Frontier Province and the north Punjab and was relatively high over the east and south Punjab, Rajputana, and the central parts of the country, while it was low on the Burma coast, the south of the Bay, Ceylon and over the south coasts of the Peninsula. Pressure was also relatively high over the upper Assam Valley. The range of pressure was less than usual.

The excess of pressure over the Indian region extended southward over Ceylon and the Indian seas as far as the south-east Trades region, but over the countries to the westward of India the departures of the mean pressure from the normal were irregular.

The following table gives the mean pressure departures and anomalies of the month for the eleven meteorological provinces :—

Meteorological Province.	Departure from normal of mean 8 A.M. pressure of November, 1904.	Pressure anomaly, November, 1904.
	″	″
Burma Coast and Bay Islands	+·024	−·014
Burma Inland	+·019	−·019
Assam	+·027	−·011
Bengal and Orissa	+·022	−·016
Gangetic Plain and Chota Nagpur	+·025	−·013
Upper Sub-Himalayas	+·025	−·013
Indus Valley and North-West Rajputana	+·023	−·015
East Rajputana, Central India, and Gujarat	+·043	+·005
Deccan	+·047	+·009
West Coast	+·063	+·025
South India	+·056	+·018

Temperature :—The mean day or maximum temperature was lower than usual over Burma, Assam, East Bengal, North Bengal, Bihar, the Gangetic Plain, the Punjab and the North-west Frontier Province. The deficiency was considerable and more than 2° over a large part of Burma, Assam, the east of the United Provinces and Oudh, the west of the United Provinces and the east and centre of the Punjab, and the north of the North-west Frontier Province. Maximum temperature was also low, but by small amounts, along the Bombay coast. The mean maximum temperature was in excess elsewhere and the excess was moderate to considerable over Madras, Gujarat, and Sind. On the north-western hills the mean day temperature was considerably lower than usual.

The mean night or minimum temperature was higher than usual over the greater part of Burma and north-west India and was lower than usual elsewhere. The excess was considerable to large over the north-west of India, and the deficiency considerable to large over the Deccan. On the outer ranges of the Himalayas the mean night temperature was generally below the normal.

The mean temperature of the month was in excess over north-west India, south Madras, and part of the Burma coast and was generally in defect elsewhere. The departures from the normal were considerable to large over the Indus Valley and neighbouring regions, but were generally moderate to small in other parts of the country.

At the north-western Himalayan stations the mean temperature was unusually low.

The following gives temperature departure data of the month for the eleven meteorological provinces:—

METEOROLOGICAL PROVINCE.	DEPARTURE FROM NORMAL OF		
	Mean maximum temperature, November, 1904.	Mean minimum temperature, November, 1904.	Mean temperature, November, 1904.
	°	°	°
Burma Coast and Bay Islands	−1·6	+·09	−0·3
Burma Inland	−3·3	+1·2	−1·1
Assam	−2·0	−1·2	−1·6
Bengal and Orissa	−0·4	−1·0	−0·7
Gangetic Plain and Chota Nagpur.	−1·0	−0·7	−0·9
Upper Sub-Himalayas	−1·8	+2·3	+0·3
Indus Valley and North-West Rajputana.	+0·2	+4·5	+2·4
East Rajputana, Central India, and Gujarat.	+0·8	+1·4	+1·1
Deccan	+0·5	−2·8	−1·2
West Coast	+0·4	−1·9	−0·8
South India	+2·6	−2·2	+0·2

Winds:—The winds varied irregularly from the normal direction over the Bay Islands, the eastern Peninsula, and northern India. The velocity was greater than usual over the Bay area, more especially at Diamond Island, but the wind was unsteady. Over northern India the departures from the normal, both in velocity and steadiness, were irregular. Over the Peninsula the wind, on the mean of the month, was generally more northerly than usual, while the velocity, except in South India, was normal or below the normal.

In the south-east Trades region the winds varied irregularly from the average.

Humidity:—The air was much damper than usual over north-west India and slightly damper over Burma, while it was much drier than the normal over the Peninsula and the central parts of the country. The mean relative humidity of the month was above the normal over the whole of north-west India, the Gangetic Plain, Bihar, Assam, and Burma. The excess was large in the Central Punjab (Khushab +16), the Indus Valley (Kurrachee +13), and the east Punjab (Delhi +14); and moderate in Bihar (Gaya +9), Upper Burma (Mandalay +7), and Tenasserim (Mergui +12).

Over the whole of the Peninsula and the central districts, on the contrary, the relative humidity was in defect, the departure being as much as −15 at Amraoti, −21 at Belgaum, −23 at Chitaldroog, and −20 at Raichur.

The following table gives mean comparative data of the nine meteorological provinces:—

METEOROLOGICAL PROVINCE.	MEAN ABSOLUTE HUMIDITY.		MEAN RELATIVE HUMIDITY.	
	Average actual, November, 1904.	Departure from normal, November, 1904.	Average actual, November, 1904.	Departure from normal, November, 1904.
	"	"	%	
Burma Coast and Bay Islands.	·809	−·035	82	−1
Bengal and Orissa	·616	−·011	75	−1
Gangetic Plain and Chota Nagpur.	·395	+·011	63	+4
Upper Sub-Himalayas	·356	+·030	66	+7
Indus Valley and North-West Rajputana.	·466	+·113	65	+11
East Rajputana, Central India, and Gujarat.	·298	+·008	42	0
Deccan	·317	−·111	45	−11
West Coast	·662	−·060	71	−5
South India	·481	−·120	58	−14

Cloud:—The mean cloud amount of the month was in excess of the average over a considerable part of northern India, the interior of Burma and at the Orissa and north Madras coast stations, but was in defect over Sind, Gujarat, southern Rajputana, the central districts, and the Peninsula. The deficiency was greatest over the south of the Peninsula and amounted to 4·1 at Tinnevelly, to 3·5 at Chitaldroog, to 3·0 at Bellary, and to 2·8 at Cuddalore.

The following table gives mean comparative data of the cloud amount for the nine meteorological provinces:—

METEOROLOGICAL PROVINCE.	MEAN CLOUD AMOUNT.	
	Average actual, November, 1904.	Departure from normal, November, 1904.
Burma Coast and Bay Islands	4·6	+0·1
Bengal and Orissa	3·9	+0·8
Gangetic Plain and Chota Nagpur	2·2	+0·3
Upper Sub-Himalayas	1·8	+0·4
Indus Valley and North-West Rajputana	1·9	+0·3
East Rajputana, Central India, and Gujarat	1·1	−0·4
Deccan	1·2	−1·3
West Coast	1·1	−0·9
South India	2·9	−2·4

Rainfall:—Little or no rain fell during the month over Sind, Gujarat, the west of Central India, the Central Provinces and the north and centre of the Peninsula, but over the greater part of northern India and over Burma and the south of the Peninsula and Ceylon more or less rain was received. In Burma, Assam, East Bengal and North Bihar the fall largely exceeded the normal, owing to the rainfall due to the two storms of the month, and in the Punjab and the United Provinces the fall, relatively to the normal, was in very large excess, due to unsettled weather about the middle of the month. On the other hand, the

rainfall over the east and south of the Peninsula was much less than the average and the usual autumnal rain in this quarter, to a great extent, failed.

The following gives comparative rainfall data of the eleven meteorological provinces for the month of November 1904:—

Meteorological Province.	Rainfall.			
	Mean actual for November, 1904.	Mean normal for November.	Mean departure from normal, November 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Burma Coast and Bay Islands	7·39	3·57	+2·61*	+ 73
Burma Inland	3·88	1·15	+2·95*	+257
Assam	2·07	0·66	+1·42	+215
Bengal and Orissa	0·77	0·91	−0·14	− 15
Gangetic Plain and Chota Nagpur	0·39	0·29	+0·10	+ 34
Upper Sub-Himalayas	0·82	0·19	+0·62*	+326
Indus Valley and North-West Rajputana.	0·26	0·13	+0·13	+100
East Rajputana, Central India and Gujarat.	0·15	0·24	−0·08*	− 33
Deccan	0·01	0·76	−0·75*	− 99
West Coast	0·71	2·78	−2·07	− 74
South India	0·67	6·05	−5·38	− 89

* A reference to Table I will show that the means of columns 2 and 3 are derived from a smaller number of stations than the means in the first column. The sum of the figures in columns 2 and 3 will, therefore, not agree with the figures in column 1.

General Remarks for the Indian monsoon area:—The month of November is ordinarily a quiet and settled month throughout the monsoon area though, as shown in the preceding sections, occasional slight cyclonic storms may occur over the Bay and occasional disturbed weather in the extreme north-west of India. The Russian daily meteorological charts show that during the month under review pressure was high over the east Mediterranean, the Black and Caspian Seas area and eastern Russia from the 1st to the 13th. On the 14th low pressure areas appeared over the Black Sea and Caspian Sea and these conditions lasted till the 18th. So far as can be determined from the limited data available, these low pressure areas did not travel eastward and the rainy unsettled weather which was experienced over the area between the Caspian and the north-west of India occurred at Baghdad on the 21st and 22nd; at Teheran on the 3rd and 4th, the 9th, and the 18th to 24th; at Ispahan on the 15th; at Meshed between the 7th and 10th and between the 22nd and 27th; at Kabul on the 11th, 12th, 18th, 28th and 29th and at Quetta on the 13th, 18th, 27th and 28th, so that there is no evidence of the advance eastward of storms from the Mediterranean or Caspian region through Asiatic Turkey, Persia, etc., to the Indian region.

The following table shows the dates of minima of pressure; of minima of temperature and of rainfall during the month under review at various stations stretching from the Mediterranean to north-west India:—

Alexandria.			Beirut.			Baghdad.			Ispahan.			Chaman.			Lahore.		
P	T	R	P	T	R	P	T	R	P	T	R	P	T	R	P	T	R
2nd	2nd	2nd	2nd	2nd	2nd	3rd	4th	22nd	2nd	3rd	15th	3rd	3rd	28th	2nd	6th	13th
12th	5th	3rd	5th	6th	4th	5th	8th	23rd	6th	8th		5th	10th		9th	11th	29th
16th	14th	5th	13th	9th	5th	13th	10th		11th	11th		12th	13th		11th	14th	
22nd	17th	6th	16th	13th	6th	17th	15th		14th	15th		17th	20th		14th	19th	
27th	23rd	13th	22nd	18th	12th	19th	19th		24th	17th		24th	24th		17th	22nd	
30th	26th	22nd	27th	22nd	13th	22nd	27th		27th	19th		27th	29th		23rd	24th	
	29th	23rd	30th	29th	14th	27th			30th	27th		30th			26th	27th	
					18th	30th				29th					29th	30th	
					19th												
					22nd												
					23rd												
					24th												
					25th												
					28th												

The principal feature of the preceding data is the general synchronousness of the occurrence of the various minima of the elements of pressure and temperature.

Pressure decreased briskly to rapidly over the Caspian region on the 4th, 8th, 11th, 14th, 17th, 23rd, 26th and 27th, and the 30th; and in the Persian area on the 2nd and 3rd, the 5th and 6th, the 10th, the 21st and 22nd and the 30th, while in western Siberia the largest falls of the barometer were recorded on the 5th to 8th, the 13th and 14th, the 17th to the 19th, and the 29th and 30th. It follows from the above that there occurred, on some occasions, changes of pressure which were general throughout the whole area, but it is difficult to establish any relationship between the changes of pressure over Central Asia and the weather over north-west India.

In the Trades region conditions were somewhat abnormal. This is shown below:—

November.	Mauritius.	Zanzibar.	Seychelles.
Actual mean wind direction	S78°E	S 2°E	N22°W
Normal mean wind direction	S83°E	S36°E	S84°E
Actual mean wind velocity (miles per diem).	241	107	105
Normal mean wind velocity (miles per diem).	257	110	140
Departure from normal of mean pressure.	+·066	+·046	+·051
Rainfall departure	−0·37	+6·06	+14·69

The preceding data show that the winds varied irregularly from the normal in direction while the velocity was generally below the average. There was a large excess of pressure everywhere and this was accompanied with much heavier rain than usual at the Seychelles and Zanzibar and some deficiency at Mauritius.

For the Indian seas there is no information as to the wind's direction, but the comparative data of the air movement were as follows:—

November.	Arabian Sea.	Bay of Bengal.
Actual mean force	2·9	3·5
Normal mean force	2·9	3·2

The wind was thus stronger than usual over the Bay area, and of normal force over the Arabian Sea.

The following table gives the daily departures of pressure from the normal at certain selected stations in the monsoon area and the mean departure of all the stations:—

DEPARTURE FROM NORMAL OF

DATE.	Calcutta.	Lahore.	Madras.	Colombo.	Bombay.	Bushire.	Aden.	Zanzibar.	Seychelles.	Whole.
	"	"	"	"	"	"	"	"	"	"
1	−·005	+·020	+·020	+·028	+·032	+·072	+·014	0	+·020	+·022
2	−·035	−·025	+·005	+·039	+·022	+·048	+·004	+·048	+·018	+·014
3	−·052	−·025	+·016	+·046	+·015	−·007	+·046	+·042	0	+·009
4	−·030	+·044	+·014	+·044	+·050	−·040	+·043	+·045	−·037	+·015
5	−·100	+·014	−·009	−·006	+·053	−·061	+·032	+·018	+·019	−·004
6	−·068	−·016	−·014	+·015	+·039	−·043	+·033	+·008	+·009	−·004
7	−·044	−·038	+·010	+·038	+·034	+·019	+·029	+·034	+·026	+·012
8	−·027	−·067	+·025	+·057	+·062	+·011	+·060	+·049	+·024	+·022
9	+·015	−·087	+·022	+·052	+·028	+·006	+·051	+·027	+·015	+·014
10	+·011	−·058	+·030	+·065	+·040	−·016	+·011	+·014	−·012	+·009
11	−·002	−·078	+·062	+·074	+·051	−·009	+·032	+·028	+·015	+·019
12	+·016	−·076	+·074	+·068	+·061	+·020	+·024	+·048	+·041	+·031
13	−·001	+·016	+·057	+·049	+·041	+·011	+·016	+·046	+·032	+·030
14	+·024	−·029	+·053	+·052	+·032	−·074	+·003	+·046	−·003	+·015
15	+·065	+·078	+·090	+·078	+·060	+·009	+·095	+·045	−·007	+·057
16	+·126	+·187	+·137	+·093	+·101	+·064	+·076	+·056	+·056	+·101
17	+·118	+·096	+·109	+·071	+·087	+·061	+·075	+·050	+·059	+·081
18	+·145	+·140	+·124	+·089	+·093	+·040	+·090	+·042	+·052	+·091
19	+·156	+·175	+·140	+·107	+·128	+·057	+·117	+·075	+·104	+·118
20	+·132	+·172	+·089	+·085	+·133	+·088	+·133	+·122	+·122	+·120
21	+·053	+·087	+·030	+·068	+·127	+·072	+·101	+·088	+·090	+·080
22	−·059	+·010	+·012	+·031	+·072	+·011	+·050	+·048	+·071	+·027
23	−·177	−·103	+·038	+·041	+·036	−·009	+·013	+·019	+·021	−·013
24	+·012	−·013	+·083	+·050	+·063	−·054	+·007	+·041	+·069	+·029
25	+·050	+·068	+·106	+·068	+·089	−·040	−·013	+·048	+·051	+·047
26	+·033	+·005	+·105	+·066	+·074	−·083	−·024	+·042	+·037	+·023
27	+·093	+·040	+·114	+·098	+·078	+·015	−·020	+·023	+·056	+·050
28	+·030	+·044	+·115	+·058	+·081	+·059	−·030	+·023	+·071	+·057
29	+·051	+·045	+·106	+·057	+·068	+·070	+·039	+·022	+·063	+·059
30	+·082	+·085	+·117	+·068	+·080	+·008	−·007	+·037	+·046	+·057

The pressure was above the normal continuously or almost continuously throughout the month at Zanzibar, Aden, Colombo, Madras, and Bombay, but at the more northern stations during the first half of the month the pressure was generally lower than usual. The mean pressure was above the average on all days except the 5th, 6th, and the 23rd and the excess was considerable to large from the 15th to the 21st and considerable during the last four days of the month.

Solar and Magnetic Disturbances.

The following notes regarding magnetic and solar disturbances during the month of November 1904 have been communicated by the observatories:—

Kodaikanal:—Solar observations—November 1904. November, which is usually the worst observing month in the year, was this year one of the best. There was only one day (10th) on which solar observations were impossible, and there were only three other days on which prominence observations were not made. This was fortunate, as it allowed the first indications of a fresh outburst of solar activity to be carefully followed. Though most of the spots or groups formed during the month, were small, they were very numerous, amounting in all to 29, the largest number recorded since observations began here. Of these 29, only one (No. 399) was large, and only four (Nos. 383, 390, 395, and 398) traversed the whole visible disc. Spot No. 399 was far the most important of the month, not only on account of its size, but also owing to the rapidity with which it formed and its high north latitude (28°). It was first seen on the 22nd as three small dots more than 30° beyond the central meridian. Next day there was little change, but by the 24th it had formed into a double spot of regular outline and considerable size. By next day the two spots had coalesced into a single spot so far

as the penumbra was concerned, but with several distinct unbræ. Up till the 26th the spectrum showed no considerable disturbance, but on that morning the C line was disturbed and D_3 showed very dark. By the morning of the 27th the spot had begun to pass round the sun's western limb and a metallic prominence some 88,000 miles high was seen close to it.

The greater solar activity indicated by the larger number of new groups was confirmed by a study of the distribution of the spots in latitude. Of the 29 new groups, 20 appeared in the northern hemisphere, and instead of being confined to a narrow band, as in the preceding month, they were scattered over a wide belt—one group appearing near the equator and another in latitude 38°. There were 6 groups between 0° and 10°; 12 between 10° and 20° and 2 in higher latitudes. In the southern hemisphere there were 5 groups between 10° and 20° and 4 between 20° and 30°.

Prominences were numerous and some very tall ones were observed. On the 16th at 9h. 10m. a great luminous cloud, some 44,000 miles in height, was seen floating quite detached from and about 27,000 miles above the chromosphere; by 9h. 50m. it had completely changed its shape, grown taller and fainter, and drifted some considerable distance from its original position. Another prominence nearly 88,000 miles in height and pyramidal in form was seen on the last day of the month. Metallic lines were seen in three prominences, on the 20th, 27th, and 28th, all near the equator. Two prominences showed displacements of the hydrogen line indicating motion away from the observer.

There were moderate magnetic disburbances on the 16th and 25th. On the former date group No. 390 was near the central meridian, and on the latter, group No. 398 was on the central meridian.

C. Michie Smith,
Director,
Kodaikanal and Madras Observatories.

Colaba Observatory, Bombay:—Magnetic observations:—

During the month the traces showed 13 calm days, 11 days of small and 6 days of moderate disturbances.

The selected quiet days of the month were the 7th, 10th, 15th, 20th, and 24th.

The mean observed absolute values of the several elements, as also the ranges and summed ranges of the Horizontal force and Declination for the month, were as follows:—

Declination	0° 14′ 21″ East.
Horizontal force	0·37390 C. G. S. Unit.
Dip	21° 51′·7
Horizontal force range	·00046 C. G. S. Unit.
,, ,, summed range	·00278 C. G. S. Unit.
Declination range	1′·06
,, summed range	4′·40

(Summed range means sum without regard to signs of 24 ordinates of diurnal inequality.)

Four small seismic disturbances were recorded during the month on 6th, 9th, 21st, and 23rd.

MAGNETIC DISTURBANCES.

November 1904.

November, 1904.		November, 1904.		November, 1904.	
1	S.	11	C.	21	C.
2	M.	12	C.	22	S.
3	M.	13	C.	23	S.
4	M.	14	C.	24	C.
5	M.	15	C.	25	M.
6	S.	16	M.	26	S.
7	C.	17	S.	27	S.
8	C.	18	S.	28	S.
9	C.	19	C.	29	S.
10	C.	20	C.	30	S.

The magnitudes of the disturbances are determined from Horizontal force traces.

C.=Calm; S.=Small; M.=Moderate; G.=Great; V. G.=Very great. Days are reckoned from midnight to midnight.

N. A. F. Moos,
Director,
Government Observatory, Bombay.

Alipore:—List of displacements recorded by the Seismograph at the Alipore Observatory during November 1904:—

Number.	Date 1904.	P. T. commencement. G. M. T.	L. W. Commencement.	Maxima. G. M. T.	End.	Maximum amplitude in m. m.	Duration.	REMARKS.
		H. M.	H. M.	H. M.	H. M.		H. M.	
	Nov. 5	20-42·7	20-43·7	20-45·8	20-56·4	1·75	0-13·7	Sensibility 1 m. m. =0″·38 of tilt.
	,, 6	4-22·9	4-37·1	4-40·2	5-4·6	4·00	0-41·7	

The local times of the commencement:—

Date 1904.	H. M.
November 6	2-36·0
,, ,,	10-16·2

G. W. Küchler,
Asstt. Meteo. Reporter to the Govt. of India.

Royal Alfred Observatory, Mauritius:—Groups of sunspots were observed from Mauritius on all days of the month, except the 5th and the 25th, when no observations could be made. Faculæ were also observed daily with the

exception of the above dates. The magnetic disturbances in the month of November were as follows:—

Day.	Hours.	Disturbances.
2	15½	Sudden increase of horizontal force (·000165) followed by decrease of force till 17½ (·000601).
2	17½ to 22½	General increase of H. F. (·000403) with wave (—·00188); 19 to 21½ small rapid fluctuations from 15½ to 17 and from 2d. 22h. to 3d. 5h.
7	7½ to 10½	Increase of H. F. (·000495) followed by decrease (·001108) till 19h. From 21 to 23 increase of H. F. (·000479).
5	16 to 23	Three successive waves (—·000231); (—·00363); (—·000191); culminating respectively at 17h.; 19h.; and 21½h.
16	3½ to 13	Decrease of H. F. (·000808) with small fluctuations from 1h. to 17h. In declination waves (3′·0 west) from 6h. to ½h. and (2′·0 east) from 9h. to 10½h.
25	12	Long wave in H. F. (—·001320) followed by a decrease of force (·000766) until 26th, 20½h.
26	11	

T. F. Claxton,
Director.

Atmospheric pressure.

The mean pressure of the whole Indian area was 0·038″ above the normal. There had thus, both absolutely and relatively to the average, been a considerable increase of pressure since the previous month when the mean pressure of the whole Indian area was only +0·006″.

The mean actual distribution of pressure for the month of November 1904, is shown in Plate I. Pressure, on the mean of the month, was highest over the north Punjab and the north of the North-west Frontier Province (30·10″). Thence an arm of relatively high pressure extended southward through the Punjab, Rajputana, Central India and the Central Provinces as far south as the north Deccan (Poona 30·092″). Pressure was also relatively high over the upper Assam Valley. From these regions pressure decreased southward and was low (below 29·95″) over the Burma coast, the south of the Bay, Ceylon and the south coasts of the Peninsula. The range of pressure was somewhat less than usual, as the excess of pressure was more marked in the south than in the north of the Indian area.

With the exception of Chaman the mean pressure of the month exceeded the normal at all stations both on the hills and plains. The excess was greatest (+0·050″) over the west and south of the Peninsula, and was least and very slight (+0·010″) over the Indus Valley, the Arakan coast and part of Bengal. This excess of pressure extended southward over the Indian seas into the equatorial regions, and was as strongly marked at Zanzibar (+0·046″) and at Mauritius (+·066″) as on the West Coast of the Peninsula, but over the countries to the westward of northern India the departures of pressure from the normal were irregular, and at Jask (—0·032″) pressure was in moderate defect.

Compared with the general condition over India, *viz.*, a general excess, averaging 0·038″, pressure was in defect over Sind, the North-west Frontier Province, the Punjab, northern Rajputana, the United Provinces, the east of Central India, the north of the Central Provinces, Orissa, Bengal, Assam and Burma. The deficiency was slight to moderate, and amounted to 0·020″ or more at the following considerable number of stations:—

Province or Division.	Station.	Departure from normal of mean 8 A.M. pressure of November, 1904.	Pressure anomaly, November, 1904.
		″	″
Sind	Jacobabad	+·010	—·028
North-west Frontier Province.	Peshawar	+·010	—·028
	Dera Ismail Khan	+·011	—·027
Punjab	Multan	+·013	—·025
	Rawalpindi	+·017	—·021
United Provinces	Dehra Dun	+·018	—·020
Bengal	Chittagong	+·005	—·033
	Hazaribagh	+·016	—·032
	Darbhanga	+·017	—·021
	Burdwan	+·018	—·020
Orissa	Saugor Island	+·062	—·032?
	Balasore	+·009	—·029
Burma	Yamethin	+·008	—·030
	Akyab	+·010	—·028
	Minbu	+·014	—·024
	Diamond Island	+·017	—·021

Over the Peninsula, the south of the Central Provinces, the west of Central India, and Gujarat the mean pressure

compared with the general condition, was in excess, the excess exceeding 0·020″ at the following stations :—

STATION.	Departure from normal of mean 8 A.M. pressure of November, 1904.	Pressure anomaly, November 1904.
	″	″
Madura	+·083	+·045
Ratnagiri	+·075	+·037
Pamban	+·071	+·033
Karwar	+·070	+·032
Surat	+·069	+·031
Trichinopoly	+·067	+·029
Salem	+·066	+·028
Veraval	+·066	+·028
Bombay	+·065	+·027
Mangalore	+·064	+·026
Tinnevelly	+·063	+·025
Madras	+·063	+·025
Masulipatam	+·063	+·025
Sholapur	+·063	+·025
Cuddalore	+·062	+·024
Calicut	+·062	+·024
Poona	+·062	+·024
Akola	+·062	+·024
Coimbatore	+·061	+·023
Mormugao	+·060	+·022
Belgaum	+·060	+·022
Goa	+·059	+·021
Negapatam	+·059	+·021
Trivandrum	+·059	+·021
Colombo	+·064	+·026

Pressure, with the exception of Chaman, was higher than usual at all the hill stations, but the excess was generally less on the hills than on the neighbouring plains. In consequence the vertical pressure gradients were, except in the Baluchistan-Sind and Leh-Lahore areas, slightly greater than usual. The following gives data for ten pairs of stations :—

HILL STATION.	Departure from normal pressure, November, 1904.	PLAIN STATION.	Departure from normal pressure, November, 1904.	Departure of pressure difference.
	″		″	″
Quetta	+·030	Jacobabad	+·010	—·020
Leh	+·035	Lahore	+·024	—·011
Murree	+·016	Rawalpindi	+·017	+·001
Simla	+·009	Ludhiana	+·032	+·013
Chakrata	+·013	Roorkee	+·026	+·013
Ranikhet	+·007	Bareilly	+·025	+·018
Darjeeling	+·001	Dhubri	+·024	+·023
Mount Abu	+·031	Deesa	+·041	+·010
Pachmarhi	+·027	Seoni	+·038	+·011
Wellington	+·037	Coimbatore	+·061	+·024

The following gives a brief summary of the principal abnormal features of the pressure conditions during the month of November 1904 :—

(1) Pressure was in excess by amounts averaging 0·038″.

(2) The range of pressure was generally slighter than usual, as the excess of pressure was generally greater in the south than in the north.

(3) Pressure was in local excess over the Peninsula, the Central Provinces, and Gujarat and was in local defect over northern India and Burma.

(4) The vertical pressure gradients were generally slightly steeper than usual.

Barometric depressions and cyclonic storms of the month.

Three slight storms occurred over the Indian area during the month, *viz.*, between the 4th and the 6th, the 11th and the 13th, and the 21st and the 23rd. The first and third of these occurred over the Bay; the second over north-west India.

Slight cyclonic storm of the 4th to 6th :—The weather was unsettled, cloudy, and showery over Burma between the 1st and the 3rd, and on the latter date the east-north-east wind was blowing moderately strongly at Diamond Island. The marine charts of this day apparently showed that a small and slight depression had been formed over the Andaman Sea, apparently to the north-north-east of Port Blair. At Port Blair the wind was north-north-westerly, at Cocos Island northerly and on board the

Maharaja in Lat. 14° 15′ N. and Long. 94° 50′ E. easterly, and the depression was apparently developing within the area outlined by these stations and this vessel.

November 4th:—The following gives marine data for this day:—

Name of vessel.	8 A.M. Position. Lat. N.	Long. E.	Barometer corrected as by Calcutta Office.	Wind. Direction.	Force.	Weather.
	° ′	° ′	″			
S.S. *Bohemia*	10 53	84 02	29·857	WNW	4	North swell and fine.
S.S. *Maharaja*	Port	Blair	·983	...	...	4 A.M. clearing.
S.S. *City of York*	12 45	84 41	·761	NW	5	Moderate sea and overcast; noon heavy rain and wind squalls.
S.S. *Oolobaria*	14 40	85 16	·775	NNE	4	Rainy appearance.
S.S. *Nevasa*	14 53	90 09	·714	S	2	4 A.M. cloudy.
S.S. *Patrician*	14 59	83 25	·739	N	6	Cloudy; 8 P.M. heavy rain squalls.
S.S. *Goldenfels*	15 20	95 12	·786	N	3 to 4	
S.S. *Goa*	15 34	95 25	·752	NW	4	Light rain.
S.S. *Sutherland*	15 48	85 43	·750	NNW	4	Fine.
S.S. *Dumbarton*	16 24	85 50	·826	N by E	6	Rough head sea and frequent squalls of wind and rain.
S.S. *Florican*	17 14	86 02	·754	NNE	6	Rough head sea and cloudy; midnight severe squalls with rain.
S.S. *Argyll*	17 59	86 44	·810	NNE	2	Fine; 4 P.M. showery.
S.S. *Arroyo*	18 02	86 54	·790	NNE	5	Showery; noon terrific squalls.
S.S. *Cayo Bonito*	18 23	87 10	·747	NE	5	Moderate sea and showery; 4 A.M. heavy rain.
S.S. *Rewa*	20 17	87 25	·844	N	5	Smooth sea and fine; 4 P.M. heavy rain.
S.S. *Dunolly*	20 17	87 42	·831	NNE	5	Slight head sea and overcast; 4 P.M. thick rain.
Port Blair	...	...	·791	NNW	8*	Cloudy.
Cocos Islands	...	...	·783	SSE	17*	Overcast.

* Velocity.

The barometer had fallen slowly at both Port Blair and Cocos Island. At the former station the wind continued to blow from north-north-west, but at Cocos Island the direction had shifted to south-south-east and the wind was blowing strongly. The storm had hence apparently moved north-eastward and lay over the north island of the Andamans.

The following gives data for the Burma coast stations:—

Station.	Pressure. 8 A.M., reduced to sea-level and constant gravity at Lat. 45.	Change in past 24 hours.	Departure from normal.	Wind. Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Remarks.
	″	″	″				Inches	
Mergui	29·741	—·073	—·138	SSW	7	7	3·10	Raining.
Tavoy	·587?	—·237?	—·316?	S	3	10	0·90	Showery.
Moulmein	·736	—·067	—·161	NNE	3	10	0·02	
Rangoon	·786	—·042	—·113	WNW	6	10	...	
Diamond Island.	·776	—·034	—·112	NE	19	7	0·21	Sea smooth.
Bassein	·781	—·045	—·109	NNE	18	10	0·56	
Akyab	·815	—·010	—·089	NE	2	5	0·32	

The barometer had fallen around the Andaman Sea, and the north-easterly wind at Diamond Island was blowing strongly.

November 5th:—The following gives marine data for this day:—

Name of vessel.	8 A.M. Position. Lat. N.	Long. E.	Barometer, as corrected by Calcutta Office.	Wind. Direction.	Force.	Weather.
	° ′	° ′	″			
S.S. *Maharaja*	Port	Blair	29·053	...	...	8 P.M. fine and clear.
S.S. *Sangola*	12 33	84 37	29·787	NW	5	Moderate sea and cloudy; midnight light rain.
S.S. *Bohemia*	13 52	85 02	·817	NW	5	Rough sea and cloudy.
S.S. *Counsellor*	13 56	85 13	...	WNW	6	Rough sea overcast and squally; 4 P.M., rainy.
S.S. *Nevasa*	14 25	86 37	·674	NNW	4	Overcast; 8 P.M. squally.
S.S. *Argyll*	14 58	85 27	·750	N by W	5	Fine; 4 A.M. rain squalls.
S.S. *Arroyo*	15 05	85 17	·730	NNW	7	High sea and heavy squalls.
S.S. *City of York.*	17 28	86 51	·711	N	5	Occasional heavy rain squalls.
S.S. *Goa*	17 30	91 40	·701	N	4	Moderate swell and overcast; noon occasional showers.
S.S. *Dumbarton*	18 31	85 27	·736	NNE	6	Rough head sea and frequent squalls of wind and rain.
S.S. *Patrician*	19 01	86 57	·759	NE	5	Overcast; 4 A.M. rain squalls.
S.S. *Florican*	19 30	86 46	·764	NE by N	4	Rough sea and occasional rain.
Port Blair	...	...	·817	SSE	13*	Cloudy.
Cocos Island	...	...	·802	S	30*	Cloudy.

* Velocity.

The storm had advanced quickly northward. The wind had shifted to south-south-east at Port Blair and to south at Cocos Island, where the mean velocity for the preceding 24 hours was 30 miles per hour. There were no ships over the east of the Bay on this day except the *Goa* which reported a moderate northerly wind and showery weather. The vessels in the west of the Bay experienced fresh to strong northerly winds and squally weather.

The following gives 8 A.M. data for the stations on the Burma and Bengal coasts :—

STATION.	PRESSURE.			WIND.		Cloud.	Rainfall	REMARKS.
	8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	Change in past 24 hours.	Departure from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	"	"	"				Inches	
Mergui .	29·901	+·160	+·021	Calm	1	4	0·90	
Tavoy .	·907	+·320?	+·003	Calm	3	5	2·71	Continuous rain.
Moulmein .	·868	+·132	—·031	SE	3	10	0·35	
Rangoon .	·851	+·065	—·049	NW?	8	10	2·72	Continuous rain.
Bassein .	·821	+·040	—·071	ESE	6	8	1·1	
Diamond Island.	·763	—·007	—·121	SSW	15	8	0·22	Sea slight.
Akyab .	·729	—·086	—·178	NW	2	10	0·21	
Chittagong .	·739	—·122	—·180	NE	2	9	...	
Jessore .	·821	—·080	—·169	Calm	1	8	...	
Barisal .	·785	—·106	—·137	NW	5	10	...	
Calcutta .	·837	—·066	—·100	NNW	1	10	...	
Saugor Island.	·823	—·055	—·102	N	7	10	...	Dust haze.
Balasore .	·853	—·041	—·095	NW	5	5	...	
False Point.	·823	—·033	—·100	N	11	9	...	
Cuttack .	·826	—·050	—·102	Calm	2	5	...	

The barometer had risen briskly to rapidly in Tenasserim and had fallen rapidly around the north-east of the Bay. General rain had been received over Burma. The storm apparently broke up over the north-east of the Bay or crossed the Arakan coast into Burma as a very feeble depression. The weather conditions over the Bay during this time (1st—6th) were, however, complicated. There is some evidence that the storm which formed over the Andaman Sea on the 3rd did not pass out through the Preparis Channel into the Bay, but crossed the Burma coast on the night of the 4th to the east of Diamond Island. In this case the storm which appeared off the Arakan coast on the morning of the 5th was a separate disturbance.

Shallow storm of the 11th to 13th :—The barometer commenced to fall over north-west India on the 7th; the fall increased on the 8th, on which day a shallow depression was shown over the western desert. On the 9th, the barometer was steady over the extreme north-west of India, and the shallow depression had apparently moved eastward to the South Punjab and Rajputana. On the 10th and 11th a fresh barometric fall took place in Baluchistan, and on the morning of the 12th a small depression was shown over upper Sind. This depression passed quickly eastward to the western districts of the United Provinces, where it was shown on the morning of the 13th. It was at no time of any importance as measured by the amount of the barometric depression at its centre, but the air was exceptionally damp over north-west India and the storm, though slight, was followed by very extensive precipitation.

Slight cyclonic storm of the 21st to 23rd :—As early as the 18th there were indications of the formation of a slight cyclonic storm over the south of the Bay. The *Rajah* in Lat. 8° 44′ N. and Long. 96° 39′ E. reported a southerly moderate gale, a very threatening appearance and violent squalls; the *Lightning* in Lat. 8° 54′ N. and Long. 96° 58′ E. a north-east hard gale; Port Blair and Cocos Island east-north-east winds with a velocity of 5 and 20 miles per hour respectively, while the vessels off the Madras Coast had north-east and north-north-east strong squally winds. On the 19th the storm had apparently concentrated and moved northward. The *Rajah* in Lat. 11°12′ N. and Long. 95° 13′ E. reported a southerly moderate gale; Port Blair a north-east wind with an hourly velocity of 10 miles; Cocos Island an east-north-east wind with an hourly velocity of 22 miles; and the *Bihara*, *Beme* and *Tara* in the centre of the Bay north-east winds of forces 5 and 6 and squally weather. By the morning of the 20th the storm had apparently moved north-westward into the centre of the Bay.

November 20th :—The following gives marine data for this day:—

NAME OF VESSEL.	8 A.M. POSITION.			WIND.		WEATHER.
	Lat. N.	Long. E.	Barometer as corrected by Calcutta Office.	Direction.	Force.	
	° ′	° ′	"			
S.S. *Tara* . .	8 34	84 54	29·802	NW by W	4	High confused sea and heavy rain.
S.S. *Beme* . .	9 11	85 48	·785	NNE	8	High following sea and hard squalls; noon continuous rain.
S.S. *Lord Kelvin* .	10 06	83 18	...	NE	6	Heavy sea and fine.
S.S. *Rajah* .	14 30	93 12	·880	E	5	Rough sea and fine; midnight drizzling.
S.S. *Bihara* .	15 15	94 40	·9	Var.	5	Slight sea and fine.
S.S. *Baron Balfour.*	15 18	85 29	·981	NE	9	Violent squalls with heavy rain.
S.S. *Sanctoria* .	15 41	84 53	·930	NE	6	Heavy following sea and fine.
S.S. *Goa* . .	15 59	94 00	30·005	E	4	Moderate sea and fine.
S.S. *Zibenghla* .	16 25	93 30	·022	E	5	Moderate sea and fine.
S.S. *City of Madras.*	16 54	86 10	29·965	NE	5	Rough sea and overcast.
S.S. *Gwalior* .	17 44	88 28	30·021	N	6	Rough sea and overcast; noon occasional heavy rain squalls.
Port Blair . .	...	...	29·927	ESE	23*	Cloudy and squally.
Cocos Island .	...	...	·992	SSE	27*	Overcast.

* Velocity.

At Port Blair the barometer had risen and the wind shifted to east-south-east with a velocity of 23 miles per hour; at Cocos Island pressure had been steady, but the wind had veered to south-south-east blowing with a velocity of 27 miles per hour while on board the *Sanctoria*, the *Baron Balfour*, the *City of Madras* and the *Gwalior* in the north-west of the Bay the barometer had fallen briskly to rapidly and the north-east winds varied between forces 5 and 9.

November 21st.—The following gives marine data for this day:—

Name of Vessel.	8 A.M. Position.		Barometer as corrected by Calcutta Office.	Wind.		Weather.
	Lat. N.	Long. E.		Direction.	Force.	
	° ′	° ′	″			
S.S. *Gregory Apcar*	11 06	95 28	29·909	NE		W. swell and fine.
S.S. *Wartenfels* .	15 43	83 09	·893	NNE	6 to 7	
S.S. *Gwalior* .	16 36	92 42	·951	E by S	6	Strong head sea and overcast. 4 A.M. continuous rain.
S.S. *Baron Balfour.*	16 40	85 36	·831	NE	9	Violent squalls.
S.S. *Bihara* .	Ran	goon	·942	...	...	Midnight fine.
S.S. *Goa* . .	Ran	goon	·977	...	...	4 A.M. fine.
S.S. *Rajah* .	17 28	91 02	·810	E by N	5	Light rain; 8 P.M. violent squalls.
S.S. *Jumna* .	18 06	91 21*	·894	ESE	2	Slight sea and cloudy.
S.S. *Kum Sang* .	18 50	89 50	·924	NE	4	
S.S. *Zibenghla* .	19 42	89 41	·957	N by E	6	Moderate sea and cloudy.
S.S. *Ethiopia* .	21 25	90 20	·910	NE	4	Slight sea, dull and overcast.
S.S. *Shahzada* .	Chitta	gong	·924	...	...	Noon cloudy.
Port Blair .	...	...	·917	ESE	19†	Strong wind.
Cocos Island .	...	...	·945	ESE	24†	Overcast.

* Noon position.
† Velocity.

The storm was now apparently recurving to north-east and the centre lay apparently in about Lat. 15° N. and Long. 89° E., though there were no ships in the neighbourhood of the storm. At Port Blair and Cocos Island the winds were east-south-easterly and on board the *Gwalior*, *Jumna* and *Rajah* off the Burma coast easterly. In the north and north-west of the Bay the wind's direction was northerly and north-easterly and the *Baron Balfour* reported a hard gale.

The following gives 8 A.M., data for the coast ports:—

Station.	Pressure.			Wind.		Cloud.	Rainfall.	Remarks.
	8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	Change in past 24 hours.	Departure from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	″	″	″				Inches	
Rangoon .	30·008	—·039	+·075	NE	4	0	...	
Bassein .	29·977	—·041	+·052	NE	0	0	...	
Diamond Island.	·944	—·076	+·027	E	23	6	...	Sea smooth.
Akyab .	·967	—·080	+·021	NE	2	3	...	
Chittagong.	30·006	—·066	+·035	N	3	9	...	
Calcutta .	·043	—·076	+·053	N	3	10	...	
Saugor Island	·011	—·078	+·022	NNE	12	10	...	Dust haze.
Balasore .	·042	—·081	+·042	N	4	9	...	
False Point.	29·997	—·094	+·011	N	10	9	...	
Cuttack	30·032	—·065	+·042	Calm	2	8	...	
Gopalpur .	·007	—·089	+·020	NNW	9	2	...	Sea slight.
Waltair .	29·954	—·115	—·012	NNE	18	7	...	Do.
Cocanada .	·966	—·091	0	N	9	4	...	

The barometer was falling everywhere, but the decrease was greater on the north and north-west coasts than over the east of the Bay.

November 22nd:—The following gives marine data for this day:—

Name of Vessel.	8 A.M. Position.		Barometer as corrected by Calcutta Office.	Wind.		Weather.
	Lat. N.	Long. E.		Direction.	Force.	
	° ′	° ′	″			
S.S. *Gregory Apcar*	15 00	92 48	29·934	S	...	High confused sea and passing rain squalls.
S.S. *Bihara* . .	15 35	93 00	·884	SE by E	2	Smooth sea and fine; midnight squalls and occasional rain.
S.S. *Jumna* .	16 16	93 40	·763	ESE	9	High sea; 4 P.M. heavy squalls of wind and rain.
S.S. *Kum Sang* .	16 56	91 32	·669	SE	6 to 8	
S.S. *Maharoja* .	17 22	91 10	·863	SE	9 to 10	Heavy sea; 4 A.M. heavy squalls of wind and rain.
S.S. *Baron Balfour*	17 58	85 49	·731	N	8	High sea and squalls more frequent.
S.S. *Rajah* . .	17 58	88 40	·610	N by E	8	Very high sea and terrific squalls with thick rain.
S.S. *Bharata* .	18 28	91 27	·674	ENE	9	High rough sea and dull overcast; 4 A.M. rain squalls.
S.S. *Sangola* .	19 27	87 27*	·379	NE	4	Raining; noon hard squalls and steady rain.

Name of vessel.	8 A.M. Position. Lat. N.	Long. E.	Barometer corrected as by Calcutta Office.	Wind. Direction.	Force.	Weather.
	° ′	° ′	″			
S.S. *Shahsada* .	19 30	91 55	·794	E	6	Heavy cross sea and threatening appearance; 4 P. M. heavy squalls.
Port Blair .	...	...	·875	SSE	16†	Cloudy.
Cocos Island .	...	...	·861	SW	17†	Overcast.

* Noon position.
† Velocity.

The storm had apparently concentrated and moved very slowly north-north-eastward. The centre lay probably in about Lat. 17° N. and Long. 90° E. The wind was south-south-east at Port Blair and south-west at Cocos Island, but the force was decreasing. On the other hand, the *Maharaja*, the *Kum Sang* and the *Bharata* in the north-east of the Bay reported south-easterly to north-easterly gales of forces 8 to 10 and the *Rajah* and *Baron Balfour* in the north-west of the Bay northerly gales of force 8.

The following gives 8 A.M. data for the ports round the east and north of the Bay:—

Station.	Pressure. 8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	Change in past 24 hours.	Departure from normal.	Wind. Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Remarks.
	″	″	″				Inch.	
Moulmein .	29·943	—·052	+·010	SSE	3	1	...	
Rangoon .	·932	—·076	—·004	ENE	5	0	...	
Bassein .	·903	—·074	—·025	ESE	2	0	...	
Diamond Island.	·850	—·094	—·069	SE	27	6	...	Sea rough.
Akyab .	·862	—·105	—·087	NE	2	4	...	
Chittagong .	·895	—·111	—·079	NE	3	9	...	
Calcutta .	·934	—·109	—·059	NE	2	10	...	
Saugor Island	·913	—·098	—·079	NE	10	10	0·22	Rainy.
Balasore .	·921	—·121	—·081	N	4	9	...	
False Point .	·886	—·111	—·103	NE	25	10	...	
Cuttack .	·899	—·133	—·094	NNE	3	7	...	
Gopalpur .	·885	—·122	—·104	N	9	4	...	Sea rough.
Waltair .	·895	—·059	—·074	N	17	5	...	Do.
Cocanada .	·905	—·061	—·064	NW	6	2	...	

The barometer had fallen briskly to rapidly everywhere, but the decrease continued greater at the north-west than at the north-east stations.

November 23rd:—The following gives marine data for this day:—

Name of vessel.	8 A.M. Position. Lat. N.	Long. E.	Barometer corrected as by Calcutta Office.	Wind. Direction.	Force.	Weather.
	° ′	° ′	″			
S.S. *Uganda* .	10 32	96 31	29·851	NE	2	Slight sea, dull and cloudy, 8 P.M. rainy.
S.S. *Bharata* .	15 30	95 10	·886	S	4	Dull cloudy.
S.S. *Maharani*	Moul	mein	·925	...	...	Midnight dull and cloudy.
S.S. *Gregory Apcar*.	18 00	90 55	·860	NW	4	Moderating sea and rain squalls at intervals.
S.S. *Wartenfels*.	18 08	85 41	·883	NNE	3	
S.S. *Bihara* .	19 01	90 38	·755	W by N	6	Occasional rain squalls.
S.S. *Shahsada*	19 04	92 21*	·734	SW by W	...	Occasional terrific squalls.
S.S. *Rajah* .	19 50	87 25	·740	NW	5	Choppy sea and fine.
S.S. *Waroonga*.	20 55	88 08*	·789	N by W	4 to 5	Fine.
S.S. *Bangala*	Saugor	Island	·855	...	...	Noon fine.
Port Blair	...	...	·915	SW	7†	Fine.
Cocos Island	...	...	·911	S	16†	Fine.

* Noon position.
† Velocity.

The storm was close to the coast near Chittagong having continued to move in a north-north-east direction. North-westerly to westerly and south-westerly winds prevailed over the north of the Bay and southerly winds over the Andamans and the south Burma coast. The weather was very squally, but the force of the wind was decreasing.

The following gives 8 A.M. data for the coasts around the east and north of the Bay:—

Station.	Pressure. 8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	Change in past 24 hours.	Departure from normal.	Wind. Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Remarks.
	″	″	″				Inches	
Bassein .	29·910	+·007	—·022	ESE	5	10	1·55	
Diamond Island .	·888	+·038	—·034	SW	25	5	0·39	Sea slight.
Akyab .	·761	—·101	—·191	SE	9	10	0·46	Drizzling.
Chittagong	·616	—·279	—·361	NE	6	10	1·32	Cloudy.
Barisal .	·735	—·185	—·233	NW	4	8	2·33	Continuous rain.
Jessore .	·805	—·153	—·186	N	2	9	0·46	
Calcutta .	·813	—·121	—·183	NNW	4	2	0·15	
Saugor Island .	·814	—·099	—·181	NNW	17	4	0·44	Sea rough.
Balasore .	·851	—·070	—·154	NNW	7	2	...	
False Point.	·874	—·012	—·118	NW	14	2	...	
Cuttack .	·884	—·015	—·114	NW	3	0	...	
Gopalpur .	·899	+0·14	—·092	N	7	0	...	Sea slight.
Waltair .	·929	+·034	—·044	SSW	6	3	...	Sea rough.

The barometer had fallen ·279″ at Chittagong and was ·361″ below the normal at that station and pressure had given way rapidly all over north-east India.

The storm filled up during the day after giving a burst of general rain to the north-east.

The meteorological observer at Port Blair has sent the following account of the storm:—On the night of the 17th, 2·24″ of rain fell; on the morning of the 18th the wind had increased to a gale and gradually increased in force to midnight; on the 19th the gale reached its maximum velocity, blowing from north-east. On the 20th the wind fell somewhat and on the morning of the 21st the gale ceased.

Summary of the Reports of the Weather and Snowfall in the Mountain Districts to the North and North-West of India.

I.—AFGHAN MOUNTAIN DISTRICTS.

(1). *Kabul:*—Snow began to fall at Kabul on the 29th November at 14 hours but the fall was light mixed with rain and soon disappeared. The fall on the mountain ranges was, however, fairly heavy covering the Pagman Range down to the foot.

(2) *Wano:*—About one inch of snow fell on the Janimela (9,000 ft.) and the Marwattis (11,000 ft.) on the night of the 17th of November and again on the Marwattis on the night of the 27th-28th November. The snow melted quickly. The snowfall of November 1904, was much lighter than that of the corresponding month last year.

(3) *Kurram:*—On the 10th, 11th, 18th, 19th, and 29th November snow fell on the Sufed-i-koh. The fall of the 29th descended to about 6,000 ft. as far as Malana.

The accumulation of snow, at the close of the month, on the Sufed-i-koh, was said to be about 3 feet, but no Pass was closed at that date. The snowfall of the month was heavy.

(4) *Chitral:*—The following is the record of snowfalls in November:—

November 12th:— Snow fell on all the mountains surrounding the observatory from the evening of the 10th to the morning of the 12th.

19th:—Light snow fell.

28th:—Snow fell on all the surrounding ranges. The snow fell down to about 8,000 to 10,000 ft.

The snowfall was somewhat heavier than usual and occurred before the usual date.

II.—KASHMIR AND PUNJAB HIMALAYAS.

(1). *Leh:*—In Leh the only measurable snowfall occurred on the 13th, when about ¼ inch fell. There were occasional very light sprinkles at other times. On the hills there have been frequent falls and travellers from Yarkand report deep snow on the Lasser and Karakoram Passes. This is somewhat earlier than usual. Around Leh the snowline was about 15,000 ft. at the end of the month.

(2) *Srinagar*:—A light fall of snow covered the surrounding mountains on the night of the 23rd and 24th November. The snow appeared thick on the high hills such as Mahadave Parbut and Nanga Parbut and light on the ranges as low as 6,500 ft. to the east of the Observatory. The snow thawed quickly.

(3) *Simla:—Bashahr Division:*—Snow fell as follows:—

13th	Snowfall	1½	inch	descending to	8,000 feet.
14th	,,	½	,,	,, ,,	9,000 feet.
21st	,,	½	,,	,, ,,	8,000 feet.
25th	,,	½	,,	,, ,,	7,000 fete.

The snowfall was heavier than in the corresponding month of last year.

The following was the depth of snow on the principal passes at the close of the month:—

Rupan Pass	5 feet
Bruin ,,	5 ,,
Harang ,,	1½ ,,
Shatul ,,	4 ,,
Buldar ,,	5 ,,
Runang ,,	2½ ,,

The Runang, Harang and Rupan Passes were open, but the rest were closed:—

III.—UNITED PROVINCES HIMALAYAS.

(1) *Almora:*—The reports give the snowfalls as follows:—

		ft.	ins.
Malla Johar	9th November	0	6
,, ,,	10th ,,	1	0
,, ,,	14th ,,	1	6
,, ,,	15th ,,	1	0
,, ,,	24th ,,	0	6
		4 ft.	6 ins.

		ft.	ins.
Byans and Chandas	10th November	3	0
,, ,, ,,	11th ,,	4	0
,, ,, ,,	12th ,,	2	0
,, ,, ,,	14th ,,	4	0
,, ,, ,,	15th ,,	3	0
,, ,, ,,	25th ,,	1	0
		17 ft.	0 in.

		ft.	ins.
Danpur Malla	11th, 12th November	2	0
,, ,,	14th to 16th ,,	3	0
		5 ft.	0 in.

Snow also fell on the Patti Malla Darma on the 14th, 15th and 16th November.

The snowfall was heavier and earlier than in the corresponding month of the previous year.

The following was the depth of the accumulated snow on the following well-known passes and ranges:—

	ft.	ins.
Unt Dhura Range	7	9
Ralam ,,	7	6
Millam ,,	6	0
Limba Pass ,,	9	6
Nirwe ,,	11	0
Pindari ,,	5	0
Kapini ,,	5	0
Kauntela ,,	5	0

(2) *Garhwal:*— Snow fell on the 14th November descending to a height of 7,000 ft. and varying in depth from 6 inches to 3 feet.

Summary of Special Storm Reports.

The following reports of local storms during the month have been received from the observers:—

November 23rd:—A slight storm was experienced at Lahore between 14 and 16 hours. No rain fell at the observatory but showers were received in the neighbourhood.

November 24th:—A nor'-wester prevailed at Srinagar between 2 and 5 hours. No rain fell.

Earth-quake Reports.

A shock of earth quake was experienced at Srinagar at 2·28 hours Madras time on November 24th. The shock travelled from north to south and lasted 3 seconds.

On the same day and at about 2-30 hours four shocks of earth-quake were felt at Dera Ismail Khan. The first was a strong one but the succeeding three were mild.

Hail Storm Reports.

November 10th:—A hail storm occurred in the Roha Tehsil, Nowgong, Assam. The storm came up from north-east and was severe for about 10 minutes. The stones were about one inch in diameter and did serious damage to the crops.

November 12th:—A slight hail storm took place in the Larkana Taluka of the Indus Right Bank division, and lasted for about 7 minutes. The size of the stones varied between ¼ and 1 inch in diameter.

hail storm occurred over the Mehar and Dhamrao sub-divisions of the west Nara district (Sind). The size of the hail stones was from ½ to 1 inch and the storm lasted from 10 to 20 minutes. It was accompanied with severe rain and caused considerable damage. The same storm was felt in the Pritchard Canal sub-division. The size of the hail stones was from ¼ to ½ inch and the storm lasted only five minutes. It caused no damage in this area.

Brief Summary of the Weather in the Arabian Sea and Bay of Bengal during the month.

Arabian Sea:—Light easterly winds prevailed over the greater part of the Arabian Sea on the 1st, but on the 2nd the wind's direction changed to north and northerly winds continued to blow until the 5th. On the following day, the 6th, the wind veered and north-easterly winds prevailed till the 10th, when the direction veered still further and general easterly winds were reported until the 17th. On the 18th the winds again drew into north-east, and winds from this direction prevailed steadily until the close of the month.

In the Persian Gulf the winds were variable. The general direction was north-westerly, but between the 4th and 6th and the 18th and 23rd the winds were mainly from south-east and east.

In the Gulf of Aden the wind was easterly and east-north-easterly throughout the month.

The air movement, on the mean of the month, averaged 2·9 (Beaufort scale) which was exactly normal. The wind was stronger than usual on the 1st, 15th, 16th, 18th to 20th, 22nd, and 25th to 30th. The force was highest on the 28th, when, on the average of 28 vessels, the mean force was 3·9 or 1·0 above the normal.

At other times the mean force was normal or below the normal. The wind was lightest on the 8th, when, on the average of 24 vessels' observations, the force was 2.

Bay of Bengal:—The wind was northerly over the Bay from the 1st to the 3rd. On the 4th a cyclonic circulation was established and strong cyclonic winds, gradually decreasing to variable winds, prevailed over the Bay from the 5th to the 8th. These variable winds continued until the 12th, when the normal north-east winds of the winter monsoon were established and blew steadily until the 19th. On the 20th the winds again assumed a cyclonic circulation, and this continued till the 23rd, when, with the passage of the storm inland, the circulation was broken up. On the 24th northerly and north-easterly winds re-appeared and continued till the close of the month.

The wind force over the Bay averaged for the whole month 3·5 which was 0·3 above the normal. The winds were lighter than usual from the 7th to the 14th and on the 24th and 25th, and were absolutely lightest on the 11th, when, on the average of the observations of 19 vessels, the force was only 2·2.

At all other times during the month the mean force of the wind exceeded the average and on the 20th the force was 5·3 or 2·1 above the normal.

Equatorial Belt:—Over the west of the equatorial belt the winds were more or less variable. Southerly and south-easterly winds prevailed from the 1st to the 3rd, and north-easterly, easterly, and variable winds till the 7th. On the 8th the south-east Trades strengthened and south-easterly winds blew fairly steadily over this region till the 13th. On the 14th the wind's direction was generally northerly except in the extreme south, but on the 17th the south-east Trades again advanced northward and continued to prevail over a large part of the area until the 23rd. On the 24th the wind was variable and then northerly and north-easterly winds set in and continued till the end of the month.

Temperature of the Air.

The mean maximum or day temperature of the month was lower than usual over the greater part of northern India and Burma. The departure from the normal exceeded 2° over the north of the North-west Frontier Province, as is shown below:—

Station.	Mean maximum temperature.		
	Actual, November, 1904.	Normal, November.	Departure from normal, November 1904.
	°	°	°
Peshawar	74·8	77·1	−2·3
Cherat	64·3	67·2	−2·9

It, likewise, equalled or exceeded 2° over the centre and east of the Punjab, the neighbouring parts of the United Provinces and at the hill stations in that region. The following gives comparative data for the plains stations:—

Province.	Station.	Mean maximum temperature.		
		Actual, November 1904.	Normal, November	Departure from normal, November 1904.
		°	°	°
Punjab	Delhi	79·2	82·9	−3·7
	Ludhiana	77·3	80·6	−3·3
	Sirsa	82·0	84·9	−2·9
	Montgomery	81·4	84·2	−2·8
	Ambala	80·8	83·5	−2·7
	Lahore	81·3	83·6	−2·3
United Provinces	Agra	81·4	84·4	−3·0
	Roorkee	78·5	80·5	−2·0

It amounted to about 2° over parts of Oudh and of the east of the United Provinces and at Ranikhet, as is shown below:—

Station.	Mean maximum temperature.		
	Actual, November 1904.	Normal, November.	Departure from normal, November 1904.
	°	°	°
Lucknow	81·1	83·3	−2·2
Cawnpore	82·0	84·1	−2·1
Allahabad	81·0	83·1	−2·1
Bareilly	79·1	81·1	−2·0
Ranikhet	60·2	62·5	−2·3

The departure considerably exceeded—2° over Assam, Arakan and parts of Upper and Central Burma. This is shown below:—

Province or division.	Station.	Mean maximum temperature.		
		Actual, November 1904.	Normal, November	Departure from normal, November 1904.
		°	°	°
Assam	Sibsagar	75·6	78·3	−2·7
	Silchar	82·1	84·8	−2·7
Upper Burma	Bhamo	78·4	81·8	−3·4
Central Burma	Minbu	83·9	88·6	−4·7
	Yamethin	85·5	88·8	−3·3
	Thayetmyo	85·6	88·0	−2·4
Arakan	Akyab	82·3	85·1	−2·8

The mean day or maximum temperature was also in defect over parts of the Bombay coast and of the Deccan, but in this region the departures were slight and unimportant.

Over the whole of the remainder of India including Sind, Gujarat, the greater part of Rajputana, the west of Central India, the west of the Central Provinces, south-west Bengal, Orissa and the whole of the Peninsula (with the exception of the Bombay coast mentioned above), the mean day or maximum temperature exceeded the normal. The departures from the normal exceeded—2° in three areas and the following gives data of the stations contained in these areas :—

Province or Division.	Station.	Mean maximum temperature. Actual, November 1904.	Normal, November.	Departure from normal, November 1904.
		°	°	°
Sind	Hyderabad	92·0	88·0	+4·0
	Jacobabad	89·7	86·8	+2·9
Gujarat and west of Central India.	Deesa	94·5	91·5	+3·0
	Ahmedabad	94·1	91·4	+2·7
	Indore	85·4	83·2	+2·2
	Surat	92·7	90·6	+2·1
Peninsula	Madras	89·7	85·1	+4·6
	Cuddapah	92·3	88·5	+4·3
	Cuddalore	88·6	84·8	+3·8
	Salem	90·9	87·3	+3·6
	Tinnevelly	92·1	88·7	+3·4
	Negapatam	87·4	84·1	+3·3
	Trichinopoly	90·0	87·1	+2·9
	Mysore	85·1	82·5	+2·6
	Nellore	89·3	86·7	+2·6
	Pamban	86·7	84·3	+2·4
	Coimbatore	88·6	86·2	+2·4
	Madura	89·6	87·3	+2·3
	Bangalore	81·6	79·3	+2·3

The excess was hence greatest over parts of Madras.

At the Kashmir and the north-west Himalayan hill stations, the mean maximum temperature was considerably to largely lower than usual, but at Kabul and in Baluchistan it was considerably to largely above the normal. The following gives data :—

Province.	Hill station.	Mean maximum temperature. Actual, November 1904.	Normal, November.	Departure from normal, November 1904.
		°	°	°
Kashmir	Leh	43·0	47·6	—4·6
	Srinagar	57·1	60·3	—3·2
	Gilgit	60·5	62·0	—1·5
North-west Himalayas.	Kailang	41·6	51·6	—10·0
	Simla	53·5	56·1	—2·6
	Murree	57·2	60·9	—3·7
	Chakrata	59·1	60·0	—0·9
Afghanistan	Kabul	74·5	67·6	+6·9
Baluchistan	Quetta	68·4	64·8	+3·6
	Chaman	72·0	69·4	+2·6

At Mount Abu the mean day temperature was slightly below the normal, but at the remaining hill stations in the east, centre and south it was in excess. This is shown below :—

Hill station.	Mean maximum temperature. Actual, November 1904.	Normal, November.	Departure from normal, November 1904.
	°	°	°
Mount Abu	73·0	73·5	—0·5
Darjeeling	56·6	54·2	+2·4
Pachmarhi	74·4	73·3	+1·1
Wellington	70·0	67·3	+2·7

The following gives the highest maximum temperature recorded in each division with the station recording it and the highest temperature previously recorded at that station :—

Province or Division.	Station.	Highest maximum temperature recorded in November 1904.	Date on which recorded.	Highest maximum temperature recorded in November previous to 1904.	Year in which recorded.
		°		°	
Burma	Moulmein	91·5	1st	99·4	1883
Assam	Tezpur	92·1	2nd	85·1	1901 & 1903
Bengal	Burdwan	90·9	14th	95·4	1896
Orissa	Cuttack	89·9	13th & 14th	96·8	1886
Bihar	Gaya	89·9	13th	94·9	1896
Chota Nagpur	Chaibassa	91·9	13th & 14th	94·7	1895
United Provinces.	Jhansi	93·7	10th	98·2	1872
Punjab	Montgomery	93·3	8th	96·3	1895

PROVINCE OR DIVISION.	STATION.	Highest maximum temperature recorded in November 1904.	Date on which recorded.	Highest maximum temperature recorded in November previous to 1904.	Year in which recorded.
NORTH-WEST FRONTIER PROVINCE.	Dera Ismail Khan.	91·3	8th	92·3	1900 & 1901
SIND	Jacobabad	102·0	9th	99·5	1897 & 1900
RAJPUTANA	Pachpadra	97·5	9th	102·0	1895
GUJARAT	Deesa	101·1	2nd	103·1	1901
CENTRAL INDIA	Neemuch	92·0	10th	96·0	1901
CENTRAL PROVINCES.	Khandwa	94·7	12th	99·2	1901
BERAR	Akola	91·4	12th	97·5	1896 & 1899
WEST COAST	Ratnagiri	93·8	17th	98·8	1896
BOMBAY DECCAN	Bijapur	91·4	6th	95·2	1896
MYSORE	Chitaldroog	88·1	15th	90·6	1896
MADRAS COAST	Negapatam	94·4	4th	93·2	1892 & 1897
MADRAS DECCAN	Cuddapah	97·2	2nd	97·1	1896
SOUTH INDIA	Tinnevelly	96·7	5th	98·3	1892

The preceding data show that, except in Assam, Sind, the Madras Coast and the Madras Deccan, higher temperatures have been recorded in previous years.

The departures of the mean minimum temperature from the normal for November 1904, were, to a great extent, the opposite of those of the day or maximum temperature. Over the greater part of north-west India the mean minimum temperatures exceeded the normal, the excess having been most marked in the Indus Valley. The following gives comparative data for those stations in north-west India, at which the mean minimum temperature was more than 2° above the normal:—

STATION.	MEAN MINIMUM TEMPERATURE.		
	Actual, November 1904.	Normal, November.	Departure from normal, November 1904.
	°	°	°
Jacobabad	57·6	50·8	+6·8
Multan	58·6	52·4	+6·2
Dera Ismail Khan	52·9	47·0	+5·9
Lahore	52·0	46·8	+5·2
Ajmer	56·2	51·0	+5·2
Khushab	54·2	49·7	+4·5
Kurrachee	66·2	61·8	+4·4
Bhuj	66·9	62·7	+4·2
Peshawar	49·3	45·1	+4·2
Pachpadra	58·2	54·1	+4·1
Sialkot	53·8	49·9	+3·9
Sirsa	53·3	49·5	+3·8
Hyderabad (Sind)	63·8	60·0	+3·8
Rawalpindi	46·8	43·3	+3·5
Montgomery	54·4	50·9	+3·5
Ludhiana	54·2	50·9	+3·3
Deesa	60·9	57·7	+3·2
Sambhar	55·2	52·9	+2·3

The mean minimum temperature also exceeded the average over the greater part of Burma, the excess having been more than 2° at the following places:—

STATION.	MEAN MINIMUM TEMPERATURE.		
	Actual, November 1904.	Normal, November.	Departure from normal, November 1904.
	°	°	°
Bhamo	61·7	59·2	+2·5
Mergui	72·0	69·7	+2·3
Rangoon	74·5	72·3	+2·2

In all other parts of the Indian region the mean minimum temperature was normal or below. The deficiency was considerable to large over North Bengal, over the Central Provinces and the inland parts of the Peninsula. At the following places the departure amounted to —3° or more:—

PROVINCE.	Station.	MEAN MINIMUM TEMPERATURE.		
		Actual, November 1904.	Normal, November.	Departure from normal, November 1904.
		°	°	°
NORTH BENGAL	Jalpaiguri	57·4	60·7	— 3·3
CENTRAL PROVINCES.	Akola	53·2	57·4	— 4·2
	Nagpur	56·5	60·3	— 3·8
	Khandwa	52·7	56·2	— 3·5
	Sambalpur	58·9	62·3	— 3·4
	Jubbulpore	49·8	53·1	— 3·3
	Hoshangabad	54·1	57·3	— 3·2
PENINSULA	Kurnool	59·6	64·0	— 4·4
	Bijapur	56·8	61·0	— 4·2
	Mysore	60·0	64·1	— 4·1
	Karwar	65·5	69·4	— 3·9
	Poona	55·6	59·3	— 3·7
	Hyderabad Deccan	58·7	62·1	— 3·4
	Nellore	68·2	71·6	— 3·4
	Belgaum	58·0	61·1	— 3·1
	Coimbatore	65·8	68·9	— 3·1
	Madras	69·2	72·3	— 3·1
	Masulipatam	68·2	71·3	— 3·1
	Bangalore	58·9	61·9	— 3·0

In Baluchistan and at Mount Abu the mean night temperature was higher than usual, but at all the remaining hill stations (with the doubtful exception of Srinagar) it

was below the average. The following gives data for the stations at which the departure exceeded —2°:—

Hill station.	Mean minimum temperature.		
	Actual, November 1904.	Normal, November.	Departure from normal, November 1904.
	°	°	°
Kailang	20·7	25·5	−4·8
Murree	42·0	45·6	−3·6
Pachmarhi	49·2	51·3	−2·1
Wellington	45·9	52·0	−6·1

The absolutely lowest temperatures recorded during the month at the hill stations in the north-west (excluding Further Kashmir) were as follows :—

Hill Station.	Lowest minimum temperature recorded in Nov. 1904.	Date on which recorded.	Lowest minimum temperature recorded in November previou to 1904.	Year in which recorded.
	°		°	
Srinagar	27·1	26th	21·1	1893
Murree	34·5	24th	23·9	1877
Kailang	14·5	26th	19·0	1903
Simla	34·1	25th	31·6	1879
Rawalpindi	39·5	26th	25·9	1879

The lowest minima recorded were in no way exceptional, as at all the stations, except Kailang, lower night temperatures have been recorded in previous years.

The departures of the mean maximum and of the mean minimum temperatures of the month having been, to a certain extent, opposite in character, the departures of the mean temperature were, over a large part of the country, slight or small. In the north-west the mean temperature was higher than usual, and at the following places the excess was more than 2°:—

Station.	Mean temperature.		
	Actual, Nov. 1904.	Normal, Nov.	Departure, from normal, Nov. 1904.
	°	°	°
Jacobabad	73·7	68·8	+4·9
Hyderabad Sind	77·9	74·0	+3·9
Ajmer	70·7	67·5	+3·2
Multan	71·5	68·4	+3·1
Deesa	77·7	74·6	+3·1
Dera Ismail Khan	67·5	64·5	+3·0
Bhuj	78·8	75·9	+2·9
Kurrachee	77·2	74·6	+2·6
Pachpadra	74·7	72·4	+2·3

On the lower Burman coast, over south-west Bengal and over south-east Madras and Ceylon the mean temperature of the month was normal or in some excess, while over the whole of the remainder of the country it was in some defect. The only places, however, at which the departures were more than 2° were as follows :—

Station.	Mean temperature.		
	Actual, Nov. 1904.	Normal, Nov.	Departure from normal, Nov. 1904.
	°	°	°
Minbu	75·9	78·5	−2·6
Jalpaiguri	68·8	71·1	−2·3

At all the north-west Himalayan stations the mean temperature was lower than usual, but in Afghanistan and Baluchistan it was in excess; the following gives data:—

Province or area.	Station.	Mean temperature.		
		Actual, Nov. 1904.	Normal, Nov.	Departure from normal, Nov. 1904.
			°	°
North-west Himalayas.	Kailang	31·2	38·6	−7·4
	Murree	49·6	53·3	−3·7
	Leh	31·5	34·1	−2·6
	Simla	48·4	50·6	−2·2
	Ranikhet	53·1	54·9	−1·8
	Cherat	56·8	58·2	−1·4
	Gilgit	51·0	52·4	−1·4
	Chakrata	50·8	52·0	−1·2
	Srinagar	45·4	46·0	−0·6
Afghanistan	Kabul	53·8	51·3	+2·5
Baluchistan	Quetta	53·3	48·4	+4·9
	Chaman	60·3	57·1	+3·2

The following summarises the chief abnormal features of the temperature conditions of the month :—

(1) The mean day temperature was in defect, the mean night temperature in excess, and the mean temperature in slight excess over the North-west Frontier Province and the Punjab.

(2) The mean day temperature was in defect, the mean night temperature normal, and the mean temperature in slight defect over the United Provinces and the east of Central India.

(3) The mean day, the mean night and consequently also the mean temperature were lower than usual over North Bengal and Assam.

(4) The mean day temperature was low, the mean night temperature high, and the mean temperature about normal over the greater part of Burma.

(5) The mean day temperature, the mean night temperature, and consequently also the mean temperature were higher than usual over Sind and Gujarat.

(6) The mean day temperature was high, the mean night temperature low, and the mean temperature about normal over the greater part of the Peninsula.

The following gives temperature departure data for the extra-Indian stations:—

Station.	Mean temperature. Actual, Nov. 1904.	Normal, Nov.	Departure from normal, Nov. 1904.
	°	°	°
Trincomalee	80·2	80·0	+0·2
Colombo	81·1	80·2	+0·9
Amini Divi	80·6	80·3	+0·3
Kabul	53·8	51·3	+2·5
Kashgar	39·8	40·5	—0·7
Teheran	55·8	51·5	+4·3
Ispahan	54·3	48·8	+5·5
Bushire	73·0	70·2	+2·8
Jask	76·3	76·0	+0·3
Muscat	78·7	77·7	+1·0
Baghdad	65·7	62·1	+3·6
Aden	78·7	79·8	—1·1
Perim	82·1	82·0	+0·1
Zanzibar	79·4	80·5	—1·1
Seychelles	75·3	79·0	—3·7
Mauritius	74·8	75·2	—0·4

The preceding data show that the mean temperature of November 1904 was in general excess over Afghanistan, Persia, north Arabia and Asiatic Turkey. It was also in excess over Ceylon. It was generally in defect elsewhere. At the Seychelles the departure from the normal was as large as $-3^{\circ}.7$.

The following table gives comparative temperature data for the month for the 57 meteorological provinces or divisions of India:—

Province.	Division.	Actual temperature. Mean maximum.	Mean minimum.	Monthly mean of mean between maximum and minimum.	Mean daily range of temperature.	Absolute range during month.	Departure from normal of month of. Maximum.	Minimum.	Daily range.
		°	°	°	°	°	°	°	°
Burma	Tenasserim	87·0	71·4	79·2	15·7	27·6	−0·9	+2·1	−3·0
	Lower Burma (Deltaic)	84·8	74·2	79·5	10·6	21·9	—1·6	+1·3	−2·9
	Central do.	85·9	65·5	75·6	20·4	35·6	−1·8	−3·2?	+1·4?
	Upper do.	82·4	65·4	73·9	17·0	33·3	−3·3	+1·2	−4·5
	Arakan	82·3	70·4	76·4	11·9	29·8	−2·8	−1·0	−1·8
Bengal and Assam	Eastern Bengal	81·4	64·1	72·7	17·3	31·8	−1·6	−1·0	−0·6
	Assam (Surma)	82·1	63·2	72·6	18·9	35·1	−2·7	−0·4	−2·3
	Do. (Hills)	67·1	49·8	58·5	17·3	35·2	...	...	...
	Do. (Brahmaputra)	77·9	59·7	68·8	18·2	33·9	−1·6	−1·8	+0·2
	Deltaic Bengal	82·9	64·6	73·8	18·4	32·6	−0·1	+0·3	−0·4
	Central do.	82·6	61·3	72·0	21·2	34·0	0	−0·7	+0·7
	North do.	80·4	58·7	69·6	21·7	32·2	−1·2	−2·9	+1·7
	Bengal Hills	53·6	33·8	43·7	19·8	35·6	+2·4	—0·6	+3·0
	Orissa	83·9	65·0	74·5	18·9	31·2	+0·4	−0·9	+1·3
	Chota Nagpur	81·4	56·8	69·1	24·6	38·1	+0·8	−1·1	+1·9
	South Bihar	81·1	58·8	70·0	22·3	34·7	—1·3	−1·1	−0·2
	North do.	80·8	57·9	69·4	22·9	35·0	−0·3	−2·5	+2·2
United Provinces of Agra and Oudh.	United Provinces (East)	80·6	55·4	68·0	25·3	38·5	−2·0	−0·3	−1·7
	Oudh (South)	81·1	54·7	67·9	26·4	39·1	−2·2	+1·9	−4·1
	Do. (North)	?	?	?	?	?	?	?	?
	United Provinces (Central)	83·5	56·4	70·0	27·0	40·4	—1·1	+0·5	−1·6
	Do. (West)	80·9	55·1	68·0	25·8	40·2	−2·0	+1·8	−3·8
	Do. (Submontane, East)	80·2	56·8	68·5	23·4	34·8	—1·4	−1·5	+0·1
	Do. (Submontane, West)	77·4	51·8	64·7	25·6	39·0	—1·4	+0·3	−1·7
	Do. (Hills)	58·2	43·3	50·8	15·0	31·5	—1·6	−1·4	−0·2

Province.	Division.	Actual temperature.					Departure from normal of month 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.
		°	°	°	°	°	°	°	°
Punjab	Punjab (South-East)	79·2	57·2	68·2	22·0	35·3	−3·7	+1·0	−4·7
	Do. (South)	80·3	53·2	66·8	27·2	42·3	−2·9	+3·8	−6·7
	Do. (Central)	81·3	52·0	65·7	29·3	45·3	−2·3	+5·2	−7·5
	Do. (Submontane)	78·8	51·7	66·1	27·1	44·1	−1·7	+3·2	−4·9
	Do. (Hills)	52·4	31·9	42·2	20·5	36·1	−4·3	−1·7	−2·6
N.-W. F. Province	Do. (West)	82·3	55·7	69·0	26·5	44·9	−1·5	+4·8	−6·3
	N.-W. F. Province	78·5	51·1	64·8	27·4	45·5	−1·2	+5·1	−6·3
Bombay and Malabar Coast Districts (Madras).	Malabar	87·0	71·9	79·5	15·1	21·6	+0·6	−1·8	+2·4
	Madras (South Central)	89·8	65·9	77·9	23·9	32·0	+3·0	−2·8	+5·8
	Coorg	77·9	56·2	67·1	21·7	29·0	+2·0	−3·9	+5·9
	Mysore	83·0	58·5	70·8	24·5	34·3	+2·3	−3·2	+5·5
	Konkan	86·8	70·6	78·8	16·2	24·0	+0·1	−1·7	+1·8
	Bombay Deccan	85·9	57·5	71·7	28·4	40·6	+0·5	−3·5	+4·0
	Hyderabad (North)	83·8	58·4	71·1	25·3	35·9	...	...	...
	Khandesh	86·3	54·9	70·6	31·4	42·6	+0·1	−1·8	+1·9
Central Provinces and Berar.	Berar	87·6	53·2	70·4	34·4	45·0	+0·6	−4·2	+4·8
	Central Provinces (West)	86·7	54·4	70·6	32·2	42·3	+1·3	−3·5	+4·8
	Do. (Central)	81·7	53·5	67·6	28·2	40·0	−0·1	−1·7	+1·6
	Do. (East)	81·8	57·1	69·4	24·7	37·1	+0·1	−3·2	+3·3
Bombay (North)	Gujarat East	93·8	63·2	78·5	30·5	40·5	+2·6	+1·2	+1·4
	Kathiawar and Cutch	89·7	65·2	77·4	24·5	36·7	+1·6	+1·7	−0·1
	Sind	90·0	62·5	76·3	27·4	43·8	+2·6	+5·0	−2·4
	Baluchistan Hills	69·8	41·1	55·5	28·8	49·6	+3·1	+4·9	−1·8
Rajputana and Central India.	Central India (East)	82·9	53·8	68·3	29·1	41·3	+0·1	−0·3	+0·4
	Rajputana (East), Central India (West)	84·7	56·2	70·5	28·5	41·2	0	+2·6	−2·6
	Do. (West)	88·3	59·8	74·1	28·5	42·6	+0·4	+2·8	−2·4
Madras	East Coast (North)	84·7	68·2	76·4	16·5	27·1	+0·7	−2·0	+2·7
	Hyderabad (South)	86·7	60·8	73·8	25·9	37·4	+1·3	−3·0	+4·3
	Madras (Central)	90·4	63·3	76·9	27·1	39·4	+2·7	−3·0	+5·7
	East Coast (Central)	87·7	68·2	78·0	19·5	28·3	+1·8	−3·3	+5·1
	Do. (South)	88·1	69·7	78·9	18·4	29·1	+3·7	−1·6	+5·3
	Madras (South)	89·3	72·4	80·8	16·9	25·3	+2·7	−0·2	+2·9

The hottest area was South Madras, where the mean temperature was 80°·8, while the coolest areas on the plains were the west sub-montane district of the United Provinces with a mean temperature of 64°·7, and the North-west Frontier Province with a mean temperature of 64°·8. The highest mean maximum reported was 93°·8 in Gujarat (east).

The mean daily range of temperature exceeded the normal over Bengal, the Central Provinces and the Peninsula, but was less than usual elsewhere—more particularly in the Punjab.

The following is a brief sketch of the more important changes of temperature during the month under review:—

From the 1st to the 4th the weather was quiet and practically rainless over India, and the mean temperature was higher than usual over the south of the Peninsula and over Bombay, Gujarat, Sind, Rajputana, and Baluchistan, the excess having been greatest in the Indus Valley. The following gives comparative data for these divisions:—

Province or division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of			
	1st November.	2nd November.	3rd November.	4th November.
	°	°	°	°
Baluchistan	+2·0	+2·4	+3·1	+3·1
Sind	+0·2	+1·8	+2·9	+3·6
Rajputana	+3·0	+1·3	+2·0	+2·3
Gujarat	+2·9	+3·0	+2·2	+2·1
West Coast	+0·5	−0·1	+0·4	−0·3
Madras Coast	+0·2	+0·8	+0·5	+1·0
South India	+0·1	+0·8	+1·1	+1·5

Over the North-west Frontier Province, the Punjab, the Gangetic Plain, the central parts of the country, Mysore, the Deccan, and parts of north-east India, the temperature was low, but the deficiency was not remarkable except over the Central Provinces, where, owing principally to low night temperatures, the defect of the mean temperature was considerable. This is shown below:—

Province or Division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of			
	1st November.	2nd November.	3rd November.	4th November.
	°	°	°	°
Assam	−2·2	−2·4	−1·0	+0·9
Bengal	−1·2	−1·4	+0·4	+0·1
Orissa	−2·8	−1·3	−2·6	−1·1
Bihar	−1·2	−2·3	−2·0	−1·7
Chota Nagpur	+0·3	−1·1	−1·3	−1·8
United Provinces of Agra and Oudh.	+0·1	−2·1	−2·4	−1·3
Punjab	−0·8	−0·8	−0·6	−0·2
North-west Frontier Province.	−1·8	−1·3	0	−0·6
Central India	+1·7	+0·1	−1·1	−1·6
Central Provinces	−0·2	−1·5	−2·5	−3·3
Berar	+1·1	−1·4	−2·4	−1·7
Bombay Deccan	+1·3	−0·2	−0·1	−1·2
Mysore	−1·2	−1·2	−0·7	−1·8
Madras Deccan	−0·3	−0·8	−1·9	−2·5

During this period the weather was showery in Burma, and cyclonic conditions were developed over the east of the Bay and a storm appeared on the 5th. This storm passed into Burma, where general, moderate to heavy, rain fell, reducing temperature to considerably below the normal. The storm had practically disappeared by the 7th, but rain and low temperatures continued. The following shows the daily departures of mean temperature for this province from the 1st to the 7th:—

Province.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of						
	1st November.	2nd November.	3rd November.	4th November.	5th November.	6th November.	7th November.
	°	°	°	°	°	°	°
Burma	+0·5	+0·3	+0·3	−0·7	−2·7	−2·2	−0·7

The greatest effect of this rainfall was shown in the day temperatures which were more than 10° below the normal at the following places on the following dates:—

Date.	Station.	Maximum temperature.		
		Actual of date.	Normal of date.	Departure from normal of date.
		°	°	°
5th November	Mergui	75·9	87·8	−11·9
	Tavoy	77·7	88·4	−10·7
	Yamethin	80·3	90·7	−10·4
6th „	Minbu	75·2	90·2	−15·0
	Yamethin	78·3	90·5	−12·2
	Lashio	68·6	79·5	−10·9
	Toungoo	78·2	88·9	−10·7
7th „	Bhamo	72·5	83·3	−10·8

During these four days (4th to 7th) the mean temperature over India had not changed much. It was higher than usual over north-west India and over the east of the Peninsula, but was low over the central parts of the country, the Deccan and the west of the Peninsula. In the interior of the Peninsula, where the weather was clear and dry and the wind northerly, the nights were very cold at this time, and the following minimum temperatures more than 10° below the normal, were recorded:—

Date.	Station.	Minimum temperature.		
		Actual of date.	Normal of date.	Departure from normal of date.
		°	°	°
5th November	Kurnool	53·9	66·8	−12·9
	Cuddapah	60·4	71·0	−10·6
	Mysore	55·4	65·5	−10·1
6th „	Kurnool	53·9	66·6	−12·7
	Bijapur	51·6	63·9	−12·3
	Raichur	57·2	69·3	−12·1
	Chanda	52·1	62·8	−10·7
	Mysore	54·9	65·4	−10·5

Between the 7th and the 11th the general tendency of temperature was upward and the mean temperature exceeded the normal except across the head of the Peninsula where lower temperatures than usual continued to be reported. The excess in the north-west became very large as this period advanced and was between 8° and 10° a some stations. The following gives comparative data from

the 7th to the 11th for the different divisions of north-west India :—

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF				
	7th November.	8th November.	9th November.	10th November.	11th November.
	°	°	°	°	°
United Provinces of Agra and Oudh.	—0·8	—0·6	+1·4	+2·4	+3·0
Punjab	+2·6	+4·1	+3·6	+5·5	+4·6
North-west Frontier Province	+3·4	+4·1	+2·4	+5·9	+3·9
Sind	+2·5	+4·4	+7·3	+4·7	+5·3
Rajputana	+0·4	+3·2	+5·5	+5·4	+5·1
Gujarat	—0·3	+0·7	+0·5	+0·5	+1·4
Central India	—3·0	—1·5	+1·2	+3·3	+4·0

On the 12th the mean temperature was in excess in all divisions except parts of Burma, Assam and the West Coast. The following gives data for all divisions for this day :—

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF		
	Mean maximum temperature, 12th November.	Mean minimum temperature, 12th November.	Mean temperature, 12th November.
	°	°	°
Burma	—0·7	— 0·2	—0·5
Assam	—1·8	— 2·5	—2·2
Bengal	+0·2	— 0·2	0
Orissa	+4·2	— 0·5	+1·9
Bihar	+1·7	+ 1·4	+1·6
Chota Nagpur	+6·1	+ 2·6	+4·4
United Provinces of Agra and Oudh	+3·9	+ 5·5	+4·7
Punjab	+2·4	+11·0	+6·7
North-west Frontier Province	—0·9	+12·4	+5·8
Sind	+1·8	+ 9·0	+5·4
Rajputana	+4·0	+ 6·7	+5·4
Gujarat	—0·2	+ 2·7	+1·3
Central India	+5·0	+ 4·0	+4·5
Central Provinces	+4·7	— 0·9	+1·9
Berar	+3·4	— 1·9	+0·8
West Coast	—1·2	— 0·3	—0·8
Bombay Deccan	+3·2	— 1·1	+1·1
Mysore	+4·1	+ 1·4	+2·8
Madras Coast	+1·3	— 1·2	+0·1
Madras Deccan	+4·0	+ 1·7	+2·9
South India	+2·0	+ 1·3	+1·7

At this time both the day and night temperatures were generally in excess, but in the north-west the excess of the latter was much greater than that of the former, and amounted to over 10° at the following places :—

STATION.	MINIMUM TEMPERATURE.		
	Actual, 12th Nov.	Normal, 12th Nov.	Departure from normal, 12th Nov.
	°	°	°
Lahore	62·2	47·5	+14·7
Rawalpindi	58·6	44·0	+14·6
D. I. Khan	60·6	48·0	+12·6
Sialkot	63·1	50·7	+12·4
Srinagar	44·2	31·9	+12·3
Montgomery	64·0	51·8	+12·2
Peshawar	58·0	45·9	+12·1
Multan	65·5	53·5	+12·0
Khushab	62·4	50·9	+11·5
Ambala	62·7	51·9	+10·8
Meerut	61·8	51·3	+10·5
Kurrachee	73·2	62·8	+10·4
Roorkee	60·8	50·7	+10·1

On this day (the 12th) the weather was disturbed over the hill and submontane districts of upper India and on the 13th light rain was fairly general in Kashmir and the Punjab. The rainfall subsequently extended into Rajputana and the United Provinces and was succeeded by a rapid fall of temperature over northern India. This fall passed eastward and was in its turn succeeded by a recovery over Baluchistan and north-west India. The following gives comparative data for all divisions in northern India from the 13th to the 18th :—

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF					
	13th Nov.	14th Nov	15th Nov.	16th Nov.	17th Nov.	18th Nov.
	°	°	°	°	°	°
Bengal	+2·0	+1·8	+0·5	+0·4	—0·1	—1·7
Orissa	+2·2	+2·9	+2·5	+1·9	+1·6	—1·9
Bihar	+2·5	+2·4	—3·8	—0·8	—2·5	—2·5
Chota Nagpur	+6·0	+4·9	+1·5	+0·1	—2·4	—2·7
United Provinces of Agra and Oudh	+4·2	+1·8	—4·7	—5·2	—3·1	—2·6
Punjab	+1·5	—4·5	—2·2	—2·4	—1·2	+0·7
North-west Frontier Province	+1·6	+0·3	+1·7	+1·1	+3·4	+5·0
Baluchistan	+0·5	+1·2	+1·1	+4·6	+5·9	+3·0
Sind	+2·6	+1·0	+2·4	+4·6	+4·2	+2·5
Rajputana	+5·9	—5·0	—4·0	—1·2	—1·9	—0·3
Gujarat	+1·3	—0·9	—2·1	+0·4	+1·5	+2·3
Central India	+5·2	+2·3	—2·1	—2·2	—3·1	—2·6

The depression of temperature due to this rainfall was most marked in the day temperature which was more than 15° below the normal at the following places on the following dates:—

Date.	Station.	Maximum temperature. Actual of date.	Normal of date.	Departure from normal of date.
		°	°	°
14th November	Delhi	64·7	83·8	−19·1
	Jaipur	69·2	86·5	−17·3
	Ludhiana	64·2	81·4	−17·2
	Murree	45·6	61·6	−16·0
15th Do.	Ranikhet	44·4	62·8	−18·4
	Chakrata	42·0	60·3	−18·3
	Meerut	64·4	81·7	−17·3
	Roorkee	63·9	80·7	−16·8
	Bareilly	64·8	81·4	−16·6
	Mainpuri	69·3	84·4	−15·1
16th Do.	Agra	67·0	84·4	−17·4
	Mainpuri	68·3	84·1	−15·8

When the recovery appeared in the extreme north-west on the 15th, very high night temperatures were recorded at the Indus Valley stations. The following gives examples:—

Date.	Station.	Minimum temperature. Actual of date.	Normal of date.	Departure from normal of date.
		°	°	°
15TH NOVEMBER.	Kurrachee	72·7	62·2	+10·5
16TH Do.	Jacobabad	65·4	51·0	+14·4
17TH Do.	Jacobabad	67·3	50·8	+16·5
	Dera Ismail Khan	57·6	46·4	+11·2
18TH Do.	Peshawar	56·5	44·2	+12·3
	Dera Ismail Khan	57·1	46·1	+11·0

During these six days, 13th to the 18th, temperature was high over the Deccan and low on the coasts of the Peninsula. The following gives data for the Peninsular divisions:—

Province or Division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of 13th Nov.	14th Nov.	15th Nov.	16th Nov.	17th Nov.	18th Nov.
	°	°	°	°	°	°
Central Provinces	+3·0	+2·7	+0·8	−1·0	−3·4	−3·5
Berar	+0·7	+2·2	+1·2	+0·9	−1·2	+0·4
West Coast	−0·7	−0·1	−1·2	−1·0	+0·8	+0·3
Bombay Deccan	+1·4	+1·3	+0·7	+2·8	+1·6	+1·3
Mysore	+2·9	+1·8	+1·1	+0·6	−0·3	+0·1
Madras Coast	−1·3	−0·4	−0·6	+0·2	0	+0·5
Madras Deccan	+1·8	+1·8	+3·0	+3·0	+1·3	+1·3
South India	+0·3	−0·4	0	0	+0·5	+0·4

From the 19th to the 23rd the mean temperature was higher than usual over the north-west of India and the south of the Peninsula and was lower than usual elsewhere. The deficiency was most marked in the Deccan and north-east India, the defect in the latter area having been increased by the rainfall due to a cyclonic storm which crossed the Chittagong coast on the 23rd. The following gives data for all divisions from the 19th to the 23rd:—

Province or Division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of 19th November.	20th November.	21st November.	22nd November.	23rd November.
	°	°	°	°	°
Burma	0	−1·1	−1·6	−1·1	+0·3
Assam	−1·6	−2·2	−2·0	−1·9	−3·0
Bengal	−1·0	−1·0	−0·2	−0·7	−3·5
Orissa	−2·1	−2·1	+0·7	+0·4	−2·4
Bihar	−2·5	−2·1	−0·9	−2·2	−1·3
Chota Nagpur	−2·2	−2·7	−2·1	−2·1	−2·1
United Provinces of Agra and Oudh.	−2·0	−1·5	−1·7	−1·5	−1·8
Punjab	−1·5	−0·3	+0·4	+0·3	+2·0
North-west Frontier Province.	+0·2	+1·0	+2·8	+2·8	+2·8
Sind	+3·5	+2·9	+4·2	+4·1	+6·0
Rajputana	−0·1	−0·2	−0·6	−0·9	+0·1
Gujarat	+1·2	+2·5	+0·9	−0·5	0
Central India	−2·3	−2·2	−2·7	−3·1	−3·5
Central Provinces	−2·9	−3·4	−3·5	−3·9	−4·0
Berar	+0·3	−1·4	−2·6	−3·9	−3·7
West Coast	+0·5	+0·8	−0·4	−1·9	−2·1
Bombay Deccan	0	−1·2	−3·4	−4·8	−5·9
Mysore	+0·2	+0·7	−1·4	−2·6	−3·1
Madras Coast	+1·0	+0·7	+0·3	+0·8	−0·6
Madras Deccan	+1·5	−1·3	−2·8	−3·2	−3·9
South India	+1·2	+1·9	+1·6	+1·3	+0·7

There were no cases of very large departures of temperature from the normal during this period except in connexion with the storm of the 23rd, on which date the following departures of day temperature exceeding —10° were recorded:—

Station.	Departure from normal of		
	Maximum temperature, 23rd Nov.	Minimum temperature, 23rd Nov.	Mean temperature, 23rd Nov.
	°	°	°
Jessore	—13·9	+3·1	—5·4
Narayanganj	—13·2	—0·3	—6·8
Barisal	—11·4	—1·2	—6·3
Calcutta	—11·4	+3·0	—4·2
Mymensingh	—11·0	+2·6	—4·2
Saugor Island	—10·5	+2·4	—4·1

From the 24th to the close of the month the general weather was quiet and settled. The rainfall connected with the Chittagong storm ceased on the 24th, and after that date only a few scattered showers were received. The mean temperature hence rose generally. It was higher than usual over north-west India and part of the central districts, and was low elsewhere. The deficiency was especially marked over Burma, where cool northerly winds kept the temperature steadily low. The following gives comparative data for all divisions for each alternate day from the 24th to the 30th: —

Province or division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of			
	24th November.	26th November.	28th November.	30th November.
	°	°	°	°
Burma	+0·6	—0·5	—2·5	—2·3
Assam	—6·3	—2·4	—3·6	—4·0
Bengal	—3·9	—2·2	—2·9	—2·0
Orissa	—1·3	—0·2	—2·3	—2·5
Bihar	—1·4	—1·9	—2·9	—1·8
Chota Nagpur	—1·1	+1·5	—2·4	—1·4
United Provinces of Agra and Oudh.	—0·7	—0·8	—1·2	+2·1
Punjab	—1·7	—0·5	+2·4	+0·9
North-west Frontier Province.	+0·8	+0·3	+1·4	+1·4
Sind	+8·4	+1·1	+5·7	+3·6
Rajputana	+2·8	+0·4	+2·2	+3·2
Gujarat	+1·6	+2·2	+3·0	+2·5
Central India	—0·1	+1·5	+1·0	+2·7
Central Provinces	—3·3	+1·9	—1·2	0
Berar	—4·5	+1·9	—0·2	—0·3
West Coast	—2·4	—0·9	—1·3	—1·2
Bombay Deccan	—4·7	—2·0	—0·1	—1·6
Mysore	—1·1	—2·3	—1·3	—1·0
Madras Coast	—0·6	—1·0	—0·3	—1·4
Madras Deccan	—4·0	—1·8	+0·1	—0·9
South India	+0·2	—1·2	—1·3	—0·6

During this period very high night temperatures were reported from Quetta and some stations in north-west India, as is shown by the following comparative data:—

Date.	Station.	Minimum temperature.		
		Actual of date.	Normal of date.	Departure from normal of date.
		°	°	°
24th November	Jacobabad	61·9	48·5	+13·4
25th "	Quetta	43·9	30·7	+13·2
	Chaman	53·1	43·1	+10·0
27th "	Quetta	45·9	30·5	+15·4
	Jacobabad	60·4	47·6	+12·8
	Multan	58·9	48·8	+10·1
28th "	Quetta	44·4	30·4	+14·0
29th "	Lahore	55·1	43·2	+11·9

Winds.

As mentioned in a previous section the pressure gradient was slighter than usual between northern and southern India, but the winds were apparently unaffected by this condition and were generally of the normal velocity.

The mean wind direction was approximately normal at the stations in the east of the Bay. At Port Blair and Cocos Island as well as at Rangoon it was a few degrees *more* northerly and at Akyab more easterly than usual. The following gives direction data:—

STATION.	MEAN WIND DIRECTION. Actnal, November, 1904.	Normal, November.
	°	°
Port Blair	N 70 E	N 81 E
Cocos Island	N 43 E	N 69 E
Rangoon	N 29 E	N 66 E
Diamond Island	N 60 E	N 60 E
Akyab	N 13 E	N 6 E

The steadiness of the wind in this region was generally less than the normal, but the force exceeded the average, more especially at Diamond Island, where the mean velocity per diem was 326 miles, the normal velocity being 221 miles.

Around the head of the Bay the departures from the normal were irregular, but in this region also the mean velocity generally exceeded the normal. The following gives data of direction and velocity:—

STATION.	MEAN WIND DIRECTION. Actual, November, 1904.	Normal, November.	MEAN WIND VELOCITY IN MILES PER DIEM. Actual, November, 1904.	Normal, November.	Departure from normal, November, 1904.
	°	°			
Chittagong	N 29 E	N 18 W	74	65	+ 9
Calcutta	N 28 W	N 12 W	47	60	—13
Saugor Island	N 12 W	N 2 E	205	168	+ 37
False Point	N 19 E	N 30 E	159	144	+ 15

In the Gangetic Plain the wind was more westerly and steadier than usual, the mean velocity being about normal. The following gives data for Allahabad:—

STATION.	MEAN STEADINESS. Actual percentage, November, 1904.	Normal percentage, November.	Departure from normal, November, 1904.	MEAN WIND VELOCITY IN MILES PER DIEM. Actual, November, 1904.	Normal, November.	Departure from normal, November, 1904.	MEAN WIND DIRECTION. Actual, November, 1904.	Normal, November.	Westerly deflection.
							°	°	
Allahabad	41	24	+ 17	51	55	— 4	N 69 W	N 51 W	+ 18

In the Upper Sub-Himalayas the departures from the normal were irregular. This is shown below:—

STATION.	MEAN STEADINESS. Actual percentage, November, 1904.	Normal percentage, November.	Departure from normal, November, 1904.	MEAN WIND VELOCITY IN MILES PER DIEM. Actual, November, 1904.	Normal, November.	Departure from normal, November, 1904.	MEAN WIND DIRECTION. Actual, November, 1904.	Normal, November.
							°	°
Dehra Dun	30	19	+ 11	20	31	—11	S 82 W	S 84 W
Roorkee	2	4	— 2	26	26	0	S 71 E	S 87 W
Meerut	28	39	—11	17	26	— 9	N 44 W	N 60 W
Lahore	33	18	+ 15	39	31	+ 8	N 11 W	N 42 W
Ludhiana	42	30	+ 12	21	24	— 3	W 86 S	N 45 W

At Dehra Dun the direction was normal, but the wind, though light, was steadier than usual. At Meerut and Lahore the wind was more northerly and at Ludhiana more southerly than the average, while at Roorkee the direction was east-south-east instead of west-south-west.

In the Indus Valley also the departures from the normal were irregular. At Peshawar the wind was very light, very unsteady and more northerly than usual; at Jacobabad it was unusually strong, unusually steady, and more easterly than the average, while at Kurrachee the direction was slightly more southerly than the normal. The following gives data for these stations:—

STATION.	MEAN STEADINESS. Actual percentage, November, 1904.	Normal percentage, November.	Departure from normal, November, 1904.	MEAN WIND VELOCITY IN MILES PER DIEM. Actual, November, 1904.	Normal, November.	Departure from normal, November, 1904.	MEAN WIND DIRECTION. Actual, November, 1904.	Normal, November.
							°	°
Peshawar	5	12	— 7	8	48	—40	N 20 E	N 72 E
Jacobabad	42	10	+ 32	58	38	+ 20	N 79 E	N 18 W
Kurrachee	56	18	+ 38	149	180	—31	S 75 W	W

At Jaipur, as in the Gangetic Plain, the wind was more westerly and steadier than the average, while at Deesa the

wind was more northerly than the average and very unsteady. This is shown below :—

STATION.	MEAN STEADINESS.			MEAN WIND DIRECTION.	
	Actual percentage, November, 1904.	Normal percentage, November.	Departure from normal, November, 1904.	Actual, November, 1904.	Normal, November.
				°	°
Jaipur . . .	53	35	+18	N 64 W	N 24 W
Deesa . . .	11	47	—36	N 6 E	N 60 E

The following gives comparative data of the strength and steadiness of the winds over the Bay Islands, Burma and northern India :—

PROVINCE OR DIVISION.	MEAN STEADINESS.			MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, November, 1904.	Normal percentage, November.	Departure from normal, November, 1904.	Actual, November, 1904.	Normal, November.	Departure from normal, November, 1904.
Bay Islands . .	27	40	—13	198	161	+37
Burma . . .	36	44	— 8	194	138	+56
Bengal . . .	53	55	— 2	109	98	+11
Chota Nagpur .	53	43	+10	130	110	+20
Orissa . . .	42	54	—12	159	144	+15
United Provinces of Agra and Oudh.	25	22	+ 3	29	35	— 6
Punjab . .	38	24	+14	30	28	+ 2
North-west Frontier Province.	5	12	— 7	8	48	—40
Rajputana . .	32	41	— 9	118	120	— 2
Sind . . .	49	14	+35	104	109	— 5

The above shows that the mean wind velocity exceeded the normal over the Bay Islands, Burma and Bengal, but was generally lower than usual over northern India. The wind was generally unsteady over the Bay area and in the North-west Frontier Province and Rajputana, but was exceptionally steady in Sind and slightly steadier than usual in the Punjab, the United Provinces, and Chota Nagpur.

At most stations in the Deccan the wind was unusually northerly. This is shown below :—

STATION.	MEAN WIND DIRECTION.		
	Actual, November, 1904.	Normal, November.	Northerly deflection.
	°	°	
Belgaum	N 81 E	N 75 E	— 6
Sholapur	N 76 E	N 78 E	+ 2
Akola	N 36 E	N 60 E	+24
Buldana	N 37 E	N 63 E	+26
Khandwa	N 24 E	N 59 E	+35
Nagpur	N 64 E	N 54 E	—10
Hyderabad (Deccan) . . .	N 69 E	N 75 E	+ 6

At Bombay the wind was lighter, less steady and more northerly than usual, while at Karwar it was stronger and more westerly than the average. The following gives data:—

STATION.	MEAN STEADINESS.			MEAN WIND VELOCITY IN MILES PER DIEM.			MEAN WIND DIRECTION.	
	Actual percentage, November, 1904.	Normal percentage, November.	Departure from normal, November, 1904.	Actual, November, 1904.	Normal, November.	Departure from normal, November, 1904.	Actual, November, 1904.	Normal, November.
							°	°
Bombay . .	40	51	—11	197	230	—33	N 1 E	N 18 E
Karwar . .	32	45	—13	101	67	+34	N 39 W	N 30 W

Increased northing was also observable in the winds at most stations in South India, the steadiness and velocity varying irregularly from the normal. The following gives comparative data of direction :—

STATION.	MEAN WIND DIRECTION.		
	Actual, November, 1904.	Normal, November.	Northerly deflection.
	°	°	
Salem	N 50 E	N 81 E	+31
Chitaldroog	N 73 E	N 72 E	— 1
Bangalore	N 54 E	N 60 E	+ 6
Hassan	N 16 E	N 70 E	+54
Mysore	N 67 E	N 39 E	—28
Madras	N 40 E	N 27 E	—13
Bellary	N 62 E	N 82 E	+20
Waltair	N 70 E	N 77 E	+ 7

The following gives comparative data of air movement in the Peninsular divisions :—

PROVINCE OR DIVISION.	MEAN STEADINESS.			MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, November, 1904.	Normal percentage, November.	Departure from normal, November, 1904.	Actual, November, 1904.	Normal, November.	Departure from normal, November, 1904.
Central Provinces .	42	55	—13	75	78	— 3
Berar . . .	40	50	—10	81	102	—21
Bombay Deccan .	62	64	— 2	197	231	—34
Madras Deccan .	46	59	—13	83	81	+ 2
West Coast . .	36	48	—12	149	149	0
Mysore . . .	69	60	+ 9	116	137	—21
Madras Coast .	69	57	+12	164	156	+ 8
South India . .	13	24	—11	98	74	+24

The above shows that the velocity, except in Madras, was generally low, and that the wind over the greater part of the Peninsula was unsteady.

In Baluchistan the wind was slightly more westerly and steadier than usual. The following gives data for Quetta:—

Hill station.	Mean steadiness.			Mean wind direction.		
	Actual percentage, November, 1904.	Normal percentage, November.	Departure from normal, November, 1904.	Actual, November, 1904.	Normal, November.	Westerly deflection.
				°	°	
Quetta . . .	43	40	+3	N 60 W	N 51 W	+9

In Kashmir the wind was light and the direction varied irregularly from the normal, while in the north-west Himalayas the direction was generally more southerly than usual. The following gives data for the north-west Himalayas:—

Hill station.	Mean wind direction.	
	Actual, November, 1904.	Normal, November.
	°	°
Simla	S 1 W	N 27 W
Chakrata	S 1 E	S 51 W
Ranikhet	S 87 W	S 54 W

At Darjeeling the wind was steady and strong from north-east. This is shown below:—

Hill station.	Mean steadiness.			Mean wind velocity in miles per diem.			Mean wind direction.	
	Actual percentage, November, 1904.	Normal percentage, November.	Departure from normal, November, 1904.	Actual, November, 1904.	Normal, November.	Departure from normal, November, 1904.	Actual, November, 1904.	Normal, November.
							°	°
Darjeeling . .	23	10	+13	78	65	+13	N 39 E	N 54 W

At the central hill stations the wind's direction varied irregularly from the average.

At Aden the wind was more northerly, more unsteady and lighter than usual, while at Perim it was more southerly, stronger and steadier than the average. The following gives data:—

Station.	Mean steadiness.			Mean wind velocity in miles per diem.			Mean wind direction.	
	Actual percentage, November, 1904.	Normal percentage, November.	Departure from normal, November, 1904.	Actual, November, 1904.	Normal, November.	Departure from normal, November, 1904.	Actual, November, 1904.	Normal, November.
							°	°
Aden . . .	60	67	— 7	123	310	—187	N 67 E	S 87 E
Perim . . .	94	74	+20	492	485	+ 7	S 51 E	N 89 E

At Zanzibar a steady southerly wind prevailed, while at the Seychelles the direction was north-north-west and the velocity less than usual. At Mauritius the wind direction was about the average, but the velocity was lower than usual. The following gives data for the stations in the south-east Trades region:—

Station.	Mean steadiness.			Mean wind velocity in miles per diem.			Mean wind direction.	
	Actual percentage, November, 1904.	Normal percentage, November.	Departure from normal, November, 1904.	Actual, November, 1904.	Normal, November.	Departure from normal, November, 1904.	Actual, November, 1904.	Normal, November.
							°	°
Zanzibar . .	47	17	+30	107	110	— 3	S 2 E	S 36 E
Seychelles . .	13	9	+ 4	105	140	—35	N 22 W	S 84 E
Mauritius . .	...	...	...	241	257	—16	S 78 E	S 83 E

Humidity and Cloud.

The excess of vapour in the air which had appeared over north-west India in October, 1904, became more marked in November, when over the whole of north-west India and along the foot of the hills as far east as Bihar the vapour tension was in greater or less excess. Over the greater part of this area the mean absolute humidity of the

month under review was more than ·050″ above the normal. The following gives comparative data for these stations:—

	Vapour Tension, November, 1904.			
	Actual.	Normal.	Departure.	Percentage departure.
	″	″	″	
Kurrachee	·600	·448	+·152	+34
Jacobabad	·415	·297	+·118	+40
Hyderabad	·450	·340	+·110	+32
Pachpadra	·422	·309	+·113	+37
Khushab	·328	·226	+·102	+45
Multan	·408	·324	+·084	+26
D. I. Khan	·360	·279	+·081	+29
Peshawar	·342	·261	+·081	+31
Bhuj	·531	·452	+·079	+17
Sirsa	·359	·288	+·071	+25
Delhi	·355	·287	+·068	+24
Lahore	·377	·313	+·064	+20
Montgomery	·348	·286	+·062	+22
Bikaner	·358	·297	+·061	+21
Sambhar	·337	·285	+·052	+18
Jhansi	·432	·346	+·086	+25
			Mean	+28

The preceding data show that on the average of the whole region the mean absolute humidity was 28 per cent. in excess of the average, and this hygrometric condition of the air appeared to have had an important influence on the general weather in this region. It is interesting to note that, so far as the observations show, there were no changes in the wind directions which would account for this excess of humidity.

The absolute humidity was also in excess over Burma, but, except in Tenasserim, the departures from the normal were not large. The following gives comparative data of the Tenasserim stations:—

Station.	Absolute Humidity.		
	Actual, November, 1904.	Normal, November.	Departure from normal, November, 1904.
	″	″	″
Mergui	·824	·750	+·074
Tavoy	·779	·738	+·041
Moulmein	·790	·750	+·040

Over Assam, Bengal, the Central Provinces and the Peninsula the mean absolute humidity was below the normal. The deficiency was greatest over the inland districts of the Peninsula and at some stations on the Madras Coast, and exceeded 0·100″ at the following places:—

Station.	Absolute Humidity.		
	Actual, November, 1904.	Normal, November.	Departure from normal, November, 1904.
	″	″	″
Raichur	·393	·568	−·175
Cuddapah	·532	·695	−·163
Waltair	·490	·650	−·160
Chitaldroog	·398	·557	−·159
Madras	·643	·796	−·153
Sholapur	·285	·429	−·144
Nellore	·643	·786	−·143
Belgaum	·325	·460	−·135
Ahmednagar	·340	·470	−·130
Amraoti	·289	·412	−·123
Hyderabad (Deccan)	·423	·539	−·116
Mormugao	·625	·729	−·104
Chanda	·419	·522	−·103
Sambalpur	·448	·551	−·103
Hassan	·444	·545	−·101

The departures of the mean relative humidity of the month exhibited the same general distribution as did those of the mean absolute humidity. There was a general excess over north-west India, over the United Provinces and over Bihar. The excess was greatest over the North-west Frontier Province and the Central and South Punjab, where the mean absolute humidity was in large excess and the mean temperature only in slight excess, and was large in Sind, notwithstanding the high temperature prevailing owing to the very large excess of absolute humidity. The following gives comparative data of absolute and relative humidities for those stations, at which the departure of the mean relative humidity exceeded or equalled +10:—

Station.	Absolute Humidity.			Relative Humidity.		
	Actual, November, 1904.	Normal, November.	Departure from normal, November, 1904.	Actual, November, 1904.	Normal, November.	Departure from normal, November, 1904.
	″	″	″	%	%	
Khushab	·328	·226	+·102	64	48	+16
Delhi	·355	·287	+·068	66	52	+14
Lahore	·377	·313	+·064	80	67	+13
Peshawar	·342	·261	+·081	78	65	+13
Kurrachee	·600	·448	+·152	74	61	+13
Jacobabad	·415	·297	+·118	65	54	+11
Neemuch	·358	·318	+·040	57	47	+10
Sirsa	·359	·288	+·071	69	59	+10
Montgomery	·348	·286	+·062	63	53	+10

In Bihar the mean absolute humidity was in greater excess than in surrounding districts and the mean temperature was low, hence the mean relative humidity was more than 5 in excess of the normal at the following stations:—

Station.	Absolute Humidity.			Relative Humidity.		
	Actual, November, 1904.	Normal, November.	Departure from normal, November, 1904.	Actual, November, 1904.	Normal, November.	Departure from normal, November, 1904.
	"	"	"	%	%	
Gaya	·512	·475	+·037	80	71	+9
Patna	·502	·507	—·005	78	71	+7
Darbhanga	·572	·552	+·020	88	82	+6

The mean relative humidity was normal over Assam and part of East Bengal, where the mean absolute humidity was below the average, but the mean temperature was low, and was in excess over Burma, where the mean absolute humidity exceeded the average, and temperature was lower than usual. The excess of the mean relative humidity was more than 5 at the following stations:—

Station.	Absolute Humidity.			Relative Humidity.		
	Actual, November, 1904.	Normal, November.	Departure from normal, November, 1904.	Actual, November, 1904.	Normal, November.	Departure from normal, November, 1904.
	"	"	"	%	%	
Mandalay	·718	·687	+·031	92	85	+7
Barisal	·684	·678	+·006	89	83	+6

Over the whole of the Peninsula, south-west Bengal, the greater part of the Central Provinces and East Gujarat the mean relative humidity was below the normal. Over the greater part of this large area the mean temperature of the month was below the normal, but the deficiency in the mean absolute humidity was so large as to leave the mean relative humidity in large defect. The following gives comparative data for those stations at which the mean relative humidity was 10 or more in defect:—

Station.	Absolute Humidity.			Relative Humidity.		
	Actual, November, 1904.	Normal, November.	Departure from normal, November, 1904.	Actual, November, 1904.	Normal, November.	Departure from normal, November 1904.
	"	"	"	%	%	
Chitaldroog	·398	·557	—·159	48	71	—23
Belgaum	·325	·460	—·135	43	64	—21
Raichur	·393	·568	—·175	48	68	—20
Cuddapah	·532	·695	—·163	57	76	—19
Madras	·643	·796	—·153	66	83	—17
Sholapur	·285	·429	—·144	37	53	—16
Amraoti	·289	·412	—·123	38	53	—15
Bangalore	·454	·543	—·089	65	78	—13
Hassan	·444	·545	—·101	63	75	—12
Cuddalore	·747	·836	—·089	79	90?	—11?
Salem	·622	·702	—·080	68	78	—10
Mangalore	·643	·735	—·092	67	77	—10

At most of the hill stations the departures of the mean relative humidity from the normal were small and unimportant, but at Leh, Darjeeling and Wellington there was a considerable deficiency and at Quetta a considerable excess. The following gives comparative data:—

Hill station.	Absolute Humidity.			Relative Humidity.		
	Actual, November, 1904.	Normal, November.	Departure from normal, November, 1904.	Actual, November, 1904.	Normal, November.	Departure from normal, November 1904.
	"	"	"	%	%	
Leh	·071	·103	—·032	52	67	—15
Darjeeling	·209	·262	—·053	64	79	—15
Wellington	·319	·395	—0·76	64	77	—13
Quetta	·202	·153	+·049	63	52	+11

The mean relative humidity of the month was highest in Assam and Burma and exceeded 90% at the following staions:—

Station.	Relative Humidity.		
	Actual, November, 1904	Normal, November.	Departure from normal, November, 1904.
	%	%	
Sibsagar	98	98	0
Sirajganj	95	—	—
Bhamo	94	90	+4
Lashio	94	91	+3
Gauhati	94	—	—
Mandalay	92	85	+7
Akyab	91	89	+2
Maymyo	91	—	—
Tezpur	91	—	—
Dibrugarh	91	—	—

The mean relative humidity of the month was lowest over the Bombay Deccan and Gujarat and was less than 45% at the following places:—

STATION.	RELATIVE HUMIDITY.		
	Actual, November, 1904.	Normal, November	Departure from normal, November, 1904.
	%	%	
Simla	44	42	+2
Jodhpur	43	—	—
Ahmedabad	43	50	—7
Belgaum	43	64	—21
Murree	43	36	+7
Bhavnagar	41	?	?
Deesa	39	41	—2
Mount Abu	39	42	—3
Amraoti	38	53	—15
Sholapur	37	53	—16

At Aden both the absolute and relative humidities were in excess and at Perim both were in defect. The following gives data:—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, November, 1904.	Normal, November.	Departure from normal, November, 1904.	Actual, November, 1904.	Normal, November.	Departure from normal, November, 1904.
	"	"	"	%	%	
Aden	·703	·675	+·028	71	68	+3
Perim	·705	·742	—·037	66	69	—3

At Zanzibar the mean absolute humidity was lower than usual, but the temperature was below the normal and the mean relative humidity was in slight excess, while at the Seychelles both were in excess. At Mauritius both the absolute and relative humidities were in defect.

The following gives data for the stations in the south-east Trades region:—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, November, 1904.	Normal, November.	Departure from normal, November, 1904.	Actual, November, 1904.	Normal, November.	Departure from normal, November, 1904.
	"	"	"	%	%	
Zanzibar	·830	·844	—·014	84	82	+2
Seychelles	·843 ?	·836	+·007 ?	90 ?	83	+7 ?
Mauritius	·573	·603	—·030	66	68	—2

The mean cloud amount of the month was below the normal over the Burma coast, over the Peninsula (with the exception of some coast stations) and Ceylon. The deficiency in the cloud amount was considerable, more particularly in the south and south-east of the Peninsula, and amounted to 2·0 or more at the following stations:—

STATION.	MEAN CLOUD AMOUNT.		
	Actual, November, 1904.	Normal, November.	Departure from normal, November, 1904.
Tinnevelly	1·1	5·2	— 4·1
Chitaldroog	0·9	4·4	— 3·5
Bellary	1·0	4·0	— 3·0
Cuddalore	3·2	6·0	— 2·8
Coimbatore	2·9	5·6	— 2·7
Bangalore	1·6	4·2	— 2·6
Madura	1·9	4·5	— 2·6
Trivandrum	2·9	5·4	— 2·5
Madras	3·0	5·5	— 2·5
Trichinopoly	2·2	4·6	— 2·4
Hassan	2·9	5·3	— 2·4
Salem	2·5	4·7	— 2·2
Negapatam	4·6	6·8	— 2·2
Colombo	2·7	4·8	— 2·1
Gopalpur	1·2	3·2	— 2·0

The mean cloud amount of the month was also less than usual over the west of the United Provinces, parts of Rajputana, of Central India, of the Central Provinces, of Khandesh, of Gujarat, of Sind and of the Punjab, but the departures in this area were generally small and amounted to 0·5 or more only at the following places:—

PROVINCE OR DIVISION.	STATION.	MEAN CLOUD AMOUNT.		
		Actual, November, 1904.	Normal, November.	Departure from normal, November, 1904.
UNITED PROVINCES	Jhansi	0·3	0·9	—0·6
RAJPUTANA	Pachpadra	0·6	1·7	—1·1
CENTRAL INDIA	Indore	0·4	1·1	—0·7
	Neemuch	0·4	0·9	—0·5
CENTRAL PROVINCES	Chanda	0·5	2·0	—1·5
	Seoni	0·1	1·3	—1·2
	Hoshangabad	0·2	1·3	—1·1
	Jubbulpore	0·2	1·2	—1·0
	Akola	0·5	1·5	—1·0
	Amraoti	0·5	1·5	—1·0
	Nagpur	0·9	1·9	—1·0

Province or division.	Station.	Mean cloud amount. Actual, November, 1904.	Normal, November.	Departure from normal, November, 1904.
Khandesh	Ahmednagar	0·7	1·7	—1·0
	Malegaon	0·9	1·7	—0·8
	Surat	0·5	1·3	—0·8
Gujarat	Ahmedabad	0·5	1·8	—1·3
	Veraval	0·6	1·6	—1·0
	Bhuj	0·4	1·0	—0·6
	Deesa	0·3	1·2	—0·9
Sind	Hyderabad	0·4	1·7	—1·3
Punjab	Sirsa	1·2	1·8	—0·6

Over the remainder of the country, including the upper Indus Valley, the West and Central Punjab, north-east India, Burma and parts of the Central and United Provinces, the mean cloud amount exceeded the average. The departures were generally moderate or small, except in Burma and north-east India, and exceeded 0·7 at the following places:—

Province or division.	Station.	Mean cloud amount. Actual, November, 1904.	Normal, November.	Departure from normal, November, 1904.
Burma	Yamethin	6·8	2·1	+4·7
	Bhamo	7·0	4·2	+2·8
	Toungoo	6·2	4·5	+1·7
	Moulmein	2·7	1·6	+1·1
	Minbu	3·5	2·6	+0·9
North-east India.	Narayanganj	4·4	2·4	+2·0
	Dinajpur	3·2	1·2	+2·0
	Dhubri	3·7	1·9	+1·8
	Calcutta	3·4	1·8	+1·6
	Jessore	3·4	2·0	+1·4
	Barisal	3·3	1·9	+1·4
	Jalpaiguri	2·6	1·2	+1·4
	Berhampore	3·2	1·9	+1·3
	Chittagong	4·7	3·5	+1·2
	Burdwan	3·0	2·0	+1·0
	Bogra	2·0	1·1	+0·9
	Bahraich	1·6	0·6	+1·0
	Ranchi	2·3	1·5	+0·8
West Punjab	Khushab	2·1	1·3	+0·8

At most of the extreme north-western hill stations the cloud amount was greater than usual, but on the hills of the centre, south and east the sky was clearer than the average. The following gives comparative data:—

Hill station.	Mean cloud amount. Actual, November, 1904.	Normal, November.	Departure from normal, November, 1904.
Gilgit	4·8	4·0	+0·8
Leh	4·7	4·1	+0·6
Srinagar	3·4	2·9	+0·5
Cherat	2·9	2·4	+0·5
Simla	1·9	1·8	+0·1
Chakrata	1·0	1·4	—0·4
Ranikhet	1·0	1·3	—0·3
Murree	2·7	2·8	—0·1
Darjeeling	2·0	3·4	—1·4
Pachmarhi	0·1	1·6	—1·5
Mount Abu	0·7	1·8	—1·1
Wellington	3·0	4·8	—1·8

The skies were practically clear of cloud (*i.e.*, the mean cloud amount of the month was less than 0·5) at the following places:—

Station.	Mean cloud amount. tual, November, 1904.
Bhagalpur	0·4
Hyderabad (Sind)	0·4
Bhuj	0·4
Indore	0·4
Neemuch	0·4
Kotah	0·3
Deesa	0·3
Jhansi	0·3
Poona	0·3
Purnea	0·2
Arrah	0·2
Hoshangabad	0·2
Jubbulpore	0·2
Aurangabad	0·2
Seoni	0·1
Pachmarhi	0·1

On the other hand, the skies were very cloudy (*i.e.*, the mean cloud amount of the month exceeded 6·0) at the following places:—

Station.	Mean cloud amount. Actual, November, 1904.
Gauhati	8·0
Bhamo	7·0
Yamethin	6·8
Lashio	6·6
Toungoo	6·2

The stations given in these two tables thus define the areas of greatest and least serenity during the month.

At Aden the mean cloud amount was exactly normal, while at Perim it was in considerable defect. This is shown below:—

Station.	Mean cloud amount. Actual, November, 1904.	Normal, November.	Departure from normal, November, 1904.
Aden	2·3	2·3	0
Perim	0·3	1·8	—1·5

In the south-east Trades region the sky was more cloudy than usual. The following gives data:—

Station.	Mean cloud amount. Actual, November, 1904.	Normal, November.	Departure from normal, November, 1904.
Zanzibar	7·0	5·4	+1·6
Seychelles	7·0	6·9	+0·1
Mauritius	5·8	5·5	+0·3

Rainfall.

The principal features of the rainfall distribution of the month were (1) the general absence of rain over the Peninsula, (2) the excess of rain over Burma, Assam, East Bengal and North Bihar, due to the two slight cyclonic storms of the Bay, and (3) the excess of rain over the Punjab, the United Provinces and neighbouring regions, due apparently to a shallow depression which passed from Sind into the United Provinces.

The principal periods of rainfall were as follows:—

(1) The 1st to the 6th, when rain fell over Burma and Assam.

(2) The 8th to the 12th, when showers occurred over Burma and Assam.

(3) The 11th to the 14th, when showers were received over the south of the Peninsula.

(4) The 12th to the 16th, when rain fell over north-west India and the Gangetic Plain.

(5) The 23rd and 24th, when rain again fell over Burma and north-east India.

The actual distribution of the rainfall of the month as given by the returns of the meteorological observatories is shown on Pl. IV. This chart shows that no rain was received during the month over the greater part of the Peninsula, the weather having been fine and dry within a broad band extending from Lat. 15° N. to Lat. 24° N. To the south of Lat. 15° N. rain was received, but the amounts were generally small, except over the south coasts of the Peninsula and Ceylon. Rain was, likewise, received over the whole of northern and north-eastern India and Burma. The fall was moderate in some districts along the foot of the Himalayas and was moderate to heavyish over parts of Burma, of Assam and of Deltaic Bengal. The heaviest rainfall was apparently received over the south of the Bay, Trincomalee reporting a total fall of 16·49″, Port Blair of 12·15″, Tavoy of 8·24″ and Mergui of 8·22″, while the largest amounts in the north-east were 8·70″ at Akyab, 6·98″ at Minbu, 6·52″ at Bhamo, and 5·90″ at Silchar.

The following table gives comparative rainfall data for the 57 meteorological divisions of the empire:—

Province.	Division.	Number of rainy days. Average actual, November, 1904.	Number of rainy days. Average normal, November.	Rainfall. Average actual, November, 1904.	Rainfall. Average normal, November.	Rainfall. Departure from normal, November, 1904.
				Inches.	Inches.	Inches.
Burma	Tenasserim	5·2	3·4	5·68	2·05	+3·63
	Lower Burma (Deltaic)	6·4	2·6	5·39	1·69	+3·70
	Central do.	6·5	1·6	5·49	1·09	+4·40
	Upper do.	4·6	2·2	3·81	1·25	+2·56
	Arakan	6·2	2·2	6·47	1·54	+4·93

Province.	Division.	Number of rainy days.		Rainfall.		
		Average actual, November, 1904.	Average normal, November.	Average actual, November, 1904.	Average normal, November.	Departure from normal, November, 1904.
				Inches.	Inches.	Inches.
Bengal and Assam	Eastern Bengal	3·0	1·2	2·48	1·00	+1·48
	Assam (Surma)	5·6	1·6	3·49	1·26	+2·23
	Do. (Hills)	6·2	2·0	3·11	1·11	+2·00
	Do. (Brahmaputra)	3·4	1·1	1·44	0·47	+0·97
	Deltaic Bengal	1·1	0·9	0·43	0·76	−0·33
	Central do.	0·5	0·6	0·25	0·42	−0·17
	North do.	0·5	0·4	0·14	0·18	−0·04
	Bengal Hills	1·0	0·8	0·25	0·31	−0·06
	Orissa	0	1·6	0·02	1·43	−1·41
	Chota Nagpur	0·3	0·6	0·06	0·37	−0·31
	Bihar (South)	0·2	0·3	0·10	0·21	−0·11
	Do. (North)	0·9	0·2	0·64	0·11	+0·53
United Provinces of Agra and Oudh.	United Provinces (East)	0·9	0·3	0·47	0·17	+0·30
	Oudh (South)	1·0	0·2	0·59	0·13	+0·46
	Do. (North)	1·5	0·2	0·92	0·12	+0·80
	United Provinces (Central)	1·0	0·2	0·38	0·15	+0·23
	Do. do. (West)	1·6	0·1	0·59	0·05	+0·54
	Do. do. (East Submontane)	1·2	0·3	0·69	0·10	+0·59
	Do. do. (West do.)	1·9	0·3	0·99	0·17	+0·82
	Do. do. (Hills)	2·2	0·6	1·52	0·26	+1·26
Punjab	Punjab (South-East)	1·5	0·2	0·71	0·08	+0·63
	Do. (South)	1·0	0·1	0·29	0·06	+0·23
	Do. (Central)	0·9	0·3	0·26	0·14	+0·12
	Do. (Submontane)	1·3	0·4	0·41	0·20	+0·21
	Do. (Hills)	2·1	0·8	0·79	0·52	+0·27
	Do. (West)	1·3	0·2	0·55	0·10	+0·45
N.-W.F. Province	North-west Frontier Province	1·1	0·7	0·48	0·50	−0·02
Bombay and Malabar Coast Districts (Madras).	Malabar	0·6	5·1	0·34	3·58	−3·24
	Travancore	2·3	...	1·32	...	...
	Madras (South, Central)	1·0	5·8	0·38	3·84	−3·46
	Coorg	0·6	...	0·15	...	...
	Mysore	0·3	3·8	0·09	2·56	−2·47
	Konkan	0	1·4	0·01	0·87	−0·86
	Bombay Deccan	0	1·8	0	1·11	−1·11
	Hyderabad (North)	0	1·5	0	0·90	−0·90
	Khandesh	0	0·8	0	0·48	−0·48
Central Provinces and Berar.	Berar	0	0·9	0	0·58	−0·58
	Central Provinces (West)	0	0·7	0	0·41	−0·41
	Do. (Central)	0	0·7	0·01	0·41	−0·40
	Do. (East)	0·2	0·8	0·04	0·49	−0·45
Bombay (North)	Gujarat East	0	0·5	0	0·25	−0·25
	Kathiawar and Cutch	0·1	0·4	0·02	0·32	−0·30
	Sind	0	0·2	0·04	0·09	−0·05
	Baluchistan Hills	0·7	1·2	0·20	0·52	−0·32
Rajputana and Central India.	Central India (East)	0·4	0·5	0·14	0·25	−0·11
	Rajputana (East), Central India (West)	0·8	0·4	0·30	0·19	+0·11
	Do. (West)	0·4	0·3	0·11	0·19	−0·08
Madras	East Coast (North)	0	2·9	0	2·81	−2·81
	Hyderabad (South)	0	2·2	0	1·14	−1·14
	Madras (Central)	0	3·3	0	2·16	−2·16
	East Coast (Central)	0·8	7·3	0·37	8·55	−8·18
	Do. (South)	1·6	9·1	1·06	9·20	−8·14
	Madras (South)	2·1	8·0	1·63	6·27	−4·64

The preceding data show that twenty-five of the rainfall divisions, for which data are available, received more than the normal rainfall, and that in the case of thirty one divisions the rainfall was more or less in defect. The areas of excessive fall included (1) Burma, East Bengal and Assam, and (2), North Bihar, the United Provinces, the Punjab, the east of Rajputana and the west of Central India. The greatest actual excess was reported from Burma, but, relatively to the normal, the rainfall was heaviest in the Punjab and the United Provinces. The excess was more

than 300 per cent. in the divisions, for which comparative data are given below :—

DIVISION.	RAINFALL.			
	Average actual, November, 1904.	Average normal, November.	Departure from normal, November, 1904.	Percentage departure from normal.
	nches.	Inches.	Inches.	
Central Burma	5·49	1·09	+4·40	+404
Arakan	6·47	1·54	+4·93	+320
North Bihar	0·64	0·11	+0·53	+482
South Oudh	0·59	0·13	+0·46	+354
North Oudh	0·92	0·12	+0·80	+667
United Provinces, West	0·59	0·05	+0·54	+1008
United Provinces, East Submontane.	0·69	0·10	+0·59	+590
United Provinces, West Submontane.	0·99	0·17	+0·82	+482
United Provinces, hills.	1·52	0·26	+1·26	+485
South-East Punjab	0·71	0·08	+0·63	+788
South Punjab	0·29	0·06	+0·23	+383
West Punjab	0·55	0·10	+0·45	+450

Over Bengal (with the exception of East Bengal and of North Bihar), over the North-west Frontier Province, over North Bombay, over West Rajputana, over the east of Central India, over the Central Provinces and over the whole of the Peninsula the month's rainfall was lighter than usual. The actual deficiency was greatest over the east and south of the Peninsula. Thus the north division of the East Coast received no rain, the normal average rainfall being 2·81″, the central division 0·37″, the normal being 8·55″, and the south division 1·06″, the normal being 9·20″.

The mean rainfall departure from the normal for the whole country (excluding the hill districts), derived from the fifth figure column of the table on pp. 404 and 405, was —0·29 inch.

The rainfall in Burma was connected with the two cyclonic storms of the month. In Tenasserim it occurred generally between the 1st and the 5th, local rain falling between the 6th and the 19th, and showers between the 25th and the 30th. The total fall was more than twice as heavy as usual, and the following amounts exceeding 3″ in 24 hours were recorded :—

DISTRICT.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
MERGUI	Maliwun	2nd November	3·50
TAVOY	Thayetchaung	4th "	4·29
	Yebyu	" "	3·12
MERGUI	Mergui	" "	3·10
	Victoria Point	19th "	5·00

In Lower Burma rain fell between the 1st and the 8th and again between the 23rd and 25th, the total for the month being three times the normal amount. The following were the amounts exceeding 3″ in 24 hours during the month :—

DISTRICT.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
MYAUNGMYA	Einme	4th November	3·20
HANTHAWADDY	Kyauktau	5th "	4·42
PEGU	Pegu	" "	4·19
MA-UBIN	Pantanaw	" "	3·20

In Central Burma similar conditions prevailed, rain falling between the 1st and the 8th and on the 23rd, 24th, and 25th. The total fall of the month was five times the average, and the following falls exceeding 3″ in 24 hours were recorded :—

DISTRICT.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
PROME	Prome	5th November	3·75
THAYETMYO	Mindon	" "	3·63
THARAWADDY	Tapun	" "	3·28
HENZADA	Henzada	8th "	3·24

In Upper Burma the principal rainfall occurred between the 4th and the 10th due to the first storm of the month, only light showers having been received during the existence of the second storm between the 21st and the 24th. The fall was heavy on the 5th and 6th, and the following amounts exceeding 3″ in 24 hours were recorded :—

DISTRICT.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
RUBY MINES	Mogok	5th November	7·05
MINBU	Linzin	" "	5·12
CHIN HILLS	Kanpetlet	" "	4·82
MINBU	Mezali	" "	4·43
MAGWE	Myingun	" "	4·32

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Kyaukse	Dayegaung	5th November	3·75
Myingyan	Kyaukpadaung	" "	3·40
Minbu	Aingma	"	3·15
Myitkyina	Sadon	" "	3·05
Minbu	Ngape	" "	3·05
"	Salin	6th "	5·17
Shwebo	Shwebo	" "	4·62
Minbu	Minbu	" "	4·50
Magwe	Yenangyaung	" "	4·43
Mandalay	Singu	" "	3·92
Ruby Mines	Tagaung	" "	3·90
Pakokku	Seikpyu	" "	3·82
Magwe	Magwe	" "	3·55
Chin Hills	Pagan	" "	3·44
Pakokku	Pauk	" "	3·42
"	Myaing	" "	3·36
Bhamo	Shwegu	" "	3·27

In Arakan rain fell between the 4th and 10th, and light showers on the 22nd, 23rd, and 24th. The total rainfall was four times the normal, and the following were the falls exceeding 3″ in 24 hours :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Kyaukpyu	Kyaukpyu	6th November	4·31
Akyab	Maungdaw	7th "	4·35
"	Rathedaung	" "	3·50
"	Akyab	8th "	3·18

In Assam there were three periods of rainfall, *viz.*, between the 4th and the 8th, the 10th and the 12th, and the 23rd and the 26th. The total fall was everywhere excessive, as is shown by the following comparative data of the eight plains districts of the province :—

District.	Rainfall			
	Average actual, November, 1904.	Average normal, November.	Departure from normal, November, 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Cachar	4·12	1·50	+2·62	+175
Sylhet	2·93	1·05	+1·88	+179
Goalpara	0·24	0·19	+0·05	+ 26
Kamrup	0·65	0·29	+0·36	+124
Darrang	1·42	0·46	+0·96	+209
Nowgong	2·39	0·30	+2·00	+513
Sibsagar	2·35	0·65	+1·70	+262
Lakhimpur	1·77	0·68	+1·09	+160

There was, however, no heavy rain, and the only fall exceeding 3″ in 24 hours was as follows :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Cachar	Haflong	24th November	3·29

East Bengal received rain from both the storms of the month, the falls occurring between the 5th and the 9th and the 22nd and 24th. The rainfall was heaviest on the 7th and 8th and on the 23rd, and exceeded 3″ in 24 hours at the following places on the following dates during the month :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Noakhali	Lakhimpur	8th November	4·30
Chittagong	Mir Sarai	9th "	5·20
Noakhali	Harishpur	23rd "	3·74

The total fall of the month was twice as heavy as usual.

Other parts of the province of Bengal received only showers. In North Bengal and south-west Bengal the showers were due in part to the unsettled conditions in north-west India in the middle of the month, and in part to the second storm of the month, and occurred between the 13th and 15th and between the 22nd and 24th, while

in Bihar and Chota Nagpur all the rainfall was due to the disturbance in upper India, and occurred on the 14th and 15th. In Orissa practically no rain fell. The total fall of the month was heavier than usual in East Bengal and in North Bihar, while it was less than the normal in the other divisions.

In the United Provinces there was only one rainfall period, *viz.*, between the 12th and the 15th. Rain was received in all divisions, the mean average actual fall for the month ranging from 0·38″ in the central division to 1·52″ in the hills division. The total rainfall was largely in excess of the average everywhere, but the only actually heavy falls were reported from the west submontane division, where the following amounts exceeding 2″ in 24 hours were recorded during the month :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Bareilly	Oganpur	14th November	2·60
	Baheri	,, ,,	2·45
	Karor	15th ,,	3·25
	Nawabganj	,, ,,	2·25

In the Punjab general rain fell between the 12th and the 15th and showers on the 18th, 19th, 23rd to 25th and 29th and 30th. The fall was moderately heavy on the 13th and 14th, when the following amounts exceeding 1·00″ in 24 hours were recorded during the month :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Multan	Kabirwala	13th November	2·34
Rawalpindi	Murree	,, ,,	1·24
Gurgaon	Hattin	,, ,,	1·20
,,	Sohna	14th ,,	1·10
,,	Tauru	,, ,,	1·02

Rain was received in all divisions, the mean average actual fall for the month ranging from 0·26″ in the Central Punjab to 0·79″ in the Hills, and in all divisions the actual fall largely exceeded the normal, but in several districts—more particularly Ferozepore and Lahore—there were considerable areas in which the weather was rainless during the month.

In the North-west Frontier Province general rain occurred between the 11th and 13th and showers on the 18th, 19th, and 29th. The total fall of the month was about normal, but the following amounts exceeding 1·00″ in 24 hours were recorded:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Kohat	Fort Lockhart	17th November	2·90
	Hangu	18th ,,	1·0

Baluchistan received scattered local rain on the 12th and 13th, the 17th and the 27th and 28th. The showers were everywhere light, and the total rainfall of the month was less than half the normal.

In Kashmir general rain occurred between the 11th and 13th and a few scattered showers between the 24th and 28th. So far as can be judged, the total rainfall of the month considerably exceeded the normal over a large part of the province.

Rajputana received fairly general showers between the 11th and the 14th, but the rainfall was unevenly distributed. The following gives comparative data for some of the larger States :—

State.	Rainfall.			
	Average actual, November, 1904.	Average normal, November.	Departure from normal, November, 1904.	Percentage departure from normal.
	Inch.	Inch.	Inch.	
Jodhpur	0·09	0·21	—0·12	— 57
Bikaner	0·21	0·06	+0·15	+250
Jaipur	0·30	0·17	+0·13	+ 76
Alwar	0·78	0·19	+0·59	+311
Bharatpur	0·45	0·12	+0·33	+275
Dholpur	0·29	0·10	+0·19	+190
Kotah	0·13	0·28	—0·15	— 54
Ajmer-Merwara	0·01	0·30	—0·29	— 97
Udaipur	0·04	0·17	—0·13	— 76

In Central India light rain fell about the 14th, but the remainder of the month was practically rainless. In the Central Provinces also the weather was actually or practically rainless throughout the month. In the Nizam's territories there was no rain, and in Mysore the only rainfall received was a few light showers between the 10th and the 12th. In Hyderabad the anticipated rainfall of the month is about 1·00″ and in Mysore 2·56″, so that there was a marked deficiency of rainfall in this area.

In the Bombay Presidency the only rainfall received was a few light showers in Cutch and Sind during the unsettled weather between the 12th and the 14th.

In the Madras Presidency the usual autumnal rainfall, to a large extent, failed, and in all the Madras divisions the month's fall was in defect of the average. In Malabar there were light showers between the 11th and the 14th, and the total fall was only about one-tenth of the normal. In South Madras there occurred a few scattered showers on the 2nd and 3rd and general rain between the 10th

and the 14th. During the latter fall the following amounts exceeding 2″ in 24 hours were recorded :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Madura	Theethandathanam	10th November	2·70
	Sivaganga	11th ,,	2·77
	Pamban	,, ,,	3·21
	Manakkudi	12th ,,	2·39
Tinnevelly	Tuticorin	13th ,,	5·36
	Kayalpatnam	,, ,,	4·44
	Keeranur	,, ,,	3·95
	Arasadi	,, ,,	3·50
	Srivaikuntam	,, ,,	2·10

Notwithstanding these moderately heavy falls, the total rainfall of the division was little more than one-fourth of the normal amount.

In South-central Madras the only rainfall during the month was a few light showers between the 9th and the 13th, and the total rainfall in this division also was only one-tenth of the normal fall of November. In Central Madras there was no rain whatever.

In the East Coast divisions the rainfall was exceedingly light. In the north division no rain whatever fell during the month and in the central division only a few light showers on the 10th, 11th, 12th and 19th. The average actual fall of this division was 0·37 inch, the normal amount being 8·55″ so that the failure was serious.

In the south division, notwithstanding that the north-east winds, on the mean of the month, were steady and more easterly than usual (Madras N. 40° E.), there was only one showery period, *viz.*, between the 10th and the 13th. The fall was heavier in this than in the other divisions, and the following amounts exceeding 2·00″ in 24 hours were recorded during the month:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Pudukkottai State	Trimiem	11th November	2·21
Tanjore	Negapatam	12th ,,	3·54
	Vedaranniyam	,, ,,	3·40
	Tranquebar	,, ,,	3·39
	Tiruppundi	,, ,,	2·81
	Kattumavadi	,, ,,	2·47
	Arantangi	,, ,,	2·45
	Pattukkottai	,, ,,	2·20
	Tranquebar	13th ,,	2·34

The average actual fall of the division amounted to 1·06″, the normal being 9·20″, so that the deficiency was almost as large as in the central division.

The following gives comparative data for the 23 collectorates of the Madras Presidency :—

Collectorate.	Rainfall.			
	Average actual, November, 1904.	Average normal, November.	Departure from normal, November, 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Ganjam	0	2·52	—2·52	—100
Vizagapatam	0	2·74	—2·74	—100
Godavari	0	3·27	—3·27	—100
Kistna	0	2·92	—2·92	—100
Guntur	0	3·96	—3·96	—100
Nellore	0·37	8·55	—8·18	— 96
Madras	0·20	13·29	—13·09	— 98
Chingleput	0·75	12·17	—11·42	— 94
North Arcot	0·36	6·74	—6·38	— 93
South Arcot	0·96	9·47	—8·51	— 90
Tanjore	2·17	11·06	—8·89	— 84
Trichinopoly	0·59	5·54	—4·95	— 89
Madura	1·70	5·97	—4·27	— 72
Tinnevelly	1·81	6·63	—4·82	— 73
Malabar	0·73	3·95	—3·22	— 82
South Canara	0·13	2·93	—2·80	— 96
Salem	0·11	3·89	—3·78	— 97
Coimbatore	0·68	3·69	—3·01	— 82
Nilgiris	0·94	6·13	—5·19	— 84
Cuddapah	0·01	3·65	—3·64	—100
Anantapur	0	1·85	—1·85	—100
Bellary	0	1·40	—1·40	—100
Kurnool	0	1·41	—1·41	—100

The following gives the rainfall of the month of November 1904 at the extra-Indian stations :—

Station.	Rainfall.			
	Average actual, November, 1904.	Average normal, November.	Departure from normal, November, 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Trincomalee	16·49	13·57	+2·92	+ 22
Colombo	3·39	13·13	—9·74	— 74
Minicoy	0·33	4·15	—3·82	— 92
Amini Divi	0	1·58	—1·58	—100
Kashgar	0	0·03	—0·03	—100
Kabul	0·53	0·72	—0·19	— 26
Meshed	2·35	0·51	+1·84	+361

Division.	Rainfall. Average actual, November, 1904.	Average normal, November.	Departure from normal, November, 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Teheran	1·11	0·96	+0·15	+ 16
Ispahan	0·02	0·92	—0·90	— 98
Bushire	0·11	1·79	—1·68	— 94
Jask	0·62	0·49	+0·13	+ 27
Muscat	0·70	0·61	+0·09	+ 15
Baghdad	0·03	0·92	—0·89	— 97
Aden	0	0·23	—0·23	—100
Perim	0	0·04	—0·04	—100
Zanzibar	15·34	9·28	+6·06	+ 65
Seychelles	24·03	9·34	+14·69	+157
Mauritius	1·39	1·76	—0·37	— 21

The rainfall was irregularly distributed. Over the east of Ceylon the rainfall was in slight excess and over the west of the island in large defect of the normal, while at Amini Divi there was no rainfall, and at Minicoy the month's rainfall was in large defect. At Aden, Perim, and Kashgar there was no rain throughout the month, while in Afghanistan, Persia, Asiatic Turkey and northern Arabia rain fell generally. In northern Persia the rainfall was heavy and in excess of the average, while, on the contrary, at Ispahan, Bushire, and Baghdad it was very light. At Zanzibar and the Seychelles the month's rainfall considerably exceeded the normal, but at Mauritius the fall was slightly below the average.

Crop Report.

Madras.—In Madras the rainfall was scanty throughout the month and the irrigation supplies were insufficient throughout the Presidency except in Ganjam, Vizagapatam, Coimbatore, the West Coast districts and in the hills. The standing crops, at the close of the month, required rain generally except in the Circars, the southern districts, Canara and in the hills. Pasture was scanty over a large part of the Presidency and fodder was insufficient except in Vizagapatam, Guntur, in parts of the central, southern and West Coast districts and the hills.

Bombay.—At the close of the month more rain was needed in parts of Gujarat, the Deccan, Bijapur and Belgaum, and the standing crops were suffering from insufficient moisture in parts of Broach, Poona, Sholapur, Bijapur, Belgaum and Baroda, but were generally in good condition elsewhere. Cotton was in fair condition in Ahmedabad, Surat, Khandesh, Dharwar and Wadhwan, but was withering in parts of Broach and Baroda.

Bengal.—Prospects were generally good at the close of the month and fodder and water were sufficient.

United Provinces.—The sowing of spring crops was nearing completion at the end of the month.

Punjab.—The harvesting of autumn crops was nearly over and poppy sowing was progressing in Ambala. At the close of the month more rain was badly wanted in most districts, especially for the spring crops. The condition of the standing crops was good to average. Fodder was sufficient in all districts except in Sialkot and parts of Lahore, Shahpur, and Mianwali.

North-west Frontier Province.—At the close of the month rain was generally wanted to complete unirrigated spring sowings which were in progress. The condition of the cattle was poor in Dera Ismail Khan.

Burma.—Prospects were generally good at the end of November, but the paddy crop was slightly deficient in Akyab owing to damage by the recent cyclone. The hill side crops were damaged in parts of the Ruby Mine district and the standing crops in the north-east of Meiktila were reported not to be in good condition.

Central Provinces.—The spring crops were in good condition except in Saugor, Narsinghpur, Hoshangabad, and Nimar, where they were deteriorating for want of moisture. A shower would greatly improve prospects. Scarcity of fodder and water continued at the close of the month in Amraoti and in the Katol tehsil of Nagpur. Fodder was reported to be getting scarce in the Khandwa tehsil of Nimar.

Assam.—The prospects of late rice and of cotton were generally good; of sugarcane and pulses fair; and of mustard fair in all districts except Cachar, where mustard had been injured by late rains.

Mysore.—Paddy and ragi were being harvested at the end of the month, but other crops showed signs of withering for want of rain. The seasonal prospects were fair in Kadur and Shimoga, but indifferent in other parts.

Coorg.—Water and fodder were sufficient, but more rain was wanted.

Hyderabad.—The spring crops were in good condition generally, but were reported to be withering in two taluks. There was an insufficiency of water in tanks.

Rajputana.—The standing crops and their prospects were generally fair, but the outlook for spring crops was unfavourable in many parts.

Central India.—The crops had been slightly damaged for want of rain in parts of Gwalior. They were in good condition in Indore and Bhopawar, average in Bundelkhand and fair elsewhere. Opium was in good condition in Malwa.

Kashmir, Jummoo.—The condition of the standing crops was fair. Land was being prepared for spring crops.

W. L. DALLAS.

TABLE I.—Abstract of Observations taken at 8 A.M. at 231 Stations in India, Burma, etc., in November, 1904.

Table

Abstract of Observations taken at 8 A.M. at 231

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 A.M., in inches.								Temperature of air.												
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
	I.—Burma Coast and Bay Islands.				+·024								85·4	−1·6	72·6	+0·9	79·0	−0·3	13·8					25·2
1	Tenasserim and Bay Islands.	Car-Nicobar†	25	29·877		29·830	29·947	29th	29·782	4th	·165	78·0	84·5		74·9		79·7		9·6	88·1	11th	73·3	7th	14·8
		Port Blair	61	29·922	+·039	29·914	30·003	27th	29·799	4th	·204	79·2	85·2	−1·6	76·6	−0·6	80·9	−1·1	8·6	89·4	14th	74·0	25th	15·4
		Mergui	96	29·895	+·033	29·924	30·004	20th	29·713	4th	·291	77·2	86·0	−1·4	72·0	+2·3	79·0	+0·5	14·0	91·4	7th	65·4	21st	26·0
		Tavoy	26	29·984	+·020	29·941	30·099	20th	29·780	4th	·319	76·1	87·1	−0·8	69·2	+0·7?	78·1	−0·1?	18·0	90·7	14th	59·6	21st	31·1
		Moulmein	94	29·906	+·020	29·939	30·019	20th	29·704	4th	·315	76·8	88·0	−0·4	72·9	+1·8	80·5	+0·7	15·1	91·5	1st	65·9	20th	25·6
	Lower Burma	Rangoon	57	29·955	+·027	29·951	30·072	20th	29·791	4th	·281	75·9	86·0	−1·6	74·5	+2·2	80·3	+0·3	11·5	89·6	1st	64·2	30th	25·4
		Bassein	27	29·973	+·023	29·938	30·084	19th	29·816	4th	·268	74·7	84·9	−1·3	71·9	+0·6	78·3	−0·4	13·0	88·2	1st	63·0	29th	25·2
		Diamond Island, Akyab	41	29·949	+·017	29·925	30·048	19th	29·793	5th	·255	79·3	83·6	−1·9	76·3	+1·1	80·0	−0·4	7·3	87·4	1st	72·2	28th	15·2
5	Arakan	Akyab	20	29·980	+·010	29·943	30·087	19th & 30th.	29·766	5th	·321	72·9	82·3	−2·8	70·4	−1·0	76·4	−1·9	11·9	89·9	1st	60·1	27th	29·8
3	Central Burma.	Toungoo	183	29·831	+·028	29·959	29·940	20th & 30th.	29·685?	4th	·257?	74·0	86·2	−1·1	67·6	−2·4?	76·8	−1·8?	18·6	91·3	4th	58·6	29th & 30th.	32·7
	II.—Burma, Inland.				+·019								82·8	−3·3	65·3	+1·2	74·1	−1·1	17·5					33·9
3	Central Burma.	Thayetmyo	130	29·907	?	29·981	30·034	30th	29·715	5th	·319	71·1	85·6	−2·4	63·4	−3·9?	74·6	−3·2?	22·2	91·0	1st & 2nd.	52·5	27th	38·5
4	Upper Burma	Minbu	*165*	29·881	+·014	29·996	30·011	19th	29·681	5th	·330	71·8	83·9	−4·7	67·8	−0·4	75·9	−2·6	16·1	91·2	1st & 2nd.	59·0	30th	32·2
		Yamethin	657	29·367	+·008	29·992	29·494	19th	29·225	5th	·269	72·5	85·5	−3·3	67·6	+0·6	76·6	−1·4	17·9	90·3	2nd & 3rd.	56·7	29th	33·6
		Monywa	*280*	29·786		30·005	29·935	19th	29·670	5th	·265	70·9	83·4		65·7		74·5		17·7	90·3	1st	53·3	29th	37·0
		Mandalay	250	29·782?	+·026?	29·989?	29·934	19th	29·651	5th	·283	71·6	85·1	−1·6	69·2	+2·0	77·2	+0·2	15·9	91·0	2nd	58·7	26th & 29th	32·3
		Myitkyina	458	29·583		30·018	29·722	20th	29·484	6th	·238	67·3	78·0		62·0		70·0		16·0	83·5	3rd	52·3	27th	31·2
		Bhamo	*381*	29·685	+·035	30·039	29·867	19th	29·561	5th	·303	65·4	78·1	−3·7	61·7	+2·5	69·9	−0·6	16·4	83·5	2nd & 3rd.	51·1	28th	32·4
4(a)	Burma Hill Stations.	Maymyo	3,545									63·6	74·7		54·6		64·7		20·1	84·9	3rd	40·6	28th	44·3
		Lashio	*2,751*									61·8	77·9	+0·8	58·9	+4·6	68·4	+2·7	19·0	84·6	1st & 2nd.	49·0	29th	35·6
	III.—Assam.				+·027								78·6	−2·0	60·3	−1·3	69·5	−1·7	18·3					34·1
7	Surma	Silchar	104	29·950	+·031	30·011	30·077	19th	29·796	5th	·281	67·9	82·1	−2·7	63·2	−0·4	72·7	−1·6	18·9	90·5	3rd	55·4	30th	35·1
9	Brahmaputra	Sibsagar	333	29·755	+·025	30·061	29·916	19th	29·612	6th	·304	62·4	75·6	−2·7	58·7	−0·9	67·2	−1·8	16·9	82·3	9th & 10th.	49·4	30th	32·9
		Dhubri	115	29·943	+·021	30·019	30·088	19th	29·810	5th	·278	66·6	79·3	−0·5	60·9	−2·6	70·0	−1·6	18·4	83·6	1st	53·8	29th	29·8
		Gauhati	195	29·889		30·048	30·033	19th	29·754	6th	·279	64·5	79·3		60·0		69·7		19·3	85·0	1st, 2nd & 9th.	52·1	27th, 28th, & 30th.	32·9
		Tezpur	252	29·825		30·018	29·975	19th	29·682	6th	·293	63·6	78·4		60·3		69·4		18·1	92·1	2nd	53·0	29th	39·1
		Dibrugarh	353	29·715		30·076	29·897	19th	29·596	6th	·301	63·1	77·0		58·6		67·9		18·4	83·7	9th	48·9	30th	34·8
	IV.—Bengal and Orissa.				+·022								82·2	−0·4	62·5	−1·0	72·4	−0·7	19·6					32·7
6	East Bengal	Chittagong	87	29·921	+·005	29·959	30·081	18th	29·579	23rd	·502	70·2	81·0	−2·0	61·8	−1·0	72·9	−1·5	16·2	87·0	1st & 6th	56·6	27th	30·4
		Noakhali	43	29·970		29·961	30·105	18th	29·713	23rd	·392	70·7	81·7		63·7		72·7		16·0	88·2	4th	55·1	28th	33·1
		Comilla	36	29·984		29·968	30·119	19th	29·755	23rd	·364	69·1	82·0		?		?		?	88·4	4th	?		?
		Sirajganj	49	29·996		29·996	30·126	19th	29·838	5th	·288	67·0	80·6		63·1		71·9		17·5	85·8	7th	53·4	27th	32·4
		Narayanganj	26	30·012	+·030	29·987	30·156	19th	29·806	23rd	·350	66·6	82·2	−1·3	65·8	−0·2	71·0	−0·8	16·4	89·1	4th	58·3	27th & 28th.	30·8
		Barisal	13	30·015	+·025	29·974	30·148	19th	29·776	23rd	·372	71·4	81·2	−1·6	63·2	−1·8	72·2	−1·7	18·0	86·8	1st & 7th	54·2	29th	32·6
		Mymensingh	63	29·984	+·023	30·060	30·119	18th	29·812	23rd	·307	68·9	82·3	+0·8	64·4	?	73·3	?	17·9	87·2	1st & 2nd	55·1	27th	32·1
		Faridpur	46	29·999		29·996	30·140	18th	29·815	23rd	·325	68·9	80·6		63·4		72·0		17·2	85·9	6th & 7th	54·5	27th	31·4
10	Deltaic Bengal	Jessore	33	30·005	+·021	29·986	30·146	19th	29·824	23rd	·322	70·3	81·7	−1·4	64·1	+0·1	72·9	−0·7	17·6	87·0	6th	55·1	27th	31·9
		Calcutta	21	30·025	+·021	29·992	30·173	19th	29·852	23rd	·321	70·0	82·5	+1·1	64·7	+0·2	73·6	+0·7	17·8	88·4	14th	55·4	29th	33·0
		Saugor Island	25	30·001?	+·006?	29·971?	30·147	19th	29·844	23rd	·303	71·5	81·6	−0·1	67·6	+0·5	74·6	+0·2	14·0	85·9	13th & 15th.	58·4	30th	27·5
		Krishnagar	47	30·009		30·006	30·155	19th	29·839	5th	·316	66·7	83·3		63·2		73·3		20·1	89·1	14th	53·4	27th	35·7
		Midnapore	149	29·894		29·996	30·031	19th	29·743	5th	·288	68·8	85·5		63·2		74·4		22·3	90·3	4 days.	55·6	28th	34·7

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

† Observations for 28 days only.

Note 1.—When a query is inserted against any reading or in the returns

Note 2.—The data from which divisional means of the figure columns

I.

Stations in India, Burma, etc., in November 1904.

Wind Direction. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	Wind Velocity. Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	Hygrometry, 8 A.M. Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Cloud. Mean cloud amount at 8 A.M.	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 1904.	Normal rainfall for period, 1st May to 30th November.	Departure from normal of period, 1st May to 30th November 1904.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
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	58
														88	+4	·804	+·026	4·3	−0·2				7·39	3·57	+2·61					**I.—Burma Coast and Bay Islands.**		
																										78·02						
11	2	8	2	1		1			N 53° E	3·1			3·1	92		·886		8·0		17			18·29					3·92	Car-Nicobar .	Tenasserim and Bay Islands.	1
1	6	6	3	6	2	1	1	4	N 49° E	7·4	7·1	+ 4	8·1	88	+3	·874	−·009	6·0	+0·3	11			12·15	9·20	+2·95	110·73	105·85	+4·87	2·51	Port Blair.		
13	3	2	4	2	2	1	1	2	N 71° E	2·3	1·6	+44	2·0	90	+12	·824	+·074	3·2	−1·1	9	−5·60	+3·40	8·22	3·70	+4·52	177·46	155 53	+21·93	3·10	Mergui.		
24	3		1		1	1			N 15° E	1·2				86	+5	·779	+·011	3·2	−0·8	8	3·90	+4·10	8·24	1·96	+6·28	275·22	203·34	+71·88	2·71	Tavoy.		
11	3	2	1	4	3	3		3	S 38° E	2·4	2·4	0	2·7	86	+3	·790	+·040	4·8	+1·1	3	2·50	+0·50	2·97	1·93	+1·04	196·54	179·79	+16·75	1·74	Moulmein.		
5	2	10	5	1			1	6	N 31° E	4·9	4·4	+11	4·1	90	+3	·810	+·012	2·7	−0·5	6	2·80	+3·20	4·85	2·43	+2·42	95·15	91·23	+1·92	2·72	Rangoon .	Lower Burma .	2
	6	11	7	3	1		1	1	N 53° E	7·0	3·1	+126		87	+1	·769	+·005	2·4	−1·0	9	3·80	+5·20	1·13	3·51	+0·92	110·78	109·88	+0·90	1·55	Bassein.		
	3	14	4	6		2		1	N 63° E	13·4	8·3	+56	13·4	78	0?	·737	+·007	4·0	−0·1	5	7·10	−2·10	2·27	5·41	−3·14	137·31	113·59	+23·72	0·89	Diamond Island.		
	17	6		2	2			3	N 11° E	2·6	2·2	+18	2·5	91	+2	·745	0	2·7	−1·0	9	2·80	+6·20	8·70	2·77	+5·93	181·71	186·52	−4·81	3·18	Akyab .	Arakan . .	5
14	6		1	1				8	N 26° W	3·1	1·7	+82	3·1	89	+1	·766	+·033	6·2	+1·7	3	2·00	+1·00	3·74	1·20	+2·54	90·15	76·32	+13·83	1·93	Toungoo .	Central Burma.	3
														87	+5	·657	+·028	4·8	+1·8				3·88	1·15	+2·95					**II.—Burma Inland.**		
	15	1	2		6	1	5		N 18° W	5·5	3·5	+57		82	+4	·700	+·035	3·2	+0·3	6	2·40	+3·60	3·92	1·74	+2·18	39·32	35·58	+3·74	2·34	Thayetmyo	Central Burma	3
3	1			3	1		2	20	N 49° W	5·5			6·5	81	+5	·637	?	3·5	+0·9	4	1·30	+2·70	6·98	0·45	+6·53	35·92	30·31	+5·61	4·50	Minbu .	Upper Burma .	4
6	7	1		4	1			11	N 25° W	4·5			4·7	87	+3	·701	+·026	6·8	+4·7	2	2·60	−0·60	0·83	0·97	−0·14	31·28	34·88	−3·60	0·50	Yamethin.		
5					2	1	8	14	N 69° W	1·5			1·6	88		·676		5·3		3	2·10	+0·90	3·04	1·01	+2·03	28·24	27·30	+0·94	2·18	Monywa.		
23	2			4				1	S 30° W	1·2			1·2	92	+7	·718	+·031	3·7	−0·1	6	2·90	+3·10	3·27	1·71	+1·56	43·43	30·69	+12·74	0·90	Mandalay.		
11		8	10	1					N 73° E	1·4			1·5	85		·578		4·2		336			2·58			61·13			1·49	Myitkyina.		
9	8	5	5	1	2				N 46° E	1·2			1·4	94	+4	·589	+·021	7·0	+2·8	8	2·00	+6·00	6·52	1·01	+5·51	72·72	69·53	+3·19	2·38	Bhamo.		
13		3	5	5	3	1			S 63° E	2·0				91		·538		5·0		8	4·90	+3·10	3·38	3·01	+0·37	56·57	55·00	+1·57	0·91	Maymyo .	Burma Hill Stations.	4(a)
	2	11	3	1	2	4	2	5	N 22° E	2·4				94	+3	·578	+·045	6·6	−0·3	6			3·14	2·18	+0·96	72·02	57·16	+14·86	1·83	Lashio.		
														91	−1	·564	−·019	5·1	+0·5				2·07	0·66	+1·42					**III.—Assam.**		
30									Calm	0	2·1	−100	0	87	0	·600	−·029	3·9	−0·8	4	2·00	+2·00	5·90	1·25	+4·65	130·73	99·15	+31·58	2·31	Silchar .	Surma . .	7
26	1	3							N 34° E	1·5	1·7	−12	1·4	98	0	·566	−·010	5·8	+0·4	5	2·00	+3·00	2·58	0·93	+1·65	61·87	77·74	−15·87	1·11	Sibsagar .	Brahmaputra .	9
5		3	20	2					N 88° E	5·3	4·9	+ 8	6·3	86	−2	·573	−·019	3·7	+1·8	1	0·30	+0·70	0·10	0·22	−0·12	62·43	85·69	−23·26	0·10	Dhubri.		
11	3	9	3	2	2				N 61° E	1·7			1·9	94		·577		8·0		2	0·80	+1·20	0·54	0·31	+0·23	62·03	53·09	+8·94	0·25	Gauhati.		
6		16	7	1					N 61° E	1·9			2·0	91		·542		3·8		4	1·20	+2·80	1·49	0·41	+1·08	71·16	61·11	+10·05	0·58	Tezpur.		
8	4	13	4			1			N 45° E	0·6			0·6	91		·523		5·4		4	1·50	+2·50	1·82	0·81	+1·01	70·57	95·00	−24·43	0·78	Dibrugarh.		
														83	−1	·579	−·031	2·7	+1·0				0·77	0·91	−0·14					**IV.—Bengal and Orissa.**		
	3	21	1	2					N 45° E	3·4	3·0	+13	3·1	89	0	·663	−·018	4·7*	+1·2	3	1·80	+1·20	2·68	1·48	+1·20	72·65	87·80	−15·15	1·32	Chittagong .	East Bengal .	6
	8	7	2		3		4	6	N 4° W	2·5			2·7	87		·661		3·5		5	1·39	+3·61	5·30	1·61	+3·69	114·39	104·45	+9·94	2·38	Noakhali.		
15	6	3		2	2			2	N 18° E	1·8			1·5	90		·610		3·0†		4	1·55	+2·45	2·62	1·19	+1·43	69·59	79·50	−9·91	1·32	Comilla.		
23	1		1	2	2			1	S 45° E	0·7			0·8	95		·634		3·6		0	0·84	−0·84	0·07	0·55	−0·48	60·37	55·68	+4·69	0·07	Sirajganj.		
2	3	8	2		1	1	2	11	N 11° W	2·5	1·9	+32	2·1	88	+3	·645	−·014	4·4‡	+2·0	3	1·33	+1·67	1·39	1·07	+0·32	54·50	60·52	−6·02	1·13	Narayanganj.		
8	6	6	1		1	1	1	6	N 4° W	2·1			1·8	89	+6	·684	+·006	3·3	+1·4	3	1·32	+1·68	5·01	1·26	+3·73	62·80	70·21	−7·41	2·33	Barisal.		
20	1	1	5	2				1	N 81° E	1·5			1·3	87	−2	·618	−·021	?	?	1	0·90	+0·10	9·36	0·65	−0·29	67·60	78·57	−10·97	0·30	Mymensingh.		
12	9	1	1		2			5	N 10° W	1·8			1·5	89		·630		3·5*		1	1·23	−0·23	0·32	1·03	−0·11	50·56	60·21	−9·65	0·75	Faridpur.		
23	6		1						N 9° E	0·8	1·8	−55	0·8	83	−3	·619	−·028	3·1*	+1·1	1	1·10	−0·19	0·50	1·38	−0·88	61·09	57·11	+3·98	0·46	Jessore .	Deltaic Bengal.	10
12	12	1				1	1	3	N 12° W	2·0	3·0	−33		81	−1	·600	−·011	3·1*	+1·3	1	0·93	+0·04	0·15	0·68	−0·53	57·67	55·39	+2·28	0·15	Calcutta.		
1	15	8	1		1	3		1	N 13° E	8·3	6·4	+30		85	−2	·659	−·029	2·9‡	−0·2	2	1·35	+0·65	0·66	1·71	−1·05	65·81	68·39	−2·58	0·44	Saugor Island		
12	5	1			1	1		1	9	N 31° W	1·2			1·3	86		·568		3·8		2	0·81	+1·19	0·24	0·74	−0·50	37·23	49·95	−12·72	0·11	Krishnagar.		
3	20					2		5	N 13° W	2·6			2·3	70		·501		2·1		0	1·14	−1·14	0·01	0·80	−0·76	55·37	55·97	−0·60	0·01	Midnapore.		

of any station, the data for that station are not utilized in calculating the provincial departures from normal.

Nos. 41, 43, and 45 are derived, are incomplete.

* Mean of 28 days.

† Mean of 27 days.

‡ Mean of 29 days.

Table

Abstract of Observations taken at 8 A.M. at 231 Stations

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure, 8 A.M., in inches.								Temperature of air.											
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
1	Central Bengal.	Bankura	298	29·736		30·012	29·886	20th	29·602	23rd	·284	68·3	84·4		61·6		73·0		22·8	90·6	13th & 14th.	54·8	29th	35·8
		Raniganj	334	29·726		30·030	29·869	19th	29·575	5th	·294	64·7	84·3		59·7		72·1		24·6	89·9	14th & 15th.	54·2	28th	35·7
		Burdwan	99	29·950	+·018	30·002	30·092	19th	29·798	5th	·294	68·2	84·6	+1·4	63·3	−1·0	74·0	+0·2	21·3	90·9	14th	55·8	28th	35·1
		Naya Dumka	489	29·554		30·025	29·700	19th	29·416	5th	·284	66·3	82·2		58·3		70·2		23·9	87·4	14th & 15th.	51·5	28th & 29th.	35·9
		Berhampore	67	29·982	+·019	30·001	30·127	19th	29·820	5th	·307	67·3	81·0	−0·9	63·4	−0·6	72·2	−0·8	17·6	86·3	14th	57·2	27th & 28th	29·1
		Rampur Boalia	70	29·977		29·999	30·123	19th	29·819	5th	·304	67·7	81·7		61·9		71·8		19·8	90·1	8th	54·1	27th	36·0
		Malda	72	29·970		29·996	30·114	19th	29·824	5th	·290	67·0	80·7		60·4*		70·6*		20·3	85·1	1st & 14th.	54·0	26th & 27th.	31·1
		Bogra	61	29·973	+·027	29·989	30·105	19th	29·820	5th	·285	66·4	81·5	−0·5	62·0	−0·4	71·7	−0·5	19·5	86·2	2nd	52·7	27th	33·5
12	North Bengal	Dinajpur	123	29·935	+·029	30·019	30·066	18th	29·791	23rd	·275	67·3	81·2	-1·2	58·5	−2·5	69·9	−1·9	22·7	85·8	1st	51·9	26th & 30th.	33·9
		Rangpur	123	29·938		30·022	30·067	18th	29·798	23rd	·269	66·8	80·2		59·4		69·8		20·8	84·8	5th	52·8	27th	32·0
		Jalpaiguri	284	29·777	+·027	30·032	29·921	19th	29·655	23rd	·266	65·1	80·1	-1·2	57·4	−3·3	68·8	−2·3	22·7	84·4	1st & 2nd.	52·6	29th & 30th.	31·6
		Cooch Behar	156	29·906		30·126	30·041	18th & 19th	29·777	5th	·264	64·4	80·1		59·6		69·9		20·5	84·3	1st	53·2	30th	31·1
17	North Bihar	Purnea	125	29·990	+·031	30·026	30·086	19th	29·807	5th	·279	63·1	81·4	−0·5	57·1	−2·1	69·3	−1·3	24·3	86·2	5th	49·6	27th	36·6
14	Orissa	Balasore	50	30·001	+·009	29·995	30·149	19th	29·855	23rd	·294	68·0	84·2	+0·6	61·9	−1·1	73·1	−0·3	22·3	89·4	13th	53·5	28th	35·9
		False Point	21	30·020	+·020	29·963	30·160	19th	29·859	5th	·301	72·0	82·7	+0·3	65·0	−0·5	73·9	−0·1	17·7	87·9	12th	56·5	28th	31·4
		Cuttack	80	29·963	+·021	29·989	30·101	19th	29·801	5th	·300	68·8	85·3	+0·2	64·9	−1·2	75·1	−0·5	20·4	89·9	13th & 14th	57·6	29th	32·3
		Puri	24	30·025		29·988	30·160	19th	29·863	5th	·297	71·7	83·3		68·0		75·7		15·3	86·9	8th	61·6	29th	25·3
	V.—Gangetic Plain and Chota Nagpur.				+·025								81·1	−1·0	57·1	−0·7	9·1	−0·9	24·0					36·7
15	Chota Nagpur	Hazaribagh	2,007	28·006	+·016	30·028	28·145	19th	27·905	23rd	·240	65·1	77·7	+0·4	56·3	-1·6	67·0	−0·6	21·4	85·2	13th & 14th	50·7	29th	34·5
		Ranchi	2,128	27·689	+·023	30·035	28·017	20th	27·778	23rd	·239	64·4	77·9	+0·1	57·0	−0·6	67·4	-0·3	20·9	85·2	13th	50·0	28th	35·2
		Daltonganj	*730*?	29·312		30·072?	29·493	19th	29·243	3rd	·251	59·9	82·4		51·7		67·1		30·7	91·6	13th	46·0	27th, & 28th.	45·6
15	Chota Nagpur	Purulia	*816*	29·219		30·016	29·359	19th	29·089	5th	·270	66·6	83·6		59·7		71·7		23·9	91·5	13th	54·8	27th & 28th.	36·7
		Chaibassa	*760*	29·275	+·028	30·020	29·418	19th	29·139	5th	·279	64·3	85·4	+1·9	59·3	-1·1	72·4	+0·4	26·1	91·9	13th & 14th.	53·5	28th, 29th & 30th.	38·4
16	South Bihar	Gaya	375	29·694	+·029	30·042	29·846	19th	29·584	2nd & 5th	·262	65·6	81·9	-1·3	58·0	-1·7	70·0	−1·5	23·9	89·9	13th	51·8	28th	38·1
		Dehri	351	29·705		30·029	29·858	19th	29·605	2nd	·253	65·0	81·7		59·9		70·8		21·8	89·8	13th	55·1	28th	34·7
		Patna	183	29·888	+·023	30·033	30·039	19th	29·774	5th	·265	65·9	80·5	−1·2	60·0	-0·5	70·2	-0·9	20·5	87·5	1st	53·9	27th	33·6
		Arrah	190	29·870		30·022	30·020	19th	29·764	2nd & 5th	·256	64·1	79·5		57·7		68·6		21·8	84·5	4 days	52·1	27th & 28th.	32·4
		Buxar	239	29·822		30·029	29·967	19th	29·718	2nd	·249	65·3	82·1		58·6		70·3		23·5	87·1	4 days	52·4	27th	34·7
17	North Bihar	Bhagalpur	160	29·902		30·021	30·055	19th	29·783	5th	·272	68·7	81·6		58·5		70·1		23·1	86·2	1st & 7th.	51·7	26th	34·5
		Darbhanga	166	29·889	+·017	30·016	30·036	19th	29·767	6th	·269	66·5	81·2	-0·1	59·2	-2·8	70·2	-1·5	22·0	87·1	6th	52·8	26th & 28th.	37·3
		Muzaffarpur	176	29·893		30·035	30·036	19th	29·778	6th	·258	66·7	79·2		58·3		68·8		20·9	84·7	5th, 6th, & 7th	51·3	27th	33·4
		Motihari	224	29·848		30·042	30·005	19th	29·734	6th	·271	64·2	80·7		55·4		68·1		25·3	87·4	5th	49·2	26th	38·2
		Chapra	181	29·868		30·013	30·013	16th	29·760	5th	·253	65·2	80·5		58·8		69·6		21·7	86·3	1st & 2nd	53·6	28th & 29th.	32·7
18	United Provinces (East).	Benares	267	29·802	+·032	30·038	29·953	19th	29·706	2nd	·247	64·7	80·2	−1·9	54·3	-1·2	67·5	-1·6	25·3	87·5	1st & 11th	49·1	27th	38·4
		Allahabad	309	29·753	+·025	30·033	29·913	19th	29·649	2nd & 11th	·264	64·2	81·0	−2·1	55·8	+0·7	68·4	−0·7	25·2	88·6	11th	50·1	28th	38·5
23	United Provinces (East Submontane.)	Gorakhpur	257	29·795	+·025	30·020	29·941	19th	29·689	2nd & 6th	·252	66·6	80·2	−1·4	56·8	−1·5	68·5	-1·5	23·4	86·4	1st	51·6	26th & 27th.	34·8
19	South Oudh	Lucknow	368	29·682	+·020	30·029	29·852	19th	29·577	2nd	·275	63·5	81·1	-2·2	54·7	+1·9	67·9	−0·2	26·4	88·3	1st	49·2	28th & 29th.	39·1
20	North Oudh	Bahraich	401	?	?	?	?	?	?	?	?	64·5	?	?	?	?	?	?	?	?	?	?	?	?
21	United Provinces (Central).	Cawnpore	416	29·643	+·031	30·040	29·806	20th	29·528	10th	·278	63·9	82·0	-2·1	54·6	−0·4	68·3	-1·3	27·4	89·3	1st	49·6	23rd & 28th.	39·7
		Mainpuri	516	29·541	+·035	30·046	29·713	20th	29·430	9th	·283	61·1	82·7	-1·5	54·3	+0·1	68·5	-0·7	28·4	91·8	10th	49·3	23rd, 26th & 28th.	42·5

* Mean of 29 days.

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

Note 1.—When a query is inserted against any reading or in the returns of any

Note 2.—The data from which divisional means of the figure columns Nos. 41

I—*continued.*

in India, Burma, etc., in November 1904—continued.

Wind Direction. Number of winds from									Wind Velocity.				Hygrometry, 8 A.M.				Cloud.		Rainfall.									Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Mean cloud amount at 8 A.M.	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 1904.	Normal rainfall for period, 1st May to 30th November.	Departure from normal of period, 1st May to 30th November 1904.			
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	58
12	7					2	5	4	N 48° W	2·4			2·1	75		·527		1·2		0	0·79	— 0·79	0	0·51	— 0·51	52·43	52·10	+ 0·33	0	Bankura	Central Bengal	11
7	6		1				3	13	N 36° W	2·4				75		·465		1·6		1	0·63	+ 0·37	0·75	0·54	+ 0·21	48·65	52·22	— 3·52	0·75	Raniganj.		
13	10	4				1	1	1	N 2° E	1·8	1·9	— 16	1·6	77	+ 2	·539	—·020	3·0‡	+1·0	0	0·81	— 0·81	0·01	0·79	— 0·78	42·18	52·65	—10·47	0·01	Burdwan.		
28								1	N 45° W	1·1			1·3	73		·477		1·1		0	0·50	— 0·50	0	0·31	— 0·31	52·75	55·37	— 2·62	0	Naya Dumka.		
13	6		1	1		1	1	7	N 27° W	1·5	1·7	— 12	1·4	85	0	·567	—·038	3·2†	+1·3	1	0·52	+ 0·48	0·50	0·59	— 0·09	54·61	51·43	+ 3·18	0·50	Berhampore.		
20	4	5					1		N 21° E	0·8			0·8	85		·575		1·6*		2	0·68	+ 1·32	0·50	0·31	+ 0·19	52·13	53·41	— 1·28	0·25	Rampur Boalia.		
	12	5				3		10	N 16° W	4·2			3·8	84		·555		1·4		1	0·39	+ 0·61	0·56	0·22	+ 0·34	38·71	50·34	—11·63	0·56	Malda.		
25	4		1						N 14° E	1·3			1·1	86	+ 1	·565	—·043	2·0§	+0·9	0	0·58	— 0·58	0	0·78	— 0·78	54·15	62·30	— 8·15	0	Bogra.		
	10	15	1	1		1		2	N 25° E	1·7			1·6	81	— 3	·541	—·035	3·2	+2·0	1	0·19	+ 0·81	0·23	0·01	+ 0·19	51·09	67·07	—15·98	0·23	Dinajpur.	North Bengal.	12
6	3	8	8				2	3	N 42° E	2·3			2·1	87		·575		0·5†		0	0·13	— 0·13	0	0·24	— 0·24	65·38	78·69	—13·31	0	Rangpur.		
3	11	8	3					5	N 14° E	0·8			1·0	84	0	·520	—·042	2·6*	+1·4	1	0·32	+ 0·68	0·13	0·13	0	96·98	117·13	—21·05	0·13	Jalpaiguri.		
17	1	6	5	1					N 63° E	1·4			1·5	87		·531		2·7*		1	0·37	+ 0·63	0·12	0·14	— 0·02	120·21	120·16	+ 0·05	0·12	Cooch Behar.		
20	1	4					4	1	N 22° W	1·4	1·2	+ 17	1·2	89	0	·528	—·027	0·2	—0·8	1	0·16	+ 0·84	0·37	0·08	+ 0·29	56·91	62·09	— 5·18	0·37	Purnea.	North Bihar.	17
1	14					1		14	N 26° W	3·1			2·3	73	—11	·508	—·092	2·7	—0·1	0	1·48	— 1·48	0	1·22	— 1·22	47·84	59·35	—11·51	0	Balasore.	Orissa.	14
2	16	2				1	2	7	N 15° W	6·8	6·5	+ 5	7·1	81	— 3	·642	—·026	4·3	+1·0	0	2·45	— 2·45	0	2·92	— 2·92	44·98	61·71	—16·73	0	False Point.		
20		1	1			1	6	1	N 81° W	1·5	1·7	— 12		74	— 2	·517	—·064	2·7	+0·3	0	1·71	— 1·71	0	1·67	— 1·67	46·17	56·60	—10·43	0	Cuttack.		
3	16	2						9	N 12° W	8·7			8·5	80		·626		1·9		0	2·45	— 2·45	0	2·77	— 2·77	44·09	54·79	—10·70	0	Puri.		
														76	+ 1	·469	—·007	1·3	+ 0·2				0·39	0·29	+ 0·10				V.—Gangetic Plain and Chota Nagpur.	
4	6	2			1	2	6	9	N 48° W	6·0	4·3	+ 40	5·3	57	— 9	·361	—·057	2·5	+0·4	1	0·65	+ 0·35	0·12	0·30	— 0·18	58·31	50·77	+ 7·54	0·12	Hazaribagh.	Chota Nagpur.	15
2	6					1	9	12	N 52° W	6·1			7·2	59	— 7	·360	—·065	2·3	+0·8	0	0·72	— 0·72	0	0·39	— 0·39	58·02	51·84	+ 6·18	0	Ranchi.		
27			3						E	2·6			2·1	81		·422		0·8*		1	0·68	+ 0·32	0·12	0·35	— 0·23	45·52	42·05	+ 3·47	0·12	Daltonganj.		
1							17	12	N 71° W	2·8			3·5	64		·421		1·7		1	0·74	+ 0·26	0·11	0·24	— 0·13	51·96	49·07	+ 2·89	0·11	Purulia.	Chota Nagpur.	15
26						2	2		S 72° W	0·1			0·4	74	— 4	·454	—·067	1·7	—0·2	0	0·81	— 0·81	0	0·77	— 0·77	58·30	47·38	+10·92	0	Chaibassa.		
15		1			5	1	7	1	S 63° W	3·3	1·2	+175	2·8	80	+ 9	·512	+·037	1·7	+0·1	0	0·48	— 0·48	0	0·47	— 0·47	59·27	44·91	+14·36	0	Gaya.	South Bihar.	16
5	1				11	12	1		S 28° W	5·4			4·8	74		·462		2·0		1	0·44	+ 0·56	0·18	0·28	— 0·10	46·28	41·14	+ 5·14	0·18	Dehri.		
6	2	1	2	3	3	3	6	4	S 72° W	2·8	1·5	+ 87	2·9	78	+ 7	·502	—·005	2·0	+0·7	0	0·32	— 0·32	0·04	0·22	— 0·18	64·06	46·12	+17·94	0·04	Patna.		
19				1	2	2	5	1	S 63° W	1·1			1·1	80		·479		0·2		0	0·42	— 0·42	0·01	0·21	— 0·20	51·46	43·48	+ 7·98	0·01	Arrah.		
2	1	1	2	4	7	9	4		S 18° W	3·8			3·6	73		·459		2·1		0	0·39	— 0·39	0·02	0·40	— 0·38	42·78	39·62	+ 3·16	0·02	Buxar.		
16		1			2	2	7	2	S 84° W	1·2			1·1	76		·536		0·4		0	0·23	— 0·23	0·09	0·17	— 0·08	42·15	46·74	— 4·59	0·09	Bhagalpur.	North Bihar.	17
14			3	2			6	5	N 68° W	1·1	1·8	— 39	1·0	88	+ 6	·572	+·020	0·5	—0·2	1	0·19	+ 0·81	0·52	0·09	+ 0·43	46·32	46·71	— 2·39	0·52	Darbhanga.		
23	1	1	1	1		1	2		N	0·7				85		·552		0·7		1	0·37	+ 0·63	0·86	0·12	+ 0·74	55·52	43·40	+12·12	0·84	Muzaffarpur.		
14	1	2	7	2		2	2		N 72° E	2·2			2·1	89		·532		0·6		2	0·18	+ 1·82	2·17	0·12	+ 2·05	50·84	49·39	+ 1·45	1·20	Motihari.		
7	1	5	6	1	2	6	2		S 63° E	1·6			1·4	83		·515		1·7*		0	0·39	— 0·39	0·09	0·25	— 0·16	42·76	38·87	+ 3·89	0·09	Chapra.		
15				3	1	8	3		N 37° W	1·2	2·1	— 43	1·4	76	— 4	·466	—·013	1·5	+0·1	1	0·30	+ 0·70	0·49	0·31	+ 0·18	37·13	39·27	— 2·14	0·42	Benares.	United Provinces (East).	18
3	1	1	1	1	3	4	13	3	S 80° W	2·6	2·0	+ 30	2·2	76	+ 4	·460	+·023	0·9	—0·4	1	0·30	+ 0·70	0·55	0·25	+ 0·30	39·72	38·87	+ 0·85	0·55	Allahabad.		
15	6	4		1			4		N 4° W	0·7	0·9	— 22		78	+ 2	·510	+·011	0·9	0	1	0·10	+ 0·90	0·45	0·15	+ 0·30	55·91	49·84	+ 6·07	0·45	Gorakhpur.	United Provinces (East Submontane)	22
16	2	1	3	1			6	1	N 27° W	1·0	1·4	— 29	1·1	76	0	·441	?	1·7	+0·7	1	0·20	+ 0·80	0·73	0·11	+ 0·62	41·33	36·74	+ 4·59	0·69	Lucknow.	South Oudh.	19
17		1	4	2			6		S 8° E	2·2			2·1	81	+ 4	·495	+·013	1·6	+1·0	2	0·30	+ 1·70	0·70	0·40	+ 0·30	46·22	45·67	+ 0·55	0·51	Bahraich.	North Oudh.	20
13	3	2			1	3	6	2	N 71° W	1·3				70	+ 4	·416	+·005	1·2	+0·3	1	0·10	+ 0·90	0·91	0·44	+ 0·47	57·35	34·32	+23·03	0·91	Cawnpore.	United Provinces (Central).	21
27			1			1	1		W	0·4			0·4	73	+ 4	·393	+·019	1·3	—0·1	1	0·10	+ 0·90	0·31	0·31	0	23·57	29·21	— 5·64	0·17	Mainpuri.		

station, the data for that station are not utilized in calculating the provincial departures from normal. ‡ Mean of 27 days. † Mean of 28 days.

43 and 45 are derived, are incomplete. Mean of 21 days.

Table

Abstract of Observations taken at 8 A.M. at 231 Stations

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 A.M., in inches.								Temperature of air.												
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
	VI.—Upper Sub-Himalayas.				+·025								79·1	−1·8	52·5	+2·3	66·1	+0·3	26·6					41·6
24	United Provinces (West Submontane).	Bareilly .	568	29·469	+·025	30·033	29·641	20th	29·362	2nd	·279	69·7	79·1	−2·0	54·8	+2·0	67·0	0	24·3	87·4	1st & 7th.	50·1	4 days	37·3
		Dehra Dun .	2,233	27·783	+·018	30·073	27·939	20th	27·696	2nd	·243	55·9	74·7	−0·3	50·4	−1·4	62·6	−0·9	24·3	82·0	6th	44·5	25th	37·5
		Roorkee .	899	29·132	+·026	30·056	29·301	20th	29·029	9th	·272	56·7	78·3	−2·2	50·2	+0·4	64·3	−0·9	28·1	85·8	6th	43·6	26th	42·2
22	United Provinces (West).	Meerut .	738	29·281	+·020	30·039	29·451	16th	29·135	9th	·286	57·4	80·3	−1·0	52·4	+1·8	66·4	+0·4	27·9	87·5	9th	47·3	23rd, 26th & 28th.	40·2
26	South-East Punjab.	Delhi .	718	29·321	+·023	30·043	29·481	17th & 20th.	29·197	9th	·287	61·4	79·2	−3·7	57·2	+1·0	68·2	−1·4	22·0	88·2	9th	52·9	19th	35·3
28	Central Punjab.	Lahore .	702	29·338	+·024	30·055	29·503	16th	29·206	9th	·302	57·6	81·3	−2·3	52·0	+5·2	66·7	+1·5	29·3	90·4	8th & 10th.	45·1	25th	45·3
27	South Punjab .	Sirsa .	662	29·337	+·030	30·051	29·566	16th	29·209	9th	·357	60·1	82·0	−2·9	53·3	+3·8	67·7	+0·5	28·7	92·8	9th	48·6	4 days	44·2
		Patiala .	*818*	29·218		30·043	29·391	20th	29·077	9th	·314	60·6	78·6		53·0		65·8		25·6	87·8	7th	47·4	27th	40·4
29	Punjab (Submontane).	Ludhiana .	812	29·223	+·032	30·054	29·381	15th	29·109	9th	·275	58·3	77·3	−3·3	54·3	+3·4	65·8	0	23·0	87·1	7th	49·2	27th & 30th.	37·9
		Sialkot .	830	29·209	+·033	30·062	29·376	19th	29·091	9th	·282	57·8	80·5	−0·4	53·8	+3·9	67·2	+1·8	26·7	83·6	15th	45·1	26th	44·5
		Ambala .	892	29·138	+·025	30·049	29·297	20th	29·019	9th	·278	58·9	80·8	−2·7	52·0†	+1·9†	69·7†	+0·4†	28·8†	91·0	6th	43·3	27th	47·7
		Rawalpindi .	1,674	28·358	+·017	30·109	28·513	20th	28·241	23rd	·269	53·2	73·7	−0·5	46·8	+3·5	61·8	+1·5	29·9	85·9	6th, 7th & 10th.	39·5	26th	46·4
	VII.— Indus Valley and North-West Rajputana.				+·023								85·3	+0·2	57·9	+4·5	71·6	+2·4	27·5					44·1
32	N.-W. Frontier Province.	Peshawar .	1,110	29·052	+·010	30·116	29·113	20th	28·839	8th	·274	54·7	71·8	−2·3	49·3	+4·2	62·1	+1·0	25·5	83·6	7th	40·3	23th	42·7
		D. I. Khan .	590	29·476	+·011	30·051	29·655	20th	29·329	8th	·326	53·7	82·1	0	52·9	+5·9	67·5	+3·0	29·2	91·3	8th	43·1	30th	48·2
31	West Punjab .	Khushab .	612	29·447	?	30·057	29·627	19th	29·322	9th	·305	60·2	81·1	−1·7	54·2	+4·5	67·7	+1·4	25·9	91·4	7th & 8th.	46·5	30th	41·9
		Montgomery .	558	29·498	+·024	30·054	29·679	20th	29·341	8th	·335	62·7	84·4	−2·8	54·4	+3·5	67·9	+0·4	27·0	93·3	8th	46·5	24th	45·8
		Multan .	420	29·638	+·013	30·047	29·331	22th	29·474	8th	·357	63·6	84·3	−0·1	58·6	+3·2	71·5	+3·1	25·7	92·8	8th	49·9	30th	42·9
47	Sind . . .	Jacobabad .	186	29·871	+·010	30·028	30·040	19th	29·722	9th	·318	63·1	89·7	+2·9	57·6	+6·8	73·7	+4·9	32·1	102·0	9th	49·0	30th	53·0
		Hyderabad .	96	29·973	+·025	30·026	30·141	20th	29·817	9th	·324	73·5	92·3	+4·0	63·8	+3·8	77·9	+3·9	28·2	93·6	8th	57·5	26th	41·1
		Kurrachee .	30	30·055	+·031	30·037	30·210	20th	29·919	9th	·291	72·5	88·2	+0·8	66·2	+4·1	77·2	+2·6	22·0	96·4	4th	59·2	26th	37·2
51	West Rajputana	Bikaner .	*771*	29·278	+·032	30·030	29·455	20th	29·125	9th	·330	66·2	85·0	+0·3	60·8	+1·4	72·9	+0·9	24·2	95·7	9th	52·6	27th	43·1
		Pachpadra .	*380*	29·691	+·052	30·014	29·838	20th	29·575	9th	·263	69·1	91·2	+0·5	58·2	+4·1	74·7	+2·3	33·0	97·5	9th	53·1	27th	44·4
		Jodhpur .	782	29·281		30·076	29·429	20th	29·171	3rd & 9th.	·258	67·3	88·8		60·5		74·7		23·3	94·6	1st & 5th.	51·2	23rd	40·4
	VIII.—East Rajputana, Central India and Gujarat.				+·043								87·3	+0·8	59·9	+1·4	73·6	+1·1	27·4					39·7
	East Rajputana	Jaipur .	1,431	28·632	+·031	30·035	28·787	20th	28·516	9th	·271	61·4	84·6	−1·2	55·6	+0·4	70·1	−0·4	29·0	93·2	9th	50·0	26th	43·2
		Bharatpur .	585	29·493		30·010	29·637	20th	29·316	14th	·321	61·4	87·6		55·2		68·9		27·4	92·0	11th	50·2	23rd, 24th & 27th.	41·8
56		Kotah .	819	29·228		30·078	29·383	20th	29·111	13th	·272	68·0	86·2		60·4		73·3		25·8	91·5	10th	56·5	18th	38·0
		Sambhar .	1,254	28·797	+·029	30·077	28·957	20th	28·678	9th	·279	61·4	84·4	−0·1	55·2	+2·3	69·8	+1·1	29·2	93·4	9th	50·9	23rd, 27th & 28th.	42·5
		Ajmer .	1,611	28·456	+·027	30·097	28·608	20th	28·333	13th	·275	63·1	85·1	+1·2	53·2	+5·2	70·7	+3·2	28·9	91·9	9th	52·8	4 days	39·1
		Udaipur .	1,925	28·144		30·095	28·286	20th	28·044	13th	·242	63·8	85·2		54·8*		69·9*		30·4	92·0	10th	49·2	23rd	42·8
	Kathiawar and Cutch.	Bhuj .	395	29·686	+·058	30·043	29·811	20th	29·588	3rd	·223	74·6	90·7	+1·5	63·9	+4·2	73·8	+2·9	23·8	97·3	5th	61·0	7th	36·3
		Jamnagar .	61	30·014		30·020	30·131	20th	29·922	3rd	·212	74·1	90·7		64·0		77·4		26·7	96·6	2nd	53·8	22nd	37·8
46		Rajkot .	429	29·630	+·045	30·023	29·750	20th	29·540	3rd	·210	72·1	92·0	+1·3	61·2	+1·9	76·6	+1·8	30·8	95·4	1st	55·0	6th	41·4
		Veraval .	*18*	30·059	+·066	30·019	30·169	20th	29·954	3rd	·215	73·9	87·5	?	65·6	−1·1	77·1	?	21·0	96·1	7th	61·3	h	34·8
		Dwarka .	37	30·046		30·029	30·161	20th	29·953	3rd	·208	76·3	85·2		69·4		77·3		15·8	93·9	1st	64·7	25th	29·2
		Bhavnagar Para.	55	30·031	?	30·030	30·160	20th	29·923	3rd	·237	72·1	91·7	+1·8	62·9	−1·0	77·3	+9·1	23·8	93·6	3rd	58·0	7th & 22nd.	40·6
	Central India .	Nowgong .	757	29·297	+·020	30·054	29·452	19th	29·197	10th	·255	60·6	89·8	−1·5	53·6	+0·4	67·2	−0·6	27·2	89·5	11th	49·0	23th	40·5
		Indore .	1,823	28·243	+·054	30·071	28·371	20th	28·157	2nd	·214	67·9	85·4	+2·2	53·1	−1·0	69·3	+0·6	32·3	90·6	1st	47·1	23rd	43·5
4		Neemuch .	1,630	28·445	+·047	30·094	28·587	20th	28·347	13th	·249	65·4	85·2	+0·7	51·6	−0·3	69·9	+0·2	31·6	92·0	10th	49·8	21st & 22nd.	42·2

* Mean of 29 days.
† ,, ,, 22 ,,

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

Note 1.—When a query is inserted against any reading or in the returns
Note 2.—The data from which divisional means of the figure columns

I—*continued.*

in India, Burma, etc., in November 1904—continued.

Wind Direction. Number of winds from Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	Wind Velocity. Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	Hygrometry, 8 A.M. Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Cloud. Mean cloud amount at 8 A.M.	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 1904.	Normal rainfall for period, 1st May to 30th November.	Departure from normal of period, 1st May to 30th November 1904.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
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	58
														73	+6	·358	+·037	1·6	+0·1				0·82	0·19	+0·62					VI.—Upper Sub-Himalayas.		
27			1				2		W	0·6	1·7	−65	0·6	81	+4	·430	+·021	1·6	+0·8	2	0·27	+1·73	3·38	0·18	+3·20	31·11	41·81	−13·70	2·49	Bareilly	United Provinces (West Submontane).	24
29						1			S 45° W	0·9*	1·7	−47		73	+2	·330	P	1·5	−0·4	3	0·60	+2·40	0·92	0·40	+0·52	80·54	82·27	−1·73	0·54	Dehra Dun.		
23	1	1	1			1		3	N 18° W	1·6*	1·1	+45		80	+3	·373	+·015	1·1	0	2	0·50	+1·50	0·69	0·28	+0·61	36·43	38·53	−8·10	0·44	Roorkee.		
21	1	3					3	2	N 18° W	0·8	1·3	−38	0·8	74	+4	·356	+·030	1·1	+0·2	1	0·20	+0·80	0·49	0·13	+0·36	29·69	28·52	+1·17	0·37	Meerut.	United Provinces (West).	22
4	1	3	2	1	1		13	5	N 68° W	2·6‡	2·3	+13	2·3‡	65	+14	·355	+·068	1·2	−0·2	1	0·30	+0·70	0·55	0·11	+0·44	27·93	24·91	+3·02	0·55	Delhi.	South-East Punjab,	26
17	3		2	1	1		4	2	N 45° W	1·6	1·4	+14		80	+13	·377	+·064	1·4	−0·1	0	0·20	−0·20	0·06	0·07	−0·01	5·10	16·43	−11·33	0·05	Lahore.	Central Punjab	28
23	1	2	1	2		1			N 84° E	1·4	2·0	−30	1·2	69	+10	·359	+·071	1·2	−0·6	0	0·10	−0·10	0	0·01	−0·01	7·77	12·37	−4·60	0	Sirsa.	South Punjab	27
4	3	2	3	5	2			11	N 2° E	3·6			3·6	73		·383		1·8		2			0·96			19·84			0·51	Patiala.		
25	1			2				2	N	1·1	0·8	+38	1·0	71	+7	·350	+·035	1·9	−0·2	2	0·20	+1·80	0·55	0·06	+0·59	13·86	23·25	−9·39	0·43	Ludhiana.	Punjab (Submontane.)	29
18	2	4	3	1		1		1	N 51° E	1·6	1·0	+60	1·4	68	+3	·329	+·025	1·7	+0·2	2	0·30	+1·70	0·46	0·09	+0·37	14·17	24·98	−10·81	0·27	Sialkot.		
29				1					S 45° E	0·8				75	0	·373	+·018	1·5	+0·4	2	0·30	+1·70	0·87	0·46	+0·41	16·41	27·43	−11·02	0·50	Ambala.		
30									Calm	1·6	1·1	+45	1·5	69	+4	·278	+·020	2·7	+0·6	2	0·80	+1·20	0·61	0·29	+0·32	18·73	24·67	−5·94	0·34	Rawalpindi.		
														64	+10	·392	+·096	1·6	0				0·26	0·13	+0·13					VII.—Indus Valley and North-West Rajputana.		
29	1								N 45° E	0·2	2·1	−90	0·2	78	+13	·342	+·081	3·0	+0·3	0	0·90	−0·90	0·07	0·47	−0·40	3·91	6·15	−2·24	0·07	Peshawar.	N.-W. Frontier Province.	32
30									Calm	0·2	0·7	−71	0·2	69	+4	·360	+·081	2·0	+0·5	0	0	0	0·14	0·18	−0·04	1·16	5·50	−4·34	0·08	D. I. Khan.		
8	3	5	1	1	3	5	3	1	W	4·1			3·9	64	+16	·328	+·102	2·1	+0·8	2	0·30	+1·70	0·92	0·02	+0·90	7·69	10·32	−2·63	0·55	Khushab.	West Punjab	31
8	3	1	5	7	2	1	1	2	S 71° E	4·7			4·4	63	+10	·348	+·062	2·2	+0·4	1	0·20	+0·80	0·59	0·06	+0·53	2·64	7·84	−5·20	0·49	Montgomery.		
17	5	1		7					N 82° E	1·6	1·5	+7	1·4	70	+8	·408	+·084	1·5	+0·3	1	0·10	+0·90	0·87	0·07	+0·80	1·15	5·74	−4·59	0·87	Multan.		
8	2	5	9	2	1		1	2	N 69° E	2·6	1·6	+63	2·7	65	+11	·415	+·118	1·5	−0·2	0	0·20	−0·20	0	0·11	−0·11	0·31	2·78	−2·47	0	Jacobabad.	Sind	47
3	8	2		3		12		2	N 66° W	5·7	6·1	−7	5·1	59	+9	·450	+·110	0·4	−1·3	0	0·20	−0·20	0	0·12	−0·12	0·09	6·19	−6·10	0	Hyderabad.		
6	2	9	2				4	7	N 3° W	7·2	7·9	−9	6·3	74	+13	·600	+·152	1·1	−0·2	0	0·30	−0·30	0	0·07	−0·07	0	6·72	−6·72	0	Kurrachee.		
1	2	3	4	4	7	6	1	2	S 16° E	5·9	2·4	+146		55	+7	·358	+·061	1·7	+0·2	1	0·10	+0·90	0·21	0·05	+0·16	6·00	10·17	−4·17	0·21	Bikaner.	West Rajputana	51
11		6	8	2	2	1			N 89° E	4·1	2·1	+95	3·6	59	+6	·422	+·113	0·6	−1·1	0	0·30	−0·30	0·03	0·08	−0·05	3·20	12·57	−9·37	0·03	Pachpadra.		
7	8	10	1			1	1	2	N 17° E	3·4			3·1	43		·286		1·3		0	0·20	−0·20	0·01	0·16	−0·15	6·30	12·59	−6·29	0·01	Jodhpur.		
														59	+2	·410	+·019	0·7	−0·5				0·15	0·24	−0·08					VIII.—East Rajputana, Central India and Gujarat.		
18	3	2	1			1	2	3	N 22° W	2·5	3·0	−17		60	+6	·362	+·032	1·2	−0·4	1	0·20	+0·80	0·35	0·20	+0·15	22·31	24·68	−2·37	0·33	Jaipur.	East Rajputana	50
20	1		1	1	1		4	2	N 76° W	1·9			1·8	73		·397		1·2		1			0·37			35·56			0·33	Bharatpur.		
17	3			1		2	1	6	N 49° W	1·5			1·2	53		·349		0·3		1	0·30	+0·70	0·18	0·03	+0·15	32·47	29·14	+3·33	0·18	Kotah.		
25		2	1		1			1	N 57° E	2·6	3·4	−24		62	+9	·337	+·052	1·3		1	0·20	+0·80	0·36	0·18	+0·18	15·59	19·45	−3·86	0·28	Sambhar.		
17	2			1	1	1	3	5	N 14° W	3·2	1·4	+129	2·8	64	−19	·370	+·041	1·3	0	1	0·40	+0·60	0·15	0·20	−0·05	14·87	20·58	−5·71	0·10	Ajmer.		
29								1	N 45° W	1·5			1·3	50		·298		0·5		1	0·50	+0·50	0·11			17·87			0·11	Udaipur.		
		3	1	4		8	2	12	N 78° W	6·0	4·7	+28	5·0	62	+3	·531	+·079	0·4	−0·6	2	0·30	+1·70	0·40	0·12	+0·28	4·42	14·11	−9·69	0·25	Bhuj.	Kathiawar and Cutch.	46
		2	6	5	7	8	2		S 12° E	9·8			11·9	61		·522		1·2		0			0			8·73			0	Jamnagar.		
8	1	4	4	4		2	3	4	N 45° E	4·3	4·9	−12	4·3	57	+2	·442	+·005	0·6	−0·4	0	0·50	−0·50	0	0·33	−0·33	11·39	27·95	−16·56	0	Rajkot.		
	17	9						4	N 8° E	7·7	5·0	+54	7·7	60	+5	·498	+·020	0·6	−1·0	0	0·30	−0·30	0	0·59	−0·59	6·65	18·11	−11·49	0	Veraval.		
	10	8	1	2			2	7	N 3° E	10·0				78		·721		1·1		0			0			2·27			0	Dwarka.		
3	4	1				1	6	11	N 49° W	4·3			3·9	41	?	·331	?	0·9	−0·3	0	0·40	−0·40	0	0·47	−0·47	10·99	19·46	−8·47	0	Bhavnagar Para.		
11	5		2		2	1	6	3	N 57° W	1·0	1·0	0	1·0	73	+3?	·389	−·011	1·0	−0·4	1	0·70	+0·30	0·58	0·27	+0·31	54·62	42·95	+11·67	0·58	Nowgong.	Central India	4
13	1	6	5	4				1	N 75° E	2·7	2·0	+35	2·2	50	−7	·338	−·042	0·4	−0·7	0	0·50	−0·50	0	0·35	−0·35	17·51	32·96	−15·45	0	Indore.		
4	5	9	2			2	4	4	N 0° E	5·0	7·5	−33	4·2	57	+10	·358	+·040	0·4	−0·5	0	0·50	−0·50	0·07	0·19	−0·12	19·43	29·29	−9·86	0·07	Neemuch.		

of any station, the data for that station are not utilized in calculating the provincial departures from normal.

Nos. 41, 43 and 45 are derived are incomplete.

§ Mean of 28 days.

‡ Mean of 18 days.

Table

Abstract of Observations taken at 8 A.M. at 231 Stations

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 A.M., in inches.								Temperature of air.												
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8A.M. 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 A.M. 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	25
5	Gujarat (East)	Surat	39	30·045	+·069	30·029	30·151	20th	29·943	3rd	·208	73·0	92·7	+2·1	63·3	+0·5	78·0	+1·3	29·4	97·2	2nd	59·0	22nd	38·2
		Ahmedabad	163	29·912	+·047	30·029	30·059	20th	29·807	2nd	·252	74·1	94·1	+2·7	65·5	−0·2	79·8	+1·3	28·6	100·3	2nd	62·1	24th	38·2
		Deesa	466	29·603	+·041	30·038	29·746	20th	29·511	3rd	·235	72·9	94·5	+3·0	60·9	+3·2	77·7	+3·1	33·6	101·1	2nd	56·1	28th	45·0
32	United Provinces (West).	Agra	555	29·494	P	30·040	29·661	20th	29·363	9th	·298	62·9	81·4	−3·0	57·7	+1·8	69·6	−0·6	23·7	92·0	10th	51·9	16th	40·1
21	United Provinces (Central).	Jhansi	858	29·208	+·031	30·060	29·362	16th	29·098	9th	·264	67·2	85·7	+0·4	60·4	+1·8	73·1	+1·1	25·3	95·7	10th	56·7	28th	39·0
		IX.—Deccan.			+·047								84·7	+0·5	56·7	−2·8	70·7	−1·2	28·0					39·5
38	Bombay Deccan.	Belgaum	2,539	27·499	+·060	30·006	27·576	20th	27·428	6th	·148	70·3	82·9	+0·8	58·0	−3·1	70·4	−1·2	24·9	86·3	12th	50·9	23rd	35·4
		Sholapur	1,590	28·469	+·063	30·046	28·555	20th	28·384	3rd	·171	71·1	87·6	+0·1	59·5	−2·8	73·6	−1·4	28·1	91·2	1st&14th	50·1	23rd	41·1
		Poona	1,840	28·231	+·062	30·092	28·325	20th	28·137	3rd	·188	62·4	86·9	+0·6	55·6	−3·7	71·2	−1·6	31·3	90·0	13th	48·5	25th	41·5
		Bijapur	*1,948*	28·100	+·046	30·031	28·180	20th	28·023	3rd	·157	70·4	86·2	+0·6	56·8	−4·2	71·6	−1·8	29·4	91·4	6th	47·1	23rd	44·3
40	Khandesh	Malegaon	1,430	28·632	+·046	30·068	28·745	20th	28·540	3rd	·205	66·0	87·5	+0·4	55·1	−2·0	71·3	−0·8	32·4	91·4	2nd	49·2	22nd	42·2
		Ahmednagar	2,154	27·922	+·056	30·075	28·017	20th	27·836	3rd	·181	68·0	85·0	−0·3	54·6	−1·6	69·8	−1·0	30·4	88·8	12th	45·9	23rd	43·0
41	Berar	Akola	930	29·152	+·062	30·070	29·265	20th	29·047	3rd	·218	66·6	87·6	+0·6	53·2	−4·2	70·4	−1·8	34·4	91·4	12th	46·4	24th	45·0
		Amraoti	1,215	28·856?	+·056?	30·059?	28·974	20th	28·766	3rd	·208	70·6?	86·9	+0·6	60·5?	P	73·7?	P	26·4?	90·2	4days	53·5	24th	36·7
42	Central Provinces (West).	Khandwa (a)	1,044	29·016	+·041	30·067	29·147	20th	28·925	3rd	·222	62·5	88·6	+1·8	52·7	−3·5	70·7	−0·9	35·9	94·7	12th	46·6	23rd	48·1
		Hoshangabad	1,006	29·084	+·055	30·099	29·208	20th	28·992	3rd	·216	62·9	84·9	+0·6	54·1	−3·2	69·5	−1·3	30·8	90·2	13th	49·8	23rd	40·4
		Nagpur	1,025	29·044	+·056	30·066	29·158	16 & 20th.	28·945	3rd	·213	65·9	86·5	+1·5	56·5	−3·8	71·5	−1·2	30·0	90·6	13th	52·2	24th	38·4
43	Central Provinces (Central).	Chanda	*634*	29·460?	P	30·073?	29·570	19th	29·349	3rd	·221	62·6	85·0	−0·2	52·3?	P	68·7?	P	32·7?	89·2	15th	46·1?	? 9th	43·1?
		Seoni	2,033	28·021	+·038	30·078	28·129	20th	27·926	3rd	·203	62·8	81·9	+0·6	52·8	−2·6	67·4	−1·0	29·1	88·3	12th	48·0	28th	40·3
		Jubbulpore	1,327	28·727	+·030	30·081	28·861	19th	28·639	3rd	·222	58·8	81·2	−0·7	49·8	−3·3	65·5	−2·0	31·4	87·4	11th	44·9	28th & 29th.	42·5
		Saugor	1,807	28·238	+·029	30·058	28·366	19th & 20th.	28·157	3rd	·209	66·1	81·9	−0·1	57·9	+0·7	69·9	+0·3	24·0	89·4	11th	52·1	22nd & 23rd.	37·3
	Central India	Sutna	1,040	29·007	+·025	30·061	29·150	19th	28·917	3rd	·233	61·8	80·1	−1·0	53·7	−0·2	66·9	−0·6	26·4	87·9	11th	48·8	22nd & 23rd.	39·1
44	Central Provinces (East).	Raipur	970	29·088	+·044	30·049	29·207	16th	28·977	5th	·230	66·0	82·6	−0·6	57·8	−2·9	70·2	−1·8	24·8	88·6	13th	53·4	18th, 23rd & 24th.	35·2
		Pendra	2,123?	28·005?		30·066?	28·126	20th	27·909	3rd	·217	62·0	78·2		54·5		66·4		23·7	85·8	13th	49·1	18th,22nd & 28th.	36·7
		Sambalpur	486	29·582	+·034	30·038	29·714	19th	29·441	5th	·273	66·9	81·5	+0·7	58·9	−3·4	71·7	−1·4	25·6	90·1	13th & 14th.	50·7	29th	39·4
39	Hyderabad (North).	Aurangabad	1,905	28·169		30·050	28·301	20th	28·070	3rd	·231	72·7	84·6		55·6		70·1		29·0	87·8	11th & 12th.	48·2	9th	39·6
		Indur	1,260	28·743		29·991	28·776	29th	28·707	1st	·069	68·7	84·0		57·4		70·7		26·6	87·8	2nd&15th	52·1	25th & 29th.	35·7
		Bidar	*2,165*	27·895		30·035	27·981	20th	27·812	3rd	·169	72·6	82·7		62·3		72·5		20·4	87·2	13th	51·9	23rd	32·3
	Hyderabad (South).	Gulbarga	1,503	28·550	+·044	30·042	28·639	20th	28·450	3rd	·189	69·6	87·9‡	+0·7‡	60·1	−2.5	74·2‡	−0·9	27·8	89·2	21st	51·4	25th	37·8
		Raichur	1,326	28·715	+·049	30·019	28·796	20th	28·627	3rd	·169	72·9	87·6	+1·5	64·3	−3·0	75·9	−0·8	23·3	90·6	1st & 13th.	56·2	22nd	34·4
		Hyderabad (Deccan).	1,690	28·358	+·041	30·043	28·441	19th	28·266	3rd	·175	68·1	85·6	+1·8	58·7	−3·4	72·1	−0·8	26·9	88·4	1st, 13th & 14th	52·3	24th	36·1
		Hanumkonda.	871	29·176		30·020	29·275	20th	29·073	5th	·202	70·7	85·8		60·2		73·0		25·6	90·5	13th & 14th.	49·1	30th	41·4
		X.—West Coast.			+·063								86·9	+0·4	71·3	−1·9	79·3	−0·8	15·6					23·9
37	Konkan	Bombay	37	30·027	+·065	30·004	30·108	20th	29·944	3rd	·164	75·2	87·7	+0·8	72·8	−0·5	80·3	+0·2	14·9	92·0	17th	70·0	24th & 25th.	22·0
		Ratnagiri	110	29·933	+·075	29·987	29·998	19th	29·865	3rd	·133	76·0	89·4	−1·1	65·6	P	77·5?	P	23·8?	93·8	17th	60·9	24th	32·9
		Mormugao	*60*	29·985	+·060	29·981	30·051	16th	29·917	3rd	·134	73·6	86·3	−0·7	70·6	−2·2	78·5	−1·5	15·7	89·0	19th	66·3	24th & 25th.	22·7
		Goa	199	29·842	+·059	29·982	29·916	20th	29·770	3rd	·148	76·8	85·6	−1·8	73·6*	P	79·6*	P	12·0	88·0	1st, 8th & 19th.	69·0	23rd & 24th,	19·0
		Karwar	44	29·996	+·070	29·975	30·062	20th	29·936	1st	·126	71·0	87·7	+0·3	65·5	−3·9	76·6	−1·8	22.2	90·8	20th & 30th.	58·5	25th	32·3
38	Malabar	Cochin	10	30·003	+·054	29·941	30·060	28th	29·942	6th	·118	78·4	88·9	+1·4	73·4	−1·0	81·2	+0·2	15·5	90·3	6 days	69·7	27th & 29th.	20·6
		Calicut	27	29·996	+·062	29·953	30·063	28th	29·930	6th	·133	76·4	87·7	+0·3	70·9*	−2·2*	79·4*	−1·0*	16·8	88·8	4 days	65·2	29th.	23·6
		Mangalore	65	29·966	+·061	29·963	30·037	28th	29·898	6th	·139	77·6	87·8	−0·5	70·0	−2·8	78·9	−1·7	17·8	91·2	17th & 26th.	65·0	29th	26·2
		Trivandrum	198	29·814	+·059	29·945	29·876	20th	29·737	6th	·139	77·7	83·6	+1·0	73·4	−1·0	78·5	0	10·2	86·0	27th	70·0	30th	16·0

‡ Mean of 26 days.

N. B—Elevations in italics indicate barometrical determinations.

(a) Thermometers were removed to the temporary grass but after 4 P.M. of the 16th October 1904.

Note 1.—When a query is inserted against any reading or in the returns

Note 2.—The data from which divisional means of the figure columns

I—*continued.*

in India, Burma, etc., in November 1904—continued.

Wind Direction. Number of winds from Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	Wind Velocity. Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	Hygrometry, 8 A.M. Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Cloud. Mean cloud amount at 8 A.M.	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 1904.	Normal rainfall for period, 1st May to 30th November.	Departure from normal of period, 1st May to 30th November 1904.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
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	58
5	1	5	12	6		1			S 89° E	3·7	5·9	−37	3·5	59	− 5	·481	−·024	0·5	−0·8	0	0·40	- 0·40	0	0·15	− 0·16	13·40	43·89	−30·49	0	Surat	Gujarat (East)	45
	3	14	4	2	2		1	4	N 43° E	2·2			3·6	43	− 7	·361	−·013	0·5	−1·3	0	0·30	- 0·30	0	0·38	− 0·38	8·55	32·94	−24·39	0	Ahmedabad		
	2	11	9	4	2	1	1		N 77° E	7·4	7·5	− 1		39	− 2	·303	+·003	0·3	−0·9	0	0·18	- 0·18	0	0·17	− 0·17	5·68	23·78	−18·10	0	Deesa.		
3		3		1		17		6	S 65° W	3·2	2·5	+28	3·8	65	+ 6	·370	+·026	0·9	−0·1	1	0·10	+ 0·90	0·37	0·11	+ 0·26	32·34	26·92	+ 5·42	0·25	Agra	United Provinces (West).	22
10			1	1	2	11	2	3	S 50° W	3·5	1·8	+94	4·3	66	+16	·432	+·096	0·3	−0·6	0	0·10	- 0·10	0·07	0·13	− 0·06	41·80	36·86	+ 4·91	0·07	Jhansi	United Provinces (Central).	21
														57	− 9	·377	−·088	1·0	−0·9				0·02	0·76	−0·75					IX.—Deccan.		
17	2	3	5	3					N 77° E	6·7	11·7	−43		43	−21	·325	−·135	1·7	−0·6	0	2·20	- 2·20	0	1·76	− 1·76	44·70	47·61	− 2·91	0	Belgaum	Bombay (Deccan)	38
3	1	11	7	7				1	N 76° E	7·8	7·7	+ 1	9·4	37	−16	·285	−·144	1·4	−1·0	0	1·50	- 1·50	0	1·19	− 1·19	22·72	29·76	− 7·04	0	Sholapur.		
	4	4	2	3	1	4	4	8	N 41° W	6·2*	5·8	+ 7		66	?	·379	−·049	0·3	−1·4	0	1·70	− 1·70	0	1·06	− 1·06	12·81	26·88	−14·07	0	Poona.		
2	3	9	11	3	1			1	N 70° E	3·7			3·6	61	− 9?	·462	−·073	1·0	−1·5	0	2·10	− 2·10	0	1·25	− 1·25	13·44	23·19	− 9·75	0	Bijapur.		
5	3					2	13	7	N 71° W	4·0	4·0	0	4·6	49	− 7	·318	−·088	0·9	−0·8	0	1·00	- 1·00	0	0·50	− 0·50	18·96	23·54	− 4·58	0	Malegaon	Khandesh	40
6	3	4		3	1		2	11	N 25° W	4·3			5·2	49	−15?	·340	−·130	0·7	−1·0	0	1·50	− 1·50	0	0·59	− 0·59	14·16	20·86	− 6·70	0	Ahmednagar.		
14		5	4	4	2		1		S 82° E	2·7	3·4	−21	2·4	50	− 9	·331	−·076	0·5	−1·0	0	0·80	− 0·80	0	0·54	− 0·54	25·90	32·28	− 6·38	0	Akola	Berar	41
	3	11	11		4	1			N 71° E	5·0	3·0	+67	4·5	38	−15	·289	−·123	0·5	−1·0	0	0·60	− 0·60	0	0·57	− 0·57	24·25	32·95	− 8·70	0	Amraoti.		
22	2	3	1					2	N 18° E	2·5	2·6	− 4	2·4	47	−10	·268	−·102	0·8	−0·3	0	0·60	- 0·60	0	0·23	− 0·23	16·31	30·33	−14·02	0	Khandwa	Central Provinces (West).	42
		18	1	3		8			N 64° E	1·7	1·9	−11	1·7	61	− 7?	·350	−·056?	0·2	−1·1	0	0·50	- 0·50	0	0·45	− 0·45	29·73	50·69	−20·96	0	Hoshangabad.		
3	11	1		1				2	N 22° E	5·0	4·0	+25	4·0	54	− 8	·350	−·089	0·9	−1·0	0	0·90	- 0·90	0	0·81	− 0·81	32·06	47·24	−15·18	0	Nagpur.		
30									Calm	0·7	1·8	−61	0·6	72	− 1	·419	−·103	0·5	−1·5	0	1·00	- 1·00	0	0·96	− 0·96	31·02	52·84	−21·82	0	Chanda	Central Provinces (Central).	43
	8	7		1	2	4	5	3	N 25° W	4·9	2·6	+88	4·1	58	− 5	·333	−·079	0·1	−1·2	0	0·90	- 0·90	0	0·61	− 0·61	33·47	52·36	−18·89	0	Seoni.		
5			2	8	12	3			S 40° W	1·9	1·8	+ 6	1·7	79	+ 6?	·396	−·015	0·2	−1·0	0	0·60	- 0·60	0·02	0·18	− 0·16	30·07	56·92	−17·85	0·02	Jubbulpore.		
3	1	3	5	3	2	7	4		S 3° E	4·3	2·3	+87	3·8	50	− 4	·325	−·033	0·7	−0·4	0	0·50	- 0·50	0	0·33	− 0·33	36·79	46·41	− 9·65	0	Saugor§		
7					2	12	9		N 76° W	2·0	3·2	−38	1·8	71	+ 8	·393	+·016	1·6	+0·5	1	0·70	+ 0·30	0·21	0·31	− 0·10	52·42	43·34	+ 9·08	0·24	Sutna	Central India	49
15	3	6	1		1	2		2	N 21° E	1·4	3·3	−58	1·7	66	0	·427	−·038	2·0	0	0	0·90	- 0·90	0	0·46	− 0·46	46·70	48·67	− 1·97	0	Raipur	Central Provinces (East).	44
6	8		1	2	2	1	1	9	N 29° W	4·5			3·8	67		·374		1·2		1			0·20			47·28			0·20	Pendra.		
	3	13	3	6	2	1		2	N 65° E	4·0	1·4	+186	3·9	67	− 9	·418	−·103	1·9	+0·1	0	1·00	- 1·00	0	0·59	− 0·59	61·23	61·69	− 3·46	0	Sambalpur.		
19	4	3	4						N 45° E	5·4			5·3	46		·381		0·2		0	1·00	- 1·00	0	0·59	− 0·59	31·07	29·25	+ 1·82	0	Aurangabad.	Hyderabad (North).	39
23	1				2		4		N 63° W	3·7			3·1	66		·466		1·1		0	1·40	- 1·40	0	0·95	− 0·95	32·96	38·09	− 5·13	0	Indur.		
	1	10	7	5	3	3	1		S 86° E	6·9			5·8	57		·468		2·4		0	2·20	- 2·20	0	1·30	− 1·30	32·95	37·51	− 4·56	0	Bidar.		
7		10	10	2				1	N 72° E	11·0			1·6	62	− 2?	·459	?	1·1	−1·3	0	1·50	- 1·50	0	0·47	− 0·47	23·85	29·82	− 5·97	0	Gulbarga	Hyderabad (South).	53
10	2	12	3	3					N 58° E	6·5			6·2	48	−20	·393	−·175	1·4	−1·1	0	1·80	- 1·80	0	0·76	− 0·76	19·68	29·40	− 9·72	0	Raichur.		
28		1	1						N 66° E	3·1			3·0	61	−12	·423	−·116	0·9	−1·8	0			0	1·48	− 1·48	21·77	29·93	− 8·16	0	Hyderabad (Deccan).		
6	8			2	5		1	8	N 36° W	4·7			4·0	54		·412		0·9		0	1·90	- 1·90	0			22·41			0	Hanumkonda.		
														71	− 6	·640	−·073	1·7	−0·9				0·71	2·78	−2·07					X.—West Coast.		
		15	14	1					N 68° E	8·2	9·9	−17		72	− 2	·637	−·042	1·3	−0·2	0	0·60	- 0·60	0	0·49	− 0·49	33·34	74·94	−41·60	0	Bombay	Konkan	37
5	1	3	17	4					N 82° E	9·0	9·0	0	8·9	54	− 5?	·486	−·087?	0·8	−0·6	0	1·00	- 1·00	0	0·42	− 0·42	96·20	107·03	−10·83	0	Ratnagiri.		
4		1	11	14					S 67° E	7·0				75	− 6	·625	−·101	1·5	+0·1	0			0	1·16	− 1·16	92·34	92·34	0	0	Mormugao.		
1		6	22	1					N 83° E	6·5				63	− 7	·586	−·082	1·4	−0·2	0			0	1·14	− 1·14	111·03	97·80	+13·23	0	Goa.		
	2	17	11						N 43° E	4·4				74	− 8	·565	−·091	1·1	−0·4	0	2·50	- 2·50	0	2·08	− 2·08	112·54	123·05	−10·51	0	Karwar.		
2		11	16	1					N 64° E	5·2				76	− 5	·754	−·045	2·6	−1·2	2	7·70	- 5·70	1·78	6·25	− 4·47	102·42	105·21	− 2·79	1·24	Cochin	Malabar	33
4		12	13	1					N 71° E	5·3			5·2	77	− 4	·708	−·077	1·5	−1·9	0	5·50	- 5·50	0	4·72	− 4·72	118·49	108·84	+ 9·65	0	Calicut.		
3		4	23						N 83° E	4·9	3·0	+63		67	−10	·643	−·092	1·8	−1·2	0	3·80	- 3·80	0	2·65	− 2·65	128·31	121·69	+ 6·62	0	Mangalore.		
21	2	2	3	1				1	N 52° E	3·2				79	− 6	·754	ı−·047	2·9	−2·5	4	9·10	- 5·10	4·61	6·12	− 1·51	54·21	52·75	+ 1·46	2·98	Trivandrum.		

of any station, the data for that station are not utilized in calculating the provincial departures from normal.
Nos. 41, 43 and 45 are derived are incomplete.

* Mean of 29 days.

§ Wind observations for 28 days.

Table

Abstract of Observations taken at 8 A.M. at 231 Stations

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 A.M., in inches.								Temperature of Air.											
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure during recorded month.	Date.	Lowest pressure during recorded month.	Date.	Total range of pressure during month.	Mean of 8 A.M. 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	25
	XI.—South India.				+·056								87·4	+2·6	66·7	—2·2	77·1	+0·2	20·6					30·6
57	Madras (South) .	Pamban . .	37	29·999	+·071	29·963	30·068	27th	29·915	5th	·153	81·0	86·7	+2·4	76·2	+0·1	81·5	+1·3	10·5	91·3	6th & 9th	72·2	23rd	19·1
		Tinnevelly .	168	29·872	+·063	29·971	29·959	28th	29·783	5th	·167	80·3	92·1	+3·4	74·3	—0·3	83·2	+1·6	17·8	96·7	5th	70·9	27th, 28th & 30th.	25·8
		Madura . .	447	29·593	+·063	29·691	29·663	27th	29·502	6th	·161	79·1	83·6	+2·3	72·0	—0·5	80·8	+0·9	17·6	92·9	22nd	68·1	27th	24·5
		Periyakulam	945	29·089		29·987	29·158	28th	29·013	5th	·145	75·6	88·7		67·2		77·7		21·5	91·3	6th	60·0	27th & 28th.	31·3
34	Madras (South Central).	Salem . .	940	29·114	+·066	30·009	29·193	28th	29·027	6th	·166	76·2	90·9	+3·6	63·0	—2·5	78·5	+0·6	24·9	92·7	8th, 10th & 20th.	60·3	6th	32·4
		Coimbatore .	1,348	28·678	+·061	29·994	28·751	28th	28·603	6th	·151	73·8	88·6	+2·4	65·8	—3·1	77·3	—0·4	22·8	92·4	10th	60·8	27th	31·6
35	Coorg . .	Mercara . .	3,781	26·322	+·065		26·100	19th	26·255	6th	·145	64·4	77·9	+2·0	56·2	—3·9	67·1	—1·0	21·7	83·0	5 days.	51·0	6th	29·0
36	Mysore . .	Chitaldroog .	2,405	27·641	+·046	30·030	27·718	20th	27·572	6th	·146	73·6	84·0	+1·9	61·4	—2·6	72·8	—0·4	22·6	83·1	15th	56·4	25th	31·7
		Bangalore .	3,021	27·042	+·051	30·017	27·106	16th	26·932	6th	·174	68·4	81·6	+2·3	58·9	—3·0	70·3	—0·4	22·7	85·3	19th	51·9	28th	33·4
		Hassan . .	3,091	26·980	+·045	30·021	27·046	16th	26·936	6th	·110	68·5	81·2	+1·4	53·8	?	67·5	?	27·4	84·4	13th	46·5	22nd	37·9
		Mysore . .	2,518	27·532	+·048	30·016	27·595	27th	27·459	6th	·136	70·5	85·1	+2·6	60·0	—4·1	72·5	—0·8	25·1	87·9	10th	53·9	22nd & 23rd.	34·0
56	Madras, East Coast, (South).	Negapatam .	31	29·987	+·059	29·947	30·059	23th	29·911	6th	·148	80·0	87·4	+3·3	71·1	0	80·8	+1·7	13·3	91·4	4th	63·0	30th	25·4
		Cuddalore .	12	30·026	+·062	29·937	30·101	28th	29·941	5th	·160	77·3	88·6	+3·8	70·2	—1·4	79·4	+1·2	18·4	93·7	10th	65·7	23rd & 30th.	28·0
		Trichinopoly .	255	29·780	+·067	29·972	29·858	28th	29·691	5th	·164	79·0	90·0	+2·9	70·0	—2·0	80·0	+0·5	20·0	91·3	4th	64·4	23th	29·9
		Madras . .	22	30·020	+·063	29·973	30·107	19th	29·920	6th	·187	78·4	89·7	+4·6	69·2	—3·1	79·5	+0·8	20·5	93·5	3rd & 6th.	64·0	5th, 24th & 29th.	29·5
		Vellore . .	707	29·332		29·997	29·419	23th	29·238	5th	·181	73·5	84·8		65·1*		74·9*		19·7	89·9	8th	57·4	5th	32·5
55	Madras, East Coast, (Central).	Nellore . .	52	29·996	+·058	29·933	30·077	30th	29·897	2nd & 5th.	·180	73·9	89·3	+2·6	63·2	—3·4	78·8	—0·4	21·1	93·3	3rd, 4th & 6th.	64·1	4 days	29·2
		Masulipatam .	15	30·043	+·063	29·993	30·142	30th	29·915	5th	·227	74·8	86·1	+1·0	63·2	—3·1	77·2	—1·1	17·9	83·0	9th	61·7	21th	27·3
54	Madras (Central).	Cuddapah .	433	29·617	+·053	29·997	29·693	20th	29·527	3rd	·169	76·6	92·8	+4·3	67·0	—2·3	79·9	+1·0	25·8	97·2	2nd	59·3	21th	37·9
		Kurnool .	945	29·119	+·047	30·013	29·201	19th	29·020	6th	·181	71·1	90·0	+1·9	59·6	—4·4	74·9	—1·3	30·4	94·2	16th	50·4	21th	43·8
		Bellary . .	1,475	28·564	+·054	30·017	28·655	20th	28·485	6th	·170	72·1	83·5	+1·8	63·4	—2·2	73·0	—0·2	25·1	92·5	16th	55·1	25th	36·4
52	Madras, East Coast, (North).	Cocanada .	26	30·023	+·043	29·985	30·121	30th	29·878	5th	·243	74·8	84·7	+1·2	68·6	—1·9	76·7	—0·4	16·1	89·1	5th	61·5	30th	27·6
		Waltair(Vizag.)	226	29·817	+·041	29·888	29·924	19th	29·635	5th	·259	77·3	85·7	?	71·1	?	78·4	?	14·6	90·4	6th &7th	65·4	29th	25·0
		Gopalpur .	72	29·978	+·028	29·933	30·105	19th	29·822	5th	·284	71·0	83·6	+0·2	61·8	—2·0	74·2	—0·9	18·8	87·2	7th	53·5	29th	28·7
	XII.—Hill Stations.																							
48	Baluchistan .	Pishin . .											69·1		33·6		52·9		32·5	79·3	8th	26·0	30th	53·3
		Quetta . .	5,502	24·799	+·030		24·884	4th	24·691	24th	·194	47·2	68·4	+3·6	38·2	+6·1	53·3	+4·9	30·2	77·2	8th	27·8	30th	49·4
		Kalat . .										48·4	67·6	+0·6?	31·9	+5·5?	49·8	+3·1?	35·7	75·7	6th	19·2	29th	56·5
		Chaman. .	4,311	25·827	—·010		25·932	20th	25·691	12th	·241	56·7	72·0	+2·6	48·5	+3·7	60·3	+3·2	23·5	81·8	8th	35·6	30th	46·2
30	Punjab . .	Leh . .	11,503	19·813	+·035		19·977	7th	19·645	24th	·332	21·9	43·0	—1·6	19·9	—0·6	31·5	—2·6	23·1	49·6	9th & 10th	12·9	23th	33·7
		Srinagar .	5,204	25·059	+·025		25·155	16th	24·933	24th	·222	36·8	57·1	—3·2	33·6	+2·0	45·4	—0·6	23·5	63·1	6th	27·1	26th	36·0
		Sonemarg .	*8,764*	21·939			22·085	7th	21·817	24th	·218	29·7	43·6		21·0		32·3		22·6	53·3	15th	13·1	15th	37·2
		Skardu .	*7,505*	23·078			23·250	7th	22·905	13th	·345	34·0	49·5		30·0		39·8		19·5	55·5	11th	23·1	26th	32·4
		Dras . .	*10,059*	20·935			21·088	7th	20·750	24th	·336	20·1	35·4		15·7		26·1		20·7	42·3	10th	8·6	26th	34·2
		Gilgit . .	4,890	25·375			25·535	16th	25·185	23rd	·350	46·4	60·5	—1·5	41·5	—1·3	51·0	—1·4	19·0	63·2	7th	35·1	26th	31·1
		Chitral . .	*5,486*									41·8	65·0		36·5		50·8		28·5	71·1	9th	30·0	26th	44·1
		Killa Drosh .										46·1	63·9		43·6		53·7		20·3	74·3	9th	38·9	25th	35·4
		Murree . .	6,333	23·954	+·016		24·063	20th	23·843	23rd	·220	49·5	57·2	—3·7	42·0	—3·6	49·6	—3·7	15·2	63·2	7th	34·5	21th	34·7

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

* Mean of 29 days.

Note 1.—When a query is inserted against any reading or in the returns

Note 2.—The data from which divisional means of the figure columns

I—*continued.*

***in India, Burma, etc., in November, 1904*—continued.**

Wind Direction. Number of winds from: Calm.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Wind resultant.	Wind Velocity. Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	Hygrometry, 8 A.M. Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Cloud. Mean cloud amount at 8 A.M.	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 1904.	Normal rainfall for period, 1st May to 30th November.	Departure from normal of period, 1st May to 30th November 1904.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
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	58
														69	−9	·611	−·084	2·5	−2·0				0·67	6·05	−5·38					XI.—South India.		
6	9	5	1	2	1		4	2	N 2° E	10·0			8·9	79		·826		3·6		6	12·00	− 6·00	3·71	11·89	− 8·18	7·46	23·48	−16·02	2·21	Pamban	Madras (South)	5
	13	2		1	1	1	1	11	N 20° W	4·2			4·0	71	− 7	·738	−·023	1·1	−4·1	1	9·90	− 8·90	0·85	7·79	− 6·94	12·63	18·07	− 5·44	0·85	Tinnevelly.		
	7	13	1				2	7	N 8° E	5·0	3·8	+ 32	5·8	74	− 2	·739	+·008	1·9	−2·6	1	7·00	− 6·00	0·36	4·71	− 4·35	21·87	27·96	− 6·09	0·20	Madura.		
14	1	2	1	1	5	4	1	1	S 11° W	1·6			1·9	72		·643		1·6		0	7·40	− 7·40	0·14	4·81	− 4·67	20·10	21·28	− 1·18	0·08	Periyakulam.		
5	1	8	4		3	1	7	1	N 19° E	4·7	3·3	+ 42	4·1	68	−10	·622	−·080	2·5	−2·2	1	5·70	− 4·70	0·28	3·93	− 3·65	31·75	36·13	− 4·38	0·28	Salem	Madras, (South Central).	3
2	3	9	7				8	1	N 25° E	4·2	2·6	+ 62	3·9	80	− 5	·674	−·049	2·9	−2·7	1	6·60	− 5·60	0·31	3·38	− 3·07	16·23	16·96	− 0·73	0·28	Coimbatore.		
3	9	14	4						N 36° E	5·7	3·7	+ 54	5·3	75	− 6	·467	−·036	2·5	−2·7	0	4·90	− 4·90	0·03	2·86	− 2·83	122·66	121·79	+ 0·87	0·03	Mercara	Coorg	3
2	2	4	12	10					S 85° E	4·3			3·7	48	−23	·398	−·159	0·9	−3·5	1	2·80	− 1·80	0·12	2·85	− 2·73	22·14	23·85	− 1·71	0·12	Chitaldroog	Mysore	3
2	2	8	14	1	1			1	N 66° E	7·1	3·7	+ 92	6·2	65	−13	·454	−·089	1·6	−2·6	0	4·20	− 4·20	0	3·33	− 3·33	30·61	32·61	− 2·00	0	Bangalore.		
3		12	11	4					N 75° E	2·2			2·0	63	−12	·444	−·101	2·9	−2·4	2	4·00	− 2·00	0·37	2·65	− 2·28	27·01	31·37	− 4·36	0·19	Hassan.		
1	1	7	8	5	1	3	2	2	N 66° E	6·8			7·3	67	− 9	·497	−·085	3·4	P	1	4·10	− 3·10	0·19	2·28	− 2·09	22·77	27·29	− 4·52	0·17	Mysore.		
1	2	3					13	11	N 57° W	10·2	5·2	+ 96	9·0	75	− 9	·778	−·040	4·6	−2·2	3	13·30	−10·30	4·95	15·99	−11·04	21·39	39·74	−18·35	3·54	Negapatam	Madras, East Coast, (South).	5
30									Calm.	1·9			2·4	79	−11	·747	−·019	3·2	−2·8	1	11·80	−10·80	1·58	12·74	−11·16	24·59	41·75	−16·76	1·58	Cuddalore.		
26	1	3							N 34° E	3·2	4·2	− 24		75	− 4	·723	−·027	2·2	−2·4	2	6·00	− 6·00	1·19	5·09	− 3·90	20·02	26·25	− 6·23	1·08	Trichinopoly		
	20	2	1					7	N 6° W	6·9	6·8	+ 1		66	−17	·643	−·153	3·0	−2·5	1	13·00	−12·00	0·20	14·08	−13·88	16·30	43·01	−26·71	0·10	Madras.		
23		1	1	3	1	1			S 45° E	3·0			3·0	75		·626		1·2		2	7·50	− 5·50	0·62	5·89	− 5·27	22·80	34·07	−11·27	0·34	Vellore.		
	9	1	1	1			1	17	N 26° W	3·5				76	− 7	·643	−·143	5·1	+0·3	1	8·60	− 7·60	0·18	7·62	− 7·24	14·18	27·96	−13·78	0·51	Nellore	Madras, East Coast, (Central).	5
4	20	2	1	1				2	N 4° E	4·7	5·5	− 15	4·1	83	+ 1	·713	−·030	3·2	−0·4	0	3·80	− 3·80	0	6·30	− 6·30	33·50	39·25	− 5·75	0	Masulipatam		
	1	6	2	12	1	4		4	S 65° E					57	−19	·552	−·163	2·4	−1·5	0	4·80	− 4·80	0	4·01	− 4·01	10·52	30·74	−20·22	0	Cuddapah	Madras (Central).	5
11		6	5	3		4	1		S 85° E	3·1				64	− 7	·491	−·091	0·8	−1·8	0	2·30	− 2·30	0	1·03	− 1·03	14·90	26·84	−11·94	0	Kurnool.		
5	3	2	2	5	6		3	4	S 26° E	3·8	3·3	+ 15	4·0	57	−10	·488	−·087	1·0	−3·0	0	2·60	− 2·60	0	1·98	− 1·98	22·87	18·63	+ 4·24	0	Bellary.		
5	12	5						8	N 5° W	6·2			5·2	70	− 3	·606	−·044	3·2	−0·2	0	3·90	− 3·90	0	6·10	− 6·10	27·38	37·74	−10·36	0	Cocanada	Madras, East Coast, (North)	5
1	12	4	6	2	4	1			N 47° E	9·0				53	−15	·490	−·160	4·7	+1·3	0	3·70	− 3·70	0	6·11	− 6·11	40·04	40·50	− 0·46	0	Waltair (Vizag.).		
	17							13	N 19° W	7·9	7·0	+ 13	7·7	73	− 7	·556	−·069	1·2	−2·0	0	2·80	− 2·80	0	4·04	− 4·34	37·26	44·84	− 7·58	0	Gopalpur.		
																														XII.—Hill Stations.		
																				1	1·30	− 0·30	0·31	0·52	− 0·21	0·31	1·07	− 0·76	0·30	Pishin	Baluchistan	6
28			2						S 45° E	1·7	2·7	− 37	1·8	63	+11	·262	+·049	2·4	+0·1	1	1·60	− 0·60	0·40	0·31	+ 0·09	0·87	2·72	− 1·85	0·27	Quetta.		
	2		2		24		2		S					51		·168				2	0·90	+ 1·10	0·40	0·51	+ 0·09	0·40	2·04	− 1·64	0·21	Kalat.		
3			5	13	6	2		1	S 37° E	6·1			6·7	50	+ 7	·235	+·034	1·4	−1·3	1	1·10	− 0·90	0·15	0·26	−0·11	0·15	0·58	− 0·43	0·15	Chaman.		
	3	20	5		1			1	N 47° E	1·5				52	−15	·071	−·032	4·7	+0·6	0	0·20	− 0·20	0·01	0·02	− 0·01	1·87	1·77	+ 0·10	0·01	Leh	Punjab	6
18	1	1		6	2	1		1	S 38° E	2·5			2·3	89	+ 1	·197	+·006	3·4	+0·5	3	1·20	+ 1·80	0·70	0·16	+ 0·24	18·11	11·71	+ 6·40	0·33	Srinagar.		
17	1		4	2		5	1		S 13° E	4·3			3·9	87		·143		2·7		2			0·27			21·38			0·11	Sonemarg.		
25	1	1	1	1		1			N 76° E	1·9			1·9	87		·172		4·9		0	0·30	− 0·30	0·15	0·08	+ 0·07	3·26	3·03	+ 0·23	0·06	Skardu.		
30									Calm	0·6			0·5	83		·091		3·2		1	2·70	− 1·70	0·26	1·14	− 0·88	7·17	7·59	− 0·42	0·16	Dras.		
27						3			W	1·7			1·5	47	− 5	·136	−·029	4·8	+0·8	1	0·10	+ 0·90	0·21	0·05	+ 0·16	3·25	2·60	+ 0·65	0·17	Gilgit.		
27			2						E	1·9			1·7	68		·176		2·5		1			0·17			2·80			0·17	Chitral.§		
10			13		6		1		S 63° E					68		·213		2·2		1			0·76			4·65			0·19	Killa Drosh.		
23		1	2	2	2				S 57° E	4·7	5·1	− 8	5·1	43	+ 7	·157	+·028	2·7	−0·1	3	2·10	+ 0·90	1·90	0·90	+ 1·00	38·87	39·80	− 0·93	1·24	Murree.		

of any station, the data for that station are not utilized in calculating the provincial departures from normal.
Nos. 41, 48, and 45 are derived are incomplete.

§ Wind observation for 29 days.

Table

Abstract of Observations taken at 8 A.M. at 231 Stations

Number of District.	Meteorological Province or District.	Station	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 A.M., in inches.								Temperature of Air.												
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
30	Punjab—*concld.*	Kailang	*10,087*	21·001			21·044	27th	20·868	23rd	·176	24·8	41·6	−10·0	20·7	−4·8	31·2	−7·4	20·9	50·1	18th	14·5	26th	35·6
		Poo											55·2		33·8		44·5		21·4	64·1	8th	27·6	25th	36·5
		Simla	7,224	23·205	+·019		23·319	20th	23·096	14th	·223	46·9	53·5	−2·6	43·2	−1·8	48·4	−2·2	10·3	61·4	9th	34·1	25th	27·3
		Sarain		23·243			23·356	20th	23·138	14th	·218	36·0	54·6		33·4		44·0		21·2	65·3	8th	26·8	25th	38·5
		Kalabagh																						
	North-West Frontier Provinces.	Para Chinar	6,000	24·568			24·686	19th	24·455	23rd	·231	52·1	62·0		41·9		52·0		20·1	72·5	7th & 8th.	33·4	29th	39·1
		Cherat	*4,256*	25·839	+·024		25·972	20th	25·722	23rd	·250	53·9	64·3	−2·9	49·2	+0·1	56·8	−1·4	15·1	79·3	9th	42·0	24th	37·3
25	United Provinces.	Chakrata	7,022	23·367	+·013		23·486	20th	23·279	14th	·207	46·7	59·1	−0·9	42·4	−1·5	50·8	−1·2	16·7	68·5	7th & 8th,	34·9	25th	33·6
		Ranikhet	6,069	24·187	+·007		24·306	19th	24·093	14th	·213	49·0	60·2	−2·3	45·9	−1·3	53·1	−1·8	14·3	68·6	7th	40·0	15th & 25th.	28·6
		Muktesar	7,600	22·900			23·005	20th	22·793	14th	·212	46·2	55·4		41·5		48·5		13·9	65·9	8th	33·7	25th	32·2
13	Bengal	Yatung	10,480										50·5		25·8		38·2		24·7	58·1	6th & 7th.	20·1	26th	38·0
		Darjeeling	7,376	23·101	+·001		23·218	19th	22·994	23rd	·224	47·7	56·6	+2·4	41·8	−0·6	49·2	+0·9	14·8	65·2	7th	36·0	26th	29·2
8	Assam Hill Tracts	Shillong	4,900	25·270			25·411	19th	25·148	23rd	·263	56·0	67·2		46·0		56·6		21·2	76·6	3rd	37·0	28th	39·6
		Cherra Poonjee	4,309	25·805			25·923	20th	25·717	6th	·206	60·7	67·0		53·6		60·3		13·4	75·7	4th	45·0	26th	30·7
	Central India	Mount Abu	3,945	26·194	+·031		26·314	20th	26·098	13th	·216	66·7	73·0	−0·5	59·5	+1·6	65·3	+0·6	13·5	79·2	1st & 9th,	55·9	15th, 20th & 21st.	23·3
		Pachmarhi	3,528	26·580	+·027		26·724	16th	26·491	6th	·230	63·1	74·4	+1·1	49·2	−2·1	61·8	−0·5	25·2	80·1	4 days	44·3	28th, 29th & 30th.	35·8
	South India	Wellington	6,200	24·316	+·037		24·367	16th	24·257	6th	·110	58·5	70·0	+2·7	45·9	−6·1	58·0	−1·7	24·1	72·7	10th	36·7	27th	26·0
		Kodaikanal	7,688	22·878			22·924	19th	22·820	5th	·104	53·6	62·4		45·9		52·6		16·5	69·0	28th	40·5	28th	28·5
		Ootacamund	*7,322*	23·108			23·160	27th	23·052	6th	·108	54·5	63·4		41·4		52·4		22·0	67·0	27th & 30th.	31·1	22nd	32·9
	XIII.—Extra India.																							
	Ceylon	Trincomalee	12	29·994	+·064	29·932	30·061	27th	29·876	9th	·185	77·9	85·8	+0·5	74·6	−0·1	80·2	+0·2	11·2	91·0	4th	71·0	27th	20·0
		Colombo	40	29·975	+·058	29·481	30·027	19th	29·902	5th	·125	80·5	87·7	+1·3	73·5	+0·4	81·1	+0·9	13·2	90·5	30th	72·0	18th & 23rd.	18·5
	Persia	Meshed	3,104									50·4			42·9	+6·7						35·0	28th	
		Teheran(*b*)*	*4,002*	25·991			26·100	16th & 25th.	25·860	5th	·240	50·8	65·7	+4·7	45·7	+3·9	55·8	+4·3	20·0	76·6	4th	37·2	27th	39·4
		Ispahan(*b*)	*5,817*	24·359			24·460	3rd & 7th.	24·200	24th	·260	46·8	67·2	+5·3	41·5	+5·6	54·3	+5·5	25·7	77·8	5th	30·7	28th	47·1
		Bushire	14	30·084	+·010	30·057	30·183	29th	29·975	5th	·208	69·1	80·9	+2·8	65·1	+2·8	73·0	+2·8	15·8	90·1	7th	54·8	28th	35·3
		Bahrein†	30	30·071			30·186	20th	29·967	5th	·219	75·2	83·1		69·8		76·4		13·3	93·5	6th	59·0	28 h	34·5
		Jask	*13*	30·041	−·032	30·011	30·172	29th	29·881	11th	·291	75·3	82·6	−0·6	69·9	+1·2	76·3	+0·3	12·7	86·3	10th	62·3	27th	24·0
	Arabia	Muscat	20	30·074	+·006	30·042	30·205	20th	29·940	10th	·265	68·3	80·9	+0·9	76·4	+1·1	78·7	+1·0	4·5	85·9	11th	69·1	27th	16·8
		Baghdad	220	29·339	−·035	30·145	30·073	9th & 20th.	29·716	5th	·357	59·8	78·0	+3·3	53·4	+3·9	65·7	+3·6	24·6	87·8	5th	40·5	27th	47·3
		Busrah		30·094			30·309	29th	29·929	5th	·380		77·8		61·8		71·3		13·0	86·8	4th & 5th.	53·0	26th & 27th,	33·8
		Aden	94	29·991	+·040	30·018	30·096	20th	29·922	2nd	·174	73·8	84·6	−0·3	72·4	−2·3	78·5	−1·3	12·2	89·8	4th	69·4	11th	20·4
		Perim	201	29·840	+·038	29·976	29·928	19th	29·757	1st	·171	81·1	87·2	+0·3	77·0	−0·1	82·1	+0·1	10·2	89·7		75·2	30th	14·5
	Afghanistan	Kabul										46·9	74·5	+6·9	33·0	−1·9	53·8	+2·5	41·5	85·1	3rd	21·7	30th	63·4
	Central Asia	Kashgar	4,255	25·845			26·090	14th	25·490	11th	·600	30·0	52·9	+0·9	26·6	−2·2	39·8	−0·7	26·3	68·1	11th	20·3	30th	47·8
	Arabian Sea Islands.	Amini Divi	*13*	30·011‡	+·057	29·952	30·084	19th	29·955	6th	·129	83·2	87·2	+2·2	73·9	−1·6	80·6	+0·3	13·3	89·9	3rd	68·0	23rd	21·9
		Minicoy	7	30·017		29·950	30·070	20th	29·963	6th	·107	83·2	86·3	+0·1						89·0	21st			
	Africa	Zanzibar	73	30·004	+·041	30·004	30·077	20th	29·963	29th	·114	78·6	83·0	−0·8	75·9	−1·3	79·4	−1·1	7·1	87·7	30th	73·2	18th	14·5
		Do. Dunga*	*154*	29·937		30·021	30·005	20th	29·884	30th	·121	77·0	84·9		70·8		77·9		14·1	89·0	10th	65·5	6th	23·5
	Straits Settlements.	Penang(*a*)	20	29·931		29·876	29·967	13th	29·893	2nd	·074	80·9	89·2		74·0		81·6		15·2	91·0	18th, 21st & 28th.	72·0	4th	19·0
		Singapore(*a*)	10	29·977		29·908	30·032	8th	29·902	2nd	·130	82·8	87·0		73·0		80·0		14·0	90·9	25th	70·0	5th	20·0

(*a*) 9 hours* observations.
(*b*) Aneroid uncorrected.
N.B.—Elevations in italics indicate barometrical determinations

* Mean of 28 days.
† " 29 "
‡ " 19 "

Note 1.—When a query is inserted against any reading or in the returns of any
Note. 2.—The data from which divisional means of the figure columns Nos. 41,

I—*concluded.*

in India, Burma, etc., in November, 1904—concluded.

Wind Direction. Number of winds from Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	Wind Velocity. Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	Hygrometry, 8 A.M. Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Cloud. Mean cloud amount at 8 A.M.	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 1904.	Normal rainfall for period, 1st May to 30th November.	Departure from normal of period, 1st May to 7th November 1904.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
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	58
			1	16	9	2		2	S 27° E	0·3				69		·094		3·2		2			0·65	0·51	+0·14	11·43	9·28	+ 5·15	0·30	Kailang .	Punjab—*concld.*	30
18			3	8	1				S 52° E									3·2		0			0·01	0·78	— 0·77	4·20	4·55	— 0·35	0·01	Poo.		
3	9			4	14				S 20° E	4·3	1·9	+126	4·1	44	+ 2	·135	−·006	1·9	+0·1	4	0·70	+3·30	1·22	0·61	+ 0·61	53·14	52·88	+ 0·26	0·49	Simla.		
					11	6		13	S 65° W	2·4			2·3	78		·165		1·7		4			2·53			31·42			1·15	Sarain .		
																														Kalabagh.		
24	1		1	2	2				S 45° E	4·5			4·0	59		·226		2·4		4	2·00	+2·00	1·58	1·05	+ 0·53	15·72	13·88	+ 1·84	0·92	Para Chinar.	North-West Frontier Province.	25
8	19				2			1	N 2° W	8·7			8·1	51	+ 12	·204	+·033	2·9	+0·5	1			0·34	0·12	+ 0·22	11·93	12·04	− 0·11	0·21	Cherat.		
16	13				1				N	5·1	4·5	+13	6·1	52	− 1	·163	−·022	1·0	−0·4	4	0·70	+3·30	1·39	0·55	+ 0·84	63·73	57·88	+ 5·85	0·86	Chakrata .	United Provinces.	
25		1	1			2	1		S 45° W	1·6	1·2	+33	1·8	64	+ 1	·222	−·023	1·0	−0·3	3	0·80	+2·20	1·77	0·32	+ 1·45	48·52	45·75	+ 2·77	0·87	Ranikhet.		
2	2	2	9	4	1	1	7	2	N 86° E	7·5			6·9	50		·150		1·9		2			1·84			51·33			1·28	Muktesar.		
																				0	0·86	−0·86	0	0·29	− 0·29	35·42	40·77	− 5·35	0	Yatung .	Bengal . .	13
5	3	11	5	3		1	1	1	N 55° E	3·5	1·7	+106	3·3	64	− 15	·209	−·053	2·0	−1·4	1	0·68	+0·32	0·14	0·36	− 0·22	101·79	116·54	−11·75	0·10	Darjeeling.		
19		1	4	5	1				S 65° E	1·1			1·2	70		·326		3·5		2	1·90	+0·10	1·45	0·78	+ 0·67	58·03	72·01	−13·98	0·70	Shillong .	Assam Hill Tracts.	8
1	4	15	5	1		1	3		N 44° E	3·9			3·4	61		·325		3·3		5	1·20	+3·80	4·27	0·92	+ 3·35	273·59	388·98	−115·39	1·94	Cherra Poonjee.		
6	4	9	1	1		6	1	2	N 12° E	5·9	3·7	+59	6·0	39	− 3	·252	−·014	0·7	−1·1	1	0·40	+0·60	0·19	0·28	− 0·09	15·77	60·73	−44·96	0·14	Mount Abu	Central India.	
		9	4	3		7	5	2	N 57° E	2·6	2·5	+ 4	2·7	52	− 2	·301	−·042	0·1	+1·5	0	0·80	−0·80	0·04	0·56	− 0·52	59·67	74·04	−14·37	0·04	Pachmarhi.		
16	2	2	3	2	1		1	1	N 60° E	1·9	2·7	−30		64	− 13	·319	−·076	3·0	−1·8	2	10·50	−8·50	0·80	7·34	− 6·54	26·78	38·68	−11·90	0·40	Wellington .	South India.	
	3	3	7	6	3		2	6	N 74° E	10·2				65		·264		2·5		0	11·30	−11·30	0·09	8·17	− 8·08	37·93	47·72	−11·79	0·09	Kodaikanal.		
9		5	6	5	4	1			S 67° E	4·0			3·8	60		·255		2·1		1	6·30	−5·30	0·50	4·00	− 3·50	32·48	39·76	− 7·28	0·41	Ootacamund.		
																														XIII.—Extra India.		
9	3	6			1	9	1	1	N 81° W	1·8				86	0	·827	−·035	4·9	+1·4	9			16·49	13·57	+ 2·92	32·73	35·85	− 3·12	9·56	Trincomalee	Ceylon.	
	10	5	6	6	2	1			N 63° E	7·5	5·8	+29		79	+ 1	·825	−·013	2·7	−2·1	4			3·39	13·13	− 9·74	55·66	60·83	− 5·17	1·95	Colombo.		
														75		·273		4·2	− 0·4	5			2·35	0·51	+ 1·84	7·07	1·94	+ 5·13	0·65	Meshed .	Persia.	
12		5	1		3	4		3	S 63° W	1·8††			2·3	63	+ 6	·240	+·048	4·1	+0·6	3			1·11	0·96	+ 0·15	2·66	2·03	+ 0·63	0·32	Teheran.		
26						1	2	1	W	1·6			2·1	66	− 5	·224	+·008	4·3	+0·6	0			0·02	0·92	− 0·90	0·11	1·30	− 1·19	0·02	Ispahan.		
4		10		5	1			4	N 68° E	14·4			15·8	75	+ 8	·536	+·078	3·0	−0·1	0			0·11	1·79	− 1·68	0·11	1·87	− 1·76	0·07	Bushire.		
1	6	1		4	7	1	4	5	S 85° W	14·8				82		·725				0			0			0·25			0	Bahrein.		
1	1	13	8	1				6	N 45° W	8·9			7·4	75	+ 8	·654	+·075	3·1	+1·3	1			0·62	0·49	+ 0·13	0·62	0·66	− 0·01	0·60	Jask.		
15	1			2	1		2	9	N 54° W	2·7			2·8	62	− 6	·611	−·040	1·3	− 0·2	1			0·70	0·61	+ 0·09	0·70	1·03	− 0·33	0·70	Muscat .		
23	3	1			3				N 45° E	1·6	2·3	−30	2·1	66	+ 2	·347	+·060	3·6	−2·3	0			0·03	0·92	− 0·89	1·51 (A)	1·29	+ 0·22	0·02	Baghdad	Arabia.	
																				0			0			1·72			0	Busrah.		
	3	22	2	3					N 50° E	6·5	11·6	−44	5·3	72	0	·711	+·025	2·9	− 0·9	0			0	0·23	− 0·23	0·50	0·74	− 0·24	0	Aden.		
			24	6					S 82° E	20·3			20·5	69	− 2	·737	−·005	0·6	− 2·4	0			0	0·04	− 0·04	0·10	0·95	− 0·55	0	Perim.		
	5	8		2	6	4	1	4	N 8° E					83		·292		3·1	+1·4	3			0·53	0·72	− 0·19	1·10	2·20	− 1·10	0·15	Kabul .	Afghanistan.	
28	1		1						N 45° E	0·8			0·7					1·0	− 2·6	0			0	0·03	− 0·03	1·00	3·09	−2·09	0	Kashgar .	Central Asia.	
5	5	16						4	N 25° E					66	−13	·747	−·111	3·3	− 0·7	0			0	1·58	− 1·58	44·78	45·32	− 0·54	0	Amini Divi.	Arabian Sea Islands.	
	8	11	1	1		1		8	N 9° E	3·5			3·8	66	−14	·752	−·084	2·2	− 1·9	1			0·33	4·15	− 3·82	42·57	45·73	− 3·16	0·21	Minicoy.		
	1	3	3	8	10	5			S 24° E	4·7			4·4	87	+ 4	·849	+·011	7·3‡	+1·3	17			15·	9·28	+ 6·06	54·50	30·63	+23·87	3·71	Zanzibar .	Africa.	
17				3	5	3			S	3·91			3·8‡	90		·836		7·3		17			15·76			52·55			3·55	Do. Dunga.		
6	14	3	1	2	3			1	N 22° E	9·8								1·3		15			10·65			94·09			2·63	Penang .	Straits Settlements.	
	1	5	1	1	1	6	6	9	N 67° W	3·6								6·0		14			7·99			50·02			1·58	Singapore.		

Station, the data for that station are not utilized in calculating the provincial departure from normal.
43 and 45 are derived are incomplete.

‡ Mean of 27 days.

(A) Rainfall for June and September not included.

†† Mean of 25 days.

Table II.—Abstract of Observations recorded at 10 A.M. and 4 P.M. at 64 Stations in India, Burma, etc., in November, 1904.

Table

Abstract of Observations recorded at 10 A.M. and 4 P.M. at 64

Meteorological Province.	Station.	Elevation of barometer cistern above mean sea-level in feet.	Pressure.						Temperature of Air.										Temperature, Wet-bulb.			
			Mean of 10 hours.	Mean of 16 hours.	Mean daily range.	Mean of daily mean pressures.	Departure from normal.	Mean reduced to S. L. and gravity 45° Lat.	Mean maximum.	Mean minimum.	Mean daily range.	Highest maximum.	Lowest minimum.	Absolute range.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	Mean minimum.	Mean 10 hours.	Mean 16 hours.	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
Burma Coast and Bay Islands.	Port Blair	61	29·936	29·834	·102	29·887	+·039	29·879	85·2	76·4	8·8	89·4	73·4	16·0	82·6	82·7	80·0	− 1·2	73·8	78·2	77·7	76·6
	Rangoon	57	·950	·846	·104	·900	+·015	·895	85·7	75·3	10·4	88·4	72·9	15·5	80·1	82·9	78·8	+ 0·5	72·9	72·9	74·3	73·4
	Diamond Island	41	·964	·862	·102	·915	+·020	·891	83·4	76·0	7·4	85·4	72·4	13·0	81·0	81·7	78·9	− 0·7	71·5	75·4	75·1	74·0
	Cocos Island	119	·878	·776	·102	·829		·881	84·2§	76·9§	7·3	88·5	73·9	14·6	81·5§	81·5§	79·8§		73·1§			
	Akyab	20	·992	·897	·095	·947	+·006	·910	82·0	70·4	11·6	88·9	60·1	28·8	77·5	79·3	75·4	− 2·1		73·4	73·7	
Bengal and Orissa.	Chittagong	87	·924	·839	·085	·881	+·010	·917	80·7	64·7	16·0	87·0	56·6	30·4	76·0	78·1	72·3	− 1·7	63·9	71·2	71·1	68·7
	Calcutta (Alipore)	21	30·038	·927	·111	·979	+·015	·946	82·3	64·7	17·6	88·2	55·4	32·8	77·0	80·7	72·9	+ 0·5	62·7	68·8	68·8	66·7
	Saugor Island	25	·015	·911	·104	·956	+·010	·926	81·5	67·5	14·0	85·9	58·4	27·5	77·0	78·7	73·5	+ 0·1	64·8	70·3	70·1	68·4
	False Point	21	·031	·932	·099	·975	+·012	·938	82·6	65·0	17·6	88·0	56·6	31·4	78·6	79·8	72·8	− 0·2	63·8	69·3	70·6	68·1
Gangetic Plain and Chota Nagpur.	Hazaribagh	2,007	28·018	27·928	·090	27·965	+·006	·954	77·5	56·3	21·2	85·2	50·7	34·7	71·2	74·7	66·1	− 0·7	52·0	58·5	59·2	56·6
	Allahabad	309	29·766	29·667	·099	29·706	+·025	·977	81·0	55·9	25·1	88·8	51·1	37·7	73·0	79·0	66·9	− 0·6	54·5	63·8	65·5	61·3
Upper Sub-Himalayas.	Dehra Dun	2,233	27·806	27·731	·075	27·758	+·020	30·005	74·4	50·4	24·0	82·1	44·6	37·5	65·4	70·1	61·6	− 1·0	47·6	56·2	58·1	54·0
	Roorkee	689	29·152	29·065	·087	29·098	+·024	29·592	77·9	50·2	27·7	86·0	43·6	42·4	68·4	73·8	61·6	− 1·1	49·2	59·4	60·9	56·5
	Meerut	738	·311	·225	·089	·259	+·020	·984	80·0	52·5	27·5	87·5	47·3	40·2	67·8	75·8	63·8	+ 0·3	50·4	55·8	61·8	57·0
	Lahore	702	·356	·275	·081	·307	+·021	·998	81·1	52·0	29·1	90·4	45·1	45·3	70·8	77·9	64·5	+ 1·3	50·1	61·9	64·3	58·8
	Ludhiana	812	·230	·166	·064	·190	+·019	30 000	77·1	54·2	22·9	87·1	48·9	38·2	64·9	74·7	63·4	− 0·1	51·2	56·9	59·9	56·0
Indus Valley and N.-W. Rajputana.	Peshawar	1,110	28·970	28·886	·084	28·920	+·021	·050	74·7	49·3	25·4	83·6	41·1	42·5	66·3	71·4	60·0	+ 0·9	46·3	58·5	60·0	54·9
	Jacobabad	186	29·880	29·774	·106	29·823	+·014	29·974	89·4	57·8	31·6	101·8	49·0	52·8	78·9	83·8	72·3	+ 4·8	53·0	66·0†	68·9†	62·6
	Kurrachee	30	30·065	·970	·095	30 013	+·035	·934	88·0	66·3	21·7	96·5	59·4	37·1	82·4	83·2	76·5	+ 2·5	62·7	70·2	72·8	68·5
East Rajputana, Central India and Gujarat.	Jaipur	1,431	28·643	28·552	·091	28·588	+·026	·997	84·3	55·6	28·7	93·2	50·0	43·2	76·0	81·8	63·3	− 0·6	50·5	60·5	62·2	57·7
	Udaipur	1,925?	·151	·049	·102	·098		·984	85·0	54·9†	30·1	92·3	49·4	42·9	78 0	82·8	69·6†		49·4	59·9	60·6	56·6
	Deesa	466	29·613	29·500	·113	29·554	+·041	·972	94·2	60·7	33·5	100·9	54·5	46·4	85·6	91·3	77·1	+ 2·8	51·2	63·7	64·3	59·8
	Jamnagar	61	30·024	·910	·114	·963		·969	90·4	63·9	26·5	95·5	58·7	37·8	83·2	88·2	76·4		57·7	67·6	66·7	64·0
Deccan.	Belgaum	2,539	27·501	27·391	·110	27·445	+·055	·901	82·7	58·0	24·7	86·2	51·1	35·1	77·3	81·3	69·6	− 1·3	53·0	60·0	61·0	58 0
	Sholapur	1,590	28·468	28·344	·124	28·407	+·057	·946	87·5	59·0	28·5	91·3	49·9	41·4	79·0	85·6	72·9	− 1·7	51·5	61·0	62·0	58·2
	Akola	930	29·156	29·015	·141	29·081	+·048	·965	87·5	53·3	34·2	91·5	46·6	44·9	78·8	86·5	69·9	− 1·8	48·8	62·6	63·9	58·4
	Buldana	2,132	27·934	27·822	·112	27·871	+·022	·949	82·2	60·1	22·1	86·7	54·1	32·6	78·1	80·3	70·8	− 0·9	50·9	59·3	59·2	56·5
	Khandwa	1,044	29·031	28·912	·122	28·968	+·050	·976	88·3	52·7	35·6	94·7	46·7	48·0	78·1	87·1	70·1	− 1·0	47·7	60·1	61·6	56·5
	Nagpur	1,025	·053	·929	·124	·986	+·049	·978	86·3	56·6	29·7	90·6	52·2	38·4	76·5	84·6	70·9	− 1·3	51·1	61·8	63·3	58·7
	Do. (Sanitary Commr.'s Office)	1,013	·051	·929	·125	·987		·969	86·0	56·5	29·5	90·2	50·7	39·5	77·1	84·4	70·8		51·4	61·9	62·8	58·7
	Hyderabad (Deccan).	1,690	28·362	·249	·113	·304	+·053	·946	85·6	58·7	26·9	88·7	52·5	36·2	78·8	82·2	71·5	− 0·8	55·5	63·3	63·7	60·8
West Coast.	Bombay	37	30·030	29·922	·108	29·972	+·059	·949	87·4	72·7	14·7	92·1	69·8	22·3	79·3	83·1	79·3	0	67·0	70·7	73·7	70·5
	Karwar	44	29 994	·885	·109	·940	+·066	·918	87·5	65·5	22·0	90·9	58·9	32·0	81·2	86·1	75·7	− 1·9	62·8	71·4	74·1	69·4

§ Mean of 26 days. ‡ Mean of 28 days.

II.

Stations in India, Burma, etc., in November, 1904.

Vapour Tension.					Humidity.					Cloud.				Wind Direction. Total number of 10 hours and 16 hours winds from										Wind Tradiness.		Wind Velocity.		Rainfall.		Station.	Meteorological Province.
From minimum.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	From minimum.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	Mean 10 hours.	Mean 16 hours.	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
																									%	%						
·801	·904	·882	·867	—·054	88	81	79	86	+1	5·9	5·8	5·9	+0·1	2	9	13	5	15	4	3	3	6	N 70° E	N 81° E	27	42	198*	161	12·15	2·51	Port Blair	Burma Coast and Bay Islands.
·779	·719	·734	·759	—·030	89	70	65	81	−2	4·0	4·2	4·1	+0·1	14	7	18	9	1			2	9	N 29° E	N 66° E	48	57	31*	94	4·61	2·72	Rangoon	
·707	·815	·788	·782	—·020	79	77	72	79	−1	4·1	4·4	4·3	−0·2		5	19	8	10	5	2	3	8	N 60° E	N 60° E	35	57	326*	221	2·17	0·89	Diamond Island.	
·766§					83§					5·3	5·5	5·4	+0·8	1	16	13	4	6	9	4	1	4	N 43° E	N 69° E	27	37	355†		3·56	1·05	Cocos Island.	
	·774	·762				81	76			3·0	3·1	3·1	−0·3		2	22	4	7		3	7	15	N 13° E	N 6° E	37	31	61*	55	8·70	3·18	Akyab	
·590	·705	·675	656	—·017	95	78	70	82	+2	4·4	4·6	4·5	+1·4		4	28	4	5	2	2	1	14	N 29° E	N 18° W	52	47	71*	65	2·68	1·32	Chittagong	Bengal and Orissa.
·549	·598	·549	·580	+·002	89	64	53	72	−2	3·2	3·3	3·3	+0·8	10	18	4	1	1		6	3	17	N 28° W	N 12° W	53	58	47	60	0·15	0·15	Calcutta (Alipore).	
·584	·653	·628	·621	—·008	86	70	64	74	−2	3·5	3·9	3·7	+0·4		25	12			2	11	1	9	N 12° W	N 2° E	53	60	205	168	0·66	0·44	Saugor Island.	
·582	·617	·629	·698	—·021	94	62	61	73	−3	3·8	4·6	4·2	+0·7		21	13	5	4	6	2	4	5	N 19° E	N 30° E	42	54	159*	144	0	0	False Point	
·338	·337	·314	·338	—·028	74	44	36	55	0	2·6	3·5	3·1	+0·6		28	5	1			1	5	20	N 5° W	N 30° W	53	43	130*	110	0·12	0·12	Hazaribagh	Gangetic Plain and Central Provinces.
·411	·471	·451	·451	+·049	92	58	46	71	+7	1·3	1·2	1·3	0	8	4	3	3	3	3	4	17	15	N 69° W	N 51° W	41	24	51*	55	0·55	0·55	Allahabad	
·299	·340	·339	·321	—·015	81	55	47	64	+1	1·3	2·4	1·9	+0·4	22	2	1		4	3	5	13	6	S 82° W	S 84° W	30	19	20‡	31	0·92	0·54	Dehra Dun	Upper Sub-Himalayas.
·339	·389	·365	·359	+·019	93	57	45	68	+7	1·4	1·9	1·7	+0·6	36		1	1	10	1		1	10	S 71° E	S 87° W	2	4	26	26	0·89	0·44	Roorkee	
·344	·381	·373	·361	+·031	87	56	43	65	+5	1·4	1·3	1·4	+0·5	34	3	2	2			1	6	12	N 44° W	N 60° W	28	39	17*	26	0·49	0·37	Meerut	
·341	·437	·426	·397	+·081	87	59	46	68	+11	1·8	2·3	2·1	+0·6	14	16	1	6	5	1		7	10	N 11° W	N 42° W	33	18	39	31	0·06	0·05	Lahore	
·339	·366	·324	·338	+·030	81	61	40	65	+10	1·4	1·9	1·7	−0·2	24				6			26	4	S 86° W	N 45° W	42	30	21*	24	0·65	0·43	Ludhiana	
·283	·400	·383	·351	+·081	79	62	50	68	+12	2·8	3·9	3·4	+1·1	54	1	1	2					2	N 20° E	N 72° E	5	12	8*	48	0·07	0·07	Peshawar	Indus Valley and N.-W. Rajputana.
·342	·468†	·506†	·435	+·129	72	48†	44†	59	+10	1·5	1·3	1·4	0	13	1	9	23	4	1	2	3	4	N 79° E	N 18° W	42	10	58*	38	0	0	Jacobabad	
·536	·581	·674	·612	+·130	81	52	60	69	+11	0·7	1·2	1·0	−0·2	1	3	4	1	4	2	17	25	3	S 75° W	W	56	18	149*	180	0	0	Kurrachee	
·306	·337	·320	·322	+·025	69	39	31	51	+4	1·1	2·1	1·6	+0·1	3	6	4	1	1	4	7	13	21	N 64° W	N 24° W	53	35	61	65	0·35	0·33	Jaipur	East Rajputana, Central India and Gujarat.
·291†	·292	·258	·285		67†	31	23	43		0·5	1·3	0·9		30	1	5	8	5		3	4	4	N 74° E		10		34*		0·11	0·11	Udaipur	
·255	·304	·244	·273	−·010	48	26	17	33	−4	0·4	0·6	0·5	−0·8		10	6	9	7	3	10	4	10	N 6° E	N 60° E	11	47	175‡	175	0	0	Deesa	
·405	·473	·371	·436		67	42	28	50		1·1	1·3	1·2			12	14	4	1		6	14	9	N 23° W		42		284*		0	0	Jamnagar	
·345	·308	·289	·313	−·142	71	33	27	44	−15	1·3	2·9	2·1	−1·1	7	4	14	25	9	1				N 81° E	N 75° E	70	63	167	259	0	0	Belgaum	Deccan.
·292	·311	·267	·298	−·148	58	31	22	38	−14	0·7	2·1	1·4	−1·9		7	22	6	19	1	2	2	1	N 76° E	N 78° E	53	65	227*	202	0	0	Sholapur	
·290	·316	·299	·324	—·081	70	36	24	46	−8	0·4	1·2	0·8	−0·8	20	8	17	5	2	2	1	2	3	N 36° E	N 60° E	38	49	61*	84	0	0	Akola	
·260	·277	·247	·261	−·111	50	28	24	41	−13	0·4	0·8	0·6	−1·6	1	15	10	13	6	3	1	3	8	N 37° E	N 63° E	42	51	100*	120	0	0	Buldana	
·274	·296	·230	·276	—·095	68	31	18	42	−9	0·5	1·0	0·8	−0·7	14	11	14	4	3	3	4	1	6	N 24° E	N 59° E	31	50	58*	67	0	0	Khandwa	
·310	·374	·320	·344	—·085	67	41	27	48	−9	0·9	1·3	1·1	−1·2	6	5	26	9	5	6	1	1	1	N 64° E	N 54° E	53	59	92*	89	0	0	Nagpur	
·320	·369	·306	·341		69	39	26	48		1·0	1·2	1·1		22		17		5		3		13	N 16° E		27		22*		0	0	Do. (Sanitary Commr.'s Office).	
·405	·392	·363	·398	−·114	81	40	33	54	−12	0·9	2·1	1·5	−2·1	31		14	14	1					N 69° E	S 75° E	43	63	71*	84	0	0	Hyderabad (Deccan).	
·589	·643	·711	·673	−·043	73	64	62	70	−3	1·1	1·2	1·2	−0·5			16	13	1			11	19	N 1° E	N 18° E	40	51	197	230	0	0	Bombay	West Coast.
·544	·649	·682	·650	−·077	85	62	55	71	−6	0·2	0·9	0·9	−1·3		4	17	3				25	11	N 39° W	N 30° W	32	45	101	67	0	0	Karwar	

† Mean of 29 days.

* Corrected.

Table

Abstract of Observations recorded at 10 A.M. and 4 P.M. at 64

Meteorological Province.	Station.	Elevation of barometer above sea-level, in feet.	Pressure. Mean of 10 hours.	Mean of 16 hours.	Mean daily range.	Mean of daily mean pressures.	Departure from normal.	Mean reduced to S. L. and gravity 45° Lat.	Temperature of Air. Mean maximum.	Mean minimum.	Mean daily range.	Highest maximum.	Lowest minimum.	Absolute range.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	Temperature, Wet-bulb. Mean minimum.	Mean 10 hours.	Mean 16 hours.	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
South India.	Periyakulam	945	29·081	28·953	·128	29·027		29·897	88·6	67·2	21·4	91·3	60·0	31·3	81·8	85·6	77·6		64·8	71·5	72·0	69·5
	Salem	940	·106	·965	·141	·041	+·044	·916	90·9	66·2	24·7	92·9	60·3	32·6	81·9	88 5	77·5	+0·7	63·3	71·2	73·1	69·2
	Chitaldroog	2,405	27·640	27·532	·108	27·586	+·042	·914	83·9	61·7	22·2	88·1	56·5	31·6	78·1	80·9	71·8	−0·3	55·2	62·7	62·4	60·1
	Bangalore	3,021	·045	26·933	·112	26·988	+·041	·905	81·6	58·9	22·7	85·3	52·0	33·3	75·4	79·0	69·3	−0·3	55·2	61·7	61·5	59·5
	Hassan	3,091	26·988	·878	·110	·932	+·043	·916	81·3	53·8	27·5	84·4	46·5	37·9	75·7	78·2	66 6	−2·2	52·3	61·5	61·2	58·3
	Mysore	2,518	27·535	27·413	·122	27·473	+·033	·904	85·0	60·0	25·0	88·2	53·7	34·5	77·3	82·6	71·5	−0·8	58·2	64·4	65·0	62·5
	Madras	22	30·021	29·922	·108	29·971	+·045	·923	89·4	69·2	20·2	93·4	64·1	29·3	85·0	84·6	78·3	+0·4		72·0	72·6	71·5
	Bellary	1,475	28·571	28·433	·138	28·503	+·041	·923	88·3	63·4	24·9	92·3	56·1	36·2	80·3	85·6	75·0	−0·3	55·6	67·0	68·0	63·5
	Waltair	226	29·824	29·721	·103	29·768	+·038	·936	85·5	71·1	14·4	90·3	65·4	24·9	82·2	81·9	77·5	−0·1	62·8	66·9	68·0	65·9
Hill Stations, Baluchistan.	Quetta	5,502	24·802	24·731†	·071	24·757†	+·028		68·1	38·2	29·9	77·2	27·8	49·4	60·6	62·1	52·6	+4·6	35·7	47·8†	47·5†	43·7
Hill Stations, Northern India.	Leh	11,503	19·821	19·721†	·100	19·768†	+·030		42·7	19·9	22·8	49·4	12·9	36·5	33·1	39·0†	29·3	−2·8	16·0	23·6	28·6†	22·7
	Srinagar	5,204	25·071	24·977	·094	25·019	+·023		57·3	33·6	23·7	63·1	26·9	36·2	45·3	55·5	43·4	−0·6	32·2	42·5	51·2	42·0
	Sarain		23·262	23·212	·050	23·227			54·3	33·4	20·9	65·3	26·8	38·5	47·5	45·5	43·4			39·5	39·6	
	Kalabagh																					
	Simla (Ridge)	7,224	23·227	23·177	·050	23·192	+·020		53·2	42·8	10·4	61·4	34·1	27·3	49·6	48·9	47·6	−2·5	36·5	40·0	41·5	39·3
	Chakrata	7,022	·385	·337	·048	·351	+·010		58·8	42·1	16·7	68·5	34·9	33·6	52·6	51·2	50·0	−1·5	37·2	43·2	43·5	41·3
	Ranikhet	6,069	24·211	24·149	·062	24·170	+·008		59·9	45·8	14·1	68·4	39 9	28·5	55·5	55·7	52·4	−2·0	41·5	47·3	47·3	45·4
	Muktesar	7,600	22·927	22·870	·057	22·889			55·1	41·4	13·7	65·9	33·7	32·2	49·6	51·8	47·8		35·4	40·9	43·1	39·8
	Katmandu	4,388	25·795	25·685	·110	25·737	+·039§		68·9	43·4	25·5	76·3	38·9	37·4	56·7	61·2	55·7	−2·6§	42·2	52·2	55·1	49·8
	Darjeeling	7,376	23·102	23·058	·044	23·077	−·006		56·2	41·8	14·4	65·2	36·0	29·2	51·6	53·7	48·5	+0·7	37·5	46·3	49·3	44·4
Hill Stations, Central India.	Mount Abu	3,945	26·207	26·141	·066	26·167	+·029		72·7	59·5	13·2	79·2	55·2	24·0	69·3	70·1	65·6	+0·4	49·5	53·5	53·5	52·2
	Pachmarhi	3,528	·570	·488	·082	·522	−·003		74·5	49·1	25·4	80·1	44·1	36·0	65·4	72·0	61·3	−0·5	45·4	54·1	55·7	51·7
	Chikalda	3,642	·477	·388	·089	·426	+·010		75·1	57·5	17·6	80·2	52·7	27·5	70·5	72·2	65·8	−0·7	49·4	55·3	56·4	53·7
Hill Stations, S. India.	Kodaikanal	7,688	22·887	22·820	·067	22·849			62·5	45·9	16·6	69·0	40·5	28·5	59·1	55·8	52·6		42·1	51·1	52·4	48·1
	Ootacamund	*7,322*	23·121	23·051	·070	23·083			63·5	41·4	22·1	67·0	34·3	32·7	60·5	58·1	52·0		38·7	50·0	50·3	46·3
	Dodabetta	*8,539*	22·085	22·030	·055	22·054			56·4	42·0	14·4	63·9	39·1	24·8	53·1	51·3	48·3			46·2	46·6	
Extra India.	Aden	94	29·999	29·878	·121	29·944	+·048	·970	85·8	72·5	13·3	91·0	70·7	20·3	81·2	83·6	78·2	−0·6	67·1	75·0	73·0	71·7
	Perim	201	·851	·740	·111	·801	+·049	·937	87·0	77·0	10·0	89·7	75·2	14·5	83·5	83·8	81·1	+0·1	69·6	74·0	74·1	72·6
	Minicoy	7	30·020	·948	·072	·989		·922	86·3			89·0			84·5	83·4				75·0	74·4	
	Zanzibar	73	30·011†	·907	·104	·964	+·046	·965†	83·0	75·6	7·4	87·7	73·2	14·5	79·7†	81·7	78·3	−1·1	72·2	76·0†	76·4	74·9
	Port Victoria (Seychelles).	15	·021	·939	·082	·993	+·051§	·932	82·4	71·0	11·4	84·6	68·1	16·5	80·0	80·5	75·3	−3·7§	71·6?	75·7	75·9	74·4?
	Mauritius (Pamplemousses).	181				·954	+·066	30·082				87·0	61·9	25·1			74·8	−0·4				67·8

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

† Mean of 29 days.

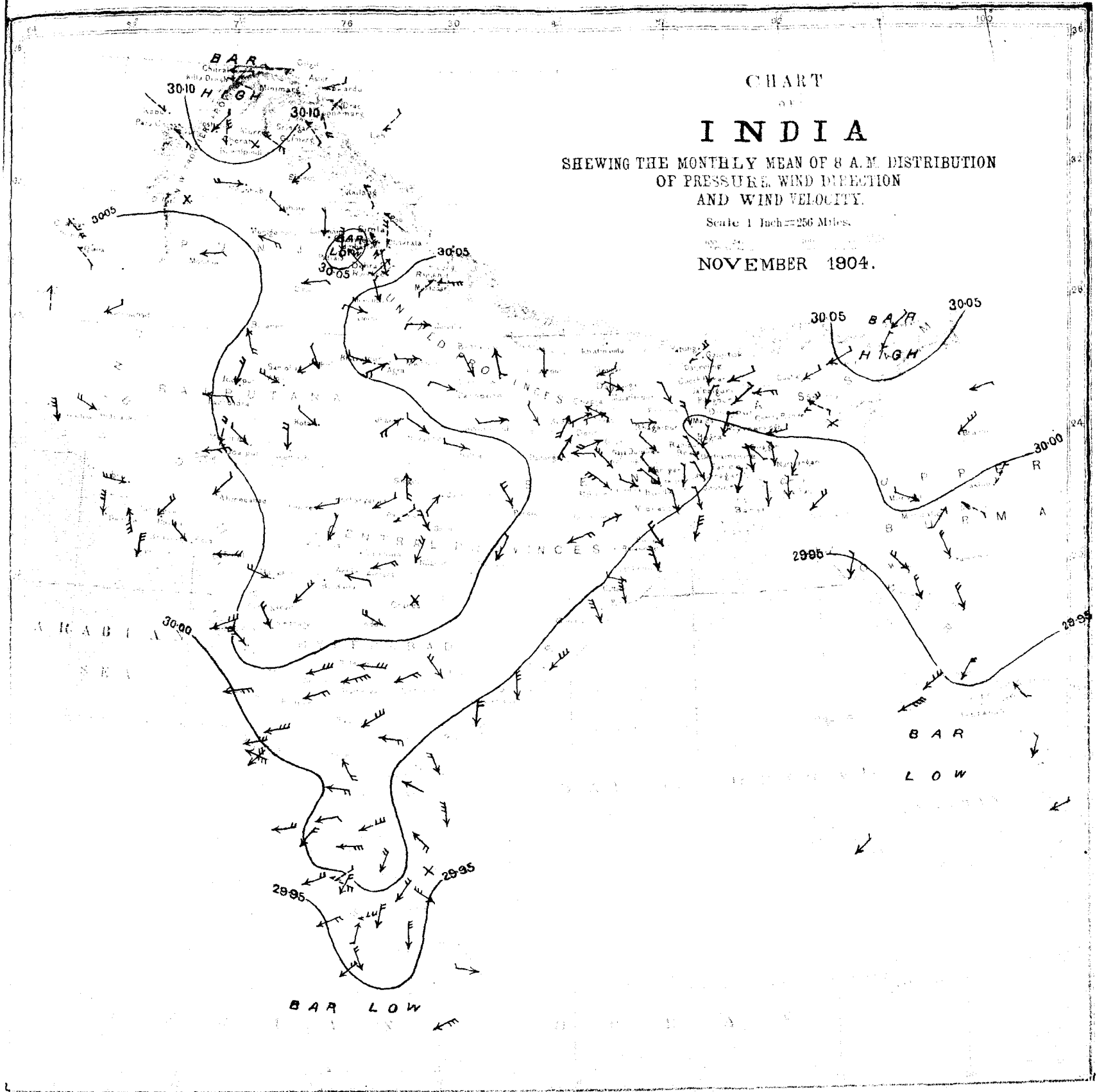
II—*concluded.*

Stations in India, Burma, etc., in November, 1904—concluded.

Vapour Tension.					Humidity.					Cloud.				Wind direction.										Wind steadiness.		Wind velocity.		Rainfall.		Station.	Meteorological Province.
														Total number of 10 hours and 16 hours winds from																	
From minimum.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	From minimum.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	Mean 10 hours.	Mean 16 hours.	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
																									%	°/o						
·587	·637	·608	·615		88	58	50	65		2·6	5·8	4·2		9	1	3	3	13	12	9	6	4	S 2° W		37		47*		0·14	0·08	Periyakulam	South India.
·551	·625	·620	·613	−·051	85	57	6	66	−12	2·0	2·8	2·4	−3·2	8	2	16	10	1	6	3	13	1	N 50° E	N 81° E	13	24	98*	74	0·28	0·28	Salem.	
·360	·382	·335	·372	−·134	64	39	32	48	−17	1·0	1·6	1·3	−3·3	1	7	18	23	9	1			1	N 73° E	N 72° E	72	69	90*	149	0·12	0·12	Chitaldroog.	
·402	·395	·347	·394	−·145	80	45	35	56	−19	1·5	1·3	1·4		2	8	22	20	2	1			5	N 54° E	N 60° E	68	68	150*	120	0	0	Bangalore.	
·382	·391	·349	·387	−·137	90	43	36	59	−14	2·7	3·8	3·3	−2·8		1	26	26	7					N 16° E	N 70° E	85	79	48*	72	0·37	0·19	Hassan.	
·471	·449	·403	·454	−·109	90	48	36	61	−10	3·2	3·4	3·3	−3·1		8	17	17	8	2	3	2	3	N 67° E	N 39° E	52	22	176*	206	0·19	0·17	Mysore.	
	·617	·644	·683	−·113		51	54	70	−14	3·7	3·3	3·5	−2·4		13	30	9	1	3			4	N 40° E	N 27° E	73	62	164	156	0·20	0·10	Madras.	
·352	·501	·471	·453	−·085	59	48	38	51	−12	1·4	3·0	2·2	−2·9	1	9	16	14	10	2	1	2	5	N 62° E	N 82° E	48	54	95*	77	0	0	Bellary.	
·466	·459	·504	·496	−·146	62	42	46	53	−14	4·5	4·7	4·6	+0·8		9	20	20	4	6	1			N 70° E	N 77° E	65	52	108		0	0	Waltair.	
·187	·202†	·179†	·189	+·032	80	39†	34†	55	+ 4	2·0	3·1	2·6	+0·9	8	10	1	3	4	1	5	15	14	N 60° W	N 51° W	43	40	39*	48	0·40	0·27	Quetta.	Hill Station, Baluchistan.
·061	·057	·081†	·066	−·032	57	29	34†	42	−14	3·6	5·0†	4·3	+0·1		1	3	1		25	24	3	2	S 26° W	S 27° W	69	37	36	50	0·01	0·01	Leh.	Hill Stations, N India.
·171	·244	·333	·233	0	87	80	75	81¶	+ 2	3·0	4·1	3·6	+0·6	16	6	3	1	10	5	4	3	12	N 66° W	N 1° E	7	21	53*	62	0·70	0·33	Srinagar.	
	·163	·185				52	62			2·0	3·8	2·9		30	1	2	1	1	10	12	3		S 27° W		32		55*		2·53††	1·15††	Sarain.	
																															Kalabagh.	
·153	·151	·188	·164	−·007	53	44	56	57	+ 6	2·6	4·4	3·5	+1·2	5	14			7	28	1	4	1	S 1° W	N 27° W	32	8	98*	77	1·22	0·49	Simla (Ridge).	
·174	·185	·207	·189	−·007	66	49	56	61	+ 4	2·0	3·0	2·5	+0·7	14	8			2	35	1			S 1° E	S 51° W	48	30	148*	130	1·39	0·86	Chakrata.	
·220	·246	·242	·236	−·012	72	57	56	66	+ 4	1·3	2·5	1·9	+0·4	40			2			4	11	3	S 87° W	S 54° W	23	38	40*	41	1·77	0·87	Ranikhet.	
·147	·169	·194	·170		57	49	51	56		2·1	3·1	2·6		7		1	6	10	6	5	23	2	S 45° W		33		165*		1·84	1·28	Muktesar.	
·260	·345	·336	·314	−·022	91	75	56	78	+ 3	1·4	1·7	1·6	−1·0	6	4	3	12			3	23	9	N 59° W	N 81° W	33	42	10	14	1·55	0·87	Katmandu.	
·182	·261	·310	·251	−·013	70	69	75	75	− 8	3·3	4·5	3·9	−0·4	7		14	8	10	1		7	13	N 39° E	N 54° W	23	10	78*	65	0·14	0·10	Darjeeling.	
·242	·232	·222	·232	−·011	48	33	31	44	− 1	0·8	1·2	1·0	−0·4		15	12			3	15	8	7	N 45° W	N 44° E	35	15	141*	106	0·19	0·14	Mount Abu.	Hill Stations, Central India.
·264	·291	·259	·271	−·037	76	47	33	59	− 2	0·1	0·4	0·3	−1·8		8	25	4			9	6	8	N 8° E	N 44° E	42	39	65*	67	0·04	0·04	Pachmarhi.	
·265	·266	·276	·269	−·084	56	36	35	49	−11	0·7	0·8	0·8	−1·4	40	5	4		3		6		2	N 13° W	N 6° W	5	21	176*	120	0	0	Chikalda.	
·235	·299	·362	·293		75	60	81	74		3·2	6·5	4·9		2	11	2	7	5	9		5	17	N 23° W		22		244		0·09	0·09	Kodaikanal‡	Hill Stations, S. India.
·213	·256	·290	·253		79	49	60	63		3·0	4·1	3·6			16	9	12	6	8	1	3	5	N 50° E		33		92*		0·50	0·41	Ootacamund	
	·246	·271				61	72			3·5	4·6	4·1		1	15	16	11	13	2	1	1		N 63° E		55		284		1·21	0·74	Dodabetta.	
·599	·785	·671	·703	+·028	74	74	59	71	+ 3	3·1	1·4	2·3	0		10	26	6	13	5				N 67° E	S 87° E	60	67	123*	310	0	0	Aden.	Extra India.
·628	·717	·716	·705	−·037	67	63	61	66	−	0·3	0·3	0·3	−1·5§				12	44	4				S 51° E	N 89° E	94	74	492*	485	0	0	Perim.	
	·743	·728				63	64			2·9	3·0	3·0			22	13	3	1			1	14	N 8° E		75		89* **		0·33	0·21	Minicoy.	
·748	·850†	·839	·830	−·014	84	84†	78	84	+ 2	7·6†	6·3	7·0	+1·6	3	5	5	1	9	22	10	3		S 2° E	S 36° E	47	17	107*	110	15·34	3·71	Zanzibar.	
·779?	·833	·839	·843?	+·007?	100?	81	80	90?	+ 7?	6·6	7·4	7·0	+0·1§	21	3	4	4	7	2	1	5	13	N 22° W	S 84° E	13	9	105	140	24·0	4·60	Port Victoria (Seychelles).	
			·573	−·030				66	− 2			5·8	+0·3										S 73° E	S 85° E			241	257	1·39	1·03	Mauritius (Pamplemousses).	

* Corrected. †† Snow water. ‡ Wind variable 2. § Departures from old normals. ¶ Mean of three previous columns. ** Mean of 29½ days.

G. I. C P. O.—No. 419 Meteo.—23-5-05.—385.—C. T.



LITHO. BY S. B. MUNDLE.

Explanation.

The lines of the above Chart represent isobars or lines of equal barometric pressure, and the numbers attached indicate the barometric pressure in inches and are 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 ordinary or normal distribution of pressure as given in the Charts of the Bay of Bengal prepared by Mr. Dallas, 1st Assistant Meteorological Reporter to the Government of India, and published by the Meteorological Department. Hence they have not the same validity as the isobars in the land area of India itself, but it is probable they deviate very little from the actual.

The mean 8 a.m. 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 I of the 8 a.m. 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	„ „ „ „ „

LITHO. BY S.B.MUNDLE

No. 191, Wr. India—May 01—5,000.

Explanation

The Chart shows the departure from the normal of the mean 8 a.m. pressure of the month by means of lines drawn for equal amounts of departure (of two hundredths of an inch or ·020″). 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.

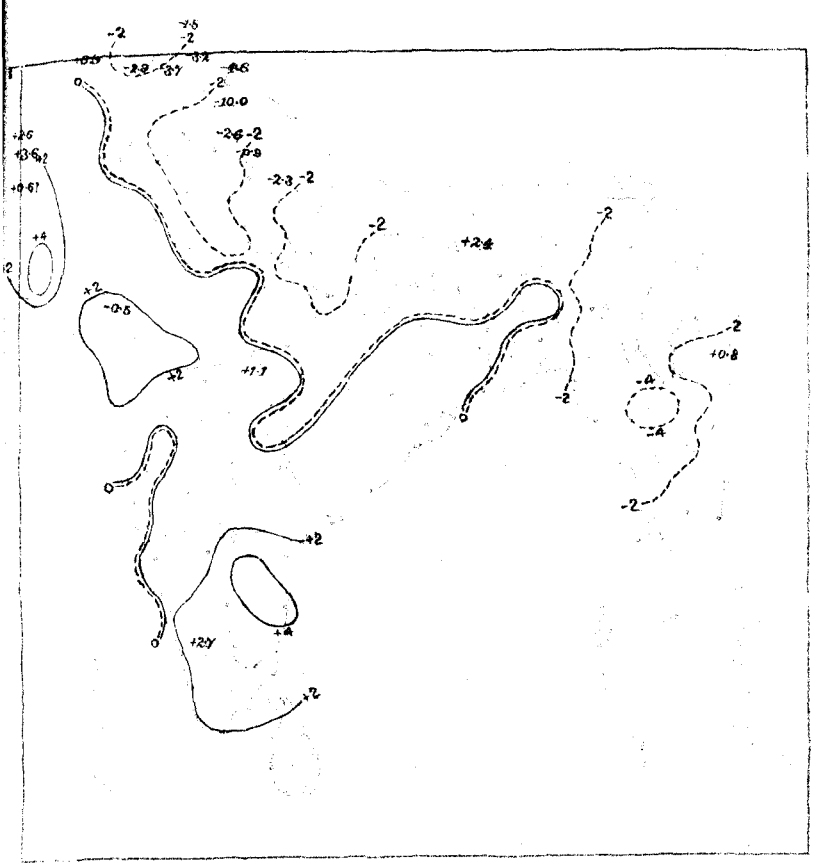
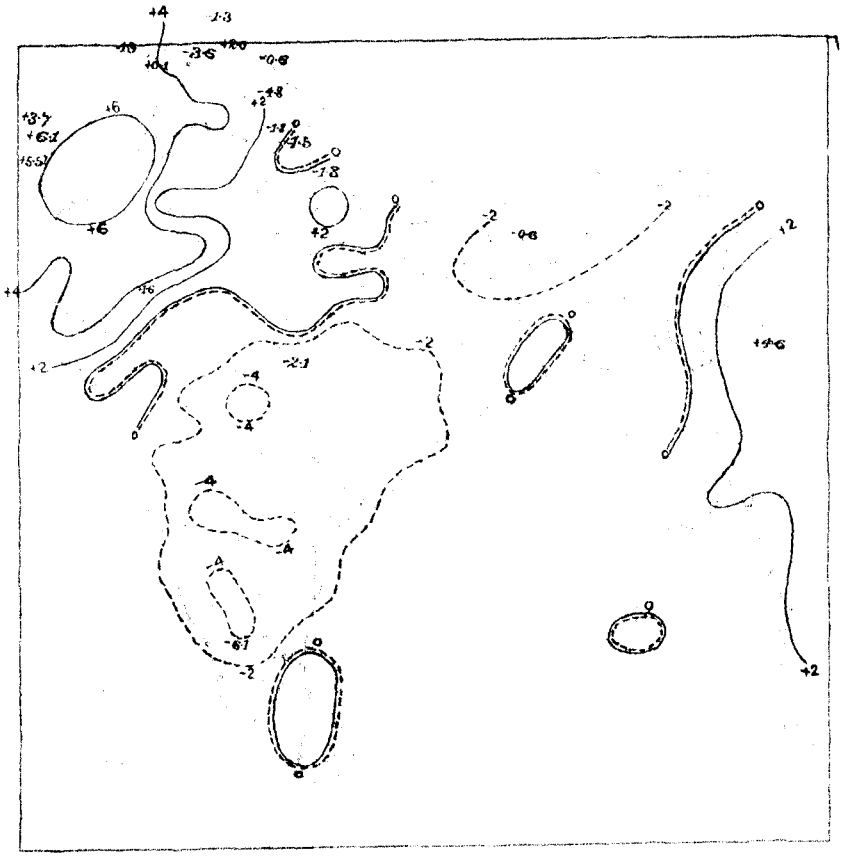


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MINIMUM TEMPERATURE.



Explanation.

Continuous lines indicate that the mean maximum of month was in excess by amounts indicated by the attached numbers; broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no departure, the broken line facing the area of deficient temperature.

Continuous lines indicate that the mean minimum of month was in excess by amounts indicated by the attached numbers; broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no departure, the broken line facing the area of deficient temperature.

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

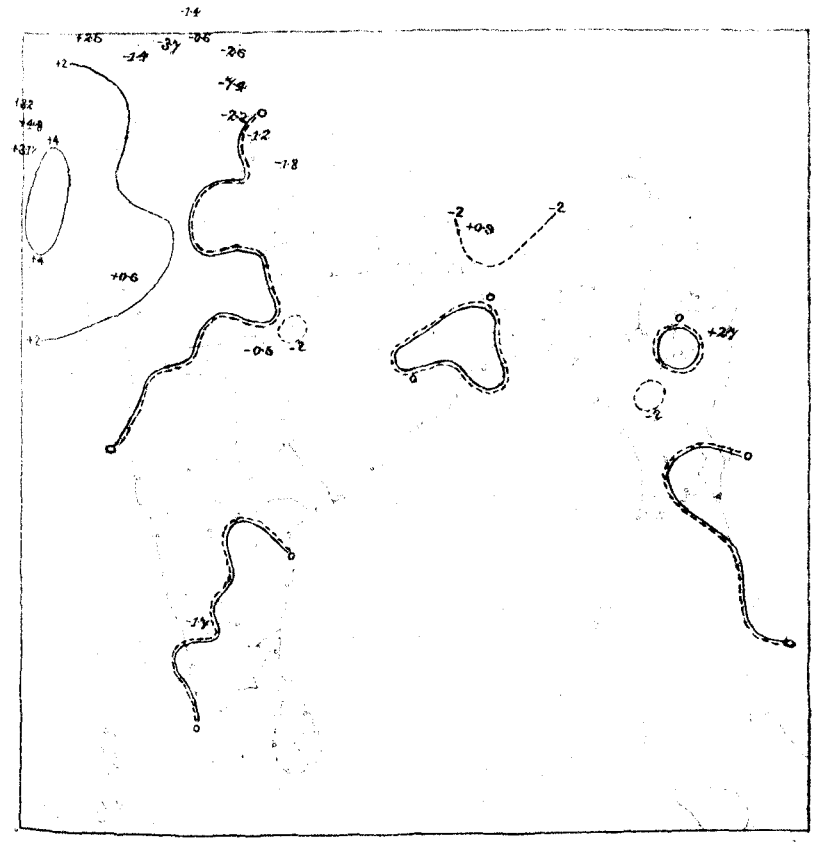
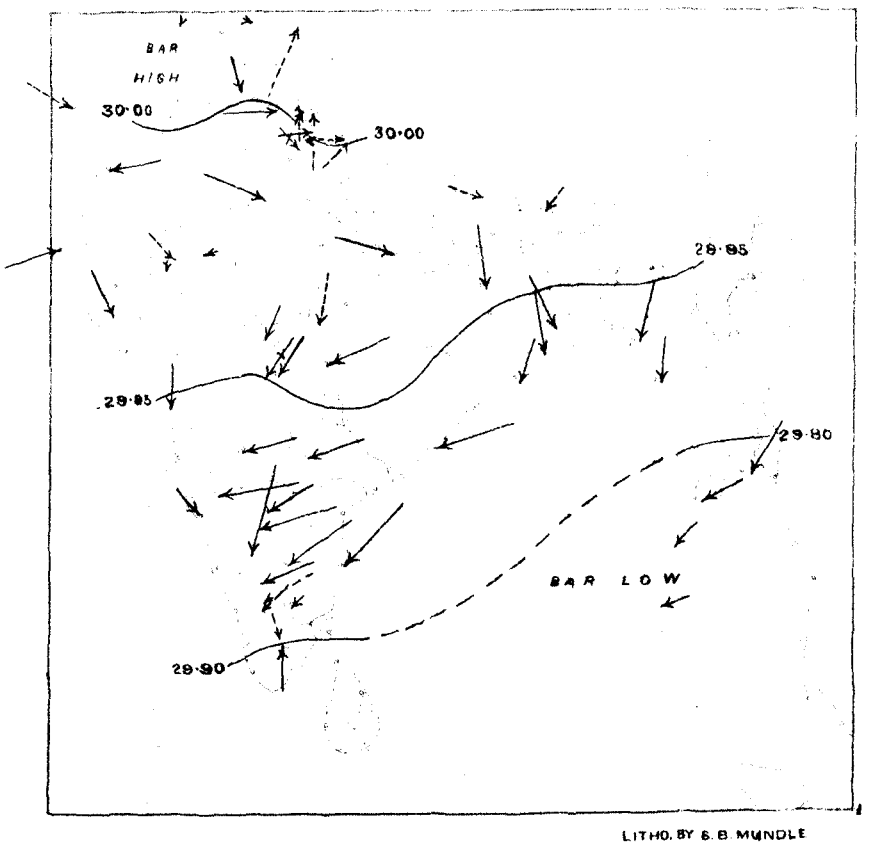


CHART SHEWING THE MONTHLY MEAN OF PRESSURE AND RESULTANT WIND DIRECTION.



LITHO. BY S. B. MUNDLE

Explanation.

Continuous lines indicate that the mean daily temperature of month was in excess by amounts indicated by the attached numbers; broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no departure, the broken line facing the area of deficient temperature.

The Chart is prepared in the same manner as the Monthly Charts which previously to 1890 appeared in the Annual Reports, the only alteration made being that pressures are reduced to constant gravity (45°). The isobars are given for each twentieth of an inch. The arrows show the directions of the resultants of the wind recorded at 10 and 16 hours, and by their lengths the percentage of the observations expressing the numerical value of the resultant; a length of $\frac{1}{8}$th of an inch being equal to 100 per cent.

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

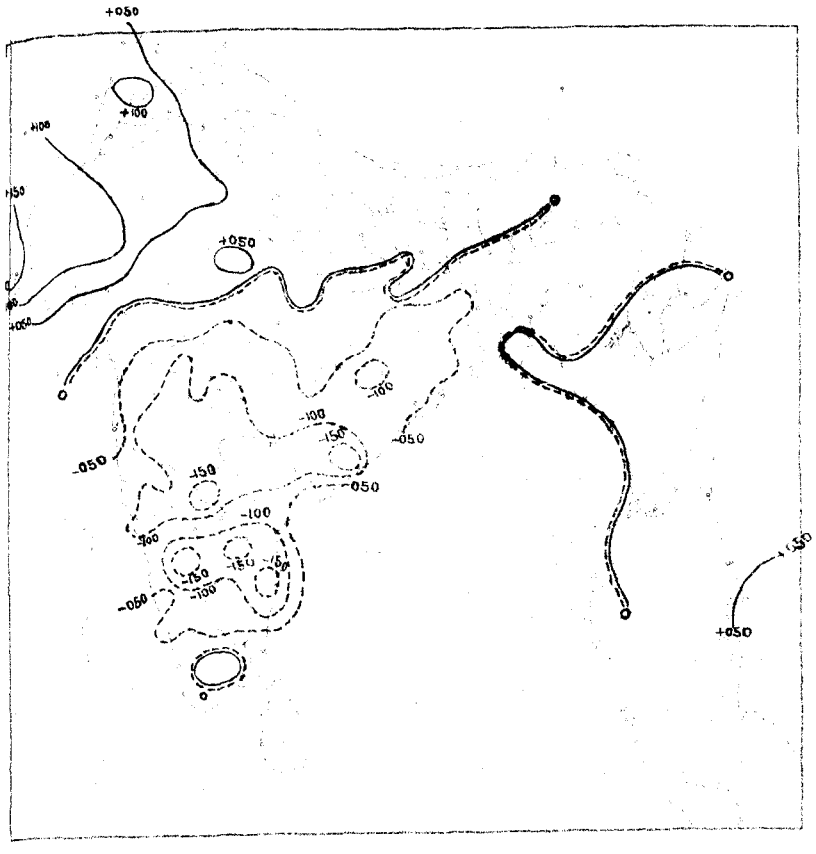
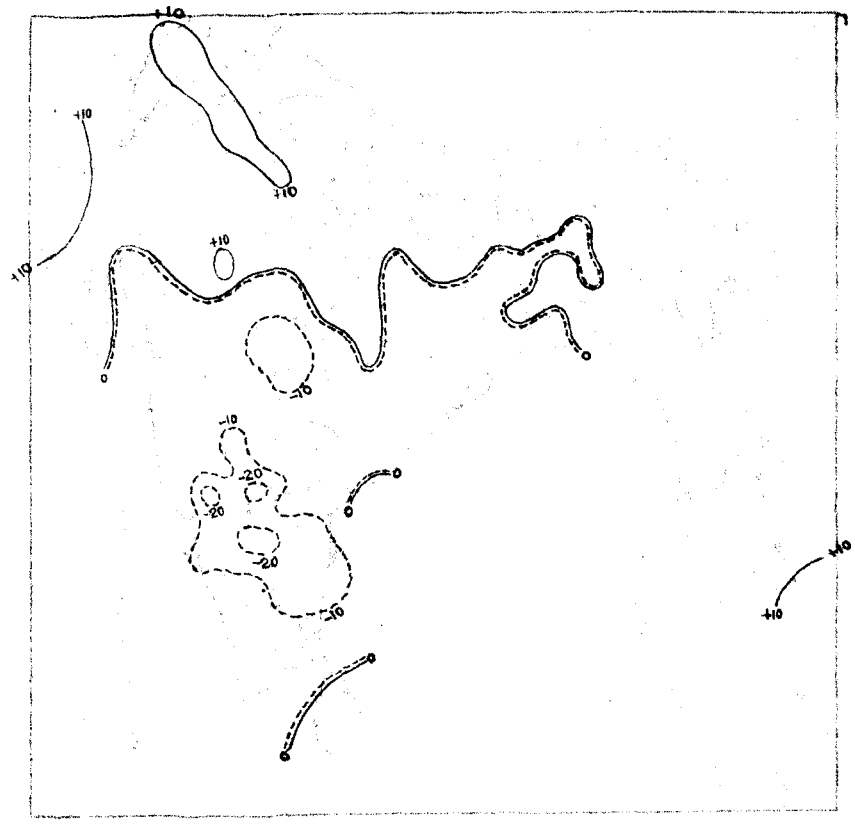


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF RELATIVE HUMIDITY AT 8 A. M.



Explanation.

Continuous lines indicate that the mean absolute humidity of month was in excess by amounts indicated by the attached numbers; broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no departure from the normal, the broken line facing the area of deficient humidity

Continuous lines indicate that the mean relative humidity of month was in excess by amounts indicated by the attached numbers; broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no departure from the normal, the broken line facing the area of deficient humidity

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

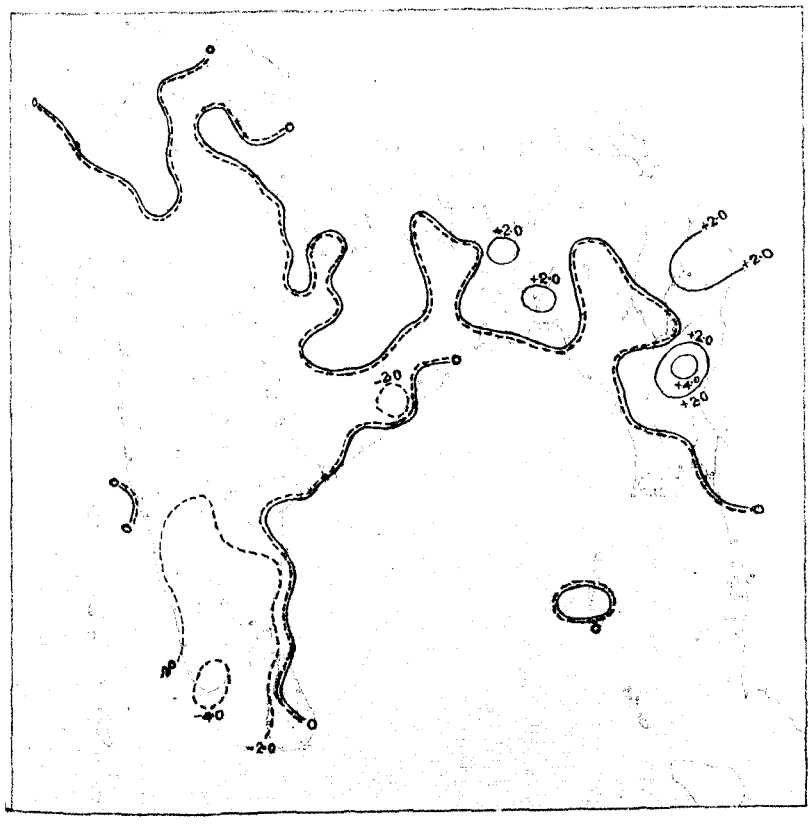
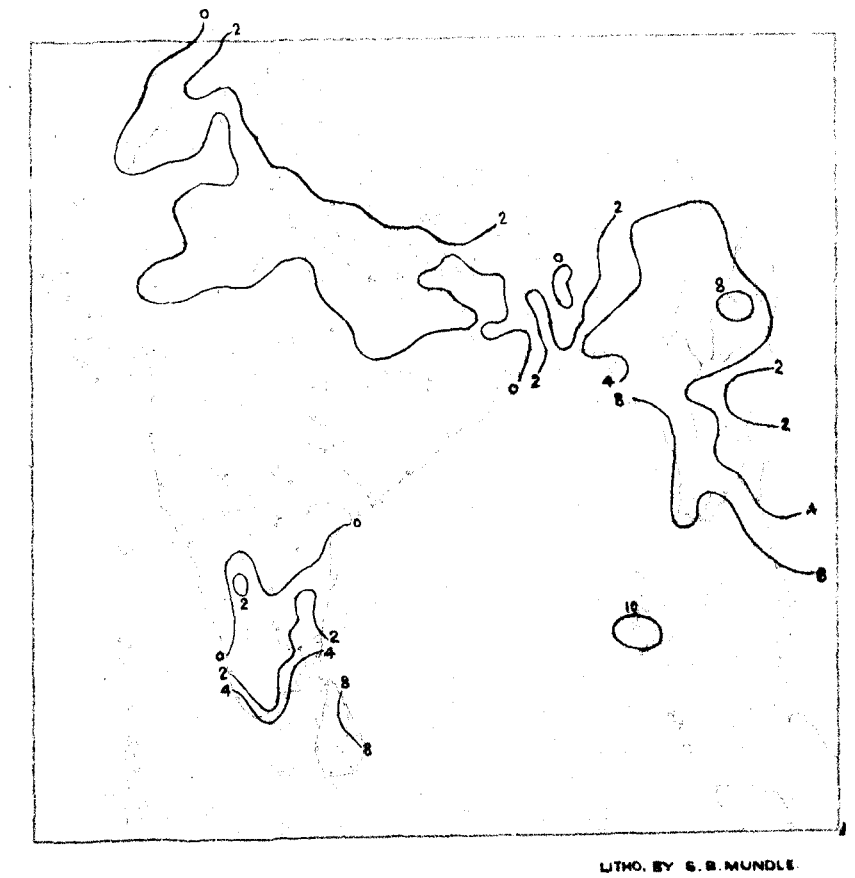


CHART SHEWING THE TOTAL NUMBER OF DAYS IN THE MONTH ON WHICH RAINFALL EXCEEDED 0·10 INCH



LITHO. BY S. B. MUNDLE.

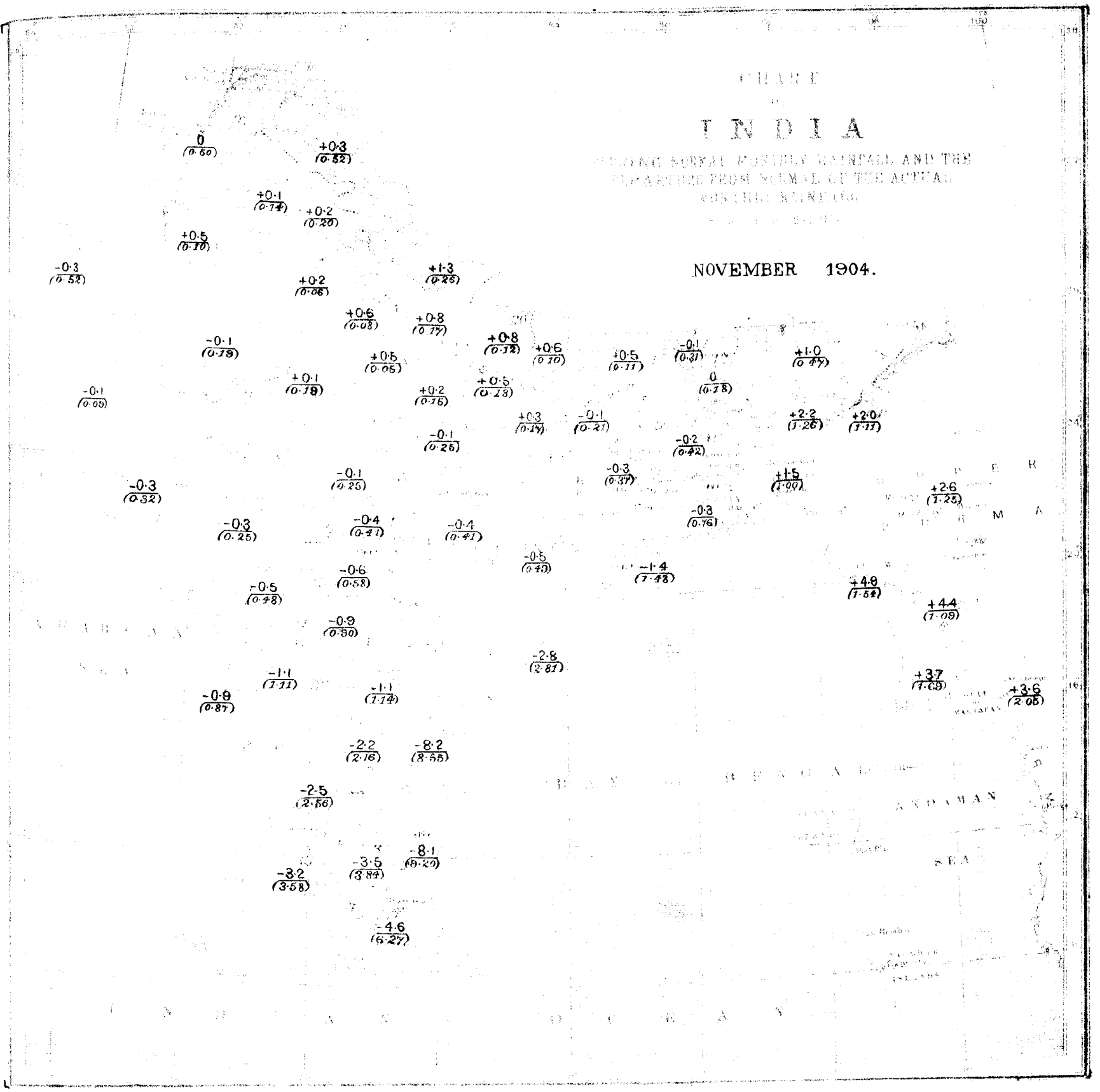
Explanation.

Continuous lines indicate that the mean cloud amount of month was in excess by amounts indicated by the attached numbers; broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no departure from the normal, the broken line facing the area of deficient cloud.

A rainy day is one on which 0·10 inch or more of rain is received within 24 hours.

Explanation.

The Chart shows the distribution of the rainfall of the month by means of isohyetic lines or lines of equal amounts of rain. The data used in the preparation of this Chart are the rainfall returns of all the observatories in India except those at the Hill Stations over 3,500 feet in elevation (177 in number). The double line or line of no rainfall separates areas in which the rainfall exceeded a tenth of an inch from those where it was actually or practically *nil* (*i.e.* less than a tenth of an inch). The dotted line faces the area of no rainfall.



LITHO. BY S. S. MUNDLE.

Explanation.

The chart gives the departures of the rainfall of the month (to tenths of an inch) from the normal over the whole of India and Burma. The country is divided into 57 areas, over each of which the meteorological conditions are fairly uniform, and the staple crops similar in character; and the means (both actual and normal for the month) have been calculated, and the numbers given in the centre of each division (usually with a + or − sign attached) give the difference between the actual and normal mean rainfall of the district of the month. A plus sign indicates that the rainfall was in excess, and a negative sign that it was in defect by the amounts indicated by the numbers to which the signs are attached. The normal average rainfall is also given below in smaller figures enclosed within brackets so that the percentage departure from the normal can be at once estimated. The name of the district can be at once ascertained by referring in the following list to the number given near the right hand boundary of each district in small slanting red figures.

1. Tenasserim
2. Lower Burma Deltaic
3. Central do.
4. Upper do.
5. Arakan
6. East Bengal
7. Assam, Surma
8. Do., Hills
9. Do., Brahmaputra
10. Deltaic Bengal
11. Central do.
12. North do.
13. Bengal Hills
14. Orissa
15. Chota Nagpur
16. South Bihar
17. North Bihar
18. United Provinces, East
19. South Oudh
20. North do.
21. United Provinces, Central
22. Do. do., West
23. Do. do., East Submontane
24. Do. do., West do.
25. Do. do., Hills
26. South East Punjab
27. South do.
28. Central do.
29. Punjab, Submontane
30. Do., Hills
31. West Punjab
32. North West Frontier Province
33. Malabar
33a. Travancore
34. Madras, South Central
35. Coorg
36. Mysore
37. Konkan
38. Bombay Deccan
39. Hyderabad, North
40. Khandesh
41. Berar
42. Central Provinces, West
43. Do., Central
44. Do., East
45. Gujarat
46. Kathiawar and Cutch
47. Sind
48. Baluchistan Hills
49. Central India, East
49a. Do. do.
50. Rajputana East, Central India West
51. West Rajputana
52. Madras, East Coast, North
53. Hyderabad, South
54. Madras, Central
55. Madras, East Coast, Central
56. Do. East Coast, South
57. Madras, South

GOVERNMENT OF INDIA.

METEOROLOGICAL DEPARTMENT.

MONTHLY WEATHER REVIEW.

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CALCUTTA, DECEMBER, 1904.

INTRODUCTION.

THIS review of the weather in India during the month of December, 1904, is based on observations taken daily at 8 A.M. at 232 stations, and on additional observations taken at 10 A.M. and 4 P.M. at 63 stations. The rainfall summary is based on the rainfall data of the meteorological observatories and the rainfall statements of the month published by the Provincial Governments that had been received up to the date of the publication of the review. A summary of the weather in the Bay of Bengal and the Arabian Sea, derived from information extracted from the logs of vessels entering the ports of Calcutta and Bombay, is also given, and brief notes on Solar and Magnetic disturbances are supplied by the Observatories.

Summary of the chief features of the weather in India during the month of December, 1904.

The most important feature in the meteorology of the month of December is the final withdrawal of the south-west humid winds from the south of the Bay and the extension of the north-east monsoon winds over the whole of the Bay. This change usually occurs in the third or fourth week of the month. During the early part of the month the north-east winds, which prevail on the Coromandel coast and in east Ceylon, continue to give light to heavy rain. This rainfall is heaviest in the south Coromandel coast districts and diminishes rapidly westwards from the coast into the interior.

Cyclonic storms are also of occasional occurrence during the month, and the final withdrawal of the retreating south-west monsoon current from the south of the Bay is frequently immediately preceded by the formation of a cyclonic storm in the south-west of the Bay. These storms almost invariably march westwards to the south Coromandel coast between Negapatam and Cuddalore or Pondicherry and usually break up in the Madura, Tinnevelly or Coimbatore districts. They occasionally give excessive cyclonic rain to the south Coromandel coast districts.

Another important feature is the occasional appearance of shallow depressions in upper India. These depressions originate sometimes in Baluchistan or Persia and sometimes in north-western India. They generally give very little rain if they occur during the early part of December. In the latter part of December and in January and February, these depressions and storms of the cold weather frequently give moderate, general rain to northern India and moderate to heavy snow to the hill districts. They usually march in an easterly direction across northern India. When they enter India from Baluchistan they frequently give rise to the formation of secondary or subsidiary depressions in the Punjab. These subsidiary storms are usually much deeper and more intense than the primary storms and give heavy rain in the Punjab and stormy weather and heavy snow in the hills.

As has been mentioned in previous Monthly Reviews the larger seasonal changes of the year have been carried out earlier than usual during the year under review. The withdrawal of the south-west humid winds from the Bay occurred at an unusually early date and the autumnal rainfall over the east and south of the Peninsula has, to a great extent, failed. Similarly the weather became disturbed and cold weather storms appeared over Persia, Afghanistan and north-west India much earlier in the cold weather than is customary, and the reports from the mountain areas around the north-west frontier of India and from the countries to the westward mention early snowfall and early cold weather conditions.

During the first ten days of the month under review the weather was fairly quiet and settled over the Indian region. Showers of rain occurred along the Madras Coast and over the south of the Peninsula, but the rainfall was not heavy and the mean temperature over the south of the Peninsula was higher than usual on some days. The following gives comparative data for each day from the 1st to the 9th:—

Province or Division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of								
	1st Dec.	2nd Dec.	3rd Dec.	4th Dec.	5th Dec.	6th Dec.	7th Dec.	8th Dec.	9th Dec.
	°	°	°	°	°	°	°	°	°
Madras Coast .	−0·7	+0·3	−0·1	−0·5	−0·5	−1·3	+1·4	+0·3	−0·5
Madras Deccan.	−2·1	−1·7	−2·5	−·3	−1·0	−0·8	−0·7	+1·4	+1·0
South India .	−1·6	+1·1	+1·3	+0·7	−0·7	−2·3	+0·8	−0·	−1·0

During this period the weather was fine over north-west India and the mean temperature above the normal. This is shown below:—

Province or Division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of								
	1st Dec.	2nd Dec.	3rd Dec.	4th Dec.	5th Dec.	6th Dec.	7th Dec.	8th Dec.	9th Dec.
	°	°	°	°	°	°	°	°	°
Punjab . .	+0·5	−0·2	−0·3	−0·3	+1·2	+2·6	+2	+2·8	+3·8
North-west Frontier Province.	+1·8	−1·2	−1·2	+0·1	+3·0	+3·2	+2·9	+2·6	+5·4
Sind . .	+3·6	+2·7	+3·5	+3·2	+4·2	+4·2	+5·6	+4·3	+4·5
Rajputana .	+0·1	+0·9	0	−0·2	−0·3	+1·1	+1·0	+0·2	+2·3
Gujarat . .	+2·8	+2·5	+2·1	+1·6	+0·6	+1·2	+2·7	+3·1	+1·9

This excess of temperature became more marked on the 10th, 11th, and 12th, as is shown below:—

Province or Division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of		
	10th December.	11th December.	12th December.
	°	°	
Punjab	+ 5·1	+5·0	+6·0
North-west Frontier Province . .	+ 5·5	+7·4	+4·7
Sind	+ 8·8	+8·6	+6·2
Rajputana	+ 4·7	+6·0	+6·7
Gujarat	+ 2·6	+1·4	+2·1

This high temperature in the north-west preceded the approach of unsettled weather from the westward. Showers of rain and snow commenced in Kashmir on the 11th and 12th. Rain extended to the north Punjab on the 13th and to the United Provinces and Rajputana on the 14th and the fall continued over these areas until the 18th. The rainfall due to these disturbed conditions was heaviest and most general over the United Provinces where the following falls of rain exceeding 2·00″ in 24 hours were recorded:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Dehra Dun . .	Dehra Asylum .	15th December	2·80
	„ „ . .	18th „	2·94
Saharanpur . .	Hardwar . .	„ „	2·90
Sitapur . . .	Misrikh . .	„ „	2·11
Naini Tal . .	Haldwani .	„ „	2·10
Farrukhabad . .	Kanauj . .	„ „	2·02

This rainfall introduced a change in the temperature conditions over northern and central India. The temperature decreased briskly in the north-west and a cold wave appeared over that region on the 14th and advanced eastward over north-west India. The following gives temperature departure data of the north-west divisions from the 14th to the 18th.

Province or Division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of				
	14th December.	15th December.	16th December.	17th December.	18th December.
	°	°	°	°	°
Baluchistan . .	−9·3	−10·9	−5·7	− 7·0	−6·8
North-west Frontier Province.	+0·6	−2·9	−3·4	− 1·3	−0·6
Sind . . .	+5·1	−2·1	−2·5	− 4·7	−5·9
Punjab . . .	+5·6	+0·7	−1·5	+ 0·1	−1·0
Rajputana . . .	+7·4	+2·2	+1·1	+ 0·2	−4·3
Gujarat . . .	+4·5	+3·5	+0·5	− 1·0	−3·4

This change in the north-west was accompanied with the movement of the area of excessive temperature south-eastward to the central parts of the country where the

mean temperature was very excessive from the 14th to the 18th. This is shown below :—

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF				
	14th December.	15th December.	16th December.	17th December.	18th December.
	°	°	°	°	°
Central India	+4·3	+7·6	+4·5	+5·7	+2·8
Central Provinces	+6·4	+7·1	+6·5	+6·0	+5·1
Berar	+5·7	+5·8	+4·9	+7·8	+5·8

After the 18th the principal changes were transferred for a time to southern India. On the 17th the barometer was falling slightly in the extreme south of the Peninsula and rain was reported from Cuddalore, Negapatam and the east of Ceylon. During the 18th and 19th the barometric fall continued, and on the latter day an ill-defined depression was shown over the south-west of the Bay off the south Madras Coast. The depression subsequently dispersed without crossing the coast, but it occasioned a good deal of rain, of which the principal amounts were as follows :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
NELLORE	Kandukur	18th December	5·31
TANJORE	Shiyali	" "	3·82
	Valangiman	" "	3·60
	Kudavasal	" "	3·05
SOUTH ARCOT	Mannargudi	" "	3·02
TANJORE	Mayavaram	" "	3·02
	Kumbakonam	" "	3·01
SOUTH ARCOT	Srimushnam	" "	3·00
TANJORE	Mannargudi	" "	3·00
	Nidamangalam	" "	3·00
TANJORE	Tiruvalur	" "	2·90
	Puttukkottai	" "	2·90
SOUTH ARCOT	Kurinjipadi	" "	2·87
TANJORE	Neidavasal	" "	2·77
SOUTH ARCOT	Bhuvanagiri	" "	2·75
TANJORE	Muttupet	18th December	2·74
MADURA	Pamban	" "	2·71
SOUTH ARCOT	Chidambaram	" "	2·66
TANJORE	Tranquebar	" "	2·59
	Tiruppundi	19th "	3·80
TANJORE	Negapatam	" "	3·31
	Vedaranniyam	" "	3·30
CHINGLEPUT	Cheyur	" "	3·10
TANJORE	Tranquebar	" "	2·71
	Nannilam	" "	2·70

This rainfall occasioned a fall of temperature over the east and south of the Peninsula where the mean temperature, from the 18th to the 22nd, was more or less below the normal. The following gives data :—

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF				
	18th December.	19th December.	20th December.	21st December.	22nd December.
	°	°	°	°	°
Madras Coast	+1·7	−0·1	−1·2	− 3·0	−2·8
South India	−0·9	−2·3	+0·6	+ 2·8	+1·3

From the 23rd to the end of the month the weather over the Indian region was generally very quiet. Light local rain occurred over Burma on the 23rd and 24th and temperature between the 23rd and the 27th was much below the normal over that province. The following gives data :—

PROVINCE.	DEPARTURE FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF				
	23rd December.	24th December.	25th December.	26th December.	27th December.
	°	°	°	°	°
Burma	−0·8	−3·5	−2·3	−1·3	−2·0

On the 24th, 25th and 26th light snow showers occurred in Kashmir occasioning a fall of temperature over north-west India, but the changes were not sufficiently large to reduce temperature to below the normal. The following gives comparative data for the different divisions of north-west India :—

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF		
	26th December.	27th December.	28th December.
	°	°	°
North-west Frontier Province	+ 3·3	+2·2	+2·1
Sind	+ 6·1	+4·9	+2·0
Punjab	+ 1·7	+2·5	+2·2
United Provinces	— 2·4	−0·3	+1·3
Rajputana	+ 1·1	+4·6	+2·8
Gujarat	+ 1·5	+2·6	+2·1
Central India	— 2·0	+1·4	+2·4

The last three days of the month were very quiet. Practically no rain fell over any part of the Indian region, and though the mean temperature was generally above the normal over the western desert and below the normal over the Gangetic Plain and the Peninsula, the departures from the average were neither large nor important.

Pressure.—The mean pressure of the Indian land area was ·027″ above the normal. Pressure exceeded the average at all stations, but the excess was considerably greater over the eastern than over the western half of India. Relatively to the general condition, *viz.*, +·027″ pressure was in excess over Burma, Assam, Bengal, the north Gangetic Plain, as far west as Sialkot, and the East Coast of the Peninsula and was in defect in all other parts of the Indian region. The local excess was greatest (+·025″) at Narayanganj, Bhamo, Minbu and Toungoo, and the local defect greatest (−·023″) at Peshawar. At all the hill stations the mean pressure of the month also exceeded the normal, but the amount of the excess was generally less than that at the stations on the neighbouring plains, so that the vertical pressure gradient was generally steeper than usual. Over Arabia the mean pressure of the month was greater than usual, but over Persia and also in the south-east Trades region the departures from the average were small and irregular.

The following table gives the mean pressure departures and anomalies of the month for the eleven meteorological provinces of India :—

METEOROLOGICAL PROVINCE.	Departure from normal of mean 8 A.M. pressure of December, 1904.	Pressure anomaly, December, 1904.
	″	″
Burma Coast and Bay Islands	+·042	+·015
Burma Inland	+·053	+·026
Assam	+·041	+·014
Bengal and Orissa	+·035	+·008
Gangetic Plain and Chota Nagpur	+·032	+·005
Upper Sub-Himalayas	+·027	0
Indus Valley and North-west Rajputana	+·016	—·011
East Rajputana, Central India and Gujarat	+·017	—·010
Deccan	+·016	—·011
West Coast	+·017	—·010
South India	+·028	+·001

Temperature.—The mean maximum or day temperature of the month exceeded the average over the Indus Valley region, Gujarat, the Bombay coast and thence eastward across the head of the Peninsula. It, likewise, exceeded the normal over Mysore, Malabar and the neighbouring districts. In all other parts of the Indian region it was lower than usual. The departures from the normal were generally slight or small, but the excess was more than 2° at Deesa (+2°·3), Indore (+2°·1), and Khandwa (+2°·3), while the deficiency was more than 2° over the greater part of the United Provinces, of Assam and of Burma and was greatest (−4°·8) at Minbu.

The mean maximum temperature exceeded the normal at most of the hill stations except those on the outer ranges of the north-west Himalayas.

The mean minimum temperature of the month of December ranged below the normal over North and East Bengal, Assam, Burma and the southern half of the Peninsula. The deficiency was generally small and only exceeded 2° at Dhubri (−3°·2). Over the remainder of the country the mean minimum temperature exceeded the average and within a broad band extending from the North-west Frontier Province south-eastward through the Punjab and Gangetic Plain as far as Orissa, the excess varied between 2°·0 and 4°·7. At the hill stations except Murree, Ranikhet and Chakrata, the mean minimum temperature was also in excess.

The mean temperature of the month exceeded the average except over North and East Bengal, Assam, Burma and the southern half of the Peninsula. The departures from the normal were slight or small except at Sialkot, Deesa, Khandwa and Amraoti where the excess was 2° or more and at Akyab, Minbu, Yamethin, Bassein and Diamond Island where the deficiency exceeded 2°.

At the stations on the outer ranges of the north-west Himalayas the mean temperature was somewhat lower than usual.

The following table gives mean comparative data of temperature for the eleven meteorological provinces or divisions into which India is divided :—

METEOROLOGICAL PROVINCE.	DEPARTURE FROM NORMAL OF		
	Mean maximum temperature, Dec., 1904.	Mean minimum temperature, Dec., 1904.	Mean temperature, Dec., 1904.
	°	°	°
Burma Coast and Bay Islands	—2·4	—0·7	—1·5
Burma Inland	—4·1	—0·2	—2·2
Assam	—1·7	—1·7	—1·7
Bengal and Orissa	—0·2	+0·9	+0·4
Gangetic Plain and Chota Nagpur.	—0·9	+2·4	+0·8
Upper Sub-Himalayas	—1·4	+3·2	+0·9
Indus Valley and North-west Rajputana.	+0·6	+1·9	+1·3
East Rajputana, Central India and Gujarat.	+0·3	+1·6	+0·9
Deccan	+0·5	+0·9	+0·7
West Coast	0	—0·3	—0·2
South India	+0·2	—0·5	—0·2

Winds.—Over the east of the Bay the winds were fairly normal, but around the north coasts of the Bay there was more easting than usual in the wind's direction. The winds were light over the Gangetic Plain and inland Bengal, but the directions were fairly normal. In upper India the winds were generally light and unsteady and the principal feature of the winds over a large part of northern India was their general lightness. Along the West Coast of India the winds were more westerly than usual while over south India the wind was more easterly and generally stronger and steadier than the average.

Humidity.—On the mean of the month the air was drier than usual over East Bengal, Cachar and Burma, as well as over the greater part of the west and south of the Peninsula. In other parts of the Indian region the air was damper than the average. The mean relative humidity was lower than usual over the Bombay Deccan, the Malabar coast and the Carnatic; was about normal over Gujarat, Central and East Bengal and was in excess elsewhere. The excess was greatest over the United Provinces (Jhansi +22), Central India (Neemuch and Sutna each +15) and the South-East Punjab (Delhi +15). At nearly all the hill stations the mean relative humidity was also in excess.

The following table gives departure data of the mean aqueous vapour pressure and of mean humidity of the nine meteorological provinces for the month of December 1904:—

METEOROLOGICAL PROVINCE.	MEAN ABSOLUTE HUMIDITY.		MEAN RELATIVE HUMIDITY.	
	Average actual, Dec., 1904.	Departure from normal, Dec., 1904.	Average actual, Dec., 1904.	Departure from normal, Dec., 1904.
	"	"	%	
Burma Coast and Bay Islands	·736	—·038	76	—2
Bengal and Orissa	·525	+·033	75	+2
Gangetic Plain and Chota Nagpur	·372	+·067	69	+8
Upper Sub-Himalayas	·330	+·055	73	+10
Indus Valley and North-west Rajputana.	·306	+·022	57	+2
East Rajputana, Central India and Gujarat.	·277	+·019	49	+4
Deccan	·334	—·024	50	—3
West Coast	·599	—·035	68	—4
South India	·501	—·024	64	—2

Cloud.—The sky was more cloudy than usual over the interior of Burma, Central and Deltaic Bengal, the east and the greater part of the south of the Peninsula, Bihar and the adjacent parts of the United Provinces, and the submontane districts of Upper India. In other parts of the country the sky, on the mean of the month, was clearer than usual. The excess in the cloud amount was most marked over the interior of Burma, the Vizagapatam district and the east of Central India, while the deficiency was most marked at Bassein, Silchar, Hyderabad (Sind) and at the hill station of Mercara in Coorg. In the north-west Himalayas the mean cloud amount generally exceeded the normal while in Baluchistan, on the contrary, the sky was unusually clear.

The following table gives departure data of the mean cloud amount of the nine meteorological provinces of India for the month of December 1904 :—

METEOROLOGICAL PROVINCE.	MEAN CLOUD AMOUNT.	
	Average actual, Dec., 1904.	Departure from normal, Dec., 1904.
Burma Coast and Bay Islands	3·2	—0·5
Bengal and Orissa	2·6	+0·3
Gangetic Plain and Chota Nagpur	1·8	0
Upper Sub-Himalayas	2·1	—0·5
Indus Valley and North-west Rajputana	2·1	—0·6
East Rajputana, Central India and Gujarat	1·3	—0·9
Deccan	2·1	—0·1
West Coast	1·7	+0·1
South India	4·4	+0·2

Rainfall.—There was actually or practically no rain during the month under review over Arakan, Deltaic, Central and North Bengal, Chota Nagpur, South Bihar,

Malabar, Coorg, Hyderabad, the Bombay Presidency (except Sind) and the Berar and east divisions of the Central Provinces. Elsewhere more or less rain was received, the average actual fall ranging from 0·10″ in East Bengal and Sind to 3·86″ in the south division of the East Coast. The month's rainfall was in excess of the average over the greater part of Burma, North Bihar, the United Provinces, the Punjab (except the west division), the central division of the Central Provinces, Gujarat, Central India and Rajputana. The largest absolute excess was reported from South Oudh and the West Submontane division of the United Provinces, while the greatest deficiency was reported from parts of Madras where the failure of the rainfall, which had been so noticeable in the autumn months of 1904, still continued though to a less degree.

The following table gives comparative rainfall data for the eleven meteorological provinces:—

Meteorological Province.	Rainfall.			
	Mean actual, for Dec., 1904.	Mean normal, for Dec.,	Departure from normal, Dec., 1904.	Percentage departure from normal.
	Inches.	Inches.	Inch.	
Burma Coast and Bay Islands	0·71	0·99	−0·61*	− 62
Burma Inland	0·37	0·36	+0·08*	+ 22
Assam	0·06	0·42	−0·36	− 86
Bengal and Orissa	0·07	0·22	−0·15	− 68
Gangetic Plain and Chota Nagpur	0·40	0·19	+0·21	+ 111
Upper Sub-Himalayas	1·06	0·57	+0·48*	+ 84
Indus Valley and North-west Rajputana.	0·18	0·22	−0·03	− 14
East Rajputana, Central India and Gujarat.	0·41	0·19	+0·22*	+ 105
Deccan	0·13	0·36	−0·23*	− 64
West Coast	0·05	0·62	−0·56	− 90
South India	1·98	2·63	−0·65	− 25

*A reference to Table I will show that the means of columns 2 and 3 are derived from a smaller number of stations than the means in the first column. The sum of the figures in columns 2 and 3 will, therefore, not agree with the figures in column 1.

General remarks on the weather of the Indian Monsoon area:—December is ordinarily a month of generally quiet and settled weather over the Indian monsoon area during which the dry winds of the north-east monsoon prevail over the greater part of the area and conditions are fairly undisturbed even over the north-west frontier of India and the countries to the westward.

During the month under review one of the most marked features of the weather over India was the excess of vapour tension over the northern and central parts of the country. To this excess of absolute humidity was probably due the heavy and widespread rain which prevailed over north-west India and the Gangetic Plain between the 14th and the 18th and the 22nd. This rainfall was attributable to two very shallow depressions which passed from Gujarat through the Central Provinces to the east of Central India. These depressions were of very slight intensity and in a dry year would probably have exercised but little influence on the weather. As, however, the absolute humidity was in large excess they were, as mentioned above, accompanied with heavy and widespread precipitation. The depressions do not appear to have advanced to the Indian region from the westward. The Russian meteorological charts show that slight storms existed over the Black Sea and Caspian regions between the 1st and the 4th. High pressures then appeared over the Caspian area and continued till the 18th after which the high pressures were transferred to central Europe and storms passed south-eastward from the Baltic through eastern Russia. This condition lasted till the 26th, after which date the high pressure area was retransferred to the Caspian region and held there till the close of the month. There is thus no indication of the advance of the depressions, which caused unsettled weather over northern India between the 14th and 22nd, from the westward. The following table shows the dates of the occurrence of barometric and thermometric minima and of rainfall along a line extending from the east of the Mediterranean to north-west India:—

DATES OF OCCURRENCE OF MINIMA OF PRESSURE AND TEMPERATURE AND OF RAINFALL.

Alexandria.			Beirut.			Baghdad.			Ispahan.			Chaman.			Lahore.		
P.	T.	R.	P.	T.	R.	P.	T.	R.	P.	T.	R.	P.	T.	R.	P.	T.	R.
6	6	3	2	4	1	7	5	1	2	2	2	2	7	26	3	4	Nil.
15	13	6	6	10	to	9	8	3	4	7	3	6	11	...	10	8	
20	17	21	9	12	7	12	10	4	11	14	9	11	15	...	23	13	
22	24	22	15	17	9	20	12	7	15	17	22	16	17	...	26	16	
29	28	24	22	21	10	23	15	...	19	25	31	19	21	...	...	19	
		25	23	23	11	31	22	...	21	...	...	24	28	...	...	22	
			31	31	20	...	24	...	24	...	..	26	...	...	...	24	
					to	...	...	...	31	...	...	29				30	
					26												
					28												
					to												
					31												

As regards pressure the preceding data do not afford any evidence of the eastward progression of the minima throughout the whole length of the line of observation. The minimum of the 2nd was recorded at Beirut, Ispahan and Chaman and perhaps a day later at Lahore; that of the 6th at Alexandria and Beirut and perhaps a day later at Baghdad; that of the 22nd at Alexandria and Beirut, at Baghdad on the 23rd and at Ispahan and Chamun on the 24th. The dates of the occurrence of the minima of temperature exhibit little similarity except as regards the minimum of the 17th which was recorded at Alexandria, Beirut, Ispahan and Chaman. Rain fell on the 3rd at Alexandria, Beirut, Baghdad and Ispahan, but otherwise there was no agreement between the dates of rainfall; while the rainy periods in northern India, *viz.*, the 14th to the 18th and the 22nd were essentially dry periods over Egypt, Asia Minor and Persia.

Over western Siberia a large fall of pressure occurred on the 1st, 2nd and 3rd, on the 5th, on the 7th and 8th, on the 10th and 11th, and on the 15th and 16th, and pressure was very unsteady between the 19th and the 28th. On some dates similar changes occurred over the north-west of the Indian region, but as a general rule little connexion could be traced. In the extreme south of the Trades-monsoon area the conditions call for little remark. At Zanzibar, the Seychelles and Mauritius the winds and barometric pressure were approximately normal and the only important feature was the heavy rainfall.

The following table shows the daily pressure departures from the normal for various selected stations in the monsoon area and the mean pressure departure of the whole:—

Month—December 1904.

DEPARTURE FROM NORMAL OF PRESSURE AT

Date.	Calcutta.	Lahore.	Madras.	Colombo.	Bombay	Bushire.	Aden.	Zanzibar.	Seychelles.	Whole.
	"	"	"	"	"	"	"	"	"	"
1	+·072	+·062	+·082	+·062	+·063	—·241	—·031	+·018	+·024	+·012
2	+·037	+·064	+·049	—·001	+·053	—·259	—·041	—·013	—·009	—·011
3	+·044	+·046	+·037	—·012	+·047	—·143	—·039	—·006	0	—·003
4	+·060	+·110	+·062	—·002	+·052	—·173	—·021	+·013	—·010	+·011
5	+·095	+·109	+·060	+·023	+·066	+·097	—·026	+·025	+·005	+·050
6	+·102	+·120	+·064	+·033	+·046	+·119	+·025	—·011	—·014	+·054
7	+·092	+·103	+·023	—·001	+·030	+·054	+·025	—·025	—·018	+·031
8	+·051	—·016	+·035	+·005	+·028	+·011	—·019	—·017	—·008	+·012
9	—·008	—·141	—·005	—·030	—·022	—·075	0	—·019	—·021	—·036
10	—·085	—·205	—·036	—·043	—·076	+·108	—·010	—·024	—·043	—·049

DEPARTURE FROM NORMAL OF PRESSURE AT

Date.	Calcutta.	Lahore.	Madras.	Colombo.	Bombay.	Bushire.	Aden.	Zanzibar.	Seychelles.	Whole.
	"	"	"	"	"	"	"	"	"	"
11	—·083	—·173	—·047	—·060	—·094	—·048	—·045	—·042	—·108	—·078
12	—·036	—·140	+·001	—·019	—·054	—·059	—·045	—·027	—·121	—·056
13	—·015	—·144	+·032	+·001	—·048	+·006	—·060	—·075	—·102	—·045
14	0	—·105	+·027	+·014	—·033	+·014	—·051	—·077	—·034	—·027
15	—·018	+·005	—·002	—·009	—·036	+·007	—·025	—·079	—·032	—·021
16	+·023	+·097	+·018	—·004	—·022	+·074	+·013	—·038	+·010	+·009
17	+·074	+·034	+·022	+·005	+·015	+·092	+·085	—·048	+·039	+·038
18	+·039	+·098	—·033	—·004	—·022	+·064	+·078	+·071	+·060	+·029
19	—·004	+·072	—·080	—·065	—·085	—·017	+·040	+·009	+·020	—·012
20	+·004	+·039	—·071	—·023	—·072	—·019	+·023	—·004	+·012	—·012
21	—·037	+·030	—·032	+·023	—·037	—·050	—·012	+·006	+·012	—·007
22	—·011	—·001	—·002	+·060	—·029	+·022	+·023	+·033	+·004	+·012
23	+·024	—·011	+·016	+·040	—·014	—·072	+·009	+·008	+·023	0
24	+·052	+·045	+·067	+·095	+·035	+·081	+·016	+·031	+·011	+·048
25	+·054	+·069	+·102	+·136	+·088	+·281	+·095	+·063	+·060	+·105
26	+·050	—·010	+·087	+·037	+·073	+·203	+·104	+·051	+·080	+·082
27	+·040	+·021	+·107	+·097	+·069	+·116	+·008	—·049	+·038	+·061
28	+·063	+·035	+·115	+·114	+·075	+·076	+·085	+·076	+·072	+·081
29	+·085	+·039	+·128	+·104	+·075	—·012	+·056	+·083	+·054	+·075
30	+·126	+·121	+·128	+·106	+·065	—·036	+·053	+·101	+·058	+·080
31	+·204	+·246	+·169	+·128	+·126	—·040	+·050	+·091	+·082	+·117

The mean departures show that minima of pressure occurred on the 2nd, 11th, 20th, and 27th and maxima on the 6th, 17th, 25th, and 31st. From the 24th to the close of the month pressure exceeded the normal practically throughout the whole of the monsoon area.

Solar and Magnetic Disturbances.

The following reports as to solar and magnetic disturbances have been received from the observatories:—

SOLAR PHYSICS OBSERVATORY, Kodaikanal,

Solar Observations, December 1904.

This month was considerably less favourable for observations than November. There were six days on which no observations were possible and nine other days on which prominences could not be observed.

Sunspots.—For the first two days of the month there were only a few small spots and for the next three days foggy weather made observations impossible. On the 6th four new groups had appeared and from the 8th till the 17th there were never less than 6 groups visible at once, while on the 13th no less than 11 distinct groups were recorded. The distribution of the spots was rather uncommon. On the 9th and 10th the six groups visible all lay in a small belt in the north-east quadrant, and a few days later the chief groups formed a belt from limb to limb in the northern hemisphere with only one or two insignificant spots in the southern hemisphere. The last of the spots of this series disappeared round the west limb on the 22nd and a period of quiescence followed, lasting till the end of the month, and broken only by some quite insignificant spots and by one group (439) which appeared quite suddenly between the 29th and 30th near the centre of the disc. The spectroheliogram of the 29th showed a mass of bright calcium flocculi where the spot appeared next day.

Of the 29 new groups appearing during the month, 16 were in the northern and 13 in the southern hemisphere. While the actual numbers appearing in the two hemispheres did not differ greatly, their importance was quite unequal, for, with the exception of 439, the southern spots were all very small and short-lived, while a number of the northern spots were of considerable size. The spot belt was again wide. The majority of the spots lay between latitudes 10° and 20° but one occurred in 32°S. and another in 5° N.

Prominences were numerous, especially towards the end of the month. One very bright one appeared on the 6th near the east point of the limb and showed displacements in the C line in both directions. An eruptive and rapidly hanging prominence was observed on the 22nd near the east point of the limb at the point where spot No. 419 disappeared next day. The tallest prominence seen was on the 29th. The photograph taken on that morning shows it as a great cloud reaching to about 90,000 miles above the limb with which it was connected by two jets separated from each other by nearly 18° of latitude.

There were numerous small magnetic disturbances during the month but none of any considerable size.

C. MICHIE SMITH,

Director, Kodaikanal and Madras Observatories.

Colaba Observatory, Bombay:—Note on the Colaba Magnetic Record.

During the month the traces showed 12 calm days, 17 days of small and 2 days of moderate disturbances.

Movements suspected to be due to seismic causes occurred on the 23rd and 25th at about 19 hours and 18 hours respectively, the strain apparently lasting for about 1½ and 12 hours, respectively.

The selected quiet days of the month were the 2nd, 8th, 13th, 22nd and 30th.

The mean observed absolute values of the several elements as also the ranges and the summed ranges of the Horizontal Force and Declination for the month were as follow:—

Declination	0° 14′ 2″ East.
Horizontal Force	0·37403 C. G. S. unit.
Dip	21° 52′·7
Horizontal Force range . .	0·00035 C. G. S. unit.
„ „ summed range .	0·00222 C. G. S. unit.
Declination range . . .	1′·33
„ summed range . .	7′·05

NOTE.—(Summed range means sum without regard to signs of 24 Ordinates of diurnal inequality.)

Three small seismic disturbances were recorded during the month, the first on the 16th, the second on the 19th and the third on the 20th:—

Magnetic Disturbances, December, 1904.

December, 1904.		December, 1904.		December, 1904.	
1	S.	11	S.	21	C.
2	C.	12	C.	22	C.
3	S.	13	C.	23	C.
4	S.	14	S.	24	C.
5	S.	15	S.	25	S.
6	S.	16	M.	26	S.
7	C.	17	S.	27	S.
8	C.	18	S.	28	C.
9	M.	19	S.	29	S.
10	S.	20	S.	30	C.
				31	C.

The magnitudes of the disturbances are determined from Horizontal Force traces.

C = calm; S = small; M = moderate; G = great, and VG = very great.

Days are reckoned from midnight to midnight.

N. A. F. MOOS,

Director, Govt. Observatory, Bombay.

Alipore.— List of displacements recorded by the Seismograph at the Alipore Observatory, during December, 1904.

Number.	Date, 1904.	P. T. Commencement. G.M.T.	L. W. commencement.	Maxima. G. M. T.	End.	Maximum amplitude in m. m.	Duration.	REMARKS.
		H. M.	H. M.	H. M.			H. M.	
	19-12-04	17-23·5	17-40·8	17-43·9	18-11·8	1·25	0-48·3	Period of the full swing is about 18 seconds Sensibility 1 m. m. = 0″·38 of tilt.
	20-12-04	5-23·0	6-0·6	6-21·0	6-43·4	3·00	1-20·4	

The local times of the commencement.

Date 1904.	H. M.
December 19	23 16·8
„ 20	11 16·3

G. W. KUCHLER,

Asst. Meteo. Reporter to the Govt. of India.

Mauritius. Royal Alfred Observatory:—

Sunspots:—Except on December 7th, 25th, and 29th when the weather was cloudy, spots and faculæ were observed on the sun's disc every day of the month. There was a large increase of solar activity from one very small group on December 3rd to eight groups and two isolated spots on the 12th; two of the groups and two of the spots being large and the remainder small. The activity then decreased until on December 26th only one small group was visible. A moderate sized group appeared on the 29th.

Magnetic disturbances:—

Days.	Hours.	Disturbances.
	18½	Sharp increase of Horizontal Force (·00073) followed by a decrease (·00088) until 19 hours and small fluctuations until 21 hours.
9	1-14	General increase of Horizontal Force (·00037) followed by a decrease (·00069) until 18 hours.
14 to 18	19 to 23	Small fluctuations in Horizontal Force.
16	0-3	Wave in Horizontal Force (+·00352).
,,	8-15	Wave in Horizontal Force (+·00358) with small superposed fluctuations from 8 hours to 23 hours.
25	7-11	Wave in Horizontal Force (—·00124).

T. F. CLAXTON,
Director.

Atmospheric Pressure.

As was the case in the preceding month of November, the mean pressure of the month of December 1904, exceeded the normal at all stations. The departure from normal of the geographical mean of the whole country was +·027″ as compared with +0·038″ in November.

The actual distribution of the mean 8 A.M. pressure of the month is shown in Pl. I. Pressure was highest (30·15″) over the North-west Frontier Province and the North Punjab; it was uniform over the greater part of northern India and thence decreased southward and was lowest (29·95″) on the Malabar coast and over Ceylon. The barometric gradient was somewhat less steep than usual.

As mentioned above pressure exceeded the normal everywhere, but the excess was generally greater in the east than in the west, the departures ranging from +0·069″ at Thayetmyo to +0·004″ at Peshawar.

Over Persia and north Arabia, the departures of pressure from the normal were irregular, while in south Arabia the mean pressure was in excess. The excess noticed over Southern India did not extend southward to the south-east Trades region where the pressure, on the mean of the month, was normal.

Compared with the general condition, *viz.*, +0·027″ pressure was higher than usual over Burma, Assam, Bengal, the east coast of the Peninsula, the greater part of the United Provinces, and the submontane districts of the Punjab. The excess was generally small except in Burma and equalled or exceeded 0·020″ only at the stations for which comparative data are given below:—

STATION.	Departure from normal of mean 8 A.M. pressure of December 1904.	Pressure anomaly December 1904.
	″	″
Toungoo	+·052	+·025
Minbu	+·052	+·025
Bhamo	+·052	+·025
Narayanganj	+·052	+·025
Masulipatam	+·051	+·024
Mandalay	+·049	+·022
Rangoon	+·049	+·022
Silchar	+·047	+·020
Purnea	+·047	+·020

Over the remainder of the Indian region, pressure was relatively low, but in these areas also the departures were

generally small and equalled or exceeded 0·020″ only at the following places:—

STATION.	Departure from normal of mean 8 A.M. pressure of December 1904.	Pressure anomaly December 1904.
	″	″
Peshawar	+·004	—·023
Balasore	+·006	—·021
Khandwa	+·007	—·020
Malegaon	+·007	—·020

The mean pressure of the month, at the level of the hill stations, with the doubtful exception of Pachmarhi, exceeded the normal at all stations except Chaman where pressure was in trifling defect. The pressure excess at the level of the hill stations was, however, generally less than that at the level of the plains, hence the vertical pressure gradient was generally greater than usual though in most cases by small amounts. The following gives comparative data for ten pairs of stations:—

HILL STATION.	Departure from normal pressure, December, 1904.	PLAIN STATION.	Departure from normal pressure, December, 1904.	Departure of pressure difference.
	″		″	″
Quetta	+·011	Jacobabad	+·023	+·012
Leh	+·020	Lahore	+·019	—·001
Murree	+·011	Peshawar	+·004	—·007
Simla	+·022	Ludhiana	+·030	+·008
Chakrata	+·021	Roorkee	+·032	+·011
Ranikhet	+·019	Bareilly	+·033	+·014
Darjeeling	+·009	Dhubri	+·037	+·028
Mount Abu	+·006	Deesa	+·012	+·006
Pachmarhi	—·010	Khandwa	+·007	+·017
Wellington	+·001	Coimbatore	+·024	+·023

The following summarises the chief abnormal features of the mean pressure conditions of the month:—

(1) Pressure was in excess everywhere both on the hills and plains.

(2) The departure from normal of the geographical mean of the whole country was +·027″.

(3) Compared with this general condition pressure was higher than usual over Burma, Assam, the east of the Peninsula and parts of Bengal, of the United Provinces, and of the Punjab and lower than usual elsewhere.

(4) Pressure though in excess at the level of the hills, exhibited at that elevation less excess than in the neighbouring plains and the vertical pressure gradient was hence steeper than usual.

(5) Pressure was normal over the south-east Trades region.

Barometric depressions and cyclonic storms of the month.

The depressions which affected the weather during the month of December were of slight intensity as measured by the amount of the barometric depression at their centres, but, owing probably to the amount of moisture in the atmosphere, their effect on the weather was at times considerable.

Depression of the 9th to 15th.—On the 9th the barometer was falling over the whole of the Indian region, the change amounting to between 0·15″ and 0·20″ over the Indus Valley region where pressure was lower than in surrounding regions. On the 10th the barometer was still falling, more particularly in the north-west, and the depression was better defined, pressure having been as much as 0·25″ below the normal over the western desert. On the following day, the 11th, a small centre of depression was developed within this low pressure area over Sind, and this centre advancing north-north-eastward into the Punjab occasioned snow over Kashmir on the 12th, and snow over the Kashmir and west Himalayas and rain over the plains of upper India on the 13th, 14th and 15th. By the morning of the 15th the depression had disappeared.

On the 15th another shallow depression was shown over Gujarat and the west of the Central Provinces. Thence it advanced eastward through the Central Provinces during the 16th and 17th and disappeared over the east of Central India on the 18th. The depression occasioned a good deal of general rain over Rajputana, the United Provinces and the adjacent districts to the south and west.

On the 17th, the barometer was falling over east Ceylon and the south of the Peninsula and on the morning of the 18th a slight storm was shown over the south-west of the Bay off the east coast of Ceylon. The storm apparently filled up in this region, but occasioned a good deal of rain at the more southern stations.

Summary of the Reports of the Weather and Snowfall in the Mountain Districts to the North and North-West of India.

I.—AFGHAN MOUNTAIN DISTRICTS.

(1) *Kabul.*—Snow or rain fell at Kabul on the 11th, 12th, 13th, 14th, 25th and 26th December. The heaviest fall was on the evening of the 25th when 3¼ inches fell.

At the close of the month the snow was lying on the plains to a depth of 1½ inches and was much thicker on the Pagman Hills and other ranges.

The total snowfall was about 4 inches and was less than in the same month last year.

(2) *Wano.*—On the 13th about 3 inches of snow fell on the Marwattai and Pirghal (11,000 ft.) hills and about 1 inch on the Janimela (9,000 ft.).

At the close of the month snow lay in patches on Marwattai down to about (10,000 ft.) with fairly heavy drifts on the higher peaks.

The snowfall of the month was about normal.

(3) *Kurram.*—Snow fell on the Sufed-i-Koh on the 11th, 12th, 13th, 14th, 25th, and 26th December. The fall on the 26th extended to Parachinar, but melted quickly.

At the close of the month there was about 5 feet of snow on the Sufed-i-Koh and the passes were closed. The snowfall on the Sufed-i-Koh during the month under review is believed to be heavier than those of the previous Decembers of the past ten years.

(4) *Kohat.*—Two falls of snow were reported during December on the Samalzai hills. On the 14th December the accumulated snow on the Mayer Ghar was 1 foot, on the Mahwara hill and Bar Mahommed Khel ½ foot and on the Samana Range about 3 inches. The snowfalls were fewer but earlier than in any previous year.

(5) *Hazara*:—Siran Range: slight snow fell on the 12th, 13th, 16th, 18th and 19th December.

II.—KASHMIR AND PUNJAB HIMALAYAS.

(1) *Leh.*—The weather in the Karakorum at the beginning of December was reported to be very cold and the snowfalls unusually early on the passes.

At Leh itself snow fell as follows during December.

11th December	⅓ inch
15th „	Sprinkle
20th 21st „	do
27th „	do

No snow was lying at Leh at the close of the month when the weather seemed to have cleared.

(2) *Srinagar.*—On the 11th night a heavy fall of snow occurred over the mountains surrounding Srinagar, the snow falling as low down as 6,500 ft. and the valley received light to moderate showers. On the 17th another fall took place between 2 A.M. and 3 A.M. and on the 19th about half an inch of snow fell in the Kashmir valley.

(3) *Bashahr, Simla district*:—Snow fell as follows:—

on the 15th	2 ins,	descending to	6,000 feet.
„ 16th	2 „	ditto.	7,000 „
„ 17th	3 „	ditto.	6,000 „

The accumulated snow on well-known passes measured as follows at the close of the month:—

Rupan Pass	12 feet.
Bruin „	12 „
Harang „	6 „
Shatul „	11 „
Buldar „	12 „
Runang „	8 „

The snowfall of the month was heavier than in the corresponding month of last year.

III.—UNITED PROVINCES HIMALAYAS.

(1) *Almora*:—The following reports of snowfall have been received:—

Malla Johar.

	feet.	inches.
10th December	0	6
14th „	1	3
17th „	1	6
TOTAL	3	3

Malla Danpur.

	feet.	inches.
15th December	0	8
17th „	0	6
TOTAL	1	2

Darma Malla.

	feet.	inches.
10th December	1	0
14th „	1	4
29th „	0	6
TOTAL	2	10

Byans and Chandans.

	feet.	inches.
15th December	4	0
16th „	1	0
21st „	1	0
22nd „	2	0
TOTAL	8	0

The accumulated snow at the end of the month on well-known passes and peaks was as follows:—

	feet.	inches.
Untdhura Range	7	6
Ralam Dhura	6	9
Millam Range	4	6
Lipu Dhura Range	8	0
Pindari, Kapini and Kauntela peaks	1	2

The fall of snow is reported to be greater than in the corresponding month of last year.

(2) *Garhwal*:—Snow fell between the 14th and 18th December but did not descend below heights of about 5,500 feet. The falls were of the ordinary character.

The snowfall was thus lighter than usual in Afghanistan and at Kohat, normal at Wano and generally heavier than usual elsewhere. At most of the recording stations the fall was earlier than the average.

Summary of Special Storm Reports.

December 2nd:—From the 2nd to the 5th the weather at Negapatam was very disturbed with a severe gale of wind and rain.

" *14th*:—A severe dust and thunder storm followed by a shower of rain passed over Ludhiana between noon and 14 hours.

" *17th*:—A thunderstorm with rain occurred at Agra from 4 to 8 hours.

" *18th*—At 20 hours a thunderstorm passed over Pachmarhi. The storm came up from west, lasted for one hour and rain followed.

" *19th*:—A thunderstorm occurred at Pachmarhi at 21 hours. The storm lasted for 30 minutes and was accompanied with rain.

Hail Storms:—Hail storms occurred over some Central India States between the 16th and 18th December. On the 16th a storm was experienced in the Bijawar State in the afternoon, the storm travelling from south to east; on the 17th storms were experienced in the Charkhari, Bijawar and Ajaigarh States of Central India and in the Jaipur and Dausa Tehsils of the Jaipur State in Rajputana and on the 18th in the Bijawar State of Central India. The storms occurred in the afternoon and were slight.

Earthquakes:—The following records of earthquakes have been received:—

Mysore:—A gentle shock of earthquake passed Mysore on December 11th at four hours. The wave apparently passed from east to west and the movement lasted for a period of about 3 minutes.

Srinagar:—A shock of earthquake was felt at Srinagar at 12·30 hours on the 16th. The direction was from north to south and the duration of movement eight seconds.

Sonemarg:—A shock of earthquake was felt at 12·45 hours on the 16th and lasted one minute.

Dras:—A slight shock of earthquake was felt at Dras at 12·25 hours on the 16th. The shock lasted about 5 seconds.

Brief Summary of the Weather in the Arabian Sea and Bay of Bengal during the month.

Arabian Sea:—During the first five days of the month the winds, more particularly over the centre, south and west, were more easterly than usual over the Arabian Sea. On the 6th the wind drew into the normal north-east direction and this continued till the 10th. During this interval the wind strengthened and blew strongly from north-east with squally, showery, weather over the south of the sea. On the 11th the wind drew into north in the neighbourhood of Socotra and northerly winds thence extended all over the sea. They were strong and general until the 17th. Between the 18th and the 22nd the direction over the greater part of the sea remained northerly, but the force gradually fell lighter and on the 23rd and 24th variable breezes were reported from a large part of the sea. Between the 25th and 27th there was another burst of strongish northerly and north-north-easterly winds, but from the 28th to the end of the month normal north-east winds were reported.

In the Persian Gulf the winds varied considerably agreeing with the pressure changes in progress over the land. The direction was easterly and south-easterly from the 1st to the 4th; northerly and north- westerly from the 5th to the 7th; south-easterly and variable on the 8th and 9th; north-westerly from the 10th to 17th; north-easterly and variable between the 18th and 21st; north-westerly again from the 22nd to the 27th and south-easterly till the close of the month. In the Gulf of Aden the normal easterly and east-north-easterly winds prevailed throughout the month.

The mean force of the wind for the whole month was 3·4, the normal force being 3·3, so that the wind, on the mean of the month, was 0·4 stronger than usual. The force exceeded the normal on the 1st; from the 3rd to the 10th; from the 12th to the 21st (excluding the 19th); and from the 25th to the end of the month. On the remaining days the force was normal or below the normal. The force was highest, 4·3, on the 26th, 28th, 30th and 31st and was lowest 2·7, on the 23rd.

Bay of Bengal:—Normal north-east winds prevailed on the 1st, but between the 2nd and the 7th the direction was more easterly than usual, more particularly in the south. Between the 8th and the 10th north-easterly winds of the usual character prevailed, but the force gradually fell off and on the 11th and 12th the winds were more or less variable. On the 13th the wind's direction shifted towards north and between that date and the 16th unusually northerly winds were experienced over the surface of the Bay. On the 17th a change occurred. Conditions became cyclonic in the south and strong easterly winds were reported over the south-west of the Bay. On these conditions disappearing on the 20th north-easterly winds set in and more northerly winds than usual were again experienced over the greater part of the Bay from the 22nd to the 28th. On the 29th the winds again veered towards north-east and during the last three days of the month north-easterly and easterly winds blew generally over the Bay.

The mean force of the wind for the month was 3·6 and the normal being 3·2 the wind, as over the Arabian sea, was, on the mean of the month, 0·4 stronger than usual. The mean force exceeded the normal from the 1st to the

9th; from the 11th to the 15th; from the 17th to the 19th; from the 21st to the 25th; and on the 30th and 31st. On the remaining days the mean force was normal or below the normal. The force was highest, 4·4, on the 24th, and was lowest, 2·5, on the 10th.

Equatorial Belt:—Over the west of the equatorial Belt the winds were more easterly than usual between the 1st and the 3rd. They then shifted towards north and northerly, north-westerly and variable westerly winds prevailed till the 6th, when the winds settled into northerly directions and continued to blow from this quarter till the 10th. Between the 11th and the 17th the winds were unsteady varying between north-west and east, but on the 18th they again settled down into northerly directions and between the above date and the close of the month north-westerly to north-easterly winds prevailed fairly steadily.

Temperature of the Air.

The general temperature conditions of the month of December 1904 differed considerably from those of the preceding month of November. This was more especially the case over north-west India where the excess was less than in the preceding month, and over Burma where the deficiency was greater.

The mean maximum temperature of the month exceeded the normal over the Indus Valley and neighbouring regions, over Gujarat and thence across the head of the Peninsula. The departures were generally small and unimportant but exceeded +2·0° at the stations for which comparative data are given below:—

Station.	Mean maximum temperature.		
	Actual, Decr. 1904.	Normal, Decr.	Departure from normal, Decr. 1904.
	°	°	°
Deesa	87·7	85·4	+2·3
Khandwa	85·3	83·0	+2·3
Indore	81·4	79·3	+2·1

The mean maximum temperature also exceeded the average over the south of the Peninsula, but the excess here was even smaller than in the more northern areas and amounted to 1·5° or more only at the following places:—

Station.	Mean maximum temperature.		
	Actual, Decr. 1904.	Normal, Decr.	Departure, from normal, Decr. 1904.
	°	°	°
Hassan	81·2	79·4	+1·8
Mysore	83·1	81·6	+1·5
Coimbatore	86·6	85·1	+1·5

Over the remainder of the country the mean maximum temperature was lower than usual, the deficiency being considerable and more than 2° over the United Provinces and neighbouring parts of the Punjab and considerable to large over the upper Assam valley and the greater part of Burma. The following gives data for the stations in these two areas:—

Area.	Station.	Mean maximum temperature		
		Actual, December, 1904.	Normal December.	Departure from normal, December, 1904.
		°	°	°
First Area	Roorkee	69·3	72·4	−3·1
	Agra	73·1	76·1	−3·0
	Delhi	71·0	73·7	−2·7
	Bareilly	70·4	72·8	−2·4
	Gorakhpur	71·9	74·2	−2·3
	Ludhiana	68·7	71·0	−2·3
	Mainpuri	72·9	75·1	−2·2
Second Area	Minbu	79·2	84·0	−4·8
	Yamethin	80·6	85·0	−4·4
	Bhamo	72·1	76·3	−4·2
	Rangoon	83·6	87·3	−3·7
	Diamond Island	80·2	83·9	−3·7
	Toungoo	80·7	84·0	−3·3
	Akyab	78·6	81·7	−3·1
	Bassein	81·4	84·4	−3·0
	Mandalay	79·4	82·3	−2·9
	Sibsagar	68·7	71·5	−2·8
	Lashio	71·4	73·7	−2·3
	Thayetmyo	82·5	84·6	−2·1

The mean maximum temperature was also lower than usual across the centre of the Peninsula and at most of the coast stations of the Peninsula. In this region, however, the departures from the normal were small and less than 2°·0.

At the stations on the outer ranges of the north-west Himalayas the mean maximum temperature of the month was lower than usual, but at the inner stations of Gilgit and Leh, as well as at Darjeeling, at the central and

southern hill stations and in Baluchistan it was above the normal.

The mean minimum temperature of the month was below the normal over Burma, Assam, North Bengal and the southern half of the Peninsula. The departures from the normal were, however, almost everywhere small and equalled or exceeded 2° only at the two following stations :—

STATION.	MEAN MINIMUM TEMPERATURE		
	Actual, December 1904.	Normal, December.	Departure from normal December 1904.
	°	°	°
Dhubri	51·9	55·1	—3·2
Moulmein	64·9	66·9	—2·0

Over the whole of the remainder of the Indian area the mean minimum or night temperature was in excess of the normal. The excess was greatest within an area which extended south-eastward from the North-west Frontier Province through the Punjab, the United Provinces, the east of Central India, the north of the Central Provinces and west Bengal to Orissa and within this area the departures from the normal were more than 2°·5 at the following large number of places :—

STATION.	MEAN MINIMUM TEMPERATURE.		
	Actual, December.	Normal, December.	Departure from normal, Deccember 1904.
	°	°	°
Sialkot	47·2	42·5	+4·7
Lahore	44·6	40·3	+4·3
Allahabad	52·0	47·8	+4·2
Sutna	50 9	47·1	+3·8
Ludhiana	47·8	44·0	+3·8
Rawalpindi	40·9	37·1	+3·8
Chaibassa	56·2	52·4	+3·8
Jubbulpore	49·5	46·0	+3·5
Nowgong	49·8	46·4	+3·4
Bareilly	49·1	46·0	+3·1
Balasore	57·9	55·0	+2·9
Patna	54·5	51·6	+2·9
Lucknow	49·1	46·2	+2·9
Meerut	47·6	44·7	+2·9
Multan	47·1	44·4	+2·7
Sirsa	45·4	42·7	+2·7
False Point	60·0	57·3	+2·7
Saugor	54·5	51·9	+2·6
Amballa	46·1	43·5	+2·6
Peshawar	41·6	39·0	+2·6

In Baluchistan, at the stations in the inner ranges of the Himalayas, as well as at Simla and at the eastern and central hill stations the minimum temperatures were normal or higher than usual. This is shown below :—

HILL STATION.	MEAN MINIMUM TEMPERATURE.		
	Actual, December 1904.	Normal, December.	Departure from normal, December 1904.
	°	°	°
Chaman	39·4	38·4	+1·0
Quetta	30·4	29·7	+0·7
Srinagar	31·3	28·5	+2·8
Gilgit	36·4	34·5	+1·9
Leh	14·5	13·2	+1·3
Cherat	43·4	42·6	+0·8
Simla	39·3	39·1	+0·2
Darjeeling	36·6	36·6	0
Pachmarhi	48·2	45·7	+2·5
Mount Abu	53·9	52·9	+1·0

On the other hand, in Afghanistan, in Kalat and at the hill stations on the outer Himalayas and in Southern India the mean minimum temperatures were below the normal. The following gives data :—

HILL STATION.	MEAN MINIMUM TEMPERATURE.		
	Actual, December 1904.	Normal, December.	Departure from normal, December 1904.
	°	°	°
Kabul	26·7	27·7	—1·0
Kalat	21·4	23·8	—2·4
Murree	36·5	39·0	—2·5
Chakrata	38·5	39·3	—0·8
Ranikhet	42·5	42·6	—0·1
Wellington	45·9	48·1	—2·2

The following table shows the lowest minima below 32° recorded on the hills—during the month together with the lowest readings previously recorded. It will be noticed

that the minima of the month were in no way remarkable:—

HILL STATION.	Lowest minimum temperature recorded in December 1904.	Date on which recorded.	Lowest minimum temperature recorded in December previous to 1904.	Year in which recorded.
	°		°	
Dras	−26·4	29th	−26·0	1898
Minimarg	0	30th	−2·9	1902
Sonemarg	1·1	16th	−9·9	1901 and 1902.
Leh	3·4	29th	−9·5	1894
Astor	11·0	29th	−3·0	1900
Kalat	11·3	21st	4·4	1894
Pashin	15·0	15th, 18th and 19th.	8·0	1903
Yatung	15·1	19th	14·9	1900
Skardu	17·1	31st	7·1	1902
Quetta	19·3	15th	10·8	1878
Poo	22·2	21st	12·2	1894
Murree	26·5	15th	22·4	1890
Chaman	26·6	15th	17·6	1903
Srinagar	27·1	1st	11·1	1902
Parachinar	27·6	28th	16·1	1898
Chitral	28·0	3rd and 17th.	25·0	1898 and 1903.
Gilgit	29·1	22nd	21·9	1902
Muktesar	30·3	18th	28·1	1902
Killa Drosh	30·5	28th	26·8	1900
Simla	31·7	18th	21·0	1877
Chakrata	31·9	18th	23·0	1877

The mean temperature of the month was nearly normal over the greater part of India, but was low in Burma and the upper Assam valley. At the following stations the deficiency was 2° or more:—

STATION.	MEAN TEMPERATURE.		
	Actual, December 1904.	Normal, December.	Departure from normal, December 1904.
	°	°	°
Minbu	69·3	72·1	−2·8
Diamond Island	75·6	78·1	−2·5
Akyab	70·6	72·9	−2·3
Yamethin	[illegible]·0	71·1	−2·1
Bassein	·8	74·9	−2·1
Sibsagar	59·1	61·1	−2·0

The mean temperature was also below the normal, but by small amounts, over the southern half of the Peninsula, over East and North Bengal and over the south-east of the Punjab and neighbouring districts, while over the remainder of the country it was in slight excess. The only stations at which the departures from the normal were 2° or more were as follows:—

STATION.	MEAN TEMPERATURE.		
	Actual December 1904.	Normal December.	Departure from normal, December 1904.
	°	°	°
Sialkot	58·7	56·3	+2·4
Khandwa	68·7	66·6	+2·1
Deesa	71·0	69·0	+2·0
Jul bulpore	63·5	61·5	+2·0

There was a slight excess of mean temperature in Baluchistan and a slight deficiency at Murree, but at other places on the hills the departures from the normal were unimportant.

The following gives mean temperature data for the extra-Indian stations:—

STATION.	MEAN TEMPERATURE.		
	Actual, December 1904.	Normal, December.	Departure from normal, December 1904.
	°	°	°
Trincomalee	78·1	78·6	−0·5
Colombo	79·4	80·0	−0·6
Amini Divi	80·7	79·4	+1·3
Kabul	40·6	41·3	−0·7
Kashgar	29·3	26·5	+2·8
Teheran	40·1	42·7	−2·6
Ispahan	39·4	40·8	−1·4
Bushire	59·8	62·4	−2·6
Jask	70·5	71·0	−0·5
Muscat	72·6	73·1	−0·5
Baghdad	49·4	53·5	−4·1
Aden	76·3	77·5	−1·2
Perim	79·5	79·4	+0·1
Zanzibar	82·5	82·7	−0·2
Seychelles	78·6	79·0	−0·4
Mauritius	77·5	78·0	−0·5

The preceding data show that except at Amini Divi, Kashgar and Perim the mean temperature of the month was lower than the average. In Asiatic Turkey and parts of Persia the deficiency was considerable to large.

The following summarises the chief features of the mean temperature conditions of the month :—

(1) The day, the night and consequently also the mean temperature slightly exceeded the normal over the Indus Valley region and Gujarat.

(2) The day temperature was below, the night temperature above and the mean temperature about normal over the Gangetic Plain.

(3) The day, the night and consequently also the mean temperature were above the normal over the head of the Peninsula and west and south-west Bengal.

(4) The day, the night and consequently also the mean temperature were lower than usual over Burma, Assam and East and North Bengal.

(5) The day, the night and the mean temperature were about normal over the southern half of the Peninsula.

The following table gives comparative temperature data of the month for the 57 meteorological divisions of the empire :—

Province.	Division.	Actual temperature.					Departure from normal of month on		
		Mean maximum.	Mean minimum.	Mean of day.	Mean daily range.	Absolute range.	Maximum.	Minimum.	Daily range.
		°	°	°	°	°	°	°	°
Burma	Tenasserim	86·6	66·0	76·3	20·6	31.1	—1·5	+0·3	— 1 8
	Lower Burma (Deltaic)	80·8	67·5	74·2	13·3	22·9	—3·4	—1·2	— 2 2
	Central do.	81·6	55·4?	68·6?	26·3?	36·1?	—2·7	—4·9?	+ 2·2?
	Upper do.	77·2	55·9	66·6	21·2	30·7	—4·1	—0·2	— 3·9
	Arakan	78·6	62·5	70 6	16·1	21·8	—3·1	—1·5	— 1·6
Bengal and Assam.	Eastern Bengal	76·9	56·1	66 6	20·8	30·7	—0·4	—0·2	— 0·2
	Assam (Surma)	77·7	54·3	66·0	23·4	32·0	—2·0	—0·7	— 1·3
	Do. (Hills)	61·5	43·0	52·2	18·5	30·4	...	...	...
	Do. (Brahmaputra)	72·1	50·6	61·3	21·5	29·6	—1·6	—2·2	+ 0·6
	Deltaic Bengal	78·4	57·5	67·9	20·9	31·9	+0·9	+1·6	— 0·7
	Central do.	77 1	55·9	66·5	21·2	31·6	—0·1	+1·2	— 1·3
	North do.	75·2	51·3	63·2	23·9	30·9	—0·8	—1·3	+ 0·5
	Bengal Hills	47·4	28·8	38·2	18·7	35·9	+1·6	0	+ 1·6
	Orissa	79·4	60·8	70·1	18·6	29·2	—0·5	+2·6	— 3·1
	Chota Nagpur	76·9	53·0	64·9	23·9	34·5	+0·8	+2·6	— 1·8
	South Bihar	74·9	53·3	64·1	21·5	32·2	—0·5	+2·0	— 2·5
	North do.	74·4	51·3	62·9	23·1	33·2	—0·8	—0·1	— 0·7
United Provinces of Agra and Oudh.	United Provinces (East)	73·8	51·2	62·5	22·6	35·5	—1·6	+3·2	— 4·8
	South Oudh	73·7	49·1	61·4	24·6	38·1	—2·0	+2·9	— 4·9
	United Provinces (Central)	75·1	51·3	63·2	23·8	38·2	—1·5	+2·4	— 3·9
	Do. do. (West)	72·5	49·3	61·2	23·2	36·7	—2·0	+2·6	— 4·6
	Do. do. (East Submontane).	71·9	51·2	61·6	20·7	30·2	—2·3	+0·8	— 3·1
	Do. do. (West Submontane)	69·2	47·3	58·3	21·9	35·5	—2·1	+2·3	— 4·4
	Do. do (Hills)	53·5	39·8	46·7	13·7	32·7	—1·5	—0·5	— 1·0
Punjab	Punjab (South-East)	71·0	50·9	61·0	20·1	32·3	—2·7	+2·0	— 4·7
	Do. (South)	71·5	46·4	59·0	25·2	40·8	—1·7	+2·7	— 4·4
	Do. (Central)	72·5	44·6	58·6	27·9	42·2	—0·7	+4·3	— 5·0
	Do. (Submontane)	69·3	45·5	57·4	23·8	39·0	—0·9	+3·7	— 4·6
	Do. (Hills)	44·6	26·4	35·5	18·2	42·5	0	+0·7	— 0·7
	Do. (West)	73·0	45·0	59·0	28·0	43·8	+0·2	+1·9	— 1·7
N.-W. F. Province	North-west Frontier Province	70·0	41·9	56·0	28·2	42·8	0	+2 3	— 2·3
Bombay and Malabar Coast Districts (Madras).	Malabar	87·3	71·5	79·4	15·8	21·8	+0·1	—0·2	+ 0·3
	Madras (South Central)	87·1	65·2	76·6	20·9	31·5	+1·3	+0·5	+ 0·8
	Coorg	76·5	57·4	67·0	19·1	25·9	+1·3	—0·4	+ 1·7
	Mysore	81·3	57·4	69·4	23·9	32·3	+1·2	—1·3	+ 2·5
	Konkan	85·6	69·5	77·6	16·1	22·6	—0·2	—0·3	+ 0·1
	Bombay Deccan	83·7	56·1	69·9	27·6	38·1	—0·2	—0·3	+ 0·1
	Hyderabad (North)	81·8	55·5	68·7	26·2	36·9	...	...	...
	Khandesh	83·8	52·1	68·0	31·7	43·6	+0·2	+0·7	— 0·5

Province.	Division.	Actual temperature. Mean maximum.	Mean minimum.	Mean of day.	Mean daily range.	Absolute range.	Departure from normal month of Maximum.	Minimum.	Daily range.
		°	°	°	°	°	°	°	°
Central Provinces and Berar.	Berar	85·3	52·5	68·9	32·8	45·1	+ 1·7	+ 1·1	+ 0·6
	Central Provinces (West)	83·1	53·6	68·4	29·5	42·8	+ 1·9	+ 1·5	+ 0·4
	Do. do. (Central)	79·3	51·9	65·6	27·4	40·4	+ 0·8	+ 2·1	— 1·3
	Do. do. (East)	79·0	53·9	66·5	25·1	37·3	+ 1·1	+ 1·2	— 0·1
Bombay (North)	Gujarat (East)	87·8	58·2	73·0	29·6	39·6	+ 1·6	+ 1·4	+ 0·2
	Kathiawar and Cutch	84·2	58·6	71·4	25·6	39·4	+ 1·0	+ 1·4	— 0·4
	Sind	80·4	52·2	66·4	28·2	46·1	+ 1·7	+ 1·5	+ 0·2
	Baluchistan Hills	60·4	29·6	45·1	30·8	55·3	+ 3·4	+ 0·9	+ 2·5
Rajputana and Central India.	Central India (East)	77·3	50·2	63·7	27·1	41·0	+ 0·3	+ 2·1	— 1·8
	Rajputana (East), Central India (West)	76·6	50·2	63·4	26·4	41·6	—0·9	+ 1·5	— 2·4
	Do. (West)	78·3	50·8	64·6	27·5	43·3	— 0·1	+ 2·3	— 2·4
Madras	East Coast (North)	79·5	64·9	72·2	14·6	22·3	—1·3	+ 0·4	— 1·7
	Hyderabad (South)	83·7	58·6	71·2	25·0	34·6	—0·3	—1·0	+ 0·7
	Madras (Central)	86·6	61·7	74·2	24·9	34·9	+ 0·2	0	+ 0·2
	East Coast (Central)	82·5	66 1	74·4	16·4	23·5	—1·4	—1·3	— 0·1
	Do. (South)	83·2	68·3	75·8	14·9	24·7	+ 0·4	—0·3	+ 0·7
	Madras (South)	84·7	70·4	77·4	14·4	24·9	—0·3	—0·5	+ 0·2

The preceding data show that the mean temperature was highest and averaged over 77° in Malabar (79°·4), the Konkan (77°·6) and South Madras (77°·4), while it was lowest (on the plains) over the North-west Frontier Province (56°) and the submontane division of the Punjab (57°·4). The highest mean maximum reported was 87°·8 in East Gujarat and the lowest mean minimum 41°·9 in the North-west Frontier Province. The mean daily range of temperature was generally less than usual, except over the west and south of the Peninsula. In the United Provinces and the Punjab the mean daily range was largely below the normal.

The following gives a brief account of the principal changes of temperature during the month :—

On the 1st the weather was fine, but the mean temperature was generally lower than usual, except in parts of north-west India and of the Madras Coast. The departures equalled or exceeded 4° at the following places :—

Station.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of 1st December, 1904.
	°
Karwar	—5·0
Ratnagiri	—4·3
Bijapur	—4·0

From the 2nd to the 5th similar conditions prevailed. The mean temperature was higher than usual in the Indus Valley region and over parts of Madras and was generally below the normal elsewhere. The deficiency was greatest over Burma and the Deccan, where cool, dry, northerly and north-easterly winds occasioned very low night temperatures. During this period the temperature, both by day and night, was high at some of the Baluchistan and Himalayan hill stations. The following gives examples :—

Date.	Station.	Departure from normal of Maximum temperature of date.	Minimum temperature of date.	Mean temperature of date.
		°	°	°
2nd December	Quetta	+ 2·6	+6·9	+4·8
	Chaman	+ 3·3	+5·9	+4·6
	Chakrata	+ 2·9	+0·2	+1·6
	Simla	+ 1·8	+0·1	+1·0
	Gilgit	+ 0·6	+1·3	+1·0
	Murree	+ 0·7	+0·6	+0·7
3rd ,,	Chaman	+ 5·7	+9·7	+7·7
	Quetta	+ 5·3	+5·4	+5·4
	Gilgit	+ 4·6	+5·2	+4·9
	Srinagar	+ 5·3	+1·4	+3·4
4th ,,	Chaman	+ 9·2	+8·5	+8·9
	Quetta	+ 8·0	+6·4	+7·2
	Gilgit	+ 3·0	+5·6	+4·3
	Murree	+ 5·6	+2·4	+4·0
5th ,,	Chaman	+ 9·6	+10·7	+10·2
	Quetta	+13·2	+5·4	+9·3
	Gilgit	+11·5	+5·0	+8·3
	Cherat	+ 6·0	+9·8	+7·9
	Leh	+ 8·0	+2·7	+5·4
	Murree	+ 4·3	+6·4	+5·4

During the 6th, 7th and 8th the mean temperature generally rose, except in Burma, and on the 8th was above the normal, except in Burma, Assam, the delta of Bengal, across the head of the Peninsula and in South India. The following gives data for all divisions for this day :—

Province or division.	Departure from normal of		
	Mean maximum temperature, 8th December.	Mean minimum temperature, 8th December.	Mean temperature, 8th December.
	°	°	°
Burma	−3·8	−5·2	−4·5
Assam	−1·4	−6·3	−3·9
Bengal	+0·5	−2·8	−1·2
Orissa	−0·4	+0·4	0
Bihar	+0·8	−1·3	−0·3
Chota Nagpur	+2·8	+2·7	+2·8
United Provinces of Agra and Oudh	−0·1	+1·6	+0·8
Punjab	+1·6	+3·9	+2·8
North-west Frontier Province	+0·7	+4·4	+2·6
Sind	+5·4	+3·2	+4·3
Rajputana	+0·4	0	+0·2
Gujarat	+3·7	+2·4	+3·1
Central India	−0·1	−0·1	−0·1
Central Provinces	−0·4	+0·4	0
Berar	−3·7	−0·9	−2·3
West Coast	−0·3	−0·1	−0·2
Bombay Deccan	−1·8	−0·3	−1·1
Mysore	+0·3	+3·1	+1·7
Madras Coast	−0·6	+1·2	+0·3
Madras Deccan	−0·2	+2·9	+1·4
South India	−1·3	+0·7	−0·3

The general conditions shown in the above table continued fairly steadily from the 9th to the 13th. The mean temperature during this period exceeded the average over north-western and the greater part of northern and central India, but was below the normal over Burma, the extreme north-east of India and parts of the south of the Peninsula. The principal feature of the temperature conditions was the excess in the north-west. The following gives comparative data for the stations at which the day temperature was 10° or more above the normal during this period :—

Date.	Station.	Maximum temperature.		
		Actual of date.	Normal of date.	Departure from normal of date.
		°	°	°
9th	Chaman	72·3	61·0	+11·3
10th	Chakrata	67·5	55·7	+11·8
	Hyderabad (Sind)	90·1	79·9	+10·2
11th	Do. do.	91·1	79·7	+11·4
	Quetta	67·7	57·5	+10·2

The following gives similar data for the stations at which the night temperature was 10° or more above the normal :—

Date.	Station.	Minimum temperature.		
		Actual of date.	Normal of date.	Departure from normal of date.
		°	°	°
9th December	Leh	29·9	14·7	+15·2
	Chakrata	52·3	40·1	+12·2
	Simla	50·2	39·7	+10·5
10th "	Kurrachee	67·2	56·8	+10·4
11th "	Peshawar	54·0	39·2	+14·8
	Lahore	54·1	40·5	+13·6
	Sialkot	56·2	42·9	+13·3
	Hyderabad (Sind)	65·5	52·9	+12·6
	Srinagar	40·6	28·7	+11·9
	Khushab	53·5	42·2	+11·3
	D. I. Khan	51·1	40·9	+10·2
	Kurrachee	66·7	56·6	+10·1
12th "	Lahore	57·6	40·3	+17·3
	Khushab	57·5	42·0	+15·5
	Ludhiana	59·2	43·9	+15·3
	Sialkot	57·2	42·7	+14·5
	D. I. Khan	54·1	40·7	+13·4
	Ambala	56·8	43·5	+13·3
	Quetta	41·9	30·0	+11·9
	Srinagar	39·6	28·6	+11·0
	Sirsa	54·1	43·1	+11·0
	Montgomery	54·0	43·4	+10·6
13th "	Sialkot	60·7	42·5	+18·2
	Khushab	59·5	41·9	+17·6
	Lahore	55·1	40·2	+14·9
	D. I. Khan	55·1	40·5	+14·6
	Jacobabad	57·9	44·1	+13·8
	Rawalpindi	50·1	37·0	+13·1
	Ludhiana	55·7	43·8	+11·9
	Ambala	54·8	43·3	+11·5
	Peshawar	50·5	39·0	+11·5

The preceding data show that the excess, though large both by day and night, was a much more marked feature of the night than of the day temperature.

On the 11th and 12th snow showers commenced in Kashmir, and on the 13th rain showers extended to parts of Baluchistan and of the plains of north-west India, and between the 14th and 17th extended over Rajputana and the United Provinces. In consequence of this snow and rain temperature fell fast over Baluchistan, Kashmir and north-west India and a well-marked cold wave advanced from the westward across the frontier districts. The following gives comparative data from the 14th to the 17th for the extreme north-west districts:—

Province or Division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of			
	14th December.	15th December.	16th December.	17th December.
	°	°	°	°
Baluchistan	−9·3	−10·9	−5·7	−7·0
N.-W. F. Province	+0·6	− 2·9	−3·4	−1·3
Punjab	+5·6	+ 0·7	−1·5	+0·1
Sind	+5·1	− 2·1	−2·5	−4·7

As a result of the advance of this cold wave the high temperatures, which had previously prevailed over north-west India, were transferred south-eastward to the central parts of the country where, from the 14th to the 17th, the mean temperature largely exceeded the normal. This is shown below:—

Province or Division.	Departure from normal of mean temperature of 24 hours preceding 8 A.M. of			
	14th December.	15th December.	16th December.	17th December.
	°	°	°	°
Gujarat	+4·5	+3·5	+0·5	−1·0
Central India	+4·3	+7·6	+4·5	+5·7
Central Provinces	+6·4	+7·1	+6·5	+6·0
Berar	+5·7	+5·8	+4·9	+7·8
Bombay Deccan	+2·6	+3·9	+1·8	+3·1
United Provinces	+4·9	+3·5	+2·2	+4·9

The sky was cloudy at this time and the excess was more marked in the night than in the day temperature.

At the following places the minimum temperature was more than 12° above the normal:—

Date.	Station.	Minimum temperature.		
		Actual of date.	Normal of date.	Departure from normal of date.
		°	°	°
14th Dec. 1904.	Ludhiana	60·2	43·7	+16·5
	Ambala	58·3	43·1	+15·2
	Lahore	55·1	40·1	+15·0
	Indore	63·1	48·9	+14·2
	Khandwa	63·6	49·8	+13·8
	Meerut	58·3	44·5	+13·8
	Pachmarhi	59·2	45·5	+13·7
	Sialkot	55·7	42·4	+13·3
	Jaipur	62·1	49·0	+13·1
15th ,,	Khandwa	68·6	49·8	+18·8
	Malegaon	65·6	50·9	+14·7
	Jubbulpore	60·3	45·6	+14·7
	Allahabad	61·1	47·6	+13·5
	Nowgong	59·0	46·0	+13·0
	Pachmarhi	58·2	45·4	+12·8
16th ,,	Jubbulpore	60·8	45·5	+15·3
	Ajmer	58·2	45·4	+12·8
	Allahabad	60·1	47·4	+12·7
	Sutna	59·2	46·6	+12·6
17th ,,	Pachmarhi	60·2	45·4	+14·8
	Sutna	61·2	46·5	+14·7
	Akola	65·3	50·7	+14·6
	Jubbulpore	59·8	45·4	+14·4
	Allahabad	61·1	47·3	+13·8
	Cawnpore	60·6	46·8	+13·8
	Lucknow	59·2	45·7	+13·5
	Khandwa	62·1	49·7	+12·4

Between the 18th and the 22nd the weather was feebly unsettled. Showers fell over parts of north-west India and a slight storm occasioned rain over the Madras Coast and the south of the Peninsula. During these five days, though the temperature fell more or less steadily over the greater part of India, the distribution of the departures from the normal showed comparatively little change. The area of low temperature in the north-west held steadily, the rainfall along the Madras Coast occasioned low temperatures in that area, while over the intervening region the mean temperature was higher than usual. The following gives comparative data of all divisions for the 21st and shows

the principal features of the temperature conditions, relatively to the normal, which prevailed during this period:—

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF		
	Mean maximum temperature, 21st Decr.	Mean minimum temperature, 21st Decr.	Mean temperature, 21st Decr.
	°	°	°
Burma	−0·9	+1·0	+0·1
Assam	−2·8	+2·6	−0·1
Bengal	−1·3	+4·1	+1·4
Orissa	−0·7	+9·2	+4·3
Bihar	+2·1	+0·6	+1·4
Chota Nagpur	0	+6·6	+3·3
United Provinces of Agra and Oudh	−3·7	+5·3	+0·8
Punjab	−4·1	+1·7	−1·2
North-west Frontier Province	−1·1	+0·8	−0·2
Sind	−4·9	−5·6	−5·3
Rajputana	−7·2	+3·0	−2·1
Gujarat	+1·7	+4·2	+3·0
Central India	−2·3	+8·4	+3·1
Central Provinces	+1·9	+7·4	+4·7
Berar	+2·6	+8·5	+5·6
West Coast	−1·2	+3·3	+1·1
Bombay Deccan	+3·0	+6·1	+4·6
Mysore	−0·6	+2·0	+0·7
Madras Coast	−5·4	−0·5	−3·0
Madras Deccan	−0·4	+4·1	+1·9
South India	+2·9	+2·7	+2·8

During the 23rd, 24th and 25th the mean temperature exceeded the normal over Bengal and the interior and west of the Peninsula and was lower than usual elsewhere. The departures from the normal were in many cases considerable and temperature generally was unsteady and variable. The following gives comparative data of all divisions for the 23rd:—

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF		
	Mean maximum temperature, 23rd December.	Mean minimum temperature, 23rd December.	Mean temperature, 23rd December.
	°	°	°
Burma	−3·7	+2·2	−0·8
Assam	−4·8	+2·2	−1·3
Bengal	−1·5	+1·6	+0·1
Orissa	−3·3	+6·1	+1·4
Bihar	−1·4	−0·9	−1·2
Chota Nagpur	−1·0	+2·5	+0·8
United Provinces of Agra and Oudh	−5·2	−0·4	−2·8
Punjab	−2·9	−0·4	−1·7
North-west Frontier Province	−0·8	−3·5	−2·2
Sind	−1·5	−4·2	−2·9
Rajputana	−7·1	−3·5	−5·3
Gujarat	−1·6	+0·8	−0·4
Central India	−6·0	−2·7	−4·4
Central Provinces	−2·4	+0·2	−1·1
Berar	+1·9	+1·9	+1·9
West Coast	−2·2	+1·5	−0·4
Bombay Deccan	+2·0	+4·6	+3·3
Mysore	+4·4	+0·4	+2·4
Madras Coast	−2·1	−1·2	−1·7
Madras Deccan	+1·3	+3·6	+2·5
South India	+4·0	−1·0	+1·5

During the next three days the mean temperature exceeded the normal over north-west India and the south of the Peninsula, but was lower than usual in all other parts of the country, while on the last three days of the month the mean temperature was normal or slightly below the normal everywhere. The following gives data of all divisions for the 30th in illustration:—

PROVINCE OR DIVISION.	DEPARTURE FROM NORMAL OF		
	Mean maximum temperature, 30th December.	Mean minimum temperature, 30th December.	Mean temperature, 30th December.
	°	°	°
Burma	−1·3	+0·3	−0·5
Assam	+1·1	+0·6	+0·9
Bengal	+0·5	−0·9	−0·2
Orissa	+0·8	+0·6	+0·7
Bihar	+0·3	−1·8	−0·8
Chota Nagpur	+0·7	−0·5	+0·1
United Provinces of Agra and Oudh	−1·6	−2·0	−1·8
Punjab	−0·2	−2·2	−1·2
North-west Frontier Province	−0·7	−0·5	−0·6
Sind	+0·1	+0·9	+0·5
Rajputana	−0·9	+1·5	+0·3
Gujarat	+0·7	−1·2	−0·3
Central India	0	+0·3	+0·2
Central Provinces	+1·8	−0·8	+0·5
Berar	+2·5	−0·5	+1·0
West Coast	−0·8	−1·8	−1·3
Bombay Deccan	−0·4	−2·9	−1·7
Mysore	−1·3	−3·7	−2·5
Madras Coast	−0·5	−1·0	−0·8
Madras Deccan	−1·7	−3·8	−2·8
South India	−0·7	−2·8	−1·8

Winds.

The winds at the Bay Islands and on the Burma coast varied, on the mean of the month, only slightly from the average. At Port Blair and Diamond Island they were slightly more northerly and at Akyab and Cocos Island slightly more easterly than the average. Where the direction was more northerly, both the steadiness and velocity exceeded the normal, while at Akyab and Cocos Island, on the contrary, both were lower than usual. The following gives data:—

Station.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage December, 1904.	Normal percentage, December.	Departure from normal, Dec., 1904.	Actual, December, 1904.	Normal, December.	Actual, Dec., 1904.	Normal, December.	Departure from normal, Dec., 1904.
				°	°			
Port Blair . .	66	66	0	N 46 E	N 57 E	180	175	+ 5
Cocos Island . .	81	91	—10	N 44 E	N 33 E	333	...	...
Diamond Island .	74	46	+28	N 52 E	N 54 E	296	214	+82
Akyab . . .	39	41	— 2	N 5 E	N 6 W	48	58	—10

Around the head of the Bay the wind, on the mean of the month, was more easterly than usual, but a few miles inland, at Calcutta, the mean direction was abnormally westerly. The following gives direction data:—

Station.	Mean wind direction.	
	Actual, Dec., 1904.	Normal, December.
	°	°
Chittagong	N 12 E	N 18 W
Calcutta	N 30 W	N 13 W
Saugor Island	N 15 E	N 2 E
False Point	N 47 E	N 30 E

At nearly all these stations the wind was more unsteady and lighter than the average.

In the Gangetic Plains the wind was considerably lighter than usual, but otherwise agreed with the normal. The following gives data for Allahabad in illustration:—

Station.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, December, 1904.	Normal percentage, December.	Departure from normal, Dec., 1904.	Actual, Dec., 1904.	Normal, December.	Actual, Dec., 1904.	Normal, December.	Departure from normal, Dec., 1904.
Allahabad . .	26	27	—1	N 47 W	N 48 W	49	72	—23

In the Upper Sub-Himalayas division the winds varied irregularly from the normal, though at the majority of stations they were lighter than usual. At Ludhiana and Dehra Dun the mean direction was abnormally southerly, at Lahore abnormally westerly, and at Roorkee and Meerut abnormally northerly.

In the Indus Valley also the winds were, on the whole more northerly than usual. At Peshawar and Kurrachee the steadiness was low and the velocity considerably less than usual, but at Jacobabad, where the mean wind direction was north-north-east instead of north-north-west, the wind was steadier and stronger than the normal.

At Jaipur the mean wind direction was more easterly and at Deesa more northerly than the average, but at both places the velocity was about normal.

The following gives comparative data of the mean air movement over the Bay Islands, Burma and the different divisions of northern India:—

Province or division.	Mean steadiness.			Mean wind velocity in miles per diem.		
	Actual percentage, Dec., 1904.	Normal percentage, Dec.	Departure from normal, Dec., 1904.	Actual, Dec., 1904.	Normal, Dec.	Departure from normal, Dec., 1904.
Bay Islands . . .	74	79	—5	180	175	+ 5
Burma . . .	57	45	+12	172	166	+ 6
Bengal	45	58	—13	92	99	— 7
Orissa . . .	45	56	—11	113	139	—26
Chota Nagpur . .	37	58	—21	110	125	—15
United Provinces . .	22	25	— 3	28	43	—15
Punjab . . .	31	25	+ 6	31	31	0
North-west Frontier Province.	16	7	+ 9	16	55	—39
Sind	26	19	+ 7	90	120	—30
Rajputana . . .	31	27	+ 4	70	70	0
Gujarat . . .	35	49	—14	195	192	+ 3

The preceding table shows that the mean velocity slightly exceeded the average over the Bay Islands, Burma and Gujarat and was generally lower than usual elsewhere. The winds were unsteady over the Gangetic plain and neighbouring regions.

Over the Deccan the winds varied irregularly from the average. At Sholapur, Buldan aand Hyderabad the mean direction was more southerly than the average and the steadiness and velocity generally below the normal. The following gives data:—

Station.	Mean steadiness.			Mean wind direction.			Mean wind velocity in miles per diem.		
	Actual percentage, December, 1904.	Normal percentage, December.	Departure from normal, December, 1904.	Actual, December, 1904.	Normal, December.	Southerly deflection.	Actual, December, 1904.	Normal, December.	Departure from normal, December, 1904.
				°	°				
Sholapur	79	66	+13	S 71 E	S 85 E	+14	273	190	+83
Buldana	26	44	−18	S 80 E	N 81 E	+19	109	132	−23
Hyderabad (Deccan).	43	57	−14	S 65 E	S 78 E	+13	58	77	−19

At the remaining stations there was perhaps slightly increased easting in the direction, but the departures from the normal were irregular. Along the West Coast the principal feature in the winds was the increased westing in the mean directions. This is shown below:—

Station.	Mean wind direction.		
	Actual, Dec., 1904.	Normal, December.	Westerly deflection.
	°	°	
Bombay	N 2 W	N 15 E	+17
Karwar	N 27 W	N 6 W	+21

In South India the wind was, on the whole, more easterly and stronger and steadier than the normal, but there were some exceptions. The following gives data:—

Station.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, Dec., 1904.	Normal percentage, December.	Departure from normal, Dec., 1904.	Actual, Dec., 1904.	Normal, December.	Actual, Dec., 1904.	Normal, December.	Departure from normal, Dec., 1904.
				°	°			
Salem	74	52	+22	N 81 E	N 75 E	114	94	+20
Chitaldroog	84	83	+1	N 87 E	N 84 E	137	187	−50
Bangalore	87	81	+6	N 69 E	N 72 E	190	132	+58
Hassan	81	82	−1	N 76 E	N 75 E	65	82	−17
Mysore	79	82	−3	N 80 E	N 78 E	239	247	−8
Madras	92	81	+11	N 44 E	N 24 E	219	175	+44
Bellary	72	71	+1	S 82 E	S 85 E	58	79	−21
Waltair	79	50	+29	N 61 E	N 83 E	114	—	—

The following gives comparative data of the mean air movement over the Peninsular divisions:—

Province or division.	Mean steadiness.			Mean wind velocity in miles per diem.		
	Actual percentage. December, 1904.	Normal percentage, December.	Departure from normal, December, 1904.	Actual, December, 1904.	Normal, December.	Departure from normal, December, 1904.
Central Provinces	44	48	−4	76	69	+7
Berar	36	48	−12	83	105	−22
Bombay Deccan	79	66	+13	273	190	+83
Madras Deccan	58	64	−6	58	78	−20
West Coast	48	55	−7	167	153	+14
Mysore	83	82	+1	158	162	−4
Madras Coast	86	66	+20	219	175	+44
South India	74	52	+22	114	94	+20

The above shows that the winds were generally stronger and steadier than usual over the west and south of the Peninsula.

In Baluchistan the wind was slightly more northerly, lighter and less steady than usual. The following gives data for Quetta:—

Hill Station.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, December 1904.	Normal percentage, December.	Departure from normal, Dec. 1904.	Actual, Dec. 1904.	Normal, December.	Actual, Dec. 1904.	Normal, December.	Departure from normal, Dec. 1904.
				°	°			
Quetta	21	24	−3	N 56 W	N 63 W	33	55	−22

In Kashmir the winds were very irregular. At Simla and Chakrata the wind was unusually southerly in direction and stronger and steadier than the average. The following gives data:—

Hill Station.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, Dec. 1904.	Normal percentage, December.	Departure from normal, Dec., 1904.	Actual, Dec., 1904.	Normal, December.	Actual, Dec., 1904.	Normal, Dec.	Departure from normal, Dec., 1904.
				•	•			
Simla	21	7	+14	S 3 W	S 12 E	100	98	+2
Chakrata	50	16	+34	S 8 E	S 51 W	143	120	+23

In the eastern Himalayas the wind was unusually southerly and easterly, but was very unsteady and was lighter than the average. This is shown by the data for Darjeeling :—

Hill Station.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, December, 1904.	Normal percentage, December.	Departure from normal, Dec., 1904.	Actual, Dec., 1904.	Normal, December.	Actual, Dec., 1904.	Normal, December.	Departure from normal, Dec., 1904.
				°	°			
Darjeeling .	6	5	+ 1	S 84 E	N 48 W	58	70	— 12

At Mount Abu and Pachmarhi the wind was more westerly and at Chikalda more southerly than the normal. This is shown below :—

Hill Station.	Mean wind direction.	
	Actual, December, 1904.	Normal, December.
	°	°
Mount Abu	N 26 W	N
Pachmarhi	N 59 W	N 27 E
Chikalda	S 50 W	S 75 W

In Southern India the winds on the hills were strong from between north-east and east-north-east.

The winds varied irregularly from the average in the Gulf of Aden and were very much lighter than usual at Aden. The following gives comparative data :—

Station.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, December, 1904.	Normal percentage, December.	Departure from normal, Dec., 1904.	Actual, Dec., 1904.	Normal, December.	Actual, Dec., 1904.	Normal, December.	Departure from normal, Dec., 1904.
				°	°			
Aden .	68	71	— 3	N 88 E	S 87 E	146	310	—164
Perim .	84	75	+ 9	S 43 E	N 89 E	466	463	+ 3

In the south-east Trades region the winds blew from about the normal direction, but were less steady than usual. This is shown below :—

Station.	Mean steadiness.			Mean wind direction.	
	Actual percentage, Dec., 1904.	Normal percentage, Dec.	Departure from normal, December, 1904.	Actual, December, 1904.	Normal, December.
				•	°
Zanzibar . .	56	65	— 9	N 41 E	N 35 E
Seychelles . .	45	54	— 9	N 41 W	N 48 W
Mauritius . .	...	...	...	N 84 E	N 89 E

Humidity and Cloud.

Increased absolute humidity was a marked feature of the weather conditions in November over north-west India. In December this area of excessive humidity, though less intense, had extended considerably eastward into the Central Provinces, a large part of north-east India and the north-east of the Peninsula. The air was thus damper than usual from the Indus Valley to the shores of the Bay of Bengal. In November the greatest excess, relatively to the normal, was reported from Sind, but in the month under review the air, relatively to the normal, was dampest over the Gangetic Plain and neighbouring districts and over parts of south-west Bengal. The following gives comparative data of those stations where the excess was more than ·050″ :—

Station.	Absolute humidity.		
	Actual; December, 1904.	Normal, December.	Departure from normal, December, 1904.
	"	"	"
Jhansi	·393	·293	+·100
Sutna	·369	·293	+·076
Allahabad	·425	·353	+·072
Gaya	·410	·342	+·068

Station.	Absolute humidity. Actual, December, 1904.	Normal, December.	Departure from normal, December, 1904.
	"	"	"
Benares	·420	·355	+·065
Delhi	·314	·250	+·064
Patna	·435	·372	+·063
Mainpuri	·353	·291	+·062
False Point	·577	·515	+·062
Cawnpore	·383	·324	+·059
Agra	·344	·285	+·059
Cocanada	·599	·541	+·058
Surat	·457	·399	+·058
Ludhiana	·317	·260	+·057
Bareilly	·362	·306	+·056
Ambala	·332	·277	+·055
Sirsa	·290	·237	+·053
Gorakhpur	·427	·374	+·053
Burdwan	·438	·385	+·053

In the south, centre and west of the Peninsula the mean absolute humidity was, as was the case in November, generally below the normal, but the deficiency was much less strongly marked in the month under review than in the preceding month. The following gives comparative data of those stations where the deficiency exceeded ·050″:—

Station.	Absolute humidity. Actual, December, 1904.	Normal, December.	Departure from normal, December, 1904.
	"	"	"
Bhavnagar Para	·275	·371	—·096
Madras	·646	·730	—·084
Nellore	·644	·716	—·072
Sholapur	·289	·346	—·057
Ahmednagar	·323	·378	—·055

In Assam the mean absolute humidity, as in November, was, on the mean of the month, slightly below the normal, but in Burma a change had taken place, and the slight to moderate excess which had prevailed over the greater part of that province in November had been replaced by a slight to moderate deficiency in December. At the following stations the deficiency amounted to ·050″:—

Station.	Absolute humidity. Actual, December, 1904.	Normal, December.	Departure from normal, December, 1904.
	"	"	"
Moulmein	·584	·645	—·061
Bassein	·552	·605	—·053

As mentioned previously, the mean temperature conditions of the month were nearly normal, except in Burma, where the temperature was lower than usual. As a result the distribution of the departures from the normal of the mean relative humidity agreed fairly with that of the departures of the mean absolute humidity.

In Burma, where the mean absolute humidity was less than usual, but the temperature was low, the mean relative humidity exceeded the normal at most stations, the excess equalling 5 or more at the following places:—

Station.	Relative humidity. Actual, December, 1904.	Normal, December.	Departure from normal, December, 1904.
	%	%	
Rangoon	92	83	+ 9
Minbu	84	77	+ 7
Mandalay	92	87	+ 5
Thayetmyo	82	77	+ 5
Mergui	79	74	+ 5

The mean relative humidity was lower than usual over the greater part of Madras, over the south of the West Coast, over the Bombay Deccan and locally in parts of Gujarat, Sind and Bengal. The departures from the normal were 5 or more at the stations for which comparative data are given below:—

Province or division.	Station.	Relative humidity. Actual, December, 1904.	Normal, December.	Departure from normal, December, 1904.
		%	%	
Madras	Madras	73	83	—10
	Cuddapah	70	78	— 8
	Raichur	60	66	— 6
South of West Coast.	Mangalore	62	68	— 6?
Bombay Deccan	Ahmednagar	55	63	— 8?
	Sholapur	43	49	— 6
	Bijapur	66	72	— 6?
	Malegaon	53	58	— 5
Gujarat	Bhavnagar Para	46	62	—16

Over the whole of the remainder of the country the mean relative humidity exceeded the average and the departures were + 10 or more at the following places :—

Station.	Relative humidity. Actual, December, 1904.	Normal, December.	Departure from normal, December, 1904.
	%	%	
Jhansi	79	57	+22
Neemuch	68	53	+15
Sutna	82	67	+15
Delhi	76	61	+15
Allahabad	90	77	+13
Mainpuri	85	73	+12
Gaya	83	71	+12
Lahore	89	78	+11
Rawalpindi	84	74	+10
Agra	78	68	+10
Bareilly	91	81	+10
Sambhar	74	64	+10
Patna	85	75	+10

The mean relative humidity of the month was below the normal at Chaman, Mount Abu and Darjeeling. The following gives data :—

Hill Station.	Relative humidity. Actual, December, 1904.	Normal, December.	Departure from normal, December, 1904.
	%	%	
Chaman	46	59	−13
Mount Abu	40	44	− 4
Darjeeling	69	78	− 9

At all the remaining hill stations the mean relative humidity exceeded the average and at the following places the excess was 5 or more :—

Hill Station.	Relative humidity. Actual, December 1904.	Normal, December.	Departure from normal, December 1904.
	%	%	
Quetta	82	74	+ 8
Cherat	59	45	+14
Murree	59	46	+13
Chakrata	61	49	+12
Simla	51	40	+11
Leh	64	58	+ 6
Pachmarhi	69	59	+10

The following table shows the driest and dampest places on the plains of India for the month of December, 1904, as measured by the 8 A.M. records of the mean relative humidity :—

Stations.	Relative humidity over 91 %.	Station.	Relative humidity less than 50 %.
	%		%
Sibsagar	100	Rajkot	49
Gauhati	97	Aurangabad	47
Dibrugarh	95	Deesa	46
Bhamo	94	Bhavnagar Para	46
Tezpur	94	Sholapur	43
Lashio	93		
Motihari	93		
Rangoon	92		
Mandalay	92		
Maymyo	92		
Dhubri	92		
Comilla	92		
Sirajganj	92		
Purnea	92		
Darbhanga	92		
Chapra	92		

The above shows that the relative humidity was highest over north-east India and Burma and lowest over north Bombay and the Bombay Deccan.

Both the absolute and relative humidities were above

the normal at Aden and about normal at Perim. This is shown below: —

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, December, 1904.	Normal, December.	Departure from normal, December, 1904.	Actual, December, 1904.	Normal, December.	Departure from normal, December, 1904.
	"	"		%	%	
Aden	·688	·641	+·047	76	70	+6
Perim	·683	·680	+·003	69	69	+0

In the south-east Trades region the humidity conditions were about normal. The following gives data:—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, December, 1904.	Normal, December.	Departure from normal, December, 1904.	Actual, December, 1904.	Normal, December.	Departure from normal, December, 1904.
	"	"		%	%	
Zanzibar	·865	·863	+·002	79	78	+1
Seychelles	·841	·832	+·009	83	83	+0
Mauritius	·669	·676	—·007	71	71	0

The departures of the mean cloud amount of the month from the normal were irregularly distributed, and were generally small in amount. The sky was slightly more cloudy than usual over the eastern districts of the Punjab (Delhi +0·4) and the western districts of the United Provinces (Bareilly +0·5). The mean cloud amount was also in excess over the east of the Gangetic Plain and west Bengal and the departures amounted to +1·0 or more at the two following stations:—

STATION.	MEAN CLOUD AMOUNT.		
	Actual, December, 1904.	Normal, December.	Departure from normal, December, 1904.
Sutna	3·1	1·0	+2·1
Allahabad	2·3	1·3	+1·0

In Central and Deltaic Bengal, as well as over the east and the greater part of the south of the Peninsula and Ceylon, the mean cloud amount exceeded the average, the departures equalling or exceeding +1·0 at the stations for which comparative data are given below:—

PROVINCE OR DIVISION.	STATION.	MEAN CLOUD AMOUNT.		
		Actual, December 1904.	Normal, December.	Departure from normal, December, 1904.
DELTAIC BENGAL	Barisal	2·4	1·2	+1·2
	Calcutta	2·2	1·1	+1·1
	Cuttack	3·0	1·9	+1·1
	Jessore	2·2	1·2	+1·0
PENINSULA	Waltair	4·7	2·5	+2·2
	Nellore	5·6	4·0	+1·6
	Cocanada	4·1	2·5	+1·6
	Salem	5·2	3·6	+1·6
	Cochin	4·0	2·4	+1·6
	Tinnevelly	6·1	4·5	+1·6
	Masulipatam	4·0	2·6	+1·4
	Mormugao	2·3	0·9	+1·4
CEYLON	Trincomalee	6·4	4·9	+1·5

The cloud amount, on the mean of the month, was also in excess over the interior of Burma and at some stations in this area the excess was considerable. This is shown below:—

STATION.	MEAN CLOUD AMOUNT.		
	Actual, December, 1904.	Normal, December.	Departure from normal, December, 1904.
Yamethin	3·9	1·1	+2·8
Bhamo	6·4	3·7	+2·7
Toungoo	3·3	2·3	+1·0

Over the whole of the remainder of the country, including the greater part of north-west and central India, the Deccan, East Bengal and Cachar, the Burma coast and some districts of South Madras and of the Malabar coast, the mean cloud amount was less than usual. In most places the deficiency was small or trifling, but at the following stations amounted to 1·0 or more:—

PROVINCE OR DIVISION.	STATION.	MEAN CLOUD AMOUNT.		
		Actual, December, 1904.	Normal, December.	Departure from normal, December, 1904.
NORTH-WEST INDIA.	Hyderabad Sind.	0·3	2·3	—2·0
	Pachpadra	0·7	2·5	—1·8
	Jacobabad	1·1	2·8	—1·7
	Multan	0·9	2·5	—1·6
	Deesa	0·3	1·8	—1·5
	Kurrachee	0·9	2·2	—1·3
	Lahore	1·6	2·9	—1·3
	Dehra Dun	2·5	3·7	—1·2
	Bhuj	0·4	1·6	—1·2
	Veraval	0·9	2·0	—1·1
	Sirsa	2·0	3·0	—1·0
	Ludhiana	1·9	3·8	—1·9

PROVINCE OR DIVISION.	STATION.	MEAN CLOUD AMOUNT. Actual, December, 1904.	Normal, December.	Departure from normal, December, 1904.
CACHAR	Silchar	2·0	4·0	—2·0
BURMA COAST	Bassein	0·6	2·9	—2·3
	Akyab	0·7	2·3	—1·6
MALABAR	Mercara	2·6	4·8	—2·2

In Afghanistan and Kashmir and at Cherat and Wellington the mean cloud amount exceeded the average. This is shown below:—

HILL STATION.	MEAN CLOUD AMOUNT. Actual, December 1904.	Normal, December.	Departure from normal, December 1904.
Kabul	3·9	2·9	+1·0
Srinagar	6·9	6·0	+0·9
Leh	6·4	5·9	+0·5
Gilgit	6·7	6·4	+0·3
Cherat	4·1	3·7	+0·4
Wellington	4·2	3·7	+0·5

At the other hill stations the sky was generally clearer than usual of cloud. The following gives data:—

HILL STATION.	MEAN CLOUD AMOUNT. Actual, December, 1904.	Normal, December.	Departure from normal, December 1904.
Chaman	1·8	3·5	—1·7
Quetta	2·3	3·3	—1·0
Chakrata	1·8	3·0	—1·2
Murree	3·1	4·1	—1·0
Simla	3·2	3·9	—0·7
Ranikhet	2·2	2·7	—0·5
Darjeeling	1·9	3·1	—1·2
Mount Abu	0·5	1·7	—1·2
Pachmarhi	1·0	1·9	—0·9

The following table shows the clearest and cloudiest places in India as given by the mean 8 A.M. cloud amounts of the month:—

STATION.	Mean cloud amount over 5·1.	STATION.	Mean cloud amount less than 0·8.
Gauhati	9·2	Akyab	0·7
Negapatam	6·9	Pachpadra	0·7
Sibsagar	6·9	Neemuch	0·7
Lashio	6·8	Seoni	0·7
Bhamo	6·4	Bassein	0·6
Tinnevelly	6·1	Muzaffarpur	0·5
Madras	5·6	Rajkot	0·5
Nellore	5·6	Rangpur	0·4
Cuddalore	5·2	Bhuj	0·4
Salem	5·2	Purnea	0·3
		Bhagalpur	0·3
		Hyderabad (Sind)	0·3
		Deesa	0·3
		Hanumkonda	0·3
		Arrah	0·1

The preceding data show that very cloudy skies prevailed over parts of Assam, of the interior of Burma and of South Madras, while the sky was nearly clear of cloud over parts of west Bengal, of North Bombay and of the Burma Coast.

At both Aden and Perim the sky was clearer than usual of cloud and at Perim the mean cloud amount was very small. The following gives data:—

STATION.	MEAN CLOUD AMOUNT. Actual, December, 1904.	Normal, December.	Departure from normal, December, 1904.
Aden	2·0	3·4	—1·4
Perim	0·4	1·6	—1·2

At Zanzibar and Mauritius the sky was more cloudy than usual, while at the Seychelles the mean cloud amount of the month was practically normal. The following gives data of the stations in the Trades region:—

STATION.	MEAN CLOUD AMOUNT. Actual, December, 1904.	Normal, December.	Departure from normal, December, 1904.
Zanzibar	6·4	4·6	+1·8
Seychelles	6·7	6·8	—0·1
Mauritius	6·3	6·1	+0·2

Rainfall.

December is usually the month of least rainfall in India. The normal rainfall is less than an inch in amount for the whole month over all parts of the country with the exception of the south, south-central and coast districts of Madras. The normal rainfall exceeds 10 inches at the East Coast (south) stations, but diminishes in amount rapidly both towards the interior and towards the north, and is less than 1 inch to the west of a line running from Cochin to Nellore, while it is less than half an inch over the Deccan, central and northern India and in Burma.

During the month under review the weather was somewhat more unsettled and rainy than usual over the greater part of northern India, due to the passage of a series of small storms from west to east through the northern and central districts. On the other hand, the rainfall was lighter than usual over the southern half of the Peninsula, where the failure of the rainfall, so noticeable during the autumn months of 1904, continued, though in a somewhat less intense form. The principal periods of rainfall were as follows:—

(1) The 2nd to the 6th, when showers occurred along the Madras Coast and over the south of the Peninsula.

(2) The 11th to the 18th, when showers occurred over Kashmir and a large part of northern India.

(3) The 17th to the 22nd, when a storm over the south-west of the Bay occasioned rain over the east and south of the Peninsula.

(4) The 23rd and 24th, when rain occurred in Burma.

The following table gives the mean actual, mean normal and departure data for the 57 meteorological divisions:—

Province.	Division.	Number of rainy days.		Rainfall.		
		Average actual, December, 1904.	Average normal, December.	Average actual, December, 1904.	Average normal, December.	Departure from normal, December, 1904.
				Inches.	Inches.	Inches.
Burma	Tenasserim	0·3	0·3	0·23	0·11	+0·12
	Lower Burma (Deltaic)	0·5	0·3	0·24	0·08	+0·16
	Central do.	0·5	0·4	0·15	0·14	+0·01
	Upper do.	1·3	0·7	0·44	0·38	+0·06
	Arakan	0·4	0·5	0·09	0·39	−0·30
Bengal and Assam	Eastern Bengal	0·3	0·4	0·10	0·24	−0·14
	Assam (Surma)	0·4	0·5	0·16	0·35	−0·19
	Do. (Hills)	0·8	1·1	0·25	0·49	−0·24
	Do. (Brahmaputra)	0·3	1·1	0·11	0·46	−0·35
	Deltaic Bengal	0	0·3	0·01	0·14	−0·13
	Central do.	0	0·2	0	0·09	−0·09
	North do.	0	0·3	0·01	0·12	−0·11
	Bengal Hills	0·3	0·6	0·20	0·21	−0·01
	Orissa	0·7	0·4	0·16	0·22	−0·06
	Chota Nagpur	0	0·4	0·01	0·22	−0·21
	Bihar (South)	0·1	0·3	0·03	0·17	−0·14
	Do. (North)	0·3	0·3	0·16	0·09	+0·07
United Provinces of Agra and Oudh.	United Provinces (East)	2·1	0·4	0·83	0·22	+0·61
	Oudh (South)	2·5	0·6	1·29	0·33	+0·96
	Do. (North)	2·1	0·6	1·17	0·30	+0·87
	United Provinces (Central)	2·4	0·7	1·27	0·34	+0·93
	Do. (West)	2·5	0·8	0·98	0·37	+0·61
	Do. (Submontane, East)	1·6	0·4	0·76	0·15	+0·61
	Do. (Do , West)	2·9	1·1	1·47	0·55	+0·92
	Do. (Hills)	2·0	1·4	1·09	0·81	+0·28
Punjab	Punjab (South-East)	2·0	0·8	0·70	0·39	+0·31
	Do. (South)	1·0	0·8	0·58	0·36	+0·22
	Do. (Central)	1·3	0·8	0·57	0·46	+0·11
	Do. (Submontane)	1·7	1·1	1·31	0·71	+0·60
	Do. (Hills)	2·4	1·9	1·71	1·37	+0·34
	Do. (West)	0·8	0·5	0·19	0·22	−0·03
North-west Frontier Province	North-west Frontier Province	1·5	1·1	0·46	0·51	−0·05

Province.	Division.	Number of rainy days. Average actual, December 1904.	Number of rainy days. Average normal, December.	Rainfall. Average actual, December 1904.	Rainfall. Average normal, December.	Rainfall. Departure from normal December 1904.
				Inches.	Inches.	Inches.
Bombay and Malabar Coast Districts (Madras).	Malabar	0	1·1	0	0·63	−0·63
	Travancore	1·6	...	0·74	...	...
	Madras (South Central)	0·6	2·2	0·16	1·28	−1·12
	Coorg	0	...	0	...	...
	Mysore	0·1	1·1	0·06	0·60	−0·54
	Konkan	0	0·2	0	0·07	−0·07
	Bombay Deccan	0	0·4	0	0·23	−0·23
	Hyderabad North	0	0·7	0	0·41	−0·41
	Khandesh	0·1	0·4	0·02	0·22	−0·20
Central Provinces and Berar.	Berar	0·1	0·4	0·07	0·29	−0·22
	Central Provinces (West)	0·8	0·6	0·28	0·39	−0·11
	Do. do. (Central)	1·0	0·5	0·37	0·30	+0·07
	Do. do. (East)	0	0·4	0	0·21	−0·21
Bombay (North)	Gujarat (East)	0·2	0·1	0·05	0·04	+0·01
	Kathiawar and Cutch	0	0·2	0·01	0·06	−0·05
	Sind	0·2	0·3	0·10	0·11	−0·01
	Baluchistan Hills	0·4	2·3	0·07	0·97	−0·90
Rajputana and Central India.	Central India (East)	1·6	0·9	0·53	0·39	+0·14
	Rajputana (East), Central India (West)	1·6	0·9	0·76	0·41	+0·35
	Rajputana (West)	0·4	0·4	0·24	0·15	+0·09
Madras	East Coast (North)	1·0	0·6	0·39	0·57	−0·18
	Hyderabad South	0	0·3	0	0·18	−0·18
	Madras (Central)	0·4	0·7	0·12	0·43	−0·31
	East Coast (Central)	3·5	2·5	1·89	2·35	−0·46
	East Coast (South)	5·0	5·2	3·86	4·97	−1·11
	Madras (South)	5·1	4·5	2·67	3·55	−0·88

The preceding data show that actually or practically no rain was received during the month over Arakan, Deltaic, Central and North Bengal, Chota Nagpur, South Bihar, Malabar, Coorg, Mysore, Hyderabad, the Bombay Presidency (except Sind) and the Berar and east divisions of the Central Provinces. Elsewhere more or less rain was received, the average actual fall ranging from 0·10″ in East Bengal and in Sind, to 3·86″ in the south division of the East Coast. In twenty-three of the rainfall divisions the month's rainfall was in excess and in thirty-three it was in defect of the normal. The absolute deficiency was greatest over parts of the east and south of the Peninsula amounting to 1·12″ in South-central Madras, to 1·11″ in the south division of the East Coast and to 0·88″ in the south division of Madras. The greatest excess, both absolutely and relatively to the normal, was reported from the United Provinces and amounted to over 100% over the divisions for which comparative data are given below :—

Division.	Rainfall. Average actual, December, 1904.	Average normal, December.	Departure from normal, December, 1904.	Percentage departure from normal.
	Inches.	Inch.	Inch.	
United Provinces East	0·83	0·22	+0·61	+277
South Oudh	1·29	0·33	+0·96	+291
North Oudh	1·17	0·30	+0·87	+290
United Provinces Central	1·27	0·34	+0·93	+274
United Provinces West	0·98	0·37	+0·61	+165
United Provinces East Submontane	0·76	0·15	+0·61	+407
United Provinces West Submontane	1·47	0·55	+0·92	+167
Tenasserim	0·23	0·11	+0·12	+109
Lower Burma Deltaic	0·24	0·08	+0·16	+200

The lighter rainfall in the south largely balanced the increased rainfall in the north and the mean departure of the rainfall of the whole country (excluding the hill districts) from the normal, derived from the fifth column of the table on pp. 438 and 439, was only 0·01″ below the normal.

The rainfall distribution of the month as determined from the returns of the meteorological observatories is shown on Pl. IV. The plate shows that there was actually or practically no rain over the Bombay Presidency, the west coast and centre of the Peninsula, the east of the Central Provinces, the greater part of north-east India and the Burma coast. To the north and south of this area more or less rain was received, the fall increasing to 2·36″ at Mainpuri in the north and to 19·84″ at Trincomalee in the extreme south.

In Burma light local rain fell during the first three days and on the 11th, 12th and 13th and fairly general showers between the 19th and 25th, and the small normal fall of the month was exceeded in all divisions, except Arakan, where the total rainfall was unimportant.

In Assam light, moderately general showers were received on the 10th and 11th and further light showers were experienced in the Brahmaputra Valley between the 25th and the end of the month. The total fall was less than usual, especially on the plains, as is shown by the following comparative data of the eight plains districts:—

District.	Rainfall. Average actual, December, 1904.	Average normal, December.	Departure from normal, December, 1904.	Percentage departure from normal.
	Inch.	Inch.	Inch.	
Cachar	0·11	0·40	−0·29	− 73
Sylhet	0·20	0·32	−0·12	− 38
Goalpara	0·05	0·15	−0·10	− 67
Kamrup	0·01	0·28	−0·27	− 96
Darrang	0·14	0·56	−0·42	− 75
Nowgong	0·11	0·37	−0·26	− 70
Sibsagar	0·20	0·60	−0·40	− 67
Lakhimpur	0·13	0·64	−0·51	− 80

The rainfall returns of Bengal show that the month's rainfall was even lighter than usual over the greater part of the Province. In south-west Bengal only a little light local rain was received on different dates; in North Bengal what rain was received fell generally on the 22nd and 23rd and in East Bengal between the 10th and the 12th and between the 21st and 23rd. In North Bihar the rainfall was heavier than in other districts and, owing to relatively very heavy rain in Saran and Champaran, the total rain of the division for the month was nearly twice as heavy as usual. The following gives comparative data for the districts in this division:—

District.	Rainfall. Average actual, December, 1904.	Average normal, December.	Departure from normal, December, 1904.	Percentage departure from normal, December, 1904.
	Inch.	Inch.	Inch.	
Saran	0·33	0·10	+0·23	+230
Champaran	0·73	0·15	+0·58	+387
Muzaffarpur	0·12	0·09	+0·03	+ 33
Darbhanga	0	0·07	−0·07	−100
Bhagalpur	0	0·07	−0·07	−100
Purnea	0·05	0·06	−0·01	− 17

South Bihar and Chota Nagpur were practically rainless, but Orissa received light showers on the 6th and 7th and between the 19th and 23rd.

The United Provinces received one burst of rain during the month due to the shallow depressions which passed from Gujarat through the Central Provinces. The fall was, however, much more extensive and heavier than usual. The rainfall commenced on the 14th and lasted till the 18th and in some districts till the 22nd. The fall was heaviest, relatively to the normal, in Oudh and in the east, submontane and central divisions of the United Provinces. The following gives data for the districts in these divisions:—

Division.	District.	Rainfall. Average actual, December, 1904.	Average normal, December.	Departure from normal, December, 1904.	Percentage departure from normal.
		Inches.	Inch.	Inches.	
Oudh	Fyzabad	0·99	0·18	+0·81	+450
	Gonda	1·19	0·24	+0·95	+396
	Bara Banki	1·06	0·41	+0·65	+159
	Bahraich	0·72	0·37	+0·35	+ 95
	Sitapur	1·73	0·29	+1·44	+497
	Kheri	1·26	0·38	+0·88	+232
	Sultanpur	1·06	0·23	+0·83	+361
	Partabgarh	1·11	0·30	+0·81	+270
	Rae Bareli	1·43	0·27	+1·16	+430
	Unao	1·05	0·43	+0·62	+144
	Lucknow	1·34	0·41	+0·93	+212
	Hardoi	1·73	0·35	+1·38	+394
United Provinces, East.	Ghazipur	0·47	0·20	+0·27	+135
	Benares	0·71	0·19	+0·52	+274
	Jaunpur	1·15	0·18	+0·97	+538
	Mirzapur	0·56	0·23	+0·33	+143
	Allahabad	1·03	0·25	+0·78	+312

Province or division.	District.	Rainfall. Average actual, December 1904.	Average normal, December.	Departure from normal December 1904.	Percentage departure from normal.
		Inches.	Inch.	Inches.	
United Provinces, East Submontane.	Gorakhpur	0·79	0·14	+0·65	+464
	Basti	0·85	0·15	+0·70	+467
	Azamgarh	0·90	0·16	+0·74	+463
	Ballia	0·32	0·15	+0·17	+113
United Provinces, Central.	Banda	1·20	0·38	+0·82	+216
	Fatehpur	1·18	0·29	+0·89	+307
	Hamirpur	1·41	0·42	+0·99	+236
	Cawnpore	1·14	0·34	+0·80	+235
	Jalaun	0·73	0·29	+0·44	+152
	Etawah	1·25	0·40	+0·85	+213
	Farrukhabad	2·06	0·35	+1·71	+489
	Mainpuri	2·19	0·34	+1·85	+544
	Etah	1·04	0·30	+0·74	+247
	Jhansi	0·57	0·30	+0·27	+90

Falls of 2·00″ or more in 24 hours were recorded at the following places on the following dates during the month:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Dehra Dun	Dehra Asylum	15th December	2·80
	" "	18th "	2·94
Saharanpur	Hardwar	" "	2·90
Sitapur	Misrikh	" "	2·11
Naini Tal	Haldwani	" "	2·10
Farrukhabad	Kanauj	" "	2·02

In the Punjab similar conditions prevailed. There was only one burst of rain, *viz.*, between the 14th and the 19th, but the fall was both heavier and more extensive than usual. Rain was received in all divisions and, except in the west, the total fall was heavier than usual. The Lahore district received less rain than any other in the Punjab, only three stations of the eleven rain measuring stations reporting any fall during the month. The following gives data:—

District.	Station.	Rainfall. Average actual, December 1904.	Average normal, December.	Departure from normal, December 1904.	Percentage departure from normal.
		Inch.	Inch.	Inch.	
Lahore	Van (*c*)	0	0·41	—0·41	—100
	Chunian	0·09	0·20	—0·11	— 55
	Kasur	0·19	0·26	—0·07	— 27
	Pambe (*c*)	0	0·35	—0·35	—100
	Sharakpur	0	0·24	—0·24	—100
	Niazbeg (*c*)	0	0·38	—0·38	—100
	Lahore	0	0·47	—0·47	—100
	Mian Mir (*c*)	0	0·46	—0·46	—100
	Manihala (*c*)	0	0·27	—0·27	—100
	Dafthu (*c*)	0	0·34	—0·34	—100
	Nijabat (*c*)	0·10	?	?	?

At the following places in the Punjab and on the following dates falls of 2·00″ or more in 24 hours were recorded during the month:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Rawalpindi	Murree	14th December	2·10
Nabha State	Dadahur	15th "	2·53
Kangra	Dharmsala	" "	2·48
	Nurpur	" "	2·41
Gurdaspur	Tibri	" "	2·40
Jullundur	Jullundur	" "	2·37
Hoshiarpur	Dasuya	" "	2·15
Gurdaspur	Pathankot	" "	2·12
Ludhiana	Jagraon	" "	2·06
Hoshiarpur	Hoshiarpur	" "	2·05

The North-west Frontier Province received general rain between the 11th and 14th and a few local showers on the 17th, 18th, 1th, 21st, 25th and 26th. The total fall was

about normal and the following amounts exceeding 1·00″ in 24 hours were recorded:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Hazara	Abbottabad	14th December	1·43
	Mansahra	" "	1·15

In Baluchistan light local rain was measured on the 12th and 13th and the 25th and 26th, and the total fall of the month was only one-fourteenth of the normal amount.

Kashmir experienced a general burst of rain and snow between the 11th and the 15th and local showers on the 6th, 8th, 9th, the 16th to the 21st and the 25th to the 29th. The falls were frequently heavy and measured 2·00″ or more in 24 hours at the following places on the following dates during the month:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Jummoo	Gulabgarh	6th December	3·40
	Ditto	8th "	3·30
Kashmir	Utarmachhipore	13th "	3·61
Jummoo	Ramban	" "	3·35
	Ramnagar	" "	3·16
	Punch	" "	2·50
Kashmir	Kolgam	" "	2·42
Jummoo	Kotli	" "	2·15
Kashmir	Baramula	" "	2·15
	Karnah	" "	2·12
Jummoo	Riasi	" "	2·07
	Udumpur	" "	2·00
Kashmir	Sonemarg	14th "	3·70
Jummoo	Rampore Rajauri	" "	3·50
Kashmir	Srinagar	" "	2·54
Jummoo	Ramban	" "	2·27
	Sambha	" "	2·23
	Golabgarh	15th "	4·30
	Bisolee	" "	2·54
	Gulabgarh	18th "	3·30
	Ditto	19th "	4·40

So far as can be judged the fall was everywere above the normal and in some districts by large amounts.

Western Rajputana received showers between the 14th and the 21st. The showers were heaviest on the 16th and 17th when Parbatsar (Jodhpur) received 1·50″, and Nagpur (Jodhpur) 0·94″ and the total of the month exceeded the small normal fall.

In the eastern Rajputana States there was a general burst of rain between the 14th and 21st. The fall was heaviest and most general on the 17th and was heavier in the more northern States than in the south. The total fall of the month was nearly twice as heavy as usual, as is shown by the following data of the larger States:—

State.	Rainfall.			
	Average actual, December 1904.	Average normal, December.	Departure from normal, December 1904.	Percentage departure from normal.
	Inches.	Inch.	Inch.	
Jaipur	1·07	0·36	+0·71	+197
Alwar	0·70	0·49	+0·21	+ 43
Bharatpur	1·41	0·53	+0·88	+166
Dholpur	1·29	0·35	+0·94	+269
Karauli	0·72	0·42	+0·30	+ 71
Kotah	0·19	0·47	−0·28	− 60
Ajmer-Merwara	0·53	0·37	+0·16	+ 43
Udaipur	0·16	0·14	+0·02	+ 14
Sirohi	0	0·18	−0·18	−100

Falls of 1·50″ or more in 24 hours were recorded at the following places on the following dates:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Bharatpur	Uchen	16th December	2·00
Jaipur	Sikar	" "	1·87
Jodhpur	Parbatsar	" "	1·50
Jaipur	Dausa	17th "	1·57
	Bandikui	" "	1·50
	Sanganer	" "	1·50

In Central India rain also fell between the 14th and 21st, but the fall, though slightly larger than usual in some states,

was less than in Rajputana. The following gives data for the larger States:—

STATE.	RAINFALL.			
	Average actual, December 1904.	Average normal, December.	Departure from normal, December, 1904.	Percentage departure from normal.
	Inches.	Inch.	Inch.	
Indore	0·08	0·18	—0·10	—56
Rutlam	0·15	0·24	—0·09	—38
Bhopal Agency	0·32	0·43	—0·11	—26
Gwalior	0·28	0·34	—0·06	—18
Rewah	1·01	0·45	+0·56	+124
Bundelkhand	0·78	0·44	+0·34	+77

The east division of the Central Provinces received no rain throughout the month, but in the central, west and Berar divisions light showers fell between the 16th and the 22nd. The total for the month was small and except in the central division less than the small normal fall of the month.

Very light local rain fell over Khandesh between the 14th and the 21st; in Gujarat on the 15th, 16th, 20th and 21st and in Sind on the 14th, but with these exceptions the whole of the Bombay Presidency was actually or practically rainless throughout the month. In the Nizam's dominions also there was no rain during the month, but in Mysore light showers were received on the 8th and 9th and on the 20th and 21st in the Kolar and Tumkur districts. The total fall for the month was only one-tenth of the normal average rainfall.

In Madras the rainfall, as during the two preceding months, was lighter than usual, but the deficiency, relatively to the normal, was less than in either October or November.

In Malabar there was no rain. South Madras received general rain between the 4th and the 9th and the 18th and 22nd and the total fall of the month was about two-thirds of the normal. The following amounts exceeding 2·00″ in 24 hours were recorded during the month in this division:—

DISTRICT.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
MADURA	Pamban	4th December	2·11
	Morekulam	6th „	2·78
	Pamban	„ „	2·51
	Mutturaghunadapatnam.	„ „	2·12
	Pamban	18th „	2·71

In South-Central Madras the rainfall was much lighter and only scattered local falls were reported between the 7th and the 9th and the 18th and 21st. The total fall was only one-eighth of the average and no heavy falls were recorded. The greater part of Central Madras was rainless throughout the month, but the Cuddapah district received showers on the 7th and 8th and from the 19th to the 22nd. The total actual rainfall of the division was little more than one-fourth of the normal.

The north division of the East Coast had practically only one period of rainfall, *viz.*, from the 19th to the 22nd, when light to moderate showers fell generally. The total rainfall of the division was in slight defect. The central division of the East Coast had two rainy periods during the month, *viz.*, between the 7th and the 9th and the 18th and the 22nd. The latter was the heavier and more general fall and the following amounts of 1·50″ or more in 24 hours were recorded:—

DISTRICT.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
NELLORE	Venkatagiri	20th December	1·50
	Tada	21st „	2·15
	Sulurpeta	„ „	1·60
	Rapur	„ „	1·50

The total rainfall of the division was in slight defect.

In the south division of the East Coast the rainfall of the month was heavier than in any other part of India. There were two periods of rain, *viz.*, between the 3rd and the 9th and between the 17th and the 21st, and on both occasions the rainfall was fairly heavy and general. Falls of 3·00″ or more in 24 hours were recorded at the following places on the following dates during the month:—

DISTRICT.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
TANJORE	Adirampatam	5th Dec. 1904	3·00
	Shiyali	18th „	3·82
	Valangiman	„ „	3·60
	Kudavasal	„ „	3·05
SOUTH ARCOT	Mannargudi	„ „	3·02
TANJORE	Mayavaram	„ „	3·02
	Nidamangalam	„ „	3·01
SOUTH ARCOT	Srimushnam	„ „	3·00
TANJORE	Kumbakonam	„ „	3·00
	Mannargudi	„ „	3·00

The actual average fall of the division was 3·86", the normal average fall being 4·97."

The following table shows the departures from the normal of each of the 22 Collectorates of the Madras Presidency for each of the three months, October to December 1904, and the total departure for the whole period:—

COLLECTORATE.	DEPARTURE FROM NORMAL OF RAINFALL FOR			
	October, 1904.	November, 1904.	December, 1904.	Total departure of period.
	Inches.	Inches.	Inches.	Inches.
Ganjam	+0·63	—2·52	—0·64	— 2·53
Vizagapatam	+2·42	—2·74	—0·61	— 0·93
Godavari	+2·24	—3·27	+0·20	— 0·83
Kistna	+2·38	—2·92	+0·59	+ 0·05
Guntur	—1·74	—3·96	—0·19	— 5·89
Nellore	—3·70	—8·18	—0·46	—12·34
Madras	—8·70	—13·09	—2·03	—23·82
Chingleput	—4·25	—11·42	—2·16	—17·83
North Arcot	—0·87	—6·38	—1·64	— 8·89
South Arcot	+0·20	—8·51	—1·49	— 9·80
Tanjore	—3·31	—8·87	+0·54	—11·64
Trichinopoly	—1·64	—4·95	—1·53	— 8·12
Madura	—1·13	—4·27	—1·21	— 6·51
Tinnevelly	+1·06	—4·82	—0·90	— 4·66
Malabar	+2·72	—3·22	—0·76	— 1·26
South Canara	—2·72	—2·80	—0·40	— 5·92
Salem	—1·16	—3·78	—1·02	— 5·96
Coimbatore	—0·88	—3·01	—1·27	— 5·15
Cuddapah	—2·01	—3·64	—0·65	— 6·30
Anantapur	+1·57	—1·85	—0·23	— 0·51
Bellary	+0·30	—1·40	—0·15	— 1·25
Kurnool	+0·17	—1·41	—0·15	— 1·39

The preceding data show that the rainfall throughout the retreating south-west monsoon period was below the average almost everywhere, though over the north of the East Coast there was heavier rain than usual during October. The greatest absolute deficiencies were reported from the Nellore, Madras, Chingleput and Tanjore districts.

The following gives a comparative statement of the rainfall of December, 1904, at the extra-Indian stations:—

STATION.	RAINFALL.			
	Average actual, December, 1904.	Average normal, December.	Departure from normal, December, 1904.	Percentage departure from normal.
	Inches.	Inches.	Inches.	
Trincomalee	19·84	15·90	+3·94	+ 25
Colombo	2·12	6·79	—4·67	— 69
Minicoy	2·71	4·66	—1·95	— 42
Amini Divi	0·01	0·32	—0·31	— 97
Kabul	0·32	0·29	+0·03	+ 10
Kashgar	0·08	0·19	—0·11	— 58
Meshed	0·79	0·70	+0·09	+ 13
Teheran	2·65	1·37	+1·28	+ 93
Ispahan	1·04	0·54	+0·50	+ 93
Bushire	5·66	3·24	+2·42	+ 75
Jask	0	0·78	—0·78	—100
Muscat	0·03	0·26	—0·23	— 88
Baghdad	1·17	1·64	—0·47	— 29
Aden	0	0·37	—0·37	—100
Perim	0·62	0·08	+0·54	+675
Zanzibar	4·39	2·77	+1·62	+ 58
Seychelles	18·45	14·27	+4·18	+ 29
Mauritius	4·28	4·68	—0·40	— 9

The rainfall of Colombo and of Minicoy and Amini Divi was, as was the case in Malabar, much less than usual, but on the east side of Ceylon the fall exceeded the normal. In Afghanistan and in central and northern Persia the month's rainfall and snowfall were considerably to slightly above the average, but at Baghdad and Kashgar the rainfall was less than usual and at Jask and Muscat the month was practically rainless. Aden reported no rain, while at Perim the fall was about eight times the average. Zanzibar and Seychelles in the south-east Trades region reported heavier rain than usual, while at Mauritius the fall was about normal.

Crop Report.

Madras.—The rainfall was below the average in the Madras Presidency and irrigation supplies were insufficient in many parts throughout the month. Ploughing, sowing and transplanting progressed generally, but the standing crops required rain generally, except in Godavari, Kistna, Nellore and in the hills. Pasture and fodder were scanty in several parts of the Presidency, but the condition of cattle was generally good.

Bombay.—The rainfall of the month was insufficient in parts of Gujarat, the Deccan and Bijapur. The

standing crops were damaged by blight in parts of Poona and Ahmednagar, and at the close of the month were suffering from insufficient moisture in parts of Thar and Parkar, the Panch Mahals, Broach, Nasik, Ahmednagar, Poona, Sholapur, the Karnatak and Baroda. Elsewhere they were generally in good condition. Cotton was damaged by blight in parts of Bijapur and Dharwar, was withering in parts of Broach, Bijapur and Baroda and was generally in fair condition in Kaira, Khandesh and Wadhwan. The fodder supply was insufficient in parts of Kurrachee, Hyderabad, Thar and Parkar, Broach, Surat, Khandesh and Baroda; agricultural stock was in indifferent condition in parts of Kurrachee and Broach and the water supply inadequate in parts of Kurrachee, Nasik, Bijapur, Dharwar and Baroda.

Bengal.—The spring crops and poppy were doing well and fodder and water were sufficient.

United Provinces.—At the close of the month the standing crops were flourishing and the poppy crop doing well. The crops had been slightly injured by damp in Meerut, and by insects in Rai Bareilli, and during the third week of the month parts of Cawnpore, Hamirpur and Banda were visited by hail storms which did some damage in a few villages of the two last districts.

Punjab.—The sowing of spring crops was finished during the month in Ferozepore, and continued in Amritsar. The condition of the standing crops was good to average in most districts, but poor or bad on unirrigated lands in Lahore, Sialkot and Hissar. The cattle were generally in good condition, but fodder was insufficient in parts of the Lahore, Amritsar, Sialkot, Shahpur and Mianwali districts.

North-west Frontier Province.—The prospects of the crops were good at the close of the month, except in Dera Ismail Khan, where they were below the average on unirrigated lands. Rain was badly wanted both in Dera Ismail Khan and Bannu for unirrigated spring sowings. The condition of the cattle was poor in Dera Ismail Khan, where grass was scarce.

Burma.—The crop prospects were generally good.

Central Provinces.—The spring crops at the close of the month were in good condition; wheat, gram and linseed promised good outturns, but a little rain was required to improve the prospects. Frost had caused damage in some districts. Scarcity of fodder and water was reported from Amraoti and Betul and of water from the Kotol Tahsil of Nagpur.

Assam.—The prospects of mustard and pulses were fair. The tea season was closed at the end of the month, but pruning continued. Harvesting of late rice and pulses, pressing of sugarcane, and gathering of cotton were in progress, while the sowing of mustard was nearly finished.

Mysore.—The standing crops, at the end of the month, were withering in parts for want of water. Prospects were fair in Bangalore, Kadur and Shimoga, but indifferent in other districts. The cattle were healthy and water and fodder were available, except in parts of the Mysore, Hassan and Chitaldroog districts, where they were scarce.

Coorg.—Picking of coffee continued during the month and the prices of food grains were falling.

Hyderabad.—The early rice harvest was almost over at the close of the month and the weeding of spring crops and the sowing of late rice were in progress.

Rajputana.—The standing crops and their prospects were generally fair, but the outlook for spring crops, at the end of the month, was unfavourable in some districts. Agricultural stock was satisfactory and fodder generally sufficient.

Central India.—The crops at the end of the month were fair to good, except in parts of Bhopawar, where they had been slightly affected by the heat. Opium was good in Malwa and weeding, watering and sowing continued during the month in Gwalior, Indore, Bhopal and Bhopawar.

Kashmir-Jummoo:—The condition of the standing crops was fair.

W. L. DALLAS.

Table I.—Abstract of Observations taken at 8 A.M. at 233 Stations in India, Burma, etc., in December, 1904.

Table

Abstract of Observations taken at 8 A.M. at 233 Stations

Number of District.	Meteorological Province or District.	Station.	Elevation of barometer above sea-level in feet.	Pressure, 8 A.M., in inches.								Temperature of Air.											
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
	I.—Burma Coast and Bay Islands.				+·042								83·4	−2·4	69·0	−0·7	76·2	−1·5	14·3					22·9
1	Tenasserim and Bay Islands.	Car Nicobar ¶.	25	29·901		29·854	30·045	31st	29·829	12th	·216	79·0	84·5		76·7		80·6		7·8	87·6	26th	72·3	27th	15·3
		Port Blair .	61	29·965	+·045	29·957	30·087	31 st	29·882	10th	·205	79·0	85·5	−0·5	76·9	+0·1	81·2	−0·2	8·6	88·5	11th	73·0	26th, 30th	15·5
		Mergui . .	96	29·948	+·046	29·977	30·054	31st	29·840	11th	·214	74·4	85·8	−1·5	67·0	+0·3	76·5	−0·6	18·8	90·4	25th	60·3	4th & 5th	30·1
		Tavoy . .	26	30·042	+·043	29·999	30·157	31t	29·936	11th	·221	70·5	86·2	−1·5	60·3?	−3·5?	73·3?	−3·0?	25·9?	89·2	13th, 14th & 25th	54·0?	6th & 7th	35·2?
		Moulmein .	94	29·975	+·033	30·010	30·113	31st	29·873	11th	·240	70·0	87·3	?	64·9 ‖	−2·0	76·1 ‖	?	22·4	91·0	15th	58·9	6th & 7th	32·1
2	Lower Burma .	Rangoon .	57	30·029	+·049	30·025	30·173	31st	29·935	11th	·238	69·1	83·6	−3·7	62·6?	−0·2?	75·7?	−2·0?	16·0?	86·1	17th, 22nd & 31st	62·8?	16th	23·3?
		Bassein .	27	30·042	+·035	30·007	30·178	31st	29·967	10th & 11th	·211	67·4	81·4	−3·0	64·0	−1·1	72·8	−2·1	17·4	84·1	5 days	59·0	7th	25·1
		Diamond Island	41	30·021	+·035	29·997	30·155	31st	29·931	11th	·224	73·6	80·2	−3·7	71·0	−1·2	75·6	−2·5	9·2	82·3	13th & 22nd	61·7	7th	20·6
5	Arakan .	Akyab . .	20	30·070	+·039	30·033	30·223	31st	29·980	10th	·243	65·5	78·6	−3·1	62·5 *	−1·5	70·6 *	−2·3	16·1	80·9	21st	59·1	27th & 29th,	21·8
3	Central Burma	Toungoo .	182	29·911	+·052	30·042	30·058	31st	29·816	11th	·242	65·1	80·7	−3·3	57·2?	−4·9?	69·2?	−4·1?	23·5?	85·3	2nd & 31st	50·6?	7th	34·7?
	II.—Burma Inland .				+·053								77·1	−4·1	55·9	−0·2	66·6	−2·2	21·2					30·7
3	Central Burma.	Thayetmyo .	130	29·996	+·069	30·073	30·137	31st	29·900	11th	·237	61·9	82·5	−2·1	53·5?*	−4·8?*	67·9?*	−3·5?	29·0?	87·5	18th	50·0?	14th	37·5?
4	Upper Burma .	Minbu . .	*165*	29·970	+·052	30·037	30·103	31st	29·883	11th	·220	64·3	79·2	−4·8	59·3	−0·7	69·3	−2·8	19·9	83·2	21st	54·0	8th	29·2
		Yamethin .	657	29·943	+·045	30·083	29·579	31st	29·350	10th & 11th	·229	62·5	80·6	−4·4	57·4	+0·2	69·0	−2·1	23·2	84·8	31st	51·2	9th & 10th,	33·6
		Monywa .	*280*	29·869		30·088	30·014	31st	29·767	11th	·247	62·2	78·6		58·2		68·5		20·4	81·8	2nd & 21st	53·8	27th	28·0
		Mandalay .	250	29·868	+·049	30·081	30·002	31st	29·761	11th	·241	62·0	79·4	−2·9	58·5	−0·8	69·0	−1·9	20·9	83·5	31st	54·2	9th	29·3
		Myitkyina .	458	29·668		30·114	29·817	31st	29·569	11th	·248	58·6	73·0		51·1		62·1		21 9	75·9	2nd & 3rd	45·1	7th & 8th.	30·8
		Bhamo . .	*381*	29·762	+·052	30·123	29·911	31st	29·641	11th	·270	56·3	72·1	−4·2	54·1	+0·4	61·6	−1·9	21·0	75·5	2nd, 3rd & 29th	42·2	7th	33·3
4(a)	Burma Hill Stations.	Maymyo. .	3,545									53·3	68·8		42·7		55·8		26·1	75·9	21st	35·6	9th	40·3
		Lashio . .	*2,751*									51·9	71·4	−2·3	46·9	−1·0	59·2	−1·7	24·5	76·6	21st	40·1	10th	36·5
	III.—Assam				+·041								73·0	−1·7	51·2	−1·7	62·1	−1·7	21·8					30·0
7	Surma . .	Silchar . .	104	30·028	+·047	30·090	30·196	31st	29·854	15th	·342	58·9	77·7	−2·0	54·3	−0·7	66·0	−1·4	23·4	81·9	18th	49·9	8th	32·0
9	Brahmaputra .	Sibsagar. .	333	29·823	+·038	30·137	29·990	31st	29·679	11th	·311	53·5	68·7	−2·8	49·5	−1·2	59·1	−2·0	19·2	72·3	4 days	45·9	25th & 26th.	26·4
		Dhubri . .	115	30·019	+·037	30·098	30·201	31st	29·893	10th	·308	57·1	73·9	−0·4	51·9	−3·2	62·9	−1·8	22·0	76·6	3rd	46·8	26th	29·8
		Gauhati .	195	29·965		30·130	30·130	21st	29·838	11th	·292	55·1	73·4		51·3		62·4		22·1	76·6	4 days	46·1	27th	30·5
		Tezpur . .	252	29·895		30·125	30·049	31st	29·759	11th	·290	54·2	72·4		51·4		61·9		21·0	76·5	2nd	47·5	27th	29·0
		Dibrugarh .	353	29·800		30·139	29·958	31st	29·663	10th	·295	52·7	71·9		48·9		60·4		23·0	76·1	1st	43 9	24th	32·2
	IV.—Bengal and Orissa .				+·035								77·3	−0·2	56·0	+0·9	66·7	+0·4	21·2					31·0
6	East Bengal .	Chittagong .	87	30·019	+·043	30·059	30·187	31st	29·914	10th	·273	63·4	77·2	−0·9	57·6	−0·4	67·4	−0·7	19·6	80·4	4th & 5th	53·6	16th	26·8
		Noakhali . .	43	30·061		30·053	30·227	31st	29·958	11th	·269	64·5	77·4		56·3		66·9		21·1	81·6	6th	51·6	27th	30·0
		Comilla . .	36	30·073		30·058	30·247	31st	29·960	11th	·287	61·0	77·7							81·9	5th			
		Sirajganj .	49	30·080		30·081	30·254	31st	29·958	10th	·286	58·7	75·7		55·4†		65·5†		20·3	80·3	5th	51·9	7th, 30th & 31st.	28·4
		Narayanganj .	26	30·098	+·052	30·073	30·279	31st	29·977	10th	·302	61·5	77·6	−0·4	58·1	+0·8	67·9	+0·2	19·5	82·6	5th	53·8	31st	28·8
		Barisal . .	13	30·104	+·040	30·063	30·283	31st	29·990	11th	·293	64·4	77·6	0	55·0	−1·1	66·3	−0·6	22·6	82·8	10th	47·7	10th	35·1
		Mymensingh .	63	30·068	+·038	30·085	30·238	31st	29·953	10th	·285	59·6	76·9	?	55·3	+0·7	66·1	?	21·6	80·7	6th & 7th	50·6	14th	30·1
		Faridpur .	16	30·082		30·080	30·262	31st	29·956	10th	·306	60·9	76·2		54·9		65·6		21·3	80·4	6th	49·0	29th	31·4
10	Deltaic Bengal.	Jessore . .	32	30·092	+·042	30·074	30·280	31st	29·962	10th	·318	62·3	77·3	−0·3	55·8	+0·9	66·6	+0·3	21·5	81·6	6th	48·1	28th	33·5
		Calcutta .	21	30·110	+·037	30·078	30·297	31st	29·975	10th	·322	62·8	78·1	+1·6	57·9	+1·9	68·0	+1·8	20·2	81·4	4 days	50·9	26th, 27th & 28th,	30·5
		Saugor Island	25	30·085	+·019	30·055	30·275	31st	29·960	10th	·315	64·8	77·6	+1·3	61·1	+2·0	69·4	+1·7	16·5	82·0	18th	53·9	28th	28·1
		Krishnagar .	47	30·085		30·084	30·257	31st	29·930	10th	·327	58·9	77·9		55·8		66·9		22·1	81·6	6.h, 11th & 18th,	48·9	28th	32·7
		Midnapore .	149	29·974*		30·078*	30·164	31st	29·833	10th	·331	63·7*	81·2*		57·1‡		68·7‡		24·1	85·3	1st	50·6	27th	34·7

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

‡ Mean of 18 days.
* Mean of 30 days.
† Mean of 29 days.
‖ Mean of 19 days.
¶ Observations for 29 days.

Note 1.—When a query is inserted against any reading or in the returns of any station

Note 2.—The data from which divisional means of the figure columns Nos. 41, 43 and 45

I.

in India, Burma, etc., in December, 1904.

WIND DIRECTION. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	WIND VELOCITY. Mean daily velocity in miles per hour, instrumental errors uncorrected	Normal (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	HYGROMETRY, 8 A.M. Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	CLOUD. Mean cloud amount at 8 A.M.	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 1904.	Normal rainfall for period, 1st to 31st December.	Departure from normal of period, 1st to 31st December 1904.	Heaviest rainfall during month.	STATION.	METEOROLOGICAL PROVINCE OR DISTRICT.	Number of District.
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	58
														83	+1	·645	−·025	3·0	−0·4				0·71	0·99	−0·61					I.—Burma Coast and Bay Islands.		
4		8	8	4					N 80° E	6·9§§			6·9§§	82		·811		6·7		7			3·66			3·66			1·27	Car Nicobar‖	TENASSERIM AND BAY ISLANDS.	1
	1	20	2	3			1	4	N 41° E	6·7	7·2	− 7	7·7	81	0	·800	−·019	5·5	+0·2	5			1·58	6·62	−5·04	1·58	6·62	−5·04	0·57	Port Blair.		
19	6	4	1					1	N 18° E	2·6	1·8	− 44	2·3	79	+ 5	·666	0	2·5	−0·9	0	0·70	−0·70	0·08	0·38	− 0·30	0·08	0·38	−0·30	0·08	Mergui.		
26	5								N	1·2				84	+ 3	·628	−·021	2·8	+0·1	2	0·20	+1·80	1·32	0·06	+ 1·26	1·32	0·05	+1·26	1·13	Tavoy.		
8	5	9		4	2	1	1	1	N 46° E	3·2	2·6	+ 23	3·6	79	− 4	·584	−·061	2·6	+0·1	0	0·20	−0·20	0	0·05	− 0·05	0	0·05	−0·05	0	Moulmein.		
2	6	13	4				2	4	N 25° E	4·9	4·9	0	4·1	92	+ 9	·656	?	2·1	−0·2	0	0·40	−0·40	0·04	0·09	− 0·05	0·04	0·09	− 0·05	0·04	Rangoon .	LOWER BURMA.	2
	8	12	5	2			1	3	N 34° E	8·7	2·7	+222		82	− 3	·552	−·053	0·6	−2·3	0	0·50	−0·50	0·12	0·13	− 0·01	0·12	0·13	− 0·01	0·08	Bassein.		
	1	23	7						N 54° E	13·3	7·5	+ 77	13·3	76	+2?	·632	−·035	3·1	−0·3	0	0·90	−0·90	0·05	0·70	− 0·65	0·05	0·70	−0·65	0·04	Diamond Island.		
	27	4							N 45° E	2·0	2·2	− 9	1·9	90	+ 1	·572	0	0·7	−1·6	0	0·70	−0·70	0·03	0·70	− 0·67	0·03	0·70	− 0·67	0·03	Akyab .	ARAKAN.	5
10	12						1	8	N 20° W	2·4	2·3	+ 4	2·4	88	− 1	·552	−·013	3·3	+1·0	0	0·40	−0·40	0·22	0·17	+ 0·05	0·22	0·17	+0·05	0·09	Toungoo .	CENTRAL BURMA.	3
														88	+ 4	·480	−·008	3·3	+1·1				0·37	0·36	+0·08					II.—Burma Inland.		
	23		2		3		3		N 3° W	9·5	3·2	+197		82	+ 5	·477	−·017	2·0	+0·3	0	0·40	−0·40	0·10	0·15	− 0·05	0·10	0·15	− 0·05	0·06	Thayetmyo.	CENTRAL BURMA.	3
7							1	22	N 47° W	4·2			5·0	84	+ 7	·509	+·015	2·2	+0·1	2	0·30	+1·70	0·54	0·63	−0·09	0·54	0·63	− 0·09	0·32	Minbu .	UPPER BURMA.	4
12	10	1						8	N 16° W	2·4			2·5	87	+ 3	·491	−·016	3·9	+2·8	2	0·70	+1·30	0·28	0·49	−0·21	0·28	0·49	− 0·21	0·15	Yamethin.		
4							14	13	N 69° W	2·5			2·6	80		·510		3·2		1	0·30	+0·70	0·33	0·15	+0·18	0·33	0·15	+ 0·18	0·25	Monywa.		
30	1								N	5·9			6·0	92	+ 5	·513	−·021	1·8	−0·6	1	0·70	+0·30	0·60	0·29	+0·31	0·60	0·29	+0·31	0·57	Mandalay.		
22	1	3	5						N 67° E	1·0			1·0	89		·442		3·7		0			0			0			0	Myitkyina.		
16	5	3	3		3		1		N 45° E	10·6			12·4	94	+ 1	·421	−·001	6·4	+2·7	1	1·00	0	0·75	0·42	+ 0·33	0·75	0·42	+ 0·33	0·61	Bhamo.		
19		4	5		1	1	1		N 81° E	1·3				92		·376		2·9		2	0·80	+1·20	0·80	0·45	+ 0·35	0·80	0·45	+ 0·35	0·63	Maymyo .	BURMA HILL STATIONS.	4(a)
	3	7	7	3		1	7	3	N 31° E	1·5				93	0	·361	−·022	6·8	+0·5	2			1·14	0·66	+ 0·48	1·14	0·65	+ 0·48	0·58	Lashio.		
														95	+ 1	·418	−·012	3·8	−0·4				0·06	0·42	−0·36					III.—Assam.		
31									Calm	0	1·9	−100	0	89	− 1	·450	−·022	2·0	−2·0	0	0·80	−0·80	0·08	0·46	− 0·38	0·08	0·46	− 0·38	0·08	Silchar .	SURMA .	7
31									Calm	0·7	1·6	− 56	0·6	100	+ 1	·418	0	6·9	+1·6	0	1·90	−1·90	0·07	0·57	− 0·50	0·07	0·57	− 0·50	0·05	Sibsagar .	BRAHMAPUTRA .	9
1		8	21	1					N 77° E	5·3	4·5	+ 18	6·3	92	+ 1	·434	−·013	0·9	−0·7	0	0·20	−0·20	0	0·07	− 0·07	0	0·07	− 0·07	0	Dhubri.		
30	1								N	1·1			1·2	97		·429		9·2		0	0·70	−0·70	0·04	0·24	− 0·20	0·04	0·24	− 0·20	0·04	Gauhati.		
16		9	6						N 63° E	1·8			1·9	94		·399		1·4		0	1·00	−1·00	0·09	0·43	− 0·34	0·09	0·43	− 0·34	0·09	Tezpur.		
16	1	6	5	3					N 75° E	0·8			0·8	95		·379		2·4		0	1·40	−1·40	0·06	0·76	− 0·70	0·06	0·76	− 0·70	0·06	Dibrugarh.		
														86	+ 2	·467	+·021	1·9	+0·6				0·07	0·22	−0·15					IV.—Bengal and Orissa.		
	2	26	1	1				1	N 44° E	2·9	3·2	− 9	2·7	89	− 1	·526	+·013	2·4§	−0·1	0	0·81	−0·81	0·08	0·85	− 0·77	0·08	0·85	− 0·77	0·05	Chittagong.	EAST BENGAL .	6
1	8	5	3			1	2	11	N 12° W	1·5			1·6	88		·521		2·3		0	0·48	−0·48	0·06	0·38	− 0·32	0·06	0·38	− 0·32	0·06	Noakhali.		
21	5	4						1	N 13° E	1·1			1·0	92		·493		1·5		0	0·45	−0·45	0	0·22	− 0·22	0	0·22	− 0·22	0	Comilla.		
30					1				S	0·2			0·2	92		·459		1·9††		1	0·39	+0·61	0·17	0·11	+ 0·06	0·17	0·11	+ 0·06	0·15	Sirajganj.		
8	3	5	1	1			2	11	N 20° W	1·7	1·9	− 10	1·4	90	+ 3	·498	+·012	2·1§	−0·2	1	0·44	+0·56	0·13	0·16	− 0·03	0·13	0·16	− 0·03	0·13	Narayanganj		
15	4	4	1		1		1	5	N 6° W	1·3			1·1	91	+ 4	·553	+·046	2·4	+1·2	1	0·52	+0·48	0·12	0·60	− 0·48	0·12	0·60	− 0·48	0·12	Barisal.		
26		3	2						S 76° E	1·2			1·0	90	− 1	·463	−·006	?	?	1	0·26	+0·74	0·16	0·05	+ 0·11	0·16	0·05	+ 0·11	0·12	Mymensingh.		
14	10	1			1			5	N 13° W	1·3			1·1	90		·482		1·8†		0	0·26	−0·26	0·05	0·08	− 0·03	0·05	0·08	− 0·03	0·03	Faridpur.		
26	4							1	N 11° W	0·6	1·7	− 65	0·6	85	− 1	·478	+·020	2·2†	+1·0	0	0·35	−0·35	0	0·18	− 0·18	0	0·18	− 0·18	0	Jessore .	DELTAIC BENGAL	10
18	4	2	1		2			4	N 4° W	1·3	3·0	− 57		84	+ 3	·483	+·041	2·2	+1·1	0	0·38	−0·38	0	0·22	− 0·22	0	0·22	− 0·22	0	Calcutta.		
	8	16	4		1	2			N 39° E	7·3	6·0	+ 22		90	+ 2	·551	+·028	2·8*	+0·3	0	0·58	−0·58	0·05	0·33	− 0·28	0·05	0·33	− 0·28	0·05	Saugor Island.		
22	4	2		1				2	N 9° E	1·2			1·3	91		·455		2·5*		0	0·16	−0·16	0	0·10	− 0·10	0	0·10	− 0·10	0	Krishnagar.		
9	13	2			1	1		4	N 7° W	1·8*			1·5*	72*		·426*		1·7*		9	0·28	−0·28	0	0·20	− 0·20	0	0·20	− 0·20	0	Midnapore ¶		

the data for that station are not utilized in calculating the provincial departures from normal,
are derived are incomplete

§ Mean of 28 days.
†† Mean of 26 days.
‡‡ Mean of 27 days.
‖ Wind variable 5.
¶ Wind observation for 30 days.
§§ Mean of 27 days.

Table

Abstract of Observations taken at 8 A.M. at 233 Stations

Number of District.	Meteorological Province or District.	Station.	Elevation of barometer above sea-level in feet.	Pressure, 8 A.M., in inches.								Temperature of air.											
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
11	Central Bengal	Bankura	298	29·809		30·091	29·943	31st	29·661	10th	·282	62·4	78·5		57·5		68·1		21·0	82·1	10th	50·6	26th	31·5
		Raniganj	334	29·802		30·111	29·981	31st	29·651	10th	·330	59·6	78·7		56·0		67·4		22·7	82·5	10th	50·2	26th & 28th.	32·3
		Burdwan	99	30·033	+·031	30·086	30·217	31st	29·877	10th	·340	62·0	79·7	+1·5	58·0	+2·0	68·9	+1·8	21·7	86·9	10th	52·3	26th, 27th, & 28th.	34·6
		Naya Dumka	489	29·626		30·106	29·812	31st	29·476	10th	·336	60·0	76·5		53·6		65·1		22·9	79·9	19th	47·5	28th	32·4
		Berhampore	67	30·065	+·035	30·085	30·237	31st	29·907	10th	·330	59·9	75·5	−1·0	56·6	+1·3	66·1	+0·2	18·9	79·2	6th & 18th	50·7	28th	28·5
		Rampur Boalia.	70	30·064		30·087	30·235	31st	29·914	10th	·321	60·0	76·4		55·1		65·8		21·3	83·1	16th	49·6	28th	33·5
		Malda	72	30·068		30·094	30·247	31st	29·906	10th	·341	59·3	75·1		56·0		65·6		19·1	81·1	21st	50·5	28th	30·6
		Bogra	61	30·055	+·042	30·072	30·225	31st	29·930	10th	·295	58·5	76·1	−0·8	54·2	+0·2	65·2	−0·3	21·9	80·3	5th	50·7	30th	29·6
12	North Bengal	Dinajpur	123	30·013	+·040	30·100	30·168	31st	29·886	10th	·282	58·4	76·1	−0·8	50·2	−1·2	63·2	−1·0	25·9	79·3	3rd & 7th	45·9	28th & 30th.	33·4
		Rangpur	123	30·020		30·106	30·187	31st	29·893	10th	·294	58·9	75·2		51·2		63·2		24·0	78·3	19th	45·8	21st	32·5
		Jalpaiguri	284	29·855	+·041	30·115	30·020	31st	29·744	10th	·276	57·3	74·4	−0·8	51·5	−1·4	63·0	−1·1	22·9	77·4	2nd, 4th & 6th.	49·1	4 days	28·3
		Cooch Behar	156	29·986		30·109	30·170	31st	29·865	10th	·305	55·6	74·9		52·1		63·5		22·8	78·2	19th	48·7	26th	29·5
17	North Bihar	Purnea	125	30·020	+·047	30·110	30·199	31st	29·881	10th	·318	53·9	75·0	−0·8	49·6	−0·1	62·3	−0·5	25·4	78·7	3rd	44·1	28th	34·6
14	Orissa	Balasore	50	30·073	+·006	30·068	30·248	31st	29·942	10th	·306	62·5	79·6	−0·4	57·9	+2·9	68·8	+1·3	21·7	83·9	13th & 14th	50·5	27th & 28th	33·4
		False Point	21	30·099	+·027	30·063	30·280	31st	29·984	10th	·296	66·5	78·5	+0·6	60·0	+2·7	69·3	+1·7	18·5	82·4	14th	52·5	28th	29·9
		Cuttack	80	30·037	+·025	30·064	30·233	31st	29·915	10th	·318	64·2	80·5	−1·6	61·0	+2·3	70·8	+0·4	19·5	84·9	13th, & 14th.	54·1	28th	30·8
		Puri	24	30·101		30·065	30·292	31st	29·987	10th	·305	67·1	78·3		64·3		71·6		14·5	81·1	6th & 8th	58·6	28th	22·5
	V.—Gangetic Plain and Chota Nagpur.				+·032								74·8	−0·9	52·0	+2·4	63·4	+0·8	22·8					34·0
15	Chota Nagpur	Hazaribagh	2,007	28·052	+·024	30·103	28·225	31st	27·906	10th	·319	59·0	74·1	+1·9	52·1	+1·6	63·1	+1·8	22·0	78·2	13th & 19th.	45·2	26th	33·0
		Ranchi	2,128	28·936	+·028	30·111	28·111	31st	27·805	10th	·306	58·4	74·1	+0·4	53·0	+2·4	63·5	+1·4	21·1	78·1	13th	47·5	25th, 26th & 27th.	30·6
		Daltonganj	*730*	29·400		30·139	29·597	31st	29·246	10th	·351	55·0	78·1		47·8		63·0		30·3	83·5	18th	40·5	26th	43·0
		Purulia	*816*	29·285		30·093	29·453	31st	29·138	10th	·315	61·2	76·5		55·7		67·1		22·8	82·4	12th	48·8	26th	33·6
		Chaibassa	*760*	29·336	+·025	30·091	29·481	31st	29·212	10th	·269	58·6	79·7	0	56·2	+3·8	68·0	+1·9	23·5	84·9	13th	52·5	1st	32·4
16	South Bihar	Gaya	375	29·766	+·038	30·120	29·957	31st	29·608	10th	·349	58·5	75·8	−0·4	52·5	+1·0	64·2	+0·3	23·3	79·9	13th, 15th & 18th.	45·9	31st	34·0
		Dehri	351	29·776		30·105	29·972	31st	29·618	10th	·354	59·0	76·0		55·1		65·6		20·9	80·3	1st	49·6	27th	30·7
		Patna	183	29·966	+·034	30·114	30·155	31st	29·805	10th	·350	59·1	73·7	−0·5	54·5	+2·9	64·1	+1·2	19·2	76·5	6 days	46·4	26th	30·1
		Arrah	190	29·953		30·109	30·135	31st	29·813	10th	·322	57·2	73·9		52·2		63·1		21·7	77·8	1st	46·6	24th & 25th.	31·2
		Buxar	239	29·897		30·110	30·086	31st	29·733	10th	·353	57·1	75·0		52·4		63·7		22·6	80·1	15th	44·9	23rd	35·2
17	North Bihar	Bhagalpur	160	29·987		30·108	30·177	31st	29·630	10th	·347	62·1	75·7		52·2		63·9		23·5	78·8	7th & 19th	45·2	27th	33·6
		Darbhanga	166	29·965	+·034	30·095	30·153	31st	29·814	10th	·339	57·8	75·4	?	51·9	−1·8	63·7	?	23·5	79·1	2nd	45·8	24th & 27th.	33·3
		Muzaffarpur	178	29·970		30·115	30·147	31st	29·806	10th	·341	58·3	73·0		52·3		62·7		20·7	77·2	19th	45·3	24th & 27th.	31·9
		Motihari	224	29·922		30·122	30·104	31st	29·777	10th	·327	55·3	73·4		49·1		61·3		24·3	78·3	4th & 19th	42·2	24th	36·1
		Chapra	181	29·945		30·093	30·123	31st	29·781	10th	·342	56·5	73·9		52·5		63·3		21·4	77·2	1st & 8th	47·6	4 days	29·6
18	United Provinces (East).	Benares	267	29·872	+·038	30·112	30·063	31st	29·704	10th	·359	57·6	73·7	−1·3	50·3	+2·1	62·1	+0·4	23·4	79·0	1st	44·1	27th	34·9
		Allahabad	309	29·822	+·028	30·107	30·024	31st	29·654	10th	·370	57·2	73·8	−1·9	52·0	+4·2	62·9	+1·2	21·8	80·7	1st	44·6	31st	36·1
23	United Provinces (East Sub-montane).	Gorakhpur	257	29·868	+·038	30·100	30·044	31st	29·712	10th	·332	57·4	71·9	−2·3	51·2	+0·8	61·6	−0·8	20·7	76·3	1st	46·1	24th	30·2
19	South Oudh	Lucknow	368	29·754	+·032	30·109	29·954	31st	29·584	10th	·370	54·5	73·7	−2·0	49·1	+2·9	61·4	+0·5	24·6	79·7	1st	41·6	30th & 31st	38·1
20	North Oudh	Bahraich	401																					
21	United Provinces (Central).	Cawnpore	416	29·710	+·032	30·116	29·910	31st	29·528	10th	·382	55·3	74·4	−1·9	49·9	+2·3	62·2	+0·2	24·5	80·7	1st	42·6	31st	38·1
		Mainpuri	516	29·603	+·033	30·117	29·819	31st	29·403	10th	·416	53·8	72·9	−2·2	49·6	+2·3	61·3	+0·1	23·3	81·3	1st & 14th	43·2	31st	38·0

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

Note 1.—When a query is inserted against any reading or in the returns of any station,

Note 2.—The data from which divisional means of the figure columns Nos. 41 43 and 45

I—*continued.*

in India, Burma, etc., in December 1904—continued.

WIND DIRECTION. Number of winds from: Calm	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	WIND VELOCITY. Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal. (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	HYGROMETRY, 8 A.M. Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	CLOUD. Mean cloud amount at 8 A.M.	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 1904.	Normal rainfall for period, 1st to 31st December.	Departure from normal of period, 1st to 31st December 1904.	Heaviest rainfall during month.	STATION.	METEOROLOGICAL PROVINCE OR DISTRICT.	Number of District.
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	
	5	1	1				6	1	N 40° W	2·1			1·8	74		·424		2·3		0	0·34	− 0·34	0	0·13	− 0·13	0	0·13	− 0·13	0	Bankura .	CENTRAL BENGAL	11
	3	1		2			2	7	N 36° W	1·9				77		·401		1·9		0	0·26	− 0·26	0	0·08	− 0·08	0	0·08	− 0·08	0	Raniganj.		
	7	4	2			1		2	N 15° E	1·4	1·9	−26	1·4	78	+7	·438	+·053	2·2*	+0·8	0	0·23	− 0·23	0	0·11	− 0·11	0	0·11	− 0·11	0	Burdwan.		
								1	N 45° W	1·1			1·2	78		·407		1·1		0	0·33	− 0·33	0	0·16	− 0·16	0	0·16	− 0·16	0	Naya Dumka		
	9	1	1					3	N 2° W	1·1	1·6	−31	0·9	89	+3	·458	+·022	2·2‡	+0·8	0	0·34	− 0·34	0	0·11	− 0·11	0	0·11	− 0·11	0	Berhampore.		
	1	2							N 27° E	0·4			0·4	86		·452		1·0*		0	0·22	− 0·22	0	0·06	− 0·06	0	0·06	− 0·06	0	Rampur Boalia.		
		2			1		1	10	N 14° W	4·0			3·7	88		·451		1·9		0	0·19	− 0·19	0	0·24	− 0·24	0	0·24	− 0·24	0	Malda.		
	1							2	S 27° W	1·2			1·0	84	−1	·427	−·004	0·9‖	+0·7	0	0·23	− 0·23	0	0·02	− 0·02	0	0·02	− 0·02	0	Bogra.		
	7	12	1	1		1	4	5	N 6° E	1·3			1·2	86	0	·421	+·011	1·3*	+0·6	0	0·32	− 0·32	0	0·04	− 0·04	0	0·04	− 0·04	0	Dinajpur .	NORTH BENGAL .	12
																		0·4‖		0	0·23	− 0·23	0	0·09	− 0·09	0	0·09	− 0·09	0	Rangpur.		
6	4	6	4				1	10	N 1° E	1·4			1·3	89		·444		1·2*	+0·2	0	0·23	− 0·23	0·04	0·04	0	0·04	0·04	0	0·04	Jalpaiguri.		
15	6	2	1	1	1		1	4	N 6° W	1·0			1·3	87	−2	·411	−·021	0·8		0	0·27	− 0·27	0	0·08	− 0·08	0	0·08	− 0·08	0	Cooch Behar		
23		1	7						N 83° E	1·1			1·1	91		·403		0·3‖	−0·6	0	0·23	− 0·23	0·03	0·10	− 0·07	0·03	0·10	− 0·07	0·03	Purnea .	NORTH BIHAR .	17
24		1				1	4	1	N 79° W	0·9	1·3	− 31	0·8	92	+1?	·387	+·004	2·8†	+0·7	1	0·52	+ 0·48	0·38	0·18	+ 0·20	0·38	0·18	+ 0·20	0·25	Balasore .	ORISSA . .	14
1	5	1				1	2	21	N 40° W	2·6			2·0	79	−3?	·454	+·007	3·3†	+0·8	2	0·68	+ 1·32	0·44	0·69	− 0·25	0·44	0·69	− 0·25	0·18	False Point.		
2	11		1				2	15	N 29° W	4·5	6·3	−29	4·7	88	+4	·577	+·062	3·0*	+1·1	1	0·58	+ 0·42	0·20	0·27	− 0·07	0·20	0·27	− 0·07	0·14	Cuttack.		
24		1	1			1	4		W	1·5	1·3	+15		82	+7	·497	+·050	1·8		1	0·61	+ 0·39	0·25	0·65	− 0·40	0·25	0·65	− 0·40	0·18	Puri.		
6	14	3						8	N 10° W	8·4			8·2	86		·569																
																														V.—Gangetic Plain and Chota Nagpur.		
														85	+ 9	·415	+·055	1·3	+ 0·2				0·40	0·19	+0·21					
5	3	1	1	6	6	8	3	3	S 49° W	5·5	4·6	+20	4·9	68	+ 3	·348	+·038	1·2	−0·2	0	0·52	− 0·52	0	0·20	− 0·20	0	0·20	− 0·20	0	Hazaribagh.	CHOTA NAGPUR	15
3	8	2			1	3	5	9	N 43° W	4·4			5·2	72	+ 7	·358	+·049	1·5	+0·3	1	0·48	+ 0·52	0·14	0·09	+ 0·05	0·14	0·09	+ 0·05	0·14	Ranchi.		
25				5	1				S 81° E	2·2			1·8	85		·538		1·0		0	0·55	− 0·55	0·04	0·29	− 0·25	0·04	0·29	− 0·25	0·04	Daltonganj.		
7	1						10	13	N 62° W	2·1			2·6	71		·392		1·6		0	0·29	− 0·29	0	0·18	− 0·18	0	0·18	− 0·18	0	Purulia .		
31									Calm	0·4			0·3	84	+ 7	·423	+·048	1·3	−0·1	0	0·65	− 0·65	0	0·10	− 0·10	0	0·10	− 0·10	0	Chaibassa.		
17		5			5	4	4		S 27° W	3·2	1·3	+146	2·5	83	+12	·410	+·068	1·6§	+0·1	0	0·35	− 0·35	0	0·17	− 0·17	0	0·17	− 0·17	0	Gaya .	SOUTH BIHAR .	16
11			2	1	7	8	2		S 21° W	3·4			3·0	84		·430		1·8		0	0·44	− 0·44	0	0·32	− 0·32	0	0·32	− 0·32	0	Dehri.		
8	2	4	1	3	2	4	4	3	W	2·5	1·7	+47	2·9	85	+10	·425	+·063	1·5*	+0·6	0	0·35	− 0·35	0	0·10	− 0·10	0	0·10	− 0·10	0	Patna.		
25		1		1		1	2	1	W	1·2			1·2	90		·422		0·1‡		0	0·35	− 0·35	0·03	0·13	− 0·10	0·03	0·13	− 0·10	0·03	Arrah.		
2	1		8	3	6	7	3	1	S 10° E	3·2			3·0	86		·408		2·1‡		2	0·45	+ 1·55	0·43	0·20	+ 0·23	0·43	0·20	+ 0·23	0·29	Buxar.		
15	1	1	2	2		4	5	1	S 63° W	1·3			1·3	79		·445		0·3†		0	0·26	− 0·26	0	0·07	− 0·07	0	0·07	− 0·07	0	Bhagalpur .	NORTH BIHAR .	17
11		2	3	1		1	7	6	N 60° W	1·3	2·0	−35	1·1	92	+ 6	·444	+·035	1·0*	+0·5	0	0·23	− 0·23	0	0·07	− 0·07	0	0·07	− 0·07	0	Darbhanga.		
26		1	2				1	1	N 45° E	0·8				91		·444		0·5		0	0·19	− 0·19	0	0·07	− 0·07	0	0·07	− 0·07	0	Muzaffarpur		
14	1	4	3	1	2	4	1	1	S 63° E	2·2			2·1	93		·412		0·9¶		1	0·47	+ 0·53	0·64	0·14	+ 0·50	0·64	0·14	+ 0·50	0·64	Motihari.		
17	3	1	3		2	2	2	1	N 31° W	1·4			1·2	92		·421		P		0	0·29	− 0·29	0·02	0·09	− 0·07	0·02	0·09	− 0·07	0·02	Chapra.		
23	2	1	1			2	1		N	1·2	2·4	−50	1·4	87	+ 3?	·420	+·065	2·2	+0·9	2	0·40	+ 1·60	0·71	0·21	+ 0·50	0·71	0·21	+ 0·50	0·47	Benares .	UNITED PROVINCES (EAST).	18
13	1	3	5	2		2	5		N 81° E	2·5	2·5		2·1	90	+13	·425	+·072	2·3	+1·0	3	0·50	+ 2·50	0·96	0·24	+ 0·72	0·96	0·24	+ 0·72	0·50	Allahabad.		
13	2	3	1	1		2	5	4	N 48° W	0·6	0·9	−33		89	+ 8	·427	+·053	1·1	+0·1	1	0·40	+ 0·60	0·75	0·14	+ 0·61	0·75	0·14	+ 0·61	0·75	Gorakhpur	UNITED PROVINCES (EAST SUB-MONTANE).	23
																														Lucknow .	SOUTH OUDH .	19
22		2	1	2	1		1	2	N 72° E	1·3	1·6	−19	1·4	89	+ 7	·383	+·049	1·1	−0·5	3	0·80	+ 2·20	0·76	0·38	+0·38	0·76	0·38	+ 0·38	0·49	Bahraich .	NORTH OUDH .	20
																				2	0·70	+ 1·30	1·02	0·34	+ 0·68	1·02	0·34	+ 0·68	0·79	Cawnpore .	UNITED PROVINCES (CENTRAL).	
14		2	4	3		1	6	1	N 8° E	1·5				86	+ 9	·383	+·059	1·4	+0·1	3	0·60	+ 2·40	0·91	0·17	+ 0·74	0·91	0·17	+ 0·74	0·35	Mainpuri.		
25			2	1		1	1	1	S 23° E	0·1			0·1	85	+12	·353	+·062	1·4	−0·9	3	0·60	+ 2·40	2·36	0·34	+ 2·02	2·36	0·34	+ 2·02	1·70	Mainpuri.		

the data for that station are not utilized in calculating the provincial departures from normal.
are derived are incomplete.

* Mean of 30 days.
† Mean of 29 days.
‡ Mean of 28 days.
¶ Mean of 25 days.
§ Mean of 21 days.
‖ Mean of 27 days.

Table

Abstract of Observations taken at 8 A.M. at 233 Stations

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure, 8 A.M., in inches.								Temperature of air.											
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
	VI.—Upper Sub-Himalayas.				+·027								70·3	−1·4	46·3	+3·2	58·3	+0·9	24·0					38·2
24	United Provinces (West Sub-Montane).	Bareilly	568	29·534	+·033	30·111	29·736	31st	29·355	10th	·381	52·6	70·4	−2·4	49·1	+3·1	59·8	+0·4	21·3	75·3	1st	41·1	31st	34·2
		Dehra Dun	2,233	27·817	+·024	30·139	28·013	31st	27·648	10th	·365	49·6	68·0	−0·7	46·9	+1·3	57·5	+0·3	21·1	74·5	8th	41·0	22nd & 30th.	33·5
		Roorkee	899	29·183	+·032	30·122	29·393	31st	29·003	10th	·390	49·8	69·3	−3·1	46·0	+2·5	57·7	−0·3	23·3	75·8	5th & 6th	36·9	31st	38·9
22	United Provinces (West.)	Meerut	738	29·355	+·028	30·119	29·574	31st	29·167	10th	·407	50·0	71·9	−1·0	47·6	+2·9	59·8	+1·0	24·3	77·5	6th	38·2	31st	39·3
26	South-East Punjab.	Delhi	718	29·381	+·024	30·116	29·599	31st	29·179	10th	·420	53·9	71·0	−2·7	50·9?	+2·0?	61·0?	−0·4?	20·1?	76·2	1st & 13th.	43·9	31st	32·3
28	Central Punjab.	Lahore	702	29·392	+·019	30·128	29·623	31st	29·161	10th	·462	47·0	72·5	−0·7	44·6	+4·3	58·6	+1·8	27·9	79·3	10th	37·1	24th, 29th & 31st.	42·2
27	South Punjab	Sirsa	662	29·445	+·027	30·129	29·681	31st	29·118	10th	·483	50·3	73·2	−1·7	45·4	+2·7	59·3	+0·5	27·8	79·7	11th, & 14th.	35·5	31st	44·2
		Patiala	*818*	29·271		30·119	29·498	31st	29·068	10th	·430	51·7	69·7		47·3		58·6		22·6	75·8	7th	38·4	31st	37·4
29	Punjab (Sub-Montane.)	Ludhiana	812	29·275	+·030	30·121	29·499	31st	29·073	10th	·426	50·3	68·7	−2·3	47·8	+3·8	58·3	+0·8	20·9	75·1	14th	39·1	30th & 31st.	36·0
		Sialkot	830	29·260	+·033	30·132	29·500	31st	29·043	10th	·457	49·8	70·2	+0·1	47·2	+4·7	58·7	+2·4	23·0	76·0	7th	39·1	23rd	36·9
		Ambala	892	29·196	+·036	30·126	29·416	31st	29·005	10th	·411	50·8	71·6	−0·5	46·1	+2·6	58·9	+1·1	25·5	79·0	6th & 9th.	36·2	30th	42·8
		Rawalpindi	1,674	28·396	+·012	30·185	28·630	31st	28·184	10th	·446	44·3	66·7	−0·9	40·9	+3·8	53·8	+1·5	25·8	74·9	10th	34·5	24th	40·4
	VII.—Indus Valley and North-West Rajputana.				+·016								75·9	+0·6	48·0	+1·9	62·0	+1·3	27·9					44·1
32	North-West Frontier Province.	Peshawar	1,110	29·001	+·004	30·192	29·730	31st	28·767	10th	·463	45·1	66·7	−0·8	41·6	+2·6	54·2	+0·9	25·1	74·1	9th	33·4	24th	40·7
		D. I. Khan	590	29·548	+·016	30·144	29·787	31st	29·304	10th	·483	45·2	73·3	+0·8	42·1	+2·0	57·7	+1·4	31·2	79·3	6th & 9th.	34·5	29th	44·8
31	West Punjab	Khushab	612	29·503	+·016	30·143	29·748	31st	29·289	10th	·459	48·2	72·3	+0·6	43·9	+2·0	58·1	+1·3	28·4	80·3	9th	35·4	24th	44·9
		Montgomery	558	29·560	+·020	30·133	29·809	31st	29·283	10th	·526	50·1	72·2	−0·7	44·1	+1·1	58·2	+0·2	28·1	80·3	10th	34·5	31st	45·8
		Multan	420	29·706	+·009	30·127	29·951	31st	29·422	10th	·529	51·6	74·5	+0·6	47·1	+2·7	60·8	+1·7	27·4	80·8	1st & 6th.	40·0	22nd	40·8
47	Sind	Jacobabad	186	29·960	+·023	30·123	30·187	31st	29·673	10th	·514	51·8	78·1	+1·4	45·4	+1·4	61·8	+1·4	32·7	87·0	10th	36·0	21st	51·0
		Hyderabad	98	30·052	+·021	30·108	30·216	31st	29·756	10th	·460	58·9	81·0	+1·9	53·8	+1·5	67·4	+1·7	27·2	91·1	11th	45·0	23rd	46·1
		Kurrachee	30	30·112	+·018	30·094	30·273	31st	29·849	11th	·424	62·1	82·2	+1·9	57·5	+1·6	69·9	+1·8	24·7	89·9	7th	48·7	22nd	41·2
51	West Rajputana	Bikaner	*771*	29·333	+·014	30·127	29·558	31st	29·065	10th	·493	54·4	73·7	−1·6	50·9	?	62·3	?	22·8	84·2	10th & 11th,	45·1	25th	39·1
		Pachpadra	*380*	29·734	+·022	30·099	29·902	31st	29·532	10th	·370	56·9	81·4	−0·1	48·6	+2·3	65·0	+1·1	32·8	88·4	10th	38·4	22nd & 23rd.	50·0
		Jodhpur	782	29·322		30·134	29·518	31st	29·117	11th	·401	57·9	79·8		52·9		66·4		26·9	85·1	5th	44·2	22nd	40·9
	VIII.—East Rajputana, Central India and Gujarat.				+·017								80·5	+0·3	53·8	+1·6	67·2	+0·9	26·7					40·1
50	East Rajputana	Jaipur	1,431	28·666	+·018	30·146	28·877	31st	28·466	10th	·411	56·0	75·8	−1·9	50·1	+1·0	63·0	−0·5	25·7	84·2	12th	41·0	23rd	43·2
		Bharatpur	585	29·522		30·112	29·740	31st	29·353	11th	·387	53·5	74·6		49·2		61·9		25·4	84·5	11th	44·2	5 days	40·3
		Kotah	819	29·266		30·135	29·463	31st	29·060	10th	·403	53·2	78·1		53·5		65·8		24·6	85·5	14th	48·0	23rd	37·5
		Sambhar	1,254	28·835	+·018	30·140	29·051	31st	28·630	10th	·421	52·2	76·1	+0·1	48·2	+1·9	62·2	+1·0	27·9	84·4	11th	41·0	22nd	43·4
		Ajmer	1,611	28·486?	+·015?	30·162?	28·701	31st	28·288	10th	·413	53·1	75·8	−0·5	50·1	?	62·9	?	25·7	83·4	10th & 12th.	43·3	23rd	40·1
		Udaipur	1,925	28·162		30·138	28·338	31st	27·984	10th	·354	57·7	79·2		49·9*		64·5*		29·3	86·0	10th	41·2	23rd	44·8
46	Kathiawar and Cutch.	Bhuj	395	29·705	+·020	30·072	29·851	31st	29·511	11th	·340	65·0	82·1?	?	60·8?†	?	72·6?†	?	21·3?	90·3?	10th	53·9?	31st	36·4?
		Jamnagar	61	30·043		30·049	30·160	31st	29·869	11th	·291	64·1	82·8		57·0		69·9		25·8	89·0	1st & 2nd.	47·3	31st	41·7
		Rajkot	429	29·647	+·009	30·048	29·758	31st	29·493	11th	·265	63·5	85·6	+0·2	54·6	+1·7	70·1	+1·0	31·0	90·9	1st	47·0	18th	43·9
		Veraval	18	30·065	+·019	30·025	30·172	31st	29·937	10th	·235	68·6	85·8	+1·7	63·0	+1·0	74·4	+1·4	22·8	90·6	1st	55·3	30th	35·3
		Dwarka	37	30·067		30·051	30·180	31st	29·881	11th	·299	69·4	81·2		62·0		71·6		19·2	89·4	1st	55·1	24th	34·3
		Bhavnagar Para	55	30·046	?	30·045	30·168	31st	29·901	10th	·267	63·5	85·8	+0·8	56·6	?	71·2	?	29·2	90·6	1st & 11th.	49·0	24th	41·6
49	Central India	Nowgong	757	29·342	+·004?	30·112	29·554	31st	29·165	10th	·389	54·1	74·3	−0·9	49·8	+3·4	62·1	+1·3	24·5	82·5	14th	42·5	25th	40·0
		Indore	1,823	28·250	+·024	30·107	28·399	31st	28·107	10th	·292	61·0	81·4	+2·1	50·4	+1·1	65·9	+1·6	31·0	87·1	13th	44·1	5th & 25th.	43·0
		Neemuch	1,630	28·461	+·023	30·143	28·632	31st	28·284	10th	·348	56·3	78·9	+0·5	49·5	0	64·2	+0·3	29·4	85·0	10th & 13th.	43·8	22nd	41·2
45	Gujarat East	Surat	39	30·050	+·023	30·036	30·170	31st	29·925	11th	·245	67·0	88·0	+0·6	59·7	+2·0	73·9	+1·3	28·3	93·2	1st	55·5	18th	37·7
		Ahmedabad	*163*	29·930	+·011	30·050	30·063	31st	29·786	11th	·277	67·4	87·7	+1·8	60·6	+0·5	74·2	+1·2	27·1	92·7	1st	56·2	23rd	36·5
		Deesa	466	29·624	+·012	30·071	29·761	31st	29·457	11th	·304	61·5	87·7	+2·3	54·3	+1·6	71·0	+2·0	33·4	93·1	1st & 8th	48·6	23rd	44·5

* Mean of 30 days. † Mean of 21 days.

N.B.—Elevations in italics indicate barometrical determinations

Note 1.—When a query is inserted against any reading or in the returns of any station,

Note 2.—The data from which divisional means of the figure columns Nos. 41, 43 and 45

I—*continued.*

in India, Burma, etc., in December, 1904—continued.

WIND DIRECTION. NUMBER OF WINDS FROM										WIND VELOCITY.				HYGROMETRY, 8 A.M.				CLOUD.		RAINFALL.															
Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal. (uncorrected.)	Percentage departure from normal.	Mean velocity corrected (where possible).	Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Mean cloud amount at 8 A.M.	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 1904.	Normal rainfall for period, 1st to 31st December.	Departure from normal of period, 1st to 31st December 1904.	Heaviest rainfall during month.	STATION.	METEOROLOGICAL PROVINCE OR DISTRICT.	Number of District.
28	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	58
						1		1	S 45° W	0·3	2·2	−86	0·3	84	+9	·309	+·049	2·3	−0·4				1·06	0·57	+0·48					VI.—Upper Sub-Himalayas		
29														91	+10	·362	+·086	1·9	+0·5	3	0·64	+2·36	1·36	0·33	+1·03	1·36	0·33	+1·03	0·89	Bareilly .	UNITED PROVINCES (WEST SUB-MONTANE).	24
26	1					1	2		1	S 72° W	0·7	1·7	−59		84	+9	·303	+·035	2·5	−1·2	4	1·40	+2·60	2·02	0·80	+1·22	2·02	0·80	+1·22	0·99	Dehra Dun.		
25			1	2					3	N 22° E	1·8	1·3	+38		89	+5	·323	+·044	1·9	−0·2	4	1·30	+2·70	2·29	0·61	+1·68	2·29	0·61	+1·68	0·84	Roorkee.		
24	1	1	2				3			N 9° W	0·7	1·6	−56	0·7	83	+8	·309	+·048	2·2	+0·2	4	0·90	+2·10	0·67	0·48	+0·19	0·67	0·48	+0·19	0·25	Meerut .	UNITED PROVINCES (WEST).	22
13	2	1	1	1			9	4		N 63° W	2·8*	2·7	+4	2·5*	76	+15	·314	+·064	2·8	+0·4	4	1·10	+2·90	1·01	0·53	+0·48	1·01	0·53	+0·48	0·38	Delhi .	SOUTH-EAST PUNJAB.	26
24			3	3			1			S 62° E	1·5	1·5	0		89	+11	·296	+·044	1·6	−1·3	0	0·90	−0·90	0	0·38	−0·38	0	0·38	−0·38	0	Lahore .	CENTRAL PUNJAB	28
27				2	2					S 19° E	1·8	2·2	−18	1·5	78	+9	·290	+·053	2·0	−1·0	1	0·80	+0·20	0·10	0·31	−0·21	0·10	0·31	−0·21	0·10	Sirsa .	SOUTH PUNJAB.	27
6	2	3	1	7		1	3	8		N 14° W	3·7			3·8	83		·324		2·9		3			1·09			1·09			0·65	Patiala.		
23		1		9	1			2		S 51° E	1·3	0·8	+63	1·2	85	+9	·317	+·057	1·9	−1·9	2	0·90	+1·10	1·06	0·78	+0·28	1·06	0·78	+0·28	0·95	Ludhiana .	PUNJAB (SUB-MONTANE).	29
16	1	5	4	1	1			3		N 51° E	1·7	1·1	+55	1·4	80	+6	·292	+·045	2·0	−0·6	0	1·10	−1·10	0·14	0·52	−0·38	0·14	0·52	−0·38	0·08	Sialkot.		
30				1						S 45° E	1·1				89	+7	·332	+·055	3·1	+0·7	3	1·20	+1·80	1·37	0·82	+0·55	1·37	0·82	+0·55	0·73	Ambala.		
21										Calm	1·5	1·1	+36	1·4	84	+10	·251	+·041	3·1	−0·5	3	1·60	+1·40	1·55	0·74	+0·81	1·55	0·74	+0·81	1·24	Rawalpindi.		
															65	+3	·267	+·023	1·7	−1·0				0·18	0·22	−0·03					VII.—Indus Valley and North-West Rajputana.		
27					3	1				S 11° W	0·6	2·4	−75	0·7	76	+6	·235	+·030	3·8	0	1	1·10	−0·10	0·19	0·33	−0·14	0·19	0·33	−0·14	0·15	Peshawar .	NORTH-WEST FRONTIER PROVINCE.	32
30		1								N 45° E	0·2	0·8	−75	0·2	76	+5	·244	+·027	2·7	+0·1	0	0·80	−0·80	0·07	0·21	−0·14	0·07	0·21	−0·14	0·07	D. I. Khan.		
17		7	2			2	1	2		N 32° E	3·1			3·0	66	+6	·232	+·033	2·4	−0·3	0	0·40	−0·40	0·13	0·54	−0·41	0·13	0·54	−0·41	0·07	Khushab .	WEST PUNJAB.	31
15	1	4	1	4	1	1	1	3		N 63° E	3·8			3·5	70	+5	·257	+·027	2·5	−0·2	1	0·60	+0·40	0·40	0·42	−0·02	0·40	0·42	−0·02	0·37	Montgomery		
28	3			2						N 41° E	1·0	1·3	−23	0·9	70	0	·272	+·011	0·9	−1·6	1	0·70	+0·30	0·41	0·19	+0·22	0·41	0·19	+0·22	0·41	Multan.		
15	5	3	2	1			1	4		N 6° E	1·7	1·6	+6	1·8	68	+5	·269	+·028	1·1	−1·7	0	0·40	−0·40	0·01	0·09	−0·08	0·01	0·09	−0·08	0·01	Jacobabad .	SIND.	47
2	13	2		1		4		9		N 22° W	7·0	6·5	+8	6·2	56	+2	·292	+·026	0·2	−2·0	0	0·20	−0·20	0	0·05	−0·05	0	0·05	−0·05	0	Hyderabad.		
2	6	18	1			1		2		N 33° E	6·5	9·2	−29	5·7	56	−3	·330	+·001	0·9	−1·3	0	0·40	−0·40	0	0·13	−0·13	0	0·13	−0·13	0	Kurrachee .		
4	3	6	5	3	4	2	1	3		N 75° E	5·2	2·4	+117		59	+2	·256	+·015	1·8	−0·8	1	0·40	+0·60	0·75	0·17	+0·58	0·75	0·17	+0·58	0·75	Bikaner .	WEST RAJPUTANA	51
4	5	10	7	2	1	1		1		N 55° E	5·1	2·1	+143	4·4	60	0	·284	+·032	0·7	−1·8	0	0·40	−0·40	0	0·12	−0·12	0	0·12	−0·12	0	Pachpadra.		
6	2	19	3	1						N 50° E	5·1			4·6	55		·262		1·9		0	0·50	−0·50	0·67	0·15	−0·08	0·07	0·15	−0·08	0·07	Jodhpur.		
															65	+4	·338	+·021	1·2	−0·4				0·41	0·19	+0·20					VIII.—East Rajputana, Central India and Gujarat.		
14	3	8	2			1	1	2		N 26° E	2·9	3·4	−15		69	+7	·309	+·040	1·7	−0·5	2	0·70	+1·30	1·29	0·19	+1·10	1·29	0·19	+1·10	1·11	Jaipur .	EAST RAJPUTANA	50
23		1	1				4	2		N 63° W	1·6			1·5	88		·341		1·5		3			1·73			1·73			0·85	Bharatpur.		
13	3	2	1					2		N 9° E	1·6			1·3	68		·330		1·1		1	0·80	+0·20	0·35	0·29	+0·06	0·35	0·29	+0·06	0·35	Kotah.		
20	2	6	2					1		N 39° E	2·9	3·7	−22		74	+10	·289	+·041	1·6	−0·6	2	0·80	+1·20	0·67	0·35	+0·32	0·67	0·35	+0·32	0·43	Sambhar.		
19		9		1				2		N 39° E	2·7	1·4	+93	2·3	77	+3	·314	+·039	2·5	?	1	0·60	+0·40	0·60	0·27	+0·33	0·60	0·27	+0·33	0·52	Ajmer.		
26	1	1	1				1	1		N	1·5			1·3	62		·296		1·4		0	0·50	−0·50	0·09			0·09			0·07	Udaipur.		
9	3	6	1			6	4	2		N 45° W	7·4	5·1	+45	6·2	56	+1	·352	+·011	0·4	−1·2	0	0·20	−0·20	0	0·07	−0·07	0	0·07	−0·07	0	Bhuj .		
	3	9	11	1	4	3				N 81° E	11·1			13·4	55		·335		0·9		0			0			0·			0	Jamnagar.	KATHIAWAR AND CUTCH.	48
5		14	8			3	1			N 62° E	4·4	4·8	− 8	4·4	49	− 4	·290	−·034	0·5	−0·5	0	0·20	−0·20	0	0·04	−0·04	0	0·04	−0·04	0	Rajkot.		
	18	13								N 18° E	8·0	5·0	+60	8·0	51	0	·355	−·007	0·9	−1·1	0	0·40	−0·40	0	0·09	−0·09	0	0·09	−0·09	0	Veraval.		
	10	14	3			1	1	2		N 25° E	11·3				70		·512		0·8		0			0			0			0	Dwarka.		
4	6	2				1	5	13		N 40° W	4·2			3·8	46	−16	·275	−·096	1·5	?	0	0·10	−0·10	0	0·07	−0·07	0	0·07	−0·07	0	Bhavnagar Para.		
9	2	3	9				3	5		N 32° E	1·2	1·2	0	1·2	85†	+11†	·355†	+·037	2·1	+0·9	2	0·70	+1·30	0·76	0·55	+0·21	0·76	0·55	+0·21	0·52	Nowgong .	CENTRAL INDIA .	49
15	1	9	2	3	1					N 68° E	2·5	2·1	+19	2·0	59	0	·317	+·007	2·3	+0·9	0	0·50	−0·50	0·08	0·20	−0·12	0·08	0·20	−0·12	0·04	Indore.		
4	8	12	1			3	2	1		N 17° E	4·8	8·1	−41	4·0	68	+15	·308	+·041	0·7	−0·7	0	0·60	−0·60	0·04	0·28	−0·24	0·04	0·28	−0·24	0·04	Neemuch.		
	1	8	15	4	2			1		N 84° E	4·3	5·0	−14	4·0	68	+6	·457	+·058	0·9	−0·4	0	0·10	−0·10	0·08	0·01	+0·07	0·08	0·01	+0·07	0·05	Surat .	GUJARAT.	45
	1	18	4	1		2	2	3		N 42° E	2·3			3·8	50	+1	·331	+·019	1·3	−0·2	0	0·10	−0·10	0	0·07	−0·07	0	0·07	−0·07	0	Ahmedabad		
	3	16	8	2	1			1		N 58° E	7·8	8·1	− 4		46	− 1	·255	−·003	0·3	−1·5	0	0·09	−0·09	0	0·06	−0·06	0	0·06	−0·06	0	Deesa.		

the data for that station are not utilized in calculating the provincial departures from normal. * Mean of 28 days. † Mean of 26 days.
are derived are incomplete.

Table

Abstract of Observations taken at 8 A.M. at 233 Stations

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 A.M., in inches.								Temperature of air.											
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
22	United Provinces (West).	Agra	555	29·551	+·008	30·108	29·769	31st	29·360	10th	·409	55·2	72·1	−3·0	51·0	+2·2	62·6	−0·4	22·1	79·5	11th & 13th.	45·4	25th	34·1
21	United Provinces (Central).	Jhansi	858	29·255	+·018	30·125	29·475	31st	29·067	10th	·408	58·6	78·0	−0·4	54·4	+2·5	66·2	+1·1	23·6	87·2	13th	48·7	25th	38·5
	IX.—Deccan				+·016								81·9	+0·5	54·2	+0·9	68·1	+0·7	27·7					39·0
38	Bombay Deccan	Belgaum	2,539	27·496	+·021	30·022	27·622	31st	27·405	11th	·217	66·7	81·3	−0·3	57·5	−0·6	69·4	−0·5	23·8	84·3	17th, 18th & 23rd.	52·4	26th	31·9
		Sholapur	1,590	28·473	+·017	30·066	28·617	31st	28·381	10th	·236	66·9	84·9	−0·6	57·7	+0·2	71·3	−0·2	27·2	88·2	23rd	51·1	5th & 28th.	37·1
		Poona	1,840	28·224?	+·014?	30·100?	28·349	31st	28·119	11th	·230	55·2	84·8	+0·5	53·5	−0·3	69·2	+0·1	31·3	89·0	21st	46·5	28th	42·5
		Bijapur	*1,948*	28·108	+·012	30·059	28·250	31st	28·011	10th	·239	65·6	83·7	−0·3	55·7	−0·3	69·7	−0·3	28·0	87·4	23rd	46·6	28th	40·8
40	Khandesh	Malegaon	1,430	28·637	+·007	30·088	28·772	31st	28·519	11th	·253	60·6	84·8	+0·6	52·3	+1·0	68·6	+0·8	32·5	88·4	12th, 13th & 15th.	46·2	28th & 29th.	42·2
		Ahmednagar	2,154	27·922	+·019	30·097	28·051	31st	27·810	11th	·241	63·0	82·7	−0·3	51·9	+0·4	67·3	+0·1	30·8	87·8	19th	42·9	28th	44·9
41	Berar	Akola	930	29·162	+·020	30·087	29·321	31st	29·032	10th	·289	63·5	85·3	+1·7	52·5	+1·1	68·9	+1·4	32·8	90·0	14th	44·9	28th	45·1
		Amraoti	1,215	28·871?	+·023?	30·084?	29·034	31st	28·740	11th	·294	66·8?	84·4	+1·7	59·0?	?	71·7?	?	25·4?	87·6	14th	50·5	5th	37·1
42	Central Provinces, (West).	Khandwa(a)	1,044	29·028	+·007	30·087	29·180	31st	28·877	10th	·303	58·5	85·2	+2·2	52·0	+1·8	68·7	+2·1	33·3	91·7	15th	43·6	25th	48·1
		Hoshangabad	1,006	29·106	+·027	30·130	29·288	31st	28·935	10th	·353	59·3	80·8	+1·5	53·8	+2·1	67·3	+1·8	27·0	87·2	15th	45·2	24th	42·0
		Nagpur	1,025	29·059	+·017	30·092	29·227	31st	28·926	10th	·301	61·1	83·2	+1·9	54·9	+0·6	69·1	+1·3	28·3	86·6	13th	48·2	28th & 29th.	38·4
43	Central Provinces, Central.	Chanda	*634*	29·473	+·031?	30·090	29·622	31st	29·352	11th	·270	60·3	83·7	+1·2	52·1	+0·3	67·9	+0·8	31·6	86·1	5 days	44·6	27th	41·5
		Seoni	2,033	29·043	+·018	30·114	29·217	31st	27·905	11th	·312	60·0	79·0	+1·3	51·6	+1·8	65·3	+1·6	27·4	83·8	12th	44·0	26th	39·8
		Jubbulpore	1,327	28·754	+·012	30·118	28·943	31st	28·597	10th	·346	55·7	77·4	+0·5	49·5	+3·5	63·5	+2·0	27·9	83·9	13th	39·4	26th	44·5
		Saugor	1,807	28·268	+·015	30·111	28·449	31st	28·101	10th	·348	60·1	76·9	+0·2	54·5	+2·6	65·7	+1·4	22·4	83·9	13th & 15th.	48·1	24th	35·8
49	Central India	Sutna	1,040	29·053	+·016	30·121	29·251	31st	28·884	10th	·367	56·0	74·5	−0·6	50·9	+3·8	62·7	+1·6	23·6	82·9	15th	43·2	23rd	39·7
44	Central Provinces, (East).	Raipur	970	29·120	+·019	30·091	29·295	31st	28·983	10th	·312	61·5	80·1	+0·9	54·6	+0·5	67·4	+0·7	25·5	84·1	12th	47·4	27th	38·7
		Pendra	2,123?	28·037?		30·12??	28·217	31st	27·894	10th	·323	57·5	76·0		51·3		63·7		24·7	81·3	13th	43·0	25th	38·3
		Sambalpur	486	29·630	+·020	30·093	29·796	31st	29·492	10th	·304	61·6	81·0	+1·2	55·8	+1·8	68·4	+1·5	25·2	84·6	13th & 14th.	47·7	26th & 27th.	36·9
39	Hyderabad (North).	Aurangabad	1,905	28·163		30·064	28·286	31st	28·046	11th	·240	67·3	82·4		53·5		67·9		28·9	88·3	20th	45·2	28th	43·1
		Indur	1,260	28·617?		29·868?	28·715	1st	28·583	14th	·132	65·2	82·5		52·8		67·7		29·7	85·7	17th	47·1	5th	38·6
		Bidar	*2,165*	27·911		30·073	28·054	31st	27·794	11th	·260	67·7	80·4		60·3?		70·4?		20·1?	84·6	13th	55·7	5th	28·9
53	Hyderabad (South).	Gulbarga	1,503	28·565	+·004	30·071	28·651	25th	28·461	10th	·199	65·1	85·3*	+0·4*	56·9	−0·9	71·3*	−0·3	28·4	87·3	21st	49·8	28th	37·5
		Raichur	1,326	28·736	+·025	30·049	28·891	31st	28·642	11th	·249	69·5	84·1	−0·8	62·2	−1·1	73·2	−1·0	21·9	86·6	21st	52·7	28th	33·9
		Hyderabad (Deccan).	1,690	28·382	+·015	30·088	28·535	31st	28·284	11th	·251	62·7	82·0	−0·4	56·4	−0·9	69·2	−0·7	25·6	84·9	14th & 20th.	50·8	28th	34·1
		Hanumkonda	871	29·211		30·063	29·370	31st	29·109	10th	·261	67·0	83·2		59·0		71·2		24·2	87·0	18th	54·2	4 days	32·8
	X.—West Coast				+·017								86·4	0	70·5	−0·3	78·5	−0·2	15·9					23·3
37	Konkan	Bombay	37	30·023	+·012	30·001	30·147	31st	29·909	11th	·238	72·2	84·6	+0·1	70·1	+0·3	77·3	+0·2	14·5	87·5	24th & 25th.	66·0	30th	21·5
		Ratnagiri	110	29·938	?	29·990	30·071	31st	29·842	11th	·229	73·8	88·0	−1·5	65·3?	?	76·7?	?	22·7?	91·8	25th	60·0	1st	31·8
		Mormugao†	*60*	29·984	+·016	29·979	30·117	31st	29·881	11th	·236	75·4	85·4	−0·9	70·0	−0·3	77·7	−0·6	15·4	88·0	10th & 25th.	66·3	27th	21·7
		Goa	199	29·845	+·013	29·985	29·988	31st	29·744	11th	·244	75·0	84·5	?	72·8	?	78·7	?	11·7	87·0	25th	69·5	1st	17·5
		Karwar	44	30·001	?	29·981	30·146	31st	29·887	11th	·259	70·4	87·8	+0·1	65·0	−1·2	76·4	−0·6	22·8	90·3	25th	59·5	11th	30·8
33	Malabar	Cochin	10	29·994	+·020	29·932	30·129	31st	29·897	11th	·232	77·0	89·8	+1·3	72·8	−0·1	81·3	+0·6	17·0	91·8	10th	67·8	31st	24·0
		Calicut	27	29·988	+·019	29·945	30·121	31st	29·893	11th	·228	76·1	87·9	+0·3	70·8‡	+0·3‡	79·3‡	+0·3	17·1	89·3	21st & 29th.	66·2	31st	23·1
		Mangalore	65	29·959	+·018	29·957	30·078	31st	29·861	10th	·217	76·9	88·3	−1·2	69·6	−0·4	78·9	−0·8	18·7	91·7	5th	66·0	30th	25·7
		Trivandrum	198	29·798	+·023	29·930	29·914	31st	29·697	11th	·217	75·9	83·0	0	72·7	−0·7	77·9	−0·4	10·3	85·0	10th	70·5	31st	14·5
	XI.—South India				+·028								83·4	+0·2	65·1	−0·5	74·2	−0·2	18·3					27·6
57	Madras (South)	Pamban	37	30·000	+·028	29·964	30·141	31st	29·865	18th	·276	76·4	81·2	−0·4	74·4	−0·2	77·8	−0·3	6·8	85·8	1st	72·2	6th, 8th & 18th.	13·6
		Tinnevelly	168	29·886	+·031	29·986	30·019	31st	29·767	19th	·252	76·2	86·0	−0·2	71·9	−0·5	78·9	−0·4	14·1	91·2	21st & 22nd.	66·9	28th & 30th.	24·3
		Madura	447	29·601	+·042	29·992	29·728	31st	29·476	19th	·252	75·6	85·7	−0·3	69·6	−0·9	77·7	−0·6	16·1	89·9	21st	63·2	29th	26·7
		Periyakulam	945	29·088		30·002	29·226	29th	28·983	19th	·243	72·6	86·0		65·6		75·3		20·4	92·3	21st	57·2	30th	35·1

(a) Thermometers were removed to the temporary grass hut after 4 P. M. of 16th October 1904. * Mean of 16 days. ‡ Mean of 29 days. NOTE 1.—When a query is inserted against any reading or in the returns of any

N.B.—Elevations in italics, indicate barometrical determinations. † Observation for 30 days. NOTE 2.—The data from which divisional means of the figure columns Nos. 41

I—*continued.*

in India, Burma, etc., in December, 1904—continued.

WIND DIRECTION. Number of winds from: Calm	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	WIND VELOCITY. Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal, (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	HYGROMETRY, 8 A.M. Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	CLOUD. Mean cloud amount at 8 A.M.	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, 1904.	Normal rainfall for period, 1st to 31st December.	Departure from normal of period, 1st to 31st December, 1904.	Heaviest rainfall during month.	STATION.	METEOROLOGICAL PROVINCE OR DISTRICT.	Number of District.
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	58
3		3		5		19		6	S 50° W	3·3	2·6	+27	3·9	78	+10	·344	+·059	1·5	0	3	0·60	+2·40	1·40	0·29	+ 1·11	1·40	0·29	+ 1·11	0·70	Agra	UNITED PROVINCES (WEST).	22
17	1	1	1		2	5	1	3	S 70° W	3·1	2·3	+35	3·8	79	+22	·393	+·100	1·0	−0·1	2	0·80	+1·20	1·02	0·24	+ 0·78	1·02	0·24	+ 0·78	0·80	Jhansi	UNITED PROVINCES (CENTRAL).	21
														63	+ 1	·363	−·003	1·5	−0·1				0·13	0·36	−0·23					IX.—Deccan.		
														57	0	·368	−·015	2·3	+0·7	0	0·40	−0·40	0	0·12	− 0·12	0	0·12	− 0·12	0	Belgaum	BOMBAY DECCAN	33
5	3	1	18	3					N 85° E		12·3																					
1		5	6	17		1		1	S 67° E	9·3	6·8	+37	11·3	43	− 6	·289	−·057	1·6	−0·4	0	0·50	−0·50	0	0·43	− 0·43	0	0·43	− 0·43	0	Sholapur.		
	2	2	9	5	1	4	4	4	S 76° E	6·3	5·7	+11		63	+ 7	·315	−·016	2·1	+0·2	0	0·50	−0·50	0	0·19	− 0·19	0	0·19	− 0·19	0	Poona.		
2	1	4	12	10	2				S 74° E	3·9			3·8	66	− 6?	·418	−·059?	1·5	−0·1	0	0·50	−0·50	0	0·03	− 0·03	0	0·03	− 0·03	0	Bijapur.		
8	1	2			1		10	9	N 63° W	3·6	3·5	+ 3	4·1	53	− 5	·290	−·041	1·4	−0·6	0	0·50	−0·50	0·01	0·26	− 0·25	0·01	0·26	− 0·25	0·01	Malegaon	KHANDESH	40
12			1	1	5	4		8	S 65° W	4·8			5·9	55	− 8?	·323	−·055	0·9	−0·6	0	0·90	−0·90	0	0·50	− 0·50	0	0·50	− 0·50	0	Ahmednagar.		
13		4	8	5	1				S 83° E	2·8	3·1	−10	2·5	54	− 2	·320	+·005	1·3	−0·5	0	0·70	−0·70	0	0·75	− 0·75	0	0·75	− 0·75	0	Akola	BERAR	41
2	2	10	13	2	2				N 75° E	6·2	3·1	+100	5·6	53	+ 2	·353	+·026	1·5	−0·2	0	0·60	−0·60	0	0·57	− 0·57	0	0·57	− 0·57	0	Amraoti.		
22	1	5			1		1	1	N 24° E	2·8	2·4	+17	2·7	57	0	·286	−·014	1·9	+0·6	0	0·50	−0·50	0·05	0·43	− 0·38	0·05	0·43	− 0·38	0·04	Khandwa	CENTRAL PROVINCES (WEST).	42
		22	5	2		1		1	N 55° E	2·9	2·4	+21	3·0	69	0?	·349	+·020	1·4	−0·2	1	0·60	+0·40	0·30	0·53	− 0·23	0·30	0·53	− 0·23	0·23	Hoshangabad.		
5	9	12	1	2				2	N 28° E	4·9	3·5	+40	3·9	62	+ 2	·344	−·009	1·5	−0·5	0	0·70	−0·70	0·04	0·48	− 0·44	0·04	0·48	− 0·44	0·04	Nagpur.		
34									Calm	0·2	1·6	−88	0·2	74	+ 2	·402	+·004	0·8	−0·6	0	0·80	−0·80	0	0·34	− 0·34	0	0·34	− 0·34	0	Chanda	CENTRAL PROVINCES, CENTRAL.	43
	5	10	3	3	2	5	3		N 52° E	3·7	2·5	+48	3·1	67	0	·348	+·004	0·7	−1·2	1	0·90	+0·10	0·26	0·52	− 0·26	0·26	0·52	− 0·26	0·19	Seoni.		
5	1	4	2	10	8	1			S 43° E	1·5	1·8	−17	1·3	84	+10?	·375	+·022	1·5	−0·1	1	0·60	+0·40	0·54	0·33	+ 0·21	0·54	0·33	+ 0·21	0·49	Jubbulpore.		
2		6	10	6	2	3	2		S 74° E	5·8	2·5	+132	5·2	62	+ 4	·319	+·025	1·9	+0·3	2	0·80	+1·20	0·58	0·70	− 0·12	0·58	0·70	− 0·12	0·31	Saugor.		
16	1		5	1	2		3	3	N 56° E	1·8	3·6	−50	1·7	82	+15	·369	+·076	3·1	+2·1	4	0·90	+3·10	1·46	0·43	+ 1·03	1·46	0·43	+ 1·03	0·61	Sutna	CENTRAL INDIA	49
8	3	9	4		2	4	1		N 55° E	1·8	2·6	−31	2·2	70	+ 8	·388	+·044	2·2	+0·2	0	0·50	−0·50	0	0·25	− 0·25	0	0·25	− 0·25	0	Raipur	CENTRAL PROVINCES (EAST).	44
12	6	2	1	1	3	1		5	N 9° W	3·5			3·0	73		·352		1·0		0			0·01			0·01		0·01	Pendra.		
	4	12	4	7	4				N 79° E	3·7	1·4	+164	3·6	74	0?	·411	+·005	1·5	−0·2	0	0·30	−0·30	0	0·24	− 0·24	0	0·24	− 0·24	0	Sambalpur.		
13	2	11	5						N 53° E	5·4			5·3	47		·327		1·2		0	1·10	−1·10	0	0·61	− 0·61	0	0·61	− 0·61	0	Aurangabad	HYDERABAD (NORTH).	39
25						2		4	N 76° W	2·9			3·3	66		·412		1·9		0	0·60	−0·60	0	0·33	− 0·33	0	0·33	− 0·33	0	Indur.		
		5	8	7	4	7			S 50° E	5·5			4·6	59		·395		2·2		0	0·70	−0·70	0	0·52	− 0·52	0	0·52	− 0·52	0	Bidar.		
6	1	6	17	1					N 77° E					60	+ 1	·372	−·021	1·0	−0·8	0	0·30	−0·30	0	0	0	0	0	0	0	Gulbarga	HYDERABAD (SOUTH).	53
2			8	21					S 58° E	6·8			6·5	60	− 6	·439	−·047	2·0	+0·5	0	0·30	−0·30	0	0	0	0	0	0	0	Raichur.		
30				1					S 45° E	2·6			2·5	75	+ 2	·440	−·012	0·8	−0·9	0			0	0·17	− 0·17	0	0·17	− 0·17	0	Hyderabad (Deccan).		
8	2	1	1	4	11	1		3	S 11° E	3·6			3·2	64		·432		0·3		0	0·10	−0·10	0			0			0	Hanumkonda		
																														X.—West Coast.		
														69	− 3	·589	−·019	2·2	−0·3				0·05	0·62	−0·56							
	4	16	10	1					N 57° E	9·3	10·0	− 7		72	0	·583	−·005	1·6	−0·1	0	0·10	−0·10	0	0·06	− 0·06	0	0·06	− 0·06	0	Bombay	KONKAN	37
7		2	20	2					E	10·0	9·9	+ 1	9·9	54	+1?	·449	−·019?	1·0	−0·4	0	0·10	−0·10	0	0·05	− 0·05	0	0·05	− 0·05	0	Ratnagiri.		
	1	3	12	14					S 75° E	8·0				74	− 2	·597	−·024?	2·3	+1·4	0			0	0	0	0	0	0	0	Mormugao.		
		11	19					1	N 72° E	8·4				64	0?	·551	−·008	2·0	+0·6	0			0	0·06	− 0·06	0	0·06	− 0·06	0	Goa.		
	4	15	12						N 57° E	4·6				71	− 4	·522	−·018	1·0	−0·1	0	0·10	−0·10	0	0·07	− 0·07	0	0·07	− 0·07	0	Karwar.		
1	1	12	15	1	1				N 73° E	5·8				71	− 4	·663	−·033	4·0	+1·6	0	2·50	−2·50	0	1·66	− 1·66	0	1·66	− 1·66	0	Cochin	MALABAR	33
3		8	16	4					N 83° E	5·5			5·4	74	− 3	·668	−·015	1·8	−0·3	0	1·60	−1·60	0	0·97	− 0·97	0	0·97	− 0·97	0	Calicut.		
6			23	2					S 87° E	5·1	3·5	+43		62	− 6?	·582	−·019	1·8	−0·5	0	0·50	−0·50	0	0·45	− 0·45	0	0·45	−0·45	0	Mangalore.		
14	1	9	6					1	N 55° E	3·1				76	− 4	·687	−·037	4·5	+0·2	2	2·60	−1·60	0·49	2·24	− 1·75	0·49	2·24	− 1·75	0·22	Trivandrum.		
																														XI.—South India.		
														77	0	·598	−·011	4·4	+0·6				1·98	2·63	−0·65					Pamban	MADRAS (SOUTH)	57
	13	8						10	N 3° W	15·1			13·4	89		·802		4·8		9	9·20	−0·20	10·34	10·31	+ 0·03	10·34	10·31	+ 0·03	2·71	Tinnevelly.		
	18	5			1	1		2	N 1° W	4·8			4·6	74	− 3	·675	−·015	6·1	+1·6	5	5·70	−0·70	3·45	3·75	− 0·30	3·45	3·75	− 0·30	0·97	Madura.		
3	8	17	1					2	N 29° E	6·0	4·9	+22	6·9	75	+ 1	·670	+·011	4·2	−0·3	4	3·80	+0·20	1·16	1·87	− 0·71	1·16	1·87	− 0·71	0·62	Madura.		
17	1	2	3		5	1	1	1	S 34° E	2·2			2·4	73		·581		4·8		1	3·20	−2·20	0·28	1·56	− 1·28	0·28	1·56	− 1·28	0·11	Periyakulam.		

station, the data for that station are not utilized in calculating the provincial departures from normal.

43 and 45 are derived are incomplete.

Table

Abstract of Observations taken at 8 A.M. at 233 Stations

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 A.M., in inches.								Temperature of air.											
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
34	Madras (South Central).	Salem	940	29·126	+·022	30·027	29·264	31st	29·029	19th	·235	74·0	87·5	+1·1	66·8	P	77·2	P	20·7	92·7	23rd	61·3	1st	31·4
		Coimbatore	1,348	28·688	+·024	30·011	28·836	31st	28·581	19th	·255	71·7	86·6*	+1·5*	65·6	−0·5	76·0*	+0·5*	21·0*	91·4	23rd	59·8	29th	31·6
35	Coorg	Mercara	3,781	26·312	+·027		26·403	28th	26·223	11th	·180	61·4	76·5	+1·3	57·4	−0·4	67·0	+0·5	19·1	78·0	7 days	52·1	30th	25·9
36	Mysore	Chitaldroog	2,405	27·646	+·019	30·032	27·786	31st	27·559	10th	·227	68·0	82·0	+0·7	59·2	−1·6	70·6	−0·5	22·8	85·1	13th & 23rd.	55·4	29th	29·7
		Bangalore	3,021	27·047	+·017	30·049	27·161	31st	26·958	11th	·203	63·7	78·9	+0·9	57·3	−1·4	68·1	−0·3	21·6	83·3	23rd	51·9	10th	31·4
		Hassan	3,091	26·979	+·016	30·043	27·106	31st	26·878	11th	·228	64·9	81·2	+1·8	53·6	−1·9	67·5	−0·1	27·6	84·4	14th	47·8	14th	36·6
		Mysore	2,518	27·533	+·013	30·031	27·657	31st	27·440	11th	·217	67·9	83·1	+1·5	59·6	−0·2	71·4	+0·7	23·5	86·4	22nd & 23rd.	55·1	30th	31·3
56	Madras, East Coast (South).	Negapatam	31	29·994	P	29·955	30·132	31st	29·832	19th	·300	75·7	82·6	+1·1	71·8	−0·3	77·2	+0·4	10·8	87·9	1st	68·0	23rd & 30th.	19·9
		Cuddalore	12	30·051	+·029	29·993	30·192	31st	29·931	20th	·261	73·5	83·1	−0·1	68·9	−0·2	76·0	−0·2	14·2	89·7	3rd	64·7	27th	25·0
		Trichinopoly	255	29·795	+·029	29·989	29·937	31st	29·682	19th	·255	74·3	85·4	+0·2	68·7	−0·7	77·1	−0·3	16·7	89·5	13th	64·4	29th	25·1
		Madras	22	30·055	+·037	30·008	30·209	31st	29·945	19th	·264	75·2	83·8	+0·5	69·6	−0·1	76·7	+0·2	14·2	87·5	2nd	62·5	27th	25·0
		Vellore	707	29·360		30·029	29·512	30th	29·251	19th	·261	70·1	81·2†		62·6*		71·8‡		18·6	86·4	28th	57·8	10th & 13th.	28·6
55	Madras, East Coast (Central).	Nellore	52	30·041	+·036	30·028	30·188	31st	29·939	19th	·249	70·8	83·1	−1·7	66·6	−1·6	74·9	−1·7	16·5	86·8	12th	62·1	10th	24·7
		Masulipatam	15	30·101	+·051	30·051	30·268	31st	30·015	10th & 19th.	·253	71·0	81·9	−1·1	65·6	−1·0	73·8	−1·1	16·3	84·5	7th, 9th & 28th	62·2	21st, 29th & 30th.	22·3
54	Madras (Central).	Cuddapah	433	29·646	+·020	30·030	29·786	31st	29·561	19th	·225	72·8	86·9	+0·1	65·6	+0·2	76·3	+0·2	21·3	90·7	27th	59·3	30th	31·4
		Kurnool	945	29·148	+·018	30·048	29·321	31st	29·053	11th	·268	68·4	86·7	−0·2	59·3	+0·4	73·0	+0·1	27·4	89·2	9th & 24th.	51·4	28th	37·8
		Bellary	1,475	28·578	+·018	30·047	28·744	31st	28·487	11th	·257	66·9	86·2	+0·6	60·3	−0·6	73·3	0	25·9	89·5	23rd	54·1	27th	35·4
52	Madras, East Coast (North).	Cocanada	26	30·083	+·033	30·045	30·249	31st	29·982	11th	·267	70·9	79·7	−1·0	65·7	0	72·7	−0·5	14·0	81·5	5 days	60·5	29th	21·0
		Waltair (Vizag.)	*226*	29·886	+·040	30·060	30·059	31st	29·787	11th	·272	72·5	80·1	P	67·6	P	73·8	P	12·5	82·8	16th	63·4	29th	19·4
		Gopalpur	72	30·052	+·032	30·067	30·232	31st	29·946	11th	·286	66·5	78·8	−1·5	61·5	+0·7	70·2	−0·4	17·3	82·1	15th & 16th.	55·5	30th	26·6
	XII.—Hill Stations.																							
48	Baluchistan	Pishin	...										60·7		27·3		44·0		33·4	74·3	6th	15·0	15th, 18th & 19th	59·3
		Quetta	5,502	24·756	+·011		24·883	31st	24·541	11th	·342	34·1	59·7	+3·1	30·4	+0·7	45·1	+1·9	29·3	75·8	6th	19·3	15th	56·5
		Kalat‡	...									37·8	58·5	+1·2P	21·1	−2·4P	40·0	−0·6P	37·1	68·1	1st	11·3	21st	56·8
		Chaman	4,311	25·817	−·008		25·901	31st	25·613	11th	·288	45·7	62·7	+3·7	39·4	+1·0	51·1	+2·4	23·3	75·3	6th	26·6	15th	48·7
30	Punjab	Leh	11,503	19·756	+·020		20·024	6th	19·536	15th	·488	17·3	35·9	+1·2	14·5	+1·3	25·2	+1·3	21·4	47·6	5th	3·4	29th	44·2
		Srinagar	5,204	25·063	+·019		25·276	31s	24·826	14th	·450	33·2	46·9	−0·9	31·3	+2·8	39·1	+1·0	15·6	60·5	6th	27·1	1st	33·4
		Sonemarg	*8,764*	21·934			22·119	6th	21·709	14th	·410	26·2	38·2		17·5		27·9		20·7	51·3	7th & 9th.	1·1	16th	50·2
		Astor (Kashmir)	*7,955*	22·653			22·906	5th	22·379	14th	·527	23·5	44·0		22·9		33·5		21·1	58·0	6th	11·0	29th	47·0
		Minimarg	*9,359*	21·451			21·647	6th	21·192	14th	·455	20·6	36·0		14·7		25·4		21·3	48·8	8th	0	30th	48·8
		Skardu	*7,505*	23·036			23·288	5th	22·738	14th	·550	28·5	40·9		25·7		33·3		15·2	54·0	10th	17·1	31st	36·9
		Dras	*10,059*	20·881			21·127	5th & 6th.	20·614	14th	·513	9·1	27·1		1·4		14·3		25·7	49·3	10th	−26·4	29th	75·7
		Gilgit	4,890	25·341			25·623	31st	25·056	14th	·567	39·8	51·1	+1·9	36·4	+1·9	43·8	+1·9	14·7	64·2	5th	29·1	22nd	35·1
		Chitral	*5,486*	P			P	P	P	P	P	36·2	53·1		32·8		43·0		20·3	69·1	6th	28·0	3rd & 17th.	41·1
		Killa Drosh	...									39·6	53·8		36·7		45·3		17·1	66·5	6th	30·5	28th	36·0
		Murree	6,333	23·928	+·011		24·063	7th	23·785	14th	·278	42·8	50·6	−2·2	36·5	−2·5	43·6	−2·4	14·1	64·2	9th	26·5	15th	37·7
		Kallang	*10,087*	20·984			21·062	24th	20·863	11th & 12th.	·199	20·5	37·7	−2·3	18·0	−0·8	27·9	−1·6	19·7	49·7	8th	0·5	22nd	49·2
		Poo	...										48·2		29·4		38·8		18·8	59·8	10th	22·2	21st	37·6
		Simla	7,224	23·187	+·022		23·323	31st	23·042	10th	·281	41·9	49·0	−0·4	39·3	+0·2	44·2	−0·1	9·7	59·3	8th	31·7	18th	27·6
		Sarain	...	23·234			23·367	31st	23·087	10th	·280	32·3	49·5		30·1		39·8		19·4	62·1	9th	20·7	21st	41·4
		Kalabagh	...																					
	North-West Frontier Province.	Para Chinar	6,000	24·559			24·735	31st	24·385	10th	·350	42·2	55·0		34·1		44·6		20·9	68·9	5th	27·6	28th	41·3
		Cherat§	*4,256*	25·826P	+·002		25·947	7th	25·673	10th	·274	47·0	56·2	+0·7	43·4	+0·8	49·8	+0·8	12·8	68·3	6th	37·0	23d	31·3

* Mean of 30 days. ‡ Mean of 20 days.
† „ 29 „ § „ 26 „
N.B.— Elevations in italics indicate barometrical determinations. ‡‡ „ 28 „

Note 1.—When a query is inserted against any reading, or in the returns of any station,
„ 2.—The data from which divisional means of the figure columns Nos. 41, 43 and 45 are

I—*continued.*

in India, Burma, etc., in December, 1904—continued.

WIND DIRECTION. Number of winds from									Wind resultant.	WIND VELOCITY.				HYGROMETRY, 8 A.M.				CLOUD.		RAINFALL.								Heaviest rainfall during month.	STATION.	METEOROLOGICAL PROVINCE OR DISTRICT.	Number of District.
Calm.	N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.		Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Mean cloud amount at 8 A.M.	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, 1904.	Normal rainfall for period, 1st to 31st December.	Departure from normal of period, 1st to 31st December, 1904.				
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	58
5	2	10	11				3		N 59° E	5·3	4·0	+33	4·7	74	− 2	·628	+·002	5·2	+1·6	1	2·10	−1·10	0·25	1·26	− 1·01	0·25	1·26	− 1·01	0·25	Salem	MADRAS (SOUTH CENTRAL).	34
	3	7	15	2			3	1	N 73° E	6·8	3·0	+93	5·3	83	− 1	·648	−·009	4·7	−0·2	1	2·40	−1·40	0·10	1·13	− 1·03	0·10	1·13	− 1·03	0·10	Coimbatore.		
	2	18	10	1					N 59° E	6·8	4·7	+45	6·3	85	+ 5	·470	+·023	2·6	−2·2	0	1·00	−1·00	0	0·51	− 0·51	0	0·51	− 0·51	0	Mercara	COORG . .	35
1		5	16	9					S 84° E	6·5			5·7	69	+ 4	·474	+·014	3·2	+0·2	0	0·70	−0·70	0	0·09	− 0·09	0	0·09	− 0·09	0	Chitaldroog.	MYSORE . .	36
	2	10	19						N 71° E	9·1	3·9	+133	7·9	78	0	·464	−·019	4·4	+0·6	0	1·00	−1·00	0·07	0·48	− 0·41	0·07	0·48	− 0·41	0·05	Bangalore.		
2		11	14	4					N 79° E	3·0			2·7	73	0	·452	−·025	4·0	+0·4	0	1·00	−1·00	0	0·18	− 0·18	0	0·18	− 0·18	0	Hassan.		
	1	16	11	2				1	N 64° E	9·1			9·8	74	0	·505	+·002	4·1	+0·3	0	1·00	−1·00	0	0·17	− 0·17	0	0·17	− 0·17	0	Mysore.		
1	3	14						13	N 2° E	16·9	6·8	+149	14·9	81	− 2	·725	−·029	6·9	+0·2	11	9·40	+1·60	9·69	12·79	− 3·10	9·69	12·79	− 3·10	3·31	Negapatam.	MADRAS, EAST COAST (SOUTH).	56
26	2							3	N 27° W	4·0			5·0	86	− 4?	·716	−·050	5·2	−0·8	8	6·80	+1·20	5·59	8·19	− 2·60	5·59	8·19	− 2·60	2·15	Cuddalore.		
22	4	5							N 26° E	3·4	5·0	−32		76	− 1	·642	−·025	4·8	−0·1	3	4·60	−1·60	1·49	2·76	− 1·27	1·49	2·76	− 1·27	0·67	Trichinopoly.		
	17	7					1	6	N 1° W	9·0	7·6	+18		73	−10	·646	−·084	5·6	+0·5	5	7·20	−2·20	3·34	6·02	− 2·68	3·34	6·02	− 2·68	1·00	Madras.		
19			3	1	2	6			S 8° W	4·0			4·0	82		·608		4·4		4	3·60	+0·40	0·96	2·88	− 1·92	0·96	2·88	− 1·92	0·35	Vellore.		
	10	4	1				1	15	N 18° W	3·4				85	0	·644	−·072	5·6	+1·6	4	3·30	+0·70	2·84	1·64	+ 1·20	2·84	1·64	+ 1·20	1·10	Nellore .	MADRAS EAST COAST (CENTRAL).	55
3	18	9	1						N 17° E	7·3	5·7	+28	6·4	89	+ 8	·671	+·034	4·0	+1·4	1	0·60	+0·40	3·12	0·78	+ 2·34	3·12	0·78	+ 2·34	3·05	Masulipatam.		
	1	10	2	11	1	3		3	S 87° E					70	− 8	·572	−·048	4·2	+0·8	1	1·30	−0·30	0·29	1·14	− 0·85	0·29	1·14	− 0·85	0·24	Cuddapah.	MADRAS (CENTRAL)	54
8	1	9	7	5	1				N 80° E	5·0				75	+ 5	·535	+·042	1·5	−0·2	0	0·30	−0·30	0	0·12	− 0·12	0	0·12	− 0·12	0	Kurnool.		
14	1	3	2	9	2				S 63° E	2·4	3·1	−23	2·5	69	+ 2	·461	−·021	3·3	0	0	0·30	−0·30	0	0·11	− 0·11	0	0·11	− 0·11	0	Bellary.		
4	11	14						2	N 21° E	9·5			8·0	80	+10?	·593	+·058	4·1	+1·6	3	0·70	+2·30	0·63	0·80	− 0·17	0·63	0·80	− 0·17	0·26	Cocanada .	MADRAS EAST COAST (NORTH).	52
1	7	10	7	6					N 62° E	10·2				64	+ 5?	·510	?	4·7	+2·2	3	1·10	+1·90	1·44	1·80	− 0·36	1·44	1·80	− 0·36	0·76	Waltair (Vizag.).		
1	16							14	N 21° W	8·8	6·9	+28	8·6	79	+ 2	·514	+·019	2·4	+0·3	1	0·80	+0·20	0·43	0·75	− 0·32	0·43	0·75	− 0·32	0·31	Gopalpur.		
																														XII.—Hill Stations.		
																				0	2·70	−2·70	0·02	1·20	− 1·18	0·02	1·20	− 1·18	0·02	Pishin.	BALUCHISTAN .	46
28			2	1					S 75° E	1·4	2·7	−48	1·5	82	+ 8	·162	+·007	2·2	−1·0	0	4·00	−4·00	0·08	0·81	− 0·73	0·08	0·81	− 0·73	0·05	Quetta.		
			2		16		2		S					59		·137				0	2·70	−2·70	0	0·65	− 0·65	0	0·65	− 0·65	0	Kalat.		
8		3	11	8		1			S 76° E	7·1			7·8	46	−13	·147	−·028	1·8	−1·7	0	3·10	−3·10	0·02	0·92	− 0·90	0·02	0·92	− 0·90	0·02	Chaman.		
	3	18	6	1	2	1			N 57° E	1·3				64	+ 6	·066	+·015	6·4	+0·5	0	0·60	−0·60	0·06	0·19	− 0·13	0·06	0·19	− 0·13	0·04	Leh .	PUNJAB . .	30
19	1	1	1	1	2			6	N 30° W	2·4			2·2	91	+ 2	·174	+·014	6·9	+0·9	5	3·50	+1·50	3·85	0·91	+ 2·94	3·85	0·91	+ 2·94	2·54	Srinagar.		
21			2	3	1	2	2		S 8° E	3·3			3·0	93		·123		5·5		8			7·94			7·94			3·70	Sonemarg.		
27	1				2			1	S 67° W	1·1			1·0	60		·088		4·5		4			3·69			3·69			1·50	Astor (Kashmir).		
4		4	11	8	2		1	1	S 77° E	7·7¶			8·2¶	71		·076		5·9		8			5·46			5·46			2·35	Minimarg.		
23				1	2	2	3		S 42° W	1·6			1·6	99		·158		7·0		1	1·10	−0·10	0·69	0·71	− 0·02	0·69	0·71	− 0·02	0·48	Skardu.		
28	1	1				1			N	0·8			0·6	84		·068		6·5		7	6·60	+0·40	3·23	2·19	+ 1·04	3·23	2·19	+ 1·04	1·51	Dras.		
28						1	2		S 75° W	1·9			1·7	62	+ 1	·151	+·017	6·7	+0·3	0	0·80	−0·80	0·14	0·09	+ 0·05	0·14	0·09	+ 0·05	0·08	Gilgit.		
29									Calm	1·1			1·0	79		·171		3·5		3			1·02			1·02			0·43	Chitral.**		
9			18		4				S 77° E					74		·183		3·7		2			1·10			1·10			0·70	Killa Drosh.		
20	1		2	6	2				S 50° E	4·4	6·1	−28	4·8	59	+13	·145	+·024	3·1	−1·0	5	1·50	+3·50	3·53	1·14	+ 2·39	3·53	1·14	+ 2·39	2·10	Murree.		
	1	1	7	10	1	3	2	6	S 56° E	0·2				80		·093		4·5		2			1·02	1·08	− 0·06	1·02	1·08	− 0·06	0·64	Kallang		
26		3			1		1		N 45° E									3·4		2			0·32	1·05	− 0·73	0·32	1·05	− 0·73	0·17	Poo.		
9	8	1			12				S 10° E	4·4	1·8	+144	4·2	51	+11	·130	+·024	3·2	−0·7	2	1·60	+0·40	0·65	1·23	− 0·58	0·65	1·23	− 0·58	0·37	Simla.		
18					11	2			S 6° W	2·3			2·2	81		·146		3·6		4			3·83			3·83			1·74	Sarain.		
																														Kalabagh.		
28	1		1					1	N 8° E	3·8			3·5	63		·170		3·4		4	2·50	+1·50	1·28	0·79	+ 0·49	1·28	0·79	+ 0·49	0·43	Para Chinar	NORTH-WEST FRONTIER PROVINCE.	
4	14	1			3	1		3	N 9° W	11·0			10·2	59‖	+14	·186‖	+·044	4·1	+0·4	2			0·61	1·00	− 0·39	0·61	1·00	− 0·39	0·38	Cherat .		

the date for that station are not utilized in calculating the provincial departures from normal.
derived are incomplete.

‖ Mean of 25 days.
** Winds for 29 days.
¶ Mean of 24 days.

Table

Abstract of Observations taken at 8 A.M. at 233 Stations

Number of District.	Meteorological Province or District.	Station.	Elevation of barometer above sea-level, in feet.	Pressure, 8 A.M., in inches.								Temperature of air.												
				Mean 8 A.M. pressure reduced to 32°.	Departure from normal.	Mean 8 A.M. 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 A.M. 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	25
25	United Provinces	Chakrata	7,022	23·359	+·021		23·481	31st	23·214	10th	·267	42·2	54·3	−0·6	38·5	−0·8	46·4	−0·7	15·8	68·0	9th	31·9	18th	36·1
		Ranikhet†	6,069	24·187	+·019		24·335	31st	24·051	10th	·284	45·1	55·1*	−2·4*	42·5	−0·1	48·9*	−1·3	12·6	64·6	8th	35·0	18th	29·6
		Muktesar	7,600	22·890†			23·023	6th	22·760	10th	·263	42·3†	51·0		38·4		44·7		12·6	62·7	8th	30·3	18th	32·4
	Sikkim	Taugu											44·5		20·9		32·7		23·6	57·1	8th	15·1	19th	42·0
13	Bengal	Yatung	10,480																					
		Darjeeling	7,376	23·084	+·009		23·186	31st	22·980	10th	·206	41·4	50·3	+1·6	36·6	0	43·6	+0·8	13·7	62·7	8th	33·0	28th, 29th & 30th.	29·7
		Shillong	4,900	25·273			25·373	30th	25·161	11th	·212	49·8	61·5		39·2		50·3		22·3	68·6	8th	33·5	9th	35·1
3	Assam Hill Tracts.	Cherra Poonjee	4,309	25·824			25·962	31st	25·713	10th	·249	54·6	61·4		46·8		54·1		14·6	68·2	8th	42·5	9th	25·7
	Central India	Mount Abu	3,945	26·174	+·006		26·304	31st	26·042	10th	·262	61·3	68·3	−0·3	53·9	+1·0	61·1	+0·4	14·4	74·6	9th	43·6	22nd	31·0
		Pachmarhi	3,528	26·569	−·010		26·656	5th	26·490	15th	·166	57·8	72·5	+2·2	48·2	+2·5	60·4	+2·4	24·3	77·1	14th & 15th,	37·8	24th	39·3
	South India	Wellington	6,200	24·303	+·001		24·404	31st	24·227	11th	·177	55·6	67·4	+1·2	45·9	−2·2	56·7	−0·5	21·5	71·2	1st	34·2	30th	37·0
		Kodaikanal	7,688	22·864			22·937	31st	22·788	10th	·149	52·6	61·1		47·4		52·5		13·7	71·4	2nd	43·1	15th	28·3
		Ootacamund	*7,322*	23·087			23·156	31st	23·011	10th	·145	53·5	64·6		43·0		53·8		21·6	70·5	30th & 31st	35·6	10th	34·9
	XIII.—Extra India.																							
	Ceylon	Trincomalee	12	29·999	+·034	29·937	30·135	31st	29·810	18th	·325	76·1	82·5	0	73·6	−0·9	78·1	−0·5	8·9	86·0	23rd & 24th.	71·5	22nd, 23rd & 27th.	14·5
		Colombo	40	29·959	+·026	29·924	30·077	25th	29·840	18th	·237	78·0	86·1	−0·8	72·7	−0·3	79·4	−0·6	13·4	90·0	2nd & 9th.	70·0	24th, 26th & 31st.	20·0
												41·0			35·4	+4·7						28·0	20th	
	Persia	Meshed	3,104				26·140	8th	25·700	1st & 2nd.	·440	34·6	48·2	−3·2	32·0	−2·0	40·1	−2·6	16·2	61·8	1st	25·0	26th	36·8
		Teheran(*b*)*	*4,002*	25·963			24·380	18th, 27th.	24·050	2nd	·330	30·6	51·4	−0·9	27·4	−1·8	39·4	−1·4	24·0	63·3	1st	20·2	25th	43·1
		Ispahan(*b*)	*5,817*	24·250			30·426	25th	29·857	2nd	·569	56·8	66·5	−2·7	53·0	−2·4	59·8	−2·6	13·5	79·1	4th	45·3	26th & 28th.	33·8
		Bushire	14	30·140	+·006	30·113	30·282	27th	29·901	1st	·381	63·6	71·3		59·5		65·4		11·8	80·6	5th	51·1	27th	29·5
		Bahrein¶	30	30·140			30·183	21st	29·901	13th	·282	68·1	76·9	−1·1	64·0	+0·2	70·5	−0·5	12·9	80·3	5 days	57·3	15th, 19th & 29th.	23·0
		Jask	...	30·101	−·023	30·071	30·246	25th	29·927	11th	·319	71·9	74·1	−1·0	70·8	+0·1	72·6	−0·5	3·6	77·9	3rd	67·1	18th	10·8
	Arabia	Muscat	20	30·133	+·016	30·101	30·174	6th	29·545	1st	·629	43·4	60·5	−3·3	38·2	−4·9	49·4	−4·1	22·3	70·2	1st	26·8	24th	43·4
		Baghdad‡	220	29·989	−·020	30·202	30·498	25th	29·870	1st	·628		61·6		?		?		?	73·2	2nd	?	?	?
		Busrah	...	30·276																				
		Aden	94	30·008	+·013	30·036	30·107	26th	29·936	13th	·171	76·3	81·6	−0·2	70·9	−2·1	76·3	−1·2	10·7	84·8	2nd & 14th.	68·9	21st	15·9
		Perim	201	29·870	+·028	30·008	29·967	25th	29·795	14th	·172	77·6	84·3	+0·1	74·5	0	79·5	+0·1	9·8	85·9	4th	72·2	25th	13·7
	Afghanistan	Kabul	...									31·9	54·5	−0·4	26·7	−1·0	40·6	−0·7	27·8	72·2	6th	15·4	28th	56·8
	Central Asia	Kashgar	4,255	25·785			26·010	21st	25·550	5th	·460	25·0	35·9	−0·4	22·4	+6·0	29·3	+2·8	13·5	53·5	6th	12·3	26th	41·2
	Arabian Sea Islands.	Amini Divi	*13*									82·4	87·0	+2·1	74·3	+0·5	80·7	+1·3	12·7	88·9	7th	68·5	31st	20·4
		Minicoy	7	29·993		29·926	30·092	31st	29·883	11th	·209	81·3	85·1	−0·9						87·0	5th			
	Africa	Zanzibar	73	29·936	+·007	29·936	30·018	30th	29·852	15th	·166	81·1	86·2	+0·1	78·8	−0·7	82·5	−0·2	7·4	92·8	16th	75·1	18th	17·7
		Do. Dungas§	*154*	29·884		29·966	29·954	30th	29·792	13th	·162	79·5	87·4		74·1		80·8		13·3	89·7	31st	70·6	1st	19·1
	Straits Settlements.	Penang(*a*)	20	29·941		29·886	29·973	30th	29·862	10th	·111	80·1	89·6		73·5		81·6		16·1	91·0	10 days	71·0	22nd	20·0
		Singapore(*a*)	10	29·966		29·897	30·037	31st	29·879	11th	·158	80·7	85·2		72·8		79·0		12·4	90·2	23rd	70·1	28th	20·1

* Mean of 29 days.
† Mean of 30 days.
‡ Mean of 27 days.
§ Mean of 25 days.
¶ Mean of 28 days.

(*a*) 9 hours observations.
(*b*) Aneroid uncorrected.

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

Note 1.—When a query is inserted against any reading or in the returns of any
" 2.—The data from which divisional means of the figures columns Nos. 4, 7,

I—*concluded.*

in India, Burma, etc., in December, 1904—concluded.

WIND DIRECTION. Number of winds from										Wind resultant.	WIND VELOCITY.				HYGROMETRY, 8 A.M.				CLOUD.		RAINFALL.									Heaviest rainfall during month.	STATION.	METEOROLOGICAL PROVINCE OR DISTRICT.	Number of District.
Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.			Mean daily velocity in miles per hour, instrumental errors uncorrected.	Normal (uncorrected).	Percentage departure from normal.	Mean velocity corrected (where possible).	Mean humidity at 8 A.M.	Departure from normal.	Mean vapour tension at 8 A.M.	Departure from normal.	Mean cloud amount at 8 A.M.	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, 1904.	Normal rainfall for period 1st to 31st December.	Departure from normal of period, 1st to 31st December, 1904.				
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	58
15	11	1			2			2	N 4° W	5·2§	4·2	+24	6·2§	61	+12	·156	+·021	1·8	−1·2	4	2·40	+1·60	1·92	1·16	+ 0·76	1·92	1·16	+ 0·76	1·08	Chakrata .	UNITED PROVINCES.	25
23						7			S 45° W	1·6	1·3	+23	1·8	62	+ 2	·187	+·002	2·2	−0·5	2	1·50	+0·50	1·38	0·71	+ 0·67	1·38	0·71	+ 0·67	0·82	Ranikhet.		
6		1	5	3	1	2	10	1	S 53° W	7·8*			7·2*	49†		·130†		3·0†		2			1·17			1·17			0·53	Muktesar.		
																														Taugu .	SIKKIM.	
																				1	0·57	+0·43	0·60	0·18	+ 0·42	0·60	0·18	+ 0·42	0·60	Yatung .	BENGAL .	13
14		4	5	4	2		2		S 77° E	2·7	1·9	+42	2·5	69	− 9	·176	−·021	1·9†	−1·2	0	0·65	−0·65	0	0·23	− 0·23	0	0·23	− 0·23	0	Darjeeling.		
27			1	2			1		S 45° E	0·6			0·7	69		·251		1·7		1	0·70	+0·30	0·18	0·28	− 0·10	0·18	0·28	− 0·10	0·11	Shillong .	ASSAM HILL TRACTS.	8
5	1	16	4			1	4		N 43° E	3·2			2·9	61		·257		1·9		1	3·90	−2·90	0·21	0·21	0	0·21	0·21	0	0·14	Cherra Poonjee.		
10	4	5		3	3	2	1	3	N 19° E	5·0	3·6	+39	5·1	40	− 4	·211	−·014	0·5	−1·2	0	0·50	−0·50	0	0·21	− 0·21	0	0·21	−0·21	0	Mount Abu	CENTRAL INDIA.	
		2	1	3	4	9	7	5	S 59° W	1·6	2·6	−38	1·6	69	+10	·328	+·023	1·0	−0·9	2	1·00	+1·00	1·06	0·47	+ 0·59	1·06	0·47	+0·59	0·60	Pachmarhi.		
20	2	4	2	1	1	1			N 63° E	2·0	2·5	−20		73	+ 2	·327	−·002	4·2	+0·5	4	5·60	−1·60	0·95	3·91	− 2·96	0·95	3·91	− 2·96	0·25	Wellington	SOUTH INDIA.	
	6	5	6	5	3	1	1	4	N 61° E	14·1				71		·276		3·0		6	8·10		2·90	5·57	− 2·67	2·90	5·57	− 2·67	0·76	Kodaikanal.		
2	1	7	7	7	6	1			S 69° E	5·0			4·7	61		·249		3·4		1	3·30	−2·30	0·30	1·65	− 1·35	0·30	1·65	− 1·35	0·22	Ootacamund		
																														XIII.—Extra India.		
11	5	12				1	2		N 24° E	2·1				87	+ 1	·791	−·040	6·4	+1·5	12			19·84	15·90	+ 3·94	19·84	15·90	+3·94	5·23	Trincomalee	CEYLON.	
	19	9	2	1					N 20° E	10·5	7·9	+33		80	+ 1	·776	−·025	4·6	+0·2	4			2·12	6·79	− 4·67	2·12	6·79	−4·67	0·90	Colombo.		
														49		·132		4·0	−1·5	3			0·79	0·70	+0·09	0·79	0·70	+0·09	0·35	Meshed .	PERSIA.	
11		13	4			1			N 55° E	1·3‡			1·7‡	83	+19	·171	+·014	3·8	0	7			2·65	1·37	+1·28	2·65	1·37	+1·28	0·67	Teheran.		
24	1			1		1	3	1	N 86° W	1·9			2·5	66*	−15	·120*	−·045	2·8	−1·0	3			1·04	0·54	+0·50	1·04	0·54	+0·50	0·63	Ispahan.		
3	1	7	3	10				7	N 72° E	15·3	6·6	+139	17·4	80	+ 6	·378	−·002	3·0	+0·7	5			5·66	3·24	+ 2·42	5·66	3·24	+2·42	4·27	Bushire.		
	3	1		2	6	2	8	6	S 85° W	23·4				83		·492				0			0			0			0	Bahrein.		
	1	19	5	1				5	N 42° E	12·0			10·0	78	+ 8	·548	+·060	3·2	+0·8	0			0	0·78	−0·78	0	0·78	−0·78	0	Jask.		
15		1		1	2	2	3	7	N 79° W	3·3			3·4	63	− 5	·505	−·044	1·8	−0·2	0			0·03	0·26	−0·23	0·03	0·26	−0·23	0·03	Muscat .	ARABIA.	
19					3	3		2	S 45° W	1·6††	2·5	−36	2·1††	78	0	·224	−·044	3·2	+1·2	3			1·17	1·64	−0·47	1·17	1·64	−0·47	0·56	Baghdad,‡		
	3			3	5	2	1	17	N 60° W											1			0·52			0·52			0·47	Busrah.		
	1	24	5	1					N 53° E	7·8	12·4	−37	6·3	75	+ 1	·673	+·018	3·0	−2·2	0			0	0·37	− 0·37	0	0·37	−0·37	0	Aden.		
		1	20	8	1	1			S 75° E	19·3			19·5	75	+ 1	·717	+·017	1·4	−2·7	1			0·62	0·08	+0·54	0·62	0·08	+0·54	0·56	Perim.		
	1	8	1		4	3	10	3	N 74° W					77		·144		3·9	+1·0	1			0·32	0·29	+0·03	0·32	0·29	+0·03	0·24	Kabul .	AFGHANISTAN.	
31									Calm.	1·5			1·3					4·5	−0·3	0			0·08	0·19	−0·11	0·08	0·19	−0·11	0·05	Kashgar .	CENTRAL ASIA.	
7	3	19	2						N 43° E					69	− 4	·763	−·038	5·4	+2·0	0			0·01	0·32	−0·31	0·01	0·32	−0·31	0·01	Amini Divi.	ARABIAN SEA ISLANDS.	
	8	9	6	4	3			1	N 59° E	4·5			4·9	75	− 3	·798	−·003	4·0	+0·7	3			2·71	4·66	−1·95	2·71	4·66	−1·95	1·79	Minicoy.		
	11	13	3	2					N 35° E	7·5			7·1	84	+ 3	·897	+·025	7·3	+2·4	8			4·39	2·77	+1·62	4·39	2·77	+1·62	1·35	Zanzibar .	AFRICA.	
16	2	5						2	N 16° E	5·8‡‡			5·6‡‡	86		·856		6·6		11			3·60			3·60			0·82	Do. Dunga		
1	21	7		1				1	N 11° E	7·3								0·3		8			3·99			3·99			2·70	Penang .	STRAITS SETTLEMENTS.	
	3	21	1			1	1	4	N 29° E	5·5								6·5		17			8·19			8·19			1·50	Singapore.		

station, the data for that station are not utilised in calculating the provincial departures from normal.
43 and 45 are derived are incomplete.

†† Mean of 26 days. ‡‡ Mean of 24 days.

Table II.—Abstract of Observations recorded at 10 A.M. and 4 P.M. at 63 Stations in India, Burma, etc., in December, 1904.

Table

Abstract of Observations recorded at 10 A.M. and 4 P.M.

Meteorological Province.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure. Mean of 10 hours.	Mean of 16 hours.	Mean daily range.	Mean of daily mean pressures.	Departure from normal.	Mean reduced to sea-level and for gravity, 45° Lat.	Temperature of Air. Mean maximum.	Mean minimum.	Mean daily range.	Highest maximum.	Lowest minimum.	Absolute range.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	Temperature, Wet-bulb. Mean minimum.	Mean 10 hours.	Mean 16 hours.	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
Burma Coast and Bay Islands.	Port Blair	61	29·977	29·880	·097	29·929	+·047	29·920	85·5	76·8	8·7	88·5	72·9	15·6	82·4	82·5	80·4	−0·1	72·9	76·5	76·2	75·2
	Rangoon	57																				
	Diamond Island	41	30·035	·925	·110	·980	+·035	·956	80·2	71·2	9·0	82·3	67·2	15·1	76·1	78·8	74·5	−2·4	65·9	69·8	71·0	68·9
	Cocos Island	119	29·931	·829	·102	·880		·933	80·9	74·7	6·2	85·9	71·5	14·4	79·2	78·1	77·0		69·5			
	Akyab	20	30·086	·973	·113	30·026	+·036	·989	78·7	62·5	16·2	81·1	59·1	22·0	71·9	76·4	69·4	−2·3		67·2	68·3	
Bengal and Orissa	Chittagong	87	·033	·919	·114	29·975	+·037	30·013	77·2	57·6	19·6	80·5	53·8	26·7	70·3	74·6	67·5	−0·6	57·0	65·7	66·2	63·0
	Calcutta (Alipore)	21	·130	30·004	·126	30·061	+·033	·028	78·0	57·8	20·2	81·4	50·9	30·5	71·9	76·2	67·0	+1·7	56·4	63·9	64·6	61·6
	Saugor Island	25	·107	29·988	·119	·040	+·026	·010	77·5	61·0	16·5	82·2	54·1	28·1	72·1	74·5	68·4	+1·6	59·0	65·9	65·9	63·6
	False Point	21	·115	30·006	·109	·053	+·023	·016	78·3	60·1	18·2	82·4	52·5	29·9	74·4	75·4	68·3	+1·6	59·5	67·7	67·5	64·9
Gangetic Plain and Chota Nagpur.	Hazaribagh	2,007	28·071	27·973	·098	28·013	+·017	·021	74·0	52·1	21·9	78·2	45·4	32·8	66·8	71·0	62·1	+1·6	49·6	56·6	56·7	54·3
	Allahabad	309	29·846	29·735	·111	29·778	+·029	·054	73·8	52·0	21·8	80·9	44·6	36·3	66·6	72·0	60·9	+1·1	51·1	60·3	62·1	57·8
Upper Sub-Himalayas.	Dehra Dun	2,233	27·853	27·770	·083	27·801	+·028	·078	67·8	46·9	20·9	74·3	41·1	33·2	59·2	64·3	56·5	+0·2	44·9	53·2	55·4	51·2
	Roorkee	899	29·219	29·121	·098	29·159	+·037	·071	69·1	46·0	23·1	75·8	36·9	38·9	59·7	66·0	55·5	−0·4	45·4	54·8	57·4	52·5
	Meerut	738	·385	·287	·098	·325	+·024	·065	71·6	47·7	23·9	77·5	38·4	39·1	59·9	68·4	57·6	+0·9	46·4	54·3	58·0	52·9
	Lahore	702	·423	·332	·091	·367	+·012	·073	72·3	44·6	27·7	77·3	36·9	42·4	61·0	69·6	56·3	+1·7	43·5	54·8	58·9	52·4
	Ludhiana	812	·281	·225	·056	·243	+·022	·070	68·5	47·8	20·7	75·1	39·1	36·0	56·2	66·2	56·0	+0·7	46·6	52·9	55·7	51·7
Indus Valley and N.-W. Rajputana.	Peshawar	1,110	·038	28·950	·088	28·984	+·018	·136	66·4	41·7	24·7	74·1	33·6	40·5	57·1	63·1	51·9	+0·8	39·3	50·2	52·9	47·5
	Jacobabad	186	·974	29·876	·098	29·920	+·024	·076	77·9	45·5	32·4	87·1	35·8	51·3	68·2	73·1	60·2	+1·3	42·5	56·6	59·3	52·8
	Kurrachee	30	30·131	30·022	·109	30·071	+·023	·053	82·1	57·5	24·6	90·1	48·7	41·4	75·0	78·1	69·0	+1·6	51·0	60·7	63·9	58·5
E. Rajputana, C. India and Gujarat.	Jaipur	1,431	28·688	28·593	·095	28·629	+·019	·063	75·6	50·1	25·5	84·0	41·1	42·9	67·3	72·5	60·9	−0·6	47·0	55·9	58·5	53·8
	Udaipur	1,925?	·172	·065	·107	·113		·029	79·2	49·9‡	29·3	86·3	41·4	44·9	69·1	75·9	64·3‡		46·9	57·2	59·6	54·6
	Deesa	466	29·639	29·523	·116	29·575	+·017	·002	87·4	54·4	33·0	92·9	48·4	44·5	77·1	85·0	70·8	+1·8	47·2	59·7	61·8	56·3
	Jamnagar	61	30·052	·936	·116	·989		29·995	82·6	57·3	25·3	89·0	48·9	40·1	74·6	80·8	69·1		50·5	60·8	62·4	57·9
Deccan.	Belgaum	2,539	27·505	27·388	·117	27·445	+·019	·912	81·3	57·6	23·7	84·5	52·6	31·9	74·0	80·2	68·8	−0·5	52·9	60·5	60·5	58·0
	Sholapur	1,590	28·479	28·348	·131	28·412	+·019	·961	84·8	57·7	27·1	88·3	51·3	37·0	75·6	83·0	71·0	−0·3	50·3	59·7	61·3	57·1
	Akola	930	29·169	29·038	·131	29·099	+·018	·988	85·4	52·5	32·9	90·0	45·1	44·9	75·9	84·2	68·3	+1·5	48·0	61·9	63·5	57·8
	Buldana	2,132	27·941	27·829	·112	27·878	−·016	·967	80·4	57·6	22·8	84·5	54·2	30·3	74·7	78·4	68·5	+0·3	50·1	58·7	59·0	55·9
	Khandwa	1,044	29·044	28·915	·129	28·975	+·013	·991	85·1	51·9	33·2	91·2	43·6	47·6	73·1	83·4	68·1	+1·9	47·6	58·6	61·1	55·8
	Nagpur	1,025	·080	·952	·128	29·011	+·023	30·012	83·1	54·8	28·3	86·4	48·0	38·4	71·8	81·1	68·3	+1·2	51·0	60·1	62·8	58·0
	Do. (Sanitary Commr.'s Office)	1,013	·086	·953	·133	·015		·006	83·0	54·2	28·8	86·0	48·3	37·7	72·5	81·1	68·0		49·2	60·3	63·1	57·5
	Hyderabad (Deccan).	1,690	28·393	·274	·119	28·332	+·028	29·988	82·0	56·4	25·6	85·1	50·7	34·4	74·5	78·5	68·4	−0·7	54·4	63·9	64·9	61·1
West Coast.	Bombay	37	30·034	29·922	·112	29·973	+·020	·951	84·6	69·9	14·7	87·7	65·9	21·8	76·2	80·4	76·5	+0·1	64·4	67·7	71·6	67·9
	Karwar	44	·006	·885	·121	·944	+·033	·922	88·0	65·0	23·0	92·9	59·6	33·3	80·2	85·6	75·7	−0·5	61·5	69·0	72·4	67·6

‡ Mean of 30 days.

II.

at 63 Stations in India, Burma, etc., for December, 1904.

Vapour Tension.					Humidity.					Cloud.				Wind direction.										Wind Steadiness.		Wind Velocity.		Rainfall.		Station.	Meteorological Province.
														Total number of 10 hours and 16 hours winds from																	
From minimum.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	From minimum.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	Mean 10 hours.	Mean 16 hours.	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
																									%	%						
·762	·831	·823	·831	—·020	82	75	74	79	— 2	5·2	5·3	5·3	+0·1		2	38	6	6		1	2	7	N 46° E	N 57° E	66	66	180*	175	1·58	0·57	Port Blair	Burma Coast and Bay Islands.
																															Rangoon	
·565	·650	·661	·641	—·055	74	72	67	73	— 1	2·7	3·1	2·9	−0·5		2	38	10	5	1			6	N 52° E	N 54° E	74	46	296*	214	0·05	0·04	Diamond Island	
·652					76					4·4	4·2	4·3	+0·8		16	33	8	5					N 44° E	N 23° E	81	91	333		0·52	0·32	Cocos Island	
	·605	·584				77	64			0·1	0·1	0·1	−2·3			16	11	5			8	22	N 5° E	N 6° W	39	41	48*	58	0·03	0·03	Akyab	
·460	·572	·533	·529	+·004	96	77	62	78	+ 2	2·2	2·3	2·3	−0·1		4	29	2	3		4	3	17	N 12° E	N 18° W	52	52	63*	67	0·08	0·05	Chittagong	Bengal and Orissa.
·442	1·2	·459	·476	+·038	91	62	51	71	0	2·1	2·0	2·1	−0·3	14	11	8	1		2	5	5	16	N 30° W	N 13° W	42	63	33*	60	0	0	Calcutta (Alipore)	
·479	·559	·528	·529	+·035	88	70	60	73	0	2·6	2·4	2·5	0		21	18	3	2	4	8	3	3	N 15° E	N 2° E	42	59	179	170	0·05	0·05	Saugor Island	
·508	·592	·579	·567	+·057	96	69	66	77	+ 5	3·7	3·4	3·6	+1·0	3	16	17	9	7	4	2	2	2	N 47° E	N 30° E	45	56	113*	139	0·44	0·18	*False Point*	
·329	·336	·286	·322	+·043	83	50	37	61	+ 6	1·0	1·7	1·4	−0·7	1	14	8	4	1	6	6	5	17	N 28° W	N 41° W	37	58	110*	125	0	0	Hazaribagh	Gangetic Plain and Chota Nagpur.
·370	·443	·429	·421	+·090	94	68	55	77	+10	2·0	2·4	2·2	+0·7	9	3	10	12	2	1	2	16	7	N 47° W	N 48° W	26	27	49*	72	0·96	0·50	Allahabad	
·282	·331	·332	·315	+·044	86	67	56	72	+ 9	1·8	3·9	2·9	+0·1	24	1			5	16	6	8	2	S 25° W	S 75° W	39	17	14	20	2·02	0·99	Dehra Dun	Upper Sub-Himalayas.
·301	·366	·361	·343	+·059	95	71	57	76	+11	1·5	2·3	1·9	−0·4	34	2		3	7	1		2	13	N 30° W	N 66° W	10	14	31	34	2·29	0·84	Roorkee	
·306	·353	·352	·336	+·056	91	68	51	72	+ 9	2·1	2·2	2·2	+0·3	34	6		6	2		1	8	5	N 32° W	N 66° W	14	43	18*	36	0·67	0·25	Meerut	
·276	·353	·360	·327	+·056	91	65	50	71	+ 8	2·1	2·8	2·5	−0·3	16	8	1	6	4	2	1	18	6	N 60° W	N 36° W	24	21	37	31	0	0	Lahore	
·309	·365	·312	·327	+·058	92	79	49	75	+13	1·5	0·9	1·2	−2·2	22				10			27	3	S 77° W	N 42° W	37	28	25*	31	1·06	0·95	Ludhiana	
·215	·282	·276	·256	+·032	79	60	47	64	+ 3	3·7	4·9	4·3	+0·6	36	7	2	4	2	1	1	2	7	N 5° W	S	16	7	16*	55	0·19	0·15	Peshawar	Indus Valley and N.-W. Rajputana.
·238	·311	·328	·290	+·048	77	45	40	56	+ 8	0·8	1·1	1·0	−1·4	17	10	9	10	2			5	9	N 17° E	N 13° W	35	19	42*	38	0·01	0·01	Jacobabad	
·303	·347	·416	·374	—·014	60	40	42	51	— 5	0·6	1·2	0·9	−1·0		4	21	7	1	2	10	15	2	N 41° W	N 48° E	17	19	138*	202	0	0	Kurrachee	
·290	·312	·310	·304	+·037	79	47	39	60	+ 7	2·0	2·4	2·2	−0·3	8	7	18	8	2	3	6	3	7	N 32° E	N 27° W	31	27	70	70	1·29	1·11	Jaipur	E. Rajputana, C. India and Gujarat.
·289‡	·326	·309	·303		80‡	47	36	55		1·3	1·8	1·6		32	4	6	10	3		1	5	1	N 58° E		19		31*		0·09	0·07	Udaipur	
·234	·285	·217	·250	+·001	54	31	21	37	0	0·2	0·3	0·3	−1·4		14	14	11	3	3	5	6	6	N 25° E	N 46° E	35	49	195‡	192	0	0	Deesa	
·284	·354	·325	·343		59	42	31	48		0·8	1·0	0·9			19	21	9	1		1	3	7	N 23° E		66		325*		0	0	Jamnagar †	
·347	·362	·286	·330	−·039	73	43	27	48	— 3	2·3	2·9	2·6	+0·1																0	0	Belgaum	Deccan.
·279	·319	·275	·295	−·071	58	36	24	40	— 7	1·4	2·5	2·0	−0·7			11	14	35			2		S 71° E	S 85° E	79	66	273*	190	0	0	Sholapur	
·264	·376	·318	·332	−·004	70	41	27	49	— 3	1·9	2·1	2·0	+0·2	21	2	17	12	6	1		3		N 67° E	N 60° E	45	52	57*	77	0	0	Akola	
·274	·301	·267	·286	−·034	57	35	27	46	— 6	1·7	2·6	2·2	0	4	8	7	11	11	10	3	2	6	S 80° E	N 81° E	26	44	109*	132	0	0	Buldana	
·286	·315	·261	·293	−·029	71	39	23	47	— 4	1·5	1·7	1·6	−0·1	7	12	12	6	3	8	6	1	7	N 31° E	N 63° E	21	42	67*	65	0·05	0·04	Khandwa	
·334	·378	·347	·359	+·003	76	48	32	55	+ 1	1·5	2·0	1·8	−0·4	6	3	31	7	13	1			1	N 68° E	N 57° E	66	54	85*	72	0·04	0·01	Nagpur	
·291	·381	·361	·350		69	47	33	53		0·8	1·3	1·1		3		45		9				5	N 50° E		72		23*		0	0	Do. (Sanitary Commr.'s Office)	
·403	·468	·449	·447	+·007	87	54	46	64	+ 3	1·6	3·3	2·5	−0·1	32			13	16	1				S 65° E	S 78° E	43	57	58*	77	0	0	Hyderabad (Deccan)	
·533	·569	·658	·612	−·027	73	63	63	69	— 3	1·8	2·9	2·4	+0·5		4	15	12	1		1	10	19	N 2° W	N 15° E	43	55	222	233	0	0	Bombay	West Coast.
·502	·561	·619	·585	−·042	81	54	51	66	— 4	0·9	1·1	1·0	−0·4		6	13	7				15	21	N 27° W	N 6° W	53	54	112	72	0	0	Karwar	

† Wind variable. * Corrected.

Table

Abstract of Observations recorded at 10 A.M. and 4 P.M. at 63 Stations

Meteorological Province.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure. Mean of 10 hours.	Mean of 16 hours.	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 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	Temperature, Wet-bulb. Mean minimum.	Mean 10 hours.	Mean 16 hours.	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
South India.	Periyakulam	945	29·093	28·964	·129	29·036		29·915	86·0	65·6	20·4	92·3	57·2	35·1	78·7	83·3	75·3		63·2	69·3	70·4	67·6
	Salem	940	·126	·994	·132	·061	+·019	·944	87·5	66·8	20·7	92·8	61·5	31·3	78·8	84·8	76·3	+1·3	63·5	70·8	73·2	69·2
	Chitaldroog	2,405	27·610	27·535	·115	27·593	+·017	·933	82·0	59·2	22·8	86·1	55·3	30·8	74·2	79·4	69·7	−0·5	55·4	63·6	63·9	61·0
	Bangalore	3,021	·054	26·938	·116	26·997	+·015	·935	78·8	57·3	21·5	83·4	51·9	31·5	71·3	76·4	67·2	−0·3	55·8	61·5	62·6	60·0
	Hassan	3,091	26·990	·875	·115	·934	+·020	·926	81·2	53·6	27·6	84·4	47·8	36·6	73·2	77·8	66·5	−0·1	52·1	61·5	61·5	58·4
	Mysore	2,518	27·54	27·415	·125	27·479	+·008	·923	83·0	59·7	23·3	86·4	55·1	31·3	74·1	80·6	70·5	+0·7	58·0	64·2	65·5	62·6
	Madras	22	30·064	29·950	·111	30·010	+·030	·963	83·7	69·7	14·0	87·7	62·7	25·0	80·4	79·8	76·0	+0·3		71·2	70·9	70·2
	Bellary	1,475	28·594	28·452	·142	28·522	+·011	·952	86·1	60·2	25·9	89·4	54·1	35·3	76·0	82·7	72·4	−0·1	55·5	65·2	65·8	62·2
	Waltair	*226*	29·898	29·786	·112	29·835	+·040	30·006	80·0	67·5	12·5	82·6	63·4	19·2	77·0	77·5	73·0	−1·1	61·9	65·6	66·1	64·5
Hill Stations, Baluchistan.	Quetta	5,502	24·768	24·690	·078	24·717	+·003		59·4	30·4	29·0	75·6	18·9	56·7	50·9	53·6	44·0	+1·7	29·1	41·2	42·2	37·5
Hill Stations, Northern India.	Leh	11,503	19·771	19·686	·085	19·723	+·024		35·6	14·5	21·1	47·6	3·4	44·2	25·8	32·4	23·2	+1·1	12·0	18·2	23·7	18·0
	Srinagar	5,204	25·087	25·007	·080	25·039	+·018		46·3	31·2	15·1	60·5	26·9	33·6	37·7	44·3	36·9	+0·6	29·8	35·8	41·1	35·6
	Sarain		23·262	23·200	·062	23·220			49·4	30·1	19·3	62·1	20·7	41·4	40·9	40·1	38·9			35·8	35·9	
	Kalabagh																					
	Simla (Ridge)	7,224	3·216	·161	·055	·177	+·020		48·9	39·2	9·7	59·3	31·7	27·6	45·1	45·7	43·2	−0·2	33·5†	37·0	39·7	36·7
	Chakrata	7,022	·390	·328	·062	·350	+·011		54·2	38·5	15·7	68·0	31·9	36·1	47·7	47·0	45·5	−0·7	31·1	40·8	41·5	38·9
	Ranikhet	6,069	24·218	24·149	·069	24·172	+·021		55·1†	41·8	13·3	64·7	35·0	29·7	49·6	50·0	47·7†	−1·5	38·2	43·2†	44·1	41·8
	Muktesar	7,600	22·923†	22·858	·065	22·880†			50·9	38·0	12·9	62·7	30·3	32·4	45·1†	47·4	43·6		32·5	37·5†	40·3	36·8
	Katmandu	4,388	25·827	25·701	·126	25·761	+·051**		62·2	38·2	24·0	70·1	32·6	37·5	49·1	59·2	49·3	−4·2**	37·0	45·6	51·0	44·5
	Darjeeling	7,376	23·083	23·038	·045	23·058	0		50·3	36·7	13·6	62·8	33·0	29·8	45·2	47·1	42·6	+0·8	33·5	40·7	43·2	39·1
Hill Stations, Central India.	Mount Abu	3,915	26·191	26·125	·066	26·151	+·008		68·1	53·9	14·2	74·6	43·6	31·0	64·7	65·0	60·1	+0·2	45·9	50·0	51·1	49·0
	Pachmarhi	3,528	·577	·497	·080	·530	−·020		72·5	47·5	25·0	77·1	37·8	39·3	61·4	69·2	59·1	+2·0	45·3	53·6	56·2	51·7
	Chikalda	3,612	·485	·392	·093	·432	−·019		74·1	54·7	19·4	78·8	49·8	29·0	67·3	70·7	63·6	+0·7	49·2	55·5	57·2	54·0
Hill Stations, South India.	Kodaikanal	7,688	22·876	22·808	·068	22·835			61·2	47·4	13·8	71·4	43·1	28·3	57·5	55·0	52·5		41·9	50·4	52·2	47·9
	Ootacamund	*7,329*	23·106	23·037	·069	23·058			64·5	43·1	21·4	70·6	35·5	35·1	60·9	58·7	52·9		39·2	49·9	51·6	46·9
	Dodabetta	*8,539*	22·078	22·022	·056	22·046			56·3	43·1	13·2	62·5	39·1	23·4	53·3	51·4	48·8			46·4	46·2	
Extra India.	Aden	94	30·014	29·914	·100	29·966	+·013	29·993	82·1	70·9	11·2	84·9	69·1	15·8	78·4	80·6	75·7	−0·9	67·7	72·9	71·9	70·8
	Perim	201	29·878	·766	·112	·821	+·022	·960	84·3	74·5	9·8	85·9	72·2	13·7	80·5	81·0	78·7	0	67·8	73·1	73·0	71·3
	Minicoy	7	30·002	·931	·071	·971		·903	85·2			87·0			83·5	82·4				75·8	75·1	
	Zanzibar	73	29·936††	·811†	1·2	·879	−·003**	·830††	86·3	78·6	7·7	92·9	75·1	17·8	82·2††	85·4	81·7	−0·2	74·3	77·7††	78·5	76·8
	Port Victoria (Seychelles)	15	·979	·895	·084	·943	+·007	·882	83·0	76·3	6·7	85·3	73·7	11·6	80·7	81·4	78·6	−0·4**	72·8	76·1	76·1	75·0
	Mauritius (Pamplemousses)	181				·840	+·018	·966				88·2	65·4	22·8			77·5	−0·5				71·5

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

† Mean of 30 days. †† Mean of 26 days. ** Departure from old normals.

II—*concluded.*

in India, Burma, etc., for December, 1904—concluded.

Vapour Tension.					Humidity.					Cloud.				Wind direction.										Wind Steadiness.		Wind Velocity.		Rainfall.		Station.	Meteorological Province.
														Total number of 10 hours and 16 hours winds from																	
From minimum.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	From minimum.	Mean 10 hours.	Mean 16 hours.	Mean of daily means.	Departure from normal.	Mean 10 hours.	Mean 16 hours.	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
																									%	%						
·553	·594	·573	·574		87	61	51	65		4·9	6·1	5·5		4	1	6	8	14	14	9	5	1	S 23° E		42		60* †		0·28	0·11	Periyakulam	South India.
·516	·649	·672	·641	+·006	83	65	56	70	− 3	5·2	5·6	5·4	+0·7	9	3	8	39	2			1		N 81° E	N 75° E	74	52	114*	94	0·25	0·25	Salem	
·397	·461	·406	·435	−·008	78	54	40	59	+ 1	3·1	2·4	2·8	−0·4	1	1	15	32	13					N 87° E	N 84° E	81	83	137*	187	0	0	Chitaldroog	
·432	·437	·408	·440	−·026	91	57	46	67	− 3	3·4	2·5	3·0		1	3	25	31	2					N 69° E	N 72° E	87	81	190*	132	0·07	0·05	Bangalore	
·377	·414	·362	·398	−·050	90	50	38	61	− 4	3·8	4·1	4·0	−0·4	1	1	26	24	9	1				N 76° E	N 75° E	81	82	65*	82	0	0	Hassan	
·466	·483	·448	·480	+·004	90	57	43	65	+ 3	4·4	4·8	4·6	0		4	20	25	13					N 80° E	N 78° E	79	82	239*	247	0	0	Mysore	
	·645	·641	·661	−·068		62	63	74	− 8	6·1	5·3	5·7	+0·2		10	14	8						N 44° E	N 24° E	92	81	219	175	3·34	1·00	Madras	
·390	·491	·426	·444	−·020	73	54	38	57	− 1	3·6	3·1	3·4	−0·6	3	2	11	25	17	3	1			S 82° E	S 85° E	72	71	58*	79	0	0	Bellary	
·481	·462	·495	·506	−·034	71	52	52	60	− 4	5·0	4·4	4·7	+1·9	1	9	26	21	5					N 61° E	N 83° E	79	50	114		1·44	0·76	Waltair	
·153	·167	·159	·165	+·007	89	43	37	59	− 2	1·9	2·7	2·3	−0·9	15	11	2	1	7	4	4	9	9	N 56° W	N 63° W	21	24	33*	55	0·08	0·05	Quetta	Hill Station, Baluchistan.
·060	·050	·078	·064	−·010	65	32	41	50	−11	5·4	6·2	5·8	−0·1			3	2	4	28	21	4		S 15° W	S 18° W	72	40	31	31	0·06	0·04	Leh	Hill Stations, Northern India.
·152	195	230	·185	+·009	86	84	77	82‖	+ 1	6·8	7·0	6·9	+1·8	17	9	3	2	6	2	3	7	13	N 41° W	S 36° E	24	3	55*	62	3·85	2·51	Srinagar	
	·161	·170				64	70			3·4	4·6	4·0		31					12	16	3		S 32° W		45		53*		3·83‡	1·74‡	Saraln	
																															Kalabagh	
·138†	·139	·187	·160	+·021	59†	48	62	59	+11	2·7	5·2	4·0	0	18	15			1	26	2			S 3° W	S 12° E	21	7	100* ¶	98	0·65	0·37	Simla (Ridge)	
·159	·187	·208	·190	+·036	68	58	66	67	+13	2·7	3·8	3·3	+0·2	16	5	2		5	33	1			S 8° E	S 51° W	50	16	143*	120	1·92	1·08	Chakrata	
·197	·213†	·230	·218	+·015	75	59†	64	69	+ 8	1·8	2·9	2·4	−0·2	41		3	1			10	6	1	S 67° W	S 57° W	19	22	43* †	41	1·38	0·82	Ranikhet	
·132	·119†	·180	·159		59	51†	57	59		2·7	3·8	3·3		9		1	4	6	3	15	21	2	S 57° W		47		171*		1·17	0·53	Muktesar	
·209	·271	·284	·360	+·092	88	77	57	77	+ 2	2·3	2·6	2·5	−0·1	5	2		18	1		2	20	14	N 52° W	N 72° W	26	43	9	22	1·17	1·17	Katmandu	
·161	·113	·242	·177	−·030	75	71	75	77	− 3	3·5†	5·4	4·5	+0·1	9	1	11	7	12		5	13	4	S 81° E	N 48° W	6	5	58*	70	0	0	Darjeeling	
220	·195	·218	·216	−·005	53	32	36	47	− 1	1·1	1·1	1·1	−0·7	1	7	13	1	8	4	9	4	15	N 26° W	N	19	10	119*	93	0	0	Mount Abu	Hill Stations, Central India.
·289	·327	·304	·312	+·030	85	69	43	70	+ 9	1·1	1·4	1·3	−0·9		4	14	2	3	3	17	4	15	N 59° W	N 27° E	24	20	35*	65	1·06	0·60	Pachmarhi	
·291	·309	·317	·311	+·004	67	46	42	59	+ 2	2·2	2·8	2·5	+0·2	36	2	1		2	1	17		3	S 50° W	S 75° W	24	7	180*	120	1·11	1·09	Chikalda	
·222	·300	·364	·292		67	66	84	74		3·5	5·1	4·3		1	9	12	10	8	7	1	2	10	N 52° E		29		338		2·90	0·76	Kodaikanal‖‖	Hill Stations, South India.
·205	·250	·312	260		72	49	63	60		4·0	5·4	4·7		1	11	16	11	10	4	3	2	4	N 62° E		40		107*		0·30	0·22	Ootacamund	
	·252	·277				63	73			2·7	3·6	3·2			8	17	19	8	4	2	2	2	N 68° E		53		326		0·36	0·17	Dodabetta	
·636	·734	·666	·688	+·047	84	76	64	76	+ 6	2·7	1·2	2·0	−1·4 **		4	24	7	26	1				N 88° E	S 87° E	68	71	146* §§	310	0	0	Aden	
·592	·720	·711	·683	+·003	69	69	67	69	0	0·7	0·1	0·4	−1·2				10	38	12			2	S 4 3	N 89° E	81	75	466*	463	0·62	0·56	Perim	Extra India.
	·791	·773				69 ††	70			4·3	5·1	4·7			18	16	13	8	3			4	N 49° E		58		118*		2·71	1·79	Mincoy	
·792	·888††	·885	·864	+·001	81	81	72	79	+ 1	7·1 ††	5·7	6·4	+1·8 **		16	19	10	2	5	1	1	3	N 41° E	N 35° E	56	65	170*	151	4·39	1·35	Zanzibar	
·765	·847	·836	·811	+·009	84	80	78	83	0	6·2	7·1	6·7	−0·1	10	6	3	4	3	1	2	8	25	N 41° W	N 48° W	45	54	148	156	18·45	4·98	Port Victoria (Seychelles). Mauritius (Pamplemousses).	
			·869	−·007				71	0			6·3	+0·2										N 82° E	N 89° E			215	259	4·28	1·69		

* Corrected.

‡ Snow water.

¶ Mean of 23 days.
§§ Mean of 29½ days.
** Departures from old normals.

‖ Mean of three previous columns.
‖‖ Wind variable 2.

G. I. C. P. O.—No. 142 Meteor.—3-3-05—385.

LITHO. BY S.B. MUNDLE.

Explanation.

The lines of the above Chart represent isobars or lines of equal barometric pressure, and the numbers attached indicate the barometric pressure in inches and are 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 ordinary or normal distribution of pressure as given in the Charts of the Bay of Bengal prepared by Mr. Dallas, 1st Assistant Meteorological Reporter to the Government of India, and published by the Meteorological Department. Hence they have not the same validity as the isobars in the land area of India itself, but it is probable they deviate very little from the actual.

The mean 8 a.m. 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 I of the 8 a.m. 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 notations:—

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	„ „ „ „ „

LITHO. BY H. S. MUNDLE, Calcutta.

Explanation

The Chart shows the departure from the normal of the mean 8 a.m. pressure of the month by means of lines drawn for equal amounts of departure (of two hundredths of an inch or ·020″). 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.

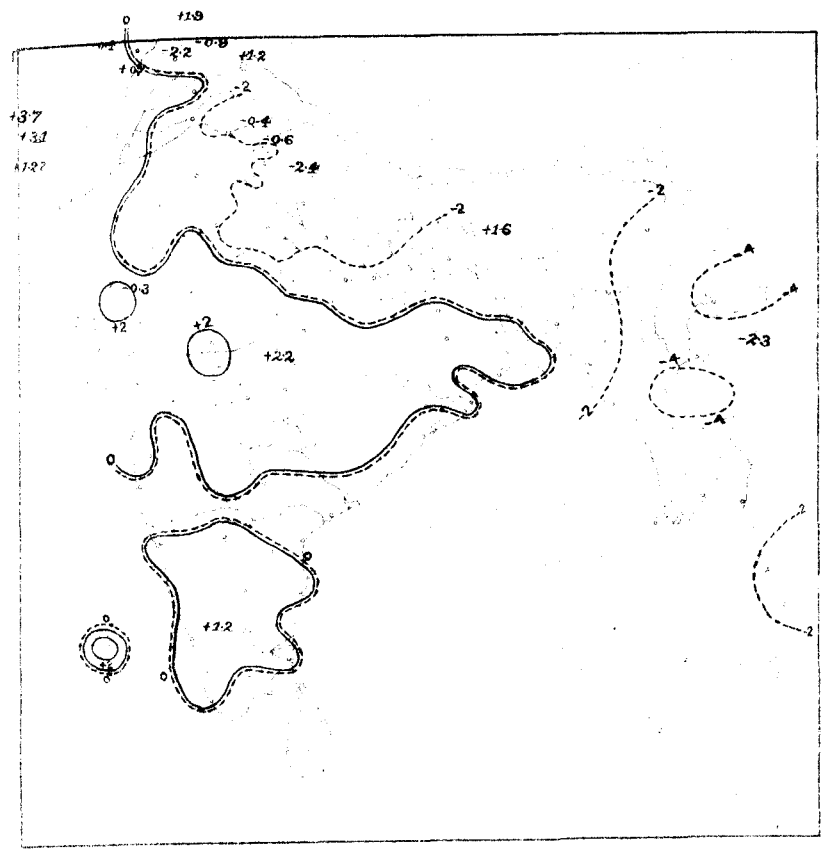
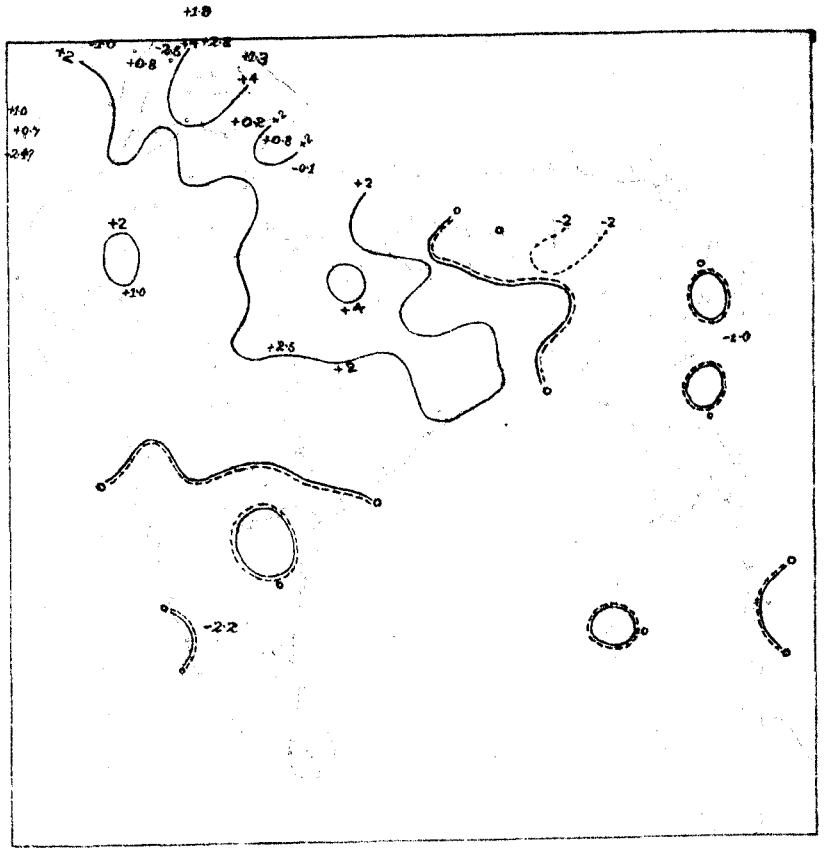


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MINIMUM TEMPERATURE.



Explanation.

Continuous lines indicate that the mean maximum of month was in excess by amounts indicated by the attached numbers, broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no departure, the broken line facing the area of deficient temperature.

Continuous lines indicate that the mean minimum of month was in excess by amounts indicated by the attached numbers, broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no departure, the broken line facing the area of deficient temperature.

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

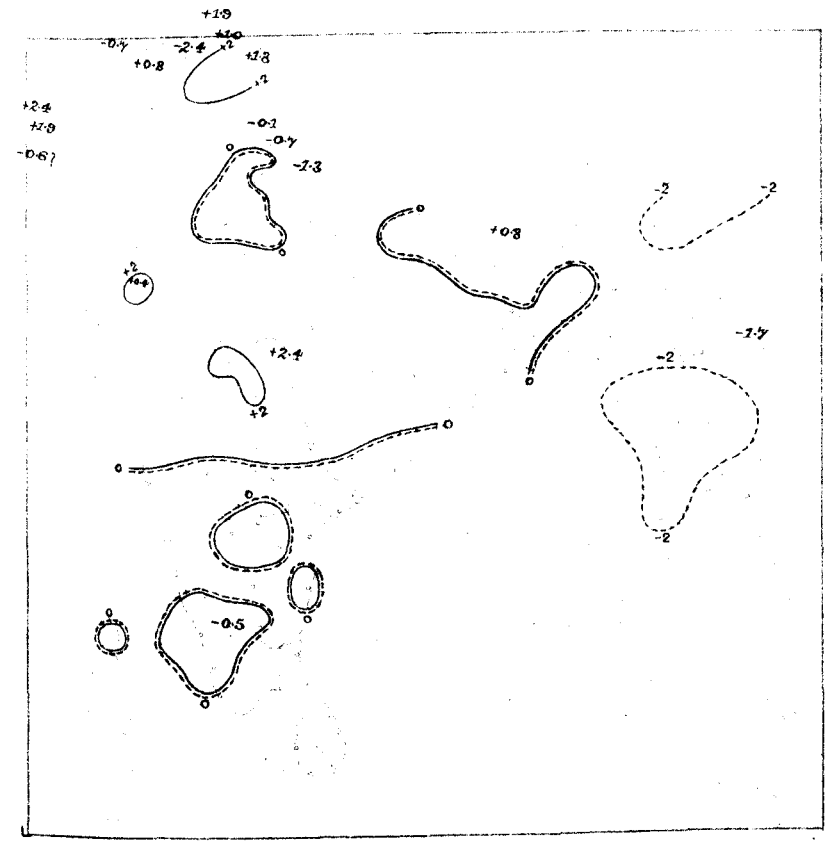
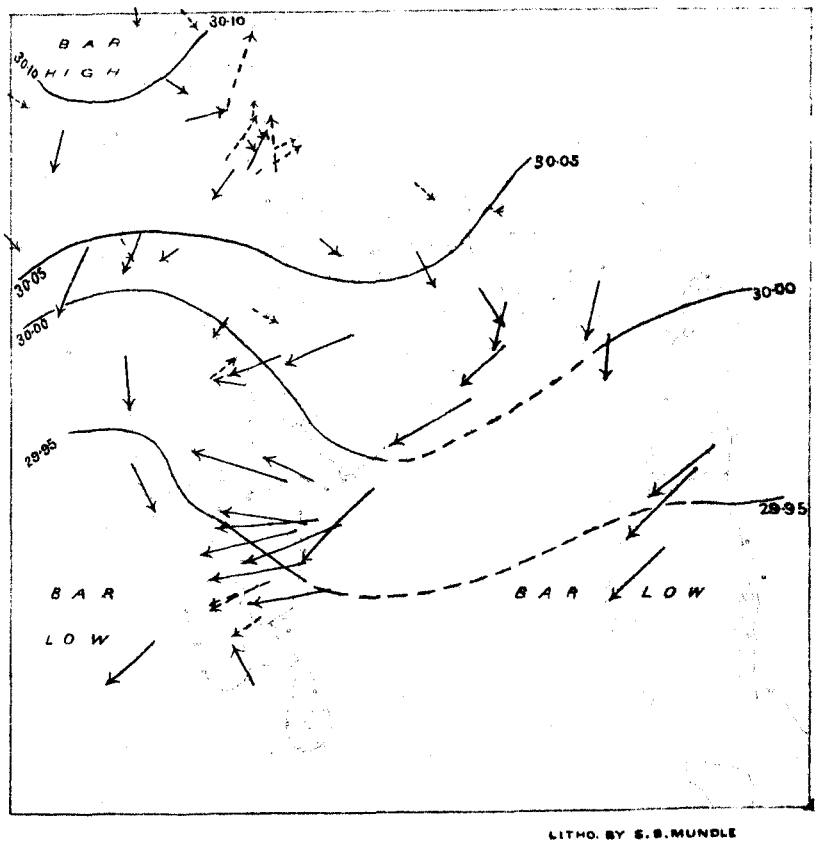


CHART SHEWING THE MONTHLY MEAN OF PRESSURE AND RESULTANT WIND DIRECTION.



LITHO. BY S.B.MUNDLE

Explanation.

Continuous lines indicate that the mean daily temperature of month was in excess by amounts indicated by the attached numbers: broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no departure, the broken line facing the area of deficient temperature.

The Chart is prepared in the same manner as the Monthly Charts which previously to 1890 appeared in the Annual Reports, the only alteration made being that pressures are reduced to constant gravity (45°). The isobars are given for each twentieth of an inch. The arrows show the directions of the resultants of the wind recorded at 10 and 16 hours, and by their lengths the percentage of the observations expressing the numerical value of the resultant; a length of $\frac{1}{8}$th of an inch being equal to 100 per cent.

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

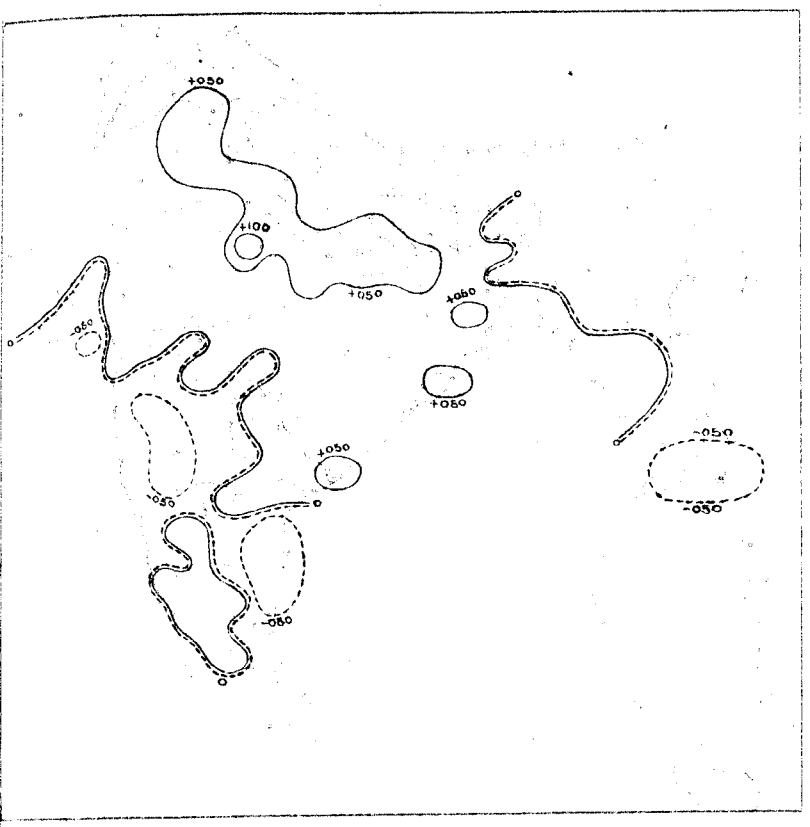
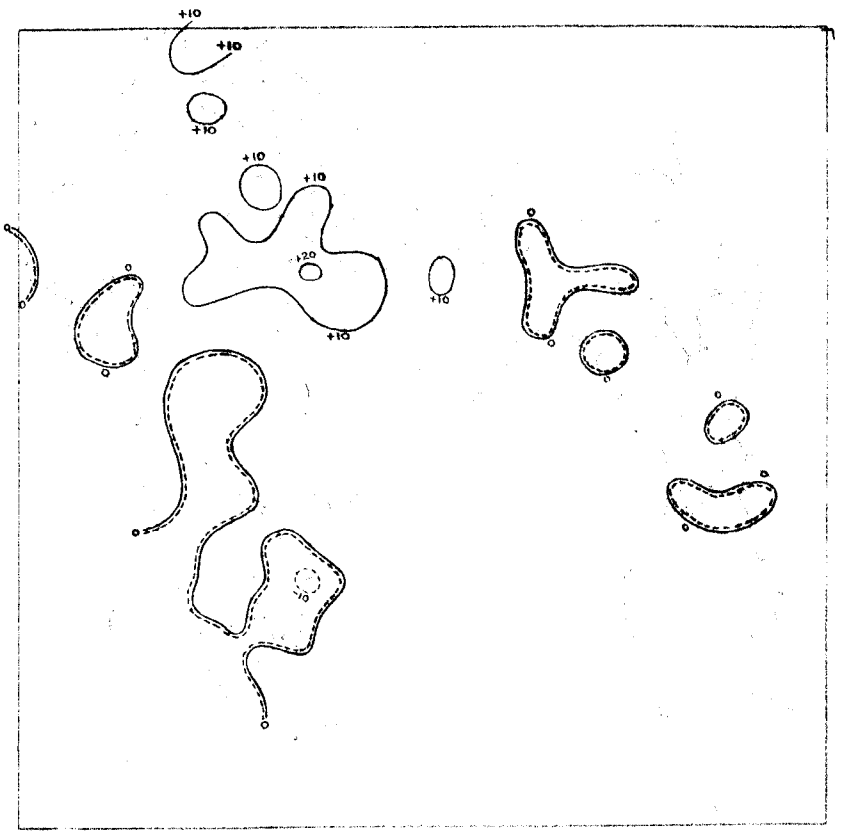


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF RELATIVE HUMIDITY AT 8 A. M.



Explanation.

Continuous lines indicate that the mean absolute humidity of month was in excess by amounts indicated by the attached numbers; broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no departure from the normal the broken line facing the area of deficient humidity.

Continuous lines indicate that the [illegible] humidity of month was in excess by amounts [illegible] attached numbers; broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no departure from the normal the broken line facing the area of deficient humidity.

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

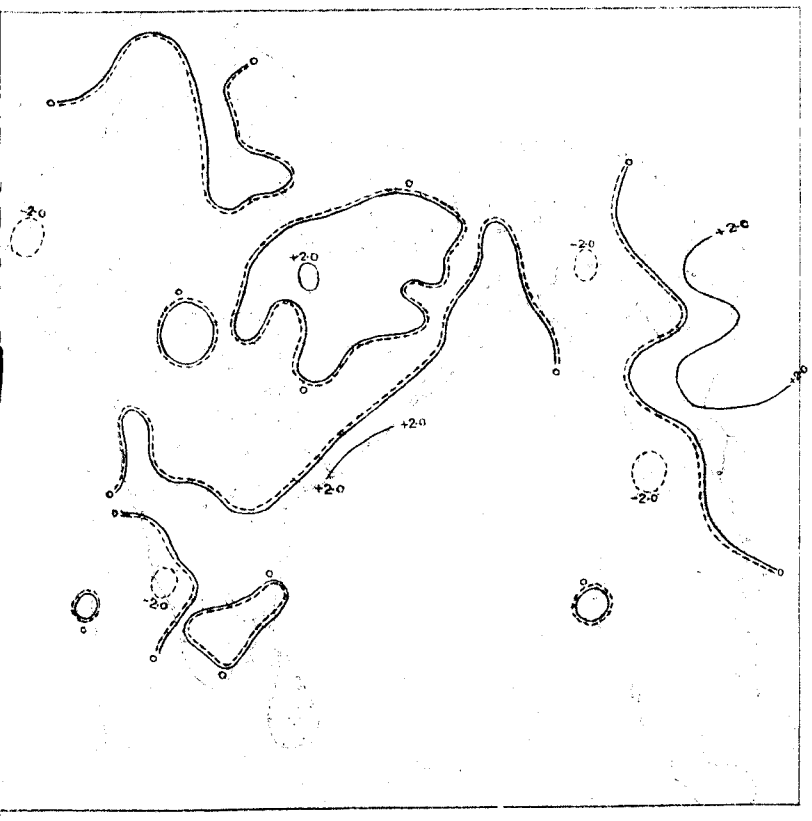
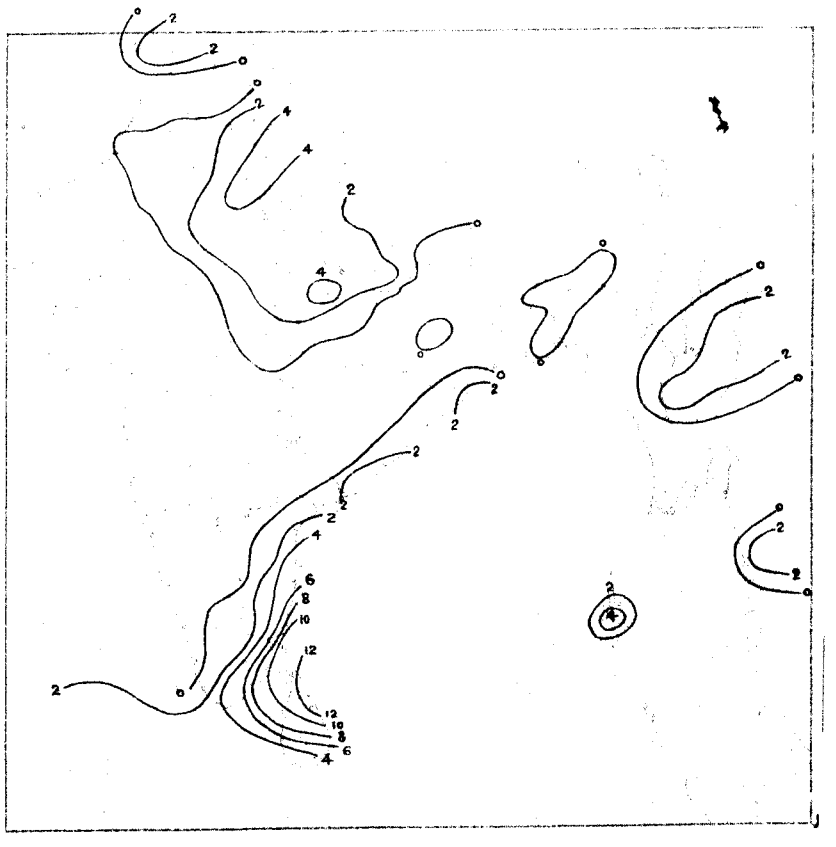


CHART SHEWING THE TOTAL NUMBER OF DAYS IN THE MONTH ON WHICH RAINFALL EXCEEDED 0·01 INCH

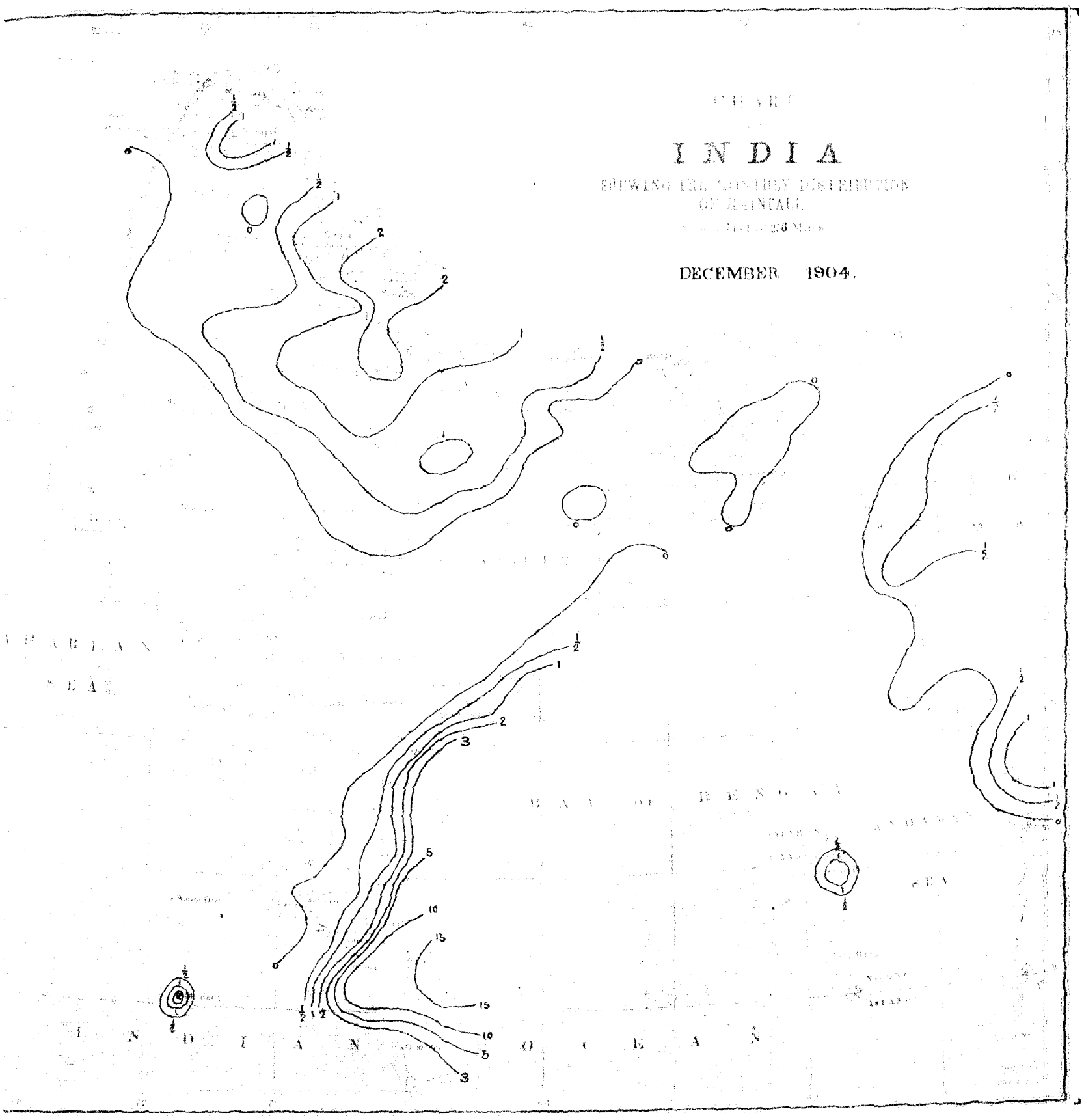


LITHO. BY S.B.MUNDLE

Explanation.

Continuous lines indicate that the mean cloud amount of month was in excess by amounts indicated by the attached numbers; broken or dotted lines that it was in defect by amounts indicated by the attached numbers. Double lines are the lines of no departure from the normal, the broken line facing the area of deficient cloud.

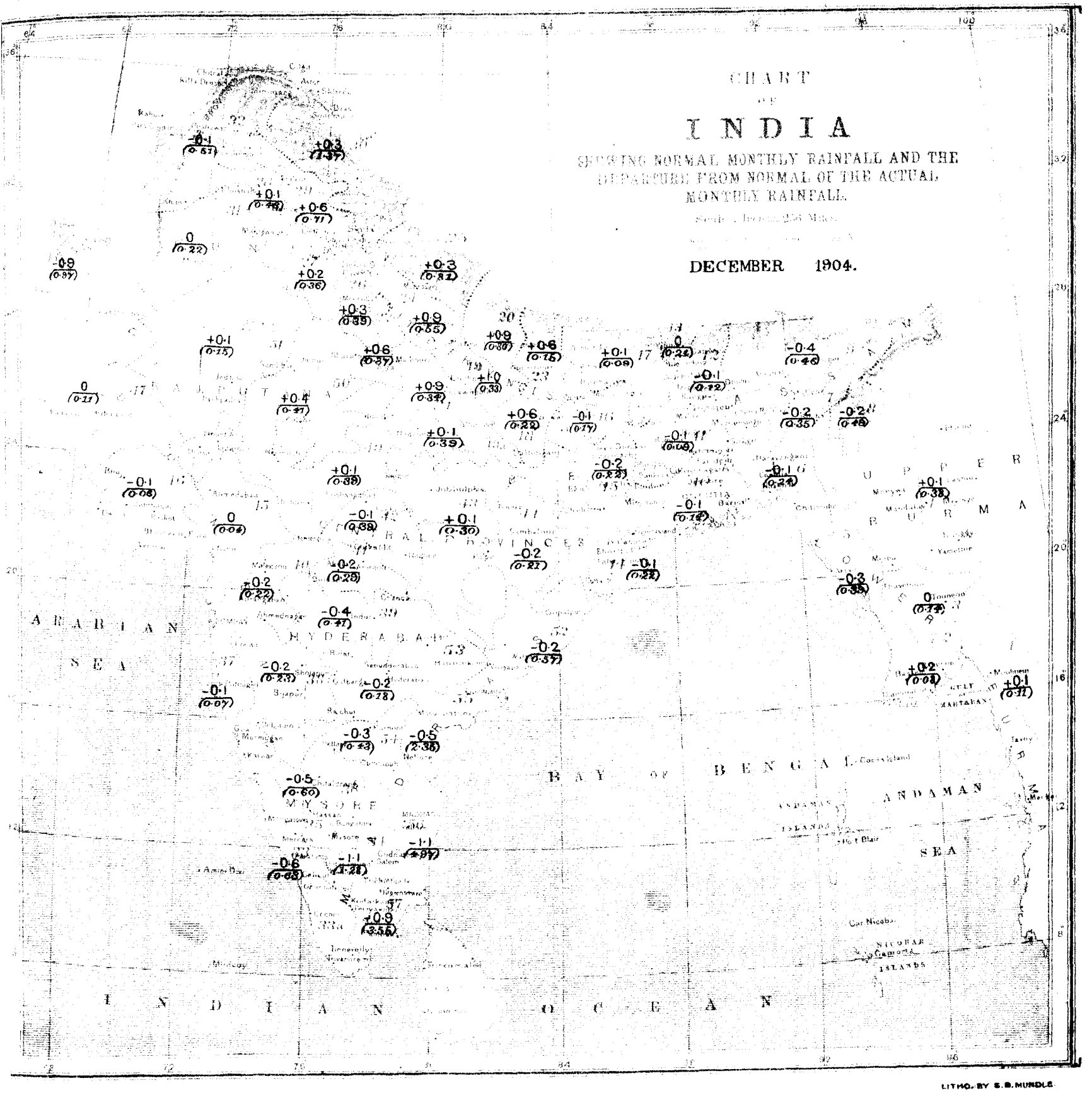
A rainy day is one on which 0·10 inch or more of rain is received within 24 hours.



LITHO. BY S. B. GUNDU.

Explanation.

The Chart shows the distribution of the rainfall of the month by means of isohyetic lines or lines of equal amounts of rain. The data used in the preparation of this Chart are the rainfall returns of all the observatories in India except those at the Hill Stations over 3,500 feet in elevation (177 in number). The double line or line of no rainfall separates areas in which the rainfall exceeded a tenth of an inch from those where it was actually or practically *nil* (*i.e.* less than a tenth of an inch). The dotted line faces the area of no rainfall.



LITHO. BY S.B. MUNDLE.

Explanation.

The Chart gives the departures of the rainfall of the month (to tenths of an inch) from the normal over the whole of India and Burma. The country is divided into 57 areas, over each of which the meteorological conditions are fairly uniform, and the staple crops similar in character: and the means (both actual and normal for the month) have been calculated, and the numbers given in the centre of each division (usually with a + or − sign attached) give the difference between the actual and normal mean rainfall of the district of the month. A plus sign indicates that the rainfall was in excess, and a negative sign that it was in defect by the amounts indicated by the numbers to which the signs are attached. The normal average rainfall is also given below in smaller figures enclosed within brackets so that the percentage departure from the normal can be at once estimated. The name of the district can be at once ascertained by referring in the following list to the number given near the right hand boundary of each district in small slanting red figures.

1. Tenasserim
2. Lower Burma Deltaic
3. Central do.
4. Upper do.
5. Arakan
6. East Bengal
7. Assam, Surma
8. Do., Hills
9. Do., Brahmaputra
10. Deltaic Bengal
11. Central do.
12. North do.
13. Bengal Hills
14. Orissa
15. Chota Nagpur
16. South Bihar
17. North Bihar
18. United Provinces, East
19. South Oudh
20. North do.
21. United Provinces, Central
22. Do. do., West
23. Do. do., East Submontane
24. Do. do., West do.
25. Do. do., Hills
26. South East Punjab
27. South do.
28. Central do.
29. Punjab, Submontane
30. Do., Hills
31. West Punjab
32. North West Frontier Province
33. Malabar
33a Travancore
34. Madras, South Central
35. Coorg
36. Mysore
37. Konkan
38. Bombay Deccan
39. Hyderabad, North
40. Khandesh
41. Berar
42. Central Provinces, West
43. Do., Central
44. Do., East
45. Gujarat
46. Kathiawar and Cutch
47. Sind
48. Baluchistan Hills
49. Central India, East
49a Do. do.
50. Rajputana East, Central India West
51. West Rajputana
52. Madras, East Coast, North
53. Hyderabad, South
54. Madras, Central
55. Madras, East Coast, Central
56. Do. East Coast, South
57. Madras, South